



M3 Sales Management User Guide

Release 16.x

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About this Guide

Intended audience

M3 Business Engine User Documentation provides guidance for end users and consultants regarding understanding basic concepts and using key processes in M3 Business Engine. Further information about the available programs and functionality is available as field help texts.

Document structure

M3 Business Engine User Documentation is a task-oriented documentation, providing descriptions on performing specific procedures, defining settings, and running specific, step-by-step procedures. To some extent, this documentation set also contains conceptual documents, providing background information or describing requirements and how they are matched in M3 Business Engine.

This table provides a brief overview of the most common sections that appear in this document.

Introduction	Briefly describes what kind of information the document provides.
Outcome	Describes the consequence of a process completed or a concept run.
Uses	Explains how the results can be used.
How the system is affected	Describes, if applicable, any changes that have been implemented in M3.
Before you start	Describes the prerequisites of a process or a concept.
Parameters to set	Lists all relevant parameters with a detailed explanation.
Description	Describes, if applicable, the concept or the purpose of the concept and when and how it is run.
Outline	Provides an overview (often as a flow chart) of the activities in the process.
Activity description	Describes all the activities above and provides a summary of when, where and how to carry them out.
Follow these steps	Describes, if applicable, how to carry out a settings instruction.
Related topics	Lists other topics that contain relevant information.

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Chapter 1: Sales Management

Assigning a Sales Price to a Customer Order Line

This document explains how a sales price is assigned to a customer order line. When pricing customer order lines, the price is either entered manually or retrieved automatically. The process includes pricing customer order lines during order line entry or when pricing batch orders.

Follow these steps

An appropriate price origin sequence must be defined depending on what price sources you plan to use.

1 Define price origin sequence

This sequence determines how, and in what order, the system searches for a valid price. The price origin sequence must be defined on 'CO Type. Open' (OIS010/I). Once it is set, you will be able to retrieve all existing prices during order entry.

2 Define rule for sales price U/M retrieval

Set *PRI for the field 'Sales price U/M' on 'CO Type. Update Field Selection' (OIS014/J) if the sales price U/M should be retrieved from the price source. If this field is blank, the default sales price U/M of the item is used.

*PRI only supports retrieval of the sales price U/M from a price list, agreement, or promotion (price origins 2, 6, and 9). For other sources, the default sales price U/M of the item is used.

The sales price U/M on an existing CO line will **not** be changed even if the price source is changed and has another sales price U/M.

*PRI is not applicable in 'Sales Price. Simulate' (OIS320), since many price sources might be displayed at the same time.

API transactions OIS320MI.GetPriceLine and OIS345MI.LstPriceMargin support the *PRI functionality, since they only return one price.

3 Customer order price origin

This chart shows the different price sources that are available during order line entry:

Price source	Price origin
Price from item table	1

The sales price in the item table is maintained on 'Item. Open' (MMS001/H). Sales prices listed in the item table have unlimited validity period.

Price source	Price origin
Price list from price list table	2 A price list table uses the criteria that you define to search for the most appropriate price list. The selection criteria for retrieving a valid price list are entered in the control fields in 'Sales Price List. Open' (OIS012). The control fields are ranked by priority. When a price list does not match the validity criteria set for priority 1, the criteria for priority 2 are checked, and so on. A price list table has an unlimited validity period. You can set up several price lists tables to be used for different purposes. The price list table used during order line entry is defined on 'CO Type. Update Field Selection' (OIS014/H) and can be changed during order entry on the (OIS100/H) panel.
Blanket agreement	6 Agreement prices are entered in 'Customer Blanket Agreement. Open' (OIS060). The way in which the blanket agreement is checked is set for each customer in the customer table. These agreements have limited validity periods.
Kit item	7 The customer order type regulates whether the sales price can be manually changed during order line entry. This is specified in the 'Sales price rule' field on 'CO Type. Open' (OIS010/I). The sales price can be entered manually in these programs: <ul style="list-style-type: none">• 'Customer Order. Open Line' (OIS101)• 'Customer Order. Open Line' (OIS101/E)• 'Customer Order. Simulate Totals' (OIS110)
Sales price entered manually	8
Price from promotion agreement	9 Promotion prices are entered in 'Promotion. Open' (OIS840). The way in which the promotion is checked is set for each order type. These promotions have limited validity periods.

Price source	Price origin
Calculated price according to costing model When this price origin is activated, the sales price is calculated according to a sales costing model on the order line. In normal buy-to-order situations, the sales price is usually based on the purchase price. You can set this up through a sales costing model that uses the base purchase price plus a number of add-ons to calculate a sales price during order line entry.	C
Price from a formula When this price origin is activated, the sales price is calculated according to a formula. When working with configured and/or attribute handled items, the price quite often varies depending on the chosen configuration and/or attribute. The configurations and/or attributes that are chosen determine order entry. Based on these variables the price is calculated. The formula may be based on a transaction dependent markup on 'Sales Costing Element. Connect Rates' (OIS019/E).	F

4 Priced-fixed customer order

The 'Sales price rule' field on 'CO Type. Open' (OIS010/I) determines whether or not you can manually change the sales price that was automatically retrieved from the customer order line.

The 'Price origin' field on the (OIS101/E) panel indicates the source of the price entered in the customer order line. This field is part of the 'Price list' field.

The sales price is always expressed as a combination of sales price unit of measure and sales price quantity. The latter indicates the number of sales price units to which the price applies. If an item is entered using an alternate unit of measure, the quantity is recalculated according to the sales price unit of measure so that the correct sales price is listed.

5 Define rule for price and discount retrieval

The 'Re-calc rule' field on 'CO Type. Open' (OIS010) determines whether you can manually or automatically recalculate the order line net price.

This table describes the alternatives used to control the re-calculation rules:

Re-calculation rules	Description
0-'Allow'	Allow both manual and automatic re-calculation of the order line net price.

Re-calculation rules	Description
1-'Partial, only manual'	<p>Allow only manual re-calculation of the order line net price.</p> <p>This alternative prevents automatic re-calculation of the sales price and discounts upon updating a customer order line with information that could qualify for a new net price.</p> <p>Note that this, for example, implies that scaled prices are not validated upon a change of order quantity. Neither does a change of blanket agreement automatically assign a new agreement price to the order line. For this type of order updates, the end user must manually re-price the order line.</p>
2-'Prevent'	<p>Prevent both manual and automatic re-calculation of order line net price.</p> <p>Additionally to the 1-'Partial, only manual' alternative, this alternative prevents both manual pricing and re-calculation of the sales price and discounts of a customer order line.</p>

Manual re-calculation of order line net price

The order line net price can be manually repriced through a retrieval of sales price and discounts based on the current pricing set-up and customer order line information.

Per customer order line, a manual retrieval of prices is launched either with F14-'Retrieve price' in (OIS101), with related option 22-'Repricing CO line' in 'Customer Order. Open Line Toolbox' (OIS301) and 'Customer Order. Open Line Workbench' (OIS302), or with the API transaction OIS100MI.RepricingCOLine.

Per customer order, a retrieval of prices is launched with 'Customer Order Lines. Aggregated Display' (OIS315) or, for a selection of customer orders, with 'Customer Order. Mass Change Lines' (OIS258).

Outcome

A sales price, which can be retrieved from different price sources, is assigned to a customer order line. Different examples of price sources include a blanket agreement, a promotion, a price list, the item table, and a kit item.

The following table is updated in M3:

- OOLINE – Customer Order Lines Procedure Interface

Connect FAM Function to an Order Type

This document explains how you connect a FAM function to an order type.

Outcome

A FAM function is connected to an order type.

Connecting a FAM function to an order type makes it possible to get different voucher number series for different types of invoices. (Voucher number series are connected to the FAM function.)

When you connect a FAM function to an order type, the CRFNCN table is updated.

Before you start

- An order type must be created in 'Maint CO Type. Open' (COS010), 'CO Type. Open' (OIS010), 'Project Type. Open' (POS010), or 'Service Order Type. Open' (SOS010).
- A FAM function (ID CO20, OI20, PO20, or SO20) must be created in 'FAM Function. Open' (CRS405).

Follow these steps

These are two alternative ways to connect a FAM function to an order type:

Work with order types (alternative 1)

- 1 Start (COS010), (OIS010), (POS010) or (SOS010).
- 2 Select an order type and select option 12=FAM Function to start 'Order Type. Connect FAM Function' (CRS407).
- 3 Specify 'Order Type', 'Division' and 'FAM Function' and select 'New' to create a new record.

The information displayed on the E panel is only information retrieved from the selected FAM function.

For FAM function CO20 and SO20, the fields voucher series and voucher name can be set on (CRS407/E) for an internal payer. If these are set, the information is used when creating vouchers for invoices with an internal payer. Internal payer is identified by the customer type being equal to 7. If the fields are left blank, the ordinary voucher series and name are used independent of the payer. Internal voucher series and name are only used if 'Separate voucher no' is activated in 'Settings - Service Order Invoicing' (CRS790) and 'Settings - Maintenance CO Invoicing' (COS822).

Work with FAM function (alternative 2)

- 1 Start (CRS405).
- 2 Select a FAM entry ID (CO20, OI20, PO20 or SO20). Select option 11=Details to start 'FAM Function. Open Details' (CRS406).
- 3 Select a FAM function and select option 12=Order Type to start (CRS407).
- 4 Specify 'Order Type', 'Division' and 'FAM Function' and select 'New' to create a new record.

The information displayed on the E panel is only information retrieved from the selected FAM function.

For FAM function CO20 and SO20, the fields voucher series and voucher name can be set on (CRS407/E) for an internal payer. If these are set, the information is used when creating vouchers for invoices with an internal payer. Internal payer is identified by the customer type being equal to 7. If the fields are left blank, the ordinary voucher series and name are used independent of the payer. Internal voucher series and name are only used if 'Separate voucher no' is activated in (CRS790) and (COS822).

Entering Customer Order: Quick Entry

This document explains how customer orders are created using the simplified order entry in 'Customer Order. Quick Entry' (OIS200).

Quick order entry is used to simplify order entry by minimizing the amount of information entered and decreasing the number of checks that are run at order entry. These checks are postponed and carried out when the orders are completed in the batch order entry.

Outcome

- Complete and approved customer orders are created.
- A temporary customer order is created in 'Batch Order. Open' (OIS275). Order header and order lines are created and supplemented with information according to the customer order type entered in 'Batch Order. Open' (OIS275).
- If all the necessary information can be retrieved, a customer order is created and can be monitored in 'Customer Order. Open Toolbox' (OIS300).
- If the order is rejected due to erroneous or missing information, a temporary customer order is created in 'Batch Order. Open' (OIS275).

Before you start

The prerequisites [Batch Order](#) on page 235 document must be met.

Follow these steps

1 Generate temporary customer order in quick order entry

Customer orders are specified in 'Customer Order. Quick Entry' (OIS200).

Only the following information can be specified:

- Customer
- Warehouse
- Required delivery date
- Item and quantity
- Sales price (if allowed)

Sales price can be specified during quick order entry if the

- Price entry field is activated on the (OIS200/P) panel
- 'Source sales price is valid' field is selected in 'Settings - Batch Orders' (OIS278).

Even if sales price entry is activated, sales price does not have to be specified. If sales price is not specified for one or several items, the item(s) will be priced according to the regular price hierarchy after customer orders have been created.

2 Temporary customer orders created in batch order entry

After an order is created in 'Customer Order. Quick Entry' (OIS200), a temporary customer order is generated, assigned with a temporary customer order number in 'Batch Order. Open' (OIS275).

The temporary order is then completed with information retrieved according to criteria defined in the customer order type. The completed order is then checked.

If a complete and correct order can be created, a customer order with confirmed order number is created automatically.

If a complete and correct order cannot be created or if it contains errors, it must be changed or supplemented manually in 'Batch Order. Open' (OIS275).

Equipment Quotation Management

This is the starting point for creating a quotation using M3 EQM. Note that this functionality is only available for customers who have purchased a license for M3 EQM.

EQM

See more in the [Equipment Quotation Management User Guide](#).

Chapter 2: Enabling Sales

Assortment

An assortment is a specific set of items and variants. Assortments are used to group items and control customer access. Assortments are also used for assortment checks during order entry. If '**Chk dt assort**' in 'Settings - Customer Order Entry' (CRS720) is set to 2-'Req dely date', a check is performed when the requested delivery date on the customer order line is changed. You can connect an item to multiple assortments, and you can connect an assortment to multiple customers. Assortments are created in 'Assortment. Open' (CRS105).

Items are connected to an assortment in 'Assortment. Connect Items' (OIS072), and assortments are connected to customers in 'Customer. Connect Assortment' (OIS071).

Assortment Check

An assortment check is used to limit customer access to an item. You can activate the check per item, per customer, or both. However, the check functions only if it is activated for both the customer and the item. The check is performed during customer order line entry. If '**Chk dt assort**' in 'Settings - Customer Order Entry' (CRS720) is set to 2-'Req dely date', a check is performed when the requested delivery date on the customer order line is changed.

You can connect a customer to several assortments with the same item. During assortment check, the item and date are used to verify all assortments connected to the customer.

A customer without assortment check can use any items. This check is activated in 'Customer. Open' (CRS610/G).

Any customers can use an item without assortment check. This check is activated in 'Item. Open' (MMS001/H).

When both customer and item have assortment check enabled, the selected item at order entry must be included and valid in one of the assortments connected to the customer. The assortment must be valid for the customer as well.

Basic Data for Customer Orders

Basic data must be entered in these programs before entering and invoicing customer orders in M3. Inventory management must be correctly installed and items must be stocked in order to deliver customer orders to a customer.

Basic Data Program for Customer

'Customer. Open' (CRS610)

'Country. Open' (CRS045)

'Free Trade Association. Open' (DRS017)

'Language. Open' (CRS010)

'States per Country. Open' (CRS046)

'District. Open' (CRS140)

'Salesperson. Open' (CRS100)

'Customer Group. Open' (CRS145)

'Packaging Term. Open' (CRS125)

'Delivery Term. Open' (CRS065)

'Delivery Method. Open' (CRS070)

'Place. Open' (MMS008)

'Customer Document Group. Open' (CRS147)

'Control Object. Open User-defined' (CRS335)

'Currency. Open' (CRS055)

'Exchange Rate Type. Open' (CRS056)

'Exchange Rate Type. Open per Currency' (CRS059)

'VAT Code. Open' (CRS030)

'Payment Term. Open' (CRS075)

'Transportation Run. Open' (CRS155)

Basic Data Program for Customer Order Type

'CO Type. Open' (OIS010)

'Number Series. Open' (CRS165)

'CO Invoicing Group. Open' (CRS104)

Basic Data Program for Warehouse

'Warehouse. Open' (MMS005)

'Warehouse Type. Open' (MMS006)

'Warehouse Subtype. Open' (MMS007)

'Facility. Open' (CRS008)

'Place. Open' (MMS008)

'Language. Open' (CRS010)

'Country. Open' (CRS045)

'User. Open' (MNS150)

Basic Data Program for Item

'Item. Open' (MMS001)

'Item Type. Open' (CRS040)

'Item Group. Open' (CRS025)

'Procurement Group. Open' (CRS037)

'Product Group. Open' (CRS035)

'Control Object. Open User-defined' (CRS335)

'Business Area. Open' (CRS036)

'Unit of Measure. Open' (CRS050)

'VAT Code. Open' (CRS030)

'Environment Group. Open' (CRS038)

'User. Open' (MNS150)

Basic Data Program for Items per Warehouse

'Item. Connect Warehouse' (MMS002)

'Planning Policy. Open' (MMS037)

'Country. Open' (CRS045)

'Language. Open' (CRS010)

'Media Profile. Open' (PPS030)

'ABC Class. Open' (CRS015)

'Stock Location. Open' (MMS010)

'Stock Zone. Open' (MMS040)

'Printer. Open' (CRS290)

'Stock Location Type. Open' (MMS035)

'Statistics Storage Group. Open' (CRS255)

Basic Data Program for Customer Order Header

'Facility. Open' (CRS008)

'Contact Method. Open' (CRS101)

'TST Business Type. Open' (CRS240)

Basic Data Program for Customer Order Lines

'Transaction Reason. Open' (CRS103)

'TST Labor Code. Open' (CRS320)

Basic Data Program for Picking List

'Field Group. Open' (CRS108)

'View. Open' (CRS020)

Basic Data Program for Invoicing

'Voucher Number Series. Open' (CRS410)

'System Calendar. Open Period' (CRS910)

'Journal Number Series. Open' (CRS400)

'Number Series. Open' (CRS165)

'FAM Function. Open' (CRS405)

'Standard Document. Open' (CRS027)

'Customer Document Group. Open' (CRS147)

Basic Settings for Customer Order Processing

This document provides an overview of the basic definitions that must be activated before a customer order can be entered, and which parameters can be set depending on the demand.

Follow these steps

See documents listed in the See Also section for the prerequisites for the activities described here.

1 Specifying Essential Basic Data

Essential basic data must be specified so that a customer order can be entered and followed-up.

- Basic Data

In order to specify and invoice a customer order, basic data must be specified; for example currency, country and customer number series.

In the document Basic Data for Customer Orders there is a list of programs for which essential basic data must be defined. The list reflects the minimum information necessary in order for the customer order to move through the entire customer order flow.

- Multiple Unit Coordination

In order for the installation to work for multiple unit coordination, special parameters must be set for companies and divisions.

- Customer Order Types

At least one customer order type must be specified in order for a customer order to be specified. A customer order type is an identity for a number of settings that control how a customer order should be processed during entry and further through the customer order flow.

The customer order type that is used for customer order entry determines how the order will be processed, for example what checks will be made and which parts will be processed automatically.

Different customer order types should be defined to suit different types of customers and sales situations, so that the customer order is processed according to the company's requirements.

- Standard documents

In order to print the correct documents, a standard document must be defined. Examples of standard document are order confirmation and invoice.

To administrate standard documents, document groups are defined and then linked to customer and customer order types.

Texts to be printed on customer order documents are entered in 'Document Text. Open' (OIS035).

2 Specifying Main Functions

The following functions are not essential for specifying and following up on a customer order. They can be considered as main functions that are normally used.

- Assortment

An assortment is a defined item (and variants of the item). Assortment is used to control which buyers have access to the items included in an assortment.

An assortment and the items included in it are specified in 'Assortment. Connect Items' (OIS072).

An assortment is linked to a customer in 'Customer. Connect Assortment' (OIS071).

- Sales Prices

In order to make automatic pricing work when specifying customer order lines, price lists are specified. A sales price list contains sales prices for specified items. More than one parallel price list can be used.

To calculate sales prices in a price list, costing models are used. These costing models describe how prices are to be calculated via markups or deductions. New price lists are created based on specified costing models and old price lists.

- Charges

Basic order charges and order line charges are specified and then later allocated automatically or specified manually.

Order charges are specified in 'co_charge. Open' (OIS030). To automatically allocate an order charge, it must be connected to a customer order type in 'CO Type. Connect Order Charges' (OIS013) or a customer in 'Customer. Connect Charge' (OIS003), that is accessed through 'Customer. Open' (CRS610).

Order line charges are specified in 'Order Line Charge. Open' (CRS275). To automatically allocate an order line charge, it first must be connected to a charge model in 'Order Line Charge Model. Connect Charges' (CRS279) and then the charge model must be connected to a customer in 'Customer. Open' (CRS610/F).

- **Discount Models**

Discount models are specified to enable automatic discounting of customer order lines. Different discounts within the discount model are entered as discount numbers, which define the prerequisites for a customer order line to qualify for a discount.

In the discount model, you can also specify how a discount should be calculated for a customer order line if more than one discount is applicable.

Note: At least one discount model must be entered in order for it to be possible to specify discounts manually during order line entry.

3 Specifying Additional Functions

The following functions are not essential to specifying and following up on a customer order. They can be used depending on the company's basic policy or in which branch the company is operating.

- **Bonus**

If bonus or commission is to be used, at least one bonus or commission agreement (b/c agreement) must be specified in 'Bonus/Comm Agreement. Open' (OIS412).

A bonus/commission agreement (b/c agreement) controls the conditions for the bonus and commission calculations and payment method for one recipient or more.

- **Business Chains**

Customers in a business relationship can be structured hierarchically by being connected in a business chain.

Customer administration can be simplified by connecting prices, agreements etc., to a business chain.

A business chain is specified in 'Business Chain. Open' (OIS038).

- **Kit Structure**

If several separate items are included in one item, they are connected in a kit item. A kit item is specified in 'Product Structure. Open' (PDS001).

- **Standing customer orders**

Standing customer orders are predefined customer orders. The order is filled at regular intervals, according to a prearranged agreement.

- **Blanket Agreement**

If a blanket agreement has been arranged with a customer, it is specified in 'Cust Blanket Agreement. Open' (OIS060).

- **Contact Planning**

Contact plans are often necessary if customers are regularly contacted with order inquiries. With contact plans customers can be contacted in a planned and regular manner.

Build Equipment using Attribute Management

This document explains the process steps involved when configuring attribute management to allow equipment to be created from a sales order and built using a work order.

Outcome

Attribute settings for work orders are configured.

These M3 tables are affected:

- MPDHED (by program PDS001)
- MDMAT, MPDOPE (by program PDS002)
- MPDOPT (by program PDS003)
- MITMAS (by program MMS001)
- MITWHL (by program MMS002)
- OOHEAD (by program OIS100)
- OOLINE (by program OIS101)
- MCHEAD (by program CAS310)
- MPDSCF (by program MOS300)
- MWOPLP, MMPMAT, MMPOPE (by program MOS170)
- MMOHED, MMOMAT, MMOOPE (by program MOS100)

Follow these steps

Basic data for creating items and serial numbers must be established.

1 Configure the Item in (MMS001)

In the G panel, the Attr Managed code must be set to 1 or 2 o 3. 2-Yes Dsp stock receipt is preferred. An attribute model must also be defined in Attr model. Attribute model is defined in (ATS050).

In the J panel, set the 'Next Action type' as the valid Structure Type and 'Next Service' as a valid service from (MOS300). This is the service that will be used as a header. All material and operations is connected to the Product in 'Product Structure. Open' (PDS001/PDS002). It's the Product Structure with its settings in the (PDS002) that is used to build the equipment on the work order and the one that will contain the configuration details described in step 7.

2 Configure the Items warehouse in (MMS002)

In 'Item. Connect Warehouse' (MMS002) set the Acquisition Code to 6 and enter a valid maintenance order type from (MOS120).

3 Create a Product Structure in (PDS001)

Create a product structure in 'Product Structure. Open' (PDS001).

4 Configure the structure in (PDS002)

In 'Product. Connect Materials/Operations' (PDS002), add the necessary materials and operations needed to build the equipment.

5 Configure the options and features in (PDS003)

Connect options and features. Selection type 5=Attribute should be used. This should be done on the material line in (PDS002) and can be used for operations as well.

6 Create the customer order in (OIS100)

A customer order is created in 'Customer Order. Open' (OIS100) to configure and sell the equipment.

In 'Customer Order. Open Lines' (OIS101), when the line is created, you must enter the product number and line types 0 or 1.

Press the Enter key to activate the attribute screen, 'Attribute Value. Connect To' (ATS101). Choose an option and Press Enter. Once all attributes have been selected, (OIS145) is displayed. Select 'Create WO'. The order type is fetched from 'Item. Connect Warehouse' (MMS002).

Press F17 to update the record and then press Enter. The line is then created.

7 Work order processing in (MOS170), (MOS100)

A work order request (proposal) will now have been created in 'Work Request. Open' (MOS170) and will reference the customer order.

Depending on the planning policy on service, the request could also be automatically released.

The materials and operations in 'Work Request. Open Line' (MOS171) will be set according to the product structure and the options selected on the attributes.

The request can be released to become a work order and can be viewed in 'Work Order. Open' (MOS100) or (MOS195).

8 Work order put away in (MOS050)

Once the new equipment has been built, all operations and materials will be reported and finally the work order will be closed in 'Work Order. Close' (MOS050). In (MOS050), you must enter a Lot (serial) number.

9 Allocate the new serial number in (OIS101)

On the customer order line in 'Customer Order. Open Lines' (OIS101) the new item serial number will be automatically added, when the picking list has been reported, and the status will be raised to 33.

10 Costing in CAS310 (CAS311)

From 'Internal Account Entry. Open' (CAS300) the costs for the item are displayed and by using related option 11 the cost model can be viewed. Since the item number has actual costing method then the standard cost value will be zero, although a (PCS300) record for the work order with the cost from proposal will still be created.

Business Chain

A business chain is a specific ID for a business partner representing a group of customers. In many situations, the business chain and customers included in it are processed the same way. The chain is made up of customers connected to one another on different levels such as the parent company and its subsidiaries.

A business chain is used to connect the group of customers to common business terms, such as a bonus agreement and discounts, as well as other conditions, such as a common invoice address and payer.

A condition that is connected to one level can also apply to the lower levels. When a condition is connected to the highest level, then it applies to all members of the group. A condition connected to level 2 applies to levels 3 and 4.

During customer order entry for a member of a business chain, common information for the chain is entered by default in the order header. However, a business chain check must be activated in program 'CO Type. Open' (OIS010/E).

A business chain can contain a maximum of four levels. Several business chains can also be connected to an umbrella organization represented by one business partner at the highest level. Again, this is limited to four levels.

Every business chain must be registered as a customer in the customer file regardless of level.

- Here is an illustration of a business chain:

- Level

4 Bob's Crazy Discount Outfitter stores are part of Big Bob's Crazy Discount Chain.

3 Big Bob's Crazy Discount Chain stores are part of Chicago Pricesaver Stores.

2 Chicago Pricesaver Stores are part of Midwest Shop 'til You Drop Malls.

1 Midwest Shop 'til You Drop Mall is part of North America Charge 'Em to the Max Stores.

Buying Patterns per Customer

The purpose of this supporting function is to be able to track the buying pattern of customers per item and period. A buying pattern obtained from the demand statistics separated for a specific customer's demand for an item. This follow-up is used for informational purposes and to check against the customer during customer order entry.

Description - Buying Patterns

A buying pattern is used to separate demand statistics into different periods. It is updated per customer and item.

Buying patterns can be user-defined to analyze demand during different periods. For example, demand for perishables may need to be analyzed each day of the week, while other goods need be analyzed each week. User-defined buying patterns can be updated only when the Period exceptions field is activated in 'Customer. Open' (CRS610).

Customers can be connected to either predefined buying patterns or user-defined ones. This is done in 'Customer. Connect Buying Pattern' (OIS161). The validity period for the buying pattern must also be specified.

To update buying patterns, the update must be activated for:

- The customer order type in 'CO Type. Open' (OIS010/F)
- The item in 'Item. Open' (MMS001)
- The customer in 'Customer. Open' (CRS610/F).

Buying patterns are used for reasonability checks during customer order entry. These determine whether a customer's order is reasonable in relation to normal purchasing. If the customer's order differs significantly from the buying pattern, a warning is issued.

Buying patterns can also be displayed during full-screen entry to determine reasonability. For this, sales support integration must be activated in program 'CO Type. Open' (OIS010/F).

Before you start

To start this procedure, the following prerequisites must be met:

- Items that update the buying pattern have the Update buying pattern field activated in program 'Item. Open' (MMS001/H).
- The customer has the Update buying pattern field activated in program 'Customer. Open' (CRS610/F).
- The customer is connected to at least one assortment which include the items that update the buying pattern. The normal assortment for the customer should be specified in the customer file. See program 'Customer. Open' (CRS610/F).
- The customer order type must have the Update buying pattern field activated. The order type used for normal customer order entry should also have full-screen processing with sorting order 9. This is regulated in program 'CO Type. Open' (OIS010/G).
- A reasonability table is defined, if a reasonability check is made against the buying pattern during customer order line entry.

Follow these steps

1 Connecting a Customer to a Buying Pattern

Customers are connected to a buying pattern in program 'Customer. Connect Buying Pattern' (OIS161). The validity period for the buying pattern is also defined at the same time.

2 Using a Buying Pattern

Buying patterns can be defined by the user. This allows the analysis of different periods for specific reasons, such as for sales during major holidays from year to year or during special campaigns. To update user-defined buying patterns, the 'Buying pattern exception' field must be selected in 'Customer. Open' (CRS610/F).

Buying patterns are used to form a basis for the reasonability check during customer order entry. Reasonability checks determine whether a customer's order is reasonable in relation to the normal buying behavior of that customer.

When a reasonability check is made against a buying pattern a reasonability table must be defined per item, or per combination of item and customer. See also program 'Customer Item. Connect Reasonability Tab' (OIS220), started via option 11 in 'Customer. Connect Item' (OIS005). In addition, 'Reasonability check' field must be selected on 'CO Type. Open' (OIS010/H).

Buying patterns can also be displayed during full-screen entry so the user can determine whether an order is reasonable. This is done by activating the 'Sales support integration' field in 'CO Type. Open' (OIS010/F).

Cash Customer Process

This document describes the cash customer process.

Overview

Cash customers only transact with cash payments and, thus, never have outstanding credit.

A customer in 'Customer. Open' (CRS610) is identified as a cash customer by selecting the 'Cash customer' check box on the J panel. As an effect, credit limit records in 'Credit Limit. Open' (CRS315) are not created, allowing for faster processing of functions 'Upd inv amount' in CRS930 (Update customer with invoice amount from ledger) and 'Upd cus backlog' in OIS935 (Update payer with order-value not invoiced).

There are two types of processes for which you are ensured a cash payment:

- The payment document processes using 'Adv invoicing' set to 3 or 4 on 'co Type. Open' (OIS010/K). These processes require payment to be received before the release of the picking list or release of purchase order proposals.
- The credit card process used by selecting the 'Credit card' check box on the selected payment method. This process requires a valid credit card authorization to proceed with the order.

If you want to use a cash customer as payer in any other process, you must select 'Cash cus proc' on a payment term. For such processes, you must ensure that cash payment is received since outstanding credit is not monitored for cash customers.

Cash customers cannot constitute or be included in credit groups.

Connect a Delivery Window to a Season

This document explains how you connect delivery windows to a season.

Before you start

A season identity must be created. See [Create a Season](#) on page 60.

Follow these steps

- 1 Start 'Season. Connect Delivery Windows' (CRS917).
This instruction is written for sorting order 1 and panel sequence E.
The program can also be started from 'Season. Open' (CRS912) by selecting option 11=Delivery window.
- 2 Specify the season that you would like to work with at the top of the panel.
- 3 Specify the name of the delivery window to be created or connected to the season in the positioning field. Select 'New' to proceed to the E panel.
- 4 Specify a description and a name of the delivery window.
- 5 Fill in the fields for the first, last, and proposed delivery dates.
These fields are not required and may be left blank. They can be used as default values in a customer order.

Outcome

One or several delivery windows are connected to a season.

Delivery windows are used to divide a season into a number of shorter time periods.

Connect a Season to an Item Number

This document explains how you connect a season to an item number.

Before you start

- Season identities must be created in 'Season. Open' (CRS912).
- Numbering rules for item numbers, alias numbers, and variant numbers must be set up correctly on the item type used on the style/item number.

Follow these steps

Before you start, use option 11='Feature/Style' in program 'Style. Connect Feature' (MMS017) to select the options for the different features in program 'Feature. Connect Options' (PDS056).

- 1 Start (MMS017) and select function F17='View Proposals' to start 'Style. Create Items' (MMS276).
- 2 Specify the style that you would like to work with. Note that the style is by default taken from (MMS017) but it can be changed in (MMS276).
In (MMS276), the already selected features and options are displayed, along with records from worktable MMM076.
- 3 Specify the season to work with in (MMS276). Note that the season is by default taken from (MMS017) but it can be changed in (MMS276) prompting you to the program 'Season. Open' (CRS912) where you can select the required season.
If no season is specified, message 'Season must be entered' is displayed when you try to create product variants.
- 4 Once the field 'Season' is correctly specified, click 'Create' or use function key F14='Create Items'.
The product variants will be created and the selected season will be linked to the new SKUs.

Carry-over season process

To use the same variants created for a season in another season, you can use the carry-over process.

The carry-over season process is only available in program 'Style. Create Item' (MMS276).

- 1 Start (MMS017) and select function F17='View Proposals' to start (MMS276).
- 2 Specify the 'From season'.
- 3 Click 'Crt prop fr sea', or use function F17='Crt prop fr sea', to carry over from the previous season.
When the build of the worktable is finished, the new season will be displayed in programs 'Item. Connect Alias Number' (MMS025), (MMS017), and (MMS276).

- 4 To add or delete already selected options from an already completed carry-over season, start 'Feature. Connect Options' (PDS056).
Select the options to use for the new season SKU creation and deselect the options not to use.

When new selection is done, the worktable MMM076 is rebuilt.

Outcome

A connection between an item number and a season is created.

In order to use season handling, it is vital to create a connection between an item and a season.

For all fashion items specified in (MMS025), the 'Alias type' field=88, the 'Alias number' field=style number, and the 'Season' fields are left blank. For each new season connected to an item, the system will create a new record in (MMS025) in which the 'Season' field specifies the season you have just connected.

Connect Non-Activity Period per Customer

This document covers the set-up of non-activity periods per customer.

Introduction

The non-activity period is associated to the contact information for that customer. The non-activity period is a date range for which a customer is not active or cannot be contacted. Upon generation of active contact plans through (OIS057), this date range will be excluded.

Example:

You set the Contact Day number parameter to 2 (Tuesday) which should match the setting on the (OIS052/E) panel. The period for non-activity is 990301-990331. In (OIS057), you generate the active contact plans for the period 990201 – 990430. No active plans will be generated on the following dates: 990306, 990313, 990320, and 990327 (all the Tuesdays in March).

Non-activity period per customer is entered in 'Customer. Connect Nonactivity Period' (OIS051) or alternative 12='Nonactivity Per' from the (OIS054/B) panel.

Define day type

The day type field identifies the type of day that will be deactivated for the customer.

The valid alternatives are:

- 1 = Delivery day
- 2 = Contact day

Define day number

The day number field identifies the day of the week that will be deactivated for the customer.

The valid alternatives are:

- 0 = Any day
- 1 = Monday
- 2 = Tuesday
- 3 = Wednesday
- 4 = Thursday
- 5 = Friday
- 6 = Saturday
- 7 = Sunday

Define validity period

The from date and to date fields define the range of dates for which the customer is deactivated.

Contacting the Customer via Contact Plan

This document covers the flow on how to contact and create customer order using an active contact plan.

Introduction

The purpose of this procedure is to contact customers using an active contact plan. This can include entering a customer order directly from the active contact plan and registering the results of the contact.

The result of the contact or attempted contact is registered in the contact plan through the status set after using this procedure. When the customer makes an order, a customer order is also entered.

Note that a warning message is displayed if you attempt to contact the customer before the earliest contact time or after the latest contact time.

Managing status of Active Contact Plan

'Contact Plan. Enter Contacts/Customer' (OIS055/E) should be visible when speaking with the customer. The result of every communication can be registered in the plan; it can also be used to create a customer order or to change the status of the plan. You can use the F10 function key, to change the status of the plan.

One of these alternatives can be selected:

- 11 – Line busy
- 20 – Not Ready
- 21 – Not ready - cust will contact
- 92 – Customer not ordering
- 93 – Customer not available

If status is set to 11, 20, or 21, the system will recalculate the next contact time when to contact the customer again. This set up is done on the (OIS056/P) panel.

If status is set to 92 or 93, the contact time will not be recalculated, and contact plan cannot be used again.

Managing calculation of contact time

Calculation of contact time after setting contact plan status to 11, 20, or 21 is derived from 'Contact Plan. Open Active' (OIS056/P).

- **New Contact Time:** The number of hours/minutes to be added to the actual contact time.
- **New Early Contact Time:** The number of hours/minutes to be deducted from the newly calculated contact time.
- **New Late Contact Time:** The number of hours/minutes to be added to the newly calculated contact time.

Managing customer order from Active contact plan

Creating customer order from contact plan is continued on the panel sequence of 'Contact Plan. Enter Contacts/Customer' (OIS055/E).

If customer order is already created for this customer on the same requested delivery date (wherein OK is displayed in 'Contact Plan. Open Active' (OIS056/B)), a message stating that customer order #xxxxx already exists is displayed and these alternatives are provided:

- New Order
- Add to existing order
- 91 Order Exists

Upon closing order entry 'Customer Order. Open Line' (OIS101) by using the F13 function key, select a contact plan status on the pop up window. These alternatives are available:

- 11 – Line busy
- 20 – Not Ready
- 21 – Not ready - cust will contact
- 92 – Customer not ordering
- 93 – Customer not available

If there is no order line entered, and customer order has been generated, choosing status aside from 90 should confirm the deletion of customer order first.

On the other hand, if you have entered customer order lines and finished, it is possible to choose status 11, 20, 21, 92, and 93. Regardless of the chosen status, the customer order will be registered in 'Customer Order. Open Toolbox' (OIS300) or 'Customer Order. Open' (OIS100). On the (OIS056/B) panel, the word OK is displayed beside the active contact plan, indicating that the customer order exists for the active contact plan.

If you choose status 11, 20, or 21, a new contact time will be calculated.

Contact Planning

This document covers the process used to create a contact plan and to contact customers using an active contact plan. It explains various approaches on planning the best time and way to contact a specific customer. Section below will explain each function in detail.

Introduction

Contact planning is used to help ensure that customer contacts are done in a planned, active way, and at regular intervals. Contact planning can be used for order inquiries to customers or for other contacts, for example, market research. If a certain group of customers should be contacted twice a week on Tuesdays and Thursdays, a contact plan can be created containing only these customers. If one person is responsible for this group, the contact plan can be connected to this user.

Before you start

This process can be started when the following prerequisites are met:

To enter a customer order in connection with contact planning, the prerequisites for customer order entry must also be met.

- Customers are entered in the customer file.
- Contact information per customer is updated in 'Contact Plan. Enter Contact Info/Cust' (OIS054).

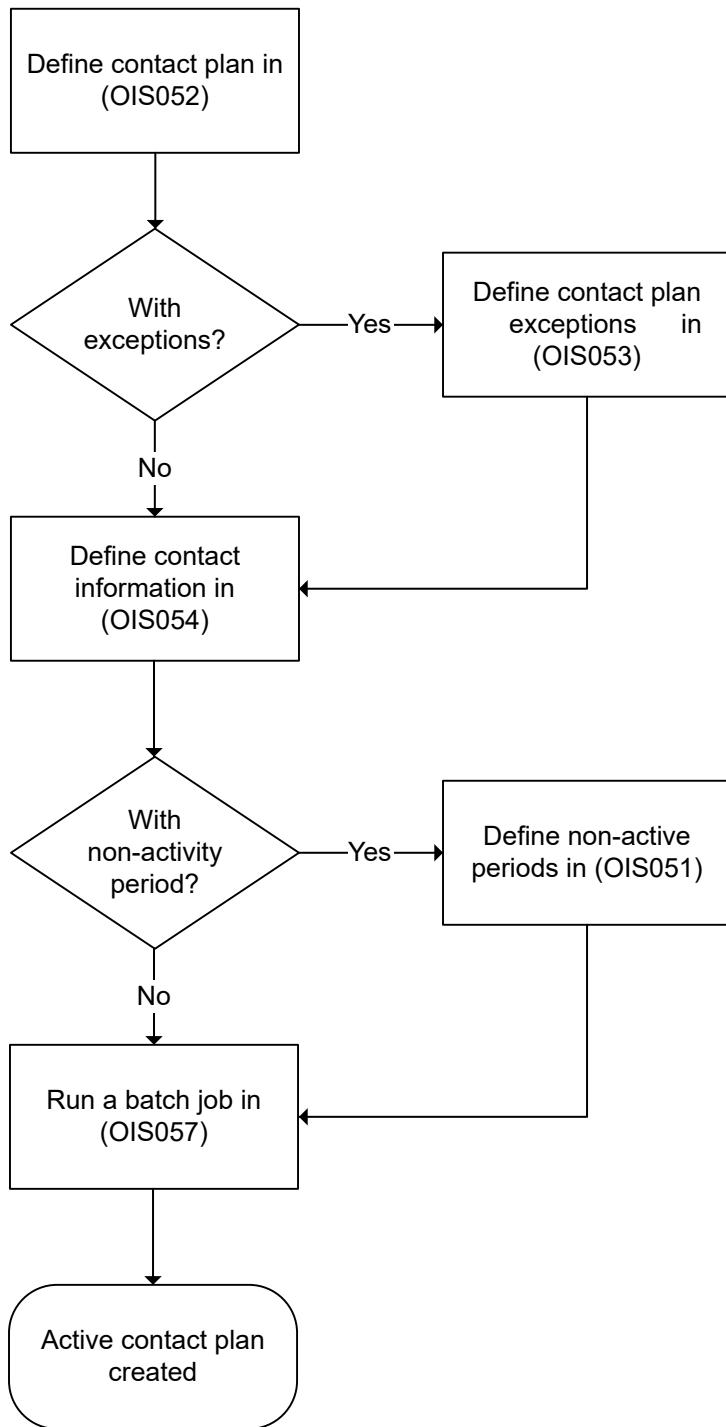
Outcome

As a result of using this process,

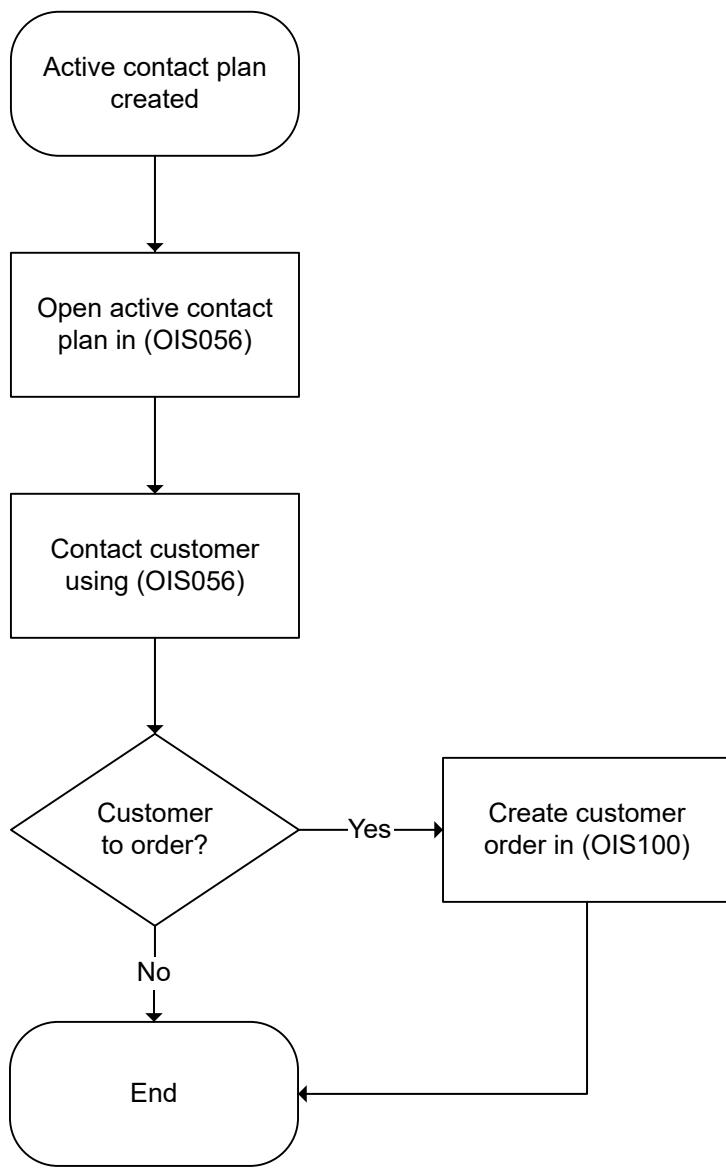
- a contact plan is entered,
- an active contact plan is created,
- customer contacts are made based on an active contact plan and any resulting customer orders are entered, and
- the results of contacts or attempted contacts are registered in the contact plan.

Flowchart

This flowchart illustrates the process of creating active contact plans.



This flowchart illustrates the process of contacting the customer.



Follow these steps

These activities are included in the process:

- 1 Define contact plan in 'Contact Plan. Open' (OIS052)

A contact plan should be created first. A contact plan contains general information, for example, which day to contact a customer, or the departure to use if the contact results in a customer order.

- 2 Optionally, define exceptions

Any exceptions to the plan is specified in 'Contact Plan. Enter Exceptions' (OIS053).

- 3 Define contact information

Connect customer to the contact plan. Specify specific contact information, for example, phone number, and contact time, for the customer through 'Contact Plan. Enter Contact Info/Cust' (OIS054).

4 Optionally, define non-active periods

Any periods of non-activity is defined in 'Customer. Connect Nonactivity Period' (OIS051).

5 Create active contact plan

Generate active contact plans through a batch job in 'Contact Plan. Create Active' (OIS057). The active plans can also be created manually in 'Contact Plan. Open Active' (OIS056).

When an active plan is created through a batch job, the customers or customer categories for which records are created can be specified. When records are created for future contacts, records for previous contacts can be deleted from the active contact plan table.

Two checks are made automatically when a contact plan is created using a batch job. At first, any exceptions to the plan are checked. Secondly, any periods of non-activity, for example, times of the year when a customer should not be contacted, is checked.

6 Contacting the customer

When the batch job is completed, the records can be accessed in 'Contact Plan. Open Active' (OIS056). Whenever a customer wants to make an order during a contact, the order can be entered immediately from contact planning.

7 Customer order entry

This activity is only used when the contact plan is used for order inquiries and the customer makes an order. When this happens, 'Customer Order. Open' (OIS100) is started to enter the order. When the customer order is entered, the customer contacts processing can be continued, using the contact plan.

During customer order entry, a check is made to see if an order has already been made for the customer for the delivery date set in the contact plan. If so, that order can be supplemented with the current order. Otherwise, a new customer order can be created for the same customer.

8 Check completed contact

The result of every customer contact is registered in the plan by changing the status of the scheduled contact. The status reflects the result achieved, such as completed, contact unavailable, phone busy, or contact customer later. When a customer order has been entered as the result of a contact, the status is set by default. This status can be used later as a selection ID when working with active contact plans.

Complete Customer Data

This document explains how to complete customer data. The customer data includes information such as geographical, contact, financial, and commercial terms that help to control and regulate standards and conditions for the customer. If customer information deviates per division, the customer information can be specified as a customer local exception.

See [Customer Local Exceptions](#) on page 67.

Outcome

The customer data is completed in the customer master table with geographical information, contact information, financial information, and commercial terms such as pricing, discounts, insurance details, payment methods, delivery terms, and so on.

The customer data supports the automation of the customer order process.

These tables are updated:

- Customer Master - OCUSMA
- Discount Percent Customer - FDISCU.

Before you start

A customer must be created. See [Enter Preliminary Customer](#) on page 91 for more details.

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer whose data needs to be completed and select option Change.
- 3 Change the status to 20 on the E panel. See the Parameters to Set section for information on various statuses.
The customer status in the E panel must be set to 20 (Definite) for a preliminary customer to be activated.
- 4 Specify the relevant customer data on the E, F, G, H, I, and J panels. See the Parameters to Set section for a more detailed description.
- 5 Specify the finance related data on the K and L panels.
You can add other alternatives to the panel sequence. See the field help for all alternatives.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS610/B)	Customer number	<p>...the unique identification of a customer. It can contain up to ten positions and is alphanumeric.</p> <p>For temporary customers (customer type 9), the customer number must be within a defined range where only customers with customer type 9 can be specified.</p> <p>M3 automatically proposes the next available customer number during customer entry. If a number series is specified, the next available number in the number series is proposed. This function can be activated or deactivated on the P panel.</p> <p>Example: To indicate that the new customer number should contain seven digits and be proposed from series 5000xxx, enter 5000??? in the customer number field and then press Enter.</p> <p>The next available customer number from the specified series is then proposed automatically. This number can be changed if necessary.</p>
(CRS610/B)	Customer type	<p>...the type of customer.</p> <p>The valid alternatives are:</p> <p>0 = Normal customer. Can also be the payer or bonus/commission recipient.</p> <p>1 = Bonus/commission recipient only, not the orderer.</p> <p>2 = Payer only, not the orderer. Can also be the bonus/commission recipient.</p> <p>7 = Internal customer. Accounts receivable is not updated during invoicing.</p> <p>8 = Temporary customer created during order entry of a temporary customer group (see customer type 9). This customer type cannot be specified when a new customer is specified in the customer file.</p> <p>9 = Temporary customer group. For each customer order specified, a new record is automatically created in the customer file. The first positions of the record correspond to this group number.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/E)	Status	<p>...the status of the customer.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 10 = Preliminary 20 = Definite 90 = Blocked/expired. <p>Besides these alternatives, the following alternatives can also be used when importing from M3 Sales and Marketing:</p> <ul style="list-style-type: none"> 11 = Temporary customer number, assigned when errors detected during automatic numbering. This status is raised to 12 when a new customer number is specified. 12 = Incorrect values for customer number. This status is raised to 20 when the errors are corrected.
(CRS610/E)	City	<p>...the city in an address. The information is mandatory when address formatting is used, and when a city is an address element used in 'Address Formatting Rule. Open' (CRS117). Address formatting rules are defined for each country in 'Country. Open' (CRS045).</p>
(CRS610/E)	Language	<p>...the language that should be used on external documents when corresponding with customers and suppliers.</p>
(CRS610/E)	Postal code	<p>...a postal code for a specific address.</p> <p>The postal code is an address element that can be part of an address line if address formatting rules in (CRS117) are used.</p>
(CRS610/F)	Salesperson	<p>...the person responsible for sales to a customer.</p> <p>The salesperson can be used as a statistical category in order entry and for sales statistics.</p> <p>During customer order entry, the salesperson from the customer file is used as a default value but can be changed.</p>
(CRS610/F)	Customer group	<p>...the customer group to which the customer belongs.</p> <p>Customers are connected to customer groups in 'Customer Group. Open' (CRS145). The customer groups can then be used as selection and sorting criteria, for example when generating statistics on order entry and sales.</p>
(CRS610/F)	Customer order type	<p>...a default order type during customer order entry.</p>
(CRS610/F)	Trade-in Supplier	<p>The field indicates a supplier number connected to a customer and used when goods is purchased from the customer as part of a trade-in transaction.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/F)	CO no Mandatory	<p>...controls if the customer's order number must be entered in the sales, maintenance, and rental processes and if a warning for duplicates is to be displayed or not.</p> <p>Note: For customer orders, this setting is only applied when the 'CO type' field in (OIS014) contains the value *CUS.</p>
(CRS610/G)	Packaging terms	<p>...terms that can be applied when goods are packed.</p> <p>Packaging terms are printed on the picking list to inform the packing personnel about the conditions.</p> <p>Packaging terms can be specified for each customer in the customer file. The terms are displayed by default when entering order but can be changed.</p>
(CRS610/G)	Warehouse	<p>...the physical location from which delivery of customer orders can be made.</p> <p>For each customer, the warehouse that is usually used for deliveries is specified.</p> <p>If the customer is internal (customer type 7), the warehouse represented by the customer is specified, that is, the warehouse receiving the delivery.</p> <p>The warehouse in the customer file is displayed by default upon order entry, but can be changed if the customer is not type 7.</p>
(CRS610/G)	Delivery terms	<p>...whether the responsibility of the transport is transferred from supplier to customer. Responsibility can, for example, refer to payment, insurance terms.</p> <p>Delivery terms are used at customer entry or entry of delivery addresses to be able to display the specified delivery terms at order entry.</p> <p>For freight documents created from the transportation planning routines, the delivery terms are retrieved from the selected route, and managed by the shipment regardless of the value in this field.</p>
(CRS610/G)	Delivery method	<p>...methods that are normally used when deliveries are made to the customer.</p> <p>This information is displayed by default when customer orders are specified and when a delivery address is specified for a customer.</p>
(CRS610/G)	Address no	<p>...the delivery address to be proposed by default when new customer orders are specified.</p> <p>If this field is left blank and no address is specified on the customer order, the customer's mailing address will be used as the delivery address for the order.</p> <p>Note: The address number is for all address types. For example, the number 100 can be both the delivery address and invoicing address.</p>
(CRS610/G)	Facility	<p>...the company unit that usually has contact with the customer. In this case, the unit is used as search criteria to find the customer.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/G)	Display valid delivery addresses	<p>...whether or not delivery addresses should be displayed during order entry.</p> <p>The addresses will be displayed provided the customer order type allows it; that is, the 'Display delivery address' field is activated in 'co_Type_Open' (OIS010/E).</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No display. 1 = Display, provided that at least one address with address type 01 exists. 2 = Display, provided that more than one address with address type 01 exist. 3 = Display, provided that at least one address with address type 01 exists. Selection is mandatory. <p>If the customer order type category is 1 (normal order) or 4 (quotation), only valid delivery addresses will be displayed. For other CO type categories, valid as well as invalid delivery addresses will be displayed.</p>
(CRS610/G)	Place	<p>...the ID of a geographic location or a place, such as a city, town, or airport.</p> <p>These IDs are used in the route management to define the following:</p> <ul style="list-style-type: none"> - Valid loading points, to be assigned to supplying warehouses - Valid unloading points, to be assigned to consignees, that is, customers, warehouses, suppliers, and subcontractors. <p>In addition to the loading and unloading parameters above, the following must be defined in order to establish a route network and to assign consignees:</p> <ul style="list-style-type: none"> - Routes, with valid loading and starting points and eventually predefined unloading points, depending on the route type (see separate field help in 'Route. Open' (DRS005)).
(CRS610/G)	Unloading zone	<p>...the place of unloading that is divided into several different zones. Each zone can be linked to one or more delivery address. As a result, you can determine the sequence the packages are loaded on the transportation equipment.</p> <p>Postal codes can be used as an alternative to using unloading zones. Enter your alternative in 'Route. Connect Unloading Places' (DRS021).</p>
(CRS610/G)	Labor code – trade statistics (TST)	<p>...the code that is used to distinguish between different types of transactions that are reported in the trade statistics. The code specified here is optional.</p> <p>For exports, you enter the labor code for each customer order type. It can then be changed for an individual customer order or order line. For imports, you enter the code in 'Purchase Order Type. Open' (PPS095), parameter 400. It then acts as a default value in each purchase order line.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/G)	Attribute pricing rule	<p>...rules that should be used when calculating attribute-based prices or charges.</p> <p>The valid alternatives are:</p> <p>1 = Expected attribute values are used as base 2 = Actual attribute values are used as base.</p> <p>The alternative specified on the supplier master is used as a default on the purchase order line.</p> <p>For customer orders, the alternative specified on the customer master can be used to set the value on the customer order line. The function Field selection for customer order type in 'CO Type. Update Field Selection' (OIS014) controls where the values come from for a customer order.</p> <p>For alternative 2, the reported attribute values for the stock entries/dispatch made for a purchase line/customer order line are used. These are obtained through the transaction history.</p>
(CRS610/G)	Price list table	...a joint ID for the sales prices of several items. Price list tables enable you to process several sales price lists for customer orders for each item.
(CRS610/G)	Discount group – customer	<p>...the customer discount group.</p> <p>Customer discount groups are specified for each customer in 'Customer. Open' (CRS610) and can be used as a control object for calculating customer order line discounts.</p>
(CRS610/H)	Bonus group	...the bonus group that is used to connect a customer to a bonus or commission group. This group is used as a selection key in the routines for bonus and provision, sales statistics, and so on.
(CRS610/H)	Invoicing group	<p>...the invoicing group that is used to group different customer order types.</p> <p>When you request invoicing in 'CO Invoice. Print' (OIS180), the invoicing group can be selected. Only order types within the selected invoicing group will be invoiced.</p> <p>You can then select which order types should be invoiced. The invoicing group can also be specified for each customer. If the customer's invoicing group is different from the order type's invoicing group, the value set for the customer is used.</p>
(CRS610/H)	Commission group	...the commission group used to connect a customer to a bonus or commission group. This group is used as a selection key in the routines for bonus and provision, sales statistics, and so on.

Program ID/Panel	Field	The field indicates ...
(CRS610/H)	Customer document group	<p>...a group of customers to which the same customer documents should be sent. In addition to the customer document group, the order type determines which documents will be sent.</p> <p>Customer document groups are specified for each customer in the customer file. The customer document groups specified in (CRS610) must first be specified in the system.</p> <p>More document numbers can be connected to a customer order in 'Customer Order. Connect Documents' (OIS104).</p>
(CRS610/H)	Price printout	<p>...how prices and discounts should be printed on confirmation and invoice documents.</p> <p>The valid alternatives are:</p> <p>1 = Complete line specification, quantity, price, line discount, line net, and order total are printed.</p> <p>2 = Only quantities and order totals are printed. Price, line discount and line net are not printed for goods lines.</p> <p>3 = Order total and line specification with quantity and line net are printed.</p> <p>4 = Order total and line specification with only line net are printed.</p> <p>5 = Complete line specification, quantity, price, line discount or net price (see note 1), line net, and order total are printed.</p> <p>Note: The following only concerns the customer order confirmation, the customer quotation, the pro forma invoice and the invoice: 'Price printout' 5 depends on the net price method in 'Settings – Customer Order Entry' (CRS720). If net price method is set to 1, then the line discount is printed (the printout will be as for price printout 1). If the net price method is set to 2, then the net price is printed</p>
(CRS610/H)	Statistics Identity 1 / 2 customer	<p>...a user-defined customer statistics accumulator.</p> <p>Statistics field 1 is validated against the table in 'Customer Statistics identify 1. Open' (CRS192) and Statistics field 2 is validated against the table in 'Customer Statistics identify 1. Open' (CRS197).</p> <p>Statistics field 1 can be changed for every customer order, but not statistics field 2.</p> <p>The headings for these fields are defined in 'Settings- User-defined Stats Fields' (CRS715).</p>
(CRS610/H)	User-defined accounting control object	<p>...a user-defined field, but is most often used to control account entries and is therefore an accounting object that can be verified and changed in 'Control Object. Open User-Defined' (CRS335).</p>
(CRS610/I)	User-defined field 1 - customer	<p>...the user-defined field that can be used as desired.</p> <p>Field headings for these fields are defined in 'Settings – User-Defined Customer Fields' (CRS712).</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/J)	Currency	<p>...the currency for each customer order.</p> <p>The currency code is proposed by default from the customer file in (CRS610). However, the currency code can be changed when customer orders are specified.</p>
(CRS610/J)	Exchange rate type	<p>...the exchange rate type.</p> <p>The rate type is mandatory when maintaining exchange rates. The rate type is also connected to customers, suppliers, price lists, and year-end budget procedures.</p> <p>The valid alternatives are:</p> <p>01 = Variable rate</p> <p>02-99 = Can be used optionally.</p> <p>Exchange rate types are defined in 'Exchange Rate Type. Open' (CRS056).</p>
(CRS610/J)	VAT code	<p>...the VAT code on the customer master, which is used for two different purposes:</p> <ol style="list-style-type: none"> 1) To indicate the VAT amount for a customer when manual invoices are specified in accounts receivable. 2) To indicate a VAT exemption agreement on an order. <p>Note: The VAT code from the customer master only applies to orders when a VAT exemption agreement exists, in other words, only when the tax applicable code is set to 2. In all other cases, VAT codes on the order lines and order charges are based on the specific items and charges.</p>
(CRS610/J)	Service code	<p>...the service code used to select customer invoices to be processed with VAT. This user-defined code is connected to the customer in (CRS610).</p> <p>You can change the code during each entry of an invoice.</p>
(CRS610/J)	Payment terms	...how the due date should be calculated.
(CRS610/J)	Payment method - accounts receivable	<p>...how a payment is or has been handled.</p> <p>The payment method is used as a general sorting key for similar routines when handling customer payments. Payment methods for Accounts Receivable are defined in 'AR Payment Method. Open' (CRS076).</p> <p>Each payment method is connected to a payment class, an ID used to classify different payment methods. The payment class is in turn, connected to a payment class, which is a general designation for a category of payments (for example Cash or Draft).</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/J)	Due date base	<p>...the date base used to determine which date is to form the basis for calculation of the due date.</p> <p>The valid alternatives are:</p> <p>1 = Invoice date</p> <p>2 = Delivery date.</p> <p>Due date calculation is made for each invoice when invoicing in the order system prior to possible transfer to accounts receivable.</p> <p>The due date basis only applies if the due date or value date was not specified manually. It is retrieved from the payer related to the invoice.</p> <p>If second alternative is selected, different invoices will be created for the same payer upon joint invoicing if the delivery dates are different for the affected orders.</p>
(CRS610/J)	Cash discount term	<p>...terms for cash discount calculation.</p> <p>Sets of different cash discount terms are defined in 'Cash Discount Term. Open' (CRS077).</p>
(CRS610/J)	Credit limit 1/2/3/4	<p>...the highest credit limits permitted.</p> <p>If any of these limits are exceeded, delivery of the customer order is blocked.</p> <p>Valid values for credit limit 4 are 1-999. If 0 is specified, or if the field is left blank, credit limit 4 is not used.</p> <p>Credit limit 4 is checked when credit limits 1-3 are not exceeded. Credit limit 4 has a lower priority than credit limits 1-3.</p>
(CRS610/J)	Payer	<p>...the person or business who has paid or will pay the invoice.</p> <p>In (CRS610), the payer is specified when an invoice should be sent to a different person other than to the customer placing the order.</p> <p>For order and sales statistics, the payer is used as a statistics ID. For total statistics, the payer is one of the key IDs.</p>
(CRS610/J)	Invoice recipient	<p>...the number of the customer who receives the invoice.</p> <p>The information is specified for each payer in the customer file. It is copied to the order header via the payer used when entering new orders.</p>
(CRS610/J)	Credit group	<p>...a group to which the customer is connected through setup in 'Customer Credit Group. Connect' (CRS316).</p> <p>Credit groups are used for credit limit handling at a grouped customer level. For customers that are connected to a credit group, credit check is managed on credit group level.</p> <p>See Credit Limit at Grouped Customer Level on page 61.</p>
(CRS610/K)	Interest rule	<p>...how to calculate interest on overdue payments and the conditions for charging a customer interest. The connection between customer and interest rule is made in the customer file.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/K)	Payment reminder rule	<p>...the conditions to be met before a payment reminder is sent to a customer.</p> <p>The connection between a customer and payment reminder rule is made in the customer file.</p> <p>Note: There will be a control if the payment reminder rules specified in 'Bank Remittance. Update Payment' (ARS351) do have the same grouping method as specified in the Grouping method field.</p>
(CRS610/K)	Payment instruction	<p>...payment instructions to a certain bank for a customer's payments. If there is a payment instruction, two lines of text will be printed on the document.</p>
(CRS610/K)	Payment receipt document	<p>... whether a payment receipt document is requested by the payer or customer.</p> <p>Select the check box to indicate that a payment receipt document will be printed when the payment is included in a payment receipt displayed in (ARS400). If you do not select the check box, the payment receipt will only be displayed in (ARS400).</p> <p>Note: The use of payment receipt must be activated in (CRS750) and for the payment types in (CRS078).</p>
(CRS610/K)	Insurance company	<p>...the customer's insurance company.</p> <p>The insurance only applies to outstanding accounts receivable.</p>
(CRS610/K)	Insurance number	<p>...the insurance policy number of the customer.</p>
(CRS610/K)	Insurance limit	<p>...the amount for which a customer is insured. The insurance is intended to cover the customer losses. Outstanding customer debts cannot exceed the insured amount.</p>
(CRS610/K)	Group customer	<p>...the customer's ID within the group.</p> <p>An entry in the field will control the classification as an IC-customer for the debt/liability report.</p>
(CRS610/L)	Payer - bank giro	<p>...the customer's payer number. This can be a bank account number, personal ID number, and so on.</p> <p>The payer number and the company bank giro number then make up a unique ID at Bankgiro. This information is relevant only when Autogiro/Private is used.</p>
(CRS610/L)	Payer - postal giro	<p>...the customer's payer number. This can be either a bank account number, personal ID, and so on.</p> <p>This number is used by Postgiro to identify the customer's auto giro payments.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/L)	Bank account number - bank giro	...the clearing number for the bank account number to be charged when the customer has made a payment through the Bankgiro auto giro routine. After you exit the field, the clearing number is right justified and the empty positions are filled with zeros.
(CRS610/L)	Bank account number - postal giro	...the bank account number to be charged when the customer has made a payment through the Postgiro auto giro routine. After you exit the field, the account number is right justified and the empty positions are filled with zeros.
(CRS610/L)	Personal ID	...the customer's personal ID or organization number. This is only necessary when Auto giro/Private is used. The personal ID number must begin with four numbers representing the year. The organization number must begin with two zeros.
(CRS610/L)	Bank giro number	...the customer's bank giro number.
(CRS610/L)	Postal giro number	...the customer's post giro number.
(CRS610/L)	Transmission date	...the date when the customer's payer information was last transferred to either Bankgiro or Postgiro.
(CRS610/L)	Transmission number	... the transfer when the customer's payment information was last transferred to either Bankgiro or Postgiro.
(CRS610/L)	Cancellation	...if the payer information at Bankgiro or Postgiro should be canceled. The valid alternatives are: 0 = No 1 = Yes 9 = A cancellation order has been sent. A cancellation order is sent the next time the permission file is transferred to Bankgiro or Postgiro.
(CRS610/M) (MFS610/M)	Agreement order type	
(CRS610/M) (MFS610/M)	Rate type	

Argentina-specific master data

The following functionality must be set up for divisions configured with country version AR in 'Company . Connect Division' (MNS100/L).

Once the functionality has been set up, the Argentina-specific master data is stored in the corresponding Argentina master tables.

Follow these steps:

- 1** Start (CRS610) and include the X panel (country specific) in the sequence.
- 2** Search for the specific customer and use the option Change.
- 3** Navigate to 'Customer AR. Open' (CRAR03). Specify the values in the fields and click Next.
- 4** The options Change, Copy, Delete, and Display can be used on (CRS610/B). The Copy option handles both the customer master, and Argentina-specific master data for the customer.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRAR03)	VAT class	<p>...one of the official VAT classes in Argentina.</p> <p>The VAT class is one of the components available when you define the structure of Argentinian invoice numbers in 'Settings – Invoice Numbering Rule' (MFS167). A VAT class is connected to customers in (CRS610).</p> <p>The VAT class can be used as a control object (XKVTC) when defining VAT exceptions in 'VAT Exception. Open' (TXS020) for the following purposes:</p> <ul style="list-style-type: none"> • Automatic replacement of the VAT code for an item having a VAT code with combined or chain VAT. • Printing a VAT exemption text on invoice documents that indicates the VAT class and its description.

Japan-specific master data

'Company. Connect Division' (MNS100/L).

The following functionality must be set up for divisions configured with country version JP. Once the functionality has been set up, the Japan-specific master data is stored in the corresponding Japan master tables.

Follow these steps:

- 1** Start (CRS610) and include the X panel (country specific) in the sequence.
- 2** Search for the specific customer and use the option 2 - 'Change.'
- 3** Navigate to 'Customer JP. Open' (CRJP01). Specify the values in the fields and click Next.
- 4** The options 2 - 'Change', 3 - 'Copy', 4 - 'Delete', and 5 - 'Display' can be used on (CRS610/B). The option 3 - 'Copy' handles both the customer master, and Japan-specific master data for the customer.

Parameters to set

This table shows available parameter settings for Japan-specific master data.

Program ID/Panel	Field	The field indicates ...
(CRJP01/E)	Unit of monthly invoice	<p>...the unit of summation to prepare monthly invoice document.</p> <p>The valid alternatives are:</p> <p>1 = Customer</p> <p>2 = Payer.</p>
(CRJP01/E)	Unit of VAT calculation base amount	<p>...the base amount on which to calculate VAT for the monthly invoice.</p> <p>The valid alternatives are:</p> <p>1 = Monthly invoice amount</p> <p>2 = Invoice amount</p> <p>3 = Amount calculated by M3.</p>
(CRJP01/E)	VAT calculation method	<p>...the rounding rule of VAT calculation for monthly invoice.</p> <p>The valid alternatives are:</p> <p>1 = Round-off</p> <p>2 = Round up</p> <p>3 = Round down.</p>
(CRJP01/E)	Invoice print type	<p>...the invoice document type for the output.</p> <p>The valid alternatives are:</p> <p>0 = Print (including lines)</p> <p>1 = Print (not including lines)</p> <p>2 = Do not print.</p>
(CRJP01/E)	Closing date	<p>...the closing date, which is the break date for monthly invoices.</p> <p>Enter 20, if the monthly invoice date for a customer is the 20th of every month.</p> <p>If the date is at the very end of month, enter 99 since a month's end date depends on the month.</p>
(CRJP01/E)	Shipment on closing date	<p>...whether to include the invoice for a shipment that is created on the closing date in the next invoice closing instead of the current invoice closing automatically.</p> <p>This is done as few customers can receive the goods on the next day, if the shipment is made on the date subject to the current closing.</p> <p>The valid alternatives are:</p> <p>0 = Include the current month</p> <p>1 = Exclude from the current month and carry over to the next month.</p>

Program ID/Panel	Field	The field indicates ...
(CRJP01/E)	Type of invoice output	<p>...the conditions for the monthly invoice document output.</p> <p>The valid alternatives are:</p> <p>0 = Do not generate document output if only the balance of last month and payment exists</p> <p>1 = Generate document output if only the balance of last month and payment received exists.</p> <p>Note: This field works only if the output has 'Print balance' set to 1 on (ARS191/E).</p>

Portugal-specific master data

The following functionality must be set up for divisions configured with country version PT on (MNS100/L). Once the functionality has been set up, the Portugal-specific master data is stored in the corresponding Portugal master tables.

Follow these steps

- 1 Start and include panel X (Country specific) in the sequence.
- 2 Search for the specific customer and use the option Change.
- 3 Navigate to 'Customer PT. Open' (CRPT03). Specify values in the required fields and click Next.
- 4 The options Change, Copy, Delete, and Display can be used on (CRS610/B). The Copy and Delete options handles both the customer master and Portugal-specific master data for the customer.

Validation of VAT registration number

Customers in status 20-'Definite' must have a VAT registration number. There is a validation that the VAT registration number is not being used for another customer if 'Chk dig mtd VAT' is set to '03' in (CRS045) for the country. No validation is done if the VAT registration number is '999999990', since that indicates that the customer is considered a final consumer.

Russia-specific master data

The following functionality must be set up for divisions configured with country version RU in (MNS100/L)..

Once the functionality has been set up, the Russia-specific master data is stored in the corresponding Russia master tables.

Follow these steps:

- 1 Start (CRS610) and include panel X (Country specific) in the sequence.
- 2 Search for the specific customer and use the option Change.
- 3 Navigate to 'Customer RU. Open' (CRRU02). Specify values in the required fields and click Next.
- 4 The options Change, Delete, and Display can be used. The Delete option deletes both the customer master and Russia-specific master data for customer.

Completing Customer Data

This document explains how you complete the customer data. The customer data includes information such as geographical, contact, financial, and commercial terms that help to control and regulate standards and base conditions for the customer.

Outcome

The customer data is completed in the Customer Master table.

The customer data is used:

- To support automation of customer order process from order entry to payment of invoices. The information is retrieved and verified during the various activities in the customer order process
- By all M3 Customer Relationship Management (CRM) applications, including Sales Management, Service & Rental, and Sales & Marketing.

The following tables are updated:

- Customer Master - OCUSMA
- Discount Percent Customer - FDISCU
- Trade Chain Structure - OCHSTR
- Customer to Trade-chain relations - OCHCUS
- Customer Address - OCUSAD
- Bank Master - CBANMA
- Bank Account File - CBANAC
- Connect Customer Charges - OCUSCH
- Customer Order Charges - ODCHRG
- Alias Numbers - MITPOP
- Item Master - MITMAS
- Customer Items - OCUSIT.

Before you start

A customer must be created. See [Enter Preliminary Customer](#) on page 91.

Follow these steps

1 Complete Customer Data (CRS610)

Complete the customer data in the customer master table in 'Customer . Open' (CRS610). Basic customer data such as Addresses, Customer Type, Status, Customer Group, Buying Patterns, Packaging Terms, Delivery Terms, Invoice Regulations, Payment Terms, etc., are defined in this activity.

2 Define Financial Related Data (CRS610)

Define the financial related data on the K and L panels of 'Customer . Open' (CRS610). Financial data such as payment instructions, customer-specific interest rate for draft payments, insurance details, and bank account details are defined in this activity.

Define the financial related data for a customer to support automation of Customer Order Processing.

3 Define Business Chain Relations (OIS038)

Define business chain relations in the business chain master file in 'Business Chain. Open' (OIS038). Business chain relations are used to connect customers to a hierarchical structure of customers.

Define business chain relations to simplify administrating agreements and conditions for customers who have a certain internal relationship, such as a parent company and its subsidiaries.

4 Define Customer Addresses (OIS002)

Define alternative customer addresses in the customer address file in 'Customer. Connect Addresses' (OIS002). Customer addresses such as delivery address, location address, invoice address, and payment address are defined and connected to a customer in this activity.

Define customer addresses when customer offices are located in various locations and each location involves different operations.

5 Define Bank Account for a Customer (CRS692)

Define bank account data for a customer in the bank account file in 'Bank Account. Open' (CRS692).

Define bank account information for a customer that contains detailed information about the account and the accounting string for posting transactions to this account.

6 Define Customer Charges (OIS003)

Define customer charges in the connect customer charges file in 'Customer Connect. Charge' (OIS003).

Define customer charges to retrieve charges of that customer automatically to the order header by selecting 'Check order charges' in 'co Type. Open' (OIS010/E).

7 Define Item Related Data for a Customer (OIS005)

Define the item related data for a customer in the customer connect item file in 'Customer. Connect Item' (OIS005).

Define the item related data such as item, alias number, and buying patterns to connect an item to the customer and to display the data during full-screen order entry (OIS101/Hx) by default.

8 Define B/C Related Data (CRS614)

Define the bonus or commission related data in 'Customer. Connect B/C Recipient' (CRS614).

Define bonus or commission receiver for each type of agreement in this activity. The bonus or commission data determines the conditions for calculating and processing bonus and commission for one or more recipients.

9 Define Service and Rental Related Data (CRS611)

Define the service and rental related data in 'Customer. Enter Service Order Info' (CRS611). Service and rental related data is defined to manage and follow up on serviced and rented equipment covered by an agreement.

Create Active Contact Plan

This document covers the creation and deletion of active contact plan records.

Introduction

An active contact plan helps with customer contacts when using contact planning. It simplifies contact planning by selecting only those contacts that are current. For example, the number of contacts can be filtered to a certain day or with a specific customer.

An active contact plan is created by selecting a set of contacts per customer number, contact plan, or date. This is done in 'Contact Plan. Create Active' (OIS057). The selection is then available for processing customer contacts in 'Contact Plan. Open Active' (OIS056).

This panel can be used to create or delete a range of active contact plans (from – to ranges) during the day or for specific customers. Records can be deleted from the active contact plan table OCUSAC up through a specified date.

Create active contact plan

The purpose of this procedure is to create records in active contact plans for the customers to be contacted.

After specifying the selection values in (OIS057), this program launches batch job OIS058CL that generates the active contact plans based on the information input in (OIS052), and (OIS054). Ensure that the customer contact information is created in (OIS054), else records will not be generated in the OCUSAC table.

Exclusions will also be checked. First, any exceptions to the contact plan is checked. For example, when a contact day to a customer is set for a different day of the week than the usual contact day identified in the contact plan. See Managing Contact Plan Exceptions. Second, check is for any non-activity period of customers. See Connect Non-Activity Period per Customer.

If the contact time is modified via status 11, 20, or 21 on the (OIS056/B) panel for the first active contact plan generated and you proceed with creating the active contact plans for the same selection, a new active contact plan with the original contact time is created. This results to two records on the (OIS056/B) panel, the first one is the active contact plan created with the new revised contact time and the second one is the active contact plan with the original contact time. Records with the same customer, contact date, contact time and contact plan combination will not be regenerated.

Delete active contact plan

You can delete active contact plan records up through (and including) a specified date from OCUSAC table by identifying a date in the 'Delete to' field. All records will be deleted regardless of any input in the selection fields. This also clears all entries that contain active contact plans.

If used together with a large selection, it is possible that all records in the OCUSAC table will be cleared and you will lose all the reported contacts. The non-reported contacts can be regenerated.

Create a Season

This document explains how you create a season identity.

Outcome

A new season identity has been created.

Follow These Steps

- 1 Start 'Season. Open' (CRS912/B).
Use panel sequence E.
- 2 Enter the name of the season to be created in the positioning field and select 'New'.
- 3 On the E panel, enter a description and a name of the season.
- 4 Enter the valid from and to dates of the season.
- 5 Set the status of the season.
 - 10 = Preliminary
 - 20 = Definite
 - 90 = Blocked/expired.
- 6 The 'First order date' and 'Last order date' fields can be filled in for purely informative purposes or may be left blank.
- 7 Press Enter to return to the B panel where you started.

Credit Limit at Grouped Customer Level

This document describes credit limit handling at a grouped customer level, defined as 'Credit groups' in 'Customer Credit Group. Connect' (CRS316). This enables you to set credit limits, and manage credit checking control, at a higher level than payer.

Credit checking control is performed for customer orders in 'Customer Order. Stop' (OIS120), and for maintenance orders in 'Maint CO. Stop' (COS120). During credit checking control, the outstanding balances in table CCUCRL (also displayed in 'Customer Credit Limit. Open' (CRS315)) are compared to the credit limits in table OCUSMA (displayed in 'Customer. Open' (CRS610)).

Credit checking control for customer orders, and maintenance orders, is made against the credit limits defined for the payer on (CRS610/J). It is however possible to do credit checking control on a higher level, if the payer is connected to a credit group in (CRS316).

Payers that are connected to a credit group, have a value in field 'Credit group' (PYGR) on (CRS610/J). For payers that are connected to a credit group, the credit limits are defined for the credit group on (CRS610/J).

Limitations

- The functionality implemented for credit groups in programs for customer orders and finance is only available for customers/payers that are connected to a credit group in (CRS316).
- The customer number defined for the credit group in (CRS610) must also be connected to the credit group in (CRS316).
- A customer/payer can only be connected to one credit group in (CRS316).

- The currency of the customers/payers that are connected to a credit group must be the same as the currency for the credit group.
- The functionality for credit groups cannot be used in combination with time fence functionality for credit limit 3 enabled on 'Settings – General Ledger' (CRS750/F). Therefore, a credit group cannot be defined in (CRS316) for a company for which the time fence functionality has been enabled for credit limit 3 in any division. Similarly, the time fence functionality for credit limit 3 cannot be enabled on (CRS750/F), if credit groups have been defined in (CRS316) for the company.
- Customer stop set for the credit group on (CRS610/J) does not block the entry of customer orders for the payers connected to the credit group.
- Change of payer in 'Acc Receivable. Display' (ARS200) does not update table CCUCRL automatically. The updates are manually initiated through F15='Rfre inv amt' on 'Customer Credit Limit. Open' (CRS315/E) for both the old payer and the new payer.

Outcome

- When a payer is connected to a credit group in (CRS316), tables OCUSMA (displayed in (CRS610)) and CCUCRL (displayed in (CRS315)) are updated with a value in field 'Credit group' (PYGR) for that payer. PYGR is updated with the customer number of the credit group. When a payer is disconnected from a credit group in (CRS316), the field 'Credit group' (PYGR) is cleared for that payer in tables OCUSMA and CCUCRL.
- Table CCUCRL holds information about outstanding balances for all payers, and is updated at order entry, invoicing, and entry of payments. For a payer that is connected to a credit group, table CCUCRL is also updated for the credit group, not only for the payer.
- During credit checking control, the outstanding balances in table CCUCRL are compared to the credit limits in table OCUSMA. For a payer that is connected to a credit group, the credit checking control is made against the credit limits defined for the credit group on (CRS610/J). For a payer that is not connected to any credit group, the credit checking control is made against the credit limits defined for the payer on (CRS610/J).
- In (CRS315), the individual credit limits and outstanding balances for all payers connected to a specific credit group can be displayed, using sorting order 2. The credit limits and outstanding balances for the entire credit group are also displayed in (CRS315).
- In (CRS316), the credit limits and outstanding balances for the credit group can be displayed on (CRS316/E). The information is displayed in three columns:

In the first column, the outstanding balances for the entire credit group are compared to the credit limits of the credit group.

In the second column, the outstanding balances for the selected payer are displayed, to illustrate how much this payer contributes to the total outstanding balances for the credit group.

In the third column, the outstanding balances for all other payers in the credit group are displayed.

- For a payer that is connected to a credit group, the field 'Credit group' (PYGR) is displayed with a value on the following panels:

'Acc Receivable. Display' (ARS200/B)

'AR Pmt Forecast/Age Distribut. Display' (ARS260/E)

'Maint CO. Stop' (COS120/E)

'Customer Credit Limit. Open' (CRS315/E)

'Customer. Open' (CRS610/J)

'Customer Order. Stop' (OIS120/E)

'Credit Monitoring. Display per Payer' (RMS421/B)

- For a payer that is connected to a credit group, credit limits, and outstanding balances, are retrieved from the credit group when displayed on the following panels:
 (OIS120/E)
 (COS120/E)
 (RMS421/B)
- For a payer that is connected to a credit group, credit limits are retrieved from the credit group when displayed on the following panels:
 (ARS200/B)
 (ARS260/E)

Before you start

To enable the display of the field 'Credit group' (PYGR) on (CRS610/J), each user must carry out the following steps (these settings are saved per user):

- 1 Open (CRS610) and display any customer by using option 5='Display'.
- 2 Select Enter until you reach (CRS610/J).
- 3 Select F13='Field Select' on (CRS610/J) to open 'Customer. Select Fields' (CRS609/JP).
- 4 On (CRS609/JP) select value 1-'Displayed' for field 'Credit group', or press F13='Open All' to display all fields on (CRS610/J).

To enable the display of additional sorting orders and columns in (CRS315), carry out the following steps:

- 1 Open 'List and Printer programs. Configure' (CMS005).
- 2 Enter 'CRS315' in the field 'Used prog' to position on 'CRS315' in the list of programs.
- 3 Use related option 25='Reset to standard' for program (CRS315).
- 4 Confirm the selected option by selecting OK on the confirmation message.

Note: This resets all personal settings to standard, meaning that all personalizations, additional fields on existing views, additional views, or changes to sorting orders, are removed for (CRS315).

Follow these steps to add a credit group

- 1 Define the credit group as a new customer number in (CRS610).
 Customer type should be set to 0-'Normal', or 2-'Payer' on (CRS610/E).
 The credit limits for the credit group are defined on (CRS610/J).
- 2 Define the credit group in (CRS316).
 Enter the customer number of the credit group in field 'Credit Group' and use option 1='Create'.
 Confirm the creation on (CRS316/E). The field 'Credit group' (PYGR) is automatically updated for the credit group on (CRS610/J).
- 3 Connect your selected payers to the credit group in (CRS316). Only payers defined to use the same currency as the credit group can be connected to the credit group in (CRS316).
 Use option 1='Create' for each combination of payer and credit group in (CRS316), and confirm each connection on (CRS316/E). The field 'Credit group' (PYGR) is automatically updated for each connected customer number on (CRS610/J).

- Use option 10='Drill Down' to display a list of all payers that are connected to the credit group in (CRS316).
- 4** Use related option 11='Credit Limit' in (CRS316) for the customer number defined for the credit group to open (CRS315).
- In (CRS315) use option 2='Change' for the customer number defined for the credit group.
- On (CRS315/E) use F15='Rfre inv amt' to calculate the outstanding balances for the credit group.
- 5** Change to sorting order 2 in (CRS315) to display the credit limits and outstanding balances for all payers connected to the credit group.
- Enter the customer number of the credit group in field 'Credit Group' to only list the payers that are connected to this credit group.
- Use option 5='Display' for the customer number defined for the credit group, to display the credit limits, and the outstanding balances for the entire credit group on (CRS315/E).
- Use option 5='Display' for any payer connected to the credit group, to display the individual credit limits, and outstanding balances for each payer on (CRS315/E). If needed, use F16='Switch Payer/Credit group' to toggle between displaying the credit limits and outstanding balances for the payer and for the credit group.
- 6** Exit (CRS315) to go back to (CRS316). In (CRS316), use option 5='Display' to display the credit limits and outstanding balances for the credit group on (CRS316/E). On (CRS316/E), three columns are displayed:
- In the first column, the outstanding balances for the entire credit group are compared to the credit limits of the credit group.
- In the second column, the outstanding balances for the selected payer are displayed, to illustrate how much this payer contributes to the total outstanding balances for the credit group.
- In the third column, the outstanding balances for all other payers in the credit group are displayed.

Follow these steps to delete a credit group, or delete the connection between a payer and a credit group

- 1** Open (CRS316) and delete the connection for one payer from the credit group. The value in field 'Credit group' (PYGR) is automatically deleted for the customer number on (CRS610/J).
- 2** If needed, when there are no connected payers left for the credit group, the credit group can be deleted from (CRS316). The value in field 'Credit group' (PYGR) is automatically deleted for the credit group on (CRS610/J).
- 3** Open (CRS315) to recalculate the outstanding balances for the credit group. In (CRS315) use option 2='Change' for the customer number defined for the credit group. On (CRS315/E), use F15='Rfre inv amt' to start the update.
- 4** If needed, the customer number used for the credit group can now be deleted from (CRS610), unless invoices have been issued for this customer number.

Available API transactions for (CRS316MI)

- AddPayerToCrGrp – Adds a payer to a credit group
- DltPayerFrCrGrp – Deletes a payer from a credit group
- LstPayersInCrGr – Lists all payers within a credit group

Solution Overview

A customer can be connected to a payer, by selecting a payer on (CRS610/J).

If a customer is connected to a payer, customer orders, and invoices in accounts receivable, are updated with different values for customer number (field CUNO) and payer number (field PYNO).

If a customer is not connected to a payer, it is assumed that they pay their own invoices, and then both fields (CUNO and PYNO) store the customer number.

Payers can be now connected to a credit group in (CRS316). Payers that are connected to a credit group, have a value in field 'Credit group' (PYGR) on (CRS610/J).

The use of a credit group does not affect accounts receivable, or customer orders, for the payers that are connected to the credit group.

Credit limits are defined for the payer on (CRS610/J). However, if the payer is connected to a credit group, the credit limits must be defined for the credit group on (CRS610/J) instead, as the credit checking control is then made against the credit limits for the credit group. If credit limits have been defined for the payers that are connected to the credit group, the credit limits for the individual payers are not considered during credit checking control.

The credit limits are defined in the currency that has been selected for the payer, or for the credit group, on (CRS610/J). The currency of the payers that are connected to a credit group must be the same as the currency for the credit group.

In comparison to the credit limits defined on (CRS610/J), and stored in table OCUSMA, for the payer, or for the credit group, current outstanding balances (in the currency of the payer, or the credit group) are stored in table CCUCRL.

The following table shows an example:

Credit Limit	Description	Field in OCUSMA	Field in CCUCRL
1	Amount for past due invoices	CRLM	ODIN
2	Amount for outstanding invoices	CRL2	OINA
3	Amount for outstanding invoices and outstanding orders	CRL3	OVNI
4	Number of days past due for the invoice with the oldest due date	ODUD	NOOD

The outstanding balances in table CCUCRL can be displayed in the following functions:

- 'Customer Credit Limit. Open' (CRS315)
- 'Customer Credit Group. Connect' (CRS316/E)
- 'Customer Order. Stop' (OIS120/E)
- 'Maint CO. Stop' (COS120/E)

The outstanding balances in table CCUCRL are updated through 'Fnc: Update customer with invoice amount from ledger' (CRS930) as follows:

- Continuously updated for customer invoices and payments that are processed through (GLS040).
- Updated for one single payer using F15 in (CRS315), (OIS120), or (COS120).

- Updated for one single payer when the due date is changed for a customer invoice, or when a customer invoice is blocked from reminders, in ‘Customer Invoice Change’ (ARS201).

If a payer is connected to a credit group, the outstanding balances in table CCUCRL are stored both for the individual payer and for the credit group.

The outstanding balances for the payers that are connected to the credit group are then accumulated to outstanding balances for the credit group.

If the outstanding balances are refreshed with F15 in (CRS315), (OIS120), or (COS120) for a payer that is connected to a credit group, the outstanding balances are updated in the table CCURCL for both the individual payer and the credit group.

Example

- Customers A, B, and C are connected to payer ABC that has been defined to use currency USD.
- Customers D, E, and F are connected to payer DEF that has been defined to use currency USD.
- Payers ABC and DEF are both connected to the same credit group ‘ALFABETA’ that has been defined to use currency USD, and for which credit limit 3 has been set to 10,000 USD.

The following table shows the corresponding outstanding balances for invoices and orders are listed for the connected customers and payers

Customer	Payer	Credit Limit 3	Outstanding balance for invoices and orders	With a new order for 400 USD	With a new order for 4,000 USD
A	ABC		100	500	4,100
B	ABC		200	200	200
C	ABC		300	300	300
	Total for ABC		600	1,000	4,600
D	DEF		1,000	1,000	1,000
E	DEF		2,000	2,000	2,000
F	DEF		3,000	3,000	3,000
	Total for DEF		6,000	6,000	6,000
	Total for ALFABETA	10,000	6,600	7,000	10,600

The outstanding balances for payers ABC and DEF, 600 USD and 6,000 USD, respectively, are stored for each payer individually in table CCUCRL.

And as the payers ABC and DEF are both connected to the credit group ‘ALFABETA’, their accumulated outstanding balance, 6,600 USD, is also stored for the credit group in table CCUCRL.

If a new customer order is entered for one of the customers connected to the credit group, for example customer A, with an order value of 400 USD, this order would be accepted, as the total outstanding balance

for invoices and orders for the credit group (6,600 + 400 USD) would still be within the value for credit limit 3 (10,000 USD) for the credit group 'ALFABETA'.

However, if the new order value is 4,000 USD for customer A, then this order would be stopped as the total outstanding balance (6,600 + 4,000 USD) would now exceed the credit limit 3 (10,000 USD) for the credit group 'ALFABETA'.

Customer Local Exceptions

Customer information such as contact information, financial information, insurance details, and delivery terms can be maintained as customer local exceptions in 'Customer. Open Local Exceptions' (MFS610). In (MFS610), customer master data are maintained per division. The program is accessed from 'Customer. Open' (CRS610) through related option 17='Local exception'.

Outcome

The customer local exception data is completed in the customer local exception table with, for example, contact information, financial information, insurance details, and delivery terms.

The table CCUDIV (Customer local exceptions) is updated.

Before you start

A customer must be created.

For more details, see [Complete Customer Data](#) on page 43.

Follow these steps

- 1 Start 'Customer. Open' (CRS610).
- 2 Select a customer and use related option 17='Local exception' to open 'Customer. Open Local Exceptions' (MFS610).
- 3 Select option 1='Create', specify the relevant customer local exception data, and click Next.

Field settings for customer local exceptions

The settings for the fields in (MFS610) are defined per division in 'Settings - Customer Local Exceptions' (CMS702). The settings in (CMS702) control if a customer master field is to be maintained through the customer local exception (MFS610) or the customer master (CRS610). These are the valid field settings:

- **0-'Not displayed'**
- **1-'Display not change'**
- **2-'Display & change'**

The field setting **0-'Not displayed'** or **1-'Display not change'** implies that the field is not to be maintained through the local exception for the given division. An update in (CRS610) is to be reflected in (MFS610) once (CRS610) is closed.

The field setting **2-'Display & change'** implies that the field is to be maintained through a customer local exception. When this setting is selected, the field is never to be automatically synced with the value specified in the customer master (CRS610).

Define Contact Information per Customer

This document defines the basic set up of contact information per customer.

Introduction

Contact information is entered for a customer who is connected to a contact plan. Contact information per customer defines the details to be used when contacting a customer, for example, contact person, contact numbers, and even the best time to contact the customer.

Contact information is used when customers are contacted based on an active contact plan. Customers can be connected to more than one contact plan to accommodate different departments, branches, etc. Therefore, the contact information entered for a customer in one contact plan is specific to that plan.

Contact information is entered in 'Contact Plan. Enter Contact Info/Cust' (OIS054).

Define contact time

Contact time is included in the key, together with the contact plan and customer number. This specifies the agreed time to contact the customer.

Contact time range:

- **Early Contact time:** This field indicates the earliest time of the day to contact the customer. It can be the same time or earlier, but it cannot be later than the specified contact time.
- **Late Contact time:** This field indicates the latest time of the day to contact the customer. It can be the same or later, but not earlier than the specified contact time.

Define contact details

Contact details state the contact person and contact numbers. Contact details are retrieved from the contact information setup of a customer from 'Customer. Open' (CRS610). You can override the data on the (OIS054/E) panel.

- **Contact Person:** Defines who to contact from the customer.
- **Telephone 1/2:** Defines ways to contact the customer.

Validity period

Validity period specifies range of dates when the contact information is valid. To generate the active contact plans in 'Contact Plan. Create Active' (OIS057), contact information per customer range must lie within the validity period specified in on contact plan (OIS052/E); otherwise, no active contact plans will be generated after running the batch job.

Define Contact Plan – Basic Information

This document defines the basic setup of a contact plan.

Introduction

Contact plan defines the contact and delivery day information for a certain customer. Contact plans are defined in 'Contact Plan. Open' (OIS052).

Define contact day number

Contact day number specifies the day of the week when the customer is to be contacted.

These alternatives are available:

- 0 = Any day
- 1 = Monday
- 2 = Tuesday
- 3 = Wednesday
- 4 = Thursday
- 5 = Friday
- 6 = Saturday
- 7 = Sunday

Define delivery day number

Delivery day number specifies the day of the week when the delivery will be executed after contacting the customer based in 'Contact Plan. Open Active' (OIS056). The valid alternatives are similar to contact day number.

Define validity period

Validity period specifies the beginning (From date) and ending (To date) of the contact plan. This value is used as reference when generating active contact plans through 'Contact Plan. Create Active' (OIS057). If the date range specified in 'Contact Plan. Create Active' (OIS057) is outside the contact plan validity period, no active contact plan will be generated.

Limitations

Multiple days of the week cannot be defined in a single contact plan, but it is possible to state all days of the week by selecting '0=Any day'.

Define General Settings for Customer Order Entry

This document explains how you define the general settings for normal customer order entry. These settings must be defined before you can enter a customer order in M3.

Outcome

You have a defined set of parameters that control the customer order entry.

The settings define the following:

- Whether to use order date or requested delivery date as a check date for agreements and the validity of delivery addresses
- Whether discounts on a customer order are to be accounted/coded separately
- Whether to log changes of confirmed delivery dates in a separate file, and whether the confirmed delivery date should replace the planned delivery date when calculating the service level days for order deliveries
- Whether ATP checks are to be carried out per order line for kits
- What net price calculation method is to be used
- In what order the customer's delivery address is to be displayed in (OIS102/B) during customer order entry
- Whether the business area is to be retrieved from the salesperson or the item when creating order entry statistics and sales statistics.

Note: Parameters in 'Settings – Customer Order Entry' (CRS720/E) are set at the company level and will affect all divisions within the company.

Information about the parameters is stored in the parameter file (CSYPAR).

Before you start

- A company must be defined in 'Company. Open' (MNS095).
- A division must be defined in 'Company. Connect Division' (MNS100).
- A user must be defined in 'User. Open' (MNS150).

Follow these steps

- 1 Start 'Settings – Customer Order Entry' (CRS720/E).
- 2 Specify which check date to use for the agreement check and for delivery addresses validity check.
- 3 Select the 'Separate accounting' check box if discounts on a customer order are to be accounted/coded separately.
- 4 Specify if and when changes to confirmed delivery dates are to be logged in a separate file.
- 5 Select the 'ATP kit lines' check box if you want the ATP check to be carried out per customer order line.
- 6 Select the net price calculation method to be used when calculating the net sales price.
- 7 Select the order in which the customer's delivery addresses are to be displayed in 'co Line. Connect Address' (OIS102/B) during customer order entry.
- 8 Specify from where the business area is to be retrieved when creating order entry and sales statistics.

- 9** Specify whether the confirmed delivery date should replace the planned delivery date when calculating the service level days for customer order deliveries. Press Enter to finish.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS720/E)	Check date	<p>... which date to use for agreement checks and customer's delivery addresses validity checks.</p> <p>The valid alternatives are:</p> <p>1 = Order date</p> <p>2 = Requested delivery date.</p>
(CRS720/E)	Separate accounting	<p>... whether discounts on a customer order should be accounted/coded separately.</p> <p>If discounts are not to be accounted separately, the amount will affect the account net price of the item line.</p>
(CRS720/E)	Log changes of confirmed delivery date	<p>... whether to log changes of confirmed delivery date for a customer order line in a separate file.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes, always</p> <p>2 = Yes, but only if the order confirmation document is printed.</p> <p>This information is used when sending information to the customer regarding changed delivery dates.</p> <p>If you select alternatives 1 or 2, this parameter can be used together with the 'Use confirmed delivery date' parameter when calculating the service level days for customer order deliveries.</p>
(CRS720/E)	ATP kit lines	<p>... whether an ATP check is carried out per line when entering customer order lines in (OIS101).</p> <p>The valid alternatives are:</p> <p>0 = No. Display a message for the first item included in the kit that has problems with ATP.</p> <p>1 = Yes. ATP should be checked line by line when the user confirms the structure in the (OIS101/H) panel.</p>

Program ID/Panel	Field	The field indicates ...
(CRS720/E)	Net price calculation method	<p>... how the net sales price for the U/M is calculated.</p> <p>The valid alternatives are:</p> <p>1 = Net amount/Quantity</p> <p>2 = Gross price – Discounts</p> <p>Net amount = Net price * Quantity.</p> <p>The purpose of this selection is to manage unit sales prices per customer order line when line discounts are used.</p> <p>The first method can generate differences between CO lines and order header, as rounded off unit sales price multiplied by quantity is not necessarily equal to net line amount. This method is the method used in previous versions of M3 BE.</p> <p>If line discounts entered as an amount are not related to ordered quantities, method 1 will be applied even if method 2 is selected.</p> <p>For more information, refer to Net Price Calculation Method on page 373.</p>
(CRS720/E)	Delivery address line 1–4	<p>... the order in which the customer's delivery address is displayed in (OIS102/B) during customer order entry.</p> <p>The valid alternatives are:</p> <p>0 = The line is not displayed.</p> <p>1 = The line is displayed in the first position.</p> <p>2 = The line is displayed in the second position or by pressing F11.</p> <p>3 = The line is displayed in the third position or by pressing F11.</p> <p>Note that only three lines can be displayed, and that you can only use one of these alternatives at the same time.</p>
(CRS720/E)	Business area in statistics	<p>... from where the business area is retrieved when order entry statistics and sales statistics are created.</p> <p>The valid alternatives are:</p> <p>0 = From salesperson</p> <p>1 = From item.</p>

Program ID/Panel	Field	The field indicates ...
(CRS720/E)	Use confirmed delivery date	<p>... whether the confirmed delivery date should replace the planned delivery date when calculating the service level days (UCDDF1) for customer order deliveries.</p> <p>The valid alternatives are:</p> <p>0 = No. Use planned delivery date.</p> <p>1 = Yes. Use the latest confirmed delivery date.</p> <p>2 = Yes. Use first confirmed delivery date.</p> <p>Alternative 1 will use the actual confirmed delivery date according to the customer order line (OOLINE).</p> <p>Alternative 2 will use the first confirmed delivery date calculated based on the log file for all changes (DORESC).</p> <p>This alternative will work in the same way as alternative 1 if no change of confirmed delivery date exists, or if changes are not logged.</p> <p>Logging of changes is controlled by the 'Log changes of confirmed delivery date' parameter in (CRS720).</p>

Define How Season and Delivery Windows Are Defaulted During Customer Order Entry

This document explains which settings have an impact on how the season and the delivery windows are defaulted during customer order entry.

Outcome

You know how to default the season and the delivery window into the customer order header and order line.

The process of entering a customer order becomes much faster by using default values. The user is supported by the system and minimizes the risk of making mistakes.

Note: 'Season' and 'Delivery window' fields are using the same fields in M3 as the 'Project number' and 'Project element' fields. Depending on the settings, the same fields may have different meanings. The field headings though, will always be project oriented.

Before you start

Program ID/Panel	Field	The field indicates...
Basic Settings		

Program ID/Panel	Field	The field indicates...
(MNS100/J)	Project management	<p>...whether the fields 'Project number' (PROJ) and 'Project element number' (ELNO) are validated in different functions outside project management. If the 'Project management' field is used, the validations and browsing are done according to projects entered in project management.</p> <p>The field also indicates whether it is possible to use season management in Customer Order Management. If the field is activated, the season management cannot be used.</p> <p>If the field is not activated, the 'Project number' and 'Project element number' fields can be used as the 'Season' and 'Delivery windows' fields in a customer order.</p>
(OIS010/F)	Season in use	...whether to use a season during customer order entry and how.

Default Settings (Customer Order Header)

(OIS014/E)	Project number	...how the season is defaulted in the customer order header when entering customer orders.
(OIS014/E)	Project element number	...how the delivery window is defaulted in the customer order header during customer order entry.

Default Settings (Customer Order Line)

(OIS014/K)	Project number	...how the season is defaulted for new customer order lines.
(OIS014/K)	Project element number	...how the delivery window is defaulted for new customer order lines.

Follow These Steps

Select one of the following alternatives:

- Define the Basic Settings
- Default Settings (Customer Order Header)
- Default Settings (Customer Order Line)

Define the Basic Settings

- 1 Start 'Company. Connect Division' (MNS100) and set the panel sequence to J.
- 2 On the J panel, enter the company and division you would like to work with.
- 3 Deactivate the 'Project management' field (parameter 311). Press Enter to save the settings.
- 4 Start 'CO Type. Open' (OIS010) and set the panel sequence to F.
- 5 On the F panel, enter the customer order type you would like to change.
- 6 Select the relevant 'Season in use' code. Press Enter to save the settings.
 - 1 = Season used, only items connected to the season on the order header are allowed

- 2 = Season used, all items allowed. Items not connected to the season on the order header are displayed with blue color in 'Full-screen Entry - Matrix. Open' (CRS207) OR 'Full-screen Entry - List. Open' (CRS208)
- 3 = Season used, all items allowed
- 4 = Season used, items connected to the season on the order header and items not controlled by any season are allowed
- 5 = Season used, items connected to the season on the order header and items not controlled by any season are allowed. Items not connected to any season are displayed with blue color in (CRS207) and (CRS208).

For alternatives 2-5 the season on the order header is assigned to the order lines for items that are not connected to any season or to the season on the order header.

Note: If the code is set to 0, you cannot use the season and delivery window functionality.

Default Settings (Customer Order Header)

- 1 Start 'CO Type. Update Field Selection' (OIS014) and set the panel sequence to E.
- 2 Select the customer order type you would like to change.
- 3 On the E panel, decide from where the season is supposed to be retrieved and enter it into the 'Project number' field.

The valid alternatives for a season are:

- *AGR = Retrieved from a customer blanket agreement
- XXX = Any season can be specified
- Field left blank = No number is defaulted.

Note that the season is a mandatory piece of information in the customer order header if you use the 'Project number' field for specifying the season.

- 4 Decide from where the 'Delivery window' field is supposed to be retrieved and enter it in the 'Project element' field. Press Enter to save the settings.

The valid alternatives are:

- *AGR = Retrieved from a customer blanket agreement
- XXX = Any delivery window can be specified
- Field left blank = No number is defaulted.

Default Settings (Customer Order Line)

- 1 Start 'CO Type. Update Field Selection' (OIS014) and set the panel sequence to K.
- 2 Enter the customer order type you would like to change.
- 3 On the K panel, decide from where the season is supposed to be retrieved and enter it in the 'Project number' field.

The valid alternative for a season is:

- *HEA = The season in the customer order header.

- 4 Define from where the 'Delivery window' field is supposed to be retrieved and enter it in the 'Project element' field. Press Enter to save the settings.

The valid alternatives are:

- *HEA = The delivery window in the customer order header
- *HEA = The delivery window in the customer order header

- *DEPR = The delivery window set in 'Season. Select Delivery Windows' (OIS226) for the specified season and objects. Note that the requested delivery date on the customer order line is changed to the default date listed in the deliver window.

Define How Routes Are Defaulted During Customer Order Entry

This document explains which settings have an impact on how routes are proposed during customer order entry.

Outcome

You know how to set up and how to propose route and route departures in the customer order header and order lines.

The process of entering a customer order becomes much faster by using default values. The user is supported by the system and minimizes the risk of making mistakes.

Before you start

Program ID/Panel	Field	The field indicates...
(OIS014/F)	Route	...if and how routes are proposed by default for new customer orders.
(OIS014/F)	Route departure	...if and how route departures are proposed by default for new customer orders.

Follow These Steps

- 1 Start 'CO Type. Update Field Selection' (OIS014) and set the panel sequence to F.
- 2 Enter the customer order type that you would like to change.
- 3 On the F panel, decide whether and how routes are to be proposed.

The valid alternatives are:

- *SYSH = Routes are automatically retrieved for the order header according to the requested delivery time. All order lines will receive this route by default.
- *SYSL = Routes are automatically retrieved for each order line according to the requested delivery time.
- *MSYSH = Routes are automatically retrieved for the order header according to the requested delivery time. All order lines receive this route by default. Route is mandatory to specify on the order header.
- *MSYSL = Routes are automatically retrieved for each order line according to the requested delivery time. Route is mandatory to specify on the order line.
- XXX = Any route can be used.
- Field left blank = No route is proposed.

- 4** Decide whether and how route departures are to be proposed. Press Enter to save the settings.
- The valid alternatives are:
- *SYS = Route departures are automatically retrieved according to selected route and requested delivery time.
 - XXX = Any route departure can be specified. This option is only valid if a specific route is entered in the route field.

Define How the First and Last Delivery Dates Are Defaulted During Customer Order Entry

This document explains which settings have an impact on how the first and last delivery dates are defaulted during customer order entry.

Before you start

Program ID/Panel	Field	The field indicates...
Default Settings (Customer Order Header)		
(OIS014/E)	First delivery date	...whether and how the default first delivery date is set for new customer orders.
(OIS014/E)	Last delivery date	...whether and how the default last delivery date is set for new customer orders.
Default Settings (Customer Order Line)		
(OIS014/K)	First delivery date	...whether and how the default first delivery date is set for new customer order lines.
(OIS014/K)	Last delivery date	...whether and how the default last delivery date is set for new customer order lines.

Follow these steps

Select one of the following alternatives:

- Default settings for customer order header
- Default settings for customer order line

Default Settings: Customer Order Header

- 1** Start 'CO Type. Update Field Selection' (OIS014) and set the panel sequence to E.
 - 2** Enter the customer order type that you would like to change.
 - 3** On the E panel, decide whether and from where the first delivery date is to be retrieved.
- The valid alternatives are:

- *DELW = Yes, retrieved from a delivery window
 - *RQDT = Yes, the requested delivery date on the order is used
 - XXX = Yes, calculated using the specified number of working days before the requested delivery date
 - Leave the field blank = No default is entered.
- 4** Decide whether and from where the last delivery date is to be retrieved. Press Enter to save the settings.
The valid alternatives are:
- *DELW = Yes, retrieved from a delivery window
 - *RQDT = Yes, the requested delivery date on the order is used
 - XXX = Yes, calculated using the specified number of working days after the requested delivery date
 - Leave the field blank = No default entered.

Default Settings: Customer Order Line

- 1** Start 'CO Type. Update Field Selection' (OIS014) and set the panel sequence to K.
- 2** Enter the customer order type that you would like to change.
- 3** On the K panel, decide whether and from where the first delivery date is to be retrieved.
The valid alternatives are:
- *DELW = Yes, retrieved from the delivery window
 - *RQDT = Yes, the requested delivery date on the order line is used
 - *HEA = Yes, retrieved from the order header
 - XXX = Yes, calculated using the specified number of working days before the requested delivery date
 - Leave field blank = No default entered.
- 4** Decide whether and from where the last delivery date is to be retrieved. Press Enter to save the settings.
The valid alternatives are:
- *DELW = Yes, retrieved from a delivery window
 - *RQDT = Yes, the requested delivery date on the order line is used
 - *HEA = Yes, retrieved from the order header
 - XXX = Yes, calculated using the specified number of working days after the requested delivery date
 - Leave field blank = No default entered.

Outcome

You know how to default the first and last delivery dates into the customer order header and order line.

The process of entering a customer order becomes much faster by using default values. The user is supported by the system and minimizes the risk of making mistakes.

Define settings for automatic rescheduling of linked customer orders

This document explains which settings you need to enable automatic rescheduling of a customer order when changes are made on the linked acquisition order (purchase order, manufacturing order, distribution order).

You can use this function when you want to send information about the changed customer orders to the customer order responsible or a salesperson. Application messages are sent by M3 but can also be sent by email or short message service (SMS).

Outcome

An application message type 401 (customer order rescheduled) is issued as well as an entry in the log file for rescheduled customer orders when a purchase order, distribution order or manufacturing order is rescheduled and the confirmed delivery date on a customer order is affected.

Based on the information given, the customer order responsible or the salesperson can take action and inform the customer about a delay, for example.

- The application message file CMAILB is updated and can be viewed from 'Application Message. Open' (CRS420).
- The log file for rescheduled customer order lines OORESC is updated.
- If you send a message as a sales and marketing activity, the file for transferring data to sales and market system OTRSMS is updated. The OTRSMS file is later replicated in the activity file in M3 Sales Force Automation (SMS).

Before you start

Set up application messages. See .

Follow these steps

Activate message formats for message type 401

- 1 Start 'Settings - Customer Order Entry' (CRS720/E).
- 2 On the E panel, select alternative 1=Always log changes in the 'Log changes of confirmed delivery date' field. Click Exit to finish.
- 3 Start 'CO Type. Open' (OIS010/B). Select an order type, select Open and go to the J panel.
- 4 On the J panel, select the 'Reschedule from when pre-allocation change' check box, and select one of the alternatives in the 'Update pre-allocation when quantity change' field. Click Exit to finish.
- 5 Start 'Settings - Application Messages' (CRS424/B). Select application message type 401=Customer order rescheduled, select Open to go to the E panel.
The application message type 401 is normally sent to the customer order responsible.
- 6 On the E panel, select the 'Activate application messages' check box. Click Exit to finish.

Activate messages to be sent to M3 SMS

- 1 Start 'Application Message. Open' (CRS420/B). Press F18=Authority to open 'Application Message. Connect Authority' (CRS422/B).
- 2 On the B panel, select alternative 3 in the 'Authority level' field, and specify a user and a valid from date. Select New to go to the E panel.
Alternative 3=A copy of all your mail is forwarded to the selected user.
Leave the 'User' field blank if it is to be a general authority.

- 3 On the E panel, specify a valid to date. Click Next to return to the B panel.
- 4 On the B panel, select the record you just created, select option 11=Message type to start 'Application Message. Mail Authorization' (CRS423/B).
- 5 Specify application message type 401, select New to go to the E panel.
- 6 On the E panel, select alternative 4=Yes, SMS active in the 'Send user message' field. Click Exit to finish. When user message type=4 is selected a sales force automation activity is created in the OTRSMS file and sent to the salesperson on the order line.

Parameters to set

You need to define the listed parameters to send messages and create event logs when the customer order is rescheduled automatically.

Program ID/Panel	Field	The field indicates ...
(CRS720/E)	Log changes of confirmed delivery date	... whether to log changes to the confirmed delivery date for a customer order line in a separate file.
(OIS010/J)	Reschedule from when pre-allocation change	... whether dates and/or quantities are to be automatically rescheduled on linked orders.
(OIS010/J)	Update pre-allocation when quantity change	... whether dates and/or quantities are to be automatically updated on linked orders.
(CRS424)	Activate application message type	... whether application message type 401 is active.
(CRS423/E)	Send user message	... a message's send status.

Define User-Specific Settings for Customer Order Entry

This document explains how you define your own settings for how order entries are to be processed.

Outcome

The settings that control how customer order entry is processed are defined.

The order entry settings control and facilitate customer order entry.

The parameter file (CSYSTR) is updated.

Before you start

The starting conditions listed in [Define General Settings for Customer Order Entry](#) on page 70 must be met.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100) and press F13=Settings to proceed to the P panel.
- 2 Decide whether the values specified during a new entry should be confirmed by pressing Enter before the record is created.
- 3 Select a panel sequence and a customer order type to be used during order entry.
- 4 Decide whether the order type is to be retrieved from the customer file or from the parameter panel.
- 5 Decide whether the panel sequence is to be retrieved from the order type or from the parameter panel.
- 6 Decide whether the requested delivery date is to be the same date as for the previous order.
- 7 Select the 'Cash desk active' parameter if you want 'Cash Payment. Open' (OIS215) to be started at the end of order entry.
- 8 Select the date format to be used and whether the customer's address or the payer's address is to be displayed in addition to the delivery address on the (OIS100/A) panel.
- 9 Select what fields in the field selection are to be displayed and whether the field contents can be changed during order entry. Press Enter to return to the A panel.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OIS100/P)	Confirm with Enter	<p>... whether the values specified during a new entry should be confirmed by pressing Enter before the record is created.</p> <p>This confirmation will be requested as long as values are added or changed in the panel during entry.</p>
(OIS100/P)	CO type	... an order type, which is a combined ID for settings that determine how the order is processed during order entry and in the processing flow.
(OIS100/P)	Override customer order type	... whether the order type is to be retrieved from the customer file or from the parameter panel. If this field is selected, the order type is retrieved from the parameter panel.
(OIS100/P)	Override order type panel sequence	... whether the normal panel sequence is to be retrieved from the order type or from the parameter panel. If this field is selected, the panel sequence is retrieved from the parameter panel.
(OIS100/P)	Proposed delivery date	<p>... whether the requested delivery date is to be the same date as for the previous order.</p> <p>This field is only valid when entering new customer orders.</p>
(OIS100/P)	Cash desk active	<p>... whether 'Cash Payment. Open' (OIS215) is to be started at the end of customer order entry if all other requirements are fulfilled.</p> <p>Even if the 'Cash desk active' parameter is selected, three other conditions must be met for (OIS215) to be started:</p>

Program ID/Panel	Field	The field indicates ...
(OIS100/P)	Date format	<p>... the date format to be used.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> YMD=YYMMDD (year, month, day) DMY=DDMMYY (day, month, year) MDY=MMDDYY (month, day, year) YWD=YYWWWD (year, week, weekday). <p>The format YWD cannot be specified in 'Company. Open' (MNS095) and 'User. Open' (MNS150).</p>
(OIS100/P)	Display address	... whether the customer's address (alternative 1) or the payer's address (alternative 2), in addition to the delivery address, is to be displayed on the A panel in (OIS100).

Defining General Settings for Customer Order Entry

This document explains how you define the basic settings for customer order entry. These settings must be defined before you can enter a customer order in M3. Customer order entry is also controlled by the parameters defined in the customer file and in the order type. These settings are not dealt with in this document.

Note: The settings for customer order entry can vary considerably from one company to another depending on the company's conditions, policies and company rules.

Before you start

- A facility must be defined in 'Facility. Open' (CRS008)
- A customer must be specified in 'Customer. Open' (CRS610)
- An order type must be defined in 'co Type. Open' (OIS010)
- A person responsible for order entry must be defined in 'User. Open' (MNS150).

Follow these steps

1 Define User-Specific Settings for Customer Order Entry

Before starting customer order entry, you have to define your own settings for how you want the order entry to be processed. These settings control and facilitate the order entry, and it is possible for you to adjust the settings to suit your work routines.

For the order header in (OIS100) you can specify, for example, what order type, panel sequence and date format to use and what customer address to display, etc. You can also decide whether a number of fields are to be displayed during order entry, and whether it will be possible to change the values in the fields.

For the order lines you can specify, for example, the check sequence to be used when searching for an item entered in (OIS101/B), whether or not you want a quick or detailed order line entry, what information is normally displayed on the total line in (OIS101/B), etc.

User-specific settings for order header and order line entry are entered on the P panels in 'Customer Order. Open' (OIS100) and 'Customer Order. Open Line' (OIS101) respectively.

2 Define Settings for Customer Order Entry

To be able to enter a customer order, you need a set of rules that determine how the order entry is to be processed. These rules control, for example, check dates for agreements and delivery addresses, whether discounts should be coded separately, what net price calculation method is to be used, etc.

You define the settings for customer order entry in 'Settings - Customer Order Entry' (CRS720).

3 Define Settings for Copying Customer Orders

To speed up customer order entry, you sometimes want to copy another customer order. Through the settings, you can decide whether to copy a credit order to a debit order. You can also decide whether to automatically copy the order header and the information in connection with it, such as order texts, order-specific addresses and order charges; or to copy the order lines and information in connection with them, such as order line charges, texts, cost price, sales price and confirmed delivery date.

You define settings for copying customer orders in 'Settings - Customer Order Copying' (CRS731/E).

4 Define Settings for Batch Orders

A customer order can be entered from many different sources. An order entry is normally entered manually, but it is also possible to enter an order from many other different sources, such as via EDI (Electronic Data Interchange), from standing customer orders, with quick order entry, or from delivery schedules and simulated customer orders.

You define the settings for batch orders in 'Settings - Batch Orders' (OIS278).

5 Define Settings for Acquisition Orders

There are different ways to provide the customer with an ordered item if you do not have the item in stock. You can, for example, buy the item from another supplier or manufacture the item. The acquisition settings control, for example, the status on line type 1 and line type 2, how to handle over-shipped items, and whether to update cost prices for acquired items when supplier invoice lines are approved.

You can define the settings for acquisition orders in 'Settings - Acquisition' (CRS723/E).

Outcome

The settings that will control how customer order entries are processed are defined.

The order entry settings control and facilitate the entry of customer orders.

The parameters defined in 'Settings - Customer Order Entry' (CRS720), 'Settings - Customer Order Copying' (CRS731) and 'Settings - Acquisition' (CRS723) are stored in the parameter file (CSYPAR). The parameters defined in 'Settings - Batch Orders' (OIS278) are stored in the file for order types for batch orders (OBTYPE).

Documents - Customer Order

This process is used to define how documents for a customer order are processed through the customer order flow and then printed.

To make the administration of the documents easier, standard documents are entered and then connected to document groups. These groups are connected to customers and customer order types.

To make the order's introductory and closing comments easy to use, standard documents are connected to different document classes.

After using this process, a set of documents needed to confirm, deliver and invoice the customer order are automatically connected to it. The set of documents can then be changed manually for each customer order.

Before you start

The process can be started when the following prerequisites are met:

- Customers are entered in the customer file.
- Customer order types are entered.

Follow these steps

The section below describes the activities in this process.

1 Enter Standard Document

All standard documents to be used in the customer order flow, such as invoices, packing notes and order confirmations, are entered in 'Document. Open Standard' (CRS027).

The document numbers for the standard documents are predefined. A variant of a standard document can be entered by specifying a document variant for the document number.

Basic information is entered for each standard document, such as whether the document is internal or external.

A standard document is connected to one or more document classes in order to make it easier to print comments for the order.

2 Enter Document Group

A document group is used to connect a set of standard documents to customers and customer order types. The documents included in a document group are automatically connected to a customer order during customer order entry. It is possible to change which documents are included for each customer order entered.

Document groups are entered in 'Document Group. Open' (CRS147). Customers are connected to document groups in 'Customer. Open' (CRS610/H). Customer order types are connected to document groups in 'co Type. Connect Documents' (OIS011). See the sections below for more information.

3 Connect Customer to Document Group

Customers are connected to document groups in 'Customer. Open' (CRS610/H). By doing this, the customer gains access to the documents included in the document group. A customer can only be connected to one document group.

During customer order entry, other documents that are not part of the customer's document group can be manually connected to the order. This is done in 'Customer Order. Connect Documents' (OIS104).

In (OIS104) it is also possible to specify a printer id or email address, or both, per document, to be used for the document printout for that customer order. The values entered on the document will override the media control setup of the document in 'Doc Media Control Object. Connect Media' (CRS949). This functionality is not implemented for all documents. The supported documents are the order confirmation

(231), the quotation document (310), the preliminary invoice (350), the payment document (360) and the invoice (380) for customer orders.

4 Connect Customer Order Type to Document Group

An unlimited number of documents and document groups can be connected to a customer order type in 'CO Type. Connect Documents' (OIS011).

To automatically connect documents to a customer order, they must be included in a document group that is connected to the customer order type and to the customer.

5 Enter Document Class

Document classes are used to administrate printouts of comments on the customer order document. These comments are entered when entering customer orders or order lines.

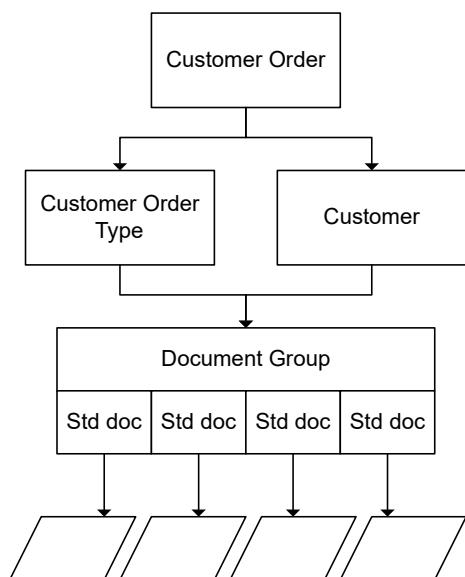
When comments are printed, it is possible to choose the document class(es) for which the comments are printed. The comments are printed on the standard documents included in the selected document class.

Document classes are created by entering headings in 'Document Class. Open' (CRS106). Standard documents are then connected to document classes in 'Document. Open Standard' (CRS027). Five document classes can be entered. One document can be connected to one or more document classes.

Outcome

The result of the process is that a set of documents will always be assigned to the customer order which is entered for a selected combination of customer and customer order type. The documents that are printed for a customer order can be changed manually for each customer order.

The picture below shows how standard documents are assigned to a customer order.



Document Group

A document group is an identity used to connect a set of customer order documents to each combination of customer and customer order types. Customers are connected to a document group in 'Customer. Open' (CRS610).

The documents in a document group are connected to a customer order by the customer order type used during customer order entry. See 'CO Type. Connect Documents' (OIS011).

Assume a company has two document groups, one for domestic customers, USA, and one for foreign customers, EXP.

The company has a customer order type with identity NOR = Normal stock order. The information shown in the table should be specified for this customer order type:

Document group	Document	Description
USA	231	Order confirmation
USA	380	Invoice
EXP	231	Order confirmation
EXP	270	Packing list
EXP	325	Pro forma invoice
EXP	380	Invoice

Enter Assortment per Customer

The purpose of this procedure is to connect a customer to an assortment. A customer connected in this way can purchase items included in the assortment.

Before you start

- Customers must be specified in program 'Customer. Open' (CRS610).
- One or more assortments must be defined in program 'Assortment. Open' (CRS105).
- To activate the assortment check, the assortment check must be set for both the purchasing customer and item purchased. A check is made to ensure that the ordered item is included in an assortment that is connected to the customer. The check is made when specifying customer order lines.

Follow these steps

- Start 'Customer. Connect Assortment' (OIS071).
- Specify the customer number, assortment, and from date (from when customers have access to the assortment). Select 'New' to proceed to the E panel.
- On the E panel, specify the last date the customer has access to the assortment.

-
- 4 To end, press Enter.

Enter Assortment per Item

The purpose of this procedure is to define the items included in an assortment.

Before you start

- Customers must be specified in 'Customer. Open' (CRS610).
- One or more assortments must be defined in 'Assortment. Open' (CRS105).
- In order for the assortment check to work, the assortment check must be set for both the purchasing customer and item purchased. A check is made to ensure that the ordered item is included in an assortment that is connected to the customer. The check occurs during customer order line entry.

Follow these steps

- 1 Start 'Assortment. Connect Items' (OIS072).
- 2 Specify the assortment, item number, and from date (when the item is first included), select 'New' and the E panel is displayed.
- 3 Specify the last date the item is included in the assortment and a sequence number.
- 4 To end, press Enter.

Enter Business Chain

This procedure is used to enter a customer representing one level in a business chain.

Business chains are used to connect customers to a hierarchical structure of customers. This simplifies administrating agreements and conditions for customers who have a certain internal relationship, such as a parent company and its subsidiaries.

Before you start

- Customers representing the different levels in the business chain must be specified in 'Customer. Open' (CRS610).
- To use the business chain, the business chain check must be activated in the customer order type in 'co Type. Open' (OIS010/E). Terms and conditions can then be retrieved for a customer from another customer on a higher level in the chain.

Follow these steps

- 1 Start 'Business Chain. Open' (OIS038). Specify panel sequence E. To enter an umbrella organization (the highest level in the chain), go to step 2. To enter a lower level in the chain, go to step 4.
- 2 Specify the customer number representing the umbrella organization, select 'Open' to proceed to the E panel.
- 3 Specify information in the E panel. Leave the 'Superior chain field' blank for the umbrella organization. Press Enter and you will return to the B panel.
- 4 Specify the customer number representing level two in the chain, select 'Open' to proceed to the E panel.
- 5 Specify the name of the umbrella organization in the 'Superior chain' field and the other information. Press Enter to return to the B panel.
- 6 Repeat steps 4 and 5 to enter more levels in the chain. Enter the customer number which represents a higher level in the chain in the 'Superior chain' field.
- 7 To end, press F3.

After completing this procedure, customers can be connected to the different levels you have created.

Enter Buying Pattern per Customer

The purpose of this procedure is to activate a buying pattern for a customer.

A customer is connected to a buying pattern for a specific period after using this procedure. Demand statistics are updated for the customer during the validity period.

Before you start

A buying pattern must be specified in 'Buying Pattern. Update per Cust/Item' (OIS163).

Follow these steps

- 1 Start 'Customer. Connect Buying Pattern' (OIS161/B).
- 2 Specify the customer number and the from date from which the pattern is activated for the customer. Select 'New' to proceed to the E panel.
- 3 On the E panel, specify the buying pattern to which the customer will be connected and the last date that the pattern is updated for the customer.
- 4 To end, press F3.

Enter Customer in Business Chain

This procedure is used to enter a customer in a business chain. A customer can be entered on one or more levels in the chain.

Description

Business chains are used to connect customers to a hierarchical structure of customers. This simplifies administrating agreements and conditions for customers who have a certain internal relationship, such as a parent company and its subsidiaries.

Before you start

Business chain check must be activated in the customer order type 'CO Type. Open' (OIS010/E). Terms and conditions can then be retrieved for a customer from another customer on a higher level in the chain.

Follow these steps

- 1 Start 'Business Chain. Connect Customer' (OIS039/B).
- 2 Specify the superior business chain, the customer number and the valid from date. Select 'New' and you will proceed to the E panel.
- 3 Specify the information in the E panel, including the Valid to field. The other fields are used for informational purposes only. Press Enter and you will return to the B panel.
- 4 To specify more customers for the selected chain level, repeat steps 3-4. To specify customers on another level, repeat steps 2-4.
- 5 To end, press F3.

Outcome

At the end of this procedure, the customers on the chain's lower levels will be covered by the agreement and other terms and conditions of the chain's higher levels. The 'Included in chain' field in 'Customer. Open' (CRS610/F) will be updated.

Enter Customer/Item Agreement and Reasonability Table

This document explains how to enter a customer agreement for one item, a so-called customer/item agreement. It also explains how to enter a reasonability table in order to perform a reasonability check against the average of the customer's purchases.

Outcome

You have created an agreement by connecting a customer with an item and a record of this is created in a file. If you have opted to perform a reasonability check, the necessary values and limitations are created.

By connecting a customer with an item you have created a customer-unique item identity with a description, which can be used during order entry. It is also printed on the external documents. The reasonability check is carried out according to the information provided here.

The following files are updated:

- OCUSIT – Customer Item File
- OICHLK – Reasonability Table Lines

Before you start

- A customer must be registered in 'Customer. Open' (CRS610).
- An item must be registered in 'Item. Open' (MMS001).
- The 'Reasonability Check' field must be activated in 'co Type. Open' (OIS010/H).

Follow these steps

Enter Customer/Item Agreement

- 1 Start 'Customer. Connect Item' (OIS005/B1).
- 2 Specify the customer number and the item number. Select 'New' to proceed to the E panel.
- 3 On the E panel, specify the customer's item number and the name of the item.
- 4 Select a reasonability check method. Press Enter to proceed to the F panel.
 - If you select alternative 1=Check against specified limits, enter the limit values in the fields 'Minimum quantity' and 'Maximum quantity'.
 - If you select alternative 2=Check against customer's average, you must carry out steps in **Enter Reasonability Table**.
 - If you select alternative 3=Check against general average, you must have activated the field 'Update buying pattern' for the item in 'Item. Open' (MMS001/H).
- 5 On the F panel, specify further customer and/or item specific information. This information can be printed on external documents. Press Enter and you will return to the B panel.

Enter Reasonability Table

- 1 On the B panel in (OIS005), select a combination of customer and connected item. Then select alternative 11=Reasonability table. 'Customer Item. Connect Reasonability Tab' (OIS220) will then be displayed.
- 2 In the left-hand 'From Quantity' column, specify the limit values to apply for the reasonability check that will be carried out against the buying pattern.
- 3 In the right-hand 'Deviation' column, specify the accepted percentage variance. Select Exit.

Enter Preliminary Customer

This document explains how you enter a preliminary customer with basic customer data. The basic customer data includes geographical information, contact information, commercial terms such as packaging terms, delivery terms, pricing, and discounts.

Outcome

A preliminary customer is entered with geographical, contact, and commercial information.

The Customer Master - OCUSMA table is updated:

Follow These Steps

- 1** Start 'Customer. Open' (CRS610/B).

The system uses a forced panel sequence when you create a customer. The forced panel sequence guides you through all the necessary panels in order to create a customer, even if any panel is omitted in the sequence set in 'Customer. Open' (CRS610/P). Panels that are part of the forced panel sequence vary depending on the components that are installed in 'Company. Connect Division' (MNS100).

- 2** Enter the customer number and the customer type, and select Create.

The customers can be created only when the sorting order is set to 1. You can create a new customer or copy an existing customer.

- 3** Set the status to 10 (Preliminary) on the E panel.

See the Parameters to Set section for information on various statuses.

The customer status on the E panel must be set to 20 (Definite) for a preliminary customer to be activated.

- 4** Enter the relevant customer data on the E, F, G, and H panels.

See the Parameters to Set section for a detailed description.

Parameters to Set

Program ID/Panel	Field	The field indicates ...
(CRS610/B)	Customer number	<p>...the unique identification of a customer. It can contain up to ten positions and is alphanumeric.</p> <p>For temporary customers (customer type 9), the customer number must be within a defined range where only customers with customer type 9 can be entered.</p> <p>M3 automatically proposes the next available customer number during customer entry. If a number series is specified, the next available number in the number series is proposed. This function can be activated or deactivated in panel P.</p> <p>Example: To indicate that the new customer number should contain seven digits and be proposed from series 5000xxx, enter 5000??? in the customer number field and then press Enter.</p> <p>The next available customer number from the specified series is then proposed automatically. This number can be changed if necessary.</p>
(CRS610/B)	Customer type	<p>...the type of customer.</p> <p>The valid alternatives are:</p> <p>0 = Normal customer. Can also be the payer or bonus/commission recipient.</p> <p>1 = Bonus/commission recipient only, not the orderer.</p> <p>2 = Payer only, not the orderer. Can also be the bonus/commission recipient.</p> <p>7 = Internal customer. Accounts receivable is not updated during invoicing.</p> <p>8 = Temporary customer created during order entry of a temporary customer group (see customer type 9). This customer type cannot be specified when entering a new customer in the customer file.</p> <p>9 = Temporary customer group. For each customer order entered, a new record is automatically created in the customer file. The first positions of the record correspond to this group number.</p>
(CRS610/E)	Status	<p>...the status of the customer.</p> <p>The valid alternatives are:</p> <p>10 = Preliminary</p> <p>20 = Definite</p> <p>90 = Blocked/expired.</p> <p>Besides these alternatives, the following alternatives can also be used when importing from M3 Sales and Marketing:</p> <p>11 = Temporary customer number, assigned when errors detected during automatic numbering. This status is raised to 12 when a new customer number is entered.</p> <p>12 = Incorrect values for customer number. This status is raised to 20 when the errors are corrected.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/E)	City	...the city in an address. The information is mandatory when address formatting is used, and when a city is an address element used in 'Address Formatting Rule. Open' (CRS117). Address formatting rules are defined for each country in 'Country. Open' (CRS045).
(CRS610/E)	Language	...the language that should be used on external documents when corresponding with customers and suppliers.
(CRS610/E)	Postal code	...a postal code for a specific address. The postal code is an address element that can be part of an address line if address formatting rules in 'Address Formatting Rule. Open' (CRS117) are used.
(CRS610/F)	Salesperson	...the person responsible for sales to a customer. The salesperson can be used as a statistical category in order entry and for sales statistics. During customer order entry in 'Customer Order. Open' (OIS100), the salesperson from the customer file is defaulted but can be changed.
(CRS610/F)	Customer group	...the customer group to which the customer belongs. Customers are connected to customer groups in 'Customer Group. Open' (CRS145). The customer groups can then be used as selection and sorting criteria. For example when generating statistics on order entry and sales.
(CRS610/F)	Customer order type	...a default order type during customer order entry.
(CRS610/G)	Packaging terms	...terms that can be applied when goods are packed. Packaging terms are printed on the picking list to inform the packing personnel about the packing requirements. Packaging terms can be entered for each customer in the customer file. The terms are displayed by default when entering order but can be changed.
(CRS610/G)	Warehouse	...the physical location from which delivery of customer orders can be made. For each customer, the warehouse used for deliveries is entered in this field. If the customer is internal (customer type 7), the warehouse represented by the customer is entered, that is, the warehouse receiving the delivery. Warehouse defined in the customer file is displayed by default upon an order entry, but can be changed if the customer is not type 7.

Program ID/Panel	Field	The field indicates ...
(CRS610/G)	Delivery terms	<p>...whether the responsibility of the transport is transferred from supplier to customer. Responsibility can, for example, refer to payment, insurance terms of the supplier.</p> <p>Delivery terms are used at customer entry to be able to display the entered delivery terms at order entry.</p> <p>For freight documents created from the transportation planning routines, delivery terms are retrieved from the selected route and managed by the shipment regardless of the value in this field.</p>
(CRS610/G)	Delivery method	<p>...methods that are normally used when deliveries are made to the customer.</p> <p>This information is displayed by default when entering customer orders and when entering a delivery address for a customer.</p>
(CRS610/G)	Address no	<p>...the delivery address to be proposed by default when new customer orders are entered.</p> <p>If this field is left blank and no address is specified on the customer order, the customer's mailing address will be used as the delivery address for the order.</p> <p>The address number is for all address types. For example, the number 100 can be both the delivery address and invoicing address.</p>
(CRS610/G)	Facility	<p>...the company unit that usually has contact with the customer. In this case, the unit is used as search criteria to find the customer.</p>
(CRS610/G)	Display valid delivery addresses	<p>...whether or not delivery addresses are displayed during order entry.</p> <p>The addresses will be displayed provided the customer order type allows it; that is, the 'Display delivery address' field is activated in 'CO Type. Open' (OIS010/E).</p> <p>The valid alternatives are:</p> <p>0 = No display.</p> <p>1 = Display, provided that at least one address with address type 01 exists.</p> <p>2 = Display, provided that more than one address with address type 01 exist.</p> <p>3 = Display, provided that at least one address with address type 01 exists. Selection is mandatory.</p> <p>If the customer order type category is 1 (normal order) or 4 (quotation), only valid delivery addresses will be displayed. For other CO type categories, valid as well as invalid delivery addresses will be displayed.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/G)	Place	<p>...the ID of a geographic location or a place, such as a city, town, or airport.</p> <p>These IDs are used in the route management to define the following:</p> <ul style="list-style-type: none"> - Valid loading points to be assigned to supplying warehouses - Valid unloading points to be assigned to consignees, that is, customers, warehouses, suppliers and subcontractors. <p>In addition to the loading and unloading parameters given above, the following must be defined in order to establish a route network and to assign consignees:</p> <ul style="list-style-type: none"> - Routes with valid loading and starting points and eventually predefined unloading points, depending on the route type (see separate field help in 'Route. Open' (DRS005)).
(CRS610/G)	Unloading zone	<p>...the place of unloading that is divided into several zones. Each zone can be linked to one or more delivery addresses. As a result, you can determine the sequence in which the packages are loaded on the transportation equipment.</p> <p>Postal codes can be used as an alternative to using unloading zones. Enter your alternative in 'Route. Connect Unloading Places' (DRS021).</p>
(CRS610/G)	Labor code-trade statistics (TST)	<p>...the code that is used to distinguish between different types of transactions that are reported in the trade statistics. The code entered here is optional.</p> <p>For exports, you enter the labor code for each customer order type. It can then be changed for an individual customer order or order line. For imports, you enter the code in ((PPS095), parameter 400). It then acts as a default value in each purchase order line.</p>
(CRS610/G)	Attribute pricing rule	<p>...rules that should be used when calculating attribute-based prices or charges.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Expected attribute values are used as base 2 = Actual attribute values are used as base. <p>An alternative entered on the supplier master is used as a default on the purchase order line.</p> <p>For customer orders, an alternative entered on the customer master can be used to set the value on the customer order line. The function Field selection for customer order type in 'co Type. Update Field Selection' (OIS014) controls the origin of values for a customer order.</p> <p>For alternative 2, the reported attribute values for the stock entries/dispatch made for a purchase line/customer order line are used. These are obtained through the transaction history.</p>
(CRS610/G)	Price list table	<p>...a joint ID for the sales prices of several items. Price list tables enable you to process several sales price lists for customer orders for each item.</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/G)	Discount group- customer	<p>...the customer discount group.</p> <p>Customer discount groups are entered for each customer in 'Customer. Open' (CRS610) and can be used as a control object for calculating customer order line discounts.</p>
(CRS610/H)	Bonus group	<p>...the bonus group that is used to connect a customer to a bonus or commission group. This group is used as a selection key in the routines for bonus and provision, sales statistics, and so on.</p>
(CRS610/H)	Invoicing group	<p>...the invoicing group that is used to group different customer order types.</p> <p>When you request invoicing in 'CO Invoice. Print' (OIS180), the invoicing group can be selected. Only order types within the selected invoicing group will be invoiced.</p> <p>You can then select which order types should be invoiced. The invoicing group can also be specified for each customer. If the customer's invoicing group is different from the order type's invoicing group, the value set for the customer is used.</p>
(CRS610/H)	Commission group	<p>...the commission group used to connect a customer to a bonus or commission group. This group is used as a selection key in the routines for bonus and provision, sales statistics, and so on.</p>
(CRS610/H)	Customer document group	<p>...a group of customers to which the same customer documents should be sent. In addition to the customer document group, the order type determines which documents will be sent.</p> <p>Customer document groups are entered for each customer in the customer file. The customer document groups entered in 'Customer. Open' (CRS610) must first be entered in the system.</p> <p>More document numbers can be connected to a customer order in 'Customer Order. Connect Documents' (OIS104).</p>

Program ID/Panel	Field	The field indicates ...
(CRS610/H)	Price printout	<p>...how prices and discounts should be printed on confirmation and invoice documents.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Complete line specification, quantity, price, line discount, line net and order total are printed. 2 = Only quantities and order totals are printed. Price, line discount and line net are not printed for goods lines. 3 = Order total and line specification with quantity and line net are printed. 4 = Order total and line specification with only line net are printed. 5 = Complete line specification, quantity, price, line discount or net price (see note 1), line net, and order total are printed. <p>Note: The following concerns only the customer order confirmation, the customer quotation, the pro forma invoice and the invoice: 'Price printout' 5 depends on the net price method in 'Settings- Customer Order Entry' (CRS720). If the net price method is set to 1, then the line discount is printed (the printout will be as for price printout 1). If the net price method is set to 2, then the net price is printed.</p>
(CRS610/H)	Statistics Identity 1 / 2 customer	<p>...a user-defined customer statistics accumulator.</p> <p>Statistics field 1 is validated against the table in 'Customer Statistics identify 1. Open' (CRS192) and Statistics field 2 is validated against the table in 'Customer Statistics identify 1. Open' (CRS197).</p> <p>Statistics field 1 can be changed for every customer order, but not statistics field 2.</p> <p>The headings for these fields are defined in 'Settings- User-Defined Stats Fields' (CRS715).</p>
(CRS610/H)	Accounting control object	<p>...a user-defined field, but is most often used to control account entries and is therefore an accounting object that can be verified and changed in 'Control Object. Open User-defined' (CRS335).</p>

Define Bank Account for a Customer

This document explains how you define bank account information for a customer.

Each bank account record contains detailed information about the account and the accounting string for posting transactions to this account. When applicable, conditions for remitting drafts to this account are also defined.

Outcome

The bank account information is defined for a customer.

Bank account information is used:

- To control which bank accounts to use for managing customer payments
- In Accounts receivable (company's bank accounts, customer's bank accounts)
- In the general ledger (company's bank accounts, customer's bank accounts).

The following tables are updated:

- Customer Master - OCUSMA
- Bank Master - CBANMA
- Bank Account - CBANAC.

Before you start

- A customer must be created in 'Customer. Open' (CRS610). See [Enter Preliminary Customer](#) on page 91 for more detailed descriptions.
- Languages must be defined in 'Language. Open' (CRS010)
- Currencies must be defined in 'Currency. Open' (CRS055)
- If you wish to specify a banking region to further identify the bank and you do not group the bank by area or state, such a region must be defined in 'Banking Region. Open' (CRS843)
- A set of up to five user-defined fields must be defined in 'Bank Account Indicator. Open' (CRS072).

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer for which the bank account information needs to be defined.
- 3 Select option 16 = Bank/Customer to start 'Bank Account. Open' (CRS692/B).
- 4 Enter 'Bank account type', 'Bank Account Identity', select 'Account holder' and 'Address number' and create the bank account.
Note: The Bank account type must be set to 02 = Customer bank accounts to define customer-specific bank information.
- 5 Specify the relevant bank account data on the E and F panels. For detailed descriptions on the parameters to set, see .
- 6 Press F3 to return to 'Customer. Open' (CRS610/B).

Define Customer Addresses

This document explains how you define alternative customer addresses. You can define alternative customer addresses such as delivery address, location address, invoice address, and payment address.

You define customer addresses when customer offices are located in various locations and each location involves different operations.

Outcome

Customer addresses that represent various locations are defined.

Customer addresses are used for the following purposes:

- Classify alternative addresses for a customer
 - Retrieve the address information automatically to the order header.
- Note that the address number parameter in OIS014/F must be set to *CUS.

The following tables are updated:

- Customer Master - OCUSMA
- Customer Address - OCUSAD.

Before you start

A customer must be created in 'Customer. Open' (CRS610). See [Enter Preliminary Customer](#) on page 91 for a more detailed description.

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer for whom you want to define the addresses.
- 3 Select option 11 = Addresses to start 'Customer. Connect Addresses' (OIS002/B).
- 4 Specify the address type and address number, and then select Create.
- 5 Specify the relevant item data on the E and F panels. See the Parameters to Set section for more details.
- 6 Press F3 to return to 'Customer. Open' (CRS610/B).

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OIS002/B)	Address type	<p>...the type of address. The valid alternatives are:</p> <p>01 = Delivery address (Customer Order Processing) 02 = Location address (Service Order Processing) 03 = Invoice address (Customer Order Processing) 04 = Payment address 05-50 = Reserved for future use 51-99 = Reserved for modifications.</p>

Program ID/Panel	Field	The field indicates ...
(OIS002/B)	Address number	<p>...the address number, which is used to identify a record in the address file.</p> <p>The address can contain up to six alphanumeric characters.</p>
(OIS002/E)	Valid from	<p>...the first valid date.</p> <p>If no validity date is set for a delivery address, the address is considered valid.</p>
(OIS002/E)	Valid to	<p>...the last valid date of the record. If the field is left blank, the record is valid until a date is entered.</p>
(OIS002/E)	Calendar version	<p>...the delivery schedule calendar version.</p> <p>The goods receipt days and delivery days are determined by the calendar version function. Calendar versions can be entered for each customer address ID.</p> <p>Calendar versions are updated in 'Delivery Schedule Calendar. Open' (CRS907).</p>
(OIS002/E)	Unloading zone	<p>...the unloading zone, which is used to divide a place of unloading into several different zones. Each zone can be linked to one or more delivery addresses. As a result, you can determine the sequence in which the packages are loaded on the transportation equipment.</p> <p>Postal codes can be used as an alternative to using unloading zones. Enter your alternative in 'Route. Connect Unloading Places' (DRS021).</p>
(OIS002/E)	City	<p>...the city in an address. The information is mandatory when address formatting is used, and when a city is an address element used in 'Address Formatting Rule. Open' (CRS117). Address formatting rules are defined for each country in 'Country. Open' (CRS045).</p>
(OIS002/E)	Place of unload	<p>...the ID of a geographical location or a place, such as a city, town, or airport.</p> <p>These IDs are used in the route management to define the following:</p> <ul style="list-style-type: none"> - Valid loading points, to be assigned to supplying warehouses - Valid unloading points, to be assigned to consignees, that is, customers, warehouses, suppliers, and subcontractors. <p>In addition to the loading and unloading parameters given above, the following must be defined in order to establish a route network and to assign consignees:</p> <ul style="list-style-type: none"> - Routes, with valid loading and starting points and eventually predefined unloading points, depending on the route type (see separate field help in 'Route. Open' (DRS005)). - Route preselections, where consignees are assigned to relevant route options in 'Route Selection Table. Open' (DRS011).

Program ID/Panel	Field	The field indicates ...
(OIS002/E)	Postal code	<p>...a postal code for a specific address.</p> <p>The postal code is an address element that can be part of an address line if address formatting rules in 'Address Formatting Rule. Open' (CRS117) are used.</p>
(OIS002/E)	Delivery pattern	<p>...the delivery pattern. The pattern represents how deliveries are made. This field is used only by Repetitive Scheduling (RSS).</p> <p>The pattern is divided into two parts. The first part specifies the pattern up to the first four weeks. The second part specifies the pattern from week five onwards.</p> <p>A delivery pattern can be defined so that it rotates within the first or second part.</p>
(OIS002/E)	Supply model	<p>...rules for how to find alternate ways to supply a specific demand. Several supply models can be valid for a specific item. For example, the models for customer order entry and the MRP run can differ.</p>
(OIS002/E)	Backorder	<p>...whether the backorder is approved when the supply model is executed. If the backorder is not approved, only the quantity available at requested delivery date will be proposed.</p> <p>This information can be entered for each:</p> <p>* Supply model line (MMS059/F) * Customer (CRS610/G) * customer. Local exceptions (MFS610/F) * Customer. Connect addresses (OIS002/F)</p> <p>The lowest of the above alternatives (0 or 1), will determine whether the backorder is approved.</p>
(OIS002/E)	Partial delivery	<p>...whether the partial delivery is approved when the supply model is executed.</p> <p>This information can be entered for each:</p> <p>* Supply model line (MMS059/F) * Customer (CRS610/G) * customer. Local Exceptions (MFS610/F) * Customer. Connect Addresses (OIS002/F)</p> <p>The lowest of the above alternatives (0 or 1) will determine whether partial delivery is approved.</p>
(OIS002/E)	Run	<p>...a unique ID for a recurring transport or delivery from inventory.</p> <p>This field is only used when service orders are processed.</p> <p>This is used to connect a customer to a run in 'Customer. Open' (CRS610). A check is made to verify that the specified run exists in the basic data table.</p>
(OIS002/F)	VAT registration number	<p>...the VAT registration number.</p> <p>The VAT registration number is used by companies within the EU to account for sales (trade) within EU without VAT being charged.</p>

Program ID/Panel	Field	The field indicates ...
(OIS002/F)	EAN location code	<p>...the EAN (European Article Numbering) code for a company. The code is issued by the local EAN organization. The code is validated as the EAN code for an item number.</p> <p>The check digit (final digit) is validated as follows:</p> <ol style="list-style-type: none"> 1 Ignore check digit 2 Add every other number from right to left 3 Multiply the total by 3 4 Add all other numbers 5 Add the totals from steps 3 and 4 6 Subtract the total of step 5 from the next highest ten. The result should correspond to the check digit. <p>Example: The EAN code is 7390078123453</p> $\begin{aligned} 1 & \text{ } 7390078123453 \\ 2 & 5+3+1+7+0+3 = 19 \\ 3 & 19*3 = 57 \\ 4 & 4+2+8+0+9+7 = 30 \\ 5 & 57+30 = 87 \\ 6 & 90-87 = 3 (= \text{the check digit}). \end{aligned}$
(OIS002/F)	User	...a user ID or send list for direct distribution of a printout.
(OIS002/F)	Delivery method	<p>...how the delivery is made.</p> <p>Valid values are defined in 'Delivery Method. Open' (CRS070).</p>
(OIS002/F)	Delivery terms	...the delivery terms, which define when the responsibility for a delivery is transferred from the supplier to the customer.
(OIS002/F)	Terms text	<p>...the terms text, which is usually printed on external documents as explanatory text.</p> <p>When language is used as a selection ID, such as when making entries or printouts, the text is language-specific.</p>

Define Item Related Data for a Customer

This document explains how you connect the item related data to a customer.

You connect the customer to an item to:

- Create an alias number for the customer's item
- Define default configuration for customer's item
- Automatically display the item data in full-screen order entry in 'Customer Order. Open Line' (OIS101/H2).

Outcome

The item is connected to a customer and the customer-item relation is defined.

The item related data is used in various scenarios in M3. Some examples of uses are:

- To automatically display the item data in full-screen order entry in 'Customer Order. Open Line' (OIS101/H2)
- To enter a customer specific name for an item, the alias number. The alias number is used during customer order entry.

The following tables are updated:

- Alias Numbers - MITPOP
- Customer Items - OCUSIT.

Before you start

- A customer must be created in 'Customer. Open' (CRS610). See [Enter Preliminary Customer](#) on page 91.
- An item must be created in 'Item. Open' (MMS001). See .
- The Alias type must be set to 06 in the 'Customer. Open' (CRS610/F) or during order entry in 'Customer Order. Open Line' (OIS101/H2).

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer for which the item related data needs to be defined.
- 3 Select option 13 = Item/Customer to start 'Customer. Connect Item' (OIS005/B).
- 4 Select the item number to be connected to the customer and option Create.
- 5 Specify the relevant item data on the E and F panels. See the Parameters to Set section for more detailed description.
- 6 Press F3 to return to 'Customer. Open' (CRS610/B).

Parameters to set

Program ID/Panel	Field	The field indicates ...
OIS005/B)	Customer number	<p>...the customer number for which an item is needed to be connected.</p> <p>If a reasonability check should be carried out against a buying pattern during customer order entry, the customer number can be left blank. In this case, reasonability limits can only be specified for each item, and will apply when there is no customer/item combination.</p>
(OIS005/B)	Item number	<p>...the item number (or for Maintenance, the item/equipment number), which is a unique ID for an item.</p> <p>An item is entered and maintained in 'Item. Open' (MMS001).</p>

Program ID/Panel	Field	The field indicates ...
(OIS005/E)	Alias number	<p>...an alias for the customer's item number.</p> <p>This information is used as an alternative search key at order line entry. This alias is also displayed by default on the CO line.</p> <p>Note that this information is optional.</p>
(OIS005/E)	From date	...the date as of when the alias number or customer's item number is valid.
(OIS005/E)	To date	...the last date the alias number or customer's item number is valid.
(OIS005/E)	Reasonability check method	<p>...how the reasonability check is made during order line entry.</p> <p>The valid alternatives are:</p> <p>0 = No check.</p> <p>1 = Check against specified minimum and maximum quantities per customer and item</p> <p>2 = Check against an average of the customer's last three purchases. Allowed deviation is calculated according to a reasonability table</p> <p>3 = Check generally per item, regardless of ordering customer.</p>
(OIS005/E)	Minimum Quantity	<p>...the minimum quantity the customer may order without a warning being issued.</p> <p>A check is then made in connection with customer order line entry. If no minimum quantity is entered, no check is made against the minimum quantity.</p>
(OIS005/E)	Maximum Quantity	<p>...the maximum quantity the customer may order without a warning being issued.</p> <p>A check is then made in connection with customer order line entry. If no minimum quantity is entered, no check is made against the maximum quantity.</p>
(OIS005/E)	Salesperson	<p>...the salesperson responsible for the combination of customer and item.</p> <p>A salesperson can be connected to a customer order type. You must enter *CUT for the salesperson in 'CO Type. Update Field Selection' (OIS014/J) to retrieve the salesperson from the customer's item.</p>
(OIS005/E)	Responsible	...the person responsible for the combination of customer and item.

Program ID/Panel	Field	The field indicates ...
(OIS005/F)	Dangerous goods indicator	<p>...the partner's demand for lot number specification. This is used as information in ASNs, on delivery documents and labels.</p> <p>The valid alternatives are:</p> <p>0 = No reference or break on lot number 1 = Reference to but no break on lot number 2 = Reference to and break on lot number.</p>
(OIS005/F)	Pilot part	<p>...if this item is classified as a pilot part.</p> <p>A pilot part does not require a sales price or a cost price in customer order entry.</p>
(OIS005/F)	Material handling code	...the partner's material handling code. It is used as information on documents and labels.
(OIS005/F)	Partner's engineering change order no	...the customer's engineering change order number. This is used as information on documents and labels.
(OIS005/F)	Engineering change order date	...the date for the customer's engineering change order. This is used as information on documents and labels.
(OIS005/F)	Partner design revision number	...the partner's design revision number. This is used as information on documents and labels.
(OIS005/F)	Expiration time adjustment – days	<p>...the changes to the expiration date that is printed on sales price labels in 'Customer Order. Print Sales Price Label' (OIS615). Enter these as number of days for an item/customer combination.</p> <p>Consumption date will be calculated from expiry date adjusted with the adjusted expiry dates. Consumption date= +/- adjusted expiry days.</p>

Enter Standing Customer Order

This document explains how to enter a standing customer order, including pre-text and post-text.

Before you start

The prerequisites listed in [Standing Customer Order](#) on page 115 must be met.

Follow these steps

- 1 Start 'standing CO. Open' (OIS074). Specify panel sequence E12.
- 2 Specify an ID for a standing customer order. Select 'New' and the E panel is displayed. You can either enter a customer order number manually or leave the field blank. If no order number is entered, a number

will be created according to number series type 01 and number series R in 'Number Series. Open' (CRS165).

- 3 Specify the customer number and general information, such as which customer order type to use, delivery address, etc.
- 4 Specify the first date for the standing customer order. This is the first day a customer order will be generated. Enter the time interval at which to generate customer orders after the first order.
- 5 Set the status for the order. Status must be set to 20=Final for orders to be created. Press Enter. The standing customer order is now created.

Connect Texts

- 6 The Pre-text dialog box is displayed.
- 7 Type 1 for the appropriate document groups. Press Enter. The Text dialog box is displayed. Enter text for each document group. Click 'Exit' after each entry.
- 8 The Post-text dialog box is displayed.
- 9 Type 1 for the appropriate document groups. Press Enter. The Text dialog box is displayed. Enter text for each document group. Click 'Exit' after each entry.

Outcome

A standing customer order is specified and document texts have been added to the order.

Enter Standing Customer Order Lines

This document explains how to enter items on a standing customer order, including pre-text, and post-text.

Outcome

Lines are added to a standing customer order. The standing customer order is ready to be used.

Before you start

- The prerequisites listed in [Standing Customer Order](#) on page 115 must be met.
- A standing customer order header must be specified.

Follow these steps

- 1 Start 'standing CO. Open' (OIS074).
- 2 Select a standing customer order and select option 13=Standing CO line. 'standing CO. Open Line' (OIS075) is displayed.
- 3 Specify panel sequence E12.
- 4 Create a standing customer order line. The E panel is displayed.

- 5 Specify a unique delivery day number and from and to dates for the line. This information is defaulted from the standing customer order but can be changed for the order line.
- 6 Specify item number and ordered quantity for each new customer order created. Press Enter.
Connect Texts
- 7 The Pre-text dialog box is displayed.
- 8 Type 1 for the appropriate document groups. Press Enter. The Text dialog box is displayed. Enter text for each document group. Click Exit after each entry.
- 9 The Post-text dialog box is displayed.
- 10 Type 1 for the appropriate document groups. Press Enter. The Text dialog box is displayed. Enter text for each document group. Click Exit after each entry.

Managing Contact Plan Exceptions

This document covers the setup of exceptions to contact plans.

Introduction

A contact plan exception determines the dates that are excluded from the contact plan dates that the system will generate later through 'Contact Plan. Create Active' (OIS057).

Example:

You can define that date 990101 should be replaced by 990103, because it is not usual to work on New Year's Day.

Contact plan exceptions are entered in 'Contact Plan. Enter Exceptions' (OIS053) or through alternative 12='Exceptions' from the (OIS052/B) panel.

Define contact date

You can specify the normal contact date which you have identified to be excluded from the active contact plan dates that will later be generated.

Define new contact date

You can specify the contact date replacing the old contact date which you have identified on the (OIS053/B) panel.

The specified date must be a valid workday based on the system calendar.

Define new delivery date

You can specify the delivery date replacing the old delivery date.

The specified date must be a valid delivery date based on the system calendar.

Define new contact plan

You can specify another contact plan to be used instead of the current contact plan.

Define duplicates permitted

You can specify whether this customer can be connected to different contact plans with the same contact date. In case this parameter is activated, the consequence is that the customer that belongs to multiple contact plans with the same date may be contacted several times on that date.

Managing Formatting Rules

Formatting rules are set up to validate customer order numbers, and so prevent incorrect entries and rejection of invoices due to these mistakes. They are also used to validate supplier rebate agreement reference numbers, to prevent rejection of supplier rebate claims.

Introduction

The purpose of a formatting rule is to define the conditions that must apply when entering a customer order number or supplier rebate agreement reference number. This avoids the entry of incorrect information.

Define formatting rule

The formatting rule, provided by a customer and/or supplier, is defined and maintained in 'Formatting Rules. Define' (CMS085).

The formatting rule is entered in the 'Formatting rule' field in (CMS085/E) via the use of the characters 'a-alpha', 'n-numeric', 'x-alpha or numeric', and special characters as separators. Also, specific alpha (A-Z) or numeric values (0-9) can be defined for given positions within the formatting rule.

The alpha values allowed within the formatting rule can be limited to certain letters by entering these in the 'Alpha allowed' field in (CMS085/E). If no letters are entered, then all letters can replace the alpha value in the formatting rule.

The characters within the formatting rule are defined as follows:

Characters	Purpose
a (lowercase)	Any alpha character is allowed.
n (lowercase)	Any numeric character is allowed.
x (lowercase)	Any alphanumeric character is allowed.
A through Z (uppercase)	Only that specific character is allowed.
1 through 9	Only that specific digit is allowed.
Special characters, such as '.', '-' '_':	Can be used as separators.

Example of a formatting rule

In this example, the 'Alpha allowed' and 'Numeric allowed' fields are left blank, hence all alpha and numeric values are allowed in the formatting rule characters "a, n, x".

Formatting rule = APYaa-nn.x1 where:

- Characters 1-3 must be 'APY'
- Characters 4-5 can be any alpha characters
- Character 6 must be '-'
- Characters 7-8 can be any numeric character
- Character 9 must be '.'
- Character 10 can be any alphanumeric character
- Character 11 must be 1.

Conclusion:

- APYBG-23.A1 is valid
- APYHK-56.21 is valid
- APXHK-56.01 is invalid, because the X should be a Y
- APYZM-5F.X1 is invalid, because the F should be a numeric character.

Define field formatting rules

The field formatting rule is connected to the applied field in combination with the specific customer or supplier identity in 'Field Formatting Rules. Open' (CMS086).

The fields supported for formatting rules are included in the field group CMFOR-'Formatting rule selection table'.

The field &CUOR is generic and while connected to the OACUOR, the formatting rule is only applied within the customer order process. For BACUOR, the formatting rule is only applied within rental. Several formatting rules can be applied for the same customer or supplier, where any can apply.

The fields available for the formatting rule are defined as follows:

Field	Description	Key field type	Comment
&CUOR	Customer's order number	01 - Customer	The formatting rule is enabled for all the customer's order numbers.
&RASR	Agreement reference number	02 - Supplier	The formatting rule is enabled for the agreement reference number of all types of supplier rebate on sales entities: promotion, one-time, and rebate on sales agreements.

Field	Description	Key field type	Comment
BHCUOR	Customer's order number	01 - Customer	The formatting rules are only enabled for customer order numbers in 'Rental Agreement. Open' (STS100).
OACUOR	Customer's order number	01 - Customer	The formatting rules are only enabled for customer order numbers in 'Customer Order. Open' (OIS).
PCRASR	Agreement reference number	02 - Supplier	The formatting rule is only enabled for the agreement reference number in 'Supplier Rebate on Sales. Open Agreement' (OIS860/E).

Managing formatting rules

If an incorrect formatting rule is entered in the order process, the stop message stating 'Formatting rule x is invalid' is displayed. The valid formatting rules are not displayed to the end user, since this may enable the user to guess instead of requesting assistance. The valid formatting rules for a certain customer or supplier can easily be accessed via the new related options in 'Customer Master. Open' (CRS610) or 'Supplier. Open' (CRS624). Access can be authority based using the related options.

Parameters for Service Level Evaluation

This supporting function is used to define the parameters that regulate updating the data used to measure service levels in the sales statistics. This includes defining the accepted deviation from the confirmed delivery date and confirmed quantity.

Service levels are evaluated by comparing the number of approved deliveries to the total number of deliveries. Each delivery must be classified as either approved or rejected. This is done by comparing:

- Delivered quantity to confirmed quantity
- Actual delivery date to confirmed delivery date

Before you start

Customer order types must be specified to use this supporting function.

Follow these steps

1 Enter Accepted Delivery Deviation in Quantity

The accepted deviation in quantity is entered in ‘co Type. Open’ (OIS010/K). This is the percentage deviation between agreed and delivered quantity allowed for a delivery line to be accepted as fully delivered with the agreed quantity.

The delivery is checked according to a specified method. The table below describes the methods available.

Method	Description
0	Delivered quantity must be equal to or greater than ordered quantity.
1	Partial delivery checked against acceptable percentage deviation in the order type. Overshipped quantities are always approved.
2	Partial and overshipped quantities checked against acceptable percentage deviation in the order type.
3	Partial delivery checked against acceptable percentage deviation in the order type and/or quantity specified in ‘Item. Connect Order Line Compl Limit’ (MMS425). Overshipped quantities are always approved. If no quantity or percentage is specified, method 1 is used.
4	Partial and overshipped quantities checked against acceptable percentage deviation in the order type and/or quantity specified in ‘Item. Connect Order Line Compl Limit’ (MMS425). If no quantity or percentage is specified, method 2 is used.

Each invoiced delivery line is checked against the appropriate order type before it updates the detailed sales statistics. Approved lines are flagged (1) in one of these accumulator fields:

- Number of deliveries with correct time and quantity
- Number of deliveries with correct time but incorrect quantity

The accumulator field updated depends on whether the correct quantity was delivered.

2 Enter Accepted Delivery Deviation in time

The tolerance for delivery times is entered in ‘co Type. Open’ (OIS010/K). This is the number of workdays early or late an order line can be delivered to be accepted as delivered on time. For this, the actual delivery date is compared to the confirmed delivery date.

The tolerance limits are entered in fields Tolerance days early delivery and Tolerance days late delivery. Every invoiced delivery line is checked against the appropriate order type before it updates the detailed sales statistics. Approved lines are flagged (1) in one of these accumulator fields:

- Number of deliveries with correct time and quantity
- Number of deliveries with correct time but incorrect quantity

The accumulator field updated depends on whether the correct quantity was delivered.

Description

The tables below describe how service levels can be evaluated. First, the information must be accumulated statistically and then calculated.

Accumulated data for measuring service levels against customers:

Cust.	No. deliveries	Corr. Time and Qty.	Corr. Time Incorr. Qty.	Corr. Qty Incorr. Time
A	1,000	810	40	90
B	1,000	900	10	60
C	1,000	600		350

The calculated service level is then:

Cust.	Total Service Level	Corr. Time	Corr. Qty
	81%	85%	90%
	90%	91%	96%
	60%	60%	95%

Payer - Customer Order

A payer is the customer invoiced for a customer order, though not necessarily the entity ordering. The payer must always be registered as a customer in the customer file. When anyone other than the ordering customer is the payer for the customer order, the payer's customer number is specified in the 'Payer' field in the customer order header.

A payer is always specified by default during customer order entry. The payer is retrieved from the ordering customer, but can be changed. If the payer field is blank on 'Customer. Open' (CRS610/J), the customer becomes the payer. A credit check is made against the credit limits of the payer, unless the payer is connected to a credit group in 'Customer Credit Group. Connect' (CRS316).

Every customer can be defined as either ordering and paying customer, or paying customer only. This is done in the 'Customer type' field in (CRS610). A customer can be the payer for one or more ordering customers or orders.

Reason Categories

Reason categories are defined to categorize reason codes used for a specific function. When reason categories are connected to a function, the reason codes for that category are validated.

This instruction explains how to create reason categories.

Limitations

This functionality is only available for the functions listed in 'Function. Connect Reason Category' (CRS222).

Follow these steps

- 1** Create a reason category in 'Reason Category. Open' (CRS220) and specify the required information.
- 2** Press Enter to access 'Reason Category. Connect Reason Codes' (CRS221), or select option 11='Reason Category. Connect Reason Codes'.
- 3** Specify the reason codes to be connected to the reason category.
- 4** Select option 1='Create'. Reason codes are maintained in 'Transaction Reason. Open' (CRS130).
- 5** Connect the reason category to a specific function in 'Function. Connect Reason Category' (CRS222).
- 6** Select option 1='Create'.

Rounding Off

Prices or other amounts can be rounded off automatically. This is regulated by both a rounding-off rule and a rounding-off table. The rounding-off rule determines whether the number is rounded upwards, downwards or to the nearest multiple. The rounding-off table defines how the number is rounded off within different ranges.

The rounding-off table contains the range limits and the rounding-off target. The limit specifies the applicable range and the target specifies the rounded amount.

These rules, limits and targets are user-defined and can be different for every currency and amount. They are set in 'Currency. Connect Rounding-off Rules' (CRS053).

Description

Rounding off is used to express totals as a specific whole or decimal value. It can be used to even odd fractions for smaller sums or to create so-called psychological prices, such as \$9.90.

This example illustrates a rounding-off table:

Limit	Target	Explanation
0.00	0.10	The amount is rounded off to the nearest even .10, e.g. 12.10 12.20 12.30.
25.00	0.50	The amount is rounded off to the nearest even 0.50, e.g. 12.00 12.50 13.00 13.50.
100.00	9.90	The amount is rounded off to the nearest 9.90, e.g. 149.90.
1000.00	90.00	The amount is rounded off to the nearest 90.00, e.g. 1390.00.
10000.00	100.00	The amount is rounded off to the nearest even hundred.

The examples below illustrate how an amount is rounded off according to the table. The rounding-off rule determines whether the amount is rounded up, down, or to the nearest multiple.

Example 1 - The amount 12.23 is rounded off as:

Rounding-off rule	Rounded amount
0 = Nearest	12.20
1 = Up	12.30
2 = Down	12.20

Example 2 - The amount 175.45 is rounded off as:

Rounding-off rule	Rounded amount
0 = Nearest	179.90
1 = Up	179.90
2 = Down	169.90

Example 3 - The amount 1175.45 is rounded off as:

Rounding-off rule	Rounded amount
0 = Nearest	1190.00
1 = Up	1190.00
2 = Down	1090.00

Season Handling

This document explains how season handling affects the customer order flow.

A season is a limited period of time defined with valid from and to dates. It is a frequently used concept for aggregation and following-up within the fashion industry. A season consists of several delivery windows. One style can be connected to several seasons simultaneously. There is a capability to extend the selling period of a style to include it in the next season while the current season is still operating.

You can connect the season identity to customer orders and to customer order lines.

Description

The purpose of using season handling on customer orders is to create better follow-up possibilities for accounting and statistics.

It is possible to seamlessly divide the seasons into several delivery windows. For example, a year could be divided into four seasons, and one season could be split into three delivery windows.

The season is connected to both the order header and the order line by using the 'Project number' and 'Project element number' fields. The season is checked during order entry to ensure that only items that are valid for the given season are allowed.

Default values can be defined and retrieved during order entry for the following fields: 'Season', 'Delivery window', 'First delivery date' and 'Last delivery date'.

Note: The season identity replaces, and cannot be used at the same time as, the project number. Make sure that the parameter 'Project Management' is *not* selected in 'Company. Connect Division' (MNS100/J).

Outcome

Customer orders and customer order lines are connected to a specific season.

The connection makes it possible to select and sort the season identity.

Standing Customer Order

This document explains how to define a standing customer order and the items included in it. It also describes functions for maintaining the order.

Description

A standing customer order is a predefined customer order that is filled at regular intervals. The contents and terms of the order are set in advance by the customer and supplier. These terms are applicable during the time set as the order's validity period.

Standing customer orders are used to simplify repetitive, normal orders. A customer and supplier can agree on fixed terms for quantity, item, invoice address, etc. for the standing order. The items are then delivered as specified at regular intervals of days, weeks or months.

Standing customer orders are entered in 'Standing Customer Order. Open' (OIS074).

Outcome

- A standardized customer order is entered in M3, ready to be generated into customer orders.
- Minimizes manual work for standardized orders.
- Facilitates processing of repetitive orders.
- Performance is increased since space is not occupied by customer orders to be delivered much later.

Before you start

- Customer and items must be specified.
- The customer order type for the standing customer orders must have agreement check activated in 'co Type. Open' (OIS010/I).

Follow these steps

1 Define standing customer order

Standing customer orders are defined in 'Standing co. open' (OIS074). The following information must be entered.

- Customer Order Type
The customer order type used for the standing customer order must have agreement check activated in 'CO Type. Open' (OIS010/I).
- Interval and First Date
The interval determines how often a customer order is created from the standing order. This can be specified in terms of years, months or days.
Standing customer orders will be created according to this interval when generated in 'Customer Order. Create from Standing Order' (OIS078).
The interval applies from the date specified in the 'First date' field.
- Standing Customer Order Group
A standing customer order group can be entered and used as a selection criterion when generating standing customer orders. Standing customer order groups are entered in 'Standing CO Group. Open' (CRS113).
- Status - Activating the Order
A standing customer order is activated by setting the 'Status' field to status 20=Final in 'Standing CO. Open' (OIS074/E).

A standing order can be created by copying another standing order. The information to be copied is set on the P panel.

2 Define standing customer order lines

The order line for the standing customer order, that is, the items included in the order, is entered in 'Standing CO. Open Line' (OIS075), which is started from 'Standing CO. Open' (OIS074) using option 13=Standing CO lines.

The order line defines item number, quantity and unit of measure. Delivery and period of validity can be set separately per order line. This information is also set generally per standing customer order, but can be set separately per order line.

Pre-text and post-text can be entered for the order lines using option 12=Pre-text header and option 13=Post-text header, respectively. If no text is entered for the standing customer order, text will be retrieved from 'Settings - Batch Orders' (OIS278).

3 Specify non-activity periods

Non-activity periods are used to suspend a standing customer order for a period, for example, a holiday. Non-activity periods are specified in 'Customer. Connect Non-activity Period' (OIS051).

The following information is specified:

- Day type. Option 1=Delivery day is used for standing customer orders.
- Day number. One period must be entered for each delivery day entered for a customer. This is done most easily by copying.
- Date interval.

4 Specify delivery day changes

Use 'Standing CO. Change Delivery Day' (OIS073) to change a delivery day, for example due to a holiday. These changes are done generally and not per order.

5 Define settings for automatic generation

Standing customer orders can be set to be handled completely automatically.

If 'Customer Order. Create from Standing Order' (OIS078) is set to run automatically in M3 Job Scheduler, standing customer orders are generated automatically at defined intervals. This is not described in M3 Companion.

6 Define batch order settings

A standing customer order must be defined as a source for a batch order. Additional information and rules for generating orders must also be defined. This is done in 'Settings - Batch Orders' (OIS278).

The information set in (OIS278) will be used for the order instead of the information set per customer. This means that, for example, the customer order type and facility entered in (OIS278) will be used. These settings can either be customer-specific or general. To define a general setting, select an alternative in the 'Source for batch order' field and leave the 'Customer' field blank. If no customer-specific setting is defined, the general values will be used.

The 'Source sales price is valid' field should be selected to retrieve sales price according to the sales price hierarchy.

See [Batch Order](#) on page 235.

Storing Contact Person Information

Contact person details can be created and stored in M3 BE, and connected to customers and suppliers where required. To allow storing contact person details, users need to contact customers and suppliers, and require having accurate contact person information available to them.

Workflow

Contact persons can be entered in 'Contact Person. Open' (CRS618). They are optionally connected to a customer or supplier within this program by selecting 'Employer reference type' 1 for customer and 'Employer reference type' 2 for supplier and entering an employer ID. If the 'Employer reference type' is 0 for 'other', then the employer ID is not validated against any M3 table, and is not connected with a supplier or customer.

Within program 'Customer. Connect Contact' (CMS055), a contact can optionally be connected to one or more customers and customer addresses. This program is accessed from 'Customer. Open' (CRS610) by using related option 29='Connect Contact' and from 'Customer. Connect Addresses' (OIS002) by using related option 12='Connect Contact'.

'Contact Person. Open' (CRS618) can be accessed from 'Customer. Open' (CRS610) by using related option 28='Contact Person'. It can also be accessed from 'Customer. Connect Contact' (CMS055) by using option 5='Display Contact', related option 11='Contact Person', or related option 12='Edit Contact'. CMS055 options 5 and 12 open panel E in CRS618, while option 11 displays the list.

Note: The connection to a supplier in 'Contact Person. Open' (CRS618) does not replace the settings in 'Supplier. Connect Reference' (CRS623).

Chapter 3: Pricing and Conditions

Advance Frequency - Bonus/Commission

The advance frequency indicates the interval for crediting advances to bonus/commission recipients. This interval is expressed in periods.

A period type containing a defined number of periods is entered for each b/c agreement. The frequency indicates how many periods should pass between each advance.

This is entered in the 'Advance frequency' field in 'Bonus/Comm Agreement. Open' (OIS412/E).

Advance Percentage - Bonus/Commission

The advance percentage is used to avoid crediting advances during the agreement period that are too high. If an advance percentage is specified in a bonus/commission (b/c) agreement, only a part of the estimated b/c amount is credited as stated by the percentage. The rest becomes due at a later time.

Advances are calculated automatically based on the bonus/commission advance method specified in a b/c agreement. The advance is specified as a percentage for each b/c agreement in 'Bonus/Comm Agreement. Open' (OIS412). The method can be either fixed or dynamic.

When final settlement is made, the actual bonus/commission amount reached is calculated. This amount is adjusted with any previously paid advances, and the recipient receives the difference.

Example

The advance percentage for a b/c agreement is 75%. This means the recipients will receive 75% of the calculated advance on the accumulated bonus/commission.

If the calculated advance is 1,025.00 the recipient receives 768.75 ($0.75 \times 1,025$).

Blanket Agreement

A blanket agreement is where a customer and supplier enter a time-limited agreement covering terms, items and prices. During the validity period of the agreement, the customer can make call-offs against the agreement for a portion of the goods covered.

A blanket agreement can be maintained either from:

- a market aspect, that is customer or business chain or
- an item aspect, that is item or user-defined group of items.

Blanket agreements are entered in 'Customer Blanket Agreement. Open' (OIS060).

Bonus/Commission Agreement

A bonus and commission (b/c) agreement determines the conditions for calculating and processing bonus and commission for one or more recipients. A b/c agreement is updated with sales (invoiced customer order lines) covered by the agreement.

The customer order lines are validated as follows:

- The customer number must be valid for the b/c agreement in 'Customer. Open' (CRS610).
- The customer number must be included in 'Bonus/Comm Customer Table. Connect Customer' (OIS408).
- The customer number must be included in a business chain specified in 'Business Chain. Connect Customer' (OIS039).
- The order line's item number must be paying or generating in 'Customer Order. Open Lines' (OIS101).
- The item number must be included in 'Bonus/Comm Item Table. Connect Item' (OIS406).
- If two item tables are specified in 'Bonus/Comm Agreement. Open' (OIS412), the item number must be included in both tables.

The recipient of the bonus/commission can be an agent, business chain, customer or salesperson. The recipient must be entered in the customer file with the appropriate customer type.

In M3 the routines for bonus are the same as those for commission, so they are both administrated in the same programs. However, they can be separated with regards to agreements, items, statistics and reservations for bonus /commissions in the general ledger.

For each b/c agreement, customers and items that will affect the recipient's bonus/commission are connected. An item can affect the b/c agreement's paying amount and/or generating value.

The bonus/commission is settled when the agreement expires. If the agreement extends over several years, it is settled annually. Advances, according to a fixed or dynamic advance method, can also be credited to the recipients during the agreement period.

B/c agreements are entered in 'Bonus/Comm Agreement. Open' (OIS412).

Calculating Advances - Bonus/Commission

This supporting function is used to calculate advances under a bonus/commission agreement (b/c agreement) for one or more recipients. These can follow either a fixed or dynamic method. The two advance payment methods are explained and a detailed example is presented at the end of this document.

Before you start

A Bonus/Commission agreement must be specified with either a fixed or a dynamic b/c advance method. The prerequisites for bonus/commissions are described in [Managing Bonus and Commission](#) on page 156.

Follow these steps

1 Settings for B/C Advance Method

Settings for the advance method are specified for each b/c agreement in 'Bonus/Comm Agreement. Open' (OIS412).

- **Advance Method**

Advances are calculated by either a fixed or dynamic advance method. These methods are explained in the sections Calculating Fixed Advance and Calculating Dynamic Advance.

- **Advance Percentage**

The advance percentage specifies whether the entire or part of a b/c payment is made in advance. This guards against making too large payments in advance.

- **Advance Frequency**

The advance frequency specifies the interval at which advance payments are calculated for b/c agreements, such as every other period or every third period. The period type specified in the b/c agreement indicates the period range, such as a week or a month.

2 Calculating Fixed Advance

A fixed advance is recommended for agreements providing immediate payment of bonus/commission without any graduated percentages for generating values.

Fixed percentages are specified per recipient in 'Bonus/Comm Agreement. Enter Reservations' (OIS414). The advance is calculated by multiplying the paying amount for the period by the fixed percentage. See 'B/C Agreement. Change Recipient Status' (OIS411), which is started from 'Bonus/Comm Agreement. Change Status' (OIS410).

3 Calculating Dynamic Advance

When a dynamic advance is calculated, the percentage b/c is retrieved from 'Bonus/Comm Agreement. Enter Rates' (OIS413). The percentage depends on the forecast for the recipient's generating value.

The forecast is calculated from the accrued generating value and the forecast factor for the last date of the advance period or the current date within the period, if advances are created before the end of the period.

The forecast factor is based on the time past and the remaining time in the agreement period. Any seasonal curve is taken into account. The current forecast factor is calculated and displayed in 'Bonus/Comm Agreement. Change Status' (OIS410).

This table shows an example of a percentage table:

Generating value net weight	Percentage B/C
1000	2.00
1500	5.00
2000	7.00

For a dynamic advance to be credited, the forecast must exceed the first limit for generating values in the percentage table. See program 'Bonus/Comm Agreement. Enter Rates' (OIS413).

The dynamic advance method weighs in how the forecasted generating value develops during the agreement period. If the forecast shows a negative trend, no more advances are proposed. If it shows a positive trend, a higher percentage b/c is selected when the advance is calculated, provided that the table is set up this way.

Description of the Dynamic Advance Method	
Forecasted generating value	According to the last date of the advance period or the current date within the period. See program 'Bonus/Comm Agreement. Change Status' (OIS410).
Percentage	Retrieved from the percentage b/c scale according to the forecast for the generating value above. See program 'Bonus/Comm Agreement. Enter Rates' (OIS413).
Paying amount	Retrieves total accrued paying amount up to the last date in the advance period or the current date within the period. See program 'B/C Agreement. Change Recipient Status' (OIS411).
Subtotal 1	Paying amount * percentage
Previous advance	See program 'Bonus/Comm Agreement. Change Status' (OIS410).
Subtotal 2	Subtotal 1 - previous advance
Advance percentage	According to b/c agreement. See program 'Bonus/Comm Agreement. Open' (OIS412).
B/C advance	Calculated b/c can be changed manually in program 'Bonus/Comm Agreement. Open' (OIS412). if the agreement status is 20.

Description

The examples below describe:

- **Example 1, Calculating Fixed Advances**

Assume an advance for periods 4 to 6 in a commission agreement and an advance frequency of 3. No advance percentage is specified, so the entire amount is credited. The recipient has a 5% fixed percentage specified in 'Bonus/Comm Agreement. Enter Reservations' (OIS414).

For the previous interval (periods 1 to 3) the recipient was credited an advance of $280 \times 5\% = 14$. However, with the fixed advance method, this does not affect the calculation for period interval 4-6.

Period	1	2	3	4	5	6
Paying amount	100	80	100	90	200	150

The 5% fixed percentage is calculated from the paying amount for periods 4-6.

Recipient's fixed percentage	5%
Paying amount periods 4-6	440
Advance percentage	0
Advance commission credited (440 x 5%)	22

Comments

The fixed advance method does not take into account the percentage table for generating values. This method is best used for b/c agreements based on immediate payment which does not require reaching any limits and does not use any varying percentages depending on the generating value.

Whenever the advances credited are too high, the recipient is debited on the final settlement.

- **Example 2, Calculating Dynamic Advances**

Consider an advance for periods 4 to 6 out of 12 and an advance frequency of 3. No advance percentage is specified, so the entire amount is credited.

The b/c agreement contains the scale below as specified in 'Bonus/Comm Agreement. Enter Rates' (OIS413) for the generating value in net weight.

Generating value net weight	Percentage B/C
100	2.00
150	5.00
200	7.00

The following figures are invoiced and updated for the recipient:

Period	1	2	3	4	5	6	
Paying amount	100	80	100	90	200	150	= 720
Gen. amount net weight	10	8	7	19	27	15	= 86
Seasonal curve	4%	8%	8%	10%	10%	6%	

The forecast factor (on 30 June) is 2,1867. This is calculated and specified in program 'Bonus/Comm Agreement. Change Status' (OIS410).

Description	Result	
1 Forecasted generating value (net weight) for agreement period	Total accrued generating value is 86, multiplied by the forecast factor 2.1867.	188.06

	Description	Result	
2	Percentage for calculating b/c	Percentage b/c retrieved from the scale shows a forecast of 188.06 corresponding to a 5% bonus/commission.	5.00%
3	Accrued paying amount	The recipient's current accrued paying amount is 720 when the advance is calculated.	720.00
4	Bonus/ Commission	Calculated bonus/commission is $720 \times 5\%$ when advance is calculated.	36.00
5	Previous advances	Accrued bonus/commission minus previous advances to recipient (280 x 2%).	-5.60
6	Advance percentage	No advance percentage is specified for the b/c agreement, so the entire advance is credited.	0
7	Advance period 4-6	Calculated bonus/commission 36.00 minus previous advances 5.60. The advance is credited with 30.40.	30.40

Comments

The generating value for the first three periods totaled 25. This led to a forecast of the agreement period (1-3) of 127.30 (with a forecast factor of 5.0922) at the time. The percentage rate for 127.30 is 2%.

A clear positive trend occurred during periods 4 to 6. The 12-period forecast based on the first six periods is 188, as opposed to the 127.30 for the first three periods. A total net weight of 188 gives 5% bonus instead of 2%. This illustrates the important difference between the fixed and dynamic advance methods. With the dynamic method, any trends are included in the calculation of b/c advances.

A negative trend may result in no further advances. Whenever too much is credited in advance, the recipient is debited in the final settlement.

Campaign

A campaign identifies a time-limited sales activity.

Campaign is often used for informational purposes to track a sale resulting from a campaign. If several campaigns are running at the same time, different campaign identities can be entered to distinguish them. When a campaign is in progress, the campaign identity is connected to a price list or a discount model. Sales registered during the campaign are then registered with the entered campaign identity. The campaign can be followed up in the sales statistics.

Campaign identities are entered in 'Discount Campaign. Open' (OIS820).

Cost Price - Customer Order

A cost price is the cost of an item used to calculate the contribution margin ratio for a customer order line.

The cost price is automatically updated for an order line during customer order entry. It can also be updated again when the customer order line is delivered.

The inventory accounting method of the item determines how the cost price is retrieved for a customer order line. The inventory accounting method is specified per facility in 'Item. Connect Facility' (MMS003/E). The cost price is updated in the sales statistics during invoicing.

Costing Model - Sales Price

A costing model is used to calculate sales prices in a sales price list. A costing model is general and can therefore be used by several different price lists.

When a costing model is entered in 'Sales Costing Model. Open' (OIS022), the calculation base for the model is also specified.

The valid calculation bases are:

- | | |
|---|---|
| 1 | Sale price according to item file |
| 2 | Purchase price according to item file |
| 3 | Inventory cost according to specified costing type and date |
| 4 | Purchase price costing according to specified costing model |
| 5 | Inventory cost according to date and specified costing type, or purchase price costing according to specified costing model, depending on each item's code for the inventory record price |
| 6 | Basic price according to another specified sales price list |

In order to define how the basic price should be affected when calculating the sales price, one or more costing element lines are entered in 'Sales Costing Model. Open Lines' (OIS023). This program is started by selecting option 11=Costing mod lns and option 12=Markup/order ln, respectively in 'Sales Costing Model. Open' (OIS022).

A costing element line uses general sales costing elements entered in 'Sales Costing Element. Open' (OIS015). The costing elements define how to calculate the price list's calculation base using markups and markdowns in order to arrive at the price list's basic price.

There are two types of sales costing elements – basic price elements and order-dependent elements.

Basic price elements are used to calculate the basic price. Order-dependent elements are used to calculate the sales price which is dependent on information from the order line. The final sales price of an item can, for example, depend on the ordered quantity or total weight. In this case, order-dependent elements are used. The final sales price is therefore calculated only after an order line is entered.

Costing Models for Sales Prices

This supporting function is used to enter a costing model in order to calculate sales prices. Costing elements and rates are included in the costing model.

At the end of this document you will find a detailed example of how costing models are constructed.

Before you start

Currency codes must be specified.

Follow these steps

1 Enter Costing Elements

Costing elements are used in a costing models to calculate markups or markdowns on a basic price in a costing model. They are entered in 'Sales Costing Element. Open' (OIS015).

Costing elements must be defined with a costing element type, which controls if the costing element calculates markups or markdowns.

- **Basic Price Elements**

Basic price elements are used to calculate the basic price in the sales price list or to calculate the sales price during customer order line entry when price origin C (online calculation) is used. These might be environmental fees, commissions or contribution margins that will be included in the calculation of the basic price. The keys that can be used to adjust these rates are completely regulated by the item.

- **Order-dependent Costing Elements**

Order-dependent costing elements are used to add more costs to the price list's basic price to calculate the sales price during customer order line entry. They are also used for price origin C.

Since these elements are calculated during customer order entry, fields used in the customer file and in customer order line entry can be used as keys. For example, it is possible to let the costs be dependent on the customer order type, delivery method or terms of delivery.

For example, an order-dependent element can be used to calculate freight costs per kilogram to be included in the price. Since this information depends on the ordered quantity, the price cannot be calculated before an order line is entered.

- **Operator**

Operator defines how costing element markups or markdowns are to be calculated.

There are two types of operators:

- Operators for displaying subtotals and totals
- Operators for calculations.

Operators for totals are used to facilitate simulating sales prices. Operator 00 can be used to display subtotals in the costing model's calculations, and operator 99 shows the sales price calculated for the price list.

Operators for calculations regulate how the costing element is calculated within the costing model. For a complete description of all operators, see 'Sales Costing Operator. Select' (OIS036).

- **Key Fields**

Predefined key fields can be used to adjust the markup or markdown depending on the selection criteria.

For example, an item group can be entered as a key field. Different markups or markdowns can then be calculated depending on the item group an item belongs to. For a complete description of all key fields, see 'Field Group. Display Permitted Fields' (CRS109).

It is optional to use key fields. Leaving the key fields blank mean that the markup/markdown is always applied, unless the key fields for exclusions are used. The key fields for exclusion can be used independent on the key fields for inclusion. The exclusion key fields make it possible to define selection criteria for excluding the markup/markdown.

2 Enter Costing Rates

Costing rates are entered in 'Sales Costing Element. Connect Rates' (OIS019), which is accessed by selecting option 12 = Rates in program 'Sales Costing Element. Open' (OIS015).

These rates are used to calculate a percent markup/markdown for the items. The markup/markdown is calculated on the costing model's calculation base. Different rates can be entered by entering different values for the fields in 'Sales Costing Element. Open' (OIS015/E). See the example later on in this document.

The key field &SAPR is used for adding a markup/markdown based on the sales price. The entered sales price is the lower limit for the markup, which means that a line for the last upper limit must be entered with a markup of 0%. See the example later on in this document

3 Enter Exclusions

Exclusions are entered in 'Sales Costing Element. Exclusions' (OIS027), which is accessed by selecting option 13 = Exclusions in program 'Sales Costing Element. Open' (OIS015). Here you select from a drop down box which of the five available exclusion fields to work with. There is no detailed panel. Just create a record for the control object that should be excluded from the markup/markdown

4 Enter Costing Model

Costing models are entered in 'Sales Costing Model. Open' (OIS022).

- **Calculation Base**

The calculation base used to calculate the sales price is specified for the costing model. This base is the starting point for the additional sales price calculations made using the different costing elements in the costing model.

Six predefined calculation bases are available. It is also possible to use the sales price from another price list as the base for the calculations.

- **Costing Element for a Costing Model**

A costing model is created by selecting costing elements and placing them in a certain order. The elements are connected to a costing model in 'Sales Costing Model. Open Lines' (OIS023).

'Sales Costing Model. Open' (OIS022) starts 'Sales Costing Model. Open Lines' (OIS023) via option 11, where the costing elements used for calculating the base price in the price list are entered.

'Sales Costing Model. Open Lines' (OIS023) is started via option 12. This is where the costing elements used to calculate the order-dependent sales price are entered.

5 Simulate and Check Costing Model

The costing model for an item can be checked in 'Sales Price. Simulate' (OIS325).

By simulating the sales price, it is possible to change the purchase price, rates in the sales price costing, etc. to see how changes affect the sales price.

Examples

This example shows how to define the rates when key field &SAPR is used:

Price Range	Markup
\$ 0 – \$ 4.99	10%
5 – \$ 9.99	5%

Setup in 'Sales Costing Element. Connect Rates' (OIS019),:

Sales price	Markup
	10%
5	5%
10	0%

This example shows how a costing model is used:

Element	Name	Key 1	Key 2	Operator	Element type
A1	Contr margin	MMITGR		05	1
A2	Basic price			99	1
B1	Freight	OATEDL	OAMODL	07	2
B2	CIF price			00	2

In this costing model two basic price elements are used: A1 and A2. The basic price element has element type 1, meaning that the element should be included in the basic price. Contribution margin A1 uses operator 05, meaning that the contribution margin is calculated as a percent of the calculation total including the previous line. In the example, MMITGR (item group) is selected as the key. This means that different contribution margins can be used for different items, depending on the item group.

Basic price A2 has operator 99. This operator indicates which line in the costing is the price list's basic price.

In addition to the basic price element, two order-dependent costing elements, B1 and B2, are used. These elements have element type 2, meaning that the element should be calculated when pricing an order line. The freight cost is therefore added to the sales price for each order line entered. B1 uses operator 07, meaning that the freight cost is considered as a price per weight unit (gross weight) from the item. B1 has keys OATEDL and OAMODL (delivery method). This means that different freight costs can be calculated depending on the terms of delivery and the district.

B2 uses operator 00, meaning that the element is used to display the final sales price for different scenarios in the simulation.

The table below shows the costing rates for element B1 according to the above conditions.

Terms of del.	District	From	Rate	Currency	Priceqty.
CIF	AIR	970101	143.90	USD	1000
CIF	SURFACE	970601	0.95	USD	1

According to the table, key 1 is terms of delivery and key 2 delivery method.

The table shows that USD 143.90 is charged per 1,000 weight units for CIF deliveries (Cost, Insurance and Freight) using delivery method AIR. This takes effect on 970101.

CIF deliveries using delivery method SURFACE will be charged USD 0.95 per weight unit starting 970601.

Freight is not included in the price list's basic price. Instead, it is added to the sales price during order line entry.

Create Advance - Bonus/Commission

This procedure is used to create advances for a recipient based on a bonus/commission (b/c) agreement.

Before you start

Advances must be activated for the b/c agreement according to the selected b/c advance method in 'Bonus/Comm Agreement. Open' (OIS412).

Follow these steps

- 1** Start 'Bonus/Comm Agreement. Advance & Settle' (OIS415).
- 2** Select the b/c agreement for which to calculate advances. Specify the year for the B/C record, and specify 10=Advance payment for selected periods in the 'Bonus and commission action' field. Click 'New' to proceed to the E panel. The information about the periods on which the advances will be based is retrieved from the b/c agreement's advance frequency.
- 3** Check information on the E panel and select the 'Check paid invoices' field if you want to check the paid invoices against the original invoices to ensure that they are fully paid. Press Enter to confirm the information and you will return to the B panel in 'Bonus/Comm Agreement. Advance & Settle' (OIS415). An advance record with status 10 (ready) is now created.
- 4** Select option 20=Create advance proposal. Depending on the status of the B/C agreement two alternatives are given: If the b/c agreement has status 30 (active – advances and settlements created immediately) in 'Bonus/Comm Agreement. Open' (OIS412), a proposal is created and processed as final. It cannot be changed. The advance is sent to M3 batch order entry where an invoice is created (see 'Batch Order. Open' (OIS275)). The advance record is assigned status 90 (processing completed). End the procedure. If the b/c agreement has status 20 (active – advances must be approved and settlement created immediately) in 'Bonus/Comm Agreement. Open' (OIS412), a preliminary proposal is created which can be manually changed. The advance record is assigned status 30, meaning that the preliminary proposal is created and can be changed. To change the proposal, go to step 5. Otherwise, go to step 8.
- 5** Select option 11=Advance/settlement to change a preliminary proposal and 'Bonus/Comm Agreement. Calculate Advance' (OIS417/B) is displayed.
- 6** Select the recipient you want to change. Press Enter to proceed to the E panel.
- 7** Change the advance amount in the E panel. Press Enter and you will return to (OIS417/B), press F3 = End to return to 'Bonus/Comm Agreement. Advance & Settle' (OIS415).

- 8 Select the advance record and select option 35=Crt adv/stl/pre. to send the advance to the batch order entry and create advance invoices. The advance record is assigned status 90 (processing completed).

Create a Price List Table

This document explains how to create a price list table. The general idea of a price list table is to have one table that details a number of price lists that have been designed for a specific purpose. For example, you may want to have one price list table that shows the various different price lists that have been set up for medium sized customers in southern Europe.

Outcome

A price list table is created from a list with different search values. The price list table must be connected to the customer order, which can be done in several ways. See [Assigning a Sales Price to a Customer Order Line](#) on page 18.

When entering customer order lines, the table is used to match the order line's values against the table's values in order to find the price list to be used. By using one or several price list tables it is possible to cover the need for different prices to different markets and/or groups of items.

The following files are updated:

- OPLTMA – Price List Table
- CROBJC – General Object Control Table
- OPRMTX – Sales Price List Selection Matrix.

Before you start

Price lists must be specified in 'Sales Price List. Open' (OIS017).

Follow these steps

Create price list table

- 1 Start 'Sales Price List Table. Open' (OIS012/B).
- 2 Enter a joint identity for a price list table. Select New and proceed to the E panel.
- 3 On the E panel, specify a description and a name. Press Enter and return to the B panel.
- 4 On the B panel, select the price list table, select option 12='Control table' and proceed to 'Available Object Ctrl Parameters. Open' (CMS016/E).
- 5 On the E panel, select the identities of the fields to be used to select the price list you want to check. Press Enter and return to 'Sales Price List Table. Open' (OIS012/B).
You can fill in three fields for each priority level. The information in the field refers to a field or data element from a specific file.

Create a sales price selection table

- 1 On the B panel, select the price list table, select option 11='Price Lists' and proceed to 'Sales Price List Selection Table. Open' (OIS831/B).
- 2 On the B panel, specify values in selection fields. Select 'New' and the E panel is displayed.
The item and the customer that are specified during customer order entry are checked against the values specified here. If an item and a customer match the selection value, the price list specified on the E panel in (OIS831) is used.
- 3 On the E panel, specify the price list to be used for the combination of the values specified on the previous panel. Press Enter and you will return to the B panel.
- 4 Enter 2 in the 'Priority' field to enter the selection values for the fields specified for priority 2 in (OIS831). Next to the 'Priority' field the total number of priority levels is displayed.
- 5 Repeat the procedure from step 7 on if you need to continue entering priorities and corresponding values. Press F3 or select 'Exit' when you have finished entering data.
To check the information on screen for a specific price list, fill in the 'Price List Table' field at the top of the panel. Press Enter and the selected price list table is displayed.

Create Price List

This procedure is used to create a price list. Price lists are used to administrate prices for items, and allow an item to have several sales prices at the same time.

The price list identity is made up of a combination of identity, currency and start date.

Follow these steps

To start this procedure, a costing model must be specified.

- 1 Select 'Sales Price List. Open' (OIS017). Specify panel sequence EFG12.
- 2 Specify an identity, currency, and validity date to create the price list. Press Enter.
- 3 Specify the information on the E panel. Required fields are 'Description' and 'Valid to'. If different scales will be used for different items in the price list, specify the required information in the Key fields (1, 2, and 3). Press Enter.
- 4 To include a certain selection of items in the price list, make your selections on the F panel. Press Enter.
- 5 On the G panel, you can specify a costing model for sales price. The costing model regulates how the price list's basic prices are calculated. If the price list is based on a purchase price costing, this must be specified in the 'Costing model - purchasing' field. You can also specify a default costing date and structure type to use in the sales price calculation. Press Enter.
- 6 Specify or adjust the item specific information in 'Sales Price List. Open Basic' (OIS021). For example, an automatically calculated price can be changed for individual items. If permitted, items not included in the selection can also be added to the price list. If quantity dependent prices are to be used for an item, proceed to step 7, otherwise proceed to step 8.

- 7 Specify option 11= Grad prices for an item. In the 'Quantity' field specify a limit value and in the 'Price factor' field specify the percentage of the base price that the item will be sold for when quantities are over the specified quantity. Press Enter to view the graduated prices. Press F3=End.
- 8 Press F3=End to view 'Sales Price List. Connect Price Scale' (OIS026). The field displays the keys that you had earlier specified in 'Sales Price List. Open' (OIS017/E). The fields act as selection values. The sales prices for those items that are equivalent to the specified selection values will be calculated based on the ordered quantity according to the specified scale matrix.
- 9 Press Enter to finish the procedure.

Customer Blanket Agreement Document

You can print the document OIS631PF (Customer Agreement Confirmation) to review the content of customer blanket agreement through 'Cust Blanket Agreement. Open' (OIS060) with related option 6='Print'.

The customer agreement document can be generated and sent to customers for confirmation through the media control framework. To define media control, a setup can be made through 'Standard Document. Connect Media Control Object' (CRS945) and 'Doc Media Control. Connect Media' (CRS949), using document number '230 – Customer Agreement Confirmation' in 'Standard Document. Open' (CRS027).

Define Customer Charges

This document explains how you define customer charges.

You define charges for a customer by connecting the existing charges in 'Customer. Connect Charge' (OIS003).

Before you start

- A customer must be created in 'Customer. Open' (CRS610). See [Enter Preliminary Customer](#) on page 91.
- Order charges must be defined in 'CO Charge. Open' (OIS030).

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer for which the customer charges need to be defined.
- 3 Select option 12 = Charges to start 'Customer Connect. Charge' (OIS003/B).
- 4 Specify an identification number and create the charge.
- 5 Specify the relevant charge information on the E panel. See the Parameters to set section for more detailed description.
- 6 Press F3 to return to 'Customer. Open' (CRS610/B).

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OIS003/B)	Charge	...the unique ID of a charge.
(OIS003/E)	Charge	<p>...the charge amount. The field is only used if calculation method 0=Amount is used.</p> <p>The information is expressed in the appropriate currency, to apply for the corresponding customer orders.</p> <p>When a charge is connected to a customer, the standard amount for the charge is retrieved from 'co_charge. Open' (OIS030), but can be changed. This amount is proposed as default value when orders are entered, but can be changed there too.</p>
(OIS003/E)	Calculation factor	...the calculation factor that is used to calculate the charge amount. The field is used in combination with calculation method 1-5. A charge is calculated by multiplying the calculation factor and the base selected in the Calculation method field. The calculation is made when the customer order is invoiced. Example: If an insurance charge should be calculated as 5% of the gross price for a certain delivery, enter 0.05 in the Calculation factor field and 1 in the Calculation method field.
(OIS003/E)	User-defined accounting control object	...the user defined accounting control object and is most often used to control account entries and is therefore an accounting object that can be verified and changed in 'Control Object. Open User-defined' (CRS335).
(OIS003/E)	Name	...the name of a charge. This name is printed on all external documents.

Outcome

Charges are connected to the customer.

Charges connected to the customer are used to retrieve charges automatically to the order header during the order entry.

The following tables are updated:

- Customer Master - OCUSMA
- Connect Customer Charges- OCUSCH
- Customer Order Charges - ODCHRG.

Defining and Maintaining Promotions

This document explains how to define a promotion and how to connect customers, warehouses and items to it. It also describes the functions for maintaining a promotion.

A promotion is an entity that controls prices and discounts for a limited time period for a number of customers and items. The promotion contains its own budget and follow-up transactions.

Outcome

A promotion is created and activated in M3 in order to affect prices and discounts during customer order entry.

A promotion is used to manage prices and discounts and to be able to follow up on promotion sales.

Special prices and discounts take effect during customer order entry.

A promotion header and lines are created and these affect customer order pricing if the status of the promotion is 20=Activated.

A promotion is automatically or manually retrieved during customer order line entry.

The following files are updated:

- OPROMH – Promotion Header
- OPROMC – Promotion Customer
- OPROML – Promotion Lines
- OPROMW – Promotion per Warehouse.

Before you start

- The parameters must be set in 'Promotion. Open' (OIS840/P).
- If you want to use promotions for customer selection purposes, a customer table must be entered in 'Customer Selection Table. Open' (CRS143), or a business chain must be entered in 'Business Chain. Open' (OIS038).
- If you want to use promotions for warehouse selection purposes, a warehouse table must be entered in 'Warehouse Selection Table. Open' (MMS033).
- A promotion type must be entered in 'Promotion Type. Open' (OIS849).
- The promotion must be a part of the price origin sequence in the order type 'CO Type. Open' (OIS010/I).

Follow These Steps

1 Define Promotion Header

Promotions are entered in 'Promotion. Open' (OIS840). General settings governing how information is displayed are defined in 'Promotion. Open' (OIS840/P). The promotion header is stored in the OPROMH file.

- Connecting Customers to Promotion

A promotion can be connected to one particular customer or to several customers using a customer table or a business chain.

Field	Customers Connected to the Promotion
Customer number	The promotion is only valid for the customer entered.
Customer table	The promotion is valid for all customers defined in a particular customer table.

Field	Customers Connected to the Promotion
Business chain	The promotion is valid for all customers belonging to a particular business chain.

After a promotion has been entered, it is still possible to connect new customers to the promotion on an individual basis. To do this, use sorting order 11 in 'Promotion. Open' (OIS840/B).

After the promotion is entered, customers connected to it must be generated. The promotion is not active until customers are generated. See the Generating Customers section later in this document.

Activity Customer

This field indicates the customer who is actually performing the promotion. This information is useful if your customer is the distributor for a third-party customer who is running a promotion, or if the customer receiving the goods is a wholesale organization and the retail chain performing the promotion belongs to a different business chain, for example.

This field is used for informational purposes only, such as searching promotion statistics and doing follow-up.

Activation

A promotion is activated by setting its status to 20=Activated. A promotion must be activated for prices and discounts to be used in the customer order entry process. Promotions can be activated in advance of the date and time that they actually come into effect since they are controlled by the validity dates you assigned to them.

When activating the promotion, customers and warehouses will be connected to the promotion according to the selections you make. The system changes the 'Customer generated' and 'Warehouse generated' fields to 1 either when you change the status of the promotion to 20, or when you select option 20 for customers and 30 for warehouses.

Statuses 00 and 10 are used when a promotion is entered for planning purposes and will not affect prices or discounts during customer order entry. These statuses can either be set manually or assigned automatically.

- *Activation by Customer Order Type*

For a promotion to work during customer order entry, the 'Promotion check' field must be activated and Promotion must be a part of the 'Price origin sequence' field in 'Customer Order Type. Open' (OIS010/I).

If promotion check 1 is selected, the promotion will be retrieved automatically during customer order line entry. If promotion check 2 is selected, the 'Promotion. Display Qualified' panel (OIS845) will be displayed and the promotion will be available for manual selection during customer order entry.

Promotion Type

Promotion types are used to classify and group promotions. This can be useful for statistical purposes. A promotion type only consists of a name and is not used for any other functional purpose.

Valid From and Valid To

The validity interval controls the period during which the promotion is valid in customer order entry. The pricing date for the order must be within this interval for the promotion to come into effect. The pricing date is set in the 'Price and discounting setting' field on the I panel in (OIS010).

These validity fields are closed when items are connected to a promotion, but the dates can still be changed using option 22 on the B panel.

Activity Start Date and End Date

The activity start and end dates are the dates between which the promotion is to be advertised in stores and in the media. This data is collected for follow-up and information purposes.

Costing Model Sales

The sales price costing model that is to be used to calculate sales prices must be entered.

Promotion Terms

Promotion terms define how sales prices and discounts are calculated for a promotion. Promotions are based either on fixed sales prices or on discounts. This is set in the 'Promotion terms' field on the E panel in (OIS840).

- *Discounts Not Used*

If discounts are not to be used (Promotion terms 0 and 1), sales price information must be entered per item in 'Promotion. Open Lines' (OIS841). No fields are displayed on the F panel in (OIS840) if discounts are not used.

- *Discounts Used*

If discounts are to be used (Promotion terms 2 and 3), they must be set up on panel (OIS840/F).

For discounts to work, a discount number must be reserved for promotions in the discount models used at order entry. A discount number is reserved in the 'Reserve promotional discount' field in 'Discount Model. Open' (OIS800). The reserved discount number must then be defined with discount category 1=Line discount in 'Discount Model. Connect Discount Number' (OIS805).

Note: The settings for the discount number are controlled by the settings on the F panel in (OIS840) rather than by those on the E panel in (OIS805).

The following information needs to be entered:

- Discount base—This setting specifies the total amount from which the discount should be deducted.
- Manually changeable—This setting specifies whether or not the discount percentage can be changed during order line entry in 'Customer Order. Open Line' (OIS101/E).
- Internal discount—This setting specifies whether or not the discount should be considered an internal one; that is, a discount that does not affect sales prices. Instead it can be used on a commission basis or for follow-up reasons in sales statistics or the general ledger.
- Statistical field—This setting specifies which discount field should be updated in the OSBSTD statistics file.
- Account control object—This setting controls account setup.
- Presentation—This setting specifies how a discount is to be presented on order acknowledgements and invoices.

Budgeted Fixed Costs, Actual Fixed Costs and Distribution Method

The budgeted fixed cost of performing advertising—producing television commercials or printing coupons, for example—can be entered here. The budgeted fixed cost is then distributed among the item lines in the promotion according to the distribution method you specify. This is done using F16=Distribute budget cost in 'Promotion. Open' (OIS840).

Actual fixed costs

This field specifies the actual cost of the promotion. This information is maintained manually. The actual fixed cost is then distributed among the item lines in the promotion according to the distribution method you specify. This is done using F17=Distribute actual cost in 'Promotion. Open' (OIS841).

2 Define Promotion Lines

A promotion line is made up of the item numbers that are included in the promotion. Prices, discounts, budgeted quantities, amounts and costs are included for each item. Promotion lines are entered in 'Promotion. Open Line' (OIS841), which is started from 'Promotion. Open' (OIS840) using option 11=Promotion lines. Promotion lines are stored in the OPROML file.

- Entering Items

Items can be entered manually or automatically. Items are generated automatically by using function key F14 on the B panel of (OIS841), after which a selection is made. This method creates incomplete item records that have to be completed manually.

- Entering Information per Line

Information about the item, such as bonus, commission, price and statistical information, is entered on the E panel in (OIS841).

Fields for sales price and discounts are displayed according to the promotion terms entered on the E panel in (OIS840).

If discount in kind is given, information must be entered in the 'Item number,' 'Ordered quantity' and 'Sales price' fields.

A demand factor can be defined in (OIS841/E) in order to create a basis for demand calculation and to take the effects of the promotion into account. If the 'Demand factor' field is left blank, the demand factor entered in 'Order Type. Open' (OIS010/K) is used.

Information about budget quantity and costs is displayed along with updated information about the actual status of the promotion item on the F panel in (OIS841).

3 Generate Customers

A record must be generated for each customer connected to the promotion on the E panel in (OIS840). This is done using option 20 in 'Promotion. Open' (OIS840/B). The connected customers are stored in the OPROMC file.

When customers are generated:

- A connection between the promotion and each individual customer will be created. These connections can be viewed on the B panel in (OIS840) using sorting order 11.
- The 'Customer generated' field is set to 1=One or more customers generated.

Deleting Customers

All customers are deleted from a promotion using option 24=Delete customers on the B panel in (OIS840). This option disconnects all customers that were previously connected to the promotion.

4 Generate Warehouses

When promotion selection is based on items, the promotion is normally valid for all warehouses. If you want the promotion to be valid for only one warehouse, or for a selection of warehouses, a record must be generated for each warehouse connected to the promotion in 'Warehouse or Warehouse Table' (OIS840/E). This is done using option 30 in 'Promotion. Open' (OIS840/B). The connected warehouses are stored in the OPROMW file.

When warehouses are generated:

- A connection between the promotion and each individual customer will be created. The connection can be viewed on the B panel in (OIS840) using sorting order 12.
- The 'Warehouse generated' field is set to 1=Warehouse(s) generated.

Deleting Warehouses

Warehouses are deleted from a promotion using option 34=Delete warehouses on the B panel in (OIS840). This option disconnects all warehouses that were previously connected to the promotion.

5 Change a Promotion

- Validity Dates

After customers have been generated for a promotion, the validity dates can be changed using option 22=Change promotion dates. Otherwise, the dates can be changed on the E panel in (OIS840/E).

Validity dates for connections to warehouses or customers can also be changed using sorting orders 11 (for customers) and 12 (for warehouses) on the B panel in (OIS840).

- Promotion Lines

Promotion lines can be changed no matter what the status of the promotion is. However, be aware that changes at the line level after the promotion has come into effect may affect the traceability of transactions connected to the promotion.

- Changing Included Customers

If the promotion has status 20=Activated, the status must be changed manually to 10=Preliminary before you can perform changes to the list of individual customers included in the promotion.

If a customer has already been generated for a promotion, its promotion records can be changed by using sorting order 11=View all customers included.

Note: Changes to customers after the promotion has come into effect may affect the traceability of transactions connected to the promotion.

Changes to Customer Tables and Business Chains

When you make a change in a customer table or a business chain, a dialog box will appear that asks whether or not you want to update promotions based on the changes you just made. If you answer yes, note that only promotions with the 'Update promotion' field activated on the E panel in (OIS840) will be updated.

Example:

You have a promotion with the 'Update promotion' field activated that is connected to a customer table. That table includes, among other things, customers that belong to customer group A. Thus, all customers that belong to customer group A became connected to the promotion when you originally set up the connection between the promotion and the customer table and entered option 20=Generate customers.

Later on, you enter a new customer into the system and you add it to customer group A. When you exit the new record, a dialog box asks you if you want to update promotions. If you answer yes, the new customer will be connected automatically to the promotion.

Defining Sales Price Report

This process is used to define a report for sales prices.

A report can be defined for both regular routine runs and temporary runs. A report definition is saved under its own name so that it can be run many times.

Before you start

Sales prices must be defined according to one or more transaction types that are specified for the items included in the report.

Follow these steps

1 Enter basic data

A report is specified in 'Sales Price Report. Open' (OIS530). Basic data is entered in (OIS530/E).

- **Select report type**

Basic data depends on the choice of report type, so the choice is very important. The report type determines the source from which items are retrieved for the price list. The entry of additional basic data depends on the report type chosen.

The following report types are valid:

- Items from the report's primary price list, specified in the report's basic data in the E panel.
- Items from the customer/item file, according to the customer specified in the report's basic data.
- Items from the blanket agreement specified in the report's basic data in the E panel.
- Items from the item assortment specified in the report's basic data in the E panel.
- Items from the item file.

The item selection according to report type can be further limited by defining specific selections for the price list report in 'Sales Price Report. Connect Fields' (OIS532). See section Enter Item Selection in this document.

You can specify the warehouse and order type that will be used as key values in the price list selection. You can also select additional price and discount calculations.

- **Item sorting entry**

Item sorting is specified in 'Sales Price Report. Open' (OIS530/F).

The sorting capability allows you to group items, determine the page breaks, and sort the items in different ways. Items are sorted by entering different key fields, for example product manager and item group. Up to four key fields can be combined into a price list report. A heading can be entered for every key field, which is later proposed during reporting.

You can adjust the column width so that it applies with the contents of the column. If, for example, an item number is shorter than the standard length of 15 positions, you can reduce the column width to save space in the report.

When the report is displayed on screen, it is easy to find the desired items by doing a drill-down through the superior keys.

- **Define header and footer**

The report's header, which is three lines, and footer, which is two lines, are defined in 'Sales Price Report. Open' (OIS530/G). User-defined text and constants may be combined for all lines.

Headers and footers are only used when printing and need not be defined for onscreen display.

The following are examples of available constants:

- Report-ID
- Report name (long and short)
- User ID
- Current date
- Company name
- Customer number
- Assortment name
- Page break ID and description.

- **Define document check**

Document checks for printing are defined in panel 'Sales Price Report. Open' (OIS530/H).

Document checks are used to format a report to the desired paper size and character density etc., depending on the report width and readability requirements.

Up to 99 columns can be defined for a single report. It is important to take the paper's width into consideration when printing a report. You should carefully note the relationship between the column definition and the report's character density.

- **Media selection entry**

The media is selected in 'Sales Price Report. Open' (OIS530/I).

A report requested for printing can be stored as a document in DW/400 so that it is possible to distribute the report automatically.

A report may even be transferred to a PC file, so that it is accessible in PC programs such as Microsoft Excel. The transfer method and file name must then be entered. A PC file is automatically created each time a print command is entered for the report.

2 Enter transaction types

The source used to retrieve price information is defined by entering transaction types in 'Sales Price Report. Connect Trans Types' (OIS531), accessed via option 11 from 'Sales Price Report. Open' (OIS530).

Defining transaction types determines the information displayed in the reports.

A transaction type controls:

- How prices are retrieved for the report, for example according to the item file or the specified blanket agreement.
- The calculations that influence the prices before they are displayed, for example discounts.

The following transaction types are available:

- Prices according to specified sales price list.
- Prices from the customer/item file according to the specified customer.
- Prices from specified blanket agreement.
- Prices from the hierarchy used at customer order entry, according to the specified customer order type. Different items may have different sources.
- Prices from the item file.

It is possible to combine more than one price source in a report.

It is also possible for a transaction type to appear more than once in a report. If you would like to compare two price lists, for example, transaction type 1 can be used more than once, but with different transaction identities referring to the different price lists.

3 Enter item selection

Selections to determine which items to retrieve for the price list report are made by entering a selection field, for example product group and manager. One or more ranges can be defined for each selection field so that the selections can be accurately specified.

Selections are made in 'Sales Price Report. Connect Fields' (OIS532), which is accessed using option 12 from 'Sales Price Report. Open' (OIS530).

4 Enter report columns

Report columns are entered in 'Sales Price Report. Open Columns' (OIS534), accessed using option 13=Columns, in 'Sales Price Report. Open' (OIS530).

Each report column is defined with a column type that determines what the column is used for or what it contains.

The following column types are available:

Type	Description
1	Information about the sales price according to the specified transaction type.
2	Basic data.
3	Alias information. Displays for example, different types of EAN numbers.
4	Calculating column. This is used for calculations that base themselves on other column values or constants. Example: calculating the deviation between net and gross price.
5	Fields from calculation program. These are used to retrieve or calculate data that is not directly accessible to the report generator. This is done via referral to a customized program that performs the operations. This assumes that the parameter list is constructed according to standards. See template program OISMTPL.
6	Text column. Used to display specified text. It is possible to allow the text to be displayed depending on a value in another column. A warning is displayed if the contribution margin ratio is lower than a specified percentage.
7	Cost price. This displays the item's cost price. Both the weighed average price and cost prices for specified costing type can be displayed. The warehouse specified in the report header controls the facility where prices are retrieved.

- Price scale level entry**

If the price source has graduated prices, the price scale level is specified in panel 'Sales Price Report. Open Columns' (OIS534/E).

The price scale level specifies the level in the price list to be used. Price scale level 1 indicates the price for the lowest quantity, 2 indicates the price for the next level, and so on.

- Define column contents**

In 'Sales Price Report. Open Columns' (OIS534/F) you define the column headings, column width and number of decimal places per column.

The Column headings field is used for onscreen display. Column headings 1, 2, and 3 are used for printing. User-defined text and constants can be combined for all column headings.

Column types 4 and 6 allow you to enter the calculation sequence. It is important to specify the calculation sequence if it differs from the display sequence, that is the ascending numerical order from left to right.

If a column is only used for calculations, the display function can be suppressed so that the column is hidden from view.

Discount in Kind

A discount in kind is one that is provided as goods (items) instead of a percentage or amount.

For an item to be provided as a discount in kind, it must be entered for the discount number in a discount model. The quantity of the item provided as discount must also be specified in the model. For more information, refer to documents in See Also section.

A discount in kind can also be provided as a special sales offer. In this case the customer can purchase an item at a discount after making a regular order for another item.

Discount Model - Customer Order

This process is used to specify a discount model for customer orders. This defines the discounts that are automatically specified for a customer order line.

Description

A discount model for customer orders defines the discounts that are either automatically or manually assigned to each customer order line. A discount model can have up to eight discount numbers specified. The discount model also defines the calculation of the discount for a line when there is more than one valid discount for the line.

You can specify the discount model for a customer order through a selection matrix, for each customer, or by customer order type. If you specify it for both the customer and the order type, the system prioritizes the order type. When you specify it through a selection matrix, the system falls back to the customer if necessary.

Follow these steps

1 Specify Discount Model

You specify discount models in 'Discount Model. Open' (OIS800). The system can default these customer order discount models to the customer order header by using a selection matrix defined in 'Discount Model Selection. Open' (OIS363). You can also set discount models from the customer in either 'Customer. Open Local Exceptions' (MFS610) or 'Customer. Open' (CRS610/G). Additionally, you can assign discount

models based on the customer order type in 'CO Type. Update Field Selection' (OIS014). You can manually override discount models during order entry in 'Customer Order. Open' (OIS100).

A number of discount numbers are included in a discount model. A discount number defines the prerequisites for allocating a discount. The discount is allocated to the customer order lines equivalent to the definitions.

- **Allocated Discount Number**

In order to use a discount retrieved from a source other than the actual discount model, for example a blanket agreement or a discount per item/customer combination, a discount number must be reserved in the discount model. This is done by using the '**Allocated discount number**' field on (OIS800/E).

General settings for how the discount for a discount number is processed are specified in 'Discount Model. Connect Disc Number' (OIS805/E). The discount scale is not specified for the discount number, since the discount is defined in the source from which it is retrieved.

2 Define Discount Number

Every discount model can have up to eight discount numbers specified in it. This is done in (OIS805). The discount number regulates the automatic entry of discounts from the appropriate discount model during customer order line entry. Discount numbers must be specified in number order – so there cannot be a discount number four, if number three is not specified. A field is displayed in 'Customer Order. Open Line' (OIS101/E) for each discount number specified when the discount model is used.

General Settings

General settings for each discount number are specified in (OIS805/E). They regulate how the discount is calculated and processed, such as whether the discount is expressed as an amount or is calculated as a percentage, whether the discount can be changed, and how the discount is printed in the order confirmation. The '**Extra text**' field is used to specify the heading displayed during customer order line entry in panel 'Customer Order. Open Line' (OIS101/E).

- **Discount Scale Base**

The discount scale base determines the type of limit values in the discount scale (ex: quantity, weight, amount, etc.). The scale is specified on (OIS805/E) and the limit values are specified in 'Discount Model. Connect Disc Scale Lines' (OIS811/E).

- **Discount Relation**

A discount relation is defined for each discount number to indicate the relation it has to other numbers in the same discount model. When there is more than one valid discount for a line during order line entry, this relation regulates which discount is used. The relation between the different discount numbers depends on the order in which they were specified. For example, discount relation 1 gives one discount to a line if that discount is better than any previous discounts. These previous discounts are then deleted.

3 Specify Control Fields and Start Values

Control fields and start values specified for a discount number regulate when a discount is given and the amount. These values make up the prerequisites that must be met by an order line so that the defined discount is given automatically.

The control fields are general selection criteria. The start value is an exact value in a specific control field that must be matched by the order line for the discount to be given.

If a discount number is defined for setting discounts in an agreement, the control fields and start values are not specified. This is because the discount is defined in 'Cust Blanket Agreement. Open' (OIS060) or 'Customer. Connect Item' (OIS005).

- **Control Fields**

Control fields are specified for a discount number on (OIS805/F). They act as selection criteria for the search for information that qualifies an order line for a discount. The control fields are specified as field names.

A combination of selection criteria can be specified in up to three control fields per line. If no control field is specified in the F panel, no discounts are automatically set for that discount number. One control field can be specified when a discount should always be given, although it does not matter which field is specified.

If a discount number is defined so discounts are set manually during order line entry, no control fields need to be specified.

Example:

Assume a discount is to be given for items in a certain item group on a price list. OBPRRF is specified in control field 1 and MMITGR is specified in field 2. The specific price lists and discount groups, which lead to a discount, are specified as start values as described below.

- **Start Values**

Start values are specified in 'Discount Model. Connect Disc Scale Lines' (OIS811/B). The control fields specified for the discount number are displayed here as headings (ex: Item group, Product group). The '**Priority**' field regulates the priority displayed in the discount number.

A start value, which is a specific value within the control field, must be specified for every control field. The start value is the value which the customer order line must match in order to qualify for a discount. The number of start values specified is optional. The discount type can be changed for a single start value.

The customer order line is checked during order line entry to determine whether there are matching discounts. The discounts are checked in a specific sequence.

Priority

Control fields and start values are specified in order of priority from 1 to 10. When discounts are given automatically, the discount number is searched in order of priority. In this way the values in the order line are first checked against the control fields and start values with priority 1.

If these do not match, the values in the order line are then checked against the control fields and start values with priority 2, and so on. A discount is given for only one priority per discount number. Control fields must be specified in an order of priority and deleted in reverse order.

4 Specify Discount Scales

A discount scale is specified for each combination of priority and start value. This is a scale containing the different discounts given for the different limit values (such as quantity ordered). The value specified as a quantity in the '**Limit value**' field in the discount scale depends on the value specified in the '**Scale base**' field in (OIS811/E), such as quantity or amount.

When the '**Limit value**' field is left blank, the discount for only one priority is given for all sales, regardless of quantity.

Discounts can be given in percentage or as a fixed amount. This is regulated by the '**Discount type**' field on (OIS805/E). The discount type can be changed for single priorities in the '**Discount type**' field in 'Discount Model. Connect Disc Scale Lines' (OIS811/B).

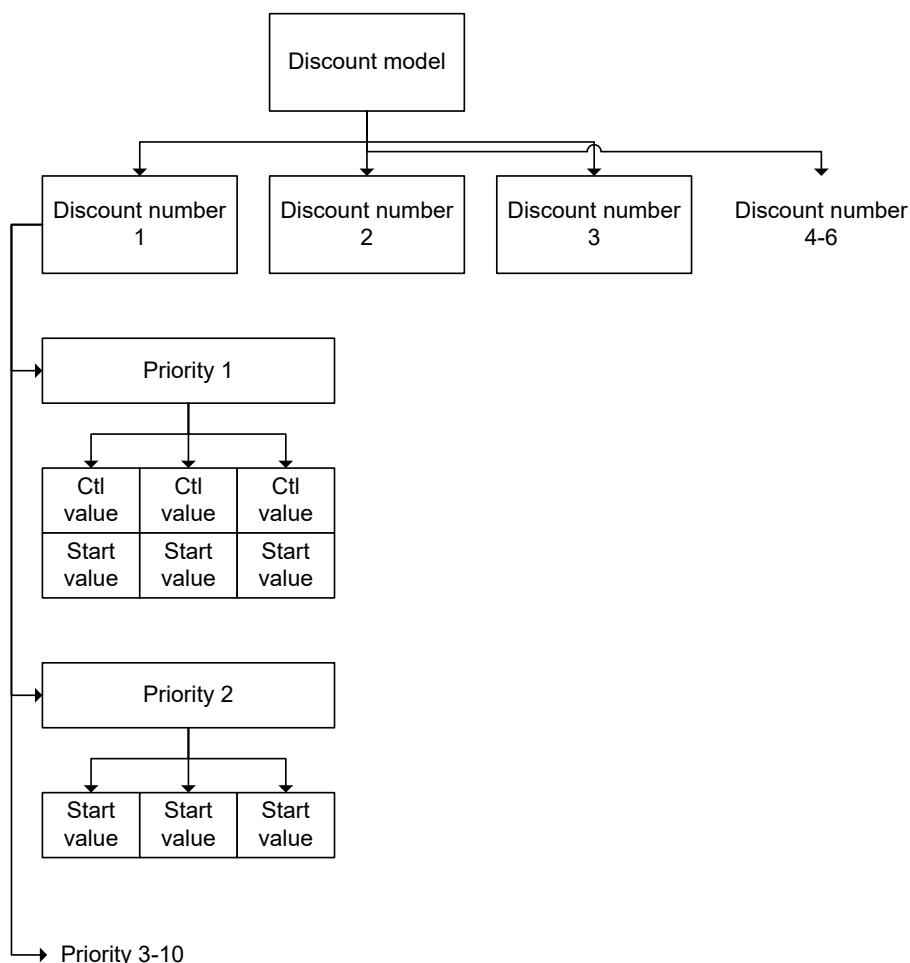
- **Discount in Kind**

A discount in kind can be specified instead of an amount or percentage. The item number of the item offered at no extra cost is specified in the '**Item number**' field, and the quantity is specified in the '**Ordered quantity**' field. If the discount in kind is an item sold at a reduced price, this price is specified in the '**Sales price**' field. Discounts in kind can also be combined with regular percentage or fixed amount discounts.

Outcome

The process results in that discounts are allocated automatically according to the defined discount model and discount number.

The diagram below illustrates the structure of a discount model.



The discount numbers in a discount model can have an interdependent relation or be used independently of each other. This is defined for each discount number.

Discounts according to only one priority can be used for each discount number. This is searched in order of priority. A priority consists of up to three control fields, which, together with a start value define the prerequisites for giving a specific discount.

Discount status

When a customer order line has been specified, a status is displayed for each discount number in 'Customer Order. Open Line' (OIS101/E). The '**Status**' discount field indicates how the discount is calculated. The valid statuses are as follows:

Status	Indicates
1	Discount is calculated automatically.
5	Discount is retrieved from agreement.
8	Discount is manually specified or changed.
9	Discount has been calculated automatically.

Display Sales Price List Report

This procedure is used to display a sales price list report on the screen.

Before you start

A report must be defined in 'Sales Price Report. Open' (OIS530).

Follow these steps

- 1 Start 'Sales Price Report. Display' (OIS535) via option 25=Run on-line, in 'Sales Price Report. Open' (OIS530).
- 2 Specify the report ID and report level, click Next and you will proceed to the B panel.
- 3 Select possible from values for the report keys. Press enter to display the report. You can look at the report at different levels by one of the options below.
 - Specify option 1 to do a drill-down.
 - Press F18=Previous level, to go the next higher level.
 - Press F19=Left or F20=Right, to scroll each page in the report.
- 4 Press F12=Cancel, to change the start values, and you will return to 'Sales Price Report. Display' (OIS535/A). Repeat steps 2-3.
- 5 Press F3=End to finish the procedure.

Dynamic Advance - Bonus/Commission

A dynamic advance is an advance for bonus/commission calculated on a recipient's accumulated paying amounts at the time of the advance within the current year.

The bonus/commission advance method for each bonus/commission agreement (b/c agreement) regulates whether the advance is calculated with a fixed or dynamic bonus percentage.

The purpose of using dynamic advances is to minimize the risk of incorrect advances. The calculation of bonus/provision is based on actual sales (generating values) up to when the advance is calculated. A forecast for the entire agreement period is calculated based on sales reached. The calculated forecast for the generating value is used to obtain a bonus/commission percentage. Then, bonus/commission is calculated on the accumulated paying amount. Previous advances are deducted from the advance.

A seasonal curve can be used to influence the forecast with seasonal fluctuations.

When the advance is calculated, a forecast is also calculated for the recipient. This is done to obtain a percentage that represents a fair estimate of the bonus/commission for the entire agreement period.

The advance is paid out through credit notes, which are transferred to accounts receivable using the regular M3 invoicing routine. The advance calculated for bonus/commission can automatically be reduced by an advance percentage that is specified in the b/c agreement. A defined percent of the appropriate bonus/commission is then paid out. The final settlement of the bonus/commission takes into account the amount that was credited in advance.

The table of bonus/commission percentages is defined in 'Bonus/Comm Agreement. Enter Rates' (OIS413). This program is accessed by using option 12=B/C rates in 'Bonus/Comm Agreements. Open' (OIS412).

See Also

Enter Blanket Agreement - Customer

This procedure is used to enter a blanket agreement and to define the items, prices and terms covered by the agreement.

There are two alternative ways to enter a blanket agreement. You can enter an agreement based on either

- An item or
- Superior groups, where you can group several items together. The superior group can consist of items belonging to, for example the same product group, item type, or business area.

Before you start

- Customers and items must be specified.
- A customer blanket agreement type must be defined in 'Customer Blanket Agreement Type. Open' (OIS063). The agreement type is used to set default values for the agreement, but it is possible to change the pre-defined parameters during blanket agreement entry.

If you want to maintain agreement lines on a grouped level:

- The parameter 'Superior group' must be selected in 'Customer Blanket Agreement Type. Open' (OIS063).
- Control fields must be defined in 'Blanket Agreement Line Selection Field. Enter' (OIS064).

How the blanket agreement is checked is determined by:

- The 'Agreement check – order header' and 'Agreement check – order lines' fields in 'Customer. Open' (CRS610/F)
- The 'Agreement check' field in 'CO Type. Open' (OIS010/I)

Follow these steps

- 1 Start 'Cust Blanket Agreement. Open' (OIS060/B).
- 2 Create a new blanket agreement by specifying the customer number, an identity for the agreement, the date the agreement becomes valid and the agreement type. Select 'New' to proceed to the E panel.
- 3 On the E panel, specify the status, whether or not the agreement covers prices, quantity check and other general information. Press Enter to proceed to the F panel.
- 4 On the F panel, specify terms and conditions for the agreement. Press Enter and 'Customer Blanket Agreement. Open Lines' (OIS061) is started. If you want to enter single items to the agreement, go to step 5. If you want to enter superior groups, go to step 6.
- 5 Specify an item to be covered by the agreement, select 'New' and you will proceed to the E panel. Go to step 7.
- 6 Specify a priority, press Enter and the selected fields entered in 'Blanket Agreement Lines Selection Field. Enter' (OIS064) are displayed. Specify in the fields the values applicable to your agreement. Select 'New' to proceed to the E panel.
- 7 On the E panel, specify a price list, if you want to use a price list instead of prices in the agreement. Specify, if necessary, a valid to date, supplier number and a supplier agreement number. Press Enter to proceed to the F panel.
- 8 On the F panel, specify the agreed quantity of the item and the interval for call-offs. Press Enter and you will return to the B panel, continue to step 10. To specify sales prices, go to step 9.
- 9 Select option 11=Prices in (OIS061/B) to proceed to 'Cust Blanket Agreement. Enter Prices' (OIS062/E) where you can specify sales prices for different order quantities.
- 10 To enter more items, repeat the procedure from step 5. If you want to enter more superior groups, repeat the procedure from step 6. To end, press F3.

Enter Customer Table for B/C

The purpose of this procedure is to specify which customer orders will be included in a bonus or commission agreement (b/c agreement) via a customer table.

Description

A customer table is used if more than one customer is to be included in a b/c agreement. A customer table is connected to a bonus or commission agreement in 'Bonus/Comm Agreement. Open' (OIS412/E). If only one customer is to be included in a b/c agreement, the customer is entered in 'Bonus/Comm Agreement. Open' (OIS412/E).

The procedure also includes entering a b/c recipient. The recipient is the person who receives the bonus that is updated when customer orders are entered for those customers included in the agreement via a customer table.

The B/C recipients are retrieved from the following programs and in the following order during order entry:

- 1 'Customer Order. Connect B/C Recipients' (OIS400). The recipient entered manually by specifying option 19=B/C recipient or option 9 in the panel sequence in 'Customer Order. Open' (OIS100). Recipients entered manually during order entry get the highest priority.
- 2 'Bonus/Commission Agreement. Open' (OIS412)
- 3 'Bon/Com Customer Table. Connect Customers' (OIS408)
- 4 'Bonus/commission Customer Table. Open' (OIS407)
- 5 Customer number from the customer order when using agreement type 9=Bonus agreement.

Follow these steps

- 1 Start 'Bonus/Comm Customer Table. Open' (OIS407). Specify panel sequence E1.
- 2 Create a new customer table ID, select 'New' and you will proceed to the E panel.
- 3 On the E panel, enter a b/c recipient (priority three) for the table. If you want to select customers according to a range, proceed to step 4. If you want to enter specific customer numbers, press Enter and proceed to step 5. It is possible to combine these two options.
- 4 Specify the selection values in the 'From' and 'To' fields in order to define a range of customers that are to be included in the customer table. Press Enter to proceed to 'Bonus/Comm Customer Table. Connect Cust' (OIS408).
- 5 Create an item for a customer number and press Enter. Enter a recipient on the E panel (priority 2) for the customer number. If you have defined a range in step 4, you can add to it by entering additional customers here. Press Enter.
- 6 Press F3=End to complete the procedure.

Enter Discount Model

This procedure is used to enter a discount model which automatically assigns discounts during order line entry. Discount models must also be specified before manual discounts can be given during entry.

Follow these steps

- 1 Start 'Discount Model. Open' (OIS800/B). Specify panel sequence E.
- 2 Specify an ID for a discount model. Select 'New' to proceed to the E panel.
- 3 Specify a name, description, and currency for the discount model.
- 4 If the discount model is for discounts from a blanket agreement or an agreement per item/customer, go to step 5. If not, the procedure is completed.
- 5 Specify a discount number in the 'Allocated discount number' field to reserve the discount number for the discounts defined in the blanket agreement or the agreement per item/customer.
- 6 Enter a discount number reserved in the discount model for promotional discounts.
- 7 Specify an object access group if the access to this discount model is to be restricted. Press Enter to finish.

Discount numbers for discount models are specified in 'Discount Model. Connect Disc Number' (OIS805).

Specifying Discount Number

This procedure is used to specify a discount number for a discount model.

The discount number is used to specify a discount on a customer order line automatically during entry. You can define up to six discount numbers per discount model, which allows an order to contain that many different discounts.

Before you start

A discount model must be specified in 'Discount Model. Open' (OIS800). See [Enter Discount Model](#) on page 148.

Follow these steps

- 1 Start 'Discount Model. Connect Discount Number' (OIS805). This program can also be started with option 11=Discount number in 'Discount Model. Open' (OIS800). Specify panel sequence EF1.
- 2 Specify the discount model in which you want to specify the discount numbers. Press Enter and the discount numbers specified previously are displayed.
- 3 Specify the discount number (1 to 8) and the discount category. Note that discount numbers must be specified in strict number order. Select 'New' to proceed to the E panel.
- 4 On the E panel, define the general settings for how the discount for the discount number is to be created and calculated. Press Enter to proceed to the F panel.
- 5 On the F panel, specify the control field(s). These act as a search path for finding the start values which the order line must match for the discount to be given. If more than one criterion is needed, separate control fields can be specified on the same line. Press Enter and 'Discount Model. Connect Discount Scale' (OIS810/B) is started.

- 6 On the B panel specify a valid from date and, if necessary, a priority. Select 'New' and you proceed to 'Discount Model. Connect Discount Scale Lines' (OIS811/B). The specified control fields for the highest priority or the specified priority are displayed.
- 7 On the B panel, specify a start value for each control field. The discount type can also be changed if necessary. Select 'New' and the E panel is displayed.
- 8 On the E panel, specify an ascending scale with the appropriate limit values and the discount applicable to each limit value. The discounts can be specified as either a percentage, an amount, or a discount in kind. To specify a discount in kind, go to step 9. If you want to specify values for additional priorities, press Enter and you return to the B panel in (OIS811), go to step 10.
- 9 Specify the appropriate item number in the 'Item number' field, and the quantity in the 'Order Quantity' field. If the item should not be free of charge, specify a sales price in the 'Sales price' field. Press Enter and you return to the B panel in (OIS811).
- 10 To specify values for additional priorities with the same valid from date, specify the priority number in the Priority field, press Enter and repeat steps 7, 8, and 9. To end, press F3.

Enter Item Table for B/C

The purpose of this procedure is to specify what items are included in a bonus or commission agreement (b/c agreement).

An item table is a defined selection of items, that are connected to a b/c agreement in 'Bonus/Comm Agreement. Open' (OIS412/E). Items connected to an agreement via an item table are included in the agreement and update bonus or commission.

Follow these steps

Follow these steps to enter an item table for b/c:

- 1 Select 'Bonus/Comm Item Table. Open' (OIS405) and specify panel sequence E1.
- 2 Create a new item table and press Enter. This will take you to the E panel.
- 3 Specify a selection key. The selection key is the search criteria that will be used to choose which items are to be included in the item table. Press Enter and you will proceed to 'Bonus/Comm Item Table. Connect Item' (OIS406).
- 4 Create a range for the items that are to be included in the item table by specifying option 1 and the lowest value within the selection key. Press Enter. Specify the highest value in the range and press Enter.
- 5 Specify a new range or press F3 to end the procedure.

Export Data from Sales Price List Report to PC File

This procedure is used to export data from a sales price list report to a PC file so you can continue to work with the information and present it in a PC tool, for example Microsoft Excel.

Before you start

A report must be defined with columns and references to names for a transfer file, in 'Sales Price Report. Open' (OIS530).

Follow these steps

- 1 Start the 'Sales Price Report. Print' (OIS537) through option 26=Run in batch in 'Sales Price Report. Open' (OIS530).
- 2 Specify the report ID and press Enter. A transfer file is created and stored in the QRPLOBJ library. If the file exists since a previous run, the contents are replaced. Notice that the file is created to be transferred to a PC or server immediately. The file is deleted at the next Initial Program Load (IPL).
- 3 Transfer the file to a PC or Server by using a file transfer tool, e.g. IBM PC support or Client Access.
- 4 Retrieve the file in any PC tool.

External Pricing Information

This document explains how external price information is retrieved to a customer order line and how this information is used for printout on packing notes and price labels.

External prices are used as price information in a business-to-business context. For example, they are used by companies to include a suggested retail price as part of their service when they sell to wholesalers.

External prices are not used to set sales prices on order lines.

Outcome

- Price information is printed on price labels.
- External prices are printed on packing notes.

External prices can be used for:

- Recommended sales price
- End consumer price
- Retail price
- Sales activity price
- Special price

External prices are retrieved to the customer order line and can be printed.

Before you start

- A price list for external prices must be specified for a customer in 'Customer. Connect External Prices' (OIS045).
- Settings for external prices must be defined in 'Parameters - CO Copying' (CRS731/E). This enables copying of external prices when copying a customer order.
- Label flag IDs must be specified in 'Price Label Flag. Open' (OIS044).
- External prices must be activated the 'External prices' field in 'Customer. Open' (CRS610/H).

Description

1 Customer Order Line Entry

When an item is specified in 'Customer Order. Open Line' (OIS101), a check is done to see if the specified item is included in one or several of the price lists entered for external prices.

2 Price List for External Prices per Customer

The prices used for printing external prices are defined in a price list in 'Sales Price List. Open' (OIS017). The price list is then connected to a customer in 'Customer. Connect External Prices' (OIS045), which is reached from 'Customer. Open' (CRS610) using option 15=External prices.

Six price lists can be specified to be used for external prices. For each price list a label flag is specified. A label flag is an identity for a label layout to be used when printing delivery notes and price labels in 'Customer Order. Print Sales Price Label' (OIS615). The label flag is also used to determine the label layout if M3 is used with an optional PC application.

3 External Prices Retrieved to Customer Order Line

External prices are retrieved automatically from one or several price lists to the order line. This means, for example, that if an item is included in three price lists, all three prices are retrieved.

Changing External Prices

External prices may be changed, added, or deleted on a customer order line. This is done by using option 17=External prices in 'Customer Order. Open Line' (OIS101). 'Customer Order. Enter External Prices' (OIS108) is then displayed.

External prices can also be added to a customer order after order entry. This is done using option 17=External prices in 'Customer Order. Open Line Toolbox' (OIS301).

4 Printout

- Printout of Packing Note Containing External Prices

If set in the 'External prices' field in 'Customer. Open' (CRS610/H), external prices will be printed on packing notes. Packing notes are printed in 'CO Delivery. Print Packing Note' (OIS620).

- Printout of Price Labels Containing External Prices

If set in the 'External prices' field in 'Customer. Open' (CRS610/H), external prices can be printed on sales price labels.

Price labels are printed in 'Customer Order. Print Sales Price Label' (OIS615). Two label flags can be printed. This could be used to print out external price and regular price.

Number of Labels

The number of labels per label flag ID is the same as the ordered quantity in basic U/M, but can be changed at printout.

Fixed Advance - Bonus/Commission

A fixed advance is an advance for bonus/commission calculated with a fixed percentage. This advance is credited to a recipient and is based on the accumulated paying amount according to the period interval.

The b/c advance method for each bonus/commission agreement (b/c agreement) regulates whether the advance is calculated with a fixed or dynamic bonus percentage. Fixed percentages are entered in 'Bonus/Comm Agreement. Enter Reservations' (OIS414). This program is accessed by specifying option 13=Reservation in 'Bonus/Comm Agreement. Open' (OIS412).

The advance is paid out through credit notes, which are transferred to accounts receivable using the regular M3 invoicing routine. The advance calculated for bonus/commission can be automatically reduced by the advance percentage specified in the b/c agreement. The final settlement of the bonus/commission is then reduced by the amount that was credited in advance.

See Also

Generating Value

Generating values are used to obtain the correct percentage to be calculated on the paying amount for dynamic advances. They are also used when settling bonus/commission.

Generating values are updated for each combination of bonus/commission (b/c) agreement and recipient.

The b/c percentage is entered in a table containing an ascending scale of generating values. Each limit value corresponds to a percentage. The bonus/commission is calculated on the paying amount, using the percentage corresponding to the generating value reached. See the example below.

The generating value can be expressed as a:

- net amount (including discounts)
- gross amount (excluding discounts)
- sales price according to the item file
- contribution margin (net amount - cost price)
- cost price according to the order line
- net weight
- gross weight
- volume
- quantity (converted to the specified unit in the b/c agreement).

The generating value and recipient are updated either during invoicing or during a separate update. The time of the update is determined in 'Settings - Customer Order Invoicing' (CRS722).

The files that determine whether or not an order line can affect the generating value are listed below. The list is not hierarchical.

- Item
- Price list

- Blanket agreement
- Discount campaign
- Customer order type

In each file, one of the following values is specified:

0 The order line does not affect any b/c agreements.

1 The order line is generating, meaning that it affects the b/c agreement's generating value.

2 The order line is generating and paying, meaning that it affects the b/c agreement's generating value and paying amount.

The file with the lowest value controls how an order line will affect bonus/commission. However, it can be changed by the user.

A paying order line is also always a generating one.

Note: These values are set separately for bonus and commission. Therefore, an item can only be generating for agreement type 9 (bonus agreement), and paying for agreement types 1-8 (commission agreement).

Example

If the customer order type has 0 entered for bonus, then all customer orders using this order type will be assigned a default value of 0, even if 2 is entered for the item in the item file.

A bonus/commission table can be structured as shown below. The limit values are based on the generating value Net Weight.

Net Weight	B/C Percentage
100	2.00
200	5.00
500	7.00

When the accumulated net weight for the agreement period is lower than 100, no bonus/commission is offered. An accumulated net weight of 100-199 gives a 2% bonus/commission; from 200 to 499 gives 5%, and from 500 and up the recipient gets 7% bonus/commission.

Manage Preliminary Price List

Introduction

The entire price list can be set to preliminary status to prevent its sales prices to be part of any price retrieval, price simulation and price report until approved. Once approved the preliminary check box is to be unchecked on the price list header.

Limitations

The preliminary price list check box only applies to the entire price list, that is, it is not possible to set only individual price list lines to preliminary.

Define and Maintain a Preliminary Price List

Select the check box 'Preliminary' in 'Sales Price List. Open' (OIS017) to define the price list as preliminary.

The sales prices in a preliminary price list are disqualified at price retrieval, price simulation, and within the price report.

Once the sales prices are approved and the preliminary check box is unchecked, the price list is active based on its validity period.

Note: Upon pressing Enter in (OIS017) a batch job is submitted with the purpose to update all the price list lines.

Manage Pricing Groups

This document explains how to manage pricing groups. By using pricing groups, pricing conditions can be defined for items per division and facility. This is applicable when pricing strategies for consumables are based on local item classification.

Define and maintain pricing groups

Pricing groups are defined in 'Pricing Group. Open' (OIS365).

A pricing group is connected to items per division. The valid items are defined using a maximum of three control fields. The pricing group selection criteria are specified in 'Pricing Group Selection. Open' (OIS366). Per entry, up to six pricing groups can be defined and are applied in priority order as displayed on panel E.

The predefined key field must be defined as selection criteria for the pricing group in 'Available Object Ctrl Parameters. Open' (CMS016). These act as the search path for finding the values the order line must match for the pricing group to be valid in (OIS366). A combination of selection can be specified in up to three control fields.

Manage pricing groups

Pricing group is supported as a control object to drive pricing in 'Sales Price List Table. Open' (OIS012), 'Discount Model. Open' (OIS800), 'Sales Costing Element. Open' (OIS015), 'Order Line Charge. Open' (CRS275), 'Order Ln Charge Model. Open' (CRS278), and 'Trade Agreement Table. Open' (OIS436).

For promotions, the pricing groups can be used as selection criteria in 'Promotion. Generate Items' (OIS843) to determine what items to include in the promotion.

Managing Bonus and Commission

This document explains how to compile invoiced customer orders covered by a bonus and commission (B/C) agreement. It also explains how to pay out advances and settle the final bonus/commission for a recipient.

Outcome

A bonus and commission agreement is created, and one or several advances and a final settlement are calculated and carried out for the recipient(s).

The advance and final settlements for B/C agreements create invoices automatically via M3 batch order entry. These invoices can be credit, debit or zero. The bonus or commission can be settled either after the agreement has expired or in advance before the end date of the agreement.

Before You Start

- Bonus/commission is activated in 'Settings Bonus & Commission' (CRS724).
- Source 5=Credit for bonus and commission from (OIS415) is specified in 'Settings Batch Orders' (OIS278/E).
- Bonus/commission is activated in 'Customer. Open' (CRS610/H) for the customers included in a B/C agreement.
- Items that can affect the recipient's bonus/commission are defined as paying or generating in 'Item. Open' (MMS001/H).
- Customer order types used during order entry are defined as paying or generating for the bonus/commission in 'CO Type. Open' (OIS010/I).
- Reservation accounts for the balance sheet and income statement are defined for the bonus/commission. See 'Accounting Rule. Set' (CRS395) for accounting event OI20, accounting types 181-184.
- If the B/C agreement is processed in a currency other than the local currency, accounts for currency adjustment must be specified. See 'Accounting Rule. Set' (CRS395) for accounting event OI20, accounting types 301-302.
- Active B/C agreements are created (that is, there are agreements with status 20 or 30). The agreement must contain customers, items and recipients. See 'Bonus/Comm Agreement. Open' (OIS412). The invoice date on the customer order must be within the agreement's validity period in order to affect B/C agreements.
- Customer order (CO) types to be used to credit advances and final settlements are entered in the CO types table in 'CO Type. Open' (OIS010). For the bonus and commission, either separate CO types or a common CO type can be used. The customer order category for these CO types must be 9 (advance and final settlements). These CO types are then specified in 'Settings Bonus & Commission' (CRS724).
- The item numbers used as order lines during crediting and settlement are entered in 'Item. Open' (MMS001). Two different item numbers for the bonus and commission must be used. These are then entered in 'Settings - Bonus & Commission' (CRS724).

Follow These Steps

1 Enter B/C Agreement

The same M3 routines are used for bonuses and commissions, so they are both managed in the same programs. However, bonuses and commissions can be separated with regards to agreements, items, statistics and internal reservations in the general ledger.

B/C agreements can be valid for a facility or for a whole division. If a facility is not specified when entering an agreement then the agreement will be valid for all facilities within a division.

B/C agreements can be separated into different types. Types 1-8 are commission agreements and type 9 is for bonus agreements.

B/C agreements are entered in 'Bonus/Comm Agreement. Open' (OIS412). The user defines which customers and items are connected to the agreement, and the customers can even be business chains. During invoicing, a bonus/commission is affected if both the ordering customer and the ordered item are covered by the agreement. If a business chain is used, the program checks whether the customer is part of a chain that has a valid B/C agreement.

The B/C recipients are retrieved from the following programs and in the following order during order entry:

1	'Customer Order. Connect B/C Recipients' (OIS400). The recipient entered manually by specifying option 19=B/C recipient or option 9 in the panel sequence in 'Customer Order. Open' (OIS100). Recipients entered manually during order entry get the highest priority.
2	'Bonus/Commission Agreement. Open' (OIS412)
3	'Bon/Com Customer Table. Connect Customers' (OIS408)
4	'Bonus/commission Customer Table. Open' (OIS407)
5	Customer number from the customer order when using agreement type 9=Bonus agreement.

During invoicing, the B/C agreement's generating value and paying amount are affected. Each B/C agreement can have one or more bonus/commission recipients, but an order line only affects one recipient per B/C agreement.

- *Enter Currency*

A B/C agreement can handle different currencies. Regardless of the currency, all sales are converted to the agreement's currency. Advances and settlements are also based on the agreement's currency.

- *Enter Reservations*

A percentage for reservations is entered in each B/C agreement and is used when the recipient is updated with the paying amount from an order line. The reserved amount is stored in the balance sheet and income statement in the general ledger during invoicing.

Reservations allow continuous follow-up on the accrued debt and costs for a bonus/commission. When advances and final settlements are calculated, the reserved amounts are adjusted with the actual amounts advanced or settled. Reservations are entered in 'Bonus/Comm Agreement. Enter Reservations' (OIS414).

- *Enter B/C Percentage*

Percentages to be used when calculating a bonus/commission can be entered in an ascending scale according to the generating value reached.

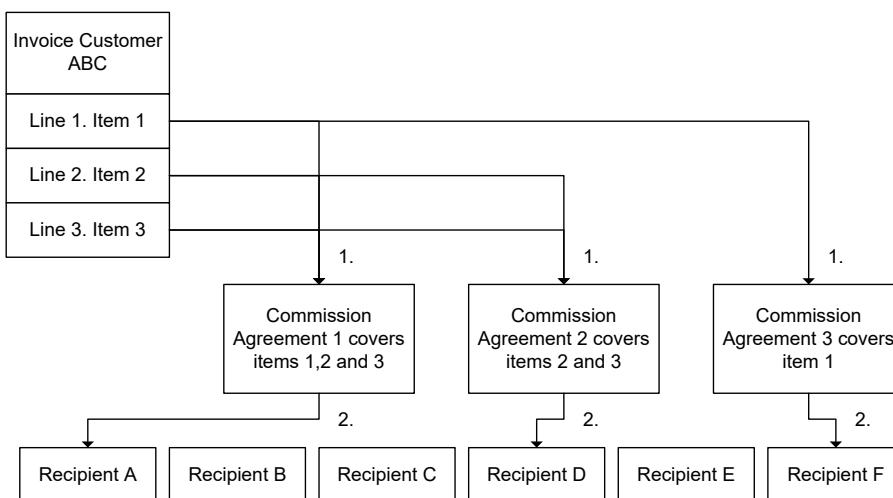
Example:

Generating Value Net Weight	Percentage
1 000	3
2 000	5

Assume that customer order lines are invoiced and the net weight is between 1,000 and 1,999 within the agreement period (annual). The recipient is entitled to 3 percent of the paying amount reached. A net weight of 2,000 and up gives a 5 percent bonus. If the net weight falls below 1,000 within the period, no bonus is offered.

2 Monitor B/C Agreements

The following figure illustrates how an invoice updates a B/C agreement.



Note 1: Agreements that are to be updated are controlled by the customer/item combination. A line can update several agreements

Note 2: Only one recipient per agreement is affected per invoice. Recipients are controlled by the customer per B/C agreement.

The numbers used to calculate a bonus/commission are generated when an invoiced order line matches one or more active B/C agreements. The invoice date must be within the agreement's validity period. Customer order lines update the recipient's paying amount and/or generating value. 'Settings Customer Order Invoicing' (CRS722) is used to define when the bonus/commission is updated.

An invoiced customer order line can affect several B/C agreements, but only one recipient per B/C agreement is affected.

The customers are validated against the B/C agreement as follows:

- The B/C agreement must be entered for the customer in 'Customer. Open' (CRS610).
- The customer number must be included in the B/C agreement's customer table in 'Bonus/Comm Customer Table. Connect Cust' (OIS408).
- The customer number must be included in a business chain entered in the B/C agreement in 'Business Chain. Connect Customer' (OIS039).

The items are validated against the B/C agreement as follows:

- The order line's item number must be paying or generating.

- The item number must be included in the B/C agreement's item table in 'Bonus/Comm Item Table. Connect Item' (OIS406).
- If two item tables are specified for the B/C agreement in 'Bonus/Comm Agreement. Open' (OIS412), the item number must be included in both tables.

The customer order lines affecting one or more B/C agreement's paying amounts are reserved on a continuous basis in the general ledger. The reservation is calculated using the percentage specified for the recipient and the order line's paying amount. The reservations are recorded when other invoices are recorded.

3 Handle Advances

Either invoiced amounts or paid amounts can be used to calculate an advance or a settlement. Paid amounts are the value of those invoices that have been fully paid. This is set in a parameter called "Check paid invoices" in 'Settings - Bonus & Commission' (CRS724).

- Calculate B/C Advance Proposals*

It is possible to create an advance proposal before it has been credited and transferred to financials. The proposal can then be adjusted manually. After the adjustment, the advance can be credited to the recipients.

- Calculate and Credit B/C Advances*

Each B/C agreement indicates whether advances should be credited for the accrued bonus/commission amount. The advances are credited on a continuous basis during the agreement period at a set frequency. They can be credited with either a fixed percentage of the accrued paying amount for the period or a dynamic percentage used for the recipient's forecasted generating value (see the comparison below). The advances are calculated based on the accrued paying amount.

- B/C Advance Methods*

There are two methods for calculating advances. One method uses a fixed percentage and the other uses a dynamic percentage. The percentage is defined for each B/C agreement.

These two methods are compared in the table below.

	Fixed Advance Method	Example	Dynamic Ad- vance Method	Example
Forecasted generating value	Not used	0	According to the last date in the advance period or the current date within the period. See 'Bonus/Comm Agreement. Change Status' (OIS410).	50,239.00

	Fixed Advance Method	Example	Dynamic Advance Method	Example
Percentage	According to recipient. See 'Bonus/Comm Agreement. Enter Reservations' (OIS414).	3.50%	Retrieved from percentage table according to forecasted generating value as shown above. See 'Bonus/Comm Agreement. Enter Rates' (OIS413).	3.00%
Paying amount	Period interval totals. See 'B/C Agreement. Change Recipient Status' (OIS411).	12,000.00	Retrieved total accrued paying amount up to the last date in the advance period or the current date within the period. See 'B/C Agreement. Change Recipient Status' (OIS411).	20,371.00
Subtotal 1	Paying amount * %	420.00	Paying amount * %	611.13
Previous advance	Not used	0	Previous advances are deducted. See 'Bonus/Comm Agreement. Change Status' (OIS410).	168.00
Subtotal 2		420.00	Subtotal 1 - previous advance	443.13
Advance percentage	According to B/C agreement. See 'Bonus/Comm Agreement. Open' (OIS412).	80.00%	According to B/C agreement. See 'Bonus/Comm Agreement. Open'	80.00%
B/C advance	Calculated amount can be changed manually if agreement status is 20 (OIS412).	336.00	Calculated amount can be changed manually if agreement status is 20 (OIS412).	354.50

- *Advance Percentage*

An advance percentage can be specified for each B/C agreement. When advance percentage is used, the recipient does not receive an entire advance, but only a specified percentage of it. For example, if the calculated advance is \$420 and the advance percentage is 80 percent, then the recipient is credited \$336.

- *Advance Frequency*

The frequency indicates how often an advance is calculated within the period type, such as once a month, every third month, etc. The period type is specified in the B/C agreement and can cover a month, a year, etc.

- *Crediting Advances*

Approved advances automatically generate a credit order for the recipient via M3 batch order entry.

- *Internal Reservations Bookkeeping*

Internal reservations for the expected bonus/commission amount are recorded when invoicing the affected order lines. The reservations are calculated on the order lines' paying amount and reservation percentage according to the customer ID of the recipient. A general percentage for all recipients can be specified in the B/C agreement. The reservations are adjusted by the actual advance and final settlement amounts credited.

Sales statistics are updated with the sum of reservations made for the B/C agreements that are affected by the order line. This allows continuous statistical follow-up since an expected cost for the bonus/commission can be included in statistical reports.

Even the invoices used for advances/settlements for the recipient are updated with the adjusted amount. This means that the actual costs for the bonus/commission can be used in statistical reports to calculate, for example, the net margin for sold items where the bonus/commission is included in the cost.

4 Handle Annual and Final Settlements

A final calculation of the bonus/commission is made for the recipient(s) included in a B/C agreement.

After the B/C agreement has expired, a final bonus/commission settlement is made.

If the agreement covers more than one year, annual settlements are made at year-end or once after the validity period has ended. It is also possible to manually settle and close a B/C agreement before the end date.

If an advance has been credited to the recipient, the final invoice is reduced by this amount. When the advance is too high in relation to the final bonus/commission, a debit invoice for the difference is created.

Settlements automatically create invoices for the recipient via M3 batch order entry. These invoices can be credit, debit or zero.

Managing Promotions

This document explains how to create, manage and follow up on a promotion in M3. It also explains all the different statuses a promotion has during its life cycle.

A promotion is a time-limited activity that aims to increase sales of one or more particular products to one or more customers. A promotion is based either on reduced prices or on discounts.

A promotion is an entity that can be followed up on separately or along with other sales.

Outcome

Prices and discounts are retrieved from promotions into customer orders.

This functionality is useful for managing discounts or reducing prices in cases where it is necessary to follow up on sales separately.

If promotions are activated, the system checks for valid promotions during customer order entry.

Either a single promotion or a promotion selection panel will be retrieved into the customer order, depending on the settings.

Promotion prices and discounts are retrieved automatically to the customer order line if the order matches one or more promotions. Prices for entered items have price origin 9=Price from a promotion agreement.

Transactions are created in 'Promotion. Display Transactions' (OIS842) for orders that include promotions.

The following files are updated:

- OPROMH – Promotion Header
- OPROMC – Promotion Customer
- OPROML – Promotion Lines
- OPROMW – Promotion per Warehouse.

Before you start

- The 'Promotion check' field must be activated and promotion must be a part of the price origin sequence in 'Customer Order Type. Open' (OIS010/I).
- A promotion must be entered, its status must be 20=Activated, and customers must have been generated for it.
- If the promotion is discount based:
- A discount model must be entered or retrieved into the customer order header in 'Customer Order. Open' (OIS100/H).
- In the discount model, a discount number must be reserved in the 'Reserved promotional discount' field in 'Discount Model. Open' (OIS800/E).
- If business chains are used for a promotion, the 'Business chain check' field must be activated in 'Customer Order Type. Open' (OIS010/E).
- If the promotion is only valid for certain warehouses, the connections to the warehouses must have been generated.
- A view must be entered for 'Promotion. Display Transactions' (OIS842) in 'View. Open' (CRS020).

Follow These Steps

1 Enter and Activate a Promotion

When a promotion is entered and activated in 'Promotion. Open' (OIS840), you define the promotion and connect customers, warehouses and items to it. The promotion is an entity that controls prices and discounts for a limited time period for a number of customers and items. The promotion contains its own budget and follow-up transactions.

2 Carry Out a Promotion

A promotion is active in the system for as long as it is running in the media, in stores, etc. Throughout that period, checks will be performed during order line entry to see if any order line matches the promotion (or matches any other active promotion, for that matter).

3 Promotion Check at Customer Order Entry and Invoicing

When promotions are active, a check is made during customer order entry and invoicing.

A promotion is valid for a customer order when:

- The customer is included in the promotion.
- The item the customer is purchasing is included in the promotion.
- The pricing date is within the validity dates of the promotion. The pricing date is set in the 'Price and discounting setting' field on the I panel in (OIS010).
- The order line belongs to a warehouse connected to the promotion (in cases where the promotion is valid only for a particular warehouse or selection of warehouses).
- A discount model is entered in the order header (in cases where the promotion includes a line discount that is entered as a deduction). If this is the case, the discount model must have an allocated discount number in (OIS800).

If all applicable values match, the appropriate promotion prices and/or discounts are used for the order.

If the settings are such that valid promotions are displayed in a selection panel (alternatives 2 or 3 in the 'Promotion check' field in the order type), it is possible to ignore promotions by pressing F17. When promotions are ignored, the sales price is retrieved from the next source in the order type's price origin sequence.

4 Follow Up on a Promotion

The results of a promotion can be monitored day by day. As soon as a customer order is invoiced, the result is updated in 'Promotion. Open' (OIS840). The total amount invoiced for the promotion is displayed in the 'Sold amount' field on the E panel in (OIS840). The amount is shown in terms of net price and is updated during invoicing.

Detailed information about sales tied to each particular promotion can be viewed in 'Promotion. Display Transactions' (OIS842). User-defined views can be set up to monitor promotions.

Promotion results are also tracked in general sales statistics. 'Sales Stats/Budget Report. Open' (OSS412) can be used to generate reports to help you monitor a promotion's results.

5 End a Promotion

When a promotion's validity has expired, its final fixed costs are reported and it is deactivated.

First, the total fixed costs (ads, telemarketing, etc.) for the promotion are reported and distributed across the included items.

The promotion cost is entered in the 'Actual fixed cost' field in 'Promotion. Open' (OIS840/E). The cost is then distributed across the included items using F17=Distribute actual fixed cost. The result is that the 'Actual fixed cost' field for each included item is updated in 'Promotion. Open Lines' (OIS841/F). The distribution is made according to the chosen distribution method.

Finally, the status is set to 90=Ended on the E panel in (OIS840). When the promotion is ended, orders can no longer be matched to the promotion order entry.

Paying Amount

Paying amounts are used in M3 routines for bonus/commission.

They are updated for each combination of bonus/commission agreement (b/c agreement) and recipient.

The paying amount can be expressed as a:

- net amount (including discounts)
- gross amount (excluding discounts)
- sales price according to the item file
- contribution margin (net amount - cost price)
- cost price according to the order line.

Paying amounts are used as the basis for calculating bonus/commission according to the b/c agreement's percentage for the value reached. The calculation is made for advances and final settlements.

The paying amount and recipient are updated either during invoicing or during a separate update. The time of the update is determined in 'Settings – Customer Order Invoicing' (CRS722).

The files that determine whether or not an order line can affect the paying amount are listed below. The list is not hierarchical.

- Item
- Price list
- Blanket agreement
- Discount campaign
- Customer order type

In each file, one of the following values is specified:

- The order line does not affect any b/c agreements
- The order line is generating, meaning that it affects the b/c agreement's generating value
- The order line is generating and paying, meaning that it affects the b/c agreement's generating value and paying amount.

The file with the lowest value controls how an order line will affect bonus/commission. However, it can be changed by the user.

Note that the above values are set separately for bonus and commission. Therefore, an item can only be generating for agreement type 9 (bonus agreement), and paying for agreement types 1-8 (commission agreement).

Finally, a paying order line is also always a generating one.

Example

If the customer order type has 0 entered for bonus, then all customer orders using this order type will be assigned a default value of 0, even if 2 is entered for the item in the item file.

Percentage - Bonus/Commission

A percentage for bonus/commission is entered in a table containing a scale of percentages and corresponding limits for generating values. Dynamic advances and final settlements use the table of bonus/commission percentages to calculate bonus/commission.

If a dynamic advance method is used, the percentage is retrieved according to the generating value reached. Therefore, the percentage used to calculate bonus/commission can vary depending on the generating value reached during a certain period.

The percentages are entered in ‘Bonus/Comm Agreement. Enter Rates’ (OIS413). This program is accessed by using option 12=B/C rates in ‘Bonus/Comm Agreements. Open’ (OIS412).

Example

Here is an example of a bonus/commission table. The limit values are based on the generating value Net Weight.

Net Weight	B/C Percentage
100	2.00
200	5.00
500	7.00

When the accumulated net weight for the agreement period is lower than 100, no bonus/commission is offered. An accumulated net weight of 100-199 gives a 2% bonus/commission; from 200 to 499 gives 5%, and from 500 and up the recipient gets 7% bonus/commission.

Price Guidance

This document explains the setup for the price guidance process.

Price guidance is the process where the pricing department provides price guidance to a salesperson discussing prices with a customer. A change in net price should always be done by reviewing the guidance levels. The salespersons are not allowed to see all levels in the price guidance. A change of net price below the salesperson's authority level blocks the order line from further processing until the price is authorized by a user who has the authorization to set such a price.

Follow these steps

- 1 Define the price guidance model in 'Price Guidance Model Header. Open' (OIS335) and 'Price Guidance Model Lines. Open' (OIS336).

It is possible to define that a price guidance line represents the 'Maximum price', 'Audit required price', or 'Minimum price', but all these are optional.

- 2** Define object control parameter 'Price Guidance Model' in 'Available Object Ctrl Parameters. Open' (CMS016).
- 3** Define the control objects in 'Generic Object Control Table. Open' (CMS017/E).
- 4** Define how the price guidance model is retrieved in 'Price Guidance Model Selection. Open' (OIS338).
- 5** Select alternative '1-Yes' in parameter 'Price guidance' on the customer order type in 'CO Type. Open' (OIS010/I) if price guidance should be used when changing the price on the order line. To also store price guidance details when changing the price, select alternative '2-Yes, and store details'.
 - If selected, 'Sales price rule' must be 2 or 3, which means that it is not possible to manually change the sales price in 'Customer Order. Open Line' (OIS101).
 - 'Price guidance' can only be selected if the 'Closing point' on the order type's dispatch policy is 2-'First plist crt' in 'Dispatch Policy. Open' (MWS010/G).

Optional settings

- You can select that a price guidance line should not be displayed in 'Price Guidance. Display' (OIS337).
- Define price origins that are blocked for price guidance in 'Price orig block' in (OIS010/I). The price guidance option cannot be used if the price origin on the order line is one of the origins specified here.
- Object control parameter 'Price Authorization' can be defined in (CMS016) and (CMS017), which makes it possible to define who should receive an application message when an authorization is required.
- Define who should receive an application message in 'Price Authorization Selection. Open' (OIS333). You can define a specific user and a user class (a group of users) that should get the message.
- Activate application message type 433='CO line requires price authorization' in 'Settings – Application Messages' (CRS424).
- User classes can be defined in 'User Class. Open' (MNS415) and users are connected to the user classes in 'Users per User Class. Connect' (MNS416).
- A discount model can be defined with a discount number allocated to price guidance.
 - Select a 'price guidance discount number' in 'Discount Model. Open' (OIS800/E). You may need to go to the setting panel using F13 for (OIS800/E) and open the 'Price guidance' field.
 - Create the discount line in 'Discount Model. Connect Disc Number' (OIS805) and select if it should be defined as a percentage or an amount.
- It might be suitable to control authorization to (OIS337) and specific function keys (like F17) in (OIS337) through 'Function. Connect Authorization by Role' (SES400).

Price List

A price list is used to automatically calculate and price entered items. Each price list has a unique identity which is made up of a combination of price list code, currency, and validity date. Price lists are defined in 'Sales Price List. Open' (OIS017).

To calculate sales prices in a price list, the price list is connected to a costing model, which regulates the calculation base from which the price list's sales price is calculated. Examples of calculation bases are: sales price according to item file, basic price according to another sales price list.

Costing element lines are then connected to the costing model. These regulate how the calculation base is calculated using markups and markdowns in order to arrive at the price list's basic price.

Since the final sales price of an item can depend on factors such as ordered quantity or total weight, order-dependent elements can be used instead. This means that the final sales price is only calculated after an order line is entered.

Costing models are entered in 'Sales Costing Model. Open' (OIS022). The costing model's element lines are entered in 'Sales Costing Model. Open Lines' (OIS023), which is accessed from (OIS022) via option 11.

Working with price lists is simplified since the price list id is made up of a combination of price list code, currency and validity date. For example, price lists can be defined for a future date by entering them with different sales prices for different time periods.

Print Sales Price List Report

This procedure is used to print sales price list reports.

Before you start

A report must be defined in 'Sales Price Report. Open' (OIS530).

Follow these steps

- 1** Start 'Sales Price Report. Print' (OIS537) through option 26=Run in batch, in 'Sales Price Report. Open' (OIS530).
- 2** Specify the report ID.
- 3** Press Enter to print the report.

Recipient - Bonus/Commission

A recipient is the person receiving a bonus or commission for the customer order lines covered by a bonus/commission (b/c) agreement.

Customer order lines in an invoice can affect several b/c agreements with different recipients, but only one recipient per b/c agreement. This is because it is the customer or specified recipient of the customer order who determines the recipient per b/c agreement.

The recipient in the b/c agreement is retrieved in this sequence:

- Recipient according to b/c agreement in 'Bonus/Comm Agreement. Open' (OIS412).
- Recipient according to the customer number in the b/c table in 'Bonus/Comm Customer Table. Connect Customer' (OIS408).
- Recipient according to the b/c table in 'Bonus/Comm Customer Table. Open' (OIS407).

- Recipient 1-9 according to agreement types 1-9 of affected b/c agreements in 'Customer Order. Connect B/C Recipients' (OIS400). This program is accessed via option 19 in 'Customer Order. Open' (OIS100). The default values are retrieved for the customer order according to:
 - 1 The blanket agreement in 'Customer Blanket Agreement. Open' (OIS060).
 - 2 The customer order type in 'CO Type. Update Field Selection' (OIS014).
- The customer order's customer number (for agreement type 9='Bonus only').

If there is no recipient specified in the above hierarchy for agreement types 1-8 (commission agreements), the customer order is excluded from all b/c agreements even though one or more order lines are generating and/or paying.

A recipient must always be entered in 'Customer. Open' (CRSG10) in order to receive any credits for advances or final settlements. The salesperson code must also be entered as a customer number in the customer file in order to receive commission.

Report Final Fixed Costs and Deactivate a Promotion

This document explains how to report final fixed costs for a promotion and how to distribute the total cost across the included items.

Before you start

A promotion must be set up and it must run for the full period.

Follow these steps

Deactivate a Promotion

- 1 Start 'Promotion. Open' (OIS840).
- 2 Select the promotion that is to be closed. Select 'Open' and you will proceed to the E panel.
- 3 On the E panel, set the promotion's status to 90=Ended to deactivate the promotion.
If the promotion's 'Valid to' date has expired, it will already have been deactivated automatically, and the status change you make will be for informational purposes only.
- 4 Specify the total final cost in the 'Actual fixed cost' field.

Distribute the Actual Fixed Cost by Distribution Methods 1-3

- 1 On the E panel, select function F17=Distribute actual fixed cost, and the costs are distributed across all included items according to the chosen distribution method.
- 2 The distributed value can be changed per item in 'Promotion. Open Lines' (OIS841/F)
 - If method 1 is chosen, the costs will be distributed equally among all included items.
 - If method 2 is chosen, the costs will be distributed according to the budgeted amount for each item in relation to the total budget amount.

- If method 3 is chosen, the costs will be distributed according to the invoiced amount for each item in relation to the total invoiced amount.

Distribute the Actual Cost by Distribution Method 0

- 1 When the distribution method is 0, the entered cost is only used to provide information about the promotion as a whole. If the costs need to be per item, proceed to 'Promotion. Open Lines' (OIS841) from the E panel in (OIS840).
By entering 1 and 2 in the panel sequence in (OIS840), (OIS841) and (OIS842) will automatically start.
- 2 On the B panel, select an item and select 'Open' to proceed to the F panel.
- 3 Specify the cost in the 'Actual fixed cost' field. Press Enter and you will proceed to 'Promotion. Display Transaction' (OIS842).

Follow Up on the Promotion

- 1 On the B panel in (OIS842), select a sorting order and a view that corresponds to your needs.
- 2 Specify an sorting order that adds up all transactions per promotion. Then specify a view that includes columns with accurate information.
- 3 Specify a value for promotion, item number, or customer order number.
The value entered indicates a value from which the list of promotion transactions begins.

Outcome

The final fixed costs for a promotion are reported and the promotion is closed. When a promotion is closed it means that the promotion can no longer be used during order line entry and the costs will be distributed across the items included in the promotion.

Reporting the final fixed costs is the last step to be carried out before an active promotion is closed. Statistics regarding the promotion transactions can be monitored in 'Promotion. Display Transaction' (OIS842).

The following files are updated:

- OPROMH – Promotion Header
- OPROMC – Promotion Customer
- OPROML – Promotion Lines
- OPROMW – Promotion per Warehouse.

Report Processing for Sales Prices

This process is used to create and run a sales price report, for example a sales price list or internal control report for sales prices.

Before you start

The sales prices must be defined according to one or more transaction types that are specified for the items included in the report.

Follow these steps

The process covers the following activities:

1 Define report

A report is entered in 'Sales Price Report. Open' (OIS530).

- **Enter basic data**

Decisive for the outcome of the report is the report type. The report type controls the source from which the items are retrieved for the price list.

You can further limit the selection, for example, by specifying the warehouse and order type that will be used as key values. You can also select different price costing and discount calculations.

- **Enter transaction types**

The source used to retrieve price information is defined through the transaction types entered in 'Sales Price Report. Connect Trans Types' (OIS531), and accessed by using option 11 from 'Sales Price Report. Open' (OIS530).

Defining transaction types determines the information displayed in the reports.

A transaction type controls:

- How prices are retrieved for the report, for example according to the item file or the specified blanket agreement.
- The calculations that influence the prices before display, for example discounts.

- **Enter item selection**

By entering a selection field, for example product group and manager, you decide which items are retrieved for the price list report. For each selection field, one or more ranges can be defined.

The selection is entered in 'Sales Price Report. Connect Fields' (OIS532), accessed using option 12 from 'Sales Price Report. Open' (OIS530).

2 Activate report

When a report is activated, prices and discounts are retrieved and calculated according to the transaction types defined for the report. Data retrieved into the report can be used until the report is activated.

A report is activated using option 20=Activate, in 'Sales Price Report. Open' (OIS530).

If the contents of the report need to be changed, for example if a transaction type is to be added, the report must be activated first. After the changes have been made, the report is activated again. The report's layout can be altered without deactivating the report.

3 Run report

The media is selected in 'Sales Price Report. Open' (OIS530/I). A defined report is run from panel B in 'Sales Price Report. Open' (OIS530).

A defined report can be extracted in these ways:

- Display
- Print
- As a DW/400 document, with the possibility of distributing documents
- As a PC file

Outcome

The result of the process is different sales reports according to the selections made. A report can either be further processed in M3 or in a PC application.

Examples of report types:

- Sales price list
- Customer price list
- Prices according to blanket agreements
- Gross profit analyses
- Check reports
- Price lists for different assortments

Reservations for Bonus/Commission

This supporting function is used to record expected and actual costs in the general ledger for bonus/commission on a continuing basis.

Bonus and commission for sales covered by a bonus/commission agreement (b/c agreement) are reserved on a continuing basis in the general ledger during invoicing. In this way, accrued liability and calculated costs for bonus/commission can be checked in the general ledger. Any advances or final settlements to a recipient can be later adjusted with the actual bonus/commission received.

Reservations are also updated in the statistics and for each recipient the b/c agreements.

The document includes examples that describes account entries for reservations resulting from sales, advances and final commission settlements.

Before You Start

To use this supporting function, accounts must be entered for the following accounting types in ‘Accounting Rule. Set’ (CRS395) for accounting event OI20 (Invoicing customer orders):

- 181 – Income account for bonus cost
- 182 – Income account for commission cost
- 183 – Balance account for accrued liability - bonus
- 184 – Balance account for accrued liability - commission

If the b/c agreement is processed in a foreign currency, the following accounting types for currency differences must also be specified with these account numbers:

- 301 – Currency gain
- 302 – Currency loss

Other prerequisites for processing bonus/commission are described in document Bonus and Commission.

Follow These Steps

The process contains the following activities:

1 Sales Covered by a B/C Agreement

Invoiced customer orders that are paying, that is affect a b/c agreement's paying amount, reserve bonus/commission.

The reservations are calculated on the paying amount using a fixed percentage specified per recipient. See 'Bonus/Comm Agreement. Enter Reservations' (OIS414). This program is accessed by specifying option 13 = Reservation % in 'Bonus/Comm Agreement. Open' (OIS412).

The reservation for the expected bonus/commission is recorded as an accrued liability in the balance sheet in the accounts specified for accounting types 183 and 184. At the same time, the accounts specified for accounting types 181 and 182 are offset in the income statement.

2 Advances and Settlements

The amount(s) actually credited or settled for a recipient are compared to the amount(s) reserved. The difference is then adjusted in the income statement, giving the actual bonus/commission cost.

The amount reserved as accrued liability is adjusted so the balance becomes zero. This amount is recorded in receivables (according to accounting type 100). The advance is recorded in receivables as either a debt or a claim.

If sales leading to a reservation were made without having reached the lowest limit for the generating value, the settlement is invoiced as a zero amount. The reservations made per recipient and b/c agreement are also adjusted to zero in the balance sheet and income statement.

If the b/c agreement is processed in a foreign currency, currency adjustments are made for any exchange rate differences between the sales, advances and settlements.

Example 1: B/C Agreement in Local Currency

Sales Covered by a B/C Agreement

A customer has invoiced \$7,000 for items affecting the b/c agreement's paying amount. The percentage used to reserve the commission for the recipient is 3% according to the agreement. The amount recorded as an accrued liability in the balance sheet and which affects the income statement is \$210 ($\$7,000 * 3\%$).

The balance account for commission now shows an accrued liability of \$210. The income account reflects the same amount as an expected cost.

Advances for Accrued Commission

The recipient's accrued paying amount from the b/c agreement is \$7,000 at the time the advance is calculated. A fixed advance of 4% is specified in the b/c agreement. The commission credited in advance is \$280 ($\$7,000 * 4\%$). The advance is paid out according to the ordinary payment routine in accounts receivable for the recipient and b/c agreement. This means that the commission accounts should be adjusted with a \$70 difference (\$280 - 210).

The balance of the accruals account in the balance sheet will be zero after being debited with \$280 (\$210 previous credit plus \$70 credit). The \$280 advance is recorded in accounts receivable (accounting type 100). The balance of the commission account in the income statement shows the actual amount of \$280 (\$210 previous debit plus \$70 advance debit).

Final (Annual) Commission Settlement

When the commission agreement is settled, the generating value is \$8,500. This gives 5.5% according to the table for bonus/commission percentages (see ‘Bonus/Comm Agreement. Enter Rates’ (OIS413)). The paying amount is \$7,000 and is used as the basis for calculating the commission.

The final commission is \$385 ($\$7,000 * 5.5\%$). \$280 was previously credited in advance. Therefore, the recipient gets a credit note for \$105 ($\$385 - 280$).

In this case, there are no unused reservations. In other words, no sales have been made which affect the recipient’s b/c agreement between the last advance and this settlement.

The results of this example can be reviewed in the general ledger:

- The recipient is credited a total of \$385 (\$285 credit, \$105 credit), which is recorded in accounts receivable.
- The balance in the reservation account is 0. There is no accrued liability.
- A \$385 commission is expensed (\$210 debit, \$70 debit, \$105 debit). This is the recipient’s final commission.

Example 2: B/C Agreement in Foreign Currency

This example shows how reservations and exchange rate differences are recorded if the b/c agreement is in a foreign currency. Otherwise, the same rules apply as described in example 1.

Note: In this example, Swedish crowns (SEK) is the local currency and British pounds (GBP) the foreign currency.

Assume sales are made in the local currency, SEK, and affect a b/c agreement created in GBP. The exchange rate during invoicing is 11.25.

The b/c agreement’s paying amount is SEK 7,000 according to the order lines’ net amount. Converted to the currency of the b/c agreement, this is GBP 622.22 ($7,000 / 11.25$).

As stated in the b/c agreement, sales affecting the recipient should reserve 3% of the net amount. This means that GBP 18.66 is reserved for commission and converted into SEK 209.93 ($18.66 * 11.25$).

Advances and Settlements

Advances and settlements use the same method for reservations. The example below shows an advance with exchange rate differences between previous reservations and the current advance.

An advance of GBP 19.00 is credited to the recipient. When the advance is calculated, the exchange rate is 12.00, or SEK 228.00.

Previously, GBP 18.66 and SEK 209.93 were reserved. The difference between the reserved amount of GBP 18.66 and the actual credited advance of GBP 19.00 is GBP 0.34. This is therefore a difference of SEK 4.08 ($0.34 * 12.00$).

The exchange rate difference is therefore SEK 13.99 ($228.00 - 209.93 - 4.08$).

Outcome

This procedure results in the following:

- Accounts receivable shows a debt (or claim) to the recipient for bonus/commission, which is paid out using the ordinary payment routine in accounts receivable.
- The balance in the reservation account for bonus/commission is 0 in the balance sheet after advances and settlements. No debt is owed to the recipient.

- The actual amount for bonus/commission is recorded in the bonus/commission account in the income statement.
- The b/c agreement is completed and updated with the recipient's final bonus/commission.
- The income can be reviewed in the general ledger, sales statistics and in the b/c agreement.

Sales Price Administration

This process is used to create and update sales price lists. Sales price lists include sales prices for items and are used when entering customer order lines for automatic customer order line pricing. Sales price entries (for sales prices) can also be defined for sales price lists and internal inspection entries for sales price.

Description

Sales price is the price paid by the customer per sales price unit of measure and sales price quantity. This price per item can be entered in for example, the item file or a price list. During customer order entry, the sales price is automatically retrieved according to a specified order of priority. This price can be manually changed for each order line if allowed by the customer order type.

Before you start

The process can be started when the following prerequisites are met:

- Items are entered.
- Currency codes are entered. Here it is also possible to define the number of decimals to use for sales prices if the currency's regular number of decimals should not be used.
- To calculate a price list using a costing model, it must be defined in 'Sales Costing Model. Open' (OIS022).
- To calculate graduated prices automatically, scales for this purpose must be defined in 'Sales Price List. Connect Price Scale' (OIS026).

Follow these steps

The section below describes the activities in this process.

1 Define Costing Model

To calculate a price list, it must first be connected to a costing model. Costing models describe how prices are calculated by using markups or markdowns.

A calculation base is entered for each costing model. Examples are the sales price from the item file or the purchase price. The markups and markdowns are calculated from the selected calculation base.

The costing model is entered in 'Sales Costing Model. Open' (OIS022) and then connected to a price list in 'Sales Price List. Open' (OIS017/G).

When prices for items in a price list are to be calculated, the values are retrieved from the calculation base. The values from the base are then adjusted with the markups or markdowns defined for the model in 'Sales Costing Model. Open Lines' (OIS023).

2 Define Sales Price List

Sales price lists are entered in 'Sales Price List. Open' (OIS017). Unique IDs for the price lists are made up of a combination of price list code, currency code and start date.

- **Price Changes and Campaigns**

The validity date (start and end dates) of the price list can be used to plan price changes and time-limited sales campaigns in advance. This is done by defining a price list using different periods for a combination of price list code and currency.

By specifying a campaign for a price list or selection of items, different campaigns can be followed up in the sales statistics.

- **Discount Relations and Bonus Agreements**

In most cases, the sales price is only one of the factors determining how much a customer will pay for an item. Other factors affecting the price include discounts and bonus agreements. Each price list indicates whether these factors should be included in the calculation of the sales price.

However, it is possible to make exceptions for each item included in the price list.

- **Price Lists for a Limited Selection of Items**

If a price list should contain only a limited selection of items, the selection is made on the F panel in 'Sales Price List. Open' (OIS017).

On the E panel in 'Sales Price List. Open' (OIS017), the security level for the price list is defined. This level determines whether it is permitted to enter items not included in the price list's specified item selection.

There are three security levels:

- Items outside the selection may be entered.
- Items outside the selection may be entered, but a warning is issued.
- Items outside the selection may not be entered.

When a price list is calculated/updated in 'Sales Price List. Update' (OIS310), it is shown how the item selection was made. The selection can be limited even further to include the items to update.

- **Automatic Price List Updates**

In the 'Manual update' field in 'Sales Price List. Open' (OIS017/E) it is indicated whether sales prices may be changed manually for items included in a price list. Note that the value entered in the 'Sls price rule' field in 'CO Type. Open' (OIS010/I) overrides the value entered in panel 'Sales Price List. Open' (OIS017/E).

If the price list is blocked for manual changes, it must be calculated using a sales price costing. When this calculation is requested by specifying option 16 = Price list update, the update alternative is selected in the 'Function sel' field in 'Sales Price List. Update' (OIS310/E). You can choose to

- add new items with prices to the price list,
- recalculate prices for existing items or
- delete items from the price list.

The price list is later recalculated and updated according to the selection. See the description of linked price lists below.

- **Link Price Lists**

One or more price lists can be connected to another price list (basic price list). In this way, several active price lists can be used at the same time. For example, a general price list can be the base for several lower-level price lists that deal with different market segments or regions.

A price list is connected to a basic price list by entering it in the 'Basic prc list' field in 'Sales Price List. Open' (OIS017/G) for the price list to be connected. The result is that the linked price list uses the basic price list's items and prices as the basis for calculating sales prices.

In order for the linked price list to be affected by the basic price list, it must be connected to a costing model with calculation base 6 (Basic price according to another price list).

If the 'Auto calc' field is activated for the linked price list in 'Sales Price List. Open' (OIS017/G), the linked price list can be updated automatically when the basic price list is updated. This is done by specifying an alternative for automatic updating in the 'Function sel' field in 'CO Charge. Open' (OIS030/E) when updating the basic price list. If several price lists are connected to the basic price list, these are displayed and the price lists to be updated can be selected.

- **Graduated Price List**

Scales are used to calculate quantity-dependent sales prices. The scale indicates how a price changes depending on the quantity entered during order line entry.

The scale is created by entering ascending limit values. Each limit has a price adjustment factor. This factor is a percentage that is multiplied by the item's basic price. Therefore, when the basic price for an item is changed, the scale does not need to be updated or changed.

Scales are entered and updated in 'Sales Price Scale. Open' (OIS024). They are general and can be used by different items and price lists at the same time.

- **Connect Scale to Price List**

To connect a scale to a price list, at least one key for scale factors must be entered in panel 'Sales Price List. Open' (OIS017/E).

A key is a field that acts as a general selection key in order to qualify a scale for a price list. One or more values are then entered for the key, and are specific for that key. For example, if item group is used as the key, different item group identities can be entered as values.

After a key is entered, a heading is displayed for the field selected as the key in 'Sales Price List. Connect Price Scale' (OIS026). This program is accessed by specifying option 12 = Scale keys in 'Sales Price List. Open' (OIS017).

When a value is entered for a key in program 'Sales Price List. Connect Price Scale' (OIS026), the scale to use if an item matches the selection key is also specified. See the example below.

Note that each scale is defined for both a scale U/M and a price U/M. Therefore, the item's price U/M in a price list must correspond to the price U/M for which the scale is entered.

When items and prices are automatically generated in a price list, the scale's price U/M is used if it is valid for the item. If it is not valid, the scale will not be used. Instead, the price U/M and the price quantity will be retrieved from the item file.

Example

A company uses different scales for different item groups. Group 1 uses Scale 1, and Group 2 uses Scale 2. MMITGR (item group) is then entered as a key in the Key field in 'Sales Price List. Open' (OIS017/E).

In 'Sales Price List. Connect Price Scale' (OIS026/B), Group 1 is entered as a value. In panel 'Sales Price List. Connect Price Scale' (OIS026/E), it is specified that Scale 1 should be used for item group Group 1. Group 2 is then entered as a value in 'Sales Price List. Connect Price Scale' (OIS026/B) and Scale 2 in 'Sales Price List. Connect Price Scale' (OIS026/E).

Result: Scale 1 will be used to calculate the sales price for all the items in the price list belonging to item group Group 1. All items belonging to Group 2 will be calculated according to Scale 2.

- **Price Rounding**

A round-off category can be specified for each price list in 'Sales Price List. Open' (OIS017/E). This defines how prices are to be rounded off.

Note that both the basic price and graduated prices are rounded off according to the specified category. However, a basic price that is not rounded off is used to calculate prices according to the scale.

- **Manual Updates of Prices**

The basic price per item can be updated for each price list in 'Sales Price List. Open Basic' (OIS021). This program is accessed by specifying option 11=Basic prices in 'Sales Price List. Open' (OIS017).

In 'Sales Price List. Open Basic' (OIS021), the price calculated for an item in a price list can be changed. Information such as U/M, quantity and scale U/M can also be entered or changed.

If no scale is used for the price list, graduated prices can be entered for an item in 'Sales Price List. Enter Graduated Prices' (OIS018). This program is accessed by specifying option 11=Grad prices from program 'Sales Price List. Open Basic' (OIS021).

Prices can also be updated manually in 'Sales Price. Simulate' (OIS325). The simulation result is proposed as the basic price. This proposal can be changed before an update is made.

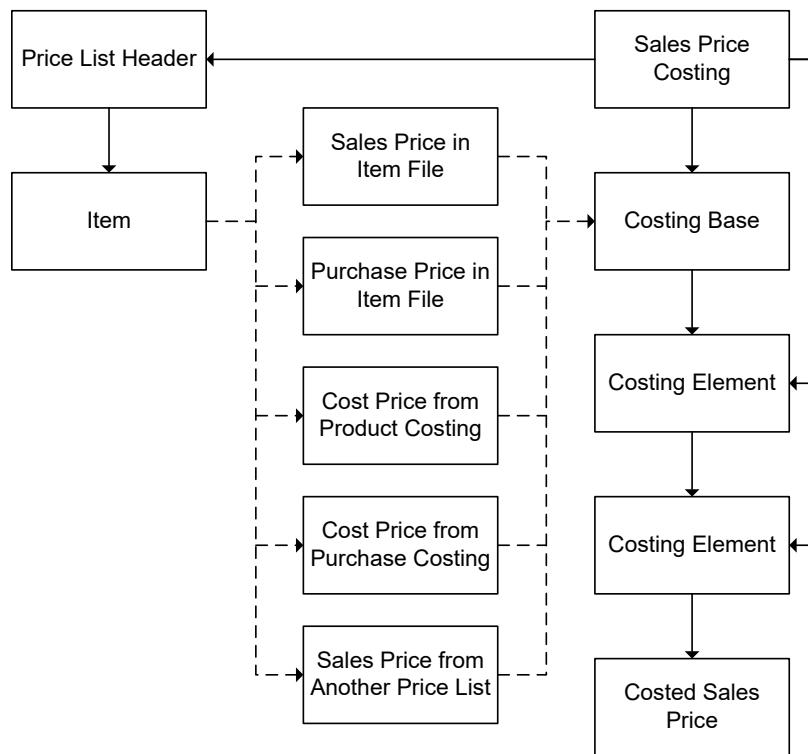
3 Simulate Costing Model

The main purpose of simulating item prices is to check that a costing functions correctly. The simulation is made for an item in a price list according to a specified costing model.

The sales price for an item is calculated from a specified costing base, with markups/markdowns according to the selected costing model.

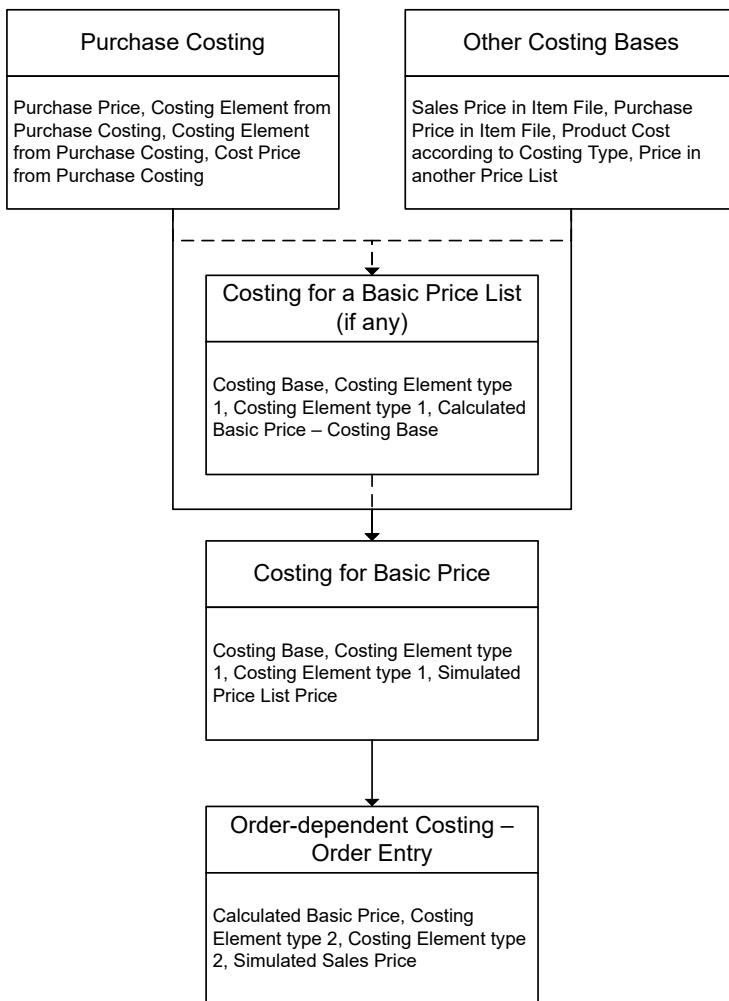
- **Price List and Costing Model Relationship**

The figure below illustrates the relationship between the information in the price list and the costing model used.



4 Costing Structure

The figure below illustrates how the sales price costing is structured.



A costing model contains a costing base and costing element. The costing elements can either be type 1 elements (for calculating the basic price) or type 2 elements (order-dependent elements for calculating markups or markdowns during customer order entry). Type 2 elements do not affect the calculation of prices in the price list.

- **Costing Base**

When the sales price is simulated for an item, the costing model to use is specified.

When a costing model is retrieved from the price list or entered in the 'Costing model' field, the model's costing base is retrieved and displayed in the 'Base' field. The costing base is used to retrieve the starting price to use in the simulation. In this way the same price costing can be used in different price lists even if the base itself varies. Examples of a costing base are the sales price in the item file or the purchase price.

If a price list uses a sales price costing based on a purchase costing (costing base 4), a purchase costing must be entered for the price list in (OIS017/G).

- **Simulate Basic Price**

The main purpose of price simulation is to calculate a basic price for an item, in other words a price in the price list. Through changing the costing model or costing rates, different results can be obtained.

The available costing elements are listed in 'Sales Price. Simulate' (OIS325), and can be obtained via F4 = Browse.

- **Simulate Final Sales Price**

When simulating the sales price, it is possible to take into account order-dependent costing elements. This is done by changing the values for the fields entered for the order-dependent element's keys. In this way, it is also possible to simulate the markups or markdowns that are normally first calculated when entering an order line.

Order-dependent costing elements are used to mark up/down the price list's basic price during customer order entry. For example, such an element can be used to vary freight costs depending on the ordered quantity, method of transportation, country, etc.

- **Simulate using Purchase Costing as Base**

If a costing model uses a purchase costing as a base, the purchase costing can be displayed. By doing this, the calculation can be followed from the purchase price up to the final sales price.

Different scenarios can be simulated by varying information such as supplier, purchase price, discounts, order quantities, etc.

- **Simulate using Another Sales Price List as Base**

If a costing model has another price list as a base, the sales price can be simulated in these two ways:

- The costing is based on the current price in another price list.
- Even the price for the base is simulated. If there is no price costing for the base, the current price is used.

Example

If price list 2 uses price list 1 as the base, and price list 1 is based on a cost price according to the purchase costing, the total calculation for price list 2 is displayed as follows:

- Purchase costing for calculation of the cost price
- Sales price costing for calculation of the price in price list 1
- Sales price costing for calculation of the price in price list 2
- Calculation of simulated final sales price

5 Update Sales Prices

Sales prices for items included in a sales price list can be updated in four ways:

- Through manual entry per item number
- Through updating the simulated result per item number
- Through updating parts of a price list or the entire price list in a batch run
- Through automatic updating of linked price lists if the base is changed.

6 Report Processing for Sales Price

It is possible to create and run sales price reports in 'Sales Price Report. Open' (OIS530). One example of a report is an internal inspection report for sales prices for analysis of gross profit.

Sales Price on Style Color Administration

This document describes the process of creating and updating sales price lists on the style color level. The available objects are color, size and characteristics.

Limitations

Sales price lines are only created and updated for the first object. For the other two objects, either manual entry in 'Sales Price List. Open Basic' (OIS021/B) or the API (OIS017MI) must be used.

Follow These Steps

1 Define costing model for sales price list on style color level

To calculate a price list on the style color level, it must first be connected to a costing model. The costing model must contain one costing element that uses Color (HMCOLO) as an object.

When prices are calculated for a style's color in a price list, the prices are calculated using the first object value in the sales price header. Therefore, to automatically calculate prices for the style's color, the first object in the sales price header must be HMCOLO.

2 Define sales price list on style color level

The price list uses values determined by objects from 'Sales Price List. Open' (OIS017/H). The available objects are HMCOLO, Size (HMSIZE) and Characteristics (HMCHSC).

Using the objects on panel (OIS017/H) will bring you to (OIS021/B), where the object values are used together with the style number. You can now enter base prices using color, size and characteristics.

3 Sales price list line – Search sequence

The search sequence for the price list line works as follows:

- a Search for SKU
- b Search for Style + 3 objects
- c Search for Style + 2 objects
- d Search for Style + 1 object
- e Search for Style

The price list line search can be used wherever an M3 price list is used.

Setup

Industry FHS – Fashion must be used in 'Company. Open' (MNS095).

Scales for Sales Prices

This supporting function is used to create scales in order to calculate graduated sales prices.

Graduated sales prices are prices that depend on ordered quantities. They are based on an item's basic price in a sales price list and are calculated with regards to quantity.

The scales contain specified limits in ascending order. A factor (in percent) is connected to each limit. This factor is then multiplied by the basic price.

Before you start

- The scale unit must be specified in 'Unit of Measure. Open' (CRS050).
- The sales price unit must be specified in 'Unit of Measure. Open' (CRS050).

Follow these steps

1 Enter scales

Scales are entered in 'Sales Price Scale. Open' (OIS024). Two basic pieces of information are entered for each scale:

- Scale unit
- Sales price unit

The scale unit is the unit of the limits in the scale. The sales price unit is the unit in which a basic price must be entered in order to use the scale.

2 Enter factors

To calculate quantity-dependent prices in a scale, limits and factors are specified in 'Sales Price Scale. Connect Price Factor' (OIS025).

The factors are specified as a scale of percentages and correspond to a scale of limits. To retrieve the correct factor, the ordered quantity is compared to the scale's limits. To calculate the sales price for the current quantity, the basic price is multiplied by the factor.

3 Select keys per price list

Scales are general, meaning that they can be used for different items and price lists at the same time. A scale is connected to a price list in 'Sales Price List. Open' (OIS017).

If different scales for different items are to be used, keys can be specified to make selections. A key is a field from the item file, such as item group, product group, item number, etc. These fields are specified in 'Sales Price List. Open' (OIS017).

The specified field acts as general selection criteria, regulating the use of different scales depending on the values matched in the fields.

Example

If different scales will be used depending on the item group, then field MMITNO (item group) is specified in 'Sales Price List. Open' (OIS017).

In 'Sales Price List. Connect Price Scale' (OIS026), Item Group is then displayed as a heading. A specific item group is specified in the field and then connected to a specific scale. That scale will then be used for items belonging to the selected item group.

4 Select scales per price list

Specific values for the selected fields are entered in 'Sales Price List. Connect Price Scale' (OIS026).

Several different values can be specified for each field. For example, if field 'Item group' has been specified, then different item groups can be entered. Each item group is then connected to a scale that will be used when the value is matched.

If several fields have been specified, a combination of values in the fields can be used to select the scales. For example, a scale can be used if an item belongs to an item group within a product group.

Note: Each scale is defined for a specified unit and price unit. In order to price an item according to a scale, the item's price unit in the current price list must correspond to the scale unit.

For manual updates, the scale's price unit is proposed by default. When items and prices are generated automatically in a price list, the scale's price unit is proposed by default if it is valid for the item. If the unit is not valid, no automatic scaling is done. Instead, the price unit and price quantity from the item file are used.

Outcome

After using this supporting function, quantity-dependent sales prices are calculated during customer order entry. An item's basic price is affected by the factors in the selected scale according to the limits.

Graduated prices are recalculated automatically each time an item's basic price is changed in each price list.

If keys for the scales are entered for a price list and different scales are entered for the different keys, then different scales are used for different items within the price list.

Examples

The examples below describe how scales are created and used depending on the values entered for a price list.

Two scales are created:

Scale	Price unit	Scale unit
S1	PC	PC
S2	KG	KG

For scales S1 and S2, the following limits and factors have been entered:

Scale	Price unit	Scale unit	Limit	Factor
S1	ST	ST	0	1.40
			100	1.20
			500	1.00
			1000	0.80
			2000	0.60
S2	KG	KG	0	1.25
			100	1.00
			500	0.85

Price list A1 will use scale S1 or S2 depending on the product group and item group. Therefore, fields MMITCL and MMITGR (product group and item group, respectively) have been specified for the price list.

Price list	Key 1	Name	Key 2	Name
A1	MMITCL	Product grp.	MMITGR	Item grp.

The specific values to be used to select the scale are entered for each field.

Price list	Product group	Item group	Scale
A1	P1		S1
A1	P1	STEEL	S2

The scale for price list A1 will be selected for each combination of product group/item group. All items in product group P1 use scale S1 except items with item group STEEL, which use scale S2.

There are two items in the item file included in price list A1:

Item	Product group	Item group
101	P1	TOOL
102	P1	STEEL

According to price list A1, the basic prices per item are:

Price list	Item	Name	Basic price	Price unit
A1	101	Drill	1000	PC
A1	102	Plate, 100 x 200	10	KG

When price list A1 (with selected fields and scales) is used, graduated prices are calculated as shown below.

Price list	Scale	Item	Name	Limit	Graduated price	Price unit
A1	S1	101	Drill	0	1400	PC
				100	1200	PC
				500	1000	PC
				1000	800	PC
				2000	600	PC
A1	S2	102	Plate 100 x 200	0	12.50	KG
				100	10	KG
				500	8.50	KG

Graduated prices for item 101 are calculated according to scale S1, while item 102 uses scale S2 since the item belongs to item group STEEL.

When the basic price is changed, the graduated prices will be recalculated automatically.

Settle Bonus/Commission Agreement

This procedure is used to settle a bonus/commission agreement.

Final settlement is made either at the end of the b/c agreement's validity period or, if the agreement extends over several years, at the end of the last period in the calendar year.

Note that if an agreement extends over several years it is also possible to make one settlement of the agreement at the end of the validity period by selecting the 'Final settlement once' parameter in 'Settings – Bonus Commission (CRS724/E)'.

It is possible to review a settlement before it is finalized by printing a report of the recipient's final settlements. The review can be done without considering the period.

If a b/c agreement has reserved bonus/commission in the general ledger without having reached the lowest limit for the generating value, an invoice is created with a zero total.

If unacceptably high advances were credited, a debit invoice is created.

Follow these steps

Follow the steps below to settle a b/c agreement.

- 1** Select 'Bonus/Comm Agreement. Advance & Settle' (OIS415).
- 2** Select the b/c agreement to be settled, specify 90 in the 'B/C Action' field and press Enter. The E Panel is displayed, containing information about the periods on which the settlement will be based.
- 3** Check and adjust the information. Press Enter to confirm the information.
- 4** Select Option 35=Crt adv/stl/pre for the settlement record. Press Enter to send the settlement to M3 batch order entry to create invoices. The settlement record is assigned status 90 (processing completed).

Simulate Sales Prices

This procedure is used to simulate and then check a sales price used in costing. Sales prices are simulated for one item at a time.

It is also possible to update the sales price of an item based on the simulation.

Before you start

- To simulate transaction-dependent elements and adjust key values, parameter Display transaction calculation must be set to 1 in panel 'Sales Price. Simulate' (OIS325/P) in order for the transaction price elements to be displayed.
- A costing model for sales prices must be specified in 'Sales Costing Model. Open' (OIS022).
- A price list must be specified in 'Sales Price List. Open' (OIS017).

Follow these steps

- 1 Select 'Sales Price. Simulate' (OIS325).
- 2 Specify the item number and price list, and then press Enter. If the selected price list is connected to a costing model for sales prices, the simulated costing is displayed. If a structure type is defined on the price list or price list line, it is used in the sales price simulation. If the simulation is done without a price list, the structure type can be changed manually. If the price list is not connected to a costing model, or if you want to change the costing model, go to step 3. Otherwise, go to step 4.
- 3 Specify a costing model or change the proposed model. Press Enter to view the simulated costing.
- 4 Check specific information in the costing as follows:
 - To see how the sales price costing is calculated, press F13=Parameters and then enter the desired values. For example, if you enter 1 in the 'Display calculation base' field, the costing is displayed if the base is a purchase costing or a costed sales price list.
 - To check or change the purchase costing of a certain costing model, press F14=Purchase values.
 - To simulate transaction price elements, the key values used to select rates can be specified. To do this, press F15=Transaction values.
 - To view graduated prices in a scale, press F16=Graduated sales prices.
 - To simulate a calculation base, press F18=Simulate base.
- 5 To update the sales price list with the simulated prices, go to step 6. Otherwise, go to step 8.
- 6 Press F10=Update sales price to update the simulated costing result to a price in the price list. If the price list is a base for other price lists, you can choose whether to update the other price lists too. To do this, enter the correct value in field Update option in the H panel and then press Enter. Panel 'Sales Price List. Open Basic' (OIS021/E) is displayed.
- 7 Check the values. You can also change and add to the information.
- 8 To simulate the sales price of a new item, return to step 2. To end, press F3.

Supplier Rebate on Sales

This document describes the concept of supplier rebate on sales.

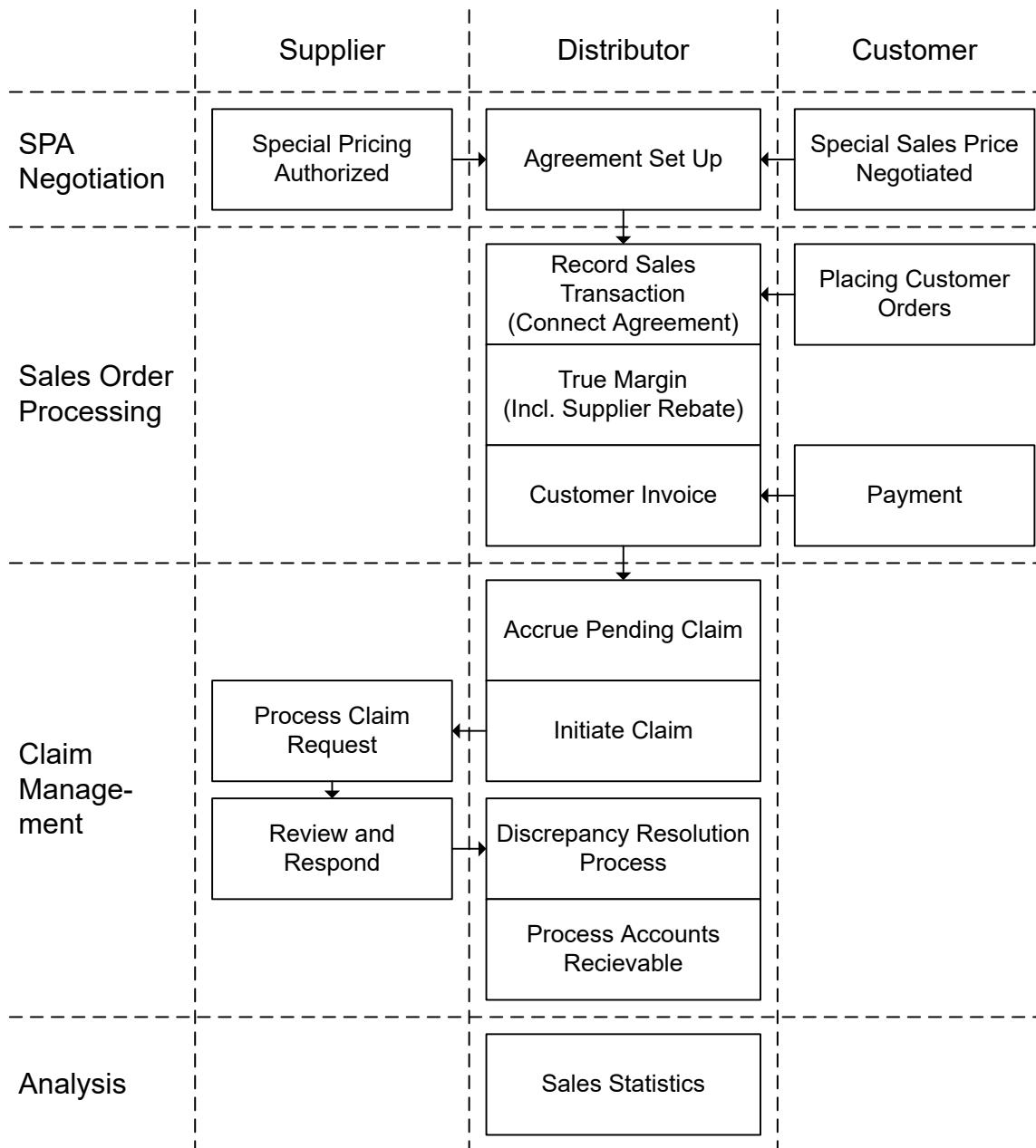
Rebates are changes to the supplier's cost on specified products that are paid to the seller upon proof of sale. They help both the distributor and the manufacturer to be more competitive in the marketplace.

When a distributor's standard cost for a line of products is above the market level in the local trade area, the distributor may choose to lower the prices or else face a loss of sales in that market. The supplier then offers to return a set percentage of the original purchase cost of the product to the distributor. This allows the distributor to be competitive and allows the supplier access to the local market without lowering the cost in other trade areas where competition is not as keen.

Solution overview

The concept of supplier rebate on sales agreements addresses the scenario that a discounted sales price is granted by the supplier to meet a competitive situation. The solution is recommended to be used for the parts sales process.

This diagram shows an outline of the supplier rebate on sales process:



By supporting the concept of pricing with supplier rebates the end customer can receive a discounted price for goods from a distributor. This discount is either completely or partially funded by a separate agreement with the supplier of those goods, thus protecting the margin on the orders for the distributor. A price is negotiated with the customer which considers the anticipated rebate amount that could be claimed against the supplier. Supplier rebate on sales agreements is used to define, control, and manage the claim of this rebate from the supplier.

The supplier rebate on sales agreement for customer order (CO) and maintenance customer order (MCO) defines the rebates that are automatically assigned to each CO line and the MCO material invoice specification line.

The agreement enables a company to keep track of the supplier rebate amount to be reimbursed by the supplier, per sales transaction line, to enable a correct, more proactive margin at the time of transaction line entry. An adjusted sales cost is therefore calculated due to the supplier rebate. This gives a better predictability on the transaction's profit margin.

The company has purchased a product from a supplier at a given price and the product is in the company's inventory. The company identifies the sales of the product covered by the agreement, calculates the rebate due (pending claim) from the supplier, and requests the rebate (claim request) from the supplier. The rebate retroactively lowers the company's purchase cost for that product and thereby protects the sales margin.

When invoicing the final rebate, the amount is retrieved from the agreement and booked on a specific pending rebate claim account to support accurate accounting. Supplier rebate invoice transactions are created as a basis for the rebate claim against the supplier.

A rebate claim is then automatically or manually sent to the supplier. An automated claim settlement process enables a more frequent settlement and faster reimbursement of outstanding claims, resulting in better cash flow management.

Workflow overview

The basic setup of supplier rebates is either performed through promotional supplier rebates in 'Promotion. Open' (OIS840), pure supplier rebate on sale agreement in 'Supplier Rebate on Sales. Open Agreement' (OIS860), or one-time manually entered rebate agreements per order line in 'Order Line. Connect Supplier Rebate' (OIS118).

The promotion driven supplier rebate on sales for CO defines the rebates that are automatically assigned to each CO line. The supplier rebate on sales agreement for CO and MCO defines the rebates that are automatically assigned to each CO line or MCO material invoice specification line. The one-time agreement for supplier rebate on sales for CO defines the rebate that is manually assigned to a specific CO line.

Supplier rebate invoice transactions are, at the time of customer invoicing, created as the basis for the rebate claim against the supplier in 'Supplier Rebate Inv Transaction. Display' (PPS127).

A rebate claim is then automatically or manually sent to the supplier from 'Supplier Invoice Batch. Open' (APS450). An automated claim settlement process facilitates regular settlement and faster reimbursement of outstanding claims, resulting in improved cash flow management.

Limitations

- The supplier rebate on sales concept is not valid for rental agreements.
- The supplier rebate on sales concept is not valid for point of sale transactions.
- The supplier rebate on sales concept does not support rebates due to purchase order volumes.
- The supplier rebate on sales concept does not support service-related rebates.
- Only one rebate type can be used per customer order line, and the promotion type takes highest priority.
- For MCO material line entry, only those supplier rebates on sales agreements defined in 'Supplier Rebate on Sales. Open Agreement' (OIS860) are valid.
- Multiple supplier rebates on sales agreements per order line is not supported for MCO and CO.

- You cannot manually add, change, or remove a supplier rebate agreement on a CO line or an MCO material invoice specification line.
- Retrospective creation of supplier rebate invoice transaction is only supported for customer orders with rebate type defined in (OIS860).
- Retrospective agreement validation is not supported for MCOs and Rental.
- Supplier rebate cannot be claimed through a purchase order with a discounted purchase price.
- The agreed rebate amount transaction table OSRAST does not have a corresponding display program. Instead, you can create an information category for OSRAST in 'Information Browser Category. Open' (CMS010) and use related option 24='Simulate list'.

Supplier Rebate on Sales Promotion

This document describes the concept of promotion driven supplier rebate on sales.

Promotion driven supplier rebate on sales is used for short term campaigns, where the promotion is initiated by the supplier, and the distributor acts as an intermediary. This is defined using 'Promotion. Open' (OIS840) and is activated during customer order entry. The final rebate rates are retrieved when the customer is invoiced, using the price date settings in 'CO Type. Open' (OIS010).

The rebate calculation method used can be based on an amount or a percentage. The rebate percentage is connected to the customer promotion discount and always calculated on the same discount basis. For example, a 10% promotion customer discount and a 10% promotion supplier rebate must always be equal.

Limitations

- At CO line entry, only one rebate type can be used per customer order line, and the promotion type takes highest priority.
- Promotion supplier rebates are not supported for the creation of retrospective supplier rebate invoice transactions.

Supplier Rebate on Sales Agreement

This document describes the basic setup of supplier rebate on sales agreements.

A supplier rebate on a sales agreement is an entity that controls supplier rebates for a limited period for several customers and items. The agreement is used to manage supplier rebates that are to be retroactively claimed from the supplier, due to sales of specific items to certain customers.

Use of agreement

Supplier rebate on sales agreements are used for long term agreements where the supplier agrees special pricing for its customers. They can also be used in contract related scenarios, for example, where rebates are negotiated for a single building site. In this case the agreement can be set up for certain delivery addresses or blanket agreements, or both.

Agreement overview

The agreement is created and activated in M3 Business Engine to affect supplier rebates during customer order line entry and material lines issued for work orders connected to a maintenance customer order line. The final rebate amounts are always retrieved from the entitled agreement at time of customer invoice.

An agreement header and lines are created and affect rebates if the status of the agreement is 20-'Activated'. You cannot manually add, change, or remove a supplier rebate agreement on a customer order line, or a maintenance customer order material invoice specification line.

This table shows the agreement tables that are updated:

Table	Table name
OSRASH	Supplier rebate on sales agreement header
OSRASL	Supplier rebate on sales agreement lines
OSRASV	Supplier rebate on sales agreement values
OSRESH	Supplier rebate on sales scale header
OSRESL	Supplier rebate on sales scale lines

Agreement category including an agreement number series

An agreement category can be defined in 'Supplier Rebate on Sales Agreement Category. Open' (OIS865). The agreement category can be defined with a number series type D1, which results in automatic creation and assignment of an agreement number when an agreement is created on 'Supplier Rebate on Sales. Open Agreement' (OIS860/B). You can also define a prefix to use together with the number series.

For this to happen the category must first be included on the sorting order on (OIS860/B) and then specified on the B panel. Standard sorting order 6 includes category.

The agreement category can also be specified on (OIS860/E) to classify agreements without using the agreement number functionality.

Supplier information

The supplier that is to be claimed is defined per supplier rebate on sales agreement.

Note: Only one supplier is claimable per agreement.

This table shows the supplier information specified per agreement header in 'Supplier Rebate on Sales. Open Agreement' (OIS860):

Field	Description
Supplier	The supplier number that the rebate amounts are agreed with must be specified. The specified supplier receives the claim to retroactively reimburse the rebate for sales made against the agreement.

Field	Description
Reference	<p>The supplier reference defines the contact person at the supplier. By default, the reference field is set to the reference identity connected to the supplier in 'Supplier. Connect Reference' (CRS623). Note that the reference type must be 35-'Agreements'. The reference identity cannot be specified until the supplier has been defined, since it is set to a default value and validated against the supplier number.</p>
Currency	<p>The agreement currency is mandatory. It defines the currency used to enter rebate amounts per agreement line. It also determines the currency of the supplier rebate claim in 'Supplier Invoice Batch. Open' (APS450).</p> <p>The agreement currency cannot be specified until the supplier has been defined, since it by default is set to the currency of the specified supplier.</p>
Agreement reference number	<p>An identifying reference number for the agreement. The agreement reference number field can be used to specify the agreement number used by the supplier (or customer) when they refer to the agreement. This number is used throughout the rebate claim process. A warning message is displayed if the specified reference number already exists for the same supplier.</p>

Agreement validity date range

The validity interval controls the period during which the agreement is valid at customer order line entry and upon creation of a maintenance customer order invoice specification line for material.

The rebate check date for the order must be within this interval for the agreement to come into effect. The agreement with the valid from date closest to the rebate check date is selected. For a customer order, the rebate check date setting in 'Settings - Customer Order Entry' (CRS720) is selected. For a maintenance customer order, the rebate check date in 'Setting - Maintenance Customer Orders' (COS895) is selected.

When changing a customer sales price, a new agreement search is always performed to ensure that a valid agreement remains entitled to the order line. This is done because for certain types of agreements, a change in customer prices may disqualify the agreement selected at order line entry, resulting in a zero-rebate amount.

Rebate check date for customer orders

The rebate check date for customer orders is defined in the 'Rebate ck date' field in (CRS720). These are the available supplier rebate check date settings:

- 1-'Order date', the order date at order entry.
- 2-'Req dely date', the requested delivery date at order entry.

- 3-'Order date at invoicing'.
- 4-'Delivery date at invoicing', the requested delivery date at invoicing
- 5-'Actual delivery date', the date when picking list was reported at invoicing.
- 6-'Invoice date'.

For alternatives 3, 4, 5 and 6 the final agreement retrieval is always performed at the time of customer invoicing. The agreement retrieved at customer order line entry must only be considered preliminary. For alternative 5, the preliminary agreement retrieval at order line entry uses the requested delivery date. For alternative 6, the preliminary agreement retrieval at order line entry uses the order date.

Rebate check date for maintenance customer orders

The rebate check date for maintenance customer orders is defined in setting '160 Supplier rebate agreement check' in (COS895). These are the available supplier rebate check date settings:

- 1-'Order date'.
- 2-'Req dely date', the requested delivery date.
- 3-'Material issue date'.

Example of an agreement validity search

Alternative 2-'Req dely date' is selected in the rebate check date field in (CRS720) and in (COS895). This means that the requested delivery date is used for both order categories. The date 991020 is specified as the requested delivery date.

These are the three valid agreements:

- Agreement A, priority 5: Valid from date 990101 – Valid to date 991231
- Agreement B, priority 5: Valid from date 991001 – Valid to date 991031
- Agreement C, priority 5: Valid from date 991015 – Valid to date 991031

Agreement C is selected, since its valid from date is closer to the rebate check date than the valid from date of the other agreements.

Agreement priority

Priority classification of agreements can be used in the search order of agreements. When you search for agreements during entry of sales and material lines, the agreements are searched in order of priority. The priority is set on a scale from 1 to 99, with 1 being the highest priority.

By default, the priority is set to 5 when creating a new agreement. Upon copy, the priority is copied as a default value.

The agreement with highest priority and valid from date closest to the rebate check date is selected. For a customer order, the rebate check date setting is retrieved from (CRS720). For a maintenance customer order, the rebate check date setting is retrieved from (COS895).

Example of an agreement priority search

Alternative 2-'Req dely date' is selected in the rebate check date field in (CRS720) and in (COS895). This means that the requested delivery date is used for both order categories. The date 991020 is specified as the requested delivery date.

These are the three valid agreements:

- Agreement A, priority 5: Valid from date 990101 – Valid to date 991231
- Agreement B, priority 5: Valid from date 991001 – Valid to date 991031
- Agreement C, priority 8: Valid from date 991015 – Valid to date 991031

Agreement B is selected, since its valid from date is closer to the rebate check date than the valid from date of the other agreements with the highest priority.

Agreement selection values

An agreement can be connected to one customer or to several customers using certain control object values from the customer master, for example customer group, country etc.

On (OIS860/F), the control fields to be used to define the agreement selection values are specified. These act as the search path for finding the values which the order must match for the agreement to be valid. A combination of selection criteria can be specified in up to five control fields per agreement.

Agreement selection values are specified in 'Sup Rebate on Sales. Connect Agr Values' (OIS864), which is started from (OIS860) using related option 12='Agr values'. Agreement values are stored in the OSRASV table.

In (OIS864), the control fields specified on the agreement header are displayed as headings (for example, Customer group, Country). If the sorting order is set to 1-'Values by key', start values are specified in the selection fields and by selecting option 1='Create' the values are connected to the agreement. If the sorting order is set to 2-'Work in panel B', start values are specified for the rows to define and by pressing Enter the values are connected to the agreement. The start values specified in (OIS864) are the values which the customer order and maintenance customer order must match to qualify for the agreement.

Example of connecting agreement selection values to an agreement

An agreement qualifies for a specific customer group and country. On (OIS860/F), OKCUCL is specified in control field 1 and OKCSCD is specified in control field 2. In (OIS864), the specific customer group and country, which lead to an agreement selection, are specified as start values.

Note: If a specific agreement only should be applied for a specific order category, then the control object &ORCA must be specified. The order category is '311' for a customer order and '771' for a maintenance customer order. Rental and service orders do not support management of supplier rebate on sales agreements.

Agreement lines

An agreement line is made up of items included in the agreement. The valid items are defined using a maximum of five control fields. Rebate calculation settings are included for each agreement line.

The items valid for the agreement line must have the rebate amount unit of measure defined as the basic or alternate price unit of measure in 'Item. Connect Alternate U/M' (MMS015) for the agreement line to be valid.

Agreement lines are specified in 'Supplier Rebate on Sales. Open Agr Lines' (OIS861), which is started from (OIS860) using related option 11='Agreement lines'.

Function key F14='Object control' in (OIS861) is used to open 'Generic Object Control Table. Open' (CMS017). In (CMS017) the control fields to be used to define the agreement line values are specified. These act as the search path for finding the values the order must match for the agreement line to be valid. A combination of selection criteria can be specified in up to five control fields per agreement line.

Control fields and their values are specified in the priority table in order of priority from 1 to 10. In this way, the values in the sales transaction are first checked against the control fields and values with priority 1. If these do not match, the values in the sales transaction are then checked against the control fields and start values with priority 2, and so on. A rebate is only granted for one priority per agreement. The control fields must be specified in priority order and deleted in reverse order.

On (OIS861/B), the control fields specified in (CMS017) are displayed as headings (for example, Item group, Procurement group). The 'Priority' field on (OIS861/B) is used to select what row from the control table to be used for the agreement line. Start values are specified in the selection fields for the agreement line. The start values are the values which the customer order and maintenance customer order must match to qualify for the agreement line.

Example on how to define an agreement line

A rebate is to be given for items in a certain item group and procurement group. In (CMS017), specify MMITGR in control field 1 and MMPRGP in control field 2. On (OIS861/B), the specific item group and procurement group that will result in a rebate are specified as start values, together with a valid from date. On (OIS861/E), specify the rebate calculation method, rebate calculation settings, and, if applicable, a valid to date. An item entered during customer order entry, or maintenance customer order material line entry, is checked against the selection values specified on the agreement line. If an item matches the selected values, the rebate specified on (OIS861/E) is used.

Total agreed rebate amount

The supplier rebate on sales agreement can be defined with a total agreed rebate amount on (OIS860/E). This is the maximum rebate amount that can be consumed through the agreement and claimed against the supplier.

To keep track of the consumption of the agreed amount per agreement, each transaction line that is entitled to the agreement (and its corresponding rebate amount) is stored in table OSRAST.

The 'Agreed rebate amount' check box must be selected to define a total agreed supplier rebate amount.

Note: The check box can only be selected when creating a new agreement, since it determines whether transactions entitled to the agreement are updated in the transaction table OSRAST.

In the 'Agreed amount' field, you can define the total agreed supplier rebate amount for the agreement. The agreed amount can be defined for active agreements but cannot be set to a value below the amount already consumed. The 'Remain amount' field displays the total remaining supplier rebate amount for the agreement. The value is calculated online, based on the transaction lines connected to the agreement lines (table OSRAST).

Note that for agreements defined with a total agreed rebate amount, retrospective changes cannot be applied to existing supplier rebate invoice transactions. Related options 20='Update claim lines and release for claim' and 21='Update claim lines' are therefore not allowed for these agreements.

Copying supplier rebate on sales agreements

It is recommended that a template agreement is created and copied so that the control field information only needs to be specified once.

The 'Copy lines' check box on (OIS860/C) must be selected if the agreement lines defined in (OIS861) for the 'Copy from' agreement to be copied to the new agreement. Only agreement lines that are within the new agreement's validity period are copied to the new agreement. The 'Copy agr values' check box must be selected if the agreement values defined in (OIS864) for the 'Copy from' agreement to be copied to the new agreement.

Activating the agreement

An agreement is activated by setting its status to 20-'Activated' on (OIS860/E). An agreement must be activated for rebates to be used in the customer order and maintenance order process. Agreements can be activated in advance of the date and time that they come into effect, since they are controlled by the validity dates you assign to them.

Status 00 and 10 are used when an agreement is created for planning purposes.

Limitations

- The agreement is not valid for rental agreements.
- The agreement is not valid for service orders.
- The agreement does not support rebates due to purchase order volumes.
- The agreement does not support service-related rebates.
- Agreement versions are not supported. Instead, when an agreement is updated, the agreement must be copied into a new agreement, and the version number must be included in the agreement ID.
- A cut-off claim date for the supplier rebate on sales agreement is not available. If a late claim has been submitted, you must use a manual process to cancel the outstanding supplier rebate invoice transactions in 'Supplier Rebate Inv Transaction. Display' (PPS127) using related option 80='Cancel'.

Claimable Status Indicator

This document describes how to manage the claimable status indicator for supplier rebate on sales agreements.

The status of a supplier rebate invoice transaction, created when a customer order is invoiced, can be set to 8-'On hold', preventing any claim being made. This might be used, for example, when an agreement is unconfirmed (where the whole agreement is put on hold) or disputed (where individual agreement lines can be put on hold until the dispute is settled).

Define claimable status indicator

An individual supplier rebate agreement can be manually put on hold by selecting the 'Hold claim' check box. The check box can be selected per agreement header in 'Supplier Rebate on Sales. Open Agreement' (OIS860) or per agreement line in 'Supplier Rebate on Sales. Open Agr Lines' (OIS861).

If the check box is selected, supplier rebate invoice transactions in 'Supplier Rebate Inv Transactions. Display' (PPS127) are set to status 8-'On hold' when the customer order is invoiced. This prevents these

claim transactions from being included in any claim against the supplier. The 'Hold claim' check box can be selected on the agreement header or on the agreement line at any time during the lifetime of the agreement.

A pre-defined hold reason code can be selected on the agreement header to indicate the reason for the agreement being put on hold. The hold reason code is removed once the agreement is released for claim.

Manage on hold status

For the scenario where the agreement or specific agreement lines are put on hold due to a dispute, the existing claim transactions not yet included in a supplier claim must be set to status 8-'On hold'. This is done by using related option 21='Update claim lines' in (OIS860).

The 'Hold claim' check box on (OIS860/E) and (OIS861/E) can be deselected if the agreement has status 00-'New Entry' or 10-'Preliminary'. As no claim transactions are created for agreements in status 00 or 10 there is no need to update any claim lines.

If the agreement status has been changed to 20-'Active', the agreement, agreement lines, and existing claim transactions must be released for claim using related options 20='Update claim lines and release for claim' or 22='Release for claim'.

This table describes the related options used in relation to hold claim in (OIS860):

Related option	Description
20='Update claim lines and release for claim'	Select this to launch the batch job PPS127Sbm to update the agreement's claim transactions with the agreement changes, including releasing transactions with status 8-'On hold' for claim and updating their status to 10-'New'. Claim transactions with status 80-'Cancelled' are re-evaluated against the agreement and if a rebate is applicable the transaction is updated, and the status set to 10-'New'.
21='Update claim lines'	Select this to launch the batch job PPS127Sbm to update the agreement's claim transactions with the agreement changes. When an agreement has been put on hold, this related option can be used to update the status of existing claim lines to 8-'On hold'. Note that an agreement cannot be released for claim by using this related option.
22='Release for claim'	Select this to launch batch job PPS127Sbm which releases the agreement's claim transactions with status 8-'On hold' and updates their status to 10-'New'.

Limitations

- The agreement lines are all released for claim at once. It is not possible to release only certain agreement lines at a time.

Rebate Calculation

This document describes the different calculation methods available in the supplier rebate on sales agreements functionality.

The calculation of a rebate amount is determined by the agreement's rebate calculation method and its rebate calculation base.

Define rebate calculation method

The rebate calculation method defines how the supplier rebate amount is calculated. You can define a rebate calculation method on the agreement header in 'Supplier Rebate on Sales. Open Agreement' (OIS860), which by default will be selected as the rebate calculation method for the agreement lines defined in 'Supplier Rebate on Sales. Open Agr Lines' (OIS861).

This table lists the rebate calculation methods and describes their use:

Method	Description
0-'Select a calculation method'	No rebate calculation method is defined. This value is allowed for the agreement header, since it implies that no specific rebate calculation method is selected by default on the agreement lines. When selected, it is mandatory to specify a calculation method when entering agreement lines.
1-'Percentage'	The rebate amount is calculated as (rebate base x rebate percentage rate) converted to the agreement currency, then rounded off. For this method, a rebate percentage rate and a rebate base must be specified on the agreement line.
2-'Amount'	The rebate amount is specified as a fixed amount per rebate unit of measure. For this method, a rebate amount and its unit of measure must be specified on the agreement line. Note: Items that are valid for the agreement line must have the rebate amount unit of measure defined as basic or alternate price unit of measure in 'Item. Connect Alternate U/M' (MMS015).

Method	Description
3-'Net'	<p>The rebate amount is calculated as a percentage of the difference between two selected from and to rebate bases. For this method, a rebate percentage rate and a from and to rebate base must be specified on the agreement line.</p> <p>The rebate base values and their currencies are retrieved for the two selected rebate bases. The currency is converted to the currency specified on the agreement.</p> <p>The unit of measure for the rebate base is, if needed, converted to the item's basic unit of measure.</p> <p>The rebate is calculated as ((from rebate base in the agreement currency – to rebate base in the agreement currency) x rebate percentage). The result is rounded off to the number of decimals specified for the currency on the agreement. If the calculated rebate amount is negative, the rebate amount is automatically set to zero.</p> <p>An example to clarify the net calculation method:</p> <p>Supplier rebate on sales agreement currency = EUR, from rebate base = 199.5 USD, to rebate base = 150.5 USD, rebate percentage rate = 50%.</p> <p>From rebate base in the rebate agreement currency: 199.5 USD = 145.635 EUR, To rebate base in the rebate agreement currency: 150.5 USD = 109.865 EUR. Calculated rebate amount in the rebate agreement currency: $(145.635 \text{ EUR} - 109.865 \text{ EUR}) \times 0.5 = 17.885 \text{ EUR} = 17.89 \text{ EUR}$ (rounded off).</p>

Method	Description
4-'Margin guaranteed'	<p>The rebate amount is calculated based on the difference between an actual margin percentage (excluding supplier rebates, internal charges, and VAT) and a predefined guaranteed margin percentage.</p> <p>The actual margin percentage is defined as the difference between the transaction lines net price and a predefined margin cost base, divided by the transaction lines net price. The 'Margin cost base' must be specified on the agreement line.</p> <p>The margin cost base and the net price are converted to the local currency before the actual margin percentage is calculated.</p> <p>The rebate is calculated as $((\text{guaranteed margin percentage} - \text{actual margin percentage}) \times \text{unit net price})$, then rounded up, converted to the currency on the agreement, and rounded off to the number of decimals specified for that currency. If the difference between the guaranteed margin percentage and actual margin percentage is positive, a rebate should be given. The actual margin percentage is calculated as $((\text{unit net price} - \text{margin cost base}) / \text{unit net price}) \times 100$.</p> <p>An example to clarify the margin guaranteed calculation method:</p> <p>Supplier rebate on sales agreement currency = EUR, net unit price = 40 USD, margin cost base = 37.55 USD, guaranteed margin percentage = 10.5%, local currency = SEK.</p> <p>Calculated actual margin percentage: $((292 \text{ SEK} - 274.115 \text{ SEK}) / 292 \text{ SEK}) \times 100 = 6.125\%$. Rebate amount local currency: $((10.5\% - 6.125\%) \times 292 \text{ SEK}) = 12.775 \text{ SEK} = 12.78 \text{ SEK}$ (rounded up to avoid ending up below the guaranteed margin). Rebate amount in the agreement currency: 12.78 SEK = 1.278 EUR = 1.28 EUR (rounded off)</p>
5-'Scaled rebate'	<p>The rebate amount is calculated based on a selected rebate scale.</p> <p>The rebate scale ID can be reused on several agreements.</p> <p>The rebate scale ID must either be defined on the agreement header as a default value to the agreement lines, or directly defined on the agreement line.</p> <p>Rebate scales are defined in 'Supplier Rebate on Sales. Open Scale' (OIS867).</p> <p>See Rebate Scale on page 203</p>

Rebate calculation settings

The settings for the rebate calculation determine the input values for the calculation method. The fields available depend on the selected rebate calculation method. For the calculation methods that require a rebate base or margin cost base the available fields will also vary depending on the selected base.

This table gives a description of the fields in (OIS860) and (OIS861) that are available for the different rebate calculation methods and lists the rebate calculation methods they are used in:

Field	Used in rebate calculation method	Description
Rebate percentage	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 	The rebate percentage rate together with the rebate base is used to calculate the rebate amount at customer invoicing.
Rebate base	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 	The field indicates the rebate calculation base (or bases), which together with the rebate percentage rate is used to calculate the rebate amount at customer invoicing.
Agreement number	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 4-'Margin guaranteed' 	<p>The field indicates a purchase agreement used to retrieve the purchase price when the base is set to 3-'Fixed gross purchase price' or 4-'Fixed net purchase price'. This is used for calculating the rebate amount at customer invoicing.</p> <p>Note: If the purchase price is defined for a specific warehouse, facility and division, the search criteria warehouse setting field must be specified on (OIS861/E).</p>
Search criteria - warehouse	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 4-'Margin guaranteed' 	<p>The field is used when the rebate base is a purchase price defined for a specific warehouse, facility or division. The setting determines which warehouse to use in search for a valid purchase price. There are two available alternatives, to specify a specific warehouse or to specify '*SYS'. If '*SYS is specified, the warehouse is retrieved from the order transaction line.</p> <p>The warehouse's main facility and main division are also applied to validate the purchase agreement lines.</p>
Rebate amount Rebate amount - unit of measure	<ul style="list-style-type: none"> 2-'Amount' 	<p>The rebate amount is defined in the currency of the agreement and as per rebate unit of measure.</p> <p>The item that is specified for the sales or material transaction line must have the specified unit of measure as its basic unit of measure or as an alternative price unit of measure for the agreement line to be valid.</p>
Price list and Currency	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 	<p>These fields indicate a unique identity for a price list and its currency. The price list is used to retrieve a price for the rebate calculation when the base is set to 22-'List price'.</p> <p>Note: Customer-unique price lists cannot be used as the base for the rebate calculation.</p>

Field	Used in rebate calculation method	Description
Costing type	<ul style="list-style-type: none"> 1-'Percentage' 3-'Net' 4-'Margin guaranteed' 	The field indicates the costing type used to retrieve an item's standard cost when the base is set to 9-'Std cost with costing type'. The standard cost is retrieved based on the costing type and the subtotal defined in 'Setting – Product Costing' (PCS001).
Guaranteed margin percentage	<ul style="list-style-type: none"> 4-'Margin guaranteed' 	The field indicates the guaranteed margin percentage, which together with the actual margin percentage and the unit net price is used to calculate the rebate amount at customer invoicing.
Margin cost base	<ul style="list-style-type: none"> 4-'Margin guaranteed' 	The field indicates the margin cost base, which together with the unit net price is used to calculate the actual margin percentage.
Rebate scale	<ul style="list-style-type: none"> 5-'Scaled rebates' 	The field indicates a unique identity for a rebate scale that defines the relationship between scale limits and rebate rates. Different price reductions give different rebates depending on what limit the reduction passes. The rebate scale is defined in (OIS867).

This table shows the valid rebate bases that can be selected in (OIS860) and (OIS861):

Rebate base	Description
1-'Current gross purchase price'	<p>The rebate base is set to the current gross purchase price. This is retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001) <p>If the gross purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
2-'Current net purchase price'	<p>The rebate base is set to the current net purchase price. This is retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001) <p>If the net purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>

Rebate base	Description
3-'Fixed gross purchase price'	<p>The rebate base is set to the purchase price from a specific purchase agreement. The possibility to define a specific purchase agreement number enables the user to define discounted purchase agreements, to be used specifically for supplier rebate calculations.</p> <p>The purchase agreement number is specified per agreement line or retrieved by default from the agreement header.</p> <p>If the purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
4-'Fixed net purchase price'	<p>The rebate base is set to the purchase price from a specific purchase agreement. The possibility to define a specific purchase agreement number enables the user to define discounted purchase agreements, to be used specifically for supplier rebate calculations.</p> <p>The purchase agreement number is specified per agreement line or retrieved by default from the agreement header.</p> <p>If the purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
5-'Last gross purchase price'	<p>The rebate base is set to the last gross purchase price for the item. The last gross purchase price is retrieved from 'Purchase Statistics. Display' (PPS450). If no statistic record is found, the current gross purchase price is used as the rebate calculation base, retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001)
6-'Last net purchase price'	<p>The rebate base is set to the last net purchase price for the item. The last net purchase price is retrieved from 'Purchase Statistics. Display' (PPS450). If no statistic record is found, the current net purchase price is used as the rebate calculation base, retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001)
7-'Inventory cost'	<p>The rebate base is set to the item's inventory cost. The inventory cost is retrieved from the transaction lines' delivering facility at the time of the order date.</p> <p>Items with inventory accounting method 0-'Zero cost' and 5-'Simplif purch' on 'Item. Connect Facility' (MMS003/E) are not supported for this calculation base, since items with those inventory accounting methods do not have inventory values.</p>

Rebate base	Description
8-'Standard cost'	The rebate base is set to the item's standard cost. The standard cost is retrieved from the transaction lines' delivering facility at the time of the order date. The standard cost is calculated based on the values defined in 'Settings - Product Costing' (PCS001).
9-'Standard cost with costing type'	The rebate base is set to the item's standard cost and a given costing type. The standard cost is retrieved from the delivering facility at the time of the customer order date. The standard cost is retrieved based on the costing type specified on the agreement line and the subtotal defined in 'Setting - Product Costing' (PCS001).
20-'Unit gross price'	The rebate base is set to the transaction lines' gross sales price, excluding charges and VAT. This calculation base is not valid for rebate calculation method 4-'Margin guaranteed'.
21-'Unit net price'	The rebate base is set to the transaction lines' net sales price, excluding charges and VAT. This calculation base is not valid for rebate calculation method 4-'Margin guaranteed'.
22-'List price'	The rebate base is set to the item's list price as defined in a price list. Note: Customer-unique price lists cannot be used as the base for the rebate calculation.

Rebate Scale

This document describes the rebate scale functionality of supplier rebate on sales agreements.

The rebate scale is used when different rebates are granted for different limit values. A price decrease percentage is calculated based on the supplier rebate scale base settings in 'Supplier Rebate on Sales. Open Scale' (OIS867). That percentage is matched against a list of limit values defined in 'Supplier Rebate on Sales. Enter Scale' (OIS868), each connected to a specific rebate value. The rebate value specified for the limit value with the highest value that the calculated price decrease percentage passes is selected. The scale base calculation is either based on a percentage decrease between a given list price and the unit net price or a percentage decrease between the unit gross price and the unit net price. The rebate scale must be connected to an agreement line on (OIS861/E).

Rebate scale header

The rebate scale header includes a description, name, supplier, supplier rebate scale base and a rebate calculation method. These are specified on (OIS867/E). The rebate scale header is stored in the OSRESH table.

Specify the supplier if the rebate base setting is set to 3-'Fixed gross purchase price' or 4-'Fixed net purchase price'. The supplier and the supplier agreement number are used to retrieve the rebate base for calculating

the rebate amount at customer invoice. The currency of the supplier must be the same as the supplier on the agreement it is connected to.

The rebate scale base and the rebate calculation method specified on the scale are used when calculating the rebate amount at customer invoicing. The rebate calculation settings on the scale always overrule the settings on the agreement line it is connected to.

Rebate scale base settings

A 'Supplier rebate scale base' is selected on (OIS867/E). The supplier rebate scale base defines how the price decrease percentage is calculated.

This table shows the valid supplier rebate scale base alternatives:

Supplier rebate scale base	Description	Calculation example
1-'Pct decrease btw list price + unit net'	<p>The percentage decrease between a given list price and the unit net price. The percentage is calculated as $((\text{list price} - \text{net amount}) / \text{list price}) \times 100$, then rounded off. The list price must be specified in a price list defined on the scale header.</p> <p>Note: It is not possible to select a customer unique price lists as the base for the rebate calculation.</p>	<p>List price = 125, net unit price = 118.80</p> <p>Calculation of price decrease percentage: $125 - 118.80 = 6.20$, $6.20 / 125 = 0.05$, $0.05 \times 100 = 5\%$</p>
2-'Pct decrease btw unit gross + unit net'	<p>The percentage decrease between the unit gross price and the unit net price. The percentage is calculated as $((\text{gross amount} - \text{net amount}) / \text{gross amount}) \times 100$, then rounded off.</p>	<p>Gross price = 125, net unit price = 118.80</p> <p>Calculation of price decrease percentage: $125 - 118.80 = 6.20$, $6.20 / 125 = 0.05$, $0.05 \times 100 = 5\%$</p>

Rebate calculation settings

The rebate calculation method selected on (OIS867/E) defines how the supplier rebate amount is calculated.

This table shows the available rebate calculation methods and their use:

Method	Description
1-'Percentage'	<p>The rebate amount is calculated as $(\text{rebate base} \times \text{rebate percentage rate})$ converted to the agreement currency, then rounded off. The rebate percentage rate is retrieved from (OIS868) where limit values and corresponding rebate percentage rates are specified. The rebate percentage rate specified for the limit value with the highest value that the calculated price decrease percentage passes is selected. For this method, a rebate base must be specified in the settings for the rebate calculation.</p>

Method	Description
2-'Amount'	The rebate amount is dependent on the calculated rebate scale base and the limit values specified on (OIS868). The rebate amount is retrieved from (OIS868) where limit values and corresponding rebate values are specified. The rebate amount specified for the limit value with the highest value that the calculated price decrease percentage passes is selected. For this method, a rebate unit of measure and currency must be specified in the settings for the rebate calculation.

Several additional setting fields are connected to the selected calculation method. They are used as input values for the calculation method. The setting fields available on (OIS867/E) are based on the selected rebate calculation method. For rebate calculation method 1-'Percentage', that requires a rebate base, the setting fields will also differ depending on the selected base.

This table describes the fields available for the different rebate calculation methods:

Field	Used in rebate calculation method	Description
Rebate base	1-'Percentage'	The field indicates the rebate calculation base (or bases), which together with the rebate percentage rate is used to calculate the rebate amount at customer invoicing.
Agreement number	1-'Percentage'	The field indicates a purchase agreement used to retrieve the purchase price when the base is set to 3-'Fixed gross purchase price' or 4-'Fixed net purchase price'. This is used to calculate the rebate amount at customer invoicing. Note: If the purchase price is defined for a specific warehouse, facility and division, the search criteria warehouse setting field must be specified on (OIS861/E).
Search criteria - warehouse	1-'Percentage'	The field is used when the rebate base is a purchase price defined for a specific warehouse, facility, or division. The setting determines which warehouse to use in search for a valid purchase price. There are two available alternatives, to specify a specific warehouse or to specify '*SYS'. If '*SYS is specified, the warehouse is retrieved from the order transaction line. The warehouse's main facility and main division are also applied to validate the purchase agreement lines.

Field	Used in rebate calculation method	Description
Price list and Currency	1-'Percentage'	<p>These fields indicate a unique identity for a price list and its currency. The price list is used to retrieve a price for the rebate calculation when the base is set to 22-'List price'.</p> <p>Note: Customer-unique price lists cannot be used as the base for the rebate calculation.</p>
Costing type	1-'Percentage'	<p>The field indicates the costing type used to retrieve an item's standard cost when the base is set to 9-'Std cost with costing type'. The standard cost is retrieved based on the costing type and the subtotal defined in 'Setting – Product Costing' (PCS001).</p>
Rebate amount - unit of measure	2-'Amount'	<p>The field indicates the unit of measure for the rebate amount.</p> <p>The ordered item must have this unit of measure as basic or alternate price unit of measure for the rebate amount to be valid during entry of customer order lines and material invoice specification lines.</p>
Currency	2-'Amount'	<p>The field indicates the rebate currency, which determines the currency used to specify the rebate amounts per scale limit value.</p> <p>The currency of the scale must correspond to the currency of the 'supplier rebate on sales agreement' to which it is connected.</p>

This table shows the valid rebate bases that can be selected for rebate calculation method 1:

Rebate base	Description
1-'Current gross purchase price'	<p>The rebate base is set to the current gross purchase price. This is retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001) <p>If the gross purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
2-'Current net purchase price'	<p>The rebate base is set to the current net purchase price. This is retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001) <p>If the net purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>

Rebate base	Description
3-'Fixed gross purchase price'	<p>The rebate base is set to the purchase price from a specific purchase agreement. The possibility to define a specific purchase agreement number enables the user to define discounted purchase agreements, to be used specifically for supplier rebate calculations.</p> <p>The purchase agreement number is specified per agreement line or retrieved by default from the agreement header.</p> <p>If the purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
4-'Fixed net purchase price'	<p>The rebate base is set to the purchase price from a specific purchase agreement. The possibility to define a specific purchase agreement number enables the user to define discounted purchase agreements, to be used specifically for supplier rebate calculations.</p> <p>The purchase agreement number is specified per agreement line or retrieved by default from the agreement header.</p> <p>If the purchase price is defined for a specific warehouse (facility or division), the 'Search criteria – warehouse' setting must be specified.</p>
5-'Last gross purchase price'	<p>The rebate base is set to the last gross purchase price for the item. The last gross purchase price is retrieved from 'Purchase Statistics. Display' (PPS450). If no statistic record is found, the current gross purchase price is used as the rebate calculation base, retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001)
6-'Last net purchase price'	<p>The rebate base is set to the last net purchase price for the item. The last net purchase price is retrieved from 'Purchase Statistics. Display' (PPS450). If no statistic record is found, the current net purchase price is used as the rebate calculation base, retrieved using this hierarchy:</p> <ol style="list-style-type: none"> 1 'Purchase Agreement. Open' (PPS100) 2 'Supplier. Connect Item' (PPS040) 3 'Item. Open' (MMS001)
7-'Inventory cost'	<p>The rebate base is set to the item's inventory cost. The inventory cost is retrieved from the transaction lines' delivering facility at the time of the order date.</p> <p>Items with inventory accounting method 0-'Zero cost' and 5-'Simplif purch' on 'Item. Connect Facility' (MMS003/E) are not supported for this calculation base, since items with those inventory accounting methods do not have inventory values.</p>

Rebate base	Description
8-'Standard cost'	The rebate base is set to the item's standard cost. The standard cost is retrieved from the transaction lines' delivering facility at the time of the order date. The standard cost is calculated based on the values defined in 'Settings - Product Costing' (PCS001).
9-'Standard cost with costing type'	<p>The rebate base is set to the item's standard cost and a given costing type. The standard cost is retrieved from the delivering facility at the time of the customer order date.</p> <p>The standard cost is retrieved based on the costing type specified on the agreement line and the subtotal defined in 'Setting - Product Costing' (PCS001).</p>
20-'Unit gross price'	<p>The rebate base is set to the transaction lines' gross sales price, excluding charges and VAT.</p> <p>This calculation base is not valid for rebate calculation method 4-'Margin guaranteed'.</p>
21-'Unit net price'	<p>The rebate base is set to the transaction lines' net sales price, excluding charges and VAT.</p> <p>This calculation base is not valid for rebate calculation method 4-'Margin guaranteed'.</p>
22-'List price'	<p>The rebate base is set to the item's list price as defined in a price list.</p> <p>Note: Customer-unique price lists cannot be used as the base for the rebate calculation.</p>

Limit values

The limit values and their corresponding rebate percentages or rebate amounts are specified in (OIS868), which is started from (OIS867) using related option 11='Limit value'. The limit values are matched against the price decrease percentage that, based on the supplier rebate scale base settings, is calculated in (OIS867). The rebate value specified for the limit value with the highest value the calculated price decrease percentage passes is selected.

The use of the rebate value retrieved from (OIS868) is defined by the rebate calculation settings in (OIS867). If calculation method 1-'Percentage' is selected, the rebate value will be used as the rebate percentage rate in the rebate calculation. If calculation method 2-'Amount' is selected, the rebate value will be used as the rebate amount, applied on the unit of measure and in the currency defined in the rebate calculation settings in (OIS867).

Limitations

- It is not possible to define customer unique price lists as the base for the rebate calculation.

Retrospective Changes

This document describes how to manage retrospective changes to supplier rebates on sales agreements.

Changes to an active agreement with status 20-'Active' may be required for a variety of reasons. For example, the confirmed supplier 'Agreement reference number' on an unconfirmed agreement may need to be updated on the agreement header prior to the agreement being released for claim. The settlement of a dispute could also result in changed agreement terms.

Change of agreements

This table shows the changes that can be made to an existing supplier rebate on sales agreement and the limitations for those changes:

Type of change	Impact and limitations
Changing agreement values	Customer details such as delivery address can be changed regardless of the status of the agreement.
Changing supplier information	The supplier and the supplier agreement reference number can be changed on an active agreement. This enables a new supplier to take over an ongoing agreement. It also enables sales against an unconfirmed agreement, where the supplier agreement reference number is not yet known.
Changing agreement currency	The agreement currency cannot be changed after agreement lines are created.
Changing validity dates	After agreement lines are created, the validity period on the agreement header cannot be changed outside the validity period of the agreement lines.
Changing rebate rates or rebate calculation method	The rebate rates including the calculation methods can be changed regardless of the status of the agreement.
Deleting and adding an agreement line	An agreement line can be deleted or added regardless of the status of the agreement.

New order lines

For new entry of order lines, all types of agreement changes take effect.

Not invoiced order lines

For order lines that has not been invoiced, changes to the agreement rates are always respected at time of customer invoice. A supplier rebate process involving many changes to the agreement rates must therefore regard the rebate amount and sales margin at time of order line entry as preliminary until invoiced. Note that the agreement itself is only retrieved at time of customer invoice if the rebate check date setting selected in 'Settings - Customer Order Entry' (CRS720) is one of alternatives 3 to 6 or if the customer prices are configured to be defined at time of customer invoice.

Invoiced order lines

For invoiced order lines, the agreement changes can be selected to take an effect on the existing supplier rebate invoice transactions in (PPS127). The order line itself is not updated with the new agreement changes since it must remain with the rebate rates and sales margin valid at time of customer invoice.

Update supplier rebate claim transactions

The supplier rebate invoice transactions for a given agreement are updated either using related option 20='Update claim lines and release for claim' or related option 21='Update claim lines' in 'Supplier Rebate on Sales. Open Agreement' (OIS860). The claim transactions are updated with a revised rebate amount since the initial rebate amount must be kept intact for accounting purposes. Upon creating the claim request or invoice against the supplier, the revised rebate amount is used as the expected rebate amount to be claimed. Once the claim request or invoice is settled, the initial rebate amount is used and accounted for as a pending claim at the time of invoicing, and off-set using 'Supplier Batch Invoice. Open' (APS450).

Note: Supplier rebate invoice transactions that have already been settled are not affected by retrospective agreement changes (claim transaction in status 15-'Wrk in progress', 40-'Included in supplier claim', 70-'Updated in APL', 80-'Canceled' and 90-'Closed').

Note: All transactions created due to a credit customer invoice, where the original supplier rebate invoice transaction has already been claimed, are excluded from any retrospective changes, since this transaction is reversing the original claim.

This table lists the resulting updates to different supplier rebate invoice transactions in (PPS127) when using related option 20='Update claim lines and release for claim' or 21='Update claim lines' in (OIS860):

Type of change in agreement	Affected supplier rebate invoice transaction field	Result of change
Change of supplier information	Supplier	Updated with the new supplier.
	Agreement reference number	Updated with the new supplier agreement reference number.
Changes resulting in the existing supplier rebate invoice transaction being disqualified for any rebate within the agreement.	Supplier	No change, to indicate the origin of the claim transaction.
	Agreement reference number	No change, to indicate the origin of the claim transaction.
	Revised rebate indicator	Set to 1 to indicate that the rebate amount has been adjusted to zero.
	Status	Set to status 80-'Canceled'. This status prevents the claim from being included in any supplier claim request or invoice. To offset the pending claim amount, manual accounting must be performed. Once the accounting is complete, the transaction should be manually set to status 90-'Closed'.

Type of change in agreement	Affected supplier rebate invoice transaction field	Result of change
Change of rebate rates or rebate calculation method resulting in a reduced or increased rebate amount	Revised supplier rebate amount	Updated with the adjusted rebate amount in the agreement currency.
	Revised sup rebate amt - local currency	Updated with the adjusted rebate amount in the local currency.
	Revised rebate indicator	Set to 1 to indicate that the rebate amount has been adjusted.
Creating a new agreement line with higher priority than an existing agreement line for the supplier rebate invoice transaction.	Revised supplier rebate amount	Updated with the adjusted rebate amount in the agreement currency.
	Revised sup rebate amt - local currency	Updated with the adjusted rebate amount in the local currency
	Revised rebate indicator	Set to 1 to indicate that the rebate amount has been adjusted.

Limitations

- Supplier rebate invoice transactions that have already been settled are not affected by retrospective agreement changes.
- For multiple retrospective changes to an agreement, it's only the last change that is stored as a revised rebate amount for the supplier rebate invoice transactions.
- Retrospective changes do not update customer order lines or sales statistics.

Retrospective Agreements

This document describes how to manage retrospective agreements and how they are applied on already invoiced customer order deliveries.

A retrospective agreement may be created when sales with low margins are identified and the supplier is contacted to see if an agreement can be made to increase and protect the margin of sale. The supplier may agree to retrospectively cover sales that are already invoiced. The new agreement will then be retrospectively validated against sales already invoiced.

Validating invoiced customer order delivery lines against a specific agreement or all valid agreement is performed in 'Retrospective Supplier Rebate on Sales. Select' (OIS869).

Use of parallel jobs

Parallel jobs can be used for jobs submitted by (OIS869). How many retrospective supplier rebate on sales jobs that should be started in parallel by (OIS869) is controlled through the retrospective supplier rebate jobs setting in 'Settings - Parallel Jobs' (CRS797). The selected range in (OIS869) will be distributed evenly

among the submitted jobs. Parallel jobs should only be used to improve performance. As a guideline, you should not submit more jobs than the number of processing units on the server.

Selection criteria

Using selection criteria, the sub-set of invoiced customer order deliveries included in the agreement validation, is defined and limited. Criteria available in (OIS869) for selection are facility, invoice date and customer. It is also possible to define up to 10 item numbers to further limit the selection.

This table lists the different selection criteria in (OIS869) that can be used to limit the selection of invoiced customer order deliveries:

Selection criterion	Description
Facility	Facility range from which to select customer order deliveries.
Invoice date	Invoice date range from which to select customer order deliveries.
Customer	Customer range from which to select customer order deliveries.
Item number	Item numbers from which to select customer order delivery lines. Up to 10 different item numbers can be specified to limit the selection.
Supplier rebate on sales agreement	Supplier rebate on sales agreement used to validate and create new retrospective supplier rebate invoice transactions. If no specific agreement is specified, then all the valid agreements are used within the validation.

Note: Only invoiced customer order deliveries not already entitled to a rebate type are included in this agreement validation.

Retrospectively created supplier rebate invoice transactions

Once the retrospective agreement validation is submitted in (OIS869), a transaction is created in 'Supplier Rebate Inv Transaction. Display' (PPS127) for the deliveries passing the retrospective agreement validation. The retrospectively created supplier rebate invoice transactions are created with a revised rebate amount, displayed on (PPS127/E). A revised rebate amount is assigned because the rebate was neither defined at time of customer invoice nor accounted for as a pending claim (accounting event OI20-420). The transactions created retrospectively from (OIS869) can be identified through the 'Retrospective supplier rebate inv trans' check box displayed on (PPS127/F).

Limitations

- Retrospective agreement validation is only applicable for invoiced customer order deliveries not already entitled to a rebate type.

- Retrospective creation of supplier rebate invoice transaction is only supported for customer orders with rebate type defined in 'Supplier Rebate on Sales. Open Agreement' (OIS860).
- Retrospective agreement validation is not supported for MCOs and Rental.

End and Follow-up

This document describes how to end and follow up on the supplier rebate on sales agreements.

End agreement

When the validity period of an agreement has expired, its final supplier rebate invoice transaction should be submitted to the supplier for reimbursement.

There is no final claim date on the agreement and therefore no restriction on when the rebate claim transactions can be submitted to the supplier. If there are rebate invoice transactions in 'Supplier Rebate Inv Transaction. Display' (PPS127) that have expired before being submitted to the supplier, they must be canceled manually. To offset the pending claim amount, manual accounting must be performed for the canceled rebate invoice transactions. Once the claims have been offset, the rebate invoice transaction can be closed.

When all rebate claim transactions have been closed, the status of the agreement is set to 90-'Ended' in (OIS860). When the agreement is ended, orders can no longer be matched to the agreement at customer order entry.

Follow-up

Reporting based on the supplier rebate invoice transaction history and the sales statistics gives the overall profit visibility.

The sales statistics (OSBSTD) are updated with the initial supplier rebate calculated at customer invoice including the customer pricing related information.

The supplier rebate invoice transaction history (MPSUPR) stores both the initial supplier rebate related information calculated at customer invoice as well as the revised rebate amounts caused by retrospective agreement changes.

Supplier Rebate on Sales One-time Agreement

This document describes how to manage one-time agreements for supplier rebate on sales.

When using a one-time agreement for supplier rebate on sales the rebate amount is only valid for a specific customer order line. A one-time agreement cannot be used for an order line that is entitled to a promotion type rebate, as the promotion is already the best rebate for the customer. However, a one-time agreement can replace a sales agreement type rebate by using 'Order Line. Connect Supplier Rebate' (OIS118).

Setting up one-time agreement

There are no set up requirements for this type of rebate. It enables rebates to be given for specific customer order line. The one-time supplier rebate is defined in (OIS118), reached by using related option 23='One-time supplier rebate' in 'Customer Order. Open Line Toolbox' (OIS301).

This table lists the fields used to define a one-time supplier rebate in (OIS118):

Field	Description
Supplier	The supplier number that the rebate amounts are agreed with must be specified. The specified supplier will receive the claim to retrospectively reimburse the rebate for sales performed against the manually created supplier rebate.
Reference	The supplier reference defines the contact person at the supplier. By default, the reference field is set to the reference identity connected to the supplier in 'Supplier. Connect Reference' (CRS623). Note that the reference type must be 35='Agreement'. The reference identity cannot be specified until the supplier has been defined, since it is set to a default value and validated against the supplier number.
Currency	The rebate currency defines the currency used to enter rebate amounts per customer order line and must be specified. It also determines the currency used when you create the supplier rebate claim in 'Supplier Invoice Batch. Open' (APS450). The agreement currency cannot be specified until the supplier has been defined, since it by default is set to the currency of the specified supplier.
Rebate amount Rebate amount - unit of measure	The rebate amount indicates the supplier rebate to be manually assigned to the customer order line. The rebate amount is specified as a fixed rebate amount per unit of measure. The item that is specified on the order line must have the specified unit of measure as its basic unit of measure or as an alternate price unit of measure.
Supplier rebate reference number	The supplier rebate reference number field is used to specify the reference of the one-time supplier rebate agreed upon for the order line.
Agreement reference number	The agreement reference number field can be used to specify the reference used by the supplier or customer or both when they refer to the one-time rebate that is agreed upon for the order line.
Our reference	The name of the person that the supplier or customer may contact regarding the one-time rebate for the specific order line.

Field	Description
Responsible	The user ID of the person responsible for the one-time rebate. Set by default to the user ID of the user creating the record.

Limitations

- A one-time agreement always overrules any supplier rebate on sales agreement already entitled to the order line.
- A one-time agreement cannot be retrospectively assigned to an already invoiced customer order.

Supplier Rebates for Kit Items

This document describes how supplier rebate on sales are applied for kit items.

The statistics level of the kit item is defined in 'Product Structure. Open' (PDS001) and this determines the level on which sales account entries are updated. The statistics level options are: 0-'Not used', 1-'Kit item level', and 2-'Included items level'. This also determines the level of the pending claim and the supplier rebate invoice transaction in 'Supplier Rebate Inv Transaction. Display' (PPS127).

For a promotion type rebate to be valid, the statistics level must correspond to the pricing method level.

If a kit item is not delivered in complete units, it is split upon customer order delivery and treated as individual order lines. For a split kit, the preliminary rebate amount retrieved at customer order entry is always respected, since the final rebate retrieval would not take the kit structure into consideration.

Kit pricing and accounting level

This table shows the different combinations of kit pricing and accounting levels and what it means for the supplier rebate.

Pricing and accounting level	Description
Kit with pricing and accounting level on kit header	When kit items have the pricing method and statistics level set on the kit header, the rebate is applied to the kit header. If the full cost sum parameter is set, the preliminary rebate amount is distributed to the kit components based on the cost price factor and is included in the adjusted cost for both the kit item and its components.
Kit with pricing and accounting level on kit components	For kit items with kit component pricing and statistics level on the kit components, the rebate is applied to the components. If the full cost sum parameter is set, the preliminary rebate amount is summarized to the kit header.

Pricing and accounting level	Description
Kit with pricing level on kit header and accounting level on kit components	<p>For kit items with kit header pricing and statistics level set on the kit component, promotion type rebates are applied to the kit header, and then distributed down to components to indicate the distributed price and rebate.</p> <p>The pending claim account and the supplier rebate claim invoice records in (PPS127) are created for the kit header, and the kit header item number is shown.</p> <p>The sales agreement and one-time type rebates cannot be applied to this type of kit, as that could result in multiple rebates being applied to kit components.</p>
Kit with pricing level on kit components and accounting level on kit header	<p>For kit items with kit component pricing and statistic levels set on the kit header, sales agreement and one-time type rebates can be applied to the kit header.</p> <p>If the full cost sum parameter is set, the preliminary rebate amount is distributed to the kit components based on the cost price factor, since it is included in the adjusted cost for both the kit item and its components.</p> <p>The promotion type rebate cannot be applied to this type of kit, as that could result in different promotions being applied to different components which could then not be accounted for and claimed as a lump sum.</p>

Supplier Rebate on Sales in Customer Order Processing

This document describes how to manage supplier rebate on sales in the customer order process.

When a customer order line is entitled to a supplier rebate, a preliminary supplier rebate amount is calculated and assigned to the order line. Both the expected rebate amount and the adjusted sales cost (reduced with the expected rebate amount) are displayed in the 'Supplier rebate' field on 'Customer Order. Open Line' (OIS101/E).

For customer orders, the supplier rebate amount for the complete order can be simulated online and displayed within the customer order totals in 'Customer Order. Simulate Totals' (OIS110). The total supplier rebate amount for a customer order reduces the simulated total cost of the order. This makes it easier to predict the profit margin of the sales order.

The 'Supplier rebate reference type' that indicates the origin of the supplier rebate per CO line and the agreement identity are both displayed on (OIS101/G). The alternatives for the origin are 1-'Promotion rebate', 2-'Supplier rebate on sales agreement', and 3-'One-time supplier rebate'.

Rebate information, including the rebate amount and adjusted sales cost, can be displayed through 'co Type. Update Field Selection' (OIS014).

Limitations

- Only one rebate type can be used per customer order line, and the promotion type takes highest priority.
- Multiple supplier rebates on sales agreements per order line is not supported.
- You cannot manually add, change, or remove a supplier rebate agreement on a CO line.

Using Promotion Supplier Rebates

Promotion supplier rebates defined in 'Promotion. Open' (OIS840) are connected to customer pricing. During customer order line entry, a check for valid promotions is performed on the customer order type defined in 'CO Type. Open' (OIS010). If there is a valid promotion, the supplier rebate is added to the customer order line.

Change of CO line

When information that has a direct impact on the validity of the customer price is changed in a customer order line, the customer order line is automatically repriced. If the promotion is no longer valid, the supplier rebate will not be included in the updated price.

Copy of CO line

If an order line, including its sales price, is copied to a negative order quantity, the promotion is also copied to the new order line. This is done even if the promotion has expired. To copy the promotion ensures that the same promotion supplier rebate is used for the credit. It is, therefore, not recommended to change the rebate rates for active promotions once customer orders are invoiced.

If an order line, including its sales price, is copied to a positive order quantity, the promotion ID is also copied to the new order line. The current rebate rate is retrieved from the copied promotion ID.

It is possible to activate a validation of promotions that are copied together with a promotion priced order line. This is activated for each company in 'Settings. Customer Order Entry' (CRS720). When activated, this ensures that promotions related to promotion priced order lines where the sales price is copied, are validated. If the promotion is found invalid, the order line is not copied. It is recommended to activate this functionality if the promotions include supplier rebates, since the rebate cannot be claimed for transactions created when the promotion is no longer valid. If no validation is performed there is a risk of giving the customer a price that produces a poor sales margin.

Using Supplier Rebates on Sales Agreements

When 'Supplier rebate agreement check' is selected for the customer order type in 'CO Type. Open' (OIS010), the agreement is checked for validity and the agreed rebate amount is applied to the customer order line. The date selected in the rebate 'Check date' field in 'Settings - Customer Order Entry' (CRS720) must be within the valid dates on the agreement and the item must be entitled to a valid agreement.

Once applied, the rebate cannot be added to, changed, or removed from the order line, but it can be overwritten by a one-time rebate. The rebate entitlement procedure is an automated process and the end user is not sent a notification of this.

Change of CO line

When changing customer order line information that has a direct impact on the validity of the agreement, a new validity check is performed.

Copy of CO line

If an order line is copied to a negative order quantity, the rebate is copied to the new order line. This is done even if the agreement has expired. To copy the rebate ensures that the same rebate is used for the credit with the rebate rate retrieved from the agreement. It is, therefore, not recommended to change the rebate rates for active agreements once customer orders are invoiced.

If an order line is copied to a positive order quantity, the rebate is not copied to the new order line. The copied line is treated as a new line and a new search for a valid agreement is performed.

Set up of supplier rebate on sales agreement

The following criteria must be fulfilled for an agreement to be valid for a customer order line:

- The 'Supplier rebate agreement check' parameter on 'CO Type.. Open' (OIS010/I) must be selected for the rebate agreement functionality to be activated at customer order entry.
- The customer must have an agreement with status 20-'Active'. The date selected as the rebate 'Check date' in (CRS720) must be within the validity dates of the agreement.
- The item must be entitled to a valid agreement line.

This table shows the settings that are required to activate the supplier rebate on sales agreement functionality:

Program ID/Panel	Field heading	Description
OIS010/I	Supplier rebate agreement check	Select the check box to enable the agreement check at customer order entry
CRS720	Check date	The field indicates the date to be used for validating the agreement for a customer order. The alternatives are 1-'Order date' and 2-'Requested delivery date'.

Using One-time Supplier Rebates

A one-time supplier rebate is created by using related option 23='One-time supplier rebate' at customer order line entry in 'Customer Order.. Open Line' (OIS101).

The supplier rebate reference type of the order line is set to 8-'One-time supplier rebate'. The order line must be created before the supplier rebate can be connected to the order line. Once applied, a supplier rebate affects the adjusted cost of the customer order line.

Change of CO line

The supplier rebate can be manually changed in 'Order Line.. Connect Supplier Rebate' (OIS118) before the customer order line has been completely invoiced. If the amount is changed after a partial invoice, then it is valid for the remaining deliveries.

Copy of CO line

If the order line is copied to a negative order quantity, the one-time rebate agreement is copied to the new order line. This ensures the same rebate is used for the credit.

If the order line is copied to a positive order quantity, the one-time rebate agreement is not copied to the new order line. The copied line is treated as a new line and a new one-time agreement must be created.

It is neither possible to copy a manual supplier rebate contract nor the customer order line if the copy settings include copy of sales price. If this was possible, order lines could be copied with a sales price that considered a rebate that did not exist. This ensures that the customer is not given a price with a poor sales margin. For these scenarios, a new order line must instead be created, and manual action taken.

Supplier Rebates in a Multiple Unit Coordination Environment

For Multiple Unit Coordination (MUC) customer orders, the supplier rebate is managed in the selling division. The delivering division is not affected by the process unless the internal transfer price uses the net price or the sale price as the calculation base. The adjusted sales cost for a MUC scenario is calculated as: internal transfer price – supplier rebate.

Credit Customer Orders Including Supplier Rebates

When entering a credit customer order line standalone using 'CO Type. Open' (OIS101), a search for a valid supplier rebate on sales agreement is performed. However, when the credit is created through the customer return process, the supplier rebate on sales agreement, or the promotion that was valid for the original customer order line is applied on the credit customer order line. The agreement ID on the referenced customer order line is copied to the credit customer order line. If rebate rates are frequently changed on existing agreements, it is recommended to always enter new valid from dates so that historical rebate rates can be retrieved.

For all credit scenarios, a rebate invoice transaction with a negative invoice quantity is created in 'Supplier Rebate Inv Transaction. Display' (PPS127), and a credit indicator is set and displayed to make it easier to filter and select credit transactions.

Supplier Rebates at Customer Order Invoice

Companies are entitled to claim rebates from the supplier based on invoiced sales transactions. The final rebate amount is retrieved at the time of customer order invoicing, which makes it possible to generate sales orders for customers after the price has been agreed, but before the supplier details and rebate percentages have been finalized.

The order quantity on the customer order line is used when retrieving the rebate percentage rate or amount from the rebate source connected to the delivery line.

Note: A new search for a supplier rebate on sales agreement cannot be performed when the customer order is being invoiced.

When the customer order is invoiced, internal accounting for invoice type 69 is created with accounting rule OI20-420 (Claim against supplier) and OI20-430 (Claim revenue).

Accounting control objects from the supplier rebate invoice transaction file (MPSUPR) can be used to separate the pending claim amount per criteria such as rebate type, promotion or supplier rebate, and agreement number. These objects are also available for accounting event AP50.

Supplier Rebate on Sales in Maintenance Customer Order Processing

This document describes how to manage supplier rebate on sales in the maintenance customer order process.

When the 'Supplier rebate agreement check' setting is selected for the maintenance customer order (MCO) type in 'Maint CO Type. Open' (COS010), the agreement is checked for validity. This is performed during the creation of the invoice specification lines for material used within a work order in MCO.

Materials included in a fixed-price service or covered by warranty are not included in the calculation of supplier rebates. When the price method is changed to time and material, invoice transactions are regenerated, and the supplier rebate is calculated. The opposite applies when the price method is changed from time and material to fixed price.

Limitations

- For MCO material line entry, only supplier rebates on sales agreements defined in 'Supplier Rebate on Sales. Open Agreement' (OIS860) are valid.
- Multiple supplier rebates on sales agreements per order line is not supported.
- You cannot manually add, change or, remove a supplier rebate agreement on an MCO material invoice specification line.

Using Supplier Rebate on Sales Agreements

Regardless of whether the maintenance customer order is for service or material sales, material issues create transactions in the invoice specification 'Maint CO. Check Preliminary Invoice Spec' (COS170). When an invoice transaction is created, a check is carried out to find a valid supplier rebate on sales agreement.

When a supplier rebate on sales agreement is selected, a preliminary supplier rebate amount is calculated. This defines how much you can expect to claim from the supplier. The amount depends on the rebate calculation method defined on the agreement.

Set up of supplier rebate on sales agreement

The following criteria must be fulfilled for an agreement to be valid for a maintenance customer order invoice specification material line:

- The 'Supplier rebate agreement check' parameter on 'Maint CO Type. Open' (COS010/F) must be selected.

- The customer must have an agreement with status 20-'Active'. The rebate check date, that is based on the setting for parameter '160 Supplier rebate agreement check' in 'Settings - Maintenance Customer Orders' (COS895), must be within the validity dates of the agreement.
- The item must be entitled to a valid agreement line.

This table shows the settings that are required to activate the supplier rebate on sales agreement functionality:

Program ID/Panel	Field heading	Description
(COS010/J)	Supplier rebate agreement check	Select the check box to enable the agreement check at customer order entry.
(COS895)	160 Supplier rebate agreement check	The field indicates the date to be used for the validation of the agreement for a maintenance customer order. The alternatives are 1-'Order date', 2-'Requested delivery date', and 3-'Material issue date'.

Supplier Rebates at Maintenance Customer Invoice

The calculated rebate amount is stored in the pending rebate field both before and after the invoice is printed. The amount is recalculated during invoicing and can, therefore, differ if any of the base values have changed since the last calculation. Changes in a supplier rebate agreement do not affect the already created invoice specification transactions.

When a customer order is invoiced, internal accounting is created with accounting rule CO20-420 (Claim against supplier) and CO20-430 (Claim revenue).

Return of Material with Supplier Rebates

Return of material initiates a calculation of supplier rebate and creation of invoice transactions in the same way as an issue of material, but with opposite operators.

Update Bonus/Commission Agreement

This procedure is used to update bonus/commission agreements for invoices that did not previously update bonus/commission during invoicing. The time of the update is specified in 'Settings - Customer Order Invoicing' (CRS722).

Before you start

Customer orders must be invoiced without bonus/commission being updated during the invoicing. For more details, refer to 'Settings - Customer Order Invoicing' (CRS722).

Follow these steps

- 1** Start 'CO Invoice. Post-Process' (OIS196).
- 2** Select the 'Update B/C agreement' field. If necessary, decide whether to record invoices and update the statistics and general ledger.
- 3** Press Enter to start the update.

Update Sales Prices

This procedure is used to create and update a sales price in a sales price list.

Before you start

- A sales price list must be specified in 'Sales Price List. Open' (OIS017).
- If a sales price costing will be used to calculate the prices, a costing model for sales prices must be specified in 'Sales Costing Model. Open' (OIS022).

Follow these steps

- 1** Select 'Sales Price List. Open' (OIS017).
- 2** Select a price list, select option 16 = Price list updating and 'Sales Price List. Update' (OIS310) is started.
- 3** Specify the update to be made in the 'Function selection' field. Specify whether calculated sales prices are to be updated in the item file in the 'Update item' field.
- 4** Specify how the sales price is to be calculated. Specify either a percentage in the 'Change percent' field or an amount in the 'Change amount'.
- 5** To make a selection of items, fill in the 'From' and 'To' fields. The permitted range for selections is displayed to the left in the panel. The information is retrieved from the price list. Press Enter. If the selected sales price list is a base for other sales price lists, these are displayed in the E panel. If not, the procedure ends here.
- 6** Select the price lists to be calculated. An extra markup can be entered for selected price lists.
- 7** Press Enter to start the update.

Validity Dates on Price List Lines

This document explains how you use different validity dates on the price list lines within a price list.

Before you start

Select the check box 'Date on PL line' in 'Settings – Customer Order Entry' (CRS720) to activate the function to have different validity dates on the price list lines. If you do not select the check box, all lines will have the same validity dates as the price list header.

If the check box is selected, the same item may exist multiple times in a price list. The validity dates can be overlapping, which means that you can temporarily override the normal price. Once the temporary price becomes invalid, the normal price will be applied again. You can have an earlier valid to date than the date in the price list header, and have gaps in the validity dates.

Price list update

A price list can be updated using related option 16='Upd price list' in (OIS017), which starts 'Sales Price List. Update' (OIS310).

The mandatory selection fields 'Line valid from' and 'Line valid to' have the price list header's validity dates as default value. The dates must be within the validity dates of the price list.

- When creating new price list lines, the entered 'Line valid from' and 'Line valid to' dates are used as 'Valid from' and 'Valid to' dates on the created price list lines.
- When creating lines in a linked price list, the base price's validity dates are used if they are within the linked price list's validity dates. If not, the linked price list's dates are used. This creates a date interval in the linked price list where both the base price and the linked price are valid.
- When selecting price list lines to update or delete, the specified dates in 'Line valid from' and 'Line valid to' indicate the date range for which the price list lines will be updated or deleted. Price list lines with a 'Valid from' date within the range are updated or deleted.

If the 'Function selection' field is set to 1-'Create or Update', a new line is only created for an item if no line already exists within the entered range.

Basic sales price list in (OIS021)

When a price is updated or deleted in 'Sales Price List. Open Basic' (OIS021), only records in linked price lists with the exact same 'Line valid from' date is updated or deleted.

Update of a linked price list

A linked price list can also be updated using related option 16='Upd price list' in (OIS017).

It is not allowed to set the field 'Function selection' to 1-'Create or Update' for a linked price list. Use function selection 3-'Update/Delete' to update existing records, then add new records with function selection 2-'Create'.

Function selection 2-'Create'

All records in the base price list with a 'Line valid from' date within the entered date range are used to create a corresponding record in the linked price list, with the same 'Valid from' date and the same 'Valid to' date if the 'Valid to' date is within the price list's 'Valid to' date. If not, the linked price list's dates are used. This creates a date interval in the linked price list where both the base price and the linked price are valid.

If no record exists in the base price list with the linked price list's 'Valid from' date, a record is still created in the linked price list for that date if a price exists in the base price list that is valid at that date. If more than one price exists that is valid, then the one with the highest 'Valid from' date is used.

If the base price list only has records that are no longer valid, no record is created in the linked price list.

Function selection 3, 4, and 5 (Update/Delete)

Price list lines with a 'Line valid from' date within the selected date interval are updated or deleted. The price from the base price list used for each update is the price with a 'Line valid from' date less or equal to the record being updated. No update is done if no base price exists that has a 'Valid to' date that is greater or equal to the 'Valid from' date of the record being updated.

Special scenarios with linked price list

Below you will find two scenarios including a linked price with a later valid from date than the base price list. Having linked price lists with other validity dates can be very useful, but a linked price list with a later 'Valid from' date than the base price list will cause special scenarios.

Example 1

Base price list valid 2017-01-01 to 2017-12-31.

Linked price list valid 2017-06-01 to 2017-11-30, 10% deduction on the base price.

Add a record in the base price list with the validity dates 2017-01-01 to 2017-12-31, price 100.00. This also creates a record in the linked price list with the validity dates 2017-06-01 to 2017-11-30, price 90.00.

Add a record in the base price list with the validity dates 2017-05-01 to 2017-06-30, price 80.00.

This will not add a record in the linked price list since there already is a record with valid from date 2017-06-01.

Nor will the existing record be updated based on the new price in the base price list, since the base price is not valid for the whole validity period of the linked price list line. The linked price list line is updated, but the valid base in this example is the record with the validity dates 2017-01-01 to 2017-12-31, which means that the price will not change.

Outcome

Base price list valid 2017-01-01 to 2017-12-31:

Record	Valid from	Valid to	Price
Added record 1	2017-01-01	2017-12-31	100
Added record 2	2017-05-01	2017-06-30	80

Linked price list valid 2017-06-01 to 2017-11-30, 10% deduction on the base price:

Record	Valid from	Valid to	Price
Added record 1	2017-01-01	2017-11-30	90

Price retrieved from the base price list during different date intervals:

2017-01-01 to 2017-04-30, price 100.00

2017-05-01 to 2017-06-30, price 80.00

2017-07-01 to 2017-12-31, price 100.00

Price retrieved from the linked price list during different date intervals:

2017-06-01 to 2017-11-30, price 90.00

Example 2

Same price lists as in Example 1.

Base price list valid 2017-01-01 to 2017-12-31.

Linked price list valid 2017-06-01 to 2017-11-30, 10% deduction on the base price.

Add the records in the base price list, but do not select to update the linked price list, or create the linked price list later.

Add the records in the base price list:

2017-01-01 to 2017-12-31, price 100.00.

2017-05-01 to 2017-06-30, price 80.00.

Now update (or create) the linked price list.

Outcome

Base price list valid 2017-01-01 to 2017-12-31:

Record	Valid from	Valid to	Price
Added record 1	2017-01-01	2017-12-31	100
Added record 2	2017-05-01	2017-06-30	80

Linked price list valid 2017-06-01 to 2017-11-30, 10% deduction on the base price:

Record	Valid from	Valid to	Price
Added record 2	2017-06-01	2017-06-30	72

Price retrieved from the base price list during different date intervals:

2017-01-01 to 2017-04-30, price 100.00

2017-05-01 to 2017-06-30, price 80.00

2017-07-01 to 2017-12-31, price 100.00

Price retrieved from the linked price list during different date intervals:

2017-06-01 to 2017-06-30, price 72.00

2017-07-01 to 2017-11-30, no price is found in the price list.

Chapter 4: Customer Order Processing

Account Specification

An account specification is a compilation of invoices containing the records from receivables and the general ledger.

It can be printed during invoicing or afterwards. This is set in 'Settings - Customer Order Invoicing' (CRS722).

The information contained in account specifications is also contained in 'CO Invoice. Display' (OIS350). Account specifications are printed using 'Account Specification. Print' (OIS690) where one or more specifications can be printed at the same time.

Approve Customer Order Delivery for Invoicing

This document describes how a customer order delivery (customer order plus delivery number) is approved.

Outcome

The consignee's approval of a delivery is entered in the system.

If incorrect quantities were delivered, the delivery order is updated with correct quantities.

Uses

The delivery order can be invoiced in 'CO Invoice. Print' (OIS180).

How the System Is Affected

The order line/delivery number is removed from 'CO Delivery. Approve' (OIS155).

Status is changed to 60=Ready to be invoiced, in 'CO Delivery. Open' (OIS150).

If quantities are changed, the delivery order is updated. This will also affect the invoice. However, the original customer order is not affected.

Before you start

- A customer order must be delivered to a consignee, who approve the goods.

- Alternative 61=Proof of delivery required must be selected in the 'Status' field in 'CO Type. Open' (OIS010/E) for the customer order type used for the customer order.
- The delivery order must have status 61=Delivery approval required.

Follow these steps

- 1 Start 'CO Delivery. Approve' (OIS155). The program can also be reached from program 'CO Delivery. Open' (OIS150) by using option 33.
- 2 If selection was made from 'CO Delivery. Open' (OIS150), go to step 3. Otherwise, specify the appropriate customer order number and delivery number.
- 3 Specify the name of the person at the consignee's who approved the delivery and the date of approval.
- 4 Adjust the delivered quantity for the order lines displayed, if necessary, by specifying the correct quantity in the appropriate order line.
- 5 Press F14=Update to approve the delivery.
- 6 To end, press F3.

Approving Preliminary Customer Order

This document explains how you check, change, and approve a preliminary customer order. A preliminary customer order has status 10=Preliminary, and it is not possible to continue the customer order flow until it is approved (OIS115).

Preliminary customer orders are used when the delivery date and delivering warehouse must be determined separately. When this has been done, the order lines can be approved.

Outcome

The preliminary customer order is approved and released to be further processed in the customer order flow. The customer order status is set to 20=Approved.

The released customer order continues in the order flow according to the next manual function used for the order. The steps that follow approval are allocation of the ordered items, printing of picking list, and delivery. These steps are described in the Supply Chain Execution process and are not further described here.

- The file for order lines approval (OOAPRO) is updated.
- When the last order lines for an order are approved, all order lines are deleted from 'Customer Order. Approve' (OIS115).
- The changes you have created affect the original order and can be monitored in 'Customer Order. Open Toolbox' (OIS300) and 'Customer Order. Open Line Toolbox' (OIS301).
- Reserved quantity and available inventory are updated with the ordered quantity for the respective item and warehouse in 'Item. Connect Warehouse' (MMS002/H).
- Project on-hand balance is updated with the ordered quantity for the respective item and warehouse in 'Material Plan. Open' (MMS080). After the update, demand calculations and allocations can be calculated for each item.

Before you start

- A customer order must have been entered as a preliminary order in 'Customer Order. Open' (OIS100).
- An alternative 1-3 must have been entered in the 'Preliminary order' field in 'CO Type. Open' (OIS010/E). If alternative 2 is selected, then the status must be changed manually to status 10=Preliminary in the order header.
- The check box 'Permit past planning date' in 'settings - Customer Order Entry' (CRS720) must be set according to your policy. The check box indicates if it is allowed to approve an order line with a past planning date. If the check box is selected, then the planning date is not checked when you approve the customer order.

Follow these steps

Preliminary customer order types 1 and 2 (OIS010/E)

- 1 Approve the preliminary customer order by changing the order status to 20 in any panel in 'Customer Order. Open' (OIS100).

Preliminary customer order type 3

- 1 Select the Preliminary Customer Order to Be Checked

Preliminary customer orders are checked, maintained, and approved in 'Customer Order. Approve' (OIS115). You can use the selection fields on the B panel to easily find the customer order to be approved.

Until the order is approved, it is possible to change the information in the order header and the order lines in (OIS115). Delivering warehouse can be changed in (OIS115). Delivery date and delivery time can be changed via option 20-Reschedule. These changes will affect both the customer order and the material plan. If an order is changed, the same checks are performed as during customer order entry.

- 2 Check Feasibility of Preliminary Customer Order

Internal communications with the sales, productions, and purchasing departments determine whether or not it is possible to further process the order. The preliminary customer order can be rescheduled in 'Customer Order. Reschedule' (OIS130) (option 20-Reschedule) or deleted (option 4-Delete).

- 3 Change Status

If an approval process is used to approve preliminary customer orders, each step in the process can have a corresponding status. This allows different people or departments in a company to process the order in different ways and provide approval for each step. Preliminary statuses ranging from 11 to 19 can be used for that purpose. These statuses can be set on the E panel or via options 21 and 22. The statuses set by options 21 and 22 are defined in the settings panel (F13).

Note: The status codes in (OIS115) only reflect the status of customer order approval and not the status of the customer order.

- 4 Approve and Release Customer Order

A preliminary customer order becomes an approved order when all order lines are approved. Every order line must be approved in (OIS115/B) by selecting one or more order lines and selecting option 19-Approve. An approved order is final and all the changes entered previously are activated. Status 20=Approved is set for an approved customer order and the customer order is released to be further processed in the order flow.

Automatic Closing and Rejected Orders

Abstract

Automatically prevent backorders and accept orders that otherwise would have been rejected. This is done by closing the order line, fully or partially, and attaching a reason code. The solution has two parts:

- Automatic closing (Backorder prevention)
- Rejected orders

Although these parts are closely related, they are still not the same.

The automatic closing (backorder prevention) functionality will check the ATP and partially or fully close the order line (status 29 or 99) if there is a shortage. If you use a supply model, the automatic closing functionality is triggered only if the total supply model quantity is not enough.

The rejected orders functionality will accept some of the errors that can occur when you enter an order line. The order line will either end up in status 22 or 99.

However, by combining these two functions you can also end up with order lines in status 29 with a reason code (status 29), because of the automatic closing functionality.

Background

Customers often do not want backorders, but want the items you have available and then close an order line.

Companies that have many customer batch orders might not be interested in manually checking and releasing CO lines that were stopped in the batch order entry. Depending on the reason why the order was stopped, you still might want to disregard the error or warning and accept the order line. Examples are when you receive an erroneous item number or when ATP indicates a shortage.

Limitations

No automatic closing is done when you change an existing order line.

If you are not using the supply model, the ATP on the requested date always controls the quantity to be closed, so MMS165 will never be displayed if automatic closing is activated.

The supply model is seen as a pre-step to order entry since one line can be divided into several lines in the supply model. The automatic closing functionality only works on the total quantity, so a line can only be closed automatically if the requested quantity is greater than the total supplied quantity from the supply model. In that case, the first supply model alternative is always the one that will be partially closed.

Note: This does not mean that the earliest delivery date is the one that will always be partially closed since a higher supply model alternative actually could have an earlier date than the first supply model alternative.

Automatic closing scenarios

Note: When you use automatic closing, the ATP screen (MMS165) will never appear. The ATP on the requested date always controls how much should be closed.

Today = 2010-11-15 (November 15, 2010).

Warehouse 100 and 200

- 30 pcs in stock
- 90 pcs as scheduled receipts 2010-11-27
- Lead time date = 2010-12-15

The following scenarios are the same regardless of whether the orders are entered via batch entry or online.

No ATP check:

The line will never be automatically closed since we do not perform an ATP check (there are never any shortages).

ATP check:

- 1 40 pcs requested today, only 30 pcs available according to ATP, so 10 pcs will be closed.
Status will therefore end up in status 29.
- 2 40 pcs requested 2010-12-01 (after the scheduled receipt):
At this point enough ATP exists and no automatic closing is necessary.
- 3 150 pcs requested 2010-12-01 (ordering more than ATP at a requested delivery date after the scheduled receipt):
30 pcs will be closed since ATP is only 120 pcs while the customer requested 150 pcs.

Supply model check:

Two alternatives:

- Alternative 01 = check ATP on warehouse 100
- Alternative 02 = check ATP on warehouse 200

Alternative 02 = check ATP on warehouse 200. In total, 240 pcs are available at both warehouses. Finite ATP is set up so that no more than 240 pcs can be sold.

- 1 Ordering less than total ATP, for example 200 pcs:
No lines will be automatically closed since total ATP is OK.
- 2 Ordering more than total ATP, for example 250 pcs:
The order quantity on the first alternative will contain the closed quantity, in this case 10 pcs.

Picking list reporting:

If 30 pcs are ordered but only 28 pcs are picked, the remaining 2 pcs will be closed. The order line status becomes 69.

Application messages for automatic closing (CRS424)

Message 431 - 'The batch CO line is closed.' is triggered in the CO batch entry and message 432 - 'The CO line is closed.' is triggered when you report the picking lists.

Rejected orders

The rejected order functionality is activated by selecting the Action reason setting on the customer order type (OIS010/H). By selecting this check box, you can have the system accept some errors that otherwise

would result in a batch order entry order becoming stopped in 'Batch Customer Order. Open' (OIS275). A reason code will be attached to the order line to inform the user why the order line has been accepted.

Action reasons

Specific action reasons are activated by connecting a reason code to the action in 'Action Reason. Open' (OIS009/E). You can define the valid action reasons by warehouse, but you can also define a record for a blank warehouse that will apply for all warehouses.

Even if the action reason, for example, says '10 Invalid product code' you can connect a reason code that contains a different text. The reason codes are set up in 'Transaction Reason. Open' (CRS103). Both the action reason and the reason code are stored on the customer order line and are available in the panel versions in 'Customer Order. Open Line' (OIS101) and 'Customer Order. Open Line Toolbox' (OIS301) - fields OBART and OBRSC1. The reason code text is retrieved when you print the order confirmation or the invoice.

The Automatic closing setting works closely together with the action reasons, and you might get unexpected results depending on how you have defined these settings.

- If activated, action reasons 10 to 60 will always close the order line and do not depend on the Automatic closing setting.
- Action reasons 61 and 70 can only be set if Automatic closing is activated.
- Action reason 75 can only be set if Automatic closing is deactivated; otherwise it would have triggered action reason 70 instead.
- Action reasons 80–95 are triggered regardless of the Automatic closing setting.

It is also important to understand that the settings in 'Settings – Batch Orders' (OIS278) are also involved in the result.

- Action reasons 10–60 will suppress any messages and force a closed CO line to be created.
- Action reasons 61–95 depend on the (OIS278) settings since the order might be stopped in 'Batch Customer Order. Open' (OIS275) because of CO warnings. For these action reasons CO errors will always end up in (OIS275).

The action reason reflects the priority. Action reason 10 has a higher priority than action reason 30. So even if both action reasons are valid, action reason 10 will override action reason 30.

In 'Settings – Customer Order Entry' (CRS720), you can enter an item that should be used when an erroneous item number is entered in the customer batch order entry. This item number is only used if action reasons are activated in (OIS010) and action reason 10 has a connected reason code in (OIS009). The erroneous item number will be added to the item description on the customer order line.

Rejected orders scenarios

Action reason 10 - Invalid product code

This action is triggered through the batch order entry, transaction SndBatchLine in OIS100MI.

If an erroneous item number is entered, the dummy item number from (CRS720) will replace the sent item number. The order line will pass through the batch order entry and end up in status 99 in OIS101. The erroneous item number is added to the item description on the order line.

Action reason 20 - Restricted product

This action is triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI.

If the item belongs to an assortment that the customer is not allowed to buy from, the order line will be set to status 99.

Action reason 30 - Product not stocked

This action is triggered through the batch order entry, transaction SndBatchLine in OIS100MI.

If the item does not exist in the warehouse that was entered in the batch order interface, the order line will be set to status 99.

Note: This requires that you set up action reasons on the erroneous warehouse in (OIS009) and also that you are not allowed to automatically add MITBAL records in (MMS005).

Action reason 40 - Product not in promotion

This action is triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI.

This action reason is triggered if a promotion is manually entered in the API transaction and the item is not part of that promotion. The order line will be set to status 99.

Action reason 50 - Agreement quantity limit

This action is triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI.

This reason code is used if you get quantity warning messages from the agreement check, which happens when you order outside the minimum and maximum quantities of the agreement or you try to buy more than the agreed quantity. Since this action reason is only valid for agreement warnings, it is only valid for agreement type 2. Error messages will always stop in (OIS275).

The CO order line will end up in status 99.

Action reason 55 - Conditionally replaced (80/90)

This action is triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI. If you enter an item warehouse combination that has been discontinued (status 80 or 90 in MMS002), this action reason will be triggered if only conditional replacement items can be found. A replacing item can be defined as conditional by selecting the 'Cond replacement' check box in 'Item. Define Relations' (MMS020/E). The CO order line will end up in status 99.

Action reason 60 - Discontinued (80/90)

This action is triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI. If you enter an item warehouse combination that has been discontinued (status 80 or 90 in MMS002), this action reason will be triggered if no replacing item (substitution) can be found. The CO order line will end up in status 99.

Note: This requires that you set up action reasons on the discontinued warehouse in (OIS009).

Action reason 61 - Discontinued (50)

This action is used for both the batch order entry and the normal customer order entry. This action reason is triggered if the item has status 50 and cannot fully supply the requested quantity. The item will get status 80 because it will be fully consumed. The order line will get status 29 (or 39) if 'Automatic closing' is activated because it is only partly supplied.

Action reason 70 - Out of stock

This action is used for both the batch order entry and the normal customer order entry. This action reason is triggered if the ATP cannot fully supply the order line at the requested date. The CO line will end up in status 29, 39 or 99.

Action reason 75 - Backordered

This action is only triggered through the batch order entry, transaction AddBatchLine or SndBatchLine in OIS100MI. This action reason is set if the requested delivery date is earlier than the confirmed delivery date. This action reason can only be triggered if 'Automatic closing' is not activated, in other words the CO line status will still be 22. If 'Automatic closing' is activated then action reason 70 would have been triggered instead.

Action reason 80 - Redirected

This action is used for both the batch order entry and the normal customer order entry. This action reason is set if the proposed warehouse from the supply model is different than the requested warehouse. The CO line status will in most cases be 22, unless 'Automatic closing' is activated and the total supply model quantity is less than requested.

Action reason 90 - Substituted

This action is used for both the batch order entry and the normal customer order entry. This action reason is triggered if the requested item was replaced by another item in the supply model. The CO line status will in most cases be 22, unless 'Automatic closing' is activated and the total supply model quantity is less than requested.

Action reason 95 - Promotion minimum

This action is valid for both the batch order entry and the normal customer order entry. This action is triggered if the ordered quantity has been rounded up to the promotion minimum. The CO line status can be 22, 29 or 39, depending on the 'Automatic closing' setting.

Setup for automatic closing

On the customer order type (OIS010/H) you define whether or not you want to use Automatic closing. There are three options:

- 0 = No, backorders are always allowed and hence no automatic closing will take place.
- 1 = According to settings on the customer, customer address or customer local exceptions. The hierarchy is to look first at customer local exceptions, if 0 then look at customer address, if still 0 then look at the customer. So if any of these places have Automatic closing > 0 then this functionality is activated.
- 2 = Yes, backorders are never allowed and hence automatic closing will always take place.

You can set automatic closing on the customer (CRS610/G):

- 0 = No automatic closing, backorders are always allowed.
- 1 = Yes automatic closing, backorders are not allowed.
- 2 = Yes automatic closing, backorders are not allowed but can be overridden on promotion level.

You can set automatic closing on the customer address (OIS002/E):

- 0 = No automatic closing, backorders are always allowed.
- 1 = Yes automatic closing, backorders are not allowed.
- 2 = Yes automatic closing, backorders are not allowed but can be overridden on promotion level.

You can set automatic closing on the customer local exceptions (MFS610/F):

- 0 = No automatic closing, backorders are always allowed.
- 1 = Yes automatic closing, backorders are not allowed.
- 2 = Yes automatic closing, backorders are not allowed but can be overridden on promotion level.

You can override the automatic closing on the promotion line (OIS841/E) if the automatic closing setting on the customer, customer's address or customer local exceptions was set to 2:

- 0 = No override, automatic closing is activated and no backorders are allowed.
- 1 = Override, automatic closing is normally activated but for this promotion line automatic closing is overridden and hence backorders are allowed.

Setup for rejected orders

- The rejected order functionality is activated by selecting the Action reason setting on the customer order type (OIS010/H).
- Action reasons must be activated by connecting a reason code to the action in 'Action Reason. Open' (OIS009/E).
- Reason codes are defined in 'Transaction Reason. Open' (CRS103).
- Settings in 'Settings - Batch Orders' (OIS278) are defined according to your process.
- In 'Settings - Customer Order Entry' (CRS720), you can enter an item that should be used when an erroneous item number is entered in the customer batch order entry.

Batch Order

This document explains how to define settings that control how customer orders are created from batch orders, that is, customer orders that are not entered in 'Customer Order. Open' (OIS100).

The document only describes the settings for batch order entry. Specific settings for specific customer order sources, for example EDI and standing customer order, are not described.

Description

A batch order represents an alternative to manual customer order entry in 'Customer Order. Open' (OIS100). It is a common term for customer orders not initiated through normal customer order entry.

M3 batch orders are used to create customer orders from the following sources:

- Customer orders through EDI
- Customer orders through manual quick entry of customer orders
- Customer orders through delivery schedules
- Customer orders from standing customer orders
- Credits of customer returns
- Credits of reservations for bonus/commission
- Customer orders through M3 telephone orders or Internet
- Customer orders created from project orders

- Mass change of customer orders
- API programs
- Customer order simulation
- Packaging actions

A batch order is often processed in a batch job, hence the name batch order.

The checks that are normally made when entering customer orders manually are also made when creating or updating orders through batch orders. If all the information in a batch order is complete and correct, a customer order is created. If not, the batch order must be checked and adjusted manually in 'Customer Order Quick Entry' (OIS200).

Outcome

- Customer orders can be entered in M3 from external sources and internal sources other than regular customer order entry.
- Orders that are erroneous or incomplete are blocked from being created.
- Automatic creation of orders in M3.
- Temporary orders are created according to the information set in 'Settings – Batch Orders' (OIS278), instead of regular settings for the customer and customer order type.

Before you start

Customer order types suitable for each source of batch order must be entered.

Follow these steps

1 Enter batch order source

Settings for how M3 is to create customer orders are defined in 'Settings – Batch Orders' (OIS278). A setting must be defined for each source used to generate customer order.

The sources are:

Code	Source
1	EDI (electronic data interchange)
2	Standing customer
3	Customer returns credits
4	Quick order entry
5	Bonus/commission credits
6	Delivery schedules
7	Internet
8	Project order
9	Mass change of customer order
A	API program

Code	Source
B	Supply Model. Simulate (OIS340)
C	Packaging actions

2 Specify Customer-Specific settings

Define settings for each source for the combination of source and customer.

You should also specify a setting for the combination of source code and blank customer. This setting is used when there is no setting defined for a particular customer.

3 Define settings in (OIS278)

When a customer order is created through the batch order entry, the setting defined for a source in 'Settings - Batch Orders' (OIS278) takes priority over the same setting defined for the customer or customer order type.

These are the most important fields:

- Facility and customer order type

The facility and customer order type are retrieved from (OIS278), regardless of other settings. Both fields are mandatory. This is important, since the order type controls how an order is handled throughout the customer order flow.

- Documents

Definitions of pre-text and post-text for document classes 1 to 5 are only used if no documents are specified in the source.

- Source sales price is valid

The 'Source sales price is valid' field controls whether sales prices should be retrieved from the source or according to the normal sales price hierarchy.

In either case, sales prices are always assigned at batch order entry. Usually, the 'Price and discount setting' field on 'CO Type. Open' (OIS010/I) controls when automatic price and discount setting are to take place.

- Complete orders only

Select the 'Complete orders' check box to specify that an order should be created even if all order lines are not approved.

- Price and discount origin

This parameter controls how the price origin and discount status are set when a customer order line is entered through an API program (OIS100MI). Select the check box to set the default price origin to A='API' and the default discount status to 2. Leaving it unchecked means that the price origin and discount status are set to 8='Manual/copied' by default.

- Blanket agreement search - batch entry

Select the check box to override customer setup for the settings for blanket agreement search on (OIS278/E). If the check box is not selected, the search for blanket agreements is performed according to the customer set up.

Batch Order Entry

M3 batch order entry is used to supplement and check orders initiated in a way other than manual customer order entry. These orders are created using a batch job.

M3 batch order entry is used in these instances:

- Orders received through EDI
- Orders received from delivery schedules
- Orders received through M3 telephone integration.
- Standing customer orders that will create normal customer orders
- Credits/payments of bonus or commission
- Credit notes based on customer returns
- Customer orders entered using quick entry
- Mass change of customer orders
- API programs
- Customer order simulation
- Packaging actions

Checks - Customer Order Entry

When entering a customer order header, a number of checks are carried out. Some of these are mandatory, while others are optional. During the checks, information is displayed and the orders can be stopped or affected in some other way.

Description of Customer Order Entry Checks

- **Mandatory Checks**

Most of the basic data entered or retrieved for the various fields is checked. Examples of mandatory checks are country code, terms of delivery, and currency checks.

- **Optional Checks**

For each customer order type and customer, a number of optional checks are specified. These checks are described below.

In certain cases, a check can be specified both per customer and per order type (for example, an agreement check). For each order type you specify whether to carry out the check, and for each customer you specify the conditions for the check.

- **Order Messages**

Order messages can also be displayed on-line during order entry when specified in the order type in 'co Type. Open' (OIS010/E). These messages are entered with selection criteria in 'CO Entry Message. Open' (OIS165). When these criteria are met, one or more messages are displayed.

- **Sales Support**

If sales support is activated in 'CO Type. Open' (OIS010/F), the customer's buying pattern is displayed during full-screen order line entry in 'Customer Order. Open Line' (OIS101/H). This is done so that the person entering the customer order can easily determine whether the order size is reasonable.

To be able to use sales support, the 'Update buying pattern' field must be activated in 'CO Type. Open' (OIS010/F) and in 'Customer. Open' (CRS610/F).

- **Credit Check**

If a credit check is activated in 'CO Type. Open' (OIS010/F), a warning is issued when the customer has exceeded a credit limit and the order is assigned a stop. The type of stop (1 to 4) corresponds to the limit value exceeded. When this occurs, order entry can continue only in program 'Customer Order. Stop' (OIS120), before a picking list can be printed.

Credit checks can be activated in the order flow as shown:

- Credit check - order entry, when a customer order is entered or changed.
- Credit check - order line entry, when a customer order line is entered or changed.
- Credit check - final, after an order is entered or changed.
- Credit check - picking release, when the picking list is created

- **Order Charge Check**

Registered charges are searched and retrieved when this check is activated in 'CO Type. Open' (OIS010/E).

- **Business Chain Check**

This check determines if the customer is connected to a business chain. For customers belonging to a chain, specified information (such as invoice address) is retrieved from the next higher level customer. Business chain checks are activated in 'CO Type. Open' (OIS010/E).

- **Agreement Check**

This check determines if there is an agreement entered for the customer. Different kinds of checks are available. For example, with one check an agreement is not retrieved, but instead entered manually. Another check lets you display a list of current agreements during order entry. Agreement checks are activated in 'Customer. Open' (CRS610/F) and 'CO Type. Open' (OIS010/I).

- **Search Path to Payer**

For each customer, whether or not the search path for the default payer includes a business chain, it is specified in the 'Search payer' field in 'Customer. Open' (CRS610/F).

- **Total Price Check**

It is possible to allow or prevent a customer order from being priced with a total price in program 'CO Type. Open' (OIS010/I).

Checks - Order Line Entry

When completing customer order line entry, a number of checks are carried out. Some of these are mandatory, while others are optional. During the checks, information is displayed and the orders can be stopped or affected in some other way.

Description of Order Line Entry Checks

- **Mandatory Checks**

The only mandatory check is to see whether there is an entered item.

- **Optional Checks**

For each customer order type and customer, a number of optional checks are specified. These checks are described below.

In certain cases, a check can be specified both per customer and per order type (for example, an agreement check). For each order type you specify whether to carry out the check, and for each customer you specify the conditions for the check.

- **Availability Check**

When an availability check is used, the ordered quantity is checked to ensure it can be delivered on the requested delivery date. This quantity is compared to the available to promise (ATP).

If the ordered quantity cannot be delivered, the available inventory and expected receipts are automatically displayed in 'Material Plan. Check Shortages - ATP' (MMS165/B). This panel can also be used to change the confirmed delivery date as well as enter any alternative warehouses and/or items.

- **Global Capable to Promise (Global CTP) Check**

The general purpose of using Global CTP is to find the best alternative way to supply a demand from a customer. When Global CTP is used a whole set of checks can be performed. The checks can be combinations of availability, capacity in manufacturing, critical material in production, etc. This is decided in the supply model. Global CTP is described in detail in the business process Supply Chain Planning.

- **Credit Check**

When a credit check is used, a warning is issued if a credit limit is exceeded. When this occurs, customer order line entry can continue, but the customer order must be manually approved in 'Customer Order Stop' (OIS120), before it can be printed on a picking list.

- **Reasonability Check**

When a reasonability check is used, the quantity is checked to ensure it is reasonable. The quantity is compared to specified values defined per item, or per customer/item combination. See program 'Customer. Connect Item' (OIS005).

- **Assortment Check**

When an assortment check is used, the customer is checked as to whether it can purchase the items ordered. Customers can only purchase items included in an assortment to which they are connected.

- **Duplicate Check**

A duplicate check is used to ensure the item is not entered more than once for the same confirmed delivery date.

- **Contribution Ratio Check**

A contribution margin ratio check is used to ensure the item is not sold for a price with too low a contribution ratio.

- **Agreement Check**

An agreement check can be used for order lines to determine whether there is a valid agreement with the customer for the item. The agreement is checked and retrieved as defined in both the customer file and customer order type.

- **Sales Price Check**

A sales price check determines whether a sales price may be used and if a price of zero may be entered.

There are different rules for how this check is carried out. For example, the price may be zero, a warning is issued when the price is zero, and the item may not be entered if the price is zero. The rule is specified in 'CO Type. Open' (OIS010/I).

- **Cost Price Check**

A cost price check determines whether a cost price is displayed, if it may be changed, and if it may be zero.

There are different rules for how these three factors are combined. The rules are specified in 'co Type. Open' (OIS010/I).

Configure credit card management interface

This document describes how to configure M3 Business Engine to support credit card payments in the customer order entry using a third-party provider.

Background

A solution is available to support credit card payments in customer order entry and cash desk using the third-party provider CenPOS. To manage this interface, certain settings are required to define the information received from the third-party provider. If you use a third-party provider other than CenPos, custom integration utilizing standard APIs is required. Several free format fields are available in 'Credit Card Interfaces Settings. Open' (CRS434) for this purpose.

Follow these steps

- 1 Start (CRS434) and create a new third-party ID.
- 2 Specify the third-party provider on the E panel. If a different third-party provider than CenPOS is specified, a warning is displayed with a message that another provider is added. Press Enter to continue.
- 3 Depending on the specified third-party provider, different fields are displayed. Specify the information received from the third-party provider. For example, if you select CenPOS, fields for the version (the versions supported by M3) and authorization days (the validity period of an authorization) are displayed. You must also specify the URL address provided by CenPOS to run the CenPOS POS system.
Note: You can specify several third-party IDs per provider because a provider can have different merchant IDs depending on the currency.
- 4 Start 'Field Group. Open' (CRS108) and select F14='Standard' to create the field group CR3PI.
- 5 Access the control object parameters for third-party IDs in 'Available Object Control Parameters. Open' (CMS016).
- 6 To set up the control object parameter, select related option 11='Object table detailed line'. 'Generic Object Control Table. Open' (CMS017) contains the available control objects, division (&DIVI), currency (&CUCD), project (OAPROJ), customer (OACUNO), facility (OAFACI), order type (OAORTP), contact method (OAWCON), customer order free field 1 (OAFRE1), and cash desk (UKCSHD). Define which control objects to use. Press Enter.
Note: If credit card management in cash desk is used, we recommend that you use the control object for cash desk. Only control objects division, currency, and cash desk are supported in cash desk.

- 7 In 'Connect Third-Party ID. Open' (CRS439), create the relation between the control objects and the third-party ID.

Confirm the Customer Order with the Customer

This document explains how you send a customer order confirmation to one or more customers, either on paper or electronically, such as via EDI.

Use this instruction when order confirmation is not printed automatically after order entry or order approval. This instruction can also be used when you want to print copies of previously printed order confirmations.

Outcome

Order confirmations are printed on paper or sent via electronic media. Prices are printed on the order confirmation depending on how the 'Price printout' parameter is set in 'Customer. Open' (CRS610/H).

The customers get their orders confirmed in writing.

Order confirmations are created as document OIS606PF in the spool file.

Before you start

- Customer orders must be entered and, if customer order approval is used, the orders must also be approved.
- An order confirmation document (document number 231) must be connected to the customer order to be confirmed. Documents can be connected both to customer orders and to the customer order type.
- If order confirmations are to be sent electronically, document number 231 must be entered with an appropriate communication code in 'Document. Connect Partner Reference' (CRS945).

Follow these steps

- 1 Start 'Customer Order. Print Confirmation' (OIS605/E)
- 2 Specify which customer order confirmation is to be printed.

There are two possible ways to specify which orders to print:

- You can specify intervals for different selection criteria. If several criteria are entered, enter a sorting order in the sorting order fields.
- You can specify up to five individual customer order numbers in the fields at the bottom of the panel.

- 3 Specify whether only new documents or new documents and copies of old documents are to be printed. Press Enter to start printing the order confirmation document or to start generating the electronic message.

Connect a New Delivery and/or Invoice Address to the Customer Order During Order Entry

This document explains how you can connect a new address to the customer order during order entry.

You can use this instruction when you want to manually add a new address or change an already existing delivery and/or invoice address during order entry.

In this instruction, you use a panel sequence to reach 'Customer Order. Connect Address' (OIS102). It is also possible to change addresses without including addresses in the panel sequence. Refer to 'Display and Change Delivery Address on Customer Order Header'.

Outcome

A customer order is entered and new delivery and/or invoice addresses are connected to the customer order.

The new delivery address is printed on the order documents, such as the order confirmation and invoice.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)
- The file for order-specific addresses (OOADRE)

Note: The changes made to the customer order only apply for the current order and do not change the standard address in the customer file.

Before you start

The starting conditions listed in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A).
Enter a panel sequence that includes 15.
- 2 Specify the customer number. Press Enter and information about the customer is automatically retrieved to the order header.
- 3 Specify a requested delivery date. Press Enter to proceed to 'Customer Order. Connect Address' (OIS102/H).
- 4 On the H panel, select the 'Change Address' check box for the delivery address. Press Enter to proceed to the E panel.
- 5 On the E panel, delete the predefined address number and press Enter. The address field is now open and you can specify a new delivery address for the order. Press Enter again to return to the H panel. A permanent customer address record is created in 'Customer. Connect Addresses' (OIS002) if the check box Create address is selected in 'co Type. Open' (OIS010/E). If a matching, automatically created address already exists, then that address ID is retrieved. The automatically created addresses get an ID starting with # followed by five digits
- 6 You can change the address for the invoice recipient as well, select the 'Change Address' check box for the invoice recipient and repeat the procedure from step 4.

It is also possible to select a standard address by pressing F4 in the 'Address number' field and selecting the address of your choice.

- 7 If you are done specifying the new addresses, press Enter to proceed to 'Customer Order. Open Line' (OIS101/B1) where you can continue the order entry.

It is possible to change addresses on the order line level if you want the ordered items in one order to be delivered to different addresses. Refer to Work with Delivery Addresses on Order Line.

Connect a New Delivery and/or Invoice Address to an Existing Customer Order

This document explains how you can connect a new address to an already existing customer order.

You can use this instruction when you want to manually add a new address or change an already existing delivery and/or invoice address.

Before you start

- The starting conditions listed in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.
- A customer order must be entered.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A).
- 2 Specify the customer order number. Press Enter and the information about the customer and the order is automatically retrieved to the order header.
- 3 Select option 11=Addresses to proceed to 'Customer Order. Connect Address' (OIS102/H).
- 4 On the H panel, select the 'Change Address' check box for the delivery address. Press Enter to proceed to the E panel.
- 5 On the E panel, delete the predefined address number and press Enter. The address field is now open and you can enter a new delivery address for the order. Press Enter again to return to the E panel.
- 6 You can change the address for the invoice recipient as well, select the 'Change Address' check box for the invoice recipient and repeat the procedure from step 4.
It is also possible to select a standard address by pressing F4 in the 'Address number' field and selecting an address of your choice.
- 7 If you are done specifying the new addresses, press Enter to return to the start panel in 'Customer Order. Open' (OIS100/A).

Outcome

The delivery and/or invoice addresses are changed and the new addresses are connected to the order.

The new delivery and/or invoice address is printed on the order documents, such as the order confirmation and invoice.

Note that the new address only applies for the specific order you have changed and does not change the standard address in the customer file.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)
- The file for order-specific addresses (OOADRE)

Connect Customer Order Charges to a Customer Order During Order Entry

This document explains how you can connect new customer order charges to a customer order during order entry by using the panel sequence.

You can use this instruction when the order charge is not automatically retrieved and you want to manually add a new order charge to an order.

Outcome

A customer order is entered, new order charges are connected to the order and the order total is recalculated.

The new order charges are printed on order documents, such as the order confirmation and invoice. If the charge is internal, the order statistics are updated and a follow-up of the internal charges can be performed.

Note that the changes only apply for the current customer order and do not change the standard order charges connected to the customer and order type.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)
- File for order-specific order charges (OOCHRG)

Before you start

- The starting conditions listed in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.
- Order charges must be defined in 'CO Charge. Open' (OIS030).

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A). Enter a panel sequence that includes 2 and 5.
- 2 Specify the customer number. Press Enter and the information about the customer is automatically retrieved to the order header.

- 3 Specify the requested delivery date and other information, if necessary. Press Enter to proceed to 'Customer Order. Connect Charges' (OIS103/B).
 - You can connect a predefined order charge, go to **Connect a Predefined Customer Order Charge**.
 - You can connect a new order charge, go to **Connect a New Customer Order Charge**.

Connect a Predefined Customer Order Charge

- 1 On the (OIS103/B) panel, press F4=Browse in the Charge field and select one of the predefined order charges. Click New to connect the order charge and proceed to the E panel.
Order charges already connected to the order are displayed on the B panel.
Note that only charges in the order's currency can be connected.
- 2 On the E panel, check and, if necessary, modify the open fields. By checking the status field, verify that the charge can be invoiced.
Note that only one of the fields for charge and calculation factor can be modified at the same time.
- 3 Press Enter to confirm the connection and to return to the (OIS103/B) panel, where the new order charge is displayed.
- 4 Click Exit to proceed to the order lines in 'Customer Order. Open Lines' (OIS101/B1), where you can continue order entry.

Connect a New Customer Order Charge

- 1 On the (OIS103/B) panel, enter a charge identity and click New. The E panel is then displayed.
- 2 On the E panel, you can enter an order charge in two possible ways:
 - To enter a fixed charge, specify the amount in the Charge field.
This field can only be used if the calculation method is set to 0=Fixed Amount in 'CO Charge. Open' (OIS030).
 - To enter a calculated charge, specify the prerequisites for calculation in the 'Calculation factor' and 'Calculation method' fields.
- 3 Specify a description for the order charge. Check and, if necessary, modify the other information on the panel. Press Enter to return to the B panel, where the new order charge is displayed.
- 4 Click Exit to proceed to the order lines in (OIS101/B), where you can continue order entry.

Connect Customer Order Charges to an Existing Customer Order

This document explains how you can connect new customer order charges to an existing customer order.

You can use this instruction when the order charge is not automatically retrieved and you want to manually add a new order charge to an order.

Outcome

New order charges are connected to the customer order and the order total is recalculated.

The new order charges are printed on the order documents, such as the order confirmation and invoice. If the charge is internal, the order statistics are updated and a follow-up of the internal charges can be performed.

Note that the new information only applies for the current customer order and does not change the order charges connected to the customer and the order type.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)
- File for order-specific order charges (OOCHRG)

Before you start

- The starting conditions listed in Entering Customer Order - Normal Order Entry must be met.
- A customer order must be entered.
- Order charges must be defined in 'CO Charge. Open' (OIS030).

Follow these steps

- 1 To connect customer order charges, specify the customer order number for the order that you want to change in 'Customer Order. Open' (OIS100/A).
- 2 Select option 12=Charges to proceed to 'Customer Order. Connect Charges' (OIS103/B) and choose one of these options:
 - **Connect a Predefined Customer Order Charge**
 - **Connect a New Customer Order Charge**

Connect a Predefined Customer Order Charge

- 1 On the (OIS103/B) panel, press F4=Browse in the Charge field and select one of the predefined order charges. Select New to connect the order charge and proceed to the E panel.
Order charges already connected to the order are displayed on the B panel.
Note that only charges in the order's currency can be connected.
- 2 On the E panel, check and, if necessary, modify the open fields and verify that the charge can be invoiced in the Status field.
Note that only one of the fields for charge and calculation factor can be modified at the same time.
- 3 Click Next to confirm the connection and return to the (OIS103/B) panel, where the new order charge is displayed.
- 4 Click Exit to return to the start panel in (OIS100/A).

Connect a New Customer Order Charge

- 1 On the (OIS103/B) panel, specify a charge identity and select New. The E panel is then displayed.
- 2 On the E panel, you can enter a charge in two possible ways:
 - To enter a fixed charge, specify the amount in the Charge field.

This field can only be used if the calculation method is set to 0=Fixed Amount in 'CO Charge. Open' (OIS030/E).

- To enter a calculated charge, specify the prerequisites for calculation in the 'Calculation factor' and 'Calculation method' fields.
- 3 Specify a description for the new order charge. Check and, if necessary, modify the other information on the panel. Click Next to return to the B panel, where the new order charge is displayed.
- 4 Click Exit to return to the start panel in (OIS100/A).

Connect Order Line Charge to a Customer Order During Order Line Entry

This document explains how you manually enter an order line charge for a customer order line during customer order entry.

You can use this instruction if you want to add an order line charge when the charges are not automatically retrieved to the order lines.

Before you start

- An order line charge must be entered in 'Order Line Charge. Open' (CRS275).
- A customer order line must be entered.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A). Specify a customer order and proceed to 'Customer Order. Open Line' (OIS101/B), where you specify the order lines.
- 2 On the (OIS101/B) panel, select the order line for which you want to add an order charge. Select option 12=Charges to proceed to 'Customer Order. Connect Line Charge' (OIS107/B).
- 3 On the (OIS107/B) panel, press F4=Browse in the Charge field and select one of the predefined order line charges. Select New to connect the order line charge and proceed to the E panel.
If an order line charge is already connected to the order line, it is displayed on the B panel.
Note: Only order line charges in the order's currency can be connected.
- 4 On the E panel, check and, if necessary, modify the open fields. By checking the status field, verify that the charge can be invoiced.
- 5 Click 'Next' to confirm the connection and return to the (OIS107/B) panel, where the new order line charge is displayed.
- 6 Click Exit to return to the order lines in 'Customer Order. Open Lines' (OIS101/B), where you can continue the order entry.

Outcome

An order line charge is added on a customer order line.

The new order line charges are printed on order documents, such as the order confirmation and invoice.

Note: The changes only apply for the current customer order and do not change the standard order line charges defined in 'Order Line Charge. Open' (CRS275).

The following files are updated:

- Customer order line file (OOLINE)
- File for order-specific order line charges (OOLICH)

Contribution Margin Ratio Check

A contribution margin ratio check is a function in M3 Customer Order Processing that ensures that an item is not sold for a contribution margin ratio that is too low. The check is made during customer order line entry.

Description

Contribution margin ratio checks are used as checks during customer order entry. During entry, the contribution margin ratio is calculated and then compared to the lowest acceptable contribution margin ratio.

This check ensures that the contribution margin ratio of a customer order line is not less than a specified value. This value is defined for each item and facility in 'Item. Connect Facility' (MMS003/E).

Contribution Margin Ratio Check can be done in one of the following ways:

0	No check is made.
1	A check is made. The user is not informed, but the information is saved in the statistics.
2	A check is made. The user is warned, but can choose to ignore the warning.
3	A check is made. The user cannot ignore the warning. An order line cannot be entered with a ratio that is too low.

This check is specified for each customer order type and is activated in 'CO Type. Open' (OIS010/I).

Before you start

To use this supporting function, you have to meet these prerequisites:

- Items are entered.
- The minimum contribution margin ratio allowed is specified in 'Item. Connect Facility' (MMS003/E).
- The check is activated for the customer order type.
- Items have a cost price greater than zero.

Follow these steps

1 Contribution Margin Ratio Definition

The minimum contribution margin ratio allowed (in percent) is entered in 'Item. Connect Facility' (MMS003/E). If it is not entered, no check is made for the item.

2 Contribution Margin Ratio Check Activation

The check is activated for each customer order type in 'CO Type. Open' (OIS010/I). The check is made when customer order lines are entered.

When the check is activated, the contribution margin ratio for the item is calculated and checked against the item's minimum ratio allowed. This value may not fall below the defined percentage.

Copy Customer Order Line

This document explains how one or several customer order lines are copied from one customer order to another. The instruction can be used during customer order entry or to add an order line to an entered order.

Outcome

One order line is copied from an existing customer order to the customer order that you are currently working with.

How the System Is Affected

One or several order lines are copied to a customer order. Information is copied according to settings in 'Settings - Customer Order Copying' (CRS731), but can be changed during copying.

Before you start

- Prerequisites in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.
- A customer order must be specified.
- Settings for customer order copying must be specified in 'Settings - Customer Order Copying' (CRS731).
- All values on the order line to be copied, must be valid for the order it is copied to.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100).
- 2 Select the customer order number to which the line should be copied, select option 15=Order line and 'Customer Order. Open Line' (OIS101) is displayed.
- 3 Press F14=Copy and 'Customer Order. Copy' (OIS106/B) is displayed, including all entered order lines for the customer order you are working with.
- 4 Press F13=Parameters and check the settings for which information that will be copied. Click 'Exit' after the information is monitored or changed.

- 5 Specify the number of the order from which the line is copied in the 'Copy from CO' field. It is possible to copy order lines from the order you are specifying. In this case you can change warehouse. If you change the order number, click 'Next', to display the order lines for that order.
- 6 Control and change, if necessary, the information for the order line to be copied.
 - Delivery date and time. Proposed values are retrieved from panel (OIS101).
 - Delivering warehouse can be changed either per line or for all lines. The general 'Warehouse' field, at the top of the panel, is prioritized if the two fields have different values.
- 7 Copy one order line(s). You can either:
 - Highlight one order line and select 'Select'.
 - Press F14=Copy all, to copy all order lines from the order. A message is displayed confirming that the order line(s) is copied. The order line(s) is now added in the (OIS101) panel.
- 8 Press Exit when you have finished copying order lines and 'Customer Order. Open Line' (OIS101) is displayed where all copied order lines are displayed.
- 9 Check the line information copied. If necessary, change the information on the order line for the present customer order.
- 10 Continue the order line entry or end the process.

Copy Customer Order or Quotation

This document explains how to create a new customer order or quotation by copying a customer order or a quotation.

Outcome

- One order or quotation is copied from an existing customer order or quotation.
- Information is copied according to settings in 'Settings – Customer Order Copying' (CRS731), but can be changed during copying.

Before you start

- Prerequisites in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.
- A customer order or quotation must be specified.
- Settings for customer order copying must be specified in 'Settings – Customer Order Copying' (CRS731).
- All values on the order line to be copied, must be valid for the order it is copied to.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A).
Copy Customer Order Header
- 2 Select the customer order or quotation that you want to copy, select 'Copy' and 'Customer Order. Copy' (OIS106) is displayed.

- 3 Enter an order number for the new customer order. If you leave the field blank, a number will be assigned to the order from the number series entered for the customer order in 'CO Type. Open' (OIS010/E).
- 4 Check and, if necessary, change the information to be copied. Click 'Next' to confirm copying and you will return to the A panel in (OIS100). A message confirms the order number used.
- 5 Check the values. All fields on panel (OIS100/A) can be changed. If not, values from the customer order copied will be used. Click 'Next' to confirm the copying of the order.
 - Copying continues according to the panel sequence set for the customer order type used. It is recommended to use full panel sequence to be able to check the proposed information from the copied order.
 - Note that the information for the order is retrieved from the copied order and not according to the customer order type specified.

Copy and Enter Order Lines

- 6 Specify order lines in 'Customer Order. Open Lines' (OIS101).
 - If you specified that order lines should not be copied, 'Customer Order. Open Line' (OIS101) is displayed. Enter order lines as usual. Click 'Exit' to end the procedure.
 - If you specified that order lines should be copied, 'Customer Order. Copy' (OIS106) is displayed. The order lines from the copied order is displayed. Follow the procedure from step 7.
- 7 Check and change, if necessary, the information for the order line to be copied.
 - Delivery date and time - proposed values are retrieved from (OIS101).
 - Delivering warehouse can be changed either per line or for all lines. The general 'Warehouse' field, at the top of the panel, is prioritized if the two fields have different values.
- 8 Copy one order line(s). You can either:
 - Highlight one order line and select 'Select'.
 - Press F14=Copy all, to copy all order lines from the order. A message is displayed confirming that the order line(s) is copied. The order line(s) is now added in the (OIS101) panel.
- 9 Click 'Exit' when you have finished copying order lines. 'Customer Order. Open Line' (OIS101) is displayed. All copied order lines are displayed.
- 10 Check the copied order line information. If necessary, change the information on the order line for the present customer order.
- 11 Continue the order registration according to entered panel sequence.

Copy Sales Prices for Price Guidance

Copy customer order lines

All the customer order lines are blocked (OLSC is set to 1) if sales prices in customer orders are copied and 'Price guidance' is selected on the CO type that you copy to. No application messages are sent about price authorization needed.

You must go to 'Price Guidance. Display' (OIS337) and confirm the price (F15). The CO line is released if you have the authorization to set that price, otherwise it remains blocked and an application message is sent.

Copy a quotation

The behavior described in this section is applicable if sales prices in quotations are copied and 'Price guidance' is selected on the CO type that you copy to.

- If the customer is changed (copy the quotation to another customer), all lines are blocked (OLSC is set to 1).
- If the quotation is copied to the same customer, but the quotation is no longer valid (the valid to date is passed), all lines are blocked.
- If the quotation is copied to the same customer (and the quotation is still valid), the price is accepted (OLSC is set to 0) if the quotation order line is not blocked for price authorization.

If the quotation order line is blocked for price authorization, the new order line is also blocked. You must go to (OIS337) and confirm the price with F15. The CO line is released if you have the authorization to set that price, otherwise it remains blocked and an application message is sent.

Override history

Special processes are applied to the OIPROI and OIPROD records when sales prices are copied from a customer order or quotation. See [Price Guidance Override History](#) on page 382.

Correct and Complete Rejected Temporary Customer Order

This document explains how to investigate why a batch order is rejected at batch order entry, how to correct the errors, if any, and how to release the order for creation.

A batch order can be rejected and remain a temporary customer order if the batch order includes incorrect information, missing information or if the order is stopped because of a check, for example, a credit check.

Outcome

Rejected (incorrect or incomplete) temporary customer orders are corrected and created as confirmed customer orders.

- The orders corrected and created are processed in the customer order flow according to the customer order type entered in 'Settings - Batch Orders' (OIS278).
- Created orders can be monitored in 'Customer Order. Open Toolbox' (OIS300).

The customer order file is updated.

Before you start

- The prerequisites listed in [Creation of Externally Entered Customer Orders](#) on page 259 must be fulfilled.
- Orders must be generated from a batch order source and created as temporary customer orders.
- Incorrect batch orders with status 15, 20, 25, 30, or 55 must exist in 'Batch Order. Open' (OIS275).

Follow these steps

- 1 Start 'Batch Order. Open' (OIS275). Select a range of rejected batch orders in the 'Status' fields, press Enter and the selection are displayed.
- 2 Check an order to see what error caused the order to be rejected by specifying one of the following:
 - Option 9=Release. This is a quick way to check an order. If the order is correct it will be released and the status will be updated to 90=Customer Order Created. If the order is not correct, an error message is displayed, and you will have to use option 11=Check/release to find out how to correct the order.
 - Option 11=Check/release. This is a thorough way to check an order. If there is an error in the order header (status 15) go to step 3. If there is an error in an order line, go to step 4. Note that option 11=Check/release activates the same controls as during customer order entry. When the order line is corrected it will be released and the status will be updated to 90=Customer Order Created.
- 3 Customer order header errors might be displayed in two ways, depending on the type of error.
 - An error message is displayed, for example a credit check message. In this case, answer the message and continue.
 - 'Customer Order. Open' (OIS100) is displayed and positioned on the panel containing the error. An error message is displayed on the panel. Correct the error and press ENTER. If additional errors exist, corresponding panels will be displayed.

After all errors on an order have been corrected, a confirmed order number is created. The status displayed at the top of the panel reflects the status for the confirmed order number.

- 4 Press F14=Release all in 'Batch Order. Open Lines' (OIS276). The result is:
 - Correct lines are created for the order
 - An order message is displayed for incorrect order lines.
- 5 Use option 11=Check/Release for the first incorrect order line. One of the following is displayed:
 - An error message on panel (OIS276/B)
 - 'Customer Order. Open Line' (OIS101)
 - 'Batch Order. Open Lines' (OIS276/E)
- 6 Correct the order line accordingly. The panels on which corrections must be made are displayed. Press Enter to display an error message for a panel.
- 7 When all order lines are correct, the entire order is approved.
- 8 Click 'Exit' to end the procedure and return to 'Batch Order. Open' (OIS275).

Correcting Invoices in Sales Management

This document explains how you correct an invoice in Sales Management.

Outcome

A corrective invoice - or a credit note together with a new debit invoice - is created.

In relation to correcting the invoice, you may also have managed a customer return.

See [Create Corrective Invoice in Sales Management](#) on page 425.

Before you start

- A sales invoice must be transferred to M3 Accounts Receivable and M3 General Ledger.
- The customer order must not be archived.

Description

These activities can be performed in the process:

- **Correcting an invoice**

Correct a sales invoice when the invoice is incorrect. For example, it might contain incorrect prices, quantities, or VAT rates. Also, the quality of the delivered goods might be insufficient, necessitating a price adjustment or customer return.

You can correct an invoice in two ways:

- Create a corrective invoice that includes the corrected invoice lines reversed in full, together with new replacement invoice lines.
- Create a credit note together with a new debit invoice. The credit note contains the wrong invoice lines reversed in full, and the new invoice contains the replacement invoice lines.

You correct an invoice in 'CO Invoice. Correct or Credit' (OIS380).

- **Managing customer return**

If goods are returned in connection to the correction of a sales invoice, you must manage the customer return.

You can register the customer return before or after the goods arrive. When the goods arrive, you also confirm the goods receipt and inspect the goods in order to decide whether to accept the return and what to do with the goods. You might, for example, decide to approve, repair, scrap, or send it back to the customer.

Customer returns are managed in 'Customer Return. Open' (OIS390).

See the workflows for descriptions of how the activities interact.

Workflow 1 - Receive goods from customer, register/inspect/put-away, and then correct invoice

In this workflow, you receive and inspect the goods before deciding about correcting the invoice. The result of the quality inspection and put-away is reported in 'Customer Return. Display Inspect Result' (OIS392), which means that the customer return is finalized before crediting the customer.

- 1 Process customer return
- 2 Create corrective invoice

The corrective invoice can be created based on the customer return if the check box 'Use credit inv' is selected in 'Settings - Customer Returns' (OIS399). Use option 14='Crt credit' in (OIS390) to open 'CO Invoice. Correct or Credit' (OIS380). The returned quantity specified in (OIS392) automatically updates the new invoiced quantity in (OIS380/E).

If (OIS380) is instead started with option 14='Corr/Credit' in 'Invoice. Display' (OIS350), the quantity changes must be done manually in (OIS380/E).

Workflow 2 - Receive goods from customer, accept return, correct invoice, and then register/inspect/put-away

In this workflow, you receive the goods from the customer and perform a basic inspection and quantity check to accept the return, to be able to credit the customer before doing the final inspection and put-away. This approach may be needed in a store, where the customer expects to be credited at once but the inspection and put-away process is time consuming.

- 1** Accept customer return
- 2** Create corrective invoice
- 3** Process customer return

The customer return can be created based on the corrective invoice by specifying the corrective invoice number (or the credit note number if 'Corrective mtd' is set to 2) when creating the customer return in (OIS390/A). The quantities retrieved in 'Customer Return. Open Lines' (OIS391) with F14='Retrieve' are the returned quantities per the invoice correction.

It is possible to create the return without a reference to the corrective invoice, but having the reference simplifies the process by retrieving the returned quantities from the invoice.

Workflow 3 - Correct invoice first, receive goods from customer later

In this workflow, you agree to credit the invoice or part of the invoice before the customer sends back the goods. For example, the customer may have called you to notify you of defects and requires to be credited before returning the goods.

- 1** Create corrective invoice
- 2** Register customer return in status 11-'Quantity advised'
- 3** Process customer return

As in workflow 2, the customer return can be created based on the corrective invoice by specifying the corrective invoice when creating the customer return in (OIS390/A).

You process the customer return when the goods arrive.

Create Credit Note - Customer Returns

The purpose of this procedure is to create a credit note for a customer for the lines of goods received from a customer return.

Before you start

- A customer return is reported as received as described in the procedure [Report Inspection Results - Customer Returns](#) on page 392.
- Specify in 'Settings - Customer Returns' (OIS399) whether the credit note should be created through 'CO Invoice. Correct or Credit' (OIS380) or 'Customer Return. Create Crediting' (OIS393).

Using (OIS380) complies to global (European Union) and local legal requirements, because the correction makes an unambiguous reference to the original invoice.

Note: Returns without a reference to an original invoice will always be credited through (OIS393).

Follow these steps to create a credit note

- 1 Open 'Customer Return. Open' (OIS390).
- 2 Select related option 14='Create credit' for the appropriate customer return.

Credit note created through (OIS380)

- 1 Open 'CO Invoice. Correct or Credit' (OIS380/B). The returned quantity specified in (OIS392) will automatically update the invoiced quantity in (OIS380/E).
- 2 Optionally, define a charge ID in (OIS399) that will be used to add a return charge to the invoice. The charge can be changed before submitting the invoice.
- 3 Only the returned lines and the return charge will be displayed in (OIS380). The rest of the lines can be displayed by deselecting the 'Only dsp corr' check box and refreshing the panel with F5.
It is possible to do other changes in (OIS380) before submitting the invoice, but it is not allowed to manually change the quantity on the returned lines.
- 4 Use function key F14='Submit' to submit the invoice in batch or function key F15='Interactive' to perform interactive invoicing.

Follow these steps to let Cash Desk handle the payment to the customer

Select the 'Cash dsk active' check box on the settings panel (OIS380/P) and use F15='Interactive' to perform interactive invoicing. 'Cash Payment. Open' (OIS215) is opened automatically if 'Cash payment' is set to '2' on the customer order's payment terms in 'Payment Term. Open' (CRS075).

See [Correcting Invoices in Sales Management](#) on page 254

- 1 Open 'Customer Return. Create Crediting' (OIS393/B).
- 2 The default quantity is retrieved from either the received quantity or inspected quantity, depending on the setting in (OIS399).
- 3 On the B panel, specify quantity, price per unit, and cost price for each item line. You can also change the default information by selecting option 2='Change' for the appropriate line.
- 4 Press F14='Update' to update the results and send the information to the M3 BE batch order entry for automatic creation of a credit order in 'Customer Order. Open' (OIS100) for the specified lines of goods. The credit note is generated later when invoicing customer orders.

Creating a Season Handled Customer Order

This document explains how you create a season handled customer order.

Outcome

A customer order has been connected to a specific season.

The season identity can be used as sorting and following-up criteria.

Before you start

- Check that the 'Project management' field is not selected in 'Company. Connect Division' (MNS100/J).
- A season must be defined in 'Season. Open' (CRS912).
- The style and the corresponding variant item numbers must be connected to the season during the creation in 'Style. Create Items by Matrix' (MMS077).

Follow these steps

1 Create a customer order header with season

Use this activity to create a new customer order. Pay special attention to the season and the delivery window that must be entered in the 'Project number' and 'Project element number' fields. Depending on the settings, these two fields may be automatically defaulted.

Use a customer order type that has the 'Season in use' parameter set to 1, 2, 3, 4 or 5.

The season and delivery window are the only differences between this kind of customer order and ordinary customer orders.

2 Create a customer order line with season

After the customer order header is created, you create an order line for each item you would like to sell. Preferably you do this in 'Full-screen Entry - Matrix. Open' (CRS207) or 'Full-screen Entry - List. Open' (CRS208) on the style level. The different customer order lines containing the SKUs (Stock Keeping Unit) are then created automatically.

Pay special attention to the season and the delivery window that must be entered in the 'Project number' and 'Project element number' fields. Depending on the settings, these two fields may be automatically defaulted.

The 'Season in use' setting on the order type defines which items can be entered as order lines:

- 1 = Season used, only items connected to the season on the order header are allowed
- 2 = Season used, all items allowed. Items not connected to the season on the order header are displayed with blue color in (CRS207) and (CRS208)
- 3 = Season used, all items allowed
- 4 = Season used, items connected to the season on the order header and items not controlled by any season are allowed
- 5 = Season used, items connected to the season on the order header and items not controlled by any season are allowed. Items not connected to any season are displayed with blue color in (CRS207) and (CRS208).

For alternatives 2-5 the season on the order header is assigned to the order lines for items that are not connected to any season or to the season on the order header.

Creation of Externally Entered Customer Orders

This document explains how orders generated externally, or entered using methods other than via 'Customer Order. Open' (OIS100), are processed.

The process includes checking errors, as well as correcting and adding information in order header and order lines.

Outcome

- Batch orders (temporary orders) are created as normal customer orders in the customer order file.
- The batch order entry is a checkpoint for orders before they are created in the customer order file.
- Prices are set according to settings in 'Settings - Batch Orders' (OIS278) when the order is released.
- A confirmed customer order number is created.

Before you start

- Settings must be entered for every source in 'Settings - Batch Orders' (OIS278), either generally per source or specifically for a combination of source and customer.
- A number series for batch orders is defined with number series type 1 and number series T in 'Number Series. Open' (CRS165).
- Customer orders must be generated from one of these sources:
 - EDI (electronic data interchange)
 - Standing customer orders in 'Customer Order. Create from Standing Customer Order' (OIS078)
 - Customer returns credits
 - Quick order entry from 'Customer Order. Quick Entry' (OIS200)
 - Bonus/commission credits from 'CO Invoice. Print' (OIS180)
 - Delivery schedules from 'Delivery Schedule. Open' (RSS100).
 - Internet
 - Project order
 - Mass change of customer order
 - API program
 - Simulated customer orders
 - Packaging actions.

Follow these steps

1 Customer order generated from source

Customer orders entered in other ways than in 'Customer Order. Open' (OIS100), cannot be created directly in M3. They must be generated and then checked in the batch order entry. Generation from the different sources is not described in this document.

2 Temporary customer order created

When customer orders are generated from the source, temporary customer orders are created and assigned temporary customer order numbers in 'Batch Order. Open' (OIS275).

The source is displayed in the Origin column on the B panel.

3 Temporary customer order check

The temporary customer orders are checked by the system before customer orders are created in M3. Order header and lines are checked in the exact same way as during normal customer order entry.

Note: Temporary orders are checked according the customer order type defined in 'Settings – Batch Orders' (OIS278), where other settings regarding checks are defined.

- **Order approved**

If an order is complete and correct, a confirmed customer order is created in M3 automatically. See the **Customer Order Created in M3** section below.

- **Order rejected**

A temporary order is rejected if it is not complete, if it contains an error or if it does not comply with the defined parameters.

Rejected batch orders are assigned a status as follows:

- 15 = Error in order head
- 20 = Order head OK, order lines missing
- 25 = Error in order line
- 30 = Credit stopped order (order header and order lines OK)
- 55 = Abnormal interruption during transfer.

4 Correcting and completing rejected temporary customer order

Rejected orders must be corrected or supplemented manually in 'Batch Order. Open' (OIS275).

Rejected batch orders are corrected using Option 11=Check/Release.

- **Correcting order header**

If the error is in the order header, the header is displayed. Error messages are displayed as in normal customer order entry, and the panels containing missing or wrong information are displayed.

After the order header has been corrected, all order lines must be released to create an order. See below.

- **Correcting order lines**

If the error is in the order line, 'Batch Order. Open Lines' (OIS276) is displayed, where all order lines for an order are displayed.

After the order lines have been corrected 'Batch Order. Open Lines' (OIS276) is displayed again, showing all order lines for an order, even if they do not contain any errors. All order lines must be released to create an order. This is done by using F14=Release all.

During order line correction, error messages are displayed as in normal customer order line entry, and the panels containing missing or incorrect information are displayed.

5 Customer order created in M3

When a temporary customer order is approved, the temporary order is assigned a confirmed customer order number and is created in M3.

The created order will go into the normal customer order flow according to its customer order type. The orders can be viewed in 'Customer Order. Open Toolbox' (OIS300).

Credit Card Management in Customer Order Entry

This document explains how to manage credit card payments for customer orders.

Outcome

Payment by credit card is accepted during customer order entry. However, partial payments from multiple cards are not accepted for the same delivery.

Credit card information is authorized and is used to reserve funds at customer order entry.

After invoicing, a delayed capture is issued, and when the payment is later received, it is matched with the correct record in accounts receivable.

Use this information to manage payments by credit card for customer orders.

The following tables are updated:

- Credit Card Authorization Transactions (CRCCAT)
- Credit Card Capture Transactions (CRCCCT)
- Credit Card References (CCREFE)
- Invoice Header (OINVOH) and Payment Reference Numbers (FIRCON) with the reference number.

Before you start

The starting conditions listed in [Manage credit card payments in customer order entry](#) on page 324 must be met.

Purpose

Payment by credit card is a highly preferred payment option, since it is an effective, efficient method of credit acceptance.

The primary purpose of credit card payment is to accept credit cards for customer orders to optimize the payment methods.

Credit card payment is managed in the following stages in M3:

- Customer order entry
- Verification of authorization status at pick list release
- Invoicing
- Delayed capture.

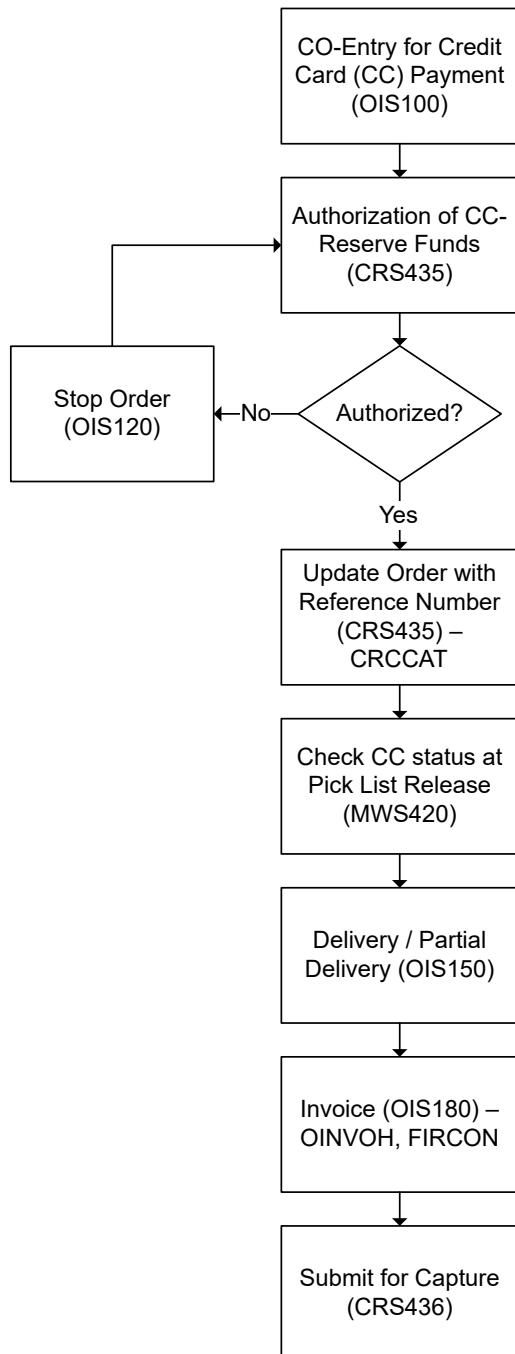
When

In M3, payment by credit card is accepted when a customer wants to pay for a customer order.

How

When you enter credit card information in ‘Credit Card Authorization. Open’ (CRS435), a third-party provider is used to authorize the credit card information online. Once the card information is authorized, funds can be reserved for the customer order.

After invoicing, a delayed capture for the invoiced amount is sent to the third party provider.

Structure

Credit Check for Customer Order

This document explains how Credit Check functions during customer order entry and at printout of picking lists.

Outcome

Customer orders are checked to prevent orders from being delivered if the payer's credit is bad.

Uses

- A stopped customer order provides the opportunity to check the payer and to decide whether or not the customer should be allowed to order.

How the system is affected

- When an order header and an order line are specified or a picking list is printed, a check is done to ensure that the payer is reliable and liquid according to our definitions.
- A customer order is stopped if the payer's credit limits have been exceeded. A customer order stop caused by a credit check should not be confused with a customer stop, which is set manually for the customer on 'Customer. Open' (CRS610/J).

Before you start

- Credit check must have been activated on 'co Type. Open' (OIS010/F).
- Credit limits must have been specified per customer on 'Customer. Open' (CRS610/J). Credit limits may also be defined for a credit group, to which the customer, or payer, is connected in 'Customer Credit Group. Connect' (CRS316). See [Credit Limit at Grouped Customer Level](#) on page 61.

There are optional settings for the credit check on 'Settings - General Ledger' (CRS750/F). These are the related optional settings:

- 'Cr chk incl VAT', which determines if VAT or Sales tax will be included in the accumulated value in the backlog.
- 'Cr chk incl blk', which determines if the backlog should include invoices that are blocked.
- 'Cr chk incl prl', which determines if the normal credit logic will be applied to preliminary orders.
- 'Cred time fence', a time fence for credit limit 3. The time fence is the number of days calculated backwards from the requested delivery dates of customer orders when these customer orders will update the customer's consumed credit limit 3.

Note: The functionality for time fence for credit limit 3 cannot be used in combination with credit groups defined in (CRS316).

Description

Purpose

A credit check is used to help avoid future bad debt losses. The customer order type defines whether a credit check is activated, as well as when it is done. The check is made against the payer's credit limits.

When

Credit check is activated on 'CO Type. Open' (OIS010/F). Credit check can be activated at four different points in the customer order flow:

- When specifying and changing customer order header in 'Customer Order. Open' (OIS100).
- When specifying and changing customer order lines in 'Customer Order. Open Line' (OIS101).
- When the customer order is closed after it has been specified or changed. That is, when exiting the customer order in 'Customer Order. Open' (OIS100).
- When printing picking list. This is activated on 'Dispatch policy' (MWS010/E) that is connected to the CO type on (OIS010/J).

How

The credit check is made against the payer's credit limits specified on 'Customer. Open' (CRS610/J). If the payer is connected to a credit group in 'Customer Credit Group. Connect' (CRS316), the credit check is performed against the credit limits defined for the credit group on (CRS610/J).

A payer is retrieved automatically to the customer order from the ordering customer on 'Customer. Open' (CRS610/J). If the payer field is blank on (CRS610/J), the customer becomes the payer. A payer can also be changed or specified manually during customer order entry on 'Customer Order. Open' (OIS100/A) or (OIS100/E).

Credit limits are specified in the customer's currency on 'Customer. Open' (CRS610/J). The customer's currency is used.

There are four types of credit limits that check different values:

- 1 Past due amount in accounts receivable
- 2 Amount outstanding in accounts receivable
- 3 Amount outstanding in accounts receivable, plus the value of current, non-invoiced customer orders
- 4 Number of days past due for the invoice in accounts receivable with the oldest due date.

Credit limits can be left without values by specifying 0.00 as the amount or 0 as the number of days. In this case, the credit limit is not checked.

When a limit is exceeded

The point at which a credit check is made is defined on 'CO Type. Open' (OIS010/F) for each customer order type.

If a credit limit is exceeded, a warning is issued in 'Customer Order. Open' (OIS100) and 'Customer Order. Open Lines' (OIS101). The functionality for time fence for credit limit 3 cannot be used in combination with. The warning can be ignored, but the customer order is assigned a stop code and the picking list is prevented from being printed.

Customer order stop

When a limit is exceeded, the 'Customer order stop' field in the programs listed below indicates which credit limits have been exceeded. The number 1, 2, 3, or 4 is displayed to indicate which type of credit limit is set for the customer. See the list above for a description of credit limit types.

The 'Customer order stop' field is displayed as information in these programs:

- 'Customer Order. Open' (OIS100)
- 'Customer Order. Open Line' (OIS101)

- 'Customer Order. Copy' (OIS106)
- 'Customer Order. Simulate Totals' (OIS110)
- 'Customer Order. Stop' (OIS120)
- 'Batch Order. Open Lines' (OIS276)
- 'Customer Order. Change Line Price' (OIS29)
- 'Customer Order. Connect B/C Recipients' (OIS400).

Release a stopped customer order

A stopped customer order must be released on 'Customer Order. Stop' (OIS120/E) before a picking list can be printed. An order is released by changing the 'Customer order stop' field on (OIS120/E).

The E panel in (OIS120) displays a compilation of defined credit limits and current amounts for the comparison values for the customer order's payer. The same information is available in 'Customer Credit Limit. Open' (CRS315). Action F15='Refresh invoice amount' is available both on (OIS120/E) and (CRS315/E). This action triggers a recalculation of the outstanding and overdue invoice amounts, something that otherwise is only done by the night job.

If the payer is connected to a credit group in (CRS316), the credit limits and current amounts for the comparison values that are displayed on (OIS120/E) are retrieved from the credit group, not from the payer. If action F15='Refresh invoice amount' is used on (OIS120/E) for a payer that is connected to a credit group, the comparison values are recalculated both for the payer, and for the credit group.

Block addition to manually released order

Select the check box 'Blk add man rel' in 'Settings – Customer Order Entry' (CRS720) to block additions to manually released customer orders, that is, orders with 'CO stop' set to 9='Man rel order' in (OIS120).

When selected, these are not allowed:

- Adding new customer order lines, except for packaging order lines created from 'Packaging action'. See the help texts for parameters '265 Automatic execution of packaging actions' on (MWS010/G) and 'Packaging act' on (OIS010/J) if you want to know more.
- Increasing the order quantity on an existing order line.

Other changes that increase the order value, such as increasing the price, reducing discounts, and adding charges are allowed.

Customer Order Category

The customer order category is a collective identity for similar customer order types.

Customer order categories are used to regulate the default settings when defining new customer order types. The customer order category also functions as a check to ensure that invalid combinations of settings are not made for a customer order type.

Customer Order Document

A customer order document is any document connected to a customer order.

Customer order documents are entered per document group and customer order type in 'CO Type. Connect Documents' (OIS011).

The documents specified in the order type are created when a customer order is entered. Documents can be added or deleted directly in the customer order. Examples of customer order documents are: order confirmation, invoice, delivery note.

Customer order documents are printed in the customer's language, as specified in the customer file. The language can also be changed on the customer order. This is convenient when a different entity than the specified payer or consignee is involved. The invoice documents are printed in the language of the payer as specified in the customer file.

Customer Order Entry Message Overview

An order entry message is a message displayed on-screen during customer order entry. The purpose of using order entry messages is to display relevant messages when the user enters customer orders.

Introduction

A message is displayed when entering a new customer order in 'Customer Order. Open' (OIS100) if the entered order matches the display criteria for a message. These messages can be an information about a customer financial status, activities, campaign, investigations, reminders, etc.

Customer order entry messages are only used to display information; this information is in no way related to any financial component in the system and it is possible that the message information is outdated. The messages do not affect any data in M3 BE.

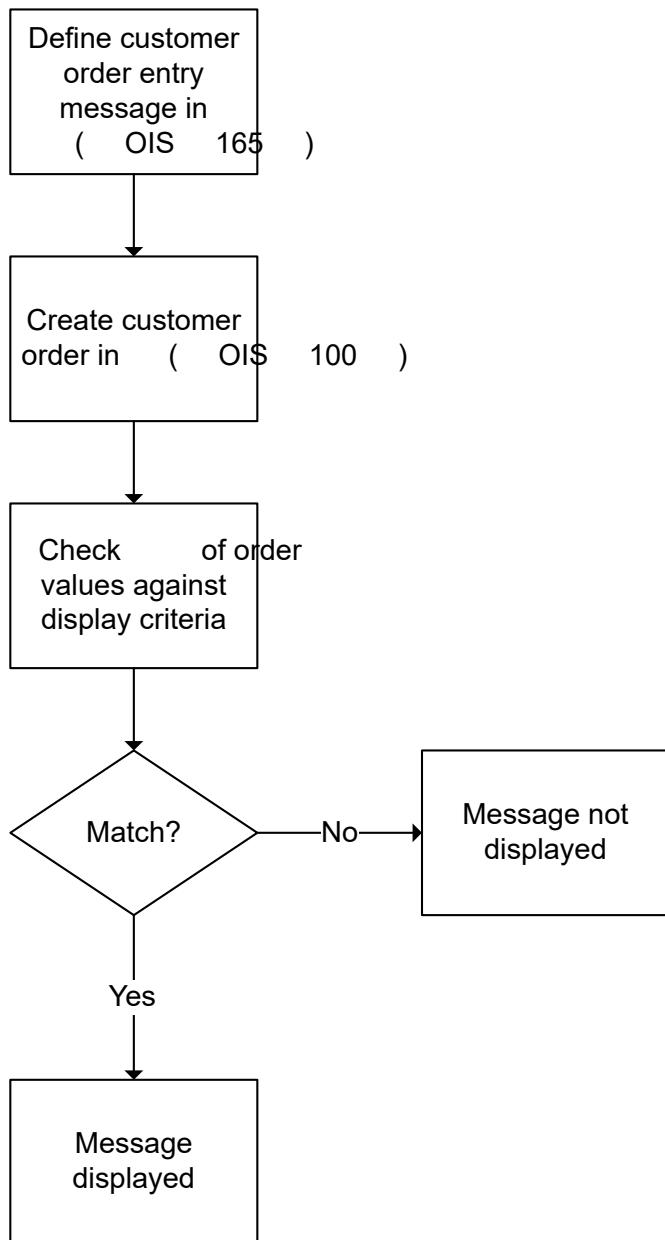
Follow these steps

1 Define customer order entry message

Customer order entry messages are entered in 'CO Entry Message. Open' (OIS165). A customer order message is entered, and the criteria for its display is specified. The display criteria are the selection identities that regulate when the message is displayed. This can be for a specific customer, or all customers in a business chain or customer order category. For example, when the criteria is a business chain, the message is displayed for every customer that belongs to that chain.

2 Manage customer order entry message

When entering a new customer order on 'Customer Order. Open' (OIS100/A), the order message is displayed on screen if parameters are set up correctly. It is possible to choose not to display recurring messages. If there is more than one message available, the one with the highest priority is displayed first where 9 is the highest priority and 1 the lowest priority.

Flowchart

Customer Order Flow

This process is used to enter a complete customer order.

After using this process, a customer order is invoiced and then transferred to accounts receivable for tracking.

Before you start

The process can be started if these prerequisites are met:

- Customers are specified.
- Items are specified.
- Basic settings must be done.

The process begins when a customer places an order.

Depending on the settings for the customer order type, the process can be carried out more or less automatically.

Follow these steps

1 Entering customer orders

Customer orders can be entered manually in 'Customer Order. Open' (OIS100) or created automatically via M3 batch order entry.

During batch order entry, a check is made to see whether the order, entered for example via EDI or quick entry, is complete. If the batch order is approved, a customer order is created automatically. If it is incomplete or incorrect, it must be corrected and approved manually in 'Batch Order. Open' (OIS275).

Also, the order is connected to a customer order type, which determines how the order is processed through the customer order flow. The type regulates the checks made, the default values retrieved for the order, the alternative activities allowed.

2 Approving preliminary customer order

If an order is preliminary, it must be approved. This is done by changing the order status manually in 'Customer Order. Open' (OIS100) or 'Customer Order. Approve' (OIS115).

The field Preliminary CO in 'CO Type. Open' (OIS010/E) regulates whether an order should be approved and how this is done.

3 Printing customer order confirmation

After a customer order is entered, a confirmation can be sent to the customer. The confirmation contains items ordered, quantities, terms, prices, planned delivery times, etc. It is printed from 'Customer Order. Print Confirmation' (OIS605).

4 Release order for allocation

Items entered in a customer order must be allocated before they are printed on a picking list. When an item quantity is allocated, a specific balance identity is selected (warehouse, location and lot number).

Allocation can be done manually when the order is entered or automatically after it is entered, provided it is released for allocation.

The allocation method in program 'CO Type. Open' (OIS010/J) regulates how allocation is done. The CO type has a dispatch policy connected to it (OIS010/J). Parameter 030 – Release for allocation on the connected dispatch policy (MWS010/E) determines if the order should be released for allocation manually. Release for allocation is done in 'Delivery. Open Toolbox' (MWS410).

5 Print, pick, pack and reporting picking lists

The different available options for picking and packing are mainly controlled by the dispatch policy connected to the CO type (OIS010/J).

See .

The outcome of the picking and packing is a customer delivery in 'CO Delivery. Open' (OIS150).

6 Approve delivery for invoicing

If the order's customer order type requires delivery approval, the customer order delivery must be approved before it can be invoiced.

After the goods have been received by the consignee, they are inspected and then approved. The approval is registered in 'CO Delivery. Approve' (OIS155). When the delivery is approved the order can be invoiced.

7 Invoicing order

Invoicing processes are regulated by the field **Auto level invoice** in 'CO Type. Open' (OIS010/K) and the settings in 'Settings - Customer Order Invoicing' (CRS722).

The payer specified in the customer order header is invoiced for the delivery order. Invoicing can be started automatically during delivery reporting, or manually either in 'CO Invoice. Print' (OIS180), or in 'CO Delivery. Open' (OIS150). One or several deliveries can be selected for invoicing with related option 30 in OIS150.

To start invoicing, open 'Customer In-voice. Print' (OIS151) via F16 and choose to launch interactive invoicing (on-line) with action F14, or launch batch invoicing with action F16.

8 Post-process invoicing

Post-processing means that invoices are processed after the invoice document is produced. During post-processing different updates are made, for example to the general ledger, accounts receivable and sales statistics.

Invoices can be updated automatically during invoicing or manually using post-processing. The method used is specified in 'Settings - Customer Order Invoicing' (CRS722). The updates to make are also specified here. Invoices are updated manually in 'CO Invoice. Post-Process' (OIS196).

Customer Order Flow for Country Version Brazil

The electronic customer invoice in Brazil requires additional order information for certain types of customer orders. It is possible to reference fiscal NF-e ID information per customer order header in 'CO. Conn Reference Information' (OIBR03) and export information per customer order line in 'CO Line. Conn Export Info' (OIBR04).

Fiscal NF-e ID references

For customer orders (CO), the referenced fiscal information can be connected to each order and is, for example, applicable for COs with price adjustment, and credit.

The fiscal information corresponds to the Government NF-e ID of either a customer or supplier invoice.

In Brazil, this is referred to as the Document Group BA - Related Tax Document.

Fiscal NF-e ID references per customer order

For a customer order (CO), the fiscal information is manually specified in 'CO. Conn Reference Information' (OIBR03). The user is prompted to specify the original NF-e ID that is being referenced. It can either be a reference to an original supplier or customer invoice. Up to 999 NF-e ID can be referenced on the same customer order through a sequence number. The program is launched from the menu.

All the referenced NF-e ID are connected to the CO header level with no reference to the individual order line, which also corresponds to the layout of the Brazil governments electronic invoice. This is due to that the NF-e ID references are not item related.

Fiscal NF-e ID reference per customer order line

For a customer order (CO), where a reference applies to a specific item, the fiscal NF-e ID reference may be specified per order line on 'Customer Order. Open Line' (OIS101/v). Only one NF-e ID can be referenced per order line. Note that for this workflow, no additional fiscal NF-e ID information may be connected through 'CO. Conn Reference Information' (OIBR03).

Limitations to fiscal NF-e ID references

The supported workflow is to either specify the NF-e ID references in 'CO. Conn Reference Information' (OIBR03) or through the order line in (OIS101).

This workflow is ensured by disabling the NF-e ID fields on the order line in (OIS101) if a reference already exists in (OIBR03). Vice versa will apply in (OIBR03), therefore all entries are prevented if any of the order lines already references a Fiscal NF-e ID.

The NF-e ID reference defined per order line is only to be used for a fiscal reference connected, for example to a price adjustment order. In the electronic invoice interface, it will be included as part of the Document Group BA - Related Tax Document.

Export registration information

For customer orders (CO) placed against a customer outside of Brazil, the corresponding export information can be connected to each CO line.

Per order line, you can manually assign one or many export numbers, the export quantity and the corresponding NF-e ID. A drawback concession number is optional, only applies for the scenario of suspension or elimination of taxes on the imported raw-material used in the exported end-product.

In Brazil, this is referred to as the Document Group I03 – Exports.

Export information per customer order line

For a customer order (CO), the export information is manually specified in 'CO Line. Conn Export Info' (OIBR04). This program holds the export number information per order line. The program is launched from the menu. Up to 999 export information records can be connected to the same order line through a sequence number. It is required to either specify the Export registration number or the Drawback number.

If the Export registration number is specified, the corresponding Export quantity and NF-e ID must also be defined. The NF-e ID can either be a supplier or customer invoice. The export quantity is, by default, set to

the order line quantity although it can be manually reduced to a lower quantity if several export registration numbers are to apply for the same order line.

A drawback number only applies for the scenario of suspension or elimination of taxes on the imported raw-material used in the exported end-product.

Enter an export registration number per customer order header

If only one export registration number applies for the customer order (CO), you can define the export registration number per CO header in 'Customer Order. Open' (OIS100).

The export registration number entered on the CO header in (OIS100) will act as a default value to the order lines' export information in (OIBR04). Any updates to the export registration number, once an order line exists, must be managed per individual export information record in (OIBR04).

If only one export registration number applies for the CO, then it is possible to apply the workflow to maintain the additional export information per order line in (OIS101).

Limitations to export of registration information

All NF-e references connected to an export registration number must be maintained in 'co Line. Conn Export Info' (OIBR04). The NF-e ID reference defined per order line is only applicable for a fiscal reference connected for example to a price adjustment order.

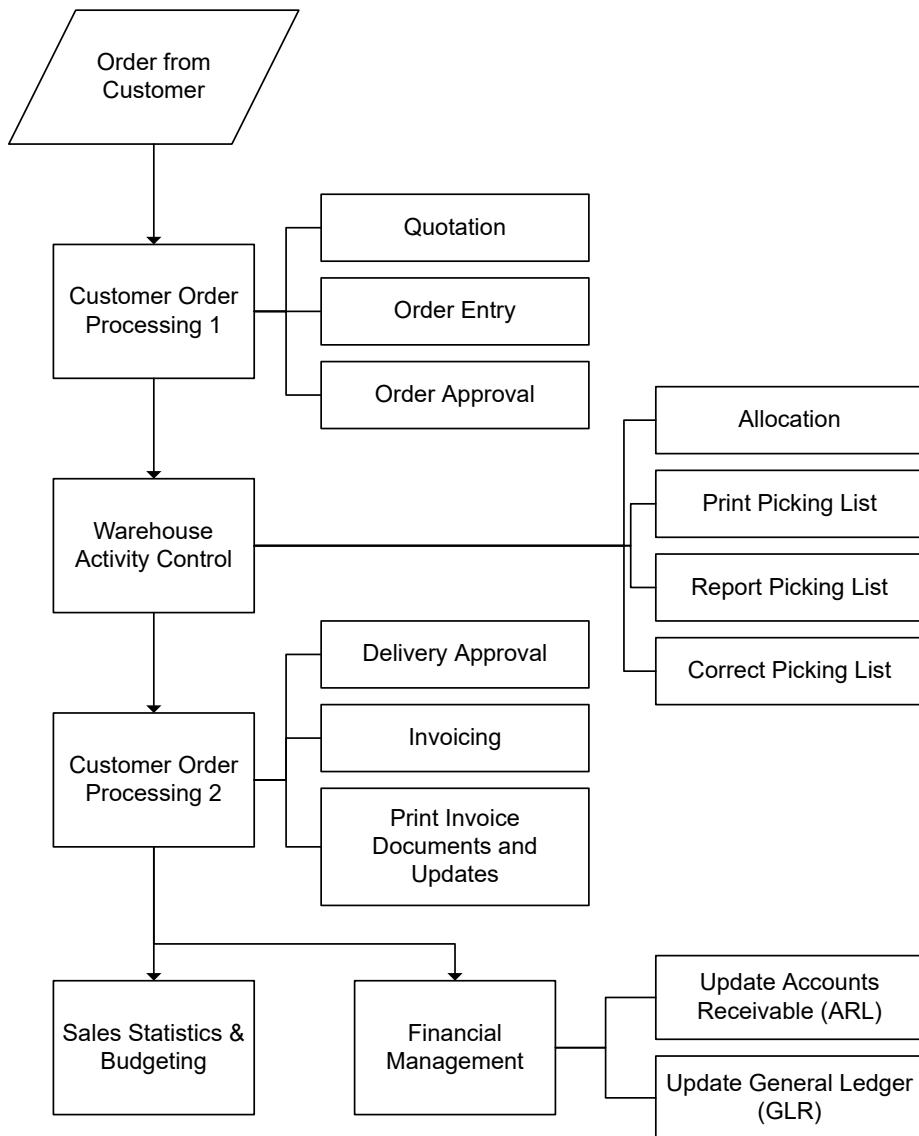
Customer Order Processing

Customer Order Processing is used to enter orders placed by a customer and to administrate them throughout the entire customer order flow.

The customer order flow includes contact planning, price administration, invoicing, customer returns, and bonus and commission.

Relationship

Customer Order Processing interacts with other modules as illustrated below.



- **Customer Order Processing 1**

A customer order can be created from a quotation, through a batch order or through manual order entry.

- **Order Approval**

The customer order type determines whether an order is entered as preliminary or final. If a preliminary order, the order lines must be approved before allocation.

- **Warehouse Activity Control**

- **Allocation**

Before a customer order is delivered and invoiced, it must be released for allocation and picking list printing. Allocation means that quantities for ordered items are connected to a balance identity in Inventory Management. This is done manually or automatically.

- **Print Picking List**

After an order is allocated, picking lists are printed. The order must be reported as delivered. This means that the actual issue made using a picking list should be confirmed by reporting the list. When it is reported, the on-hand balance is updated and a delivery order is created.

If automatic reporting is selected and there are variances, the picking list must be corrected.

- **Customer Order Processing 2**

- **Delivery Approval**

The delivery order created after the picking list is reported can be corrected or changed without affecting the original customer order.

- **Invoicing**

These updates are made during invoicing:

VAT or sales tax is calculated.

Invoice documents are printed or sent by EDI or fax.

Bonus and commission are calculated.

INTRASTATstatistics are calculated.

EU sales are calculated.

Invoices are recorded.

Account specifications are created.

Accounts receivable and the general ledger are updated.

- **Financial Management**

Data from Customer Order Processing, such as receivables and bonus/commission advances, update accounts receivable and the general ledger.

- **Sales Statistics**

Budgeting and reporting of statistical data is done in Sales Budget and Statistics. Both budget and statistical information is structured freely using optional selection criteria and information from Customer Order Processing.

Customer order returns by delivery

Introduction

You can initiate customer order returns starting from a delivery. Begin this process in 'Delivery. Open Toolbox' (MWS410) to create customer returns based on the delivery's contents. The returns are automatically received, approved, and added to stock, including lot, subplot, catch weight, and attribute data from the outbound stock transactions generated when the original customer order delivery was issue-reported.

Limitations

- You must ensure that all customer order lines connected to the delivery are fully reported as issued and invoiced before you can return the entire delivery.

- To recreate an in-house package structure upon receipt, make sure the outbound package structure exclusively includes items with container management=7.
- Activate the return location for container management on 'Stock Location. Open' (MMS010/E) to retrieve in-house package structures.
- Shipment packages are excluded from this functionality, so you cannot use them to create customer returns for the associated customer order lines.
- For catch-weight items, the values for both catch weight and credit catch weight are identical on the customer return lines you create. For subplot-managed items, the catch weight is retrieved for each subplot.
- You cannot create customer returns if the delivery, or any part of it, is already in the process of being returned.
- You are not allowed to add or split return lines on customer returns created with (MWS410).
- You must return the full contents of a delivery; partial returns are not allowed.
- If you create customer returns with (MWS410) in the Brazilian country configuration, all customer returns and return lines have one ICFO code specified on (MWS410/M) for the entire delivery.
- If an item is not connected to the specified warehouse for the return in (MWS410), the return process stops. The item is not automatically connected to the warehouse, even if the '**Automatic add permitted**' field is enabled in 'Warehouse. Open' (MMS005).

Functionality

You can now create customer returns through (MWS410) or CrtCOReturns in MWS410MI (GetPackage). This process generates one or more customer return headers in 'Customer Return. Open' (OIS390) and corresponding lines in 'CO Return Lines. Open' (OIS391), based on the outbound stock transactions for the delivery number you select. The lines are automatically received, approved, and added to stock with the lot, subplot, catch weight, and attribute data retrieved from the outbound stock transactions.

On (MWS410/B), you can use related option 78='Create Customer Returns' for one or multiple deliveries. This action opens (MWS410/M), where you must provide required details, such as the return warehouse, location, and transaction reason code. The system retrieves proposed values for these fields from 'Settings – Customer Returns' (OIS399).

If you use the API transaction CrtCOReturns in MWS410MI (GetPackage) and leave the input fields for '**Location**' or '**Transaction Reason**' blank, the system automatically retrieves proposals from (OIS399).

After you validate the manually specified values, a batch job (MWMNGCRSbm) creates the customer returns. Be aware that some validations occur during the batch process for performance reasons, which might generate application messages of type 480 or 481.

Key process details:

- A separate customer return is created for each invoice number and customer order number linked to the delivery.
- The system automatically creates, receives, approves, and adds customer return lines to stock at the location you specify on (MWS410/M), applying the specified transaction reason.
- The status of the return lines is set to 33-'Quantity inspected', so no further action is required on your part.
- Each successful delivery return creates at least one new customer return; existing customer returns are not reused.

Specific item handling:

- For lot-handled items, the lot numbers from the original delivery are automatically retrieved and applied to the return lines. If a single customer order line includes multiple lot numbers, the system creates one return line per lot number.
- For catch-weight items, the system retrieves the delivered catch weight, subplot numbers, and attributes from the outbound stock transactions of the returned delivery.
- For in-house package items (with container management=7), you can recreate the original package structure during the return process. The 'Keep Package Structure' parameter on (MWS410/M) controls whether this structure is recreated.

Additional features:

You can add a new field, '**Receiving Number**' (&REPN), to a view on (MWS410/B). This field displays the return receiving number if the entire delivery is returned. If multiple returns are created for the delivery, a "+" symbol is shown.

Scenarios for return creation failure:

- 1 If at least one return line cannot be added, the system removes all lines and deletes the return header (status 90).
- 2 If at least one return line cannot be processed to status 33-'Quantity inspected', the process stops, and you must handle the customer return manually.

In both cases, the system generates an application message to explain the issue.

Settings

- If you are returning packages that only contain in-house package items, ensure the final location is activated for container management on (MMS010/E).
- Define the container management method on 'Item. Connect Warehouse' (MMS002/G).

Customer Order Returns by Package

Introduction

Customer order returns can be initiated with the starting point being a package. This process begins with 'Delivery. Connect Packages' (MWS423), which generates customer returns based on the contents of the package(s). These returns are automatically received, approved, and placed into stock. They inherit the lot, subplot, catch weight, and attribute data from the outbound stock transactions generated during the original customer order delivery issuance.

Limitations

- You must report all customer order lines connected to the delivery as issued and invoiced before you can use a package within that delivery to create customer returns for the packed order lines.
- To create customer returns, you can use only packages within a package structure containing exclusively in-house package items (container management=7) or exclusively items with any other Container

management method. You must not use an outbound package structure that contains both in-house package items and non-in-house package items.

- To find connected stock transactions to a specific package, you must do issue reporting by package. This reporting must occur from 'Delivery. Connect Packages' (MWS423) with option 16-'Picking List. Report lines', from 'Picking Lines. Report' (MWS422) with option 16-'Confirm Issues' or 14-'Pick and Pack', or by using MHS850MI.AddPickViaPack (Order initiated stock transaction interface). However, if a package only contains in-house package items, you can do issue reporting at other levels, such as per delivery or picking list.
- You can create customer returns based on stock transactions connected to an outbound package only from 'Delivery. Connect Packages' (MWS423), with sorting order 1, or with the API transaction MWS423MI.CrtCROReturns (Package interface).
- Shipment packages are excluded from this functionality, and you cannot use them to create customer returns for the included customer order lines.
- In the API transaction MWS423MI.CrtCROReturns, if you leave input fields '**Location**' or '**Transaction reason**' blank, proposals from 'Settings – Customer Returns' (OIS399) are automatically retrieved.
- For catch weight items, the values for catch weight and catch weight for credit are the same on the created customer return lines.
- You must not create customer returns if a package-based customer return with a status lower than 90 already exists for the customer order number.
- You must not create a package-based customer return if a customer return with a status lower than 90 already exists for the customer order number.
- You must not add or split return lines on customer returns created with (MWS423).
- The full content of a package is returned. You can select a package in a structure of packages, but you cannot select part of a package's content.
- If an item is not connected to the warehouse specified for the return in (MWS423), the return process is stopped. The item is not automatically connected to the warehouse even if the '**Automatic add permitted**' (AUAD) field is enabled in 'Warehouse. Open' (MMS005). You must connect the item manually to perform a return with (MWS423).

Functionality

When creating customer returns with (MWS423) or MWS423MI.CrtCROReturns, the objective is to create and inspect customer return lines for the stock transactions connected to the unique package number selected.

You can add three new fields to a view in (MWS423), sorting order 1, to display information regarding the creation of customer returns per package. Return package number (&RPKS) displays an asterisk sign (*) if the package has been used as a return package. Receiving number (&REPN) displays the return receiving number if only one exists per package. If more than one exists, a plus sign (+) is displayed. The lowest status of the connected receiving lines (&PCRL) generated from a package can also be displayed.

On (MWS423/B), you can use related option 28-'Create Customer Returns' for one or several packages using sorting order 1. This opens panel (MWS423/J) for specifying mandatory information such as return warehouse, location, and transaction reason code. Proposed values for these fields are retrieved from (OIS399).

Upon confirming manually specified values, a batch job (MWMNGCRSbm) handles the creation of customer return lines for included stock transactions.

A separate customer return is created per invoice number and customer order number included in the package(s) selected for return. The customer return lines are automatically created, received, approved, and stocked in the location specified in (MWS423). The specified transaction reason is used on the created customer

return and lines. The status of the return lines is set to 33-'Quantity is inspected', and no further processing of the customer return is required.

For lot-handled items, the lot numbers delivered in the return package are automatically retrieved and used on the customer return lines. In cases where one customer order line has allocated and delivered several lot numbers, one customer return line is created per lot number.

The delivered catch weight and subplot numbers according to stock transactions connected to the returned packages are automatically retrieved and used on the customer return.

If attributes were connected to the delivered customer order line, the same attribute values are connected to the returned balance identity.

For in-house-package items (container management=7), when returning a package, you can automatically recreate the package structure used when delivering the goods. Note that only the package structure for the selected package level for return and downward is created. The 'Keep Package Structure' parameter in (MWS423) controls if the package structure is to be created.

Existing customer returns are not reused when processing a new package return. A successful package return always generates at least one new customer return.

There are two scenarios if the return is not successful:

- If at least one return line cannot be added, all lines are removed, and the return head is deleted (status 90).
- If at least one return line cannot be processed to status 33, the process is halted, and the customer return must be manually handled.

An application message is sent in both cases, explaining the issue.

Settings

- You must set '**Packing reporting**' (SHLV) on 'Dispatch Policy. Open' (MWS010/G) to 2, 3, or 4 (advanced packing).
- For return packages containing only in-house package items, you must activate the final location for the '**Container management**' (CMNG) field on 'Stock Location. Open' (MMS010/E).
- The '**Container management**' (COMG) field is defined on 'Item. Connect Warehouse' (MMS002/G).

Brazil - Limitations

When creating customer returns with (MWS423) in the Brazilian country configuration, all created customer returns and return lines have the ICFO code specified on (MWS423/J).

Customer Order Types

Customer order (CO) types allow customer orders to be processed and checked in the customer order flow according to the requirements of the customer's company.

A CO type is a setting that determines the automation level of a customer order and the checks to be made during order entry. This includes how items are allocated in inventory, how picking lists are printed and how invoicing is initiated.

A customer order must be entered with a CO type. The type can either be entered manually or retrieved automatically from the customer. After a customer order is entered, its CO type cannot be changed. However, it is possible to change the CO type's default values after the order is entered. See section Field Control later on in this document.

Before you start

To use this supporting function, the following prerequisites must be met:

If multiple unit coordination (MUC) is used, the invoice number series should be defined for each division in program 'Internal Invoice Series. Open' (MFS165).

No checks can be made to see whether an invoice number series exists during CO type entry in a MUC environment. Therefore, the ID of a specific series (for example, series A) must be entered for all divisions that will use a CO type referring to series A.

The number range can vary, so that a range for series A can be 100000-199999 for division XXX and 700000-799999 for division YYY.

- Order number series and invoice number series are specified in program 'Number Series. Open' (CRS165).
- Standard documents to be used are specified in program 'Standard Document. Open' (CRS027).

Follow these steps

1 Customer order type entry

When entering a CO type, the customer order category and next manual function must be defined. The selected combination regulates how the parameter values are proposed on the E-K panels, and which fields and options may be changed for the order type.

- **Customer order category**

The customer order category indicates the type of order - for example, normal order, credit order, or adjustment order - for which the CO type is used.

- **Next manual function**

The next manual function regulates the activities performed automatically after an order is entered.

2 Parameters entry

The panels in 'CO Type. Open' (OIS010) contain parameters regulating how a customer order is processed during entry in 'Customer Order. Open' (OIS100) and later in the customer order flow.

A series of checks for the customer order type can be activated and then implemented when a customer order is entered. When M3 is installed, each check should be taken into account. Checks that should not be used for a CO type should be deactivated. This is done to make order processing as easy as possible and to increase M3 performance.

General parameters for the CO type are set on the E panel. These regulate the overall settings for customer orders entered with the CO type. The parameters indicate whether the customer order may be preliminary, whether order messages are used.

- **Parameters - Customer order header**

Parameters for the customer order header are set on the F panel. These regulate the checks made in the customer order header. The parameters indicate on which levels the credit check is made.

This CO type can then be proposed as the default CO type for the orders entered.

- **Parameters - Materials management**

Parameters regarding materials management are set on the J panel. The panel contains settings for allocation and a dispatch policy. The dispatch policy defined in 'Dispatch Policy. Open' (MWS010) defines how to manage the dispatch.

- **Parameters - Invoicing and Statistics**

Parameters for invoicing and statistics are set on the K panel. The parameters indicate whether advance invoicing is allowed, the auto level for invoicing, the acceptable deviation between ordered quantity and delivered quantity.

- **Parameters - Customer order lines I, II, and III**

Parameters for customer order lines are set on the G, H, and I panels. These regulate the checks made during entry of customer order lines. There are, for example, parameters that indicate the search order for the item ID, whether a reasonability check is made, whether negative quantities are allowed, whether bonus or commission is generated, the information affecting pricing.

3 Connect documents

One or more documents per document group are connected to each CO type in program 'CO Type. Connect Documents' (OIS011). The program is accessed by related option 11='Documents' in 'CO Type. Open' (OIS010).

Document groups regulate the documents used for a customer order entered with the CO type. To connect documents to a customer order, the ordering customer must be connected to the same document group as the CO type.

4 Enter order charges

Order charges can be entered for each CO type in program 'CO Type. Connect Order Charges' (OIS013). The program is accessed by related option 13='Charges' in 'CO Type. Open' (OIS010).

Charges can also be retrieved from program 'CO Charge. Open' (OIS030) and then changed for the CO type. If the same order charge is entered both for the customer and the CO type, then the CO type charge has priority.

The charges entered for the CO type are proposed by default during customer order entry. They can then be changed or deleted.

Charges can be external or internal. An external charge is invoiced to the customer. An internal one is not invoiced, but is considered a cost when calculating contribution margins for a customer order.

Charges can be entered as fixed amounts or as factors. If a factor is used, the charge is calculated as a percent of another amount, such as a net price.

5 Define field control

The fields to be displayed during customer order entry can be determined in 'CO Type. Update Field Selection' (OIS014). The program can be accessed by related option 14='Field control' in program 'CO Type. Open' (OIS010).

'CO Type. Update Field Selection' (OIS014) displays the field headings for all fields used during customer order entry. For each field, it is possible to specify whether the contents are to be displayed and whether the contents may be changed. For many of the fields it is also possible to specify how the default values are to be retrieved for the CO header/lines during entry.

6 Enter customer order type per customer

A CO type can be connected to a customer on 'Customer. Open' (CRS610/F). Parameters for the customer order header are set in the F panel. These regulate the checks made in the customer order header. The

parameters indicate: whether the customer order may be preliminary, whether bonus/commission is generated, on which levels the credit check is made. This CO type can then be proposed as the default CO type for the orders entered.

On the P panel in 'Customer Order. Open' (OIS100) you can specify whether the CO type is to be retrieved from the customer file or if the CO type entered in this program is to be used.

7 Enter country specific information

Country specific CO type data are for certain countries managed and displayed through the country specific panel X in 'CO Type. Open' (OIS010). See the country specific instruction in this document on how to enter country specific CO type data.

Brazil-specific CO type data

This functionality must be set up for divisions that have been configured with country version BR on 'Company. Connect Division' (MNS100/L).

Follow these steps:

- 1 Select F13='Settings' in (OIS010) and include panel X in the panel sequence.
Note: Panel X is automatically removed when running in a configuration not supporting country specific CO type data.
- 2 Search for the specific CO type and use option 2='Change'.
- 3 Navigate to panel X to open 'CO Type BR. Open' (OIBR06). Specify values in the required fields and click Next.

Note: If a CO type is copied or deleted through (OIS010), its corresponding country specific data will also be copied or deleted.

These fields are defined in 'co type BR. Open' (OIBR06) and stored in the table XOTYPE (Customer order types).

Program ID/Panel	Field	The field indicates...
(OIBR06)	Invoice type	... the type of fiscal note. These are the alternatives: <ul style="list-style-type: none"> • 0 = Exit (issued) fiscal note • 1 = Entry (received) fiscal note
(OIBR06)	Document type	... different types of documents, such as specifications, instructions, or manuals.

Argentina-specific CO type data

This functionality must be set up for divisions that have been configured with country version AR on 'Company. Connect Division' (MNS100/L).

Follow these steps:

- 1 Select F13='Settings' in (OIS010) and include panel X in the panel sequence.
Note: Panel X is automatically removed when running in a configuration not supporting country specific CO type data.

- 2 Search for the specific CO type and use option 2='Change'.
- 3 Navigate to panel X to open 'CO Type AR. Open' (OIAR01). Specify values in the required fields and click Next.

Note: If a CO type is copied or deleted in (OIS010), its corresponding country specific data will also be copied or deleted.

These fields are defined in (OIAR01) and stored in the table XARTYP (Customer order - order types AR).

Program ID/Panel	Field	The field indicates...
(OIAR01)	Invoice type	<p>... which prefix will be used for invoices according to the setup of the invoice number series on (MFS165/E) connected to the order type on (OIS010/K).</p> <p>In case the system does not find a matching prefix on (MFS165/E), the default invoice prefix setup on (MFS165/E) will be used.</p>

Customer Order Type

A customer order type is the collective identity for a number of settings that regulate the processing of customer orders throughout the customer order flow.

The customer order type is specified for the customer order during entry. The customer order is then connected to a line of values which regulate whether a credit check or reasonability check are activated, whether the order is bonus or commission generating, and whether the order can be over-shipped.

A customer order type is specified for every customer registered in the customer file. It is then entered by default during customer order entry, but can be changed.

Customer order types are entered in 'co Types. Open' (OIS010).

Customer Returns

This process is used to manage and follow up on goods that a customer has returned or will return.

Description

A customer return is one or more order lines returned by the customer due to issues such as incorrect delivery or defects. A customer can send an advisory of return in advance of the actual return. When this occurs, the customer return is registered before the items are delivered to the warehouse.

Customer returns are used for claims processing in the customer order flow.

Outcome

Returned goods are checked, put away, and credited after using this procedure. The results of the check are saved in a separate history file.

Before you start

The receiving warehouse allowing customer returns must be specified in 'Settings - Customer Returns' (OIS399).

Follow these steps

1 Register customer return.

A customer return is registered in 'Customer Return. Open' (OIS390). The customer return is automatically assigned a receiving number as an ID when it is registered.

Customers normally give notice of returns before they are shipped back. This way, the customer return can be registered before the goods arrive. The original customer order or invoice can be referenced. This allows information such as price and quantity to be retrieved from the order lines or invoice lines as default values.

See [Register Customer Return](#) on page 392 for more details on how the proposed quantity is retrieved.

See [Managing Pick-up Deliveries for Customer Returns](#) for more details on how transportation planning can be managed for the customer return.

2 Confirm receipt of goods.

When the goods arrive, the receipt must be confirmed for that receiving number. The on-hand balance and the stock transaction history for the received items are then updated.

Goods receipts can be confirmed in two ways. Returns made without prior notice are automatically confirmed as the customer return is registered when the goods arrive. Goods returned after due notice are confirmed separately, because they are already registered. The method selected is determined by the 'Lowest status' setting in 'Settings - Customer Returns' (OIS399) at the warehouse for the return.

Received goods are always put away at a location which cannot be automatically allocated. That is, the location has default status 1 (under inspection) in the inventory file. Goods receipt is specified in 'Customer Return. Open Lines' (OIS391).

3 Register inspection results.

After the return is confirmed, the items received must be inspected. The results of this inspection are registered for each goods receipt line and any action that must be taken is specified. Up to five of these actions can be specified:

- Scrap
- Repair
- Redelivered to customer
- Returned to supplier
- Approved for allocation.

Reclassification or transfer is done automatically, depending on the action.

4 Create credit note or invoice correction.

There are different ways to credit the customer. See [Create Credit Note - Customer Returns](#) on page 256.

Debit Frequency

The debit frequency regulates whether charges related to a customer order are invoiced with any backorder or all at the same time. These can be order charges, item charges or service charges.

When backorders are invoiced, the debit frequency is checked to determine if any charge should be made again. If the charge is debited only at the first delivery, it is calculated on the entire order. If it is to be debited for each backorder, it is calculated accordingly.

Default Requested Delivery Time in Customer Order Entry

To calculate a requested delivery time in 'CO Type. Update Field Selection' (OIS014/E), you can either enter a default requested delivery time, or the amount of hours and minutes needed from now on to calculate a requested delivery time. Values are entered in the **Requested delivery time** field.

The **Requested delivery time** field in 'co Type. Update Field Selection' (OIS014/E) indicates the default requested delivery time, which is proposed on the customer order (OIS100/E). If the entered time is followed by a + sign (01:00+), it indicates the time (hours:minutes) to add to 'now' to calculate a requested delivery time. This calculation also considers the number of days entered as the Minimum processing time in (OIS010/H).

Leaving the field **Requested delivery time** empty, an order will be created with 'now' as the requested delivery time. The order will be considered to be in the past after one minute passed, which could have some negative consequences in the customer order process.

Define Customer Order Entry Message

This document explains how to enter a customer order entry message.

Enter customer order entry message

A customer order message is a message displayed on-screen during customer order entry and is entered in 'CO Entry Message. Open' (OIS165).

Qualifier

This field indicates the category that triggers which messages are issued for the user during customer order entry.

Valid alternatives are:

1=Customer number – Customer order entry message is displayed for the customer whose identity is entered in the 'Identity' field.

2= Business chain – Customer order entry message is displayed for all customers included in the business chain whose identity is entered in the 'Identity' field.

3=Customer category – Customer order entry message is displayed for all customers included in the customer category whose identity is entered in the 'Identity' field.

These alternatives are listed in order of their priority, with customer number highest. The message shown depends on the priority of the message category.

Identity

This field indicates an ID for the identified message category.

- If qualifier is set to 1, customer numbers are validated and retrieved from 'Customer. Open' (CRS610).
- If qualifier is set to 2, business chains are validated and retrieved from 'Business Chain. Open' (OIS038).
- If qualifier is set to 3, customer categories are validated and retrieved from 'Customer Group. Open' (CRS145).

User

A message is made user-specific by entering a user ID as key. The message is then displayed only for the specified user, for customers that match the qualifier. This is an optional field and validated against the existing system user set up in 'User. Open' (MNS150).

In a scenario, where two messages have been defined: 1 user-specific and 1 with blank user, the user-specific message will be the first to be displayed, regardless of the priority.

Priority

This field is used to regulate the order in which messages are displayed for the user. The valid values are 1-9, where 9 is the highest and 1 the lowest priority.

Valid From date

This field indicates the date from which the registered data becomes valid.

Valid To date

This field indicates the date up to which the registered data are valid.

Ignore

This check box is used to give a user the option to ignore recurring messages, that is, to select that the message should not to be displayed on succeeding order entry.

Messages ignored by users during order entry will create data in the 'Ignored messages' table (OOEIGM). The entry messages that have been ignored can be reactivated through option 21='Delete ignored' in 'co_Entry Message. Open' (OIS165). This action will delete the record in the 'Ignored messages' table (OOEIGM).

Used by

This field indicates in which application areas the message is to be used. The valid alternatives are:

0 = The text is used in customer order processing

1 = The text is used in service order processing

2 = The text is used in service agreement processing

3 = The text is used in short-term rental agreements

4 = The text is used in long-term rental agreements

5 = The text is used in all applications above.

Enter text block

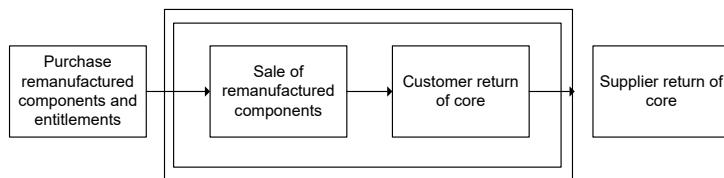
Messages to be displayed during order entry are entered in the text block through 'CO Entry Message. Open' (OIS165/T). These messages can be information about a customer financial status, activities, campaign, ongoing investigations, reminders, etc. Make sure not to use the 'Language' field. Leave the field blank.

Note that this is only a text block, which means that information is no way related to any financial component in the system.

If text block is set to blank, there will be no messages displayed during order entry.

Defining Settings for Component Exchange with Customer in Core Management Process

This document explains the settings you must define when creating the terms for the component exchange process.



Outcome

The required settings are defined for the component exchange process.

Follow these steps

1 Define an Attribute Model

Specify the ID of the attribute model and a description on 'Attribute Model. Open' (ATS050/B). Select related option 11='Model lines' to start 'Attribute Model. Connect Attributes' (ATS051).

On the B panel in (ATS051), create one attribute for the sales process that will indicate different attributes for retrieving sales prices and discounts for the sold component.

On the E panel in (ATS051), specify the following values:

- Attribute type = Alphanumeric

- Controlling object = Lot master
- Main attribute = Attribute 1, for example

Select the processes in which the attribute should be included, for example customer order, manufacturing order and purchase order.

Create an attribute for the condition (the state of wear and tear) in the same way. This will determine the costing of the sold or returned core. You select '1-Cst attribute 1' in the 'Cost attribute' field on the E panel in (ATS051).

In (ATS051), select the related option='Attribute values' to start 'Attribute Matrix. Open' (ATS020) and specify the attribute values in 'Attribute Matrix. Enter Values' (ATS021).

Example of attribute values for sale:

- Remanufactured
- New
- Used equipment

Example of attribute values for condition:

- As new
- Before failure
- After failure
- 50% of full core
- No refund

2 Define a Sales Price List

- Create price list 'Sales Price List. Open' (OIS017).

3 Define a sales costing model for core charge calculation

- The sales costing model used for calculating the core charge is defined in 'Sales Costing Model. Open' (OIS022) and connected to the core item on 'Item. Open' (MMS001/K).
- There are three sales costing operators intended for core charge calculation that can be included in the sales costing model for core.
 - Operator 76 is used to add markups/markdowns calculated as a percentage of the gross sales price on the core item order line.
 - Operator 77 is used to add fixed markups/markdowns per basic U/M. With this operator Item number and Attribute ID must be used as selection fields.
 - Operator 78 is used for core aging reduction. The aging reduction setup is defined on the core terms in 'Core Terms. Open' (CRS168).

When using the above operators in the sales costing model for core, it is recommended to setup the model with a sales calculation base of 8. It is also recommended that the last element in the model represent the total (Operator 00).

4 Define a price list table

- Create a price list table and connect to the customer in 'Customer. Open' (CRS610).
- On 'Sales Price List Selection Table. Open' (OIS831/B), the item type for core items from 'Item Type. Open' (CRS040) must be connected.

5 Define Sales Price Calculation Settings

- A record must exist in 'Settings - Sales Price Calculation' (OIS330) for the facility you are selling core parts from, otherwise core charge is not retrieved.

6 Define customer order type

- A credit order type must be setup in 'CO Types. Open' (OIS010). This is used within the customer return process.

7 Define Settings for Core

You define core terms in 'Core Terms. Open' (CRS168). To perform the core process you must populate these fields on the E panel:

- Attr ID purch
- Attr value purch

The values you specify in these fields must be used in the attribute model of the item that has current core terms.

General terms for customer orders, purchase orders and work orders:

- 'Core terms' – The core term ID is user defined and indicates the ID of the terms for the core return. The terms include information such as description, aging and return date.
- 'Language' – You can define the terms for each division and language.
- 'Name' – Standard field for giving the terms a name.
- 'Terms text' – A description of the terms. This text is printed on the customer order invoice.
- 'Start date code' – The start date used to calculate the return date of the core. The date can be calculated from the delivery date or from the invoice date.
- 'Refund limit days' – The number of days when no refund is given. The date for no refund is calculated based on the start date code.

Customer Terms:

- 'Return customer' – The number of days from the start date after which the core must be returned by the customer. After the calculated return date, the aging reduction is activated.
- 'Aging reduction' – The percentage by which the refund is reduced based on how late the core is returned. The percentage uses two decimal places. The reduction is calculated based on the aging reduction method.
- 'Aging reduction method' – Defines how the reduction of refund is calculated: per late day or after late return.
 - 'Per late day': For each day after the requested return date the amount is reduced by the percentage defined in the 'Aging reduction' field. For example, if the core is returned two days late and the aging reduction is 2%, the amount is reduced by 4%.
 - 'After late return': If the core is returned after the requested return date then the entire amount is reduced by the percentage defined in the 'Aging reduction' field. For example, if core is returned 2 days late and the aging reduction is 50%, then the amount is reduced by 50%.
- 'Aging text' – A description of the aging terms. This text is printed on the customer order invoice.

Supplier Terms:

- 'Return supplier' – The number of days from the start date after which the core must be returned by the supplier. No aging reduction is activated in the supplier flow, but after the refund limit no refund of the core can be expected.

8 Settings in the Item Master (MMS001):

- Core item:

The core item is the item which is purchased, sold and returned by the customer, back to the supplier.

- a Specify 'Lot ctrl method' on the E panel in (MMS001). This cannot be set to '0 – Lot control not used'.

- b** Enter an attribute model for the remanufactured item in the 'Attribute model' field on the G panel in 'Item. Open' (MMS001).
- c** In the 'Core terms' field on the K panel in (MMS001), specify the ID of the core terms you defined in 'Core Terms. Open' (CRS168). This field is also essential for all items that are part of the core management process.
- d** In the 'Core ch item no' field on the K panel in (MMS001), specify the ID of the core charge item you defined in (MMS001). The core charge item is used on the core charge line when entering customer orders. It is also used on the invoice specification when entering maintenance customer orders.
- e** In the 'Core reman item' field on the K panel in (MMS001), specify the ID of the core reman item you defined in (MMS001). The field indicates the item used by default for a core return on 'Customer Return. Open' (OIS390/A). This is used in the internal remanufacturing process when the core return is used as a raw material in the finished product. The item number used preferably has a prefix indicating its similarity to the other item in the same acceptance group.
- f** Select 1='Supplier reman' in the 'Exchangeable' field on the K panel in (MMS001). The field indicates whether or not the item is available as a part of a supplier exchange program. The item is usually a larger component or a subassembly such as an engine, gear box or fuel pump, which can be rebuilt or remanufactured. This field is essential for all items that are part of the core management process.
- g** In the 'Accept group' field on the K panel in (MMS001), specify the ID of the acceptance group you defined in 'Acceptance Group. Open' (CRS169). The acceptance group is used to group items which have interchangeable entitlements. A core return can be created against an entitlement for any item number within the same acceptance group. Because the core refund will be calculated for the returned part number, the core refund may be lower if the returned core is replaced from the assortment.
- h** In the 'Cstng mod core' field on the K panel in (MMS001), specify the ID of the costing model defined in (OIS022). The core charge costing model is used to calculate the core charge and the core refund.
- Core charge:
The core charge is a non-material item and is required in the core management process. A core charge item must be defined and connected to the discount model with the discount item. This item must have a separate item type with item category '13=Non-material item' specified on the G panel in (MMS001).
 - a** You must first define the item type in (CRS040). Select the item category 13='Non-material item'. This item category specifies a core charge item.
 - b** In (CRS040) select option 11='Field control' to start 'Item Type. Select Fields' (MWS041). Configure the item type fields so that the 'Non-material type' field is displayed on the G panel in (MMS001) and the 'Exchangeable' and 'Core terms' fields are displayed on the K panel in (MMS001).
 - c** Field 'Inv accounting' must be '0 - No inv account' on the E panel in (MMS001).
 - d** In the 'Item category' field on the G panel in (MMS001), specify '13 – Non-material' since this item is a charge and not a physical item and will not be stored.
 - e** 'Non-mtrl type' field should be set to '01 – Core crg item' on the K panel in (MMS001).

9 Settings for Item Warehouse (MMS002)

- Remanufactured component
In field 'Supplier' on the E panel in 'Item. Connect Warehouse' (MMS002), a supplier must be defined. 'Container mgt' field on the G panel in (MMS002) must be set to '7 – Container for Packages'.
- Core charge
The core charge item must exist in (MMS002) however no specific settings are required.

10 Settings for Item and Facility (MMS003)

- Remanufactured component
 - a The costing model must be set in 'Item. Connect Facility' (MMS003). On the E panel, select '2 - Average cost' in the 'Inv acc method' field.
 - b 'Attribute cost' must be activated on (MMS002/E).
 - c Optional: On the F panel specify the ID of the costing model in the 'Costing model' field. This field is used to set the core price. Costing models are defined in 'Costing Model. Open' (PPS285).

- Core charge

The costing model must be set in 'Item. Connect Facility' (MMS003). On the E panel, select '0 - Zero' in the 'Inv acc method' field.

Delivery Order

A delivery order is part of a customer order created for each picking list reported as issued. The delivery order forms the base for invoicing. A delivery order is created for each warehouse and delivery number included in the customer order.

Delivery orders are created automatically when:

- A customer order entry is completed and if the customer order type has the next manual function set to 3 or 4.
- A customer order picking list is reported in 'Picking List. Report' (MWS420).
- A purchase order directly connected to an order line is received and has [Line Type](#) on page 320 2 (direct delivery from supplier to customer).

When the delivery order is created, information is copied from the delivery header, the customer order header, and the customer order lines related to the picking list. Some of the information on the delivery order can be changed without affecting the original customer order.

Delivery orders are identified with the customer order number, warehouse, and delivery number. More than one delivery number can be created for the same customer order. The delivery order is ready for invoicing when it has status 60.

Delivery Reporting - Customer Order

This process is used to report item issues. This is done to confirm that the actual issue is made according to the picking list and to create a delivery order ready for invoicing.

It is possible to adjust the customer order during delivery reporting.

Note: The process cannot be used when Transportation Planning is used. In that case the order is prepared for invoicing in 'Shipment. Open' (DRS100).

Outcome

After using this process,

- on-hand balance is updated after the picking list is reported;
- a complete delivery order is created and ready for invoicing.

Follow these steps

The process starts when a picking list is reported after picking is completed.

Note: The only mandatory activity in the process is reporting the picking list. All other activities are optional.

1 Report Picking List

After an item is picked from inventory, the picking list must be reported. Before this is done, any variances in the allocations must also be reported and any additions made to the picking list.

When the picking list is reported, on-hand balance is updated and a delivery order created. Reporting is done in 'Picking List. Report' (MWS420).

2 Update Allocations

Completed allocations can be adjusted.

This must be done when the actual issue varies from the picking list. This can be an issue from a different location or lot number than listed. Otherwise, on-hand balance will not agree with the actual issue.

3 Add Order Lines

The customer order can be supplemented with new lines directly in the picking list. Lines are added in 'Customer Order. Open Line' (OIS101).

4 Create Delivery Order

When a delivery order is created, necessary information is copied from the customer order, such as terms, addresses, weight, and volume. When necessary, more information can be added to the delivery order. This is done in 'CO Delivery. Open' (OIS150) and does not change the original customer order.

5 Update Order Charges

When a delivery is created, the order charges connected to the customer order are also copied. When necessary, more information about these charges can be added to the delivery order. This is done in 'Customer Order. Connect Charges' (OIS103), which is started using option 13=Charges in 'CO Delivery. Open' (OIS150).

6 Update Documents per Delivery Order

In addition, the documents connected to the customer order are copied when the delivery order is created. When necessary, these documents can be supplemented in 'CO Delivery. Connect Documents' (OIS154), reached via option 14=Documents in 'CO Delivery. Open' (OIS150).

7 Approve Delivery

Delivery approval can take place automatically when the picking list is reported or manually in 'co Delivery. Approve' (OIS155). This is regulated by the customer order type of the delivery order.

If the delivery order has status 61 (proof of delivery), then its contents must be approved before the order can be delivered. Approved delivery orders are assigned status 60 (Delivery ready for invoicing).

Display and Change Delivery Addresses on Customer Order Header

This document explains how you display and change delivery addresses during customer order entry in 'Customer Order. Open' (OIS100).

You can use this instruction when you want to:

- Change the order address without including addresses in the panel sequence
- Make a selection of delivery address mandatory during order entry.

Before you start

The parameters listed in this table must be defined.

Program ID/Panel	Field	The field indicates ...
(CRS720/E)	Delivery address lines 1–4	... which address lines are to be displayed in 'Customer Order. Connect Address' (OIS102/B) during order entry, and also the order in which they are to appear.
(CRS720/E)	Check date	... whether the order entry date or requested delivery date is to be used when validating a delivery address during order entry.
(CRS610/G)	Display valid delivery addresses	... how delivery addresses will be displayed during order entry and also whether selecting a delivery address is mandatory. This is only relevant for delivery addresses obtained from the customer order header. This parameter works together with the 'Display delivery addresses' parameter (see below) in the order type defined in 'co Type. Open' (OIS010/E). The addresses will be displayed provided the order type allows it.
(OIS010/E)	Display delivery addresses	... whether delivery addresses are to be displayed during order entry. This parameter must be selected if the addresses are to be displayed.

Follow These Steps

Note: This instruction is written with 'Display delivery address' parameter set to 3, which means that if there is more than one delivery address registered, you must select one address to be displayed.

- 1 Start 'Customer Order. Open' (OIS100/A) and enter a new customer order.

When leaving the order header, 'Customer Order. Connect Address' (OIS102/B3) is started automatically, where a list of valid delivery addresses will be displayed with validity dates.

- 2 Select a delivery address. Press Enter to proceed to the next panel in your panel sequence.

For more information about how to change addresses when including addresses in the panel sequence, refer to Connect a New Delivery and/or Invoice Address to the Customer Order During Order Entry.

Outcome

A new delivery address is selected during customer order entry.

The new delivery address is printed on the order documents, such as the order confirmation and invoice.

Note that the changes made to the order only apply for the current customer order and do not change the standard address in the customer file.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)
- The file for order-specific addresses (OOADRE).

Duplicate Check - Customer Order Entry

A duplicate check is a Customer Order Processing function that ensures that the same combination of item and confirmed delivery date do not occur in a customer order.

Duplicate checks are used to avoid errors that can occur when an item is entered on more than one order line for the same confirmed delivery date.

The check is activated in the customer order type in 'CO Type. Open' (OIS010) and the check is done during customer order entry.

Two possible errors that can be avoided using a duplicate check are:

- A new order line is entered when a customer orders a greater quantity of an item than previously entered.
- A customer will not receive a discount for an item if it has a discount limit of 15 items and the order contains two lines with ten items each.

Enter or Change an Order Line Charge to an Existing Customer Order

This document explains how you manually enter or change an order line charge for an existing customer order.

You can use this instruction if you want to add or change an order line charge to automatically retrieved order line charges.

Outcome

An order line charge is added or changed on a customer order line and the order total is recalculated.

The new order line charges are printed on order documents, such as the order confirmation and invoice.

Note that the changes only apply for the current customer order and do not change the standard order line charges entered in 'Order Line Charge. Open' (CRS275).

The following files are updated

- Customer order line file (OOLINE)
- File for order-specific line charges (OOLICH).

Before you start

- An order line charge must be specified in 'Order Line Charge. Open' (CRS275).
- A customer order must be specified.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A). Enter the customer order number for the order you want to change. Select option 15=Order Lines to go directly to the order lines in 'Customer Order. Open Lines' (OIS101/B).
- 2 On the B panel, select the order line for which you want to add or change an order charge. Select option 12=Charges to proceed to 'Customer Order. Connect Line Charge' (OIS107/B).
Order line charges already connected to the order line are displayed on the B panel.
'Customer Order. Connect Line Charge' (OIS107) can also be started from 'Customer Order. Open Line Toolbox' (OIS301) via option 12=Charges.
If you want to add a new order line charge, go to step 3.
If you want to change an already existing order line charge, go to step 4.
- 3 On the (OIS107/B) panel, press F4=Browse in the Charge field and select one of the predefined order line charges. Select New to connect the order line charge and proceed to the E panel. Continue from step 5.
- 4 The existing order line charges are displayed on the (OIS107/B) panel. Select the line charge you want to change and select Open to proceed to the E panel.
- 5 On the E panel, check and, if necessary, modify the open fields. By checking the status field, verify that the charge can be invoiced. Click Next to return to the (OIS107/B) panel, where the new order line charge is displayed.

- 6 Click Exit to return to the order lines in 'Customer Order. Open Lines' (OIS101/B), where you can continue the order entry.

Enter a Customer Order Using Several Panels in the Order Header

This document explains how you enter a normal customer order until the order has reached status 10=Preliminary or status 20=Final. By a normal order entry means a customer order that is entered manually in 'Customer Order. Open' (OIS100).

This instruction describes a longer version of customer order entry where the different panels in the order header are described separately. This instruction is based on panel sequence EFGH5.

Use this instruction when you, during order entry, want to:

- Add new information to the customer order header.
- Check and/or change predefined parameters.

Outcome

The customer order is entered and the order is set to status 10=Preliminary or status 20=Final. The parameters in the order header are checked and, if necessary, changed.

The following files are updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)

The customer order can be further processed in the customer order flow and the next step is:

- For a preliminary customer order, to approve the order in 'Customer Order. Approve' (OIS115)
- For a final customer order, to allocate the ordered items, print a picking list and deliver the goods. These steps are described in the Supply Chain Execution process and are not further described here.

Before you start

The starting conditions listed in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.

Follow these steps

Enter a Customer Order

- 1 Start 'Customer Order. Open' (OIS100/A).
Set the panel sequence to EFGH5.
- 2 Enter a customer number. Press Enter and information about the customer is automatically retrieved to the A panel.

The information (such as customer order type, payer, blanket agreement, delivery address and customer address) is retrieved from the customer file.

- 3 Enter the customer's requested delivery date. Press Enter to proceed to the E panel.

Enter Parameters Controlling the Distribution of the Order

- 1 On the E panel, check the information that is automatically retrieved. Enter or change, if necessary, the following parameters:

Note: Most of the parameters on the E, F, G, and H panels are predefined in the customer file and in the order type, and are retrieved automatically to the order header. The customer order type also determines whether the parameters can be entered or changed manually during order entry.

- Payer
- Invoice recipient - The number of the customer who will receive the invoice
- Warehouse - The warehouse to be proposed as the delivering warehouse
- Supply model - A set of rules for finding alternate ways to supply a specific demand
- Order date - The date the order arrived from the customer
- Customer order date - The date when the customer placed the order
- Requested delivery date - In the second of two fields for requested delivery dates, the date is expressed in the time zone of the unloading location. Sometimes the loading and unloading locations are in different time zones, which is why this date can be different from what applies for the local time zone.
- Priority - The priority is set in relation to other customer orders. The priority is used as a selection criterion when shortages occur. The valid values are 0 (highest priority) to 9 (lowest priority)
- Project number - A unique ID for a project, which can also be used to define a season in the fashion industry application.
- Project element - An element that is part of a project structure. An element can refer to an activity, a subproject or a main project. It can also be used to define a delivery window in the fashion industry application.
- First/last date - The first and the last valid delivery date for a customer order. It can also be used in the fashion and food and beverage industry applications.

- 2 Press Enter to proceed to the F panel.

Enter Parameters for Payment and Delivery Terms

- 1 On the F panel, check the information that is automatically retrieved and define different payment terms and delivery terms. Enter or change, if necessary, the following payment terms parameters:

- Language - The language in which external documents are to be printed
- Payment terms - How to calculate the due date
- Cash discount term - How to calculate cash discount. Cash discounts are defined in 'Cash Discount Term. Open' (CRS077).
- Line charge model - An ID to which an optional number of line charges can be connected. When using a line charge model, the line charges are validity checked for the lines entered.
- Summary invoice - Determines whether orders and deliveries can be invoiced together on a summary invoice.
- Manual due date - A manually entered due date will have a higher priority than the due date calculated according to the payment terms (see above).
- Value date - Determines the basis for the calculation of the due date for invoicing. The value date will be valid before the invoice and delivery date

- EU triangular trade - Goods are shipped between EU countries but the payment is made from an EU country other than the one receiving the goods.
- 2** Enter or change the following delivery terms parameters:
- Delivery method - Used for selection purposes when connecting customer orders to a shipment
 - Delivery terms - Controls when transport responsibilities shift from supplier to customer, such as payments and insurance terms
 - Packaging terms - What terms apply when goods are packed
 - Route - Used to coordinate transportation to several customers and to distinguish orders needing special handling
 - Route departure - Departures that reoccur with a defined interval
 - Address number - A record in the address file
 - Delivery specification - A detailed description of where a customer order line is delivered, such as workplace, building, entrance or floor.
- 3** Press Enter to proceed to the G panel.

Enter Contact References Parameters

- 1** On the G panel, check the information that is automatically retrieved and concerns contact references between the company and the customer. Enter or change, if necessary, the following contact references parameters:
- Responsible - A unique user identity that can be used for selecting and sorting purposes
 - Salesperson - Used as a selecting and sorting identity in statistics and functions in the customer order flow
 - Customer's order number - Acts as a reference to the customer's own order number and is printed on external documents
 - Our reference - The person whom the customer or supplier may contact
 - Your reference - The customer's contact person
 - Contact method - How a customer is normally contacted (used in statistics)
 - Business type, trade statistics - Used to distinguish different types of trade transactions in the trade statistics
 - Quotation number - The quotation that forms the basis for the customer order
 - Customer's purchase order date - The date when the customer placed the order.

- 2** Press Enter to proceed to the H panel.

Enter Price Information

- 1** On the H panel, check the information that is automatically retrieved and controls, for example, price, VAT, currency and discounts. Enter or change, if necessary, the following price information parameters:
- Blanket agreement number - Used to regulate which agreement is checked during customer order entry
 - Price list table - A joint identity for sales prices of several items
 - Service charge - The service charge connected to the customer order
 - Discount model - Controls how discounts are calculated for a customer order
 - Currency - The abbreviation for the currency
 - Exchange rate - The fixed exchange rate to use at invoicing
 - Future rate agreement number - Identity of a unique future rate agreement

- Payment method, accounts receivable - Used as a general sorting key when handling customer payments
 - VAT code - Used to indicate a VAT exemption agreement
 - Tax applicable - Whether the customer or a specific order are required to declare VAT or sales tax
 - Exchange rate type - Exchange rate type is mandatory information when maintaining exchange rates
 - Currency conversion method - How conversion from foreign to local currency is done.
- 2** Press Enter to proceed to 'Customer Order. Open Line' (OIS101/B).
- 3** On the B panel, enter an item and the quantity and, if necessary, the price. Press Enter and the ordered item will be displayed.
Repeat this step if you want to add more items to the order. Click Exit to finish order entry.

The customer order is now entered and the order is set to status 10=Preliminary or to status 20=Final. For more detailed information about entering order lines, refer to [Entering Customer Order Line](#) on page 307

Enter a Customer Order - Quick Entry Using No Panels in the Order Header

This document explains how you enter a normal customer order until the order has reached status 10=Preliminary or status 20=Final. Normal order entry is a customer order entered manually in 'Customer Order. Open' (OIS100).

This instruction describes a quicker version of customer order entry using no panels in the order header. This instruction is based on panel sequence 58.

You can use this instruction when:

- You want to enter an order quickly without going through all the panels in the order header
- You have already defined all the necessary information in the customer file and in the order type, and the information is retrieved automatically to the order header.

Before you start

The starting conditions listed in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be met.

Follow these steps

- 1** Start 'Customer Order. Open' (OIS100/A).
Set the panel sequence to 58.
- 2** Specify a customer number. Press Enter and information about the customer is automatically retrieved to the order header.
Information that is retrieved from the customer file is, for example, order type payer, blanket agreement, delivery address and customer address.
- 3** Specify a requested delivery date. Press Enter to proceed to 'Customer Order. Open Lines' (OIS101/B).

When leaving the order header, a number of checks take place. If required information is missing or erroneous, then the panel and the field where the information is to be changed or entered are displayed. You are required to enter new information before continuing order entry.

- 4 On the B panel, enter an item, the quantity and, if necessary, the price. Press Enter and the ordered item will be displayed.

If you want to make any changes to the ordered item, select the item in the list. Select 'Open' and the E, F and G panels in (OIS101) are displayed, where you can make necessary changes to, for example, the price, quantity, name and description.

Repeat this step if you want to add more items to the order. Click Exit to finish and proceed to 'Customer Order. Simulate Totals' (OIS110/E).

- 5 A compilation of the order is displayed on the E panel. Check the information on the panel and, if necessary, change the order total discount (amount or percentage) and contribution margin ratio. Click Exit to finish order entry.

Changing the order total discount results in a recalculation of the percentage discount and will have an effect on all order lines that are not already invoiced.

The customer order is now entered and the status is set to 10 for a preliminary order or status 20 for a final order. Company routines determine how far the order is to be processed automatically.

For more details about entering order lines, see [Enter or Change an Order Line Charge to an Existing Customer Order](#) on page 294.

Outcome

The customer order is entered and the order is set to status 10=Preliminary or status 20=Final.

The customer order is further processed in the customer order flow and the next step is:

- For a preliminary customer order, to approve the order in 'Customer Order. Approve' (OIS115)
- For an entered customer order, to allocate the ordered items, print a picking list and deliver the goods. These steps are described in the Supply Chain Execution process and are not further described here.

The following files have been updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE).

Enter Comment in Customer Order Header

This document explains how to enter a comment in an entered customer order. A comment can be entered as either introductory comment (pre-text) or closing comment (post-text).

Outcome

- A comment is entered in the order header and will be printed on the documents specified.
- The document type for which the comment was entered is marked in the selection window for the order. In this way it is possible to identify documents containing comments.

- For internal documents, comments are printed in the local language, while external documents are printed in the customer's language.

Uses

Comments related to the customer order can be entered both in front of and after the other information in the order header.

Before you start

- A customer order must be specified.
- The document group for which the comments are printed must be specified.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100).
- 2 Select the customer order number and select option 16=Pre-text or option 17=Post-text. The Pre-text or Post-text dialog box is displayed.
- 3 Specify 1 for the documents on which the comments will be printed. Press Enter. The text dialog box is displayed.
- 4 At the top of the dialog box, specify language and name for the comment and if the comments should be printed on internal or external documents.
- 5 Specify your comments for the first document type. You can also select a predefined text block. Click Exit.
 - If more documents were specified in the Pre-text or Post-text dialog box, a text dialog box is displayed.
 - When the last comment is specified, the (OIS100/A) panel is displayed again.

Note that it is also possible to specify pre-text and post-text in 'Customer Order. Open Line' (OIS101/B) using F16=Pre-text or F17=Post-text.

Enter Comment in Customer Order Line

This document explains how to enter a comment in an entered customer order. A comment can be entered as either introductory comment (pre-text) or closing comments (post-text).

Outcome

- A comment is entered in the order line and will be printed on the documents specified.
- The document type for which the comment was entered is marked in the selection window for the order. In this way it is possible to identify documents containing comments.

Uses

Comments related to the customer order line can be entered both in front of and after the other information in the order line.

Before you start

A customer order with at least one customer order line must be specified.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100).
- 2 Select the customer order number which contain the order line and select option 15=Order line. 'Customer Order. Open Line' (OIS101) is displayed
- 3 Select the customer order line and select option 18=Pre-text or option 19=Post-text. The Pre-text or Post-text dialog box displayed.
- 4 Specify 1 for the documents on which the comments will be printed. Press Enter. The text dialog box is displayed.
- 5 At the top of the dialog box, specify language and name for the comment and if the comments should be printed on internal or external documents.
- 6 Specify your comments for the first document type. You can also select a predefined text block. Click Exit.
 - If more documents were specified in the Pre-text or Post-text dialog box, a text dialog box is displayed.
 - When the last comment is entered, the (OIS101/B) panel is displayed again.

Enter Customer Order Type

This procedure is used to enter a customer order type.

The customer order type regulates how the customer order is processed through the order flow, which checks are made and which information is retrieved by default when orders are entered.

Before you start

- An order number series must be defined in 'Number Series. Open' (CRS165).
- An invoice number series must be defined in program 'Number Series. Open' (CRS165).
- If multiple unit coordination is used, the invoice number series must be specified for each division in 'Internal Invoice Series. Open' (MFS165).

Follow these steps

- 1 Start 'co Type. Open' (OIS010). Specify panel sequence EFGHIJK134.
- 2 Specify an ID for the order type, select a customer order category, which regulates entry of the customer order type, and a next manual function, which regulates the activity to be activated after customer order entry. Press Enter. The selected combination of customer order category and next manual function 1) regulates the default parameter values displayed in the E-K panels and 2) blocks certain parameters from being changed.

- 3 Check and correct the default values in the E-K panels. Mandatory fields in the E panel are 'Name', and 'CO series'. After the K panel, 'CO Type. Connect Documents' (OIS011) is started.
- 4 Specify the document groups to which the customer order type is to be connected and the documents to connect to each document group. After you have finished entering document groups and documents, press F3=End. 'CO Type. Connect Order Charges' (OIS013) is started.
- 5 Enter the charges for the customer order entered with the customer order type. To enter a new charge or retrieve a predefined charge, press F4=Browse. After you have entered the desired charges, press F3=End and 'CO Type. Control Fields' (OIS014) is started.
- 6 Specify the field access to apply for various fields when a customer order is entered with this order type. If possible specify how the suggested value is to be retrieved for the customer order during entry.
- 7 Press F3 to end the procedure.

Enter Customer Order Using Quick Entry

This document explains how to enter customer orders in a simplified way in 'Customer Order. Quick Entry' (OIS200).

Outcome

- Approved customer orders are created.
- If all information necessary can be retrieved, a customer order is created and can be monitored in 'Customer Order. Open Toolbox' (OIS300).
- If the order is rejected due to erroneous or missing information, a temporary customer order is created in 'Batch Order. Open' (OIS275).

Before you start

The prerequisites listed in the [Batch Order](#) on page 235 must be met.

Follow these steps

- 1 Open 'Customer Order. Quick Entry' (OIS200).
- 2 Check the warehouse and customer number values and change if necessary. The default values are retrieved from the (OIS200/P) panel.
- 3 Specify the requested delivery date.
- 4 Specify the item number and quantity. Function key F10=Next sorting order can be used to change the sorting order of the quantity and item columns.
- 5 Specify sales price in the 'Sales price' field, if allowed. See the P panel.
- 6 Press F14=New CO to generate a customer order. The result is displayed in a message. The order can now be monitored in 'Customer Order. Open' (OIS100), by pressing F15=Customer order. The fields on the B panel in 'Customer Order. Quick Entry' (OIS200) are blanked out, and a new customer order can be created immediately.

- 7 Press Exit when you are done specifying customer orders.

Enter Goods Receipt - Advised Customer Returns

The purpose of this procedure is to receive goods from an advice of customer return. Advice of customer return is the entry of a customer return before the goods are actually received back at the warehouse.

Inventory and the transaction history are updated after using this procedure.

Before you start

- The advice of customer return must be specified in 'Customer Return. Open' (OIS390).
- The goods to be received must have line status 11, 12, or 13, indicating the advised quantity for the return is not received.

Follow these steps

- 1 Select 'Customer Return. Open' (OIS390). If all the lines in the return will be received, go to step 2. If only specific lines will be received, go to step 3.
- 2 Select option 12=Received quantity for the return to be received. All advised lines that have not been completely received will then be entered as received for the quantity remaining. Go to step 5.
- 3 Select option 11=Lines for the appropriate customer return. 'Customer Return. Open Lines' (OIS391) is started. All the lines in the customer return are displayed.
- 4 Specify option 12=Received quantity for the lines to be entered as received. The advised quantity is then entered as received. Any variation between advised quantity and previously received quantity is automatically received.
- 5 To enter more goods as received, repeat steps 2 to 4. To end, press F3.

Enter Quotation Information

The purpose of this procedure is to enter or change information used to check and follow up quotations.

Before you start

- A quotation (customer order with customer order category 4) is specified and must be changed.
- A new quotation must be specified in 'Customer Order. Open' (OIS100).

Follow these steps

- 1 Start 'Sales Quotation. Open Information' (QPS115/B). When using 'Customer Order. Open' (OIS100) to enter a quotation, 'Sales Quotation. Open Information' (QPS115) is started by the panel sequence. In this case, go to step 3.
- 2 Select the appropriate quotation number (order number) and select 'Open'. Press Enter to proceed to the E panel.
- 3 Specify the values specific to the quotation such as the reference object, quotation reason, and status.
- 4 Press Enter to confirm the values.

Entering a Customer Order: Normal Order Entry

This document explains how you enter a normal customer order. Normal order entry means that a customer order is entered manually in 'Customer Order. Open' (OIS100). This document also describes how you can:

- Specify or change order addresses during order entry
- Specify or change order charges during order entry
- Display a compilation of the order after order entry
- Specify or change order total discounts

You can use this document when you have defined all your settings for the customer order and you want to start entering customer orders.

The description of this process is based on panel sequence EFGH1258. Note that you can use the panel sequence in many different ways depending on your own work routines, and you usually do not use all panels during order entry.

Before you start

- A customer must be registered in 'Customer. Open' (CRS610).
- An item must be registered in 'Item. Open' (MMS001). The item must be connected to a warehouse in 'Item. Connect Warehouse' (MMS002) and to a facility in 'Item. Connect Facility' (MMS003).
- Basic order entry settings must be defined. Refer to Define Basic Settings for Customer Order Entry and Define General Settings for Customer Order Entry.
- A customer order type must be defined in 'co Type. Open' (OIS010).

Follow these steps

1 Enter Order Header

The customer order header is entered manually in 'Customer Order. Open' (OIS100). Information is automatically retrieved to the order header; that is, to the E-H panels in (OIS100) when entering the customer who wants to place an order. Most of the retrieved information is controlled by settings in the customer order type or by settings defined for the customer. Payment terms, delivery addresses, currency, discount models and price lists are examples of the kind of information that is retrieved to the order header.

On the E-H panels, you can monitor, change and add information to the order header.

Note: It is not required to go through all these panels if all necessary information is already retrieved automatically.

Each customer order is identified by a unique customer order number. The order number is assigned to the order when you proceed from (OIS100) to the order lines in (OIS101).

2 Enter or Change Order

• Enter or Change Order Addresses

Customer addresses are predefined in the customer file and retrieved automatically to the order header. If you want to complete the customer order by adding, deleting or changing a delivery and/or invoice address during order entry, it is possible to do so in 'Customer Order. Connect Addresses' (OIS102/H). Include 1 in the panel sequence to start (OIS102).

Note: The addresses that are changed or added will only affect the specific order and not change the addresses connected to the customer in the customer file.

• Enter or Change Order Charges

Customer order charges are defined in 'co Charge. Open' (OIS030) and are connected to the customer or the order type. The order charges are retrieved automatically to the order header if the 'Check order charges' check box is selected in 'co Type. Open' (OIS010/E).

In 'Customer Order. Connect Charges' (OIS103/B) you can add or change order charges during order entry. Include 2 in the panel sequence and (OIS103/B) will be displayed, where you can make the necessary changes.

Note: The charges that are changed, added or deleted will only affect the specific order and not change the charges connected to the customer or customer order type.

3 Enter Order Lines

During customer order line entry, the items entered are processed according to both the information specified per item in the item file and the order's customer order type. The settings for each customer also affect the order line entry.

From the order lines, a number of functions and programs can be reached by selecting the different options and function keys, such as order line charges, addresses, allocation, entering text to be printed on order documents, simulating prices, recording lost sales and much more.

Customer order lines are entered in 'Customer Order. Open Line' (OIS101), which is reached via 'Customer Order. Open' (OIS100).

4 Enter Order Total Discount

After a customer order is entered, a compilation of the order can be displayed in 'Customer Order. Simulate Totals' (OIS110). Charges, costs, discounts, rounding-off amount, gross order total, etc. are all compiled.

Discounts are retrieved automatically as specified by a discount model in the customer order header. Discounts can be changed manually during order entry, if the discount model and the customer order type permit it.

The order total discount is calculated from the discount percentage and is based on the value for the ordered items. The order total discount can be entered or changed when changing the percentage, discount amount or contribution margin ratio. A change of the order total discount results in a recalculation of the percentage discount and will be distributed to all order lines that are not already invoiced.

Outcome

A customer order is entered and the order is set to different statuses depending on how far you want the customer order entry to proceed automatically in the order flow. If required, predefined order addresses and order charges are changed to apply to this specific order. A compilation of the order displays information about order totals.

The different statuses in the customer order entry are:

- Status 10=Preliminary
- Status 20=Final

All the different steps in the order flow can be performed manually or automatically depending on company routines.

- Status 10-The customer order can be further processed, and the next step is to approve the order manually in 'Customer Order. Approve' (OIS115).
- Status 20-The order is entered and regarded as final. The ordered items have been reserved. When the items are reserved, you have verified that the ordered items are in stock, but you have not yet allocated the items to the order.

The next steps in the order flow are:

- Allocating the ordered items to the order (status 33)
- Printing the picking list (status 44)
- Delivering the goods (status 66).

These steps are handled by the Supply Chain Execution process and are not described here.

Depending on the next manual function, different actions can be taken manually for the order in the order flow.

The following files have been updated:

- Customer order header file (OOHEAD)
- Customer order line file (OOLINE)

Entering Customer Order From Standing Customer Order

This document explains how customer orders are created from existing standing customer orders.

A standing customer order is a predefined customer order, including order lines, used as a basis for creating customer orders at set intervals. Customer order lines containing items and quantities are entered in a standing customer order.

Outcome

- Customer orders are generated from standing customer orders.
- As an alternative order entry method for minimizing manual work for standardized orders.
- To facilitate processing of repetitive orders and increase performance in M3 by minimizing the space occupied in the order file.

- Temporary customer orders are sent to batch order entry, where they are checked.
- Customer orders are generated at set interval in M3 and will be handled according to their respective customer order type. The orders can be generated automatically or semi-automatically.
- A record is created in the history file and can be displayed in 'Standing Customer Order. Open History' (OIS076), which is reached from 'Standing CO. Open' (OIS074).

Before you start

The settings specified in [Batch Order](#) on page 235 must be defined.

Follow these steps

1 Generation of temporary customer order from standing customer order

Standing customer orders entered in 'Standing CO. Open' (OIS074) are generated and created as temporary batch orders before they are created as confirmed orders in M3.

There are two ways of generating customer orders from standing customer orders in M3:

- **Manual generation**

Manual generation is done in 'Customer Order. Create from Standing Order' (OIS078).

A selection is made, for which standing customer orders should be generated. Selections can be based on delivery date, delivery day, and customer or standing CO group.

- **Automatic generation**

If the generation in 'Customer Order. Create from Standing Order' (OIS078) is set to run automatically in M3 Job Scheduler, standing customer orders are processed completely automatically.

At generation, temporary customer orders will be created from the defined standing customer orders.

Standing customer orders will be generated if they

- Match the selection criteria for the generation in 'Customer Order. Create from Standing Order' (OIS078).
- Fall within the due for customer order interval defined in 'Standing CO. Open' (OIS074).

2 Temporary customer orders created in batch order entry

When standing customer orders are generated, temporary customer orders are created and assigned temporary customer order numbers in 'Batch Order. Open' (OIS275). The temporary orders are checked for completeness and accuracy.

If a temporary order is complete and correct, a customer order with confirmed order number is created in M3 automatically.

If a temporary order is not complete or contains an error, it must be changed or completed manually in 'Batch Order. Open' (OIS275).

Entering Customer Order Line

This process is used to complete customer orders, adding the necessary customer order lines to a customer order header.

It also includes entry of customer order lines with items and quantities and pertinent information such as price, fees, and order line comments.

The process can also be used to supplement current customer orders by changing the lines in it or adding additional lines.

Outcome

A completed customer order is created after using this process. The process ends when all customer order lines in the order are entered.

Before you start

- A customer order header must be specified.
- Items must be specified in 'Item. Open' (MMS001).
- Basic settings are specified.

Note: During entry, a number of checks are carried out. Some checks are required, but basic data checks and others are optional.

Follow these steps

1 Enter Customer Order Lines

Customer order lines are entered in 'Customer Order. Open Line' (OIS101), which is called from 'Customer Order. Open' (OIS100). During customer order line entry, the items entered are processed according to both the information specified per item in 'Item. Open' (MMS001), and the order's customer order type. The settings for each customer affect entry.

- Specifying an Item ID

During entry, the item ID can be specified as either the in-house item number or an alternative ID that has been registered. The latter can be the customer's item number, an alias number or a kit item number. When an alternative ID is used, it is automatically changed to the in-house item number.

If an alias number has more than one item number connected to it, a listing of valid items is displayed. The alias number definition can also contain a default quantity. This is proposed automatically during entry.

How the order items are searched is set in panel 'Customer Order. Open Line' (OIS101/P). The item is searched in the order specified when an alternative ID is used during order line entry. This panel is also used to define an alias unit. This allows the using of a numerical alias for a sales unit. In this way a numeric keypad can be used for order entry.

- Pricing Customer Order Lines

The sales price for an item on a customer order line is entered by default. The default value is retrieved from either an agreement, a price list or the item file. The sales price can also be entered manually, if allowed by the customer order type.

The E panel in 'Customer Order. Open Line' (OIS101) displays the origin of the price on the customer order line next to the 'Price list' field.

- Discounting

Discounts are retrieved automatically as specified by a discount model in the customer order header. If the discount model and the customer order type allow, discounts can then be changed manually. Discounts are entered in panel 'Customer Order. Open Line' (OIS101/E).

- Specifying Charges - Customer Order Lines

One or more charges can be specified on a customer order line. They are specified by default, but can be changed or added manually.

2 Connect Lines for Joint Delivery

Customer order lines that will be delivered jointly are connected together with a joint delivery code.

This code is entered by default from the customer order type, but can be changed for each line in 'Customer Order. Open Line' (OIS101/G). A customer order can include more than one joint delivery. These can also be maintained in 'Customer Order. Reschedule' (OIS130).

3 Materials Management at Entry

During customer order line entry, different panels for material management might be displayed, depending on the settings for customer order type and entered item.

- Allocation

The item and the customer order type regulate whether a customer order line is allocated and how this is done. If the item is allocated manually, 'Allocation. Perform Detailed' (MMS121) is displayed. This can also be done using option 15=Allocations.

- Product Configuration

An item that is manufactured in-house can be configured during customer order line entry. When this is done, 'Config & Simulation. Open' (PDS605) is displayed. This is regulated per item.

- Automatically Creating Manufacturing Order

Manufacturing orders can be created in connection with customer order line entry. For this, the 'Planning method' field in 'Item. Connect Warehouse' (MMS002) must be set to 3 (order-initiated).

- Creating a Planned Purchase Order Automatically

Planned purchase orders can be created in connection with customer order line entry. This is regulated by the line type. The planned PO is released as specified in 'Settings - Acquisition' (CRS723). This can be done either manually or automatically.

The line type also regulates the delivery address for the PO as follows:

Line type	Definition
1	PO delivered from supplier to the warehouse specified in customer order line.
2	PO delivered from supplier directly to customer address.

4 Specifying Comments for Customer Order Lines

Comments related to the customer order line can be entered both in front of and after the other information in the line. This is done using either F16=Pre-text or F17=Post-text, respectively. After entry is completed, comments can be entered using options 18=Pre-text or 19=Post-text, respectively.

The document group for which the comments are printed must be specified. For internal documents, comments are printed in the local language, while external documents are printed in the customer's language.

Entering Customer Order: Quick Entry

This document explains how customer orders are created using the simplified order entry in 'Customer Order. Quick Entry' (OIS200).

Quick order entry is used to simplify order entry by minimizing the amount of information entered and decreasing the number of checks that are run at order entry. These checks are postponed and carried out when the orders are completed in the batch order entry.

Outcome

- Complete and approved customer orders are created.
- A temporary customer order is created in 'Batch Order. Open' (OIS275). Order header and order lines are created and supplemented with information according to the customer order type entered in 'Batch Order. Open' (OIS275).
- If all the necessary information can be retrieved, a customer order is created and can be monitored in 'Customer Order. Open Toolbox' (OIS300).
- If the order is rejected due to erroneous or missing information, a temporary customer order is created in 'Batch Order. Open' (OIS275).

Before you start

The prerequisites [Batch Order](#) on page 235 document must be met.

Follow these steps

1 Generate temporary customer order in quick order entry

Customer orders are specified in 'Customer Order. Quick Entry' (OIS200).

Only the following information can be specified:

- Customer
- Warehouse
- Required delivery date
- Item and quantity
- Sales price (if allowed)

Sales price can be specified during quick order entry if the

- Price entry field is activated on the (OIS200/P) panel
- 'Source sales price is valid' field is selected in 'Settings - Batch Orders' (OIS278).

Even if sales price entry is activated, sales price does not have to be specified. If sales price is not specified for one or several items, the item(s) will be priced according to the regular price hierarchy after customer orders have been created.

2 Temporary customer orders created in batch order entry

After an order is created in 'Customer Order. Quick Entry' (OIS200), a temporary customer order is generated, assigned with a temporary customer order number in 'Batch Order. Open' (OIS275).

The temporary order is then completed with information retrieved according to criteria defined in the customer order type. The completed order is then checked.

If a complete and correct order can be created, a customer order with confirmed order number is created automatically.

If a complete and correct order cannot be created or if it contains errors, it must be changed or supplemented manually in 'Batch Order. Open' (OIS275).

Entering Externally Entered Customer Order using M3 e-business or EDI

This document explains customer orders are generated externally via M3 e-business or via Electronic Data Interchange (EDI) and created as temporary customer orders.

This document only describes the process from a M3 perspective. It does not explain how to specify orders through a web browser.

Outcome

- Approved customer orders are created in the M3.
- A temporary customer order is created in 'Batch Order. Open' (OIS275). The order is completed with order header and order line information when temporary orders are created according to customer order type entered in 'Batch Order. Open' (OIS275).
- If all necessary information can be retrieved, a customer order is created in M3 and can be monitored in 'Customer Order. Open Toolbox' (OIS300).
- If the order is rejected due to erroneous or lacking information, a temporary customer order is created in 'Batch Order. Open' (OIS275). A message will be displayed in the web browser.

Before you start

- Settings must be entered according to setting document [Batch Order](#) on page 235.
- Settings for M3 e-business must be specified in M3.
- Settings must be specified in 'Settings - Quotations' (CRS732).
- Settings for EDI must be specified.

Follow these steps

1 Generation of customer order through M3 e-business or EDI

M3 e-business

Customer orders entered in M3 e-business are generated and created as temporary batch orders before they are created as confirmed orders in M3.

EDI

EDI messages generate temporary customer orders, before orders can be created as confirmed orders in M3.

2 Temporary customer orders created in batch order entry

When a customer order is generated, a temporary customer order is created and assigned temporary customer order number in 'Batch Order. Open' (OIS275).

The temporary order is then completed with information retrieved according to criteria defined on the customer order type. The completed order is then checked.

If a complete and correct order can be created, a customer order with confirmed order number is created automatically.

If a complete and correct order cannot be created or if it contains errors, it must be changed or supplemented manually in 'Batch Order. Open' (OIS275).

Equipment Information on the Customer Order

This document describes how to enter equipment information. Equipment information is important when selling spare parts and might affect pricing.

All information entered on separate panel for equipment information at spare part sales can be used for pricing and some of it is available in the statistics. The information can be manually entered or retrieved from 'Equipment/Serialized Item. Open' (MMS240) by entering only the product and the serial number, which is an easy way to give the user instant access to the equipment information.

Limitations

Price simulation (OIS320) does not allow manual entry of all the equipment information (only product and serial number).

The functionality is only available if the ESM I-Switch is selected in 'Company. Open' (MNS095).

Before you start

- For 'pricing' based on equipment information the control objects are defined as &-fields with the description 'Sold against XXX' in the field groups. For example &BRAN - Sold against Brand, indicating the 'Brand' of the equipment. They are available in field group OIPSM, OIPCT, OIDSM, OAGLN, and CRCHC.
- Parameter 'Validate S/N' on the CO type (OIS010/F) decides if the serial number should be validated against 'Equipment/Serialized Item. Open' (MMS240) and if 'Sold Against Equipment. Open' (OIS116) should be automatically displayed at CO entry.
- Parameter 'Several equipment' on the CO type (OIS010/F) decides if it is allowed to change the information on the header level when a CO line exists, i.e. if it is allowed to have different values for different CO lines. It also controls if the header values should be kept when leaving CO entry or if it should be cleared, in order to not risk creating a CO line against equipment that you didn't intend to create it against (when adding CO lines to an existing CO).

Spare part sale where equipment information is entered for the customer order or for specific customer order lines

- Create a customer order in 'Customer Order. Open' (OIS100).

- 2 Enter the equipment information in 'Sold Against Equipment. Open' (OIS116) before creating the customer order line. This equipment information panel can be accessed in several ways:
 - By having panel J in the OIS100 panel sequence.
 - By using Action F23 – 'Sold against' from any OIS100 panel
 - By using Action F23 – 'Sold against' in OIS101/B (the list panel in 'Customer Order. Open Line')
 - Automatically because of the 'Validate S/N' parameter on the order type (OIS010/F) having value 1 or 3.
- 3 Enter a valid combination of product and serial number to retrieve the equipment information from 'Equipment/Serialized Item. Open' (MMS240), or enter the information manually.
- 4 Enter CO line(s). All CO lines that are created will get the same equipment information until the information on the header level is cleared or changed. It can be cleared in OIS116 via function key F14 – 'Clear all'.
- 5 The information in 'Sold Against Equipment. Open' (OIS116) can be accessed after CO head/CO line creation. In addition to the methods described above, it can also be accessed via:
 - Related option from OIS100 or OIS300
 - Related option from OIS101 or OIS301 (for the specific CO line)
 - F23 – 'Sold against' from any detailed panel in OIS101 (for the specific CO line).
- 6 The product and serial number can be selected as fields in the panel version (OIS101 and OIS301) and are available in CO line panel J.

Outcome

CO lines created with the equipment information, which is accessible for viewing. Pricing might be controlled by any of the equipment information and some fields are available in the statistics (Product, Serial number, Brand, and Price model).

Spare part sale where Product and Serial number of the equipment that the part is sold against is entered in the CO line footer

- 1 Create a customer order in 'Customer Order. Open' (OIS100).
- 2 Select 'Input alternative panel B' = 8 in 'Customer Order. Open Line' (OIS101).
- 3 Enter a valid combination of product and serial number in the footer when creating the order line.
- 4 The product and serial number can be selected as fields in the panel version (OIS101 and OIS301) and are available in CO line panel J.

Outcome

CO lines created with the product and serial number stored on the order line. Pricing might be controlled by any of the equipment information stored for the product and serial number in 'Equipment/Serialized Item. Open' (MMS240). The product and serial number are available in the statistics.

Sell equipment from stock and sell an attachment against that equipment

- 1 Create a customer order in 'Customer Order. Open' (OIS100).
- 2 Select 'Input alternative panel B' = 10 in 'Customer Order. Open Line' (OIS101).
- 3 Enter an order line for the equipment by entering the item number and the serial number.

- 4 Enter an order line for the attachment by entering the item number and the 'Sold against line' (the order line number for the equipment order line).

Note: The price of the attachment should be based on the equipment you sell it against.

- 5 The product and serial number can be selected as fields in the panel version (OIS101 and OIS301) and are available in CO line panel J.

Filing customer orders

You can use this supporting function to file customer orders, quotations, closed orders, deleted orders, customer invoices, and transferred batch orders. You can also use it to clear old records from the files.

By copying information to another library, you can then copy it to external storage media such as magnetic tape or CD-ROM. After the information is saved, you can delete it from the hard disk to increase system performance.

Before you start

You must define a library for filing information. Libraries are specified in 'Settings - Filing' (CRS799).

Follow these steps

- 1 File quotation, deleted and closed customer orders without deliveries in 'Quotation, Del & Cld co. Archive/Delete' (OIS702)

Customer orders without deliveries that are created in quotation, or have been deleted or closed, are filed in (OIS702). Customer orders with status 05-'Quotation', 90-'Deleted', or 99-'Flagged as comp' are filed according to specified selections.

These are the affected tables:

OOHEAD	Customer order header
OOQUOH	Quotation order header
OOCHRG	Order charges per customer order
OOSAEQ	Pricing of items sold against equipment
OOPAYH	Customer order prepayment header
OOPAYL	Customer order prepayment line
OOHEAC	Commission receiver
OOADRE	CO header address
OODOCU	Customer order documents
OOPINV	Pre-payment invoice
OOLINE	CO lines

OOLIP1	CO lines purchase information
MATORL	Attribute order reference line
OOPRED	Pre-payment control
OOLICH	CO line charge
OOLICT	CO line charge
OOCOL1	CO line file
OORESC	Re-scheduling CO line
OOOREF	CO line reference - BO line
OOSREB	One-time supplier rebate
OIPROI	Price override information
ORSNET	Delivery schedule
OKITDI	Kit discount amt
OEXPRI	External order prices
OSYTXH	Text, head
OSYTXL	Text, line

2 File Customer orders in 'Customer Order. Archive' (OIS090)

Customer orders that are delivered or invoiced as final are filed in (OIS090). Customer orders with status 77 (invoiced) are filed according to specified selections. Even customer orders with status 66 (final delivery) are filed if invoicing has not been done according to the customer order type.

The affected tables are:

OOHEAD	Customer order header
OOLINE	Customer order lines
ODHEAD	Customer delivery header
ODLINE	Customer delivery lines
OODOCU	Documents per customer order
ODDOCU	Documents per customer delivery
OOCHRG	Order charges per customer order
OOADRE	Addresses per customer order
OOPINV	Advance invoices per customer order
OSYTXH	Comments – header
OSYTXL	Comments – lines

3 File Customer Invoices in 'CO Invoice. Archive/Delete' (OIS701)

Customer orders with status 95 (transferred to general ledger and sub-ledgers) or status 90 (account entry made) are filed in (OIS701). Invoices with status 90 should only be used if M3 accounts receivable and general ledger are not used. Filing is done according to specified selections.

Invoices that have been paid in the cash desk must, however, be filed in 'CO Invoice. Archive' (OIS095).

These are the affected tables:

OINVOH	Customer invoices – header
OINVOL	Customer invoices – lines
OINACC	Customer invoices – acct. entries
CINXRF	Invoice number references
CTAXLN	Tax calculation values
OADDTX	Invoicing, additional tax description
OICORR	Invoice correction
OINREF	Invoice reference
OIPRTD	Perception and Retention Tax Details

4 File Transferred Batch Orders in 'Batch Order. File Transferred' (OIS080)

Batch orders or temporary orders that created customer orders from M3 batch order entry are filed in (OIS080). Batch orders with status 90 (transferred) are filed. Selections of temporary order numbers are made in the E panel.

These are the affected tables:

OXHEAD	Customer invoices – header
OINVOL	Temporary order header
OXLINE	Temporary order lines
OXADRE	Addresses per temporary order
OXCNTR	Control file – temporary orders
OXYTXH	Comments – header
OXYTXL	Comments – lines

Generate Customer Order from Standing Customer Order

This document explains how to generate customer orders from predefined standing customer orders.

Before you start

- A standing customer order with lines must be specified in 'Batch Order. Open' (OIS275) according to [Standing Customer Order](#) on page 115.
- Settings must be specified for source 2=Standing customer order in 'Settings - Batch Orders' (OIS278).

Follow these steps

- 1 Start 'Customer Order. Create from Standing Order' (OIS078).
- 2 Specify the selection values for the standing customer orders to be generated.
- 3 If you want records in the history file to be deleted, specify the date through which records in the file should be deleted. The history file contains a record for each customer order that is created from a standing customer order.
- 4 Press Enter to generate the customer orders.

Outcome

- Customer orders are created from predefined standing customer orders.
- Temporary customer orders are created in 'Batch Order. Open' (OIS275), if they are valid according to the interval settings in 'Standing Customer Order. Open' (OIS074).
- If the temporary customer orders created are correct and complete, confirmed orders are created in M3 and can be monitored in 'Customer Order. Open Toolbox' (OIS300).
- A record is created in the history file. The historical records are accessed in 'Standing Customer Order. Open History' (OIS076), which is reached from 'Standing CO. Open' (OIS074).

Internal Approval of Customer Order Delivery for Invoicing

This document explains how M3 supports an internal approval of customer order delivery for invoicing.

This concept is not identical with the external approval of customer order delivery for invoicing, where the consignee's approval of a delivery is specified in the system in 'CO Delivery. Approve' (OIS155).

Background

When reviewing and approving customer order delivery before invoicing is needed (e.g. in case of a low volume/high value type of business), the review might include:

- Verifying that relevant charges are connected
- Verifying prices and discounts
- Checking that no low value order lines remains to be delivered (then you might want to delay invoicing until everything is delivered)

Solution

Prerequisites

- Status 62, 63, 64, 65, or 66 must be selected in the 'Status' field in 'CO Type. Open' (OIS010/E) for the customer order type used for the customer order.
- A customer order delivery is created with status 62-66 in 'CO Delivery. Open' (OIS150).
- Optionally, application message 440 'Delivery not ready to invoice' can be activated in 'Settings – Application Messages' (CRS424).
- Optionally, document number 350 'Preliminary invoice' can be connected to the customer order type in 'CO Type. Connect Documents' (OIS011).

Workflow

- Optional: The CO responsible will find message 440 'Delivery not ready to invoice' in 'Application Message. Open' (CRS420) for CO deliveries that get status 62-66, if application message 440 has been activated in 'Settings – Application Messages' (CRS424). Related option 11 – 'Open' will launch 'co Delivery. Open' (OIS150).
- If the application messages are not used, then standard sorting order 4 or 12 can be used in 'CO Delivery. Open' (OIS150) to find the deliveries in the relevant status. User defined sorting orders and views can also be created to facilitate relevant sorting and filtering.

Related options in (OIS150)

- Related option 15 – 'Print preliminary invoice' can be used to call 'CO Invoice. Print Preliminary' (OIS650). The printout can be submitted in batch or printed on-line (interactive). The preliminary invoice is a good tool for reviewing charges, prices, discounts etc.
- Related option 21 – 'CO toolbox' can be used to call 'Customer Order. Open Toolbox'.
- Related option 22 – 'CO line toolbox' can be used to call 'Customer Order. Open Line Toolbox'.
- Related option 16 – 'Release for invoicing' can be used to set the status on the customer order delivery to status 60 – Ready to invoice. (The status can also be set on panel E.) Released by is updated with the user ID and Released date is updated with today's date.
- Related option 30 – 'Select to invoice' can be used to add the delivery to an invoice selection that can be launched via Action 'Launch invoice' (F16). This calls 'Customer Invoice. Print' (OIS151), where invoicing can be launched in batch or on-line (interactive). (Invoicing can of course also be launched from 'co Invoice. Print' (OIS180) as normal.)

Results of workflow

- The customer order delivery is approved for invoicing.

How the system is affected

- Status field is changed to 60=Ready to be invoiced, in 'CO Delivery. Open' (OIS150).
- 'Released by' field is updated with a user ID and Released date is updated with today's date, in 'co Delivery. Open' (OIS150). 'Released by' (RLBY) and 'Released date' (RELD) fields are available to use in sorting orders and views in OIS150.

Joint Delivery for Customer Order

This document explains how several selected customer order lines in a customer order can be connected and delivered at the same time in a joint delivery.

Outcome

A joint delivery is created.

A joint delivery code is used for the purpose of grouping order lines together in order to deliver goods at the same time.

The following files are updated:

- OOAPRO-Order lines for approval
- ORJDCCD-Record for calculated confirmed delivery date/customer order delivery code
- OOLINE-Customer order lines.

Prerequisite

A customer order must be entered in 'Customer Order. Open' (OIS100).

Description

A joint delivery is when two or more order lines in a customer order are delivered together. These lines are flagged with a joint delivery code.

The order lines in a joint delivery should have the same delivery date set. When this is not done, lines with the same joint delivery code are all delivered on the latest delivery date assigned to any one of the lines.

You can use joint delivery of ordered items when the customer wants the different items to be delivered in selected groups and at different times.

Joint delivery can be specified for customer order lines in 'Customer Order. Open Lines (OIS101)' and 'Customer Order. Approve' (OIS115).

Reschedule Customer Order Lines Automatically

Customer order lines can also be connected to a joint delivery in 'Customer Order. Open Line' (OIS101/G). During customer order line entry, a delivery code for joint delivery is entered by default as specified in the customer order type in 'CO Type. Update Field Selection' (OIS014/K).

Customer order lines connected to the same joint delivery code are automatically rescheduled when finishing customer order entry. If possible, the order lines with the same joint delivery code are updated with one common confirmed delivery date/time. If route selection has retrieved different routes for order lines with the same joint delivery code, there might be scenarios where it is impossible to reschedule the order lines to the same confirmed delivery date/time.

Customer order lines are rescheduled when:

- A value has been entered in the joint delivery code
- Finishing the customer order entry, and not when a single customer order line has been created or changed
- The planning date for an acquisition order is changed and this acquisition order is connected to a customer order line where a joint delivery code has been entered.

There are three different ways to reschedule customer order lines within the same joint delivery code:

- M3 identifies the first and last confirmed delivery date and time for the order lines that are connected to the same joint delivery code. Rescheduling will only be performed if the first and last confirmed delivery date and time are not the same.
- Every order line is rescheduled to the best possible confirmed delivery date/time according to requested delivery date and capable-to-promise date.
- The last confirmed delivery date and time within the same joint delivery code are identified once more. The order lines are updated with this date and time. There might be scenarios where it is impossible to update a single order line with the last confirmed delivery date, such as when items need to be shipped on different routes due to delivery from multiple warehouses or due to multiple means of transportation. The best possible confirmed delivery date according to requested delivery date and capable-to-promise date will then be used.

Reschedule Customer Order Lines Manually

Customer order lines can be manually connected to each other for joint delivery in 'Customer Order. Reschedule' (OIS130). The lines to be delivered at the same time are assigned the same delivery code. This way, several joint deliveries can be created from one customer order.

Order lines connected for joint delivery can have different delivery dates. A common delivery date must be determined for these order lines in order to include them in a joint delivery. You can press:

- F15=A new planning date proposed by the system for all the lines of a customer order
- F14=Mass update the changes made to the planning date
- F17>Select lines to be rescheduled on the same planning date or by joint delivery code, for example.

Joint Delivery - Allocation and Picking

The order is released for picking list printing according to the option specified in the 'Allocation method' field in 'CO Type. Open' (OIS010/J). If the allocation method of the customer order type is 1, the picking list for a joint delivery is released for printing when all the order lines with the same delivery code are fully allocated.

Line Suffix

A line suffix is a sequence number within a line number. It is added to the end of the line number.

The line suffix is used when a kit item is ordered. The kit order line is assigned suffix 00, and included items are assigned line suffix 01-99 in sequence. For more information about kit item, refer to document in See also section.

Line Type

A line type is used to determine how a purchase order is created when entering a customer order line, or how it is created internally by M3 for other purposes.

The table below contains the line types available for a customer order.

Line Type	Definition
0	Normal order line. Does not create purchase order.
1	An order line that creates a purchase order. Delivery to the customer is made from the supplier via our warehouse.
2	A purchase order is created for the order line with delivery address according to the customer order. The delivery is made directly from the supplier to the customer.
3	The order line has been created via a discount in kind and is processed from the line that resulted in the discount. This line type is assigned automatically and cannot be changed.
4	Kit item. Both the main line and included lines are automatically assigned this line type. It can also be entered manually.

A line type is specified in 'CO Type. Open' (OIS010), and it is proposed by default when the customer order type is used during customer order entry.

The order type can also determine whether or not only one line type is allowed to be used during order entry.

The use of the supply model in 'Supply Model. Open' (MMS056) is an alternative way of controlling the proposed line type.

M3 Fashion Matrix Plug-ins for Customer Order

M3 Fashion Matrix plug-ins for customer order provide an improved interface for customer order processing in M3 BE for Fashion-related orders. It lets the user create and manage orders in matrix form, as well as attach images to be shown in the product through Infor Document Management (IDM).

Add transaction to MDBREADMI

This process is required for M3 Fashion Matrix plug-ins to work properly.

- 1 Using the M3 BE programs, specify:
 - 'MI Repository. Open' (MRS001)
 - 'MI Transaction. Open' (MRS002)
 - 'MI Transaction. Layout' (MRS003)
- 2 Add this transaction: MDBREADMI.LstMITMAH10.
Input: STYN (Mandatory), ITNO (Not mandatory)
Output: ITNO, STYN, SQNX, FTIX, OPTX, TX15, SQNY, FTIY, OPTY, TY15, SQNZ, FTIZ, OPTZ, TZ15, SQFX, SQFY, SQFZ, SECH

Adding script to open the matrix

This procedure is required to initialize the button that will open M3 Fashion Matrix.

- 1 Open 'Customer Order. Open Toolbox' (OIS300)
- 2 Click Tools > Personalize > Scripts.
- 3 Create a new script by entering 'ViewMatrix' in the field 'Script' and click Add. Leave the field 'Argument' blank.

Starting M3 Fashion Matrix

- 1 After M3 Fashion Matrix is installed, the View matrix option is available on 'Customer Order. Open Toolbox' (OIS300/B).
- 2 Select a customer order in the sub file, then click View matrix to show the selected customer order in M3 Fashion Matrix.
Note: Since a line must be selected in (OIS300), a customer order head must be created outside M3 Fashion Matrix in 'Customer Order. Open' (OIS100). A user can create lines in 'Customer Order. Open Line' (OIS101) and in M3 Fashion Matrix.
- 3 From M3 Fashion Matrix, navigate back to (OIS300) by clicking Hide matrix.

Information from the customer order header

Information from the customer order header is displayed in the upper section of M3 Fashion Matrix.

- Customer order number
- Customer
- Customer order type
- Customer order stop
- Season or Project number
- Delivery window or Project element

Handling style item – Visibility

On the left side of the middle section in M3 Fashion Matrix, there is a list that displays every combination of style number, delivery date, warehouse, and address in a customer order. This list is empty only if a customer order header and no lines were created before launching M3 Fashion Matrix.

When selecting a line in this list, a matrix displays the Stock Keeping Units or SKUs with their corresponding style numbers, transaction dates, and warehouses. The dimensions X and Y are shown in the matrix, while the Z-option can be changed manually. The displayed information is retrieved from the style settings through MI-transactions. Each matrix element represents an SKU of that specific style with a combination of an X-option and a Y-option.

The matrix also displays line total, column total, and grand total quantities for the SKUs in the matrix. To only display the lines in the matrix that contain quantity, click Collapse. To expand the matrix, click Expand.

To display detailed information such as status, prices, and availability in the lower section of M3 Fashion Matrix, select an SKU in the matrix. You can also use IDM to connect an image to a specific item based on style. The image is displayed when the item is highlighted in M3 Fashion Matrix.

Creating new customer order lines

A user can create new order lines using M3 Fashion Matrix plug-ins. To load the matrix, select a style number line in the list. The user can then update the quantity of an SKU, quantities in a current customer order line in M3 BE, or add a new customer order line in M3 BE.

To add a new customer order line in M3 BE, specify a quantity to an SKU where the current quantity is zero. To update the quantity, select the matrix element and click Enter. The changed quantities will be marked in red. To generate the changes in the matrix, click Update matrix. This updates customer order lines or generates new customer order lines through MI-transactions.

Placing an order for new styles

A user can also place an order for new styles that are not in the customer order. Click New style to open a new window and select a specific style number, delivery date, warehouse, and address. Click Add to create a new line in the Style list. Select the line to display a matrix with zero quantities in all matrix elements. Specify the required quantities as necessary.

M3 Fashion Matrix communicates with M3 BE through MI-transactions. This means that the communication for adding new customer order lines will use the batch order entry, and most of the error handling is done there.

Handling normal items

Normal items are discrete items that can be added to a customer order in M3 Fashion Matrix. The order line that contains the normal item is displayed as a line in the list. If selected, detailed information about the normal item, such as status, prices, and availability are displayed in the lower section of M3 Fashion Matrix.

Adding normal items to a customer order

- 1 In M3 Fashion Matrix, click New item to open a new window that displays the item number, quantity, delivery date, warehouse, and address. Specify the quantities for these fields.
- 2 Click Add to create a new order line through MI-transactions.

Updating normal item quantities in a customer order

- 1 In M3 Fashion Matrix, select an order line, then specify the quantities for the normal item.
- 2 Click Update line to update the order quantity and delivery date through MI-transactions.

Handling delivery dates

Delivery dates are displayed in a list located in the left section of M3 Fashion Matrix. A confirmed delivery date in the field CODW is displayed for already placed customer order lines. However, this may cause some confusion when placing new customer order lines through M3 Fashion Matrix.

When a line has been selected in the list in M3 Fashion Matrix and a new customer order line is being placed through the matrix, the date indicated by the line will be used as the requested delivery date in the field DWDT in the MI-transaction. This creates the actual customer order line in M3 BE.

M3 BE will calculate the correct confirmed delivery date for the customer order line based on the requested delivery date. The information in M3 Fashion Matrix is then reloaded with updated information. The confirmed delivery date may differ for different items, depending on circumstances in M3 BE. This means that the customer order line may display another confirmed delivery date and therefore the quantity might be displayed on another list line in M3 Fashion Matrix. It is also possible that the delivery date cannot be changed due to checks in M3 BE on order status and similar. This is not an error, but rather a consequence of the way M3 BE handles delivery dates.

Season handling

The item creation process in M3 BE lets a user assign a created SKU to a certain season. The logic for handling this in the customer order processing is defined by the parameter Season in use on 'CO Type. Open' (OIS010/F) in M3 BE. This parameter specifies which items can be used in customer order lines based on the season selected on the customer order header.

Customer order processes that involve season handling are the same for M3 Fashion Matrix and M3 BE. A user cannot specify normal items or erroneous SKUs on a customer order in M3 Fashion Matrix.

Infor Document Management

You can use Infor Document Management to upload and connect images to the Fashion Matrix.

- 1 To start Infor Document Management in M3 H5/Infor OS Portal, click the Navigation menu icon and select Document Management.
 - 2 Select Add Document, then select M3 Fashion from the list.
 - 3 Drag the picture to Drop File Here. Optionally, you can click Drop File Here to upload the image through a standard file dialog.
 - 4 Click Save, then click Check in to upload the image.
- Note:** The resolution of uploaded images affects Infor Document Management performance. As image attribute, you need to specify the corresponding style to connect to the image. Even though the document type has color as an input field, M3 Fashion Matrix plug-ins browse the IDM based on only the style.

Manage credit card payments in customer order entry

This document explains how to manage credit card payments for customer orders. A solution exists for the third-party provider CenPOS, for other providers custom integration utilizing standard APIs is required. This document covers the authorization process, capturing funds after invoicing, and handling of credit orders.

Background

M3 Business Engine supports credit card payments in customer order entry using third-party providers. There are two options for credit card processing:

- 1 CenPOS integration: Built-in integration with CenPOS as the third-party provider. For more details regarding the CenPos integration, see [Manage Credit Card Payments with CenPOS in Customer Order Entry](#) on page 335.

2 Custom integration: Integration with other third-party providers through utilization of standard APIs.

This document provides an overview of the credit card management process, with specific details for both integration options.

Before you start

These conditions must be met before using the credit card functionality:

- The starting conditions mentioned in [Entering a Customer Order: Normal Order Entry](#) on page 304 must be defined.
- The settings from [Configure credit card management interface](#) on page 241 must be defined.
- Payment class 03 (Bank transfer) must be defined in 'AR Payment Method. Open' (CRS076) for the payment method to be used.
- The 'Credit card' check box in (CRS076) must be selected.
- All the values for the payment term used must be set to zero in 'Payment Term. Open' (CRS075).

For CenPOS integration

- In 'User. Open' (MNS150), set the company and division to the company and division that the customer order in 'Credit Card Authorization. Open' (CRS435) is connected to.
- (CRS435) is personalized with a script that controls the connection to CenPOS POS integration system.
- To activate verification at pick list release when third-party provider is CenPos, the 'Credit check at picking release' check box must be selected in 'Dispatch Policy. Open' (MWS010).

For custom integration

- Custom scripts to handle communication with the third-party provider must be developed.
- API integration to insert credit card transaction information into M3 must be configured.
- The 'Credit check at picking release' check box must not be enabled in (MWS010), otherwise the customer order is to be blocked during picking release.

Limitations

- Only CenPOS is fully supported as third-party provider.
- For other providers, custom integration utilizing standard APIs is required.
- Each implementation must secure its environment and the interface to its specific credit card management software.

Managing credit card payments in customer order entry**Entry of a customer order with a credit card payment**

- 1 Start 'Customer Order. Open' (OIS100).
- 2 Specify a customer order with a payment method configured for credit card processing.
- 3 After the order lines are generated, click Close to proceed to (CRS435).

4 For CenPOS integration

- a Click F16='Submit' to launch the CenPOS POS system.
- b In the CenPOS POS system, specify the credit card details and click the **Submit** button.
- c (CRS435) is automatically displayed along with the reference number and the result from CenPOS.

5 For custom integration

- a** A custom H5 script must be added to manage communication with the third-party provider.
- b** F16='Submit' triggers the H5 script.
- c** The reference number from the third-party provider must be added to M3 using API calls.
- d** Refreshing the page displays the reference number and the result from the provider given that reference has been correctly updated using M3 API.

Authorization approved

- 1** If the authorization is approved, then exit (CRS435/E). Once the credit card information is authorized, the third-party provider, the reference number, and the amount are updated.
- 2** The result field is updated with 'Approved' status.
- 3** Process the customer order to status 77='Invoiced'. See [Invoice Customer Order Manually](#) on page 435.
- 4** Start 'Credit Card Capture. Open' (CRS436).
- 5** On the B2 panel, check for the transaction status of the invoiced customer order.
- 6** The transaction status is updated to 20='New'.
- 7** **For CenPOS integration**
 - a** To proceed with the capture transaction, select option 21='Send for capture'. If the capture transaction is approved, it is set to status 90='Finalized'.

Note: For CenPos, use F14='Submit for capture' to submit all transactions that are ready for capture, or submit from 'Credit Card Capture. Submit' (CRS444).
- 8** **For custom integration**
 - a** The capture transaction is performed outside of M3, and the reference must be updated to M3 using the standard API CRCCINMI (Credit Card Interface).

Authorization not approved

- 1** If the authorization is not approved, the customer order is stopped, and the credit card status is updated to 15='Error'.
- 2** To locate the stopped customer order (stop code=3), start 'Customer Order. Stop' (OIS120) or 'Customer Order. Toolbox' (OIS300).
- 3** Click option 20='Cred card auth' to start (CRS435).
- 4** On the A panel, select option 11='Authorize' or 12='Reference Authorize'.
- 5** **For CenPOS integration**
 - a** Submit the transaction through the CenPOS interface as described earlier.
 - b** When you exit (CRS435) with an approved authorization, the customer order is released (the stop code is changed to 0).
- 6** **For custom integration**
 - a** For transaction type 'Authorize', perform a new authorization as described earlier.

For transaction type 'Reference authorize', the transaction must be performed outside of M3. The reference is updated to M3 using the standard API OIS100MI (Customer Order interface).
 - b** When you exit (CRS435) with an approved authorization, the customer order is released (the stop code is changed to 0).

Manage credit card payments for credit orders

- 1** Start (OIS100). You can also manage credit card payments for credit orders in 'Customer Returns. Open' (OIS390). See [Register Customer Return](#) on page 392.
- 2** Copy the existing customer order for which a credit order must be created. See [Copy Customer Order or Quotation](#) on page 251.

- 3** On (OIS100/A), change to a CO type with customer order category 2='Credit order – only credit order lines allowed' and press Enter.

The customer order details are copied to the credit order.

When you create a credit order (with Order category=2 and Payment method=Credit card) by copying an existing customer order with a credit card reference number on it, a delayed capture (or sale) reference number is retrieved from OINVOH and copied to the customer order header of the credit order.

The first found reference number in OINVOH with status Finalized (90) in table CRCCCT is retrieved, regardless of what program is used to create the credit.

- 4** On 'Customer Order. Copy' (OIS106/B), select the order line(s) to be credited and click Close.
5 On 'Customer Order. Open Line' (OIS101/B1), the order line is updated with the negative quantity.
6 Click Close and process the credit order to status 77='Invoiced'.
7 Specify the invoice number on (CRS436/B2) and check for the transaction status.
The transaction has status 05='Credit'.
8 To repay the amount to the credit card, select the Credit option.

9 For CenPOS integration

- a** On CRS435/E, click F14='Submit transaction' to submit the Reference Credit transaction to CenPOS.
b To confirm the submission, click OK. If the transaction is approved, funds are transferred back to the credit card.
c Click Close and check for the transaction status in (CRS436/B2).

Note: A new transaction record is created for the invoice. The statuses of both transactions are updated to 90='Finalized'.

10 For custom integration

- a** During invoicing of the credit order a record of type external credit will be created in (CRS436).
b The reference credit transaction is performed outside of M3 and the reference must be updated to M3 using the standard API CRCCINMI (Credit Card Interface).
Note: A new transaction record is created for the invoice. Both transactions' statuses are updated to 90='Finalized'.

Credit card capture

- 1** Process the customer order to status 77='Invoiced'.
2 Specify the invoice number on (CRS436/B2) and check the transaction status.
3 The new transactions can have status 05='Credit', 15='Error', 20='New', or 90='Finalized'.
4 To submit a transaction with status 20='New' for capture, click F14='Submit for capture'.
5 When a capture is performed and status approved is received from CenPOS, the capture transaction is set to status 90='Finalized' because CenPOS performs all checks directly.
6 If the delayed capture is approved, a new record with transaction status 90='Finalized' is created and the transaction status of the old record is also updated to 90='Finalized'.

7 For CenPOS integration

- a** If the delayed capture is not approved, the transaction status of the record is updated to either 25='Communication error at capture' or 15='Error'.
Note: Transactions with status 25='Communication error at capture' are also sent for capture.

8 For custom integration

- a** The capture transaction is performed outside of M3 and the reference must be updated to M3 using the standard API CRCCINMI (Credit Card Interface).

Outcome

These tables are updated during credit card processing:

- Credit Card Authorization Transactions (CRCCAT)
- Credit Card References (CCREFE)
- Credit Card Capture Transactions (CRCCCT)
- Invoice Header (OINVOH)
- Payment Reference Numbers (FIRCON) with the reference number

Payment by credit card is accepted during customer order entry, however, partial payments from multiple cards are not accepted for the same delivery, and cash discounts are not supported when credit cards are used.

The credit card information is authorized and is used to reserve funds during customer order entry.

After invoicing, a delayed capture is issued, and when the payment is later received, it is matched with the correct record in Accounts Receivable.

Manage credit card payments with a third-party provider in cash desk

A solution exists in M3 Business Engine to support credit card payments in cash desk using a third-party provider. The solution enables an external system to perform a credit card transaction from 'Cash Payment. Open' (OIS215).

Note: If a JavaScript for the selected third-party provider is not developed for the customer, CenPOS is used as the third-party provider.

For more information about CenPOS, see [Manage credit card payments with CenPOS in cash desk](#) on page 331.

Before you start

To manage credit card payments through an external third-party provider from the cash desk, fulfill these prerequisites:

- Secure each implementation with its environment and the interface to its specific credit card management software.
- Define the settings listed in [Configure credit card management interface](#) on page 241.
- Define the cash desk used as a physical cash desk (cash desk type = 1) and activate the externally managed credit card payment field in 'Cash Desk. Open' (OIS210).
- Verify that the payment method used in (OIS215) is defined in 'AR Payment method. Open' (CRS076) as a credit card payment method.
- The B and D panels of (OIS215) are personalized with a script in H5 against the external third-party provider.
- Define the customer email address (type 01) in 'Email Address. Open' (CRS111).

- Set the company and division in 'User. Open' (MNS150) to the same company and division from which the cash desk is connected in (OIS215).

Limitations

- If partial payment is performed, tax information for the partially paid invoice is not sent to the third-party provider when using OIS215MI LstLineCrCrd.
- Result message provided from the third-party provider is not translated.
- The functionality can only be activated in H5 client.
- OIS215MI LstCrCrd: If a credit amount is to be processed, invoice information is not listed.

Specifying a cash payment with credit card

When specifying a payment method in (OIS215) for a credit card where the cash desk used has the externally managed credit card payment field activated, M3 checks if a third-party ID exists according to the settings in 'Connect Third-Party ID. Open' (CRS439) and 'Credit Card Interface Settings. Open' (CRS434).

If the third-party provider exists, these fields are displayed in (OIS215) and can be used in the JavaScript for the interface to the third-party provider:

- Payment number
- Third-party provider and third-party ID
- Credit card reference number
- Result
- Email (The customer email address (type 01) of the specified payer is the default, it can however be changed.)
- Send slip
- Card option - this field is set up in 'AR Payment Method. Open' (CRS076) and is displayed if the value is not equal to zero.

You specify the invoices and cash to be paid and click Enter to start the third-party provider system. In the third-party provider system, you specify the credit card details and click Submit. 'Cash Payment. Open' (OIS215) is automatically displayed and the amount is updated. The credit card reference number retrieved from the third-party provider is displayed in the credit card reference number field. When all payments are complete, you validate the payment as normal procedure in cash desk.

The result of the transaction is displayed with a result code and message retrieved from the third-party provider. If an error code is retrieved, any update of the payment is not performed.

The third-party provider, third-party ID, transaction type, card type, card number last four digits, and name on card are updated to the cash desk table (OPAYMH) and can be displayed in 'Cash Payment. Display' (OIS219) by creating a configurable view.

You can also add values for these fields and save them in the cash desk table OPAYMH:

- Credit card payment method
- PAN Sequence number
- Application Identifier
- Authorization code
- Terminal ID
- Verification method

- Credit card transaction time
- Additional information.

These fields can be configured on the Cash Desk XML receipt printout OIS213PF.

Deleting an existing payment (void transaction) is possible as long as the payment has not been validated in (OIS215). When a delete of the credit card payment is confirmed on (OIS215/D), the third-party provider system is started and a void transaction could take place.

Note: If a credit card payment has been performed with a third-party provider, it is not possible to exit 'Cash Payment. Open' (OIS215) without validating the payment. A void must be performed before exiting (OIS215).

The API transaction AddVoid in OIS215MI can be used to save void transactions from a third-party provider in (OIS215). A Void record cannot be deleted and its amount is not included in the totals. Upon validating the payment in (OIS215) a record for the void transaction is saved in Cash desk payments table OPAYMH with transaction type (CDTT) '12 - Void' and can be viewed in (OIS219). Void records go directly to status PTST '80-Sub-ledger and general ledger are updated' upon validating the cash desk in 'Cash Desk. Validate' (OIS217), although no accounting is carried out. The information in the response from the third-party provider regarding the void transaction is added to the XML stream for printout configuration purposes.

It is not possible to delete a paid invoice when the payment has been performed using a third-party provider because the information about the invoices will have been transferred to the third-party provider.

If a declined payment or signature receipt must be printed from M3 BE because it is not printed by the credit card software, the API transaction PrtCCReceipt in the cash desk API OIS215MI can be used.

The API transaction will trigger a printout called OIPRTR where the input data in the API transaction is made available in the XML printout metadata for configuration purposes. Information such as name and address of the payer and the name of the cash desk is retrieved based on the input data and made available in the XML metadata.

It is possible to override the printer setup through the API transaction. The input parameter 'Printer' can be used to override the printer settings in 'Output Media Selection. Open' (MNS205) and 'Cash Desk. Open' (OIS210) by specifying what printer is to be used. Available printers that can be used as input are defined in 'Printer. Open' (CRS290).

Credit card details can be configured in XML on the Cash Desk receipt printout OIS213PF.

Technical solution

When personalization has been performed in (OIS215) and you specify the cash received and press Enter, a JavaScript is run to create the URL to the third-party provider.

The JavaScript takes information from the (OIS215) view (payment number, payer, third-party provider, third-party ID, email, send slip, and cash received), and other information can be retrieved from various API programs.

API programs used

- CRS610MI Get Address
- OIS215MI LstCrCrd (retrieves information of the invoices paid)
Note: If a credit amount is to be processed, information of the invoices is not listed.

- OIS215MI ValidateCCdata checks for incorrect inputs before the third-party provider is enabled. If there is a warning or stop message, the API program will say NOK and you are returned to (OIS215).
- CRS434MI Get3rdPartyId

When a response URL is retrieved from the third-party provider, M3 Business Engine is updated with the information retrieved from the third-party provider using OIS215MI AddPayment.

The result code and message is updated using OIS215MI Add3rdpResult.

This table shows all transaction types supported in the JavaScript:

Transaction type	Description
Credit	Used if the payment amount is negative.
Sale	Used if the payment amount is positive.
Void	Used if the button is clicked on the (OIS215/D) panel.

Manage credit card payments with CenPOS in cash desk

A solution exists in M3 Business Engine to support credit card payments in cash desk using the third-party provider CenPOS. The solution enables CenPOS POS integration system to perform a credit card transaction from 'Cash Payment. Open' (OIS215).

This document describes this integration to CenPOS.

Before you start

The prerequisites defined in [Manage credit card payments with a third-party provider in cash desk](#) on page 328 must be fulfilled.

Limitations

- M3 supports only the transaction types mentioned in this document.
- If partial payment is performed, tax information for the partially paid invoice is not sent to CenPOS.
- Result message provided from the third-party provider or from the JavaScript is not translated.
- In the level III data, information about items paid is not included. The detail information includes the invoices paid. VAT rate is not included because several rates can exist in one invoice.
- There is no functionality for the card option setting from 'AR Payment method. Open' (CRS076) in the integration with CenPos.

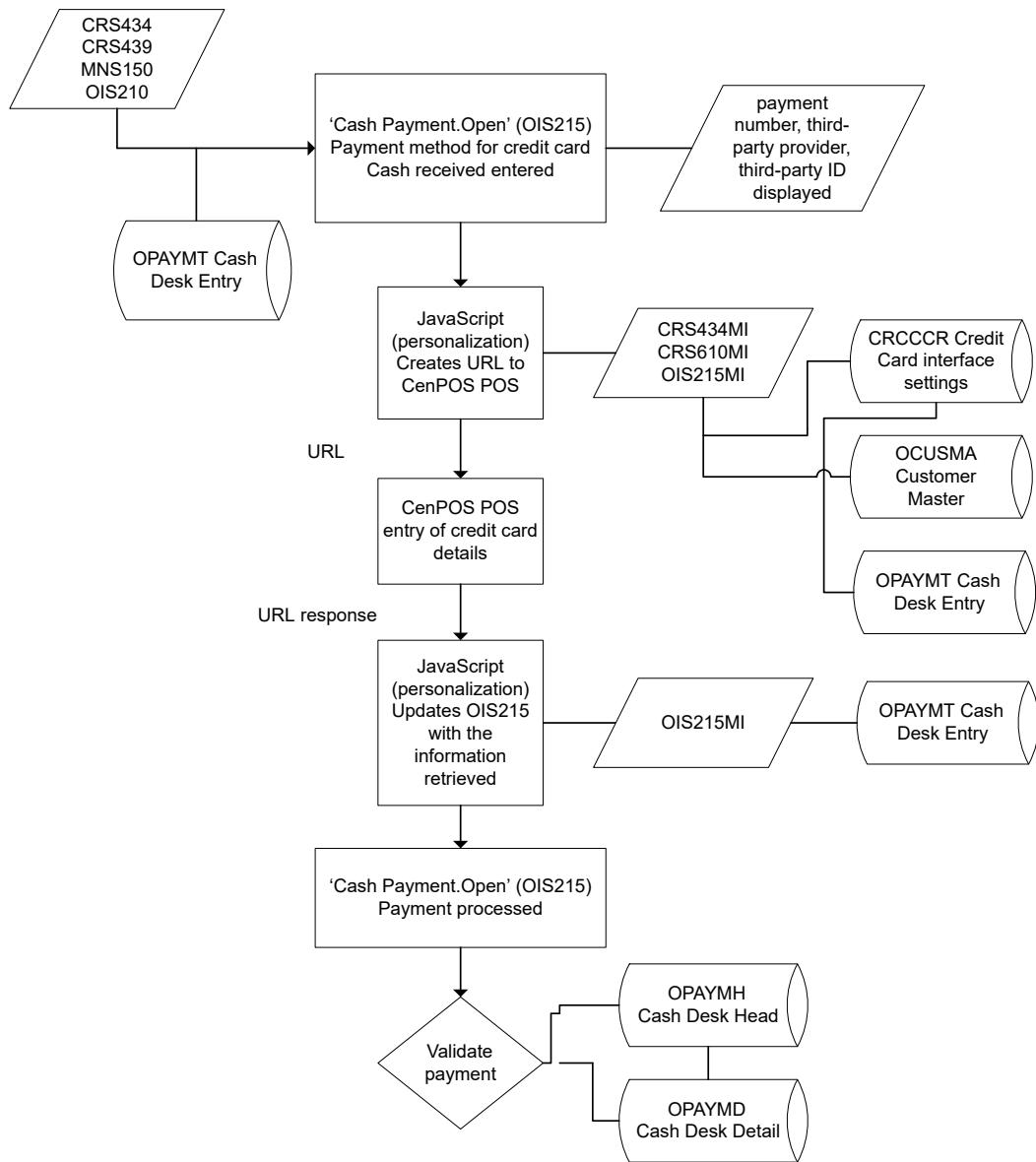
CenPOS transaction types supported by M3

Transaction type	Description
Credit	A credit card transaction is performed with this transaction type. A blind credit is applied to the credit card account without referencing the previous transaction. The credit transaction is used if the payment amount is negative.
Sale	A sale transaction is performed with this transaction type. A credit card sale transaction authorizes a payment of a specified amount and captures that transaction in the current batch for settlement.
Void	A credit card void transaction is performed with this transaction type. A credit sale transaction is removed from the existing batch so that the customer will not be charged. The void transaction can be done on a sale and a credit transaction.

CenPOS specific functionality

In 'Cash Payment. Open' (OIS215), the email and send slip fields are displayed. If the send slip field is activated, a mail from CenPOS with the slip receipt is sent to the specified email address. If the send slip is deactivated, the slip receipt is sent and displayed in CenPOS.

Technical solution



After personalization in (OIS215/B) and D panel, the user specifies the cash received and presses Enter. A JavaScript is then run to create the URL to CenPOS.

A check is performed and if the third-party provider is not CenPOS, the result message field in the (OIS215) view is updated with the message "The third-party provider is not supported."

A check is also performed to confirm if the user has specified the invoices to pay before processing the payment. If the invoices have not been specified, a stop message "No invoices for payment exist" is displayed.

The JavaScript receives information from the (OIS215) view (payment number, payer, third-party provider, third-party id, email, send slip, and cash received) in addition to information from various MI programs.

Credit card details can be configured in XML on the Cash Desk receipt printout (OIS213PF).

MI programs used

- CRS610MI Get Address
- OIS215MI LstCrCrd (retrieves level III information)
- OIS215MI ValidateCCdata checks for incorrect inputs before the third-party provider is started. If there is a warning or stop message, the MI program will say NOK and the user is returned to (OIS215).
- CRS434MI Get3rdPartyId.

When a response URL is retrieved from CenPOS, M3 Business Engine is updated with the information retrieved from CenPOS using OIS215MI AddPayment. The result code and message is specified using OIS215MI Add3rdpResult.

Commercial card information

Additional information is sent to CenPOS to support commercial cards for sale transactions. The information is divided into header and line information. In cash desk, several invoices are paid so the header information shows the total payment performed. The VAT invoice reference number is the Payment number retrieved in (OIS215) at the entry of the payment. The VAT invoice reference number is stored in Entry Payment number field in OPAYMH.

The numbers of all the invoices that are paid are defined in the ItemCommodityCode field. The VATtaxamountrate is not specified because several VAT rates can exist in one invoice.

Note: For credit transactions, when the amount to pay is negative, the additional information is not needed and therefore not sent to CenPOS.

Header	Mapping from M3
CustomerCode	PYNO from OIS215
ShiptofromZIPcode	PONO from OCUSMA OIS610MI: GetBasicData
Destinationcountrycode	CSCD from payer CRS610MI: GetBasicData
VATinvoicerefencenumber	Payment number from OIS215 UI
VATtaxamountrate	Not used
Freightshippingamount	Not used
Dutyamount	Not used
Orderdate	Payment date (PYDT) from OIS215 UI
Discountamount	Not used
Lines	
ItemCommodityCode	Invoice number paid Take from OIS215MI LstLineCrCrd
ItemDescription	Not used

Header	Mapping from M3
ItemSequenceNumber	Not used
LineItemTotal	The paid amount for the invoice Take from OIS215MI LstLineCrCrd
ProductCode	Not used
Quantity	Not used
Selected	True
UnitCost	Not used
UnitofMeasureCode	Not used

Manage credit card payments with CenPOS in customer order entry

Abstract

This document describes the differences in the credit card management process in customer order entry when using CenPOS as third-party provider. It also describes the CenPOS transaction types and methods supported by M3 Business Engine.

Background

A solution exists in M3 Business Engine to support credit card payments in the customer order entry using the third-party provider CenPOS. The solution enables the CenPOS POS integration system to perform a credit card transaction from 'Credit Card Authorization. Open' (CRS435).

Entering a batch order where the credit card payment has been authorized by CenPOS is also possible.

The basic credit card management process is described in [Credit Card Management in Customer Order Entry](#) on page 261 and [Manage credit card payments in customer order entry](#) on page 324.

Before you start

- (CRS435) is personalized with a script that controls the connection to CenPOS POS integration system. The JavaScript used during the implementation is called CenPosM3_vX, where X indicates the version.
- In 'User. Open' (MNS150), set the company and division to the company and division that the customer order in (CRS435) is connected to.
- Complete the starting conditions mentioned in [Entering a Customer Order: Normal Order Entry](#) on page 304.
- Define the settings from [Configure credit card management interface](#) on page 241.

- Define the Payment class 03 (Bank transfer) in 'AR Payment Method. Open' (CRS076) for the required payment method.
- Select the Credit card check box in 'AR Payment Method. Open' (CRS076).
- Set all the values for the payment term used to zero in 'Payment Term. Open' (CRS075).
- If a verification of the credit card authorization is to be performed at release of pick list, the Credit check at picking release check box in 'Dispatch Policy. Open' (MWS010) must be selected.

Limitations

- Each implementation must secure its environment and the interface to its specific credit card management software.
- For CenPOS, M3 supports only the transaction types and the methods mentioned in this document.
- M3 Business Engine only supports inquiry on reference numbers one at a time.
- CenPOS does not support void of an authorization transaction. If void of an authorization transaction is performed, the transaction is set to status 85=voided, but no connection to CenPOS is performed.

CenPOS transaction types supported by M3

Transaction type	Description
Auth	A credit card authorization transaction is performed.
Credit	A credit card transaction is performed. A blind credit is applied to the credit card account without referencing a previous transaction.
SpecialForce	A credit card force transaction is performed without specifying full card information. A previous authorization transaction in current batch for settlement is captured.
Void	<p>A credit card void transaction is performed. A credit sale transaction is removed from the existing batch so that the customer will not be charged.</p> <p>The void transaction can be performed on a Special-Force, Credit, and SpecialReturn transaction.</p>
Reauth	<p>Because reference authorization transaction uses the existing reference number to create a new authorization, the credit card details do not need to be provided again.</p> <p>The two different reference numbers have no connection to each other.</p>

Transaction type	Description
SpecialReturn	A return transaction is performed. A credit card return transaction credits a specified amount from a previous transaction to the cardholder and captures this new transaction in the current batch for settlement. A return transaction can be performed without specifying full card information.

CenPOS methods supported by M3

If not performing an authorization or a credit transaction, the method for processing the card transaction is called ProcessCreditCard.

The method used to inquire on a previous transaction is GetCardTrx.

Note: M3 Business Engine only supports inquiry on specific reference numbers.

Entry of a customer order with a credit card payment

- When a customer order is specified with a payment method for credit card, (CRS435) is run to authorize the credit card payment.
- If the third-party provider is CenPOS, the card number information is not displayed as this is stated in CenPOS POS integration system instead of M3.
- The user clicks F16='Submit' and CenPOS POS system is started.
- CenPOS POS system is displayed, and the user specifies the credit card details and clicks the Submit button.
- (CRS435) is automatically displayed along with the reference number and the result (from CenPOS).
- The user can now exit the customer order as per the normal procedure.

Note: CenPOS POS system is started through the JavaScript when performing an authorization or a credit transaction where card details need to be provided. Otherwise, CenPOS is started in the background.

Entry of a customer order with a credit card payment in batch order entry

If an authorization, credit, or special return transaction is performed outside M3 Business Engine, it is possible to add the reference number received from CenPOS in field Reference number (NREF) in API OIS100MI (Customer Order interface), transaction 'AddBatchHead'. M3 selects the third-party provider according to the settings in M3.

If the third-party provider is CenPOS, and the reference number is not already updated to the credit card authorization table (CRCCAT), an inquiry is performed against CenPOS. The credit card authorization table (CRCCAT) is updated with the information retrieved from CenPOS. An internal reference number is linked to the reference number from CenPOS and is updated to the customer order (OOHEAD.NREF).

If the inquiry is not approved, the status is set to 17 = Inquiry error at order batch entry. The transaction type is set to 'Unknown' in (CRS435), and the customer order is blocked. This transaction must be handled in (CRS435) by doing a new inquiry. The result of the inquiry is automatically updated in (CRS435). If the transaction is still not approved, it must be analyzed. If the transaction comes from the order batch entry, the card type is always set to blank.

Credit card capture

When a capture is performed in 'Credit Card Capture. Open' (CRS436) and status approved is received from CenPOS, the capture transaction is set to status 90 (finalized) directly because CenPOS performs all checks directly.

CenPOS transactions (not connecting to CenPOS) can be simulated using function key F20 = 'Simulate' in (CRS435). A credit card number used for simulation is automatically added, and a simulated reference number is retrieved when Submit is pressed.

Note: The simulation does not use the JavaScript.

Tax amounts are sent to CenPOS when a capture is performed. The tax amounts are retrieved from the invoice (Invoice line table OINVOL).

'Credit Card Capture. Submit' (CRS444) can be used to capture all records in status 20 and 25. Submit type 03 is selected to capture batches that include transactions that have duplicated or expired authorization references. For these transactions, a reference authorization is performed before attempting the capture.

The 'Auth days' defined in (CRS434) is used to decide if an authorization is expired.

Automatic reference authorization at picking point

If the credit check at picking point is activated on the dispatch policy connected to the customer order type, a reference authorization can be automatically triggered when doing the picking.

The automatic reference authorization is performed under these conditions:

- The credit check at picking point is activated on the dispatch policy connected to the customer order type.
- The authorization performed has expired according to the authorization days defined in 'Credit Card Interface Settings. Open' (CRS434).
- If the customer order has been partly delivered, invoiced, and captured, and the authorization days in (CRS434) is defined, an automatic reference authorization is performed whether or not the authorization days are passed. The old authorization in this case is used for the capture of the first delivery.
- If the reference authorization is approved, the customer order can be processed accordingly. If the reference authorization is not approved, the customer order is blocked and the authorization record receives an error code.

The following is an exception:

If the customer order has been partly delivered or invoiced, and the capture of this invoice has not been performed (CRCCCT is not equal 90), automatic reference authorization is not performed at picking point. Instead, the status is set to 15 (Error code) in (CRS435) (table CRCCAT), and the customer order is blocked. If a reference authorization is performed, the original reference number is no longer valid when using the third-party provider CenPOS. Therefore, the capture of the original transaction needs to be performed before a reference authorization is done.

It is recommended to send the invoices for capture when invoicing has been performed.

Note: The authorization amount is the amount remaining to be invoiced on the customer order.

If authorization days are not defined in (CRS434), automatic reference authorization is not performed at picking point. If the customer order has been partly delivered, invoiced, and captured, the status is set to 15

(error code) in (CRS435), and the customer order is blocked. A manual reference authorization must be performed before this can be picked.

If credit check at picking point is not activated, neither automation of the authorization nor check for partial delivery is performed. When invoicing is complete, the invoice retrieves an error code in (CRS436), and a reference authorization can be manually performed.

Commercial card information

Additional information is sent to the third-party provider to support commercial cards for capture transactions. The information is divided into header and line information. Header information is general information for an order with credit card payments, whereas line information is for each line within the order. Discount amount is setup as total order discount and does not consider line discount. Line charges and header charges are sent as lines. CenPOS supports character set according to standard UTF-8.

Header information	M3 field
CustomerCode	Payer (PYNO)
ShiptofromZIPcode	Zip code from customer (PONO)
Destinationcountrycode	Three digit country code - translated from customer country code (CSCD)
VATinvoicerefencenumber	Invoice number (CINO)
VATtaxamountrate	Tax amount (VTAM)
Freightshippingamount	Not yet classified
Dutyamount	Not yet classified
Orderdate	Order date (ORDT)
Discountamount	Discount amount (DIAM)
Line information	M3 field
ItemCommodityCode	Product group (ITCL)
ItemDescription	Item description (ITDS) - translated according to language on customer order
ItemSequenceNumber	Auto generated sequence number
LineItemTotal	Line amount (IVQS * NEPR)
ProductCode	Item number (ITNO)
Quantity	Invoiced quantity (IVQS)
UnitCost	Net price (NEPR)
UnitofMeasureCode	By CenPOS predefined unit of measure codes

Order information, such as line charges and round offs, is presented as lines in the same way as normal item lines are sent to CenPOS.

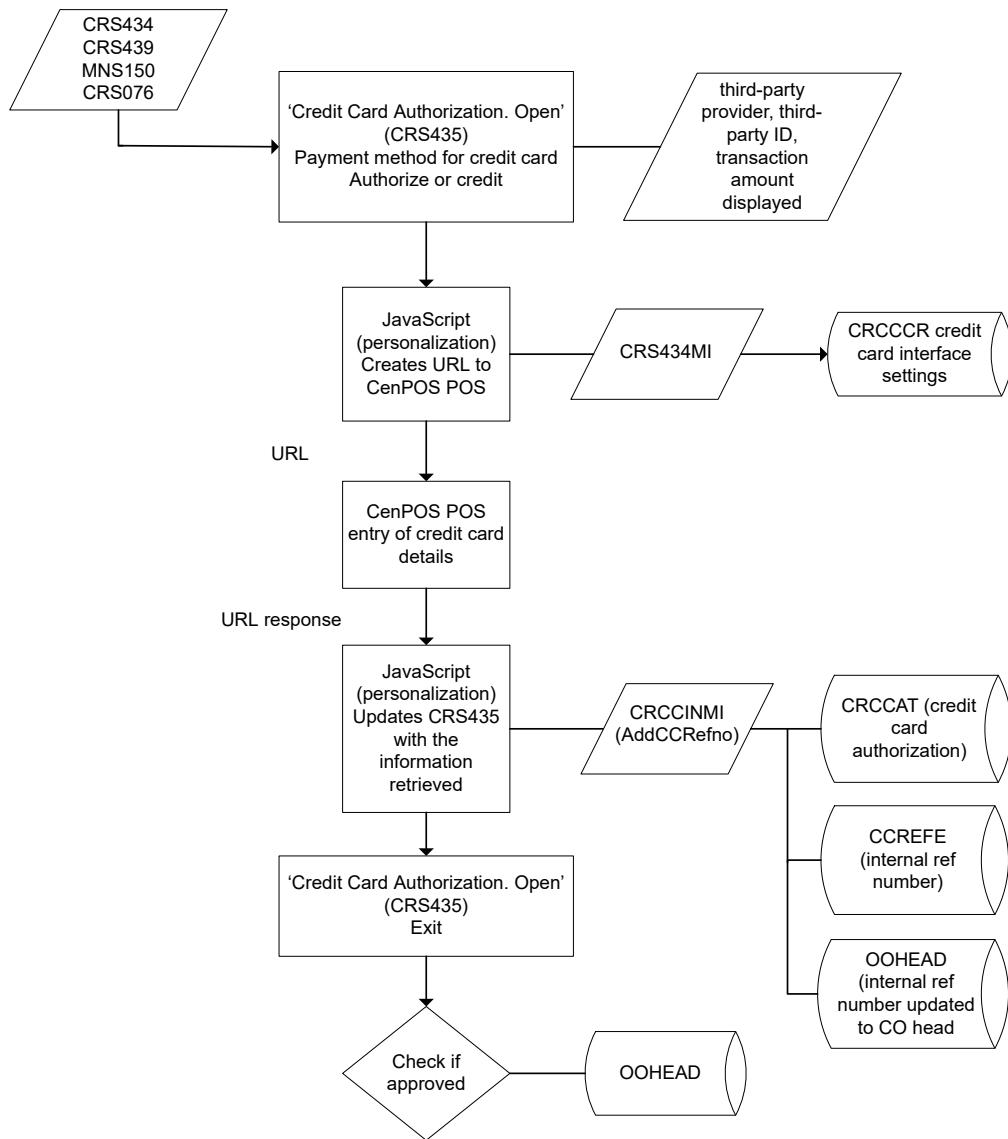
The unit of measure code is translated according to settings specified in 'Credit Card Translation Table. Open' (CRS443).

Charge information	M3 field
ItemCommodityCode	Not used for line charges
ItemDescription	Name (CRD0) - translated according to language on customer order
ItemSequenceNumber	Auto generated sequence number
LineItemTotal	Charge amount (CRAM)
ProductCode	Charge ID (CRID)
Quantity	Not used for line charges
UnitCost	Not used for line charges
UnitofMeasureCode	Not used for line charges
Round offs	M3 field
ItemCommodityCode	Not used for round offs
ItemDescription	Not used for round offs
ItemSequenceNumber	Auto generated sequence number
LineItemTotal	Round off - from invoice
ProductCode	Not used for round offs
Quantity	Not used for round offs
UnitCost	Not used for round offs
UnitofMeasureCode	Not used for round offs

Technical information

The transactions sent to CenPOS can be checked in XML format, with the exception of those sent through the JavaScript, by enabling concept logging of mvx.fim.logCenPOS in the M3 Business Engine Grid.

JavaScript:



When personalization is performed in (CRS435), and the user performs an authorization or credit and clicks Submit, a JavaScript is run to create the URL to CenPOS.

The JavaScript uses information from the (CRS435) view (Co number, payer, third-party provider, third-party ID, amount, currency, transaction type, and address) and additional information is retrieved from various other API programs.

APIs used

CRS434MI, transaction Get3rdPartyId is used to retrieve information, for example, URL address and merchant ID.

When a response URL is retrieved from CenPOS, M3 Business Engine is enabled to retrieve an internal reference number and status using CRCCINMI AddCCRefno. The JavaScript updates (CRS435) with the information retrieved from the API transaction and from CenPOS.

When calling CRCCINMI AddCCRefNo:

Division	
Third-party provider	CenPOS
Order category	3
Expiration date	From CenPOS
Result	From CenPOS
Free message ID 1	Result message from CenPOS
Free message ID 2	N/A for CenPOS
Credit card authorization amount	From CenPOS, note if credit negative amount
Credit card account number	From CenPOS (Last four digits with **)
Card Type	From CenPOS
Type of corporate purchase card	Always set to blank
Status	If communication error, set to 10. If other error, set to 15. If approved authorization, set to 20. If approved credit, set to 90.
Reference	From CenPOS
Transaction type	A = Authorization C= Credit
Currency	From CenPOS
Third-party ID	From (CRS435)
Name on card	From CenPOS

Manage Customer Order Entry Message

This section explains how customer order entry messages are displayed.

Prerequisites

Customer order messages will be displayed during customer entry when the below prerequisites are met:

- A customer order entry message must be defined in 'CO Entry Message. Open' (OIS165) and the 'Text Block' must not be blank.
- The customer order type used during customer order entry, must have the 'CO message' check box selected on 'CO Type. Open' (OIS010/E).

Customer order entry message in order processing

A message is displayed when entering a new customer order in 'Customer Order. Open' (OIS100) given that the 'CO messages' check box is selected on 'CO Type. Open' (OIS010/E) and the criteria in 'CO Entry Message. Open' (OIS165) are met.

When a message is displayed, the user can specify that the message is not to be displayed in the future if the 'Ignored' check box on (OIS165/E) is selected.

There can be more than one message that is displayed during order entry. The display order is based on the CO entry message set. The first to be displayed is the specific user-defined message, followed by non-user defined messages based on priority, where 9 is the highest and 1 the lowest.

Manage User-defined Fields at Customer Order Entry

User-defined fields are custom fields which can be used for adding additional information on the customer order header. This provides flexibility to customize the data to be used as additional customer order information.

Manage user-defined fields at customer order entry

The user-defined fields are available at order entry in 'Customer Order. Open' (OIS100) and at batch order entry via the customer order interface API OIS100MI. On the customer order header there are twenty fields that can be used as user-defined fields. The fields are managed on the K-panel and can be added to the panel sequence upon customer order entry in (OIS100).

The fields consist of:

- 10 alphanumeric fields with up to 20 characters
- 6 numeric fields with up to 17 positions and 6 decimals
- 3 date fields
- 1 text field with up to 128 characters.

'User-defined Fields. Open' (CMS082) is used to specify headings, field lengths, allowed values, and other information for the fields.

Note: The fields must first be generated in (CMS082) for the table field value OOHEAD before they can be used.

The fields can be added to views in 'Customer Order. Open Toolbox' (OIS300). To add them to a view, the fields must first be generated in the respective field groups in 'Field Group. Display Permitted Fields' (CRS109).

The same set of fields exists for purchase order header. In an internal sales scenario, the values specified on the internal purchase order header can be automatically inherited on the generated customer order header. This is controlled per field on 'CO Type. Update Field Selection' (OIS014/Q). If the setup in (CMS082) for the purchase order header fields does not correlate with the customer order header field setup, it can lead to a stop in 'Batch Customer Order. Open' (OIS275) as the specified value is not allowed on the customer order header.

Functional limitations

The user-defined fields are not supported in sales statistics, nor in any of the supporting customer order functions, such as fields in the mass update functions.

Manage User-defined Fields at Customer Order Line Entry

User-defined fields are custom fields which can be used for adding additional information on the customer order header. This provides flexibility to customize the data to be used as additional customer order information.

Manage user-defined fields at customer order line entry

On the customer order line, there are 20 fields that can be used as user-defined fields.

The fields consist of:

- 10 alphanumeric fields with up to 20 characters
- 6 numeric fields with up to 17 positions and 6 decimals
- 3 date fields
- 1 text field with up to 128 characters.

'User-defined Fields. Open' (CMS082) is used to specify headings, field lengths, allowed values, and other information for the fields.

Note: The fields must first be generated in (CMS082) for the table field value OOLINE before they can be used.

On customer order line entry in 'Customer Order. Open Lines' (OIS101) the fields are managed on the K panel where they can be added to the panel sequence.

The fields can be added to views in 'Customer Order. Open Line Toolbox' (OIS301), 'Customer Order. Open Line Workbench' (OIS302), and in (OIS101). To add them to a view, the fields must first be generated in the respective field groups in 'Field Group. Display Permitted Fields' (CRS109).

The same set of fields exists for purchase order lines. In an internal sales scenario, the values specified on the internal purchase order lines can be automatically inherited on the generated customer order lines. This is controlled per field on 'CO Type. Update Field Selection' (OIS014/R). If the setup in (CMS082) for the purchase order lines fields does not correlate with the customer order line field setup, it can lead to a stop in 'Batch Customer Order. Open' (OIS275) as the specified value is not allowed on the customer order line.

Functional limitations

The user-defined fields are not supported in sales statistics, nor in any of the supporting customer order functions, such as fields in the mass update functions.

Manage Location Based Catch Weight

This document describes the concept of location based catch weight in the customer order process. When location based catch weight is activated on the item in 'Item. Open' (MMS001), the catch weight is stored on the location level. In order to store catch weight on the location level, the alternative 'FoB-Food' must be selected in the Industry field in 'Company. Open' (MNS095).

If 'FoB-Food' is not selected, the catch weight is stored at lot level, which is not a recommended setting.

If necessary, reference the document for an introduction to the functionality available to support the concept of catch weight.

Managing sales price U/M for items with location based catch weight

The sales price U/M is key to the behavior in the customer order process. If the sales price U/M is:

- The same as the item's catch weight U/M, the quantity in the sales price U/M is equal to the reported catch weight.
- Not the same as the item's catch weight U/M, then a conversion must be performed.
- Defined to be a CW price U/M in 'Item. Connect Alternate U/M' (MMS015), then the reported catch weight is converted into a quantity in the sales price U/M.
- Not defined to be a CW price U/M in (MMS015), then the quantity in the basic U/M is converted into a quantity in the sales price U/M.

Example

- Item's basic U/M = PCE (0 decimals)
- Item's 'Std CW U/M' = KG, with conversion rate 1 PCE = 2.000 KG (3 decimals)
- U/M 'LB' is defined as a CW price U/M with the conversion rate 1 PCE = 4.40924 LB (LB has 3 decimals)
- U/M 'KGF' (with fixed conversion rate) is defined as a normal sales price U/M with the conversion rate 1 PCE = 2.000 KG (KGF has 3 decimals)
- Quantity in basic U/M = 5 PCE and the reported catch weight = 9.800 KG
- Quantity in the different sales price U/Ms would be calculated as below:
 - KG: Sales price quantity = 9.800 KG
 - LB: Sales price quantity = 9.800 KG/2 = 4.9 PCE = 4.9 * 4.40924 LB = 21.605 LB
 - KGF: Sales price quantity = 5 PCE * 2.000 = 10.000 KGF

Customer order processing

Customer Order Entry

- **Sales Price U/M**

Set '*PRI' for the 'Sales price U/M' in 'CO Type. Update Field Selection' (OIS014/J) if the sales price U/M should be retrieved from the price source. If this field is blank, the default sales price U/M of the item is used.

'*PRI' only supports retrieval of the sales price U/M from a price list, agreement, or promotion (price origins 2, 6, and 9). For other sources, the default sales price U/M of the item is used.

It is not possible to manually change the sales price U/M when '*PRI' is used.

- **Quantity in the Sales Price U/M**

If catch weight is omitted on the CO line, the ordered quantity in the sales price U/M is initially calculated from the order quantity in the item's basic U/M with the standard conversion rate defined in (MMS015).

The delivered quantity in the sales price U/M is later calculated based on the catch weight reported at picking list reporting.

A catch weight will only be entered on the CO line if the order quantity is negative (i.e. a customer return) or if the CO type is set up for direct delivery (i.e. the status goes directly to '66 – Delivered' or '77 - Invoiced' when exiting CO entry). These scenarios are addressed in section 'Entry of Catch Weight at Customer Order Entry'.

Delivery

The catch weight (and the quantity in the basic U/M) is reported when reporting the pick list. It can also be changed when correcting a previously reported picking list.

The 'Propose weight' field in 'Picking List. Report' (MWS420/P) indicates how catch weight is displayed in 'Picking List. Report Lines' (MWS422).

If Propose Weight = 0:

- The catch weight field is open in (MWS422/B) and proposed CW=allocated weight. This reflects the weight at the time for allocation. The catch weight can be changed.

If Propose Weight = 1:

- The catch weight field is closed on (MWS422/B). Calculated and issued CW = Avg CW per unit on balance ID * issued quantity. This reflects the actual average weight recorded in the table MITLOC in 'Balance Identity. Open Toolbox' (MWS068).
- The reported catch weight reduces the catch weight on the balance identity (MWS068) and the catch weight for the specific transaction can be seen in 'Stock Transaction. Display History' (MWS070).
- The catch weight is used to update the net and gross weight on the logistical delivery line (MHDISL). (See section 'Net and Gross Weight Calculation').
- The catch weight and the quantity in the sales price U/M is updated on the customer order delivery line (ODLINE fields CAWE and DLQS). The quantity in the sales price U/M is calculated from the reported catch weight, with up to 6 decimals independent of the number of decimals defined for the U/M.
- The quantity in the sales price U/M is used to calculate the line amount, which is also updated on the delivery line (LNAM).

- The catch weight is displayed on the delivery line in 'CO Delivery. Display Lines' (OIS356) and is also published in the API transaction 'OIS350MI.GetDeliveryLine'. It is also used as the quantity in the cost U/M, since the cost U/M is always the CW U/M for items with location based catch weight, meaning that it is used for the cost calculations. (See section 'Cost Quantity and Cost Calculations').
- The catch weight updates the cost quantity (CSQT) and catch weight (CAWE) in the table for internal transactions between divisions (CMUFTR). The internal transfer price (INPR) is stated as the price per cost U/M, i.e. the CW U/M, which means that the catch weight is used for calculating the transaction amount.
- The catch weight is used for calculating the claim amount (OICLCCLM) for supplier rebates.
- The catch weight is used for calculating line charges that are based on gross weight or net weight.
- The catch weight is also used for updating the net and gross weight in the CO delivery header (ODHEAD).
- The catch weight is also used for order header charges calculated based on gross weight or net weight.

Net and Gross Weight Calculations

Note that the catch weight is only used to update the net weight if the item's catch weight U/M is equal to the general weight U/M defined in 'Settings – User-def Item Fields' (CRS703).

The gross weight is then calculated as the catch weight + the difference between the gross and net weight, as defined in 'Item. Open' (MMS001).

For the purpose of this document, it is assumed that the item's catch weight U/M is equal to the general weight U/M defined in (CRS703).

Cost Quantity and Cost Calculations

Note that the catch weight only will be used as the cost quantity if 'Catch weight cost' is activated in 'Item. Connect Facility' (MMS003). If the catch weight is used as the cost quantity, then it will be used for all cost calculations.

For the purpose of this document, it is assumed that 'Catch weight cost' is activated.

Proof of Delivery

Proof of delivery is performed in 'CO Delivery. Approve' (OIS155), (reached from 'CO Delivery. Open' (OIS150) with related option ='33 Proof of Dely').

The delivered quantity in the sales price U/M and/or in the basic U/M can be changed, however the catch weight cannot.

If the sales price U/M is equal to the catch weight U/M, the catch weight on the delivery line is set to the approved quantity in the sales price U/M.

If the sales price U/M is different than the catch weight U/M and the sales price U/M is flagged as a CW price U/M, the catch weight on the delivery line is calculated from the approved quantity in the sales price U/M.

If the sales price U/M is different than the catch weight U/M but the sales price U/M is not flagged as a CW price U/M, the new catch weight is calculated based on the average catch weight per basic U/M for the delivery line.

The net and gross weight on the delivery header is updated to reflect the changed catch weight.

Invoicing

The customer is invoiced for the quantity in the sales price U/M.

The quantity in the transaction tables for 'Invoice accounting' (OINACC.ACQT) and 'Various accounting transactions' (CRACTR.ACQT) are updated with the catch weight (as cost quantity).

Corrective Invoice

Corrective invoicing is performed in 'co Invoice. Correct or Credit' (OIS380) (reached from 'Invoice. Display' (OIS350) with related option='14 Corr/Credit'). When correcting an invoice line in (OIS380), the quantity in the sales price U/M can be entered with up to 6 decimals, independent of the number of decimals defined for the U/M.

For a corrective invoice, two new deliveries are created, unless it is a full credit of the invoice. A credit delivery reverses the original transaction in full and the original catch weight will be used for the credit. The catch weight on the new debit delivery will be calculated as described below for the different scenarios.

- If the sales price U/M is equal to the catch weight U/M, the catch weight on the delivery line is set to the quantity in the sales price U/M.
- If the sales price U/M is different than the catch weight U/M and the sales price U/M is flagged as a CW price U/M, the catch weight on the delivery line is calculated from the quantity in the sales price U/M.
- If the sales price U/M is different than the catch weight U/M but the sales price U/M is not flagged as a CW price U/M, the catch weight on the delivery line is calculated based on the average catch weight per basic U/M for the delivery line that is being corrected.
- The net and gross weight on the delivery header is updated with the catch weight.

External Documents

The catch weight (and the catch weight U/M) is sent in the stream file (0LXECAWE and 0LXECWUN) for the invoice (OIS193 and OIS199) and for the pro forma invoice (OIS641 and OIS643) if 'Pro forma basis' is '2-Per delivery'.

Sales Statistics (OSBSTD)

A catch weight field in the sales statistics stores the catch weight (CAWE). The net weight and gross weight (NEWE and GRWE) are also updated with the catch weight.

The catch weight (as cost quantity) is used to calculate the cost in the sales statistics (UCOS, DCOS, PCLA, and ACOS).

Trade Statistics (CSYECT)

The 'Customs value' (ECAM), 'Statistics value' (SSVL), 'Fiscal value' (FSVL), and the 'Foreign currency amount' (CUAM) are based on the catch weight (as cost quantity) when these amounts are calculated as the cost multiplied with the cost quantity.

The net weight in the trade statistics (ECNW) is the catch weight.

Bonus and Commission

The catch weight (as cost quantity) is used to calculate the cost when the generating unit is the 'Cost value' or 'Contribution margin (net - cost value)'.

The catch weight is also used when the generating unit is 'Net weight' or 'Gross weight'.

Customer Returns

It is mandatory to enter both the catch weight and the 'Catch weight for credit' when processing a customer return in 'Customer Return. Open' (OIS390). A different 'Catch weight for credit' means that the catch weight returned to stock is different from the catch weight to be credited.

The reported catch weight increases the catch weight on the balance identity (MWS068) and the catch weight for the specific transaction can be seen in 'Stock Transaction. Display History' (MWS070).

Functional Limitations

Where the sales price U/M is different to the catch weight U/M and the sales price U/M is not flagged as a CW price U/M, it is not possible to enter a catch weight for proof of delivery and corrective invoicing. In this case the catch weight is calculated based on the average catch weight per basic U/M for the delivery line.

Example:

- Delivered quantity = 10 PCE
- Reported catch weight = 17.50 KG (standard conversion rate PCE = 2.00 KG)
- Average catch weight per basic U/M = 1.75 KG
- Approved or corrected quantity = 9 PCE
- New catch weight on the delivery line = 15.75 KG ($9 * 1.75$)

An alternate approach is to calculate the changed catch weight based on the standard conversion rate between the basic U/M and the catch weight U/M. However, in extreme scenarios that could result in negative catch weight on the delivery line. If the corrected quantity in the example above is changed to 1 PCE, the new catch weight on the delivery line would be negative ($17.50 - 18.00 = -0.50$ KG).

The fact that the catch weight becomes an approximation instead of an actual catch weight will, in most cases, not affect the customer (as it is not a CW price U/M). The catch weight on the customer delivery line could however affect the following (as described in previous sections):

- Cost calculations
- Order line charges based on weight
- Weights in the CO delivery header (ODHEAD), which affects order header charges calculated based on the weight
- Stream files for the invoice and for the pro forma invoice
- Internal transfer transactions between divisions
- Claim amount for supplier rebates
- The quantity in the transaction tables for 'Invoice accounting' and 'Various accounting transactions'
- Sales statistics
- Trade statistics
- Bonus and commission

Entry of catch weight at customer order entry

A catch weight will only be entered on the customer order line if the order quantity is negative (i.e. a customer return) or if the 'CO type' in 'co_Type_Open' (OIS010) is set up for direct delivery (i.e. the status goes directly to '66 – Delivered' or '77 - Invoiced' when exiting customer order entry).

If a catch weight is entered for the customer order line, then the quantity in sales price U/M is calculated as described in the section 'Managing sales price U/M for items with location based catch weight'.

The quantity in the sales price U/M is displayed as the 'Remains to invoice' quantity on the customer order line details in 'Customer Order. Open Line' (OIS101) and panel versions in 'Customer Order. Open Lines' (OIS101) and 'Customer Order. Open Line Toolbox' (OIS301) if the panel version field '&TOINV' is used.

The quantity in the sales price U/M is used to calculate a number of things:

- Net line amount on the order line
- Gross amount for the order line if &GRSAM is used in the panel version in (OIS101) and (OIS301)
- Net line amount and gross line amount in (OIS100MI)
- Order value gross (BRAM) on the order header
- Total order value gross (BRLA) on the order header
- The VAT base and Tax base (the line amount) when calculating VAT or Tax
- The order header charge when it is based on the order gross and there is a kit with pricing method 3 (the sales price of the kit item is the sum of the values of the detail lines).

The difference between the two values on the order header is that the 'Order value gross' (BRAM) is the 'Remains to invoice value' while the 'Total order value gross' (BRLA) is the 'Ordered value'. They are updated when:

- Creating the order line
- Changing the order line
- Closing the order line
- Deleting the order line
- Resetting an order that previously ended abnormally
- Invoicing

Order Entry Statistics (OSS900)

The catch weight (as cost quantity) is used to calculate the cost in the order entry statistics (OSASTD - UCOS, PCLA, and ACOS).

The quantity in the sales price U/M, which is calculated from the CW quantity, is used to calculate the gross line amount (GRPR), discounts (DIA1-6, OFRA), and the net line amount (SAAM).

External Documents

The quantity in the sales price U/M (and the sales price U/M) is printed on the order confirmation (OIS606 and OIS608), the pro forma invoice (OIS641 and OIS643), and the quotation (QPS601). It is also used to calculate the net line amount.

The catch weight (and the catch weight U/M) is sent in the stream file (0LXECAWE and 0LXECWUN) for the order confirmation (OIS606 and OIS608), the pro forma invoice (OIS641 and OIS643), the invoice (OIS193 and OIS99), and the quotation (QPS601).

Functional Limitations

- **Negative Quantity on the Customer Order Line:**
 - If the order quantity is negative, the user is forced to enter a catch weight. It is technically possible to do a partial 'delivery' of this customer order line with a negative quantity. Doing so will cause issues:
 - If the 'delivery' is invoiced, then it leaves a customer order line with a remains to invoice quantity in basic U/M that has no relation to the catch weight on the order line. The remains to invoice quantity in basic U/M will, in this case be used to display the remains to invoice amounts in the places where this can be seen. This amount can of course differ from the actual amount when the remaining quantity is invoiced, since that will be based on the actual catch weight.
 - If the order line is closed, then the line amount and the order total is not reduced since those are calculated based on the catch weight. The user must change the reported catch weight in order for the amounts to be recalculated.
- **Direct Delivery:**
 - If the order type is set up for direct delivery (the status goes directly to '66 – Delivered' or '77 - Invoiced'), the user is forced to allocate the order line (in addition to enter a catch weight). If the user allocates less than the ordered quantity, then the ordered quantity is automatically reduced to the allocated quantity (a warning message is given). However, as the line amount is calculated based on the catch weight, neither the line amount or order total is recalculated. The user must change the reported catch weight in order for the amounts to be recalculated.
- **Order Statistics:**
 - There is a field for catch weight in the order entry statistics (OSASTD), however this is never updated.
 - Ordered quantity in the sales price U/M (ORQS) and in the statistics (OSASTD and OSBSTD) is based on the standard conversion rate between the basic U/M and the sales price U/M. This also applies when a CW quantity is entered at CO entry.

Managing Core Return from Customer

This document explains how to manage customer credit based on the defined core terms and the condition of the returned core.

A Core is defined as a component or subassembly such as an engine, gearbox, or fuel pump that can be rebuilt or remanufactured and is often available as part of a dealer exchange program.

Outcome

A credit invoice is sent to the customer. The amount of the credit is based on the following:

- The condition of the returned core
- Whether the core is returned late according to the agreed time in the core terms.

All core transactions are updated in core entitlement table (MITCEN) and can be viewed in 'Core Entitlement. Open Toolbox' (MWS090).

A Core Entitlement is created between customer A and supplier X, when A purchases a product from X and where the product sales price includes a core charge. A then undertakes to return the core to X in order to receive the core refund.

Before you start

You must define the settings described in [Defining Settings for Component Exchange with Customer in Core Management Process](#) on page 286 and .

Follow these steps

1 Receive core

When you first created the customer sales order, a return record was automatically created with a reference to that order. When the customer returns the core, you report the core in 'Customer Return. Open' (OIS390) with reference to the previously recorded return record.

You select a stock location for the inspection of the core in 'Customer Return. Open Line' (OIS391). You also enter the actual return date in order to create a refund reduction according to the core terms.

You must define a serial number if the returned core is serialized. Select related option 15 in (OIS391). 'Equipment. Update History' (MOS290) is displayed. In (MOS290) you can create the serial number, and specify meter readings and service history for the individual serial number.

The core entitlement table (MITCEN) is updated and can be viewed in 'Core Entitlement. Open Toolbox' (MWS090).

2 Create inspection document or work order

The returned core must be inspected to determine its condition. For more complex components that must be disassembled before you can do an inspection, a maintenance work order must be created for a more thorough inspection. You create a work request by selecting related option 14 in 'Customer Return. Open Lines' (OIS391) to display 'Work Request. Open' (MOS170). In (MOS170), you specify the service needed for the inspection and you create the required work request.

3 Report condition of returned core

The result of the inspection of the returned core determines the attribute to be used when you create a customer credit in 'Customer Return. Display Inspection Result' (OIS392).

4 Create credit order

When the component is delivered and inspected in (OIS392) and has status 33, you can then create a credit order by selecting F14='Update' in 'Customer Return. Create Crediting' (OIS393). You can create a credit order only after the condition of the returned core is determined. The credit order is created as a batch customer order.

Note: If the core has been used on a work order connected to an MCO, the invoice specification (COS170) for that MCO will be updated with the core return. Also the work order operation and material (MOS101) will be updated with the core return. When the MCO is invoiced, the core return will be included in the normal invoice.

If the connected MCO is already invoiced when the return of the core is performed, a new MCO line for the core return will be created and a credit note for the return can be issued to the customer.

5 Invoice credit order - if not connected to MCO

The credit order is normally invoiced in a batch run. The value of the credit is based on the condition of the returned core. For example, if the condition of the returned core is "in full condition", 100% of the core charge is credited according to the reduction rules.

The credit can be reduced if the core is returned later than defined in the core terms. The core terms are printed on the credit invoice.

The core entitlement table (MITCEN) is updated with the status settled.

6 Create account entries

Accounting transactions are generated.

Managing Payment Proposals for Customer Orders

Summary

Abstract

The purpose of payment proposals is to force customers with bad credit limits and customers without an account to pay cash before any goods can be dispatched. The cash payment is made against a payment document instead of an invoice to prevent accounts receivable from containing claims that will never be paid. The payment is booked as an on-account payment and later, when the invoice is issued, is automatically reconciled.

Different sourcing requires different types of payments. A stock order requires full payment before the delivery can be released for picking; a non-stocked order requires the customer to pay an advance amount in order to release the planned acquisition orders. These include planned purchase orders, planned distribution orders, planned manufacturing orders, and planned work orders. When the customer order allocates the available stock, it must be paid in full like a normal stock order for these types of customers.

Background

A possible business workflow for payment proposals is when a customer walks into a store; a salesperson specifies a customer order and provides the customer with a payment document. The customer brings the payment document to the cashier and pays. Finally, the customer retrieves the ordered goods at the pickup location. Since the customer might walk out of the store without paying, accounts receivable may not be updated prior to payment. An automatic closing routine that updates lost sales and releases allocated stock is also required.

Limitations

- A summary invoice cannot be created for a customer order with the payment document workflow.
- An invoice can only have one payment document number.
- Cash discounts are not supported in the payment document process.

- Corrective invoices are not supported in the payment document process.
- Payment documents cannot be paid from a full screen processing view (sorting orders 11-16) in (ARS110).
- In 'Voucher. Reverse' (GLS900), the transactions only apply to accounts receivable and the general ledger. No update is performed to the order tables.
- Catch weight invoices are not supported in the payment document process.
- Kit items are not supported in the payment document process. Both the kit header and the kit lines are displayed in the sub-file, but the quantity to pay is only editable for the kit header. The quantity to pay is rounded off to the next complete multiple of the complete kit.

Workflow for payment documents

For customer orders, the delivery header is locked with status 03 to prevent the goods from being delivered prior to the payment of the payment document. The lock is released when the payment proposal is assigned status 30. A payment proposal is either created automatically (which is the case for all stock orders) or created on demand using related option 70='Payment proposal' from either the customer order toolbox or the delivery toolbox (for all other orders). A payment proposal in M3 is a record in the customer order delivery tables ODHEAD and ODLINE. When the payment proposal is created, the status is 10. When the payment document is printed, the status is raised to 20. When a partial payment is made, the status is raised to 25 and when the payment document is paid in full, the payment proposal is raised to status 30.

The difference between a payment document and an invoice is that the payment document is not transferred to accounts receivable. Instead, the payment is booked as an on-account payment that is later automatically reconciled when the invoice is transferred to FAM. The payment document looks like a preliminary invoice. It can have several delivery indexes all belonging to the same customer order number.

The payment document can be paid in 'Cash Payment. Open' (OIS215) OR 'Payment Received. Record' (ARS110). The payment is regarded as an on-account payment with reference to the payment document. The payment document number is stored as additional information number 249 in FSLEDX.

Manage payment proposals

Payment proposals are managed in 'CO Delivery. Payment Proposal' (OIS152). If the advance invoice setting is 3 ('Prepayment calculated') and the CO lines are allocated and have a requested delivery date of today, this program is automatically launched when the salesperson leaves the customer order and confirms this pop-up message: 'Confirm creation of a payment proposal or advance payment proposal.' The payment proposal proposes the lines and quantity that are allocated and to be delivered today.

If the advance invoice setting on the order type is 4 (Prepayment required), a payment proposal is created on all the customer order lines regardless of how the order lines are sourced or when the order lines are planned to be delivered.

You can create and print the payment document automatically without starting (OIS152) when leaving customer order entry. The functionality to automatically print payment documents is activated by the 'Print document' setting on 'CO Type. Connect Documents' (OIS011/E). If the check box 'Print document' is enabled for document number 360, the document will be automatically printed. If the customer order is created from an external source, the payment document is created and printed automatically when the customer order is confirmed through the API. The payment document is only printed automatically upon order creation. If changes are made later on, a new document has to be printed manually.

The salesperson can also start (OIS152) on demand by using related option 70='Payment proposal' in the customer order toolbox or in the delivery toolbox.

In (OIS152), these tasks can be performed:

- Print payment document
- Change the quantity to pay and get an online update of the new line amount
- Go to cash desk
- Reverse all unpaid payment proposals
- Scroll between all payment proposals connected to the customer order number using the filtering fields

When (OIS152) is started and the advance invoice setting is 3 (Prepayment calculated), the quantity to be invoiced is populated with the allocated quantity connected to the reference order line. This quantity may be adjusted both upwards and downwards for the cashier to control what must be paid immediately. Therefore, in order to change the amount to pay in M3 Cash Desk, the quantity on the payment proposal must be changed. It is not enough to make a partial payment and expect that some of the delivery lines will be released.

The quantity to pay will also affect the amount printed on the picking list. If the allocated quantity on an order line is 4 but the customer wants to pay for 3 today and the remaining 1 tomorrow, the salesperson changes the quantity to pay from 4 to 3 and prints the payment document. The payment document will then show quantity 3, and the picking list will only have the quantity 3. When the picking list is released, the remaining quantity will be moved to a new delivery index with status 3 and the salesperson must use related option 70='Payment proposal' again when the customer returns on the second day to pay and pick up the remaining piece.

If any advance payments exist, the paid amount will be deducted on the payment document.

Payment document statuses (ODHEAD):

- 10 - Payment proposal created
- 17 - Printing in progress
- 20 - Payment document printed
- 25 - Payment document partly paid
- 30 - Payment document paid

If a payment document is partly or fully paid, the payment document cannot be cancelled and the customer order line cannot be changed, deleted, or closed.

Note: If the advance invoice setting is 4 (Prepayment required), as soon as a payment document is printed, no changes are allowed that will affect the total amount to pay. Example: adding or deleting order lines, changing quantities, prices, discounts, and charges. To make changes, the payment document must be deleted in (OIS152).

If a payment document is cancelled in (OIS152), the record in 'Invoice. Display' (OIS350) and 'Invoice. Display Lines' (OIS351) is also deleted.

The payment document is updated in 'Invoice number' (OINVOH) with a new information type (IVTP=05) and displayed in (OIS350). It is also updated to the OINVOL table and displayed in (OIS351).

The statistics and account entries are not updated.

One invoice can only have one payment document.

One payment document can be printed several times.

Several payments can be made against the same payment document.

Payment of payment documents

- In cash desk

On 'Cash Desk. Open (OIS210/F)' a new number series called 'C3' is available in 'Number Series. Open (CRS165)' and is used for on-account payments in the cash desk. This number series must be connected to the cash desk on 'Cash Desk. Open (OIS210/F)'.

The payment document can be paid in 'Cash Payment. Open' (OIS215). The payment is regarded as an on-account payment with a reference to the payment document. The payment document number is stored in additional information number 249 in FSLEDX (after transfer to FAM) and can also be displayed in 'Cash Payment. Details (OIS216)'.

When payment is made, the outstanding amount on the invoice number (OINVOH) is updated and if the remain-to-pay amount is zero, the status of the payment document is updated to 30 (ODHEAD). The status in the delivery table MHDISH is then set to 1, which means that the picking list can be released.

If the payment document is partially paid, the status of the payment document is 25 (ODHEAD) and the picking list cannot be released.

- In (ARS110)

Payment documents and advance payment documents can be paid in 'Payment Received. Record' (ARS110).

Related option 19='Payment request/document' is used to open the (ARS110/I) panel, where the payment document number is specified.

If the prepayment process is activated in 'Settings – Customer Order Invoicing (CRS722)' then document type 1 (Payment request) or, if type 1 is missing, document type 2 (Payment document) will be defaulted. The document type is changeable and it determines which fields are displayed in the panel.

The payment document paid is added and the outstanding amount and currency of the payment document is retrieved. Several stops have been implemented to ensure, for example, that the currency added on (ARS110/B) is the same as the currency of the payment document and that the paid amount does not exceed the outstanding amount.

The payment is updated as an on-account payment with information about the payment document number paid in the additional information number 249.

Accounts receivable is accounted on accounting event AR30 and accounting type 110.

When payment is made, the outstanding amount on the invoice number file (OINVOH) is updated and if the amount remaining to be paid is zero then the status of the payment document is updated to 30 (ODHEAD). The status in the delivery table MHDISH is then set to 1, meaning that the picking list can be released.

If the payment document is partially paid, the status of the payment document is 25 (ODHEAD) and the picking list can be released.

If the payment regards an advanced payment document and the document is fully paid, the planned PO is released and the advanced invoice is printed.

- In Automatic Bank Statement (ABS)

Scenario type 8 (AR prepayments) is available in 'Scenario Number. Open (ABS911)'. A scenario number connected to this scenario type must be defined to be able to automatically allocate payments to the payment documents.

You can use the invoice number from the bank statement line, information from the additional information file, or an amount search as the search path for the invoice. The on-account number series (C3) to use must be connected to the scenario number.

When a bank statement line is received containing information about the payment document number and when the scenario number for payment documents is used, a check is done for the payment document number in the invoice number file (OINVOH), where IVTP = 05 or 06.

If the payment document is allocated, then the on-account payment invoice number is displayed in 'Bank Statement. Open Line Details (ABS102)' and the payment document number is shown as additional information number 249.

When the general ledger is updated, the payment is updated as an on-account payment containing information about the payment document number paid in the additional information number 249.

The status of the payment document, picking lists, and the outstanding amount in the invoice number file is updated as if it was paid using the cash desk or 'Payment Received. Record (ARS110)'.

If the payment document is not automatically allocated, you can access (ARS110) using option 'AR payments' in (ABS102).

Note: The limitation payment of payment requests cannot be performed from a full screen processing view (sorting orders 11-16) in (ARS110).

Reconciliation of payment document payments against invoice

When the invoice is transferred to financials, a check is done on whether any payments of the payment document (stored as additional info number 249 in FSLEDX) exist in accounts receivable. If so, they will be automatically reconciled against the invoice, and payment transactions (trcd 20 in FSLEDG) are updated to the on-account payment record and to the invoice.

If the invoice/on-account payment is fully paid, the reconciliation code (RECO) in 'Accounts Receivable Table: FSLEDG' is set to 9.

Similarly, the advance invoice is reconciled against the on-account payment of the advance payment document.

The same check and reconciliation is done when the payments are transferred to accounts receivable.

In 'Settings - Customer Order Invoicing (CRS722)' the FAM function (reconciliation function) to use during reconciliation must be defined.

Changes to existing customer orders with payment proposal

If the payment proposal has status 10 - Created and the user specifies new order lines, the existing payment proposal is deleted and the delivery is unlocked if the delivery data on the specified line allows delivery aggregation. Therefore, when the user acknowledges the dialog Confirm creation of a payment proposal or advance payment proposal, a new aggregated payment proposal will be created.

Credit limits

Customer orders in the payment proposal workflow will not generate a customer order stop. The purpose is to be able to complete orders even if the customer has no credit.

Application message

When the release is scheduled, an application message is sent to the planner. The planner can then access the planned order from the application message. Message type 984 is used for the application message informing the planner.

Advance payment document on a complete customer order

If the advance invoice setting on the order type is 4 (Prepayment required), a payment proposal is created on all the customer order lines regardless of how the order lines are sourced or when the order lines are planned to be delivered. Therefore, no advance invoice is created when running this process since everything is paid for in advance.

The payment proposal check box in 'Payment Term. Open' (CRS075) must be selected together with the setting Advance invoicing = 4 (Prepayment required).

Close payment proposal

'CO Delivery. Close Payment Proposal' (OIS952) is used to execute a batch run that closes customer order lines during the payment proposal process. The check box 'Lost sales' is selected together with a transaction reason to update the closed customer order lines as lost sales. The closing date will prevent customer order lines with a planning date later than the closing date to be included in the closing selection. (OIS952) will only close customer order lines with unpaid payment proposals or unpaid advance payment proposals.

The job that (OIS952) submits will close the customer order lines and remove any unpaid payment proposals and advance payment proposals.

Close of a customer order with paid payment documents (only if advance invoice setting is 4=Prepayment required)

When a payment document has been printed, no changes that will affect the total amount to pay are allowed. This includes adding or deleting order lines, changing quantities, prices, discounts, and charges. You can close order lines and credit the customer for what is not delivered.

A warning message is displayed if a customer order or a customer order line with paid payment document is closed. If this message is confirmed, the customer order or customer order line will be closed, and you cannot create a corrective payment document from 'CO Invoice. Correct or credit' (OIS380) (called from 'Invoice. Display' (OIS350)).

In (OIS380), the closed lines are displayed, showing the closed order lines and their 'To credit' amount. Affected header and line charges are also displayed. When the job is submitted, a corrective payment document is created to refund the customer.

Note: Charges defined as amounts, that is header and line charges with 'Calculation method' 0 = 'Fixed amount' and service charges, are not credited.

The payment document corrected is updated as the original invoice number on the corrective payment document.

The payment of the corrective payment document is automatically reconciled against the payment of the original payment document when the payment of the corrective payment document is updated to the Accounts receivable.

When the payment of the corrective payment document is transferred to M3 Finance, the original payment document number is updated as additional number 249 (Payment document number) and the Corrective payment document number is updated as additional number 250 (Corrective payment document).

Payment of a corrective payment document is not implemented in 'Payment received. Record' (ARS110).

Workflow for advance payment documents (only if advance invoice setting is 3 = Prepayment calculated)

Non-stocked orders require the customer to pay an advance amount in order to release the planned acquisition orders. These include planned purchase orders, planned distribution orders, planned manufacturing orders and planned work orders. The advance amounts are set up in the advance invoice types.

Using the related option for prepayment details (CTRL+51) in (OIS101) brings you to 'Prepayment Details. Open' (OIS123). You can manually modify the calculated amount and reverse an advance payment proposal in the case of credit and repayment to the customer.

Fields for advance payment proposal details per order line can be added in the information view used on (OIS101/B).

When the customer order is finalized, a message is displayed: 'Confirm creation of a payment proposal or advance payment proposal'. When the proposal creation is confirmed, the calculated amount will automatically create an advance payment proposal.

Stopped planned purchase orders will be assigned the warning message U on order-initiated sourcing, but not when created with a supply chain. When a user tries to manually release a sourcing proposal, an error message appears indicating that unpaid payment proposals remain.

Note: Warning message U = The planned order is connected to a customer order that has not been paid.

When the customer order allocates the available stock, it must be paid in full like a normal stock order for these types of customers.

Payment of this invoice is done as in the payment document scenario. When the invoice is paid, the planned PO is released and the advance invoice is printed.

The advance invoice is automatically reconciled against the payment.

When incorrect stock balances and deviations are reported for a picking list line, the customer must be credited manually.

Advance invoice type (only if advance invoice setting is 3 = Prepayment calculated)

'Advance Invoice Type. Open' (OIS122) contains control objects from the customer master and item master tables. This program determines how the advance invoice amount is calculated. The selection table is created from 'Advance Invoice Selection Table. Open' (OIS121) through (CMS016).

When a customer order line that is sourced by either a supply chain or by order initiation is specified, a check is done against the advance invoice type program to calculate the advance invoice amount. The advance invoice amount is rounded off according to the settings in 'Currency. Connect Rounding-off Rules' (CRS053) with the new rounding-off category 60.

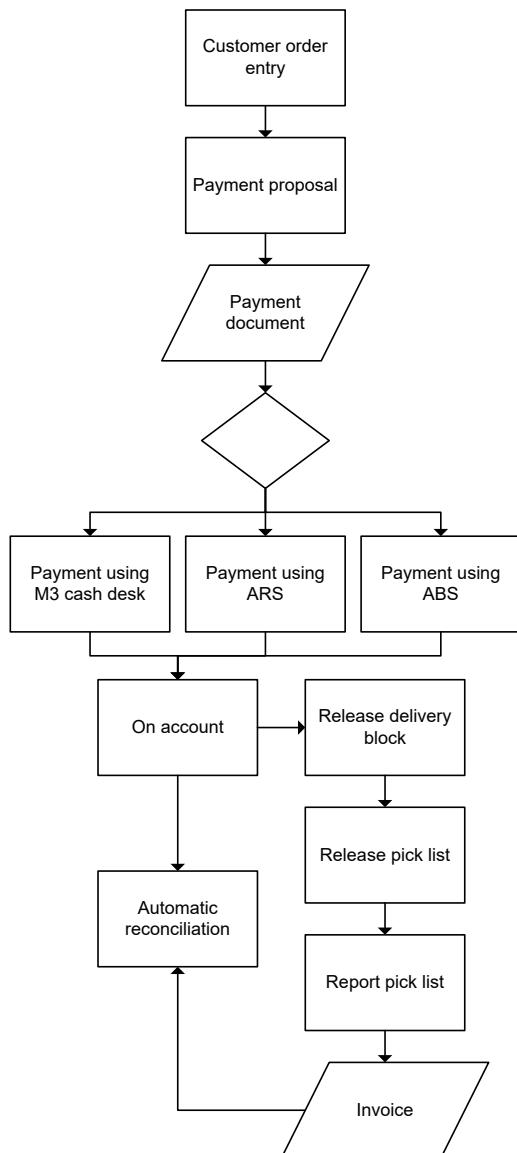
Automatic creation of payment proposals

When the goods arrive (goods received), the customer is notified and the remaining amount becomes part of the payment document process (see above).

When you run the payment proposal process with order-initiated lines or order lines sourced from a supply chain, the allocation of the customer order line creates a payment proposal in status 10 automatically. As long as the payment proposal has status 10, further allocation activities will try to aggregate the delivery.

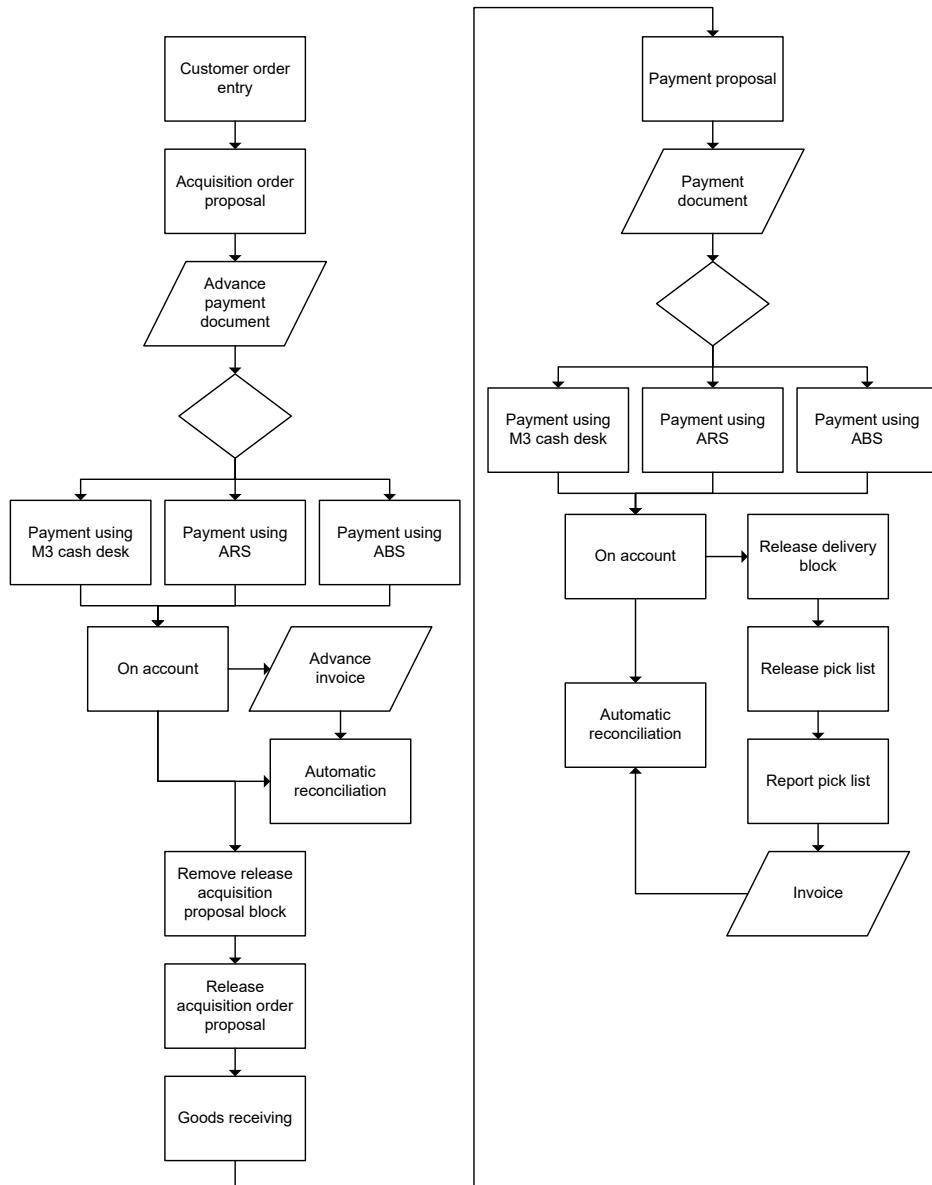
Advance payment document

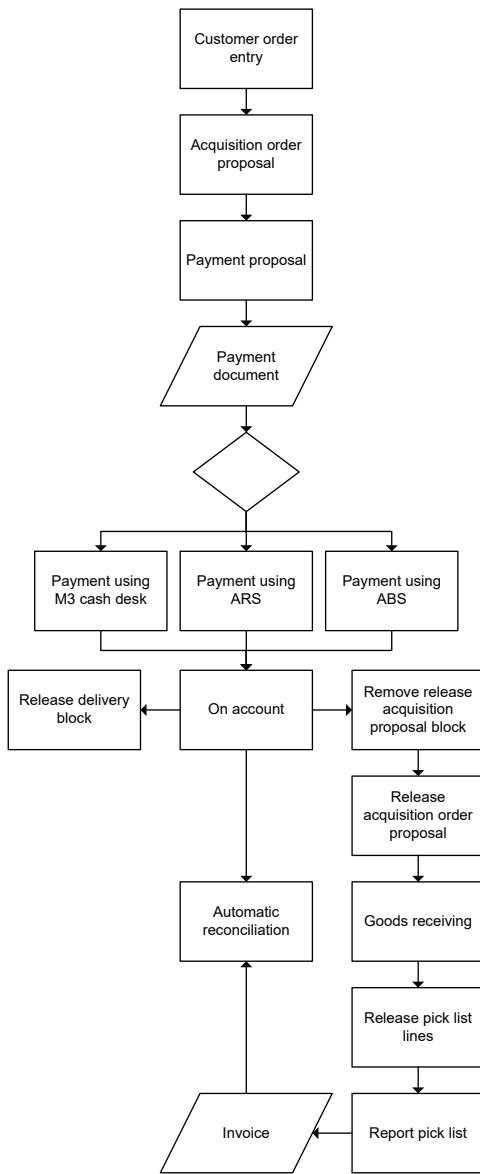
The advance payment document looks like the advance invoice except that order line information is printed, such as item number and a reference to the specific order line.

Flowchart

Payment using M3 Cash Desk

On-account (Multiple occurrences in flow chart)





Configuration

- The 'Advance invoicing' field on the customer order type on 'CO Type. Open' (OIS010/K) must be set to 3.
- The 'Payment proposal' check box on the payment term on 'Payment Term. Open' (CRS075/E) must be selected.
- The dispatch policy connected to the customer order type must have the setting '020 One order per delivery' selected on 'Dispatch Policy. Open' (MWS010/I).

- The dispatch policy connected to the customer order type must have the '180 Allow overissues' check box cleared on 'Dispatch Policy. Open' (MWS010/F).
- The dispatch policy connected to the customer order type must have the setting '300 Closing point' set to 2 on 'Dispatch Policy. Open' (MWS010/G).
- The dispatch policy connected to the customer order type must have OBTEPY as an object in either '540 Delivery consolidation – field 1' or '545 Delivery consolidation – field 2' on 'Dispatch Policy. Open' (MWS010/I).
- In 'Settings – Customer Order Invoicing' (CRS722), the FAM function (reconciliation function) to use during reconciliation must be defined.

Managing Prepayments of Deposits in the Customer Order Process

Introduction

A deposit payment is defined as a payment that must be placed before releasing the acquisition of goods. Stock supplied through hard-coded order-initiated acquisition orders or supply chain orders is blocked from release until the deposit is paid by the customer.

This is similar to the prepayment solution for customer orders connected to advance invoicing processes activated with the 'Adv invoicing' setting type 3-'Adv invoicing allowed. Prepayment calculated' in 'CO Type. Open' (OIS010).

Use of deposit

During customer order entry, a check for deposit is performed. If there is a valid setup in 'Advance Invoice Selection Table. Open' (OIS121), the deposit amount is automatically calculated and assigned to the order.

When leaving the order header, 'Customer Order Deposit. Open' (OIS157) is started automatically, where a list of deposit and remaining balance amounts per planned payment date is displayed including VAT amounts. The deposit amount displayed in (OIS157) at order level is the sum of its calculated value per its order lines as displayed in 'Customer Order Deposit Lines. Open' (OIS158).

For an existing order, the deposit program can be launched by selecting the 71='Customer Order Deposit. Open' option in 'Customer Order. Open Toolbox' (OIS300).

Note: The payment date is not a legally agreed payment date, as the payment term, etc. Its only purpose is to indicate when the different payments are expected. For the deposit entry, the expectation is that the customer pays the same day; the remaining balance is to be paid once the goods are expected to arrive at inventory, that is, the order lines planning date.

Setup

These criteria must be fulfilled for the deposit to be valid for a customer order:

- Use a customer order type with the 'Adv invoicing' setting set up with the 5-'Deposit' alternative in (OIS010).
- Use a payment term with the 'Payment prop' setting selected in 'Payment Term. Open' (CRS075).
- If the 'Payment prop' check box is not selected, the order is treated as if 'Adv invoicing' is set to 1-'Advance invoicing allowed'.
- To launch the cash desk for payment of the deposit, the 'Cash dsk active' setting must be selected in (OIS010).
- To have specific payment terms for the deposit, the '**Deposit payterm**' field must be defined in (OIS010).

Change a deposit amount connected to the customer order

A manual change of the deposit amount is made on the order line level in (OIS158).

The deposit line program can be launched by selecting the 11='Prepayment lines' option in (OIS157) or 72='Customer Order Deposit Line. Open' option in (OIS300).

The advance invoice type controls if a manual change of the deposit is allowed and defines a tolerance percentage for the change, per setup in 'Advance Invoice Type. Open' (OIS122).

Print of advance payment document and order confirmation

When you are ready with the customer order, you must print an advance payment document and hand it to the customer for the deposit payment.

In addition, you can print an order confirmation document if an overview of the entire order is requested by the customer, that is, all order lines including order totals.

Use the 6-'Print' option in (OIS157) to print the advance payment document for the deposit and the F14-'Customer Order. Print Confirmation' action in (OIS157) to print the order confirmation.

There is deposit information available on both documents in these XML sections:

- Order confirmation document, both at the order line level (XML section type PREPAY_LIN on level 5) and on the order level (XML section type PREPAY and PPAY_TAX on level 3).
- Advance payment document (OIS199PF variant 04) at the order line level (XML section type PREPAY_LIN on level 5).

Payment of the deposit

Payment of the deposit creates an advance invoice per VAT code. The advanced invoices are automatically reconciled with the payment, as for 'Adv invoicing' type 3. The difference from 'Adv invoicing' type 3 is that the payment of the deposit does not create one advance invoice with a default VAT code.

The advance invoices can be configured not to be printed, as the customer instead gains a receipt upon payment of the deposit against the advance payment document.

The 'No printout' setting on 'Settings - Customer Order Invoicing' (CRS722/F) controls if the advance invoice is printed. If selected, the advance invoice is not printed, and the delivery invoice references the advance payment document instead of the advance invoice.

Release for delivery and invoice

Once the goods have arrived in inventory, there are several ways to manage the delivery and invoice process to the customer.

A customer payment before delivery is not required in this solution, even though it might be a best practice within the company.

Note: The removal of this prerequisite is different from processing orders with CO types configured for 'Adv invoicing' type 3.

You can release the goods for delivery from (OIS157) if everything on a 'Remaining balance' record is allocated and is to be delivered at the same time. (There are several 'Remaining balance' records if the order lines have different planning dates.) Use the 21-'Release for delivery' related option to process the delivery through the normal dispatch flow.

Use the 22-'Deliver and invoice' related option to bypass the normal dispatch flow and directly invoice the delivery.

You can also release the goods for delivery from (OIS158). Here you can also release the goods if not all the goods for a 'Remaining balance' record should be delivered simultaneously.

Use sorting order 1 when releasing goods for delivery in (OIS158). This is the default sorting order when called from the menu or from (OIS300). The F14-'Propose quantity' action proposes the allocated quantity for release. You can enter or change the quantity manually. Use the F17-'Release for delivery' action to process the entered quantities through the normal dispatch flow. Use the F18-'Deliver and invoice' action to bypass the normal dispatch flow and directly invoice the delivery.

There is deposit information available on the delivery invoice at the order line level (XML section type PREPAY_LIN on level 5).

Note: Both '040 Released for picking' on 'Dispatch Policy. Open' (MWS010/E) and '320 Next delivery released for picking' on (MWS010/G) should be selected. If they are not selected, you still need to manually release the delivery for picking and process the delivery through the normal dispatch flow and invoicing.

Cancellation of order and refund of the deposit

A deposit refund can be manually created in 'Customer Order. Invoice in Advance' (OIS105) when an order is cancelled.

Note: Advance invoices that are created manually in (OIS105) are not settled against the delivery invoice (in case it was not the complete order that was cancelled). Therefore, they also remain in the 70-'Adv invoiced' status. You can update them to the 80-'Inv and settled' status with 'Correction ID' OI04 in 'Program Problem. Solve' (CRS418) if it is important to get them in status 80.

Limitations

- You cannot use a deposit customer order type (when you create a customer order in OIS100) in a Sales Tax Division. That is, in a division where the 'Tax method' > 1 on 'Company. Connect Division' (MNS100/G).
- The prepayment deduct method 1='Offset as credit note' in (CRS722) is not supported.
- Different payment terms per order line are not supported. The reason for this is that it is the 'Payment prop' check box on the 'Payment terms' on the customer order header that dictates whether the order is executed as a deposit order or a normal order.

- Order total discount is not considered when calculating the deposit and the remaining balance. This means that the delivery invoice becomes negative if the order total discount is greater than the deposit.
- Discount in kind is not supported.
- Charge calculation methods 1-'Fct*gross prc' and 2-'Fct*net prc' are not supported.
- Kit items are not supported.
- Core items are not supported.
- Warranty management is not supported.
- Copy from a normal order to a deposit managed order is not supported.
- Quotes through EQM are not supported.
- Automatic closing of payment proposal through 'CO Delivery. Close Payment Proposal' (OIS952) is not supported.
- Rounding applied to the deposit ('Rnd-off cat' on (OIS010/K)) is not settled on the delivery invoice.
Example: If a \$0.25 rounding is paid on the deposit amount \$99.75 (pay \$100.00), only \$99.75 is deducted on the delivery invoice.
Note: The rounding amount creates a separate advance invoice record.
- 'VAT sum method' 2-'Base mult rate' gives rounding differences since the VAT calculation is split up on two smaller base amounts (a deposit and a remaining balance) compared to when calculating the VAT for the full order amount.
- Amount charges with 'Debit frequency' 1-'First delivery' and using 'Release for delivery' are not supported. The charge is incorrectly included in the amount for the new remaining balance too. The invoiced amount is however correct.

Manual Allocation - Customer Order Line

This procedure is used to manually allocate a customer order line by connecting it to one or more locations and lot numbers (if needed). All or part of the quantity in a customer order line can be allocated.

After using this procedure a customer order line is fully or partly allocated. Full allocation results in status 33 (allocated) for the order line. Partial allocation results in status 23 (one part allocated with remaining quantity to be allocated).

Before you start

A customer order line must be specified that is not fully printed in a picking list or fully delivered.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100).
- 2 Specify the order number and select option 15=Order lines to start 'Customer Order. Open Line' (OIS101).
- 3 Select option 15=Allocation for the appropriate order line. Press Enter. 'Allocation. Perform Detailed' (MMS121) is started. Locations and any lot numbers are displayed for the current item/warehouse combination.

- 4 Specify a quantity for the lines to be allocated. Note that the total of the quantities specified cannot exceed the total quantity of the line. Press Enter.
- 5 To return to 'Customer Order. Open Line' (OIS101), press F3.

Mass Change Aggregated Customer Order Lines

This procedure is used to aggregate customer order lines within the same customer order in 'Customer Order Lines. Aggregated Display' (OIS315) and simultaneously change information contained in several customer order lines in one process.

Information changed this way can be:

- Sales price
- Planning date
- Requested delivery date
- First delivery date
- Last delivery date
- Season
- Delivery window
- Salesperson
- Priority
- Customer's order number
- Delivery method
- Delivery terms
- Delivery specifications
- Transaction reason
- Joint delivery

This procedure can also be used to mass delete or mass close order lines on an aggregated level. You can connect a transaction reason when using the delete options, and choose to update sales statistics with lost sales.

You can manually create sorting orders, views and aggregations in 'Customer Order Lines. Aggregated Display' (OIS315) to support this functionality.

Before you start

Set up a record in 'Settings - Batch Order' (OIS278) with source 9 = Mass change for customer orders (from OIS260).

Follow these steps

Change aggregated customer order lines in OIS315

- 1 Open 'Customer Order. Open Toolbox' (OIS300/B).

- 2 Select a customer order and use related option 31='Aggregate lines' to open 'Customer Order Lines. Aggregated Display' (OIS315/B).
- 3 In OIS315/B, select sorting order, view, and aggregation.
- 4 Select a line and use the basic option Change. If the line is a non-aggregated line, 'Customer Order. Open Line (OIS101/E) opens. If the line is an aggregated line, OIS315/E opens.
- 5 In OIS315/E, you can define a new value for different fields. Each field also has a check box that should be selected to update the corresponding field. You can check the check box and leave the corresponding field blank in order to update the field with a blank value.
You can also define the recalculation of sales price and if the available-to-promise date should be used automatically as the new planning date in case of shortage.
- 6 Use action F14=Update to update the customer order lines contained in the selected aggregated line.

Close aggregated customer order lines in OIS315

- 1 Open 'Customer Order. Open Toolbox' (OIS300/B).
- 2 Select a customer order and use related option 31='Aggregate lines' to open 'Customer Order Lines. Aggregated Display' (OIS315/B).
- 3 In OIS315/B, select sorting order, view, and aggregation.
- 4 Select a line and use the basic option Close/Delete to open the D panel in OIS315.
- 5 In OIS315/D, select 0=Close in the Method field.
- 6 Press Next to close the customer order lines contained in the selected aggregated line. This functionality works the same way regardless of whether the line is a non-aggregated line or an aggregated line.

Delete aggregated customer order lines in OIS315

- 1 Open 'Customer Order. Open Toolbox' (OIS300/B).
- 2 Select a customer order and use related option 31='Aggregate lines' to open 'Customer Order Lines. Aggregated Display' (OIS315/B).
- 3 In OIS315/B, select sorting order, view and aggregation.
- 4 Select a line and use the basic option Close/Delete to open the D panel in OIS315.
- 5 In OIS315/D, select 1=Delete in the Method field.
- 6 A check box named 'Lost sales' is available. You can check this check box to make the sales statistics update with lost sales together with a reason code entered in the field 'Transaction reason'.
- 7 Press Next to delete the customer order lines contained in the selected aggregated line. This functionality works the same way regardless of whether the line is a non-aggregated line or an aggregated line.

Mass Change Order Lines

This procedure is used to simultaneously change or replace information contained in many order lines.

Information changed this way can be:

- Planning date
- Requested delivery date
- First delivery date
- Last delivery
- Season
- Delivery window
- Salesperson
- Priority
- Customer's order number
- Delivery method
- Delivery terms
- Delivery specification
- Transaction reason
- Joint delivery

Information that can be replaced this way can be:

- Warehouse
- Item number

This procedure can also be used to mass delete or mass close order lines. You can connect a transaction reason when using the delete options, as well as the choice of updating sales statistics with lost sales.

Limitations

You cannot change or delete individual kit components on their own. If, however, the kit header is selected, you can change or delete the kit components.

The order line's status must be lower than 44 = Picking list printed.

The order line cannot have a reference order number.

Before you start

You need to set a record in 'Settings - Batch Order' (OIS278) with source '9 = Mass change for customer orders (from OIS260)'.

Follow these steps

Mass change order lines

- 1 Start 'Customer Order. Mass Change Lines' (OIS260).
- 2 On panel E, select '2 - Change' in the 'Change type' field.
- 3 Use the field on panel E to set a range of parameters to make a selection in order to define which order lines to include in the change. Click 'Next'.
- 4 Panel H is opened. On this panel, you can define a new value for a number of fields. For each field there is also a check box which should be checked to update the corresponding field. You can mark the check box and leave the corresponding field blank in order to update the field with a blank value.

You can also define the recalculation of sales price, print out acknowledgements for the changes you made, and if the available-to-promise date should be used automatically as the new planning date in case of shortage.

- 5 Use action 'F14 – Update' to update the customer order lines.

Mass replace order lines

- 1 Start 'Customer Order. Mass Change Lines' (OIS260)
- 2 On panel E, select '6 – Replace' in the 'Change type' field
- 3 Use the field on panel E to set a range of parameters to make a selection in order to define which order lines to include in the change. Click 'Next'.
- 4 Panel I is opened. On this panel you can define a 'From' and a 'To' value. Define which former values should be changed.

You can change several item numbers at the same time. Default help for these fields are based on the selection made on item numbers in OIS260/E.

You can also define the recalculation of sales price, print out acknowledgements for the changes you made, and if the available-to-promise date should be used automatically as the new planning date in case of shortage.

- 5 Use action 'F14 – Update' to update the customer order lines.

Mass close order lines

- 1 Start 'Customer Order. Mass Change Lines' (OIS260)
- 2 On panel E, select '4 – Deletion/Close' in the 'Change type' field
- 3 Use the field on panel E to set a range of parameters to make a selection in order to define which order lines to include in the change. Click 'Next'.
- 4 Panel D is opened. Select '0 – Close' in the 'Method' field.

You can also define to print acknowledgments for the changes you made.

- 5 Use action 'F14 – Update' to update the customer order lines.

Mass delete order lines

- 1 Start 'Customer Order. Mass Change Lines' (OIS260)
- 2 On panel E, select '4 – Deletion/Close' in the 'Change type' field
- 3 Use the field on panel E to set a range of parameters to make a selection in order to define which order lines to include in the change. Click 'Next'.
- 4 Panel D is opened. Select '1 – Delete' in the 'Method' field.
- 5 The 'Lost sales' check box on panel D allows you to update the sales statistics with the lost sales together with a reason code that is specified in the field 'Transaction reason'. You can also define to print acknowledgments for the changes you made.
- 6 Use action 'F14 – Update' to update the customer order lines.

Mixed Order

This document describes how to allow overissue for picked order lines on a mixed order.

Introduction

It is very common that a customer buys some items from the store at the same time as ordering items for later delivery or pick up from the warehouse. You can address this by creating two separate customer orders or by creating a mixed order.

If mistakes are made during physical inventory, the available stock in M3 Business Engine might be less than the actual stock in the store. In that case, you cannot allocate any stock to the order line, even though the customer has physically obtained the item. This can be resolved by allowing overissue for picked order lines on a mixed order.

To create customer orders with a mix of 'On Order' (next manual function 1) order lines and 'Picked' (next manual function 3) order lines, select the 'Picked' check box in the footer of 'Customer Order. Open Line' (OIS101), to create picked order lines on a customer order with next manual function 1.

The 'Picked' parameter is also available in OIS100MI.AddOrderLine.

You can create picked order lines for a quantity greater than the allocatable quantity by selecting the check box 'Overissue allwd' on 'Shop. Open' (OPS500/I). A physical inventory variance transaction (stock transaction type 90) is created for the overissued quantity in 'Stock Transaction. Display History' (MWS070).

Setup

To activate the functionality, set the parameter 'Mixed order' on 'CO Type. Open' (OIS010/J) to 1-'On order as default' or 2-'Picked as default'. The field is only visible on order types with 'CO Category' 1-'Normal order', 'Next man funct' 1-'Dispatch policy', and 'Preliminary CO' 0-'Not allowed'.

Define the settings for picked order lines on a mixed order on 'Shop. Open' (OPS500/I).

Incompatible functionality

Safeguards are in place to prevent mistakes. This makes it possible to have a setup that is correct for the order lines not specified as picked, without causing incorrect behavior for the order lines specified as picked.

The following applies to order lines specified as picked:

- An 'Availability-to-promise' (ATP) check is not performed, which can cause a situation with negative ATP. However, only quantity that is not already allocated can be used.
- The allocation table defined in 'Alloc Control Selection Table. Open' (MMS124) is ignored. The exclude option in (MMS124) can however be used to prevent automatic allocation of on order customer order lines from the locations with the location types defined in (OPS500).
- Supply model is not executed.
- Route is not retrieved or allowed to be entered.
- The 'Round order qty' and 'Round prom qty' setting on (OIS010/H) are ignored.
- There is no warning about quantity not divisible by the issue multiple.
- The 'Initial order' parameter on (OIS101/J) is ignored.

- Bulk agreements are not considered valid.
- Negative order quantity is not allowed.
- 'Line type' 1 or 2 is not allowed.

Limitations

- The 'Mixed order' functionality can only be activated on customer order types with 'CO Category' 1-'Normal order', 'Next man funct' 1-'Dispatch policy', and 'Preliminary CO' 0-'Not allowed'.
- Picked order line is not allowed for lot-controlled items.
- It is always the full customer order line that is picked.
- You cannot change the picked flag once the order line is created.
- You cannot copy order lines that were specified as picked unless the sign on quantity is reversed.
- You cannot create order lines as picked through the copy functionality even if the new order has an order type with the 'Mixed order' parameter set to 2-'Picked as default'. The order lines are created but are not flagged as picked.
- The picked flag is not stored in the statistics.
- You cannot add picked order lines on a customer order with a 'CO stop'. This is the same behavior as for orders with 'Next man funct' 3 and 4. The exception is that it is possible to have a credit check at the end of the order entry process, which is not allowed on customer order types with 'Next man funct' 3 and 4. The line is then stopped in status 33, but will not automatically go to 66 when the credit stop is released in 'Customer Order. Stop' (OIS120). You must edit the customer order, which will trigger a release of the order lines when you exit the customer order.
- You cannot change the order quantity on a picked order line if the status is greater than 33-'Allocated'.
- You cannot change the order quantity on a picked order line in status 33 if there is an overissued quantity. You must delete or close the line and add a new line.
- 'Picked' (PIKD) is only an input field in OIS100MI.AddOrderLine, not in AddBatchLine and AddLineBatchEnt. Only order lines where OIS100MI.AddOrderLine.PIKD=1 get PIKD =1, even if the order type has the 'Mixed order' parameter set to 2-'Picked as default'.
- You cannot change the invoice quantity in 'co Delivery. Payment Proposal' (OIS152) for picked order lines when 'Adv invoicing' is set to 3 on 'CO Type. Open' (OIS010/K).
- Entry of order lines through 'Full-screen Entry - Matrix. Open' (CRS207) and 'Full-screen Entry - List. Open' (CRS208) does not support creation of picked order lines.
- You cannot use (CRS207) or (CRS208) as the alias screen if 'Picked' is selected, since they do not support creation of picked order lines. The H-Panel (OIS101/H) is used instead.

Net Price Calculation Method

This document explains the two possible ways in M3 to calculate net price per unit on a customer order line.

Outcome

The net price per unit – which is stored in several transaction files – will be calculated in one of two ways.

In some industries it is very important to be able to present the unit net price both when communicating with the customer during order entry as well as on external documents such as order confirmations and invoices.

Under these circumstances, rounding problems can arise when you compare the unit net price multiplied by the quantity to the net line amount. There are two methods for calculating net price so you can choose the one that best suits your business and thereby avoid these problems.

The net price can be displayed in several panels in M3 using views. It can also be printed on quotations, order confirmations, proforma invoices and invoices.

Before you start

There are no prerequisites. This general parameter at company level that sets out how the unit net price is to be calculated.

To print the unit net price on quotations, order confirmations, proforma invoices and invoices the price printout code must be set correctly in 'Customer. Open' (CRS610/H).

Description

In 'Settings. Customer Order Entry' (CRS720) you are able to select a unit net price calculation method. This parameter affects line order entry and price simulation. Two methods are available:

Method 1 Unit net sales price

$a = (\text{Net amount} / \text{ordered quantity}) * \text{sales price quantity}$

a is then rounded off to the nearest two decimal points.

Unit net sales price = $a / \text{sales price quantity}$

Method 2 Unit net sales price

Calculation of net amount for ordered quantity 1

Net line amount = Net amount * (ordered quantity / sales price quantity)

Unit net sales price = Net amount / sales price quantity

In cases where discounts are entered as an amount and are not related to the quantity ordered, method 1 will always be applied.

Example

Unit gross price entered or from agreement = 129.5

Sales price quantity = 2 (if it is 0 then set it to 1)

Unit gross price sent to OIRTVNLA = 64.75 (that is, 129.5 / 2)

Ordered quantity = 1,044

Line discount = 13.5%

Method 1

Base amount	= 64.75 * 1,044 = 67,599
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Discount amount	$= 67,599 * (13.5 / 100) = 9,125.865 = 9,125.86$
Net amount	$= 67,599 - 9,125.86 = 58,473.14$
Net price	$= (58,473.14 / 1,044) * 2 = 112.0175 = 112.02$
Unit net price	$= 112.02 / 2 = 56.01$

Note: The net amount recalculated from unit net price $= 56.01 * 1,044 = 58,474.44$ is different from the net amount 58,473.14.

Method 2

Base amount	$= 64.75 * 2 * 1 = 129.5$ (unit gross price)
Discount amount	$= 129.5 * (13.5 / 100) = 17.4825 = 17.48$
Net price	$= 129.5 - 17.48 = 112.02$
Net amount	$= 112.02 * (1,044 / 2) = 58,474.44$
Unit net price	$= 112.02 / 2 = 56.01$

Note: The net amount equals 58,474.44.

Next Manual Function

This document explains how next manual function (NMF) affects the customer order flow.

Next Manual Function is one of the most important parts of the customer order type. Next Manual Function controls how far an order is to be processed automatically after customer order entry. The name alludes to which function is to be carried out manually after one or several steps have been processed automatically.

Outcome

Customer orders entered are processed to the extent, defined by the Next Manual Function.

Before you start

There are no prerequisites. Next Manual Function is entered when a customer order is defined.

Description

The alternatives for Next Manual Function are described below.

- 0 - No further automatic processing of the order. Can only be used for customer quotations.
- 1 - According to the settings on the connected dispatch policy in 'CO Type. Open' (OIS010/J). Only dispatch policies with auto level 3 or 4 are allowed. The 'Release for allocation' and 'Release for picking' settings on the dispatch policy in 'Dispatch Policy. Open' (MWS010/E) to determine the next manual step.

- 2 - According to the settings on the connected dispatch policy in 'CO Type. Open' (OIS010/J). There is no hard coded difference to Next manual function 1.
- 3 - Invoicing in 'CO Invoice. Print' (OIS180). Picking confirmed automatically when the order is completed.
- 4 - No function follows. The invoice or cash receipt is invoiced and printed immediately.
Note: The disadvantage of setting next manual function to 4 is that the invoice is automatically generated when you exit the customer order entry. This means that you will not be able to correct an order if you have entered an incorrect value, for example, quantity, price, discount, etc. To correct such an error, you have to create a corrective invoice via option 14 in 'Invoice. Display' (OIS350), or generate a credit order or an adjustment order in 'Customer Order. Open' (OIS100) using a customer order type whose order category is 2=Credit order or 6=Adjustment order.

Valid Next Manual Function per Customer Order Category

Not all Next Manual Functions are valid for all customer order categories.

The valid combinations are described in the table below.

CO category	Description	Valid Next Manual Function
1	Normal sales order	1, 2, 3 and 4
2	Credit order	3 and 4
4	Sales quotation	0
5	Cash order	4
6	Adjustment order (sales price/discount)	2, 3 and 4
9	Payment of bonus/commission	3 and 4
C	Debit or credit for charges	3 and 4

Preliminary Order

If preliminary orders are used, an order will be stopped at status 10=Preliminary, regardless of which Next Manual Function is used. This is controlled by the Preliminary order field in 'CO Type. Open' (OIS010/E). A preliminary order must be approved in 'Customer Order. Approve' (OIS115) before it can continue in the order flow according to Next Manual Function.

Payment Term on Customer Order Line

Summary

The payment term on the order line is retrieved from the price origin, the discounts, or the order header according to a fixed hierarchy. You control whether or not the payment term on the order line is manually editable, or not even visible, via the order type field selection (OIS014/F).

The 'logistics' delivery (MWS410/MHDISH) accepts different payment terms on the same delivery, so there is no effect on the logistics side of the process. But at delivery (customer order status ends with the digit '6'), the order is split into several 'commercial' deliveries (OIS150/ODHEAD) if there are different payment terms. This is because there can only be one payment term per invoice and the commercial delivery is the basis for the invoice.

Sometimes the payment term is part of the commercial agreement regarding prices and discounts.

Customer Order Flow

Having multiple payment terms on a customer order affects the customer order process flow. In order to minimize the effects, the customer order is kept as one entity until the commercial delivery is created (OIS150/ODHEAD). There can only be one payment term on a commercial delivery, since it is the basis for the invoice, which can only have one payment term. Therefore, the customer order is split into several commercial deliveries if there are several payment terms. For this reason, the payment term is included in the unique key of the tables for the commercial delivery header and line (ODHEAD and ODLINE). From a user perspective this affects you when you work in 'CO Delivery. Open' (OIS150). Otherwise the only significant effect is that one customer order with several different payment terms on the order lines, that are logically delivered together (MWS410/MHDISH), will give you one invoice per payment term.

The external documents Sales Quotation (QPS606PF) and Order Confirmation (OIS606PF, OIS608PF) print the payment term on each order line that has a different payment term than the one on the header. The total order amount per payment term is also printed at the bottom of the document.

Invoicing is performed as usual. Separate invoices are created based upon each combination of delivery number and payment term. The invoices can be viewed in 'CO Invoice. Display' (OIS350).

Payment Term Retrieval to the Order Line

The payment term and the payment term origin are displayed in 'Customer Order. Open Line' (OIS101/G). The payment term origin indicates where the payment term comes from. The origins are:

- 1 = Promotion (price or discount)
- 2 = Agreement (price or discount)
- 4 = Discount Model
- 5 = Price List
- 7 = Customer Order Header
- 8 = Manually Changed or Copied

The search priority when retrieving the payment terms to the order line is as follows:

- 1 Which one of either promotion or agreement that is priority 1 and 2 depends on the price origin sequence (PRPMS) in 'CO Type. Open' (OIS010/I). The order of '9' (promotion) and '6' (agreement) determines whether the promotion or agreement has the highest priority.
- 2 See above.
- 3 Discount Model
- 4 Price List
- 5 Customer Order Header

Manually Changed or Copied - Payment Term Origin 8

If the payment term on the order line is editable according to the order type (OIS014/K), then it can be manually changed in 'Customer Order. Open Line' (OIS101/G). The payment term origin becomes 8 - Manual. The origin will also be 8 if the order line is created through copying and you selected to copy the price. If you do not select to copy the price, then the payment term is not copied either, but is searched according to the normal hierarchy.

Changing Payment Term on the Customer Order Header

It is possible to change the payment term on the customer order header when order lines exist. Then a dialog will appear that enables the user to decide how these changes should affect existing customer order lines:

Answering 'Yes' means that all lines are changed, provided the payment term origin is 7 or 8, no matter what payment term it is on the order line. Answering 'No' means that all the order lines that have the same payment term as the order header (before the change) are changed, provided the payment term origin is 7 or 8. Answering 'Cancel' means that no order lines are updated.

Kit Items

The whole kit must have the same payment term, because otherwise the commercial delivery will be split since a commercial delivery can only have one payment term. If the delivery is split, then the kit is split, which causes problems at invoicing.

Therefore there are some rules for kit items:

- The kit lines will get the same payment term as the kit header if the pricing method on the kit is 1 or 2 (in 'Product Structure. Open' (PDS001/G)).
- Both the kit header and the kit lines will get the payment term from the order header (OOHEAD) if the pricing method on the kit is 3 (in 'Product Structure. Open' (PDS001/G)). This is the only way to guarantee that all the lines get the same payment term.
- The payment term is not editable on the kit lines.
- If the payment term is changed on the kit header, then all kit lines will be updated with the same payment term.

Split the Logistics Delivery Based on Payment Term

Payment term (OBTEPY) is available in the field group MWKvh, which is used in 'Dispatch Policy. Open' (MWS010/I) to define user-defined fields used for delivery consolidation. If OBTEPY is defined as a delivery consolidation field, then there will be one logistics delivery per payment term.

Planned Split of Customer Order Line

This solution is mainly designed to manage a planned split of customer order lines, which means that several deliveries to the customer are made during the requested delivery day. However, it will also work perfectly well as an agreement for delivery time schedules for each delivery address (for example, delivery at 10:00). As a matter of fact, such an agreement is just a specific scenario where the entire ordered quantity (100%) will be delivered within a specific time bucket per buying pattern.

Before you start

- 'Check planned split' on the customer (CRS610/F) must be selected.
- The field 'Check planned split' on the customer order type (OIS010/G) indicates if, and how, planned split should be performed.
- A buying pattern must be defined in 'Buying Pattern. Open' (OIS160).
- The customer must be connected to a buying pattern in 'Customer. Connect Buying Pattern' (OIS161).
- A shipping period must be defined for the combination of warehouse and buying pattern in 'Shipping Period. Open' (OIS471).
- A delivery split rule must be defined in 'Dely Split Rule. Open' (OIS470).
- The delivery split rule must be connected to the warehouse in 'Dely Split Rule. Connect to Whs/Cust' (OIS472). The connection can optionally be made against a specific customer or address.
- Delivery shares must be defined in 'Dely Split Rule. Define Dely Shares' (OIS473), which is accessed by using option 11 in (OIS472).
- 'Delivery split rule' in (MMS002/G) indicates if, and how, a planned split should be performed per combination of item and warehouse.

Workflow

When an order line is received during the planned split, the combination of customer, item, warehouse and required delivery day is used to check how to distribute the entire ordered quantity to one or more (a maximum of five) predefined delivery occasions during that particular day.

The field 'Check planned split' on the customer order type (OIS010/G) indicates if, and how, the planned split should be performed:

- 0 = Planned split is not used.
- 1 = Planned split is manually initiated in (OIS301 - Customer Order. Open Line Toolbox) after order entry.
- 2 = Planned split is automatically performed at entry of new CO lines. Auto generated CO lines could be maintained individually.
- 3 = Planned split is automatically performed at entry of new CO lines. Auto generated CO lines are maintained via the origin CO line.

Outcome

The time buckets found represent a certain share of the ordered quantity that will be allocated to different routes and departures, giving different delivery date and times at the customer.

Price Guidance in the Customer Order Process

A price guidance model is used to assist a salesperson in a price negotiation with a customer. Specifying too low a price blocks the order line from further processing until the price is authorized by a user who has the authorization to set such a price. This document describes the model in the customer order process.

Limitations

- Group discounts defined to be calculated at CO entry (when order entry is completed):
Price guidance performed before completing the CO entry does not take group discounts into account, because they are not calculated yet.
- Group discounts defined to be calculated at invoicing, order total discount, and invoice discount:
Price guidance does not take these discounts into account, because they are not calculated yet.

Price guidance

The price guidance for a customer order line is displayed in 'Price Guidance. Display' (OIS337), reached by related option 65='Price Guidance. Display' in 'Customer Order. Open Line' (OIS101), 'Customer Order. Open Line Toolbox' (OIS301), or 'Customer Order. Open Line Workbench' (OIS302). These options are only allowed if price guidance is activated on the order type in 'CO Type. Open' (OIS010/I).

A maximum of 99 price guidance levels can be displayed. The price guidance levels are defined in a price guidance model. The guidance prices are retrieved from price list tables connected to each level in the model. The prices are displayed as a net price, taking order lines discounts into considerations, unless 'Net price used' is selected on the price list.

Which model that is applied is controlled by an object control table, where for example 'User' or 'User class' can be defined to control which price guidance prices different users can see.

Use F17='More info' to see cost information such as 'Supplier rebate amount', 'Issued cost amount', 'Margin amount' and 'Margin percentage'.

Price override

Specify a new net price in (OIS337) and use F15='Update' to update the price on the order line. If the order has a discount model with a line allocated to price guidance, the change is stored as a discount on the order line (amount or percentage depending on the discount model line setting in 'Discount Model. Connect Disc Number' (OIS805)). If there is no discount line allocated to price guidance, the new net price is used as the sales price (with price origin 8='Manually entered') and all discounts are set to zero (with status 8='Manually entered').

If there is a discount line allocated to price guidance, only that discount gets status 8='Manually entered' and the order line keeps its price origin.

It is not possible to set a net price that is higher than a price guidance level defined as 'Maximum price'.

Note that the sales price and all discounts are protected from editing when price guidance is activated on the order type. The exception is ECI (Extended Catalog Items) in 'Customer Order. Acquire Sales Item' (OIS145). Here it is possible to edit the price and discounts since there is no good support for ECI in the price guidance. ECI are usually priced through price origin C (calculated price according to sales costing model on the customer order line).

Price authorization required – block the order line

If the specified net price in (OIS337) is below a price guidance level defined as 'Minimum price', you receive a message that you need authorization to sell at this price. The order line is blocked from being processed

further until the price is authorized by someone who has the authorization to set such a low price. If activated, application message 433='CO line requires price authorization' can be sent to one or several users to inform that authorization is required.

There are several indications that a line is blocked for further processing:

- The 'Order line stop code' (OLSC) is set to 1-'Price change must be approved'. (Available on views in (OIS101), (OIS301), and (OIS302).)
- 'Pick hold' on the delivery line is set to 5-'Yes, price auth' to indicate that price authorization is required to release the line for picking in 'Delivery. Open Line Toolbox' (MWS411/E).
- The delivery gets delivery status 02-'Alloc failed' and the delivery stop code is set to A03-'Yes, price auth' in 'Delivery. Open Toolbox' (MWS410/E).

When one order line is blocked the other order lines are affected differently depending on the setting of the 'Allocation check' on the dispatch policy in 'Dispatch Policy. Open' (MWS010/G):

- 'Allocation check' is set to 0-'Allocated lines': No other lines are blocked for further processing.
- 'Allocation check' is set to 1-'Joint del lines': Lines with the same joint delivery code are blocked for further processing.
- 'Allocation check' is set to 2-'All order lines': All order lines are blocked for further processing.

Customer order types with next manual function 3 and 4 can only use dispatch policies that has 'Allocation check' set to 2, which means all order lines are blocked for further processing until there are no order lines blocked for price authorization.

The 'Order line stop code' is available in the XML for the order confirmation and quotation.

Price authorization

Any user with authorization to set the price can also authorize the price. This can be done at any workstation. Use F19='Local authorization' in (OIS337) to apply your authorization level to the program and retrieve the price guidance model valid for you. F19 prompts for a user name and PIN code and (OIS337) runs with that user ID until it is closed or another user uses F19.

Use F16='Approve price' to authorize the current price or F15='Update' to change the price. F14='Retrieve price' can be used to launch a new retrieval of sales price per the normal price logic, where the price override is removed.

If the price is below what you are authorized to approve when you attempt to approve the price with F16, you get a message that you will need authorization to sell at this price. If the message is confirmed, the order line remains blocked from being processed further until the price is authorized by someone who has the authorization to set such a low price. If activated, application message 433='CO line requires price authorization' can be sent to one or several users to inform that authorization is required.

You must specify two 'Audit reason codes' in (OIS337/E) if the net price is below a price guidance level defined as 'Audit required' but above the minimum price.

If the function (OIS337) is activated in 'Function. Connect Reason Category' (CRS222) with reason category defined for both audit reasons. It is possible to add either one of the reason codes in (OIS337/E). If not activated, you must enter two audit reason codes in (OIS337/E).

Use F17='More info' to display the last 'Audit reason code' entered for the last modified audit required sales price in (OIS337/G).

It is possible to create a sorting order with the order line stop code (OBOLSC) in 'Customer Order. Open Line Workbench' (OIS302). A sorting option that uses OBOLSC as a 'Select' field in 'M3 File. Create Sorting Options' (CRS021/F) can be used to create a sorting order in (OIS302) which lists order lines that needs to be authorized.

If several order lines are selected in (OIS101) or (OIS302) and related option 65 is used to open (OIS337), the local authorization login is valid until the last of the selected order lines has been processed.

Copy customer order or quotation

Copying sales prices in customer orders to a CO type where 'Price guidance' is selected results in blocked lines. Copying blocked lines from a quotation results in blocked lines.

See [Copy Sales Prices for Price Guidance](#) on page 252.

Preliminary order

Approving a preliminary order raises the status on the customer order from 10 to 22. Order lines that are blocked for price authorization (OLSC is 1) will still be prevented from further processing.

Prepayment

Order lines that are blocked for price authorization (OLSC is 1) cannot be included in a payment proposal or an advance payment document. Once the price is approved, a new proposal or document must be created.

Customer order API (OIS100MI)

When price guidance is activated on the customer order type, OIS337MI should be used to change the price on the order line. OIS337MI can only be used for customer order lines in (OIS101), not batch order lines in 'Batch Order. Open Lines' (OIS276).

- AddBatchLine and SndBatchLine
Transactions AddBatchLine and SndBatchLine ignore any price or discount that is sent as input if price guidance is activated on the order type.
- AddOrderLine and AddLineBatchEnt
Transactions AddOrderLine and AddLineBatchEnt will activate the error message 'Field &1 should not be entered.' (S_00645) if any price or discount is sent as input and price guidance is activated on the order type (&1 in the error message is the field name, for example SAPR or DIA1.)

Price Guidance Override History

When price guidance is used, all price overrides are stored in the price override history. This document describes the process for price override history, how and when the override history is created and updated.

Price override details are stored if alternative '2-Yes, and store details' in parameter 'Price Guidance' on the customer order type 'CO Type. Open' (OIS010/I) is selected.

Price override history table

The price override history is stored in table OIPROI. There is no program where this can be viewed. An information browser category can be created in 'Information Browser Category. Open' (CMS010). It can be used for Ad Hoc reporting, viewing in a list (including search and filtering capabilities), or for creating an API transaction in CMS100MI.

Price override details table

When alternative '2-Yes, and store details' in parameter 'Price Guidance' on the customer order type (OIS010/I) is selected, price override details are stored in table OIPROD. OIPROD stores all price levels of the used price guidance model available upon price override in (OIS337). For every record stored in OIPROI, a record in OIPROD is stored.

There is no program where this can be viewed. An information browser category can be created in 'Information Browser Category. Open' (CMS010). It can be used for Ad Hoc reporting, viewing in a list (including search and filtering capabilities), or for creating an API transaction in MCS100MI.

Update the price

F15='Update' in 'Price Guidance. Display' (OIS337) writes a record in OIPROI and updates these values:

- 'Original net price' (ORNP)
- 'Override price' (OVRP)
- 'Override date' (ORDA)
- 'Override user' (OVRU)

If the order line is blocked for authorization and an authorizer or authorizer user class can be found through the object control table for price authorization, then the 'Authorizer' (AUUI) and 'Auth user class' (AUUC) are updated.

If a record exists in OIPROI and OIPROD, and the same user uses F15 again, then the existing record is deleted and a new record is written. If another user updates the price with F15, then the existing record is flagged as cancelled (CCEL=1) and a new record is written.

Recalculation of the price (for example F14 in (OIS337) or (OIS101)) removes the record in OIPROI and OIPROD.

Approve the price

F16='Approve price' in (OIS337) updates these fields on the existing record in OIPROI:

- 'Authorized price' (AUP2)
- 'Authorizer' (AUUS)
- 'Authorized date' (AUDA)

Special scenario – Immediate price approval:

The salesperson asks the manager to approve the price immediately, without first updating the CO line and stop it. The manager uses F19='Local authorization' to see the manager's price limits. The manager uses F15='Update' to set the price. The price is stored both as 'Override price' and 'Authorized price'. The actual user (the salesperson) is registered as the 'Override user' (OVRU) and the local authorization user (the manager) is registered as the 'Authorizer' (AUUS). The other 'Authorized' fields (AUP2, AUUS, and AUDA) are also updated.

However, if the local authorization user (the manager) is not allowed to set the price, the local authorization user is registered as the 'Override user' (OVRU) and the other fields (AUP2, AUUS, and AUD) are left blank since the price is not Approved. The 'Authorizer' (AUUI) and 'Auth user class' (AUUC) are updated based on the set up for the local authorization user (the manager), to be able to send the application message to the correct person(s).

Special scenario – Not authorized to approve the price:

If the price is below what you are authorized to approve when F16='Approve price' is used, you get a message that you will need authorization to sell at this price. If the message is confirmed, the existing record is flagged as cancelled (CCEL=1) and a new record is written. You are registered as the 'Override user' (OVRU) and the 'Authorizer' (AUUI) and 'Auth user class' (AUUC) are updated as if you used F15='Update' to update the price.

When the price is approved, price guidance levels available from the used price guidance model during price override in (OIS337) are stored in OIPROD if alternative '2-Yes, and store details' in parameter 'Price Guidance' on the customer order type (OIS010/I) is selected.

Audit

If the Audit process is triggered, these fields are updated in OIPROI:

- 'Audit triggered date' (Audit date - ATDT)
- 'Audit reason 1' (ARS1 - Ref RSCO)
- 'Audit reason 2' (ARS2 - Ref RSCO)

Copy customer order lines

When sales prices in a customer order are copied to a customer order with 'Price guidance' selected, existing OIPROI and OIPROD records are copied, but the following are set in OIPROI: 'Override user' is set to 'COPY ORDER' and the 'Auth user class' and 'Authorizer' are blanked out to prevent messages about authorization to be sent.

When the price is confirmed, existing transactions are flagged as cancelled and a new transaction is created.

Copy a quotation

When sales prices in a quotation are copied to a customer order with 'Price guidance' selected some conditions apply for the override history:

- If the price on the quotation was changed through price guidance, the price override history (OIPROI) and the price override details (OIPROD) are copied to the new customer order (or new quotation if you are copying to another quotation).
- If the quotation order line is blocked for price authorization, the new order line is also blocked. When an order line is blocked for price authorization, existing OIPROI and OIPROD records are copied, but the following are set in OIPROI: the 'Override user' is set to 'COPY QUOTE' and the 'Auth user class' and 'Authorizer' are blanked out to prevent messages about authorization to be sent.

When the price is confirmed, existing transactions are flagged as cancelled and a new transaction is created.

Print Customer Order Confirmation on Paper or Send Electronically

This document explains how to send a customer order confirmation to one or more customers, either on paper or electronically.

This instruction is used if order confirmation is not printed automatically after order entry or order approval. Automatic printout is set for document number 231 (order confirmation) in 'co Type. Connect Documents' (OIS011).

This instruction can also be used when you want to print copies of previously printed order confirmations.

Outcome

Order confirmations are printed on paper or sent through electronic media. Prices are printed depending on how the 'Price printout' field is set in 'Customer. Open' (CRS610/H).

- To send order confirmations to customers.
- Order confirmations are created as document OIS606PF in the spool file.

Order confirmations are created as document OIS606PF in the spool file.

Before you start

- Customer orders must be specified. If customer order approval is used, the orders must be approved.
- An order confirmation document (document number 231) is connected to the customer order to be confirmed. This is checked using option 13='Documents' in 'Customer Order. Open' (OIS100) or 'Customer Order. Open Toolbox' (OIS300). The order confirmation document is connected to an order using a setting in 'CO Type. Connect Documents' (OIS011). Note that the document group must be the same as the one specified in 'Customer. Open' (CRS610/H). Order confirmation can also be connected manually in 'Customer Order. Connect Documents' (OIS104), which is reached from 'Customer Order. Open' (OIS100).
- If order confirmations are sent electronically, for example through EDI, document number 231 must be specified with an appropriate communication code in 'Standard Document. Connect Media Control Object' (CRS945).

In (OIS104), you can specify a printer ID or email address, or both, per document, to be used for the document printout for that customer order. The values specified on the document will override the media control setup of the document in 'Doc Media Control Object. Connect Media' (CRS949).

For the functionality to work, the media control in (CRS949) must be used with a setup that can be overridden. The printer settings for the user in 'Output Media Selection. Open' (MNS205) are not overridden. That is, if a printer ID is specified for a document in (OIS104), a record with printer as media must exist for the document in (CRS949).

This functionality is not implemented for all documents. The supported documents are the order confirmation (231), the quotation document (310), the preliminary invoice (350), the payment document (360), and the invoice (380) for customer orders.

For the order confirmation, the quotation document, and the payment document, the values specified for the documents in (OIS104) are used. For the preliminary invoice and the invoice documents, the values are

retrieved from 'CO Delivery. Connect Documents' (OIS154). Note that the values specified for the documents in (OIS104) are automatically copied to the documents in (OIS154).

Follow these steps

- 1 Start 'Customer Order. Print Confirmation' (OIS605).
- 2 Specify which customer order confirmation is to be printed. This activity can be done in two ways:
 - Specify intervals for different selection criteria. If several criteria are specified, specify a sorting order in the 'Sorting order' field.
 - Specify up to five individual customer order numbers in the fields at the bottom of the panel.
- 3 In the 'Copy' field, specify whether only new documents or new documents and copies of old documents are to be printed.
- 4 Press Enter to start printing or generating the electronic message.
- 5 If no out queue is defined, specify the out queue on the panel displayed.

Print Price Labels for External Prices

This document explains how to print price labels for external prices.

Outcome

Labels that can be used to tag packages are printed.

Before you start

- The prerequisites listed in [External Pricing Information](#) on page 151 must be met.
- External prices must be set to be included on price labels in 'Customer. Open' (CRS610/H).
- Customer orders including external prices must be specified.

Follow these steps

- 1 Start 'Customer Order. Print Sales Price Label' (OIS615).
- 2 Specify a label flag in the left 'Label flag' field.
- 3 Optionally, specify a label flag for a complimentary price in the right 'Label flag' field.
- 4 Specify intervals for customer orders and customer order lines if you want to limit the labels to be printed.
- 5 You can print more than one label per order quantity (in basic U/M), specify the number of labels to be printed in the 'Number of labels' field.
- 6 Press Enter to start printing.

Propose Facility on Customer Order

It is possible to propose the facility on the customer order header (OIS100) at CO entry. The proposal can come from the customer, the user, the division, or the order type. This functionality is enabled using the field selection on the order type in 'CO Type. Update Field Selection' (OIS014/E).

If an M3 user is not restricted to enter customer orders for one facility, the user will need to enter the correct facility when creating a customer order. As the user might not know which facility to use, looking up details on the customer record (CRS610/G) when creating a customer order can be a problem (especially at call centers).

Customer orders created via batch order entry might be another problem. In order to control the facility per customer, a customer specific record need to exist in 'Settings. Batch Orders' (OIS278).

Quotation Management

This process is used to create a sales quotation, which is a statement of prices, terms of sale, and description of goods/services offered to a prospective customer.

The information specified in the quotation forms the basis for resulting customer orders.

Before you start

- A customer must have an inquiry.
- A customer order type must be defined with customer order category 4.

Note: A quotation entry is performed mainly in the same way and in the same program as you specify a customer order.

Both required and optional checks are performed while specifying a customer order.

Follow these steps

1 Entering quotation header

Quotation headers are specified manually in 'Customer Order. Open' (OIS100) by copying a customer order type with customer order category 4 (Quotation).

A quotation can also be copied from a previous quotation or customer order. These do not need to be for the same customer as for the quotation created, so a quotation for customer A can be copied from a quotation or order from customer B.

Each quotation is identified by a unique quotation number. If the number is left blank when the quotation is created, it is assigned the next available number from the number series specified in the customer order type.

The quotation header is automatically checked so that terms, currency, discount model, price lists, references, etc. can be changed. Most of this information is entered by default from the customer order type.

- **Entering control parameters**

The following control parameters are specified in panel 'Customer Order. Open' (OIS100/E).

When the customer requesting the quotation is not the payer, the resulting customer order is invoiced to the payer. Any credit checks are made against the payer's credit limits and the payer receives any credits. The payer can also be specified in panel 'Customer Order. Open' (OIS100/A).

If the invoice recipient is not the payer, this ID is retrieved from the customer file. The recipient can then be changed in each quotation in panel 'Customer Order. Open' (OIS100/E). Note that credits are always made to the payer.

If the 'Requested delivery' field is left blank in 'Customer Order. Open' (OIS100/A), a delivery date is entered by default and displayed in the E panel. The customer order type regulates how long after the entry date the default delivery date can be.

- **Entering terms**

The terms for the quotation are specified in panel 'Customer Order. Open' (OIS100/F). These can be payment terms, delivery terms, or delivery method. Default values are retrieved from the customer file.

2 Entering quotation lines

Quotation lines can be specified manually or copied from another quotation or customer order.

- **Entering references**

References for the quotation are specified in 'Customer Order. Open' (OIS100/G). These can be Our reference, Your reference, project number, etc.

Statistics IDs from the customer quotation header update the statistics according to the customer order type. Default values can be changed in the header. Examples of IDs are salesperson, district, customer group or optional statistics fields.

Statistics IDs 1 and 2 are optional selection IDs. They are used to sort information such as temporary customers. They are entered per customer in 'Customer. Open' (CRS610/H), and are retrieved as default values during quotation entry. Statistics ID 1 can be changed.

- **Entering pricing information**

Pricing information for the quotation such as VAT duty and VAT code are specified in 'Customer Order. Open' (OIS100/H).

The currency is specified as a three-character abbreviation according to ISO standards. The exchange rate can be entered as a fixed rate with six decimals. If this field is left blank, the rate is retrieved from the rate table according to the customer order type.

To use the currency, the calculation method currency must be specified in 'Company. Connect Division' (MNS100).

A discount model must be specified for the quotation in order for discounts to be made. This is so even if manual discounting is used.

- **Supplement customer addresses**

Normally the delivery address for the quotation is retrieved from the customer file. It can be changed for each quotation in 'Customer Order. Connect Address' (OIS102/H).

- **Entering quotation charges**

During quotation entry, normal order charges are retrieved from the customer and customer order type of the quotation, as specified in the customer order type.

Quotation charges can also be specified in 'Customer Order. Connect Charges' (OIS103). The charges are calculated in different ways.

- **Entering documents per quotation**

A quotation document can be connected to each quotation in 'Customer Order. Connect Documents' (OIS104). A normal set of documents is connected to the quotation during entry. The documents are retrieved from the customer order type, and can be changed for each quotation.

- **Entering quotation comments**

Optional introductory or closing comments can be specified in all quotations.

3 Displaying customer order totals

A compilation of the quotations is displayed in 'Customer Order. Simulate Totals' (OIS110). Charges, costs, discounts, round-offs, gross order total, etc. are all displayed.

If a discount number is defined as an order total discount in the discount model, then fields Order total discount, Total price, Percent order total discount and Percent contribution margin can be changed.

4 Entering quotation information

When specifying a quotation, 'Sales Quotation. Open Information' (QPS115) is always displayed. The information specific to a sales quotation is specified here, such as status, quotation reason, and IDs for tracking and follow-up. The 'Valid to' field is required.

The user-defined fields can be used to enter optional information, such as search keys for query reports.

- **Entering reference object**

Reference objects are optional search keys that can be specified in 'Quotation Reference Object. Open' (CRS270). They can then be specified for a quotation in 'Sales Quotation. Open Information' (QPS115).

When reference objects are used, it is possible to keep several quotations together if they are part of the same project, for example.

- **Entering quotation reason**

The 'Quotation reason' field can be used to specify a user-defined code representing the reason a quotation was submitted to a customer. For example, the reason might be an inquiry or response to a campaign. The reason is then used as a key for tracking the quotation.

Quotation reasons are specified in 'Quotation Reason. Open' (CRS260).

- **Entering monitoring dates and activities**

Two monitoring dates can be specified for a quotation. These dates are used to track quotations in 'Sales Quotation. Open Information' (QPS115).

A general tracking activity is connect to each date, defining the action to be taken on that date. The activities are specified in 'Quotation Monitoring Activity. Open' (CRS265).

Example

The last validity date for a quotation is 30th of April. Monitoring date 1 is entered as 31st of March along with activity Letter. Monitoring date 2 is entered as 15th of April along with activity Call. This means that the customer should be sent a reminder letter on the 31st of March and then called on the 15th of April.

5 Printing quotation

Quotations are printed from 'Sales Quotation. Print' (QPS600). They can only be printed once as an original, after which copies can be printed.

Quotations can be printed on paper, electronically via EDI, as a network file on the AS/400 or as a fax. The method is specified in the 'Communication code' field for each document and partner in 'Document. Connect Partner Reference' (CRS945).

6 Track and follow up quotation

Entered quotations are tracked and followed up in 'Sales Quotation. Open Information' (QPS115). The monitoring date, validity date, reference object, etc. can all be specified and then used as search keys to keep track of the activities to be carried out, the dates to contact a customer, etc.

Reasonability Check at Customer Order Line Entry

A reasonability check is used to minimize the risk of entering abnormal quantities when you enter customer order lines. The entered quantity is compared to a control value, defined for the combination of customer and item.

Follow these steps

Defining reasonability values

Reasonability values can be defined using any of these methods:

- Method 1 - Ordered quantity checked against specified maximum and minimum quantities.
This alternative makes sure the quantity ordered by the customer is within the limits for the item.
- Method 2 - Ordered quantity checked against customer average for the item.
This alternative compares the ordered quantity with an average of the last three purchases for a specific customer.
- Method 3 - Ordered quantity checked against general average for the item.
This alternative compares the ordered quantity with the general average of the last three purchases of an item.

At order line entry a check is performed to verify whether ordering customer and entered item match an entry for the same combination in 'Customer. Connect Item' (OIS005). If these match, and if the reasonability check is enabled on the CO type (OIS010/H), the ordered quantity is checked according to the reasonability check method selected in (OIS005/E). A warning is displayed if the order is abnormal compared to defined values. The user can then decide whether the customer should be allowed to order the quantity.

Method 1 - Check against specified quantities

Use method 1 if a message should be issued if ordered quantity is outside the range of defined minimum and maximum quantities entered in 'Customer. Connect Item' (OIS005/E).

Method 2 - Check against Customer average

Use method 2 if a message should be issued if ordered quantity deviates from the customer's normal buying pattern for the item. The normal buying pattern is calculated as the average of the last three purchases. The ordered quantity cannot deviate from the average more than a specified percentage, defined in a reasonability table.

Reasonability table

A unique reasonability table is entered for the combination of customer and item. The reasonability table is defined in 'Customer Item. Connect Reasonability Tab' (OIS220), which is started from 'Customer. Connect Item' (OIS005), using option 11.

The table consists of a range of quantities and allowed deviation in percent; see the following example.

A reasonability table is defined as:

Quantity	Deviation
10	500%
100	200%
500	30%

The customer's last three orders are: 200, 150 and 175. The buying pattern therefore shows an average of 175.

The customer orders 300 items. The order falls in the range of 100 to 500 in the table, for which the difference can be up to 200%. The order differs from the average by 71.43% ($300/175=1.7143$). Therefore, this order lies within the reasonable limits specified.

If the order were for 750 items, the percentage difference would be 329% ($750/175 = 4.285$), and therefore well outside the specified limit.

Method 3 - Check against general average

Use method 3 if a message should be issued if ordered quantity is outside the boundaries entered generally for an item, regardless of ordering customer.

To handle this, an item must be entered in combination with a blank customer number in 'Customer. Connect Item' (OIS005). This means that the item and customer-unique entry refer to quantity limits entered for the combination of item and blank customer.

Configuration Set up

Reasonability checks are enabled in 'CO Type. Open' (OIS010/H), and the reasonability check method is selected in 'Customer. Connect Item' (OIS005/E).

If reasonability check method 2 is used, this setup is required:

- The 'Update buying pattern' field must be enabled in 'CO Type. Open' (OIS010/F).
- A buying pattern must be connected to the customer in 'Customer. Connect Buying Pattern' (OIS161).
- Alternative 1-3 must be specified in the 'Buying pattern type' field in 'Customer. Open' (CRS610/F). Also check the entry in the 'Buying pattern exception' field in CRS610/F.
- The 'Update buying pattern' field must be enabled in 'Item. Open' (MMS001/F).

Register Customer Return

The purpose of this procedure is to register customer returns.

Before you start

The receiving warehouse allowing customer returns must be specified in 'Settings – Customer Returns' (OIS399).

Follow these steps

- 1 Open 'Customer Return. Open' (OIS390).
- 2 Set opening panel A and panel sequence E1.
- 3 Specify the warehouse and the customer or customer order number.
- 4 Optionally, specify the invoice number to which the return applies.
 - If no invoice number is specified, the quantity retrieved later in 'Customer Return. Open Lines' (OIS391) will be the quantity that remains to be credited on the order line (the invoiced quantity on the customer order line less what has already been returned or reduced via corrective invoicing).
 - If the original invoice number is specified, the retrieved quantity will be the quantity invoiced on that specific invoice if the quantity is less than what remains to be credited on the order line.
 - If the corrective invoice number or a credit note number is specified, the retrieved quantity will be the returned quantity per the invoice correction. This is useful when registering a return after correcting an invoice.
 - If a pick-up delivery of the customer return should be transportation planned, a pick-up address ID, requested pick-up date and time, and the method of how to create the pick-up delivery must be entered.
- 5 Press Enter.
- 6 Adjust the default values on panel E. Default values are retrieved from the warehouse that the return is registered against. Press Enter. 'Customer Return. Open Lines' (OIS391) is displayed.
- 7 Specify the goods returned (or notified to be returned). If the original customer order was referenced in step 3, all order lines can be retrieved using F14='Retrieve' or a specific order line can be retrieved by specifying the order line number in the footer.
- 8 To register another customer return, repeat steps 3 to 6. To end, press F3.

Report Inspection Results - Customer Returns

The purpose of this procedure is to report the results of inspecting goods received from a customer return.

The reason for the customer return is specified in the report using a reason code for the quantity returned. The report also includes the action to be taken with the returned goods.

After using this procedure, the lines for the returned goods are reclassified in inventory as specified in the report.

Before you start

- A customer return must be specified.
- The returned goods to be inspected must be specified as received as described in procedure [Enter Goods Receipt - Advised Customer Returns](#) on page 303.

Follow these steps

- 1 Select 'Customer Return. Open' (OIS390).
- 2 Select option 13=Inspection for the appropriate customer return. 'Customer Return. Display Inspect Result' (OIS392/B) is started.
- 3 Select 'Open' for the line to be reported and the E panel is displayed.
- 4 Specify the values for the customer return. Assign the action to be taken for each appropriate portion of the total quantity. Specify the reason code and location for each portion.
- 5 Press F14=Update to update the results and statistics and to create stock transactions (movements).
- 6 Press F3=End to return to the next line and repeat steps 2 to 5. Otherwise, return to 'Customer Return. Open' (OIS390).

(OIS392/E) can also be accessed using option 13 in 'Customer Return. Open Lines' (OIS391).

Reschedule Customer Order Lines

Summary

'Customer Order. Reschedule' (OIS130) can be used to reschedule order lines on a specific customer order, or on multiple customer orders at once. This function can also be used to change the requested delivery date on the order lines.

It is also possible to use 'Customer Order. Mass Change Lines' (OIS260) to change the planning date on order lines on multiple customer orders at once. See [Mass Change Order Lines](#) on page 369 for more information about that functionality.

Limitation

If one of the selected customer order lines is attached to a joint delivery code, all other customer order lines connected to the same joint delivery code will be rescheduled, even if they are not included by the selection criteria.

Customer order lines connected to reference orders or preallocation are not rescheduled. These CO lines may be automatically rescheduled by the autojob (depending on the customer order type settings) when the confirmed delivery date for the acquisition order is changed.

Working in (OIS130)

Use sorting order 1='Planning date' in 'Customer Order. Reschedule' (OIS130) to reschedule order lines on a specific customer order based on the current available-to-promise (ATP). The current ATP date is displayed for each order line and Action F15='Proposals' can be used to propose the ATP dates as the new planning date/time.

Use sorting order 2='Req delivery date' to change the requested delivery date/time on the order lines.

You can also enter a new date and time manually, for both sorting orders. A joint delivery code can also be entered.

Action F18 Mass change order lines='Repeat' can be used to repeat the new date/time and joint delivery code of the first line in the list to all the lines in the list.

Submit the update with Action F14='Update'.

Working in (OIS280)

'Customer Order. Reschedule CO Lines' (OIS280) can be used to reschedule order lines on multiple customer orders at once. This is normally triggered by changes in available-to-promise (ATP) for a specific item and therefore the rescheduling is normally done with a selection on item number. (The ATP change can, for example, be caused by a problem in production or a late delivery from the supplier.) The available quantity is 'allocated' to the order lines based on priority and requested delivery date.

This is a submitted job that can take a long time to execute.

Note: To avoid unpredictable rescheduling results, it is recommended that you run this job when there are no other activities on the system. For example, entering new order lines for the item being rescheduled can lead to an incorrect ATP calculation.

Enter selection criteria for the rescheduling in OIS280/E. The selections refer to the corresponding fields in the customer order line and customer order header:

- From/to warehouse
- From/to item number
- From/to customer number
- From/to planning date
- From/to departure date
- From/to confirmed delivery date
- From/to requested delivery date
- From/to customer order type
- From/to priority on customer order header
- From/to priority on customer order line

Press Enter or click Next to submit the batch job.

Outcome

Planning date/time, departure date/time and confirmed delivery date/time are updated on the customer order line when rescheduling is performed. In addition, a new route and route departure may be updated on the customer order line, depending on the route preselections and customer order type settings.

Return Status - Customer Return

The return status describes the progress of a returned customer order line in customer return processing. The valid alternatives are:

- 11 = Advice on quantity
- 12 = Advice on quantity and partly received
- 13 = Advice on quantity and partly inspected
- 22 = Quantity received
- 23 = Quantity received and partly inspected
- 33 = Quantity inspected.

The return status is used when processing customer order returns for both informational purposes and as a selection identity. It is also used to check selections when deleting customer returns.

Example

Assume a customer return is entered for a warehouse that requires the return be inspected before the credit note is created. The order line for the customer return must have status 33 (Inspected) before the credit note is created.

Salesperson on Order Line Level

It is possible to add one or several salespersons to an order line. An object control table is used for directing the salesperson to the order line in customer order entry. In addition, with an Equipment I-Switch, it is also possible to connect many salespersons to an order line in 'Connect Salesperson' (CRS114). This equipment-specific functionality is possible to use with EQM, Customer Order, Rental Agreement and Maintenance Order.

Background

Many industries require functionality to add different salespersons to different customer order lines within the same order. An example of a realistic scenario for this can be that a company has two different product groups which are sold to the same customer. It might not be enough to have the salesperson attached to the customer defaulted to the order lines, since there might be different salespersons per product group per customer.

In the Equipment industry there is an additional need to have more than one salesperson per order line.

Workflow

- For standard functionality, a salesperson is defaulted to the customer order lines upon order entry.
- For Equipment, salespersons are connected to an order in 'Connect Salesperson' (CRS114).

'Connect Salesperson' (CRS114) can be opened from:

- the order lines in 'Quotation Line',
- 'Customer Order Line' (OIS101)
- 'Customer Order Line Toolbox' (OIS301)
- 'Rental Agreement' (STS201)
- 'Maintenance CO. Open Line' (COS101) with a related option.

Setup

You can set up an object control table for a salesperson in 'Salesperson Selection Table. Open' (CRS171). The program is started from 'Available Object Ctrl Parameters' (CMS016).

For the fields in the object control table, the field group SMCDB is used. When an order line (included in the set up in 'Salesperson Selection Table. Open' (CRS171)) is added, the salespersons are added to that order line. It might be necessary to use F14=Generate in 'Available Object Ctrl Parameters' (CMS016) to add 'Salesperson Selection Table. Open' (CRS171) in the selection.

In order to activate the functionality, field control has to be configured in 'CO Type. Update Field Selection' (OIS014/J). The field value for the **Salesperson** field should be set to ***SYS**.

Settings Descriptions

Program ID	Field Heading	Description
CRS171	Salespersons Selection	Set up selection for salesperson
CRS114	Connect Salesperson	Connect salesperson to an order line

MI Programs for Equipment

- CRS114MI Order Line Salespersons Interface
A new interface to handle salespersons in CRS114 is added. It will be used for all order categories. ORCA is set to the following depending on the order category:
311 if a CO
315 if an EQM
731 if Rental
771 if a MCO
 - AddSalesperson: Create record in file CRSMCD
 - DelSalesperson: Delete record in file CRSMCD
 - LstSalesperson: List records in CRSMCD
- OIS100MI Customer Order Interface
 - AddBatchSalesperson: Create record in file OXSMCD
 - DelBatchSalesperson: Delete record in file OXSMCD

Sales Quotation - Customer Order

A sales quotation is an offer made to a customer which can result in a customer order when accepted by the customer. The quotation can be copied to create one or more customer orders.

Select Several Items at the Same Time to Speed Up Order Line Entry

This document explains how you can select several items at the same time in order to speed up order line entry.

Use the multiple item selection function when you:

- Have a large item database
- Process customer orders with a large number of order lines, and you want to avoid browsing for an item by pressing F4=Browse in the item field each time you want to enter an order line.

Outcome

A customer order is entered and order line entry is dealt with quickly by using the multiple item selection function.

The following files are updated:

- The customer order header file, OOHEAD
- The customer order line file, OOLINE

Before you start

- A default view and a default sorting order must be specified on the P panel in 'Customer Order. Open Line' (OIS101). For more information, see the table below.
- A customer order header must be specified in 'Customer Order. Open' (OIS100).
- Start Customer Order Entry:
 - 1 Start 'Customer Order. Open' (OIS100/B).
This instruction is based on panel sequence 5.
 - 2 On the B panel, specify a customer number. Press Enter and necessary information about the customer is automatically retrieved into the order header.
 - 3 Specify a requested delivery date and other information if necessary. Press Enter to proceed to 'Customer Order. Open Line' (OIS101/B).

Follow these steps

- 1 On the (OIS101/B) panel, press F4=Browse twice in the Item field to start 'Item. Open Toolbox' (MMS200/B).

There are two different ways of entering quantity when using multiple item selection, depending on how the view for (MMS200) is defined in 'View. Open' (CRS020):

- If the 'Option/Quantity' field=0 in (CRS020/F), then you must enter the ordered quantity when you return to the B or H panel in (OIS101).
- If the 'Option/Quantity' field=1 in (CRS020/F), then the 'Order quantity' field is displayed on the (MMS200/B) panel, where you can enter the ordered quantity directly, and information about the quantity is displayed when you return to the B or H panel in (OIS101).

2 On the B panel, select the items to be ordered and right-click one of the items then select Select. The following applies:

- If you have started from the (OIS101/B) panel and selected only one item, you will return to the (OIS101/B) panel with the ordered item. Go to the (OIS101/B) panel, continue order line entry if required. Click Exit to finish.
- If you have started from the (OIS101/B) panel and selected several items, you will return to the (OIS101/H) panel with the ordered items. Go to (OIS101/B) panel, continue order line entry if required. Click Exit to finish.
- If you have started from the (OIS101/H) panel and selected one or several items, you will always return to the (OIS101/H) panel with the ordered items. Go to (OIS101/H) panel, press Enter to validate the selected items. Click Exit to finish.

Note: The selection of ordered items is cancelled if you leave the (OIS101/H) panel without validation.

When you return to (OIS101/H) with a selection of items and you want to add more items to the order, it is possible to press F4=Browse again and make a new selection. In this case, no control is done by M3 to prevent you from selecting the same items as previously.

- If one or more items selected in 'Item. Open Toolbox' (MMS200/B) fail the standard controls executed by 'Customer Order. Open Line' (OIS101), a warning message is displayed informing you how many items could not be selected.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OIS101/P)	View (MMS200)	<p>... the default view to be used when starting 'Item. Open Toolbox' (MMS200) from 'Customer Order. Open Lines' (OIS101). If settings are defined in 'Customer Order. Open Lines' (OIS101/P), then they will override the settings defined in 'Information View Pgm Connection. Open' (CRS014).</p> <p>Views are created in 'View. Open' (CRS020).</p>
(OIS101/P)	Sorting order (MMS200)	<p>... the default sorting order to be used when starting (MMS200) from (OIS101). If settings are defined in (OIS101/P), then they will override the settings defined in 'Information View Pgm Connection. Open' (CRS014). Sorting orders are created in 'Sorting order. Open' (CRS022).</p>

Selling Spare Parts Included in or Priced by a Maintenance Agreement

This document explains how to sell spare parts that are priced by a maintenance agreement.

A maintenance agreement entitlement check is made when you sell a spare part. The maintenance agreement entitlement check verifies whether the spare part is priced by the maintenance agreement.

Outcome

The spare part is delivered, an invoice is created and sales statistics are updated.

If the spare part is priced by a maintenance agreement, the sales statistics are updated for each piece of equipment and maintenance agreement.

A maintenance agreement entitlement check at sales order entry enables spare parts to be processed through customer order entry and to be priced according to a maintenance agreement.

With the updated sales statistics for spare parts, you can follow up on the spare part sales in connection with equipment or maintenance agreement.

You can monitor and follow up transactions on the equipment level in the M3 Equipment Profitability application.

The following tables are updated:

- OOHEAD and OOLINE - Sales order header and order line.
- CAABAL table - Updated with financial transactions when the general ledger is updated. The CAABAL table is read by the M3 Equipment Profitability application.
- OSASTD - Updated with the customer order statistics at order registration.
- OSBSTD - Updated with the customer order statistics at invoicing.

Before you start

- The spare part sale fields 'Product', 'Serial Number' and 'Maintenance agreement' must have been made available for entry according to settings in 'co Type. Update Field Selection' (OIS014).
- Spare part sales pop-up window: The pop-up window is either displayed automatically by setting the 'Entitlement check' on the customer order type to 3 (Active, pop-up) or by using function key F23 in 'Customer Order. Open Lines' (OIS101).
- Customer order line: How the 'Product', 'Serial number' and 'Maintenance agreement' fields are displayed on the B panel (the 'Input alt pnl B' field must be set to 8 in the settings in OIS101) according to the settings on the field selection in 'co Type. Update Field Selection' (OIS014/K).
- On the detail panel in (OIS101/G) the fields 'Product', 'Serial Number' and 'Maintenance agreement' are displayed according to the settings on the field selection in 'co Type. Update Field Selection' (OIS014/K).
- Maintenance agreement entitlement settings on the customer order type must be defined in 'co Type. Open' (OIS010):
- 'Entitlement check' must be set to 2 (Active) or 3 (Active, pop-up) on the F panel. When you activate the entitlement check, a check verifies that both the 'Product' and the 'Serial Number' fields on the customer order line are filled in when you sell a spare part.

- The price origin sequence must include price origin M (maintenance agreement) on the I panel.
- A maintenance agreement must be created in 'Maint Agrmnt. Open' (COS410).
- Pricing of the spare part items in 'Maint Agrmnt. Open' (COS410/G).
- Definition of equipment that the maintenance agreement is valid for in 'Maint Agrmnt. Connect Model Individual' (COS413/B). The program is accessed using related option 25 in (COS410).
- Definition of included/excluded items in 'Agreement Contents' (COS421/B), to be given sales price zero. Can be specified by item number, item types, item group, and product groups. The program is accessed using related option 13 from COS410.

Description

1 Enter the Item to Be Sold as Spare Part

When you create a customer order in 'Customer Order. Open' (OIS100), enter the item to be sold as a spare part in the 'Item' field on the order line.

To perform a maintenance agreement entitlement check via equipment, continue with the next step. To perform an entitlement check against a specific maintenance agreement, go to **Enter the Maintenance Agreement for Which the Item Is Priced**.

2 Enter the Equipment for Which the Item Is a Spare Part

You can enter the equipment for which the item is a spare part in two ways:

- In the 'Product' and 'Serial number' fields on the customer order line in 'Customer Order. Open Line' (OIS101)
- In the spare part sale pop-up window by using F23=Spare part sale in (OIS101).

In the spare parts sale window, the 'Req/Site number' can be used to retrieve the product and serial number. The equipment is used for the maintenance agreement entitlement check to see whether the equipment is connected to a maintenance agreement. The validation is made against the settings in 'Maint Agrmnt. Connect Model Individual' (COS413/B). Go to **Check Maintenance Agreement Entitlement Automatically**.

3 Enter the Maintenance Agreement for Which the Item Is Priced

Enter the maintenance agreement for which the item is priced/included in the 'Maintenance agreement' field. The maintenance agreement entitlement check is made for the stated maintenance agreement.

4 Check Maintenance Agreement Entitlement Automatically

The maintenance agreement entitlement check is processed when the customer order line is confirmed. The maintenance agreement entitlement check means that a sales price search is performed, including a check for a maintenance agreement. The sales price is retrieved according to the price origin settings on the customer order type in 'CO Type. Open' (OIS010).

The outcome of the maintenance agreement entitlement check can be one of the following scenarios:

- Entitled by Maintenance Agreement

The spare part is covered by a maintenance agreement period, therefore defined as included in 'Agreement Contents' (COS421/B), which you access using related option 25=Content per agreement from 'Maint Agrmnt. Open' (COS410). The sales price is set to 0 (zero) and the price origin is set to M (Maintenance agreement). The maintenance agreement ID is saved on the customer order line.

The equipment (if entered on the CO line in **Enter the Equipment for Which the Item Is a Spare Part**) for which an entitlement check is made and the maintenance agreements ID are displayed on the G panel in (OIS101). To proceed go to **Invoice the Customer Order**.

- Priced via Maintenance Agreement

The spare part is priced via a maintenance agreement. For all spare part sales where a maintenance agreement check is made and the item is not included (therefore not entitled for sales price zero), a price check is always made against the material price method in (COS410/G). If the item is priced via the maintenance agreement, the sales price is set according to the maintenance agreement. The price origin is set to M (maintenance agreement), and the material price method is set according to the maintenance agreement.

5 Deliver

The customer order is delivery reported in 'Picking List. Report' (MWS420) and the spare parts are thereby dispatched from the warehouse.

6 Invoice the Customer Order

The customer order is invoiced in 'CO Invoice. Print' (OIS180). The maintenance agreement information is printed on the invoice as well as on the quotation and the order confirmation documents. The maintenance agreement information includes the maintenance agreement ID and description.

7 Update Sales Statistics per Equipment and Maintenance Agreement

The sales statistics are updated. The equipment and maintenance agreement connected to the spare part sales are updated in the statistics and can also be used as a key object. This allows you to obtain statistics for each piece of equipment or maintenance agreement.

Selling a Remanufactured Component and Processing the Customer Return

This document explains how a remanufactured component is sold to the customer and at a later stage returned and exchanged to a new component. When you sell the component, it is defined as remanufactured and as because of this, a worn component is expected in return.

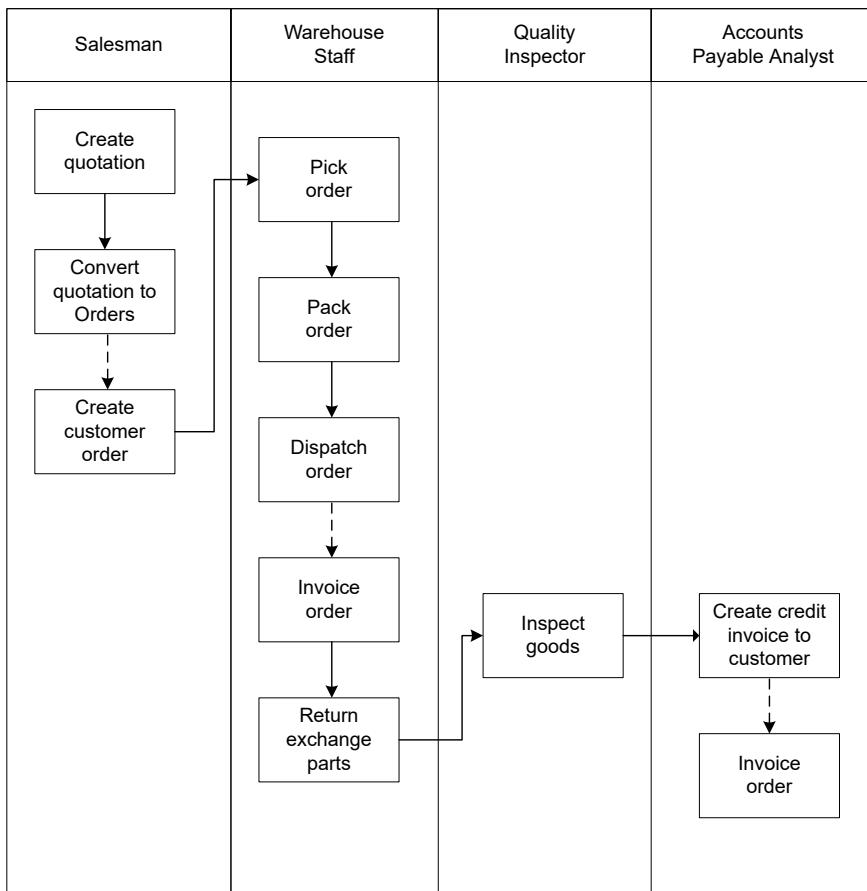
Scenario story

Previously, a customer purchased a core item from the dealership. The customer now returns to the dealership and requests a new core, since the old one is worn out.

A Core is defined as a component or subassembly such as an engine, gearbox, or fuel pump that can be rebuilt or remanufactured and is often available as part of a dealer exchange program.

When the new item has been delivered, the worn part will be returned and inspected to determine the condition. After inspection, the dealer will provide a partial or full credit to the customer depending on the condition and the used core will be returned to the supplier for remanufacturing.

You sell the component or the remanufactured component in 'Customer Order. Open' (OIS100).



Outcome

The component is sold and an invoice is created with core terms. Accounting transactions are created and sales statistics are updated.

When the component is worn out, the customer returns the component. The component is either remanufactured and returned, or a new component is sold to the customer.

The core entitlement table MITCEN is updated with core transactions.

A Core Entitlement is created between customer A and supplier X, when A purchases a product from X and where the product sales price includes a core charge. A then undertakes to return the core to X in order to receive the core refund.

Before you start

You must define the settings described in [Defining Settings for Component Exchange with Customer in Core Management Process](#) on page 286 and .

Follow these steps

1 Create Customer Order with Attribute Remanufactured:

You create a customer order in 'Customer Order. Open' (OIS100). When you enter the attribute-controlled item in 'Customer Order. Open Line' (OIS101), you must select an attribute. In this case, you select the attribute Remanufactured.

When you create a customer order with an attribute-controlled item, the following activities automatically occur:

- A core charge line is created.

The discount model that contains an attribute combined with an item or item group sets the core charge on an additional customer order line.

- A customer return record is created.

The core charge is defined as a non-material item with the field 'Non-material type' in (MMS001/G) set to 01='Core trigger'. This results in an automatically created customer return line in 'Customer Return. Open' (OIS390). The price is retrieved according to the discount model and the attribute Remanufactured. The expected return date is set according to the core terms defined in 'Core Terms. Open' (CRS168).

- Core entitlement is updated.

A record in the core entitlement table (MITCEN) is created where you can track the core transactions.

2 Deliver Component:

The component is delivered from stock when a picking list is reported. The status on the customer order is raised to 66='Delivered' and the core tracking table is updated. Internal account entries are created.

3 Invoice Customer Order with Core Terms:

When the customer order is invoiced, the component price and the core charge are included. The core terms are stated on the invoice describing the conditions for the expected returned core.

4 Create Account Entries:

Accounting transactions are generated.

5 Return exchange part:

The return of the worn core is initiated from 'Core Entitlement. Open Toolbox' (MWS090) and processed through 'Customer Return. Open' (OIS390).

6 Inspect Goods:

The inspection process determines the condition of the used core and how much credit the customer receives. The inspection result is reported in 'Customer Return. Display Inspect Result' (OIS392), which is a related option from (OIS390).

7 Create Credit Invoice to Customer:

The credit invoice is also generated from (OIS390) using related option 14='Crt credit'.

Selling Equipment Covered by Warranty

This document explains the process of selling equipment that is covered by warranty. The process includes:

- Selling extended warranties
- Generating warranty records automatically
- Creating a warranty fund at invoicing.

In the warranty management process, the equipment is the same as a serialized item. The serialized item is defined as a model in 'Model/Site. Open' (MOS400). Warranty management can only be done for serialized items.

Outcome

The following takes place when equipment is sold with a warranty:

- A standard warranty, an extended warranty, or both are generated.
- A warranty fund is created for the sold equipment and the warranty fund is updated in the M3 Equipment Profitability application.
- Sale statistics are created for each warranty type, equipment or both.

You can monitor and follow up all warranty events and transactions in the M3 Equipment Profitability application.

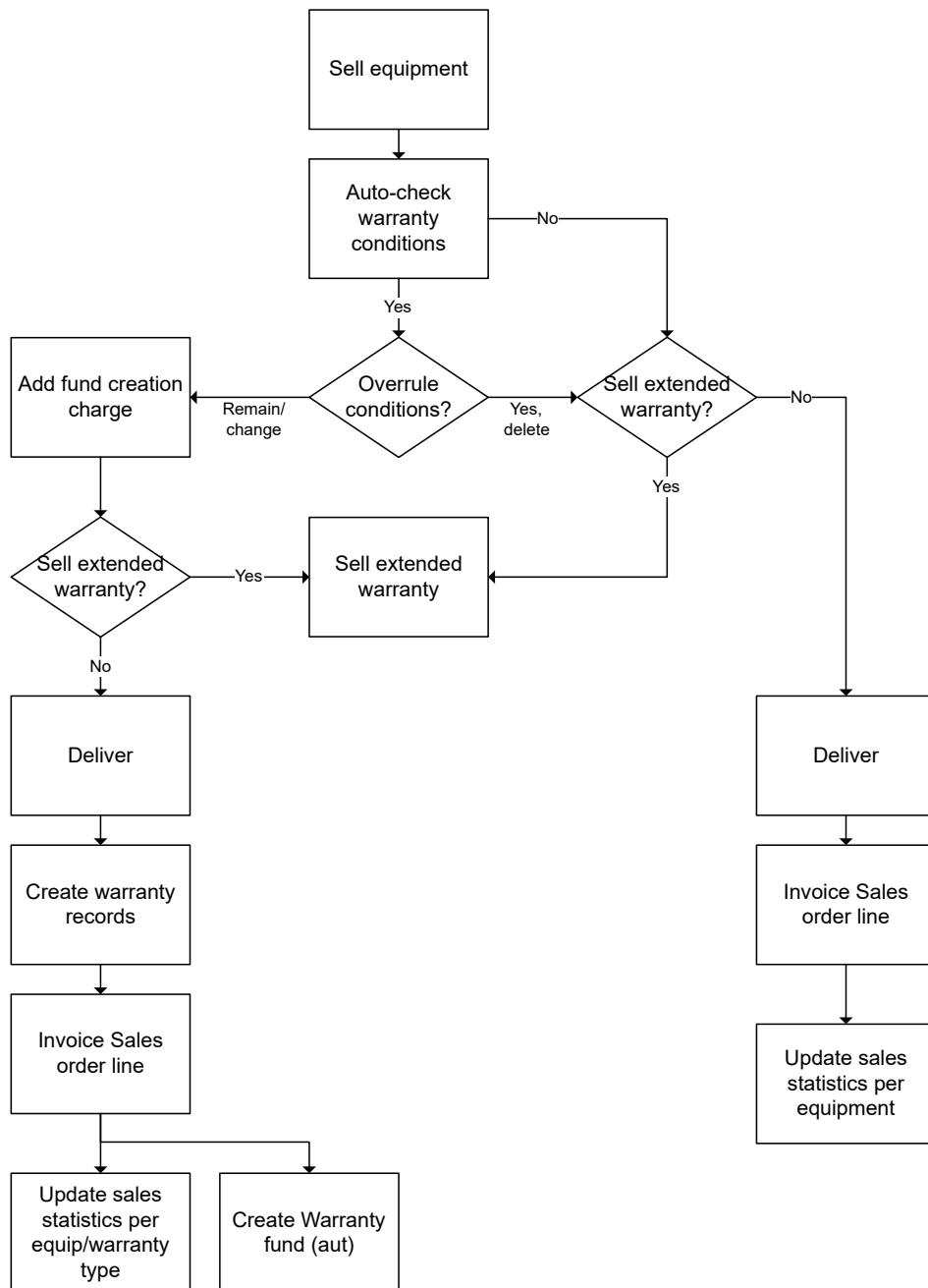
The following tables are updated:

- OOHEAD and OOLINE tables - Updated with customer order header and order lines information at customer order registration.
- MIOSW table - Updated with equipment warranty information.
- MIOTW table - Updated with equipment warranty details information.
- CAABAL table - Updated with the fund amount when the general ledger is updated. The CAABAL table is read by the M3 Equipment Profitability application.
- OSASTD table - Updated with the customer order statistics at order registration.
- OSBSTD table - Updated with the customer order statistics at invoicing.

Before you start

- A warranty and claim content type must be defined in 'Content Type. Open' (COS470). The content type details must be defined in 'Content Type. Open Details' in (COS471). The content types are attached to a warranty type.
- A warranty type must be defined in 'Warranty Type. Open' (MOS710).
- The warranty type must be connected to a control object in 'Warranty Type. Connect to Objects' (MOS700).
- Settings for warranty fund update must be defined by adding a fund creation charge on the warranty type in 'Warranty Type. Open' (MOS710).

Follow These Steps



1 Sell Equipment and Enter a Customer Sales Order

When you sell the equipment, start by entering a customer order in 'Customer Order. Open' (OIS100). You enter the order line for the equipment (a serialized item) in 'Customer Order. Open Line' (OIS101). A serialized item creates a unique record that can be referenced for history purposes.

2 Check Automatically for Predefined Warranty Conditions

A check is made automatically to verify whether the equipment is covered by warranty according to the settings in 'Equipment. Connect Warranties' (MOS700). If you defined specific warranty conditions, the check can be made on the equipment level as well as for installed components. Note that fund creation is only done on the equipment level (see **Add Internal Fund Creation Charge Automatically**).

If the equipment is granted for warranty, then the warranty type is saved on the customer order line and displayed on the detail panel (OIS101/G).

If no predefined warranty conditions exist, then the warranty type field is left blank on the customer order line.

3 Decide Manually to Overrule the Automatic Check for Warranty Generation

The warranty type can be manually changed, added or removed. But you must make your changes before the equipment is dispatched from the warehouse, since this is the point in the process when warranty records are generated.

For example, you can:

- Change to another warranty type to enable more customized warranty conditions.
- Manually generate a warranty for equipment that is normally not granted for warranty by entering a warranty type on the detail panel (OIS101/G).
- Remove a warranty type from the customer order line in order to prevent automatic warranty generation.

4 Add Internal Fund Creation Charge Automatically

When you already have a warranty type saved on the order line, then the fund creation charge is automatically added to the customer order line when entering equipment with a warranty. The fund creation charge is retrieved from the warranty type settings in 'Warranty Type. Open' (MOS710).

The fund amount is an estimated internal cost for future warranty situations where warranty claims on the suppliers are not supposed to be fully approved. In the settings for the fund creation charge, it is defined how much of the sales price you set aside for the warranty fund. Note that you can only set aside a fund for the equipment that is entered on the order line. No fund is created for installed components that may be granted for warranty.

If you remove the fund creation charge from the customer order line, you prevent creation of the warranty fund.

You can use different calculation methods to calculate the fund amount, for example:

- Fixed amount per order quantity
- Percentage of the gross or net sales price.

You can use object control fields to set different percentages or amounts for different attributes, such as product groups.

5 Sell Extended Warranty

An extended warranty is sold by entering an order line for the extended warranty type "Item." The item is a non-material item (item category 13) with the non-material type "Extended warranty." The item number is the same as the extended warranty type ID.

When you want to define the equipment for which the extended warranty is sold, you connect the extended warranty customer order line to a specific equipment customer order line on the same customer order. You connect the two customer order lines through a dialog box that is displayed when you enter the extended warranty customer order line.

You can also sell an extended warranty to already sold and delivered equipment. In this scenario you must enter the equipment using a pop-up window that is displayed during entry of the extended warranty customer order line.

6 Deliver Equipment

Deliver the ordered equipment to customer. The customer order is delivery reported in 'Picking List. Report' (MWS420).

7 Create Warranty Records Automatically

A standard warranty record, an extended warranty record, or both are generated in 'Equipment. Connect Warranty' (MOS390). The warranty details are generated in 'Equipment. Open Warranty Details' (MOS393).

The generated standard warranty conditions can be changed if any specific conditions should change or new conditions are added for the equipment. You make the changes in 'Equipment. Connect Warranty' (MOS390).

8 Invoice

The warranty information is printed on the invoice and also on the quotation and the order confirmation. The warranty information includes the warranty type ID and description.

The customer order is invoiced in 'CO Invoice. Print' (OIS180).

9 Create Warranty Fund Automatically

A standard warranty fund, an extended warranty fund, or both are created automatically. You can follow up the fund for equipment (serialized items defined as models in 'Model/Site. Open' (MOS400)) in the M3 Equipment Profitability application.

10 Create Sales Statistics Automatically

Sales statistics are created automatically.

The standard warranty type is updated in the statistics and can also be used as a key object. The key object allows you to obtain statistics for each standard warranty type.

The extended warranty is the same as an item number or extended warranty type ID (see **Sell Extended Warranty**). You use the ID for the extended warranty type to obtain statistics for each extended warranty type.

Selling Spare Parts Covered by Warranty

This document explains how to sell spare parts that are covered by warranty.

A warranty entitlement check is made when you sell a spare part. The warranty entitlement check verifies whether the spare part is included in a warranty.

Outcome

The spare part is delivered, an invoice is created and sales statistics are updated.

If the spare part is connected to a warranty, then the accounting transactions are sent to the warranty department and sales statistics are updated for each piece of equipment and warranty type.

Warranty management at sales order entry enables spare parts to be processed through customer order entry, including warranty entitlement check and claim generation.

With the updated sales statistics for spare parts, you can follow up on the spare part sales in connection with a specific component or equipment or warranty type.

You can track and follow up all warranty events and transactions in the M3 Equipment Profitability application.

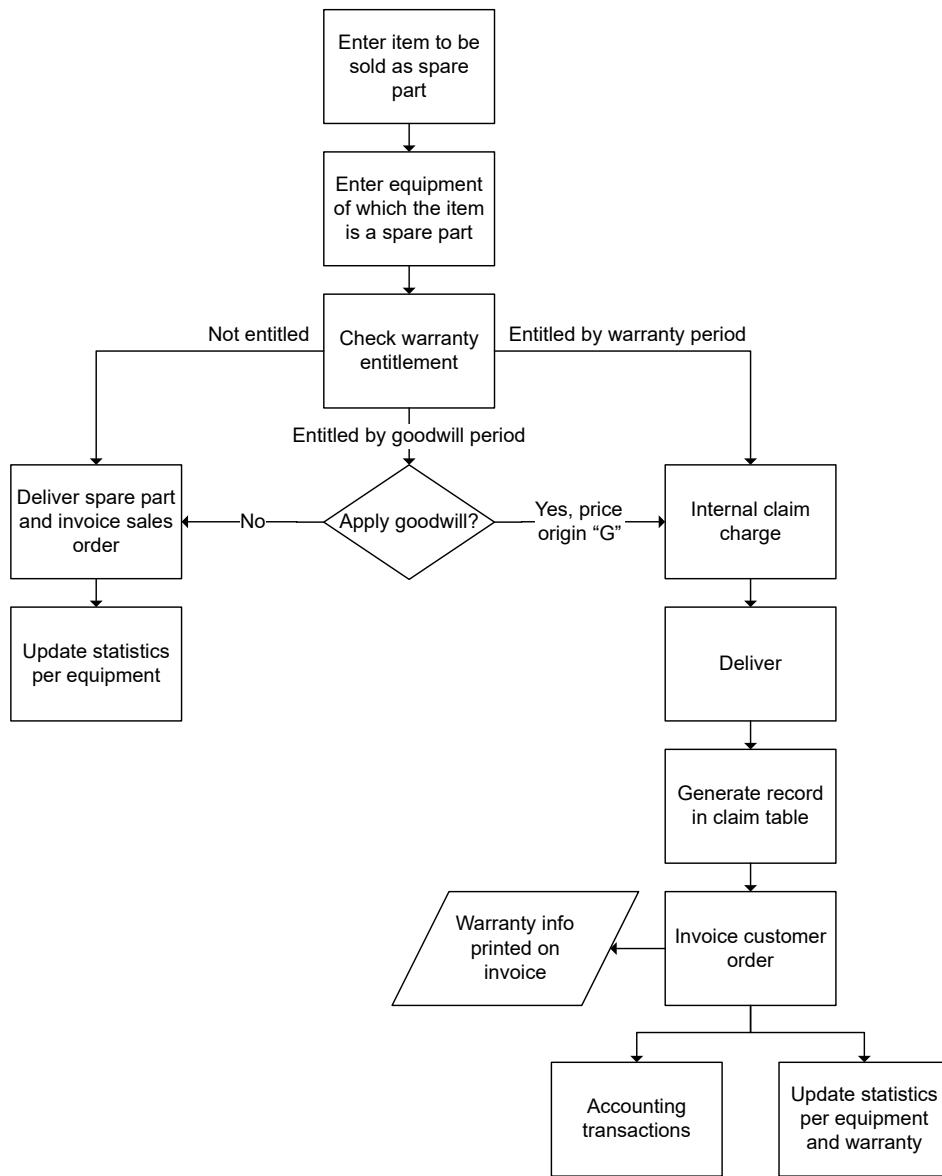
The following tables are updated:

- MIOSW – Equipment warranty.
- MIOTW – Equipment warranty details.
- ACUINV – Invoice specification.
- ACLHED – Claim header.
- ACLVER – Claim version.
- ACLSPC – Claim specification.
- CAABAL table – Updated with the fund amount when the general ledger is updated. The CAABAL table is read by the M3 Equipment Profitability application.
- OSASTD – Updated with the customer order statistics at order registration.
- OSBSTD – Updated with the customer order statistics at invoicing.

Before you start

- The spare part sale fields 'Product' and 'Serial Number' must be made available for entry according to the settings in 'CO Type. Update Field Selection' (OIS014).
- Spare part sales pop-up window: The pop-up window is either displayed automatically by setting 'Entitlement check' on the customer order type to 3 (Active, pop-up) or by using function key F23 in 'Customer Order. Open Lines' (OIS101).
- Customer order line: How the 'Product' and 'Serial number' fields are displayed on the B panel in (OIS101) (the 'Input alt pnl B' field must be set to 8 in settings in (OIS101)) according to the settings on the field selection in 'CO Type. Update Field Selection' (OIS014/K).
- On the detail panel in (OIS101/G) the fields 'Product' and 'Serial Number' and 'Warranty type' are displayed according to the settings on the field selection in 'CO Type. Update Field Selection' (OIS014/K).
- A warranty record must exist for the equipment for which the item is sold as a spare part. A warranty record is created automatically when equipment is sold in 'Customer Order. Open' (OIS100).
- Warranty entitlement settings on the customer order type must be defined in 'CO Type. Open' (OIS010): 'Entitlement check' must be set to 2 (Active) or 3 (Active, pop-up) on the F panel. When you activate the entitlement check, a check verifies that both the 'Product' and the 'Serial number' fields on the customer order line are entered when you sell a spare part.
- The price origin sequence must include price origin W (Warranty) on the I panel.
- An internal claim customer order line charge must be created in 'Order Line Charge. Open' (CRS275). The warranty claim charge is automatically added at customer order line entry and must be defined in 'Settings – Customer Order Entry' (CRS720/E). A warranty claim charge is used as a dummy charge to be automatically added to warranty-entitled customer order lines valid for claim management.

Follow these steps



1 Enter Item to Be Sold as Spare Part

When you create a customer order in 'Customer Order. Open' (OIS100), enter the item to be sold as a spare part in the 'Item' field on the order line.

2 Enter the Equipment for Which the Item Is a Spare Part

Enter the equipment for which the item is a spare part in the 'Product' and 'Serial number' fields on the customer order line in 'Customer Order. Open Line' (OIS101). The equipment is used for the warranty entitlement check to see whether the equipment is a part of a warranty agreement.

3 Check Warranty Entitlement Automatically

The warranty entitlement check is processed when the customer order line is confirmed. Warranty entitlement check means that a sales price search is done, including a check for warranty. The sales price is retrieved according to the price origin settings on the customer order type in 'CO Type. Open' (OIS010).

The outcome of the warranty entitlement check can be one of the following scenarios:

- Entitled by warranty period

The spare part is covered by a warranty period. The sales price is set to 0 (zero) and the price origin is set to W (Warranty). The warranty type connected to the valid warranty is saved on the customer order line. The equipment for which an entitlement check is made and the warranty type are displayed on the G panel in (OIS101). Continue with Delivery steps.

- Entitled by goodwill period

The spare part is covered by the goodwill period of the warranty. An information message is displayed stating that goodwill may be applied. Applying goodwill to a customer order line is a manual step, further described in the next step. The sales price is automatically set according to the next valid price origin in the price origin sequence. The 'Qualified for goodwill' field is set to 1 on the order line, which indicates that the order line is qualified for goodwill entitlement.

- If the order lines are not approved for goodwill, continue with Deliver and Invoice.
- Not entitled by a warranty or goodwill period

The sales price is set according to other price origins in the price search sequence. Continue with Deliver and Invoice.

4 Entitle a Customer Order Line for Goodwill Period

You must manually approve the customer order line for which a goodwill period applies. To do this, you use related option 'Apply Goodwill' or you enter the valid warranty type on the G panel in (OIS101). The price origin is automatically set to 'G' (Goodwill) and the sales price is set to 0 (zero). You can change the sales price manually if the customer will pay part of the amount.

5 Add an Internal Claim Order Line Charge Automatically

An internal claim order line charge is automatically added to the warranty-entitled customer order lines (with price origin W). The warranty-entitled order lines are displayed in 'Customer Order. Connect Line Charge' (OIS107). The claim creation charge is set to a negative amount equal to the cost of the customer order line. The charge creates an invoice line with information type 68 (Internal item charge).

On the claim creation charge the following is displayed: the payer on which the spare part claim is made and the agreement with the payer. The payer of the claim amount and the payer agreement are retrieved from the warranty record that is defined for the item entered on the customer order line. The claim payer and payer agreement are defined on the warranty claim details for the equipment for which the sold spare part is a component in 'Equipment. Open Warranty Details' (MOS393/E).

For a scenario where no supplier will be claimed for the spare part item, it is recommended that an internal claim payer is defined for the spare part item instead.

6 Deliver

The customer order is delivery reported in 'Picking List. Report' (MWS420) and the spare parts are thereby dispatched from the warehouse.

7 Generate Claim Records Automatically

Claim records are automatically created for order lines that have an internal claim charge attached. The claim records are created when the spare parts are dispatched from the warehouse. The information is displayed in the Warranty Claim Management application.

The following M3 claim records are created:

- The table ACLHED stores information about the equipment for which the spare part is sold, the claim payer, and claim agreement, which are retrieved from the claim creation charge.
- The table ACLSPC stores information about the spare parts, the sales price retrieved from the claim agreement, the claim settlement percentage retrieved from the warranty claim details, and the cost of the spare part item.

8 Invoice the Customer Order

The customer order is invoiced in 'co Invoice. Print' (OIS180). The warranty information is printed on the invoice as well as on the quotation and the order confirmation documents. The warranty information includes the warranty type ID and description.

9 Accounting Transactions for Internal Claim Creation Charge

A claim amount is automatically generated during invoicing of the customer order. For the claim amount the transaction 'Claim in progress' is created.

10 Update Sales Statistics per Equipment and Warranty Type

The sales statistics are updated. The equipment and warranty type that is connected to the spare part sales are updated in the statistics and can also be used as a key object. This allows you to obtain statistics for each piece of equipment or warranty type.

11 Deliver and Invoice

The customer order is delivery reported in 'Picking List. Report' (MWS420) and invoiced in 'co Invoice. Print' (OIS180).

12 Update Sales Statistics per Equipment

Sales statistics are updated. The spare part sale connected to the equipment is updated in the statistics and can also be used as a key object. This allows you to obtain statistics for each piece of equipment.

Specify Parameters for Customer Returns

The purpose of this procedure is to specify parameters for customer returns.

These parameters are regulated by a warehouse. Therefore, parameters for customer returns are defined for a current warehouse so it can receive the returns. The requirements for the return and default values for customer return entry should be defined.

Before you start

To start this procedure, the warehouse, location, and reason code must be specified.

Follow these steps

- 1 Select 'Settings – Customer Returns' (OIS399).
- 2 Select the warehouse to receive the customer return and select 'Open'.
- 3 Specify the appropriate values on the E panel. Specify the receipt requirements to apply at the warehouse. Specify the default values for customer return entry in the fields under the heading 'Defaults'. Press Enter to confirm the values.

- 4** To define parameters for more warehouses, repeat steps 2 and 3. Otherwise, press F3 to end.

Status - Customer Order

Customer orders always have two statuses in the customer order header – the highest and the lowest. These indicate the highest and lowest status of the customer order lines. The statuses are automatically updated after each activity on the customer order line.

Customer order header can be initiated with optional statuses that will affect the status of the customer order lines. These are:

00	Entry in progress (no order lines exist)
05	Customer quotation, all lines get status 05
10	Preliminary customer order, all lines get status 10
20	Final/released customer order, all lines get a status according to their progress in the customer order flow
90	Deleted customer order (no more open order lines exist)

Status 05, 10 or 20 can be defaulted from the customer order type. The choice between status 10 or 20 can be specified manually in the customer order header in 'Customer Order. Open' (OIS100/E).

The customer order status can be changed manually from 10 (Preliminary) to 20 (Final) in the customer order header in 'Customer Order. Open (OIS100). This can also be done by separately approving customer order lines in 'Customer Order. Approve' (OIS115).

Status - Customer Order Line

The status of a customer order line describes the progress of the line in customer order processing. This status has two numerals. When these are the same, then the entire quantity in the customer order line has progressed to the same point in processing.

When these numerals are different, the quantity in the customer order line has been divided and the different portions have not progressed to the same degree. The first numeral indicates the shortest degree of processing. Conversely, the second numeral indicates the furthest degree of processing of the customer order line.

The table below describes what each status code indicates.

Status	Indicates
2	Left to allocate
3	Allocated

Status	Indicates
4	Printed on a picking list
6	Delivered
7	Invoiced
9	Deleted

The table below contains the possible combinations for the status of a customer order line.

Highest status, last numeral		To allo- cate	Allocated	On picking list	Delivered	Invoiced
Lowest status, first numeral						
To allocate	22	23	24	26	27	
Allocated		33	34	36	37	
On picking list			44	46	47	
Delivered				66	67	
Invoiced					77	

The table below shows the exceptions from the table above.

Status	Indicates
05	Quotation
10	Preliminary
99	Flagged as completed without delivery

Time Zone Management in Customer Order Processing

This document explains how dates and times are expressed and interpreted in the customer order process when using multiple time zones.

Outcome

Each date is expressed in a time zone relevant to its context from a user and/or geographical location perspective.

Purpose

When a company has branches in many different countries worldwide, it is important to be able to manage different time zones. Time zone management enables a user in a remote location to view and interpret customer orders locally.

How

Dates that can be viewed and proposed during order entry or dates that are created automatically via APIs or auto jobs are converted to a relevant time zone.

These types of dates use time zone conversion:

- Order date
- Customer's order date
- Delivery dates - local (planning date, departure date, requested date and confirmed date)
- Delivery dates - at final destination (requested date, confirmed date)
- Approved date (delivery order)
- Invoice date (customer order invoice)
- Return date (customer order returns)
- Entry date and change date (no time zone conversion).

Order Date

The order date is initialized according to the facility's time zone for the order. The time zone for the place of load in the facility's main warehouse is used to provide the proposal. For example, if a sales agent sits at a location that is part of the facility, the order date will reflect the actual time at that location.

Customer's Order Date

If a date is not entered or sent by the customer, the date is initialized in the same way as the order date. This means that you must keep the customer's date in order to be able to trace the customer's ordering process history.

Delivery Dates - Local

The dates that relate to the delivery of goods or services are displayed and stored according to the loading location's time zone at the delivering warehouse. The dates covered by this logic include planning date, departure date, requested date and confirmed date. This means that you must express anticipated activities in the time zone where they actually take place.

Delivery Dates - At Final Destination

The dates expressed in the customer's time zone are displayed and stored according to the unloading location's time zone at the delivery address or the customer. The dates covered by this logic include requested date and confirmed date. This means that anticipated activities must be expressed in the time zone where they actually take place.

Approved Date (Delivery Order)

The approved date is proposed and displayed according to the unloading location's time zone at the delivery address or the customer. This means that you must express anticipated activities in the time zone where they actually take place.

Invoice Date and Accounting Date

The invoice and the accounting date are initialized and proposed according to the division's time zone where the order is placed. This means that each division can use its local time zone when it must manage book closings at the end of a time period. All financial transactions therefore must relate to the divisional/financial time zone.

Return Date

The dates that relate to the return of delivered goods or services are displayed and stored according to the loading location's time zone at the receiving warehouse. This means that you must express the anticipated activities in the time zone where they actually take place.

Entry Date and Change Date

The entry and change dates are time stamps and are initialized and stored according to the system's time zone. This means that you can track the history and the sequence of database updates regardless of the source of entry or change.

Scenarios

Invoicing in Japan when the M3 Server is Located in Europe

- Server and company headquarters in the UK (GMT/UCT)
- Sales division in Tokyo, Japan with local invoicing and accounts receivable
- Date and time in the UK are March 30, 2003, 11:30 p.m.
- Date and time in Tokyo, Japan are April 1, 2003, 7:30 a.m.

A Japanese user releases an invoice. The proposed invoice and accounting date is April 1, 2003, which is the local date at the Japanese sales division. When invoicing is completed, these dates are used:

- Invoice date (in accounts receivable and on invoice document): April 1, 2003
- Accounting date: April 1, 2003
- Sales statistics date: April 1, 2003.

Invoicing in the US when the M3 Server is Located in Europe

- Server and company headquarters in the UK (GMT/UCT)
- Sales division in Los Angeles, USA with local invoicing and accounts receivable
- Date and time in the UK are April 1, 2003, 12:30 a.m.
- Date and time in Los Angeles, USA are March 31, 2003, 5:30 p.m.

The American user releases an invoice. The proposed invoice and accounting date is March 31, 2003, which is the local date at the US sales division. When invoicing is completed, these dates are used:

- Invoice date (in accounts receivable and on invoice document): March 31, 2003
- Accounting date: March 31, 2003
- Sales statistics date: March 31, 2003.

Tracking Customer Orders

This supporting function is used to track customer orders that contain order lines that are delayed or expected to be delayed considering the planning horizon for the item in the customer order line.

Before you start

- The 'Log orders' field must be selected in 'Settings - Delayed Stock Issues' (CRS702).
- Continuous rescheduling should also be selected for items in the 'Continuous net change' field, in program 'Item. Connect Warehouse' (MMS002/E). If this field is not selected, a check will only be made during the night run.

Follow these steps

1 Customer orders display

All customer orders are displayed in program 'Customer Order. Open Toolbox' (OIS300). If the 'Delayed' field is selected, then all orders containing at least one delayed order line are displayed. Also, orders with an expected delay are displayed.

To view the order lines included in the order, option 35=Lines can be selected.

2 Customer order line display

All customer order lines are displayed in 'Customer Order. Open Line Toolbox' (OIS301). If the 'Delayed lines' field is selected, then all order lines that are delayed or expected to be delayed are displayed.

To change the confirmed delivery date for the order lines, option 41=Reschedule can be specified.

Work with Delivery Addresses on Order Line

This document explains how you work with delivery addresses during customer order line entry in 'Customer Order. Open Lines' (OIS101).

You can use this instruction when the customer wants the ordered items in one customer order to be delivered to different addresses.

Outcome

Delivery addresses are entered or changed for different order lines within the same customer order.

The new delivery address is printed on the order documents, such as the order confirmation and invoice.

The following files are updated:

- Customer order line file (OOLINE)
- The file for order-specific addresses (OOADRE)

Before you start

The listed parameters must be defined before starting this procedure.

Program ID/Panel	Field	The field indicates ...
(CRS610/H)	Print delivery information	... whether delivery information is to be printed on order confirmations and pro forma invoices. This parameter must be selected if you want the new delivery addresses to be printed on order documents.
(CRS610/G)	Address number	...the delivery address to be proposed by default when entering new customer orders.
(OIS014/K)	Delivery address - order line	<p>... whether all order lines are to have the same delivery address or whether it is possible to have different addresses within the same order. You specify whether it is possible to change the address on the line level.</p> <p>The field also indicates the delivery address that is to be defaulted on the order line. The address can be defaulted from the order header or from the previous order line. You can also set the field so that the user is required to fill it in.</p>
(OIS101/P)	Input alternative panel B	...which fields can be used for input during order line entry. The input alternatives control both the fields displayed on the B panel in (OIS101) and the order in which they appear. By selecting input alternative 7 (=warehouse, line type, address ID, item, quantity, sales U/M, sales price, sales price U/M, requested delivery date, requested delivery time), you are able to select a delivery address during order line entry on the B panel.

Follow these steps

Note: This procedure is based on the assumption that the 'Delivery address order line' field in 'co_type_update Field Selection' (OIS014/K) is set to *PREV (the first line retrieves the address from the order header, but the following lines retrieve the address from the previous order line).

Enter the Order Lines According to Their Delivery Addresses

- 1 Start 'Customer Order. Open' (OIS100/A). Enter a new customer order and proceed to 'Customer Order. Open Lines' (OIS101/B).
- 2 On the B panel, press F13=Settings to verify that the 'Input alternative panel B' field is set to 7. This will make it possible to immediately enter the delivery address number when you create the order line on the B panel.
- 3 On the first order line, the delivery address is retrieved from the order header. Enter all order lines that will use that delivery address.
- 4 When you come to an order line with a new delivery address, specify a new delivery address number along with the item number and quantity on the B panel.
The new delivery address will be the default delivery address for all order lines entered after the new delivery address is set up.

- 5 Specify all order lines to be sent to the new delivery address.
- 6 Repeat steps 4 and 5 until you have completed the order. Click Exit to finish order entry.

Changing and Verifying Delivery Address on Order Line

Note: At this point, you have specified one or several order lines, and the B panel in 'Customer Order. Open Line' (OIS101) is displayed.

- 1 Select the order line and select option 11=Addresses to start 'CO Line. Connect Address' (OIS102/B1) when you want to verify and/or change delivery addresses.
You can use two different sorting orders to sort either by line number or by delivery address number.
- 2 Select the order line for which you want to change the address and select Open to proceed to the E panel.
- 3 On the E panel, change the 'Address number' field to another address number. Press Enter to return to the B1 panel in (OIS102) where you can continue changing addresses, or click Exit to return to 'Customer Order. Open Line' (OIS101/B) where you can complete order entry.

To create a unique delivery address for this particular line, delete the address number and press Enter. All remaining fields will be opened for the input of address information. The address will get a temporary identity, which can be reused for other order lines within the same order.

Chapter 5: Processing CO Acquisition Variants

Extended Catalog Item

This document explains what an extended catalog item (ECI) is and how it is used in the buy-to-order process.

Outcome

An ECI is created. This facilitates the item management in the buy-to-order process.

Purpose

When creating a new item in M3, you must manage a large amount of basic data, which is time-consuming. The purpose of ECI is to facilitate the management of seldom-sold items. You can predefine an ECI to use as a template item instead of creating a new one.

When

An ECI is used in the buy-to-order process when the ordered item is not normally kept in stock and therefore not available in the item master file.

How

An ECI is a predefined template item, and when you use an ECI during order line entry, a new item is created with the features of the template. An ECI is created in 'Item. Open' (MMS001).

There are two kinds of ECI:

- Item category 11 (extended catalog item)
- Item category 12 (non-coded extended catalog item)

Order Line Entry with Item Category 11

During customer order entry, a new item with a new item number is created automatically based on item master data from the template item. It will function like an ordinary item (item category=0) throughout the entire order process (customer order, purchase order, goods receipt, picking list etc.). You can change prices and discounts as well as maintain all necessary units of measure, weight and volume. The numbering rule in the item type determines the layout of the automatically created item number. You can assign an ECI special features, which makes the item easy to distinguish from ordinary items.

Order Line Entry with Item Category 12

A temporary item is created during customer order line entry, but a new item number is **not** created in order to avoid a large number of records in the item master file. Units of measure, weight and volume must be predefined in the item master file and cannot be changed. All relevant units of measure will be overridden by one common predefined unit of measure for the item if the conversion factor for the sales unit is set to 1.

The ECI is always used together with line type 1 (delivered to own stock) or line type 2 (delivered directly to customer) in customer order entry. The ECI will always be processed via the panel for procurement of customer order line in 'Customer Order. Acquire Sales Item' (OIS145), which is started automatically when entering an ECI in 'Customer Order. Open Line' (OIS101).

Template item numbers are used as object values in:

- Discount model
- Customer order line charges
- Check assortment
- Buying pattern statistics
- Check quantity reasonability
- Customer agreement
- Bonus and commission
- Accounting setup
- Normal warehouse
- Promotions.

Chapter 6: Customer Order Invoicing and Financial Transactions

Advance Invoice

Advance invoice is a request for advance payment by way of an invoice sent before delivery. Advance invoices are always connected to a customer order.

Advance invoicing is normally used for customer orders for larger amounts or longer delivery time.

Advance Invoicing Methods

Introduction

This document provides an overview of advance invoicing methods and identifies the business scenarios in which each method is most suitable.

The advance invoicing method is determined by the 'Adv Invoicing' setting on 'CO Type. Open' (OIS010/K).

Alternatives 3, 4, and 5 are only applicable when combined with a payment term where 'Payment prop' is selected in 'Payment Term. Open' (CRS075). For other payment terms, advance invoicing cannot be used.

Method 1-'Adv invoicing allowed'

Method 1-'Adv invoicing allowed' is primarily intended for scenarios where an advance payment is required but no connection to production, purchasing, and logistics (in M3 BE) is necessary. The goods can be delivered without having received the advance payment. The advance invoice is a legal document, updated to the Accounts Receivable, and must be paid before the delivery invoice.

Method 2-'Prepayment req allowed'

Method 2-'Prepayment req allowed' is mainly intended for scenarios where an advance payment is requested, but it is uncertain whether you will pay or what amount will be paid. A prepayment request is a letter asking for money. The prepayment request is not a legal document and does not update the Accounts Receivable. There is no connection to production, purchasing, and logistics (in M3 BE), so the goods can be delivered without having received any advance payment.

Method 3-'Adv invoicing allowed. Prepaym calculated'

Method 3-'Adv invoicing allowed. Prepaym calculated' is mainly intended for scenarios where goods are to be acquired (purchased or manufactured) on your behalf. The acquisition order proposal is not to be released unless you pay an advance (against an Advance Payment document). You can select not to pay, hence selecting not to proceed with the purchase. Once the goods are available, a Payment document is printed, and the remaining amount must be paid for the goods to be released to you. The Advance Payment document and the Payment document are not legal documents and do not update the Accounts Receivable.

Method 4-'Prepayment required'

Method 4-'Prepayment required' is mainly intended for scenarios where the goods are available for immediate pick-up as soon as you pay. You can select not to pay, hence selecting not to proceed with the purchase. The printed Payment document is not a legal document and does not update the Accounts Receivable.

'CO Delivery. Close Payment Proposal' (OIS952)

Since methods 3 and 4 are intended for processes where you can select not to proceed with the purchase, there is a job 'CO Delivery. Close Payment Proposal' (OIS952) that closes the customer order lines and removes any unpaid payment documents.

Method 5-'Deposit'

Method 5-'Deposit' is mainly intended for scenarios where goods are to be acquired on your behalf.

The acquisition order proposal is not to be released unless you pay the deposit. However, payment before delivery is not required in this solution. There is no system support to prevent goods from being released to you without receiving payment. The solution is, however, designed to be used in a scenario where payment is made at the same time as the goods are released to you. This is supported by the possibility of invoicing at the same time as releasing the goods for delivery and by integration with the cash desk solution. An automatic release for delivery is prevented, and you must do the manual release from 'Customer Order Deposit. Open' (OIS157) or 'Customer Order Deposit Lines. Open' (OIS158). So even though there is no so-called hard prevention, the design of the solution allows for the so-called soft prevention.

Method 5 is also suitable for scenarios where the goods are available for immediate pick-up as soon as you pay. The difference from method 4 is that there must be an agreement to proceed with the purchase since the printed document is a legal document (an invoice). Method 5 is the only advance method that applies the item's VAT code to the advance payment calculation. If the deposit is for items with different VAT codes, the payment of the deposit creates an advance invoice per VAT code to ensure correct VAT reporting.

A comparison of advance invoicing solutions key characteristics

This table compares key characteristics of advance invoicing solutions:

Advance invoicing method	Legal document	Prevents acquisition before payment	Prevents delivery before payment	Advance VAT amount per VAT code
1-'Adv invoicing al- lowed'	Yes	No	No	No

Advance invoicing method	Legal document	Prevents acquisition before payment	Prevents delivery before payment	Advance VAT amount per VAT code
2-'Prepayment req allowed'	No	No	No	No
3-'Adv invoicing al- lowed. Prepaym calculated'	No	Yes	Yes	No
Method 4-'Prepay- ment required'	No	Yes	Yes	No
5-'Deposit'	No	Yes	Soft prevention	Yes

Methods 3, 4, and 5 are very similar solutions – which do I use?

Methods 3 and 4 are suited for scenarios where no flexibility is needed. They are intended for simple, one-delivery-per-order scenarios. There are no changes to these orders once the payment document is paid. A typical scenario is that you pay in the store, then drive around to the back, show the receipt, and get the goods.

Method 5 offers more flexibility but is not well-suited when it is common that you do not proceed with the purchase, as there is no automatic cancellation of the payment document and closing of the order. This is an issue if the payment is made in a different location from where the order is created since you do not know that the Advance Payment document must be canceled, and the order must be closed.

If Method 5 is used when selling goods that are available (not creating an acquisition order), the printed document is an invoice, which means that you must have committed to the purchase before the invoice is printed.

Method 5 allows for the manual change of the deposit amount per order line, and in case of partial deliveries, the deposit amount is 'consumed' based on exactly what is delivered. That is, if one out of two pieces on an order line is delivered, then only half of the deposit amount for that order line is consumed on the delivery invoice.

Method 5 is the only advance method that applies the item's VAT code to the advance payment calculation. Delivery can be done without a full advance payment.

Create Advance Invoice Proposal Manually

This document explains how you enter an advance invoice for a customer order manually, enabling you to invoice a customer before any goods has been delivered.

Note that if your settings are done in a certain way advance invoices are instead created automatically when entering a customer order. For more information, see Managing Advance Invoices.

Before you start

The starting conditions listed in [Managing Advance Invoice](#) on page 440 must be met.

Follow these steps

- 1 Start 'Customer Order. Open' (OIS100/A).
- 2 Specify the number of the customer order that you want to create an advance invoice for and click 14=Advance invoice.

'Customer Order. Invoice in Advance' (OIS105) is displayed.
- 3 Specify the requested invoicing date in OIS105/B. Click New.

This is the date when the invoice is actually going to be processed in 'Customer Order Invoice. Print' (OIS180).
- 4 Specify on panel E the amount to be invoiced.

The amount is expressed in the order's currency.
- 5 Review and change the VAT code and payment terms when necessary.

You set default values in Customer Order Type. Update field selection (OIS014/N). (A/I VAT code and A/I pmt terms.)

A VAT code for customer orders indicates the rate used when calculating VAT (Value Added Tax) for a customer order line. VAT codes are maintained in 'VAT code. Open' (CRS030). The terms of payment control how the due date of the invoice is to be calculated, as well as the appropriate text to be printed on the invoice.
- 6 If necessary, specify a message that will be printed on the invoice in the Text line 1 and 2 fields.

For example you can write 'Advance invoice 1' to identify the document. You set default values in Customer Order type. Update field selection (OIS014/N).
- 7 Press Enter to create the advance invoice.

Note: If a customer order line with an ECI (item category = 11 in Item.Open (MMS001/G)) or a non-coded item (item category = 12 in Item.Open (MMS001/G)) is added in the order after the advance invoice has been automatically created, the advance invoice amount is not recalculated. You have to change manually the amount in 'Customer Order. Invoice in advance' (OIS105/E) if you want the new line to be included in the advance invoice.

Outcome

An advance invoice is prepared. The advance invoice includes information about, for example, amount, payment terms and what order the advance invoice refers to.

You can create and print the advance invoice immediately (interactive) in 'Customer Order. Invoice in Advance' (OIS105). If you do not do that, the advance invoice will be created and printed at the first invoicing done in 'Customer Order Invoice. Print' (OIS180) after the entered required invoice date.

Status 20=Not invoiced, will be assigned in 'Customer Order. Invoice in Advance' (OIS105). The status is raised to 70 after invoicing in 'Customer Order Invoice. Print' (OIS180) or after interactive invoicing.

The following files are updated:

- Pre-payment invoice (OOPINV)

- Customer order-head (OOHEAD)

Create Corrective Invoice in Sales Management

This document explains how you credit an incorrect sales invoice and, if necessary, create a new debit invoice.

A sales invoice may need to be corrected if it contains incorrect prices, quantities, discounts, charges, or calculated VAT. Corrections may also be needed when the quality of the delivery or service is insufficient and a price adjustment or customer return is necessary.

Note that it is only possible to correct existing invoice lines, not to add new invoice lines. It is not possible to directly change or specify a total discount amount or a total price.

Outcome

- In the first scenario, a corrective invoice is created. This invoice includes the corrected invoice lines reversed in full together with the new replacement lines. The text 'Corrective Invoice' is printed on the invoice header together with the number and date of the original invoice. The corrective invoice also has a VAT summary box that contains information about the VAT code for both the corrective invoice and the original invoice. The delivery date is retrieved from the original invoice.
- In the second scenario, a credit note and a new debit invoice are created. The credit note contains the incorrect invoice lines reversed in full. The debit invoice contains the new replacement lines. Both the credit note and the new debit invoice contain a reference to the original invoice number and date, a VAT summary box, and the delivery date according to the corrective invoice above. However, the new debit invoice does not contain VAT information for the original invoice.

An accounting journal and a customer invoice journal are printed. The original invoice is still open.

Send the corrective invoice – and, in the second scenario, the credit note as well – to the customer or payer. If goods are returned and you have not processed this in M3 BE, do so in 'Customer Return. Open' (OIS390). You can later review the relation between the original invoice and corrective invoice and any credit note in 'Invoice. Display' (OIS350/B). If there is a correction, this invoice is displayed when selecting related option 16='Display credit invoice' for the original invoice.

The following are updated:

- M3 Accounts Receivable and M3 General Ledger.
- The header of the corrective invoice (and any credit note) is saved in the OINVOH table, whereas the lines are saved in the OINVOL table.
- The headers of the new deliveries are saved in the ODHEAD table, whereas the delivery lines are saved in the ODLINE table.
- The account entries of the original invoice are reversed in full. If the correction referred to a reduction in quantity, this reduction is posted with accounting rules OI10-951 (Delivered/non-invoiced – credit) and OI10-903 (Fictive inventory (non-inventory) – debit).

Sales statistics

The sales statistics are updated as for any regular invoice. This means that the net effect on the statistics is the difference between the reversed lines and new invoice lines (or, if the second scenario is used, between the credit note and new debit invoice).

Customer orders

The customer order is updated if the quantity on the original invoice was adjusted. The invoiced quantity on the customer order line is reduced, according to the adjustments, and the reduced quantity is updated as the returned quantity. The reserved quantity on the customer blanket agreement is also reduced by the returned quantity if a customer agreement is connected to the customer order line. The customer order line is set to status x9, where 9 indicates that the corrected quantity is not delivered.

Credit card payments

If the original invoice was paid by credit card, the new amounts are credited or debited to the same credit card. A new credit card transaction with transaction type 'Correct/credit' is created.

Multi Unit Coordination (MUC) transactions

MUC transactions are created if the original invoice was adjusted in a way that affected deliveries from different divisions. This means that a reduction in price, quantity, or both, are invoiced internally.

Bonus and commission

New bonus and commission transactions are created if the original invoice was adjusted in a way that affects bonus or commissions, or both, thereby ensuring correct bonuses and commissions.

Before you start

- A sales invoice must be transferred to M3 Accounts Receivable and M3 General Ledger. The invoice cannot be an advance invoice.
- The invoice lines to be corrected must have one of these information types:
 - 31 (Gross total per order line)
 - 35 (Order total discount)
 - 60 (External charge per delivery and charge ID)
 - 65 (Service charge per delivery)
 - 67 (External item charge).
- If the original invoice contained errors concerning VAT, such as an incorrect VAT registration number, the basic data for VAT must be corrected.
- The customer order to which the original invoice refers must not be archived. If the original invoice is a summary invoice, none of the customer orders can be archived.
- You have defined settings for 'CO Invoice. Correct or Credit' (OIS380) on the P panel.

If the correction refers to a kit item, these conditions must be met:

- To change a quantity that originates from the header of a kit item, the reservation level must be set to 1-'Kit no level' on 'Product Structure. Open' (PDS001/G).

- To change the price or discount that originates from the header of a kit item, the pricing method must be set to 1-'Cost price' or 2-'Price hierarchy' on (PDS001/G).
- To change the quantity that originates from a detail line of a kit item, the reservation level must be set to 2-'Material level' on (PDS001/G).
- To change the price or discount that originates from a detail line of a kit item, the pricing method must be set to 3-'Line value/quantity' on (PDS001/G).

These settings are optional:

- A 'Corrective invoice series' can be specified on 'CO type. Open' (OIS010/K) to be used as the default number series for corrective invoices. If no corrective invoice series has been specified, the invoice number for corrective invoices will be based on the 'Invoice series' field, specified on (OIS010/K).
 - The 'Not for debit invoice' check box can be selected if the corrective invoice series should not be used for the new debit invoice created when using 'Corrective mtd' 2-'Credit and reinvoice' in 'Invoice. Correct or Credit' (OIS380) to correct a debit invoice. When the check box is selected, the corrective invoice series is only used for the reversal of the original invoice, the credit note. The invoice number for the debit invoice is instead based on the invoice series.
- Note:** If the original invoice is a credit note the same logic applies. If the check box is selected, the corrective invoice series is only used for the reversal of the original credit note, the debit invoice. The invoice number for the new credit note is instead based on the invoice series. This means that the corrective invoice series on a credit order type should be a number series used for debit invoices and the invoice series should be a number used for credit notes.
- Reason codes can be defined in 'Finance Reason Code. Open' (CMS103), where the field 'Reason type' must be set to 1-'Corrective invoice'. For each code, a text can be specified in different languages using F6='Text'.
 - Activate application message type 475-'Correction/crediting of invoice ready for submittal' in 'Settings - Application Messages' (CRS424).
 - Set object control parameter 'Correct/Credit MSG' in 'Available Object Ctrl Parameters. Open' (CMS016), which is connected to 'Correct/Credit Msg Recip Selection. Open' (OIS385). Define the recipients of application message type 475 in (OIS385).

Note:

- If the price printout method selected for the customer on 'Customer. Open' (CRSG10/H) is 2, 3, or 4, the corrective invoice automatically uses price printout method 5 instead.
- The corrective invoice is not item oriented even if the original invoice was an item oriented summary invoice.

Follow these steps

Initiate generation of corrective invoice

- 1 Start 'Invoice. Display' (OIS350).
- 2 Select a sorting order and specify a facility and year.
- 3 Identify the original invoice and select option 14='Correct/Credit' for the invoice to start 'CO Invoice. Correct or Credit' (OIS380).

If the original invoice has already been corrected by a corrective invoice that now must be corrected in turn, you still specify the original invoice number. M3 BE automatically recognizes that a previous invoice exists and displays the corrected transactions of the previous corrective invoice together with the uncorrected transactions of the original invoice in (OIS380).

- 4 Optionally, on the B panel, specify a customer order number or delivery number, or both, to filter the displayed lines.
- 5 Select which corrective method to use.
- 6 Review the invoice and accounting dates and change them, if necessary.
The current date is proposed as default. The invoice and accounting dates for the original invoice are also displayed for informational purposes.
- 7 Specify a new TAX rate date or select the 'Orig Tax_rt dt' check box if you want to use the date from the original invoice.
The TAX rate date determines which date to use when selecting a TAX rate for the new invoice lines. The original TAX rate is always used for the reversed invoice lines.
If you select the check box and the invoice is a summary invoice, different TAX rate dates can be used for different customer orders.
- 8 Select the 'Subtotal' check box if you have selected corrective method 1 and want subtotals to be printed on the corrective invoice.
- 9 Select the 'Negative sign' check box if you have selected corrective method 1 and want negative amounts and quantities to be printed with a negative sign on the corrective invoice.
- 10 Select the 'Select all' check box if you want all displayed invoice lines to be included in the correction.
- 11 If required, select a finance reason code to be printed on the credit invoice printout.
Note: If the desired finance reason code is not available, additional codes can be set up in 'Finance Reason Code. Open' (CMS103).

Create corrective invoice for specific invoice lines

- 1 Select option 2-'Corr transaction' for the invoice line that needs to be adjusted.
The invoice lines are sorted on customer order number, delivery number, and information type. In other words, charges and discounts are not displayed together with the quantity and price. However, you can use the 'Details' field to identify which charges and discounts that belong to a certain invoice line.
Internal discounts are not displayed.
- 2 Select one of these alternatives:
 - Change quantity, price or discount, or both price and discount, for an invoice line
 - Change charges
 - Change total discount or invoice discount

Change quantity, price or discount for an invoice line

- 1 On the E panel, where the original invoice line is displayed together with what is the new invoice line, review the displayed information.
- 2 Make the necessary adjustments on the correcting invoice line. Select F16='Approve'.
When you change quantity, price or discount, the new line amount is recalculated automatically.
Note that you can change the price even if it is not allowed according to the customer order type. You can also change the discount even if it is not allowed according to the discount model.
The change also initiates an automatic recalculation:
 - Line charge = Calculation factor multiplied by new base (the base depending on quantity, price and discount)

- VAT = VAT rate multiplied by new VAT base (due to changed line amount)
- Total discount and invoice discount = Calculation factor multiplied by new base (the base being the order total gross or net).

Change charges

- 1 On the E panel, where the original invoice line is displayed together with what is the new invoice line, review the displayed information.
- 2 Make the necessary adjustments on the corrective invoice line. Select F16='Approve'.
If you change an order charge that has been created with a calculation method that uses a factor and not a price (in other words, the calculation method does not equal 0), then all invoice lines are automatically selected and included in the correction for a correct recalculation to take place.

Change total discount or invoice discount

- 1 On the E panel, where the original invoice line is displayed together with what is the new invoice line, review the displayed information.
 - 2 Make the necessary adjustments on the new invoice line. Select F16='Approve'.
The total discount percentage and the invoice discount percentage can be changed even if it is not allowed according to the discount model.
When you change the total discount or invoice discount, all invoice lines are automatically selected and included in the correction in order for a correct recalculation to take place.
- 3 Return to option 'Correct transaction' to make further adjustments. Otherwise, press Submit and then F3.

Two-step process for verification of corrective/credit invoice

Note: A two-step process for verification of corrective/credit invoice means that one user makes the changes and another user reviews the changes and submits the invoice. In such a process, it may be useful to send application message 475-'Correction/crediting of invoice ready for submittal' to the user who should review the changes.

- 1 Use function key F16='Send App MSG' to send application message 475 to another user (or group of users).
- 2 The other user selects related option 11='Open' in 'Application Message. Open' (CRS420) to open (OIS380) for the invoice in the message.

Submit the invoice

- Select one of these alternatives:
 - Function key F14='Submit' to submit the invoice in batch.
 - Function key F15='Interactive' to perform interactive invoicing.

Limitations

- If Vertex or AvaTax is used for tax calculations 'CO Invoice. Correct or Credit' (OIS380) is restricted to corrective method 2 and either 'select all' or 'credit all' must be selected.
- It is not possible to prevent mismatch in M3 if customer geocode/address was changed since the original invoice was issued. The crediting uses the same tax rate date that was used on the invoice that is being

corrected, but changed settings can cause AvaTax or Vertex to make a different tax decision, resulting in a credit that differs from the invoice that is being corrected.

Cash Desk

Select the 'Cash dsk active' check box on the settings panel (OIS380/P) and use F15='Interactive' to perform interactive invoicing. 'Cash Payment. Open' (OIS215) is opened automatically if 'Cash payment' is set to '2' on the payment terms for the customer order in 'Payment Term. Open' (CRS075).

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OIS380/B)	Corrective method	<p>...how to create a corrective invoice.</p> <p>Alternatives</p> <p>1 = A corrective invoice is created for one or several invoice lines in the original invoice. The corrective invoice displays the reversed invoice lines and the new replacement invoice lines. A reference to the original invoice is printed on the invoice.</p> <p>2 = Corrective credit note and new debit invoice. The selected original invoice lines are fully credited by means of a credit note. The new debit invoice includes the corrected invoice lines. Both the credit note and the new debit invoice have a reference to the original invoice.</p>
(OIS380/B)	Negative sign	<p>... whether a negative sign (or actually a reversed sign) should be printed for the quantities and amount on the reversed lines on the corrective invoice.</p> <p>This check box is only applicable if you have selected corrective method 1.</p>
(OIS380/B)	Subtotal	<p>... whether subtotals are printed on the corrective invoice. A subtotal is the difference between the original line and the new replacement line.</p> <p>This check box is only applicable if you have selected corrective method 1.</p>
(OIS380/B)	Select all	<p>... whether all lines belonging to the invoice or matching the specified customer order number or delivery number, should be included in the correction.</p> <p>You select this check box in these cases:</p> <ul style="list-style-type: none"> a) When the basic data for TAX is changed and all lines are affected by the change. This can be the case if there was no TAX registration number connected to the customer when the original invoice was created. b) When the total discount factor, the invoice discount factor, or the order charge calculation factor needs to be changed, since all the lines are the basis for the calculation of the discounts and charges.
(OIS380/B)	Credit all	<p>... whether all lines belonging to the invoice or matching the specified customer order number or delivery number, should be submitted for complete crediting.</p> <p>No further corrections can be done to the invoice once 'Credit all' has been used.</p>

Program ID/Panel	Field	The field indicates ...
(OIS380/B)	Finance reason	<p>... the reason for the transaction.</p> <p>The reason codes are maintained in 'Finance Reason Code. Open' (CMS103) where the field 'Reason type' should be set to 1 – 'Corrective invoice' for customer orders. For each code a text can be specified in different languages through standard text functionality (F6).</p> <p>The text connected to the finance reason code is printed on the invoice document in the customer's language and the finance reason code is updated as additional information 257 on the customer invoice in Accounts Receivable.</p>

Customer Order Invoice - Cancel Transfer to FIM

When account entry records (OINACC) for an invoice are missing in the transfer to FIM (missing in the transaction worktable FCR040), this causes unbalanced vouchers in 'Trans Work File. Restart Erroneous Jobs' (GLS037). When this happens, the transfer to FIM must be cancelled, so that a new transfer can be carried out.

Follow these steps

- 1 Delete the voucher in 'Voucher. Open Erroneous' (GLS038).
- 2 Use related option 9='Update' in (GLS037).
- 3 Cancel the transfer to FIM by selecting 'Correction ID' OI03-'Cancel transfer to FIM' in 'Program Problem. Solve' (CRS418), and specify the voucher.
- 4 Launch a new transfer to FIM from 'CO Invoice. Post-Process' (OIS196).

Customer Order Invoice - Cancel Transfer to FIM and Remove Account Entries

Introduction

When there are transactions stuck in 'Trans Work File. Restart Erroneous Jobs' (GLS037) because of erroneous account entries that require OINACC to be corrected, these account entries must be deleted from OINACC to reprocess and recreate the correct account entry records through 'CO Invoice. Post-Process' (OIS196).

Follow these steps

- 1 Delete the voucher in 'Voucher. Open Erroneous' (GLS038).

- 2 Use related option 9='Update' in (GLS037).
- 3 Cancel the transfer to FIM by selecting correction ID OI05-'Cancel transfer to FIM and remove account entries' in 'Program Problem. Solve' (CRS418) and specify the voucher.
- 4 Launch a new transfer to FIM from (OIS196).

Limitation

Internal accounting (CAS) is not affected when executing this correction ID.

Customer Order Summary Invoice

A summary invoice is an invoice for more than one customer order delivery. There are several conditions that must be met for a summary invoice to be created:

- The 'Summary invoice' code on the deliveries must not be '0'.
- The 'Summary invoice' code can be set manually on the customer order header on 'Customer Order. Open' (OIS100/F) or the delivery header on 'CO Delivery. Open' (OIS150/E), but normally it defaults to the settings on 'Customer. Open' (CRS610/H) and 'CO Type. Open' (OIS010/K).

There are also several settings for summary invoicing in 'Settings - Customer Order Invoicing' (CRS722) to define whether summary invoicing should break by delivery address, delivery number, order type, warehouse, delivery terms, customer, and shipment. Break by delivery address or delivery number is controlled by the 'Sep invoices' parameter. If it is set to '0' in (CRS722), the 'Sep invoices' setting on the customer (CRS610/H) controls the behavior.

Regardless of these settings, deliveries can only be invoiced together if the fields listed below are the same:

- '**Division**' (ODHEAD.DIVI)
- '**Summary invoice code**' (ODHEAD.AICD)
- '**Payer**' (ODHEAD.PYNO)
- '**Invoice recipient**' (ODHEAD.INRC)
- '**The VAT registration number**' (from the delivery address, or the customer master if no delivery address is specified)
- '**FAM function**'
- '**Currency code**' (ODHEAD.CUCD)
- '**Payment terms**' (ODHEAD.TEPY)
- '**Payment method**' (OOHEAD.PYCD)
- '**Future rate agreement**' (ODHEAD.FECN)
- '**Exchange rate type**' (OHEAD.CRTP)
- '**VAT included code**' (OHEAD.TINC)
- '**Invoice series**' (OTYPE.OT34)
- '**Corrective invoice series**' (OTYPE.OT79)
- '**EU triangle code**' (OHEAD.ECTT)
- '**Discount model**' (OHEAD.DISY)

- '**Cash discount term**' (OHEAD.TECD)
- '**Manual due date**' (OHEAD.DMDT)
- '**Value date**' (OHEAD.CURD)
- '**Tax applicable**' (OHEAD.TXAP)
- '**Trade agreement model**' (OHEAD.TAGY)
- '**Reference number (credit card)**' (ODHEAD.NREF)
- '**Third party provider (credit card)**' (ODHEAD.3RDP)
- '**Reference number of payment request**' (OHEAD.PYRE)
- '**Finance reason code**' (OOHEAD.FRSC).

There are also settings that must be the same, depending on some other settings, as follows:

- Delivery date (ODHEAD.DLDT), if the delivery date is the due date base
- The facility of the delivering warehouse (MITWHL.FACI whs from ODHEAD), if 'No corr invoice' is not selected in (CRS722)
- Order number (DHEAD.ORNO), if total price is used on the order
- Customer number (OHEAD.CUNO), if 'Advance invoice code' on (OIS010/K) is 2-'Prepayment req allowed' and 'Prepmpt posting' is set to 2-'No posting prepayment invoice' in (CRS722).

Independent of all the settings and validations described above, any delivery that gets a Tax calculation code applied on the invoice is prevented from being included in a summary invoice.

Note: If the invoice is used for tax reporting, the sender's tax details must be the same for the whole invoice. The only way to guarantee that is to select to break by warehouse and delivery terms in (CRS722). You can achieve this without these settings if all the warehouses involved are in the same country, using the same VAT registration number, and all the delivery terms have the same settings for 'Tax point' and 'Fisc rep rule' in 'Delivery Term. Open' (CRS065).

Defer Invoicing until Customer Order is Fully Delivered

Workflow

At customer order entry, the proposed summary invoice code is the lowest alternative per customer (CRS610/H) and order type (OIS010/K). The exception is when the summary in-voice code on the order type is 4 - Fully delivered order. In that case, summary invoice codes 0 and 1 on the customer will result in summary invoice code 4 on the order. Summary invoice codes 2 and 3 on the customer will result in summary invoice codes 5 and 6 on the order.

The proposed summary invoice code can be changed if allowed according to the field control in 'co_Type. Update Field Selection' (OIS014/F).

If the summary invoice code on the customer order (OIS100/F) is 4, 5, or 6, then the order cannot be invoiced until it is fully delivered (CO status 66).

Limitations

If the summary invoice code on the customer order (OIS100/F) is 4, 5, or 6, then the order cannot be invoiced until it is fully delivered (CO status 66).

- 4 - Fully delivered order before invoicing, summary invoice per order
- 5 - Fully delivered order before invoicing, summary invoice per payer
- 6 - Fully delivered order before invoicing, item oriented summary invoice per payer

Different Voucher Number Series for Different Types of Invoices

This document explains how to get different voucher number series for different types of invoices.

Before you start

Create order types and FAM Functions.

Description

You can choose to connect a FAM function to the order type. This is done in ‘Order Type. Connect FAM Function’ (CRS407) reached via option 12=FAM function in ‘CO Type. Open’ (OIS010). The connection is done on the division level. It cannot be entered directly on the order type since FAM functions and voucher number series are division specific.

FAM functions can be connected to customer order types, service order types, project order types and maintenance order types.

The system retrieves the voucher number series from the FAM function connected to the division and order type in the table ‘Order Type. Connect FAM Function’ (CRS407). If there is no match in the table, then FAM function 1 is used.

The parameter ‘Separate voucher number’ in ‘Settings – Customer order invoicing’ (CRS722) also affects the result. If that parameter is checked, all invoices get a separate voucher number. Otherwise, all the orders that have an order type that uses the same FAM function will get the same voucher number.

Summary invoicing can only be performed if the orders use the same FAM function. The reason for this is that there is only one voucher per invoice and, thus, the orders in the summary invoice must use the same voucher number series, which means they should use the same FAM function.

Outcome

You will get different voucher number series for different types of invoices when you invoice.

Immediate Invoicing - Customer Order

Immediate invoicing is when a customer order is invoiced immediately after order entry or issue is completed. This is an automatic alternative to manual invoicing and is set in the customer order type.

Immediate invoicing is used to invoice a customer order quickly, for example, for cash sales. It is also used for charge orders and credit.

Invoice Customer Order Manually

This document describes how customer orders are invoiced manually, with possibilities to choose selection criteria on which customer orders to invoice.

It is not the customer order as such, that is invoiced. It is delivery orders created from an original customer order. A delivery order is identified with the customer order number, warehouse and delivery number.

This instruction is used to invoice customer orders with the following order type categories:

- 1 - Normal order
- 2 - Credit order
- 6 - Adjustment order
- 9 - Bonus and commission
- C - Charges.

Outcome

Invoices are printed on paper or sent via electronic media.

Prices are printed depending on how the 'Price printout' field is set in 'Customer. Open' (CRS610/H) and the 'Total price' field in 'CO Type. Open' (OIS010/I).

The invoice can be monitored in 'CO Invoice. Display' (OIS350).

An invoice number is created according to the invoice series entered in the 'Invoice series' in 'CO Type. Open' (OIS010/K).

Before you start

- The parameter auto level for invoicing must be set to 1 (manual invoicing). See 'CO Type. Open' (OIS010/K).
- Printout code - document must be 0 (non-automatic print) for document number 380 (Invoice). See 'CO Type. Connect Documents' (OIS011/E).
- Document 380=invoice must be connected to the customer order.

Follow these steps

- 1** Start 'CO Invoice. Print' (OIS180).
- 2** Press F13=Parameters and specify opening panel.
 - Select the E panel to invoice a range of customer orders.
 - Select the F panel to invoice specific customer orders.
- 3** Click 'Next'.
- 4** Specify an invoice date. The date is printed on the invoice. If 'Invoice date' is selected in the 'Due date base' field in 'Customer. Open' (CRS610/J), this date is used to calculate the due date for the invoice.
- 5** Specify an accounting date. The date determines in which period the invoice will be booked for statistics, general ledger and accounts receivable.
- 6** Specify desired selections in the 'Summary invoicing code' field. Select option 1 or 2 in the 'Advance invoicing code' field.
- 7** Choose one of these options:
 - **Invoice specific customer orders using the F panel**

Enter 1-5 customer order deliveries: customer order number, warehouse, and delivery number. All fields must be specified.

You can browse in the 'Customer order' field to see all customer order deliveries in 'CO Delivery. Open' (OIS150).

Start the invoicing. Choose from these two alternatives:

 - Press F14=Interactive. The invoicing is done interactively. After invoicing, panel (OIS180/E) is displayed and a new invoice can be done.
 - Click 'Next'. The invoice is processed in a batch job.
 - **Invoice a range of customer orders using the E panel**

Specify whether bonus and commission advance settlements should be included.

Specify the selection criteria for the range of customer orders to be invoiced in the 'From' and 'To' fields. If no selections are specified, all valid customer order deliveries will be invoiced.

Click 'Next'. The invoice is processed in a batch job.

Invoice Post-processing

Invoice post-processing involves manual updating for an invoiced customer order. This way, the users can decide when the invoice is updated and which activities/updates should be done. The activities to be done during or after invoicing are set in 'Settings - Customer Order Invoicing' (CRS722).

Most activities can be considered as either immediate invoicing or manual invoicing. These activities can be post-processed manually.

Update made	Program
Intrastat	'Trade Statistics. Calculate' (OIS686)

Update made	Program
EU Sales	'EU Sales. Calculate' (OIS685)
Bonus/commission	'CO Invoice. Post-Process' (OIS196)
Account entries	'CO Invoice. Post-Process' (OIS196)
Sales statistics-Customer Order	'CO Invoice. Post-Process' (OIS196)
Transfer to accounts receivables and general ledger	'CO Invoice. Post-Process' (OIS196) Voucher number per invoice accounting date
Print account specification	'Account Specification. Print' (OIS690)

Transfer to accounts receivables and the general ledger, as well as printing an account specification, are always automatic when using immediate invoicing.

Post-processing is recommended for cash sales and invoices with many transactions. This speeds up invoicing because updating (which requires more time) is done later. Several rounds of invoicing can be post-processed at the same time.

Each invoice can be checked to see the post-processing carried out by checking the delivery status in 'CO Delivery. Display' (OIS355) and 'CO Invoice. Display' (OIS350).

Invoicing and Financial Transactions Overview

Customer order invoicing is part of the customer order workflow and is used when one of the following scenarios is met:

- A customer order has been entered and the order is partially or fully delivered, and it is ready to be invoiced.
- It is used for advance invoicing and other prepayment invoicing scenarios when a payment before delivery is performed.

Customer order invoicing is performed in:

- 'CO Invoice. Print' (OIS180)
- 'Customer Invoice. Print' (OIS151) via 'CO Delivery. Open' (OIS150), or via 'Customer Order. Open Toolbox' (OIS300)
- By immediate invoicing
- By automatic invoicing.

An invoice can be printed immediately after customer order entry is completed. This is managed on the customer order type in 'CO Order Type. Open' (OIS010) by setting the 'Next manual function' to 4.

Automatic invoicing means that the invoice will be printed automatically when the delivery is ready for invoicing.

After using this process, the delivery status of a customer order delivery is, at the least, raised from 60 (delivered) to 70 (invoiced). If 'Update account entry' is set on (CRS722/E) then the status will be 75 (Posted) and if 'Direct transfer to FIM' is set as well the status will be 80 (Ledgers updated).

The different parts of the invoicing process can be split into these subcategories:

Settings

- Customer Order Types
- Defer Invoicing until Customer Order is Fully Delivered
- Invoice Post-processing
- Settings – Invoice.

Workflow

- Invoice customer order manually
- Invoicing customer orders
- Print advance invoices in batch
- Create corrective Invoice in sales management.

Sub-workflow

- Create advance invoice proposal manually
- Print preliminary invoice
- Defer invoicing until customer order is fully delivered
- Internal approval of customer order delivery for invoicing
- Print invoice copy
- Restart invoicing.

Specific types of invoices

- Advance invoice
- Corrective invoice
- Prepayment invoice
- Summary invoice.

Invoicing Customer Orders

The purpose of this process is to invoice customer orders.

After using this process, the delivery status of a customer order is, at the least, raised from 60 (Delivery ready for invoicing) to 70 (Invoiced). Other activities, such as updating sales statistics or account entries, are done when needed. The status of the delivery is changed as the customer order progresses. See 'CO Delivery. Display' (OIS355).

Before you start

- A customer order must have status 60 (Delivery ready for invoicing). See 'CO Delivery. Display' (OIS355).
- Division settings are completed in 'Settings – Customer Order Invoicing' (CRS722).

Follow these steps

Transfers, updates and printouts are not mandatory during invoicing. The selection of these activities can be defined when needed. These activities can also be done separately, manually by invoice post-processing.

1 Start Invoicing

Customer order invoicing can be done in the following ways:

In either case the invoicing activities are performed in the order set in 'Settings – Customer Order Invoicing' (CRS722).

- Manual Invoicing

Customer orders can be invoiced manually in delivery in 'CO Invoice. Print' (OIS180). Customer orders to be invoiced are chosen according to selections, for example, by date or payer.

- Immediate Invoicing

For immediate invoicing, the customer order is automatically invoiced after the issue. The issue can be made at different times, as specified in the dispatch policy in the customer order type. See 'CO Type. Open' (OIS010/J).

This can be as follows.

- Issue is made after the picking list is reported as delivered — auto level 3.
- Issue is made when the picking list is printed — auto level 4.
- Issue is made immediately after order entry is completed. This can be used for cash sales, or credit and charge orders — auto level 5. In this case, invoicing is interactive, and the order is invoiced immediately after it is completed.

To use immediate invoicing, the order must have a customer order type with auto level invoicing=3 (Immediate invoicing after issue) specified. For more information see 'CO Type. Open' (OIS010/K).

The invoice date and accounting date are always the date when the immediate invoice is created.

2 Updating Bonus and Commission

Bonuses or commissions are automatically calculated when a bonus/commission agreement is used.

3 Updating Sales Statistics

The sales statistics of invoiced customer order lines are updated if this is specified in the customer order type.

4 Updating EU Sales (Quarterly Reports)

The VAT on goods delivered within the EU between VAT registered companies must be reported quarterly. When EU sales are updated, the current customer order is in 'Trade Statistics. Open' (CRS245).

5 Updating EU Intrastat

EU Intrastat statistics (for goods traded between EU countries) are updated and collected. When this is done, the current customer order is in 'Trade Statistics. Open' (CRS245).

6 Recording Invoices

Receivable and general ledger records are created when the invoices are recorded. These records are then transferred to accounts receivable and the general ledger.

7 Transfer to Accounts Receivables and General Ledger

Accounts receivable records and general ledger transactions are transferred to each sub-ledger in the financial system.

General ledger records can be transferred in detail for each invoice, or totaled for each combination of accounting date, accounting dimension 1-7, currency code, currency type, and VAT code. This is specified in 'Settings - Customer Order Invoicing' (CRS722).

8 Printing Account Specifications

Account specifications contain information from the receivable records and account entries (account transactions) for each invoice. The account specification for invoices already transferred to accounts receivable and general ledger can be printed.

Account Specification Display

This information can also be displayed on-screen using 'CO Invoice. Display' (OIS350). This helps when checking how specific invoices have been recorded.

9 Customer Invoice Printouts

To print an invoice document, document number 380 (Invoice) must be included in the customer order. If this is not specified in the order, an invoice will be created, but you will not be able to print out the invoice.

Generally, the invoices are printed in order of invoice number for valid customer orders according to the selection specified when invoicing was started. The invoice number series is regulated by the customer order type.

Managing Advance Invoice

This document explains how to manage advance invoices to reduce the risk of having obsolete items.

To use advance invoicing means that you request the customer to pay in advance for an item he has ordered. You can request the customer to pay the entire sum or only part of the sum in advance. Advance invoices are used when a customer orders an item outside the stock assortment.

An advance invoice can be created automatically or manually, one or several times, before a customer order is delivered. Default values are set per order type.

Outcome

The customer has paid the advance invoice. This means that the amount on the final invoice has been reconciled with the amount paid in advance. The final invoice can be monitored in 'Customer Order Invoice. Display' (OIS350).

The payments processed affect your customer credit and risk management as well as your cash flow management.

When an advance invoice proposal is created in 'Customer Order. Invoice in advance' (OIS105), it receives status 20. The status is then raised to 70 after processing the advance invoice in 'CO Invoice. Print' (OIS180) or after interactive invoicing.

These files are updated:

- Pre-payment invoice (OOPINV)
- Customer order head (OOHEAD).

These files are updated after cash payment:

- Payments (OPAYMH)
- Payments Details (OPAYMD)
- Sales ledger (FSLEDG)
- General ledger (FGLLEDG)
- Check number master file (FCHKMA).

For handling other payments, see .

Before you start

- Select Advance Invoice on 'Customer Order Type. Open' (OIS010/K) to allow advance invoicing for the order type used for customer order (including the item you want to get paid in advance for).
- Complete these steps to allow automatic creation of an advance invoice:
 - 1 On (OIS010/E):
 - Set the customer order type category to 1 (normal order).
 - Set the next manual function on (OIS010/E) to one of these alternatives:
 - 1 - Printout picking list/create delivery order
 - 2 - Delivery reporting. Picking list is printed immediately.
 - 2 On 'CO Type. Update Field Selection' (OIS014/N), set the default values per order type for these fields:
 - VAT code
 - Percentage (required condition only for automatic creation of an advance invoice)
 - Payment terms
 - Text lines 1 and 2.
 - 3 On 'Advance invoice for ECI' on 'Customer. Open' (CRS610/F), set the parameter to one of these alternatives:
 - 1 - An advance invoice is created automatically if a customer order line is linked to a reference order
 - 2 - An advance invoice is created automatically if a customer order line is linked to a reference order, and if the item is an extended catalog item or a non-coded item).

Note: At least one order line must be linked with a reference order, or at least one order line has to contain an extended catalog item or a non-coded item. Extended catalog items (ECI) are items which are not kept in stock and need to be bought before being delivered to the customer.

- Complete these steps to enable cash payment after interactive invoicing:
 - On 'Customer order. Open' (OIS100/P) set Cash desk active to 1.
 - On 'Payment term. Open' (CRS075/E) set Cash payment to 1.
- Select the 'Early settlemnt' check box on 'Settings – Customer Order Invoicing' (CRS722/F) to consume the advance payment already on the first invoice instead of saving it to cover the last invoice. If the advance payment is greater than the invoice amount, the To pay amount is 0.00 and the remainder is consumed on future invoices.
- Define an advance invoice item on (CRS722/F) to present advance invoice amounts as item lines in the invoice BOD. The advance invoice item is represented by a customs statistics number set up in 'Customs Statistics Number. Open' (CRS128).
- Complete these steps to enable advance amounts to be offset as credit notes:

- Define 'FAM function credit note' (CRFF) and 'Accounting option credit note' (CRAO) in 'Settings - Accounts Receivable' (ARS905).
- Set 'Deduct method' to 1-'Offset as credit note', on (CRS722/F).
- Optionally, specify 'CN no. ser' on (CRS722/F) if the regular advance invoice number series is not to be used for the credit note.

Follow these steps

1 Create advance invoice proposal

- **Create/update advance invoice proposal automatically**

Note: The advance invoice proposal is created automatically during order entry after automatic creation of advance invoice is enabled (see settings in Before you start). This means that at the end of the customer order creation (OIS105) will be called automatically.

Create an order in 'Customer Order. Open' (OIS100). Check that the values for the created proposal are correct on 'Customer order. Invoice in advance' (OIS105/B).

- **Create advance invoice proposal manually**

Enter default values on 'Customer Order Type. Update field selection' (OIS014/N).

Select the order number for the advance invoice in (OIS100) or in 'Customer Order. Open Toolbox' (OIS300).

Specify the amount to be invoiced in advance and check that the values which are set as defaults are correct on (OIS105/B).

2 Print advance invoice

- **Print advance invoice immediately (interactive)**

Select option 14='Interactive invoicing' on (OIS105/B). The invoice is printed on paper or sent through electronic media.

Note: Printing advance invoice immediately is only required when you handle cash payment.

- **Print advance invoice in batch**

Print a selection of advance invoices manually in (OIS180). All advance invoices belonging to the specified advance invoices dates are printed, and the final invoice is automatically reconciled against the total amount invoiced in advance.

3 Register payment - cash desk or account receivable

If a customer wants to pay an invoice in cash, you initiate the cash payment in 'Cash Payment. Open' (OIS215) by specifying this information: cash desk, payer, currency, payment method, invoice number(s), and payment amount in foreign currency.

Cash payments for invoices are carried out if a customer wants to pay the invoice immediately after customer order and invoicing, or at a common cash desk.

If there are other payment methods to be used (manual bank transfer, draft, or check), you specify the received amount together with the relevant payment values in 'Payment Received. Record' (ARS110). The payment is then ready to be allocated to invoice records in the same program.

4 Final invoicing

If 'Deduct method' is set to 0 - 'Deducted on final invoice' on (CRS722/F), the advanced invoiced amount will be deducted from the final invoice when the items have been delivered and the final invoicing is performed. The status in (OIS105) is set to 80 = 'Invoiced and settled'. In the case of partial delivery,

deduction is only carried out if the remaining advance invoiced amount is greater than what remains to be invoiced on a future invoice, unless the 'Early settlement' check box on (CRS722/F) is selected.

If 'Deduct method' is set to 1 - 'Offset as credit note' on (CRS722/F), the advance amount will be offset as a credit note that is created in conjunction with the invoice. This is represented by a credit record created in (OIS105). The invoice will be the full amount without deduction of the advance amount. The credit note will populate the Invoice BOD tables with 'Information type' (IVTP) 02 - Credit note. The final invoice number will be sent as 'Reference - extended invoice number' (RXIN).

The credit note needs to be manually transferred to FIM through 'CO Invoice. Post-Process' (OIS196). It will only be included in the transfer if the invoice that triggered its creation is successfully transferred to FIM. Once transferred, the credit note will be automatically deducted from the invoice in accounts receivable.

5 Closing the order when there is an advance invoiced amount remaining

When closing the order where there is an advance invoiced amount remaining, a credit 'advance invoice' can be created manually in (OIS105) to credit the customer with the remaining amount. After doing so, both the original advance invoice and the credit still have status 70 = 'Adv invoiced'. You can use 'Correction ID' OI04 - 'Update status for completed advance invoice in (OIS105)' in 'Program Problem. Solve' (CRS418) to update the status to 80 = 'Inv and settled' to indicate that the advance invoice is settled.

Mirror Accounting

Introduction

For companies within the same group that share a common chart of accounts, mirror accounting is an effective solution.

Since they utilize the same chart of accounts, the company issuing an invoice can also provide the foundation for procurement accounting in the purchasing company. You can then use this procurement accounting when the purchasing company records the invoice in their accounts payable (AP).

Although you can set mirror accounting in M3 and retrieve accounting strings for an invoice through CRS399MI (Simulate Accounting String), there is no standard integration available to perform this automatically. This document details the required inputs for CRS399MI from a custom-built integration to generate the correct mirror accounting strings for an invoice.

Limitations

Not all accounting types are supported. The specific accounting types supported are outlined in the Accounting types section.

Settings

The accounting events for mirror accounting are OI21 (Category 1) and OI22 (Category 2) in 'Accounting Rule Set' (CRS395).

It is permissible to copy a specific OI20 event in (CRS395) to OI21 and OI22. This action duplicates the entire setup, including any exceptions defined in 'Accounting Exception. Open' (CRS396).

Get the mirror accounting string

The API transaction GetOI2Evnts in CRS399MI is designed to use the information available in the invoice BOD to retrieve the mirror accounting strings (OI21 and OI22) for an invoice. The decision on which string to retrieve, if any, is typically determined by a setting related to the customer. For instance, this might be based on the customer group. To access the customer record, you can use CRS610MI (Customer interface).

Countries and state

This section is relevant only if the accounting setup is configured to allow the BSCD, FTCO, or ECAR fields to affect the accounting string.

The '**Base Country**' (BSCD), '**From/To Country**' (FTCO), and '**State**' (ECAR) fields are optional inputs for the GetOI2Evnts transaction. If these three input fields are left blank, their values are retrieved from the corresponding customer order invoice line (OINVOL table) as displayed in 'Invoice. Display Lines' (OIS351). This retrieval requires the full key to the invoice line record to be provided as input data.

For VAT (accounting types 111 and 112), BSCD, FTCO, and ECAR are part of the key to the OINVOL record. Only the VAT code (VTCD) needs to be sent as input for regular invoices. However, summary invoices might contain multiple VAT lines ('**Info type**' 40) with the same VAT code but different country or state. In this case, you cannot retrieve BSCD, FTCO, and ECAR from the invoice line directly. For such scenarios, use the API transaction LstInvLineByTyp in OIS350MI (Customer Order Invoice Interface) (with input IVTP = 40) to list VAT records and identify the applicable combinations of VAT codes, BSCD, FTCO, and ECAR to send as input to GetOI2Evnts in CRS399MI.

For accounts receivable (accounting type 100), the invoice line fields BSCD, FTCO, and ECAR are always blank. Therefore, the first available record in OINVOL is used instead.

Date

If no '**From Date**' (FDAT) is specified, the accounting date from the invoice header is used. If no invoice number is specified, the system date is applied.

Accounting types

For different events, the required input data to retrieve the correct accounting string is listed here. If less input is provided, the result is a simulation. Refer to the Countries and state section regarding the BSCD, FTCO, and ECAR input fields.

- Accounts Receivable (To Pay) – Accounting Type 100: YEA4, EXIN
- VAT Payable – Accounting Types 111 and 112: YEA4, EXIN, VTCD
- Order Charges – Accounting Type 140: YEA4, EXIN, ORNO, DLIX, CRID
- Revenues (Gross Line Amount) – Accounting Type 120: YEA4, EXIN, ORNO, DLIX, PONR, POSX
- Discounts – Accounting Types 131 to 136, 157, and 158: YEA4, EXIN, ORNO, DLIX, PONR, POSX
- Item Charges – Accounting Type 150: YEA4, EXIN, ORNO, DLIX, PONR, POSX, CRID

Discounts

The discount number from the discount model determines which accounting type is used. Discount numbers 1 to 6 correspond to accounting types 131 to 136, while discount numbers 7 and 8 correspond to accounting types 157 and 158. The discount number is not included in the invoice BOD.

- You can use SelLineDiscount in OIS350MI to list the discounts for a line and identify the discount numbers (DIPO).
- You can use GetHeadDiscNo in OIS350MI to retrieve the discount number (DIPO) applied to the order total discount.

Order charges on a summary invoice

For summary invoices, you cannot determine the order number (ORNO) and delivery number (DLIX) for an order charge from the invoice BOD.

To obtain the order and delivery numbers for each charge, use LstInvLineByTyp in OIS350MI with input LTYP = 60.

Post-process Invoices

This document explains how you update the information set not to be updated automatically at the point of invoicing. This is done after invoices are otherwise completed to supplement with processing not completed during invoicing.

The following can be updated when post-processing invoices in 'CO Invoice. Post-Process' (OIS196).

- Bonus and commission agreements
- Invoice account entries
- Sales statistics
- Transfers to receivables and the general ledger

Before you start

- Settings are made for pre-invoicing according to [Settings - Invoicing](#) on page 449.
- Invoices must have been processed, without being completed.

Follow these steps

- 1 Start 'CO Invoice. Post-Process' (OIS196).
- 2 Specify which updates to make.
- 3 Specify the date range for post-processing. The date range is for the accounting date.
- 4 Click Exit to start the processing.

Print Advance Invoice in Batch

This document explains how you invoice a customer order before the goods ordered are delivered.

To print advance invoice interactively see [Managing Advance Invoice](#) on page 440.

Outcome

Invoices are printed on paper or sent via electronic media. When invoicing is done any advance invoices are automatically created for the requested advance invoice dates specified in OIS105.

The invoice can be monitored in 'Customer Order Invoice. Display' (OIS350). The final invoice is automatically reconciled against the total amount invoiced in advance, and further advance invoicing is stopped. Next step is to recording and allocating payments.

Status 20=Not invoiced, will be assigned in 'Customer Order. Invoice in advance' (OIS105). The status is raised to 70 after processing the advance invoice in 'CO Invoice. Print' (OIS180) or after interactive invoicing.

The following files are updated:

- Pre-payment invoice (OOPINV)
- Customer order – head (OOHEAD)

The following files are updated after cash payment:

- Payments (OPAYMH)
- Payments – Details (OPAYMD)
- Sales ledger (FSLEDG)
- General ledger (FGLLEDG)
- Check number master file (FCHKMA)

When handling other payments – see Processing customer payments and respective instruction for details.

Before you start

- An advance invoice proposal must be specified in program 'Customer Order. Invoice in Advance' (OIS105).
- The customer order type allows advance invoicing. This is set in 'Customer Order Type. Open' (OIS010/K).
- The Auto level allows manual advance invoicing. This is set in 'Customer Order Type. Open' (OIS010/K).
- If you want to register the payment in cash after interactive invoicing, these prerequisites must be met (OIS215 is displayed after interactive invoicing and enables to register the payment of the advance invoice):
 - Set Cash desk active = 1 in Customer order. Open (OIS100/P)
 - Set Cash payment = 1 in Payment term. Open (CRS075/E)

Note: If this parameter is not activated, OIS215 is not started automatically but you can still start it and register the payment. You will need to select the invoice number instead of having it automatically retrieved.

Follow these steps

- 1 Start 'Customer Order Invoice. Print' (OIS180).

- 2 Choose between these alternatives:
 - Advance invoice a range
 - or
 - Advance invoice separate customer orders

Advance Invoice a Range

- 1 Press F13 = Parameters and specify opening panel E. Press Enter.
- 2 Specify 3 (advance invoicing only) in field Advance invoice code. Make your selections for advance invoicing by facility, payer, customer, delivery date, order type, invoicing group, delivering warehouse, and wave.
- 3 Press Enter to start the advance invoicing.

Advance Invoice Separate Customer Orders

- 1 Press F13 = Parameters and specify opening panel F. Press Enter.
- 2 Specify 3 (advance invoicing only) in field Advance invoice code. Specify the customer order(s) to be invoiced in advance.
- 3 Press enter to start the advance invoicing.

When invoicing is done any advance invoices are automatically created for the requested advance invoice dates specified in OIS105.

Print Invoice Copy

This document describes how you print invoice copies for customer orders that have been invoiced and thus printed previously.

This procedure can also be used if a customer order is invoiced, but a hard copy is not printed. This can occur if document number 380 (Invoice) is not connected to the order or if different document groups have been used for the customer and the customer order type.

Before you start

A customer order must have been invoiced (status 77).

Follow these steps

- 1 Start 'co Delivery. Open' (OIS150). To print a copy of a previously printed invoice, go to step 5. Otherwise, go to step 2.
- 2 Select the appropriate customer order, select option 14='Document' and 'co Delivery. Connect Documents' (OIS154) is started.
- 3 Specify 380 in the 'Document number' field and select 'New' and the E panel is displayed. This creates document number 380 for the customer order.
- 4 Specify the values for the printout. Press Enter to start the printing.

- 5 Start 'CO Invoice. Print Copy' (OIS680). Specify the appropriate invoice number(s). If you do not know the invoice number, you will find it on 'CO Delivery. Open' (OIS150/E).
 - If the copy is to be sent as an original, select the check box 'Print as original invoice'. A reason code must be specified as well.
 - If the invoice exists in the ledger, the ledger's additional information number 392 is updated with the reason code, the user who submitted the reprint, and the date.
 - If the invoice does not exist in the ledger, the reason code, user and date are stored to a temporary location, that is then used to update the ledger extension, when the invoice is transferred to the ledger.
- 6 Press Enter to print the copies.

Outcome

The resulting printout is an exact copy of the original, but is marked as a copy. No updating is done after printing. If the invoice copy is printed as the original invoice, then it is not marked as a copy and the additional information is updated with the latest values.

Restart invoicing

The purpose of this procedure is to restart invoicing after it has been interrupted.

Before you start

To restart invoicing, the interrupted job cannot be active.

Restart of an ongoing invoice job is prevented to avoid serious errors in the database.

Note: If the invoice job is interactive, the check to prevent restarting an active job will fail.

If the invoice job is from the auto job 'Next Manual Function' (OIS950), the auto job most likely remains active for a very long time. Therefore, restart is allowed for invoice jobs started from (OIS950) ten minutes after they were started.

Ensure application messages 059, 403, and 470 are activated in 'Settings – Application Messages' (CRS424).

Ensure that the accounting date for the interrupted job is within the date range for the FAM function OI20/001 in 'FAM Function. Open Details' (CRS406).

Follow these steps

- 1 Start 'CO Invoice. Restart Processing' (OIS980). All active invoicing jobs are displayed, not only interrupted jobs. Invoicing jobs that are ended normally are automatically deleted from the list. If the job cannot be found, see step 4.
- 2 Select option **9='Run'** to restart an invoicing job. If nothing happens, see step 5.
- 3 Press **F3** to end the job.

- 4 If the job cannot be found in (OIS980), activate the extended search for additional jobs. The extended search searches for records without a corresponding job command record (CJBCMD) for the invoice in the progress table (OINVIP). The jobs found can also be restarted (see step 2). The dates used when restarting are usually retrieved from the CO delivery header (ODHEAD), but if the job was interrupted before the delivery header was updated the dates stated in 'CO Invoice. Print' (OIS180) on the user that started the invoicing are selected.
- 5 Sometimes nothing happens when an invoice job is restarted. In some of those cases it works if the restart is run interactively instead of as a submitted job. Use related option 'Interactive' to run the restart interactively. If nothing happens, see step 6.
- 6 When something is preventing the invoicing to complete, the OINVIP status gives an indication where the problem is. Check for application messages 059, 403, and 470 in 'Application Message. Open' (CRS420), check Vertex logs (if Vertex is used), check for dump logs, check for corrupt data, etc. to determine the cause.

Settings - Invoicing

The purpose of this supporting function is to define the settings for invoicing as needed for each specific business. Invoice settings are entered per division in 'Settings - Customer Order Invoicing' (CRS722).

A series of updates can be connected to the point of invoice. The disadvantage with this is that it can take a long time. If the company processes cash sales, it is recommended that as few updates as possible are carried out with invoicing because the invoicing process begins directly after a cash order has been entered.

Follow these steps

The process includes the following activities:

1 Defining Updating

Different statistics and files can be updated immediately when performing invoicing activities.

It is possible to select whether updates are made automatically during invoicing or manually using invoice post-processing for each kind of updating activity.

The table below shows the kinds of updates that can be made automatically and in which programs updates can be made manually.

Updates	Program for manual updates
EU Intrastat	'Trade Statistics. Calculate' (OIS686)
EU sales	'EU Sales. Calculate' (OIS685)
Bonus and commission	'CO Invoice. Post-Process' (OIS196)
Recording invoices	'CO Invoice. Post-Process' (OIS196)
Invoicing statistics	'Sales Statistics. Update' (OIS691)
Direct transferring to FAM (accounts receivable and general ledger)	'CO Invoice. Post-Process' (OIS196)

2 Defining Other Settings

The other settings that can be made in program (CRS722) are described below:

- **Separate invoices for different delivery addresses**

The 'Separate invoices' field regulates whether a summary invoice can be created for deliveries made to different delivery addresses or if every delivery in the summary invoice must have the same delivery address.

- **Break level for summary invoices - customer order types**

The 'Break order type' field regulates whether a summary invoice can be created for different customer order types, or if every delivery in a summary invoice must have the same customer order type.

If different customer order types can be used, the invoice number series for the summary invoice will be retrieved from the first order specified in the summary invoice.

- **Print lot number on the invoice**

The 'Print Lot no' field regulates whether a specification of the lot numbers delivered is printed for each invoice line.

- **Print description on external document**

The 'Print description' field regulates whether additional text is printed after the item name on each invoice line.

This text is entered in the order file for each order line and can be up to 60 characters long.

- **Print optional information**

The 'Print features and options' field controls if information about related products and stocked items are to be printed on external documents.

- **Compress account entries for the general ledger**

The 'Compress FAM transactions' field regulates whether account transactions are to be compressed before they are transferred to the M3 financial system.

Compressing requires that the following terms are the same:

- Accounting date
- Accounting string
- Currency code
- Exchange rate type
- VAT code

- **Print account specification**

The 'Print invoice journal' field regulates whether a specification of account entries made per invoice is printed when invoices are recorded.

- **Update order entry for overshipped or short delivery**

- **Cash Discount Calculation on Invoiced Amount - Including or Excluding VAT**

The 'Cash discount method' field regulates whether a cash discount is calculated for the total invoiced amount or net amount.

- **Invoice number log**

If the invoice number log is activated, the invoice number needs to be confirmed in 'Invoice Number Log.. Open' (CRS500) before it can be transferred to the financial system, some options in CRS722 is not possible to enable.

- **Order language**

Select the check box to print the invoice in the order language instead of the invoice recipient's language.

Update EU Sales

The purpose of this procedure is to update EU sales manually. This forms the basis of quarterly reports for sales between EU countries.

Before you start

- Customer orders from sales between EU countries are invoiced.
- The buyers and sellers are registered for VAT in the appropriate EU country.
- Manual update is specified in field Update EU sales in 'Settings - Customer Order Invoicing' (CRS722).

Follow these steps

- 1 Select 'EU Sales. Calculate' (OIS685).
- 2 Specify division and year. Specify the period to be updated by entering a date range and invoice number range in the From and To fields.
- 3 To re-create updating done previously, select the 'Re-create' field. To confirm the updating, press Enter.
- 4 To end, press Enter.

Outcome

As a result of using this procedure,

- Sales between VAT registered trading partners in different EU countries are updated;
- Invoiced customer orders affecting EU sales are accessible in 'Trade Statistics. Open' (CRS245).

Update Sales Account Entries

The purpose of this procedure is to record account entries for invoices that were not posted during invoicing.

Description

- Invoiced customer orders have not been recorded.
- Any bonus/commission is calculated.

Follow these steps

- 1** Start 'CO Invoice. Post-Process' (OIS196/E).
- 2** Select the 'Update account entry' field.
- 3** Specify the date range for when to update sales account entries. Press Enter to start the updating procedure.

Chapter 7: Customer Order Sourcing

Availability Check - Customer Order Line

An availability check is used to ensure that ordered quantity on a customer order line can be delivered on the requested delivery date. Ordered quantity is compared to available to promise (ATP).

This check is only made if the requested delivery time is within the item's planning time fence. If the check is to be made, it must be activated for both the customer order type and the item/warehouse.

When the ordered quantity cannot be delivered, the inventory situation including expected receipts is displayed automatically using the panel sequence during order line entry.

Buy-to-Order

This document explains what buy-to-order is and how you can use it in the customer order flow.

Outcome

A purchase order and a customer order are created during customer order entry without disrupting the customer order flow.

Throughout the process, it is possible to monitor the customer order/purchase order and, if necessary, recalculate price or change delivery terms.

Before you start

The starting conditions listed in [Creating a Purchase Order in the Customer Order Flow](#) on page 457 must be met.

Purpose

The purpose of the buy-to-order function is to facilitate the procurement process during customer order entry by creating a purchase order in the customer order flow without disrupting the normal order entry.

When

Use the buy-to-order function when you need to buy an item that you do not keep in stock. For example, buy-to-order is applicable when a supplier takes on the role of an agent or cross-docking pool for deliveries to a certain customer. This means that goods will go directly to the customer or only shortly remain in stock while cross docking with in-house goods. This function can be used both for normal items and for extended catalog items.

How

The settings for the buy-to-order function facilitate the creation of a purchase order while entering a customer order. A closer link is created between customer orders and purchase orders either through 'Customer Order. Acquire Sales Item' (OIS145), which starts automatically during order entry in 'Customer Order. Open' (OIS100) and 'Customer Order. Open Lines' (OIS101) or via settings that process procurement automatically.

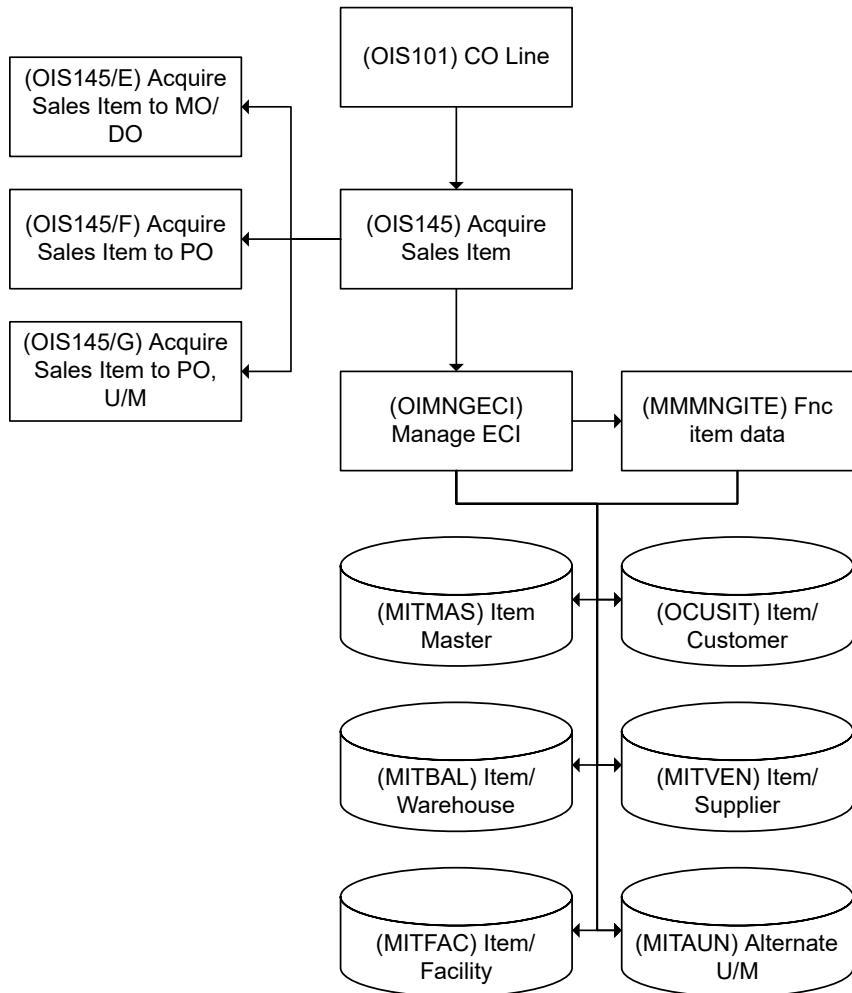
You can use these two ways to manage buy-to-order:

- 'Customer Order. Acquire Sales Item' (OIS145) is started automatically during order line entry. Here you can add or change the information about an item and, if necessary, recalculate sales price. By pressing F17=Update, you will return to the customer order line, and a purchase order is created automatically.
- A planned purchase order is created and released directly after entering the customer order line without starting (OIS145). A message informs you that a purchase order is created automatically.

The buy-to-order process manages both normal items and extended catalog items (ECI). Both are stored in the item file. ECIs are template items, used to reduce the maintenance of basic data for seldom sold items and to facilitate the process of creating a new item to be purchased. These items are predefined and will be treated as ordinary in-house items in M3.

Structure

This figure illustrates the buy-to-order flow as well as which files are updated.



Create a Purchase Order during Customer Order Entry

This instruction explains how you can create a purchase order in the customer order flow without disrupting normal customer order entry.

You can use the buy-to-order function when the customer wishes to buy an item that is not normally kept in stock and therefore needs to be purchased from another supplier.

Outcome

A planned purchase order and a customer order are created. A planned purchase order is released automatically when you leave customer order entry in 'Customer Order. Open Line' (OIS101) and a purchase order is created.

The following files are updated:

- Item master file - MITMAS
- Item/warehouse file - MITBAL
- Item/facility file - MITFAC
- Alternate unit of measure file - MITAUN
- Item/supplier file - MITVEN
- Item/customer file - OCUSIT
- Purchase order header file - MPHEAD
- Purchase order line - MPLINE

Before you start

The starting conditions listed in [Creating a Purchase Order in the Customer Order Flow](#) on page 457 must be met.

Follow these steps

Create a Purchase Order

- 1 Start 'Customer Order. Open' (OIS100/A).
This instruction is based on the panel sequence 5.
- 2 Specify a customer number. Press Enter and information about the customer is automatically retrieved to the order header.
- 3 Specify a requested delivery date. Press Enter to proceed to 'Customer Order. Open Line' (OIS101/B).
- 4 On the B panel in (OIS101/B), enter the item to be purchased - either a normal item or an ECI. Press Enter and 'Customer Order. Acquire Sales Item' (OIS145/F) is started.
If the selected item is an ECI, (OIS145/F) is always started automatically after order line entry.
- 5 On the F panel, enter information about, for example, purchase price and supplier and-if necessary-recalculate the sales price.
If you have selected an ECI you have to enter a description and a purchase price.
If you have selected an ECI with item category 11 it is also possible to add or change information on the G panel, for example information about unit of measure and conversion factors, volume, gross and net weight. You can proceed to the G panel by pressing F19=Alternate unit of measure.
- 6 Press F17=Update to update the acquisition and you will return to the customer order lines in (OIS101/B1).
It is now possible to continue the registration of the customer order and to enter more order lines, if required. When you leave the (OIS101/B) panel, a purchase order is created automatically.
A planned purchase order can be manually released by using option 21=Release in 'Customer Order. Open' (OIS100/A).

Create a Purchase Order Automatically

- 1 Start 'Customer Order. Open' (OIS100/A).
This instruction is based on the panel sequence 5.
- 2 Specify a customer number. Press Enter and information about the customer is automatically retrieved to the order header.

- 3 On the (OIS101/B) panel, enter the ordered item to be purchased and press Enter.

A purchase order is now created automatically and a message from the system informs you that the order has been created. This applies if the parameters 'Automatic acquisition' and 'Automatic release' are selected in 'CO Type. Open' (OIS010/H), see settings instruction [Define Settings for the Buy-to-Order Process](#).

It is now possible to continue the registration of the customer order and to enter more order lines, if required.

Creating a Purchase Order in the Customer Order Flow

This document explains the buy-to-order process, that is, how to create a purchase order in the customer order flow without disrupting normal customer order entry. It also explains how you can monitor changes on the customer order/purchase order and how to release planned purchase orders during the order entry process.

You can use the buy-to-order function when the customer orders an item that is not normally kept in stock and therefore must be purchased from another supplier.

Outcome

A purchase order is created during customer order entry. The ordered goods are distributed to the customer either from your stock or directly from the supplier. When goods are delivered and reported in M3, an invoice is created and sent to the customer.

Before you start

- For information on specific settings to be set for the buy-to-order process, see [Define Settings for the Buy-to-Order Process](#) on page 462.
- If you use a template item, an extended catalog item must be defined in 'Item. Open' (MMS001). See [Define an Extended Catalog Item](#) on page 458.

Follow these steps

1 Entering a Customer Order with a Purchase Order

When you receive an order for an item that you do not normally have in stock, begin by handling it the same way as a normal customer order and specify all necessary information in the order header in 'Customer Order. Open' (OIS100). In 'Customer Order. Open Lines' (OIS101/B), which is started from (OIS100), select the item to be purchased from your item file.

When specifying items to be purchased on the order line, predefined settings will provide two options:

- 'Customer Order. Acquire Sales Item' (OIS145/F) is started automatically, in which you can add or change information about the item. When you end (OIS145) by pressing F17=Update, you will return to the order lines where you can specify new items if required. A purchase order is created automatically when you end (OIS101/B).

You can add the order line to an already existing purchase order. To do so, you must specify the existing purchase order number in (OIS145). The order line is then automatically added to that purchase order using the purchase order batch entry.

- A purchase order is created directly without starting (OIS145/F). A message from the system informs you that a purchase order is created automatically.

2 Managing Advance Invoices

When the customer is required to pay for goods in advance, either partially or in full, an advance invoice can be created in 'Customer Order. Invoice in Advance' (OIS105) which is started from (OIS100).

3 Releasing Planned Purchase Orders

After a planned purchase order is created, it is released in 'Planned Purchase Order. Open' (PPS170), and a purchase order is created. The release can be performed either manually or automatically.

You can release a planned purchase order manually; by selecting option 21=Release in 'Customer Order. Open' (OIS100/B).

4 Monitoring Changes on Customer Orders/Purchase Orders

While processing a customer order and a purchase order, you might need to make changes on quantities, delivery dates and/or prices, for example. You can follow up the customer order and purchase order and make necessary changes.

You can follow up customer orders in 'Customer Order. Open Toolbox' (OIS300) and 'Customer Order. Open Line Toolbox' (OIS301) and purchase orders in 'Purchase Order. Display Lines' (PPS220).

5 Informing Customers about Changes

When order delivery is delayed or when the price has changed, it is important to inform the customer. This is commonly done directly through telephone or fax, but in the case of a delayed delivery you can choose to send a letter using 'Customer Order. Print Delivery Time Changes' (OIS610).

6 Distributing and Invoicing

When an item is acquired, goods are distributed to the customer and the customer order is invoiced. Note that a purchase order invoice may be received and approved either before or after the customer order is delivered and invoiced.

For more information about how to manage planned purchase orders and purchase orders, refer to the procurement process documentation.

Define an Extended Catalog Item

This document explains how you define an extended catalog item (ECI).

An ECI is a predefined template item used in customer order entry during the buy-to-order process.

Outcome

A template item is created. There are two kinds of ECIs:

- ECI with item category 11 (extended catalog item)
- ECI with item category 12 (non-coded extended catalog item).

When using an ECI with item category 11 during customer order entry, a new item with a new item number is created automatically based on item master data from the template item. It will function like a ordinary item throughout the entire order process (customer order, purchase order, goods receipt, picking list and so on).

When using an ECI with item category 12, a temporary item is created during customer order entry. No item number is created in order to avoid the creation of a large number of records in the item master file.

The item master file MITMAS is updated.

Before you start

- A numbering rule must be defined in (MWS050).
- The general settings for buy-to-order must be defined as described in [Define Settings for the Buy-to-Order Process](#) on page 462.

Follow these steps

Define Basic Settings for Extended Catalog Items

- 1 Start 'Item Type. Open' (CRS040/B). Specify the desired item type identity (maximum three characters). Select New to go to the E panel.
- 2 On the E panel, specify a description and a name and select either item category 11 or item category 12. This is required for ECI.
- 3 Select a template item. This is only required for item category 11.
Before entering a template item in this field, it must be created in 'Item. Open' (MMS001)—for more information, see [Define an Extended Catalog Item](#). It is not necessary to specify information about the template item at this stage. Instead, continue entering the item type until you are finished. After creating a template item, return to the item type to enter the new template item.
- 4 Select status 05=Template item in the Status field, and select a numbering rule. Only required for item category 11.
- 5 Specify the information in the remaining fields of the E panel and the F panel. These fields are optional. Click Exit to finish.
- 6 Start 'Item. Connect Warehouse' (MMS002/B). Select an item, and select Open to go to the E panel.
- 7 On the E panel, select 2=Purchasing in the 'Acquisition code' field. Click Exit to Finish.

Define Inventory Accounting Method and Preliminary Pricing Rule

- 1 Start 'Item. Connect Facility' (MMS003/B). Select the item, and select Open to go to the E panel.
- 2 On the E panel in the 'Inventory accounting method' field select 2=Average cost or 4=Actual cost. Press Enter to go to the F panel.
Note: If line type 1: Inventory accounting method=4
If line type 2: Inventory accounting method=2 or 4.
- 3 On the F panel, select a costing model, and select the default values for the preliminary price code on the customer order line for line type 1 and line type 2.

- 4 Select the 'Calculate price for line type 1' and 'Calculate price for line type 2' check boxes if you want the sales price on customer order lines of line types 1 and 2 to be calculated dynamically during customer order entry. Press Enter to finish.

If you have selected the check boxes, you must specify information in 'Settings – Sales Price Calculation' (OIS330/E). See 'Define Settings for the Buy-to-Order Process' in the See also section.

Define an Extended Catalog Item

- 1 Start 'Item. Open' (MMS001/B). Select an item type, and select New to go to the E panel.
You can select the item type you have predefined for either item category 11 or item category 12 in 'Item Type. Open' (CRS040).
- 2 On the E panel, specify a name and a description.
- 3 Select status 05=Template item, if the item category is 11.
When an ECI with item category 11 is processed through the customer order flow, a new item number is created and stored in the item file, and item status is set to 80.
The status in (MMS001/E) is connected to the item type in 'Item Type. Open' (CRS040). See also step 4 of **Define Basic Settings for Extended Catalog Items**.
- 4 Select 2=Purchased in the 'Make/buy code' field. This is required for ECI.
- 5 Specify the unit of the item in the 'Basic U/M' field.
For item category 11 this unit of measure can be changed during customer order entry, but for item category 12 it cannot be changed.
- 6 Specify the information in the remaining fields on the E panel. These fields are optional for ECI. Press Enter to go to the F panel.
- 7 On the F panel, specify the desired information. Press Enter to go to the G panel.
For item category 12, the information given here on weight and volume cannot be changed during customer order entry.
- 8 Specify the information on the remaining panels. Press Enter to finish.
To make the ECI work during customer order entry, it must be connected to a warehouse in 'Item. Connect Warehouse' (MMS002). For more information on how to create items, refer to the supply chain execution process documentation.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS040/E)	Item category	<p>... the item category that best represents the characteristics of each item.</p> <p>The valid alternatives for ECI are:</p> <ul style="list-style-type: none"> 11 = Extended catalog item 12 = Non-coded extended catalog item. <p>The alternatives are used for controlling and informational purposes. ECIs and non-coded ECIs are only to be used in combination with line types 1 and 2 during customer order entry. When using an ECI template item in customer order entry, a new item is created based on item master data from the template item.</p>
(CRS040/E)	Template item	... the template item used to automatically create a new item. This item contains the same settings as the template.
(CRS040/E)	Numbering rule	... a numbering rule that defines what item and alias numbers consist of.
(MMS002/E)	Acquisition code	... how acquisition is to be performed in the case of requirements (immediate or planned) for each item/warehouse. The valid alternative for ECI is 2=purchasing. Since the acquisition code can be overridden, both purchasing and manufacturing can exist simultaneously.
(MMS003/E)	Inventory accounting method	<p>... the inventory accounting method that defines how the cost of an item is determined per item/facility.</p> <p>The valid alternatives for ECI are:</p> <ul style="list-style-type: none"> 2 = Average cost 4 = Actual cost. <p>Alternative 2 is primarily used when cost cannot be specified in advance, as is the case with purchased items. It can be used for all other kinds of items, however.</p> <p>Alternative 4 is primarily used when you want inventory value to equal actual cost for the item, so no variances are created for the item. The actual cost is calculated per lot number. The method can be used for any kind of item. Note that one of the lot control methods 2 – 5 must be selected for the item in (MMS001/E). The cost is calculated per lot number.</p>
(MMS003/F)	Costing model - sales price	<p>... the identity of a costing model for sales prices. Costing models can be connected to different price lists and are used to calculate both basic prices and order-dependent prices.</p> <p>Costing models are defined in 'Sales Costing Model. Open' (OIS022).</p>

Program ID/Panel	Field	The field indicates ...
(MMS003/F)	Preliminary price for line type 1 and line type 2	<p>... the default value for the preliminary price code on the customer order line for line type 1 and line type 2. The preliminary price code on a customer order line determines whether the sales price on a customer order line is preliminary.</p> <p>Customer order lines with preliminary price marking will not be invoiced until the marking has been removed.</p> <p>The valid alternatives are:</p> <p>0 = The sales price is not preliminary.</p> <p>1 = The sales price is preliminary. The preliminary price marking will automatically be set to 0 (final price) if the sales price calculation is performed from:</p> <ul style="list-style-type: none"> 'Planned Purchase Order. Open' (PPS170) 'Planned Purchase Order. Open Line' (PPS201) 'Purchase Order. Confirm' (PPS250) 'Supplier Invoice. Record' (APS100) 'CO Delivery. Recalculate Preliminary Price' (OIS156). <p>2 = The sales price is preliminary. The preliminary price marking will automatically be set to 0 (final price) if sales price calculation is performed from:</p> <ul style="list-style-type: none"> 'Supplier Invoice. Record' (APS100). 'CO Delivery. Recalculate Preliminary Price' (OIS156). <p>3 = The sales price is preliminary. The only way to remove the preliminary price marking is to change the order line.</p>
(MMS003/F)	Calculate price for line type 1 and line type 2	... whether the sales price on a customer order line with line type 1 is calculated dynamically during customer order entry.

Define Settings for the Buy-to-Order Process

This document explains how you define the necessary settings for the buy-to-order process.

The settings dealt with in this instruction are the settings you especially need to facilitate the buy-to-order flow.

Outcome

A complete setup of parameters is defined for the buy-to-order process.

You can carry out the buy-to-order process.

These files are updated:

- Customer order types - OOTYPE
- Field select and defaults per order type - OODFLT
- Customer master file - OCUSMA
- Document - ODEDODC
- Facility and item balance - MITFAC
- Parameters price calculation - OPRCPM

Before you start

- A customer must be specified in 'Customer. Open' (CRS610).
- A customer order type must be defined in 'CO Type. Open' (OIS010).
- An item must be defined in 'Item. Open' (MMS001).
- Standard documents must be specified in 'Document. Open Standard' (CRS027).
- A planning policy must be defined in 'Planning Policy. Open' (MMS037).
- A goods receiving method must be defined in 'Goods Receiving Method. Open' (PPS345).

Follow these steps

Define general settings for acquisition

- 1 Start 'Settings - Acquisition' (CRS723/E). Define the general settings for acquisition that must be considered when purchase orders are connected directly to the customer order lines.
- 2 On the E panel, specify this information:
 - A status for planned purchase orders when created from line type 1 and line type 2
 - Whether you wish to retrieve the final status for planned purchase orders from the valid planning policy
 - How overshipped purchase orders are to be processed when they are connected to customer order lines
 - Whether to update the cost price for line type 2 and average priced items when the supplier invoice line is approved
 - Whether you want the sales price on the customer order line to be recalculated automatically
 - A goods receiving method
 - Whether to include line type 2 order lines in the material plan and have it consume forecast.
- 3 Click Exit to finish.

Define field headings and contents

- 1 Decide which fields to display and where values are retrieved from for customer order lines in 'Customer Order. Acquire Sales Item' (OIS145).
- 2 Start 'CO Type. Update Field Selection' (OIS014/B).
- 3 Select an order type used for buy-to-order. Select Open and go to the L panel, where you can specify:
 - whether the field headings and field contents are to be displayed,
 - where the field information is to be retrieved from,
 - whether the field information can be changed.
- 4 Click Exit to finish.

Define buy-to-order settings for the customer order type and customer

- 1 Start 'CO Type. Open' (OIS010/B), select the order type you want to use for buy-to-order. Select Open to go to the G panel.
Note: You might have to change several order types to make buy-to-order work.
- 2 On the G panel, specify whether only one line type is to be managed according to the order type. Press Enter to go to the H panel.
- 3 On the H panel, specify whether:
 - Order-initiated items should create a purchase order automatically or if the acquisition panel should be displayed (automatic acquisition)
 - Order-initiated items should always create a purchase order
 - Planned purchase orders can be automatically released after customer order entry (automatic release).Press Enter and go to the I panel.
- 4 On the I panel, specify whether a new cost price is to be entered on delivery.
Press Enter and go to the K panel.
- 5 On the K panel, specify whether the order type allows advance invoicing.
- 6 Click Exit to finish.
- 7 Start 'Customer. Open' (CRS610/B1). Select a customer, select Open and go to the F panel.
- 8 On the F panel, specify whether an advance invoice is to be created automatically during customer order entry.
- 9 Click Exit to finish.

Define document links - Customer order to purchase order

Note: The document purchase order (document number 105) must be included in a document class. The document class determines what text must be copied.

- 1 Start 'Std Document. Open' (CRS027/B). Select the standard document for purchase order (document number 105), select Open and go to the E panel.
- 2 On the E panel, specify which document classes are to be retrieved from the customer order for the purchase order.
- 3 Click Exit to finish.

Define dynamic and preliminary pricing rule

- 1 Start 'Item. Connect Facility' (MMS003/B1). Select the desired item, select Open and go to the F panel.
- 2 On the F panel, specify this information:
 - A costing model
 - The default values for the preliminary price code on the customer order line for line type 1 and line type 2
 - Whether you want the sales price on a customer order line (with line type 1 and line type 2) to be calculated dynamically during customer order entry.
- 3 Click Exit to finish.

If the parameters for price calculation for line types 1 and 2 are selected, the parameters described on 'Settings - Sales Price Calculation' (OIS330/E) must be defined. See description below.

Define settings for sales price calculation

- 1 Start 'Settings - Sales Price Calculation' (OIS330/B). Select a facility and select Open to go to the E panel.

All parameters on (OIS330/E) are used for dynamic price calculation—that is, the price is calculated when the order line is created.

- 2 On the E panel, specify this information:

- A rounding-off category
- A exchange rate type
- A basic price list
- Whether the base for sales price costing is to be rounded off
- A costing type.

- 3 Click Exit to finish.

Define an extended catalog item

If extended catalog items (ECIs) are to be used, you need to define an extended catalog item (ECI) as a predefined template item. An ECI is used to facilitate the management of items during customer order entry in the buy-to-order process. A new item is created with the template's features.

The ECI is defined in 'Item Type. Open' (CRS040), 'Item. Connect Facility' (MMS003), and 'Item. Open' (MMS001).

For more information, see [Extended Catalog Item](#) on page 419

Parameters to set

Define general settings for acquisition

Program ID/Panel	Field	The field indicates ...
(CRS723/E)	Status line type 1 and line type 2	<p>... the status assigned to planned purchase orders when they are created from customer orders with line type 1 and line type 2. Line type 1 designates delivery from own inventory and line type 2 direct deliveries from supplier to customer.</p> <p>The valid alternatives are:</p> <p>20, 30, 40, 50, 55 = Manually defined status codes</p> <p>60 = Purchase orders can be created.</p> <p>Note that a planned purchase order is assigned the status specified in this field when customer order entry is completed. While entry is in progress, a planned purchase order is always assigned status 20 regardless of what is specified in this field.</p>
(CRS723/E)	Planning policy	<p>... whether to retrieve the final status for planned purchase orders from the valid planning policy for each combination of item and warehouse. If there is no item/warehouse combination, or if this value is zero, the final status entered in the status field will apply; see description above.</p>
(CRS723/E)	Overshipped PO to CO – normal item/extended catalog item	<p>... how overshipped purchase orders for normal items and/or for extended catalog items (ECI) are processed when the purchase orders are connected directly to customer order lines.</p> <p>The valid alternatives are:</p> <p>0 = Overshipped quantity does not change the CO, but is made available for other requirements when saved.</p> <p>1 = Overshipped quantity updates the CO so that the customer receives more than what is ordered.</p>

Program ID/Panel	Field	The field indicates ...
(CRS723/E)	Invoice check	<p>... whether the cost price for customer order lines with line type 2 (direct deliveries) and average priced items is updated when the supplier invoice line is approved.</p> <p>0 = No, updated from purchase price in purchase order during shipment advice (PPS260) or goods receipt (PPS300)</p> <p>1 = No, updated from purchase price in purchase order during goods receipt (PPS300)</p> <p>2 = Yes, updated from invoiced price when the supplier invoice line is approved (APS100).</p> <p>Alternative 0: The customer order can be invoiced after shipment advice or goods receipt. If shipment advice is not done, then goods receipt releases the customer order for invoicing.</p> <p>Alternative 1: The customer order can be invoiced after goods receipt.</p> <p>Alternative 2: The customer order can be invoiced after the supplier invoice line is approved.</p>
(CRS723/E)	Automatic recalculation of sales price	<p>... whether the sales price on the customer order line is automatically recalculated when the purchase order is being confirmed or the connected purchase order line is invoice checked. Note that only customer order lines that have been flagged as preliminarily priced and have price origin code C (Calculate) are recalculated during supplier invoice check.</p>

Program ID/Panel	Field	The field indicates ...
(CRS723/E)	Goods receiving method	<p>... the method that controls the goods receiving flow for purchase order lines connected to customer order lines with line type 2.</p> <p>The default goods receiving method is retrieved from one of four sources determined according to the following order of priority:</p> <ul style="list-style-type: none"> 1 = Acquisition parameters 2 = Combination of item and supplier 3 = Item 4 = Purchase order type. <p>Note that the parameter 'Direct put-away' must be selected in 'Goods Receiving Method. Open' (PPS345).</p>
(CRS723/E)	Material plan line type 2	<p>... if customer order lines that are order initiated with a direct delivery from the supplier to the customer (line type 2) are to be included in the material plan and consume forecasts.</p> <p>If the parameter is activated, the customer order line is displayed in the material plan. However, it does not have any effect on the projected on-hand balance or the cumulative ATP.</p>
(OIS014/L)	Normal item and extended catalog item (ECI): line type 1 and line type 2	<p>The (OIS014/L) panel is designed only for buy-to-order settings and is divided into two parts, one part for normal items (line type 1 and 2) and one part for extended catalog items (line type 1 and 2).</p>

Program ID/Panel	Field	The field indicates ...
(OIS010/G)	Default line type	<p>... a line type used during customer order entry. If only one line type may be managed according to the order type parameter, the line type is displayed here.</p> <p>The valid alternatives are:</p> <p>0 = Normal order line</p> <p>1 = An order line that creates a purchase order. Delivery is made from stock.</p> <p>2 = A purchase order is created for the order line, with delivery address according to the customer order. Direct delivery from supplier to customer.</p> <p>This parameter functions in combination with the parameter 'Line type' on 'CO Type. Update Field Selection' (OIS014/J) to facilitate customer order line entry.</p> <p>Example: If delivery is to only take place from the company's own stock you can select 1 for 'Default line type' on (OIS010/G) and 0 or 1 for 'Line type,' then you do not need to enter these values during customer order line entry.</p> <p>Note that if you want to be able to enter both normal items and items to be purchased on your customer order the 'Default line type' field must be changeable—that is, the 'Line type' field on (OIS014/J) must be set to 2.</p>

Program ID/Panel	Field	The field indicates ...
(OIS010/H)	Automatic acquisition	<p>... whether order-initiated items should always create a purchase order. This functions together with 'Automatic release' (see description below).</p>
		<p>Note that if this field is not selected, or if basic data required to create a planned purchase order is missing, the acquisition panel on 'Customer Order. Acquire Sales Item' (OIS145/F) is always displayed.</p>
		<p>If this field is selected, (OIS145/F) will not be displayed. Instead a message will appear on the screen informing you that a planned purchase order has been created automatically.</p>
(OIS010/H)	Automatic release	<p>... whether planned purchase orders are to be manually or automatically released after customer order entry.</p>
		<p>When released, a planned purchase order created for a customer order is assigned the status specified in 'Settings - Acquisition' (CRS723). Manual release can also be performed by selecting option 21=Release in 'Customer Order. Open' (OIS100).</p>

Program ID/Panel	Field	The field indicates ...
(OIS010/I)	Cost pricing at delivery	<p>... whether a new cost price is to be entered upon delivery.</p> <p>The valid alternatives are:</p> <p>0 = The cost price is retrieved or entered manually during customer order entry.</p> <p>1 = A new cost price for each customer order line is retrieved upon delivery. This applies only if it is greater than zero. Otherwise the cost price retrieved or entered manually during customer order entry applies.</p> <p>If the retrieved or manually-entered cost price applies, two entries are created in inventory accounts. The first is a cost price change for the quantity that is to be delivered. The second is delivery to the customer at the cost price applicable for the order line.</p> <p>Example:</p> <p>When the order was entered, the cost price for item A100 was zero. A cost price of 525 was therefore entered. Upon delivery of the ordered quantity, ten, the cost price is still zero.</p> <p>The following entries will be made in the accounts:</p> <ol style="list-style-type: none"> 1. A cost price change of USD 525 for 10 units of A100, that is, a sum of USD 5,250 2. Delivery to customer at a value of $10 \times \text{USD } 525$, that is, a sum of USD 5,250. <p>For line type 2 (direct deliveries) the cost price will be updated when performing goods receipt in 'Purchase Orders. Receive Goods' (PPS300) or invoice reporting in (ARS100). This is controlled by 'Invoice check' in (CRS723). See description above.</p>

Program ID/Panel	Field	The field indicates ...
(OIS010/K)	Advance invoicing	<p>... whether the customer order type allows advance invoicing.</p> <p>Customer orders that are invoiced in advance are not partially invoiced in connection with partial deliveries. Final invoicing occurs at final delivery. However, partial deliveries may take place as usual.</p>
(CRS610/F)	Advance invoicing of ECI	<p>... whether an advance invoice is to be created automatically during customer order entry.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes, if the customer order line has a reference number</p> <p>2 = Yes, if the customer order line has a reference number and the item is an ECI (item category 11) or a non-coded item (item category 12).</p>

Define Document Links CO to PO

Program ID/Panel	Field	The field indicates ...
(CRS027/E)	Document class 1–5	<p>... whether the document purchase order (document number 105) is included in the document class.</p> <p>Document classes on the purchase order document determine which text blocks are to be copied from the customer order line to the purchase order line during the buy-to-order process.</p> <p>There are five document classes processed by M3. Each document can be included in one or more classes. The document classes are user-defined.</p>

Define Dynamic and Preliminary Pricing Rules

Program ID/Panel	Field	The field indicates ...
(MMS003/F)	Costing model - sales price	<p>... the identity of a costing model for sales prices.</p> <p>Costing models can be connected to different price lists and are used to calculate basic prices and order-dependent prices.</p> <p>Costing models are defined in 'Sales Costing Model. Open' (OIS022).</p>
(MMS003/F)	Preliminary price for line type 1 and line type 2	<p>... the default value for the preliminary price code on the customer order line for line type 1 and line type 2. The preliminary price code on the customer order line determines whether the sales price on a customer order line is preliminary.</p> <p>Customer order lines with preliminary price marking will not be invoiced until the marking has been removed.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = The sales price is not preliminary. 1 = The sales price is preliminary. 2 = The sales price is preliminary. 3 = The sales price is preliminary. <p>Alternative 1: The preliminary price marking will automatically be set to 0 (final price) if sales price calculation is performed from:</p> <ul style="list-style-type: none"> 'Planned Purchase Order. Open' (PPS170) 'Purchase Order. Open Line' (PPS201) 'Purchase Order. Confirm' (PPS250) 'Supplier Invoice. Record' (APS100) 'CO Delivery. Recalculate Preliminary Price' (OIS156). <p>Alternative 2: The preliminary price marking will automatically be set to 0 (final price) if sales price calculation is performed from:</p> <ul style="list-style-type: none"> 'Supplier Invoice. Record' (APS100) 'CO Delivery. Recalculate Preliminary Price' (OIS156). <p>Alternative 3: The only way to remove preliminary price marking is to change the order line.</p>

Program ID/Panel	Field	The field indicates ...
(MMS003/F)	Calculate price for line type 1 and line type 2	... whether the sales price on a customer order line with line type 1 or line type 2 is calculated (dynamically) during customer order entry.
(OIS330/E)	Rounding-off category	<p>... the rounding-off category to be used. The rounding off category defines how the dynamically calculated sales price is to be rounded off.</p> <p>For example, you might want sales prices higher than SEK 1,000 to be rounded off to the nearest crown. The rounding-off category determines the rounding-off rules.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 00 = General (if nothing else is defined) 40 = Customer invoice totals (COP, SOP) 41–44 = Customer invoice totals (COP) 45 = Manual invoices (ARL) 46 = Interest invoices (ARL) 47 = Sales of fixed assets (FAS) 48 = Reminder charge (ARL) 50-59 = Price list calculations (COP) 70-79 = Budget entry (BUD) 80 = Net pay (PAY) 81–89 = Transaction amount (PAY).

Program ID/Panel	Field	The field indicates ...
(OIS330/E)	Exchange rate type	<p>... the exchange rate type. Rate type is mandatory information when maintaining exchange rates. The rate type is also connected to customers, suppliers, price lists, year-end and budget procedures.</p> <p>The valid alternatives are:</p> <p>01 = Variable rate</p> <p>02-99 = May be used optionally.</p> <p>When calculating a sales price, you need a calculation base, which can be a cost price, purchase price or a sales price from another price list. When the calculation base has a currency code other than the sales price to be calculated, you need to know what rules to apply when converting the calculation base from one currency to another. These rules are determined by the exchange rate type and are defined in 'Exchange Rate Type. Open' (CRS056).</p>
(OIS330/E)	Basic price list	<p>... the sales price list used as a basis for calculating a current price list. This is used only when the current price list uses a costing model based on a price list.</p> <p>Example:</p> <p>If you have entered a costing model for sales price on 'Item. Connect Facility' (MMS003/F) with calculation base 6 (basic price from a sales price list other than the one entered in this field), then the price list entered in (OIS330) will be used as the basis for dynamic price calculation.</p>
(OIS330/E)	Costing base rounded off - sales price	<p>... whether the base for sales price costing should be rounded off. This is relevant only when calculation base 6 (basic price from another sales price list) is used.</p>

Program ID/Panel	Field	The field indicates ...
(OIS330/E)	Costing type	<p>... the costing type which is used to distinguish different types of product costing.</p> <p>When cost price is used as the calculation base for dynamic price calculation, you need to specify what costing type to be used. For example, costing type can be product cost, simulated cost, standard cost and so on.</p> <p>Nine costing types can be defined in 'Costing Type. Open' (PCS005). Costing rates and markups are specified for each costing type and date.</p>

Item Replacement

This document explains how item replacements works in the customer order process.

Outcome

An alternative item is found when ordering an item that is no longer carried.

Purpose

Find an alternative item when ordering an item that is no longer carried.

An item that is no longer carried can be replaced by another item (A) or by several other items (A and B) or there can be conditions for the replacement (A or B based on some conditions). The replacing item might, in its turn, be replaced, continuing in long chains of replaced items.

How

Related items are defined in 'Item. Define Relations' (MMS020). Items with Replacement type 1 and 2 can be found at CO line entry. We recommend that you use only type 1 or type 2 when having chains of replacements.

Replacement type 1 indicates that the item is completely replaced and should have status 90. Replacement type 2 is intended to be used when setting the item status to 50-'Still allowed to sell', which will automatically be changed to status 80 when the current stock balance is used. But replacement type 2 also works fine together with status 90. Replacement type 2 is searched first and then replacement type 1 is searched. This means that if item A is replaced with item B with replacement type 1 and item B is replaced with item C with replacement type 2, then no valid replacement will be found. This is why we recommend that you only use type 1 or type 2 when having chains of replacements.

You can also build quite complex replacement structures. Related option 12-'Drill down' can be used to navigate in the replacement structure. Use F12 to 'go back up'.

The replacement structure will be searched alphabetically, drilling down to the bottom of every chain of replacement. As noted before, replacement type 2 is searched before replacement type 1.

Example:

A, type 1, status 20			
B, type 2, status 80	B2, type 2, status 80		
C, type 2, status 80	C2, type 2, status 80	C3, type 2, status 80	
	C4, type 2, status 80	C5, type 2, status 80	
		C6, type 2, status 20	
		C7, type 2, status 20	
D, Type 2, status 20			

Item C6 will be found as a valid item replacement at CO entry. The complete search sequence if all items would have been in status 80 or 90 would have been the following: B, B2, C, C2, C3, C4, C5, C6, C7, D, A.

Replacement information on the order line

When an order line is created for the replacing item, then the 'Replaced item number' (REPI) is updated with the ordered item number. If Action reason 90 is activated in 'Action Reason. Open' (OIS009) and the action reasons check box is selected in 'CO Type. Open' (OIS010/H), then the Action reason (ARST) on the order line is set to 90 and the Reason code (RSC1) are set from the Action reason definition (OIS009/E).

You can jump to 'Item. Define Relations' (MMS020) from 'Customer Order. Open Line' (OIS101) and 'Customer Order. Open Line Toolbox' (OIS301) through related option 48-'Related Items'. The program will be positioned on the replaced item number (REPI).

Conditional replacement

An item can be conditionally replaced by other items, like item A is replaced by item B if the machine that it is used in was made before year 2010 and item C if the machine was made year 2010 or later.

A related item of type 1 and 2 can be defined as conditional by selecting the 'Cond replacement' check box in 'Item. Define Relations' (MMS020/E). The condition for the replacement can be described in the text field 'Condition' and/or in the Text panel.

A manual decision is needed at CO entry when the replacement is conditional. Item replacements without conditions will be searched first at customer order line entry. If no replacement is found, then 'Item. Define Relations' (MMS020) is opened, displaying only conditional replacements. There are a number of useful related options available in MMS020:

- 'Text' (16) brings up the Text panel, which might hold more information about the conditions for the replacement.
- 'Kit header' (13) calls 'Product Structure. Open' (PDS001), which allows easy access to the kit structure of a replacing kit.

- 'Item Toolbox' (17) calls 'Item. Open Toolbox' (MMS200).
- 'Supply model. Simulate' (18) calls OIS340 where you can find out when the item can be delivered.
- If a conditional replacing item is also replaced, then Related option 12-'Drill down' can be used to find or select the item that replaces it.

If (MMS020) is closed without selecting a replacing item, then no order line is created.

If the customer order line is created through batch order entry, then one of two things happens. If Action reason 55 is activated (and action reasons selected on the CO type): The CO line is closed (status 99). Action reason (ARST) is set to 55-'Conditionally replaced' and the Reason code (RSC1) is the reason code connected to action reason 55.

If Action reason 55 is not activated: Stopped in BO entry with this stop message: 'The item is conditionally replaced by XXX'. Check/release in 'Batch Order. Open Lines' (OIS276) will give a call to 'Item. Define Relations' (MMS020).

Replaced by many

Sometimes, an item is replaced by several items. It could be that item A is replaced by item B, C and D or it might simply be that Item Z is replaced by 2 pieces of item Y.

These scenarios are solved by defining a kit that replaces the item. Kit A-RPL contains item B, C, and D and kit Z-RPL contains two pieces of item Y. The kit can contain other kits and items that are replaced by other items or other kits, including items that are conditionally replaced.

The limitation is that the kit settings for the 'top kit' (with regard to pricing, and so on) in 'Product Structure. Open' (PDS001/G) applies to all included lines, even if kits with other settings are included in the kit.

The kit screen at CO line entry (the H-panel) can be avoided by selecting the check box Suppress kit screen in 'Product Structure. Open' (PDS001/G).

Supply model

Replacements with conditions will never be selected automatically in the supply model execution 'Supply Alternative Management. Open' (CTS100). This is applicable when *SYS is specified as the 'Item number' on a supply alternative with 'Replace item' selected in 'Supply Model. Open Lines' (MMS059).

'CR' in the second column indicates that it's a Conditional Replacement', the 'Condition' is shown in the list, and Related option 'Related Items' makes it easy to access the information in 'Item. Define Relations' (MMS020).

'Supply Model. Simulate' (OIS340) shows the replacing item number if there is no condition. It shows Replacing item = 'Condition' if it is a conditional replacement.

Alternative option 1-'Select' in 'Item. Define Relations' (MMS020) enables you to select another item when called from (CTS100). The order line will be created for the selected item.

Consume stock in all warehouses before replacing the item

Select the check box 'Item status check' on the CO type (OIS010/G) to perform the status check against the item master (MMS001) instead of the item/warehouse (MMS002) if the item/warehouse status is 80.

If the item/warehouse record is in status 80, then you need to find an alternative source of supply or find an alternative item.

If no supply model is used, then an alternative warehouse or alternative item must be found using the normal shortage panels in order to be able to specify the order line. If the Item status check is selected, then the shortage panel displaying alternative items 'Sales Item Shortage. Change item' (OIS142) will also display related items defined with Replacement type 2 and two columns showing the 'Conditional replacement' parameter (0/1 = No/Yes) and the 'Condition'. Related option 'Related Items' makes it easy to also access the information in 'Item. Define Relations' (MMS020).

If a supply model is used (CTS100), then a valid supply alternative must be found in order to be able to specify the order line.

If 'Supply Model Availability. Display' (CTS200) is used, then the order line will be specified against the warehouse where it is in status 80. Supply Model Availability is activated with the check box at the Supply model field in 'CO Type. Update Field Selection' (OIS014/E) and executed with related option 54-'Supply Model Availability' in (OIS100), (OIS300), or (OIS301). The supply model availability will help you find an alternative, but you cannot select an alternative with another warehouse or another item in (CTS200) since the order line is already created. 'Customer Order. Mass Change Lines' (OIS260) can be used for changing item number or warehouse on a customer order line (you cannot do so manually) in (OIS101). This function can be accessed from 'Customer Order. Open Toolbox' (OIS300) using related option 55-'Change lines' or from 'Customer Order. Open Line Toolbox' (OIS301) using related option 49-'Change lines', or from the menu. If no alternative is found then the order line should manually be closed or deleted. Manual entry of a new order line against another warehouse or for another item is of course an alternative to using (OIS260).

Supporting functions

Batch orders that get CO lines automatically closed because of conditional item replacements probably need to be monitored. This can be done by activating application message 431 (Batch CO line closed) in 'Settings. Application Messages' (CRS424). The message will be sent to the CO responsible - the message is found in 'Application Message. Open' (CRS420). This message applies to the Action reason functionality, not only the conditional replacement action reason.

An alternative is to create a sorting order in 'Customer Order. Open Line Toolbox' (OIS301) that sorts on Action reason 55 (OBARST) or the reason code you selected to connect to Action reason 55 (OBRSC1).

Closed order lines with action reasons will be printed on the order confirmation and invoice if the check box 'Print Closed Lines' is selected on 'Settings – Customer Order Entry' (CRS720/E).

Limitations

No automatic retrieval of conditionally replaced items.

Not allowed to select the 'Preferred item' check box if there is a condition. The field indicates if, among the related items, this item is preferred for purchase order and distribution order purposes.

Do not allow inventory accounting item type 3 in any type of conditional relation. The item is not inventory accounted, but it is planned as a function number. A function number is a dummy number for items that can replace each other. As such, material planning for the item is done on the function number level instead of the item level.

The full screen entry panel (OIS101/H) does not support specifying order lines for kit. The item will be considered a normal item and the shortage panel will be shown. Abort entry. Go to normal CO line entry (OIS101/B) and create the CO line

The kit settings for the 'top kit' (with regards to pricing, and so on) on 'Product Structure. Open' (PDS001/G) applies to all included lines even if kits with other settings are included in the kit. The reservation level of each kit is respected.

Trade-in Customer Order with Automatic Purchase Order Entry

The trade-in workflow often starts when a customer wants to buy equipment and has old equipment that is traded in. A customer order is created including a customer order line with the new equipment and a customer order line with the equipment traded in. A purchase order will be automatically created with the traded equipment.

Background

Acquiring trade-in equipment is similar to purchasing used equipment. In this type of transaction the customer on the quote/sales order becomes the supplier that the dealer acquires the equipment from.

In previous versions of M3 the trade-in was treated more like a customer return with no automatic purchase order generated. In this solution a purchase order will be created when the trade-in customer order line is created.

The purchase price is retrieved from the trade-in pricing information on the sales order.

Limitations

The trade-in solution is only valid for workflows creating records in Equipment/Serialized items (MMS240) and not valid for Individual items (SOS160) workflows.

The sales price of the trade-in customer order line must always be entered manually.

No line discount is applicable on a trade-in customer order line.

No supplier discount will be entered to a trade-in purchase order.

If the sales price on the Customer order is changed the purchase price of the purchase order will also be changed if the purchase order has not been goods received. If the purchase order has been goods received it will not be possible to change the sales price.

The trade-in workflow is only valid for items with inventory accounting method actual cost. There will not be possible to have any external charges on the trade-in costing model since no supplier invoice will be received.

Before you start

- In 'Purchase order type. Open' (PPS095) a purchase order type needs to be defined with the purchase order category (50) for trade-in.
- In 'Purchase Order Batch origin. Open' (PPS090) a batch origin must be defined that will be used when creating a purchase order from a customer order trade-in line. It is recommended that the field 'Auto level' is set to '2 - Process' for the purchase order to be automatically processed.
- In 'Customer. Open' (CRS610) the field 'Trade-in supplier' needs to be specified to indicate which supplier number will be used for the trade-in.
- In 'CO Type. Open' (OIS014/L), a serialized item must exist with the inventory accounting method actual cost.

To define values in (CRS780)

- 'Trade-in Supplier': In the trade-in scenario, the customer who wants to trade-in their equipment needs to also be a supplier (ie. the supplier on the purchase order that will be created by the dealer to buy the trade-in equipment from the customer). The purchase settings therefore need to contain a template supplier number. This template supplier will be used to take the customer information and create the supplier from it. The trade-in supplier now has a special supplier type (supplier type 9).
- 'Default order type - Trade-in': This purchase order type will be proposed when a trade-in sales order (CO) line is entered. The purchase order type entered must be defined as purchase order category "trade-in".
- 'General costing model - Trade-in': The field indicates the costing model used for trade-in. In the costing model it will be possible to add or deduct internal charges.
- 'Batch origin trade-in': The field indicates the Purchase batch origin used when creating a trade-in purchase order from the customer order.

Follow these steps

- 1 Specify a customer order in 'Customer order. Open' (OIS100).
- 2 In 'Customer order. Open Line' (OIS101):
 - Specify a normal customer order line for the equipment being ordered.
 - Specify a trade-in customer order line (line type 3) on the equipment being traded in. The quantity must be negative. The serial number and the sales price must be specified.
- 3 'Customer order. Acquire Sales item' (OIS145) is displayed.
 - The purchase price will be equal to the sales price.
 - The cost will be equal to the purchase price.
 - The Supplier will be retrieved from the field 'Trade-in Supplier no' in 'Customer. Open' (CRS610).
- 4 If no trade-in supplier number exist:
 - Specify a supplier number manually.
 - Specify a new supplier number that will be created and press 'New Supplier'.
 - Leave the supplier number blank and press 'New Supplier'. The customer number will be used when creating the new supplier.
- 5 When the trade-in supplier number has been created, a message will be displayed informing that this has been performed.
 - The new supplier number will have supplier type trade-in.

- The supplier number created will be updated as 'Trade-in Supplier' on the customer.
- 6** To update, press F17='Update'
- 7** If the serial number has not been specified, the OIS101/G panel will be displayed where the serial number must be entered.
- 8** A purchase order will be created in 'Purchase order .Open' (PPS200) with reference to the customer order in the relation order field. The purchase order will be connected to an order type with purchase order category trade-in.
- 9** When the equipment is received, it will be goods received in 'Purchase order. Receive Goods' (PPS300) with the possibility of also using the inspection and put-away functionality (PPS310 and PPS320). If further inspections or other services need to be performed it is possible to go to 'Work Request. Quick Entry' (MOS185) through an option when performing the goods receiving (or inspection).
- 10** The status of the trade-in customer order line will be updated to delivered and the customer order can be invoiced.

Outcome

- 1 The VAT code for purchase will be retrieved from the item warehouse record (MMS002/I) to the trade-in customer order line.
- 2 When a trade-in customer order line has been created and if the equipment does not exist in 'Equipment/serialized item. Open' (MMS240) it will automatically be updated in MMS240.
- 3 When goods receiving has been performed the Trade-in customer order line will be in status delivered and it will be possible to invoice the customer order.
- 4 The basic transactions created at goods receiving are:

Accounting rule	Account	Debit	Credit
PP10 – 910	Inventory	X	
PP10-251	Calculated charges	X	
PP10-951	Delivered not invoiced		X

The cost on the customer order line will be the same as the purchase price (excluding the calculated charges).

- 5 At goods receipt a new record will be created in 'Serial number based pricing. Open' (MMS250) indicating the trade-in value and if an evaluation value exist on the quotation (in EQM) this will be updated to the evaluation value. The status of the record will be 00 = at entry and there is a reference to the purchase order number. The purchase price (including charges) will be updated to 'Equipment/serialized item. Open' (MMS240).
- 6 The basic transactions created at invoicing are:

Accounting rule	Account	Debit	Credit
OI20-100	Account receivable		X
OI20-120	Revenue	X	
OI20-951	Delivered not invoiced	X	

OI20-971	Cost of goods sold	X
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Settings descriptions

Program ID	Field heading	Description
(PPS095)	Purchase order category	A new purchase order category (50) for Trade-in has been added.
(OIS014/L)	Order type	The field indicates from where the defaulted purchase order type is retrieved for customer Trade-in order lines entered in 'Customer Order. Acquire Sales Item' (OIS145).
(OIS014/L)	Buyer	The field indicates from where the defaulted buyer is retrieved for customer order lines entered in 'Customer Order. Acquire Sales Item' (OIS145).
(CRS780/H)	Default Trade-in Supplier	In the trade-in scenario, the customer who wants to trade-in their equipment needs to also be a supplier (ie the supplier on the purchase order that will be created by the dealer to buy the trade-in equipment from the customer). The purchase settings therefore need to contain a template supplier number. This template supplier will be used to take the customer information and create the supplier from it. The trade-in supplier has a special supplier type (supplier type 9).
(CRS780/H)	Default PO type Trade-in purchase	The default PO type used for a trade-in purchase via a customer order. This can be overruled in 'Customer Order. Acquire Sales Item' (OIS145).
(CRS780/H)	General Costing Model Trade-in	The costing model used for trade-in transactions.
(CRS780/H)	Batch origin trade-in	The purchase batch origin used when creating a trade-in purchase order from the customer order.

(CRS610/F)	Trade-in Supplier	The field indicates a supplier number connected to a customer and used when goods is purchased from the customer as part of a trade-in transaction.
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Chapter 8: Customer Delivery Schedules

Activate a Delivery Schedule

This document explains how you activate a delivery schedule (DS). You do this when the delivery schedule has been validated.

The purpose of activating a delivery schedule is to make clear which delivery schedule demands are active and which are historical from the customer's point of view.

Outcome

The status of the demands of the current DS item line is updated from 00 = New to 20 = Active. The status of the demands of the previous DS item line on the same level is updated from 20 = Active to 90 = Historical.

If the current configuration contains several DS levels and the newly activated DS is a call-off, the status of the forecast DS demands will be updated to 90 = Historical within the time horizon of the newly activated call-off DS. This means that demands that are more certain have replaced those that were less certain.

If the activated DS is a call-off DS, it is possible to request update of specific data from the forecast DS. The call-off DS will then retrieve data from the forecast DS and update it in the newly activated DS.

JIT demands are updated if the DS is linked to JIT Call-Off Management. See Processing a JIT Call-Off for further description.

If the activation was run automatically and ended unsuccessfully, an application message is sent to inform the responsible user that the DS item line was not activated.

You use the activation result to find out which DS demands are active and which are historical. To get an overview, look at both item status and demand status (the lowest and the highest) in 'Delivery Schedule. Connect Items' (RSS101). To find out the demand status for each demand, look in 'Delivery Schedule. Connect Demands' (RSS102).

A convenient way to get an overview of how call-off and forecast DSs have affected each other per item number is to use sorting order 4 together with a suitable view in 'Delivery Schedule. Connect Items' (RSS101).

The activated JIT-demands are used as input for further processing in 'JIT Call-Off Delivery. Open' (RSS200).

If you have activated the DS by mistake, you may reverse it to the state before the activation by deactivating it in 'Delivery Schedule. Open' (RSS100) or in 'Delivery Schedule. Connect Items' (RSS101).

The activated DS item line is used as input for the next step in the processing of a DS, which is to check the DS for deviations. If you choose not to perform this activity, the activated DS will be used as input for the next mandatory activity, which is to create a net schedule.

Demand status in the DS demand file (ORSINS) is set to either status 00 = New demand, status 20 = Active demand or status 90 = Historical demand, depending on the outcome of the activation or deactivation.

The DS item status in the DS item line file (ORSITM) is set to 15 = Activation error or 20 = Activated, depending on the outcome of the activation.

The DS item line file (ORSITM) is updated with a link to previous DS and DS item line after performed activation.

The DS header file (ORSHED) is updated with the highest and lowest DS item status based on the outcome of the activation.

If activation is run automatically and ends in error, the application message file (CMAILB) is updated with an application message indicating that the DS was not activated correct.

The DS item line file (ORSITM) is updated for the call-off DS with data from the forecast DS, according to settings in 'Partner. Define Fields' (RSS016) if this has been requested in the '150 Update fields from above level schedule' field in 'Settings – Partners' (RSS015).

Before you start

- Steps in [Validate a Delivery Schedule](#) on page 593 must be completed.
- Starting conditions regarding [Delivery Schedule Activation](#) on page 544 must be met.

Follow these steps

To activate a delivery schedule, choose one of these alternatives.

Activate or Deactivate the Entire DS

- 1 Start 'Delivery Schedule. Open' (RSS100).
- 2 Choose one of these alternatives.

When you activate or deactivate the entire DS, all DS item lines within the selected DS will be activated, but the processing is still the same as if the activation or deactivation was performed per DS item line.

- If you are going to activate, choose option 22 = Activate for the desired DS.
For further information about the activities performed within the activation, see [Delivery Schedule Activation](#) on page 544.
- If you are going to deactivate, choose option 74 = Deactivate.
For further information about the activities performed within the deactivation, see [Delivery Schedule Activation](#) on page 544.

Activate or Deactivate a Single DS Item Line

- 1 Start 'Delivery Schedule. Connect Items' (RSS101).
- 2 You start (RSS101) by using option 11=Items for a selected DS in 'Delivery Schedule. Open' (RSS100/B).
 - If you are going to activate, select option 22 = Activate, for the desired DS item line.

For further information about the activities performed within the activation, see [Delivery Schedule Activation](#) on page 544.

- If you are going to deactivate, select option 74 = Deactivate.

For further information about the activities performed within the deactivation, see [Delivery Schedule Activation](#) on page 544.

Activate the DS automatically

For further information about the activities performed within the activation, see [Delivery Schedule Activation](#) on page 544.

You choose automatic activation of the DS in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

Check a Delivery Schedule for Deviations

This document explains how you perform a deviation check of a delivery schedule (DS). You do this when the delivery schedule has been activated.

By performing a deviation check you will make sure that there are no unacceptable deviations within the delivery schedule before the creation of the net schedule, which is the next step in the processing of the delivery schedule.

A deviation check is based on a deviation model for which you choose the delivery schedule fields you want to check.

Outcome

If the deviation check results in deviations, a deviation report is created connected to the DS item line.

If required, the DS item line is stopped for further automatic processing according to the settings in 'Delivery Schedule Deviation Model. Open' (RSS020) or in 'Deviation Model. Connect Period Types' (RSS021).

The DS item status of the checked item is 30 = Deviation model run, if all defined check fields are OK. If any field is found not to be OK and stopped processing is requested, the DS item status is set to 25 = Deviation error.

If the deviation check ended unsuccessfully, an application message is sent to inform the responsible user that the DS item line deviation check was unsuccessful.

You use the deviation check result to take suitable actions in order to fulfill the DS processing.

If DS processing has been stopped because of a deviation, use option 19 = Deviation text in 'Delivery Schedule. Connect Items' (RSS101) to view the deviation report.

If the deviation model is set to create an application message, you can also view the deviation report in 'Application Message. Open' (CRS420).

The text files (OSYTXH) and (OSYTXL) are updated with text that builds the deviation report.

The DS item status in the DS item line file (ORSITM) is set to 25 = Deviation error or 30 = Deviation model run, depending on the outcome of the deviation check.

The DS header file (ORSHED) is updated with the highest and lowest DS item status based on the outcome of the deviation check.

If defined in the deviation model, the application message file (CMAILB) is updated with application messages that indicate that a deviation error has occurred.

Before you start

- You must [Activate a Delivery Schedule](#) on page 485.
- Starting conditions regarding deviation check described in [Delivery Schedule Deviation Check](#) on page 549 must be met.

Follow these steps

Choose one of these alternatives:

Check a single DS item line for deviations

- 1 Start 'Delivery Schedule. Connect Items' (RSS101).
You start (RSS101) by selecting a DS in 'Delivery Schedule. Open' (RSS100/B) and choosing option 11 = Items.
- 2 Select option 23 = Deviation model for the DS item line that you are going to check.
- 3 Choose the deviation model you want to use for the deviation check on the (RSS101/N) panel. Confirm your choice by pressing Next. For more information about the deviation check activities, see [Delivery Schedule Deviation Check](#) on page 549.

Note that you are free to use any of the existing deviation models.

Check the entire DS for deviations

- 1 Start 'Delivery Schedule. Open' (RSS100).
- 2 Select option 23 = Deviation model for the DS that you are going to check.
- 3 Choose the deviation model you want to use for the deviation check on the (RSS100/N) panel. Confirm your choice by pressing Next. For more information about the deviation check activities, see [Delivery Schedule Deviation Check](#) on page 549.

Note that you are free to use any of the existing deviation models.

When you check the entire DS for deviations, all item lines within the selected DS will be checked. The processing, however, is the same as if the check was performed per DS item line.

Check the entire DS for deviations automatically

If you have chosen automatic deviation check of the DS, see [Delivery Schedule Deviation Check](#) on page 549 for more information about the activities performed within the deviation check.

You choose automatic deviation check of the DS in the '055 Next Manual Function' field in 'Delivery Schedule Type. Open' (RSS010).

Create Delivery Schedule Demands Manually

This document explains how you create the delivery schedule demands for a new delivery schedule (DS), as well as how you add new demands to an existing delivery schedule.

The delivery schedule demands include information such as quantities, requested demand date and time, and whether the demand is firm or a forecast.

You perform this activity when you have created the delivery schedule item line.

Outcome

Delivery schedule demands are created, which means that the customer's demands have been entered.

The delivery schedule is now completely entered. Together, the delivery schedule header, delivery schedule item lines and delivery schedule demands form a complete delivery schedule.

The delivery schedule has also been automatically validated. Refer to [Delivery Schedule Validation](#) on page 556 for further description of the validation logic.

As the delivery schedule is validated automatically, the next step will be activation. Activation can be performed for each item separately in 'Delivery Schedule. Connect Items' (RSS101), or for the entire DS in 'Delivery Schedule. Open' (RSS100).

Refer to [Activate a Delivery Schedule](#) on page 485 for more details.

The following files are updated:

The delivery schedule demand file (ORSINS)

The delivery schedule item line file (ORSITM) in terms of item status and highest and lowest status among the DS item line demands

The delivery schedule header file (ORSHED) in terms of highest and lowest item status among the DS items lines.

Before you start

Steps in [Create a Delivery Schedule Header Manually](#) on page 493 must be completed.

Follow these steps

Create/Review delivery schedule demands

- 1 Start 'Delivery Schedule. Connect Demands' (RSS102) by using option 11=Demands in 'Delivery Schedule. Connect Items' (RSS101/B).
If you use the recommended panel sequence E1 in 'Delivery Schedule. Connect Items' (RSS101/B), 'Delivery Schedule. Connect Demands' (RSS102) will start once you have created the DS item lines.
- 2 Open the P panel by pressing F13. Choose which fields you want to be displayed in the edit and registration modes. Press Enter.
The recommended panel sequence is EF.

- 3 On the (RSS102/B) panel, select sorting order 1 and enter the required demand date, time and item quantity.

Press F17=Edit/registration to switch between the edit and registration modes. The registration mode will go to the first empty line and propose the next date compared to the last created demand. The edit mode goes to the top of the list.

The requested demand date and time is either defined as the date at the final destination or the date when the goods should leave the M3 warehouse, expressed as the departure date and time. The date type in the '140 Date type in delivery schedule' field in 'Settings - Partners' (RSS015), determines which method to use. The possible transportation lead time is retrieved according to the settings in 'Route Selection Table. Open' (DRS011), and is activated via the '235 Calculate transportation lead time' field in 'Settings - Partners' (RSS015).

Requested demand time is not mandatory and can be deactivated via the '515 Are hours and minutes in use' field in 'Settings - Partners' (RSS015) independently of the settings in (RSS102/P).

One practical way of proposing requested demand dates is to use a delivery pattern. A delivery pattern fills the list with dates according to the pattern definition.

The requested quantity is preferably entered as the gross demand stated in the customer's DS. Gross demand should be seen as the demand not affected by any reconciliation or any packaging size adjustments.

- 4 Indicate the customer's desired level of commitment by filling in the appropriate code in the 'Demand commitment' field.

The demand commitment indicator determines how the customer wants M3 to interpret each demand. It can be used to create different types of customer orders when the net schedule is created. The following fields in 'Delivery Schedule Type. Open' (RSS010) determine the separation of customer order types:

- '010 Order type forecast'
- '015 Order type release'
- '060 Demand commitment - released'.

There are three ways to retrieve the demand commitment indicator automatically:

- By setting default values in the (RSS102/B) panel header
- By using a delivery pattern.
- By using the '205 Override demand commitment' field in 'Settings - Partners' (RSS015) and 'Partner. Define Demand Commitment Calculation' (RSS018).

The first two methods propose values in the panel immediately. The third method calculates the value when the DS item line is validated.

- 5 If there is no default value in the 'Demand bucket indicator' field, fill in the actual time bucket of the demand.

The demand bucket indicator indicates the time bucket covered by the demand.

If you want to retrieve the demand bucket indicator automatically, use the same three ways as for the demand commitment indicator described in the previous step.

- 6 Fill in a code that indicates the reason for the demand in the 'Demand reason' field.

Usually, this field is set with value 0=Normal demand. Any backorder stated by the customer should be entered with value 3=Backorder. No other values affect the processing of a DS, but they can be used for informational purposes.

- 7 Repeat these steps for all demands in the DS. Press Next when all demands are entered.

- 8 Depending on whether you have entered gross demands or net demands, choose one of the following alternatives.
 - If the entered demands have been entered as gross demands, continue with **Update reconciliation information**.
 - To review the data on the E or F panels, continue with **Review the data**.
 - To finish the demand entry press F3 to open the (RSS101/B) panel, where you can continue to connect more items.

Update reconciliation information

- 1 To present valid reconciliation information, toggle by pressing F16 on the (RSS102/B) panel.
Reconciliation method (delivery note or cumulative) is defined in 'Settings – Partners' (RSS015), parameter 015.
For more details regarding the concept of reconciliation, see [Reconciliation of Delivery Schedule Demands](#) on page 584.
- 2 Depending on which reconciliation method is valid, choose one of the following alternatives:
 - If delivery note reconciliation is valid, continue with the next step.
 - If cumulative reconciliation is valid, enter the customer's cumulative quantity in the 'Customer's cumulative quantity' field.
- 3 Specify the delivery note number in the 'Delivery note number' field. Select the M3 delivery number that matches the last received delivery, as stated by the customer.
It is important to point out that the chosen delivery number is the last delivery received at the customer's final destination, which is not necessarily the same as the last delivery sent from the M3 warehouse.
- 4 Review the reconciliation information in the panel header.
The different fields that appear present all input to the reconciliation and the calculated balance. The balance will either create a backorder (if it is negative) or reduce the gross demands (if it is positive). The actual transformation of the gross demands to net demands is made when the net schedule is created.
By checking the presented information, you have the chance to discover whether the wrong delivery number has been chosen.
- 5 Update the selected delivery number by pressing F14=Update reconciliation.
By updating the delivery number, you have now chosen a delivery number to be used as the synchronizing point when performing reconciliation for the current DS item line.
- 6 Specify the customer's cumulative quantity in the 'Customer's cumulative quantity' field.
The entered cumulative quantity is the cumulative value after the last received delivery at the customer's final destination, which is not necessarily the cumulative after the last delivery sent from the M3 warehouse.
- 7 Review the reconciliation information in the panel header.
The different fields that appear present all input to the reconciliation and the calculated balance. The balance will either create a backorder (if it is negative) or reduce the gross demands (if it is positive). The actual transformation of the gross demands to net demands is made when the net schedule is created.
By checking the presented information, you have the chance to discover whether the wrong cumulative has been entered.
- 8 Update the selected customer's cumulative quantity by pressing F14=Update reconciliation.
By updating the customer's cumulative quantity, you have now defined the cumulative to be used as a starting point when performing reconciliation for the current DS item line.

- 9** Depending on whether you want to finish the demand entry or review the E and F panels, choose one of the following alternatives.
- To finish the demand entry press F3 to open the (RSS101/B) panel, where you can continue to connect more items.
 - To review the data on the E or F panels, continue with **Review the Data**.

Review the data

1 Review the Data on the E Panel

Review the values in the 'Contract number', 'Instruction action code' and 'Cumulative quantity' fields.

- 'Contract number' at the demand level is defaulted from the item line level, but can be changed here for individual demands.
- 'Instruction action code' is normally used for JIT demands and indicates what should be done with the JIT demand in the JIT process.
- 'Cumulative quantity' can be entered here if the customer chooses to send demands as cumulatives instead of requested discrete quantities. If you enter a cumulative demand quantity, the validation process will calculate the requested quantity based on the start cumulative and the respective demand's cumulative value. The start cumulative is defined in 'Delivery Schedule'. Open Cumulative Figures' (RSS104) and should be defined with cumulative type 2=Quantity scheduled received. Note that this is not the same as cumulative reconciliation.

2 Review the Data on the F Panel

Review the values in the 'Customer order number', 'Production sequence number', 'Chassi number', 'Kanban card number' and 'Your reference' fields. Press Enter.

- The customer's order number at the demand level is defaulted from the item line level, but it can be changed here for individual demands.
- 'Production sequence number' is normally used for JIT demands and indicates the relative position of the demand in a production sequence.
- 'Chassi number' is normally used for JIT demands and links the demand to a specific chassis. Links to chassis are normally used within the automotive industry.
- 'Kanban card number' is normally used for JIT demands and links the demand to a specific kanban card number in a kanban loop.
- The 'Your reference 1' field is normally used for JIT demands and is used as a free reference number if none of the ones stated above can be used.

Finish demand entry

1 Press F3 to open the (RSS101/B) panel, where you can continue to connect more items.

When F3 is pressed, the DS item line will be validated if any new demands are entered or if any changes have been made. The status of the item will be 10='Validated, activation not run' if the item has been validated successfully.

Refer to [Validate a Delivery Schedule](#) on page 593 for a detailed description.

Create a Delivery Schedule Header Manually

This document explains how you create a delivery schedule header manually. Delivery schedule (DS) headers are created manually when they are not automatically entered into the system via M3 EDI Solution.

You create a delivery schedule header when you start registering a new delivery schedule, whether it is for the first time or in order to replace an existing delivery schedule.

A common way of replacing an existing delivery schedule is to copy it and then update the information that has changed in the new delivery schedule.

Outcome

The delivery schedule header with a unique internal DS number is created.

You use the delivery schedule header as a basis when registering item lines in 'Delivery Schedule. Connect Items' (RSS101), which is the next mandatory step when creating a delivery schedule.

You can use the delivery schedule header to get a quick overview of different business partners' delivery schedules.

You perform delivery schedule processing for the entire delivery schedule at once from the delivery schedule header. Refer to [Processing a Delivery Schedule](#) on page 582 for more information.

For example, if you register a customer's order number in the header, it will be automatically entered in the subsequent levels. In this case, the customer's order number will be entered automatically both on the item level and the demand level; that is, in 'Delivery Schedule. Connect Items' (RSS101) and in 'Delivery Schedule. Connect Demands' (RSS102).

The delivery schedule header file (ORSHED) is updated.

Before you start

The starting conditions listed in [Create Delivery Schedule Demands Manually](#) on page 489 must be met.

Follow these steps

- 1** Start 'Delivery Schedule. Open' (RSS100/B).
- 2** Open the P panel by pressing F13. Specify the opening panel.
 - If you are going to create a new DS, you must select panel A.
 - If you are going to copy or change an existing DS, you can choose either panel A or panel B.
- 3** If you want to confirm every new value before the record is created, select the 'Confirm by pressing Enter' check box. Press Enter.
The recommended panel sequence is EF1.
- 4** Choose one of the following alternatives:
 - To create a new Delivery Schedule Header, fill in the Partner field on panel A by pressing F4 and then choose from the list presented. Select New, and press Enter.
If the message type, application and access references are connected to the partner, these fields will be retrieved when the Partner field is filled in on the (RSS100/A) panel.

Continue with **Review the data**.

- To copy or change the current Delivery Schedule header, continue with the next step.

Copy or change an existing delivery schedule header

- 1 Select the DS you want to copy or change from the list presented on the B panel.
 - To copy, select option Copy and the C panel will be displayed.
On the C panel, indicate the customer's delivery schedule number.
 - To change, select option Open and the E panel will be displayed
- 2 Fill in the new delivery schedule's start and finish dates. If relevant, also fill in the start and finish times.
- 3 Choose whether you want to have the copy instruction activated or not. Press Enter and the E panel will be displayed.
 - If you choose to activate the copy instruction, you will probably have to change some of the customer demands in 'Delivery Schedule. Connect Demands' (RSS102) later on.
 - If you choose not to activate the copy instruction, the customer demands in 'Delivery Schedule. Connect Demands' (RSS102) will be empty.

Review the data

Choose from these alternatives:

- Review the data on the E Panel
- Review the data on the F Panel
- Review the data on the G Panel

Review the data on the E panel

- 1 Review the value in the 'Date changed' field.

Specify the date when the DS was created or changed, according to the DS that the customer has sent.

- 2 Review the value in the 'Delivery schedule' field. Press Enter.

By entering the customer's delivery schedule number, it will be easier for you to know to which internal delivery schedule number it is connected.

Review the data on the F panel

- 1 Review the values for when the DS is to start and finish. Specify the dates and possible times for the customer demands.

The start date and time indicate when the new DS will start replacing the current DS, and that the finish date and time indicate when it will stop replacing it.

These dates and times will be of great importance when you activate the DS and create a net schedule later on in the process.

See [Activate a Delivery Schedule](#) on page 485.

See [Create a Net Schedule](#) on page 499.

The calculated start and end dates/times are updated according to the demands in 'Delivery Schedule. Connect Demands' (RSS102). This date range, or the date range you entered, can be used to control the activation when the new DS replaces the current DS.

- 2 Review the values in the 'Update method' and 'Date type' fields.

The values entered in these fields will be defaulted on the item level.

'Update method' can be used in the new DS to either replace the entire current DS, or only replace it inside the defined date/time range. If an update method is not used, the date/time range will control the replacement.

'Date type' is normally retrieved from 'Settings - Partners' (RSS015) and defines how to interpret the delivery dates in 'Delivery Schedule. Connect Demands' (RSS102).

- 3 Review the values in the 'Invoice recipient', Payer and 'Forwarding agent' fields.

Usually, these fields are set from basic data by M3 batch order entry when the net schedule is created. If you want to use any deviating values, you enter them here.

- 4 Review the values in the 'Customer's order number' and 'Delivery contract number' fields.

The customer's order number is sometimes used as a reference number assigned by the customer who links the DS item line to a specific agreement. It is common to print the customer's order number as a reference on delivery and invoice documents.

You can find a M3 agreement in 'Customer Blanket Agreement. Open' (OIS060) by using the customer's order number or the delivery contract number. The rules for how this work are defined in the '200 Agreement rule' field in 'Settings - Partners' (RSS015).

The values entered in the 'Customer's order number' and 'Delivery contract number' fields will be defaulted on the item level, if the same values apply to all item lines in the current DS.

Review the data on the G panel

Review the values in the 'Release frequency' and 'Document number' fields.

Neither of these fields affect any DS functionality, but can be used for informational purposes.

Create Delivery Schedule Item Lines Manually

This document explains how you create the item lines for a new delivery schedule (DS) and also how you add new item lines to an existing delivery schedule. You do this when you have created the delivery schedule header.

The delivery schedule item lines carry information about the item, such as to which warehouse and facility the item is connected.

Outcome

The delivery schedule item lines are entered into the delivery schedule.

You use the delivery schedule item lines as a basis when entering the delivery schedule demands, such as the quantities and demand dates required by the customer, in 'Delivery Schedule. Connect Demands' (RSS102).

You can perform delivery schedule processing per item line from the delivery schedule item lines. See [Processing a Delivery Schedule](#) on page 582.

The information you enter in the delivery schedule item lines will be automatically entered in the next level in the process. For example, if you enter a customer's order number in the delivery schedule item lines, this will be entered automatically in 'Delivery Schedule. Connect Demands' (RSS102).

The delivery schedule item file (ORSITM) is updated.

The delivery schedule header file (ORSHED) is updated in terms of the highest and lowest status among the delivery schedule items lines.

Before you start

Steps listed in [Create a Delivery Schedule Header Manually](#) on page 493 must be completed.

Follow these steps

- 1 Start 'Delivery Schedule. Connect Items' (RSS101) by using option 11=Items in 'Delivery Schedule. Open' (RSS100).

If you use the recommended panel sequence EF1 in 'Delivery Schedule. Open' (RSS100), 'Delivery Schedule. Connect Items' (RSS101) will start once you have created the DS header.

Note: The panel sequence that is normally used for 'Delivery Schedule. Connect Items' (RSS101) is E1.

- 2 Choose one of the following alternatives:

- **Create new delivery schedule item lines**
- **Review existing delivery schedule item lines**

Create new delivery schedule item lines

- 1 On the (RSS101/B) panel, select sorting order 1 and indicate the customer identity in the 'Customer number' field.

Normally the customer represents the plant to which delivery will be made, and the customer is also subordinate to the partner in the partner hierarchy. However, the customer could equal the partner if no hierarchy exist. See [Enabling Customer Delivery Schedules](#) on page 564.

Normally the customer represents the plant to which delivery will be made, and the customer is also subordinate to the partner in the partner hierarchy. However, the customer could equal the partner if no hierarchy exist. See [Enabling Customer Delivery Schedules](#) on page 564.

- 2 Specify the address number in the 'Address number' field. Press F4 to see all the addresses connected to the selected customer.

Note: The address number is required

In most cases the address number represents the physical dock/gate to which delivery will be made.

- 3 Indicate the identity of the delivery specification. Press F4 to see all the delivery specifications connected to the selected customer and address number.

The delivery specification is not required. You use a delivery specification when a certain item is to be delivered to two or more different final destinations that have the same address number.

- 4 Enter the alternative identity of the item in the 'Alias number' field. Press F4 and choose one of the alias numbers presented. Select New. The E panel is displayed. Go to **Review the data on the E panel**.

The list presented shows alias numbers based on the definitions in the '045 Check sequence - item ID' field in 'Delivery Schedule Type. Open' (RSS010).

If an alias number is not defined, you may enter the M3 item number.

Review existing delivery schedule item lines

- 1 Select one of the DS item lines.
- 2 If you want to change the DS item line, choose option Open. The E panel will be displayed.

Review the data on the E panel

- 1 If you are creating a new DS item line, press Enter to retrieve all of the new values for the item. Once the values have been retrieved, it is possible to change them.
- 2 Review the values in the 'Alias number', 'Customer's order number' and 'Delivery contract number' fields. The customer's order number is sometimes used as a reference number (assigned by the customer) that links the DS item line to a specific agreement. It is also common to print the customer's order number as a reference on delivery and invoice documents.
You can find a M3 agreement in 'Customer Blanket Agreement. Open' (OIS060) by using the customer's order number or delivery contract number. The rules for how this works are defined in the '200 Agreement rule' field in 'Settings - Partners' (RSS015).
- 3 Review the values in the 'Alternate unit of measure', Facility, 'Warehouse', 'Delivery note reference', 'Country of origin', 'Currency', 'Item release status', 'Model/year' and 'Customer model year' fields. All values are retrieved from basic customer and item data. Facility is retrieved according to the definitions in the '130 Search standard facility table' field in (RSS015). Warehouse is retrieved according to the '125 Search standard warehouse' field in (RSS015).
Review the values in the 'Delivery note reference', 'Item release status', 'Model/Year' and 'Customer's model year' fields. Usually the values in these fields are supplied by the customer and are not retrieved from M3 basic data.
'Delivery note reference' is used to separate different delivery schedules when performing activation and creation of a net schedule. It is also used in the dispatch process and communicated back to the customer upon delivery.
'Item release status' can be used as input when performing deviation checks. If a deviation check is activated, you will be notified when the customer changes the release status of an item. See [Check a Delivery Schedule for Deviations](#) on page 487.

Review the data on the F panel

- 1 Review the values in the 'Partner's ECO number', 'ECO date', 'Partner's design revision number' and 'Previous delivery schedule number' fields.
The values in these fields are normally supplied by the customer and can be entered here to keep control of the link between the DS item line and the ECO/revision identities.
The values in these fields are normally supplied by the customer and can be entered here to keep control of the link between the DS item line and the ECO/revision identities.
- 2 Review the values in the 'Invoice recipient', 'Payer' and 'Forwarding agent' fields.
Usually, these fields are set from basic data by M3 batch order entry when the net schedule is created. If you want any deviating values, you enter them here.
- 3 Review the values in the 'Item responsible' and 'Planner' fields.
These fields are defaulted with the values from 'Item. Open' (MMS001) and 'Item. Connect Warehouse' (MMS002). You change them here if you want any other values to be valid for the DS item line.
- 4 Review the values in the 'Packaging', 'Customer's packaging identity', 'Standard quantity', 'Package reference' and 'Number of packages' fields.

These fields contain information about how the customer requires the DS item line to be physically packed when delivered to the customer.

The packaging, customer's packaging identity and standard quantity values are retrieved automatically from 'Item. Connect Packaging' (MMS053), if so defined in the '135 Update package information' field in (RSS015). The information will be transmitted to the customer order when the net schedule is created.

The customer sometimes transmits the package reference and number of packages values. This information is not processed further in M3.

Review the data on the G panel

- 1 Review the values in the 'Calculated start date/time', 'Calculated end date/time', 'Expiration date' and 'Customer's purchase order date' fields.

The calculated start and end dates/times are updated according to the demands in 'Delivery Schedule. Connect Demands' (RSS102). This date range can be used to control the activation of the DS when the new DS replaces the current DS, and the date range is based on the settings in the '110 From/To date to use' field in (RSS015).

The customer normally supplies the values for the 'Expiration date' and 'Customer's purchase order date' fields. 'Expiration date' can be used as input when performing a deviation check. In such cases, you will be notified when the customer plans to stop sending delivery schedules regarding this item.

- 2 Review the values in the 'Delivery pattern' and 'Customer's delivery pattern' fields.

Delivery pattern is automatically retrieved at validation, either from 'Customer Item. Open Info/Customer Addresses' (RSS050) or from 'Customer. Connect Addresses' (OIS002). 'Delivery pattern' is used to propose and manipulate the dates in the delivery schedule based on the definitions in the '505 Adjust to delivery pattern' field in (RSS015).

- 3 Review the values in the 'Update method', 'Date type' and 'Transportation lead time' fields.

The update method can be used in the new DS to either replace the entire current DS or only replace it inside the defined date/time range. If update method is not used, the date/time range will control the replacement.

Date type is normally retrieved from 'Settings - Partners' (RSS015), and defines how to interpret the delivery dates in 'Delivery Schedule. Connect Demands' (RSS102).

Depending on the values in the FDate type' and 'Transportation lead time' fields, the departure date from M3 and requested delivery date at the customer will be calculated when the delivery schedule is validated.

Note: The information about retrieved lead time will not be displayed in the transportation lead time fields until the validation has been performed.

Review the data

- 1 Review the values in the Demand overview fields.

The (RSS101/H) panel contains summarized information based on the demands and their respective demand commitment indicators, as defined in 'Delivery Schedule. Connect Demands' (RSS102).

All five valid demand commitment indicators are summarized and presented separately along with the total quantity.

Note: Any changes made on the demand level will affect this panel immediately.

- 2 Review the values in the 'Delivery number for reconciliation', 'Cumulative quantity reconciliation' and 'Reconciliation overview' fields.

You can perform this activity in 'Delivery Schedule. Connect Demands' (RSS102) when all demands have been created.

The S panel either contains the delivery number as the last known received delivery (according to the customer), or it contains the cumulative quantity for reconciliation (as stated by the customer) as the total quantity received since the start of the cumulative calculation. Additionally, calculated information regarding the current reconciliation situation is presented.

You can enter the delivery number or the cumulative quantity, as stated by the customer, and then press F14='Confirm update' to update the DS item line.

The usage of delivery note or cumulative reconciliation is based on the setting in the '015 Reconciliation method' field in 'Settings – Partners' (RSS015). See [Reconciliation of Delivery Schedule Demands](#) on page 584.

Create a Net Schedule

This document explains how you create a net schedule. You do this when the delivery schedule (DS) has been activated.

Create a net schedule is the last activity in the processing of a delivery schedule. The purpose is to transform the active gross demands into net demands and finally update them into customer orders. By doing this, the new delivery schedule demands are made available for further processing in M3.

Outcome

The active gross demands within the selected date range are reconciled against any recent deliveries and updated as customer order lines.

If requested, the gross demands are rounded off to fit different packaging sizes in order to simplify the picking and packing process.

The just-in-time (JIT) demands are updated so that the pack process can begin within the JIT Call-Off Management processing. This is valid if the DS is linked to JIT Call-Off Management. See [Processing a JIT Call-Off](#) for further description.

If the net schedule creation ended unsuccessfully, an application message is sent to inform the responsible user that the net schedule has not been created correct.

You use the customer order lines that are updated from the net schedule as input for the dispatch of customer deliveries. A convenient way of viewing the order lines is to use a suitable sorting order and view in 'Customer Order. Open Line Toolbox' (OIS301). Managing the dispatch process of customer deliveries is further described in .

The updated JIT demands are used as input for the packing process in 'JIT Call-off Delivery. Open' (RSS200).

All errors that may occur when transferring the net schedule are presented in detail in 'Batch Order. Open' (OIS275). These errors can be viewed, corrections can be made and the batch order can also be released for new transfer. Alternatively, the net schedule can be re-created from 'Delivery Schedule. Open' (RSS100) or 'Delivery Schedule. Connect Item' (RSS101).

For further description of how to manage batch order entry, see [Creation of Externally Entered Customer Orders](#) on page 259.

These are updated:

- The new net schedule file (ORSNTN) is created, adjusted and deleted as a work file during the net schedule activity.
- The customer order header file (OOHEAD) is updated with a new order header, if it did not exist before.
- The customer order line file (OOLINE) and the net schedule file (ORSNET) are simultaneously updated with new, changed and deleted order lines.
- The DS pack control object status in the DS pack control object file (ORSPCO) is raised to 10 = Ready to pack, if the DS is linked to JIT Call-Off Management.
- The DS item status in the DS item line file (ORSITM) is set to 35 = Net change error or 40 = Net change run, depending on the outcome of the net schedule activity.
- The DS header file (ORSHED) is updated with the highest and lowest DS item status based on the outcome of the net schedule activity.
- If the net schedule activity ends in error, the application message file (CMAILB) is updated with an application message indicating that the net schedule has not been created.
- The net schedule transfer history file (ORSTRH) is updated with a new record for every new net schedule transmission.

Before you start

- You must have performed [Activate a Delivery Schedule](#) on page 485.
- Regarding reconciliation, the starting conditions in [Reconciliation of Delivery Schedule Demands](#) on page 584 must be met.
- To be able to update customer orders, the recommendations in [Basic Settings for Customer Order Processing](#) on page 28 must be met.
- To be able to process the net schedule through the batch order entry, the recommendations in [Batch Order](#) on page 235 must be met.
- The specific starting conditions regarding net schedule creation that are described in [Delivery Schedule Net Schedule Creation](#) on page 551 must be met.

Follow these steps

Perform one of these procedures:

Create a net schedule for the entire DS

- 1 Start 'Delivery Schedule. Open' (RSS100).
- 2 Select option 25 = Create net schedule, for the DS for which you are going to create a net schedule.
When you create a net schedule, the entire DS and all DS item lines within the selected DS will be included, but the processing is still the same as if it was performed per DS item line.
- 3 Choose backorder (BO) reconciliation together with the date and time range during which you want to create the net schedule, on the (RSS100/M) panel. Confirm your choice by pressing Next.
 - If you want information about the activities performed within the net schedule creation, read [Delivery Schedule Net Schedule Creation](#) on page 551.

All values proposed in (RSS100/M) are retrieved from (RSS015) and the current DS. From date and to date are proposed based on the '110 From/to date to use' field in (RSS015).

To get the best result when creating the net schedule, select BO reconciliation together with a suitable reconciliation method and reconciliation level.

If BO reconciliation is not used, it is important to fill in appropriate from date and to date. This range of dates will determine the selection of active demands that should be included in the net schedule.

Create a net schedule for a single DS item line

- 1 Start 'Delivery Schedule. Connect Items' (RSS101).
You start (RSS101) by using option 11=Items for a selected DS in 'Delivery Schedule. Open' (RSS100/B).
- 2 Select option 25=Create net schedule, for the DS item line for which you are going to create a net schedule.
- 3 Choose backorder reconciliation together with the date and time range for which you want to create the net schedule, on the (RSS101/M) panel. Confirm your choice by pressing Next.
 - If you want information about the activities performed within the net schedule creation, read [Delivery Schedule Net Schedule Creation](#) on page 551.

All values proposed in (RSS101/M) are retrieved from (RSS015) and the current DS. From date and to date are proposed based on the '110 From/to date to use' field in (RSS015).

To get the best result when creating the net schedule, select BO reconciliation together with a suitable reconciliation method and reconciliation level.

If BO reconciliation is not used, it is important to fill in appropriate from date and to date. This range of dates determines the selection of active demands that should be included in the net schedule.

Automatic net schedule creation

You choose automatic net schedule creation in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010). See [Delivery Schedule Net Schedule Creation](#) on page 551.

Create Partner ID and Connect Partner Alias IDs

This document explains how you create a partner and a partner alias repository. This is used in Customer Delivery Scheduling (CDS), among others.

Outcome

You have created a partner repository and a partner alias repository.

- **Partner**
Partner is a M3-defined identity of an internal or external trading partner on different hierarchical levels, such as customer ID, supplier ID, customer address ID and warehouse ID. A partner identity is used to translate itself into a partner alias identity. This is performed when an outgoing EDI message is created by using the API CRS886MI. Partner IDs are stored in the CPARTN table.
- **Partner Alias**

A partner alias is an externally defined identity of a trading partner on different hierarchical levels, such as plant code, gate code and EAN location code. The partner alias identity is used to translate itself into a partner identity. This is performed when an incoming EDI message is received by using the API CRS886MI. Partner alias IDs are stored in the CPAALI table.

Before you start

- The conditions in [Create Partner Type and Partner Alias Type](#) on page 505 must be fulfilled.
- Depending on the partner category to be used, settings in these functions must be done: (OIS038), (CRS610), (OIS002), (OIS004), (MNS100), (CRS008), (MMS005), and (CRS620).

Follow these steps

Create a partner ID

- Start 'Partner Repository. Open' (CRS885). On the P panel, select Yes (1) in the 'Default partner higher level' field.
- On the B panel, select sorting order 1 to enter new records.
Sorting orders 2 and 3 display partner ID and its higher level and sub-levels.
- Select panel sequence E 1. 1=Partner alias (CRS886).
- Select a partner type and define a partner ID. Depending on the selected partner category in (CRS883), the following fields will be displayed for entering identities for a partner:

Partner category	Field 1	Field 2	Field 3	Retrieve data from:
01	Division			(MNS100)
02	Facility			(CRS008)
03	Warehouse			(MMS005)
10	Business Chain			(OIS038)
11	Customer			(CRS610)
12	Customer	Customer Address		(CRS610)(OIS002)
13	Customer	Customer Addresses	Delivery Specification	(CRS610)(OIS002)(OIS004)
21	Supplier			(CRS620)

- Open the E panel. The 'Partner ID higher level' field will be displayed for the following partner categories.
11 = Customer
12 = Customer address
13 = Customer delivery specification.

This field starts 'Business Chain. Open' (OIS038). Select the partner ID on the next higher level to attach to your partner ID.

A default partner will be proposed if you have activated the 'Default partner higher level' field on the (CRS885/P) panel.

- 6 Click Next to create a partner ID.
- 7 The next step is to connect a partner alias ID in 'Partner Alias Repository. Connect' (CRS886). If you have connected a partner type to a partner alias type in (CRS884), then (CRS886) will start when you click Next in (CRS885). If you have left this field blank, you start (CRS886) with option 11='Partner alias' on the (CRS885/B) panel.

Create a partner alias ID and connect to partner ID

- 1 On the (CRS886/B) panel, select a partner alias type to connect to the partner ID. Settings in the 'Partner type' field in (CRS884) determine what you can select here. If you have filled in this field with a partner type, then you can only connect this partner alias type to a partner ID with this partner type defined. If you have left this field blank, then you can connect this partner alias type to any partner ID, regardless of the partner type connected.
- 2 Enter a partner alias ID. Settings in the 'Partner alias category' field in (CRS884) determine the allowed numbers of partner alias IDs. The second digit of the partner alias category indicates the number of partner alias IDs used. One, two or three alias IDs are allowed. Settings in user-defined fields 1, 2, and 3 in (CRS884) determine the headings for this (these) fields.
- 3 Click Next to open the E panel. There is nothing to fill in. Click Next again to connect a partner alias ID to a partner ID.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS885/P)	Default partner higher level	... whether the default partner should be retrieved from a higher level. If the partner category is set to 12 or 13, the default partner will be retrieved from next level above. You must select Yes (1).
(CRS885/B)	Partner type	The partner type is used to control the category of a partner ID.
(CRS885/B)	Partner ID	... the M3 internal identity of a trading partner. A partner ID is used to identify internal or external trading partners. Partner ID normally identifies the top level identity in a hierarchy of trading partners. The level below partner ID is partner ID sub-level 1.

Program ID/Panel	Field	The field indicates ...
(CRS885/E)	Partner ID higher level	<p>... the M3 internal identity of a trading partner on a higher hierarchical level.</p> <p>A partner ID is used to identify internal or external trading partners. A partner ID on a higher level normally has no further identities attached to it on even higher levels. The closest level under partner ID higher level is partner ID sub-level 1.</p>
(CRS886/B)	Partner alias type	<p>... the partner alias type, which is used to set parameters that control how partner aliases are managed in (CRS886).</p> <p>Settings in the 'Partner type' field in (CRS884) determine what you can select here.</p> <p>If you have filled in this field with a partner type, you can only connect this partner alias type to a partner ID with this partner type defined.</p> <p>If you have left this field blank, you can connect this partner alias type to any partner ID, regardless of the partner type connected to it.</p>
(CRS886/B)	Partner alias	<p>... the partner alias identity of a trading partner.</p>
	Partner alias 1	A partner alias ID normally identifies the top level in a hierarchy of trading partners. The level below the partner alias ID is partner alias sub-level 1.
	Partner alias 2	<p>Settings in the 'Partner alias category' field in (CRS884) determine whether you can have 1, 2 or 3 partner alias IDs.</p> <p>Settings in user-defined fields 1, 2 and 3 in (CRS884) determine the headings for this (these) fields.</p>

Create Partner and Partner Alias Repositories

This document explains how you create a partner and a partner alias repository. This is used in Customer Delivery Scheduling (CDS), among others.

Outcome

You have created a partner ID and connected it with a partner alias ID.

Partner is a M3-defined identity of an internal or external trading partner on different hierarchical levels, such as customer ID, supplier ID, customer address ID and warehouse ID. The partner identity is used to translate itself into a partner alias identity. This is performed when an outgoing EDI message is created by using the API CRS886MI.

A partner alias is an externally defined identity of a trading partner on different hierarchical levels, such as plant code, gate code, EAN location code or supplier number. The partner alias identity is used to translate

itself into a partner identity. This is performed when an incoming EDI message is received by using the API CRS886MI.

Partner and a partner alias details are stored in the following M3 tables:

- Partner ID is stored in the CPARTN table.
- Partner alias ID is stored in the CPAALI table.
- Partner type is stored in the CPATYP table.
- Partner alias type is stored in the CPAALT table.

Before you start

The settings in these documents must be defined:

- See [Create Partner Type and Partner Alias Type](#) on page 505 .
- See [Create Partner ID and Connect Partner Alias IDs](#) on page 501 .

Follow these steps

- 1 Create a partner type in 'Partner Type. Open' (CRS883).
- 2 Create a partner alias type in 'Partner Alias Type. Open' (CRS884). If required, connect a partner alias type to a partner type.
- 3 Create a partner ID in 'Partner Repository. Open' (CRS885).
- 4 If the partner type is category 11, 12, or 13, then you can connect the partner ID to a partner ID on a higher level. See [Enter Business Chain](#) on page 87.
- 5 In 'Partner Alias Repository. Connect' (CRS886), select a partner alias type (allowed or available alias types, depending on the settings) to be connected to the partner ID.
- 6 Create an alias ID. Depending on the settings you can have 1, 2, or 3 partner alias fields for the partner alias ID.
- 7 If you have a partner alias that is a popular number, you can connect several partner alias IDs (records) to one partner ID.

Create Partner Type and Partner Alias Type

This document explains how you create a partner type and a partner alias type. This is used in Customer Delivery Scheduling (CDS), among others.

Partner types can be internal or external. Internal partner types can be division, facility and warehouse. External partner types can be customers, customer addresses, customer delivery specifications and suppliers.

Outcome

- A partner type is created.
- A partner alias type is created.

Partner Type

Along with the partner category, a partner type defines internal and external partners. Examples of internal partners are divisions, facilities or warehouses. Examples of external partners are customers, customer addresses or suppliers. The partner identity is used to translate itself into a partner alias identity. This is performed when an outgoing EDI message is created by using the API CRS886MI. Partner types are stored in the CPATYP table.

Partner Alias Type

A partner alias is an alternative identity to an M3 internal identity such as a division, a facility or a warehouse. A partner alias also applies to external identities. Examples of external identities are customers, customer addresses and supplier numbers. The partner alias identity is used to translate itself into a partner identity. This is performed when an incoming EDI message is received by using the API CRS886MI. Partner alias types are stored in the CPAALT table.

Follow these steps

Note: A partner type must be created before you create a partner alias type.

Create a Partner Type

- 1 Start 'Partner Type. Open' (CRS883). Fill in the partner type ID. Open the E panel.
- 2 Specify a description and name. Select a partner category.
The partner category can be internal (a division, facility or warehouse in M3) or external (a customer number, customer delivery specification, etc.).
- 3 Click Next and then exit (CRSS883).
- 4 As an alternative, you can auto-create default partner types. Press F14='Gen standard' and default partner types are created.

Create a Partner Alias Type

- 1 Start 'Partner Alias Type. Open' (CRS884). Fill in a partner alias type ID. Open the E panel.
- 2 Specify a description and name.
- 3 Select a partner type. This field opens the partner types defined in (CRS883).
If you fill in this field with a partner type, then you can only connect this partner alias type to a partner ID with this partner type defined.
If you leave this field blank, then you can connect this partner alias type to any partner ID, regardless of the partner type connected to it.
These connections are made in (CRS886).
For example, a customer has one popular number and one EAN code as two different alias types.
- 4 Specify a partner alias category. The 'Partner alias qualifier' field is not used in the current version of M3.
- 5 Specify the user-defined field(s). Depending on the second digit in the 'Partner alias category' field, you can use 1, 2 or 3 user-defined fields here. These fields will appear as headings in 'Partner Alias Repository. Connect' (CRS886).
- 6 Click Next to create partner types and partner alias types.

- 7 As an alternative, you can auto-create default partner alias types. Press F14='Gen standard' and default partner alias types are created.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS883/B)	Partner type	<p>... the partner type.</p> <p>The partner type is used to control the category of a partner ID defined in (CRS885).</p> <p>Along with the partner category, a partner type defines internal and external partners. Examples of internal partners are divisions, facilities or warehouses. Examples of external partners are customers, customer addresses or suppliers.</p>
(CRS883/E)	Partner category	<p>... the partner category.</p> <p>The partner category is linked to a partner type and is used to define partner ID categories. Partner IDs are defined in (CRS885).</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 01 = M3 division 02 = M3 facility 03 = M3 warehouse 10 = Customer number defined as business chain 11 = Customer number 12 = Customer address 13 = Customer delivery specification 21 = Supplier.
(CRS884/B)	Partner alias type	<p>... the partner alias type.</p> <p>The partner alias type is used to set parameters that control how partner aliases are managed in (CRS886).</p> <p>A partner alias is an alternative identity to a M3 internal identity such as a division, a facility or a warehouse. Partner aliases also apply to external identities. Examples of external identities are customers, customer addresses and suppliers.</p>
(CRS884/E)	Partner type	<p>See above.</p> <p>If you fill in this field with a partner type, you can only connect this partner alias type to a partner ID with this partner type defined.</p> <p>If you leave this field blank, you can connect this partner alias type to any partner ID, regardless of the partner type connected.</p> <p>These connections are made in (CRS886).</p>

Program ID/Panel	Field	The field indicates ...
(CRS884/E)	Partner alias category	<p>... the partner alias category.</p> <p>The partner alias category is linked to a partner alias type and is used to define the category of the partner alias. Partner aliases are defined in (CRS886).</p> <p>The first digit of the partner alias category indicates:</p> <ul style="list-style-type: none"> 1x = Popular alias identity 2x = Unique alias identity 3x = Unique alias identity qualified by another partner ID. <p>The second digit of the partner alias category indicates the number of partner alias IDs used. One, two or three alias IDs are allowed.</p> <p>If you use partner alias category 3x, then qualifying partner IDs are mandatory when managing partner aliases.</p>
(CRS884/E)	Partner alias qualifier	<p>... the partner alias qualifier.</p> <p>The field is not supported in the current version of M3.</p>
(CRS884/E)	User-defined fields 1, 2 and 3	<p>...a user-defined field that may be used as desired.</p> <p>The purpose of the field is to give the possibility to assign a user-defined heading. The definition is per partner alias type and is used in (CRS886).</p> <p>Depending on the second digit in the 'Partner alias category' field, you can use 1, 2 or 3 user-defined fields here.</p>

Creating a Delivery Schedule Automatically

This document explains how a delivery schedule is created automatically. Delivery schedules are created automatically when your partner sends EDI (electronic data interchange) delivery schedules through M3 EDI Solution.

Usually, an EDI delivery schedule is sent with the purpose of replacing the current schedule, but it is also possible to create an EDI delivery schedule as the first schedule.

The automatic creation of a delivery schedule is managed in the same way, regardless of which EDI standard and subset the partner uses. The separation of EDI standard and subset is managed in M3 EDI Solution.

Outcome

A complete delivery schedule (DS), including the header, item lines, item line addresses, received delivery notes, cumulatives and demands, is created and a unique internal DS number is created.

When the DS is completed, an application message is sent informing the responsible user that a new DS has been received. If the new DS has not found a valid partner agreement, an application message is sent to the person responsible for the EDI to indicate that there is a missing partner agreement.

Based on the level of commitment and time period of each demand, the DS is used as a demand source to a company's planning and execution processes. The DS specifies such things as what to supply and to whom, and also the range of time of the demands. Eventually, the DS will result in customer demands for planning and execution purposes.

The next mandatory step is to validate the DS, which is the first activity in the Processing a Delivery Schedule. This is manually performed in 'Delivery Schedule. Open' (RSS100) and 'Delivery Schedule. Connect Item Lines' (RSS101).

You choose whether you want the EDI DS processing to be performed manually or automatically through the '055 Next Manual Function' field in 'Delivery Schedule Type. Open' (RSS010). If you choose automatic processing, the EDI DS can be fully processed with no manual activities involved.

The following files are created:

- Delivery schedule header file (ORSHED)
- Delivery schedule item line file (ORSITM)
- Delivery schedule address file (ORSADR)
- Delivery schedule received delivery note file (ORSDNR)
- Delivery schedule cumulative file (ORSCUM)
- Delivery schedule demand file (ORSINS).

In addition:

- The partner settings file (ORSPPT) is updated with the date and time of the most recently received DS.
- The application message file (CMAILB) is updated with application messages.

Before you start

- M3 EDI Solution has to be configured to make it possible to receive an EDI delivery schedule.
- If the EDI information needs to be translated before it is updated as a delivery schedule, a message data translation must be defined in 'Business Message Data Translation. Display' (CRS881).
- A partner structure according to Enabling a Partner Structure must be defined.
- A partner alias connection according to Enabling a Partner Alias must be defined.
- A partner agreement according to Enabling a Partner Agreement must be defined.
- An item must be defined in 'Item. Open' (MMS001), 'Item. Connect Warehouse' (MMS002) and 'Item. Connect Facility' (MMS003).
- An item alias must be defined in 'Customer. Connect Item' (OIS005) or in 'Item. Connect Alias Number' (MMS025).

Follow these steps

1 EDI Processing in M3 EDI Solution

The DS that was received through a network in the form of an electronic message (EDI) is processed by M3 EDI Solution to automatically create a DS in M3.

The automatic creation of DS information through EDI is technically managed through the API program 'Customer Delivery Schedule Interface' (RSS110MI) and the transactions AddHeader, AddItem, AddAddress, AddDeliveryNote, AddCumQuantity, and AddInstruction.

2 Creating a DS Header

To create a DS header successfully, the partner ID in the EDI DS has to be converted to a M3 partner ID. This converted partner ID is used together with the values in the 'Message type', 'Application reference' and 'Access reference' fields to find a partner agreement in 'Settings – Partners' (RSS015). For further information on Partner ID conversion and Partner Agreement, see [Create Partner and Partner Alias Repositories](#) on page 504 and [Enabling Partner Agreement](#) on page 579, respectively.

The EDI DS can create header data to the same extent as that of a manual DS. See [Create a Delivery Schedule Header Manually](#) on page 493.

The EDI DS and the manual DS are separated through the 'Delivery schedule origin' field in (RSS100/E).

The received DS also updates parameter 255 in 'Settings – Partners' (RSS015), which indicates the most recent date and time a DS was generated for this partner agreement.

The created information can be reviewed in 'Delivery Schedule. Open' (RSS100).

3 Creating DS Item Lines

This activity creates one new DS item line per received item in the EDI DS. The EDI DS can create item line data to the same extent as that of a manual DS item line. See [Create Delivery Schedule Item Lines Manually](#) on page 495.

The created information can be reviewed in 'Delivery Schedule. Connect Items' (RSS101), which is reached from (RSS100) through option 11=Items.

4 Creating DS Addresses

This activity, which is only valid for an EDI DS, creates several EDI addresses per DS item line. The EDI addresses are referred to as partner aliases in M3 and are the partners' own identities of the plant, the dock/gate and the final destination. The function of the 'Address type' field is to separate the EDI addresses.

During validation, these created EDI addresses are converted into M3 identities, such as customer number, address number and delivery specification. See [Create Partner and Partner Alias Repositories](#) on page 504 and [Delivery Schedule Validation](#) on page 556.

The created information can be reviewed in 'Delivery Schedule. Open EDI Addresses' (RSS103), which is reached from (RSS101) through option 13=Addresses.

5 Creating DS Delivery Notes

This activity, which is only valid for an EDI DS, creates several delivery notes per DS item line. The delivery notes declare the most recent deliveries that the customer has received. The information is used later in the process as input to the automatic reconciliation of the DS demands.

During validation, these delivery notes are checked against M3 delivery numbers to see if a match can be found. For further information, see [Reconciliation of Delivery Schedule Demands](#) on page 584.

The created information can be reviewed in 'Delivery Schedule. Open Delivery Notes' (RSS105), which is reached from (RSS101) through option 15=Delivery notes.

6 Creating DS Cumulatives

This activity, which is only valid for an EDI DS, creates several cumulative accumulators per DS item line. The 'Cumulative type' field separates the different cumulatives.

The cumulatives declare a calculated sum based on the values in the 'Cumulative type' and 'Cumulative from date' fields. The information is used as input to the automatic reconciliation of the DS demands.

The created information can be reviewed in 'Delivery Schedule. Open Cumulative Figures' (RSS106), which is reached from (RSS101) through option 14=Cumulative.

See [Reconciliation of Delivery Schedule Demands](#) on page 584 .

7 Creating DS Demands

This activity creates one or several DS demands received in the EDI DS per DS item line. The EDI DS can create demand data to the same extent as that of the manual DS demands. See [Creating a delivery schedule manually](#) on page 511.

The created information is reviewed in 'Delivery Schedule. Connect Demands' (RSS102), which is reached from (RSS101) through option 11=Demands.

Creating a delivery schedule manually

This document explains how you create a delivery schedule manually. Delivery schedules are created manually when they are not entered automatically by M3 EDI Solution.

If your partners have the ability, it is preferable to send delivery schedules by EDI since it requires less manual work. When EDI is not used, the delivery schedule is sent by other media, such as fax or email.

Usually, you create a new delivery schedule (DS) to replace the current one, but it is also possible to create a delivery schedule for the first time. When a DS, or a DS item line, is created for the first time, there is no connection to any previous DS in M3.

Outcome

A complete delivery schedule, which consists of a header, item lines and demands, is created.

A unique internal DS number is created and the delivery schedule is automatically validated.

Based on the level of commitment and time period of each demand, the DS is used as a demand source to a company's planning and execution processes. The DS specifies such things as what to supply and to whom, and also the range of time of the demands. Eventually, the DS will result in customer demands for planning and execution purposes.

The next mandatory step is to activate the DS. The activation is performed in 'Delivery Schedule. Open' (RSS100) or in 'Delivery Schedule. Connect Items' (RSS101).

For information on How the System Is Affected, refer to the instruction documents listed in the See Also section of this document.

Before you start

- A partner structure according to Enabling a Partner Structure must have been defined.
- A partner agreement according to Enabling a Partner Agreement must have been defined.
- An item must be defined in 'Item. Open' (MMS001), 'Item. Connect Warehouse' (MMS002) and 'Item. Connect Facility' (MMS003).
- An item alias can be defined in 'Customer. Connect Item' (OIS005) or in 'Item. Connect Alias Number' (MMS025).

Follow these steps

1 Create Delivery Schedule Header

Use this activity to create a new DS header or to review an existing one. This is done in 'Delivery Schedule. Open' (RSS100). Usually, you perform this activity when you have received a DS by email or fax from your partner.

The header contains basic data that controls the overall schedule, such as the date and time range.

2 Create Delivery Schedule Item Lines

Use this activity to create an item line for each item stated on the DS that your partner has sent. You can either create the DS item lines for a new DS or add new item lines to an existing DS. This is done in 'Delivery Schedule. Connect Items' (RSS101).

The delivery schedule item lines include basic item information, such as item number, item alias connection, selection of warehouse and connection to customer number, address number and possible delivery specification.

3 Create Delivery Schedule Demands

You use this activity to either create demands for a new DS, or to review demands in an existing DS, for each item line created in the previous step. This is done in 'Delivery Schedule. Connect Demands' (RSS102).

The DS demand carries information such as quantities, requested demand dates and times and whether the demand is a firm demand or a forecast. Usually, the DS includes several demands with different dates, which together form the time horizon of the DS.

4 Update Reconciliation Information

Usually, you update the reconciliation information when all demands are created. See [Reconciliation of Delivery Schedule Demands](#) on page 584.

When the DS demands are created, the DS item line is automatically validated. For further information on the validation step, see [Delivery Schedule Validation](#) on page 556.

Define Customer and Customer Alias Deviations

This document explains how you can define settings per customer, address, delivery specification, item and so on.

These settings can be used if you want to override the settings already defined.

Outcome

You have defined settings per customer, item and so on that will override already defined settings.

This is used in the CDS process to override settings per customer, item and so on.

The following tables are updated:

- Customer/Address is saved in the OCUSAD table.
- Customer/Delivery specification is saved in the OCUSAS table.
- Customer/Item is saved in the OCUSIT table.

Before you start

The settings for enabling CDS must be defined. The new settings will override some of those settings.

Follow these steps

- 1 Start 'Customer Item. Open Info/Customer Addr' (RSS050).
- 2 Specify the information in the appropriate fields on the B panel. See the Parameters to set table.
- 3 Specify the information in the appropriate fields on the E panel. Only the fields on the parameter list can be used.

See the Parameters to set table.

Parameters to set

These parameters are valid in (RSS055). The other parameters are not used.

Program ID/Panel	Field	The field indicates ...
(RSS050/B)	Customer	... a customer.
(RSS050/B)	Alias no.	... an alias number.
(RSS050/B)	Address no.	Select a value if you want these settings to be valid for a specific customer address.
(RSS050/B)	Delivery spec.	Select a value if you want these settings to be valid for a specific delivery spec.
(RSS050/B)	Model year	Select a value if you want these settings to be valid for a specific model per year.
(RSS050/B)	Fr date	... the date from which these settings are valid.
(RSS050/E)	Select from this level	... whether you will use the values entered in this program or whether you will use the values entered in the original settings program. Select the Yes check box.
(RSS050/E)	Adjust to min qty.	... whether to use issue multiples. It is used as an alternative to the Package level field. All quantities per day will be delivered according to the issue multiple. If 1 is entered, the delivery schedule's quantities are calculated from the specified multiple during
(RSS050/E)	Min qty.	... minimum quantity describes the smallest quantity normally handled for the particular item and packaging.

Program ID/Pan- el	Field	The field indicates ...
(RSS050/E)	Split model	<p>... a split model. It is used to connect a defined split model to a delivery schedule belonging to definition of direction/partner/message/application reference.</p> <p>The split functionality splits a quantity into several deliveries and is defined in (RSS055) and in (RSS056).</p>
(RSS050/E)	Deviation qty 1/2/3/4	<p>The field indicates the deviation quantity used for comparing deviations in delivery schedules.</p> <p>This information is used when comparing quantities in different delivery schedules in (RSS020).</p> <p>Deviation can be checked in the Check item deviation field in (RSS021). This is done by selecting a code for the deviation quantity. That actual quantity that will be used is entered in the Quantity field in (RSS050).</p>

Define Default Sales Facility and Warehouse

This document explains how you define a default sales warehouse and a default sales facility for a procurement group or an item. This setting is optional.

Outcome

You have created a default facility and warehouse. These are proposed in 'Delivery Schedule. Connect Items' (RSS101).

Default warehouse and facility are used when you create a delivery schedule and connect items to this delivery schedule. These items are then issued from default facility/warehouse.

Default facility is stored in the ORSFAC table.

If you do not define a default facility, the facility in (RSS101) will be retrieved from:

- 'Settings - Batch Orders' (OIS278)
- 'Customer. Open' (CRS610)
- 'Item. Connect Warehouse' (MMS002)

Default warehouse is stored in the MITNWH table.

If you do not define a default warehouse, the warehouse in (RSS101) will be retrieved from:

- 'Customer. Open' (CRS610)
- 'Item. Connect Facility' (MMS003) (Main warehouse)
- 'User. Access per Company Division' (MNS151)
- 'User. Open' (MNS150)
- 'Company. Connect Division' (MNS100)

Follow these steps

Define a default sales facility for a customer and a procurement group or item

Note: Select the check box (1) on the '130 Search standard facility table' field in 'Settings – Partners' (RSS015).

- 1 Start 'Default Sales Facility. Define' (RSS005)
- 2 Specify the information in the fields of the B and E panels. See Parameters to set table.

Define a default sales warehouse for a customer and a procurement group or item

Note: Select the check box (1) on the '125 Search standard warehouse' field in 'Settings – Partners' (RSS015).

- 1 Start 'Delivery Warehouse. Open Default' (MMS058).
- 2 Specify the information in the fields of the B and E panels. See Parameters to set table.

Parameters to set

Program ID/ Panel	Field	The field indicates ...
(RSS005/B)	Division	... a division. This is an identity for a legal unit within a company group. A division may consist of one or several facilities.
(RSS005/B)	Group code	... whether the proposal is determined by procurement group or by item. If you specify 0, then the proposal is determined by the item number. If you specify 1, it is determined by the procurement group according to the item file.
(RSS005/B)	Procurement group/item number	... the item number if group code=0, or the procurement group if group code=1.
(RSS005/E)	Facility	... the default sales facility for the procurement group/item number connected to this customer.
(MMS058/B)	Facility	... the facility (CRS008) to which the default warehouse belongs. Note: The default warehouse may not belong to a default facility defined in (RSS005).

Program ID/ Panel	Field	The field indicates ...
(MMS058/B)	Lowest limit	<p>... the quantitative limit for ordered quantity that must be reached in order for the warehouse to be proposed. This information is expressed in the item's basic U/M.</p> <p>If the field is left blank or set to 0, the warehouse is proposed without regard to ordered quantity.</p>
(MMS058/E)	Warehouse	... the warehouse to be proposed by default during customer order entry.

Define Delivery Schedule Type

This document explains how to create a delivery schedule type. This type determines how to create the orders, how much automation should occur in the scheduling process and how to display data in the programs.

Outcome

A delivery schedule type is created.

Field controls for 'Delivery Schedule. Open' (RSS100) and 'Delivery Schedule. Connect Item' (RSS101) are defined.

Delivery schedule types are stored in the ORSTYP table.

Use delivery schedule types when setting up partner information in 'Settings - Partner' (RSS015). This will determine much of the schedule's flow.

Before you start

- A customer order type has been created in 'CO Type. Open' (OIS010).
- A number series has been defined (series type 48) in 'Number Series. Open' (CRS165).

Follow these steps

- 1 Start 'Delivery Schedule Type. Open' (RSS010) and fill in the fields.
- 2 Start 'Dely Schedule Type. Update Field Control' (RSS011) with option 11='Field control' on the (RSS010/B) panel.

You can set the panel sequence to E1 on the (RSS010/B) panel.

Parameters to set

Program ID/ Panel	Field	The field indicates ...
(RSS010/B)	Delivery schedule type	... the delivery schedule type that determines how delivery schedules are processed.
(RSS010/E)	010 Customer order type - forecast	<p>... the order type for forecasts, which is used to create orders connected to a forecast delivery schedule.</p> <p>Normally, forecast orders are not physically delivered but are used to calculate forecasted demand. Forecast orders are overridden by orders with the Release order type (parameter 015).</p>
(RSS010/E)	015 Customer order type - Release	<p>... the order type for release, which is used to create orders connected to a delivery schedule.</p> <p>Normally, release orders override orders with the Forecast order type (parameter 010) and will be physically delivered.</p>
(RSS010/E)	020 Date calculation method	<p>... which date calculation method to use for customer delivery schedules (CDS).</p> <p>This field is of great importance to CDS processing and it is not recommended that you change it during delivery schedule production.</p> <p>The valid alternatives are:</p> <p>0 = CDS date calculation functions are used.</p> <p>1 = TPL (Transportation Management) date calculation functions are used.</p>

More about the Date Calculation Method Field:

If you select alternative 0, then the CDS date calculation functions will consider the following:

- Transportation lead time, defined in (DRS021)
- Delivery calendar for customer-specific departure dates and customer-specific goods receiving dates, defined in (CRS907)
- System calendar regarding delivery days, defined in (CRS900)

- Delivery pattern, defined in (RSS025).

Note that it is not recommended that you use the delivery calendar in combination with delivery pattern. First the delivery calendar will adjust dates and then delivery pattern will do the same thing again. Thus, it might be difficult to understand how a specific date has been calculated.

If you select alternative 1, then the TPL date calculation functions will consider the following:

- The route type - Defined in (DRS005) and determines the complexity of the route and whether route departures are to be used.
- The valid departure days - Defined in (DRS011) and act as filter for route types 4, 5 and 6. They also define valid departure dates for route types 1, 2 and 3.
- The selection method for departures - Defined in (DRS011) and determines whether route departures are to be used and how to search route departures.
- The valid departure dates - Defined in (DRS006), where valid departure dates for route types 4, 5 and 6 are defined.
- The time of departure - Defined in (DRS006), where the time of day of the departure for route types 4, 5 and 6 are defined.
- The internal pick and pack lead time - Defined in (DRS005), where you define the internal lead time between planning time and departure time for route types 1, 2 and 3.
- The internal pick and pack lead time - Defined in (DRS006), where you define the internal lead time between planning time and departure time for route types 4, 5 and 6.
- Local transportation lead time - Defined in (DRS011), where you define the local transportation lead time; that is, a part of the total transportation lead time between departure time and confirmed delivery time.
- Transportation lead time - Defined in (DRS021), where you define the transportation lead time between place of loading and place of unloading. Together with local transportation lead time, it forms the total transportation lead time. This is used only for route types 2, 5 and 6.
- Fixed departure time - Defined in (MWS010), where you define a fixed departure time to be used for route types 1, 2 and 3.
- Day and time of arrival - Defined in (DRS006), where you define the transportation lead time and the hour and minute of the arrival for route types 4 and 6.
- M3 time zone - Defined in (MMS008) and used to connect the M3 warehouse to a specific time zone related to Universal Time Coordinated (UTC).
- Customer's time zone - Defined in (MMS008) and used to connect the customer/customer address to a time zone related to UTC.

(RSS010/E)	025 Number series	... the number series. The same ID may be used by other series if they belong to other types. For example, there may be a series A for order numbers as well as for invoice numbers, although they have separate number ranges and start values. Select series type 48 in (CRS165).
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(RSS010/E)	045 Check sequence - item ID	<p>... the sequence used to search for the items entered in (OIS100/B). The files are entered in the desired search order.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none">1 = Item file (MITMAS)2 = Customer's item number (OCUSIT)3 = Kit item, see below (MPDHED)4 = Alias number, see below (MIT-POP). <p>Read more in the field help.</p>
(RSS010/E)	050 Search sequence - alias type	<p>... the check sequence when alias numbers are used.</p> <p>One or more of the following alternatives can be used:</p> <ul style="list-style-type: none">1 = Popular number2 = EAN8 number3 = EAN13 number4 = DUN14 number5 = UPC number7 = Assortment8 = Supplier item number. <p>Up to five alternatives can be used at the same time.</p>

(RSS010/E)	055 Next manual function	<p>... what functions follow the delivery schedule batch entry.</p> <p>The valid alternatives are:</p> <p>0 = No further processing.</p> <p>1 = Validate. The validation step converts addresses, items and dates, and retrieves default values for data not received in the delivery schedule.</p> <p>2 = Activate. The activation step controls the delivery schedule's position in the hierarchy, and activates the items and instructions from new to current.</p> <p>3 = Compare deviation. The deviation step compares the new delivery schedule to the previous schedule. Action is taken according to the deviation model in parameter 055 in the partner parameters (RSS015).</p> <p>4 = Create new net schedule. This step reads the active delivery instructions and creates a net schedule. The creation considers package leveling (RSS015/145), delivery patterns (RSS015/505-RSS025), split and merge (RSS015/060-RSS030) and order multiple adjustments (RSS015/500).</p> <p>5 = Activate new schedule. The new net schedule is compared to the active net schedule/order stock. Stock adjustments are made according to the net schedule.</p> <p>The steps not included when the delivery schedule is received must be performed manually in (RSS100/RSS101).</p>
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(RSS010/E)	Demand commitment - released	<p>... which demand commitment codes should be considered as released demands when creating the net schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Firm 2 = Manufacturing 3 = Raw material only 4 = Forecast 9 = Reference to commercial agreement. <p>If the demand has a specified demand commitment code, orders are created based on the released order type specified in parameter 015 in (RSS010). Otherwise, the forecast order type specified in parameter 010 (RSS010) is used.</p>
(RSS011/B)	Delivery schedule type	<p>... the delivery schedule type (created in RSS010) that determines how delivery schedules are processed.</p>
(RSS011/E/F)	Field selection	<p>... whether the field heading and contents are displayed and whether the latter can be changed.</p> <p>This is field selection for the fields in 'Delivery Schedule. Open' (RSS100). That is the header for the delivery schedule.</p>
(RSS011/G/H/I)	Field selection	<p>... whether the field heading and contents are displayed and whether the latter can be changed.</p> <p>This is field selection for the fields in 'Delivery Schedule. Connect Items' (RSS101) and 'Delivery Schedule. Connect Demands' (RSS102).</p>

Define Deviation Management

This document explains how you define a deviation model, which is the base for deviation management.

By performing a deviation check, you will make sure that there are no unacceptable deviations within the delivery schedule before the creation of the net schedule, which is the next step in the processing of the delivery schedule.

A deviation check is based on a deviation model for which you choose the delivery schedule fields you want to check.

Outcome

- A deviation model is defined in 'Delivery Schedule Deviation Model. Open' (RSS020).
- A deviation model is connected to period type(s) in 'Deviation Model. Connect Period Types' (RSS021).

A deviation check is based on a deviation model for which you choose the delivery schedule fields you want to check.

Each defined field is checked for changes since the previous delivery schedule or for whether the checked quantity has increased or decreased more than a defined limit value.

A deviation check is performed when requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101).

- A deviation model (RSS020) is stored in the ORSDMO table.
- Deviation model period types (RSS021) are stored in the ORSDMP table.

Before you start

Possible customer/alias information must be defined according to [Create Partner and Partner Alias Repositories](#) on page 504.

Follow these steps

Define deviation model

- 1 Start 'Delivery Schedule Deviation Model. Open' (RSS020). Enter a deviation model.
- 2 Open the E panel and select the fields that should be included in the deviation model. Press F4 in the 'Period type' field if you want to divide the deviation model in one or more periods. Select a period type for each field.
You can also leave this field blank, which results in the model not being connected to any periods.
- 3 The 'Select operand' and Percentage fields can only be used for the 'RCDEMQ - requested quantity' and '&CUMS - cumulative quantity' numeric fields.
- 4 Open the F panel. Select a value in the 'Set status' and 'Create mail' fields.
If you connect period types to the deviation model, you can fill in these settings per period types in (RSS021).
- 5 Fill in the 'Date to use' field. Click Next.

Connect period types to a deviation model

- 1 Start (RSS020). Open the E panel. Press F4 in the 'Period type' field. 'Deviation Model. Connect Period Types' (RSS021) is displayed.
- 2 Specify a period type and open the E panel. Fill in the fields on the E panel.
- 3 Click Next.

Deviation settings for partner and schedule type

- 1 Start 'Settings. Partner' (RSS015). Open the E panel and fill in the '055 Deviation model' field.
- 2 Start 'Delivery Schedule Type. Open' (RSS010). Open the E panel and fill in the '055 Next manual function' field.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(RSS020/B)	Deviation model	<p>... a deviation model.</p> <p>A defined deviation model can be connected to a delivery schedule via a combination of IDs, such as message direction, partner, message type and application reference.</p> <p>A deviation model affects how the delivery schedule will be transferred to the customer order system. A deviation model works with the '055 Next manual function' field in (RSS010).</p>
(RSS020/E)	Field sequence number	<p>... the order in which each information field should be displayed.</p> <p>To change the order, switch the numbers.</p> <p>To add new information fields, enter the number and name of the desired information fields.</p>
(RSS020/E)	Field	... field names for fields in the delivery schedule system. Press F4 to select allowed fields in the field group RSDMO - Deviation models.
(RSS020/E)	Period type	... a key identity in the period table ORSDMP. Period types are defined in (RSS021).
(RSS020/E)	Selection operand	<p>... the type of selection to be made for each field.</p> <p>The valid alternatives are:</p> <p>NE = Not equal</p> <p>GT = Greater than</p> <p>LT = Less than.</p>
(RSS020/E)	Percentage	<p>... the percentage used to check deviations for a specific period of time (period type).</p> <p>This field is valid for the numeric fields:</p> <p>RCDEMQ - requested quantity</p> <p>&CUMS - cumulative quantity.</p>

Program ID/Panel	Field	The field indicates ...
(RSS020/F)	Set status - Deviation model	<p>... if and how the delivery schedule's item status is affected during the deviation step.</p> <p>If the percentage limits defined on the E panel are exceeded, this parameter determines whether the item's status should be raised.</p> <p>An example of its use is preventing certain items with this period type to continue with the next activity step.</p> <p>The valid alternatives are:</p> <p>0 = No effect from this field.</p> <p>1 = Items are stopped and set to status 25 (error when running deviation model).</p> <p>2 = Same as alternative 1, but only valid when running in batch mode.</p>
(RSS020/F)	Create mail - Deviation model	<p>... whether to create mail when the item status reaches 25 (error when running deviation model).</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes</p> <p>2 = Same as alternative 1, but only valid when running in batch mode.</p>
(RSS020/F)	Date to use	<p>... where the start and end dates for a delivery schedule are retrieved. The dates are retrieved during the validation step.</p> <p>A delivery schedule contains information about the delivery instruction's start and end dates, both on the header and item level. This information is normally provided in the batch entry (EDI information), but is also calculated automatically in the RS system. The days calculated indicate the first and last valid delivery date for any item in the current delivery schedule.</p> <p>The valid alternatives are:</p> <p>0 = Dates used are those received from the delivery schedule batch entry.</p> <p>1 = Dates used are the calculated dates from the header level.</p> <p>2 = Dates used are every item's individually calculated start and end dates.</p>
(RSS021/B)	Period type	<p>... a key identity in the period table, which makes it possible to work simultaneously with up to five different periods per division.</p> <p>For each record in the system calendar, you can see that the day is connected to one of five different period types.</p> <p>Besides the five period types, period type 9 can be defined. It is used in the forecasting component to enable forecasting item numbers per week.</p>

Program ID/Panel	Field	The field indicates ...
(RSS021/E)	Check quantity deviation	<p>... if and how a deviation quantity check is done in (RSS050) in deviation quantity fields 1-4.</p> <p>The valid alternatives are:</p> <p>0 = No.</p> <p>1 = Yes. Compare to field 1.</p> <p>2 = Yes. Compare to field 2.</p> <p>3 = Yes. Compare to field 3.</p> <p>4 = Yes. Compare to field 4.</p>
(RSS021/E)	Period qualifier	<p>... the period qualifier, which specifies the type of periods referred to in the 'Number of periods' field.</p> <p>The valid alternatives are:</p> <p>1 = Days</p> <p>2 = Weeks</p> <p>3 = Months</p> <p>4 = Years.</p>
(RSS021/E)	Number of periods	<p>... the number of periods referred to by the value in the 'Period qualifier' field above. The period qualifier indicates the type of period, such as days, weeks, etc.</p> <p>.</p>
(RSS021/E)	After period type	<p>... whether to use a new period type after the current period type.</p> <p>The valid alternatives are:</p> <p>0 = No. The periods will overlap each other.</p> <p>1-9 = Yes. The periods are in sequence. Types 1-9 can be used.</p> <p>If 0 is entered, the delivery status indicator must be defined.</p> <p>If a value from 1 to 9 is entered, it must first be defined in (RSS021).</p>
(RSS021/E)	Demand commitment	<p>... the buyer's desired level of commitment for the demand in the delivery schedule.</p> <p>The valid alternatives are:</p> <p>1 = Firm</p> <p>2 = Manufacturing</p> <p>3 = Raw material only</p> <p>4 = Forecast</p> <p>9 = Reference to agreement between partners.</p>
(RSS015/E)	055 Deviation model	<p>... the deviation model, created in (RSS020).</p> <p>Here you select a deviation model, created in (RSS020), and connect to an external partner.</p>

Program ID/Panel	Field	The field indicates ...
(RSS010/E)	055 Next manual function	<p>... what functions follow the delivery schedule batch entry.</p> <p>You choose whether you want the deviation check to be performed manually or automatically.</p> <p>If you want the deviation check to be performed manually, select alternative 0, 1 or 2.</p> <p>If you want the deviation check to be performed automatically, select alternative 3, 4 or 5.</p> <p>If the DS was created via EDI, the deviation check can be performed automatically.</p>

Define Partner Settings

This document explains how you define settings per partner and connect partners to delivery schedule types.

Outcome

- Settings per partner are defined.
- Partners are connected to delivery schedule types.

This will determine much of the delivery schedule's flow for a certain partner.

Partner settings are stored in the ORSPPT table.

Before you start

The settings from [Create Partner and Partner Alias Repositories](#) on page 504 and [Define Delivery Schedule Type](#) on page 516 must be defined.

Follow these steps

- 1 Start 'Settings - Partners' (RSS015). Go through the panels and fill in, select or clear the fields and check boxes. See more details in the Parameters to Set table.
- 2 Repeat this for all partners and all message types per partner.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(RSS015/B)	Message direction	<p>... the direction of the message.</p> <p>The valid alternatives are:</p> <p>I = Input</p> <p>O = Output.</p>
(RSS015/B)	Partner	<p>... an external partner, indicated with, for example, the internal number of the customer.</p>
(RSS015/B)	Message type	<p>... the message type, which should contain the name of the standard message to be processed.</p> <p>Examples:</p> <p>EDIFACT messages: ORDERS ORDRSP, etc.</p> <p>ODETTE messages: DELINS AVIEXP, etc.</p>
(RSS015/B)	Application reference	<p>... the application reference, which can be used as reference information concerning the entire transmission. In other words, the information applies to all messages in the transmission and is determined by the sender.</p> <p>The field is only used for outgoing messages.</p>
(RSS015/B)	Access reference	<p>... the access reference, which is used to relate all message transfers to a common business deal or the like.</p> <p>The field is only used for outgoing messages.</p>
(RSS015/E)	010 Delivery schedule type	<p>... the delivery schedule type, which determines how delivery schedules are processed. Delivery schedule types are created in (RSS010).</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/E)	015 Reconciliation method	<p>... how to perform reconciliation.</p> <p>The valid reconciliation methods are:</p> <ul style="list-style-type: none"> 0 = No reconciliation 1 = Delivery note 2 = Cumulative 3 = Proactive—In-sequence requirements are time triggered and override related delivery schedules within the specified date range. These in-sequence requirements are received within a planning horizon. 4 = Reactive—In-sequence requirements are instantly triggered and consume related delivery schedules based on FIFO. 5 = Discrete (for future use). <p>Method 0: The delivery schedule updates order stock without taking completed deliveries into account.</p> <p>Method 1: Delivery note information must exist in the delivery schedule. Delivery notes specified in the delivery schedule are matched against corresponding delivery notes in M3.</p> <p>Method 2: Cumulative information must exist in the delivery schedule and for items in (MMS072). Parameter 12 in (CRS716) must be set to 1.</p> <p>Method 3: Sequence delivery schedule information must exist. Normally, the sequence of deliveries is obtained in a chain of sequential schedules. The delivery is physically executed from the sequence delivery schedule itself and overrides the related (fixed or forecast) delivery schedule. Normally, the current date triggers a delivery from the stored chain of sequence delivery schedules.</p> <p>Method 4: Sequence delivery schedule information must exist. The difference from method 3 is that a received sequence delivery schedule instantly triggers an outgoing delivery. The sequence delivery schedule does not override the (firm or forecast) delivery schedule. The quantity specified in the sequence delivery schedule reduces the earliest quantity in the delivery schedule.</p> <p>Method 5: This method is not currently used.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/E)	020 Reconciliation level	<p>... how the delivery schedule is reconciled against on-hand orders and delivery transactions. The values indicate how far the reconciliation process will be allowed to continue before it is interrupted.</p> <p>The valid alternatives are:</p> <p>For delivery note reconciliation (method 1):</p> <p>Generally, when the delivery note quantities are allowed to differ, the customer's quantities are used.</p> <p>0 = All delivery notes in the delivery schedule and in M3 delivery history transactions must be matchable, or the run is interrupted. The delivery note quantities must be the same.</p> <p>1 = Same as 0, except the delivery note quantities can differ.</p> <p>2 = At least one delivery note must be matchable for the reconciliation to continue. The delivery note quantities must be the same.</p> <p>3 = Same as 2, except the delivery note quantities can differ.</p> <p>4 = If no delivery note can be matched, the first release order date from the previous delivery schedule is used as the reconciliation basis.</p> <p>5 = If no delivery note can be matched and there is no previous delivery schedule, the value in the 'Delivery schedule interval' field in (RSS015), parameter 230, is used to calculate a reconciliation point in past time.</p> <p>6 = If none of the values above can be used, the item is allowed to be placed in the run without reconciliation.</p> <p>For cumulative reconciliation (method 2):</p> <p>0 = If the quantities for an individual record in the delivery schedule are different from those in the customer order system, the run is stopped.</p> <p>1 = If the quantities for an individual record in the delivery schedule are different from those in the customer order system, the discrepancy is adjusted in the customer order system according to the delivery schedule.</p>
(RSS015/E)	025 Reconciliation	<p>... whether the field heading and field contents should be displayed, and whether the contents are changeable.</p> <p>The valid alternatives are:</p> <p>0 = Do not display field heading and contents.</p> <p>1 = Display field heading and contents. Contents may not be changed.</p> <p>2 = Display field heading and contents. Contents may be changed.</p>
(RSS015/E)	025 Back order reconciliation	<p>... whether the delivery schedule should be reconciled against M3 customer orders and delivery history transactions.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes.</p> <p>Reconciliation means that a new delivery plan for an item is checked against current order situations and the latest deliveries.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/E)	030 Cumulative type	<p>... the cumulative type.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none">1 = Quantity actually received2 = Quantity scheduled received3 = Commitment for production4 = Highest production5 = Lowest production6 = Commitment for fabrication7 = Highest fabrication8 = Lowest fabrication9 = Commitment for raw material10 = Highest material11 = Lowest material12 = Forecast13 = Highest forecast14 = Lowest forecast15 = Agreement16 = Highest agreement17 = Lowest agreement18 = Released for payment19 = Highest released20 = Lowest released.

Program ID/Panel	Field	The field indicates ...
(RSS015/E)	035 Cumulative level	<p>... the identity used to identify how the quantity is accumulated. This is specified for each alias number and customer.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = By customer only 2 = Warehouse 3 = Warehouse and address 4 = Warehouse, address and delivery specification 5 = Warehouse and model year 6 = Warehouse, model year and address 7 = Warehouse and agreement 8 = Warehouse, agreement and address 9 = Warehouse, model year and agreement 10 = Warehouse, model year, agreement and address 11 = Address 12 = Address and delivery specification 13 = Model year 14 = Model year and address 15 = Agreement 16 = Agreement and address 17 = Model year and agreement 18 = Model year, agreement and address.
(RSS015/E)	040 Delivery schedule group	<p>... the delivery schedule group, and is used to internally group or categorize different delivery schedule types that have a hierarchical relationship to each other. The levels in the hierarchy can be entered in (RSS015), (parameter 045). This field is optional.</p> <p>Example: If a delivery schedule and a sequence delivery schedule are used, the relationship between these two must be described. The delivery schedules must belong to the same group.</p> <p>The highest-level delivery schedule always overrides the lower levels. In other words, the delivery schedule is assigned level 1 and the sequence delivery schedule is assigned level 2.</p>
(RSS015/E)	045 Delivery schedule level	<p>The field is used to internally group or categorize different delivery schedule types that have a hierarchical relationship to each other. The field is only valid if a delivery schedule group is defined in (RSS015/E).</p> <p>Up to 99 levels can be entered, where 01 has the lowest priority. A delivery schedule with a higher level overrides customer orders that are created with the same delivery date but on a lower level.</p> <p>Refer to the example in the help text for the 'Delivery schedule group' field in (RSS015/E).</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/E)	050 Application version	<p>... an application version, which is usually defined within each definition of partner, message type and application reference.</p> <p>The field is optional.</p>
(RSS015/E)	055 Deviation model	<p>... a deviation model.</p> <p>A defined deviation model can be connected to a delivery schedule via a combination of IDs such as message direction, partner, message type and application reference.</p> <p>A deviation model affects how the delivery schedule will be transferred to the customer order system. A deviation model works with the 'Next manual function' field (parameter 055) in (RSS010).</p> <p>Deviation models are created in (RSS020).</p>
(RSS015/E)	060 Check if quantity split should be performed	<p>... whether the information for splitting specified in (RSS056) should be used to split quantity buckets, such as weekly requirements to daily requirements.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes</p> <p>If activated, splitting will be performed automatically after validation.</p>
(RSS015/E)	060 Check if quantity split should be performed	<p>... the split model.</p> <p>This field is used to connect a defined split model to a delivery schedule that belongs to a defined combination of direction, partner, message and application reference.</p> <p>The split functionality splits a quantity into several deliveries and is defined in (RSS055) and (RSS056).</p>
(RSS015/E)	065 Controlling object	<p>... the controlling information in sequence delivery schedules.</p> <p>The field indicates the type of search criteria to be used to follow the sequence order in a sequence delivery schedule. The search field is built up and placed in the RCSRCH field in the ORSINS file (delivery schedule instructions).</p> <p>The information is used when activating the delivery schedule to find the previous delivery schedule on the same level.</p> <p>Changing the search field value during delivery schedule production is not recommended.</p> <p>The valid alternatives are:</p> <p>0 = Alias number/date/time</p> <p>1 = Alias number/chassis</p> <p>2 = Alias number/kanban number</p> <p>3 = Alias number/production sequence.</p> <p>For normal delivery schedules, this value should be set to 0.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/F)	100 Base schedule dependent	<p>... whether to hold the new delivery schedule if the ID of the previous delivery schedule specified in the new schedule was not found in the search.</p> <p>The valid alternatives are:</p> <p>0 = No. If a previous delivery schedule is not found, the last schedule used is searched, if one exists.</p> <p>1 = Yes. If a previous delivery schedule is not found, the new schedule is not activated. The delivery schedule for the current item remains at status 15. After that, it must be activated manually.</p>
(RSS015/F)	105 Calculation method period	<p>... how the From/To date for the demand period is calculated. The To date is calculated according to the demand bucket.</p> <p>The valid alternatives are:</p> <p>0 = From date equals requested date, and To date is set according to the length of the period.</p> <p>1 = From date is set to the period's first date, and To date is set to the period's last date.</p> <p>Example:</p> <p>Required date is Wednesday the 17th.</p> <p>Demand bucket is 2 (weekly demands).</p> <p>Calculation method 0:</p> <p>Required date (From date) is Wednesday the 17th.</p> <p>To date is set to Tuesday the 23rd.</p> <p>Calculation method 1:</p> <p>Required date (From date) is Monday the 15th.</p> <p>To date is set to Sunday the 21st.</p>
(RSS015/F)	110 From/To date to use	<p>... where the start and end dates for a delivery schedule are retrieved. The dates are retrieved during the validation step.</p> <p>A delivery schedule contains information about the delivery instruction's start and end dates, both on the header and item level. This information is normally provided in the batch entry (EDI information), but is also calculated automatically in the RS system. The days calculated indicate the first and last valid delivery date for any item in the current delivery schedule.</p> <p>The valid alternatives are:</p> <p>0 = Dates used are those received from the delivery schedule batch entry.</p> <p>1 = Dates used are the calculated dates from the header level.</p> <p>2 = Dates used are each item's individually calculated start and end dates.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/F)	120 Consolidate item demands	<p>... whether there should be a check of whether the item exists for new demands, and whether the demands should be added to that item if it exists.</p> <p>The valid alternatives are:</p> <p>0 = The received schedule will be received "as is" without any check of the item's existence.</p> <p>1 = For every new demand in the received schedule, the item will be checked for whether it has already been received and, if so, the demands will be added as instructions on the item.</p> <p>This indicator will be used if the received schedule is structured in a way other than the M3 database structure; that is, not with item as the controlling entity.</p> <p>For example, the received schedule is structured like:</p> <p>Date item/quantity item/quantity date item/quantity item/quantity. If this indicator is set to 1, the structure will be converted to:</p> <p>Item date/quantity date/quantity item date/quantity date/quantity.</p>
(RSS015/F)	125 Search standard warehouse	<p>... whether the proposal for the supplying warehouse should follow a separate table.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes</p> <p>If this also should be valid for kit items, then alternative 1 has to be placed after alternative 3 in the search sequence used when entering new CO lines.</p> <p>Table values are defined in (MMS058). If the table value is missing, the main warehouse is used according to the current combination of item and facility.</p>
(RSS015/F)	130 Search standard facility table	<p>... whether to carry out a search via an item's standard facility (RSS010).</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes. The search is carried out during the validation step.</p>
(RSS015/F)	135 Update package information	<p>... whether to retrieve package information from (MMS053) before transfer to the customer order system. The retrieval is done during the validation step.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/F)	140 Date type in the delivery schedule	<p>... the type of date received in the delivery schedules. If a value other than 0 is used, any date type received in the EDI transmission is overridden.</p> <p>Also, any value entered manually will be the default date type.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = Date type from the EDI file 1 = Delivery date 2 = Ship-via date 3 = Goods receiving date.
(RSS015/F)	145 Packaging leveling	<p>... whether package leveling is performed. This means that the quantities in the delivery schedule are leveled so that they correspond to the defined quantity per package.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No 1 = Yes. All quantities per day will be leveled. 2 = Yes. All quantities per day will be leveled except the last package. <p>Leveling is performed as part of the reconciliation (transfer to the customer order system). The quantity per package is defined in (MMS053).</p> <p>Example: The order quantity is 125, and the standard quantity in one package is defined as 50. If alternative 1 is specified, the proposed quantity in the order will be leveled at 150 (three packages multiplied by 50).</p>
(RSS015/F)	150 Update fields from higher level schedule	<p>... the sequence used for delivery schedules and whether fields from the schedule hierarchy above will update the hierarchy below.</p> <p>For example, fields from a forecast plan update fields to a sequence delivery schedule.</p> <p>The fields to be updated are retrieved from the predefined table in (RSS016).</p>
(RSS015/F)	155 Number of weeks to transfer	<p>... the number of weeks to be transferred to the customer order system. When manually transferring delivery schedules, the 'Number of weeks' field is proposed by default but may be changed.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/F)	160 Demand commitment to transfer	<p>... the combination of demand commitment codes that are to be created in the net schedule. If left blank, all codes will be included in the net schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Firm 2 = Manufacturing 3 = Raw material only 4 = Forecast 9 = Reference to agreement between partners.
(RSS015/G)	200 Agreement rule	<p>... how to process a blanket agreement for customer delivery schedules.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = According to the agreement check fields in (CRS610). 1 = The customer's order number in the item's delivery schedule is used to retrieve the blanket agreement. 2 = The contract number in the item's delivery schedule is used to retrieve the blanket agreement. 3 = The model/year value in the item's delivery schedule is used to retrieve the blanket agreement. <p>Alternative 0 will retrieve a blanket agreement when the net schedule is processed in the batch order entry according to the customer's agreement check fields. Currency will not be retrieved from the blanket agreement.</p> <p>Alternatives 1, 2 and 3 will use the retrieved agreement in the batch order entry. If defined in (OIS060), the agreement currency will override the customer currency when the delivery schedule item is validated. When using these alternatives, the agreement check fields in (CRS610) should be set to 0.</p> <p>In order to use alternatives 1, 2 and 3, either the customer's order number, the contract number or the model/year must be specified in (OIS060/E) as the customer's order number.</p>
(RSS015/G)	205 Override demand commitment	<p>... whether demand commitment definitions entered in (RSS018) will override the values retrieved from the registered delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No 1 = Yes <p>The demand commitment definition is checked during the validation phase.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/G)	210 Customer's order number	<p>... the customer's order number.</p> <p>The entered value will override the value received from delivery schedules transmitted via electronic data interchange (EDI).</p>
(RSS015/G)	215 Change allocated orders	<p>... whether allocated orders are allowed to be changed during the reconciliation process.</p>
(RSS015/G)	220 Priority	<p>... the priority of customer orders. The specified priority applies to all the lines in a customer order. This information is shown in the material plan and can be used in case of shortage.</p> <p>Priority is set on a scale from 0 to 9, with 0 being the highest priority.</p> <p>The priority is used as selection criteria when shortages occur. The priority is also used during release for automatic allocation and release of picking lists in (MWS410).</p> <p>A normal priority is entered per customer in (CRS610/F). When entering customer orders, a priority is suggested depending on the customer order type.</p>
(RSS015/G)	230 Retrieve item from instruction level	<p>... whether the item number in a received delivery schedule should be retrieved from the instruction level instead of the item level.</p>
(RSS015/G)	235 Calculate transportation lead time	<p>... whether transport lead times should be taken into consideration when calculating dates for customer delivery schedule demands.</p> <p>The valid alternatives are:</p> <p>0 = Transport lead times are not taken into consideration.</p> <p>1 = Transport lead times are taken into consideration based on transport on delivery days according to (CRS900).</p> <p>2 = Transport lead times taken into consideration, but (CRS900) is disregarded. This option is useful when transport is performed during weekends.</p> <p>The date calculation is performed during validation.</p>
(RSS015/G)	240 Delivery schedule interval	<p>... the delivery schedule interval. This field is used only in combination with the '020 Reconciliation level' field in (RSS015), value 5.</p> <p>The field is used during reconciliation, and the values are entered in days. The value of the delivery schedule interval should reflect how often a delivery schedule is received. The reconciliation run uses the interval to produce the correct reconciliation data when no delivery notes can be matched and there is no previous delivery schedule.</p> <p>When the interval is set to 0, no reconciliation is done if neither a previous delivery schedule nor a matching delivery exists.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/G)	240 Delivery schedule interval hours	... the delivery schedule interval hours. This field is used only in combination with the '020 Reconciliation level' field in (RSS015), value 5. The interval is expressed in hours and is related to the '230 Delivery schedule interval days' field.
(RSS015/G)	245 Archiving	... whether the accounting identity should be filed.
(RSS015/G)	250 Days before archive/delete	... the number of days before the delivery schedule is physically moved to the historical delivery schedule files. To deactivate this function, enter 0 in the field. To activate it, enter the number of days greater than zero. The deletion date is calculated by the delivery schedule's start date.
(RSS015/G)	255 Latest receive delivery schedule	... the last date/hour a delivery schedule was generated for this partner/message and application reference.
(RSS015/H)	300 Partner manager	... a unique user ID. The ID can be used for selection and sorting.
(RSS015/H)	305 Override mail receiver	... whether overriding of a mail recipient entered is allowed. The valid alternatives are: 0 = No, mail recipient will not be overridden. 1 = Yes, mail recipient will be overridden using a value in (RSS015/310).
(RSS015/H)	310 Overriding mail receiver	... the overriding mail receiver. If alternative 1 is selected in parameter 305, you must here enter the overriding mail receiver. Selection is done from 'User. Open' (MNS150).
(RSS015/H)	335 View for delivery schedules - header	... the view for (RSS100). Views are user defined and determine what fields are to be displayed, as well as how the data is to be calculated.
(RSS015/H)	340 View for delivery schedules - item	... the view for (RSS101). Views are user defined and determine what fields are to be displayed, as well as how the data is to be calculated.
(RSS015/H)	345 View for delivery schedules - instructions	... the view for (RSS102). Views are user defined and determine what fields are to be displayed, as well as how the data is to be calculated.

Program ID/Panel	Field	The field indicates ...
(RSS015/I)	400 Consolidated forecast demand	<p>... the consolidated forecast demand. The field can only be used in relation to another defined partner parameter definition.</p> <p>The field is normally used to manage aggregated forecast delivery schedules. This means that requirements for two or more actual customers are consolidated into one requirement for forecasting purposes. If this field is defined, fields 405–420 in (RSS015) might need to be defined depending on whether the current record defined is a forecast or an actual partner definition.</p> <p>The material delivery is normally performed from the customer orders created from the partner's delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No partner relation definition 1 = Forecast partner definition 2 = Actual partner definition.
(RSS015/I)	Forecast – customer number	<p>... the unique identification of a customer. It can contain up to ten positions and is alphanumeric.</p> <p>For temporary customers (customer type 9), the customer number must be within a defined range where only customers with customer type 9 can be entered.</p>
(RSS015/I)	420 Delivery specification	<p>... an ID for a delivery specification. This ID can be connected to customer order lines when entering them.</p> <p>A delivery specification is a detailed description of where a customer order line is delivered. This can be a workplace, building, house, entrance or floor.</p> <p>Each specification is saved in a separate file and can then be used for several customer order lines.</p>
(RSS015/J)	500 Adjust to issue multiple from item/whs	<p>... whether to use issue multiples. This field is used as an alternative to the 'Package level' field.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No 1 = Yes. All quantities per day will be delivered according to the issue multiple. <p>If 1 is entered, the delivery schedule's quantities are calculated from the specified multiple during reconciliation (that is, transfer to the customer order system). The issue multiple is entered in (MMS002).</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/J)	501 Adjust to issue multiple from back orders	<p>... whether to use issue multiples on back order instructions.</p> <p>The field performs the same leveling according to issue multiples as the 'Adjust to issue multiple from item/whs' parameter. This parameter only affects delivery instructions with instruction reason 3=Back order.</p> <p>The valid alternatives are:</p> <p>0 = No leveling of back orders</p> <p>1 = Back orders will be leveled.</p> <p>If 1 is entered, the delivery schedule's quantities are calculated from the specified multiple during reconciliation (that is, transfer to the customer order system). The issue multiple is entered in (MMS002).</p>
(RSS015/J)	505 Adjust to delivery pattern	<p>... whether to use the delivery pattern for the delivery schedule.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes, adjust delivery days according to delivery pattern.</p> <p>Delivery patterns are entered in (RSS025).</p>
(RSS015/J)	515 Are hours and minutes in use	<p>... whether or not hours and minutes are used in the delivery schedule.</p> <p>The valid alternatives are:</p> <p>0 = No</p> <p>1 = Yes</p> <p>When 0 is specified, the required delivery time will be set to 00:00 indicating a requirement for a whole day.</p>
(RSS015/J)	520 Date received for delivery notes	<p>... the date the delivery note information on an incoming delivery schedule refers to. Delivery note dates are important to the reconciliation process.</p> <p>The valid alternatives are:</p> <p>0 = Date when goods were dispatched.</p> <p>1 = Date when goods were received.</p> <p>If you specify 1, the delivery note date is calculated based on the transportation lead time.</p>
(RSS015/J)	525 Overriding packaging terms	<p>... the terms that apply when goods are packaged.</p> <p>The terms entered in (RSS015) will override the terms of (RSS050) and (CRS610).</p>
(RSS015/J)	530 Time zone where schedule was generated	<p>... an international time zone such as Central European Time (CET) or CET+1.</p> <p>Time zone &SYS must be entered in (DRS045). &SYS is the time zone used internally in M3.</p> <p>When no time zone is entered for a location, local time is used. This means that no conversion of time is done.</p>

Program ID/Panel	Field	The field indicates ...
(RSS015/J)	535 Run MRP calculation on changed items	... whether MRP should be run on the changed items when the requirements have been transferred to a customer order. Only items that do not use continuous net change are affected. Note that explosion is not supported in this release.
(RSS015/J)	540 Explosion	The field is currently not in use.
(RSS015/J)	545 Lowest level	The field is currently not in use.
(RSS015/J)	550 JIT release method	... the process for the Just In Time release method.
(RSS015/K)	All fields	<p>These fields indicate whether checks should be done against the delivery schedule on the level above. The check is performed during activation and when the net schedule is created.</p> <p>The valid alternatives are:</p> <p>0 = No replacement check 1 = Replacement check.</p> <p>Checking against the delivery schedule on the level above means that the demands on the schedule a level above are replaced by the demands in the current level schedule IF the customer's order number is identical in the two schedules. If it is not identical, the replacement does not occur and new demands are created for the current level schedule in parallel with the demands in the schedule on the level above.</p> <p>In a common scenario, the current level is a call-off delivery schedule and the above level is a forecast delivery schedule.</p> <p>The parameter is only valid if more than one level is used inside the same delivery schedule group.</p>
(RSS015/L)	All fields	<p>These fields indicate whether a check should be done against the previous schedule for the current level. The check is performed during activation and when the net schedule is created.</p> <p>The valid alternatives are:</p> <p>0 = No replacement check 1 = Replacement check.</p> <p>Checking against the previous schedule for the current level means that the demands in the previous delivery schedule on the current level are replaced by the demands in the new delivery schedule IF the customer's order number is identical in the two schedules. If it is not identical, the replacement does not occur and new demands are created for the new schedule parallel with the demands in the previous schedule.</p> <p>In a common scenario, the previous delivery schedule is a call-off (n) and the new delivery schedule is a call-off (n+1).</p>

Define Split Management

This document explains how you define a split model, which determines how delivery schedule (DS) demands will be split during validation.

A split is necessary when the received demands are aggregated for a specific demand bucket (such as monthly demands) and you want to break them down to weekly or daily demands. The reason for doing this is to create a more detailed planning overview and a more correct replacement between forecast and call-off DS.

Outcome

- A split model is defined in 'Delivery Split Model. Open' (RSS055).
- Period types are defined in 'Split Model. Connect Period Types' (RSS056) and connected to a split model.

Automatic Split

The DS demands will be split during validation if this is specified in the '060 Check if quantity split should be performed' field in 'Settings - Partners' (RSS015) along with a split model defined in 'Delivery Split Model. Open' (RSS055).

Manual Split

This is used to perform split calculation manually via option 72=Split in 'Delivery Schedule. Connect Items' (RSS101). The split can also be reversed via option 73='Delete split' in (RSS101).

- Split models (RSS055) are stored in the CSYTAB table.
- Split model period types (RSS056) are stored in the ORSSPP table.

Follow these steps

Define a Split Model and Connect Period Types

- 1 Start 'Delivery Split Model. Open' (RSS055). Define a split model.
- 2 Select option 11=Period types. This starts 'Split Model. Connect Period Types' (RSS056).
- 3 Connect a period type to the split model.
Period types are defined in (CRS910), connected to periods in (CRS900) and connected to companies/divisions in (MNS100).

Determine Whether Split Will Be Performed Automatically or Manually

- 1 Start 'Settings - Partners' (RSS015) and open the E panel.
- 2 Activate the '060 Check if quantity split should be performed' field if you want the split be performed automatically during validation of the DS. Connect a split model in the second field.
- 3 Do not activate the field if you want to perform the split manually via option 72=Split in 'Delivery Schedule. Connect Items' (RSS101).

Parameters to set

Program ID/Panel	Field	The field indicates ...
(RSS055/B)	Model	<p>... a split model.</p> <p>This is used to connect a defined split model to a delivery schedule that belongs to a defined combination of direction, partner, and message and application reference.</p> <p>The split functionality splits a quantity into several deliveries and is defined in (RSS055) and (RSS056).</p>
(RSS056/B)	Period type	<p>... a key identity in the period table, which makes it possible to work simultaneously with up to five different periods per division.</p> <p>For each record in the system calendar (CRS900), you can see that the day is connected to one of five different period types.</p> <p>Besides the five period types, period type 9 can be defined. It is used in the forecasting component to enable forecasting item numbers per week.</p>
(RSS056/E)	Demand bucket	<p>... the time bucket, or time period, covered by the demand in the delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Daily demand 2 = Weekly demand 3 = Monthly demand 4 = Yearly demand 5 = Two-week demand. <p>The default value is 1 unless it is overridden via parameter 205 in (RSS015) or received in the EDI transmission.</p> <p>The demand bucket can be used to perform a demand split if defined in parameter 060 in (RSS015).</p>
(RSS056/E)	Demand commitment	<p>... the buyer's desired level of commitment for the demand in the delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Firm 2 = Manufacturing 3 = Raw material only 4 = Forecast 9 = Reference to agreement between partners.

Program ID/Panel	Field	The field indicates ...
(RSS056/E)	Period qualifier	<p>... the period qualifier, which specifies the type of period referred to in the 'Number of periods' field.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Days 2 = Weeks 3 = Months 4 = Years.
(RSS056/E)	No. of periods	<p>... the number of periods referred to by the value in the 'Period qualifier' field above. The period qualifier indicates the type of period, such as days, weeks and so on.</p>
(RSS056/E)	After period	<p>... whether to use a new period type after the current period type.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No. the periods will overlap each other 1-9 = Yes. The periods are in sequence. Types 1-9 can be used. <p>If 0 is entered, the delivery status indicator must be defined.</p>
(RSS015/E)	060 Check if quantity split should be performed (field 1)	<p>... whether the information for splitting specified in (RSS056) should be used to split quantity buckets, such as weekly requirements to daily requirements.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = No 1 = Yes <p>If activated, split will be performed automatically after validation.</p>
(RSS015/E)	060 Check if quantity split should be performed (field 2)	<p>... a split model.</p> <p>This is used to connect a defined split model to a delivery schedule belonging to definition of direction/partner/ message/application reference.</p> <p>The split functionality splits a quantity into several deliveries and is defined in (RSS055) and (RSS056).</p>

Delivery Schedule Activation

This document explains the details of delivery schedule activation. It is an extension of [Activate a Delivery Schedule](#) on page 485, where you can read more about how you activate a delivery schedule (DS).

The purpose of the activation is to make clear which delivery schedule demands are active, and which are historical, from the customer's point of view.

Outcome

You know about the details involved in the activation activity and you are familiar with the different fields that control the activation.

You will be able to configure the customer delivery schedule (CDS) process and especially the activation activity in accordance with the customer's and your own requirements.

For further information, refer to [Activate a Delivery Schedule](#) on page 485.

Before you start

- Ensure that the following field in 'Delivery Schedule Type. Open' (RSS010) has been analyzed and defined:
 - '055 Next manual function'.
- Ensure that the following fields in 'Settings - Partners' (RSS015) have been analyzed and defined:
 - '015 Reconciliation method' (if you are using JIT Call-Off Management)
 - '040 Delivery schedule group' and '045 Delivery schedule level'
 - '065 Controlling object'
 - '100 Base schedule dependent'vvv
 - '110 From/to date to use'
 - '150 Update fields from above level schedule' together with field selections defined in 'Partner. Define Fields' (RSS016)
 - The fields that control the activation of the consolidated forecast demand: '400 Consolidated forecast demand', '405 Forecast - customer number', '415 Forecast - Address', '420 Delivery Specification'
 - '550 JIT release method' (if you are using JIT Call-Off Management)
 - The fields to check key data against above level schedule; '600 Check customer's order number', '605 Check model/year', '610 Check customer number', '615 Check address', '620 Check delivery specification', '640 Check delivery note reference'
 - The fields to check key data against current level schedule; '700 Check customer's order number', '705 Check model/year', '710 Check customer number', '715 Check address', '720 Check delivery specification', '740 Check delivery note reference'.

Purpose

The purpose of the activation is to make clear which DS demands are active, and which are historical, from the customer's point of view.

The active demands, which are the result of the activation, are used as input for the next mandatory activity in the processing of a DS, Create a Net Schedule. The result created in activation is also used in the optional activity Check a Delivery Schedule for Deviations.

When

Activation is performed when requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101). This is described further in [Activate a Delivery Schedule](#) on page 485.

If the DS was created via EDI, activation can be performed automatically.

You choose whether you want the activation to be performed manually or automatically in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

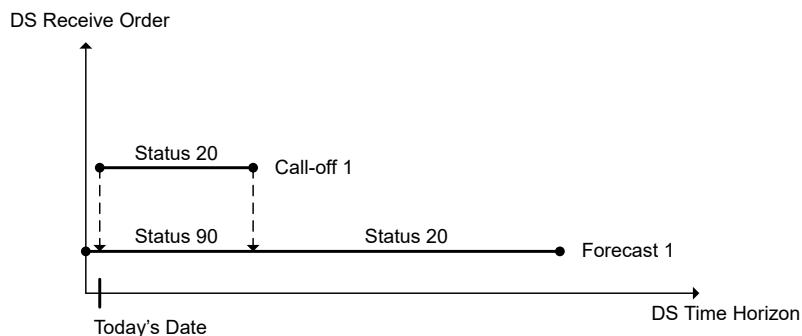
How

Activation consists of several steps where some are performed for every DS and some are performed only during specific circumstances.

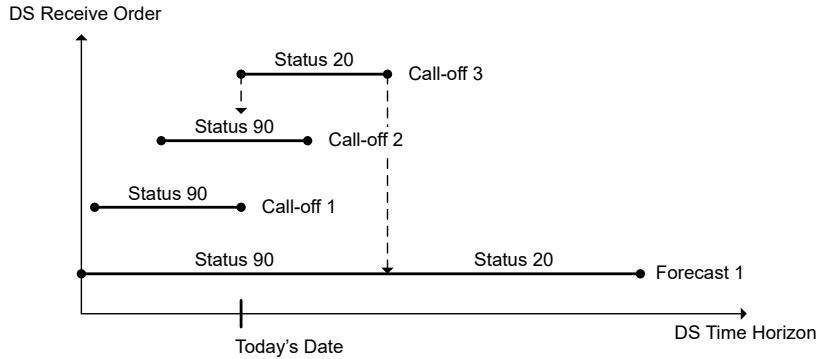
The following outlines of the DS hierarchies and relations describe how delivery schedules are received in a time sequence. Two levels of delivery schedules are used. DS level 1 represents the forecast DS while DS level 2 represents the call-off DS. The purpose is to describe how these schedules replace each other when they are activated.

The horizontal lines represent the extension in time for a certain delivery schedule. The downward arrows show during what time the latest DS has replaced the previous DS and consequently they also point out when there are status changes of the delivery schedules.

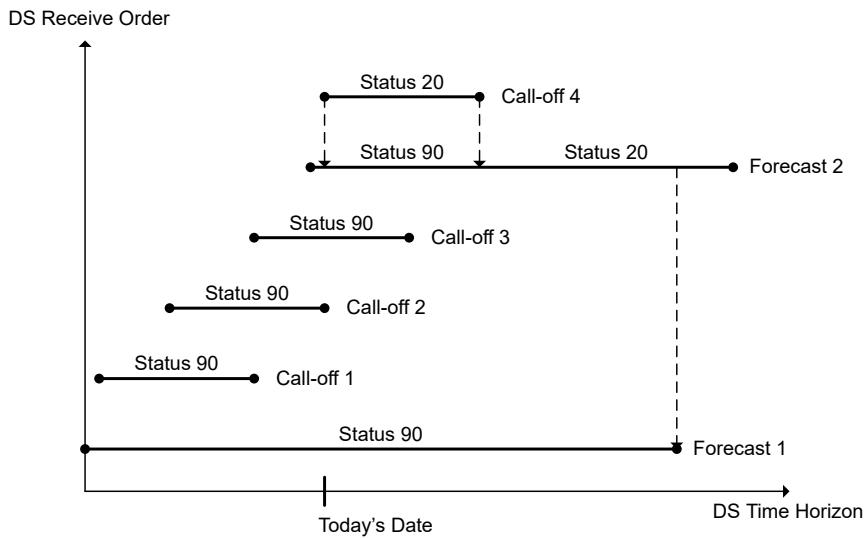
DS Hierarchies and Relations



Picture 1: First, the DS on the forecast level is received. Then the first call-off DS is received. When the call-off is activated, it sets the forecast to historical (within the time frame of the call-off DS). In the short time horizon the active demands will be taken from the call-off, while in the longer time horizon they will be taken from the forecast.



Picture 2: Some time has passed since picture 1 and two new call-off delivery schedules have been received. Currently, the third call-off DS is the active and this makes call-off one and two historical. This has also postponed the date from which the forecast contains active demands.



Picture 3: Time has passed and a second forecast DS and a fourth call-off DS have been received. First, the second forecast DS replaces the initial one, which is updated to be historical. Then the fourth call-off DS replaces call-off three, which also is updated to historical status. The fourth call-off DS also sets the second forecast DS to historical status within its time frame.

Activation Activities

All of the following steps are performed automatically in a sequence without any interaction with the user. If any error happens, the processing will be interrupted.

1 Pre Activation User-exit

The pre-activation user exit program is run if you want to manipulate DS data before starting the activation.

This user exit program is used as an exception and can only be run if the '320 User exit program - activate' field has been defined in 'Settings - Partners' (RSS015).

2 Change of Demand Status on Current Level DS

The previous DS item line on the current level is changed from active to historical and the new DS item line is changed from new to active. This step is always performed and is initiated by the new DS item line that is activated.

First, the currently active DS item line is searched. The two schedules' key information (such as customer number and address) has to be identical to allow replacement. The check of key information is based on the requirements in 'Settings - Partners' (RSS015/L).

When the currently active DS item line is found, it is changed to be regarded as previous DS item line, while the new DS item line is changed to active.

Based on the settings in the '065 Controlling Object' field in 'Settings - Partners' (RSS015) and the date range of the from now on active DS item line, the status of each demand on the previous DS item line is changed from 20 = Active to 90 = Historical. The statuses of the demands on the active DS item line are changed from 00 = New to 20 = Active.

Information regarding demand status, active and historical DS item line is preferably viewed through sorting order 4 and a view in 'Delivery Schedule. Connect Items' (RSS101/B).

3 Change of Demand Status on Forecast Level DS

The forecast DS item line is changed from active to historical within the date range of the call-off DS item line.

Note: This step is only performed if a DS hierarchy exists and if the DS item line to be activated is situated at DS level 2 or higher. One example of this is when a call-off (level 2) is activated and this is to affect the demands in the forecast (level 1).

First, the currently active DS item line on the forecast level is searched. Key information (such as customer number, address number) in the two schedules has to be identical based on the requirements in (RSS015/K) to allow replacement.

Then from date and time and to date and time are retrieved from the call-off DS item line. The used dates are based on the settings of the '110 From/to date to use' field in (RSS015). The status of the forecast demand is set to 90 = Historical, within this date and time range.

Finally, if the '150 Update fields from above level schedule' field in (RSS015) is set, the call-off DS item line is updated with values from the forecast DS for all fields defined in 'Partner. Define Fields' (RSS016/B). This could be useful in case the partner has sent insufficient information in the call-off DS.

4 Post Activation User Exit

The post-activation user exit program is run if you need to manipulate DS data before ending the activation.

Note: This user exit program is used as an exception and can only be run if the '320 User exit program - activate' field has been defined in 'Settings - Partners' (RSS015).

5 Application Message Creation

If the activation is run automatically and ended in error, application message type 506 = Activation error for the item, is sent to the responsible user.

Deactivation Activities

Deactivation is used to reverse to the state before the activation was performed. It is used when the wrong DS item line is activated by mistake.

Deactivation is requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101). This is described further in [Activate a Delivery Schedule](#) on page 485.

Reverse of Demand Status for Selected DS Item Line

The statuses of the demands on the selected DS item line are reversed from status 20 = Active to status 00 = New. This is performed for all demands connected to the selected DS item line. This reverses all demands to be considered as new once again.

Reactivation of Previous DS Item Line

The previous DS item line's demands are activated once again. This will change the demand status from status 90 = Historical to status 20 = Active.

Based on the DS item line that was deactivated earlier, information regarding the previous DS item line on current level is retrieved. The previous DS item line is once again activated according to the descriptions in the Change of Demand Status on Current Level DS and Change of Demand Status on Forecast Level DS sections above. This means that a new activation is performed and the previous DS item line and related DS levels are updated.

Delivery Schedule Deviation Check

This document explains the details of the delivery schedule deviation check. It is an extension of [Check a Delivery Schedule for Deviations](#) on page 487 where you can read more about how you check a delivery schedule (DS) for deviations.

By performing a deviation check you will make sure that there are no unacceptable deviations within the delivery schedule before the creation of the net schedule, which is the next step in the processing of the delivery schedule.

A deviation check is based on a deviation model for which you choose the delivery schedule fields you want to check.

Outcome

You know about the details involved in the deviation check activity and you are familiar with the different fields that control the deviation check.

You will be able to configure the customer delivery schedule (CDS) process and especially the deviation check activity in accordance with the customer's and your own requirements

See [Check a Delivery Schedule for Deviations](#) on page 487.

Before you start

- The previous DS on the same DS level must have been found during the DS activation. This information is used when comparing new and previous schedule for deviations.
- A deviation model must have been defined according to [Define Deviation Management](#) on page 522.

- Possible customer/alias information could be defined according to [Define Customer and Customer Alias Deviations](#) on page 512.
- Make sure that the '055 Deviation model' field in 'Settings - Partners' (RSS015) has been set.

Purpose

You run the deviation check to make sure that there are no unacceptable deviations within the DS before the creation of the net schedule, which is the next step in the processing of the DS.

By using the deviation check, you will be alerted of important deviations in the DS that have to be considered before you continue processing the DS.

In case of deviation, it is recommended you stop the DS item line from further automatic processing. This is requested in 'Delivery Schedule Deviation Model. Open' (RSS020) or in 'Deviation Model. Connect Period Types' (RSS021). If you choose to let the processing continue although there are deviations, you can go back to the deviation report and consider the deviations later.

When

Deviation is performed when requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101). These steps are described in [Check a Delivery Schedule for Deviations](#).

If the DS was created via EDI, the deviation check can be performed automatically.

You choose whether you want the deviation check to be performed manually or automatically in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

How

Deviation check is based on a deviation model for which you choose the DS fields you want to check.

Each defined field is checked concerning changes since the previous DS or if the checked quantity has increased or decreased more than a defined limit value.

Deviation Check Activities

Note that all following steps are performed automatically in sequence without any interaction with the user. If any error occurs, the processing is interrupted.

1 Time Periods Are Calculated

The time periods to be used when checking quantity deviations are calculated. Based on definitions in 'Deviation Model. Connect Period Types' (RSS021), one time period is calculated per defined period type.

The start date for each time period is either set based on the 'Date to use' field in (RSS020/F) and the respective dates on the DS, or set as the end date of the previous period plus one day. The latter method is requested in (RSS021/E) through the 'Aft period type' field. These two methods enable you to use discrete time periods or overlapping time periods.

The to date for each period is calculated based on how the 'Period qualifier' and 'Number of periods' fields are defined in (RSS021/E).

The deviation check for quantity fields will use these time periods when comparing the current schedule with the previous.

2 Summarized Quantity Is Calculated per Time Period

Old and new summarized quantities per time period are calculated. The previous DS item line and the current is calculated regarding summarized quantity per time period.

If the 'Period qualifier' field is left blank and the 'Demand commitment' field contains a selection value, only demands in 'Delivery Schedule. Connect Demands' (RSS102) that have a corresponding demand commitment code will be qualified in the summary.

3 Deviation is Checked per Defined Field

Deviations according to selected fields in the deviation model are checked. For each defined field in 'Delivery Schedule Deviation Model. Open - Field Selection' (RSS020/E) a check is done where the value for the specific field in the current DS item line is compared to the value in the previous DS item line. An example could be where the summarized demand quantity for the first month of the new schedule is compared to the same time period in the previous schedule.

When comparing demand quantity between DS item lines, a percentage could be defined as approved difference or an exact quantity. See Define Deviation Management and Define Customer / Alias Information for further description.

If a deviation occurs that is outside the approved limits, a deviation report is created with information about the control values and the transaction values in the two compared DS item lines. If an application message is created, you can view the report by selecting F6 = Text in 'Application Message. Open' (CRS420/E). The report can also be viewed by selecting option 19 = Deviation text in 'Delivery Schedule. Connect Items' (RSS101/B).

4 Status Update and Application Message Creation

The status of the DS item line is set to error and an application message is created based on the outcome of the deviation check and deviation model used.

If it is required in 'Delivery Schedule Deviation Model. Open' (RSS020) or in 'Deviation Model. Connect Period Types' (RSS021), that the status of the DS item line should be set to error when a deviation occurs, the status is set to 25 = Deviation error.

Furthermore, if it is required in 'Delivery Schedule Deviation Model. Open' (RSS020) or in 'Deviation Model. Connect Period Types' (RSS021), that an application message should be sent when a deviation occurs, application message 504 = 'Deviation error for the item' will be sent to the responsible user.

Delivery Schedule Net Schedule Creation

This document explains the details of the delivery schedule (DS) net schedule creation. It is an extension of [Create a Net Schedule](#) on page 499 where you can read more about how you create a net schedule.

The delivery schedule net schedule creation is the last activity in the processing of a delivery schedule. The purpose is to transform the active gross demands into net demands and finally update them as customer orders. By doing this, you make the new delivery schedule demands available for further processing in M3.

Outcome

You know about the details involved in the net schedule creation activity and you are familiar with the different fields that control the net schedule creation.

You will be able to configure the customer delivery schedule (CDS) process and especially the net schedule activity in accordance with the customer's and your own requirements.

For further information, [Create a Net Schedule](#) on page 499.

Before you start

- General definitions for customer order processing must have been analyzed and defined according to [Basic Settings for Customer Order Processing](#) on page 28.
Note: Only functions that are essential for DS processing should be activated in order to achieve optimal performance when creating the net schedule.
- Make sure that the following fields in 'Delivery Schedule Type. Open' (RSS010) have been analyzed and defined before creating the net schedule:
 - '010 Order type forecast' and '015 Order type release'.
Note: These order types override all other settings regarding retrieval of customer order type. Any definition in 'Settings - Batch Orders' (OIS278) is always overridden for a DS by (RSS010).
 - '055 Next Manual Function'
 - '060 Demand commitment - released'.
- In addition, make sure that the following fields have been analyzed and defined in 'Settings - Partners' (RSS015):
 - '010 Delivery schedule type'.
 - '040 Delivery schedule group' and '045 Delivery schedule level'.
 - '110 From/to date to use'.
 - '145 Packaging leveling'.
 - '155 Number of weeks to transfer'.
 - '160 Demand commitment to transfer'.
 - '215 Change allocated orders'.
 - '225 Deduct orders if back orders exist'.
 - '325 User exit program - transfer'.
 - The fields that control the net schedule creation of the consolidated forecast demand: '400 Consolidated forecast demand', '405 Forecast - customer number', '415 Forecast - Address', '420 Delivery Specification'.
 - '500 Adjust to issue multiple from item/warehouse'.
 - '501 Adjust to issue multiple on back orders'.
 - '530 Time zone where schedule was generated'.
 - '535 Run MRP calculation on changed items', '540 Explosion' and '545 Lowest level'.
 - The fields to check key data against above level schedule: '600 Check customer's order number', '605 Check model/year', '610 Check customer number', '615 Check address', '620 Check delivery specification', '640 Check delivery note reference'.
 - The fields to check key data against current level schedule: '700 Check customer's order number', '705 Check model/year', '710 Check customer number', '715 Check address', '720 Check delivery specification', '740 Check delivery note reference'.

Purpose

You perform net schedule creation in order to transform the active gross demands into net demands and finally update them as customer orders. When this is done, the new DS demands will be available for further processing in M3 regarding material planning and dispatch of customer deliveries.

When

You create a net schedule manually from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101). This is described further in Create a Net Schedule.

If the DS was created via EDI, net schedule creation is usually performed automatically.

You choose whether you want the net schedule creation to be performed manually or automatically in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

You create a net schedule after the DS has been activated.

Net Schedule Creation

In order to create a net schedule you perform several activities, where some are mandatory and some are not.

The following steps are performed automatically in sequence without any interaction with the user. If any error occurs, processing is interrupted.

1 Selection of Active Demands into the Net Schedule

The active demands in 'Delivery Schedule. Connect Demands' (RSS102) that are to be included in the net schedule are retrieved into the new net schedule.

The retrieval of demands is based on the selections made in either 'Delivery Schedule. Open' (RSS100/M) or 'Delivery Schedule. Connect Items' (RSS101/M), which determine date and time range and backorder (BO) reconciliation.

You can

- create a Net Schedule for the entire delivery schedule
- create a Net Schedule for a single line item
- create a Net Schedule automatically

If the net schedule was created automatically, the date range is calculated based on the '110 From/to date to use', '155 Number of weeks to transfer' and '160 Demand commitment to transfer' fields in 'Settings - Partners' (RSS015) together with the date information supplied in the DS.

In the case of a hierarchy of delivery schedules that includes forecast and call-off DSs, the selection of demands from the forecast DS will start immediately after the last active demand in the call-off DS. Consequently, back order reconciliation will be shut off, as there is no need to adjust to any recent deliveries in the short time horizon.

2 Pre Net Schedule Creation User Exit

The pre-transfer user exit program is run if you want to manipulate DS data before continuing the net schedule transfer.

Note: This user exit program is used as an exception and can only be run if the '325 User exit program - transfer' field has been defined in 'Settings - Partners' (RSS015).

3 Reconciliation Against Recent Deliveries and Update of the New Net Schedule

If requested, the new net schedule is reconciled against any recent deliveries and adjusted accordingly. After this activity, the net schedule contains correct demand quantity.

Example: the gross demand in a DS is 100 pieces on Monday. Just before the net schedule creation, a delivery of 30 pieces was made. The reconciliation will reduce the Monday delivery from 100 pieces to 70 pieces.

The reconciliation of the new net schedule is performed either via delivery note reconciliation or via cumulative reconciliation. For more details, refer to [Reconciliation of Delivery Schedule Demands](#) on page 584.

4 Adjustment of Net Demands According to Issue Multiple

The new net schedule is rounded off according to the specified value for issue multiple.

Note: This step is only performed if requested in the '500 Adjust to issue multiple' field in 'Settings - Partners' (RSS015).

Issue multiple is retrieved either from 'Item. Connect Warehouse' (MMS002) or 'Customer Item. Open Info/Customer Addresses' (RSS050) where the latter overrides the first.

The demands in the new net schedule are rounded off in order to make each demand divisible by the value specified for issue multiple. Normally, you use this function when you want to manage demands in a certain package size and the customer has not considered this in the gross DS. By doing this you simplify the picking and packing processes. The '501 Adjust to issue multiple - Backorder' field in 'Settings - Partners' (RSS015) determines whether or not backorder demands should be rounded off.

5 Adjustment of Net Demands According to Standard Quantity per Package

The new net schedule is rounded off according to the value specified for standard quantity per package.

Note: This step is only performed if requested in the '145 Packaging leveling' field in 'Settings - Partners' (RSS015).

The standard quantity per package is retrieved either from 'Item. Connect Packaging' (MMS053) or from the DS item line. Occasionally, the DS item line has been updated if the customer sent the standard quantity in the EDI DS. The information within the DS item line overrides the information in (MMS053).

The demands in the new net schedule are rounded off so that each demand is divisible by the value specified for standard quantity. You can use this function when you want to manage demands in a certain package size and the customer has not considered this in the gross DS. By doing this you simplify the picking and packing processes.

6 Comparison of New Net Schedule Against Current Net Schedule

The new net schedule is compared to the current net schedule with the purpose of distinguishing the new or changed schedule information, which is the only information that should be sent to the M3 batch order entry.

The current net schedule is the same as the not yet delivered order lines that can be viewed in 'Customer Order. Open Line Toolbox' (OIS301).

When transferring the net schedule into customer orders, the order headers are created based on the following criteria: from where, where to and when deliveries should be made. This means that if an order header is found with identical facility, customer number, delivery address, delivery schedule group, delivery note reference, customer order type, currency, requested delivery date and requested delivery time, it will be used for the net demand. If no such existing order header is found, a new order header is created. New order lines are created if no combination of the same item number and delivery specification is found. Through this principle you are assured that all items that are to be delivered on the same occasion to the same receiver also have the same order number.

The customer order type to be used for a specific demand is determined by the demand commitment (DC) code. The DC codes that are selected in the '060 Demand commitment - released' field in 'Delivery Schedule Type. Open' (RSS010) will use the customer order type defined in the '015 Order type release' field in (RSS010). Usually, you select DC code 1 = Firm demand connected to the '015 order type release' field. Consequently, all other DC codes will use the '010 Order type forecast' field in (RSS010). By defining these fields you will be able to configure different customer order processing depending on whether the demand is a forecast or a released demand to deliver.

The actual comparison between the new net schedule and the current net schedule is performed in ascending date and time order. The new and the current net schedule are compared demand by demand until both schedules are fully processed within the selected date and time range.

Key information (such as customer number, address number) in the two schedules has to be identical and based on the requirements in 'Settings – Partners' (RSS015/K) and (RSS015/L) to allow replacement.

Examples Of Situations and Actions They Result In

Situation	Action
The demand in the new net schedule does not exist in the current net schedule.	A new order line is created on a new order header, or on an existing order header, if such an order header is OK to use.
The demand in the current net schedule does not exist in the new net schedule.	The order line for the current net schedule demand is deleted.
The demand exists with the same requested date and time in both the new and the current net schedule.	If demand quantity, customer's order number or the delivery note reference is changed, the current demand will be updated with the new information. If no such change has occurred, the demand will not be sent to the batch order entry.

7 Post Net Schedule Creation User Exit

The post-transfer user exit program is run if you want to manipulate DS data before the changed order lines are sent to the batch order entry.

Note: User exit program is used as an exception and can only be run if the '325 User exit program - transfer' field has been defined in 'Settings – Partners' (RSS015).

8 Update of Changed Order Lines

All demands that implicate any type of change to the customer order lines (new line, changed line or deleted line) should be managed through the batch order entry. Demands that fulfill any of these criteria are distinguished through the previous 'Comparison of New Net Schedule against Current Net Schedule' activity.

The 'Delivery schedule order' field in 'Customer Order. Open Line Toolbox (OIS301/B) is specific to a customer order line created from a DS. All demands that are connected to the customer order type defined in the '015 Order type release' field in (RSS010) will be updated with 2 = Released demand. Demands connected to the '010 Order type forecast' field in (RSS010) will be updated with 1 = Forecast demand while backorders will be updated with 3 = Backorder.

Demands connected to JIT Call-Off Management will be updated with 4 = Forecast JIT demand if the demand is a forecast demand. If it is a released JIT demand, it will be updated with 5 = Released JIT demand.

If the batch order entry ends in error, the DS item line status is set to 35 = Transfer error and application message 505=Error detected in order during batch order entry, is sent to the responsible user. If OK, the status is set to 40 = Net schedule created.

For further information regarding the batch order entry, refer to [Creation of Externally Entered Customer Orders](#) on page 259.

9 Run MRP Calculation for DS item

If you have requested this in the '535 Run MRP calculation on changed items' field in 'Settings – Partners' (RSS015), the current item will be MRP calculated. This is an alternate MRP calculation method, which immediately initiates the MRP when new demands are updated. This means that M3 will always be updated with the present planning independently of when new demands are available.

10 Automatic JIT Processing Is Initiated

If the DS is linked to JIT Call-Off Management, automatic JIT processing is initiated according to the settings in 'JIT Call-off Method. Open' (RSS060).

Delivery Schedule Validation

This document explains the details of delivery schedule validation. It is an extension of [Validate a Delivery Schedule](#) on page 593, where you can read more about how you validate a delivery schedule.

Validation is the first activity in the processing of a delivery schedule (DS). When the delivery schedule has been validated, necessary delivery schedule data will be retrieved, calculated, converted and checked.

Outcome

You know about the details involved in the validation activity and you are familiar with the different fields that control the validation.

You will be able to configure the customer delivery schedule (CDS) process and especially the validation activity in accordance with the customer's and your own requirements.

For further information, refer to [Validate a Delivery Schedule](#) on page 593.

Before you start

- A partner structure according to [Enabling Partner Agreement](#) on page 579 must have been defined.
- A partner alias connection according to [Create Partner and Partner Alias Repositories](#) on page 504 must have been defined if the DS is created via M3 EDI Solution.
- An item must have been defined in 'Item. Open' (MMS001), 'Item. Connect Warehouse' (MMS002) and 'Item. Connect Facility' (MMS003).
- An item alias could be defined in 'Customer. Connect Item' (OIS005) or in 'Item. Connect Alias Number' (MMS025).

Make sure that the following fields in 'Delivery Schedule Type. Open' (RSS010) have been analyzed and defined:

- '045 Check sequence - item ID' and '050 Search sequence - alias type'

- '055 Next manual function'

Make also sure that the following fields in 'Settings - Partners' (RSS015) have been analyzed and defined:

- '060 Check if quantity split should be performed' together with a split model in 'Delivery Split Model. Open' (RSS055)
- '105 Calculation method for Period to date'
- '120 Consolidate item demands'
- '125 Search standard warehouse' and '130 Search standard facility', see Define Sourcing
- '135 Update package information'
- '140 Date type in delivery schedule'
- '200 Agreement rule' together with a blanket agreement in 'Cust Blanket Agreement. Open' (OIS060)
- '205 Override demand commitment'
- '210 Customer's order number'
- '230 Retrieve item on instruction level'
- '235 Calculate transportation lead-time' and '505 Adjust to delivery pattern', see [Enabling Date Calculation on page 567](#)
- '315 User exit program - validate'
- '515 Are hours and minutes in use'
- '525 Overriding packaging terms'

Purpose

The purpose of validation is to:

- Retrieve default DS data
- Check mandatory DS data
- Convert EDI addresses and the item alias into M3 identities
- Calculate date and demand data.

When these activities are performed, the DS line is checked to make sure that it contains correct data according to the required DS process. This makes the DS item line ready for activation, which is the next activity in the processing of a DS.

When

Validation is performed when requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101). This is described further in [Validate a Delivery Schedule on page 593](#).

If the DS was created manually, it will be validated automatically when the demand entry is finished in 'Delivery Schedule. Connect Demands' (RSS102).

If the DS was created via EDI, validation is usually performed automatically.

You choose whether you want the validation to be performed manually or automatically in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

How

Validation consists of several activities, where some are mandatory and some are not. The overview below describes the main steps including the alternatives to initiate validation.

Validation activities

All validation activities are performed automatically in a sequence without any interaction with the user. If any error occurs, the processing is interrupted.

1 Pre-Validation User Exit

The pre-validation user exit program is run if you need to manipulate DS data before starting the validation.

Note: This user exit program is used as an exception and can only be run if the '315 User exit program - validate' field has been defined in 'Settings - Partners' (RSS015).

2 Alternatives to Initiate Validation

Validation is performed when requested from 'Delivery Schedule. Open' (RSS100) or from 'Delivery Schedule. Connect Items' (RSS101).

You choose whether you want the validation to be performed manually (per line or for the entire DS) or automatically in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

- If the DS was created manually, it will be validated automatically when the demand entry is finished in 'Delivery Schedule. Connect Demands' (RSS102).
- If the DS was created via EDI, validation is usually performed automatically.

3 EDI Address Conversion

The EDI addresses connected to the DS item line are converted into M3 customer, address number and possible delivery specification.

Address conversion is only performed for an EDI DS. The reason is that the EDI DS includes the partner's own identities for the plant, gate/dock and final destination, and these identities have to be converted into M3 identities. For further description of the conversion of EDI addresses and partner alias identities to M3 identities, refer to Enabling a Partner Alias.

4 Item Alias Conversion

For an EDI DS, the item alias received in the DS item line is converted into a M3 item number. This conversion is based on the definitions in the '045 Check sequence - item ID' and '050 Search sequence - alias type' fields in 'Delivery Schedule Type. Open' (RSS010).

5 Default Data Retrieval

Default data, that has not been received via EDI or entered manually, is retrieved. Examples of default data are standard sales unit of measure, facility, warehouse, packaging information, blanket agreement, delivery pattern and currency.

The data is retrieved according to the settings defined (refer to the Before Starting section) and the hierarchies in M3.

6 Demand Commitment and Demand Bucket Calculation

The DS item line can be calculated regarding the demand commitment (DC) and demand bucket (DB), if this has been requested in the '205 Override demand commitment' field in 'Settings - Partners' (RSS015) and if the settings in 'Partner. Define Demand Commitment Calculation' (RSS018) have been defined.

The DC and the DB are managed per demand in 'Delivery Schedule. Connect Demands' (RSS102) and indicate the customer's desired level of commitment and the time period covered by each demand. See Define a Partner Setting for further description of how to enable calculation of DC and DB.

It is also possible to recalculate DC and DB manually via option 71 = Over demand commitment in 'Delivery Schedule. Connect Items' (RSS101).

If the demand bucket is not calculated according to above, it will be calculated based on each demand's from date and to date (assuming that the to date was included in the EDI DS). The from date is always the same as the received requested delivery date. DB is then calculated based on the number of calendar days between the from date and to date.

7 Date and Demand Calculation

Dates and demands are calculated during the validation of the DS. An internal requested delivery date or departure date is calculated based on the received requested delivery date. The calculation is based on date type, transportation lead-time, delivery calendar and the delivery pattern. See Enabling Date Calculations for further description of how different dates are calculated.

Each demand always has a from date and a to date. From date equals the requested delivery date. If the to date was not sent in the EDI DS, it can be calculated according to the definitions in the '105 Calculation method for period to date' field in 'Settings - Partners' (RSS015). If to date is calculated, the time period is retrieved from the calculated demand bucket.

The calculated start date/time, calculated end date/time and demand overview fields, that are displayed in 'Delivery Schedule. Connect Items' (RSS101/G) and (RSS101/H), are updated to the DS item line, based on the range of demands.

If the customer has sent cumulative quantities instead of discrete requested quantities, the requested quantity is calculated based on the difference between each demand's cumulative quantity and previous demand's cumulative quantity. See Enabling Cumulatives for further description of cumulatives.

If you know that the M3 item number will be changed within the DS time horizon, you can update the demands with different item numbers by activating the '230 Retrieve item on instruction level' field in (RSS015) and also by defining from dates and to dates in 'Customer. Connect Item' (OIS005).

8 Reconciliation Check and Update

Reconciliation information is checked and updated. Note that this activity is only valid if the DS has been automatically created. The result of the update can be viewed either in 'Delivery Schedule. Connect Items' (RSS101/S) or in 'Delivery Schedule. Connect Demands' (RSS102/B). For further description, refer to [Reconciliation of Delivery Schedule Demands](#) on page 584.

Depending on whether delivery note or cumulative reconciliation method has been selected for the '015 Reconciliation method' field in 'Settings - Partners' (RSS015), one of the following takes place:

- Delivery note reconciliation:

The customer's received delivery notes connected to the DS item line are matched against the M3 delivery history so that the last received delivery note can be updated to the DS item line. You can view the delivery notes received by the customer in 'Delivery Schedule. Open Delivery Notes' (RSS105).

- Cumulative reconciliation:

The cumulative quantity received in the EDI DS is checked, and together with the cumulative calculation date, it is updated to the DS item line. You can view the cumulatives received by the customer in 'Delivery Schedule. Open Cumulative Figures' (RSS104). If it is the first time ever you receive a DS for this customer and item, basic data about the cumulative figures will be created in

M3 . If it is the first DS entered since a change of year and the Y2Y calculation has been selected in 'Item. Update Cum Quantities Delivered' (MMS072), the M3 cumulative figures will be recalculated.

9 Demand Split Calculation

The DS demands will be split during the validation, if this is requested in the '060 Check if quantity split should be performed' field in 'Settings - Partners' (RSS015) together with a split model defined in 'Delivery Split Model. Open' (RSS055).

A split is necessary when the received demands are aggregated for a specific demand bucket (for example, monthly demands) and you want to break them down to weekly or daily demands. The reason for doing this is to create a more detailed planning overview and a more correct replacement between forecast and call-off DS.

It is possible to perform split calculation manually via option 72 = Split in 'Delivery Schedule. Connect Items' (RSS101). The split can also be reversed via option 73 = Delete split in (RSS101).

See [Define Split Management](#) on page 542 for further description of how to define and calculate a split.

10 Post Validation User Exit

The post-validation user exit program is run if you want to manipulate DS data before ending the validation.

Note: This user exit program is used as an exception and can only be run if the '315 User exit program - validate' field in 'Settings - Partners' (RSS015) has been defined.

11 Start and End Date Calculation

The start and end dates for the DS header are calculated.

The purpose of this is to update the DS header with the lowest calculated start date/time and the highest calculated end date/time, based on all DS item lines inside the single DS.

12 Application Message Creation

If the validation is run automatically and ended in some sort of error, then application message type 503 = Validation error for the item, is sent to the responsible user.

Enabling Cumulative Reconciliation

This document explains how you define settings for cumulative reconciliation.

The purpose of cumulative reconciliation is to match the supplier's cumulative figure with the customer's cumulative figure sent in the delivery schedule. Cumulative reconciliation is the reconciliation method that is most frequently used.

Limitations

Five possible reconciliation methods in M3 exist:

- Delivery note reconciliation
- Cumulative reconciliation
- Proactive sequence reconciliation
- Reactive sequence reconciliation
- Discrete reconciliation.

This document only explains settings for the cumulative reconciliation.

Outcome

Settings for cumulative reconciliations are defined.

You choose this method if the customer sends cumulative information in the delivery schedule.

Cumulative figures are calculated from an agreed-upon date. Whenever the supplier delivers goods, the delivery is added to the cumulative figures for that item. When the customer receives the delivery, the customer will add its cumulative figures. This is how the actual status regarding deliveries is determined.

The DS item line table (ORSITM) is updated with the customer's cumulative information used as the synchronizing point for the reconciliation.

The new net schedule file (ORSNTN) will be updated with the correct demand quantity based on the reconciliation balance calculation. ORSNTN is used as a work file for storage of the new net schedule while the net schedule creation activity is in progress.

During the net schedule creation, the customer order line file (OOLINE) will be updated with the correct demand quantity based on the reconciliation balance calculation.

Follow These Steps

Basic Parameters

- 1 Start 'Settings – Summary Inventory Statistics' (CRS716). Activate the 'Update cumulative – customer order' field.
- 2 Start 'Settings – Partner' (RSS015). Define parameters 015, 020, 025, 030 and 035. 025 consists of two fields. See Parameters to set table for more details.

Parameters for Check and Update Reconciliation Information

- 1 Start 'Item. Update Cumulative Quantities Delivered' (MMS072). Fill in the item, internal reference (1) and customer. See Parameters to set table for more details.
- 2 Open the E panel. Select the 'Year to year cumulative calculation' check box. The 'Cumulative from' date will then be the first day of the current year (EX: 040101) by default.
If you do not select the Y2Y cum calc check box, then you must enter a cumulative From date manually.
- 3 Start 'Item. Update Cum Qty Delivered/Lines' (MMS073) by using option 11=Lines on the (MMS072/B) panel.
- 4 Press F14=Create. This will create a current quantity per cumulative level.
The cumulative level(s) displayed depend on whether you have filled in warehouse, customer address, model/year, delivery spec and blanket agreement on the header. It also depends on the settings in (RSS015), parameter 035.
- 5 Open the E panel for each line (cumulative level) and change the quantity, if necessary.
- 6 Click Next.

Parameters to Set

Basic Parameters

Program ID/Panel	Field	The field indicates ...
(CRS716/E)	Update cumulative - customer orders	... whether to calculate cumulative quantities for customer orders. You must select the check box (1) to be able to use cumulative reconciliation for customer orders. The results can be displayed in (MMS072).
(RSS015/E)	015 Reconciliation method	... how to perform reconciliation. Select reconciliation method 2=Cumulative.
(RSS015/E)	020 Reconciliation level	... how the delivery schedule is reconciled against on-hand orders and delivery transactions. The values indicate how far the reconciliation process will be allowed to continue before it is interrupted. You must select method 0 or 1. 0=If the quantities for an individual record in the delivery schedule are different from those in the customer order system, the run is stopped. 1=If the quantities for an individual record in the delivery schedule are different from those in the customer order system, the discrepancy is adjusted in the customer order system according to the delivery schedule.
(RSS015/E) first field	025 Reconciliation	... whether the field heading and field contents in (RSS100/M) and (RSS101/M) should be displayed, and whether the contents can be changed.
		You open (RSS100/M) with option 25='Create net schedule' on the (RSS100/B) panel.
		You open (RSS101/M) with option 25='Create net schedule' on the (RSS101/B) panel.
(RSS015/E) second field	025 Back order reconciliation	... whether the delivery schedule should be reconciled against M3 customer orders and delivery history transactions. Reconciliation means that a new delivery plan for an item is checked against current order situations and the latest deliveries. This check box (the second check box) must be selected (1).
(RSS015/E)	030 Cumulative type	... the cumulative type that is transmitted in the DS and should be used for reconciliation purposes. Cumulative type 01='Quantity actually received' is the most commonly used type.
(RSS015/E)	035 Cumulative level	... the cumulative level that should be used for reconciliation purposes. Cumulative level 11 (item alias, customer and address) is the most commonly used level.

Parameters for Check and Update Reconciliation Information

Values in (MMS072) and (MMS073) can be created either manually or automatically. If they are not created manually, then the system will create them automatically during the 'Check and Update Reconciliation Information' process.

(MMS072/B)	Item number	... the item number connected to the customer.
(MMS072/B)	Internal reference type	... whether to enter the customer or the supplier together with the item. The actual customer or supplier number is entered in the 'Internal reference' field. You must select 1=Customer.
(MMS072/B)	Internal reference	... the customer or supplier to enter together with the item. If the 'Internal reference type' field is set to 1=Customer, then the internal reference must be a customer number retrieved from (CRS610).
(MMS072/E)	Cumulative from date	... the start dates for calculating cumulative quantity. This is often the first day of the year (EX: 040101). This field is editable if the 'Y2Y calc' check box is not selected.
(MMS072/E)	Y2Y calc	... the year-to-year cumulative calculation. The valid alternatives are: 0 = Recalculate the cumulative quantity if the cumulative From date changes. 1 = Reset the cumulative quantity at the start of each new year. If you select alternative 0, then you must fill in a date in the 'Cumulative from date' field.
(MMS072/E)	Deduct returns	... whether quantity returns should affect the cumulative values in 'Customer Return. Open' (OIS390).
(MMS073/B)	Cumulative level	... the cumulative level defined in (RSS015) that should be used for reconciliation purposes. This is specified for each alias number and customer. Cumulative level 11=Address is the most commonly used level. If no level is defined in (RSS015) and no warehouse or address is selected on the (MMS073/B) panel, then the system will use level 01=By customer only. If no level is defined in (RSS015) and no address is selected on the (MMS073/B) panel, the system will use level 02=By customer and warehouse. If no level is defined in (RSS015) but a warehouse and an address are selected on the (MMS073/B) panel, the system will use level 03='Customer, warehouse and address' and level 11=Customer and address.

(MMS073/E)	Cumulative quantity	<p>... the cumulative quantity for the current cumulative level.</p> <p>Example: Customer Y has received 100 pieces of item X during the year.</p> <p>Cum level 01=Customer only – Cum qty=100</p> <p>Cum level 02=Warehouse – Cum qty=40 (40 pieces from the warehouse selected. The other 60 pieces must have been delivered from other warehouses.)</p> <p>Cum level 03=Whs and cus addr – Cum qty=15 (15 pieces from the selected warehouse to the selected customer/address. 25 pieces must have been delivered to other addresses connected to this customer from this warehouse.)</p>
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Enabling Customer Delivery Schedules

This document explains how to define parameters for customer delivery schedules (CDS).

You use customer delivery schedules when you manage repetitive customer demands. The customer sends a DS with information about demands over a given time period, including short-term and long-term demands. Delivery schedules are exchanged continuously and recently received schedules replace or update demands in previously received schedules.

Outcome

The CDS is created and processed so that customer order lines are updated according to the current customer demands. If the CDS is linked to JIT Call-Off Management, JIT demands will be created, processed and ready for the packing process.

Application messages are created and sent to the responsible user based on events, errors and deviations that occurred during CDS processing.

Finally, the delivery schedules are archived when they are no longer needed in the production environment.

The CDS is used as the demand source for a company's planning and execution processes. How it is used depends on the level of commitment (call-off or forecast) and time period (daily, weekly or monthly) of each demand. Eventually, the CDS will be used for material planning and the outbound dispatch process.

The responsible user takes the manual actions that are necessary for completing CDS processing, depending on any application messages about events, errors and deviations during the CDS process.

The archived schedules are used for historical analysis. If they are needed again, they can be retrieved back into the production environment.

For a description on how the system is affected by each activity, see related documents listed in the "See Also" section.

Before you start

- Partner structure must be defined in the following programs:

- 'Customer. Open' (CRS610)
- 'Customer. Connect Addresses' (OIS002)
- 'Customer. Connect Delivery Specification' (OIS004)
- 'Business Chain. Open' (OIS038)
- 'Customer Address. Connect Replacing' (RSS040)
- Item and inventory must be defined in the following programs:
 - 'Item. Open' (MMS001)
 - 'Item. Connect Warehouse' (MMS002)
 - 'Item. Connect Facility' (MMS003)
 - 'Item. Connect Alias Number' (MMS025)

Description

1 Create partner and partner alias repositories

- **Create partner type**

Along with the partner category, a partner type defines internal and external partners. Examples of internal partners are divisions, facilities or warehouses. Examples of external partners are customers, customer addresses or suppliers. The partner identity is used to translate itself into a partner alias identity. This is performed when an outgoing EDI message is created by using the API CRS886MI.

'Partner Type. Open' (CRS883)

- **Connect to partner alias type**

A partner alias is an alternative identity to a M3 internal identity, such as a division, a facility or a warehouse. Partner aliases also apply to external identities. Examples of external identities are customers, customer addresses and supplier numbers. The partner alias identity is used to translate itself into a partner identity. This is performed when an incoming EDI message is received by using the API CRS886MI.

'Partner Alias Type. Open' (CRS884)

- **Create partner**

Partner is a M3-defined identity of an internal or external trading partner on different hierarchical levels, such as customer ID, supplier ID, customer address ID and warehouse ID. The partner identity is used to translate itself into a partner alias identity. This is performed when an outgoing EDI message is created by using the API CRS886MI.

'Partner Repository. Open' (CRS885)

- **Connect to partner alias**

A partner alias is an externally defined identity of a trading partner on different hierarchical levels, such as plant code, gate code, EAN location code and supplier number. The partner alias identity is used to translate itself into a partner identity. This is performed when an incoming EDI message is received by using the API CRS886MI.

'Partner Alias Repository. Connect' (CRS886)

2 Enabling partner agreement

You enable a partner agreement by creating a schedule type and partner settings.

- **Define delivery schedule type**

The delivery schedule type determines how to create the orders, how much automation should occur in the scheduling process and how to display data in the programs.

'Delivery Schedule Type. Open' (RSS010)

'Dely Schedule Type. Update Field Control' (RSS011)

- **Define partner settings**

You define settings per partner and connect partners to a delivery schedule type.

'Settings - Partners' (RSS015)

3 Define default sales facility and warehouse

Default warehouse and facility are used when you create a delivery schedule and connect items to this delivery schedule. These items are then issued from the default facility/warehouse.

'Default Sales Facility. Define' (RSS005)

'Delivery Warehouse. Open Default' (MMS058)

4 Enabling cumulative reconciliation

The purpose of cumulative reconciliation is to match the supplier's cumulative figure with the customer's cumulative figure sent in the delivery schedule. Cumulative reconciliation is the reconciliation method that is most frequently used.

'Settings - Summary Inventory Statistics' (CRS716)

'Settings - Partner' (RSS015)

'Item. Update Cumulative Quantities Delivered' (MMS072)

'Item. Update Cum Qty Delivered/Lines' (MMS073)

5 Enabling date calculation - Two different ways

Date calculation calculates the departure date/time and requested date/time.

Date calculation is used in customer delivery schedules (CDS) and when CDS interfaces the customer batch order entry.

There are two different ways to choose from when enabling date calculation. They are:

- CDS Date Calculation (no route management possible)

You can do CDS date calculation in two ways:

- **Calculate date based on delivery pattern.** CDS date calculation based on delivery pattern can be used when there is no EDI support for delivery plans and you enter (RSS102) manually, or when there is EDI support for delivery plans and JIT call-off management is used.

'Delivery Pattern. Open' (RSS025)

'Delivery Pattern. Connect Days' (RSS026)

- **Calculate based on delivery calendar.** Use CDS date calculation based on delivery calendar when you want to have a unique calendar per customer address. This allows you to have customer-specific departure dates or customer-specific goods receiving dates, and also move delivery dates backwards when it is necessary.

- TPL Date Calculation (route management possible).

TPL date calculation must be used when route planning is used.

You can choose between using dispatches by delivery number or by shipment (transportation management).

If you use dispatches by delivery, you must at least set up route, route departures and route selections.

You can also define unloading places and departure exceptions.

If you use dispatches by shipment you must also set up rules for managing shipments.

Settings for routes and shipments are listed in the following:

6 Define deviation management

By performing a deviation check, you will make sure that there are no unacceptable deviations within the delivery schedule before the creation of the net schedule, which is the next step in the processing of the delivery schedule.

A deviation check is based on a deviation model, for which you choose the delivery schedule fields you want to check.

'Delivery Schedule Deviation Model. Open' (RSS020)

'Deviation Model. Connect Period Types' (RSS021)

7 Define split management

A split is necessary when the received demands are aggregated for a specific demand bucket (such as monthly demands) and you want to break them down to weekly or daily demands. The reason for doing this is to create a more detailed planning overview and a more correct replacement between forecast and call-off DS.

'Delivery Split Model. Open' (RSS055).

'Split Model. Connect Period Types' (RSS056)

8 Define customer and customer alias deviations

These deviation settings per customer/customer alias/delivery specification/ item can be used if you want to override the settings already done.

'Customer Item. Open Info/Customer Addr' (RSS050)

Enabling Date Calculation

The document describes the different ways you can choose from when enabling date calculation, which is used in the customer delivery schedule (CDS) process. They are:

- CDS date calculation (no route management possible)
- TPL date calculation (route management possible).

Note: Date calculation is very important in CDS processing, and you should not change the method during delivery schedule production.

The date that is calculated depends on the date type selected. It can be:

- Date type from the customer's EDI file (which is either the delivery date or the goods receiving date)
- Delivery date
- Ship via date
- Goods receiving date.

Outcome

Date calculation calculates the departure date/time and requested date/time.

Date calculation is used in customer delivery schedules (CDS) and when CDS interface the customer batch order entry.

The following tables are updated:

- The delivery schedule calendar version is stored in the CCALVR table.
- The system calendar is stored in the CSYCAL table.
- The delivery pattern is stored in the ORSDPA table.
- The delivery schedule (RSS100) is stored in the ORSHEAD table in terms of the calculated start and end date for the entire schedule.
- The delivery schedule connected to item (RSS101) is stored in the ORSITM table in terms of the calculated start and end date for the schedule item.
- The delivery schedule/item connected to demands (RSS102) is stored in the ORSINS table.

Before you start

Perform one of these prerequisites:

- The prerequisites in [Enabling Date Calculation without Route Management Allowed](#) on page 571 must be fulfilled.
- The prerequisites in [Enabling Date Calculation with Route Management Allowed](#) on page 570 must be fulfilled.

Follow these steps for CDS date calculation

You can perform CDS date calculation in one of the following ways:

- Calculate the date based on a delivery pattern
- Calculate the date based on a delivery calendar.
- You can also calculate the date without using route management. This is done when you validate the delivery schedule, and is described in [Delivery Schedule Validation](#) on page 556.

Note: You should not mix these options when calculating date. It is logically impossible to understand the result of the date calculation if you use both delivery pattern and delivery calendar.

1 CDS - Calculate Date Based on Delivery Pattern

The delivery pattern can be used when there is no EDI support for delivery schedules. 'Delivery Schedule. Connect Demands' (RSS102) is entered manually. In this case, you use delivery pattern method 0 or 1.

The delivery pattern can also be used when there is EDI support for delivery schedules and JIT call-off management is used. In this case, you use delivery pattern method 2 or 3.

Use delivery patterns when you want to adjust received dates according to a recurring pattern of delivery dates

Transportation lead time, defined in (DRS021), can also be included.

This method will not allow you to have route planning.

2 CDS - Calculate Date Based on Delivery Calendar

Use a delivery calendar when you want to have a unique calendar per customer address. This allows you to have customer-specific departure dates or customer-specific goods receiving dates, and also move delivery dates backward when it is necessary.

Transportation lead time, defined in (DRS021), can also be included.

This method will not allow you to have route planning.

Follow these steps for TPL date calculation

1 Calculate Date Based on Route Planning

Calculate a date based on route planning when you use route management and route pre-selection in the dispatch flow.

You can choose to use dispatches by shipment (transportation management) or to use dispatch by delivery number.

If you use dispatches by delivery, you must at least set up:

- Route, route departures
- Route selection settings.

If you use dispatches by shipment, you must also follow the settings in .

2 Route, Route Departures, Unloading Places and Exceptions Settings

A route always has a place of loading and may have one or more places of unloading. Routes do not have to have unloading places.

The route's place of loading must match the place specified in 'Warehouse. Open' (MMS005). The route and route departure are retrieved by the system (connected to a CO line) via the settings on the F panel in 'CO Type. Update Field Selection' (OIS014) and on the E panel in 'Route Selection Table. Open' (DRS011).

3 Route Selections Settings

The route selection setups determine rules for how the system should select routes when a customer order line is created (that is, a delivery is created).

4 Time Zone Management When Creating Stock Transactions

- The time zone created in 'Time Zone. Open' (DRS045) is connected to 'Place. Open' (MMS008). Place is connected to warehouse, loading place, unloading place, and so on.
- The registration date/time is a part of the primary key for stock transactions, and will always be seen as the 'machine time'. It is created automatically and cannot be changed.
- The transaction point of time is primarily used for accounting purposes. This can be changed in some functions.

See .

Enabling Date Calculation with Route Management Allowed

This document describes how you enable date calculation with the use of route management. This is called TPL date calculation.

TPL date calculation must be used when route planning is used.

You can choose between using dispatches by delivery number or by shipment (transportation management).

If you use dispatches by delivery, you must at least set up route, route departures and route selections.

You can also define unloading places and departure exceptions.

If you use dispatches by shipment, you must also set up rules for managing shipments.

Settings for routes and shipments are described in .

Outcome

Settings for TPL date calculations are defined, including:

- Customer order type and dispatch policy
- Number series
- Loading platform
- Routes, route departures, unloading places and departure exceptions
- Route selections
- Document handling
- Shipment rules
- Time zone, entry date and transaction date.

To read more about time zone management, see .

The settings can be used for the following:

- To control routes and route pre-selections in the date calculation
- To control a physical shipment throughout the dispatch flow (if shipment is used)

These tables are updated:

- Shipments are stored in the DCONSI table.
- Routes are stored in the DROUTE table.
- Route dispatches are stored in the DROUDI table.
- Connections between shipments/deliveries and documents are stored in the DDOCUX table.
- The delivery schedule (RSS100) is stored in the ORSHEAD table in terms of calculated start and end date for the entire schedule.
- The delivery schedule connected to item (RSS101) is stored in the ORSITM table in terms of calculated start and end date for the schedule item.
- The delivery schedule/item connected to demands (RSS102) is stored in the ORSINS table.

Before you start

In 'Delivery Schedule Type. Open' (RSS010), parameter 020 must be set to 1=TPL date calculation functions are used.

Follow these steps

- 1 Perform the steps in .
- 2 Complete the steps as described in .
- 3 Specify the information in time zone, entry date and transaction date. See .

Enabling Date Calculation without Route Management Allowed

This document describes how you enable date calculation without using route management. This is called CDS date calculation.

You can perform CDS date calculation in two ways:

- Calculate date based on a delivery pattern.
- Calculate date based on a delivery calendar.

Note: You should not mix these two ways. It is technically possible to do so, but it is impossible to logically understand the result of the date calculation if you use both delivery pattern and delivery calendar.

There is also a third way to calculate dates without using route management. This is done when you validate the delivery schedule, and is described in [Delivery Schedule Validation](#) on page 556.

Outcome

This process enables CDS date calculation, which calculates the departure date/time and requested date/time for the delivery.

CDS date calculation is used in creating and processing a customer delivery schedule (CDS).

- **Calculate Date Based on Delivery Pattern**

CDS date calculation based on a delivery pattern can be used when there is no EDI support for delivery plans and you enter (RSS102) manually, or when there is EDI support for delivery plans and JIT call-off management is used.

Delivery patterns are stored in the ORSDPA table.

Routes are stored in the DROUTE table.

Note: Route planning cannot be used.

- **Calculate Based on Delivery Calendar**

Use CDS date calculation based on the delivery calendar when you want to have a unique calendar per customer address. This allows you to have customer-specific departure dates or customer-specific goods receiving dates, and also to move delivery dates backwards when necessary.

Delivery schedule calendar versions are stored in the CCALVR table.
The system calendar is stored in the CSYTAB table.

Before you start

In 'Delivery Schedule Type. Open' (RSS010), parameter 020 must be set to 0=CDS date calculation functions are used.

Calculate Based on Delivery Pattern

Follow these steps

- 1 Start 'Delivery Pattern. Open' (RSS025) and fill in the appropriate fields on the B and E panels. Press Enter.
- 2 If you have selected delivery pattern method 2 or 3, specify what time during the delivery day the customer wants the delivery. 'Delivery Pattern. Connect Days' (RSS026) is started.
- 3 Fill in the days (week/week/day) and the requested delivery times for each date.

Parameters to Set to Calculate Based on Delivery Pattern

Program ID/ Panel	Field	The field indicates ...
(RSS025/B)	Delivery pattern	<p>... the delivery pattern. The pattern represents how deliveries are made. The pattern is divided into two parts. The first part specifies the pattern up to the first four weeks. The second part specifies the pattern from week five on. A delivery pattern may be defined so that it rotates within the first or second part.</p> <p>A delivery pattern may be entered for each customer address ID (OIS002).</p>
(RSS025/E)	Number of weeks	<p>... the number of weeks to be used in combination with the selected delivery pattern method. The number of weeks determines how many of the four available weekly patterns should be used when calculating delivery dates.</p>

Program ID/ Panel	Field	The field indicates ...
(RSS025/E)	Delivery pattern method	<p>... how the rolling delivery pattern is calculated.</p> <p>Methods 0 and 1 are called 'day based pattern' and can be used for customers without EDI support.</p> <p>Methods 2 and 3 are called 'timer based pattern' and can be used for customers with EDI support and for JIT call-off management.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 0 = Rolling schedule. The number of weeks to be included in the schedule is specified in the 'Number of weeks' field above. 1 = First rolling schedule for the number of weeks specified, and then according to specifications for the Other line. 2 = Rolling schedule. Hours and minutes are specified in (RSS026). 3 = First rolling schedule for the number of weeks (using hours and minutes) specified in (RSS026), then according to specifications for week 99x specified in (RSS026).
(RSS025/E)	Demand commitment	<p>... the buyer's desired level of commitment for demand in the delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Firm 2 = Manufacturing 3 = Raw material only 4 = Forecast 9 = Reference to agreement between partners.

Program ID/ Panel	Field	The field indicates ...
(RSS025/E)	Demand bucket	<p>... the time bucket, or time period, covered by the demand in the delivery schedule.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> 1 = Daily demand 2 = Weekly demand 3 = Monthly demand 4 = Yearly demand 5 = Biweekly demand. <p>This value is copied into 'Delivery Schedule. Connect Demands' (RSS102) and is used to determine the time period that the request covers.</p>
(RSS025/E)	Delivery/Goods receiving day	... whether the current day should be marked as the delivery day or goods receiving day in the delivery pattern.
(RSS026/B)	Date (week, week and day)	<p>... indicates the week number and the day number in the current week where a delivery pattern should be used.</p> <p>If week number is defined as 99x, this definition applies to all weeks that have not been specifically entered.</p>
(RSS026/E)	Requested delivery time	
(RSS026/E)	Deadline time	<p>... the date when possible restrictions for connecting new deliveries to the shipment will occur.</p> <p>Based on the number of days entered in (DRS006), along with the date of departure, M3 calculates the last date before restrictions take effect for connecting deliveries to the shipment.</p> <p>The deadline date is combined with the time of the deadline (hh:mm) to set the exact deadline.</p> <p>Restrictions relating to the deadline may be entered per route in (DRS005).</p>

Calculate Based on Delivery Calendar

Follow these steps

- 1 Start 'Delivery Schedule Calendar' (CRS907). Specify panel sequence E1. Enter an ID for your delivery calendar version. This calendar version is connected to a customer ID. Open the E panel and fill in a name and description. Click Next.
- 2 'Calendar Days – Version. Open' (CRS908) is started. Open the dates for which you want to change the goods receiving day or the delivery day.
The values in (CRS908) are retrieved from 'System Calendar. Open' (CRS900). Changes in (CRS908) override the values in (CRS900).

Parameters to Set to Calculate Based on Delivery Calendar

Program ID/ Panel	Field	The field indicates ...
(CRS907/B)	Calendar version	... goods receipt days and delivery days, which are determined by the calendar version function. Calendar versions may be entered for each customer address ID (OIS002).
(CRS908/E)	Goods receiving day	... whether the current day should be marked as a feasible goods receiving day in the system calendar.
(CRS908/E)	Delivery day	... whether the current day should be marked as a delivery day in the calendar.

Using Transportation Lead Time

Transportation lead time can be used together with a delivery pattern or the delivery calendar. This is optional. Transportation lead time in CDS uses parts of the logic and the functions used for transportation planning.

Follow these steps

- **Route**
- Start 'Route. Open' (DRS005/B). Specify panel sequence EF. Enter the route type (1–6 can be used for this purpose).
- Fill in these fields on the (DRS005/E) panel:
 - Place of loading (The value must match the place set in 'Warehouse. Open' (MMS005).)
 - Delivery method.
- **Route Selections**
 - 1 Start 'Route Selection Field. Enter' (CRS727). The E panel is displayed.
 - 2 The Priority field indicates the order (1–10) in which a combination of object values is to be checked. 1 is the highest priority.

- 3** The Field field is retrieved from 'Field Group. Display Permitted Fields' (CRS109). Here the 'DRKEY- Route pre-selection' field group is used.
 - 4** Start 'Route Selection Table. Open' (DRS011). This can also be started by using F14='Select table' in (CRS727).
 - 5** Depending on the keys defined in (CRS727), you can have up to four possible 'Start value' fields per priority entered.
 - 6** Specify your first priority in the Priority field. Fill in values in the 'Start value 1, 2, 3, 4' fields. Press Enter.
 - 7** Fill in these fields on the E panel:
 - Route - the route defined in (DRS005)
 - Route departure - optional for CDS date calculation
If you have selected route type 2, 5 or 6 in (DRS005), then you can define route departures in (DRS006).
 - Selection method (crucial field). Select method 2, 3 or 4.
 - Departure days - If you do not have route departures specified in (DRS006), then you must enter 1 for all days per week.
 - Route departure days - If you have defined departure days in (DRS006), they are displayed here.
 - 8** Fill in these fields on the F panel:
 - Local transportation lead time – days/hours/minutes. If you use route type 1, 3 or 4 (DRS005), then you must define lead times in these fields.
If you use route type 2, 5 or 6 you can instead define lead time in (DRS021) for each unloading place.
- **Places of Unloading**
Places of unloading can be defined for route types 2, 4 or 6.
 - 1** Start 'Route. Connect Unloading Places' (DRS021). This can be started by using option 13='Unloading places' from the (DRS005/B) panel. Fill in the 'Unloading sequence' field on the B panel.
 - 2** Fill in these fields on the (DRS021/E) panel:
 - Place of unloading
 - Unloading sequence
 - Transport lead time days/hours/minutes.

More settings for route preselection are available, but are not mandatory for CDS date calculation. Refer to the following:

Optional Parameters If Transportation Lead Time Should Be Used

(DRS005/B)	Route	... the transportation route. A route is determined by a loading place with one or more unloading locations. The unloading locations can be located in a geographical area or region.
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(DRS005/B)	Route type	<p>... the route type connected to the route. The route type is used to control the route settings throughout the transportation flow.</p> <p>Route types 1–6 can be selected for this purpose.</p>
(DRS005/E)	Place of loading	<p>... the ID of the geographic location, or place, for the transportation loading operation.</p>
(DRS005/E)	Delivery method	<p>... how the delivery is made.</p> <p>Valid values are defined in (CRS070).</p>
(DRS005/E)	Cumulative transp lead time – days/hours/minutes	<p>... the number of days it takes from the time a shipment leaves the loading location to when it reaches the last unloading location, defined in (DRS021).</p> <p>This is automatically updated based on the specified unloading sequence and transportation lead times entered in (DRS021).</p>
(CRS727/E)	Priority	<p>... the order (1–10) in which a combination of object values is to be checked. 1 is the highest priority.</p>
(CRS727/E)	Field	<p>... a field, which is retrieved from 'Field Group. Display Permitted Fields' (CRS109). Here the 'DRKEY-Route pre-selection' field group is used.</p>
(DRS011/B)	Place	<p>... the loading location. It is represented by a geographic code for the delivering warehouse in the current preselection.</p>
(DRS011/B)	Priority	<p>... the order (1–10) in which a combination of object values is to be checked. 1 is the highest priority.</p> <p>If the object values are not qualified according to the objects selected for priority 1, then values for objects selected for priority 2 are checked, and so on.</p>

(DRS011/B)	Object value	... an object value used for preselection of routes and route departures.
(DRS011/E)	Route	... a route. Routes with route types between 1 and 6 can be selected.
(DRS011/E)	Route departure	<p>... route departures, defined in (DRS006). If you have selected route types 2, 5 or 6 in (DRS005), then you can define route departures in (DRS006).</p> <p>For CDS transportation lead time, you do not need to define route departures. You must instead fill in the 'Departure days' field (described below).</p>
(DRS011/E)	Selection method	<p>... the method used to select valid departure alternatives.</p> <p>Note: The field help says 'reschedule in', which means schedule earlier in time, and 'reschedule out', which means schedule later in time.</p> <p>Select methods 2, 3 or 4.</p>
(DRS011/E)	Try lower priority	<p>... whether it is possible to use lower priorities in the preselection in order to find the best route and departure.</p> <p>You can select 0 or 1 for CDS transportation lead time purposes.</p>
(DRS011/E)	Departure days	<p>... the days of the week for which the preselection applies.</p> <p>The field contains seven positions. The first position is for Monday, the second for Tuesday, and so on. One alternative should be entered for each day of the week.</p> <p>For CDS transportation lead time purposes, you must select all days as valid; that is:</p> <p>1 1 1 1 1 1 1</p>

(DRS011/F)	Local transportation lead time – days/hours/minutes	<p>... the number of days required for transport. The value is added to the number of days stated in (DRS021).</p> <p>Note: If you use route type 1, 3 or 4 (DRS005), then you must define lead times in these fields.</p> <p>If you use route type 2, 5 or 6, then you can instead define lead times in (DRS021) for each unloading place. If you also define lead time in these fields, this value will be added to the number of days stated in (DRS021).</p>
(DRS021/E)	Transportation lead time – days/hours/minutes	<p>... indicates the number of days required for transport between two locations. A location can refer to either a place of loading or a final destination.</p>

Enabling Partner Agreement

This document explains how you enable a partner agreement by creating a schedule type and partner settings. These are used in Customer Delivery Schedule (CDS).

Outcome

You have created a schedule type and connected it to partner settings.

- Delivery schedule type is used when setting up partner information in 'Settings – Partner' (RSS015). This will determine much of the schedule's flow.
- Partner settings will determine much of the delivery schedule's flow for a certain partner.
- Delivery schedule types are stored in the ORSTYP table.
- Partner settings are stored in the ORSPPT table.

Before you start

- A customer order type has been created in 'co Type. Open' (OIS010).
- A number series has been defined (series type 48) in 'Number Series. Open' (CRS165).
- The settings listed in [Create Partner and Partner Alias Repositories](#) on page 504 have been fulfilled.

Follow these steps

1 Create a Delivery Schedule Type

Create a delivery schedule type in 'Delivery Schedule Type. Open' (RSS010).

2 Define Field Control

In 'Dely Schedule Type. Update Field Control' (RSS011) you define whether the field heading and contents are displayed, and whether the latter can be changed in (RSS100), (RSS101), and (RSS102).

3 Define Partner Settings and Connect Delivery Schedule Type to Partner

Start 'Settings - Partners' (RSS015). Go through the panels and fill in, select or clear the fields.

Managing Customer Delivery Schedules

This document explains how a delivery schedule (DS) is created, processed, monitored and finally archived.

You use delivery schedules when you manage repetitive customer demands. The customer sends a DS with information about demands over a given time period, including short-term and long-term demands. Delivery schedules are exchanged continuously and recently received schedules replace or update demands in previously received schedules.

Outcome

The DS is created and processed so that customer order lines are updated according to the current customer demands. If the DS is linked to JIT Call-Off Management, JIT demands will be created, processed and ready for the packing process.

Based on events, errors and deviations that occurred within DS processing, application messages are created and sent to the responsible user.

Finally, the delivery schedules are archived when they no longer are needed in the production environment.

The DS is used as the demand source for a company's planning and execution processes. How it is used depends on the level of commitment (call-off or forecast) and time period (daily, weekly or monthly) of each demand. Eventually, the DS will be used for material planning and the outbound dispatch process.

Based on application messages that inform about events, errors and deviations during the DS process, the responsible user takes the manual actions that are necessary for completing DS processing.

The archived schedules are used for historical analysis. If they are needed again they can be retrieved back into the production environment.

See documents in the See Also section for a description of how the system is affected by each activity.

Before you start

- The starting conditions in [Creating a delivery schedule manually](#) on page 511 or [Creating a Delivery Schedule Automatically](#) on page 508 must be met.
- The starting conditions in [Activate a Delivery Schedule](#) on page 485 must be met.

Follow these steps

1 Create a Delivery Schedule

You create a delivery schedule either manually or automatically. Delivery schedules are created manually when they are not entered automatically through the M3 EDI solution.

A complete DS consists of a header, one or several item lines and one or several demands per item line. In addition, for an EDI delivery schedule, the EDI addresses, received delivery notes and received cumulatives are created.

Finally an application message is sent to inform the responsible user that a new DS has been received.

2 Process a Delivery Schedule

You process a DS by performing the required activities; that is, validation, activation and net schedule creation. At your request, the DS is checked for deviations before the net schedule is created. Note that all activities involved in DS processing can be performed automatically. If this is requested, you supervise the DS processing in the way that is described in step 3 Monitor a Delivery Schedule.

When the DS has been validated, mandatory DS information is retrieved, converted and checked. Based on the DS information created, demand commitment and demand bucket can be calculated. You can choose to split demands so that one demand is divided into several demands spread over time. For example, you can split monthly demands into weekly demands.

The purpose of activation is to reflect the customer's current view of demands in the continued processing. When you activate a DS, the status of the new DS is changed from new to active while the previous DS is changed from active to historical. If there is a DS hierarchy including forecast and call-off levels, the status of the forecast DS will be updated to historical, within the call-off date range, when the call-off DS is activated.

During DS deviation check, the new DS is compared to the previous DS according to a defined deviation model. The deviation model specifies a number of DS fields that are compared between the two related delivery schedules. A common deviation check is to compare quantity deviation for a specified time period such as the next week or the next month. If any deviation occurs, the responsible user is informed through application messages and a detailed deviation report.

When the net schedule is created, the demands that have been activated since activation are transformed into customer order lines. When you process active demands, you can round off the demands to fit packaging sizes. Moreover, the net schedule is reconciled so that demands are adjusted to any recent deliveries that were unknown by the customer when the DS was sent to the supplier. When the net schedule creation activity is finished, the current customer demands are available for material planning and outbound dispatch processing.

3 Monitor a Delivery Schedule

Depending on the configuration and outcome of the DS processing, different application messages are created. These messages contain information about events that have occurred and possible errors or deviations. The user analyzes each message and takes necessary actions. Possible actions could be adding missing basic data or supplying additional DS information so that DS processing can continue and be finalized.

4 Archive a Delivery Schedule

A DS becomes obsolete according to user-defined time limits. When such a time limit is reached, the DS is moved from the production environment to an archive. Schedules are archived in order to be accessible for historical analysis and possible retrieval back into production.

Processing a Delivery Schedule

This document explains how a created delivery schedule (DS) is processed. You perform DS processing in order to transform the new DS demands into customer order lines that are available for further processing in M3.

Outcome

The delivery schedule processing is completed, which means that the DS is validated, activated, possibly checked for deviations and that a net schedule is created. It also means that the customer order lines are updated. If the DS is linked to JIT Call-Off Management, JIT demands will be updated and ready for the packing process within JIT Call-Off Management.

If any errors or deviations occur during the validation, activation, deviation check or net schedule creation activities, application messages are sent to inform the responsible user about errors and/or deviations.

The new demands are updated from the DS in order to create customer order lines, which are used as input to the outbound dispatch process.

For a description of the dispatch process, see .

You specify whether you want the EDI DS processing to be performed manually or automatically via the '055 Next Manual Function' field in 'Delivery Schedule Type. Open' (RSS010). If you select automatic processing, the EDI DS can be automatically processed up to any selected activity within the processing of a DS.

See respective documents in the See also section for a description on how the system is affected by each activity.

Before you start

- You must have performed either [Creating a delivery schedule manually](#) on page 511 or [Creating a Delivery Schedule Automatically](#) on page 508.
- The specific starting conditions must be met regarding validation, activation, deviation check, and net schedule creation. For more information, check this list of documents in the See also section.
 - Delivery Schedule Validation
 - Delivery Schedule Activation
 - Delivery Schedule Deviation Check
 - Delivery Schedule Net Schedule Creation

Follow these steps

For an EDI DS, the following activities are performed either manually or automatically, depending on how the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010) is defined.

1 Validate a DS

Use this activity in order to validate the DS. When the DS has been validated, necessary data will be retrieved, calculated, converted and checked.

The external EDI addresses are converted into a M3 customer, address and delivery specification and the item alias is converted to a M3 item. Different kinds of date and quantity information are calculated and

default DS data that has not been received via EDI or filled in manually is retrieved. DS mandatory data is also checked.

If required, calculation of demand commitment, demand bucket and demand split is performed.

The first step of reconciliation, which is the update of reconciliation information, is performed. During this update, the reconciliation information supplied in the DS is matched against the delivery history in M3. When these are matched, a synchronizing point is created which makes it possible to continue with the reconciliation during the net schedule creation.

2 Activate a DS

You activate a DS in order to make clear which demands are active and which are historical from the customer's point of view. As new item lines are activated, there will be a status change that includes the new item lines as well as the previous ones.

The demands of the new DS item line are updated from new to active, while the demands of the currently active DS item line on the same level are updated from active to historical.

If there are demands on an above level schedule, for example on a forecast level, they are also updated. Within the date and time range of the call-off DSs, the forecast demands are set to historical.

If the customer has sent insufficient information in the call-off DS, you can retrieve the missing information from the forecast DS.

3 Check a DS for Deviations

Use this optional activity if you want to make sure that there are no unacceptable deviations within the DS before you create the net schedule. The deviation check is based on a deviation model that you create by selecting the DS fields you want to check. During the deviation check each defined field is checked for changes since the previous DS. One example of how you can use deviation check is to check quantity deviations for different time periods within the two compared DSs.

If required, the DS item line can be stopped for further processing if there is any deviation, in which case an application message is sent to the responsible user. If a deviation occurs that is outside the approved limits, a deviation report is created with information about the control values and the actual values in the compared DS item lines.

4 Create a Net Schedule

You create a net schedule in order to transform the activated gross demands into net demands, which in turn are updated into customer orders. By doing this, the new DS demands will be available for further processing in M3.

The active demands included in the new DS item line are reconciled against recent deliveries so that the new net schedule contains the correct demand quantity. This activity will make sure that consideration is taken to any recent deliveries that was unknown to the customer when the DS was created.

The demands can, if required, be rounded off to fit different package sizes. This will result in order lines that do not break package sizes and simplifies the picking and packing process when performing customer deliveries.

Finally the new net schedule is compared to the current net schedule. All demand changes are sent to the batch order entry to be updated as customer order lines.

Reconciliation of Delivery Schedule Demands

This document explains how delivery schedule demands are reconciled during the creation of the net schedule, which is a part of the processing of the delivery schedule (DS). The net schedule is created when the delivery schedule has been activated.

You use reconciliation of delivery schedule demands in order to automatically synchronize the customer's delivery schedule with the M3 shipment process and the continuous flow of goods. The purpose of this is to make sure that correct delivery schedule demands are updated in M3 as customer orders.

Outcome

You know that the DS demands, which update the customer order lines during net schedule creation, are correct and include adjustments to recent deliveries unknown by the customer when the DS was created.

You can use a secure and fully automated DS process. This is done by selecting value 5 = Activate new schedule, in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

You can view the preliminary reconciliation information on the validated DS item line in 'Delivery Schedule. Connect Demands' (RSS102/B) by toggling with F16 until the desired reconciliation panel is displayed. In this way you simulate the result of the net schedule creation before it is created.

Once the net schedule is created, you can view customer order lines with correct demand quantity by using a suitable sorting order and view in 'Customer Order. Open Line Toolbox' (OIS301/B).

The DS item line file (ORSITM) is updated with delivery note information used as the synchronizing point for the reconciliation. This synchronizing point, which is called delivery note for reconciliation, is valid if you use delivery note reconciliation.

The DS item line file (ORSITM) is updated with the customer's cumulative information used as the synchronizing point for the reconciliation. This is valid if you use cumulative reconciliation.

The new net schedule file (ORSNTN) will be updated with correct demand quantity based on the reconciliation balance calculation. ORSNTN is used as a work file for storage of the new net schedule, while the net schedule creation activity is in progress.

During the net schedule creation, the customer order line file (OOLINE) will be updated with correct demand quantity based on the reconciliation balance calculation.

Before you start

- Make sure that the following fields are analyzed and defined in 'Settings - Partners' (RSS015). They are explained further later on in this document:
 - '015 Reconciliation method'
 - '020 Reconciliation level'
 - '025 Reconciliation'
 - '030 Cumulative type'
 - '035 Cumulative level'
 - '215 Change allocated orders'
 - '520 Date type received for delivery notes'.

- If you are going to use cumulative reconciliation, the starting conditions for Enabling Cumulatives must have been met.

Purpose

By reconciling the DS demands, you make certain that the DS demands will create and update the customer order lines with correct demand quantity during the net schedule creation activity. Since demand quantities on the customer order lines will be correct, the planned deliveries to the customer always will be allocated and dispatched according to the customer's current demand.

- 1 The customer sends a gross DS via EDI on Friday at lunchtime. The gross DS contains the customer's demands, which are not yet synchronized against the supplier's recent deliveries to the customer. The DS contains three demands for item A, 100 pieces as a backorder for Friday, 100 pieces for Monday and 100 pieces for Wednesday.
- 2 The supplier receives the DS and enters it in M3, without creating the net schedule.
- 3 A delivery for item A including 40 pieces is made from the supplier on Friday afternoon before the net schedule is created.
- 4 If the supplier now creates the net schedule without reconciliation, the result will lead to incorrect customer demands. The result will be 100 pieces Friday, 100 pieces Monday and 100 pieces Wednesday.
- 5 To get a correct net schedule, you have to create it with reconciliation. The demands will then be updated with 60 pieces Friday (100 - 40 delivered), 100 pieces Monday and 100 pieces for Wednesday.

By using reconciliation, you adjust the DS regarding deliveries unknown by the customer when the gross DS was created.

When

Reconciliation is used when the situation described in the example above (see the figure) can occur. It is also possible to calculate the reconciliation balance and update the net demand quantity manually in 'Delivery Schedule. Connect Demands' (RSS102/B). However, this alternative is not recommended as it is insecure and requires more manual work.

How

There are five different reconciliation methods to choose among. Usually, the customer makes this choice, which is determined by the possibility of supplying necessary reconciliation information. If information is supplied for several methods, the method with the best information quality should be selected. Each method is described separately further on in this document.

Furthermore reconciliation of a DS is divided into two separate steps:

1 Check and Update Reconciliation Information

This first step is performed during the validation activity and its purpose is to match information supplied by the customer in the DS, against the same kind of information in M3. Depending on the chosen reconciliation method, different kinds of information are required.

If no reconciliation information is supplied for an EDI schedule, or if the DS is created manually, step one has to be performed manually according to Create Delivery Schedule Demands Manually.

2 Calculate Reconciliation Balance and Adjust Demands

This last step is performed during the creation of the net schedule. First, the correct reconciliation balance is calculated. A positive balance indicates that deliveries from M3 have been made ahead of the planned delivery date and that the supplier is ahead of the schedule. Similarly, a negative balance indicates a backorder and that the supplier is behind the schedule.

Finally when the correct reconciliation balance is calculated, the demands in the new net schedule are adjusted. A positive balance will reduce future gross demands until the balance is zero while a negative balance will create a backorder.

Reconciliation Methods

The five possible reconciliation methods in M3 are:

- Delivery note reconciliation
- Cumulative reconciliation
- Proactive sequence reconciliation
- Reactive sequence reconciliation
- Discrete reconciliation.

Of these five methods, delivery note reconciliation, cumulative reconciliation and discrete reconciliation are described in this document.

The proactive and reactive sequence reconciliation methods are used exclusively when JIT demands are managed through the JIT Call-Off Management process. Unlike the other reconciliation methods that manage backorders and overshipped quantities, the proactive and reactive sequence reconciliation methods manage replacement of JIT demands. Each JIT demand is identified through a controlling object, which is requested in the '065 Controlling object' field in 'Settings - Partners' (RSS015) and the replacement of JIT demands is based on this controlling object.

The proactive and reactive sequence reconciliation methods do not calculate any reconciliation balances and should be regarded as methods that link delivery schedules to JIT call-off management. For further information, see Processing a JIT Call-Off.

Method 1 - Delivery Note Reconciliation

Select this method if the customer has sent delivery note information in the DS. Delivery note information can be viewed in 'Delivery Schedule. Open Delivery Notes' (RSS105).

You start this program from 'Delivery Schedule. Connect Items' (RSS101) via option 15 = Delivery notes.

The purpose of delivery note reconciliation is to match the delivery notes the supplier has sent from M3 against the delivery notes that the customer has confirmed as received. When the customer receives a delivery note, it is returned with the next DS and thereby verified.

If the supplier has sent more deliveries than the customer has noted in the DS, this means that new deliveries are on their way. These deliveries are likely to be marked as backorder in the customer's DS, as the customer was unaware of the fact that the supplier had shipped them at the time the DS was created. Consequently, by performing reconciliation the supplier will adjust the customer gross demands into correct net demands.

Fields to Define in (RSS015) before Using Delivery Note Reconciliation

Field	Definitions to make
015 Reconciliation method	Select reconciliation method 1 = Delivery note.
020 Reconciliation level	<p>This field should be defined in accordance with your requirements of the amount of information that has to be correct in the DS, when checking reconciliation information.</p> <p>For example:</p> <p>If the reconciliation level is set to 0, all received delivery notes and all quantities have to match. If the reconciliation level is set to 3, only one matching delivery note has to be found, but the quantity can differ.</p>
025 Reconciliation	Define whether reconciliation should be used when the net schedule is created. Make sure that you set the second field to 1.
215 Change allocated orders	Define whether an allocated order line should be changeable during the reconciliation and net schedule processes. If an allocated order is not changeable, it will be managed as an order line on a picking list.
520 Date type received for delivery notes	Indicate the kind of date that the customer has sent as shipment date for the received delivery notes. It can either be the shipment date from M3 or the requested delivery date at the customer, which includes transportation lead-time.

Step One - Check and Update Reconciliation Information

First, all received delivery notes that can be viewed in 'Delivery Schedule. Open Delivery Notes' (RSS105) are checked against 'Delivery. Open Line Toolbox' (MWS411). The purpose of this check is to make sure that the current item alias exists as a delivery number in M3. In (RSS105/E) you can see whether the delivery note exists in 'Delivery. Open Line Toolbox' (MWS411). If the delivery note is found, the delivery number in 'Delivery. Open Toolbox' (MWS410) is updated with delivery status 95 = Received. The customer's receipt date and receipt time will also be updated in (MWS410).

Then the delivery note in 'Delivery Schedule. Open Delivery Notes' (RSS105) that exists in 'Delivery. Open Line Toolbox' (MWS411) and has the latest shipment date and time, is updated to be the delivery note for reconciliation. This is the synchronizing point for the reconciliation.

If value 0, 1, 2 or 3 is selected in the '020 Reconciliation level' field in (RSS015), a check is performed to make sure that the required information level is fulfilled. If not, the delivery note for reconciliation will be erased and the choice of delivery note for reconciliation has to be made manually in 'Delivery Schedule. Connect Demands' (RSS102/B).

Step Two - Calculate Reconciliation Balance and Adjust Demands

A prerequisite for performing this step is that a delivery note for reconciliation was found during step one. This rule will be overridden if the '020 Reconciliation level' field in (RSS015) is set to a value higher than 3. In that case, the net schedule will be processed without any calculation of the reconciliation balance.

The result of step two is primarily used when the net schedule is created.

Fields in (RSS102) that Are Calculated in Step Two

Calculated Field	Description
Our backorder	Indicates the sum of all demands in 'Customer Order. Open Line Toolbox' (OIS301) with departure date earlier than current date and time. If the '215 Change allocated orders' field in (RSS015) is set to 1, allocated order lines will be included.
Customer's backorder	Indicates the sum of all gross demands in (RSS102) with the 'Demand reason' field set to 3 = Backorder.
Deliveries after delivery note	Indicates the sum of M3 deliveries made later than the date and time of the delivery note updated as delivery note for reconciliation.
Picking list quantity	Indicates the sum of all order lines that currently are on a picking list. If the '215 Change allocated orders' field in (RSS015) is set to 0, allocated order lines will be included.
Receipt quantity	Indicates the quantity received on the delivery note for reconciliation.
Reconciliation balance	Indicates the reconciliation balance, which is calculated as the value in the 'Deliveries after delivery note' field plus the value in the 'Picking list quantity' field. This sum should be seen as the total of what the supplier has delivered after delivery note for reconciliation. The sum is then reduced by the value in the 'Customers backorder' field to find the correct backorder quantity. The result is the reconciliation balance.

Based on the calculated reconciliation balance, the net schedule creation will transform the gross schedule into a net schedule. If the reconciliation balance is positive, the demands in the gross schedule will be reduced. If the reconciliation balance is negative, a backorder will be created with the same number of units as in the reconciliation balance.

Example One - Positive Reconciliation Balance

The supplier has delivered 100 pieces after the delivery note for reconciliation. There are currently 75 pieces on a picking list and the customer states 110 pieces as backorder in the gross DS.

The balance will be calculated as $(100 + 75) - 110 = +65$. When the net schedule is created, 65 pieces will be reduced from the gross DS starting with the first demand until the reconciliation balance is zero.

Example Two - Negative Reconciliation Balance

The supplier has delivered 100 pieces after the delivery note for reconciliation and there are still 75 pieces on a picking list, while the customer states 200 pieces as backorder in the gross DS.

The balance will be calculated as $(100 + 75) - 200 = -25$. A backorder of 25 pieces will be created in the net schedule on the backorder date stated by the customer.

Method 2 - Cumulative Reconciliation

You choose this method if the customer sends cumulative information in the DS. Cumulative information can be viewed in 'Delivery Schedule. Open Cumulative Figures' (RSS104).

You start this program from 'Delivery Schedule. Connect Items' (RSS101) via option 14 = Cumulative.

The purpose of cumulative reconciliation is to match the supplier's cumulative figure with the customer's cumulative figure sent in the DS. Cumulative reconciliation is the reconciliation method that is most frequently used.

Cumulative figures are calculated from an agreed date. Whenever the supplier delivers goods, the delivery is added to the cumulative figures for that item. When the customer receives the delivery, the customer will add its cumulative figures. This is how the actual status regarding deliveries is determined.

If the supplier has a cumulative figure that is higher than the customer's, the supplier knows that there are new deliveries on the way to the customer. These deliveries are likely to be marked as a backorder in the next DS, as the customer did not know that the supplier had shipped them at the time the DS was created. By performing the reconciliation, the customer's gross demands will be adjusted into correct net demands.

Fields in (RSS015) to Define before Using Cumulative Reconciliation

Field	Definitions to make
015 Reconciliation method	Select reconciliation method 2 = Cumulative.
020 Reconciliation level	This field should be defined in accordance with your requirements of the amount of cumulative information that has to be correct in the DS.
025 Reconciliation	Define whether reconciliation should be used when the net schedule is created. Make sure that you set the second field to 1
030 Cumulative type	Indicate the cumulative type that is transmitted in the DS and should be used for reconciliation purposes. Cumulative type 01= Quantity actually received, is the most commonly used type.
035 Cumulative level	Indicate the cumulative level that should be used for reconciliation purposes. Cumulative level 11 (item alias, customer and address) is the most commonly used level.

Field	Definitions to make
215 Change allocated orders	Define whether an allocated order line should be changeable during the reconciliation and net schedule processes. If an allocated order is not changeable, it will be managed as an order line on a picking list.

1 Check and Update Reconciliation Information

First, a check is performed to make sure that the cumulative type selected in 'Settings-Partners' (RSS015) is entered in 'Delivery Schedule. Open Cumulative Figures' (RSS104).

If the cumulative type exists, the customer's cumulative quantity and the customers cumulative calculation date is updated to the DS item line. This indicates that it is possible to continue with the reconciliation processing.

Then a check is performed to control whether the combination customer and item number has been created in 'Item. Update Cumulative Quantities Delivered' (MMS072). If this is not the case, it will be created automatically for the current year and with year-to-year (Y2Y) cumulative calculation enabled. In addition, all valid cumulative types with their respective cumulative quantity will be updated in 'Item. Update Cumulative Quantities Delivered' (MMS073). The cumulative quantity information is summarized based on the stock transaction history for the current year.

If Y2Y is requested in (MMS072) and a new year begins, then the records in (MMS073) will be recalculated based on all stock transactions for the new year up to the present date.

2 Calculate Reconciliation Balance and Adjust Demands

A prerequisite for performing this step is that a valid customer cumulative quantity was found during step one.

The result of step two is primarily used when the net schedule is created.

Fields in (RSS102) that Are Calculated in Step Two

Calculated Field	Description
Our backorder	Indicates the sum of all demands in 'Customer Order. Open Line Toolbox' (OIS301) with departure date earlier than current date and time. If the '215 Change allocated orders' field in (RSS015) is set to 1, allocated order lines will be included.

Customer's backorder	Indicates the sum of all gross demands in (RSS102) with the 'Demand reason' field set to 3 = Backorder. If no backorder demands are found in (RSS102), then 'Delivery Schedule. Open Cumulative Figures' (RSS104) is checked to see whether cumulative type 02 = Quantity scheduled received, and cumulative type 01 = Quantity actually received, are transmitted. If this is the case, then the customer's backorder quantity is calculated as the value in the 'Quantity scheduled received' field reduced by the value in the 'Quantity actually received' field. This is an alternate method of sending backorder information.
Delivered quantity	Indicates the sum of M3 deliveries that are unknown by the customer. The delivered quantity is calculated by reducing the value in the 'Our cumulative quantity' field by the value in the 'Customer's cumulative quantity' field.
Picking list quantity	Indicates the sum of all order lines that are currently on a picking list. If the '215 Change allocated orders' field in (RSS015) is set to 0, allocated order lines will be included.
Reconciliation balance	Indicates the reconciliation balance, which is calculated as the value in the 'Delivered quantity' field plus the value in the 'Picking list quantity' field. This sum should be seen as the total of deliveries unknown by the customer. This sum is then reduced by the value in the 'Customer backorder' field in order to find the correct backorder quantity. The result is the reconciliation balance.

Based on the calculated reconciliation balance, the net schedule creation will transform the gross DS into a net schedule. If the reconciliation balance is positive, the demands in the gross schedule will be reduced. If the reconciliation balance is negative, a backorder is created with the number of units in the reconciliation balance.

Example One - Positive Reconciliation Balance

The value in the 'Our cumulative' field is 100 pieces since the start of the year. The value in the 'Customer's cumulative quantity' field is 85 pieces, which means that a delivery of 15 pieces is on its way to the customer. Currently, there are 3 pieces on a picking list and the customer states 14 pieces as backorder in the gross DS.

The balance is calculated as $(100 - 85) + 3 - 14 = 4$. First the customer's backorder of 14 will be deleted. Then the 4 pieces will be reduced starting with the first gross demand until the reconciliation balance is zero.

Example Two - Negative Reconciliation Balance

The value in the 'Our cumulative' field is 100 pieces. The value in the 'Customer's cumulative quantity' field is 95 pieces, which means that a delivery of 5 pieces is on the way to the customer. On the current picking list there are 3 pieces. The customer states 15 pieces as backorder in the gross DS.

The balance is calculated as $(100 - 95) + 3 - 15 = -7$. A backorder of 7 pieces will be created in the net schedule on the backorder date stated by the customer.

Method 5 - Discrete Reconciliation

This method is only selected under special circumstances, such as if the customer has not sent any reconciliation information in the DS.

The purpose of discrete reconciliation is to match discrete demands against each other. Unlike the two previous methods, the discrete reconciliation method neither calculates any reconciliation balance with the purpose of creating backorder nor decreases future gross demands. Discrete reconciliation is used to allow an update of a discrete order line, with consideration to deliveries, in case the same demand is being processed several times.

The same demand implies that the new net demand should belong to the same facility, delivery schedule group, partner, customer order type, item alias, requested delivery date and requested delivery time as the current net demand. Furthermore, additional key information (such as customer number, address number) in the new and the current net demand has to be identical regarding the requirements defined in (RSS015/K) or in (RSS015/L).

If the same demand, according to the definition above, is found when a net schedule is created, it will be updated with the new demand quantity stated in the new net schedule. If the demand is partly or fully delivered, the difference between the new demand quantity and the delivered quantity will be updated as a quantity that remains to be delivered.

Fields to Define in (RSS015) before Using Discrete Reconciliation

Field	Definitions to make
015 Reconciliation method	Select reconciliation method 5 = Discrete.
215 Change allocated orders	Define whether you think an allocated order line should be allowed to change during the reconciliation and net schedule process. If an allocated order is considered not changeable, it will be managed as an order line on a picking list.

Example One - Increase of Demand quantity

A specific discrete demand has a current net schedule quantity of 100 pieces and the new net schedule contains 110 pieces as the new demand quantity. Of the original 100 pieces, 35 pieces have recently been delivered to the customer.

The new order quantity will be set to 110. The remaining quantity to deliver will be calculated as $(110 - 35) = 75$. These figures will be updated on the order line after the net schedule is created.

Example Two - Decrease of Demand quantity

The specific discrete demand has a current net schedule quantity of 100 pieces. The new net schedule contains 40 pieces as the new demand quantity. Of the original 100 pieces, 55 pieces have recently been delivered to the customer.

In this case the new order quantity will be set to 55, as this is what already has been delivered. The remaining quantity to deliver will be set to zero, as there is nothing more to deliver for this discrete demand. The decrease of 15 pieces, 40 on the new order and 55 delivered, has to be managed manually as this method only manages reconciliation inside the discrete demand.

Validate a Delivery Schedule

This document explains how you validate a delivery schedule (DS). You do this when the delivery schedule has been created.

Validation is the first activity in the processing of a delivery schedule. When the delivery schedule has been validated, necessary delivery schedule data will be retrieved, calculated, converted and checked.

Outcome

The external EDI addresses are converted to a M3 customer, address and delivery specification and the item alias is converted to an M3 item.

Different kinds of date and quantity information are calculated and default DS data, that has not been received through EDI or specified manually, is retrieved.

The DS mandatory data is checked and you know whether it is specified and correct.

If the validation was run automatically and ended unsuccessfully, an application message is sent informing the responsible user that the DS item line has not been validated.

If a departure or customer goods receiving date has been adjusted according to the DS calendar, an application message is sent to inform the responsible user about the date change.

You can use 'Delivery Schedule. Connect Items' (RSS101) to view status and error information.

If the DS is validated automatically, you can view error messages in 'Application Message. Open' (CRS420).

The validated DS item line is used as input for the activation of the DS, which is the next step in the processing of a DS.

The DS item line file (ORSITM) and the DS demand file (ORSINS) are updated with converted, retrieved, and calculated data.

The DS item status in the DS item line file (ORSITM) is set to 05 = Validation error or 10 = Validated, activation not run, depending on the outcome of the validation.

The DS header file (ORSHED) is updated with the highest and lowest DS item status based on the outcome of the validation. It is also updated with the lowest calculated start date/time and the highest calculated end date/time.

If the DS is validated automatically, the application message file (CMAILB) is updated with application messages if the DS was not validated correct or if a departure or customer goods receiving date has been adjusted.

Before you start

- You must perform either [Creating a delivery schedule manually](#) on page 511 or [Creating a Delivery Schedule Automatically](#) on page 508.
- The specific starting conditions regarding validation that are described in detail in [Delivery Schedule Validation](#) on page 556 must be met.

Follow these steps

Choose one of these alternatives:

Validate the entire DS

- 1 Start 'Delivery Schedule. Open' (RSS100).
- 2 Select option 21='Validate' for the DS that you are going to validate. If you want information about the validation activities, read [Delivery Schedule Validation](#) on page 556.

When you validate an entire DS, all item lines within the selected DS will be validated. The processing, however, is the same as when you validate each DS item line.

Validate a single DS Item Line

- 1 Start 'Delivery Schedule. Connect Items' (RSS101).
Start (RSS101) by selecting a DS in 'Delivery Schedule. Open' (RSS100) and then selecting option 11='Items'.
- 2 Select option 21='Validate' for the DS item line that you are going to validate. If you want information about the activities performed within the validation, read [Delivery Schedule Validation](#) on page 556.

Validate DS automatically

If you have chosen automatic validation of the DS and want information about the activities performed within the validation, see [Delivery Schedule Validation](#) on page 556.

You choose whether you want automatic validation of the DS in the '055 Next manual function' field in 'Delivery Schedule Type. Open' (RSS010).

Chapter 9: Point of Sales

Correct Errors that Occur during Sales Ticket Validation

This document explains how you can detect and correct the errors that may occur when you validate sales ticket information in the OXSALe file.

Outcome

The errors are corrected. You can transfer the sales ticket information to the OPSALE file.

The validated sales ticket information can be transferred from the OPSALE file to M3.

The sales ticket input file (OPSALE) is updated.

Before you start

Sales ticket information must be uploaded to the OXSALe file.

Follow these steps

- 1 Start 'POS Sales Ticket. Open' (OPS275/B).
On the B panel, the uploaded sales tickets are displayed.
- 2 Check the statuses of the uploaded sales ticket batch and select an order whose status is 05=Error found. Select Change to display the E panel.
- 3 Check the E and F panels. A message warns you each time an error is found. Correct the errors and return to the B panel.
Repeat the procedure for all status 05 orders.
- 4 On the B panel, select the batch you have just corrected and select Check/release to validate the sales ticket batch and transfer it to the OPSALE file.

If all checks and corrections are successful, the status of the records in the OXSALe file will change to 90 and will no longer be modifiable. The status of the corresponding OPSALE file will change to one of the following:

If record type=1000 or 1200:

- Status 40 - Ready for stock update. This applies if the 'Inventory accounting interface' field is selected in 'Shop. Open' (OPS500/G).
- Status 60 - Ready for accounting update. This applies if the 'Financial interface' field is selected and the 'Inventory accounting interface' field is cleared in 'Shop. Open' (OPS500/G).

- Status 80 - No further update. This applies if both the 'Financial interface' and 'Inventory accounting interface' fields are cleared in 'Shop. Open' (OPS500/G).
 - If record type <> 1000 or 1200:
- Status 60 - Ready for accounting update
- Status 80 - No further update.

Create a New Shop

This document explains how you create a new shop in M3. The settings defined for this shop determine the kind of shop it is as well as the kind of information to be transferred between M3 and the point of sale (POS) system.

Outcome

A shop is created. The information to be transferred between M3 and the POS system is defined.

You can link an assortment for the shop after which the shop is ready to be used. The shop constitutes a unit that is used to transfer information between M3 and the POS system. The shop can, for example, be used to create sales statistics for comparing sales in one shop with sales in another shop.

The following files are updated:

- The shop file - OSTORE
- The file for start values and parameters - CSYSTR

Before you start

- A warehouse must be created in 'Warehouse Open' (MMS005). The 'Shop information' field in (MMS005/E) must be selected to indicate that shop information can be entered for this warehouse. If you add 5 to the panel sequence in (MMS005/B), 'Shop. Open' (OPS500) is automatically started after warehouse information is specified.
- The users accessing this shop must be defined in 'User. Open' (MNS150).
- User groups must be defined in 'User Group. Open' (CRS004). A user group is a group of users that has the same access rights to files and records in M3.

Follow these steps

- 1 Start 'Shop. Open' (OPS500/B). Select the warehouse you have created for this shop and select Create. (OPS500/E) is displayed.
You can also start (OPS500) directly when you have created the warehouse from 'Warehouse. Open' (MMS005/B), either through option 15='Shop information' or by adding 5 to the panel sequence.

Define basic data

- 1 On the E panel, specify shop category, business area and, when needed, shop surface.

- 2 Specify the shop class, shop volume class and, when needed, shop rank. Specify the weekdays on which the shop should be open.
- 3 On the E panel there are six user-defined fields that can be used freely. Press Enter to open the F panel.
- 4 On the F panel there are 16 user-defined fields that can be used freely. None of these fields are required. Press Enter to open the G panel.

Define what is to be transferred between M3 and the POS system

- 1 On the G panel, select the 'POS system interface' field to indicate that the shop should be interfaced with an external POS system.
- 2 Specify which of the following M3 files should be transferred to the external POS system:
 - Item master
 - Item/warehouse
 - Item language
 - Item alias
 - Customer
 - Sales price
 - Promotion
 - User
- 3 Specify whether M3 stock, sales statistics, accounts receivable, and general ledger should be updated with sales ticket information.
- 4 Specify whether the POS system's VAT calculation should be used in M3. Press Enter to display the H panel.
- 5 On the H panel, specify the alias category and alias qualifier, if required.
- 6 Specify the price lists, currency methods, and user groups to use when exporting information to the POS system. Enter the date for activating price lists when transferring information.
- 7 Specify the requisition order type to use in M3 for registering a negative or positive stock adjustment from the external POS system.
- 8 Enter distribution order type 51 (Distribution order issue) in the 'POS to M3 distribution order main warehouse' field to update distribution orders between two warehouses.
- 9 Enter distribution order type 51 (Distribution order issue) in the 'POS to M3 distribution order shop' field to update distribution orders between two warehouses. Press Enter to display the I panel.
- 10 On the I panel, specify the shop addresses. Press Enter to finish.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(OPS500/B)	Warehouse	...the warehouse/shop ID. Normally, the warehouse is used to distinguish the various geographical locations of a company. In the point of sales integration process, a warehouse must be defined before a shop can be created. See the Before Starting section above.

Program ID/Panel	Field	The field indicates ...
(OPS500/E)	Shop category	...the shop category. Shop categories are used to group shops by their assortment, for example, clothing and furniture shops. They are defined in 'Shop Category. Open' (CRS490). This field is mandatory.
(OPS500/E)	Business area	...the business area for this shop. The business area is used as a tool to group information for budgeting and statistical purposes and is created in 'Business Area. Open' (CRS036).
(OPS500/E)	Shop surface	...the shop's surface space in square meters.
(OPS500/E)	Shop class	...the shop class. Shop classes are defined in 'Shop Class. Open' (CRS492). This field is mandatory.
(OPS500/E)	Shop volume class	...the shop volume class. The shop volume class categorizes the shops by their receipts. The values are defined in 'Shop Volume Class. Open' (CRS491). This field is mandatory.
(OPS500/E)	Shop rank	...the shop priority. This field can be used if you want to rank the shops; for example, which shop has the highest sales.
(OPS500/E)	CRS796 free 1 to CRS796 free 6	...user-defined fields that can be used as desired. You must define four of these six fields in 'User-Defined Shop Field. Open' (CRS390) and you can use F4=Browse to retrieve the values. Field headings for these fields are defined in 'User-Defined Field Heading. Open' (CRS796), where the file identity code=OSTORE.
(OPS500/E)	Monday, Tuesday etc.	...whether the shop is open on the specified weekday.
(OPS500/F)	CRS796 free 7 to CRS796 free 22	...user-defined fields that can be used as desired.
(OPS500/G)	POS system interface	...whether this warehouse/shop should be interfaced with an external POS system. POS interface parameters are managed by 'Settings - POS' (OPS700). This field is mandatory.
(OPS500/G)	Item master interface	...whether M3 item data should be exported to the external POS system connected to this shop. The item master batch interface is managed in 'POS Item. Transfer' (OPS610).
(OPS500/G)	Item/warehouse interface	...whether M3 item/warehouse and item/facility data is to be exported to the external POS system. The item/warehouse and item/facility batch interface is managed in 'POS Item. Transfer' (OPS610).

Program ID/Panel	Field	The field indicates ...
(OPS500/G)	Item language interface	...whether M3 item language data is to be exported to the external POS system. Item-language batch interface parameters are set in 'POS Item. Transfer' (OPS610).
(OPS500/G)	Item alias interface	...whether the data for M3 item alias types 02 and/or 03 should be exported to the external POS system. The item-alias batch interface is managed in 'POS Item. Transfer' (OPS610).
(OPS500/G)	Customer interface	...whether M3 customer data should be exported to the external POS system. Customer batch interface is managed in POS customer batch 'POS Customer. Transfer' (OPS615).
(OPS500/G)	Sales price interface	...whether M3 price list data should be exported to the external POS system. The sales price batch interface is managed in 'POS Price. Transfer' (OPS616).
(OPS500/G)	Promotion interface	...whether M3 promotion data should be exported to the external POS system. The promotion batch interface is managed in 'POS Promotion. Transfer' (OPS617).
(OPS500/G)	User interface	...whether M3 user profiles should be exported to the external POS system. The user batch interface is managed in 'POS User. Transfer' (OPS618).
(OPS500/G)	Inventory interface	<p>...whether the M3 stock system should be updated with sales tickets received from the external POS system.</p> <p>The inventory accounting batch interface is managed in 'POS Sales Ticket. Update' (OPS280).</p> <p>Note that the M3 stock system will not be updated unless the 'Inventory accounting interface' field is selected in both 'Shop. Open' (OPS500/G) and in 'POS Sales Ticket. Update' (OPS280/E).</p>
(OPS500/G)	Sales statistics interface	<p>...whether the M3 sales statistics system is updated with sales tickets received from the external POS system.</p> <p>The sales-statistics batch interface is managed in 'POS Sales Ticket. Update' (OPS280).</p> <p>Note that the sales statistics in M3 will not be updated unless the 'Sales statistics interface' field is selected in both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E).</p>
(OPS500/G)	Financial interface	<p>...whether the general ledger is updated with sales ticket information received from the external POS system.</p> <p>The financial batch interface is managed in 'POS Sales Ticket. Update' (OPS280).</p> <p>The M3 financial system will not be updated unless the 'Financial interface' field is selected in both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E).</p>

Program ID/Panel	Field	The field indicates ...
(OPS500/G)	Tax calculation from POS	...whether the POS system's tax calculations should be used in M3. Usage of tax calculations from the POS system is mandatory if tax method 2 or 3 was entered in 'Company. Connect Division' (MNS100) for the division to which the warehouse is connected.
(OPS500/G)	Amounts exclude tax	...whether the amounts sent from the POS system excludes tax.
(OPS500/H)	Alias category	...the alias types that will be exported from M3 to the external POS system. The valid values are 02 (EAN number) and 03 (External database). If you select alias category 02, you must enter the alias qualifier. See the next field description. The item-alias batch interface is managed in 'POS Item. Transfer' (OPS610).
(OPS500/H)	Alias qualifier	...the alias qualifiers that will be exported from M3 to the external POS system. The valid values related to alias category 02 are: EA08 = EAN 8, an EAN number consisting of 8 digits EA13 = EAN 13, an EAN number consisting of 13 digits DU14 = DUN14, a packaging variant of an EAN number UPC = UPC number No control if alias category=03. If you select alias category 03, then you can define the qualifier ID as you want. The item-alias batch interface is managed in 'POS Item. Transfer' (OPS610).
(OPS500/H)	Price list	...the price list that should be exported from M3 to the external POS system. You can transfer up to three price lists. The sales price batch interface is managed in 'POS Price. Transfer' (OPS616).
(OPS500/H)	Currency method	...the currency method used. The method entered here is set in the price lists or promotions that are exported from M3 to the external POS system. If you select this field, all currencies connected to the price list code will be used. Otherwise the division's currency will be used.
(OPS500/H)	From date method	...how dates for price lists are processed. The price lists are exported from M3 to the external POS system. If you select this field, price lists that are valid on the interface date as well as those that will be valid in the future are exported from M3. If this field is not selected, only price lists that are valid on the interface date are exported.
(OPS500/H)	User group - function access	...the user groups that will be exported from M3 to an external POS system. The user batch interface is managed in 'POS User. Transfer' (OPS618).

Program ID/Panel	Field	The field indicates ...
(OPS500/H)	POS to M3 Requisition +	...the requisition order type that is used in M3 to register a positive stock adjustment from the external POS system. You must enter transaction type 40 (Requisition order receipt), managed in 'Requisition/Distribution Order Type. Open' (CRS200).
(OPS500/H)	POS to M3 Requisition -	...the requisition order type that is used in M3 to register a negative stock adjustment from the external POS system. You must enter transaction type 41 (Requisition order issue), managed in 'Requisition/Distribution Order Type. Open' (CRS200).
(OPS500/H)	POS to M3 distribution order main warehouse	...the distribution order type that is used in M3 to update distribution orders between two warehouses. The target warehouse is interfaced with the external POS system. You must enter transaction type 51 (Distribution order issue), managed in 'Requisition/Distribution Order Type. Open' (CRS200).
OPS500/H	POS to M3 distribution order shop	...the distribution order type that is used in M3 to create and update distribution orders between two warehouses. Both the source and target warehouses are interfaced with the external POS system. You must enter transaction type 51 (Distribution order issue), managed in 'Requisition/Distribution Order Type. Open' (CRS200).
(OPS500/I)	Addresses 1-4	...the address of the shop. This field is only used for informational purposes.

Creating a New Assortment in M3

This document explains how you introduce a new assortment in M3 which is to be integrated to an external point of sale (POS) system.

This step in the process is optional. You can create a stock transaction even if an item/warehouse record (MITBAL) does not exist. The item/warehouse record is automatically created based on a template record from another warehouse.

Outcome

A new assortment is introduced in M3 by creating items according to specific rules. The items are linked to a shop in M3 and are subsequently downloaded to an external POS system.

The items connected to the assortment are displayed in 'Item. Connect Warehouse' (MMS002) and 'Item. Connect to Facility' (MMS003).

The downloaded items in the assortment are ready to be sold in a shop.

For information about which files are updated in this process, see each respective instruction.

Before you start

- A warehouse must be created in 'Warehouse. Open' (MMS005). The 'Shop information' field in (MMS005/E) must be selected to indicate that shop information can be entered for this warehouse in 'Shop. Open' (OPS500).
- When the warehouse is created, you must define the warehouse as a shop in 'Shop. Open' (OPS500).
- The 'POS system interface' field in 'Shop. Open' (OPS500/G) must be selected to indicate that this shop is to be interfaced with a POS system.
- In (OPS500/G) the following fields must be selected: 'Item master interface', 'Item/warehouse interface', 'Item language interface' and 'Item alias interface'. These fields must be selected if you want to transfer item information to the shop.
- Items must be created in 'Item. Open' (MMS001).
- Item types must be defined in 'Item Type. Open' (CRS040).

For more information, refer to these documents in the See also section:

- Create a New Shop
- Define Basic Settings for Enabling POS Integration with M3

Follow these steps

1 Define a New Assortment in M3

First, you must create an item type. The item type determines how an item is created and maintained. Items must be connected to an item type. Then, you define the items to be included in the shop's assortment.

Items are defined in 'Item. Open' (MMS005) and item types in 'Item Type. Open' (CRS040).

For reference regarding how to create an item:

See .

See .

See .

2 Link New Assortment to Shop

When you have created items, you connect them to the selected shop. You implement the assortment by linking item types to the shop.

You connect items to shops in 'Item. Connect Warehouse' (MMS002).

3 Populate Item/Warehouse (Shop) in M3

You have created a new shop. Most of the items in your database will be sold or distributed from this new shop. Therefore, you can mass create the item/warehouse and item/facility records. By using option=Recreate item/warehouse in (MMS005/B), you recreate the item/warehouse and item/facility records for all the items whose item type is connected to the new shop. The template item indicated in the item type in 'Item Type. Open' (CRS040/E) will provide the default values for the new item/warehouse and item/facility files. All item-related information will be created for the new shop.

You recreate the item/warehouse in 'Warehouse. Open' (MMS005).

4 Update Prices and Promotions

You create sales price lists in 'Sales Price List. Open' (OIS017). The price list is connected to a shop in 'Shop. Open' (OPS500). You can link up to three different price lists to a specific shop. You transfer the price lists from M3 to the POS system in 'POS Price. Transfer' (OPS616).

You create a promotion that is valid for one or several shops, in 'Promotion. Open' (OIS840). You transfer the promotion from M3 to the POS system in 'POS Promotion. Transfer' (OPS617).

5 Transfer Basic Data to the External POS System

You download basic data manually from M3 to an external POS system. For manual downloads, you make a selection on the shop-item level. This is useful when a new shop or a new assortment is introduced and you want to mass update data for the shop/assortment.

You transfer basic data from these programs:

- 'POS Table. Transfer' (OPS619)
- 'POS User. Transfer' (OPS618)
- 'POS Item. Transfer' (OPS610)
- 'POS Customer. Transfer' (OPS615)
- 'POS Price. Transfer' (OPS616)
- 'POS Promotion. Transfer' (OPS617).

Creating a New Shop in M3

This document explains how you create a new shop in M3. This shop is to be integrated with an external point of sale (POS) system.

Outcome

A new shop is created in M3 and it is interfaced with an external POS system. All item-related information is created for the new shop.

When the shop is integrated, you can transfer data between M3 and the external point of sale system. For example, information about customers, users, promotions, prices can be downloaded from M3 and distribution orders and sales tickets can be uploaded to M3.

For information about which files are updated in this process, refer to each respective instruction.

Before you start

- A warehouse must be created in 'Warehouse. Open' (MMS005) and the 'Shop information' field on the E panel must be selected to indicate that shop information can be entered for this warehouse in 'Shop. Open' (OPS500).
- The warehouse is defined as a shop in 'Shop. Open' (OPS500).

For more information about necessary settings for the point of sale process, see [Define Basic Settings for Enabling POS Integration with M3](#) on page 612.

Follow these steps

1 Create a New Shop in M3

You create a warehouse in 'Warehouse. Open' (MMS005) and define it as a shop by selecting the 'Shop information' parameter on the E panel. Note that if this parameter is not selected, you cannot create a shop for the warehouse in 'Shop. Open' (OPS500).

When a warehouse is created, you can create a shop in 'Shop. Open' (OPS500). In (OPS500) you enter shop information such as which days of the week the shop is to be open as well as what kind of information is to be transferred between M3 and the POS system.

If you want to use promotions for some selected shops, a shop table must be entered in 'Warehouse Selection Table. Open' (MMS033).

2 Link Assortment to Shop

You create the items you want to have in the shop's assortment and connect them to an item type. This determines how an item is created and maintained. Then you connect the item type(s) to the selected shop. You create and link the assortment to a shop in the following programs:

- 'Item Type. Open' (CRS040)-create item type
- 'Item. Open' (MMS001)-create items
- 'Item. Connect Warehouse' (MMS002)-connect items to shop.

Note that this step in the process is optional. It is possible to create a stock transaction even if an item/warehouse record (MITBAL) does not exist. The item/warehouse record is automatically created based on a template record from another warehouse.

For reference regarding how to create an item:

See .

See .

See .

3 Populate Item/Warehouse (Shop) in M3

You recreate the Item/Warehouse in 'Warehouse. Open' (MMS005). Example: You have just created a new shop. Most of the items you have in your database will be sold/manufactured/distributed from this new shop. You want to mass create the item/warehouse and item/facility records. By selecting option 21=Recreate item/warehouse in (MMS005/B) you recreate the item/warehouse and item/facility records for all the items whose item type is connected to the new shop. The values of the template item indicated in the item type in 'Item Type. Open' (CRS040/E) will be used as the default values in the item/warehouse and item/facility files. All item-related information will be created for the new shop.

4 Transfer Basic Data to an External POS System

You export basic data from M3 to an external POS system. You can download basic data either manually or automatically.

When downloading manually, you make a selection on the shop/item level. This is useful when a new shop or a new assortment is introduced and you want to mass update data for the shop/assortment.

You transfer basic data from the following programs:

- 'POS Table. Transfer' (OPS619)
- 'POS User. Transfer' (OPS618)
- 'POS Item. Transfer' (OPS610)
- 'POS Customer. Transfer' (OPS615)
- 'POS Price. Transfer' (OPS616)

- 'POS Promotion. Transfer' (OPS617).

Define Customer Cards for a Customer Used in POS

'Customer Cards. Open' (CRS612) is used to define information about customer cards. Customer cards are used to identify the customer in the Point of Sales (POS) cash desk in the shop.

Note: Customer cards can also be created using the MI program 'Customer cards' (CRS612MI).

See [Download Customer Card Information to be Used in POS](#) on page 629.

Background

It is necessary to keep track of the customer cards and to use customer cards to identify a customer in the cash desk in a shop (using an external POS system). It must be possible to send information about which cards are valid for a specific customer to an external POS system.

Before you start

A customer must be created in 'Customer. Open' (CRS610).

Follow these steps

- 1 Start 'Customer. Open' (CRS610/B).
- 2 Select the customer for which the customer card must be defined.
- 3 Select option 20='Customer card' to start 'Customer Card. Open' (CRS612/B).
- 4 Fill in the 'Customer card number' field and select the Create option.
Note: Several cards can be connected to a customer, and the same customer card can be connected to several customers.
- 5 Specify the relevant customer card information on the E panel. See the Settings description section for a detailed description of the settings.
- 6 Select F3 to return to 'Customer. Open' (CRS610/B).

Outcome

A customer card is connected to the customer.

Configuration settings

Parameters to set

Program ID	Field heading	Description
CRS612/E	Customer card number	The field indicates the ID for the customer card.

Program ID	Field heading	Description
CRS612/E	Blocking code	The field indicates if the customer card is blocked.
CRS612/E	Blocking date	The field indicates the date when the customer card was blocked.
CRS612/E	Main card	The field indicates if the customer card is a main card or family card. The valid alternatives are: 1 = Main card 2 = Family card
CRS612/E	Valid through month	The field indicates which month the card is valid until.
CRS612/E	Valid through year	The field indicates which year the card is valid until.
CRS612/E	Card type	The field indicates the type of card. The valid alternatives are: 1 = Bar code 2 = Magnetic card
CRS612/E	Replace card	The field indicates whether the customer card is replaced.
CRS612/E	Order date	The field indicates the order date for the customer card.
CRS612/E	Send to printer	The field indicates if the customer card is sent to printing.
CRS612/E	Reference	The field indicates a reference.

Define Settings for General Ledger Update in M3

This document describes what accounting settings you have to define before you can transfer sales ticket information from an external point of sale (POS) system and update the general ledger in M3.

Outcome

Accounting events and rules for how to update the M3 general ledger with sales ticket information are defined.

The general ledger in M3 is updated with sales ticket information according to the set rules. The accounting events and rules reserved for sales tickets are automatically retrieved when the general ledger is updated.

The following files are updated:

- Accounting events file-CAEVEN
- Accounting types file-CATYPE
- Start values and parameters file-CSYSTR

Before you start

- The 'Financial interface' field must be selected in 'Shop. Open' (OPS500/G).
- The parameters listed in [Define Basic Settings for Enabling POS Integration with M3 on page 612](#) must be defined.

Follow these steps

Enter new FAM functions

- 1 Start 'FAM Function. Open' (CRS405/B).
- 2 On the B panel, press F14=Standard to generate the default FAM functions.
The following FAM functions will be used for sales tickets:
OP20-Sales ticket invoicing
OP30-Advance payments
OP40-Sales ticket petty cash
- 3 Select a FAM function and select the Details option to proceed to 'FAM Function. Open Details' (CRS406/E).
- 4 If necessary, enter voucher series, voucher name and from and to dates. Press Enter and (CRS405/B) will be displayed.
Repeat steps 3 and 4 for the remaining FAM functions if you need to add new information.

Enter new accounting events

- 1 Start 'Accounting Event. Open' (CRS375/B).
- 2 On the B panel, press F14=Standard to generate the accounting events.
The following accounting events will be used for sales tickets:
OP20-Sales ticket and refunds
OP30-Bank remittances
OP40-Petty cash expenses

Enter new accounting type

- 1 Start 'Accounting Type. Open' (CRS385/B).
- 2 Press F14=Standard to generate the accounting types.
The following accounting type will be used for sales tickets:
701-Petty cash expenses.

Enter new accounting rules

- 1 Start 'Accounting Rule. Set' (CRS395/B).

- 2** Press F14=Standard to generate the accounting rules. The following accounting events and accounting types are connected:

Accounting event	Accounting type	Description
OP05	904	Sales ticket return-customer return not inspected
OP05	910	Sales ticket return-inventory
OP10	910	Sales ticket delivery-inventory
OP10	951	Sales ticket delivery-delivered, not invoiced
OP20	101	Sales ticket invoicing-cash payment
OP20	111	Sales ticket invoicing-VAT payable 1
OP20	112	Sales ticket invoicing-VAT payable 2
OP20	120	Sales ticket invoicing-revenues
OP20	131	Sales ticket invoicing-discount 1
OP20	132	Sales ticket invoicing-discount 2
OP20	133	Sales ticket invoicing-discount 3
OP20	134	Sales ticket invoicing-discount 4
OP20	135	Sales ticket invoicing-discount 5
OP20	136	Sales ticket invoicing-discount 6
OP20	951	Sales ticket invoicing-delivered, not invoiced
OP20	971	Sales ticket invoicing-cost of sold goods
OP30	370	Advance payments-bank account
OP35	100	Invoice payments-accounts receivable
OP35	101	Invoice payments-cash payment
OP35	111	Invoice payments-VAT payable 1
OP35	112	Invoice payments-VAT payable 2
OP35	301	Invoice payments-realized exchange gains
OP35	302	Invoice payments-realized exchange losses
OP35	310	Invoice payments-cash discount given
OP40	211	Sales tickets petty cash-VAT receivable 1
OP40	212	Sales tickets petty cash-VAT receivable 2
OP40	701	Sales tickets petty cash-petty cash expenses
OP50	101	Daily takings

- 3** Select an accounting rule and select Change to proceed to the E panel.

- 4 On the E panel, specify the accounting strings.
If necessary, fill in a control field on the F panel and enter exceptions in 'Accounting Exception. Open' (CRS396), which you can start by selecting the related option=Exceptions in (CRS395/B).
- 5 Repeat the procedure from step 11 onwards for remaining accounting rules and click Close to finish.

Define Settings for Stock Update in M3

This document describes the accounting settings that you must define before you can update stock in M3 with sales ticket information from an external point of sale (POS) system.

Outcome

Accounting events and rules for how to update the stock in M3 with sales ticket information are defined.

M3 internal accountings are updated according to set rules. The accounting events and rules reserved for sales tickets are automatically retrieved when the internal accountings are updated.

These files are updated:

- Accounting events file - CAEVEN
- Accounting exceptions file - CAEXEL
- Allowed keys for user-defined matrixes - CPMKEY
- Accounting setup - CASTDV
- Start values and parameters file - CSYSTR

Follow these steps

Define accounting events to enable stock update

- 1 Start 'Accounting Event. Open' (CRS375/B).
- 2 Press F14=Standard to generate the accounting events.

The following accounting events will be used for sales tickets:

OP05 - Sales ticket returns

OP10 - Sales ticket delivery

OP20 - Sales ticket invoicing

These accounting events are used when internal accountings are updated from sales tickets rather than from OI05 (Customer returns), OI10 (Delivery to customer) and OI20 (Invoicing – CO), which are used for customer orders.

OP05 is used for record type 1200=Credit note.

OP10 is used for record type 1000=Sales.

Events OP05 and OP10 are balanced by event OP20.

Define accounting rules to enable stock update

- 1 Start 'Accounting Rule. Set' (CRS395/B).
- 2 Press F14=Standard to generate the accounting rules.

This table shows the accounting events and accounting types that are connected:

Accounting event	Accounting type	Description
OP05	904	Sales ticket return - customer return not inspected
OP05	910	Sales ticket return - inventory
OP10	910	Sales ticket delivery - inventory
OP10	951	Sales ticket delivery - delivered, not invoiced
OP20	101	Sales ticket invoicing - cash payment
OP20	111	Sales ticket invoicing - VAT payable 1
OP20	112	Sales ticket invoicing - VAT payable 2
OP20	120	Sales ticket invoicing - revenues
OP20	131	Sales ticket invoicing - discount 1
OP20	132	Sales ticket invoicing - discount 2
OP20	133	Sales ticket invoicing - discount 3
OP20	134	Sales ticket invoicing - discount 4
OP20	135	Sales ticket invoicing - discount 5
OP20	136	Sales ticket invoicing - discount 6
OP20	951	Sales ticket invoicing - delivered, not invoiced
OP20	971	Sales ticket invoicing - cost of sold goods
OP30	370	Advance payments - bank account
OP35	100	Invoice payments - accounts receivable
OP35	101	Invoice payments - cash payment
OP35	111	Invoice payments - VAT payable 1
OP35	112	Invoice payments - VAT payable 2
OP35	301	Invoice payments - realized exchange gains
OP35	302	Invoice payments - realized exchange losses
OP35	310	Invoice payments - cash discount given
OP40	211	Sales tickets petty cash - VAT receivable 1
OP40	212	Sales tickets petty cash - VAT receivable 2
OP40	701	Sales tickets petty cash - petty cash expenses

Accounting event	Accounting type	Description
OP50	101	Daily takings

- 3 Select an accounting rule and click Create to proceed to the E panel.
- 4 On the E panel, specify the accounting strings.
If necessary, fill in the control field on the F panel and specify exceptions in 'Accounting Exception. Open' (CRS396), which you open through option 11='Exceptions' in (CRS395/B).
- 5 Repeat these steps for all accounting rules. Click Close to finish.

Parameters to set

In addition to the accounting events and accounting rules described, the parameters in this table must also be defined to update M3 stock:

Program ID/Panel	Field	The field indicates ...
(OPS500/G)	Inventory accounting interface	<p>... whether the M3 stock system is to be updated with sales tickets received from an external POS system.</p> <p>POS interface parameters are managed in 'Settings - POS' (OPS700). The inventory accounting batch interface is managed in 'POS Sales Ticket. Update' (OPS280).</p> <p>Note that the M3 stock system will not be updated unless the 'Inventory accounting interface' field is selected in both 'Shop. Open' (OPS500/G) and in 'POS Sales Ticket. Update' (OPS280/E).</p> <p>For more information about shop settings, see Create a New Shop on page 596.</p>
(MMS005/H)	Retrieve stock transactions	<p>... whether messages retrieved from the POS system are to update M3 stock transactions when using batch entry in (MMS870).</p> <p>The messages retrieved in this way can be displayed and updated in 'Internal Stock Msg. Manage' (MMS850). Only messages with permitted qualifiers, as defined in 'Internal Stock Trans Qualif. Open' (MMS860), are transferred.</p>
(OPS700/E)	Customer order type	<p>... a customer order type, which is an ID for settings that determine how the order is processed during order entry.</p> <p>A customer order type must be defined in 'Settings - POS' (OPS700/E). The CO type entered on this panel will be reserved for sales tickets only. Thus, it will not be available for use when entering customer orders in 'Customer Order. Open' (OIS100).</p>
(MWS010/F)	Create accounting entries for stock transactions	<p>...whether financial transactions are to be created from stock transactions. The dispatch policy must be connected to the CO type indicated in 'POS - Settings' (OPS700/E). You must connect a dispatch policy to a customer order type in 'CO Type. Open' (OIS010/J).</p>

Define Basic Settings for Enabling POS Integration with M3

This document explains how you define the basic settings necessary to integrate M3 and an external point of sale (POS) system.

Outcome

Division-specific parameters regarding sales ticket information are set for the POS integration.

The system parameters file (CSYPAR) and start values and parameters file (CSYSTR) are updated.

Follow These Steps

- 1 Start 'Settings - POS' (OPS700/B). Specify a division and select Create to display the E panel.
- 2 On the E panel, select an accounting dimension in which the due date will be updated.
- 3 Select a customer order type and a time basis sum-up.
- 4 Select the FAM function to be used for sales ticket invoicing and refunds, as well as the accounting option to be used to book negative and positive rounding differences.
- 5 Specify whether the sales ticket records in the OXSALE file are to be deleted after they are transferred to the OPSALE file.
- 6 Specify an exchange rate type and whether sales received from the POS system are to be calculated as gross or net values.
- 7 Specify whether the created accounting transactions are to be compressed. Press Enter to confirm the settings. The B panel is displayed.

Parameters to Set

Program ID/ Panel	Field	The field indicates...
(OPS700/E)	Account dimension for check due date	... in which accounting dimension the due date is updated in the M3 general ledger system when a sales ticket is received in M3 from an external POS system. The valid alternatives are 2, 3, 4, 5, 6 and 7.

Program ID/ Panel	Field	The field indicates...
(OPS700/E)	Customer order type	<p>... an order type, which is a combined ID for settings that determine how the order is processed during order entry and in the processing flow.</p> <p>The customer order (CO) number series of this CO type is used for customer orders created when sales tickets are uploaded to M3. The CO type entered on this panel is reserved for sales tickets only. Thus, it is not available for use when entering customer orders in 'Customer Order. Open' (OIS100).</p>
(OPS700/E)	Time basis sum-up	<p>... the time basis sum-up. The valid alternatives are:</p> <ul style="list-style-type: none"> • 1 = Entry date and time (detailed) • 2 = Entry date and time bucket • 3 = Invoice date • 4 = Week • 5 = Month • 6 = According to period type SLS in 'System Calendar. Open Period' (CRS910). <p>Note: The functionality for alternative 2 = Entry date and time bucket is not available in the current version of M3.</p>
(OPS700/E)	FAM function sales	... the FAM function used for sales ticket invoicing (FAM entry ID OP20).
(OPS700/E)	FAM function refunds	... the FAM function used for sales ticket refunds (FAM entry ID OP20).
(OPS700/E)	Accounting option–negative differences	... the accounting option used to book negative rounding differences between the POS system and FAM.

Program ID/ Panel	Field	The field indicates...
(OPS700/E)	Accounting option–positive differences	... the accounting option used to book positive rounding differences between the POS system and FAM.
(OPS700/E)	Delete ticket	<p>... whether the sales ticket input in OXSALE should be deleted when it has been transferred to the OPSALE sales ticket input file. 'POS Sales Ticket. Transfer' (OPS270) or 'POS Sales Ticket. Open' (OPS275) are used to transfer sales ticket input to OPSALE.</p> <p>Select this field to delete the sales ticket input in OXSALE. If this field is not selected, the sales ticket status remains in status 90.</p>
(OPS700/E)	Exchange rate type	<p>... the exchange rate type, which is mandatory information when maintaining exchange rates. The rate type is also connected to customers, suppliers, price lists, year-end, and budget procedures.</p> <p>The valid alternatives are:</p> <ul style="list-style-type: none"> • 01 = Variable rate • 02-99 = May be used optionally.
		<p>Exchange rate types are defined in 'Exchange Rate Type. Open' (CRS056).</p>
(OPS700/E)	Separate accounting	<p>... whether sales from the POS system are to be accounted as gross or net values when transferring sales ticket information to the general ledger.</p> <p>Select this field to account sales as gross values. Discounts 1-6 are accounted separately.</p> <p>Do not select this field to account sales as net values (gross - discounts).</p>

Program ID/ Panel	Field	The field indicates...
(OPS700/E)	Compress ticket number	<p>... whether the created accounting transactions are to be compressed for the 'Sales ticket number' field (OPORNS) in OPSALE before being transferred to the M3 financial system. Select this field to compress all accounting transactions into one record.</p>
		<p>Only accounting transactions that have matching values in the following fields will be compressed:</p> <ul style="list-style-type: none"> • Accounting date • Accounting dimensions 1-7 • Currency • Rate type • VAT code • Base country • From/To country.
(OPS700/E)	Voucher per date	<p>... whether to split vouchers per date at the transfer to the general ledger.</p>
(OPS700/E)	Permitted delay	<p>... how many days old transactions (in the external POS system) are allowed to be, in order to be processed. Transactions that are older than the specified number of days are blocked from further processing.</p>
(OPS700/E)	Balance control for sales ticket	<p>... whether a balance check of the sales ticket should be performed when the sales ticket is checked.</p>
(OPS700/E)	Mailing list basis	<p>Select the basis of the mailing list for the item transfer to the shop when running 'Item Net Transfer' (OPS620):</p> <ul style="list-style-type: none"> • 0 = The item/warehouse(MIT-BAL) • 1 = The price lists connected to the shop(OPS500/H).

Program ID/ Panel	Field	The field indicates...
(OPS700/E)	Price and discount origin	... how the price origin is set when a sales ticket is entered via a POS system (OPS270MI). Select the check box to set the default price origin to A='API'. Leaving it unchecked means that the price origin is set to 8='Manual/copied' by default.
(OPS700/E)	Voucher text	... indicates an explanatory text for the current transaction. The voucher text set up in (OPS700) is proposed as voucher text when opening 'POS Sales Ticket. Update' (OPS280).

Defining Settings for Enabling POS Integration with M3

This document explains how you define the settings that you need to integrate M3 and an external point of sale (POS) system. It also explains how you create a shop and define the settings for updating the general ledger.

Outcome

The rules for how to transfer information between an external POS system and M3 are defined.

The settings are used by the system to determine how the general ledger, sales statistics and stock are updated in M3, how item information is updated in the POS system, and so on.

Refer to each respective instruction for information about which files are updated by this process.

Before you start

There are no specific starting conditions for this process.

Follow these steps

1 Define Basic Settings for Enabling POS Integration with M3

You define basic settings that determine how to integrate an external POS system to M3 in 'Settings - POS' (OPS700). These settings determine how the uploaded sales ticket information updates the M3 financial system. The settings determine, for example, the FAM function to be used for sales tickets invoicing and refunds as well as the accounting option to be used for negative and positive differences.

2 Define POS Tables

You must define a number of tables for the point of sale system:

- The shop category in 'Shop Category. Open' (CRS490).
The shop category is the type of shop you are creating, for example, a shop for shoes or leisure wear.
- The shop class in 'Shop Class. Open' (CRS492).
- The shop volume class in 'Shop Volume Class. Open' (CRS491).
The shop volume class groups the different shops according to their revenue.
- The business area in 'Business Area. Open' (CRS036).
This can either be a geographical area or a line of business. The business area is a tool used to group information for budgeting and statistical purposes.
- Your own fields in 'User-defined Field Heading. Open' (CRS796).
Enter the field names per language for the OSTORE file. Twenty-two user-defined fields are available.

3 Create Shops

Before you can create a shop, you must create a warehouse in 'Warehouse. Open' (MMS005). The 'Shop information' field in (MMS005/E) must be selected to indicate that shop information can be entered for this warehouse.

When you have created a warehouse, you can define basic settings for this warehouse/shop in 'Shop. Open' (OPS500). Here you specify whether this shop is to be integrated with an external POS system. The parameters defined in (OPS500) determine the kind of information to be transferred from M3 to the external POS system, for example, item master, sales prices, and promotions. The parameters also define whether sales statistics, accounts receivable, the general ledger, and stock are to be updated in M3.

4 Define Settings for General Ledger Update

You must define these settings to be able to update the general ledger:

- Accounting rules must be defined in 'Accounting Rule. Set' (CRS395)
- FAM functions must be defined in 'FAM Function. Open' (CRS405)
- Accounting events must be defined in 'Accounting Event. Open' (CRS375)
- Accounting types must be defined in 'Accounting Type. Open' (CRS385).

Discount Promotion in POS

This document explains how you define discount promotions in a shop, such as 'Buy 3 for the price of 2' and 'Buy 3 and get the least expensive item for free.'

This functionality is a pure Point of Sales (POS) functionality in shop, where the mix & match promotions are considered as a specially reduced price and are used to draw customers to the shop.

Follow these steps

- 1 Define the mix & match details in 'Mix & Match. Open' (OPS660).**
- 2 Run the MI program OPS660MI to retrieve the mix & match data and to download this to the POS system.**

Outcome

Mix & match data is downloaded to the POS system.

Configuration Settings

'Mix & Match. Open' (OPS660) must be defined.

Parameters to set

Program ID	Field Heading	Description
(OPS660/E)	Mix & Match ID	The field indicates the ID of a mix & match promotion. A mix & match promotion is a discount structure used in Point of Sales.
(OPS660/E)	Mix & Match type	The valid alternatives are: 1 = Fixed price for the mix & match structure 2 = Buy X and get Y for free or Y discounted
(OPS660/E)	Warehouse table	The field indicates a warehouse table. Warehouse tables are managed in 'Warehouse Selection Table. Open (MMS033) and are used to define selection criteria. Only the warehouses fulfilling the selection criteria can be connected to the promotion.
(OPS660/E)	Warehouse	If a warehouse table is not defined, a warehouse connected to the promotion must be entered.
(OPS660/E)	Quantity	The field indicates the lower quantity limit stated in the unit of measure specified in the mix & match scale. Example: Buy 3 pay for 2. Then 3 will be stated here.
(OPS660/E)	Qty free of charge	The field indicates the number of quantity which should be for free or discounted. This field is used in combination with Mix & Match type 2.
(OPS660/E)	Sales price	The field indicates the sales price for the whole Mix & Match promotion. This field is used in combination with Mix & Match type 1.

Program ID	Field Heading	Description
(OPS660/E)	Status	The valid alternatives are: <ul style="list-style-type: none">• 10 = Preliminary• 20 = Definite• 90 = Blocked/expired.
(OPS660/E)	Promotion responsible	The field indicates the ID of the person who is responsible for a promotion.
(OPS660/E)	Member	The field indicates if the mix & match promotion is for a member.
(OPS661/E)	Item/Item group	Depending on the mix match base, item number or item group must be defined. Defines which item groups or item number that the promotion regards.
(OPS661/E)	Quantity	The field indicates the lowest valid quantity for the particular record. This is used for quantity related setting of prices and discounts in Point Of Sales. For example, if there is a promotion stating 'Buy 3 and pay for 2' then the quantity for items or item groups are specified. When picking a total quantity of three, the promotion will be valid.

Download Changed or New Customer Information from M3 to an External POS System

This document explains how to download changed customer information from the last transfer. A net transfer is performed. This is useful when there are large volumes of customer data to different shops.

Outcome

Basic customer information is transferred to the files OPTMFI (transfer file) and OPTMML (transfer file mailing list) in M3. Information is prepared in these files that allows the user to retrieve the information from the POS system.

The POS system retrieves the downloaded customer information and any modification made to basic data in M3 is passed on to the POS system.

When customer data is exported from M3 to the external POS system, it is available in the OPTMFI file. For each record, an action code indicates the action to perform (update or delete) and the record information is stored in a data field.

Each record in the OPTMFI file has an associated mailing list in the OPTMML file. This is a list of shops to which each record must be sent. A subscriber can have several shops.

Note: It is not possible to transfer all customer data each time and therefore a net transfer is required. A net transfer means that only changed customers from the last transfer are transferred again. For controlling changes the field Change date (LMDT) is used in the tables Customer (OCUSMA), Customer delivery address (OCUSAD and address type 1), Customer cards (OPCARD) and Customer Order Messages (OOEMSG).

Before you start

- A shop must be created in 'Shop. Open' (OPS500).
- The subscriber must be defined in (OPS500/E). Subscribers are used to group and connect shops. Replication is made on the subscriber level.

Follow these steps

- 1 Start 'Customer. Net Transfer' (OPS630/E).
- 2 Select the function to use:
 - Create records for new/changed customers to replicate to the external Point Of Sales system.
 - Create records for customers to be deleted in the external Point Of Sales system.
- 3 Make the appropriate selections. The 'Change date' is mandatory and represents the date as of when the changes are made. For example, if August 13, 2013 is entered then it will check the change date (LMDT) from August 13 to today's date. Press Enter after making all your selections.
- 4 The POS outboxes OPTMFI (transferfile) and OPTMML (transfer file mailing list) are now updated and the information is ready to be retrieved by the POS system.

The action codes are:

Action code:	Description:
*DEL	Delete: A delete record will be transferred to POS. This is set if the status is equal to 90 in CRS610 (OCUSMA) or if function selection in OPS630 is set to 4.
*UPD	Update: An update record will be transferred to POS.

- 5 In OPS600MI you can list and confirm the customer data for a specific subscriber using transactions LstCus and CnfCus.

-
- 6 In 'Item/Customer net transfer. Delete' (OPS690) you can clean up completed (con-firmed) transactions in the POS outboxes OPTMFI and OPTMML.

Download Changed or New Item Information from M3 to an External POS System

This document explains how to download changed items from the last transfer. A net transfer is performed. This is useful when there are large volumes of item data to different shops, where different shops can have different item assortments. The transfer can be performed several times a day.

Outcome

Basic item information is transferred to the files OPTMFI (transfer file) and OPTMML (transfer file mailing list) in M3. Information is prepared in these files that allows the user to retrieve the information from the POS system.

The POS system retrieves the downloaded item information, and any modification made to the data in M3 is passed on to the POS system.

If there are large volumes of basic data transactions, a net transfer is recommended. During a net transfer, only records changed from a specific selection date are transferred again.

For controlling changes the Change date field (LMDT) is used in the tables Item (MITMAS), Item/Warehouse (MITBAL), Alternate units (MITAUN and unit type 1), Price list record per shop (OPRICAL), Alias (MITPOP), Style (MITMAH) and Item/Language (MITLAD).

When item data is exported from M3 to the external POS system, it is available in the OPTMFI file. For each record, an action code indicates the action to perform (delete, for example) and the record information is stored in a data field.

Each record in the OPTMFI file has an associated mailing list in the OPTMML file. This is a list of shops to which each record must be sent.

Before you start

OPS700 settings must be defined. The 'Mailing list base' field in (OPS700/E) defines the basis of the mailing list for the item transfer.

A shop must be created in 'Shop. Open' (OPS500).

The subscriber must be defined in (OPS500/E). Subscribers are used to group and connect shops. Replication is made on the subscriber level.

Follow These Steps

- 1 Start 'Item. Net Transfer' (OPS620/E).
- 2 Select the function to use:

- Create records for new/changed items to replicate to the external Point Of Sales system.
 - Create records for items to be deleted in the external Point Of Sales system.
 - Total item replication. Create records for new items to replicate to the Point Of Sales system. This option is normally used when a new environment is started up. This option has limited selections and only selections for Planning method and Sales item are available.
- 3** Make the appropriate selections. The 'Change date' is mandatory and represents the date as of when the changes are made. For example, if August 13, 2013 is entered it will check the change date (LMDT) from August 13 to today's date. Press Enter when you have made all your selections.
- 4** The POS outboxes OPTMFI (transfer file) and OPTMML (transferfile mailing list) are now updated, and the information is ready to be retrieved by the POS system.

The action codes are:

Action code:	Description:
*DEL	Delete: A delete record will be transferred to POS. This is set if the status is equal to 90 in MITMAS or in MITBAL or if function selection in OPS620 is set to 4.
*UPD	Update: An update record will be transferred to POS.

- 5** In OPS600MI you can list and confirm the item data for a specific subscriber using transactions LstItm and Cnfltm.
- 6** In 'Item/Customer Net Transfer Delete' (OPS690), you can clean up completed (confirmed) transactions in POS outboxes OPTMFI and OPTMML.

Download Customer Information from M3 to an External POS System

This document explains how it is possible to download the changes of a customer via a related option in 'Customer.Open (CRS610)'.

Outcome

Customer information is transferred to the files OPTMFI (transfer file) and OPTMML (transfer file mailing list) in M3. Information is prepared in these files that allows the user to retrieve the information from the POS system..

The POS system retrieves the downloaded customer information, and any modification made to the data in M3 is passed on to the POS system.

When customer data is exported from M3 to the external POS system, it is available in the OPTMFI transfer file. For each record, an action code indicates the action to perform (update or delete) and the record information is stored in a data field.

Each record in the OPTMFI file has an associated mailing list in the OPTMML file. This is a list of shops to which each record must be sent.

Note: It is not possible to transfer all customer data each time and therefore it is possible to transfer a single customer change if required.

Before you start

- A shop must be created in 'Shop. Open' (OPS500).
- The subscriber must be defined in (OPS500/E). Subscribers are used to group and connect shops. Replication is made on the subscriber level.
- In 'Settings. Customer Net Transfer Trigger' (OPS030), select the customer segments that the shops have. This information is used during manual transfer of the customer. In other words which customers are qualified to be updated to OPTRFI and OPTRML through CRS610.

Follow these steps

- 1 Start 'Customer. Open' (CRS610).
- 2 Make the required changes and select the related option 'Export customer to POS'.
- 3 The POS outboxes OPTMFI (transfer file) and OPTMML (transferfile mailing list) are now updated, and the information is ready to be retrieved by the POS system.

The action codes are:

Action code:	Description:
*DEL	Delete: A delete record will be transferred to POS. This is set if the status is equal to 90 in CRS610 (OCUSMA) or if function selection in OPS630 is set to 4.
*UPD	Update: An update record will be transferred to POS.

- 4 In OPS600MI you can list and confirm the customer data for a specific subscriber using transactions LstCus and CnfCus.
- 5 In 'Item/Customer net transfer. Delete' (OPS690) you can clean up completed (confirmed) transactions in POS outboxes OPTMFI and OPTMML.

Download Item Information from M3 to an External POS System

This document explains how to download basic item information from M3 to an external point of sale (POS) system.

Outcome

Item information is transferred to the files OPTMFI (transfer file) and OPTMML (transfer file mailing list) in M3. Information is prepared in these files that allows the user to retrieve the information from the POS system.

The POS system retrieves the downloaded item information, and any modification made to the data in M3 is passed on to the POS system.

When item data is exported from M3 to the external POS system, it is available in the OPTMFI file. For each record, an action code indicates the action to perform (update or delete) and the record information is stored in a data field.

Each record in the OPTMFI file has an associated mailing list in the OPTMML file. This is a list of shops to which each record must be sent.

Note: It is not possible to transfer all item data each time and therefore it is possible to transfer a single item change if required.

Before you start

- OPS700 settings must be defined. The 'Mailing list base' field in (OPS700/E) defines the basis of the mailing list for the item transfer.
- A shop must be created in 'Shop. Open' (OPS500).
- The subscriber must be defined in (OPS500/E). Subscribers are used to group and connect shops. Replication is made on the subscriber level.
- In 'Settings. Item Net Transfer Trigger' (OPS020), select the item assortments that the shops should have during manual transfer of the items. These are the items that are qualified to be updated to OPTRFI and OPTRML through MMS001.

Follow these steps

- Start 'Item. Open' (MMS001).
- Create the required changes and select related option 'Export item to POS'.
- The POS outboxes OPTMFI (transfer file) and OPTMML (transfer files mailing list) are now updated, and the information is ready to be retrieved by the POS system.

The action codes are:

Action code:	Description:
*DEL	Delete: A delete record will be transferred to POS. This is set if the status is equal to 90 in MITMAS or in MITBAL or if function selection in OPS620 is set to 4.
*UPD	Update: An update record will be transferred to POS.

- 4 In OPS600MI you can list and confirm the item data for a specific subscriber using transactions LstItm and Cnfltm.
- 5 In 'Item/Customer net transfer. Delete' (OPS690) you can clean up completed (con-firmed) transactions in POS outboxes OPTMFI and OPTMML.

Download Item Information from M3 via (MMS001) to an External POS System

This document explains how to download the changes of an item using a related option in 'Item. Open' (MMS001).

Outcome

Item information is transferred to the files OPTMFI (transfer file) and OPTMML (transfer file mailing list) in M3. Information is prepared in these files that allows the user to retrieve the information from the POS system.

The POS system retrieves the downloaded item information, and any modification made to the data in M3 is passed on to the POS system.

When item data is exported from M3 to the external POS system, it is available in the OPTMFI file. For each record, an action code indicates the action to perform (update or delete) and the record information is stored in a data field.

Each record in the OPTMFI file has an associated mailing list in the OPTMML file. This is a list of shops to which each record must be sent.

Note: It is not possible to transfer all item data each time and therefore it is possible to transfer a single item change if required.

Before you start

- OPS700 settings must be defined. The 'Mailing list base' field in (OPS700/E) defines the basis of the mailing list for the item transfer.
- A shop must be created in 'Shop. Open' (OPS500).

- The subscriber must be defined in (OPS500/E). Subscribers are used to group and connect shops. Replication is made on the subscriber level.
- In 'Settings. Item Net Transfer Trigger' (OPS020), select the item assortments that the shops should have during manual transfer of the items. These are the items that are qualified to be updated to OPTRFI and OPTRML through MMS001.

Follow these steps

- Start 'Item. Open' (MMS001).
- Create the required changes and select related option 'Export item to POS'.
- The POS outboxes OPTMFI (transfer file) and OPTMML (transfer files mailing list) are now updated, and the information is ready to be retrieved by the POS system.

The action codes are:

Action code:	Description:
*DEL	Delete: A delete record will be transferred to POS. This is set if the status is equal to 90 in MITMAS or in MITBAL or if function selection in OPS620 is set to 4.
*UPD	Update: An update record will be transferred to POS.

- In OPS600MI you can list and confirm the item data for a specific subscriber using transactions Lstitm and Cnfltm.
- In 'Item/Customer net transfer. Delete' (OPS690) you can clean up completed (con-firmed) transactions in POS outboxes OPTMFI and OPTMML.

Download Promotion Information from M3 to an External POS System

This document explains how you download promotion information from M3 to an external point of sale (POS) system.

Note that this instruction only describes the manual flow for basic promotion data download.

Outcome

Basic promotion information is transferred to the OPTRFI (triggered files) and OPTRML (triggered files mailing list) files in M3. Information is prepared in these files that enables the POS system to retrieve the promotion information.

The POS system retrieves the downloaded promotion information and any modification made to basic data in M3 is passed on to the POS system.

When basic data is exported from M3 to the external POS system, it is available in the OPTRFI file. For each record, an action code indicates the source file (the item master file MITMAS or the customer file OCUSMA, for example) and the record information is stored in a data field.

Each record in the OPTRFI file has an associated mailing list in the OPTRML file. This is a list of shops to which each record must be sent.

Before you start

- A shop must be created in 'Shop. Open' (OPS500) and the 'POS system interface' field must be selected in (OPS500/G).
- The 'Promotion interface' field must be selected in 'Shop. Open' (OPS500/G).
- The currency method for the export of promotions must be defined in (OPS500/H). If this field is selected, then all currencies connected to the promotion will be used. If this field is not selected, then the division's currency is used.

Follow these steps

- 1 Start 'POS Promotion. Transfer' (OPS617/B).
- 2 Specify a report version identity of your choice in the 'Report version' field. Select Create to display the E panel.
Report versions are stored under an identity of your choice in a separate file containing sets of selections and sorting parameters for created reports.
- 3 On the E panel, specify a warehouse (=shop).
If no warehouse is specified, promotions will be sent to all the POS-interfaced shops that allow promotion interface (OPS500/G). A promotion can only be transferred if the items connected to the promotion in 'Promotion. Open Lines' (OIS841) exist in the item-warehouse file for the interfaced shop.
- 4 Specify promotion, valid from date, currency, and status. Press Enter to display the B panel.
If the 'Currency method' field is not selected in 'Shop. Open' (OPS500/H), only the promotions expressed in the local currency will be transferred.
- 5 On the B panel, select your report version and select option 9=Run to perform the download.
The OPTRFI and OPTRML files are updated and the information is ready to be retrieved by the POS system. The action code is 'RTVPRO', that is, retrieved from the promotion file.

Download Sales Price List Information from M3 to an External POS System

This document explains how you download sales price list information from M3 to an external point of sales (POS) system.

Note that this instruction only describes the manual flow for basic data download.

Outcome

Basic sales price list information is transferred to the OPTRFI and OPTRML files in M3. Information is prepared in these files that enables the POS system to retrieve the price list information.

The POS system retrieves the downloaded price list information and any modification made to basic data in M3 is passed on to the POS system.

When basic data is exported from M3 to the external POS system, it is available in the OPTRFI file. For each record, an action code indicates the source file (the item master file MITMAS or the customer file OCUSMA, for example) and the record information is stored in a data field.

Each record in the OPTRFI file has an associated mailing list in the OPTRML file. This is a list of shops to which each record must be sent.

Before you start

- A shop must be created in 'Shop. Open' (OPS500) and the 'POS system interface' field must be selected in (OPS500/G).
- The 'Sales price interface' field must be selected in 'Shop. Open' (OPS500/G).
- The sales price lists you want to download from M3 must be specified in (OPS500/H). Up to 3 price lists can be selected. Note that only sales prices specified in a price list in 'Sales Price List. Open Basic' (OIS021) can be transferred. For example, sales prices from the item file or blanket agreement will not be considered.
- A currency method for the export of price lists must be defined in (OPS500/H). If this field is selected then all currencies connected to the price list code will be used. If it is not selected then the division's currency will be used.

Follow these steps

- 1 Start 'POS Price. Transfer' (OPS616/B).
- 2 Specify a report version identity of your choice in the 'Report version' field. Select Create to display the E panel.

Report versions are stored under an identity of your choice in a separate file containing sets of selections and sorting parameters for created reports.

- 3 On the E panel, specify a warehouse (=shop).
If no warehouse is specified, sales price information will be sent to all the POS-interfaced shops that allow sales price interface (OPS500/G). An item's sales price cannot be exported if the item has not been specified in the item-warehouse file for the interfaced shop in 'Item. Connect Warehouse' (MMS002).
- 4 Specify selections for sales price lists, currencies, customer numbers, and valid from dates. Press Enter to display the B panel.

If you want to export price lists expressed in different currencies, the 'Currency method' field in 'Shop. Open' (OPS500/H) must be selected. Otherwise only the price list(s) expressed in the local currency will be exported.

Note that only the sales price lists connected to the shops in (OPS500/H) can be downloaded.

- 5 On the B panel, select your report version and select option 9=Run to perform the download. The OPTRFI and OPTRML files are updated and the information is ready to be retrieved by the POS system. The action code is 'RTVPRI', that is, retrieved from the price list file.

Download Customer Card Information to be Used in POS

'Customer Cards. Open' (CRS612) 2 is used to define information about customer cards. Customer cards are used to identify the customer in the POS cash desk in the shop and are downloaded using the API program for customer cards (CRS612MI).

Note: It is necessary to keep track of the customer cards and to use customer cards to identify a customer in the cash desk in a shop (using an external POS-system). It must be possible to send information about which cards are valid for a specific customer to an external POS system.

Outcome

- Depending on the transaction type, the information in 'Customer Card. Open' (CRS612/B) is deleted, updated or a new record is added.
- By choosing the transaction 'LstCustCard' or 'GetCustCard', information about the customer card is downloaded to the external POS system.

Before you start

- A customer must be created in 'Customer. Open' (CRS610).
- To be able to receive information by transaction 'LstCustCard' or 'GetCustCard' information must be available in 'Customer Card. Open' (CRS612/B).

Follow these steps

In the MI program 'Customer cards' (CRS6120MI), choose the transaction needed. The valid transactions are:

- AddCustCard: Creates a new customer card record in 'Customer Card. Open' (CRS612/B). For a detailed description of the settings, see [Define Customer Cards for a Customer Used in POS](#) on page 605.
- DelCustCard: Deletes a customer card record in 'Customer Card. Open' (CRS612/B).
- GetCustCard: By stating the customer number and card number, information about the customer card is received.
- LstCustCard: Information about the customer card is received by stating the customer number, customer card number, card type, change type, or reference.
- UpdCustCard: Update a customer card record in 'Customer Card. Open' (CRS612/B).

Download System Table Information from M3 to an External POS System

This document explains how you download system table information from M3 to an external point of sales (POS) system.

Note that this instruction only describes the manual flow for basic data download.

Outcome

Basic system table information is transferred to the OPTRFI (triggered files) and OPTRML (triggered files mailing list) files in M3. Information is prepared in these files that enables the POS system to retrieve the system table information.

The POS system retrieves the downloaded table information and any modification made to basic data in M3 is passed on to the POS system.

When basic data is exported from M3 to the external POS system, it is available in the OPTRFI file. For each record, an action code indicates the source file (the item master file MITMAS or the customer file OCUSMA, for example) and the record information is stored in a data field.

Each record in the OPTRFI file has an associated mailing list in the OPTRML file. This is a list of shops to which each record must be sent.

Before you start

A shop must be created in 'Shop. Open' (OPS500) and the 'POS system interface' field must be selected in (OPS500/G).

Follow these steps

- 1 Start 'POS Table. Transfer' (OPS619/B).
- 2 Specify a report version identity of your choice in the 'Report version' field. Select Create to display the E panel.

Report versions are stored under an identity of your choice in a separate file containing sets of selections and sorting parameters for created reports.

- 3 On the E panel, specify a warehouse (=shop).
If no warehouse is specified, system table information will be exported to all POS-interfaced shops.
- 4 Enter selections for constant value and key value. Press Enter to display the B panel.
All M3 system tables are stored in the CSYTAB file. The constant value is used to identify the table to which a CSYTAB record belongs. For example, CSYTAB records with the 'ITGR' constant value refer to the item group table defined in 'Item Group. Open' (CRS025). The key value corresponds to the data entered in M3. For example, the key values in the item group table correspond to the item group identities entered in (CRS025).
- 5 On the B panel, select your report version and select option 9=Run to perform the download.
The OPTRFI and OPTRML files are updated and the information is ready to be retrieved by the POS system. The action code is 'RTVTAB'.

Download User Information from M3 to an External POS System

This document explains how you download user information from M3 to an external Point Of Sales (POS) system.

Note that this instruction only describes the manual flow for basic data download.

Outcome

Basic user information is transferred to the OPTRFI (triggered files) and OPTRML (triggered files mailing list) files in M3. Information is prepared in these files that enables the POS system to retrieve the user information.

The POS system retrieves the downloaded user information and any modification made to basic data in M3 is passed on to the POS system.

When basic data is exported from M3 to the external POS system, it is available in the OPTRFI file. For each record, an action code indicates the source file (the item master file MITMAS or the customer file OCUSMA, for example) and the record information is stored in a data field.

Each record in the OPTRFI file has an associated mailing list in the OPTRML file. This is a list of shops to which each record must be sent.

Before you start

- A shop must be created in 'Shop. Open' (OPS500) and the 'POS system interface' field must be selected on (OPS500/G).
- The 'User interface' field must be selected on 'Shop. Open' (OPS500/G).
- User groups must be defined in 'User. Open' (MNS150) and the user groups that you want to download from M3 must be defined on (OPS500/H). You can select up to 5 different user groups.

Follow these steps

- 1 Start 'POS User. Transfer' (OPS618/B).
- 2 Specify a report version identity of your choice in the 'Report version' field. Select Create to display the E-panel.

Report versions are stored under an identity of your choice in a separate file containing sets of selections and sorting parameters for created reports.

- 3 On the E-panel, specify a warehouse (=shop).
If you do not specify a warehouse, user data will be downloaded to all POS-interfaced shops that allow user interface in (OPS500/G).

- 4 Specify your selections for responsible (=user ID) and user group. Press Enter to display the B-panel.
An M3 user profile can only be downloaded to an external POS system if its user group function access at company level (in 'User. Access per Company Division' (MNS151/E)), is connected to the shop in 'Shop. Open' (OPS500/H). A user group is defined in 'User. Open' (MNS150). It can therefore be considered as a user profile with user type = *GRPPRF. If you specify a user group in the 'Responsible' field, only this user profile will be transferred to the POS system.

-
- 5 Select your report version, and select option 9='Run' to perform the download.

The OPTRFI and OPTRML files are updated and the information is ready to be retrieved by the POS system. The action code is 'RTVUSR', that is, retrieved from the user file.

File Financial Information about Sales Tickets

This document describes how you file different types of financial sales ticket records.

The purpose of filing the records is to decrease the number of sales ticket records and to increase system performance.

Outcome

The sales ticket financial records are transferred to the filing library; that is, to MVXARCH.

The performance of the system is increased as a result of the released disk space.

You have updated MVXARCH with the archived file OPWFIN - The sales ticket finance input file.

Before you start

- You must specify a library for filing information. The libraries are specified in 'Settings - Filing' (CRS799). (See the Parameters to set section.)
- The sales tickets records in the OPWFIN file must have status 80=Transferred to FAM.

Follow these steps

- 1 Start 'Sales Ticket Financial Info. File Transferred' (OPS090/E).
- 2 On the E panel, specify the filing conditions in one or more of these fields:
 - Facility
 - Warehouse (store)
 - Accounting date
 - Entry date
- 3 Specify a sorting order if you have selected more than one sorting criterion.
You specify numerical values for the sorting order. The lowest number gets the highest priority. The information in the document is presented according to the sorting order you specify here.
- 4 Press Enter to start the filing process.
When the filing process has ended, a document with the filed sales ticket entries is printed automatically. The document describes which records are selected from the OPWFIN file and then archived.

Parameters to set

Program ID/Panel	Field	The field indicates ...
(CRS799/E)	From library	<p>... the library from which the filing is to be done. The normal value is *LIBL.</p> <p>You can also enter the library where the data is stored; that is, MVXnDTA (where "n" is the installed version of M3).</p>
(CRS799/E)	To library	... the library in which the filed records are to be saved. Note: MVXARCH is the only possible value to be entered as the To library.

File Sales Ticket Entries

This document describes how you file information about sales ticket entries.

The purpose of filing sales tickets is to decrease the number of sales ticket transactions and to increase system performance.

Outcome

The sales ticket entries are transferred to the filing library; that is, to MVXARCH.

The performance of the system is increased as a result of the released disk space.

You have updated MVXARCH with the archived files. The archived files are:

- OPSALE - The sales ticket input file
- OPSTAT - The sales ticket statistics file
- OXSALE - The sales ticket input file (the file where you temporarily store information after uploading it from an external point of sales system)
- OXSCTR - The sales ticket control file
- OXSERR - The sales ticket control related error file.

Before you start

- You must specify a library for filing information. The libraries are entered in 'Settings - Filing' (CRS799). (See the Parameters to Set section.)
- The sales ticket records in the OPSALE file must have status 80=Transferred to FAM.

Follow These Steps

- 1 Start 'Sales Ticket Entry. File Transferred' (OPS080/E).
- 2 On the E panel, specify the filing conditions in one or more of the following fields:
 - Facility

- Warehouse (store)
 - Transaction Date - The date when the sales ticket entry was transferred from the POS system to M3.
 - Entry Date - The date when the sales ticket was entered in the POS system.
- 3** Enter a sorting order when you have specified more than one filing condition.
Enter numerical values for the sorting order. The lowest number gets the highest priority. The information in the document is presented according to the sorting order you specify here.
- 4** Press Enter to start the filing process.
When the filing process has ended, a document with the filed sales ticket entries is printed automatically. The document describes which records are selected from the OPSALE file and then archived.

Parameters to Set

Program ID/Panel	Field	The field indicates ...
(CRS799/E)	From library	... the library from which the filing is to be done. The normal value is *LIBL. You can also enter the library where the data is stored; that is, MVXnDTA (where "n" is the installed version of M3).
(CRS799/E)	To library	... the library in which the filed records are to be saved. Note: MVXARCH is the only possible value to be entered as the To library.

Integration of a Point of Sale System with M3

This document explains how an external point of sale (POS) system is integrated with M3.

Outcome

Basic data, such as item, customer and price information, is downloaded from M3 to the external POS system. Sales ticket information is uploaded from an external POS system to M3. The information is processed in M3 and sales statistics, stock levels and the general ledger are updated.

Before you start

The starting conditions listed in these documents must be met.

See [Defining Settings for Enabling POS Integration with M3](#) on page 616.

See [Define Basic Settings for Enabling POS Integration with M3](#) on page 612.

See [Create a New Shop](#) on page 596.

Purpose

The main purposes of the POS integration with M3 are to:

- Manage the master files centrally in M3 (for example, the item master file or the customer file)
- Send basic data from M3 to the POS system
- Manage sales ticket information from POS
- Update sales statistics and general ledger
- Send and receive distribution orders and stock movements between the POS system and M3
- Keep track of a shop's stock level from the POS system to enable continuous replenishment.

When

The POS integration interface is designed for businesses that have a network of shops and that process most of the shop transactions in a data system other than M3. M3 is the supply chain's point of consolidation and it supports the financial components of the business as well.

How

The integration is performed via the application programming interface (API) in M3. The API makes the distribution of information between the two systems possible.

The supply of basic data to the shops is managed centrally in M3, while sales and stock movements are initiated locally in the POS system.

The POS interface usually runs on a daily or hourly basis. When you make a database change in M3 (for example, to the item master file or the customer file), you must manually update the OPTRFI and OPTRML files in M3 by downloading information via several M3 programs, such as 'POS Item. Transfer' (OPS610) and 'POS Customer. Transfer' (OPS615).

When the OPTRFI and OPTRML files have been updated in M3, the new information can be downloaded to the POS system.

1 Downloads from M3:

- Item information
- Customer information
- User information
- System table information
- Price information
- Promotion information
- Distribution orders (DO) (expected receipts at the shop)

2 Uploads to M3

- Distribution orders (actual receipts) and DOs initiated by shop
- Sales ticket information

Once the information is uploaded to M3, it is used to update sales statistics, stock movements (from sales) and the general ledger.

- For information on stock takes and stock adjustments, refer to Warehouse Integration in the Handling Warehouse Integration document.

Structure

The main exchanges between M3 and the point of sale system are the following:

M3 sends to POS the following:

- Basic data, including items, customers, prices, promotions, users, system tables
- Distribution order: Main warehouse to shop Initiated by M3.
- Send future receipt when issue done in main warehouse

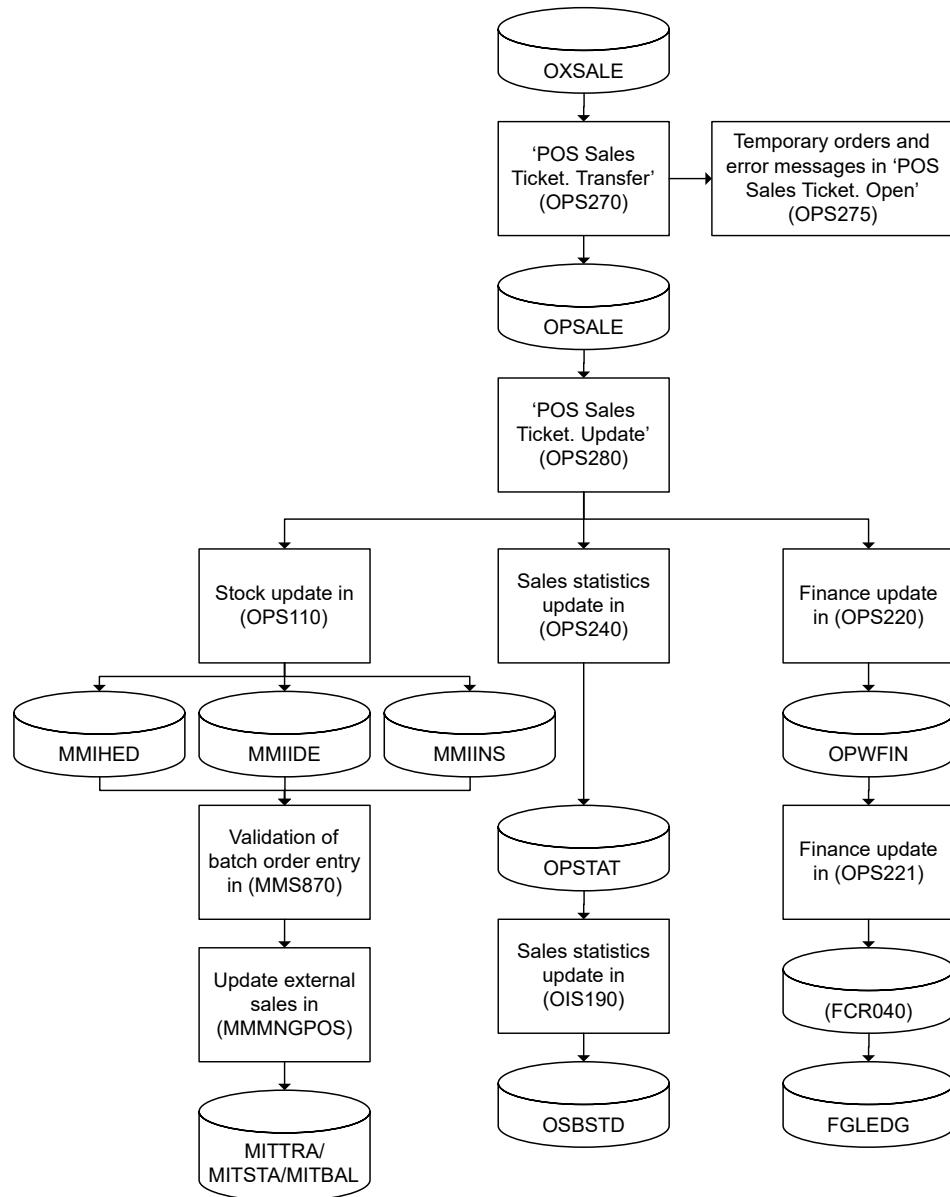
POS sends the following back to M3:

- DO receipt from shop
- Distribution order: Shop to shop
Issue from shop initiates DO
- Stock adjustment at shop
Validated stock adjustment from shop
- Stock take at shop
Validated at stock level from shop

POS sends the following Sales information back to M3:

- Issues from shop
- Sales statistics update
- General ledger accounting update
- Advance invoice
- Petty cash
- Bank remittance
- Gift certificate
- Daily settlement
- Credit invoice
- VAT credit
- Payment of invoices
- Payment to account

Below is an illustration of the structure of the sales ticket interface



Manage the Payment Provider Ledger

This document is a guide on how to manage the payment provider ledger.

Introduction

The payment provider ledger manages the M3 BE account entries related to payment transaction from a third-party payment provider. An external reference, provided by the payment provider, keeps the link between the M3 BE account entries and the payment transactions managed by the payment provider.

Solution overview

The payment provider ledger is managed in two programs, 'Payment Provider Ledger. Display' (OPS290) and 'Payment Provider Ledger. Display Entries' (OPS291).

(OPS290) contains external references received from third-party payment providers, the references represent external transactions such as credit card payments. The records in (OPS290) contain an origin indicating where the external reference originates from, the origin ID is an identifier from this origin. For example, if the origin is 01-'Sales ticket', the origin ID is a sales ticket number. You can select option 11='Account entries' to launch (OPS291), displaying different account entries for the external reference.

(OPS291) can also be opened from the menu, this displays account entries for all external references in the payment provider ledger. Each account entry in (OPS290) contains an information type indicating the type of entry. Entries also contain accounting details such as accounting date, the seven accounting dimensions, and a reconciliation reference. The status of the entry indicates whether it has been transferred to the general ledger. You can select option 21='Display voucher' to view the voucher in the general ledger.

The program 'Payment Provider Ledger. Archive/delete' (OPS295) is used to archive references in (OPS290) and all associated account entries in (OPS291). A change date is entered. All references in (OPS290) that were updated to status 90 on this date or prior are included in the selection. Records that are not in status 90 must be manually processed before they can be archived.

All references with the same voucher number in (OPS290) as a reference in status 89 are excluded from the archiving run even though they have status 90. Correction ID OP01-'Cancel voucher from payment provider ledger' (OPS290) can be run in 'Program Problem. Solve' (CRS418) to process all records with status 89 to status 90 prior to archiving.

Workflow overview

External references in the payment provider ledger are managed in three steps.

- 1 An external reference must be received from an origin. For instance, a credit card payment on a sales ticket from a point of sales system. For more details, see [Update payment provider ledger with credit card payments from POS](#) on page 639.
- 2 The payment provider provides an update that the external reference is confirmed regarding, for instance, commission amount and VAT taken. A reconciliation reference is provided for the amount to be sent to a bank account. Account entries in (OPS291) are created using the API OPS291MI (Payment provider ledger entries). For more details, see [Confirm transactions in the payment provider ledger](#) on page 640.
- 3 The account entries in (OPS291) are transferred to FIM using the API OPS292MI (Transfer payment provider ledger entries to FIM). For more details, see [Transfer payment provider ledger entries to FIM](#) on page 642.

Limitations

- Only the transaction type for credit card payment is supported with the Point of Sales (POS) interface.
- Credit card payments with the cash desk are not supported.

- Credit card payments with customer order entry are not supported.

Setup

These criteria must be fulfilled for the payment provider process:

- The 'Update payment provider ledger' (UDPL) setting must be activated in 'Settings – POS' (OPS700).
- The 'FAM function for payment provider ledger' (FNPP) field must be defined in (OPS700).

Update the Payment Provider Ledger with Credit Card Payments from POS

This document is a guide on how to enable update of the payment provider ledger with credit card payments received from a Point of Sales (POS) system.

Introduction

The payment provider ledger manages account entries for transactions related to payment provider payments. In this process, credit card payments are received from an external POS system and are later updated to the payment provider ledger during transfer to FIM.

Solution overview

Credit card payments through POS are, at the time of transfer to FIM, created with an external reference to the payment provider in the program 'Payment Provider Ledger. Display' (OPS290). For more details, see [Manage the payment provider ledger](#) on page 637.

The entry in (OPS290) represents an external credit card reference that originates from the POS system. Thus, the 'Origin' (ORIG) is 01-'Sales ticket', and the origin ID is the sales ticket number. Status is set to '20', indicating that the external reference has been received.

This entails sales ticket lines for which these conditions are true:

- The sales ticket line is a payment or refund of record type 1990, 2090, 2490, 4090, 4290, or 4590.
- The payment method AR used has the 'credit card' (CRDC) check box ticked.
- A valid third-party ID is defined. This is the ID connected to the payment provider that processed the credit card payment.
- The reference field must contain an external reference. This should be the credit card reference received from the payment provider.

Furthermore, an entry with information type 01-'Payment amount - Origin' is created in 'Payment Provider Ledger. Display Entries' (OPS291). This represents the amount that was accounted on the suspense account when the sales ticket was transferred to FIM. The amount represents a subtotal if several payments have been compressed into a single voucher line. The entry has status 90-'General ledger updated' since the voucher has already been created. The voucher number and the accounting dimensions can be seen on panel F.

When the payment provider has confirmed the credit card transaction regarding commission and VAT amounts, the payment provider ledger can be updated with account entries using API OPS291MI. For more details, see

[Confirm transactions in the payment provider ledger](#) on page 637. The account entries are then transferred to FIM using API OPS292MI. For more details, see [Transfer payment provider ledger entries to FIM](#) on page 642.

Setup

These criteria must be fulfilled for the payment provider process:

- The 'Update payment provider ledger' (UDPL) setting must be activated in 'Settings – POS' (OPS700).
- The 'FAM function for payment provider ledger' (FNPP) field must be defined with FAM function OP60.
- Accounting exceptions must be set up in 'Accounting Rule. Set' (CRS395) for each of the accounting rules corresponding to the record types that are used for credit card payments. The exceptions must be set up so that credit card payments are accounted on a suspense account, for example accounting control object is payment method AR (PYCD).
- A payment provider ID must be created in 'Credit Card Interface Settings. Open' (CRS434). The VAT details must be defined on panel F if VAT is to be paid on the payment provider commission.
- The process is used for these payment record types:

Record type	Description	Accounting rule
1990	Payment (sale and return)	OP20101
2090	Payment (credit note refund)	OP20101
2490	Tax removal refund	OP20101
4090	Payment (reservation)	OP20101
4290	Payment (unpaid check)	OP20101
4590	Payment (account or invoice)	OP35101

Limitation

The process is only available for payments received in local currency.

Confirm Transactions in the Payment Provider Ledger

This document is a guide on how to confirm transactions in the payment provider ledger.

Introduction

- A confirmation of an external reference is performed when the payment provider has specified commission and VAT amount for several payment transactions.
- A bank transfer for the remaining amount has been issued, along with a reconciliation reference.
- New account entries are created in the payment provider ledger by running the API OPS291MI (Payment provider ledger entries) for each such transaction confirmed by the payment provider.

Workflow

The API is run for an external reference that has status 20-'External reference received' in 'Payment Provider Ledger. Display' (OPS290).

The original payment amount that was accounted on a suspense account is offset in full in the form of a new account entry.

New account entries for commission amounts and VAT are created.

The remainder after subtracting commission and VAT is accounted on a reconciliation account, a reconciliation reference is entered to be used for internal reconciliation. This is the same reference that the payment provider includes when issuing the bank transfer.

In detail, the API creates these account entries in 'Payment Provider Ledger. Display Entries' (OPS291):

Information type	Description
11-'Offset payment amount'	This represents an offset of the payment amount from the POS voucher. The accounting string is copied from information type 01.
21-'Payment confirmed, not received'	This represents the amount of the payment to be put on a suspense account for payments that are confirmed but not yet received. This constitutes the entirety of the payment excluding commission amounts and VAT. Accounting dimensions 1-7 are populated according to accounting rule OP60-102. The rule should be set up to account the amount on a reconciliation account.
31-'Commission'	An entry with this information type is created if a commission amount is entered. This represents the commission amount taken by the payment provider. Accounting dimensions 1-7 are populated according to accounting rule OP60-182.
41-'VAT receivable'	An entry with this information type is created if a VAT amount is entered. This represents the VAT amount that is taken by the payment provider. Accounting dimensions 1-7 are populated according to accounting rule OP60-211. Note: This requires VAT details to be fully specified in 'Credit Card Interface Settings. Open' (CRS434) for the third-party ID.

Entries are created in status 20-'Account entry created'. The external reference in (OPS290) is updated to status 40-'Account entries created'.

Transfer Payment Provider Ledger Entries to FIM

This document is a guide on how to transfer account entries in the payment provider ledger to FIM.

Introduction

Account entries in the payment provider ledger are transferred to FIM by running API OPS292MI (Transfer payment provider ledger entries to FIM).

When the API is run, all account entries with the specified reconciliation reference are included in the selection provided that the corresponding external reference in 'Payment Provider Ledger. Display' (OPS290) is in the 40-'Account entries created' status. Account entries are compressed on the voucher if this information is the same:

- Reconciliation reference
- Information type
- Third-party provider
- Currency
- Accounting dimensions 1 to 7
- VAT code
- From/To country
- VAT registration number.

During processing, the status of the records in (OPS290) is set to 89-'In progress'.

When the transfer is finished, the processed entries in 'Payment Provider Ledger. Display Entries' (OPS291) and the corresponding records in (OPS290) are updated with the 90-'General ledger updated' status. Also, the voucher details are added.

External references remaining in the 89-'In progress' status in (OPS290) indicate that the transfer to FIM was interrupted.

To cancel such a voucher to avoid gaps in the voucher number series, you can select OP01-'Cancel voucher from payment provider ledger' (OPS290) in 'Program Problem. Solve' (CRS418). Voucher details are entered to cancel the interrupted voucher and reset the data in (OPS290) and (OPS291) to the state it was in before the transfer. The transfer to FIM can then be performed again.

If the transfer was interrupted after the voucher was successfully created in general ledger, but before the statuses were updated in (OPS290), running OP01 simply sets the status for all related references to 90-'General ledger updated'.

Managing Advance Payment for a Reserved Item

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to reserve an item in the shop. The customer wants to make a deposit for the reserved item.

Outcome

The deposit is entered in the point of sale system and the customer gets a receipt. Sales information is uploaded to M3 via a point of sale interface. The general ledger is usually updated on a later occasion.

The following files are updated:

- Sales ticket input file-OPSALE
- General ledger-FGLEDG.

Before you start

- An accounting exception must be defined for transaction type 4000 (advance payment) when you use accounting event OP20 and accounting type 120. Instead of accounting the payment to a sales account (such as 3010), it must be accounted to a liability account (such as 2420). A liability account is a balance account and it affects the balance sheet. A sales account is a profit/loss account and it affects the statement of income. In addition, the reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.
- An accounting exception must be defined for the bank operation code (CTBOPC) used when an advance payment or a credit note is used as a payment method, and when you use accounting event OP20 and transaction type 101 (cash payment). Instead of accounting the payment to a cash account (1910), it must be accounted to a liability account (2420). The advance payment's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.

Follow these steps

1 The customer wants to reserve an item

The customer wants to reserve an item and make a deposit at the point of sale in the shop. The cashier puts away the reserved item for later pickup.

2 Enter deposit information in the point of sale system

Deposit information is specified in the point of sale system. The entered information is the value of the deposit, reference number and expiration date.

3 Enter payment and get a receipt

The payment is specified in the point of sale system. It is possible to have many different payment methods per receipt; that is, multiple 1990 transactions. For example, payments can be made in cash, with a check or by credit card.

Receipt No. 123457

Deposit No.	Expiration date	Amount
1002	20131231	50.00
	Subtotal	50.00
	To pay	50.00
	Master Card	50.00
	Change back	0.00

VAT 0 %	VAT	0.00
---------	-----	------

4 Upload sales information to M3

After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 4000=Advance payment
- Transaction type 4090=Payments.

Note: Stock levels are not updated at this point, but will be updated when the customer picks up the reserved item and makes a final payment.

The deposit's ID number is updated in the reference field in OPSALE. (See the table that follows.)

The OPSALE sales ticket input file is updated as described in the following table:

Transaction type	Reference	Expiration date	Payment method	Amount
4000	1002	20131231		50.00
4090			Master Card (MC)	50.00

5 Update the general ledger

The general ledger is updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before a batch is run.

For the general ledger (FGLEDG), these accounting events and accounting types are created:

Account event	Account type	Amount	Reference	Expiration date	Bank operation code
OP20	101	50.00			47 (Master Card)
OP20	120	-50.00	1002	20131231	

Note: The bank operation is retrieved from the selected payment method.

The deposit is accounted as a liability in the general ledger. The deposit's reference number and expiration date can be used in the accounting string to identify the transaction. When the deposit is later used as a payment method, it is balanced against the earlier record in the liability account. (See the table that follows.)

Accounting string:

Accounting dimension 1	2420 (account)
Accounting dimension 2	1002 (deposit number)
Accounting dimension 3	20121231 (expiration date)
Amount	-50.00

Managing Cash Sales of Gift Certificates

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy a gift certificate and pay in cash.

Outcome

A cash payment is entered in the point of sale system and sales information is uploaded to M3 via a point of sale interface. The general ledger is usually updated on a later occasion.

The following files are updated:

- Sales ticket input-OPSALE
- General ledger file-FGLEDG

Before you start

- An accounting exception must be defined for transaction type 1100 (gift certificate) when you use accounting event OP20 and accounting type 120. Instead of accounting the payment to a sales account (such as 3010), it must be accounted to a liability account (such as 2420). A liability account is a balance account and it affects the balance sheet. A sales account is a profit/loss account and it affects the statement of income. In addition, the gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.
- An accounting exception must be defined for the bank operation code (CTBOPC) used when a gift certificate is used as a payment method and when you use accounting event OP20 and transaction type 101 (cash payment). Instead of accounting the payment to a cash account (1910), it must be accounted to a liability account (2420). The gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.

Follow these steps

1 The customer asks for a gift certificate

The customer wants to buy a gift certificate and asks for it at the point of sale in the shop.

2 Enter gift certificate information in the point of sale system

The gift certificate is specified in the point of sale system. The entered information is gift certificate value, reference number and expiration date.

3 Enter payment and get a receipt

The payment is specified in the point of sale system. It is possible to have many different payment methods per receipt; that is, multiple 1990 transactions. For example, payments can be made with cash, a check or by credit card. Furthermore, if the customer receives money back or the amount is rounded off according to standard practices, then a 1990 transaction is created.

Receipt No. 123457		
Gift certificate No.	Expiration date	Amount
1002	20131231	500.00
	Subtotal	500.00

Receipt No. 123457

To pay	500.00
Master Card	500.00
Change back	0.00
VAT 0 %	VAT 0.00

4 Upload sales information to M3

After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 1100=Sale of gift certificate
- Transaction type 1990=Payments.

The gift certificate's ID number is updated in the Reference field in OPSALE. (See the table that follows.)

Note: Stock levels will not be updated since a gift certificate is not regarded as an item.

The sales ticket input file OPSALE is updated as described in the table:

Transaction type	Reference	Expiration date	Payment method	VAT	Amount
1100	1002	20131231		0.00	500.00
1990			Master Card (MC)		500.00

5 Update the general ledger

The general ledger is updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before a batch is run.

For the general ledger (FGLEDG), the following accounting events and accounting types are created:

Accounting event	Accounting type	Amount	Reference	Expiry date	Bank operation
OP20	101	500.00			47 (Master Card)
OP20	120	-500.00	1002	20131231	

Note: A bank operation is retrieved from the selected payment method.

The gift certificate is accounted as a liability in the general ledger. The gift certificate's reference number and expiration date can be used in the accounting string to identify the transaction. When the gift certificate is later used as a payment method, then the gift certificate is balanced against the earlier gift certificate record in the liability account. See the following table.

Accounting string:

Accounting dimension 1	2420 (account)
Accounting dimension 2	1002 (gift certificate number)
Accounting dimension 3	20121231 (expiration date)
Amount	-500.00

Managing Cash Sales of Items in a Point of Sale System Integrated to M3

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy an item and pay in cash.

Outcome

The item is sold and a cash payment is entered into the point of sale system. Sales information is uploaded to M3 via a point of sale interface and the stock level is updated directly. The general ledger and sales statistics are usually updated on a later occasion.

The following files are updated:

- Sales ticket input-OPSALE
- Stock balance-MITTRA, MITBAL and MITSTA
- Sales statistics-OSBSTD
- General ledger-FGLEDG.

Before you start

- At the shop, it has been decided that stock levels should be updated immediately after sales information is uploaded and validated into M3. The update is started from the external POS system when it communicates with M3 through the sales tickets application programming interface (OPS270MI). The 'Stock update' field must be selected and the 'BchPrcRound' (Batch Process Round Number) API transaction must be used to initiate the process in M3.
- The POS system controls the upload frequency of sales information to M3. The upload frequency must be specified in the POS system, and is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.
- If customer-specific prices are required at the POS, the POS system must be interfaced with the application programming interface 'Price and Discount Inquiry Interface' (OIS320MI), where the 'GetPriceLine' (Get Item Price for an Order Line) transaction must be used.
- The 'Separate accounting' parameter in 'POS Settings' (OPS700) must be selected if you want the discounts to be accounted for separately in the general ledger (FGLEDG). If the 'Separate accounting' parameter is selected, then sales are accounted as gross sales.

Follow these steps

1 The customer picks up the item in the shop

The customer picks up the required item in the shop and takes it to a point of sale.

2 Enter/Scan the item in the point of sale system

The item is entered and/or scanned in the point of sale system and possible prices and discounts are displayed. General price lists from the point of sale system are used.

3 Identify the customer

The customer is checked and identified to verify whether the customer should have any additional discounts or customer-specific prices. Customer-specific prices for an item are retrieved by using 'Price

and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (get item price for an order line) transaction. Note that only line discounts can be used.

This activity is optional and is used only for known customers.

4 Enter payment and get a receipt

A payment is entered. It is possible to have many different payment methods per receipt; that is, multiple 1990 transactions (payments). For example, a payment can be made in cash, with a check or by credit card. Furthermore, if the customer receives money back or the amount is rounded off according to standard practices, then a 1990 transaction is created.

Receipt No. 123456			
Item No.	Quantity	U/M	Amount
Item A	1	Pce	99.95
		Subtotal	99.95
		To pay	100.00
		Master Card	500.00
		Change back	400.00
VAT 25%		VAT	19.99

5 Upload sales information to M3 and update stock levels

After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS Sales Tickets Interface' (OPS270MI). Two different transaction types are used:

- Transaction type 1000=Sale of items
- Transaction type 1990=Payments.

The stock level is updated directly and can be displayed in both 'Balance Identity. Open Toolbox (MWS068)' and 'Stock Transaction. Display History' (MWS070).

The sales ticket input file OPSALE is updated as described in the table:

Transaction type	Item No.	Quantity	U/M	Payment method	VAT	Amount
1000	Item A	1	Pcs		19.99	79.96
1990				Master Card (MC)		500.00
1990				Cash (CSH)		-400.00
1990				Rounding off (RND)		-0.05

Note: Transaction type 1990 in the OPSALE file corresponds to accounting type 101 in the general ledger, and transaction type 1000 corresponds to accounting type 120.

6 Update general ledger and sales statistics

Sales statistics (OSBSTD) and general ledger (FGLLEDG) are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Sales statistics interface' and 'Financial interface' parameters in (OPS280) must be selected before the batch is run. Note that you should also select the 'Inventory accounting interface'

parameter. This means that the stock is updated by sales tickets that have been validated in 'POS Sales Ticket Toolbox' (OPS275) or 'POS Sales Ticket Transfer' (OPS270).

For the general ledger, the following accounting events and types are created:

Accounting event	Accounting type	Amount	Bank operation
OP20	101 (Cash payment)	500.00	47 (Master Card)
OP20	101 (Cash payment)	-400.00	45 (Cash)
OP20	101 (Cash payment)	-00.05	46 (Rounding off)
OP20	111 (VAT payable)	-19.99	
OP20	120 (Revenues)	-79.96	

Note: The bank operation is retrieved from the selected payment method.

Managing Cash Sales of Items When Paying with Gift Certificates

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy an item and pay with a gift certificate.

Outcome

A cash payment is entered in the point of sale system and, if money remains on the gift certificate, it is repaid to the customer as a credit note or in cash. Sales information is uploaded to M3 via a point of sale interface and the stock level is updated directly. The general ledger and sales statistics are usually updated on a later occasion.

The following files are updated:

- Sales ticket input file-OPSALE
- Stock balance files-MITTRA, MITBAL and MITSTA
- Sales statistics file-OSBSTD
- General ledger file-FGLEDG

Before you start

- At the shop, it has been decided that stock levels should be updated immediately after sales information is uploaded and validated into M3. The update is started from the external POS system when it communicates with M3 through the sales tickets application programming interface (OPS270MI). The 'Stock update' field must be selected and the 'BchPrcRound' (Batch Process Round Number) API transaction must be used to initiate the process in M3.
- The POS system controls the upload frequency of sales information to M3. The upload frequency is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.

- If customer-specific prices are required at the point of sale, the POS system must be interfaced with the application programming interface 'Price and Discount Inquiry Interface' (OIS320MI), where the 'GetPriceLine' (Get Item Price for an Order Line) transaction must be used.
- The 'Separate accounting' parameter in 'POS Settings' (OPS700) must be selected if you want the discounts to be accounted for separately in the general ledger (FGLEDG). If the 'Separate accounting' parameter is selected, then sales are accounted as gross sales.
- An accounting exception must be defined for transaction type 1100 (gift certificate) when you use accounting event OP20 and accounting type 120certificate. Instead of accounting the payment to a sales account (such as 3010), it must be accounted to a liability account (such as 2420). A liability account is a balance account and it affects the balance sheet. A sales account is a profit/loss account and it affects the statement of income. In addition, the gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.
- An accounting exception must be defined for the bank operation code (CTBOPC) used when a gift certificate or a credit note is used as a payment method, and when you use accounting event OP20 and transaction type 101 (cash payment). Instead of accounting the payment to a cash account (1910), it must be accounted to a liability account (2420). The gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.

Follow these steps

- 1 The customer picks up the required item in the shop and takes it to the point of sale.
- 2 The item is entered and/or scanned in the point of sale system and possible prices and discounts are displayed. General price lists from the point of sale system are used.
- 3 The customer is identified and checked to verify whether the customer should have any additional discounts or customer-specific prices. Customer-specific prices for an item are retrieved by using 'Price and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (Get item price for an order line) transaction. Note that only line discounts can be used.
This activity is optional and used only for known customers.
- 4 The payments are entered together with gift certificate information, such as the reference ID and the expiration date. If a sum of money still remains on the gift certificate, then the customer is repaid in the form of a credit note or cash. A 1990 transaction is created.

Note: This only applies when the customer receives change when paying with a gift certificate.

Receipt No. 123456			
Item No.	Quantity	U/M	Amount
Item A	1	Pce	99.95
		Subtotal	99.95
		To pay	100.00
		Gift certificate	500.00
		Change back	400.00
VAT 25%		VAT	19.99

- 5** After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 1000=Sale of items
- Transaction type 1990=Payments.

The gift certificate's reference ID and expiration date are added to transaction type 1990. A 1990 transaction is also created for a credit note or repaid cash. The gift certificate's ID number is updated in the Reference field in OPSALE. (See the table that follows.)

The stock level is updated directly and it can be displayed in both 'Balance Identity. Open Toolbox (MWS068)' and 'Stock Transaction. Display History' (MWS070).

The sales ticket input file OPSALE is updated as described below:

Trans-action type	Item No.	Qty	U/M	Ref.	Expiry date	Payment method	VAT	Amount
1000	Item A	1	Pcs				19.99	79.96
1990				1002	20131231	Gift Cert. (GC)		500.00
1990						Cash (CSH)		-400.00
1990						Rounding off (RND)		-0.05

- 6** Sales statistics (OSBSTD) and general ledger (FGLEDG) are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Sales statistics interface' and 'Financial interface' parameters in (OPS280) must be selected before the batch is run. Note that you should also select the 'Inventory accounting interface' parameter. This means that the stock is updated by sales tickets that have been validated in 'POS Sales Ticket Toolbox' (OPS275) or 'POS Sales Ticket. Transfer' (OPS270).

For the general ledger, the following accounting events and types are created:

Accounting event	Accounting type	Amount	Ref.	Expiry date	Bank operation
OP20	101 (cash payment)	500.00	1002	20131231	48 (Gift certificate)
OP20	101 (cash payment)	-400.00			45 (Cash)
OP20	101 (cash payment)	-00.05			46 (Rounding off)
OP20	111 (VAT)	-19.99			
OP20	120 (revenue)	-79.96			

The bank operation is retrieved from the selected payment method.

The bank operation code is used to determine the account used in the general ledger. The reference ID and expiration date from the gift certificate that was used for the payment can be used in the accounting string. The gift certificate's reference ID is balanced against the accounted liability, which was created in account 2420 when the gift certificate was bought. Refer to Managing Cash Sales of Gift Certificates for more information.

Accounting string:

Accounting dimension 1	2420 (Account)
------------------------	----------------

Accounting dimension 2	1002 (Gift certificate number)
Accounting dimension 3	20131231 (Expiration date)
Amount	500.00

Managing Credit Note Refund

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants a cash refund of a credit note that has earlier been entered in the POS system.

Outcome

A credit note refund is entered in the point of sale system. The customer is repaid in cash and a cash refund receipt is given to the customer. Sales information is uploaded to M3 via a point of sale interface. The general ledger is usually updated on a later occasion.

For more information on how to use a credit note as payment for another item, refer to [Managing Cash Sales of Items in a Point of Sales System Integrated with M3](#).

The following files are updated:

- Sales ticket input file-OPSALE
- General ledger file-FGLEDG.

Before you start

An accounting exception must be defined for transaction type 2000 (credit note refund) when you use accounting event OP20 and accounting type 120. Instead of accounting the payment to a sales account (such as 3010), it must be accounted to a liability account (such as 2420). A liability account is a balance account and it affects the balance sheet. A sales account is a profit/loss account and it affects the statement of income. In addition, the reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.

Follow these steps

1 The customer asks for a refund on a POS credit note

The customer asks for a cash refund of a credit note at the point of sale in the shop.

2 Enter credit note information in the point of sale system

The credit note information is entered in the point of sale system. The entered information is credit note value, reference number and expiration date.

3 Create a refund receipt

The refund is entered in the point of sale system and a cash refund receipt is created. The money and a cash refund receipt are given to the customer. A 2090 transaction is created when the money is repaid and the amount is rounded off according to standard practices.

Cash Refund Receipt No.		
123457		
Credit note No.	Expiration date	Amount
1002	20131231	500.00
	Subtotal	500.00
	To repay	500.00
	Change back	0.00
VAT 0 %	VAT	0.00

4 Upload sales information to M3

After the refund is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 2000=Credit note refund
- Transaction type 2090=Payments.

Note that stock levels will not be updated.

The credit note's ID number is updated in the reference field in OPSALE. (See the table that follows.)

The OPSALE sales ticket input file is updated as described in the following table:

Transaction type	Reference	Expiration date	Payment method	VAT	Amount
2000	1002	20131231		0.00	500.00
2090			Cash (CSH)		-500.00

5 Update the general ledger

The general ledger is updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before the batch is run.

For the general ledger (FGLEDG), the following accounting events and accounting types are created:

Accounting event	Accounting type	Amount	Reference	Expiration date	Bank operation
OP20	101	-500.00			45 (CSH)
OP20	120	500.00	1002	20131231	

Note that a bank operation is retrieved from the selected payment method.

The credit note is accounted as a liability in the general ledger. The credit note's reference number and expiration date can be used in the accounting string to identify the transaction. When the credit note is used for repayment, the credit note is balanced against the earlier credit note record in the liability account. (See the table that follows.)

Accounting string:

Accounting dimension 1	2420 (account)
Accounting dimension 2	1002 (credit note number)
Accounting dimension 3	20121231 (expiration date)
Amount	500.00

Managing Credit Sales of Items and Immediate Invoicing to Print Invoice in Shop

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy an item on credit and pay later via an invoice.

Outcome

The item is sold and the credit sale transaction is entered in the point of sale system. Sales information is uploaded to M3 via the POS sales tickets interface (OPS270MI). A customer order is created via the customer order interface (OIS100MI), and the stock level and sales statistics are updated. The customer order is immediately invoiced and the invoice is printed and given to the customer. The general ledger is updated on a later occasion when you process invoices.

The following files are updated:

- Sales ticket input-OPSALE
- Stock balance-MITTRA, MITBAL and MITSTA
- Sales statistics-OSBSTD
- General ledger-FGLEDG

Before you start

- At the shop, it has been decided that stock levels should be updated immediately after sales information is uploaded and validated into M3. The update is started from the external POS system when it communicates with M3 through the sales tickets application programming interface (OPS270MI). The 'Stock update' field must be selected and the 'BchPrcRound' (Batch Process Round Number) API transaction must be used to initiate the process in M3.
- The POS system controls the upload frequency of sales information to M3. The upload frequency is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.
- If customer-specific prices are required at the point of sale, then the POS system must be interfaced with the application programming interface Price and discount inquiry interface (OIS320MI) where the 'GetPriceLine' (Get item price for an order line) transaction must be used.
- The 'Separate accounting' parameter in 'POS Settings' (OPS700) must be selected if you want the discounts to be accounted for separately in the general ledger (FGLEDG). If the 'Separate accounting' parameter is selected, then sales are accounted as gross sales.

Follow these steps

1 The customer picks up the item in the shop

The customer picks up the required item in the shop and takes it to a point of sale.

2 Enter/Scan the item into the point of sale system

The item is entered and/or scanned into the point of sale system and possible prices and discounts are displayed. General price lists from the point of sale system are used.

3 Identify the customer

The customer is identified at the point of sale and a credit check is done. A check is also done to verify whether the customer should have any additional discounts or customer-specific prices. The customer receives a delivery note, including the customer-specific prices.

Customer-specific prices for an item are retrieved by using 'Price and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (Get item price for an order line) transaction. Note that only line discounts can be used.

This activity is optional and used only for known customers.

4 Upload sales information to M3 and create a customer order and an invoice

If a sale transaction to be invoiced to the customer is entered in the point of sales system, it is uploaded to M3 through the customer order application programming interface 'Customer order interface' (OIS100MI) and a customer order is created through the batch order entry 'Batch Order. Open' (OIS275).

Transaction types 1500 – 1520 are user-defined transaction types and can be used to find the sale transaction in the OPSALE file. These transaction types are not further processed beyond the OPSALE file.

5 Post-process invoices and update general ledger

The invoicing is completed except for updating the general ledger. The general ledger is updated through post-processing of invoices in 'CO Invoice. Post-Process' (OIS196). A POS transaction is created in order to maintain an unbroken sales tickets number series.

For the general ledger, these accounting events and types are created:

Accounting event	Accounting type	Amount	Bank operation
OI20	101 (Cash Payment)	100.00	48 (Credit)
OI20	101 (Cash Payment)	-00.05	46 (Rounding off)
OI20	111 (Vat Payable)	-19.99	
OI20	120 (Revenues)	-79.96	

Note: A bank operation is retrieved from the selected payment method.

Managing Credit Sales of Items and Invoicing with Split Due Dates

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy an item on credit and pay later by invoice.

In this scenario, the customer wants to pay on different occasions, that is, one invoice is split into several partial payments with different due dates.

Outcome

The item is sold, a credit sale transaction is entered in the point of sale system and a delivery note is given to the customer. The sales information is uploaded to M3 via the POS sales tickets interface (OPS270MI), a customer order is created via customer order interface (OIS100MI) and the stock level is updated. The customer order is subsequently invoiced and the general ledger and sales statistics are updated during invoicing in 'co Invoice. Print' (OIS180).

The following files are updated:

- Sales ticket input file-OPSALE
- Stock balance file-MITTRA, MITBAL and MITSTA
- Sales statistics file-OSBSTD
- Accounts receivable file-FSLEDG
- General ledger file-FGLEDG.

Before you start

- The parameters in the shop's point of sales system are set to update stock levels online. The update is started from the external POS system when it communicates with M3 through the customer order interface (OIS100MI).
- The POS system controls the upload frequency of sales information to M3. The upload frequency is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.
- If customer-specific prices are required at the point of sale, the POS system must be interfaced with the application programming interface 'Price and Discount Inquiry Interface' (OIS320MI) where the 'GetPriceLine' (Get item price for an order line) transaction must be used.
- A split due date must be defined in 'Payment Term. Open' (CRS075).
- A split due date must be entered in the 'Payment terms' field in 'Customer. Open' (CRS610/J).
- Number series 4='Split customer invoice' must be defined in 'Internal Invoice Series. Open' (MFS165).

Follow these steps

1 The customer picks up the item in the shop

The customer picks up the required item in the shop and takes it to a point of sale.

2 Enter/Scan the item in the point of sale system

The item is entered and/or scanned in the point of sale system and possible prices and discounts are displayed. General price lists from the point of sale system are used.

3 Identify the customer

The customer is identified at the point of sale and a credit check is done. A check is also made to verify whether the customer should have any additional discounts or customer-specific prices. The customer receives a delivery note, including the customer-specific prices.

Customer-specific prices for an item are retrieved by using 'Price and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (Get item price for an order line) transaction. Note that only line discounts can be used.

This activity is optional and used only for known customers.

4 Upload sales information to M3 and create a customer order

After the credit sale transaction is entered in the point of sale system, it is uploaded to M3 through the customer order application programming interface 'Customer order interface' (OIS100MI) and batch order entry in 'Batch Order. Open' (OIS275). A customer order is created, processed to status 66='Delivered' and subsequently invoiced.

The stock level will be updated immediately and it can be displayed in both 'Balance Identity. Open Toolbox' (MWS068) and 'Stock Transaction. Display History' (MWS070).

A POS transaction is created in order to maintain an unbroken sales ticket number series.

The transaction type 1510=Credit sales via 'Batch Order. Open' (OIS275) is used and the transaction is created via the POS sales tickets interface (OPS270MI).

Transaction type 1510 is used to find the credit sales in the OPSALE file and is not further processed beyond the OPSALE file; that is, it does not update the general ledger. General ledger and sales statistics are updated during invoicing in 'co Invoice. Print' (OIS180). (See step 6 below.)

The sales ticket input file OPSALE is updated as described in the following table:

Transaction type	Item No.	Quantity	U/M	VAT	Amount
1510	Item A	1	Pcs	19.99	79.96

5 Invoice customer order and update the general ledger and the sales statistics

The customer order is invoiced in 'co Invoice. Print' (OIS180) and a split invoice is sent to the customer on different due dates.

You can display the split invoice in 'Accounts Receivable. Display Additional Info' (ARS250) by selecting accounts receivable information category 228=Split COM invoice.

The sales statistics (OSBSTD) and general ledger (FGLLEDG) are updated after invoicing is complete in 'co Invoice. Print' (OIS180).

For the general ledger, the following accounting events and types are created:

Accounting event	Accounting type	Amount
OI20	100 (Accounts receivable)	100.00
OI20	100 (Accounts receivable)	-00.05
OI20	111 (VAT Payable)	-19.99
OI20	120 (Revenues)	-79.96

Note: A bank operation is retrieved from the selected payment method.

Managing Credit Sales of Items with Periodic Invoicing

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy items on credit, on frequent occasions during a time period, and pay later by invoice.

In this scenario, the customer is invoiced periodically; once every month, for example. This means that all deliveries made during the time period after the prior invoicing occasion are invoiced at the same time.

Outcome

The item is sold, a credit sale transaction is entered in the point of sale system and a delivery note is given to the customer. The sales ticket information is uploaded to M3 via the POS sales tickets interface (OPS270MI), a customer order is created via customer order interface (OIS100MI) and the stock level is updated. The customer order(s) is subsequently invoiced and the general ledger and sales statistics are updated during invoicing in 'CO Invoice. Print' (OIS180).

The following files are updated:

- Sales ticket input file-OPSALE
- Stock balance file-MITTRA, MITBAL and MITSTA
- Sales statistics file-OSBSTD
- Accounts receivable file-FSLEDG
- General ledger file-FGLEDG.

Before you start

- The parameters in the shop's point of sales system are set to update stock levels online. The update is started from the external POS system when it communicates with M3 through the customer order interface (OIS100MI).
- The POS system controls the upload frequency of sales information to M3. The upload frequency is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.
- If customer-specific prices are required at the point of sale, the POS system must be interfaced with the application programming interface 'Price and Discount Inquiry Interface' (OIS320MI) where the 'GetPriceLine' (Get item price for an order line) transaction must be used.

Follow these steps

1 The customer picks up the item in the shop

The customer picks up the required item in the shop and takes it to a point of sale.

2 Enter/Scan the item in the point of sale system

The item is entered and/or scanned in the point of sale system and possible prices and discounts are displayed. General price lists from the point of sale system are used.

3 Identify the customer

The customer is identified at the point of sale and a credit check is done. A check is also made to verify whether the customer should have any additional discounts or customer-specific prices. The customer receives a delivery note, including the customer-specific prices.

Customer-specific prices for an item are retrieved by using 'Price and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (Get item price for an order line) transaction. Note that only line discounts can be used.

This activity is optional and used only for known customers.

4 Upload sales information to M3 and create a customer order

After the credit sale transaction is entered in the point of sale system, it is uploaded to M3 through the customer order application programming interface 'Customer order interface' (OIS100MI) and the batch order entry in 'Batch Order. Open' (OIS275). A customer order is created, processed to status 66='Delivered' and subsequently invoiced.

The stock level will be updated immediately and it can be displayed in both 'Balance Identity. Open Toolbox' (MWS068) and 'Stock Transaction. Display History' (MWS070).

A POS transaction is created in order to maintain an unbroken sales ticket number series.

The transaction type 1510=Credit sales via 'Batch Order. Open' (OIS275) is used and the transaction is created via the POS sales tickets interface (OPS270MI).

Transaction type 1510 is used to find the credit sales in the OPSALE file and is not further processed beyond the OPSALE file; that is, it does not update the general ledger. General ledger and sales statistics are updated during invoicing in 'co Invoice. Print' (OIS180). (See step 6 below.)

The sales ticket input file OPSALE is updated as described in the following table:

Transaction type	Item No.	Quantity	U/M	VAT	Amount
1510	Item A	1	Pcs	19.99	79.96

5 Invoice customer order and update the general ledger and the sales statistics

All open invoices are invoiced at the end of the agreed time period (a month, for example) and the summary invoice or invoices are sent to the customer. The customer order(s) is invoiced in 'co Invoice. Print' (OIS180).

The sales statistics (OSBSTD) and general ledger (FGLLEDG) are updated after invoicing is complete in 'co Invoice. Print' (OIS180).

For the general ledger, these accounting events and types are created:

Accounting event	Accounting type	Amount
OI20	100 (Accounts receivable)	100.00
OI20	100 (Accounts receivable)	-00.05
OI20	111 (VAT Payable)	-19.99
OI20	120 (Revenues)	-79.96

Note: A bank operation is retrieved from the selected payment method.

Managing Integration of an External Point of Sale System with M3

This document explains how you manage the integration of M3 and an external point of sale (POS) system.

The POS interface is designed for businesses that have a network of shops, most of which are processing shop transactions in a system other than M3. The integration connects local and separate POS systems to M3.

Outcome

An interface is established between M3 and the external POS system to facilitate the transfer of information between the two systems. A shop and its assortment are created and basic data is downloaded. Sales ticket information is uploaded to M3 from the POS system, and M3 stock, sales statistics and general ledger are updated. If requested, distribution orders are also uploaded and created in M3.

A new shop and its assortment are ready to be used and new information can be transferred between M3 and the POS system.

For information about which files are updated in this process, refer to each respective instruction.

Before you start

- A warehouse must be created in 'Warehouse. Open' (MMS005) and the 'Shop information' field on the E panel must be selected to indicate that shop information can be entered for this warehouse. Note that if this field is not selected, the user will not gain access to 'Shop. Open' (OPS500).
- The warehouse must be defined as a shop in 'Shop. Open' (OPS500/E).
- For more information about necessary settings for the point of sales integration process, see [Define Basic Settings for Enabling POS Integration with M3](#) on page 612.

Follow these steps

1 Creating a New Shop

You define a new shop in M3 as well as the kind of information that is to be transferred between M3 and the POS system. For a company with many shops, you can mass create item/warehouse and item/facility records when defining a new shop.

You define a new shop in:

- 'Warehouse. Open' (MMS005)
- 'Shop. Open' (OPS500)
- 'Warehouse Selection Table. Open' (MMS033)
- 'User. Open' (MNS150)
- 'User Group. Open' (CRS004)

2 Creating a New Assortment

You define a new assortment and then connect it to the shop by linking item types to the shop. A number of items are connected to each item type. The item type determines how an item is created and maintained.

If you want to create a new assortment to be connected to many shops at the same time use the mass update function on the central level in M3. Select option 21=Recreate Item/Warehouse in 'Warehouse. Open' (MMS005) to mass update the item/warehouse and item/facility files.

Note that this step is optional. It is possible to create a stock transaction even if an item/warehouse record (MITBAL) does not exist. The item/warehouse record is automatically created based on a template record from another warehouse.

3 Uploading Sales Tickets to M3

M3 stock, general ledger and sales statistics are updated with sales ticket information from the shops. These can be updated either separately or at the same time. The sales ticket information is checked before it is uploaded to M3. If errors are found, you can correct them and restart the update.

4 Uploading Distribution Orders to M3

You transfer distribution orders from a shop to the M3 stock transaction files in 'POS Stock Transaction. Update' (OPS100). Distribution orders are transferred in order to keep track of how items are exchanged between shops or between a shop and the main warehouse.

Manage Payment of a Specific Invoice or Payment Document

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to pay an invoice or payment document in a shop.

Outcome

Information about the customer and the invoice or payment document to be paid is entered in the point of sale system and searched online in M3. The invoice or payment document is paid and a cash receipt is given to the customer. Sales information is uploaded to M3 with a point of sale interface. Accounts receivable and the general ledger are usually updated on a later occasion, but can sometimes be updated immediately.

The following files are updated:

- Sales ticket input file-OPSALE
- Accounts receivable ledger-FSLEDG
- General ledger-FGLEDG

Before you start

- Accounting types 100 and 101 must be defined in 'Accounting Type. Open' (CRS385).
 - Accounting event OP35='Invoice payments' must be defined in 'Accounting Event. Open' (CRS375).
 - The 'Invoice payments' FAM function must be selected in 'Settings - POS' (OPS700).
 - A voucher number series for OP35 in 'FAM Function. Open' (CRS405) must be selected.
 - For the payment of payment documents, number series type 52 must be defined in 'Number Series. Open' (CRS165).
 - You can select 'Overpay control' in (OPS700) to manage overpayment of invoices during a transfer to FIM. Any portion of an invoice or credit note payment that exceeds the outstanding amount is considered overpayment and is treated as an on-account payment. Number series type 52 must be defined in (CRS165).
- Note:** 'Overpay control' (IOPC) has a negative impact on the performance during a transfer to FIM.

Follow these steps

Information about the customer and the invoice or payment document to be paid is entered in the point of sale system and searched online in M3. The invoice or payment document is paid and a cash receipt is given to the customer.

1 The customer wants to pay an invoice or payment document

The customer wants to pay an invoice or payment document at the point of sale in the shop.

2 Enter customer and an invoice or payment document information in the point of sale system

Information about the customer number and the invoice or payment document is entered in the point of sale system.

3 Search M3 online through POS system and select the invoice or payment document to be paid

M3 is searched online with the POS system to find or validate the invoice or payment document to be paid. You perform the search through the application programming interface 'Customer Order Invoice Interface' (OIS350MI) and you use the invoice number and invoice year as search values.

4 Enter the payment

The invoice payment is entered in the point of sale system and a cash receipt is created.

Cash Receipt No. 123457

Customer No.	Invoice No.	Invoice year	Amount
10001	1002	2004	500.00
		Subtotal	500.00
		Total	500.00
VAT 0%		VAT	0.00

5 Set the payment document to 'paid'

For a payment document that has been fully paid, the API transaction PaidPaymentDoc in OPS270MI (POS sales ticket interface) may be run to set the payment document to 'paid'. This releases any blocked logistics connected to the payment document and prints an advance invoice if the payment regards an advance payment document. This sets the outstanding amount to 0, and the status of the payment document is updated to 30 (ODHEAD). The status in the delivery table MHDISH is then set to 1, which means that the picking list can be released. For advance payment documents, the status in table OPRED is set to 75.

Note: If the API is not run, the payment document is instead set to 'paid' when the uploaded sales information is transferred to FIM.

6 Upload sales information to M3

After the payment is entered, it is uploaded to M3 through the point of sales application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 4500=Payment of invoice
- Transaction type 4590=Payments

Note:

- The payment document number is sent in as if it is a regular invoice number.
- Stock levels are not updated.
- The update of general ledger and accounts receivable is sometimes performed immediately.

The OPSALE sales ticket input file is updated as described in this table:

Transaction type	Customer No.	Invoice No.	Invoice year	Payment method	VAT	Amount
4500	10001	1002	2004		0.00	500.00
4590				Cash (CSH)		500.00

7 Update accounts receivable and the general ledger

Accounts receivable and the general ledger are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before the batch is run.

Transaction type 4500='Payment of invoice' is used to determine how the update of accounts receivable and the general ledger is performed. The original invoice is marked as paid.

For payment documents, a record to the customer's credit is created in the accounts receivable. This record represents the payment on the payment document. It contains the payment document number and the payment document year as additional information. This record is automatically matched against an invoice, or an advance invoice, if the payment was received for an advance payment document.

Note: If the payment document has not already been set to 'paid', this is done at this stage if the payment document has been fully paid.

Note: Sales statistics are not updated.

In the general ledger (FGLLEDG), these accounting events and accounting types are created:

Account. event	Account. type	Cust. No.	Amount	Inv. No.	Inv. year	Bank opera-tion
OP35	101		500.00			47 (Master Card)
OI20	100	10001	-500.00	1002	2004	

Note: A bank operation is retrieved from the selected payment method.

Managing Payment to Customer's Account

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to deposit money to his/her own account in a shop.

Outcome

Information about the customer and the amount to be paid is entered in the point of sale system. The money is paid to the customer's account and a cash receipt is given to the customer. Sales information is uploaded to M3 via a point of sale interface. The accounts receivable and general ledger are usually updated on a later occasion, but can sometimes be updated immediately.

The following files are updated:

- Sales ticket input file-OPSALE
- Accounts receivable file-FSLEDG
- General ledger file-FGLEDG

Before you start

- Accounting event OP35 must be defined in 'Accounting Event. Open' (CRS375).
- Accounting types 100 and 101 must be defined in 'Accounting Type. Open' (CRS385).
- Accountings for OP35 must be defined in 'Accounting Rule. Set' (CRS395).
- Number series type 52 and number series 1 must be defined for invoices in 'Number Series. Open' (CRS165).
- The 'Invoice payments' FAM function must be selected in 'Settings-POS' (OPS700).
- A voucher number series for OP35 in 'FAM Function. Open' (CRS405) must be selected.

Follow these steps

1 The customer wants to make a payment to own account

The customer wants to make a payment to his/her own account at the point of sale in the shop. The customer can use the money on the account to pay for items bought in the shop, for example.

2 Enter customer information in the point of sale system

The customer number and the amount to be paid to the customer's account are entered in the point of sale system.

3 Enter the payment to customer's account

The payment to the customer's account is entered in the point of sale system and a cash receipt is created.

Cash Receipt No. 123457

Customer No.	Amount
10001	Deposit to account 500.00
	Subtotal 500.00
	Total 500.00

4 Upload sales information to M3

After the payment is entered, it is uploaded to M3 through the point of sales application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 4500=Payment to account
- Transaction type 4590=Payments

Note that:

- Stock levels are not updated.
- The update of accounts receivable and the general ledger is sometimes performed immediately.

The OPSALE sales ticket input file is updated as described in this table:

Transaction type	Customer No.	Payment method	VAT	Amount
4500	10001			500.00
4590	10001	Cash (CSH)		500.00

5 Update accounts receivable and the general ledger

Accounts receivable and the general ledger are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before batch is run.

Transaction type 4500='Payment to account' is used to determine how the update of accounts receivable and the general ledger is performed. A record to the customer's credit is created in the accounts receivable. This record has to be matched manually against any open invoice.

For the general ledger (FGLEDG), these accounting events and accounting types are created:

Accounting event	Accounting type	Amount	Customer No.	Bank operation
OP35	101	500.00	10001	45 (CSH)
OP35	100	-500.00	10001	

Note that a bank operation is retrieved from the selected payment method.

Managing Returns of Items

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to return an item and be repaid either in cash or by a credit note.

Outcome

A return is entered in the point of sale system and a credit note or cash is given to the customer. Sales information is uploaded to M3 via a point of sale interface and the stock level is updated immediately. The general ledger and sales statistics are usually updated on a later occasion.

The following files are updated:

- Sales ticket input-OPSALE
- Stock balance-MITTRA, MITBAL and MITSTA
- Sales statistics-OSBSTD
- General ledger-FGLEDG

Before you start

- At the shop, it has been decided that stock levels should be updated immediately after sales information is uploaded and validated into M3. The update is started from the external POS system when it communicates with M3 through the sales tickets application programming interface (OPS270MI). The 'Stock update' field must be selected and the 'BchPrcRound' (Batch Process Round Number) API transaction must be used to initiate the process in M3.

- The POS system controls the upload frequency of sales information to M3. The upload frequency is usually determined either by a constant number of sales tickets to be sent each time or by a time interval.
- If customer-specific prices are required at the point of sale, then the POS system must be interfaced with the application programming interface 'Price and Discount Inquiry Interface' (OIS320MI), where the 'GetPriceLine' (Get Item Price for an Order Line) transaction must be used.
- The 'Separate accounting' parameter in 'POS Settings' (OPS700) must be selected if you want the discounts to be accounted for separately in the general ledger (FGLEDG). If the 'Separate accounting' parameter is selected, then sales are accounted as gross sales.
- An accounting exception must be defined for the transaction type 1100 (gift certificate) when you use accounting event OP20 and accounting type 120. Instead of accounting the payment to a sales account (such as 3010), it must be accounted to a liability account (such as 2420). A liability account is a balance account and it affects the balance sheet. A sales account is a profit/loss account and it affects the statement of income. In addition, the gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.
- When you use accounting event OP20 and transaction type 101(=Cash payment), then an accounting exception must be defined for the bank operation code (CTBOPC) used when a gift certificate or credit note is used as the payment method. Instead of accounting the payment to a cash account (such as 1910), it must be accounted to a liability account (such as 2420). In addition, the gift certificate's reference ID (OPREFE) and expiration date (OPDUDT) can be selected as values in the accounting string.

Follow these steps

1 The customer returns to shop with item

The customer returns the item to the point of sale in the shop.

2 Enter/Scan the returned item in the point of sale system

Information about the returned item is entered in the point of sale system, including the original receipt number. A reason code that explains why the customer has returned the item can also be entered in order to store the information in the sales statistics.

3 Identify the customer

The customer is identified and checked to verify whether the returned item had any discounts or customer-specific prices at the time of the purchase. Customer-specific prices for an item are retrieved by using 'Price and Discount Inquiry Interface' (OIS320MI) and the 'GetPriceLine' (Get item price for an order line) transaction.

This activity is optional and used only for known customers.

4 Create returns receipt and credit note

The return is entered together with other information, such as the credit note reference ID and the expiration date, in order to create a credit note and two returns receipts. The customer is repaid either in cash or by a credit note. A 1990 transaction is created.

When repaid in cash, the receipt is as follows:

Return Receipt No. 123456

Item No.	Quantity	U/M	Amount
Item A	1-	Pce	-99.95
		Subtotal	-99.95

Return Receipt No. 123456

	To receive	100.00
VAT 25%	VAT	-19.99

When repaid with a credit note, the receipt is as follows:

**Return Receipt No.
123456**

Item No.	Quantity	U/M	Amount
Item A	1-	Pce	-99.95
		Subtotal	-99.95
		To receive	100.00
		Credit note	100.00
		Credit note number 1002	
		Valid to 20031231	
VAT 25%		VAT	-19.99

5 Upload sales information to M3 and update stock levels

After the return is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 1200=Returns of items
- Transaction type 1990=Payments

The credit note's reference ID and expiration date are added to transaction type 1990. A 1990 transaction is also created for a credit note or repaid cash. The credit note's ID number is updated in the Reference field in OPSALE. (See the table regarding credit notes below.)

The stock level will be updated immediately and can be displayed in both 'Balance Identity. Open Toolbox (MWS068)' and 'Stock Transaction. Display History' (MWS070).

When repaid in cash, the sales ticket input file OPSALE is updated as described in this table:

Trans- action type	Item No.	Qty	U/M	Payment method	VAT	Amount
1200	Item A	-1	Pcs		-19.99	-79.96
1990				Master Card (see note)		-100.00
1990				Cash (see note)		-100.00
1990				Rounding off (RND)		-0.05

Note: There are two different ways to repay the customer in cash. You can repay in money (that is, coins and bank notes) or repay directly to the customer's bank account via the customer's credit card. Both are described in this table.

When repaid with a credit note, the sales ticket input file OPSALE is updated as described in this table:

Trans- action type	Item No.	Qty	U/M	Ref.	Expiry date	Payment method	VAT	Amount
1200	Item A	-1	Pcs				19.99	79.96
1100				1002	20131231			100.00
1990						Rounding off (RND)		-0.05

6 Update general ledger and sales statistics

The sales statistics (OSBSTD) and general ledger (FGLEDG) are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Sales statistics interface' and 'Financial interface' parameters in (OPS280) must be selected before the batch is run. Note that you should also select the 'Inventory accounting interface' parameter. This means that the stock is updated by sales tickets that have been validated in 'POS Sales Ticket Toolbox' (OPS275) or 'POS Sales Ticket. Transfer' (OPS270).

For the general ledger, the following accounting events and accounting types are created when repayment is made in cash:

Accounting event	Accounting type	Amount	Bank operation
OP20	101 (Cash Payment)	-100.00	45 (Cash)
OP20	120 (Revenue)	00.05	46 (Rounding off)
OP20	111 (VAT)	19.99	
OP20	120 (Revenue)	79.96	

Note that a bank operation is retrieved from the selected payment method.

For the general ledger, the following accounting events and accounting types are created when repayment is made by credit note:

Accounting event	Accounting type	Amount	Ref.	Expiry date	Bank opera- tion
OP20	101 (Cash Payment)	100.00			45 (Cash)
OP20	120 (Revenue)	-100.00	1002	20131031	
OP20	111 (VAT)	19.99			
OP20	120 (Revenue)	79.96			

The bank operation code is used to determine the account used in the general ledger. The reference ID and expiration date from the credit note can be used in the accounting string. When the customer uses the credit note as a payment method, the credit note's reference ID is balanced against the accounted liability, which is created in account 2420 when the customer returns the item.

Accounting string:

Accounting dimension 1	2420 (Account)
------------------------	----------------

Accounting dimension 2	1002 (Credit note number)
Accounting dimension 3	20131231 (Expiration date)
Amount	100.00

Managing Sales of Items in the Buy-to-Order Flow Using Advance Payment

This document explains what happens in the point of sale (POS) system and in M3 when a customer wants to buy an item that is not normally kept in stock and therefore needs to be purchased from another supplier. The customer pays in advance for the item.

Outcome

A customer order is created in M3 at a service desk in the shop using the buy-to-order functionality. An advance invoice is created automatically and is given to the customer in the shop. The customer pays for the item in advance (either a down payment or full payment), and sales information is uploaded to M3 via a point of sale interface. Accounts receivable and the general ledger are updated.

When the customer returns to the shop to pick up the acquired item, the customer order is released, the item is picked and a final invoice is created. Sales information with the remaining amount to be paid is once again uploaded to M3 and the stock level, sales statistics, accounts receivable and general ledger are updated.

The following files are updated:

- Sales ticket input file-OPSALE
- Stock balance files-MITTRA, MITBAL and MITSTA
- Sales statistics file-OSBSTD
- Accounts receivable ledger-FSLEDG
- General ledger-FGLEDG

Before you start

- Accounting types 100 and 101 must be defined in 'Accounting Type. Open' (CRS385).
- Accounting event OP35 must be defined in 'Accounting Event. Open' (CRS375).
- The 'Invoice payments' FAM function must be selected in 'Settings - POS' (OPS700).
- A voucher number series for OP35 in 'FAM Function. Open' (CRS405) must be selected.
- Accountings for invoice payments (OP35) must be defined in 'Accounting Rule. Set' (CRS395).

Follow these steps

1 The customer orders a specific item at a service desk

The customer wants to buy an item that is not normally kept in stock and therefore needs to be purchased from another supplier. The customer places an order for this specific item in the shop.

2 Enter the customer order in the buy-to-order flow and initiate advance invoicing online

The customer order is entered directly in M3's buy-to-order functionality. A customer order is created together with a purchase order. An advance invoice is automatically created and printed in the buy-to-order flow in order to facilitate immediate payment of the item in the shop. The customer leaves the service desk with the advance invoice.

3 Identify the customer and advance invoice at POS

The customer takes the advance invoice to a point of sale to pay for the item. The advance invoice and the customer are identified through the 'Customer Order Invoice Interface' (OIS350MI). The 'GetInvHead' (Retrieve Invoice Header) and 'GetInvLine' (Retrieve Invoice Line) transactions are used.

4 Enter payment and get a receipt

A payment is entered that can be either a full payment or a down payment. In our example, EUR 100 is paid in advance. The total value of the ordered item is EUR 300. It is possible to have many different payment methods per receipt; that is, multiple 4590 transactions. For example, a payment can be made in cash, with a check or by credit card. Furthermore, if the customer receives money back or the amount is rounded off according to standard practices, then a 4590 transaction is created.

Example of a receipt with a down payment:

Receipt No. 123456			
Invoice No.	Invoice year	Amount	
1002	2004	Advance	100.00
		Subtotal	100.00
		To pay	100.00

5 Upload sales information to M3

After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Two different transaction types are used:

- Transaction type 4500=Payment of Invoice
- Transaction type 4590=Payments

The OPSALE sales ticket input file is updated as described in this table:

Transaction type	Customer No.	Invoice No.	Invoice year	Payment method	Amount
4500	10001	1002	2004		100.00
4590				Cash (CSH)	100.00

6 Update accounts receivable and general ledger

Accounts receivable and the general ledger (FGLEDG) are updated in batch through 'POS Sales Ticket Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before the batch is run.

For the general ledger, the following accounting events and types are created:

Account. event	Cust. No.	Account type	Amount	Inv. No.	Inv. year	Bank opera- tion
OP35		101	100.00			47 (Master Card)
OP35	10001	100	-100.00	1002	2004	

Note: A bank operation is retrieved from the selected payment method.

7 The item is received in the shop

The ordered item is received in the shop and is reported in M3 through 'Purchase Order. Receive Goods' (PPS300).

8 Release the customer order, pick the item and invoice the order

The initial order is identified either by the order number or by the customer number. The order is released for immediate picking and invoicing. The already paid amount from the advance invoice is automatically deducted from the final invoice. The stock levels, sales statistics, accounts receivable and general ledger are updated. The item and the final invoice are given to the customer.

9 Identify the customer and the final invoice

The customer takes the item and the final invoice to a point of sale to pay for the item. The invoice and the customer are identified through the 'Customer Order Invoice Interface' (OIS350MI). The 'GetInvHead' (Retrieve Invoice Header) and 'GetInvLine' (Retrieve Invoice Line) transactions are used.

10 Enter the payment

The payment is entered in the point of sale system and a cash receipt is given to the customer.

Receipt No. 123489

Invoice No.	Invoice year	Amount
1003	2004	200.00
	Subtotal	200.00
	To pay	200.00

11 Upload to M3 and update accounts receivable and general ledger

After the payment is entered, it is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). The transaction type 4500='Payment of invoice' is used to determine the update of the accounts receivable and general ledger. The final invoice is marked as paid.

The OPSALE sales ticket input file is updated as described in this table:

Transaction type	Customer No.	Invoice No.	Invoice year	Payment method	Amount
4500	10001	1003	2004		200.00
4590	10001			Cash (CSH)	200.00

Note: Sales statistics are not updated.

Accounts receivable and the general ledger (FGLEDG) are updated in batch through 'POS Sales Ticket. Update' (OPS280). The 'Financial interface' parameter in (OPS280) must be selected before the batch is run.

For the general ledger, the following accounting events and types are created:

Account event	Account type	Amount	Cust. No.	Inv. No.	Inv. Year	Bank operation
OP35	101	200.00	10001			47 (Master Card)
OP35	100	-200.00	10001	1003	2004	

Note: A bank operation is retrieved from the selected payment method.

Managing Telesales of Items and Payment in Shop

This document explains what happens in the point of sale (POS) system and in M3 when a customer places an order via telephone and later picks up and pays for the ordered item in the shop.

Outcome

A customer order is created in M3. When the customer comes to the shop to pick up the ordered item, the customer order is released, the item is picked and an invoice is created. The stock level, sales statistics, accounts receivable and general ledger are updated. The invoice is given to the customer in the shop and the customer pays the invoice at checkout.

The following tables are updated:

- Sales ticket input file-OPSALE
- Stock balance files-MITTRA, MITBAL and MITSTA
- Sales statistics file-OSBSTD
- Accounts receivable ledger file-FSLEDG
- General ledger file-FGLEDG.

Before you start

- Accounting types 100 and 101 must be defined in 'Accounting Type. Open' (CRS385).
- Accounting event OP35='Invoice payments' must be defined in 'Accounting Event. Open' (CRS375).
- Accountings for OP35 must be defined in 'Accounting Rule. Set' (CRS395).
- The 'Invoice payments' FAM function must be selected in 'Settings - POS' (OPS700).
- A voucher number series for OP35 must be selected in 'FAM Function. Open' (CRS405).

Follow these steps

1 Enter a customer order

The customer calls the shop and places an order. The item is to be picked up on a later occasion and the customer wants to pay in cash. The customer order is entered directly in M3 through 'Customer Order Open' (OIS100).

2 Release the customer order, pick the item and invoice the order

When the customer comes to the service desk in the shop, the initial order is identified in M3 either by the order number or the customer number. The order is released for immediate picking and invoicing. The stock levels, sales statistics and general ledger are updated. The customer receives the item and the invoice and goes to a point of sale to pay for the item.

3 Identify the customer and the final invoice

At the point of sale, the invoice and the customer are identified through the 'Customer Order Invoice Interface' (OIS350MI). The 'GetInvHead' (Retrieve Invoice Header) and 'GetInvLine' (Retrieve Invoice Line) transactions are used.

4 Enter the payment

The payment is entered in the point of sale system and a cash receipt is given to the customer.

5 Upload to M3

After the payment is entered, the sales ticket information is uploaded to M3 through the point of sale application programming interface 'POS sales tickets interface' (OPS270MI). Transaction type 4500='Payment of invoice' is used to determine the update of the accounts receivable and general ledger. The final invoice is marked as paid.

Note that sales statistics are not updated.

The OPSALE sales ticket input file is updated as described in this table:

Transaction type	Customer No.	Invoice No.	Invoice year	Payment method	Amount
4500	10001	1002	2004		100.00
4590	10001			Cash (CSH)	100.00

Print Checks in Cash Desk

Checks are valid payment methods in the cash desk, where credit notes are also handled. This document describes how to print checks against a credit note.

Before you start

- In 'Cash Desk. Open' (OIS210/G), ensure that you define this setup:
 - Enable the 'Permit creation of checks' setting.
 - Select a bank account ID for which the check will be created.

- Select a payment method against accounts payable. Note that this payment method must also be available in 'AR Payment Method. Open' (CRS076).
- In 'FAM Function. Open' (CRS405), define the cash/sent status.

Follow these steps

- 1 Create a payment line against a credit note in 'Cash Payment. Open' (OIS215).
- 2 Select F16=Create check.
- 3 A new panel is displayed (OIS215/F). The check number, accounting date, payee and payee address are displayed, and some of the information is editable. You can also enter a message to the payee. Press Enter when all changes have been made.
- 4 The payment is automatically validated and the check is printed. A record in 'Check. Open Checkbook' (APS300) is created. The status of the check depends on the cashed/sent setting for the FAM function for cash desk (OI30).
- 5 At the end of the day when the cash desk is validated in 'Cash Desk. Validate' (OIS217) and the transactions are updated to the accounts, the check printout is accounted and the check is updated with voucher information.
 - The check is booked on the accounting string from the bank account ID on which the check was created.
 - The contra account will be the invoice transactions entered in 'Cash Payment. Open' (OIS215), for example the payback of a credit note.

Outcome

A check is printed from the cash desk to pay money back to the customer, and the check is updated in 'Check. Open Checkbook' (APS300).

Sales Tickets

A sales ticket represents all different transactions created in a point of sale (POS) system. A sales ticket can be a cash receipt or a credit sale to be invoiced in M3, cash withdrawal, bank remittance, logging into the POS system, for example.

Sales tickets are used when integrating an external point of sale (POS) system with M3. Sales tickets information is uploaded from the POS system to M3 and the information will be used for updating sales statistics, general ledger and stock.

Sales tickets information is uploaded automatically to M3 via POS sales tickets interface (OPS270MI). Sales tickets can also be uploaded in batch via 'POS Sales Ticket. Transfer' (OPS270)270 or individually via 'POS Sales Ticket. Open' (OPS275).

Select Shelf Labels to Print in Point of Sales

This functionality is used to select and print shelf labels in a shop. The printing can be done in one of the following ways according to the selections done in 'Shelf Labels. Select' (OPS650):

- From 'Shelf Labels.Select'.
- For an individual item through the MI program OPS650MI.
- Automatic printing for changed items.

Limitations

- No OUT layout is delivered.
- The selection in 'Shelf Labels. Select' (OPS650) is made per warehouse, in order to avoid executing large volumes of label printing by mistake.

Outcome

Stream files for shelf labels according to the specified label type are created.

Automatic generation

Automatic generation takes place when changes are made on the item in M3. The base for generation is created when 'Item. Net Transfer' (OPS620) is run.

Changes of the following fields on the item trigger a new label:

- Name (ITDS)
- Description (FUDS)
- Sales price unit (SPUN)
- EAN code (EACD)
- Warehouse/location (WHS)
- Sales price unit (SPUN)
- Comparison price unit (SPU1)
- Normal price unit (SPU2)
- Free field 4 (CFI4)
- Sales price VAT included (SAPR)
- Comparison price VAT included (SAP1)
- Normal price VAT included (SAP2)
- Packing size at main supplier (UNMO)

Note: Records from database table OPLABL in a specific status are selected.

Mapping label type against stream file

- Label type 1 - Stream file OPS651PF
- Label type 2 - Stream file OPS651P1
- Label type 3 - Stream file OPS651P2
- Label type 4 - Stream file OPS651P3
- Label type 5 - Stream file OPS651P4

- Label type 6 - Stream file OPS651P5
- Label type 7 - Stream file OPS651P6
- Label type 8 - Stream file OPS651P7
- Label type 9 - Stream file OPS651P8

Follow These Steps

- 1 Start 'Shelf Labels.Select' (OPS650).
- 2 Choose a selection function:
 - 1 = Manual selection
 - 2= Selection from auto generated base
- 3 Make other appropriate selections and press Enter.

Configuration Settings

- If auto generation of labels is used, 'Item.Net Transer' (OPS620) must be performed.
- For automatic printing of shelf labels, OPS651S1 must be scheduled in 'Job Schedule Function. Open' (SHS030).
- A customer must be defined in (MMS005/E). The price is retrieved from the price hierarchy defined for this customer.
- In 'Customer. Open' (CRS610/G), the 'Vat included' field determines whether the prices entered include VAT.
- 'Shelf Label. Settings' (OPS010) must contain a record for each warehouse used for label printing. Settings can be defined per item, item group and per location. A check is first done on item level, then on item group and lastly on location.
- Output settings must be defined in 'Output Selection. Open' (MNS204) and 'Output Media Selection. Open' (MNS205).

Optional Settings

- A comparison price is defined in Item Alternate Units (MMS015), with unit type 7.
- Nine different label types can be used. The first three are predefined and consist of the following:
 - Label type 1. Shelf label (Small). 4 x 7 labels per A4. Printed on stream file OPS651PF.
 - Label type 2. Medium. 1 x 5 labels per A4. Printed on stream file OPS651P1.
 - Label type 3. Large. 1 label per A4. Printed on stream file OPS651P2.

Transfer Sales Tickets from OXSALE to OPSALE and Validate

This document explains how you transfer and validate sales ticket information in the OXSALE file. This file is where you temporarily store information after uploading it from an external point of sale system. The information is then uploaded to the OPSALE file.

Once the sales ticket information is transferred to the OPSALE file, you can update the stock, sales statistics and general ledger in M3.

Outcome

The sales ticket information is validated and transferred to the OPSALE file.

The M3 general ledger, sales statistics and stock can be updated in 'POS Sales Ticket. Update' (OPS280).

The sales ticket input file (OPSALE) is updated.

Before you start

- Sales ticket information must be uploaded from an external point of sale system to the OXSALE file.
- The sales ticket information must be checked and validated in the OXSALE file.

Follow these steps

- 1 Start 'POS Sales Ticket. Transfer' (OPS270/E).
- 2 On the E panel, specify an interface round number.
The interface round number is used to identify all transactions in a sales ticket batch.
- 3 Specify a facility, warehouse, and transaction date. Press Enter and the records will be transferred to the OXSALE file.
Specify a facility, from warehouse, to warehouse, and transaction date. Press Enter and the records will be transferred to the OXSALE file.
The sales tickets with a transaction date on or before the date you have indicated on this panel are transferred.

Update M3 General Ledger with Sales Ticket Information

This document explains how to update the M3 general ledger with sales ticket information received from an external point of sales (POS) system.

Outcome

The general ledger in M3 is updated according to the different types of movements made in the external POS system. For example, sales, bank remittances, credit notes issuing and refunds, payment in advance issuing and refunds, tax removal refund, petty cash withdrawal.

In 'Accounts Receivable. Display' (ARS200) you can check the update of the general ledger.

New accounting objects (accounting rules, accounting events, etc.) are created and used depending on the sales ticket record type.

The various entries per record type are:

Record type	Description	Entries	Debit/Credit
1000	Sales	OP20 120 OP20 111 OP20 112	Credit Credit Credit
1100	Gift certificate	OP20 120	Debit
1990	Payment	OP20 101	Debit
1200	Return (issuing credit note)	OP20 120 OP20 111 OP20 112	Debit Debit Debit
1990	Payment	OP20 101	Credit
1300	Cancelled ticket	No	No
1400	Demo ticket	No	No
1500	Login/Logout	No	No
1600	Daily takings	No	No
1610	Daily takings bankfunds	OP50 370	Debit
1620	Daily takings difference	OP50 350	Credit/Debit
1690	Daily takings payments	OP50 101	Credit
2000	Credit note refund	OP20 101	Debit
2090	Payment	OP20 120	Credit
2200	Payment in advance re-fund	OP20 101	Debit
2290	Payment	OP20 120	Credit
2400	Tax removal refund	OP20 111	Debit
2490	Payment	OP20 101	Credit
4000	Reservation (payment in advance)	OP20 120	Debit
4090	Payment	OP20 101	Credit
4200	Unpaid checks regularization	OP20 120	Credit
4290	Payment	OP20 101	Debit
4500	Account deposit of in-voice payment	OP35 100	Credit
4590	Payment (account or in-voice)	OP35 101	Debit

Record type	Description	Entries	Debit/Credit
5000	Bank remittance	OP30 370	Debit
		OP30 101	Credit
7000	Petty cash expenses	OP40 701	Debit
		OP40 211	Debit
		OP40 212	Debit
7090	Payment	OP40 101	Credit

Before you start

- Meet the starting conditions listed in [Defining Settings for Enabling POS Integration with M3](#) on page 616.
- Transfer the sales ticket information from the external POS system to OPSALE (through OXSALE).
- The status of the OPSALE records is 60='Ready for finance update'.
- Define the FAM functions on 'FAM Function. Open' (CRS405/B).

These FAM functions are used for sales tickets:

- OP20 Sales ticket invoicing
 - OP30 Advance payments
 - OP35 Invoice payments
 - OP40 Sales ticket petty cash
 - OP50 Daily takings
- Define the accounting events on 'Accounting Event. Open' (CRS375/B).

These accounting events are used for sales tickets:

- OP20 Sales tickets and refunds
 - OP30 Bank remittance
 - OP35 Invoice payments
 - OP40 Petty cash expenses
 - OP50 Daily takings
- Define the accounting type 701='Petty cash expenses' on 'Accounting Type. Open' (CRS385/B).
 - Define the accounting rules and accounting strings on 'Accounting Rule. Set' (CRS395/B).

Follow these steps

- Start 'POS Sales Ticket. Update' (OPS280/E).
- On the E panel, specify an interface round number, a facility, and a warehouse (shop).
On the E panel, specify an interface round number, a facility, a from warehouse (shop), and a to warehouse (shop).
The interface round number is used to identify all transactions in a batch. All records with the same round number are processed. Interface round numbers are defined in 'Number Series. Open' (CRS165).
- Specify a transaction date.
You can enter the transaction date manually when you enter transactions. In these instances, the current date is proposed for the transaction date by default. In 'Req/Distr Order. Open' (MMS100), a future transaction date and time are entered. This date determines when the transaction is automatically

processed. The transaction date is the planned issue date. For distribution orders, the planned receipt date at the receiving warehouse is shown on (MMS100/F) to the right of the transport time.

- 4 Select the 'Financial interface' field. Press Enter and the general ledger in M3 is updated.
- Note:** Select the 'Financial interface' field on both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E).
- 5 Specify an accounting date. The date must be within the valid range according to the FAM functions set up in 'Settings - POS' (OPS700).
- 6 Optionally, specify a voucher text for the transactions. The voucher text set up in (OPS700) for the division will be proposed as the default.
- 7 Press Enter and the general ledger is updated.

When the general ledger is updated, the OPSALE records are set to status 80='No further update'.

Parameters to set

Program ID/ Panel	Field	The field indicates ...
(OPS500/G)	Financial interface	... whether M3 general ledger is to be updated with sales ticket information received from the external POS system that is connected to this warehouse (shop). Note: Select the 'Financial interface' field on both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E) to update the general ledger in M3.
(OPS700/E)	Account dimension for check due date	... in which accounting dimension in the general ledger the due date is updated. This applies when a sales ticket is received in M3 from the external POS system.
(OPS700/E)	FAM function for sales ticket invoicing	... the FAM function used for sales ticket invoicing. Select FAM function OP20, which is used to book sales transactions.
(OPS700/E)	FAM function for sales ticket refund	... the FAM function used for sales ticket refunds. Select FAM function OP20, which is used to book refunds.
(OPS700/E)	Accounting option - negative differences	... the accounting option used to book negative rounding differences between the POS system and M3 FAM. The valid values are 20 to 99.

Program ID/ Panel	Field	The field indicates ...
(OPS700/E)	Accounting option - positive differences	... the accounting option used to book positive rounding differences between the POS system and M3 FAM. The valid values are 20 to 99.

Note: The fields described in the table above, are necessary for the general ledger update when transferring sales ticket information from the external point of sales system. For more information on the settings to be defined in the financial management process, see the section [Before you start](#) and documentation.

Update M3 Sales Statistics with Sales Ticket Information

This document explains how you update M3 sales statistics with sales ticket information received from an external point of sale (POS) system. It also explains how you can re-create sales statistics when conditions have been changed or when an error has occurred.

Outcome

The sales statistics in M3 are updated. Sales tickets are treated in the same way as customer orders when updating sales statistics.

The sales statistics can be used for future budgeting, planning of stock and promotions, for example.

Sales ticket information is transferred from the sales ticket input file (OPSALE) to the detailed sales statistics file (OSBSTD). The origin code of all records that are uploaded from the POS system is 8.

Before you start

- The starting conditions listed in [Define Basic Settings for Enabling POS Integration with M3](#) on page 612 must be met.
- Sales ticket information from the external POS system must be transferred to OPSALE (via OXSAL).
- The status of the OPSALE records must be lower than status 80=No further update.
- The record type of the OPSALE records must either be 1000=Sales or 1200=Customer return.
- The 'Sales statistics interface' field has been selected in 'Shop. Open' (OPS500/G). Note that this field must be selected in both (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E) in order for the sales statistics to be updated in M3.
- A status 20=Active dataset must exist in 'Dataset. Open' (OSS401). This dataset must have a transaction type 32=Sales statistics connected to it in 'Dataset. Connect Dataset Transaction Type' (OSS406).

Follow these steps

Update the sales statistics file (OSBSTD)

- 1 Start 'POS Sales Ticket. Update' (OPS280/E).

- 2 On the E panel, specify an interface round number, a facility and a warehouse (shop).

On the E panel, specify an interface round number, a facility, a from warehouse (shop), and a to warehouse (shop).

The interface round number is used to identify all transactions in a batch. All records with the same round number are processed. Interface round numbers are defined in 'Number Series. Open' (CRS165).

- 3 Enter a transaction date.

You can enter the transaction date manually when you enter transactions. In these instances, the current date is proposed for the transaction date by default. In 'Req/Distr Order. Open' (MMS100), a future transaction date and time can be entered. This date determines when the transaction is automatically processed. The transaction date is the planned issue date. For distribution orders, the planned receipt date at the receiving warehouse is shown in (MMS100/F) to the right of the transport time.

- 4 Select the 'Sales statistics interface' field. Press Enter and the sales statistics in M3 are updated.

The 'Sales statistic interface' field must be selected in both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E).

When sales statistics are updated, the status of the 'Update sales statistics' field in OPSALE is raised from 1=Ready for update to 2=Statistics are updated.

Re-create sales statistics

- 1 Start 'Sales Statistics. Re-Create' (OSS995/E).

- 2 On the E panel, select the 'Customer order' field (re-create sales statistics for delivery order lines which have been invoiced). Press Enter to re-create sales statistics.

Records which has been uploaded from a POS are taken into account.

You can either re-create all datasets ('Detailed stats'=1) or only one dataset at a time (if you enter a dataset on the E panel in (OSS995)).

Update M3 Stock with Sales Ticket Information

This document explains how to update M3 stock with sales ticket information that is received from an external point of sale (POS) system.

It also explains how to update the internal accounting file.

Outcome

The stock movements of a POS integrated shop and the internal accounting are updated in M3.

Transactions with transaction type 30=Customer order - return are created from sales tickets with record type 1200=Customer order return.

Transactions with transaction type 31=Customer order - issue are created from sales tickets with record type 1000=Sales.

These files are updated:

- The file for start values and parameters (CSYSTR)
- The file for start values for printer selections (CSYSTP).

When the stock transaction file is updated, the shop's stock transactions are displayed in 'Stock Transaction. Display History' (MWS070) and in 'Balance Identity. Open Toolbox' (MWS068). You can, for example, print these lists and use them to follow up on stock transactions that were entered.

Before you start

- The starting conditions listed in [Define Basic Settings for Enabling POS Integration with M3](#) on page 612 must be met.
- The sales ticket information must have been uploaded and validated in the OPSALE file.
- Sales tickets with record type 1000=Sales or 1200=Customer return in the external POS system must have been transferred to the OPSALE file in M3.
- The status of the OPSALE records must be 40=Ready for stock update.
- Accounting events must be defined in 'Accounting Event. Open' (CRS375).

These accounting events are used for internal accounting:

- OP05 Sales ticket returns - used for record type 1200 (credit note)
- OP10 Sales ticket delivery - used for record type 1000 (sales)
- OP20 Sales ticket invoicing - accounting events OP05 and OP10 are balanced by event OP20.
- Accounting rules must be defined in 'Accounting Rule. Set' (CRS395/B).

This table shows the accounting events and accounting types that are connected:

OP05	910	Inventory
OP05	904	Not inspected customer return
OP10	910	Inventory
OP10	951	Delivered/not invoiced
OP20	951	Delivered/not invoiced
OP20	971	Cost of sold goods

Follow these steps

- 1 Start 'POS Sales Ticket. Update' (OPS280/E).
- 2 On the E panel, specify an interface round number, a facility, and a warehouse (shop).
On the E panel, specify an interface round number, a facility, a from warehouse (shop), and a to warehouse (shop).
The interface round number is used to identify all transactions in a batch. All records with the same round number are processed. Interface round numbers are defined in 'Number Series. Open' (CRS165).
- 3 Specify a transaction date.
You can specify the transaction date manually when you enter transactions. In these instances, the current date is proposed for the transaction date by default. In 'Req/Distr Order. Open' (MMS100), a future transaction date and time can be entered. This date determines when the transaction is automatically

processed. The transaction date is the planned issue date. For distribution orders, the planned receipt date at the receiving warehouse is shown in (MMS100/F) to the right of the transport time.

- 4 Select the 'Inventory accounting interface' field. Press Enter and the stock transaction file is updated.

Note that the 'Inventory accounting interface' field must be selected in both 'Shop. Open' (OPS500/G) and 'POS Sales Ticket. Update' (OPS280/E) to update M3 stock.

When the stock transaction file in M3 is updated, the OPSALE records are set to:

- Status 60=Ready for finance update if update of the general ledger or accounts receivable is to be performed, or
- Status 80=No further update.

Update Internal Accountings

- 1 Start 'Internal Account Entry. Create' (CAS950/E).
- 2 Specify a time period for the transaction dates.
- 3 Select the 'Stock transaction' and the 'Other transactions' fields. Press Enter and the internal accounting file is updated.

These events are created in the internal accounting file (CINACC):

- Sales tickets with record type 1000 (sales) - OP10 910 and OP10 951 are balanced by OP20 951 and OP20 971.
- Sales tickets with record type 1200 (customer order return) - OP05 904 and OP05 910 are balanced by OP20 951 and OP20 971.

Parameters to set

Note: The fields described here are necessary for the stock update when transferring sales ticket information from the external point of sales system.

Program ID/ Panel	Field	The field indicates ...
(OPS500/G)	Inventory accounting interface	<p>... whether M3 stock is updated with sales tickets received from the external POS system that is connected to this warehouse (shop).</p> <p>Note that the 'Inventory accounting interface' field must be selected in both 'Shop. Open' (OPS500/G) and in 'POS Sales Ticket. Update' (OPS280/E) for the stock transaction file in M3 to be updated.</p>

Program ID/ Panel	Field	The field indicates ...
(MMS005/H)	Retrieve stock transactions	<p>... whether messages retrieved from the external POS system are to update M3 stock transactions when using batch entry in (MMS870).</p> <p>The messages retrieved in this way can be displayed and updated in 'Internal Stock Msg. Manage' (MMS850). Only messages with permitted qualifiers, as defined in 'Internal Stock Trans Qualif. Open' (MMS860), are transferred.</p>
(OPS700/E)	Customer order type	<p>... a customer order (CO) type. This is defined in 'Settings - POS' (OPS700). This CO type will be defaulted for all sales tickets received from the external point of sales system into M3.</p> <p>Note that the CO type specified in (OPS700) cannot be used in 'Customer Order. Open' (OIS100).</p>
(MWS010/F)	Create accounting entries for stock transactions	<p>... whether financial transactions are created from stock transactions. This field must be selected to update internal accountings. The dispatch policy must be connected to the customer ordertype indicated in 'POS - Settings' (OPS700/E). You must connect a dispatch policy to a customer order type in 'CO Type. Open' (OIS010/J).</p>

Uploading Sales Ticket Information to M3

This document explains how you transfer sales ticket information from an external point of sale (POS) system to M3.

Note: All steps in this process are performed automatically when the upload is initiated from the POS system, but when an error occurs you can correct the error and then continue uploading manually.

Outcome

Sales ticket information is uploaded to M3 where it is checked and validated. If any errors occur during upload, they can be corrected in 'POS Sales Ticket. Open' (OPS275) before the general ledger, stock and sales statistics are updated in M3.

Refer to each respective instruction for information on **How the system is affected**.

Before you start

- A warehouse must be created in 'Warehouse. Open' (MMS005). The 'Shop information' field in (MMS005/E) must be selected to indicate that shop information can be specified for this warehouse.
- A shop must be defined in 'Shop. Open' (OPS500).
- A customer order type must be specified in 'Settings-POS' (OPS700/E). The customer order number series of this order type will be used when customer orders are created from sales tickets uploaded from the POS system.
- Sales tickets whose status is 00=Received in OXSALE from external POS system must exist in the OXSALE transaction file.

Follow these steps

1 Create New Batch Identity

The POS system asks M3 for a batch number for the sales ticket batch to be uploaded to M3. Different API (application programming interface) transactions are used; AddRoundNumber, SndSlsTicketLin, SndSlsTicketPay, GetRoundNumber, DelRoundNumber, BchProcRound, for example.

2 Upload Sales Tickets

The sales tickets are uploaded via the POS sales ticket interface (OPS270MI) and they are temporarily stored in the OXSALE file. You can make a selection of facility, warehouse and transaction date. You use an interface round number to identify all transactions in a batch.

3 Check Uploaded Batch

The OXSALE records are displayed in 'POS Sales Ticket. Open' (OPS275), where you can add or change information before it is sent to the OPSALE file. The different statuses of the temporary orders are:

- Status 00 = Received in OXSALE from external POS system
- Status 05 = Error found in OXSALE (transfer to OPSALE has failed)
- Status 06 = Record already exists in OPSALE
- Status 10 = Valid sales ticket information in OXSALE (transfer to OPSALE can be processed)
- Status 90 = Transferred to OPSALE.

4 Delete Uploaded Batch

If you checked the sales ticket batch in the OXSALE file and found that a number of transactions differ from the transactions sent from the POS system, then you can delete the uploaded batch and upload again. The uploaded batch is deleted by using the 'DelRoundNumber' (delete interface round number) API transaction.

5 Transfer and Validate

Sales tickets are transferred to the OPSALE file and validated. You can transfer sales tickets either in batch or individually. You must transfer the sales tickets from the OXSALE file to the OPSALE file before the M3 database update can take place.

The sales tickets are automatically transferred and validated through the POS sales ticket interface (OPS270MI) by using the 'BchPrcRound' (batch process round number) API transaction.

You can also transfer and validate sales tickets manually in batch in 'POS Sales Ticket. Transfer' (OPS270) and individually in 'POS Sales Ticket. Open' (OPS275).

6 Correct Errors

If the required information is missing or incorrect, the update of the OPSALE file will fail.

These information is mandatory for all records:

- Company, division, customer order number, customer order line number, delivery number, record type, warehouse, currency, transaction date, and invoiced amount

These information is required for record types 1000=Sales (product) and 1200=Return (issuing a credit note):

- Customer number, item number, alternate U/M, VAT code, invoiced quantity

These information is required for record type 7000=Petty cash expense:

- Item number, VAT code

This information is required for record types ending with '...90':

- Bank operation code

You correct errors in 'POS Sales Ticket. Open' (OPS275).

7 Update M3

When all sales tickets are validated in the OPSALE file, you can update M3 with the sales ticket information. You can select to update the general ledger, sales statistics and stock separately or at the same time.

The parameters that control the update are defined in 'Settings–POS' (OPS700), 'Shop. Open' (OPS500) and in 'POS Sales Ticket. Update' (OPS280).

M3 is updated automatically through the POS sales ticket interface (OPS270MI) by using the 'BchPrcRound' API transaction and manually in 'POS Sales Ticket. Update' (OPS280).

Chapter 10: Cash Desk

Configure a cash desk for registering cash payments

This document explains how you create a cash desk to register cash payments for cash invoices. This document also explains how you connect one or several users and a payment method to the cash desk. If a user and a payment method are not connected to a cash desk, you cannot use the cash desk when registering a cash payment.

You configure for cash desk payments in these cases:

- You want to create a new cash desk and you wish to connect a payment method to the cash desk, connect approvers, and give authorization to a user to register cash payments
- You want to change the conditions for an existing cash desk concerning payment methods or authorization of users.

Outcome

One or several cash desks are defined and identified per facility.

You can use the cash desk to register cash payments of invoices. You can subsequently select and display the registered payments in different ways to facilitate tracing of certain types of cash payments in the cash desk.

These tables are updated:

- Cash desk data (OCASHD)
- Cash desk - Payment method (OCASHP)
- Cash desk - Authorization per user (OCASHA)
- Cash desk - Connect approver (OCASHB)

Before you start

- A facility must be defined in 'Facility. Open' (CRS008).
- A user or users must be defined in 'User. Open' (MNS150).
- A payment method or payment methods must be defined in 'AR Payment Method. Open' (CRS076).

Follow these steps

Specify cash desk identity and number of users

- 1 Start 'Cash Desk. Open' (OIS210/B).
- 2 Select the facility to which the cash desk is to be connected. (Required)

- 3 Specify a cash desk identity of your choice (maximum of five characters) and select 'New' to show panel E.
- 4 On panel E, specify a cash desk name and description to facilitate identification of the cash desk. A cash desk name is required.
- 5 In the '**Multi-users**' field, specify whether the cash desk is to be used by more than one user.

Specify payment method and partial payment

- 1 Select a default payment method that is to be retrieved automatically at registration of a cash payment.
- 2 Select a default payment method that is to be retrieved automatically when validating a cash desk.
- 3 In the '**Allow partial payment**' field, specify whether partial payment is to be allowed when registering a cash payment.

Specify the reference cash desk amount

- 1 Specify an amount of money as a reference cash desk amount. Press Enter to proceed to panel F.
- 2 In the '**Confirm message**' field on panel F, specify whether a warning message is to be displayed when leaving 'Cash Payment. Open' (OIS215) by pressing F3='End' without having previously pressed F14='Validate'.

Specify payment methods and payment tolerances

- 1 Select which payment method is going to be used for cash payments, reconciliation, and positive and negative tolerances. (All fields are required)
- 2 In the '**Payment tolerance permitted**' field, specify whether a payment tolerance is permitted.
- 3 Specify the maximum payment tolerance percentage and amount.

Specify reconciliation settings

- 1 In '**Reconciliation**', specify whether reconciliation is to be used as part of the end of day process.
- 2 If reconciliation is used, specify in the '**Payment tolerance permitted**' field whether a payment tolerance is permitted.
- 3 If a payment tolerance is permitted, specify the maximum payment tolerance percentage and amount.
- 4 In the '**Display deviation**' field, specify whether the deviation amount and the total of the transactions specified are to be displayed in 'Cash Desk. Reconcile' (OIS207) and 'Cash Desk. Validate' (OIS217) when reconciliation has been performed.
- 5 In the '**Account option**' field, specify which accounting option to use if a deviation is approved.

Select the FAM function and VAT code

- 1 Select the FAM function to which the cash payments are going to be connected. (Required)
- 2 Select which VAT code is to be used for payment tolerance.
- 3 In the '**F14 transfers into accounting**' field, specify whether cash payments are to be automatically transferred into accounting when validating the cash desk. Press Enter to finish the configuration.
You have now created a cash desk. The next step is to connect a user and payment method to the cash desk.

Connect a user to a cash desk

- 1 Start 'Cash Desk. Connect User' (OIS212/B).
You can also start this program through related option 12='Connect user' on (OIS210/B).
- 2 Select a facility.
- 3 On the E panel, activate the '**Authorization**' field, which indicates whether the user is authorized to use the cash desk. Press Enter to confirm the connection and you return to panel B.
Repeat the steps from Connecting a User to a Cash Desk if you want to connect more than one user.

Connect a payment method to a cash desk

- 1 Start 'Cash Desk. Connect Payment Method' (OIS211/B).
You can also start this program through related option 11='Connect payment method' on (OIS210/B).
- 2 Select a facility.
- 3 Select a cash desk and the payment method that you would like to connect to the cash desk. Select 'New' to display the E panel.
- 4 If the reconciliation functionality is used, specify whether this payment method is to be reconciled.
- 5 Press Enter to confirm the connection and you return to panel B.

Connect approver to a cash desk (if reconciliation is used)

- 1 Start 'Cash Desk. Connect Approver' (OIS209/B).
- 2 Select a facility.
- 3 Select a cash desk to which you would like to connect the approver. Select 'New' to display the E panel.
- 4 In the '**First approver**' field, specify whether the approver is a first approver. The first approver is automatically selected as the approver when the transactions are set to for approval at reconciliation.
- 5 In the '**Unavailable**' field, specify if and when the approver is unavailable.
- 6 If the approver is unavailable, specify the substitute that is to be set as approver the time the approver is unavailable. Press Enter to confirm the connection and you return to panel B.

Repeat the steps for **Connecting an approver to a cash desk** if you want to connect more than one approver.

Parameters to set

Parameters to set for Program ID/Panel (OIS210/E)

Field	The field indicates ...
Multi-users	<p>...whether more than one user is allowed to use the cash desk.</p> <p>The valid alternatives are:</p> <p>0 = No, only one user can be connected to the cash desk. This means that this user is to be the only one allowed to register payments in this cash desk.</p> <p>1 = Yes, several users can be connected to the cash desk.</p>

Field	The field indicates ...
Cash desk type	...the type of cash desk. To better use and manage a cash desk, you can select a cash desk type. The available cash desk types are: virtual, physical, or safe. The type of each cash desk can be easily retrieved by viewing the subfile in (OIS210).
Workstation ID	...a physical workplace. If the cash desk type is set to physical or safe, the cash desk in M3 Business Engine must be connected to a physical workplace by assigning it a workstation ID. The workstation ID can represent a host name or similar and can be used to control which printers are used, for example.
Default payment method - Registration	...a default payment method, which is used at registration of a payment in (OIS215).
Default payment method - Validation	...a default payment method, which is used at validation of a cash desk; that is, when you close a cash desk at the end of a day in (OIS217).
Externally managed credit card payments	...whether an external system from a third-party provider is used for credit card handling.
Allow partial payment	...whether partial payment is allowed in (OIS215).
	The valid alternatives are:
	0 = No, do not allow partial payment
	1 = Yes, allow partial payment.
Allow petty cash	...whether the cash desk is to handle petty cash transactions. Petty cash is used for managing smaller, unplanned expenses connected to a cash desk. To use petty cash, the petty cash functionality must be activated for the cash desk. An appropriate setup must be defined in 'AR Accounting Option. Open' (ARS020) regarding how the petty cash withdrawal is to be accounted for.
	For more information, see Handling Petty Cash in Cash Desk on page 700
Allow credit card overpayment	...if you want to allow more to be paid by credit card than the required amount shown in (OIS215). If this is not set and the user tries to make an overpayment by credit card, a stop message is displayed.
Omit printout of cash payment details	...whether printing of cash payment details is to be omitted when validating payments in (OIS215). If you do not select the check box, the cash payment details are automatically printed during payment validation. You can print cash payment details manually in 'Cash Payment. Print' (OIS223).
Check doubtful invoices	...whether doubtful invoices require checking during transfer to FIM. The updated accounting string of the doubtful invoice is used when transferring the payment to FIM. If you do not select the check box, the accounting string from 'CO Invoice. Display Account Entry' (OIS360) is used by payments of invoices.

Field	The field indicates ...
Reference amount	...an amount of money in small change cash that you physically have in the cash desk when the day starts. It is expressed in the local currency. It is to be subtracted when calculating the cash desk amount to remit when validating the cash desk in (OIS217).
Last validation date	...the date of the last cash desk validation. The field is updated automatically after the last validation.
Cash desk amount	...the cash desk amount after the last cash desk validation. The amount is transferred automatically from the last validation.
Next validation date	...the next valid date for payments, which has been specified during the last validation.
Printer	<p>...a printer ID from which printer settings can be retrieved at receipt printout.</p> <p>If a printer is specified for the Cash Desk, the printer settings for the user in 'Output Media Selection. Open' (MNS205) are overruled, and instead the printer settings from 'Printer. Open' (CRS290) for the specified printer are to be used for the printout.</p>
Block automatic invoice line creation	...whether to prevent an automatic creation of invoice lines if ' Cash dsk active ' is selected on 'CO Type. Open' (OIS010/E) to call (OIS215) after an order entry. If the parameter is activated, ' Invoice no ' and ' Year ' are populated in the fields, and invoice lines are not automatically created in (OIS215). If you do not select the check box, invoice lines are automatically created in (OIS215).

Parameters to set for Program ID/Panel (OIS210/F)

Field	The field indicates ...
Confirm message	<p>...whether a warning message is to be displayed when leaving (OIS215) by pressing F3='End' without having previously pressed F14='Validate'. If the user leaves (OIS215) without pressing F14='Validate', the payments are not confirmed.</p> <p>The valid alternatives are:</p> <p>0 = No, do not display warning message 1 = Yes, display warning message.</p>
Payment method - Cash payment	<p>...which payment method is used for cash payments.</p> <p>The payment method is used as a general sorting key for similar routines when handling customer payments. Payment methods for Accounts Receivable are defined in (CRS076).</p> <p>Each payment method is connected to a payment class, which is an ID used to classify different payment methods. The payment class is, in turn, connected to a payment type, which is a general designation for a category of payments (such as Cash or Draft).</p>

Field	The field indicates ...
Payment method - Reconciliation	...which payment method is used for reconciliation. Reconciliation is a financial term and it is used when you register a payment and choose the invoice to be paid. Reconciliation is created when the invoice's amount is equal to the paid amount, and is used when you pay an invoice with a credit note.
Payment method - Positive tolerance	...which payment method is used for positive tolerances. A positive tolerance is created when the paid amount is greater than the amount to pay.
Payment method - Negative tolerance	...which payment method is used for negative tolerances. A negative tolerance is created when the paid amount is less than the amount to pay.
Payment tolerance permitted	<p>...whether a payment tolerance (see example below) is permitted when specifying payments in (OIS215).</p> <p>The valid alternatives are:</p> <p>0 = No, payment tolerance is not permitted</p> <p>1 = Yes, payment tolerance is permitted.</p>
Maximum payment tolerance percentage	<p>... what percentage is to be used for a maximum payment tolerance. When specifying payments in (OIS215), and the percentage difference between the amount to pay and the paid amount is less than this percentage, a payment line is created automatically in the sub-file for this difference.</p> <p>If the percentage difference is greater than this percentage, the creation of a payment line must be confirmed manually for this difference.</p> <p>For example: The maximum payment tolerance percentage is 3 percent and the amount to pay is 100 SEK. The customer pays only 98 SEK. The difference between the amount to pay and the paid amount is 2 percent, which is less than the payment tolerance, and a line is created automatically for this difference. If the customer only pays 95 SEK, the difference is to be 5 percent, which is more than the payment tolerance, and the payment line must be confirmed manually.</p> <p>The maximum percentage can be combined with the maximum amount (for example, 3 percent and 10 SEK).</p>
Maximum payment tolerance amount	<p>...what amount is to be used as the maximum payment tolerance amount. This amount is expressed in local currency. When specifying payments in (OIS215), and the difference between the amount to pay and the paid amount is less than this amount, a payment line is created automatically in the subfile for this difference.</p> <p>If the difference is greater than this amount, the payment line created must be confirmed manually for this difference. The maximum amount can be combined with the maximum percentage (for example, 3 percent and 10 SEK).</p>

Field	The field indicates ...
Check limit amount	...if a warning message is to be displayed when the cash desk exceeds the amount limit specified in 'Cash Desk. Enter Amount Limits' (OIS206). You can control the amount permitted per cash desk by specifying the amount limits in (OIS206). A warning message is issued during cash payment transactions when the limit is exceeded informing the user to transfer the money to a safety box.
Reconciliation	...whether reconciliation is to be used as part of the end of day process. If reconciliation is activated and must be performed every day, the cash desk must be approved and reconciled before it can be validated in (OIS217). If the reconciliation is not used or if reconciliation is activated but with the possibility to skip days, the cash desk can be validated even if the transactions have not been reconciled.
Payment tolerance permitted	...that if no payment tolerance is permitted during reconciliation, any difference must be approved. If payment tolerances are permitted, they must be defined in the settings payment tolerance maximum percentage and payment tolerance max amount. Valid approvers must be defined per cash desk in (OIS209).
Maximum Payment tolerance percentage	...the maximum tolerance percentage. When performing the reconciliation and the percentage difference between the counted payments and the payment transactions are bigger than the payment tolerance percentage, the reconciliation must be approved by an approver. The maximum percentage can be combined with the maximum amount.
Maximum Payment tolerance amount	...the maximum tolerance amount. When performing the reconciliation and the amount difference between the counted payments and the payment transactions are bigger than the payment tolerance amount, the reconciliation must be approved by an approver. The maximum amount can be combined with the maximum percentage.
Display deviation	...you are to select the check box if the deviation amount and the total of the transactions specified are to be displayed in (OIS207) and in (OIS217) when reconciliation has been performed.
Accounting option	...If a deviation is approved, this accounting option is used to account the deviation.
FAM function	...the detail record under accounting event OI30 to which cash payments are connected.
VAT code	...the VAT rate for payment tolerance. The VAT type and VAT accounts are connected to the VAT code. The VAT type and VAT rate, as well as valid From dates, are updated in (CRS030).

Field	The field indicates ...
Transfer to FIM	<p>...whether cash payments are to update Accounts Receivable when validating the cash desk through function key F14='Validate' in (OIS217).</p> <p>The valid alternatives are:</p> <p>0 = No, cash payments are not transferred into Accounts Receivable when validating the cash desk</p> <p>1 = Yes, cash payments are automatically transferred into Accounts Receivable when validating the cash desk.</p> <p>Note: Payments can only be transferred into the financial system if connected invoices have been previously transferred to FIM.</p>
Accounting option - cash movement	<p>...the accounting option used for cash movement. When several cash desks are used within the same store, cash often requires to be moved between the cash desks. The accounting option is used as an intermediary account between the bank account ID connected to the cash desks to not get unbalanced account transactions.</p>
Print Receipt	<p>...whether a receipt is to be created and printed after validation of a cash desk.</p> <p>Alternative/s:</p> <ul style="list-style-type: none"> 1 No, receipt is not used 2 Yes 3 Ask user whether to print receipt.
Receipt series	<p>...the number series used when printing Cash desk receipts. The Number series type is C2.</p>
Print invoices	<p>...whether invoice copies are to be printed after validation of a cash desk when the cash desk receipt is printed.</p> <p>Alternative/s:</p> <ul style="list-style-type: none"> 0 = No 1 = Yes
Hide amount	<p>...the parameter that is used to activate the functionality that hides the payment amounts in (OIS217). The parameter has two options for activating the functionality. The first alternative activates the functionality and hides the payment amounts in (OIS217) for all users. The other alternative hides the payment amounts for all users not set as approvers for the cash desk.</p>

Field	The field indicates ...
Permit on-account payments	...indicates whether the on-account payment functionality is activated. The on-account payment functionality accepts cash payment for one or more transactions or invoices, or a generic amount, on a credit customer account. This allows customers to bring in physical payment for open balances on their credit account. The cash accepted is handled exactly as the other invoiced transactions, held in cash on hand and managed through (OIS215). This cash is to be manually applied to the customer's account through the accounts receivable department after the physical cash deposit is recorded.
On-account number series	...the on-account number series. The same ID may be used by other series if they belong to other types. For example, there may be a series A for order numbers as well as for invoice numbers, although they have separate number ranges and start values. This is used in the cash desk when making on-account payments but also when paying advance payment documents and payment documents.
Bank account identity	...the bank account ID to which the cash desk is connected. The bank account ID determines which accounting string is to be used when money is moved into and out of the cash desk. This "internal" bank account keeps track of the transactions into and out of the cash desk.
Send application message	...you are to select the check box to send an application message to the credit department reference when an on-account payment occurs. The application message is sent to the credit department reference on the payer ('Customer. Open' (CRS610)). If the credit department reference is blank on the payer, then it is sent to the credit department reference on the cash desk (OIS210).
Credit department reference	...a reference code for the credit manager. The codes are defined in (ARS025).

Parameters to set for Program ID/Panel (OIS210/G)

Field	The field indicates ...
Permit creation of checks	...whether creation of outgoing checks is permitted. Check creation is used to print a check against a credit note. When the check is permitted, you can print a physical check in (OIS215). The payment method is against accounts payable since the functionality refers to outgoing payments. Note: It is important to set the same payment method for accounts receivable to get the validation process in (OIS217) to work.
Bank account identity	...the bank account ID on which the check is to be created.

Field	The field indicates ...
Payment method - accounts payable	<p>...a method for how the payment is processed. Payment methods are used as general sorting keys for similar procedures when processing customer and supplier payments. Payment methods for accounts payable are defined in (CRS071).</p> <p>Each payment method is connected to a payment type, which is an ID used to classify different payment methods. Payment types are separate sets of specific settings, which are in turn connected to a payment class. Payment class is a general designation for a category of payments (such as Cash, Draft, Direct debiting).</p>
Original payment method	<p>...the setting that is used to activate the functionality of selecting payment methods from the original invoice. This parameter has three alternatives:</p> <ul style="list-style-type: none"> • The functionality is not activated. • The functionality is activated and after a payment method is selected, the 'Payment method' field in (OIS215) is to be protected until the payment is added. • The functionality is activated and changes in the payment method are allowed in (OIS215), even though the original payment method has already been selected.
Change payment facility	...the setting that is used to activate the functionality to allow changing the payment facility of the invoices specified in (OIS215).
Default payment facility	...the setting that is used to specify the default payment facility when using the change payment facility functionality. The setting only becomes visible if the 'Change payment facility' parameter is activated.

Display and Restart Interrupted Payment Transactions

This document describes how to configure M3 Business Engine to support credit card payments in the customer order entry using a third-party provider.

Overview

If 'Cash Payment. Open' (OIS215) is interrupted when transactions are entered, the transactions are displayed in 'Interrupted payment transaction. Open' (OIS233) and can be restarted or deleted.

Restart or delete an interrupted transaction

In (OIS233) it is possible to:

- restart the interrupted transactions. You are automatically directed to (OIS215) where you can continue to process the transactions.

- delete an interrupted transaction.
Note: Transactions including a credit card payment where the cash desk uses externally managed credit card payments are not deleted. You must restart the transaction and continue the credit card processing in (OIS215).
- Mass delete: Enter a selection of cash desks. If the interrupted payment transaction has a payment date that is earlier than next validation date of the cash desk, the transactions are deleted.
Note: Only transactions where the user has the authority to use the cash desk are deleted. Credit card transactions are also deleted.

We recommend you to check (OIS233) before performing the end of day process.

Handling Cash Payments of Invoices

This document explains how to handle cash payments for customer invoices. This includes both invoices not intentionally meant to be paid in cash and invoices registered to be paid in cash from the beginning.

The purpose is:

- To be able to handle cash payment immediately after order entry and invoicing, or after invoicing of an advance invoice.
- To facilitate the organization of cash payments at the point of sales, either immediately after order entry and invoicing, or at a common cash desk.

Outcome

The invoice is paid and a payment with a unique cash payment number is created. After validation of the cash desk, the invoice is transferred into accounting.

You will have good control of the paid invoices, and the Sales Ledger and Sub-ledger are updated. It is possible to select and display cash payments and cash invoices when specific information is needed. For example, it is possible to select all invoices from a certain date or payments from a certain payer.

The cash payment process updates the following files:

- Payments (OPAYMH)
- Payments - Details (OPAYMD)
- Cash desk reconciliation log (OPAYML)
- Sales ledger (FSLEDG)
- General ledger (FGLLEDG)
- Check number master file (FCHKMA).

Before you start

- A customer invoice must be registered in the customer order flow.
- A facility must be defined in 'Facility. Open' (CRS008).
- A user must be defined in 'User. Open' (MNS150).
- A cash desk must be defined in 'Cash Desk. Open' (OIS210).

- A payment method and a user must be connected to the cash desk in 'Cash Desk. Connect Payment Method' (OIS211) and 'Cash Desk. Connect User' (OIS212). If reconciliation is used approvers must be connected to the cash desk in 'Cash Desk. Connect Approver' (OIS209).
- New number series type C1 with number series 1 and if receipts are printed number series type C2 must be created in 'Number Series. Open' (CRS165).
- If reconciliation is used the settings must be defined in 'Cash desk Reconciliation. Settings' (OIS208).
- The parameter 'Petty cash' must be activated in 'Payment Term. Open' (CRS075/E) in order to initiate the cash sales management after invoicing.
- It is important that the parameter 'Cash payment' on the same panel, (CRS075/E), is not activated. If 'Cash payment' is activated, the sales ledger is not updated. (However, you cannot activate both parameters together.)
- The check box 'Cash desk active' should be selected in 'Customer Order. Open' (OIS100/P) or 'CO type. Open' (OIS010/E) to automatically activate 'Cash Payment. Open' (OIS215) at the end of customer order entry or at the end of an advance invoice. (Note: If this parameter is not activated, (OIS215) is not started automatically, but you can still start it and register the payment. You will need to select the invoice number instead of having it automatically retrieved.)
- Next manual function of the customer order type should be set to 4=Invoicing in 'Customer Order Type'. Open (OIS010/E) to print the invoice or cash receipt immediately. (Note: If not, you will not go directly to (OIS215) after (OIS100) exit, but as above, you can still start the program.)

Follow these steps

1 Add Invoice for Cash Payment

If the invoice was not originally intended for cash payment, the invoice has to be reclassified. The invoice can be reclassified in the program 'CO Invoice. Display' (OIS350).

2 Initiate Payment

When a customer wants to pay an invoice in cash, you initiate the payment by specifying information such as cash desk, payer, currency, payment method, invoice number(s), and payment amount in foreign currency. You register a cash payment in 'Cash Payment. Open' (OIS215).

3 Register Payment per Payment Method

Customers want to pay an invoice in different ways, such as by cash and/or by check. You register how the payment is handled through the payment method. The payment method is defined in 'AR Payment Method. Open' (CRS076). It is possible to register a payment with different payment methods. A payment can also be a partial payment if the customer wants to pay only a part of the invoice amount.

4 Validate Payment

When the cash payment is registered it has to be validated (that is, confirmed) in 'Cash Payment. Open' (OIS215) before leaving the program. If the Cash desk setting is set to create a receipt this will now be created and printed. After validation, a payment is created and will be displayed in 'Cash Desk. Validate' (OIS217) with a unique payment number assigned to it. After validation of the cash desk, the invoice is transferred into General Ledger and Sub-ledger. This transfer can be performed either automatically during cash desk validation in (OIS217), or in a separate function: 'Cash Desk. Transfer to FAM' (OIS218).

Handling Petty Cash in Cash Desk

This document explains how to control the cash desks that are allowed to handle petty cash withdrawals in 'Cash Desk. Open' (OIS210) and to conduct the petty cash transaction in 'Cash Payment. Open' (OIS215).

Background

Companies using cash desks require an easy way to manage petty cash withdrawals in the cash desk in order to handle smaller, unplanned expenses.

Before you start

The 'Allow petty cash' setting in (OIS210/E) must be selected.

Follow these steps

- 1 Open (OIS215), and select F19='Petty Cash'.
- 2 Specify the required information in the pop-up window. Press OK.
- 3 The transaction is displayed in the subfile in (OIS215/B).
- 4 Select F14='Validate payment' to validate the transaction.
- 5 The transactions can be viewed in 'Cash Payment. Display' (OIS219) and in 'Cash Desk. Validate' (OIS217/B) for the cash desk.
- 6 Validate the cash desk in (OIS217). If 'Transfer to FIM' is enabled in (OIS210/F), the transactions automatically update financials; otherwise, 'Cash Desk. Transfer to FIM' (OIS218) must be run.

Workflow for petty cash

A setting that controls whether a cash desk may handle petty cash is available in (OIS210/E) named 'Allow petty cash'.

A pop-up window is accessible using F19='Petty cash' in (OIS215). It contains the following fields:

- From cash desk
- To cash desk
- Purpose
- Currency

The 'Purpose' field is accessible with accounting options available in 'AR Accounting Option. Open' (ARS020). The account selected here will be used when accounting for the petty cash withdrawal.

The information in the pop-up windows will be shown in the subfile in OIS215/B. Use F14='Validate Payment'.

'Cash Desk. Validate' (OIS217) is used to validate the cash desk. The account connected to the cash desk in 'Bank account ID' in (OIS210/F) is credited and the account connected to the selected 'Purpose' in the pop-up window is debited.

If 'Transfer to FIM' is enabled in (OIS210/F), the transaction automatically updates financials when the cash desk is validated; otherwise, 'Cash Desk. Transfer to FIM' (OIS218) must be run. You can then view the transaction in 'Cash Payment. Display' (OIS219).

Move Cash between Cash Desks in Cash Desk

This document explains how to conduct a cash movement transaction between two cash desks on one screen in 'Cash Payment. Open' (OIS215).

Background

Companies using several cash desks often need to be able to move cash between the cash desks in an easy, logical way. For these companies, it is important to be able to move cash to and from a safe deposit box when maximum cash desk amount limits have been reached or when more money is needed in the cash desks where the customers pay.

Before you start

The 'Accounting cash movement' field in (OIS210/F) must be filled in.

Follow these steps

- 1 Open (OIS215), and select F18='Cash movement'.
- 2 Specify the required information in the pop-up window. Press OK.
- 3 The transaction is displayed in the subfile in (OIS215/B).
- 4 Select F14='Validate payment' to validate the transaction.
- 5 The transactions can be viewed in 'Cash Payment. Display' (OIS219) and in 'Cash Desk. Validate' (OIS217/B) for both the supplying cash desk and the receiving cash desk.
- 6 Validate the cash desks in (OIS217). If 'Transfer to FIM' is enabled in (OIS210/F), the transactions automatically update financials; otherwise, 'Cash Desk. Transfer to FIM' (OIS218) must be run.

Workflow

A pop-up window is accessible using F18='Cash movement' in (OIS215). It contains the following fields:

- From cash desk
- To cash desk
- Amount
- Currency

The information in the pop-up windows will be shown in the subfile in (OIS215/B). Use F14='Validate Payment'.

'Cash Desk. Validate' (OIS217) is used to validate the cash desks. Since cash desks are validated individually, an intermediary account is necessary between the two accounts connected to the cash desks in 'Bank account

ID' in 'Cash Desk. Open' (OIS210/F) in order not to get unbalanced account transactions. This intermediary account is set up in the field 'Accounting cash movement' in (OIS210/F) for every cash desk, and the account chosen for the supplying cash desk will be used as an intermediary account for the transaction.

When you validate the supplying cash desk in (OIS217), the account connected to the supplying cash desk in 'Bank account ID' in (OIS210/F) is credited and the intermediary account is debited. When you validate the receiving cash desk in (OIS217), the intermediary account is credited and the account connected to the receiving cash desk in 'Bank account ID' in (OIS210/F) is debited.

If 'Transfer to FIM' is enabled in (OIS210/F), the transactions automatically update financials when the cash desks are validated; otherwise, 'Cash Desk. Transfer to FIM' (OIS218) must be run. You can then view the transactions in 'Cash Payment. Display' (OIS219).

Print Checks in Cash Desk

Checks are valid payment methods in the cash desk, where credit notes are also handled. This document describes how to print checks against a credit note.

Before you start

- In 'Cash Desk. Open' (OIS210/G), ensure that you define this setup:
 - Enable the 'Permit creation of checks' setting.
 - Select a bank account ID for which the check will be created.
 - Select a payment method against accounts payable. Note that this payment method must also be available in 'AR Payment Method. Open' (CRS076).
- In 'FAM Function. Open' (CRS405), define the cash/sent status.

Follow these steps

- 1 Create a payment line against a credit note in 'Cash Payment. Open' (OIS215).
- 2 Select F16=Create check.
- 3 A new panel is displayed (OIS215/F). The check number, accounting date, payee and payee address are displayed, and some of the information is editable. You can also enter a message to the payee. Press Enter when all changes have been made.
- 4 The payment is automatically validated and the check is printed. A record in 'Check. Open Checkbook' (APS300) is created. The status of the check depends on the cashed/sent setting for the FAM function for cash desk (OI30).
- 5 At the end of the day when the cash desk is validated in 'Cash Desk. Validate' (OIS217) and the transactions are updated to the accounts, the check printout is accounted and the check is updated with voucher information.
 - The check is booked on the accounting string from the bank account ID on which the check was created.
 - The contra account will be the invoice transactions entered in 'Cash Payment. Open' (OIS215), for example the payback of a credit note.

Outcome

A check is printed from the cash desk to pay money back to the customer, and the check is updated in 'Check. Open Checkbook' (APS300).

Print Selected Cash Invoices

This document explains how you can make a selection of unpaid cash invoices. It also explains how to prepare the selected invoices for printing. Use this instruction when you want to:

- Select one invoice or several invoices within a certain range, such as per invoice date or from one specific facility
- Print out one or several unpaid invoices.

Outcome

A selection of one or several cash invoices is made and the invoices are printed out.

The printed unpaid cash invoice can be used to trace customers who have not completely paid their invoices so you can send them a reminder.

Before you start

Standard views and sorting orders must be generated (F14) in 'View. Open' (CRS020) and in 'Sorting order. Open' (CRS022).

Follow these steps

- 1 Start 'Cash Invoice. Print Unpaid' (OIS221).
- 2 Select one or several of the following selection criteria to limit the range of invoices to be printed.

The available criteria are:

- Facility
- Payment facility

The payment facility is the facility charged with the cash payment. It can be different from the invoicing facility.

- Year
- Invoice number
- Payer
- Invoice date
- Due date
- Invoice amount – foreign currency
- Currency

- 3 Select a sorting order.

If several selection criteria are marked, they must have different values. The lowest numerical value is given the highest priority.

- 4 Activate the 'Page break' field if a page break should be made on the printout, and activate the 'Print totals' field if totals should be printed on line breaks.
- 5 Select a date format and a report layout.
The layout specifies the information available in the report. There is only one valid alternative:
01 = Payer, name, invoice date, invoice number, invoice amount, currency, due date.
- 6 Specify optional text to be used as a report header and a heading on the first page of the report.
If selections or overrides have been defined in 'Printer File Definition'. Open' the O panel will be displayed. Specify the printing criteria on the O panel. Press Enter and the selected records of cash invoices will be printed.

Print Selected Cash Payments

This document explains how you select a range of cash payments based on a number of criteria. It also explains how you prepare the selected payments for printing. Use this instruction when you want to:

- Select a certain type of information from the cash payments in a cash desk
- Print out a list with the selected payments.

Outcome

A selection of cash payments is made and a list of the selected cash payments is printed out.

You can use the printed list of selected cash payments as a tool to select and trace specific information about the cash payments, such as cash payments per:

- Cash desk
- Payment method
- A certain range of payment numbers
- A certain range of invoice numbers
- Payment status

The printed list can also be used as a control list, which enables you at the end of the day to check that the payments registered at the cash desk were correct and that no mistakes have been made.

Before you start

Standard views and sorting orders must be generated (F14) in 'View. Open' (CRS020) and in 'Sorting order. Open' (CRS022).

Follow these steps

- 1 Select and Print Out Cash Payments

Start 'Cash Payment. Print' (OIS223/E).

Select one or several of the following selection criteria to limit the records to be printed out.

- Facility
- Payment facility. The payment facility is the facility charged with the cash payment. It can be different from the invoicing facility.
- Cash desk
- Payment method Accounts Receivable
- Status
- Payment number
- Payment amount – foreign currency
- Currency
- Year
- Invoice number
- Payer
- Cash desk transaction type

2 Select the report layout and a date format.

The layout specifies the information available in the report. There is only one valid alternative:

01 = Payer, payer's name, payment number, invoice date, invoice number, invoice amount, payment amount, currency, payment date, transaction type, payment method.

3 Enter an optional text and a sorting order.

The optional text is to be used as a report header and a heading on the first page of the report.

If several selection criteria are marked, they must have different numerical values in a sorting order. The lowest numerical value is given the highest priority.

4 Activate the 'Page break' field if a page break should be made on the printout, and the 'Print totals' field if totals should be printed on line breaks. Press Enter.

If selections or overrides have been defined in 'Printer File Definition. Open' the O panel will be displayed. Specify the printing criteria on the O panel. Press Enter and the selected records of cash payments will be printed.

Reclassify an Invoice for Cash Payments

This document explains how you reclassify an invoice for cash payment.

You reclassify an invoice for cash payments when a customer wants to pay the invoice in cash and it was not originally intended for cash payments.

You can also disconnect a cash invoice from the cash sales process; that is, you specify that an invoice that was originally meant to be paid at a cash desk will be paid through the Accounts Receivable programs.

Outcome

The invoice is reclassified for cash payment.

Even if required conditions were not fulfilled during customer order entry, an invoice which was not intended to be paid at a cash desk can still be reclassified and vice versa. The invoice is displayed in 'CO Invoice. Display' (OIS350/B) where sorting order 5 only displays cash invoices.

The invoice header file (OINVOH) is updated.

Before you start

A customer order must be invoiced in the customer order process.

Follow these steps

Preparing an invoice for cash payments

- 1 Start 'Customer Order Invoice. Display' (OIS350/B).
- 2 Select an sorting order to identify the invoice in question. The valid alternatives are:
 - 1 = Invoice number
 - 2 = Voucher number, invoice number
 - 3 = Order number, warehouse, index
 - 4 = Payer, invoice number
 - 5 = Payer, invoice number (only cash invoices are displayed)
- 3 Select the invoice and press Enter to display the E panel.
- 4 On the E panel, activate the 'Cash sales' field, which indicates payment through cash sales.
If 'Cash sales' is not activated, the payment will be made through the Accounts Receivable programs.
- 5 Select a predefined payment facility.
The payment facility can be different from the invoice's facility.
- 6 Press Enter to finish the reclassification.

Disconnect a cash invoice from the cash sales process

- 1 Start 'Customer Order Invoice. Display' (OIS350/B).
- 2 Select an sorting order to identify the invoice in question.
- 3 Select the invoice and press Enter to display the E panel.
- 4 On the E panel, deactivate the 'Cash sales' field.
- 5 Press Enter to finish the reclassification.

Reconcile and validate cash desks

This document explains how you reconcile and/or validate a cash desk and set the cash desk payments ready to be transferred to accounting. This document also explains how you can add or withdraw manual cash transactions in the cash desk.

Use this instruction when you want to do these:

- Reconcile or validate the payments in a cash desk at the end of the day, or both
- Add or withdraw cash transactions manually in a cash desk
- Display the records of payments and manually added cash movements in a cash desk.

Outcome

A cash desk is reconciled and validated. You can use validation to set the cash payments ready for transfer to accounting. The information on all cash payments registered in a cash desk and the manually added or withdrawn cash movements are displayed.

After cash desk validation, the cash desk is closed for the selected payment date and the payments can be transferred to accounting.

These tables are updated:

- The table for payments – (OPAYMH)
- The table for payments – Details (OPAYMD).

Before you start

Generate (F14) the standard views and sorting orders in 'View. Open' (CRS020) and 'Sorting order. Open' (CRS022).

Follow these steps to specify/select transaction details for validation

1 Start 'Cash Desk. Validate' (OIS217/B).

All payments created in 'Cash Payment. Open' (OIS215) are displayed. On the B panel, heading values for facility and payment date are retrieved automatically, where the default value of facility is 'user's facility' and the default value for payment date is 'today's date'.

If reconciliation is used and must be performed every day, continue with [Follow these steps to count/reconcile the cash desk](#) on page 708.

Note: If reconciliation is used but with the possibility to skip days, the Count/reconcile part is optional and does not have to be performed every day. However, if reconciliation of the transaction has been started it must be completed before the cash desk can be validated.

2 Select the payment method, if necessary.

The payment method is retrieved as a default value if information in the '**Default payment method – Validation**' field is specified on the 'Cash Desk. Open' (OIS210/E) panel.

3 Select the ID of the cash desk (Required).

4 Select the transaction type, if necessary.

Each time a payment is created, a transaction type is automatically assigned and cannot be changed. These are the valid alternatives: **01='Payment'; 03='Payment tolerance - positive'; 04='Payment tolerance - negative'; 05='Reconciliation'; 06='Receipts'; 07='Expenses'; 08='Cash desk amount'** (after validation). These transaction types are used when payments are transferred to accounting. An accounting event corresponds to each transaction type, except for **08='Cash desk amount'**.

5 Select a currency.

When a currency is selected in the panel heading, the sum of the payments in the selected currency is displayed in the '**Total**' field, and the amount to be remitted for the selected currency is displayed in the '**To remit**' field. If the currency of the cash desk division is selected, the '**To remit**' amount is equal to the sum of the cash payments minus the reference cash desk amount (OIS210/E). If no specific currency is selected, both amounts are converted to the currency of the cash desk division, with the cash desk reference amount deducted from the '**To remit**' amount.

6 Select one of these alternatives:

- To specify new information on the payment, go to the E panel.

Select '**Open**' to proceed to the E panel.

Information about the paid invoices is displayed on the E panel and you can change the payment method if the payment status is set to 20. You can also specify the bank identity and the check number if the payment is made by check. This information is required when validating the cash desk.

Press Enter to confirm the specified information.

- To add a manual cash desk transaction, go to the F panel.

Press **F17='Add a movement'** to proceed to the F panel. If there are transactions in status awaiting approval, only approvers can add a movement.

Specify the description of the cash movement, the payment amount, and the currency.

The cash payment method is automatically assigned to this movement (from (OIS210/F): Payment method - Cash payment) and the payer is the cash desk code. If you withdraw money from the cash desk, the payment amount is negative and the payment sets the transaction type to 07 (expenses). If you add money to the cash desk, the payment amount is positive and the payment sets the transaction type to 06 (receipts).

Pressing **F11='Accounting string'** starts 'Manual Accounting String' (CRS935), which enables you to specify accounting strings.

If there are transactions in status awaiting approval, the payment amount and deviation are updated to the count/reconcile record (OPAYMR). Note that if there is no deviation after the movement, this still needs to be approved in the count/reconcile view.

7 Press Enter to confirm the cash movement.

Follow these steps to count/reconcile the cash desk

- 1 Start (OIS217/B) and click '**F15**' to go to the count/reconcile view or click **F14='Validate'** in (OIS215).
- 2 In the count/reconcile view, you can set the filter to payment statuses, cash desk, approver, and reconciliation used. All payment methods valid for the cash desk are displayed regardless of whether there were any transactions for the payment method. The information is aggregated per cash desk, payment method, and currency. The payment methods with a payment record are displayed with information on currency and lowest status. If there are no specified transactions or if there is only a transaction transferred from a previous payment date (transaction type 8), status 00 is displayed. If you filter on 'reconciliation used', only the payment methods using reconciliation are displayed.
- 3 Select the record to reconcile and press **F11='Count/reconcile'** to proceed to 'Cash Desk. Reconcile' (OIS207).
- 4 If the payment method selected is a cash payment, the number of bills and coins are specified. If the payment method is not cash, you can specify the number of receipts (for example, the number of checks) and the amount received.

- 5 When all is counted and specified, click 'Reconciliation'. Depending on the result of the reconciliation, different actions must be taken:
 - If there are no deviations between the counted amount and the transactions specified in the cash desk, the status of the transactions are automatically set to approved and the user is redirected to the count/reconcile view on (OIS217/B).
 - If there are deviations within the tolerances, a pop-up window is displayed asking if the user wants to recount the cash or approve the difference. If a recount is performed, the total of the transactions (payment amount) and the deviation specified in the cash desk are displayed if the setting in (OIS210/B) is set to do so. If approve is selected, the deviation is recorded in the accounts according to the accounting option defined in (OIS210).
 - If there are deviations not within the tolerances and the user is not an approver, a pop-up window is displayed asking if the user wants to do a recount or send this for approval. If the user sends this for approval, an application message can be sent to the first approver. The transactions receive the status Awaiting Approval.
 - If there are deviations not within the tolerances and if the user is an approver, a pop-up window is displayed asking if the user wants to recount the cash or approve the difference. If approve is selected, the deviation is recorded in the accounts according to the accounting option defined in (OIS210).
- 6 If an approval is needed, the approver recounts or approves the reconciliation. When an approval has been performed, this is displayed in 'Cash Desk. Reconciliation Log' (OIS205). In (OIS205), the name of the person that counted the cash desk is also displayed.
- 7 When all payment methods that use reconciliation are in status 'Approved', click **F14='Validate'** in the reconciliation panel to end the cash desk for the day. See [Follow these steps to validate the cash desk on page 709](#).

Follow these steps to validate the cash desk

- 1 Before filling on the G panel, perform these checks:
 - A selection on cash payment method is done on the B panel which forces a check of the cash amount before validating
 - All bank-related information, such as bank ID and check number, have been specified for payment by check
 - The payments for which payment date is before the date that you want to validate have all been validated (that is, no payment in status 20 with a payment date before the validation day exists)
 - The payments for which payment date is after the date that you want to validate have not been validated
 - No payments in status 20 with a payment date before the next validation date remain.
- 2 Press **F14='Validate'** on the B panel to proceed to the G panel.
- 3 Check the information on the G panel. The next delivery day is proposed as the default next validation date.
- 4 Specify the next validation date. The date must not be before the payment date. Press Enter to confirm validation.

The cash desk is now closed. You can no longer add or change anything in the cash desk at this date. If parameter 'F14 transfers into accounting' is activated on (OIS210/F), the cash payments have been transferred into accounting. If not, they are ready and can be transferred by using 'Cash Desk. Transfer to FAM' (OIS218). The remaining cash amount has been moved to the next validation date.

Register and Validate Cash Payments for Invoices

This document explains how you register and validate cash payments for invoices in a cash desk. Three different ways of paying an invoice are explained in this instruction:

- Use one payment method for one invoice
- Use several payment methods for one invoice
- Pay several invoices at the same time.

An 'invoice' is an invoice with a positive amount to pay or a credit note; that is, you will pay one or several invoices, partly or completely, with credit notes.

The document also explains how to validate partial payments and payment tolerances.

Cash payments for invoices are carried out if a customer wants to pay the invoice immediately after customer order and invoicing or at a common cash desk.

Outcome

The invoice is paid and a payment with a unique cash payment number has been created. After validation of the payment, the payment is displayed in 'Cash Desk. Validate' (OIS217).

Note: There may be more than one invoice paid at the same time and more than one payment for one invoice.

All cash payments registered in a cash desk will be transferred into accounting at cash desk validation. The cash desk validation is mandatory and closes the cash desk at a certain date.

The cash payment process updates the following files:

- Payments (OPAYMH)
- Payments-Details (OPAYMD).

Before you start

Standard views and sorting orders must be generated (F14) in 'View. Open' (CRS020) and in 'Sorting order. Open' (CRS022).

Follow These Steps

Register Cash Payments

- 1 Start 'Cash Payment. Open' (OIS215/B).
- 2 Specify facility, cash desk, payer, currency, payment method and payment date, if not automatically retrieved.
At this stage you can change the currency if you want to record a payment in a currency that is not the currency of the invoice. In addition, you can change the payment date. It will not be possible to change these fields once you have started creating a payment.
- 3 Select an invoice and click 'New' to display the invoice amount. The amount to pay is automatically added to the 'Payment amount – Foreign currency' field.
- 4 Select one of the following alternatives to specify different kinds of methods to pay an invoice in cash:
 - **Use One Payment Method for One Invoice**

Press Enter to confirm the payment, and the payment is displayed in the subfile.

When you select an invoice, the amount to pay is automatically added to 'Payment amount – Foreign currency'. You enter the amount you received in the 'Cash received' field only if you want to display the difference between the amount to pay and the cash amount you received in order to report the difference back to the customer.

To get more detailed information about the payment, select the payment and select 'Open' and the E panel is displayed. You can now change the payment amount and/or the payment method. If the invoice is paid by check, you can enter bank-related information such as bank ID and check number.

- **Use Several Payment Methods for One Invoice**

Change the total amount to be paid manually in the 'Payment amount foreign currency' field into the amount of the first payment method. Press Enter to confirm the payment.

The payment will be displayed in the subfile. The remaining amount to be paid is now displayed in the field.

Change the payment method manually and press Enter.

The second payment is now displayed in the subfile. If the 'Discrepancy' field=0, the invoice is fully paid.

- **Pay Several Invoices at the Same Time**

Select an invoice and click 'New' for each invoice to be paid in order to connect unpaid cash invoices. Press Enter.

The system will add the invoices' amounts and display the result in the 'Payment amount foreign currency' field.

Enter the amount you received as a payment, and press Enter to confirm the payment.

Validate the Payment

Press F14 to validate the payment.

The payment is now created and will be displayed in 'Cash Desk. Validate' (OIS217) with a unique payment number assigned to it.

Depending on the setting in Cash desk. Open a cash desk receipt will be printed.

- **Validate the Payment When Partial Payment Is Allowed but Payment Tolerance Is Not Allowed**

Enter the amount paid in the 'Payment amount foreign currency' field. Press Enter.

The difference between the amount paid and the amount to pay is displayed in the 'Discrepancy' field.

Press F14=Validate and a dialog box is displayed. Press Enter to confirm the partial payment.

Later on, it is possible to record the payment of the remaining amount to pay.

- **Validate the Payment When Payment Tolerance Is Allowed but Partial Payment Is Not Allowed**

There are two alternative methods to validate the payment:

- **Alternative 1:**

Enter the amount paid in the 'Payment amount foreign currency' field. Press Enter.

Press F14=Validate.

If the payment amount is smaller than the amount to pay, and the difference is smaller than the maximum payment tolerance amount and/or percentage, pressing F14=Validate will automatically generate a negative payment tolerance.

- **Alternative 2:**

Enter the amount paid in the 'Payment amount foreign currency' field. Press Enter. Press F14=Validate.

If the payment amount is smaller than the amount to pay, and the difference is larger than the maximum payment tolerance amount and/or percentage, pressing F14=Validate displays a dialog box.

Press F14=Validate again. A negative tolerance is generated.
- **Validate the Payment When Both Payment Tolerance and Partial Payment Are Allowed**

There are two alternative methods to validate the payment:

 - **Alternative 1:**

Enter the amount paid in the 'Payment amount foreign currency' field. Press Enter. Press F14=Validate.

If the payment amount is smaller than the amount to pay and the difference is smaller than the maximum payment tolerance amount and/or percentage, pressing F14 will automatically generate a negative payment tolerance.
 - **Alternative 2:**

Enter the amount paid in the 'Payment amount foreign currency' field. Press Enter. Press F14=Validate.

If the payment amount is smaller than the amount to pay and the difference is larger than the maximum payment tolerance amount and/or percentage, pressing F14=Validate displays a dialog box. Proceed by choosing one of the following alternatives:

Press F14=Validate again to create a negative payment tolerance.

The same principles as described above are also valid for positive payment tolerance. Positive payment tolerance is generated when the payment amount is greater than the amount to pay.

Search and Display Cash Invoices

This document explains how you find and display cash invoices. This function facilitates the finding of specific cash invoices.

You can use this function to search for and display cash invoices when you quickly need to find and select specific cash invoices, such as cash invoices from a certain facility or from a certain time period.

Outcome

A selection of cash invoices of your choice is made and the information is displayed.

You can use the displayed list of cash invoices when a certain type of information is needed, such as payment dates, payer, payment numbers, etc. By making the selections, you can specify the information you need and limit the number of invoices in your search.

Before you start

Standard views and sorting orders must be generated (F14) in 'View. Open' (CRS020) and in 'Sorting order. Open' (CRS022).

Follow these steps

- 1 Start 'Customer Order Invoice. Display' (OIS350/B).
- 2 Select sorting order 5 to display only cash invoices.
- 3 Press F17=Selection to proceed to the S panel.
- 4 Select one or several of the following selection criteria to limit the records to be displayed.

The available criteria are:

- Payer
- Facility
- Invoice number
- Invoice date
- Due date
- Status
- Currency
- Invoice amount foreign currency

Note that only a limited number of selection fields are available (facility, payer, invoice number) on the S panel if you have selected sorting order 3.

- 5 Press Enter to confirm the selection.

The cash invoices of your choice will be displayed on the B panel.

Search and Display Cash Payments

This document explains how you find and display cash payments. This function facilitates the finding of specific cash payments.

You can use this function to search for and display cash payments when you quickly need to find and select specific cash payments, such as cash payments from a certain cash desk or from a certain payment date.

Outcome

A selection of your choice of cash payments is made and the information is displayed. By related option it is possible to reprint the cash desk receipt, to display the voucher and to display the details of the cash desk transaction.

You can use the displayed list of cash payments when a certain type of information is needed, such as payment dates, payer and payment numbers. By making the selections, you can specify the information you need and limit the number of payments in your search. There are a number of standard views and sorting orders that can be used to filter on and it is also possible to create user defined views and sorting options.

Before you start

Standard views and sorting orders must be generated (F14) in 'View. Open' (CRS020) and in 'Sorting order. Open' (CRS022).

Follow these steps

- 1 Start 'Cash Payment. Display' (OIS219/B).
- 2 Select the sorting order and view that are relevant to use to select the information needed.
- 3 If further selection is needed press F17 = 'Select' to proceed to the S panel. Select one or several of the following selection criteria to limit the records to be displayed.

The available criteria are:

- Payer
- Cash desk
- Payment method Accounts Receivable
- Payment date
- Payment number
- Payment amount foreign currency
- Currency
- Cash desk transaction type
- Status – Payment.

- 4 Press Enter to confirm the selection.

The cash payments of your choice will be displayed on the B panel. To get more information on the payment, select the payment and press 'Display'. 'Cash Desk. Validate' (OIS217/E) will be started, where you will find more detailed information on the payment such as payment number, payment method Accounts Receivable, cash desk transaction type, status, etc.

- 5 It is also possible to print a copy of the Cash desk receipt, to display the voucher and to display the details of the cash desk transaction by using different related options.

Select Original Payment Method in Cash Desk

Refund to same payment method

The parameter 'Original payment method' in 'Cash Desk. Open' (OIS210) is used to activate the functionality of selecting payment methods from the original invoice. The parameter has two options for activating the functionality. The first alternative activates the functionality and the payment method field in 'Cash Payment. Open' (OIS215) gets protected after a payment method is selected. The other alternative enables changes of the payment method in (OIS215) even though a payment method has already been selected.

When adding a credit invoice in (OIS215), the original invoice number and year are retrieved. If the functionality of selecting an original payment method is activated, a new action key F21='Select pmt method' becomes available and this action opens 'Cash Payment. Select pmt method' (OIS204). If a negative amount is specified in the cash received field and the original payment method is not selected, (OIS204) is opened automatically.

If the original invoice number is not found, it is not possible to open (OIS204) and payments for credit invoices can only be added if the parameter 'Original payment method' is set to 2= 'Yes, selected payment method is editable' in (OIS210).

In (OIS204), the payment methods used to pay the original invoice are displayed together with the amounts paid. If previous credit invoices connected to the same original invoice have been paid, these credit invoices are also displayed. For each payment method, the paid amounts are summarized. This sum must exceed or equal the amount that is to be paid on the current credit invoice for the payment method to be valid for selection.

Other criteria for a payment method to be selectable:

- The payment method must be connected to the current cash desk in 'Cash Desk. Connect Payment Method' (OIS211).
- If a check has been used to pay the original invoice, the cash desk must have the parameter 'Permit creation of checks' activated in (OIS210/G).
- If a credit card has been used to pay the original invoice, the third-party ID and third-party provider used on that payment must be the same as what is used on the current cash desk if the cash desk is externally managed. If several credit card transactions were used to pay the original invoice, the amount of the credit card transaction must fully cover the amount that must be paid.

After a payment method is selected, it is possible to create a payment.

Note: If changes in the payment occurred or if addition or deletion of invoices is performed after the selection of the payment method, a new selection must be performed.

In OIS215MI (Cash Desk), the transaction LstOrigPmtMtds presents the same information displayed in (OIS204) and the transaction GetSelPmtMtd retrieves information about the payment method that is selected in (OIS204).

Limitations

- Only one credit invoice is allowed per payment.
- The payment of the original invoice and the credit invoice must be in the same currency as the invoices.
- If the functionality is not activated, the original invoice number reference is not saved in the cash desk transactions. It is not possible to use the functionality on invoices paid before the functionality is activated.
- If a corrective invoice is performed against a credit or adjustment order with the reference to the original invoice stated on the order header, the refund will be against the invoice of the credit or adjustment order.
- When running AddPayment in OIS215MI (Cash Desk), no check is performed that a correct payment method is selected.
- Payments only performed in the cash desk are considered.

Move to another payment facility

The parameter 'Change payment facility' in (OIS210) is used to activate the functionality to allow change of the payment facility of the invoices specified in (OIS215). The parameter 'Default payment facility' indicates the default payment facility when using the change payment facility functionality.

When the change payment facility functionality is activated, a new action becomes available in (OIS215). When taking this action, a confirm panel with the default payment facility is displayed. Upon confirming the

move, the payment facility gets updated on the invoice headers of the invoices ('Invoice. Display' (OIS350)) added in (OIS215). Simultaneously, the invoices are removed from OIS215. This action is also available in 'Cash Payment. Select pmt method' (OIS204).

The sorting order '8-Outst Cash Invoice per payment facility' in (OIS350) can be used to list the cash invoices per payment facility that is not yet fully paid in cash desk.

Limitation

If any payments are entered, the invoice cannot be transferred to another payment facility. The payments must be deleted first before the move can be performed.

Update the Payment Provider Ledger with Credit Card Payments from Cash Desk

This document describes how to enable an update of the payment provider ledger with credit card payments when validating a cash desk.

Introduction

The payment provider ledger is used to manage account entries for transactions related to payment provider payments. In the process described in this document, credit card payments are received in a cash desk and are later updated to the payment provider ledger during transfer to FIM.

Solution overview

You can select the credit card accounting method (CCAM) set to 3-'Payment provider ledger' in 'Cash Desk. Open' (OIS210) to manage credit card payments in the payment provider ledger. With this accounting method selected, bank transactions for credit card payments are determined by accounting rule OI30-196. Also, credit card payments are, at the time of transfer to FIM, created with an external reference to the payment provider in 'Payment Provider Ledger. Display' (OPS290). See Manage the Payment Provider Ledger.

The entry in (OPS290) represents an external credit card reference that originates from the cash desk. Thus, the 'Origin' (ORIG) is 02-'Cash desk' and the origin ID is the cash desk payment number. Status is set to '20', indicating that the external reference has been received.

This entails cash desk payments for which these conditions are true:

- The payment method AR used has the 'credit card' (CRDC) check box selected.
- The cash desk used has credit card accounting method (CCAM) set to 3-'Payment provider ledger'.
- A valid third-party ID is defined. This is the ID connected to the payment provider that processed the credit card payment.

Furthermore, an entry with information type 01-'Payment amount - Origin' is created in 'Payment Provider Ledger. Display Entries' (OPS291). This represents the amount that was accounted on the suspense account when the cash desk payment was transferred to FIM. The entry has status 90-'General ledger updated' since

the voucher has already been created. You can see the voucher number and the accounting dimensions on the F panel.

When the payment provider has confirmed the credit card transaction regarding commission and VAT amounts, the payment provider ledger is updated with account entries using API OPS291MI (Payment provider ledger entries). For more details, see Confirm Transactions in the Payment Provider Ledger. The account entries are then transferred to FIM using API OPS292MI. See Transfer Payment Provider Entries to FIM.

Set-up

You must fulfill these criteria for the payment provider process:

- You must define the 'FAM function for payment provider ledger' (FNPP) field in 'Settings - POS' (OPS700).
- You must define accounting rule OI30-196 in 'Accounting Rule. Set' (CRS395).
- You must create a payment provider ID in 'Credit Card Interface Settings. Open' (CRS434). The VAT details must be defined on the F panel if VAT is to be paid on the payment provider commission.

Limitations

The payment provider ledger can only manage credit card payments received in local currency.

The payment provider ledger requires specifying a third-party ID for credit card payments received in the cash desk.

Chapter 11: Sales Statistics

Accumulator Field

An accumulator field is the name of a database field in a dataset containing information.

An accumulator field can either contain planned budget values or historical values for different statistical reports.

Accumulator fields are used for sales budgeting and statistics for customer orders. They are used within datasets by entering them in 'Dataset. Connect Accumulator Fields' (OSS402). They are also used to define report keys in report definitions in 'Sales Stats Report. Select Key Fields' (OSS410).

Accumulator fields are entered in sequence number order, which controls the order in the physical file created when a dataset is activated.

Adjust Budget Values

This procedure is used to adjust the values for [Accumulator Field](#) on page 718 in a sales budget version.

Before you start

- A sales budget version is defined in program 'Sales Budget. Open' (OSS420).
- Budget values are specified for the accumulator fields to adjust.

Follow these steps

- 1 Select program 'Sales Budget. Adjust' (OSS424).
- 2 Specify the dataset, budget version, and budget year.
- 3 To specify a selection of key field, specify option 11 = Selection for the key fields to select. Program (OSS426) is called.
Specify the To and From values for the selection. Press F3 to return to 'Sales Budget. Adjust' (OSS424).
- 4 Press F10 = Update. A warning is issued if no selection was specified. Press Enter to confirm or go to step 3 to specify a selection.
- 5 To adjust all the accumulator fields by the same factor, specify the adjustment type and a general factor.
- 6 Specify the accumulator fields to adjust. To select from a prompt window, press F4 = Prompt.

- 7 If a general factor is not used, specify a factor for each accumulator field.
- 8 Press F10 = Update. To end, press F3.

Basic Data for Sales Budget and Statistics

Basic data must be entered in these programs for sales budgets and statistics.

'Dataset. Open' (OSS401)

'Dataset Transaction Type. Open' (OSS405)

'Sales Budget. Open' (OSS420)

'Currency. Open' (OSS055)

'Exchange Rate Type. Open' (OSS056)

'Costing Type. Open' (PCS005)

'CO Type. Open' (OIS010)

Calculate Budget Distribution Percentages

This procedure is used to calculate the percentages used to distribute budget values from one budget level in a dataset to a lower level.

The status of the budget distribution template is raised from 10 (preliminary) to 20 (active) after using this procedure.

Before you start

- Budget distribution templates are defined.
- The distribution templates contain references to dataset, transaction type, year, and any budget version for the data that is the basis for creating the percentages. See [Create Distribution Template](#) on page 723.

Follow these steps

- 1 Select program 'Sales Budget Distr Template. Open' (OSS422), which can also be accessed using option 22=Distr templ in 'Sales Budget. Open' (OSS420).
- 2 Specify option 20=Crt percentages for the appropriate budget distribution template. 'Sales Budget Distr Percentage. Generate' (OSS930) is called.
- 3 Press Enter to start the calculation.
- 4 Press Enter to confirm the start of the job.

The percentages calculated using this procedure can be checked and/or changed. See [Enter Budget Distribution Percentages](#) on page 733.

When the percentages are approved, they can be used to distribute budget values. See [Distribute Budget Values](#) on page 733.

Calculating Sales Forecasts

This supporting function is used to automatically recalculate the actual values from the latest period for a forecast for future periods.

The number of future periods included in the forecast is specified in the parameter Extrapolation periods for the forecasting method in 'Sales Forecast Method. Open' (OSS430/E).

The forecast calculation uses the selected forecast method. The method is entered in 'Sales Forecast Method. Open' (OSS430) where the forecast formulas and number of extrapolation methods are specified.

Follow these steps

The section below describes the scope of this supporting function.

1 Calculating base demand for period

The actual demand is first adjusted to reflect seasonal curve and the number of workdays in the period. Demand is divided by the seasonal variation and period length factor as in the equation below to derive the base demand for the period. For more information about seasonal curve, refer to document in See Also section.

$$D(i) = Dr(i) / S(i) / P(i)$$

2 Calculating base forecast for next period

The base forecast for the next period, $F(i + 1)$, is calculated from this base demand. This is done using either the selected forecast formula or [Forecast Simulation - Sales Statistics](#) on page 738.

3 Adjusting forecast with seasonal curve

This base forecast is adjusted for each of the following periods to reflect seasonal variations and the number of workdays in the period. Using the seasonal index and period length factor, the base forecast is:

- multiplied by the seasonal index for the period – seasonally adjusted, and
- multiplied by the period length factor, as in the equations below.

$$Fs(i + 1) = F(i + 1) * S(i + 1) * P(i + 1)$$

$$Fs(i + 2) = F(i + 1) * S(i + 2) * P(i + 2)$$

$$Fs(i + 3) = F(i + 1) * S(i + 3) * P(i + 3)$$

This is done for every period included.

4 Adjusting forecast with trend factor

The base forecast is also adjusted to reflect any trends present. This is done using either a trend factor or trend quantity.

When using a trend factor, the factor is calculated from a trend quantity per period using the equations below for every period included:

$$Tq(i+1) = Tf(i+1) * F(i+1)$$

$$Tq(i+2) = Tf(i+2) * (1 + Tf(i+1)) * F(i+1)$$

$$Tq(i+3) = Tf(i+3) * (1 + Tf(i+1)) * (1 + Tf(i+2)) * F(i+1)$$

Calculating the trend factor takes into account the trend dampening method, and the factor is checked so it does not exceed minimum or maximum values.

When using trend quantities, these are calculated per period using the equations:

$$Tq(i+1) = Tq(i+1)$$

$$Tq(i+2) = 2 * Tq(i+1)$$

$$Tq(i+3) = 3 * Tq(i+1)$$

The Forecast with trend parameter in the forecast method regulates whether the calculated trend quantity is added to or subtracted from the forecast for the first period.

Therefore, the forecast that is adjusted regarding season, period length, and trend is:

$$Fst(i+1) = Fs(i+1) + Tq(i+1)$$

$$Fst(i+2) = Fs(i+2) + Tq(i+2)$$

$$Fst(i+3) = Fs(i+3) + Tq(i+3)$$

5 Final calculation

The final forecast is calculated by adding or subtracting the manually entered forecast adjustments to/from the forecast as adjusted above for seasonal variation, period length and trend. The resulting forecast is:

$$Ftot(i+1) = Fst(i+1)$$

$$Ftot(i+2) = Fst(i+2)$$

$$Ftot(i+3) = Fst(i+3)$$

Key to variables

D(i)	=	Base demand for period I
Dr(i)	=	Actual demand for period I
F(i)	=	Base forecast for period I
Fs(i)	=	Seasonally and period-length adjusted base demand – period I
Fst(i)	=	Seasonally, period length, and trend adjusted base demand - period I
Ftot(i)	=	Total forecast for period I
(i)	=	Period length adjustment factor
SP(i)	=	Seasonal index for period I
Tf(i)	=	Trend factor for period I
Tq(i)	=	Trend quantity for period I

Combine and Copy Data between Datasets

This procedure is used to copy and/or combine data from one or more [Dataset](#) on page 725 into another.

Before you start

- The datasets copied from and into must have the same period type.
- The datasets copied from and into must have the same key field. The key fields may have a different order and the datasets may contain different key fields.

Follow these steps

- 1 Select program 'Sales Budget. Consolidate/Copy' (OSS220).
- 2 Specify the dataset, year, and [Transaction Type - Statistics](#) on page 765 to copy into. To copy to a dataset containing a budget, specify the valid budget version.
- 3 Specify whether to replace or add the data to this dataset in field Upd. Note that only data for the specified transaction type is replaced.
- 4 Specify the dataset(s) to copy from in the From dataset fields. Specify the year, transaction type, and any budget version for each dataset.
- 5 To adjust the values in an [Accumulator Field](#) on page 718, specify an adjustment factor for each dataset. The values are not adjusted in the dataset copied from.
- 6 To start the copying, press Enter.

Copy Demand in Dataset

This procedure is used to copy or move information from accumulator fields within a dataset. For example, you can copy data from the budget quantities for one item number to another. This is done in 'Dataset. Copy/Move' (OSS230).

Follow these steps

- 1 Start 'Dataset. Copy/Move' (OSS230).
- 2 Fill in the Dataset field. The dataset keys are displayed automatically in the Field column (when Enter is pressed).
- 3 Fill in the From' To' values for all keys. The From values must be in the dataset, while the To value does not need to be in the dataset. If the To values do not exist in the dataset, new records will be added. However, they must exist in their respective basic data files.'Budget version' must be filled in when transaction type 33 is selected. The budget version must be active and it must not be locked (status=90). The budget year must not be locked either. The From and To accumulator fields must be filled in and they must exist in the dataset. The transaction types allowed are 33 and 34.
- 4 Click Next to run the function.

Create Distribution Template

This procedure is used to create budget distribution templates containing specifications for distributing data from one [Dataset](#) on page 725 to another.

Distribution templates are used to distribute a budget to another budget on a lower level. For example, a budget for a market (level 1) can be distributed to all customers (level 2) in that market.

Before you start

- A sales budget version is defined. See [Create Sales Budget Version](#) on page 723.
- Datasets are entered.

Follow these steps

- 1 Select program 'Sales Budget Distr Template. Open' (OSS422).
- 2 Create a budget distribution template and specify the budget year. Press Enter.
- 3 Specify a description and complete name.
- 4 Perform this step.
 - To calculate budget distribution percentages automatically, specify the dataset used as the base for distribution.
Note: The key definitions in the dataset must contain at least the two lowest key field in the target dataset.
 - To calculate budget distribution percentages manually, specify the From dataset and budget version and the To dataset and budget version.
- 5 Specify a maximum of three [Accumulator Field](#) on page 718 to distribute. To distribute more accumulator fields, another distribution template must be created. Press Enter.
- 6 To create more budget distribution templates, repeat steps 2 to 6. To end, press F3=End.

Create Sales Budget Version

This procedure is used to create and activate sales budget versions so budget values can be entered.

A budget version is a subordinate ID to a [Dataset](#) on page 725 and is therefore a version of the dataset. A dataset can have more than one budget version.

Before you start

Dataset must be defined with [Transaction Type - Statistics](#) on page 765 33 (Sales budget).

Follow these steps

- 1 Select program 'Sales Budget. Open' (OSS420).

- 2 Select the dataset and enter a name for the budget version. Press Enter.
- 3 On panel E, specify a full name, entry code for net amount, quantity, and cost of goods sold.
- 4 For the fields in step 3 that are calculated automatically, specify the price list table, currency code and exchange rate type. If the price list uses a price costing with warehouse and order type as control fields for order-dependent costing elements, then specify default values for the warehouse and order type.
- 5 If necessary, specify the default seasonal curve. This is then defaulted in program 'Sales Budget. Enter Values' (OSS421) when yearly totals are automatically distributed.
- 6 If necessary, specify the round-off category.
- 7 Press Enter to confirm the budget version.
- 8 In panel B, specify option 20 = Activate, to activate the budget version.

Create Sales Forecast

This procedure is used to create sales forecasts per [Dataset](#) on page 725 using automatic calculations. These forecasts have transaction type 34.

Forecast values are calculated per period and saved for the dataset after using this procedure. The forecast method selected regulates the number of periods the values are calculated. The dataset regulates the [Accumulator Field](#) on page 718 forecasted.

Advanced forecasting

The result of the forecasting calculation updates the accumulator field Calculated forecast (MFCFOR) of transaction type 34. This accumulator is, together with a number of other forecasting related fields, created automatically when the dataset is activated.

Before you start

- A [Forecast Method - Sales Statistics](#) on page 738 is entered for the datasets forecasted in program 'Dataset. Open' (OSS401).
- Accumulator field(s) are defined for forecasting per dataset in program 'Dataset. Connect Accumulator Fields' (OSS402), which is called from OSS401 using option 11 = Accum fields.
- The forecast methods entered are defined in program 'Sales Forecast Method. Open' (OSS430).
- Historic demand statistics are created and saved using the appropriate transaction types as defined for each dataset. See supporting functions in [Datasets](#) on page 727, [Sales Statistics](#) on page 763, and [Order Entry Statistics](#) on page 742.

Follow these steps

Note: If the historic demand statistics provide an insufficient basis for forecasting when the forecast system is started, then alternative, simplified forecast calculations can be used as a temporary solution. This is done in 'Dataset. Open' (OSS401/E) using a specified budget version for a starting forecast.

- 1 Select program 'Sales Forecast. Generate in Dataset' (OSS440). The datasets with a forecast method specified are displayed in panel B. Default forecast periods are retrieved from the dataset's period type and the latest forecast period.
- 2 To change the forecast period, specify another period number in field Per.
- 3 Specify option 11 = Release for the appropriate dataset to start the calculations.
- 4 To release forecasts for more datasets, repeat steps 1 to 3. To end, press F3.

Create Simulated Forecast Method for Sales Statistics

This procedure is used to enter and update simulated forecast methods for sales forecasts in datasets. The forecasts are saved as [Transaction Type - Statistics](#) on page 765 34 in the datasets.

Before you start

To start this procedure, the forecast methods used for the forecast simulation must be entered. Note that the system contains five standard forecast methods for forecast simulation: F1, F2, F3, F4, and F5. Each of these methods is based on a different forecast formula: 10, 11, 12, 13, and 14, respectively. The methods are created automatically in program 'Sales Forecast Method. Open' (OSS430). When they are used, they must be supplemented with additional parameters.

Forecast method F1 is automatically assigned methods F2, F3, F4, and F5 as simulated forecast methods. For more detailed information about the different forecast methods and formulas, see term [Forecast Simulation - Sales Statistics](#) on page 738.

Follow these steps

- 1 Select program 'Sales Forecast Method. Open' (OSS430).
- 2 Specify option 11 = Forecast sim for the forecast method to add or delete to the simulated forecast method. Press Enter.
- 3 In panel 'Sales Forecast Method. Connect Competing' (OSS431/B), specify option 1 and a simulation forecast method. Press Enter.
- 4 Press Enter to confirm the change.
- 5 Press F3 to end.

Dataset

A dataset is a user-defined entity. Selection for content and sorting may be set to limit the size of the dataset and facilitate reporting and input.

Description

Datasets are used to accumulate budget and statistical data from:

- Customer orders
- Service orders
- Maintenance orders
- Project orders.

Datasets contain key field and [Accumulator Field](#) on page 718 that can be used for reporting. Defined datasets with key fields and accumulator fields form the framework for budget and reporting capabilities and can be used in forecasting and demand planning.

The information in the dataset can be accessed through the M3 report generator, general query routines, M3 Demand Planner and Supply Chain Planner or ODBC connections such as Microsoft Excel.

Datasets are entered in program 'Dataset. Open' (OSS401).

Description

The table below shows how a dataset can be structured using keys and fields.

Type	Field	Description	Forecast
Key	UCCUCL	Customer group	
Key	UCCUNO	Customer number	
Key	UCITGR	Item group	
Acc.	UCIVQT	Invoiced quantity in basic U/M	
Acc.	UCSAAM	Invoiced amount in local currency	Yes
Acc.	UCUCOS	Cost of goods sold	Yes
Acc.	UCFULL	No. of deliveries on time and with correct quantity	
Acc.	UCTDEL	Number of deliveries	

This dataset can be used for budgets and statistics per customer group, customer, and item group.

The accumulator fields contain the information needed to calculate turnover, contribution margin, and contribution margin ratio, as well as the service level for all key levels in the dataset.

By forecasting the accumulator fields Invoiced amount and Cost of goods sold, it is possible to display estimated results for the year-end, for example.

Datasets

This supporting function is used when creating [Dataset](#) on page 725, which are storage sites for budget and statistical information. Datasets are defined with key fields and accumulator fields used for reporting purposes. In this way, datasets provide the framework for budgeting and reporting activities in the system.

Before you start

This supporting function can be used when the following prerequisites are met:

- Period types are defined.
- If forecast calculations are included in the dataset, the [Forecast Method - Sales Statistics](#) on page 738 for these must be defined.

Follow these steps

1 Create Dataset

The following steps must be completed to define and create a dataset.

- Enter the **Basic Information** for the dataset in 'Dataset. Open' (OSS401).

The basic information in the dataset includes a general description, the fields that determine the information updated into it and the date range for this information. A period type, such as weekly or monthly, must be specified to control allocation of the information.

When sales forecasts are calculated using the dataset, information such as the seasonal curve, forecast method and budget version for the start forecast must also be specified. See [Sales Forecasting](#) on page 761.

- Enter the **Key Fields** for the dataset in 'Dataset. Open' (OSS401).

Datasets are used to store important information at different levels to meet statistical and reporting needs quickly. Key fields are entered and ordered to accumulate this information at the correct level for reporting needs. Examples of key fields are customer number and item number.

Up to six key fields can be combined in one dataset and each level can be reported separately. For example, the same dataset can be used when accumulating statistics for both customer group and customer. Customer data will be ordered on a lower level than the groups unless otherwise specified.

Many different key fields can be used, though much of the data is retrieved from the basic data files such as the item file. This data is accumulated in the dataset and is not stored in the detailed statistics. This data is therefore still available in its raw form when the dataset is re-created.

For the dataset to function as quickly as possible, the values can be accumulated on more than one level within the dataset. The accumulated values shorten response times but require greater capacity during updating. Therefore, accumulation is done by default in M3 for the following:

- All customers are totaled one level above customer number.
- All items are totaled one level above item number.

Each key field can be assigned a user-defined column heading to be used when OS/400 files are created. The headings are also defaulted for all reports in the report generator. See [Report Processing](#) on page 750.

- Enter the **Accumulator Fields** in the dataset in 'Dataset. Connect Accumulator Fields' (OSS402).

Accumulator fields define which data is updated in the dataset. Many different data elements can be selected, such as invoiced quantity, invoice totals, cost value, etc.

The advantage of selecting accumulator fields to include in a dataset is that unimportant information can be excluded to save disk space. Also, as many accumulator fields with a common key field as needed can be in the same dataset. This reduces the number of datasets and increases the combinations possible for different reports.

For datasets containing sales forecasts, each accumulator field can be specified to be included in the forecast calculation. See [Sales Forecasting](#) on page 761.

User-defined column headings can be assigned to each accumulator field for use when the OS/400 files for the dataset are created. The column headings are also used as default headings in all reports in the report generator. See [Report Processing](#) on page 750.

- Enter the **Transaction Types** for the dataset in 'Dataset. Connect Dataset Trans Types' (OSS406). The [Transaction Type - Statistics](#) on page 765 that are included in and regulate each dataset must be specified. The following transaction types can be used:
 - 30 = Delivered not invoiced statistics – customer orders
 - 31 = Order entry statistics – customer orders
 - 32 = Sales statistics – customer orders
 - 33 = Sales budget – customer orders
 - 34 = Sales forecast – customer orders
 - 35 = Lost sales – customer orders
 - 39 = Calculated base forecast
 - 70 = Delivered not invoiced statistics – service orders
 - 72 = Statistics – service orders
 - 73 = Sales statistics – maintenance orders
 - 81 = Order received statistics – project orders
 - 82 = Statistics – project orders
- Complete **Field Selection** to the dataset in 'Dataset. Connect Selection Fields' (OSS403). The statistical data contained in dataset can be limited by making a selection in 'Dataset. Connect Selection Fields' (OSS403). For example, a selection can be used if a dataset should only be used for service level evaluations where it is not desirable to include the order type for internal orders.

2 Activate Dataset

When a dataset is activated, a data file containing the data for the dataset and an API program for processing the read-ins and updates to the file are created. The program and file are assigned the same name using the syntax Occnnn.

ccc represents the company number and nnn the sequence number assigned automatically. When the dataset is changed or reactivated, M3 automatically uses the same name as closely as possible.

File names for active datasets are displayed in field File in 'Dataset. Open' (OSS401/E). File names are necessary if the data is used in external routines, such as with ODBC connections or queries.

The status of the dataset is raised from 10 (preliminary) to 20 (active) when the dataset is activated.

3 Create Data in Dataset

Data is accumulated in a dataset as follows, depending on the transaction type:

- Automatically
- When re-created

- Manual entry
- Calculation routines

The following transaction types update active datasets automatically and can also be re-created:

- 30 = Delivered not invoiced statistics – customer orders
- 31 = Order entry statistics – customer orders
- 32 = Sales statistics – customer orders
- 70 = Delivered not invoiced statistics – service orders
- 72 = Sales statistics – service orders
- 73 = Sales statistics – maintenance orders
- 81 = Order received statistics – project orders
- 82 = Sales statistics – project orders

Transaction types 33 (Sales budget customer order) and 35 (Lost sales customer order) update active datasets by manual entry. Budget values can also be created in other ways. See [Sales Budgeting](#) on page 754.

Transaction type 34 (Sales forecasts) updates active datasets by calculation of other data. See [Sales Forecasting](#) on page 761.

4 Deactivate Dataset

Before the definition of a current dataset is changed, the dataset must be deactivated in 'Dataset. Open' (OSS401). All the data in the dataset is deleted when deactivated. The dataset can then be opened to enter the changes necessary and re-create the same data.

Only the transactions listed below can be re-created in this way.

- 30 = Delivered not invoiced statistics – customer orders
- 31 = Order entry statistics – customer orders. See procedure [Re-create Order Entry Statistics in Datasets](#) on page 749.
- 32 = Sales statistics – customer orders. See procedure [Re-create Sales Statistics in Datasets](#) on page 749.
- 70 = Delivered not invoiced statistics – service orders
- 72 = Sales statistics – service orders
- 73 = Sales statistics – maintenance orders
- 81 = Order received statistics – project orders
- 82 = Sales statistics – project orders

Transaction types 33 (Sales budget customer order) and 35 (Lost sales customer order) can be saved only in a new dataset to which they are copied. Transaction type 34 (Sales forecasts) can be both re-created or copied. See procedure [Create Sales Forecast](#) on page 724.

Note that the data files for re-activated datasets can be assigned new names. This has no effect on the M3 report generator, but the external routines using the files in the dataset must be redefined as described above in activity Activate Dataset.

The status of the dataset is lowered from 20 (active) to 10 (preliminary) when the dataset is deactivated.

Description

The table below illustrates an example of the structure of a dataset.

Type	Field	Name	Forecast
Key	UCCUCL	Customer group	
Key	UCCUNO	Customer number	
Key	UCITGR	Item group	
Accum.	UCIVQT	Invoiced quantity in basic U/M	
Accum.	UCSAAM	Invoiced amount local currency	Yes
Accum.	UCUCOS	Cost of goods sold	Yes
Accum.	UCFULL	Number of deliveries – correct time and quantity	
Accum.	UCTDEL	Number of deliveries	

This dataset can be used to obtain a budget and statistics for item groups per customer with totals for each customer and customer group.

The accumulator fields contain information for calculating turnover, contribution margin ratio, contribution margin and service level for each key level in the dataset.

The invoiced amount and cost of goods sold can also be forecasted to estimate profit/loss for a specific period, such as at year-end.

Demand Type - Sales Statistics

A demand type is used to separate demand according to the demand source.

Description

Demand types are used to regulate which transaction types from a dataset will be the basis for calculating the forecast.

Up to six demand types can be specified for each forecast method on 'Sales Forecast Method. Open' (OSS430/E). The demand defined in the forecast formulas will be calculated as the total of the specified transaction types.

Demand Types

The demand used in forecasts can be selected from one or more of these demand types:

- 30 = Delivered/Not invoiced statistics, customers orders (transaction type 30)
- 31 = Order entry statistics, customer orders (transaction type 31)
- 32 = Sales statistics, customer orders (transaction type 32)
- 33 = Sales budget (transaction type 33)
- 35 = Lost sales, customer orders (transaction type 35)
- 72 = Sales statistics, service orders (transaction type 72)

- 73 = Maintenance order sales (transaction type 73)
- 81 = Project order entry (transaction type 81)
- 82 = Sales statistics, project orders (transaction type 82).

Delivered/Not invoiced Statistics Customer Orders (30)

This demand type refers to demand from sales based on delivered but not yet invoiced customer orders. The actual delivery date determines the period up to which demand is calculated. During invoicing, demand type 30 is replaced with demand type 32. This type should not be used together with demand type 31.

Order Entry Statistics, Customer Orders (31)

This demand type refers to demand from sales based on entered customer orders. The requested delivery date determines the period up to which demand is calculated. This type should not be used together with demand type 32.

Sales Statistics, Customer Orders (32)

This demand type refers to demand from sales based on invoiced customer orders. The actual delivery date determines the period up to which demand is calculated. This type should not be used together with demand type 31.

Sales Budget (33)

This demand type refers to sales appointed in the sales budget.

Lost Sales, Customer Orders (35)

This demand type refers to demand that did not result in a customer order because delivery requirements could not be met. The requested delivery date determines the period up to which demand is calculated.

Sales Statistics, Service Orders (72)

This demand type refers to demand from sales based on service orders. The actual delivery date determines the period up to which demand is calculated.

Maintenance Order Sales (73)

This demand type refers to demand from sales based on maintenance orders. The actual delivery date determines the period up to which demand is calculated.

Project Order Entry (81)

This demand type refers to demand from sales based on entered project orders.

Sales Statistics, Project Orders (82)

This demand type refers to demand from sales based on invoiced project orders. The actual delivery date determines the period up to which demand is calculated.

Demand Types in Advanced Forecasting

In advanced forecasting, demand will be updated according to the demand types specified on the forecast method. These fields and transaction types can be selected as demand types for the advanced forecasting:

- 30: Demand quantity (DEMA)
- 31: Ordered quantity (QRQT)
- 32: Demand quantity (DEMA)

- 33: Demand quantity (DEMA)
- 35: Ordered quantity (ORQT)
- 72: Invoiced quantity (IVQT)
- 73: Invoiced quantity (IVQT).

The demand field that will be updated is UCDEMA of transaction type 34. This field will be used as a base for forecasting.

Note that in order to update UCDEMA (34) with budget values (transaction type 33), you must first enter budget figures for UCDEMA (33) in 'Sales Budget. Enter Values' (OSS421), and then copy these figures to UCDEMA (34) by running 'Sales Budget. Consolidate/Copy' (OSS220).

Display Budget and Statistics

This procedure is used to display budget and statistical reports.

Before you start

A report must be defined in program 'Sales Stats/Budget Report. Open' (OSS412).

Follow these steps

- 1 Select program 'Sales Stats/Budget. Display' (OSS415). This program can also be accessed using option 25 = Run on-line from program 'Sales Stats/Budget Report. Open' (OSS412). For the latter, go to step 3.
- 2 Specify the report ID.
- 3 Specify the year and period number for the run in field By period. Note that all relative period numbers used for the columns in the report are calculated from this period number and year.
- 4 Specify the report level and any start values for report keys. Press Enter to display the report.
 - Specify option 1 to drill down, that is to review the next lower detail level in the report.
 - Press F18 = Previous level to review totals for the next higher level.
 - Press F19 = Left or F20 = Right to scroll sideways in the report.
- 5 To change the start values in panel 'Sales Stats/Budget. Display' OSS415/A, press F12 = Cancel. Press F3 to end.

It is possible to manually update fields in the Sales statistics/Budget report. Then you fill in Update field and transaction type in (OSS415).

The fields that are possible to update for transaction type 34 (that is forecasting fields) are as follows:

- Demand (UCDEMA)
- Manual adjustment (MFMADJ)
- Manual forecast (MFMFOR)
- Alpha factor (MFALFF)
- MAD (MFMADV)

- ME (MFAVER)
- Stop forecasting calculation (MFPSTA)
- Closed alarm (MFALAO)

Distribute Budget Values

This procedure is used to distribute sales budget values from a budget on a higher level to a lower level budget. When this is done, the status of the budget distribution template is raised from 20 (active) to 30 (locked).

Before you start

- A budget distribution template is defined. See procedure [Create Distribution Template](#) on page 723.
- The budget distribution percentages are entered as described in [Enter Budget Distribution Percentages](#) on page 733 and [Calculate Budget Distribution Percentages](#) on page 719.
- The budget distribution template is assigned status 20 (active).

Follow these steps

- 1 Select program 'Sales Budget Distr Template. Open' (OSS422) to determine the distribution template to use. To use a specific distribution template, select program 'Sales Budget. Distribute' (OSS935) and specify the distribution template. Go to step 3.
- 2 Specify option 30 = Distribute for the distribution template to use and press Enter.
- 3 In panel 'Sales Budget. Distribute' (OSS935/E), press Enter to start the distribution. Note that any budget values currently in a lower-level budget version will be replaced. Press F3=End to return to program OSS422.
- 4 Either distribute more budget values or press F3=End.

Enter Budget Distribution Percentages

This procedure is used to enter the percentages used to distribute budget values from one budget level to a lower level.

When these percentages have been entered, the status of the budget distribution templates is raised to 20 (active) in program 'Sales Budget Distr Template. Open' (OSS422). A template must have status 20 to start the distribution.

Before you start

A distribution template must be defined. See procedure [Create Distribution Template](#) on page 723.

Follow these steps

- 1 Select program 'Sales Budget Distr Percentage. Enter' (OSS423). This program can also be accessed by specifying option 11 = Wrk bud pct from program 'Sales Budget Distr Template. Open' (OSS422).
- 2 Specify a distribution template and budget year. Press Enter.
- 3 In panel A, enter the key values for the first budget record. When a value is entered, entry is started in panel B with the first existing record. Press Enter to display panel B.
- 4 Specify a value for the key field on the lowest level. Key fields on the lowest level are displayed at the bottom of panel A and in the column at the bottom of panel B on the left.
- 5 Specify the budget distribution percentages for the [Accumulator Field](#) on page 718 to be distributed and displayed on the left side of the panel. The accumulator fields are retrieved from the current budget distribution template. To switch between display of the total budget and remaining to distribute, press F16 = Total/remain. To check the percentage assigned to each budget key according to the specified percentages, press F11 = More info.
- 6 To select a new budget key to be distributed, press F12 = Cancel.
- 7 Repeat steps 3-5 for other budget keys if needed.
- 8 Press F3 = End.

Enter Budget Values

This procedure is used to specify the values in a sales budget version.

Before you start

- The [Dataset](#) on page 725 used are active (status 20).
- The sales budget version is defined and active (status 20). See procedure [Create Sales Budget Version](#) on page 723.
- The budget year for the sales budget version is open. See program 'Sales Budget Year. Open' (OSS428).

Follow these steps

- 1 Select program 'Sales Budget. Enter Values' (OSS421). This can be called from program 'Sales Budget. Open' (OSS420) using option 11 = Budget values.
- 2 In panel A, specify the key values for the first budget record. Specify every key except the last. Press Enter. Panel B is displayed for the key values selected.
- 3 Specify option 1 and a value for the lowest key field. Press Enter.
- 4 In panel E, check the headings. [Accumulator Field](#) on page 718 are entered in 'Dataset. Open' (OSS401) for the dataset selected. Press F4 = Prompt to select the accumulator fields to be displayed in the four data headings in panel B. Distribute the budget values to the periods defined for the calendar year specified in panel A. If using a seasonal curve specify the yearly total in the first line and then press Enter to distribute according to the curve. For more information about seasonal curve, refer to document in See also section.

- 5 Check the period values and make necessary adjustments. If the yearly total is changed, it is redistributed. Note that a distributed yearly total is not saved.
- 6 To budget the key values, Press F12 = Cancel.

Export Data from Dataset to a File

This procedure is used to export data from a dataset to a file. The data can then be processed and displayed in Microsoft Excel.

Before you start

- A dataset must be created. See supporting function in [Datasets](#) on page 727.
- Data must be specified in the dataset. See these documents:
 - [Sales Budgeting](#) on page 754
 - [Sales Statistics](#) on page 763
 - [Order Entry Statistics](#) on page 742
 - [Sales Forecasting](#) on page 761
- A report must be defined with references to a transfer file and defined columns in program 'Sales Stats/Budget Report. Open' (OSS412). See [Report Processing](#) on page 750.

Follow these steps

- 1 Select program 'Sales Stats/Budget. Print' (OSS417).
- 2 Specify the report ID, year, period number, and report level. Note that relative periods used for the report column are calculated from this period number and year. A transfer file is created and placed in library QRPLOBJ. If the file was already created from previous runs, the contents will be changed. This file is created for direct transfer to PC or server, and is therefore deleted during the next initial program load (IPL) by the AS/400.
- 3 Transfer the file to PC or server using a file transfer tool.
- 4 Retrieve the file in the desired tool for further processing or display.

Forecast Formula - Sales Statistics

A forecast formula is a mathematical relationship that can be used to automatically calculate forecasts of demand. This is done using demand history data.

Description

Forecast formulas are used to calculate fresh base forecast from actual demand adjusted for seasonal and period length variations. A formula is specified for each forecast method. The method also contains specified parameters and limits which regulate the calculation performed using the formula.

Formulas

There are four forecast formulas, described below.

Moving Average

This forecast formula calculates the base forecast for the next period as the average of historic base demand for a specified number of periods. This is denoted in the following equation:

$$F(i + 1) = (D(i) + D(i - 1) + \dots + D(i - (n - 1))) / n$$

The number of periods used determines how quickly the averaging will react to changes in actual trends and how sensitive it will be to random variations. The more periods included will make the calculation method more stable from random variations, but it will also react more slowly to changes resulting from real trends.

Forecast Formulas: Two-period Weighted Average

This forecast formula weighs the average demand from the latest quarter (of periods included in the forecast) with the average demand for all historic periods. The weight factor is the smoothing constant for exponential smoothing, α , and $1 - \alpha$, respectively. This is denoted in the following equation:

$$F(i + 1) = ((\alpha * D(i)) + (1 - (\alpha)) * F(i))$$

Exponential Smoothing

This forecast formula weighs latest base demand value with the smoothing constant α , while the previous base forecast value is weighted with $1 - \alpha$. This is denoted in the following equation:

$$F(i + 1) = ((\alpha * D(i)) + (1 - (\alpha)) * F(i))$$

The value of smoothing constant α determines how quickly the forecast will react to changes in actual trends and how sensitive it will be to random variations. The lower the value, the more stable the calculation is from random variations, but it will also react more slowly to changes resulting from real trends. Smoothing constant α must be between 0 and 1.

Forecast Formulas: Adaptive Exponential Smoothing

This forecast formula is similar to basic exponential smoothing in that the latest base demand value is weighted with smoothing constant α , while the previous base forecast value is weighted with $1 - \alpha$. However, in adaptive exponential smoothing, the smoothing constant is recalculated every time a new forecast is made. This is denoted in the following equation:

$$F(i + 1) = ((\alpha * D(i)) + (1 - (\alpha)) * F(i))$$

The smoothing constant is recalculated using the following equation:

$$\alpha = ((\text{min.}) + ((\text{max.}) * (\text{ABS}(ME(i)) / \text{MAD}(i))))$$

This forecast formula uses α values that are adjusted for the current systematic forecast error. A larger mean forecast error results in a higher α value. This results in a quicker correction to the forecast towards reflecting actual demand.

Key:

((i))	Allowable smoothing constant for smoothing in period (i)
((min.))	Minimum allowable smoothing constant
((max.))	Maximum allowable smoothing constant
D(i)	Base demand for period (i)
F(i)	Base forecast for period (i)
A(n)	Average demand for (n) periods
i	Period number
n	Number of periods included in calculating the average
L	Average demand for the latest (n) periods
M	Average demand for the latest 25 % periods out of the total of (n) periods
MAD(i)	Forecast MAD for period (i)
ME(i)	Mean forecast error for period (i)
ABS()	Absolute difference, the difference without minus sign

Base demand is the demand for a period adjusted for seasonal variations and, if applicable, the effect of a varying number of workdays per period. Non-representative demand is not included either. A base forecast is the forecast calculated from base demand adjusted for seasonal and period length variations.

Description

The examples below describe using each of the formulas based on the following data.

	Aug.	Sep.	Oct.	Nov.
Base demand	120	145	138	129
Base forecast for Nov.	136			
(-factor used	0.3			
((min.))	0.2			
((max.))	0.5			
MAD(Nov.)	10			
ME(Nov.)	-2			

The following forecast values will be calculated for December using the four methods as listed:

Moving Average

$$F(\text{Dec.}) = (D(\text{Aug.}) + D(\text{Sep.}) + D(\text{Oct.}) + D(\text{Nov.})) / 4 = (120 + 145 + 138 + 129) / 4 = 133$$

Two-period Weighted Average

$$F(\text{Dec.}) = 0.3 * 129 / 1 + 0.7 * (120 + 145 + 138 + 129) / 4 = 0.3 * 129 + 0.7 * 133 = 131.8$$

Exponential Smoothing

$$F(\text{Dec.}) = 0.3 * D(\text{Nov.}) + 0.7 * F(\text{Nov.}) = 0.3 * 129 + 0.7 * 136 = 133.9$$

Adaptive Exponential Smoothing

$$((\text{Nov.}) = ((\text{min.}) + ((\text{max.}) * (\text{ABS}(\text{ME}(i)) / \text{MAD}(i))) = 0.2 + 0.5 * \text{ABS}(-2) / 10 = 0.2 + 0.5 * 0.2 = 0.21$$

$$F(\text{Dec.}) = ((\text{Nov.}) * D(\text{Nov.}) + (1 - ((\text{Nov.})) * F(\text{Nov.}) = 0.21 * 129 + 0.79 * 136 = 134.5$$

Forecast Method - Sales Statistics

A forecast method is a set of rules and options for calculating and reviewing forecasts.

Forecast Simulation - Sales Statistics

Forecast simulation is a method for comparing different forecast methods.

To calculate the base forecast for the next period, the forecast method that would have given the most correct result in relation to actual demand for the previous forecast period is selected.

The comparison is made when each forecast is calculated. Information on the selected method is saved.

Description

Forecast simulations are used as an alternative to the four forecast formulas used to calculate base forecasts.

These five forecast formulas are standard formulas for forecast simulations:

- 10 - The forecast for the next period is calculated as the average actual demand for the three preceding periods.
- 11 - The forecast for the next period is calculated as the average actual demand for the three preceding periods increased or decreased by the calculated trend.
- 12 - The forecast for the next period is calculated as the average actual demand for the three preceding periods. The average is multiplied by the ratio of the total actual demand for the three periods for the current year and the total actual demand for the same three periods for the preceding year.
- 13 - The forecast for the next period is calculated as the average actual demand of the preceding, same, and following periods from the preceding year.
- 14 - The forecast for the next period is calculated as the average actual demand of the preceding, same, and following periods from the preceding year increased or decreased by the calculated trend.

The formulas are automatically assigned forecast methods F1, F2, F3, F4, and F5, where other forecast parameters can be defined.

For forecast method 1, methods F2, F3, F4, and F5 are automatically created as simulated forecast methods. F1 is the method created automatically in M3.

It is possible to add more simulated forecast methods based on the system's four forecast formulas. It is also possible to manually enter methods for forecast simulation other than F1.

Example

The following demand history is recorded for a combination of market, customer group, and item:

Oct 94	Nov 94	Dec 94	Jan 95	Feb 95
90	97	95	98	98
Oct 95	Nov 95	Dec 95	Jan 96	
101	104	98	101	

The forecast for February 1996 is to be calculated. The forecast simulation covering the five standard forecast formulas in the method is used for the forecast. This means that a comparison is made to arrive at the formula resulting in the most correct value for the previous period's actual value (January 1996).

The base forecast for January 1996 according to each forecast formula is:

10: $(101 + 104 + 98) / 3 = 101$

11: $101 + 2 = 103$

12: $101 * (101 + 104 + 98) / (95 + 97 + 90) = 108$

13: $(95 + 98 + 98) / 3 = 97$

14: $98 + 2 = 100$

After the forecast for January 1996 is calculated, the result is compared to the actual value for that period. According to the forecast formulas above, the result from formula 10 is the closest to the actual value for January 1996, and is therefore used to forecast demand for February.

The base forecast for February is then $(104 + 98 + 101) / 3 = 101$.

Import and Export for M3 Dataset Definitions

This document describes the import and export of dataset definitions in M3.

With the import and export of M3 dataset definitions, you can import and export M3 dataset definitions from one company or tenant to another. You can export dataset definitions in XML format from these programs and import them into the M3 database through APIs and function programs.

- 'Dataset.Open' (OSS401)
- 'Dataset.Connect Accumulator Fields' (OSS402)
- 'Dataset.Connect Selection Fields' (OSS403)

- 'Dataset.Connect Field Values' (OSS404)
- 'Dataset.Connect Dataset Trans Types' (OSS406)
- 'Sales Budget.Open' (OSS420)

The configuration item file supports import strategies 'Replace existing records' and 'Keep existing records' in the Business Engine Configuration Data tool. You can export up to 200 records in (OSS401) in one go.

Limitations

- Activation of a dataset in (OSS401) and sales budget in (OSS420) and updating of a budget version in (OSS401) are only supported during 'Replace existing records'.
- During import, if the XML file has records in (OSS402), (OSS403), (OSS404), (OSS406), or (OSS420) that do not exist in the target company, these records are added regardless of the selected option ('Keep existing records' or 'Replace existing records'). For example, you import a dataset to company B with these records, these records are deleted from the dataset after import in company B. If for any reason this dataset is imported again with these records which have been deleted in company B, they are added regardless of if 'Keep existing records' or 'Replace existing records' is selected.
- The records in the dataset table are not part of export and import.

Before you start

You must create a dataset. (See supporting function in Export Data from Dataset to a File)

Follow these steps

1 Export dataset.

You can do this in two ways.

Selection of dataset

- Open (OSS401) and select a dataset.
- Select related option 21='Export Configuration' on the dataset to be exported. Export configuration window is displayed.
- Enter a file name in the 'File name' field or leave the field with the default specified. This field is mandatory.
- Enter the file version number in the 'Version' field. This field is mandatory.
- Enter the file description in the 'Description' field. This field is optional.
- Enter the file dependency description in the 'Dependency desc' field. This field is optional.
- Click OK to export the file.

Range of dataset

- Open (OSS401) and select a dataset.
- Specify a range of dataset by selecting F17='Export'. Panel S is displayed.
- Enter the range of dataset to export in 'From' and 'To' fields.
- Enter a file name in the 'File name' field or leave the field with the default specified. This field is mandatory.
- Enter the file version number in the 'Version' field. This field is mandatory.
- Enter the file description in the 'Description' field. This field is optional.
- Enter the file dependency description in the 'Dependency desc' field. This field is optional.

- Click OK to export the file.

The file is exported in an XML format. The file is saved on the M3 File Transfer Disk in the FileImport directory after export. To see the file, go to M3 Business Engine Files in the Administration Tools menu.

2 Import dataset.

You can perform import in M3 BE Administration Tools.

To import, the source files must have been placed on the M3 File Transfer Disk in the FileImport directory after export. To see the file, use the M3 Business Engine Files app in the Administration Tools menu.

- In H5, select the application menu. In the expanded menu, navigate to Administration Tools.
- Select Business Engine Configuration Data.
- Select Exported tab to see a list of all exported XML files.
- Search for the exported XML file by searching for a file's name.
- Select the XML file and click Import.
- The Import configuration data window is displayed. Enter the company and division to import to. Select 'Keep existing records' if you want to keep the existing dataset or 'Replace existing records' if you want to replace the existing dataset. Select 'Log to file' to see logs after importing. This is important if import fails. The logs display why the import was not successful.

A message is displayed if import is successful or not.

The import tool reads the XML file and runs the required API programs to write the data to the M3 BE database. The API program and transaction to be run are specified in the XML file. If data is to be replaced, a Delete transaction is run before the Add transaction.

Import Data from PC file to Dataset

The purpose of this procedure is to import a budget and a forecast from a PC file to a dataset. This enables you to continue working with the information and allows you to present the information in M3 Sales Statistics & Budgeting.

The outcome of the procedure is that data is imported to M3 and either replaces or is added to existing data in the dataset. Data is available for processing and reporting directly after the session is ended.

For example, a sales budget can be entered in Microsoft Excel and then transferred to a dataset in M3.

Before you start

- Dataset is created in 'Dataset. Open' (OSS401). See supporting function [Datasets](#) on page 727.
- The spread sheet to be transferred consists of less than 100 columns including keys.
- The PC file is ready to be transferred. See the supporting function [Preparing Spreadsheet for Export to Dataset](#) on page 743.

Follow these steps

- 1 Save your spreadsheet as a PC file in a format, for example, a DIF format, that can be managed by the file transfer tool you are using. Any file name can be used.

- 2 Transfer the file from your PC or server to the library QRPLOBJ in AS/400. The name of the file must be OSSIPC. Use a file transfer tool like IBM PC support or Client Access.
- 3 Select 'Sales Stats/Budget. Import from PC File' (OSS940).
- 4 Specify dataset, year, type of transaction, and the budget version.
- 5 In the Upd rule field, specify whether data is to be replaced or accumulated.
- 6 Specify the name of the PC file. Press Enter to start the transfer.
- 7 Check in the log that the transfer was performed correctly. All items must be approved in order for the transfer to occur. If the transfer does not occur, a log will be printed.

Order Entry Statistics

This process is used to create both detailed and totaled order entry statistics. These are statistical data from customer orders and are used for reporting purposes. See [Report Processing](#) on page 750.

Order entry statistics are created in detail and in accumulated form in datasets after using this process.

Before you start

- Datasets are created. See supporting function [Datasets](#) on page 727.
- The customer order types to update order entry statistics are specified correctly. See [Customer Order Types](#) on page 278.
- The order entry statistics are stored in a dataset with [Transaction Type - Statistics](#) on page 765 31.
- The transaction type is valid for the dataset in which the order entry statistics are accumulated.

Follow these steps

1 Updating detailed order entry statistics

Detailed order entry statistics are updated automatically for every customer order line entered according to the customer order type. These statistics are accumulated in datasets for further processing as totals.

2 Updating dataset

The accumulated totals are updated to the dataset(s) for total order entry statistics.

Each customer delivery that updates the detailed statistics is checked for the information which is updated to the dataset. The information checked is:

- The division is correct.
- The start and end dates for updating the dataset include the accounting date for the transaction.
- The order entry statistics transaction type is included in the dataset.
- The transaction meets the selection criteria defined for the dataset.

The dataset that matches this information check is updated automatically for every new record created in the detailed statistics.

3 Re-creating detailed order entry statistics

When needed, the detailed order entry statistics can be re-created. This can be necessary if historical data has been destroyed or if the parameters for updating [Customer Order Type](#) on page 282 have been changed.

The detailed sales statistics are re-created in 'Order Received Stats. Re-create' (OSS990) by selecting the accounting date as of when the statistics should be re-created. See [Re-create Detailed Order Entry Statistics](#) on page 748.

In order to re-create the statistics, customer orders must still be in the database. Also, when the statistics are re-created, all affected datasets are automatically re-created.

4 Re-creating data in dataset

When needed, the data in datasets can also be re-created. This can be for newly defined or redefined datasets. This is done in 'Order Received Stats. Re-create' (OSS990) by selecting the accounting date as of when the statistics should be re-created. See [Re-create Order Entry Statistics in Datasets](#) on page 749. In order to re-create the data, the base information must still be in the detailed order entry statistics.

Preparing Spreadsheet for Export to Dataset

The purpose of this supporting function is to prepare an existing spreadsheet so that the information can be exported to a dataset in M3 via a PC file.

The contents of the spreadsheet can either be budget values or a forecast according to corresponding [Transaction Type - Statistics](#) on page 765 in the dataset. These contents can either complement or replace existing data in the dataset.

Note that data can only be imported for a year at a time and that information about the date can not be retrieved from the spreadsheet. The date must, instead, be entered manually when the data is transferred in 'Sales Stats/Budget. Import from PC File' (OSS940).

Before you start

Before preparing a spreadsheet for export to dataset, these prerequisites must be met:

- The spreadsheet to be imported contains the exact amount of balance keys as the dataset, either in the form of columns, rows, or a combination of the two.
- All types of values in the spreadsheet are defined as [Accumulator Field](#) on page 718 in the dataset, either as columns, rows, or a combination of the two.

Follow these steps

The scope of the supporting function is described below:

1 Inserting control column

A column must be entered on the sheet. The column is used to specify the field name of the dataset for the balance key or the accumulator field that are represented by the rows on the sheet.

2 Inserting control row

A row must be entered on the sheet. The row is used to specify the field name of the dataset for the balance key or the accumulator field that are represented by the columns on the sheet.

3 **Marking *FRF-cell**

Enter *frf in the first column of the control row. This selection is used to identify the control column and control row.

4 **Marking off non-current rows and columns**

Rows and columns that contain information that will not, or cannot, be transferred to M3 are marked off. A column is marked off by typing *txt in the column in the control row. Rows are marked off by typing *txt in the row in the control column.

5 **Connecting cells to database field**

Columns that contain balance keys or accumulator values must be marked with the field name the information corresponds to in the dataset. This is done by typing the field name in the control row for each column.

Rows that contain balance keys or accumulator values are also marked with a field name. The field name is printed in the control column for each row.

6 **Adding period number**

A period number must be entered for every row or column that contains an accumulator field. This information is necessary because period numbers are retrieved from the spreadsheet when exported.

The period number can easily be added to the spreadsheet manually, either by copying it or by using the sheet's arithmetic functions.

7 **Marking repetitive key values**

If a column contains repetitive key values, that is if various rows in a column belong to the same key value, every row must be marked. In other words, it is not enough just to mark the first row.

Examples

These examples illustrate how a spreadsheet must be changed to enable the export of information to a dataset in M3.

- Example 1 – Spreadsheet with Two Dimensions**

This example illustrates a spreadsheet with two dimensions. This means that two terms are used to identify an amount.

This table shows how the spreadsheet looks before being edited:

*FRF	UCONNO	*TXT	OSPERI	UCSAAM
*TXT	Customer	Name	Period	Amount
	A1	Corporate A	1	450
	A1		2	600
	A1		3	750
	A1		4	550
Total				2350

*FRF	UCONNO	*TXT	OSPERI	UCSAAM
	A2	Corporate B	1	1200
	A2		2	1400
	A2		3	
	A2		4	3000
*TXT				Total
				5600
*TXT				Sum of Totals
				7950

After editing the spreadsheet it looks as follows:

Quantity sold per item and customer - Period 1

Customer	Item	Item	Item
	A100	A200	A300
A1	144	3221	1233
A1	433	33	3212
A1	312	9874	423
A1	322	2388	388

Quantity sold per item and customer - Period 2

Customer	Item	Item	Item
	A100	A200	A300
A1	322	322	32
A1	3	32	
A1	32	2333	3455
A1	9333	833	732

The following changes have been made:

- A control row and a control column have been added.
- Cell A1 has been given the value *FRF.
- Columns that contain text and totals have been marked off with *TXT so the information is not available for export.
- The repetitive customer number key has been copied so that every customer number row is marked with A1 or A2.

Rows and columns that contain balance keys and accumulators are marked according to the following:

UCCUNO	Customer Number
--------	-----------------

OSPERI	Period Number
UCSAAM	Invoiced amount in the local currency

- **Example 2 – Spreadsheet with Three Dimensions**

The following example illustrates a spreadsheet with three dimensions. This means that three terms are used to identify an amount.

The following table illustrates how the spreadsheet looks editing:

Quantity sold per item and customer

*FRF	UCCUNNO	UCIVQT	UCIVQT	UCIVQT
*TXT	Period	1		
*TXT	Customer	Item	Item	Item
OSPERI	1	1	1	1
UCITNO		A100	A200	A300
	A1	144	3221	1233
	A1	433	33	3212
*TXT	A1	312	9874	423
	A1	322	2388	388
*TXT	Period	2		
*TXT	Customer	Item	Item	Item
OSPERI		A100	A200	A300
UCITNO	2	2	2	2
	A1	322	322	32
	A1	3	32	
	A1	32	2333	3455
	A1	9333	833	732

After editing the spreadsheet looks as follows:

Customer	Name	Period	Amount
A1	Corporate A	1	450
		2	600
		3	750
		4	550
			Total
			2350

Customer	Name	Period	Amount
A2	Corporate B	1	1200
		2	1400
		3	
		4	3000
			Total
			5600
			Sum of Totals
			7950

The following changes have been made:

- A control row and a control column have been added.
- Cell A1 has been given the value *FRF.
- Columns that contain text and totals have been marked off with *TXT, so the information is not available to export.
- The repetitive period number key has been copied so that every period number column is marked with 1 or 2.

Rows and columns that contain balance keys and accumulators are marked according to the following:

UCCUNO	Customer Number
OSPERI	Period Number
UCITNO	Item Number
UCIVQT	Invoiced number

Print Budget and Statistics

This procedure is used to print budget and statistical reports.

Before you start

A report must be defined in program 'Sales Stats/Budget Report. Open' (OSS412).

Follow these steps

- 1 Select program 'Sales Stats/Budget. Print' (OSS417). This program can also be accessed using option 26=Run in batch from program 'Sales Stats/Budget Report. Open' (OSS412). For the latter, go to step 3.
- 2 Specify the report ID.

- 3 Specify the year and period number for the run. Note that all relative period numbers for the columns in the report are based on this period number and year.
- 4 Specify the report level.
- 5 Press Enter to start the report run.

Re-create Detailed Order Entry Statistics

This procedure is used to re-create data in detailed order entry statistics. When this is done, all affected datasets are also automatically re-created.

Follow these steps

Orders must be remaining in the customer order database.

- 1 Select program 'Order Received Stats. Re-create' (OSS990).
- 2 Specify 1 in field Detailed.
- 3 Select the appropriate alternative in field Acc to CO tp to indicate whether the update parameters should be retrieved from the order type file or from each order. When retrieved from each order, the parameters retrieved are those set when the order was invoiced.
- 4 Specify the From accounting date. This defines the date as of when data is included.
- 5 Press Enter to start the run.

Re-create Detailed Sales Statistics

This procedure is used to re-create data in the detailed [Sales Statistics - Customer Order](#) on page 764.

Before you start

To start this procedure, invoiced orders must be remaining in the customer order database. Note that filed customer orders are deleted from the database and are not updated to the statistics file.

Follow these steps

- 1 Select program 'Sales Statistics. Re-create' (OSS995).
- 2 Specify 1 in field Detailed.
- 3 Specify option 1 in field Customer order.
- 4 Select the appropriate alternative in field 'Acc to CO type' to indicate whether the update parameters are retrieved from the order type file or from each order. Note that parameters for service level evaluation are always retrieved from the order type file.

- 5 Specify the From accounting date. Only data as of this date will be re-created.
- 6 Press Enter to start the run.

Re-create Order Entry Statistics in Datasets

This procedure is used to re-create accumulated order entry statistics in [Dataset](#) on page 725. It is also used to update newly created datasets retroactively.

When the detailed order entry statistics are re-created, current datasets with accumulated order entry statistics are updated automatically. See procedure [Re-create Detailed Order Entry Statistics](#) on page 748.

Before you start

- The detailed order entry statistics must be specified.
- A dataset is defined with [Transaction Type - Statistics](#) on page 765 31 (Order entry statistics).

Follow these steps

- 1 Select program 'Sales Statistics. Re-create' (OSS995).
- 2 Specify 0 (No) in field Detailed. This means that only the dataset is re-created.
- 3 Specify the dataset to be re-created. When left blank, all datasets are updated with data as specified in field From date, below.
- 4 Specify the From accounting date. Only data as of the period covering this date is re-created for each dataset.
- 5 Press Enter to start the run.

Re-create Sales Statistics in Datasets

This procedure is used to re-create accumulated [Sales Statistics - Customer Order](#) on page 764 in datasets. It is also used to update newly created datasets retroactively.

When the detailed sales statistics are re-created, current datasets with accumulated sales statistics are updated automatically. See procedure [Re-create Detailed Sales Statistics](#) on page 748.

Before you start

- The detailed sales statistics are specified.
- A dataset is defined with [Transaction Type - Statistics](#) on page 765 32 (Sales statistics).

Follow these steps

- 1 Select program 'Sales Statistics. Re-create' (OSS995).
- 2 Check that the check box 'Detailed stats' is not selected. This means that only the dataset is re-created.
- 3 Select the 'Customer order' check box.
- 4 Specify the dataset to be re-created. Specify whether the dataset should be updated retroactively. When left blank, all datasets are updated with data as specified in field From date, below.
- 5 Specify the From accounting date. Only data as of the period covering this date is re-created for each dataset.
- 6 Press Enter to start the run.

Report Processing

This process is used to create and run reports against budgeted and statistical values in [Dataset](#) on page 725.

Reports can be defined for both specific purposes and routine runs. All report definitions are saved under separate names, so they can be reused.

Before you start

- Datasets are created. See [Datasets](#) on page 727.
- Data is stored in the datasets. See these documents:
 - [Sales Budgeting](#) on page 754
 - [Sales Statistics](#) on page 763
 - [Order Entry Statistics](#) on page 742
 - [Sales Forecasting](#) on page 761

Follow these steps

1 Entering report

Creating reports in program 'Sales Stats/Budget Report. Open' (OSS412) involves entering basic information for the reports, document control, specifying page headers and footers, and selecting the display media.

• Basic information

Basic information is entered in panel 'Sales Stats/Budget Report. Open' (OSS412/E). Most important for the report is that the information is retrieved from the correct dataset. The dataset regulates the reporting levels possible and the accumulator fields available for display or use in calculations. Refer to See Also section for related documents.

Reporting levels are entered for each dataset to specify the levels on which the information in the key field in the dataset is displayed in the report. The level is then proposed by default either on-screen or in a different medium, but can be changed.

The warehouse used to retrieve the values in columns 2 and 3 can be specified if it is not included in the key definition of the dataset (as described below).

- **Document control**

Document control for printouts is specified in panel 'Sales Stats/Budget Report. Open' (OSS412/F). The paper format, character density, etc. can be adapted to reporting needs.

Each report can have up to 99 columns. When displayed on-screen, all the columns can be viewed by scrolling sideways. Therefore, the relationship between the column definition and the character density of the report is important to consider.

- **Page headers and footers**

Page headers and footers are defined in panel 'Sales Stats/Budget Report. Open' (OSS412/G). There are three lines for the headers and two for footers, and each line can contain both user-defined text and headings.

The available headings are:

- Report ID
- Report name (long or short)
- Report text
- Page number
- User ID
- Current date
- Time
- Company number
- Company name
- Division
- Division name
- Period number
- Period name
- Page break ID 1
- Page break ID 1, description
- Page break ID 2
- Page break ID 2, description
- Page break ID 3
- Page break ID 3, description
- Page break ID 4
- Page break ID 4, description
- Page break ID 5
- Page break ID 5, description

Headers and footers are used only for printouts, so they need not be defined for on-screen display.

- **Select media**

The report media is selected in panel 'Sales Stats/Budget Report. Open' (OSS412/H). Reports requested for printout can also be stored as documents in DW/400 (if AS/400 is used as application server) and sent automatically to any specific user or through a distribution list to several users.

Reports can also be transferred to PC files for data retrieval. The transfer method and file name must be specified. A PC file is then created automatically every time the report is printed.

2 Entering report keys

Report keys are entered in 'Sales Stats Report. Select Key Fields' (OSS410), which is called from 'Sales Stats/Budget Report. Open' (OSS412) using option 11 = Keys.

A report key defines the balance levels possible for the report, depending on the dataset selected. Column headings, column width and length of the key description can be defined for each report. A default column heading is retrieved from the dataset.

For example, if item number UCITNO is a key field and the company uses item numbers shorter than standard (15 characters), the column width can be reduced as necessary to save space in the report.

3 Entering select report key

Report keys are selected in 'Sales Stats Report. Enter Key Values' (OSS413), which is called from 'Sales Stats Report. Select Key Fields' (OSS410) using option 11 = Selection. An unlimited number of selection ranges can be defined for every report key. When no selection is made, then all key values in the report are displayed.

Selections can be made for IDs such as product group, item number, department, customer group or customer. Note that the selection can also be defined for the dataset selected for the report.

4 Entering report columns

Report columns are entered in 'Sales Stats Report. Define Columns' (OSS411), which is called from 'Sales Stats/Budget Report. Open' (OSS412) using option 12 = Columns. Each column is defined as a type as shown below.

Type	Description
1	Value from accumulator field in the dataset selected for the report. Used to retrieve information about budgeted value or outcome, depending on the Transaction Type - Statistics on page 765 selected for the column.
2	Value from another file. Used to display information connected to report keys but not saved in the dataset, such as desired service level for an item at a specific warehouse. Note that values are only entered in the column for levels in the report containing the key ID.
3	Code from basic data file. Used to display a code connected to one of the keys in the dataset, such as user-defined fields from the customer file or item file. Note that values are only entered in the column for levels in the report containing the key ID.
4	Calculation column. Used for calculations based on values in other columns, such as the difference between budgeted and outcome values.
5	Field from spreadsheet programs. Used to retrieve or calculate data not directly available in the report generator. A customized program that performs the calculation is referenced, but requires that the parameter list is made according to standard. See template program OSSMTP.
6	Text column. Used to display any text entered. Whether the text is displayed can be set to depend on the value in another column, such as a warning message displayed only when contribution margin ratio is lower than a specified percent.

Field names are specified for column types 1, 2 and 3 to regulate the accumulator fields displayed. These can be selected from the field list containing the possible fields for each of the column types.

Column type 1 contains allocated values. To identify the selection of data for this column, the following information must be entered:

- Transaction type, such as budget or sales statistics. See supporting function [Datasets](#) on page 727.
- Budget version, if budget is selected as the transaction type above.
- From period number and year.
- To period number and year.

Note that relative periods can be specified, so the report can be used over time without changing the column definition. The from and to periods are then calculated for each column according to the column definition and the period number specified for the reporting period when the report is run.

The table below illustrates an example of a definition of relative periods and the result when the report is run.

	Fr. per	To yr.	To per	To yr.	Result 9608	Result 9611
This period this year	=	=	=	=	9608-9608	9611-9611
Up to this year	01	=	=	=	9601-9608	9601-9611
This period last year	=	-1	=	-1	9508-9508	9511-9511
Up to last year	01	-1	=	-1	9501-9508	9501-9511
Total last year	01	-1	12	-1	9501-9612	9501-9512
1st quarter this year	01	=	03	=	9601-9603	9601-9603

Column Contents

Column headings, column width and number of decimals is defined for each column in panel 'Sales Stats Report. Define Columns' (OSS411/F). Field Column heading is used for on-screen display. For printouts field Column heading 1, 2 and 3 are used.

User-defined text and headings can both be used for all column headings. Examples of column headings are:

- From period number for columns, YYPP
- From period number, description
- To period number for columns, YYPP
- To period number, description

The calculation order can be specified for column types 4 and 6 (calculation columns). This order is important when the calculation order is not the same as the display order, that is in ascending column number order from left to right.

If a column is used only for calculations, the display can be suppressed. Totals per break level in the report can be specified. Also, all columns can be edited in the following ways:

- Editing code
- Thousands separator
- Minus sign placement
- Sign reversal (positive to negative, and vice-versa)
- Display value in tens, thousands, etc.
- Column separators

5 Run report

Any defined report can be run in these ways:

- On-screen display. See [Display Budget and Statistics](#) on page 732.

- Printout. See [Print Budget and Statistics](#) on page 747.
- As a DW/400 document that can be distributed using distribution lists or to a specific user. See [Print Budget and Statistics](#) on page 747.
- As a PC file. See [Export Data from Dataset to a File](#) on page 735.

Outcome

Reports containing operative, tactical and strategic management information customized to user needs can be produced using this process. This includes:

- Budget goals
- Sales statistics
- Profitability analyses
- Budget variances
- Service level evaluations
- Lead time analyses
- Error analyses
- Replacements and lost sales
- Mathematical forecasts
- Trend analyses

The reports can be generated in either M3 reporting tools or a PC tool. The [Accumulator Field](#) on page 718 defined for each dataset regulate the information displayed in these reports.

Sales Budgeting

This process is used to create and update a sales budget.

Sales budgets are saved in datasets having [Transaction Type - Statistics](#) on page 765 33.

Before you start

The process can be started when these prerequisites are met:

- A [Dataset](#) on page 725 is created and activated. See the following:
[Datasets](#) on page 727
- Datasets defined to save sales budget values have transaction type 33.

Follow these steps

The section below describes the scope of this process.

1 Defining Sales Budget Version

A sales budget version is used to identify a version of a budget within a dataset. This budget version is subordinate to the dataset, which means that each dataset can have several budget versions.

Sales budget versions are created in 'Sales Budget. Open' (OSS420). See [Create Sales Budget Version](#) on page 723.

The sales budget version defines the budgeting method. It can be used year after year so all reports that retrieve data from the budget version can be used unchanged at different times.

However, the budget values can be locked for specific years. See section [Locking the Budget Year](#) in this document.

- **Budget Status**

A budget version can be assigned these status codes:

Status	Description
10	Preliminary. Budget values may not be entered.
20	Active. Budget values may be updated if the budget is not locked for the current budget year.
90	Inactive. Budget values may not be updated.

- **Locking the Budget Year**

Each budget year within the budget version can be activated and locked. This is done in 'Sales Budget Year. Open' (OSS428). A locked budget year may not be updated or processed.

- **Field Selection for Budget Values**

'Sales Budget. Enter Values' (OSS421/E) displays four columns, whose contents are determined by the [Accumulator Field](#) on page 718 to be budgeted.

The accumulator fields that give default proposals are:

Column	Description
1	Budgeted invoice quantity (UCIVQT).
2	Budgeted invoice amount (UCSAAM). If budgeting is done per currency code, accumulator fields are used for the foreign currency amount if it is included in the dataset. The amount in foreign currency is then calculated automatically. Otherwise, the amount in local currency is used.
3	Budgeted costs of goods sold (UCUCOS).
4	No default proposal. If fewer than four accumulator fields are entered, only three columns are displayed.

Only four columns are displayed in the panel. If there are accumulator fields, then the contents of the columns can be changed. This is done by pressing function key F4 = Prompt in a column and then selecting a value from the prompt window.

- **Parameters for Supplementing the Budget**

If item number (UCITNO) is a key field in the dataset, four of the budget's data elements can be calculated automatically in 'Sales Budget. Supplement' (OSS250). See the section [Supplementing Budget](#) in this document.

The budget is supplemented with sales prices from the [Price List](#) on page 166 specified for the budget version. If the price list uses a sales price costing, individual prices can be calculated for different keys, such as different customers. Some of the control fields used in price costing models are not as

common as the key fields in the dataset. It is therefore possible to enter default values for the following fields per budget version in program 'Sales Budget. Open' (OSS420):

- Warehouse
- Customer order type
- **Budget in Foreign Currency**

Budgeting can be done for different currencies in the same budget version, as long as the currency code (UCCUCD) is a key field in the budget version's dataset and the invoice amount in foreign currency (UCCUAM) is one of the data elements.

By combining budgets in different currencies in the same dataset, the sales statistics can be followed up against the budget. This can be for quantity, sales in local currency, and sales in other currencies in the same report. In this way it is easy to see whether any differences depend on exchange rate changes or other factors.

2 Entering Budget Values

Budget values are entered manually in 'Sales Budget. Enter Values' (OSS421). See [Enter Budget Values](#) on page 734.

Panel 'Sales Budget. Enter Values' OSS421/E contains four columns for entry of the budget values. This means that four accumulator fields (for example, amount and cost value) can be entered at the same time.

The user decides which accumulator fields to enter in the different columns. If F4 = Prompt is pressed in a column, valid accumulator fields are displayed. By selecting a field from this prompt window, the contents of the column can be changed.

The budget values can be entered in any of the following ways:

- **Distributing Budget**

This method is mainly used for so-called top-down budgeting, where a budget at a high level is distributed to lower levels. For example, a budget for different markets can be distributed to different customer groups within each market.

To calculate the budget values with a yearly total, a seasonal curve must be specified. This is done by entering a yearly total in the column's uppermost field and then distributing it over the periods based on the curve. Default seasonal curves can be retrieved from the dataset and then changed if needed. For more information about seasonal curve, refer to document in See Also section.

Since the budget values are always entered on the lowest key level, according to the dataset to which the budget version belongs, different datasets are required for different budget levels. To distribute a budget for different markets to different customer groups, the dataset might be structured in this way:

Dataset	Key 1	Key 2	Key 3	Key 4	Key 5	Key 6
D1	Market					
D2	Market	Cust. grp.				

According to the table, the budget values can be entered per market in dataset D1 and then distributed per customer group within the market in dataset D2.

Budget distribution includes the following phases:

- a Preparing the budget for the highest level. See [Enter Budget Values](#) on page 734.
- b Creating a distribution template. See [Create Distribution Template](#) on page 723.

- c Creating distribution percentages. See the following:
 - [Enter Budget Distribution Percentages](#) on page 733
 - [Calculate Budget Distribution Percentages](#) on page 719
- d Running the distribution. See [Distribute Budget Values](#) on page 733.

Distribution Templates

Distribution templates are entered in 'Sales Budget Distr Template. Open' (OSS422). They are used to define a setup of selection for distributing from one dataset to another. The advantage of creating a template is that the distribution can be modified and rerun if needed.

Distribution percentages must be entered in order to distribute a budget. These describe how values on the higher level are distributed to each key field on the lower level. To distribute a budget for different markets to different customer groups, the percentages must also describe how the values for each market should be distributed to each customer group.

Distribution percentages can be generated automatically by referring to a dataset that contains statistical data for the distribution structure, for example sales statistics for the previous year. The percentages can always be changed manually before the distribution is run.

Distributing Yearly Totals per Period

The distribution percentages only describe distribution for the entire year, for example how total annual revenues for a market should be distributed to each customer group.

The calculated yearly totals can be distributed per period in two ways:

- According to the period distribution from the budget version distributed. then all groups within a market will receive the same period distribution as the market they belong to.
- According to the period distribution for the statistical data that created the distribution percentages. If the budget for different markets will be distributed to different customer groups, the period distribution is done individually according to the statistical data per customer group within each market.

- **Consolidating Budget**

This method is mainly used when budgeting is started from the lowest level and then totaled into higher levels. For example, a budget per market/customer group can be totaled for each market.

Since the budget values are always entered on the lowest key level, according to the dataset to which the budget version belongs, different datasets are required for different budget levels.

To total a budget per market/customer group for each market, the dataset might be structured in this way:

Dataset	Key 1	Key 2	Key 3	Key 4	Key 5	Key 6
D1	Market					
D2	Market	Cust. grp.				

According to the table, the budget values can be entered per customer within the market in dataset D2 and then totaled per market in dataset D1.

Budget consolidation is done in 'Sales Budget. Consolidate/Copy' (OSS220). See [Combine and Copy Data between Datasets](#) on page 722.

The alternatives for creating budget values can be combined depending on the work procedures used in the budgeting process. It is possible to create budget values for all accumulator fields in a dataset.

- **Copying Budget**

Data can be copied between different budget years or versions instead of consolidated and copied between datasets.

It is also possible to copy statistical data and forecasts and use them as a starting point for further processing. For example, sales for the previous year can be used as the basis for this year's budget. See [Combine and Copy Data between Datasets](#) on page 722.

3 Supplementing Budget

A sales budget can be supplemented in 'Sales Budget. Supplement' (OSS250).

If item number is a key field in a dataset, four accumulator fields can be calculated automatically based on other accumulator fields and different price information, which simplifies budgeting.

These accumulator fields can be calculated automatically:

- **Budgeted Invoice Amount in Local Currency**

Quantity x Unit price from price list

- **Budgeted Invoice Amount in Foreign Currency**

This is calculated using the amount in local currency. This requires that the currency code is included in the dataset's key. The exchange rate type used is retrieved from the budget version.

- **Budgeted Quantity**

Invoice amount / Unit price from price list

To calculate budgeted cost of goods sold, the costing type must be entered, and cost prices for the costing type must be updated.

- **Budgeted Cost of Goods Sold**

Quantity sold x Cost price from costing type

Price list

Prices from the specified [Price List](#) on page 166 are retrieved for each period according to the period type of the budget version. The prices are retrieved in the same way as during ordinary customer order entry. This means:

- Prices can vary from period to period.
- Order-dependent costing elements are taken into account. Prices can also vary for the same item, depending on other key fields such as customer group or customer. See process [Sales Price Administration](#) on page 174

If the price list is entered in a currency other than that of the amounts to be calculated, the exchange rate type from the budget version is used for conversion. Any discounts from [Discount Model - Customer Order](#) on page 141 are not taken into account.

4 Adjusting Budget Values

The budget values can be adjusted in groups instead of separately. This is useful for budget values that can be adjusted in the same way. For example, a budgeted amount might be adjusted using the same percentage for all items within a certain item group.

An unlimited number of selection criteria can be defined for each key field, and several accumulator fields can be adjusted at the same time in 'Sales Budget. Adjust' (OSS424). See [Adjust Budget Values](#) on page 718.

5 Transferring Sales Budget to FAM Budget

A sales budget can be transferred to financial system budgeting in 'Sales Budget. Transfer to FIM' (OSS270). See [Sales Budget. Transfer to FIM](#) on page 760.

The transfer is made by specifying:

- From dataset and sales budget version
- To budget number and budget version in FAM

If the period division differs between COM and FAM, the one in FAM will be calculated using the COM period's start date.

The following accumulator fields can be transferred, assuming they are included in the sales budget:

- Budgeted amount in local currency
- Budgeted amount in foreign currency
- Budgeted cost of goods sold

6 Transferring Sales Budget to Item Forecast

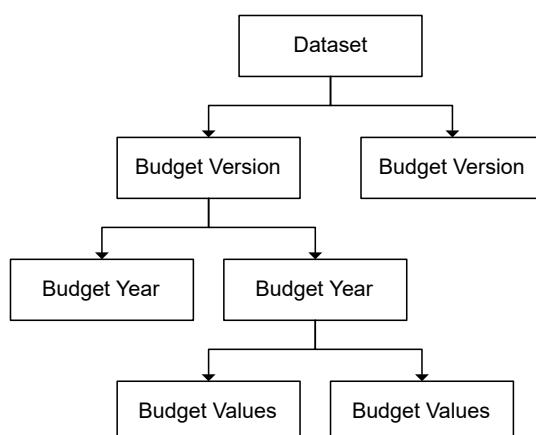
A sales budget can be transferred to a warehouse in the Forecasting module and in the master demand schedule in 'Manual Forecast. Update fr Sales Budget' (FCS425). See [Transfer sales budget to item forecast](#) on page 766.

This requires that the item number (UCITNO), planning entity (NDCCIT) or family item (FJBUIT) is used as a key field in the selected dataset.

Outcome

Budget values are available so that reports can be created and run against the sales budget. Budget targets can be measured against the sales statistics. For information about reporting, see [Report Processing](#) on page 750.

The budget values are saved in selected datasets as in the diagram below.



Sales Budget. Transfer to FIM

This procedure is used to transfer budgeted values from a sales budget to Budgeting in FIM.

Before you start

- A sales budget version is defined.
- Budget values are specified for the [Accumulator Field](#) on page 718 to transfer.
- A valid budget number and version is specified in FIM.

Follow these steps

- 1 Select program 'Sales Budget. Transfer to FIM' (OSS270).
- 2 Specify the [Dataset](#) on page 725, budget version and budget year of the sales budget to transfer.
- 3 Specify the valid budget number and version in FIM.
- 4 Specify the exchange rate type for sales budgets in a foreign currency so the amounts can be converted into the local currency.
- 5 To start the transfer, press Enter.

Sales Budgets and Statistics

This process is used to budget and follow up financial, quantitative and qualitative sales goals. This is based on reporting from user-defined [Dataset](#) on page 725 containing budget and statistical information accumulated for specific product or marketing IDs.

Reports containing this information can be generated in either M3 reporting tools or a PC tool. See [Report Processing](#) on page 750. Operative, tactical and strategic management information can be produced in customized reports after using this process.

Follow these steps

The section below describes the activities included in the process.

1 Create Dataset

Datasets are storage sites for budgeted and statistical information. They are created in 'Dataset. Open' (OSS401).

When defined, a dataset is assigned key field and [Accumulator Field](#) on page 718 that are used for reporting. These fields are set in a hierarchical order. The number and ordering of these fields determine the capabilities for budgeting and reporting the information in the dataset.

Datasets allow statistical information to be stored at different levels so that it can be quickly accessed. Datasets can be redefined and their information rearranged to meet changing requirements or reporting needs.

A dataset can be defined according to the following selections:

- Key field such as customer or item
- Accumulator field such as invoiced amount
- Transaction types such as budget, sales, or forecast
- Period type such as weekly or monthly

The dataset is structured as a separate file with real field names. This allows efficient ODBC connections to other tools. See [Datasets](#) on page 727.

2 Create Data in Dataset

Next, the data is created in the dataset. This is done various ways depending on the transaction type below.

- Order entry statistics – see [Order Entry Statistics](#) on page 742
- Sales statistics – see [Sales Statistics](#) on page 763
- Sales budget – see [Sales Budgeting](#) on page 754
- Sales forecasting – see [Sales Forecasting](#) on page 761
- Lost sales

3 Reporting

Reports can be obtained from any defined dataset using 'Sales Stats/Budget Report. Open' (OSS412). These can be reviewed the following ways:

- On-screen
- Printout
- As an Office document for distribution by distribution lists. See [Report Processing](#) on page 750.
- From a PC file for further processing – see [Export Data from Dataset to a File](#) on page 735.

Description

Below are examples of the information that can be obtained using dataset and report processing.

- Budget goals
- Sales statistics
- Profitability analyses
- Budget variances
- Service level evaluations
- Lead time analyses
- Error analyses
- Replacements and lost sales
- Mathematical forecasts
- Trend analyses

Sales Forecasting

This process is used to prepare and make calculations for forecasting expected values. The values can be specified for separate accumulator fields in datasets. This is for periodic forecasting, most suitably at the beginning of a new period when the actual results from the previous period are completed.

Transaction type 34 (Sales forecast) is available in a dataset for reporting purposes after using this process.

In M3 Sales forecasting there are two ways of forecasting: standard forecasting and advanced forecasting. The difference between these two types is that the following issues are available in advanced forecasting:

- Forecast formula 4
- Forecast with trend
- Extrapolation with trend using trend quantity
- Seasonal influence method 2, 3 and 4
- MAD (mean absolute deviation) method
- ME (mean error) method
- Forecast alarm
- Forecast error logic
- Competing forecasts
- Stop forecast calculation.

Another difference is that in standard forecasting, forecast on a field, e.g invoiced quantity (UCIVQT), is based on the historical data of the same field (UCIVQT). The demand used in advanced forecasting is instead based on other fields. This is further described below.

Before you start

- Transaction type 34 (Sales forecast) is allowed in the datasets used.
- Forecast methods are entered for the datasets containing the forecasted accumulator fields. The selected forecast formula for each forecast method determines the automatic calculation alternative used. Datasets are maintained in 'Dataset. Open' (OSS401).
- Historical statistics are created and stored for each key field included in the automatic forecast calculations. [Transaction Type - Statistics](#) on page 765 for these statistics are defined in 'Sales Forecast Method. Open' (OSS430).
- In advanced forecasting, the field **Demand** (UCDEMA) is an accumulator in the dataset. If you want to use advanced forecasting, you will have to enter this field in the dataset.

Follow these steps

1 Checking forecast method and parameters

To start the process, the forecast methods and parameters for the dataset to be forecasted must be checked and changed, if necessary. This is done in 'Sales Forecast Method. Open' (OSS430).

When forecasts are generated using forecast simulations, the simulation forecasts methods used must also be checked and/or changed. This is done in 'Sales Forecast Method. Connect Competing' (OSS431), which is called using option 11 = Forecast sim from 'Sales Forecast Method. Open' (OSS430).

The dataset should also be checked to ensure the correct forecast method and forecasted accumulator fields are selected and matched.

2 Calculating forecast

The forecast calculation is done automatically for every dataset selected using the selected forecast methods. Forecast calculations for separate datasets can also be done in 'Sales Forecast. Generate in Dataset' (OSS440).

Sales Statistics

This process is used to create both detailed and totaled sales statistics. These statistics can then be used in sales and other reports as needed. See [Report Processing](#) on page 750.

Sales statistics are created in detail and in accumulated form in datasets after using this process.

Before you start

- Datasets are created. See [Datasets](#) on page 727.
- The customer order types to update sales statistics are specified correctly. See [Customer Order Types](#) on page 278.
- The sales statistics are stored in a dataset with [Transaction Type - Statistics](#) on page 765 32.
- The transaction type is valid for the dataset in which the sales statistics are accumulated.

Follow these steps

1 Defining parameters for service level evaluation

The basic concept behind service levels is comparing the number of approved deliveries to the total number of deliveries. Approval or rejection for deliveries is determined by comparing delivered quantity to confirmed quantity, and actual delivery dates to confirmed delivery dates.

Each delivery line updated to sales statistics is updated itself automatically. The values for these comparisons per delivery line are defined in 'co_Type. Open' (OIS010/K). See [Parameters for Service Level Evaluation](#) on page 110.

The following [Accumulator Field](#) on page 718 can be used to total the statistics for service level evaluation per dataset.

Acc. Field	Description
UCTDEL	Total number delivery lines
UCTORL	Total number order lines
UCFULL	Total no. delivery lines – correct quantity and time
UCRQTY	Total no. delivery lines – correct quantity, incorrect time
UCRTME	Total no. delivery lines – incorrect quantity and correct time

Service level evaluations can also be made using the following accumulator fields.

Acc. Field	Description
UCDDF1	No. days between confirmed and actual delivery date
UCDDF2	No. days between confirmed and requested delivery date
UCDDF3	No. days between order date and actual delivery date
UCDDF4	No. days between requested and confirmed delivery date
UCDDF5	No. days between actual delivery date and invoice date
UCTDEL	Total number delivery lines

2 Updating detailed sales statistics

Detailed sales statistics are updated from invoiced deliveries as specified in the customer order type. This can be automatic during invoicing or done manually in 'CO Invoice. Post-Process' (OIS196). See [Post-process Invoices](#) on page 445.

These statistics are accumulated in datasets for further processing as totals.

3 Updating dataset

The accumulated totals are updated to the dataset(s) for total sales statistics.

Every customer delivery that updates the detailed statistics is checked for the information which is updated to the dataset. The information checked is:

- The division is correct.
- The start and end dates for updating the dataset include the accounting date for the transaction.
- The sales statistics [Transaction Type - Statistics](#) on page 765 is included in the dataset.
- The transaction meets the selection criteria defined for the dataset.

The dataset that matches this information check is updated automatically for every new record created in the detailed statistics.

4 Re-creating detailed sales statistics

When needed, detailed sales statistics can be re-created. This can be necessary if historical data has been destroyed or if the parameters for updating [Customer Order Type](#) on page 282 have been changed.

The detailed sales statistics are re-created in 'Sales Statistics. Re-create' (OSS995) by selecting the accounting date as of when the statistics should be re-created. See [Re-create Detailed Sales Statistics](#) on page 748.

In order to re-create the statistics, the invoiced delivery lines must still be in the database. Also, when the statistics are re-created, all affected datasets are automatically re-created.

5 Re-creating data in dataset

When needed, the data in datasets can also be re-created. This can be for newly defined or redefined datasets. This is done in 'Sales Statistics. Re-create' (OSS995) by selecting the accounting date as of when the statistics should be re-created. See [Re-create Sales Statistics in Datasets](#) on page 749 and [Datasets](#) on page 727.

In order to re-create the data, the base information must still be in the detailed sales statistics.

6 Filing detailed sales statistics

The detailed sales statistics contain one record for each invoiced customer order line. These records should be filed to avoid their taking up too much space in the system. Filing can be done after a reasonable time in 'Sales Statistics. File' (OSS080).

Sales Statistics - Customer Order

The sales statistics are a compilation of all invoicing done in the M3 Customer Order Processing module. The statistics are recorded for the accounting date specified during invoicing.

Sales statistics can be updated automatically when a customer order is invoiced or at a later time.

Transaction Type - Statistics

Definition

Transaction types are used to classify demand based on its source. The first numeral in the transaction type indicates the source, that is the order category. The second numeral indicates the kind of event that triggers the statistics, for example order entry, lost sales, invoicing and budgeting.

The valid transaction types are:

Customer Order

Transaction type	Definition
30	Delivered not invoiced statistics
31	Order entry statistics
32	Sales statistics
33	Sales budget
34	Calculated sales forecast
35	Lost sales
39	Calculated base forecast

Service Order

Transaction type	Definition
70	Delivered not invoiced statistics
72	Sales statistics

Maintenance Customer Order

Transaction type	Definition
73	Sales statistics

Project Order

Transaction type	Definition
81	Order entry statistics
82	Sales statistics

Uses

Transaction types are used to control how data is created in datasets. They are entered in 'Dataset Transaction Type. Open' (OSS405). Transaction types for datasets are entered are entered in 'Dataset. Connect Dataset Trans Types' (OSS406).

Transfer sales budget to item forecast

You can use this procedure to transfer budget values from a sales budget to forecasts per item for a selected warehouse in the Forecasting module and in the master demand schedule.

Before you start

- A dataset is defined and activated in 'Dataset. Open' (OSS401). See [Datasets](#) on page 727.
- A sales budget version is defined and activated for the dataset in 'Sales Budget. Open' (OSS420). See [Create Sales Budget Version](#) on page 723.
- Key field Item number (UCITNO), Family item (FJBUIT), or Planning entity (NDCCIT) is included as part of the key for the selected dataset.
- A transferable dataset accumulator is defined in the dataset and contains budget values. See [Sales Budgeting](#) on page 754.

Follow these steps

- 1** Select 'Manual Forecast. Update for Sales Budget' (FCS425).
- 2** Specify the dataset, budget version, field, transaction type, and period from/to for the sales budget to transfer.
- 3** Specify the warehouse for which the budget values have to be created. If planning entity (NDCCIT) is used as key in the dataset, warehouse may be left blank indicating that all warehouses have to be transferred and updated.
- 4** To update the master demand schedule, specify a master demand schedule version.
- 5** In the '**Cumulative**' field, specify whether the values from the sales budget must be added to or replace existing values in the forecast system.
- 6** Press Enter to start the transfer.

Restart (FCS425)

When the job 'Budget transfer to item forecast' (FCS426CL) is interrupted, the corresponding job record in 'Job. Display History' (MNS320) is updated from status 20-'Is Running' to status 26-'Terminated'. The terminated job must be restarted before another job can be submitted from (FCS425).

To restart the job:

- 1** Select (MNS320).
 - 2** Specify the job queue, job queue party, change date, change time, changed by, or job number, depending on the sorting order in use.
 - 3** Select the terminated job and choose the related option 20-"Restart". The status of the job updates to 20, indicating the job is running.
 - 4** The job is updated to status 30-'Is Completed' once it is successfully processed.
- Note:** The job restart solution for (FCS426CL) only applies to forecast jobs running in parallel as set in 'Settings - Parallel Jobs' (CRS797). This does not support single-threaded jobs.

Update Sales Statistics

The purpose of this procedure is to update sales statistics for customer orders that do not have their sales statistics automatically updated during invoicing.

Before you start

- Some invoiced customer orders have not automatically updated sales statistics.
- The customer order type used specifies sales statistics are updated, see 'co Type. Open' (OIS010/K).
- Sales account entries are created for the invoices that will update the statistics.
- Bonuses and commissions are calculated.

Follow these steps

- 1 Select 'CO Invoice. Post-Process' (OIS196).
- 2 Select the check box 'Upd sales stat'.
- 3 Specify the date range for which the sales statistics are to be updated. Press Enter.
- 4 To end, press F3.

Chapter 12: Trade Agreements

Trade Agreements - Introduction

Trade agreements is the process which determines and consists of the common calculation rules and conditions for calculating and generating accruals, and processing advances and settlements for one or more recipients. When a customer order line is qualified for an active trade agreement, the agreement is updated with the sales of the invoiced customer order lines.

A trade agreement is created to calculate accruals for qualified invoiced lines covered by the agreement, where advances, periodic settlements, and final settlement are calculated for the recipient. Each trade agreement is defined with corresponding recipients. The recipients are the beneficiaries of the calculated accruals. Trade agreements are entered in 'Trade Agreement. Open' (OIS430).

Each trade agreement function is explained in detail in separate topics. See Related topics section.

Trade agreements - Overview

When a trade agreement is created, advances, periodic settlements, and a final settlement are calculated and paid out to the defined recipients. A recipient is the beneficiary of the invoiced customer order lines covered by the trade agreement.

A trade agreement model, defined in the customer order, contains sequences that are used to find a trade agreement in which a customer order line can be qualified. Each sequence defined in the trade agreement model has a defined selection matrix which is used to map out the defined scope of the connected trade agreement and corresponding recipient. The scope could be item, item group, customers, warehouses, order types, etc. Accruals are then calculated and either accumulated to the trade agreement through the invoice process, or by batch.

Advances can be paid out periodically to the recipient during the agreement period. A trade agreement can then be settled on either when the validity of an agreement has passed, or before the agreement's end date. For trade agreements that cover several years, settlements are calculated annually. Advances, periodic settlements, and final settlements are paid out to the recipient as a credit or debit note through the batch order entry.

Accruals

Accruals are calculated for the qualified invoiced lines covered by an active trade agreement.

Generation of accruals depends on the parameter setup for the management of accruals in 'Trade Agreement Model Lines. Open' (OIS439). These are the alternatives for 'Accruals management' in (OIS439):

- 1-'Per invoice' - accruals are calculated upon invoice generation.
- 2-'Batch' - accruals should be calculated through a batch program in 'Trade Agreement. Open' (OIS450).

Financial entries for calculated accruals are generated and transferred to the general ledger through 'Trade Agr FIM Periodic Proposal. Open' (OIS455). Accounting OI40-168 (for trade agreement) and OI40-169 (trade agreement reservation) are used for periodic accrual proposals. The accounting rules are listed in 'Accounting Rule. Set' (CRS395).

Advances and periodic settlements

In the trade agreement, you can specify if advances are to be credited for a recipient. You use advances when the scale rate for the payout should be based on total sales at the time of the final settlement. For trade agreements that span multiple years, this typically means all sales during the year. Advances are therefore payouts based on an estimate of what the final scale rate is in the annual or final settlement. You then deduct these advances from that final or annual settlement.

As an alternative to advances, you can use periodic settlements. You define the settlement frequency in the agreement, for example, every month or every third month. Each period is settled individually, meaning you determine the scale rate for each payout separately, and there is no final settlement over the lifetime of the agreement.

Advances, or periodic settlements, are calculated from the accumulated amount accrued in the trade agreement. They are credited by an advance according to a fixed percentage, a dynamic percentage or amount based on the recipients generating value, or a fixed amount set per period for the recipient. If an advance percentage for the recipient is specified, then only that calculated percentage or amount is credited in advance.

Accrued invoiced amounts or paid invoices can be used to calculate an advance or a settlement. Paid amounts are the invoices paid in full. Only invoices paid in full are used when calculating a proposed value for advance or periodic settlement payments when the 'Chk paid inv' check box is selected in 'Settings – Trade Agreements' (CRS740). The proposed value can be inherited and manually changed in 'Trade Agreement. Open' (OIS430) or upon payout in 'Trade Agreement Payout. Open' (OIS445).

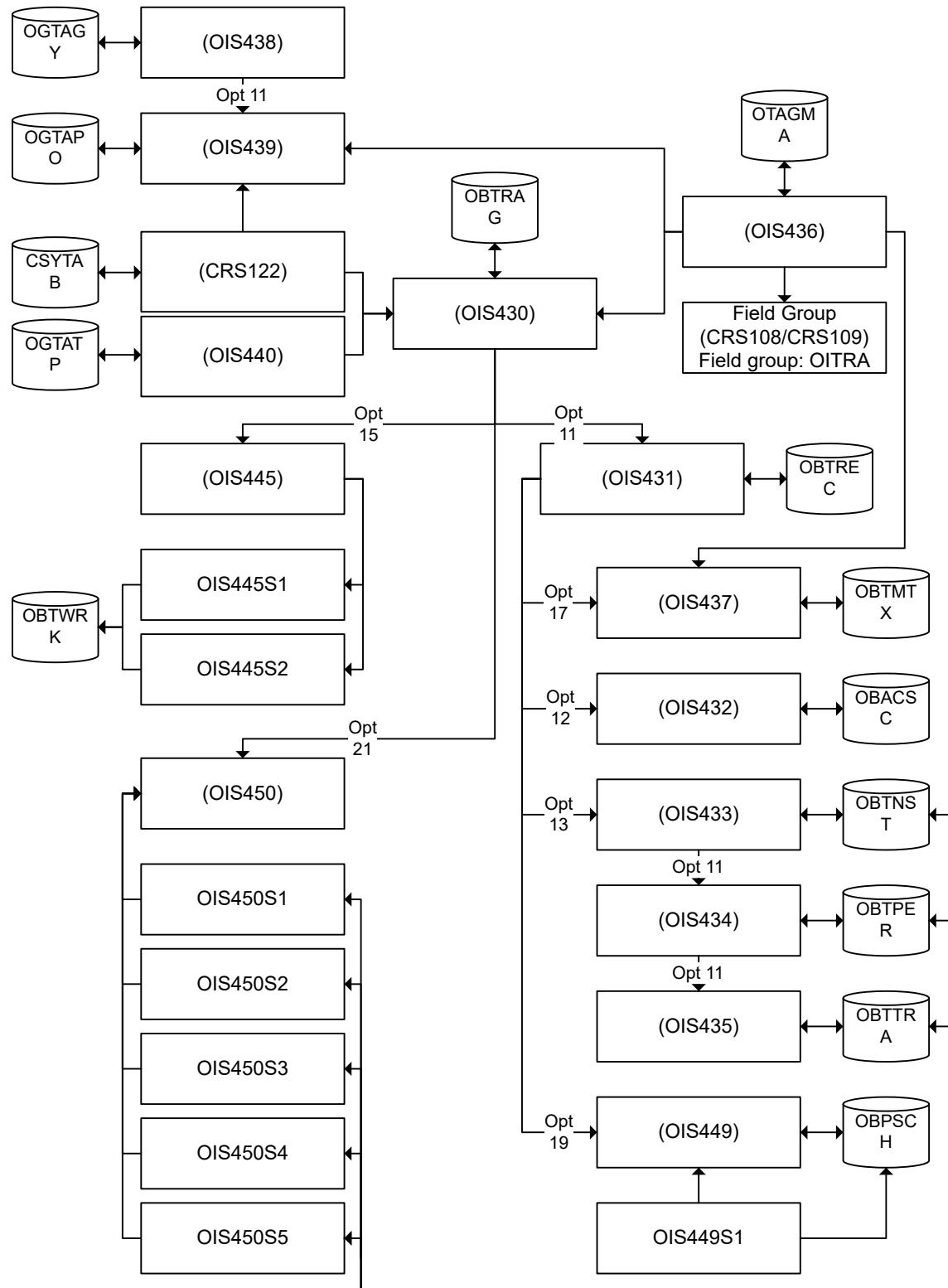
Advance or periodic settlement proposals generated in (OIS445) can be adjusted manually. After an adjustment is made, the advance is credited to the recipients. Advances are paid using credit invoices, which are transferred to account receivable using the regular invoice routine.

Annual and final settlements

A settlement is the final calculation performed for the recipient or recipients included in the trade agreement. A settlement is created after the validity of the trade agreement has passed. For trade agreements that cover several years, annual settlements are created at year-end or after the validity of the agreement has passed. It is also possible to create a settlement before the agreement's end date.

Advances that have been credited to the recipient are deducted from the final settlement. When advances credited are higher than the accumulated accruals in the trade agreement, a debit invoice is created for adjustment.

During the settlement process, invoices are created through the M3 batch order entry process. These invoices could be credit, debit, or zero.



Limitations

- On-invoice discounts are not included.
- Planning and simulation of overall trade agreement is not included.
- Trade funds management and planning (budget consumption) is not included.

Cross-Division Trade Agreements

Introduction

This document outlines the solution for trade agreements with global customers purchasing from multiple selling divisions. In such scenarios, performance-based targets (scaled rates) are defined for the overall sales encompassing all divisions.

Creating a cross-division agreement

You can create a trade agreement in 'Trade Agreement. Open' (OIS430) with a trade agreement type where the 'Cross division' check box is selected on 'Trade Agreement Type. Open' (OIS440/E).

Trade agreement transactions

You can create trade agreement transactions during invoicing or with 'Trade Agreement Calculation. Open' (OIS450) in the selling division. You must run the update options 'Rev transaction', 'Rev invalid', and 'Update rate' in (OIS450) in the division of the agreement.

Accruals

You can generate accrual proposals in each selling division in 'Trade Agr FIM Periodic Proposal. Open' (OIS455). They include the trade agreement transactions that are created from customer orders in the selling division. The '**Agreement division**' (AGDI) field in 'Trade Agr FIM Periodic Proposal Ln. Open' (OIS456) indicates which division the trade agreement was created in.

Payouts

You can create payouts in 'Trade Agreement Payout. Open' (OIS445) in the division of the agreement. Each payout operation generates a single credit order for every combination of recipients and selling division. The targets for performance-based agreements (scaled rates) are defined for the total sales across all divisions. Thus, the recipient's generating value is for sales in all divisions. The payouts are based on the cumulated values per selling division. Thus, the recipient's paying amount is per division.

Defining Trade Agreements - Basic Information

This document explains the basic settings to be defined before creating trade agreements.

Define trade agreement settings

Common settings can be defined and inherited upon creation of trade agreements. Trade agreements are activated per division in 'Settings – Trade Agreements' (CRS740).

Define a trade agreement class

A trade agreement class indicates the class ID the trade agreement belongs to. It is a classification grouping used to build up trade agreement models and is used for statistics, controlling accounting rules, and grouping.

Note: You cannot delete a trade agreement class when it is connected to an active trade agreement or trade agreement model line.

The trade agreement class ID is defined in 'Trade agreement class. Open' (CRS122).

Define a trade agreement type

A trade agreement type consists of a set of rules to classify different trade agreements which follow different rules and settlement processes. The trade agreement types control the trade agreement number series, how a settlement process is handled, and if there are deviations in the payment process.

The trade agreement type is specified when creating a trade agreement in 'Trade Agreement. Open' (OIS430). Trade agreement types are defined in 'Trade Agreement Type. Open' (OIS440).

Note: You cannot delete a trade agreement type when it is used for an active trade agreement.

Follow these steps

- 1 Specify a number series to be used by the trade agreement. The number series is managed at division level and is predefined in 'Number Series. Open' (CRS165) with TA as the number series type.
- 2 Specify the CO type and item to be used when invoices are created through the batch order entry when processing advances or settlement. If no value is entered, the CO type and item defined in (CRS740) are used.
- 3 Indicate if a settlement deviation is to be used in the payment process. Amount calculated, versus the credited or claimed amount or the maximum authorized amount. The allowed deviation is defined as a percentage.

Define a trade agreement selection matrix

A trade agreement selection matrix contains a selection table in which the scope of the trade agreement is defined. The selection table in 'Trade Agreement Table. Open' (OIS436) is then used to determine which criteria will be qualified for the trade agreement.

Control objects must be defined in 'Generic Object Control Table. Open' (CMS017) to build up a selection matrix that will determine the criteria (for example, warehouses, items, item group, business chains, customers, etc.) an order line might qualify with to find relevant trade agreements. Control objects used for 'Trade

Agreement Selection Matrix. Open' (OIS437) are from the field group (OITRA) defined in 'Field Group. Open' (CRS108).

A trade agreement table is only populated in 'Trade Agreement. Open' (OIS430) when a trade agreement and its corresponding recipient is connected to a selection matrix in (OIS437).

To determine the validity of the selected matrix upon retrieval of valid trade agreements during calculation of accruals, the valid to and from dates in (OIS437) are verified against the 'date agr type' set in 'Trade Agreement Model Lines. Open' (OIS439). The search criteria defined maps out which trade agreement and corresponding recipient the selection matrix is connected to.

For example, a customer order that has an invoice date of 210101 and an accounting date set to 210102 are not included in the calculation of accruals if the valid date range set in the selection matrix is 210102 - 210115, and the date agreement type set in (OIS439) is invoice date.

Note: You cannot delete a selection matrix when:

- Trade agreement status is less than status 90.
- Selection Matrix is connected to a trade agreement model line in (OIS439).
- Selection matrix is used in an active trade agreement.

Defining Trade Agreements

A trade agreement determines and consists of the common calculation rules and conditions for generating accruals, processing advances, and settlements, for one or more recipients. A trade agreement is updated with the sales of the invoiced customer order lines covered by the agreement.

Trade agreements are entered in 'Trade Agreement. Open' (OIS430) in which a trade agreement type defined in 'Trade Agreement Type. Open' (OIS440) should be entered upon the creation of the trade agreement. Trade agreement number is generated upon creation.

Completion of the following fields on the trade agreement is mandatory:

- Valid from/valid to date - This specifies the dates comprising the validity of the trade agreement.
- Status - This indicates the status of the trade agreement. A trade agreement is valid when status is set to 40-'Active'. No calculation for generating or paying values is done on the trade agreement when status is set to 70-'Hold'.

Note: Deletion of a trade agreement is not permitted when status is greater than 30 or if status is set to 99. Deletion is also not permitted if trade agreement is connected to a selection matrix.

The following restrictions apply to active trade agreements:

- When a trade agreement is set to status 40, it can only be changed to status 70.
- When a trade agreement is set to status 70, it can only be changed to status 40.
- Trade agreement class - This is the classification grouping for the trade agreement.
- Currency and exchange rate type - Trade agreements can handle different currencies. Regardless of the local currency, all sales are converted to the agreement's currency. Advances and settlements are also based on the agreement's currency. The exchange rate type must be specified to convert sales currency to the trade agreement's currency.

- Generating unit - This indicates the unit of the generating value in the trade agreement. This value is used to retrieve the trade agreement rate in stated in the currency of the trade agreement.
- Paying unit - This indicates the unit of the paying amount in the trade agreement. This is stated in the currency of the trade agreement.
- Settlements for the agreement can be put on hold by selecting parameter 'Hold settlement' on (OIS430/E). This can be inherited to the recipient in 'Trade Agreement Recipients. Open' (OIS431) and the payout in 'Trade Agreement Payout. Open' (OIS445).
- Invoices are verified if they are paid in full before a credit note settlement is created by selecting the parameter 'Chk paid inv' in (OIS430). The value for this parameter can be set per division in 'Settings - Trade Agreements' (CRS740), which is defaulted and can be manually modified on (OIS430/E) and in (OIS445).
- Select the 'Copy Conditions' check box on the 'Settings' panel (OIS430/P) if the recipient and scale rates defined in (OIS430) for the 'Copy from' agreement is to the new agreement.

Define facility

A facility can only be defined upon creation of a trade agreement. If a facility is not defined, then the agreement will be valid for all facilities within the division.

Define advance method

Advance method indicates how advances for the trade agreement are calculated from the accumulated trade agreement. This amount is then credited to a recipient. If an advance percentage or amount is specified for an agreement, then only that amount is paid out in advance.

It is mandatory to indicate the settlement frequency which is the number of periods between each settlement when an advanced method is specified for the trade agreement. The settlement frequency defined in the trade agreement is then inherited to the connected recipient.

Advance method for the trade agreement can be specified as follows:

- Alt 0='No advance'.
- Alt 1='Advance according to a fixed percent entered as internal reservation per recipient in (OIS431)'.
- Alt 2='Advance according to a dynamic percentage or amount as retrieved according to the scale rate table' in 'Trade Agreement Scale Rates. Open' (OIS432).
- Alt 3='Advance according to a fixed amount, as entered in the trade agreement payment schedule per recipient table in 'Trade Agr Pmt Sched per Recipient. Open' (OIS449).

Define generating and paying values

Generating and paying amounts are accumulated for the qualified invoiced order lines by either through the invoice process or by batch 'Trade Agreement Calculation. Open' (OIS450). The order lines that can affect the trade agreement are defined as generating and/or paying on 'Item. Open' (MMS001/H).

It is mandatory to specify the generating and paying unit of the trade agreement. The generating and paying unit is disabled for trade agreements with status greater than 30.

Scale U/M is the unit of measure (U/M) for limit values in the scale if the value is quantity. Note that entering a value in this field is not permitted when generating unit is not 8 or 10 and paying unit is not 11 or 13.

If 'Bonus gen' and 'Commis gen' are set to:

- 0 - The order line does not affect the agreement.
- 1 - Generating - The order line affects the trade agreement generating value.
- 2 - Generating and Paying - The order line affects both the trade agreement's generating value and paying value.

Generating unit

Generating unit indicates the unit of the generating value in the trade agreement. This value is used to retrieve the trade agreement rate to be calculated on the paying amount for dynamic advanced method. This is stated in the currency of the trade agreement.

The trade agreement percentage or amount to be calculated on the paying amount is entered in an ascending scale of generating values where each limit corresponds to a percentage or amount. The percentage or amount in the scale used for calculation on the paying amount depends on the generating value reached.

Scale unit of measure is mandatory when generating unit is set to 8-'Net weight with catch weight - with entering catch weight U/M' and 10-'Quantity in agreed U/M'.

The generating unit can be as follows:

- 1-'Net amount after external discounts'
- 2-'Gross amount excluding discounts'
- 4-'Sales price according to item file'
- 5-'Contribution margin (net amount - cost value)'
- 6-'Cost value'
- 7-'Net weight'
- 8-'Net weight with catch weight - with entering of catch weight unit of measure'
- 9-'Gross weight'
- 10-'Quantity in agreed U/M'.

Paying unit

Paying unit indicates the unit of the paying value in the trade agreement. This value is the basis for calculating the trade agreement accruals with the percentage or amount indicated in either the recipient (OIS431) or the scale (OIS432). This is stated in the currency of the trade agreement.

Scale unit of measure is mandatory when paying unit is set to 11-'Net weight with catch weight - with entering catch weight U/M' and 13-'Quantity in agreed U/M'.

The paying unit is as follows:

- 1-'Net amount included discount'
- 2-'Gross amount excluded discount'
- 3-'Sales price according to item file'
- 4-'Contribution margin (net amount - cost value)'
- 5-'Cost value'
- 10-'Net weight'
- 11-'Net weight with catch weight - with entering of catch weight unit of measure'
- 12-'Gross weight'

- 13-'Quantity in agreed U/M'
- 21-'Fixed amount'.

Define scale code for reservation amounts

Scale code is defined for the trade agreement to indicate how the agreement rates are retrieved to calculate the reservation amounts when using a scale rate in (OIS432). Scale code defined on (OIS430/F) is also used for dynamic percent advance method.

The scale code used for generation of the reservation amount can be specified as follows:

- 0-'Best possible trade agreement rate'
By selecting this alternative, the same trade agreement rate is used for the entire initial generating value. The mandatory defined normal rate in (OIS432) is used to calculate the reservation amount.
- 1-'Graduated trade agreement rate'
By selecting this alternative, the trade agreement rate used to calculate the reservation amount for the entire initial generating value is according to the last limit passed.
- 2-'Graduated rate - split trans'
By selecting this alternative, the generating value is split into separate lines in 'Trade Agreement Transaction File. Open' (OIS435) for each limit breached and assigned the corresponding rate.

Activating Trade Agreements

This topic explains the setup for activating trade agreements.

Trade agreement settings

The trade agreement functionality is activated per division in 'Settings – Trade Agreements' (CRS740). Trade agreement settings must be defined for the division to activate the calculation of accruals.

This table describes the settings available in (CRS740):

Field	Description
Chk paid inv	Select the check box to verify paid invoices against the original invoices to ensure that they are paid in full. When this check box is selected, payments for advance and final settlements can only be made when invoices are paid in full. The value for this field is used as default when a trade agreement is created, but can be changed manually in 'Trade Agreement. Open' (OIS430) or during payout in 'Trade Agreement Payout. Open' (OIS445).

Field	Description
Upd trde agr	Select the check box to activate the update of trade agreements with the qualified invoiced lines either through the invoicing process or manually through a batch process.
CO Type	Specify the CO type to be used when invoices are created during batch order entry from a trade agreement when processing credit note advances and settlement. The order type should have the customer order category 9-'Bonus or commission'.
Item number	Specify the item number to be used when invoices are created using batch order entry from a trade agreement, when processing credit note advances and settlement. This is the item number that is used in the batch order that is a result of the advance/ or final settlement.

Other settings

Program ID/Panel	Field	Description
'Settings - Batch Orders' (OIS278)	Source	Source 5-'Bonus/Comm' is selected in (OIS278) to manage the credit for the advance or final settlement.
'Customer. Open' (CRS610/H)	B/C active	Select this check box for customers included in a trade agreement.

Program ID/Panel	Field	Description
'Item. Open' (MMS001/H)	Bonus gen Commis gen	<p>Select field value 1 or 2 for items that can affect the recipient's trade agreement.</p> <p>The alternatives for the two fields are:</p> <ul style="list-style-type: none"> • 0-'Does not affect' - the item does not affect the agreement. • 1-'Generating' - indicates that the item's value is included in the value used to determine the percentage or amount used to calculate the accruals. The percentage or amount is used on the paying amount to calculate the amount for advances or settlement. This value is not accumulated in the agreement's paying amount. • 2-'Generating and Paying' - This setting indicates that the item's value is used to determine the percentage or amount used to calculate the accruals. The percentage or amount is used on the paying amount to calculate the amount for advances or settlement. This value is also accumulated in the agreement's paying amount.
'Accounting Rule. Set' (CRS395)		Reservation and balance accounts are defined for trade agreements for accounting event OI40, accounting types 168-169.
'Trade Agreement Class. Open' (CRS122)		Define a trade agreement class ID.
'Number Series. Open' (CRS165)		Define a number series to be used for trade agreements, with TA as the number series type. Number series are defined per division.
'Trade Agreement Type. Open' (OIS440)		Define a trade agreement type to be used when creating a trade agreement in (OIS430).
'Trade Agreement Table. Open' (OIS436)		Define a trade agreement table to create a selection matrix in 'Trade Agreement Selection Matrix. Open' (OIS437). A selection matrix must be created to determine the scope of the trade agreement. Control objects used for (OIS437) are from the field group OITRA in 'Field Group. Open' (CRS108). When a trade agreement and trade agreement recipient are connected to a selection criterion, the connected trade agreement table is populated in (OIS430).

Program ID/Panel	Field	Description
'Trade Agreement Model. Open' (OIS438) 'Trade Agreement Model Lines. Open' (OIS439)		Define a trade agreement model in (OIS438) and trade agreement lines in (OIS439). The trade agreement model used for customer orders can either be specified in the customer ordertype 'CO Type. Update Field Selection' (OIS014/H), the customer local exception 'Customer. Open Local Exceptions' (MFS610/E), or the customer file 'Customer. open' (CRS610G). The specified agreement model can be inherited during customer order entry in 'Customer Order. Open' (OIS100/H). It can also be specified manually on the customer order header (OIS100/H).
'Trade Agreement. Open' (OIS430)		An active trade agreement must be created in (OIS430) with status 40-'Active'. The trade agreement must contain the calculation rules and conditions used to generate accruals.
'Trade Agreement Recipients. Open' (OIS431)		A trade agreement recipient for the trade agreement must be entered in (OIS431). This is accessed by using related option 11-'Trade Agreement Recipients. Open' in (OIS430). The recipient of the trade agreement can be an agent, business chain, customer, or salesperson. The recipient must be defined in the customer file in (CRS610).
'Trade Agreement Scaled Rates. Open' (OIS432)		Scaled rates can be defined for the trade agreement recipient in (OIS432). This can be accessed by using related option 12-'Trade Agreement Recipients. Open' in (OIS431).

Recipients

This document describes the basic setup for trade agreement recipients. Recipients are the beneficiaries of the trade agreement.

Trade agreement recipients

Trade agreement recipients are the beneficiaries for the customer order lines covered by the trade agreement. The recipient of the trade agreement can be an agent, business, chain, customer, or salesperson. Multiple recipients can be defined when there is more than one beneficiary for the trade agreement. Recipients must be defined in the customer file in 'Customer. Open' (CRS610).

It is mandatory to specify the valid from and valid to dates for the recipient connected to the trade agreement. Initially valid dates are inherited from the trade agreement header but they can be modified.

Note: The valid to and from dates for the recipient must be within the valid date range of the trade agreement.

A reservation percentage/amount can be entered on the recipient based on the paying units set on 'Trade Agreement. Open' (OIS430/F) which is used to calculate the internal reservation on the accrued trade agreement:

- Percentage is entered if paying unit is between 01-05
- Amount per quantity is entered if paying unit is between 10-13.

If the advance method on (OIS430/E) uses a fixed rate or fixed amount, then the reservation field in 'Trade Agreement Recipients. Open' (OIS431) is also used to calculate the advance, or periodic settlement, payment to the recipient during the agreement.

An advance percentage can be entered for the recipient which indicates the percentage to be applied on reserved amounts during advance payments. If an advance percentage or amount is specified for the agreement, then only that calculated percentage/amount is paid out in advance. For example, a recipient has a total accrued amount of 1,000 USD. If the percentage is 100, then the entire amount is credited in advance. If the percentage is 80, then 800 USD is credited.

Recipients can also be limited to how much they are allowed for accruals and payouts:

- If amount is entered in the maximum paying unit, it indicates the maximum paying amount to be covered to the recipient. Once the limit is reached, accruals are stopped.
- If amount is entered in the maximum agreed amount, it indicates the maximum amount to be paid to the recipient. Once the limit is reached, accruals are stopped.

This program is accessed by using related option 11-'Trade Agreement Recipients. Open' in (OIS430).

Select the 'Copy scale rate' check box on (OIS431/P) if the scale rates defined in 'Trade Agreement Scaled Rates. Open' (OIS432) for the 'Copy from' recipient is to the new recipient.

Settlements for the recipient can be put on hold by selecting parameter 'Hold settlement' on (OIS431/E). This is initially inherited from (OIS430/E) and can be modified on (OIS431/E).

Note: Deletion of a recipient is not permitted when calculated accruals exist for the recipient. Deletion is also not permitted if the recipient is connected to a selection matrix.

Reservation Rates

This document describes the different ways to determine which rate is used to calculate the reservation amount, and how fixed reservation amounts are set up for fixed amount trade agreements.

Introduction

Reservation rates are either a percentage or amount depending on how the paying unit is defined. Percentage is entered if paying unit is between 01-05, and amount per quantity is entered if paying unit is between 10-13. These rates are used to calculate the accruals reservation amount.

Reservation amounts are calculated based on how the trade agreement is defined. Initially, a reservation rate is taken from the recipient when no scales are defined. When scale rates are defined for a recipient, rates used to calculate the accruals are either the best possible trade agreement rate, or through a scale based on the defined forecasted generating values.

Fixed reservation amounts are used for fixed amount agreements.

Define trade agreement rate per recipient

Reservation rates are entered in the recipient as either percentage or amount depending on the value set on the paying unit in the trade agreement header. Reservation rates for the recipient are defined in 'Trade Agreement Recipients. Open' (OIS431). This can be accessed by using related option 11 in 'Trade Agreement. Open' (OIS430).

If the advance method on (OIS430/E) uses a fixed rate or fixed amount, then the reservation field in (OIS431) is also used to calculate the advance payment to the recipient during the agreement

Define trade agreement recipient scale rates

Trade agreement scale rates are entered in a table as either percentage or amount depending on the value set on the paying unit in the trade agreement header. If dynamic percentage advance method is set for the trade agreement, the scale is also used to retrieve the corresponding percentage or amount defined against the generating value specified in the scale.

Trade agreement scale rates are defined in a table containing a scale and corresponding limits, which is expressed in the generating unit, for calculation of the reservation amount.

The entered rates are either a percentage or an amount of the paying value, depending on the setting of the paying unit used on (OIS430/F).

- Percentage is entered if paying unit is between 01-05 up to 6 decimals.
- Amount per quantity is entered if paying unit is between 10-13 up to 4 decimals.
- It is not valid to enter scale rates for the recipient when paying unit on (OIS430/F) is set to 21.

Rates are defined in 'Trade Agreement Scale Rates. Open' (OIS432). This can be accessed by using related option 12 in (OIS431).

Rules to retrieve the rate to apply upon calculation of reservation amount for the qualified invoice lines are:

- When there are no scale rates defined in (OIS432) for the recipient, the rate defined in (OIS431) is used to calculate accruals instead.
- When a scale is defined in (OIS432) and when scale code defined on (OIS430/F) is set to '0-Best possible trade agreement rate', it is mandatory to set the normal rate to be retrieved for the recipient. The normal rate defined is used in the calculation of the reservation amount.
- When a scale is defined in (OIS432) and when the scale code defined on (OIS430/F) is set to '1-Graduated trade agreement rate', the rate based on the generating value of the recipient is retrieved, based on the defined scale of limit values and its corresponding rate.
- When a scale is defined in (OIS432) and when the scale code defined on (OIS430/F) is set to '2-Graduated rate - split rate', qualified invoice lines that are stored in 'Trade Agreement Transaction File. Open' (OIS435) are split according to the limits and corresponding rate defined in (OIS432).

- When a periodic settlement is activated for a trade agreement that has a scale code set to '1-Graduated trade agreement rate' or '2-Graduated rate - split rate' in (OIS430/F), the retrieval of reservation rate is based on the generating value in the range of period per periodic settlement frequency set in (OIS430/E). For each range of a periodic settlement period, the generating value is reset to retrieve the rates based on the scales defined for the recipient.

For instance, a trade agreement has a settlement frequency set to 2 periods. For periods 1 to 2, the reservation rate based on the accrued generating value of the recipient is retrieved based on the defined scale of limit values and its corresponding rate. The accrued generating value will then be reset to retrieve rates based on the accrued generating value for the next periodic settlement of periods 3 to 4.

Note: The settlement frequency parameter on (OIS430/E) and per settlement parameter on (OIS430/F) are protected when the trade agreement is set to active.

Define trade agreement payment schedule per recipient

The payment schedule per recipient is defined in 'Trade Agr Pmt Sched per Recipient. Open' (OIS449). This can be accessed by using related option 19 in (OIS431), and if the following conditions are met:

- Paying unit on (OIS430/F) is set to 21-'Fixed amount'
- Status of the trade agreement is set to 40-'Active' or 70-'Hold'.

In (OIS449) a percentage must be entered per period. The percentage distributed across the periods must total 100. Note that if the trade agreement covers several years, the percentage across those years must still total 100. The reservation entered on (OIS431/E) is used to calculate the reservation amount on the accrued trade agreement. If the validity of the recipient is several years, the percentage is distributed across those years.

Submit the update by using action F16-'Update from agreement' in order to reflect the fixed reservation amount per period in 'Bonus Status per Recipient. Open' (OIS433), 'Bonus Status per Recipient and Prd. Open' (OIS434), and (OIS435). Status in (OIS449) is changed from '10' to '90' upon running the update.

The reservation amount defined is also used by agreements using a fixed amount advance method.

Note: It is not possible to access option 12 from (OIS431) when the paying unit for the trade agreement is set to 21-'Fixed amount' on (OIS430/F).

Trade Agreement Model

This document describes how to set up a trade agreement model.

A trade agreement model for customer orders comprises the different trade agreements in which a customer order line might qualify. A trade agreement model can have different sequences for different selection matrices with different connected trade agreements.

The trade agreement model used for customer orders can be specified on either the customer order type 'co Type. Update Field Selection' (OIS014/H), the customer local exception 'Customer. Open Local Exceptions' (MFS610/E), or the customer file on 'Customer. Open' (CRS610/G) which can be inherited during customer order entry in 'Customer Order. Open' (OIS100). It can also be entered manually in the customer order header on (OIS100/H).

Note: When copying a customer order, the trade agreement model is always copied.

Follow these steps

1 Define a trade agreement model

Trade agreement models are entered in 'Trade Agreement Model. Open' (OIS438). This can be inherited either from the customer order type, customer local exception, customer file, or can be manually entered in the customer order header during customer order entry.

Note: The trade agreement model defined in the order type has a higher priority than defined in the customer file.

2 Define trade agreement model lines

The trade agreement model contains sequences that can be defined in 'Trade Agreement Model Lines. Open' (OIS439). These sequences find a trade agreement in which a customer order line qualifies.

You must specify the following for the trade agreement model lines:

- Trade agreement class classification grouping defined in 'Trade Agreement Class. Open' (CRS122).
- Trade agreement selection matrix defined in 'Trade Agreement Table. Open' (OIS436) is connected to the model lines to map out the trade agreement and corresponding recipients that the customer order lines qualify.
- Specify the date used to retrieve and apply the trade agreement conditions. It can be either the invoice date, order date, actual delivery date, proof of delivery date, or accounting date.
- How calculation of accruals is managed by the trade agreement:
 - If management of accruals is setup as '1 - Per Invoice' in (OIS439), accruals are calculated upon generation of invoice.
 - If management of accruals is setup as '2 - Batch' in (OIS439), accruals are calculated through a batch program in 'Trade Agreement Calculation. Open' (OIS450).

It is optional to define the net amount after sequence for a trade agreement model line. The net amount sequence indicates the reference sequence that is the calculation basis for calculating the trade agreement.

Manage Accruals

This document describes how accruals are managed and calculated.

Introduction

Generating, paying, and reservation amounts are calculated through 'Trade Agreement Calculation. Open' (OIS450) based on the common rules and conditions set in the trade agreement 'Trade Agreement. Open' (OIS430) for calculating accruals. This triggers the batch jobs used to process invoiced customer orders.

Criteria is used to select by either the trade agreement number, transaction date, date range for the invoice dates and accounting dates, customer, business chain, facility, and/or item numbers.

Update from invoice

This function handles calculation or recalculation of already invoiced lines that are qualified based on the criteria set in the trade agreement and selection matrix which triggers the batch program (OIS450S4) by selecting the parameter 'Upd fr invoice' in (OIS450). This then launches the calculation for the generating amount, paying amount, and reserved amount based on the calculation rules set in the trade agreement (OIS430).

It is mandatory to run this function if the accruals management is set to 2-'Batch' in 'Trade Agreement Model Lines. Open' (OIS439) to calculate accruals for the connected trade agreements.

Retroactivity

This function handles the recalculation of past invoice lines qualified for the trade agreement which triggers the batch program (OIS450S4) by selecting the parameter 'Upd fr invoice' and 'Retroactivity' in (OIS450).

For example, if an agreement is entered after the defined 'from date' of the agreement, selecting this function makes it possible to recalculate and reprocess from the start date of the agreement until the current date to regenerate the accruals of the qualified invoiced lines.

Update dependent

This function updates the agreements that are dependent on another agreement due to a new net amount, which triggers the batch program (OIS450S5) by selecting the parameter 'Upd dependent' in (OIS450). This then triggers the recalculation of the reserved amount based on the net, following the sequence defined in the trade agreement model used (OIS439).

Reverse transactions

This function handles the reversal of transactions which triggers the batch program (OIS450S1) by selecting the parameter 'Rev transaction' in (OIS450). Trade agreement number is a mandatory input when reversing transactions. Reversed transactions are deleted from the trade agreement transaction file.

Note: When reversed transactions have already been included in the periodic accrual proposal or have been transferred to the general ledger, a new line is created to negate the original line instead of deleting the record.

Update rate

Rates can be modified while the agreement is active. This function handles the scenario when updating the reservation rate of the recipient, which triggers the batch program (OIS450S2) by selecting the parameter 'Update rate' in (OIS450). The reserved amount for existing transactions is then modified for the new rate entered for the recipient. New transactions are created in the trade agreement transactions file with the difference amount.

Note:

This option is not supported for trade agreements with scale code set to 2-'Graduated rate - split trans' on (OIS430/F). For these agreements, an error message is displayed when a trade agreement number is provided during the run in (OIS450). If it is included in the batch run, it is skipped.

When a rate is updated for these agreements, 'Rev transaction' in (OIS450) must be run first before recalculating the agreement again to retrieve the new rate.

Reverse invalid transactions

This function validates all existing transactions against the selection matrix, and reverses transactions that are no longer valid. This triggers the batch program (OIS450S3) by selecting the parameter 'Rev inv trans' in (OIS450) in which all existing transactions are read, based on the criteria entered.

For each trade agreement record, the trade agreement model and trade agreement model lines are retrieved, in order to validate it against the selection matrix. If there are changes in the trade agreement or the trade agreement recipient, a record is added in the trade agreement transaction file in (OIS435) to reverse the current value. For example:

- when an agreement or recipient combination is unlinked in the selection matrix
- the date range of the matrix is no longer valid
- a trade agreement model line in (OIS439) is deleted.

Advances and periodic settlements

This document describes how to set up and manage trade agreement advances and periodic settlements.

Introduction

You can specify in the trade agreement if advances and periodic settlements are to be credited for a recipient. You use advances when the scale rate for the payout should be based on total sales at the time of the final settlement. For trade agreements that span multiple years, this typically means all sales during the year. Advances are therefore payouts based on an estimate of what the final scale rate is in the annual or final settlement. You then deduct these advances from that final or annual settlement.

As an alternative to advances, you can use periodic settlements. You define the settlement frequency in the agreement, for example, every month or every third month. Each period is settled individually, meaning you determine the scale rate for each payout separately, and there is no final settlement over the lifetime of the agreement.

Advances and periodic settlements are calculated from the accumulated amount accrued in the trade agreement. They are credited according to a fixed percentage, a dynamic percentage or amount based on the recipient's defined forecast generating value, or a fixed amount set per period for the recipient.

If an advance percentage for the recipient is specified on 'Trade Agreement Recipients. Open' (OIS431/E), then only that calculated percentage or amount is credited in advance. For example, a recipient has a total accrued amount of 1,000 USD. If the percentage is 100 or blank, then the entire amount is credited in advance. If the percentage is 80, then only 800 USD is credited.

You can use accrued invoiced amounts or paid invoices to calculate an advance or a settlement. Paid amounts are the invoices paid in full. Only invoices paid in full are used when calculating a proposed value for advance payments and calculating a settlement when the 'Chk paid inv' parameter is set in 'Settings – Trade

Agreements' (CRS740). This can be inherited and manually changed in 'Trade Agreement. Open' (OIS430) or upon payout in 'Trade Agreement Payout. Open' (OIS445).

Advance proposals generated in (OIS445) can be adjusted manually. After adjustment is made, the advance is credited to the recipients.

Advances or periodic settlements are paid using credit invoices, which are transferred to accounts receivable using the regular invoice routine. Whenever credited advances are higher, the recipient is debited on the final settlement.

Once an advance or a periodic settlement is credited to the recipient, a record is created in the trade agreement transaction file 'Trade Agreement Transaction File. Open' (OIS435) with transaction line type 15-'Advance and settlement' indicating the credited amount and the credit invoice created.

Trade agreement advance method

The advance method defined in the trade agreement controls if the advance is calculated with a fixed percentage, dynamic percentage, or a fixed amount. The advance method is specified on (OIS430/E). These methods are also used for periodic settlements.

Rates used to calculate the credit amount for the advance are percentage or amount depending on the paying unit defined on (OIS430/F). Percentage is used when the paying unit is set to 01-05, and amount is used if the paying unit is set to 10-13. A fixed amount is used if the paying unit is set to 21.

Define advance method - fixed percent

Fixed percent advance method is calculated with a fixed percentage or amount. The advance or periodic settlement is calculated by multiplying the paying amount for the period selected by the rate defined for the recipient.

Fixed percentage or amount per unit is defined per recipient in (OIS431). This is accessed by using related option 11 in (OIS430).

This table shows an example of periods and paying values for a recipient:

Period	Paying amount
1	100
2	200
3	350
4	75

The fixed percentage defined for the recipient (OIS431) is 3%, and the advance is up to period 2 inclusive.

Paying amount for period 1-2 = 300.

Advance credited ($300 \times 3\% = 9$).

Define advance method - dynamic percent

Dynamic percent advance method is an advance calculated on a recipient's paying amount included in the periods selected for the advance or periodic settlement. The calculation is based on the actual sales (generating values) for the period selected.

When this method is selected, the percentage is retrieved in a scale defined for the recipient in 'Trade Agreement Scale Rates. Open' (OIS432). This is accessed by using related option 12='Trade Agreement Recipients. Open' in (OIS431).

Rules to retrieve the rate to be applied upon calculation of amount to be credited for the selected period:

- When a scale code defined on (OIS430/F) is set to 0-'Best possible trade agreement rate', the rate retrieved is according to the last limit passed.
- When a scale code defined on (OIS430/F) is set to 1-'Graduated trade agreement rate' or 2-'Graduated rate - split trans', the rate retrieved is based on a graduated method where parts of the generating value of the selected periods included in the created advance receive different trade agreement rates. The portion of the generating value which lies between two limits, or exceeds the last limit, is given the trade agreement rate of the lower (or last) limit.

In this example, the paying unit on (OIS430/F) is set to '01' so that the rate is a percentage, and the scale rate values (OIS432) of:

Limit values (forecast generating values)	Rate
200	3%
500	4%
700	5%
1000	6%

This table shows the periods and paying values for the recipient:

Period	Paying amount
1	100
2	200
3	300
4	400

Example 1: Scale code is set to 0-'Best possible trade agreement rate'

When the accumulated generating value for the period is lower than 200, no rate is retrieved. An accumulated generating value for the period 200-499 retrieves a rate of 3%, from 500-699 retrieves a rate of 4%, from 700-999 retrieves a rate of 5%, and 1000 or over retrieves a rate of 6%.

Note: You do not have to explicitly pass the limit value. If the generating value for the advance is at the limit, the rate at the limit is taken.

- What is the payout if the generating value for periods 1-2 in the created advance is 500?
 - Rate retrieved for the period is 4%

- Paying amount for periods 1-2 is 300
- Payout amount for the advance if the paying value is 300 is $300 \times 4\% = 12$.
- What is the payout if the generating value for periods 1-2 in the created advance is 750?
 - Rate retrieved for the period is 5%
 - Paying amount for periods 1-2 is 300
 - Payout amount for the advance if the paying value is 300 is $300 \times 5\% = 15$.

Example 2: Scale code is set to 1-'Graduated trade agreement rate' or 2-'Graduated rate - split trans'

When the accumulated generating value for the period is lower or equal to 200, no rate is retrieved. An accumulated generating value for the period 201-500 has a rate of 3%, from 501-700 retrieves an additional rate of 4% but only for the value 501-700, from 701-1000 retrieves an additional rate of 5% but only for the value of 701-1000, and an additional 6% is given to the value exceeding 1000.

Note: For the graduated rate to apply, the accumulated generating value for the period must explicitly pass the limit value. If the generating value falls on the limit, the lower rate is taken. The payout percentage rate is rounded off to two decimal places and then applied to the paying amount.

- What is the payout if the generating value for periods 1-2 in the created advance is 100?
 - Rate retrieved is 0% as the generating value has not passed limit 200.
- What is the payout if the generating value for periods 1-2 in the created advance is 750?
 - The first value of 200 renders no payout
 - The value 201-500 renders a payout of 3%
 - The value 501-700 renders a payout of 4%
 - The value 701-750 renders a payout of 5%
 - The payout rate retrieved would be for values $[(500-201) \times 3\%] + [(700-501) \times 4\%] + [(750-701) \times 5\%]$ / 750 = 2.6%
 - The payout amount for the advance if the paying value is 300 is $300 \times 2.6\% = 7.8$.

Define advance method - fixed amount

Fixed amount advance method is used by fixed amount trade agreements. Fixed amounts are specified per period per recipient in 'Trade Agr Pmt Sched per Recipient. Open' (OIS449). This is accessed by using related option 19 in (OIS431).

In (OIS449), a percentage is entered per period. The percentage distributed across the periods totals 100. The reservation entered on (OIS431/E) is used to calculate the reservation amount on the accrued trade agreement. If the validity of the recipient is several years, the percentage is distributed across those years.

The amount calculated for each period is the fixed credited amount that is suggested once an advance or periodic settlement is created for the agreement.

This table shows an example of periods and fixed amounts for a recipient:

Period	Paying amount
1	10,000
2	2,500
3	4,000

Period	Paying amount
4	3,725

An advance or periodic settlement is created for the agreement for periods 1-3, the suggested credited amount for the advance is $(10000+2500+4000) = 16500$.

Note: 'Chk paid inv' should not be activated for fixed amount agreements. Regardless of invoices qualified for the fixed amount trade agreement, the defined fixed amounts per period for the recipient are proposed when generating the settlement total credited amount.

Manage and create advances and periodic settlements

Advances can be credited during the validity of the agreement. Periodic settlements can also be credited during the validity of the agreement at a set frequency. They can be credited by fixed percentage of the accrued paying amount of the selected period, the dynamic percentage based on the corresponding forecast generating value, or by the fixed amount. Advances and periodic settlements are calculated based on the trade agreement's accrued paying amount.

Advances and periodic settlements are paid using credit invoices, which are transferred to account receivable using the regular invoice routine.

The final settlement for the trade agreement is reduced by the amount credited in advances.

You create advances and periodic settlements in (OIS445). You can access it by using related option 15 in (OIS430).

You can create advances and periodic settlements for the trade agreement when:

- advance method defined in (OIS430) is not 0-'No advance'
- status of the trade agreement is set to 40-'Active' or 70-'Hold'
- there is no existing final settlement (option 90) for the year the advance or periodic settlement is created
- the 'hold settlement' parameter is not selected.

Note: Advances (option 10) are not permitted when a periodic settlement (option 20) has been created for the trade agreement.

Manage advances

The advance proposal is created by selecting option 10 in (OIS445) and specifying the year when the advance is to be created. Entering a specific period in the '**to period**' field creates an advance that covers the period of the agreement to the entered period.

For advances using this option, the '**from period**' field is always the start period of the agreement.

This table shows an example:

Advances	Year	From period	To period
Option 10	2021	01	03
	2021	01	06

When 'Chk paid inv' is activated for the trade agreement during generation of advances in (OIS445), only paid invoices are proposed in the total credited amount in 'Suggested Trade Agr Payout Amount. Open' (OIS446). Open invoices for the generated advance settlement are then displayed in the '**Open invoices within period**' field in (OIS446).

Manage periodic settlements

Periodic settlements are created by selecting option 20 in (OIS445). It is mandatory that the parameter 'Periodic settlement' is activated on (OIS430/F) to use option 20. Specifying '**to period**' is not permitted for periodic settlements.

The periods covered for periodic settlements depend on the 'Settlement Frequency' defined in (OIS430). For periodic settlements, the succeeding periods are based on the last period of the previous payouts.

This table shows an example:

Periodic settlement	Year	From period	To period
Option 20	2021	01	03
	2021	04	06

When 'Chk paid inv' is activated for the trade agreement during generation of periodic settlements in (OIS445), only paid invoices are proposed in the total credit amount in (OIS446).

When you use periodic settlement, you do not need to create a final settlement, as each period is settled individually. Instead, you can create additional periodic settlements for the final period to issue payouts for invoices that were still unpaid at the time of the original settlement. Closing the agreement is a manual step that updates the status to 90-'Finished'.

These fields display values in (OIS446) when 'Chk paid inv' is activated for periodic settlements:

- 'Earned previous period' – indicates the earned amount for the previous periods. These transactions are the non-settled invoices from the previous periods but paid invoices within the current generated periodic settlement.
- For instance, a trade agreement has previously settled a periodic settlement for period 1-2. When generating a periodic settlement for period 3-4, open invoices from the previous period that are paid within the current period are displayed in this field.
- 'Open invoices previous periods' – indicates the total amount of the open invoices from the previously settled periods.
 - 'Open invoices within period' – indicates the open invoices within the periods of the current generated periodic settlement.

Periodic settlements - redistribute differences

Perform redistribution is calculated when there is a difference between the reservation amount of the trade agreement transactions and the calculated credit payout for the selected periodic settlement payout period. This function is only available for periodic settlement payouts.

Redistribution of differences for periodic settlements created with option 20 in (OIS445) is only possible when:

- 'periodic settlement' is activated on (OIS430/F)

- status of the trade agreement is 40-'Active' or 70-'Hold'
- advance method defined in the trade agreement is not 0-'No advance'
- there is no existing settlement (option 90) for the year the periodic settlement is created
- 'perform redistribution' is activated on (OIS430/F).

Example:

A periodic settlement is created with option 20 for a frequency of 2 periods per settlement.

These values are set up for the trade agreement:

- Advance method defined in the trade agreement is set to 2-'Fixed percent'. Fixed percent advance methods use the rate defined in the recipient (OIS431) to calculate the advance credited amount. In this case the rate in the recipient is 6.5.
- Paying unit for the agreement is set to 10-'Net weight'. Since paying unit is set to 10, reservation rate is amount.
- The trade agreement transaction file for the recipient has these values:
Note: The reservation rate used for the calculation of accruals is based on the specified scale code on (OIS430/F). In this case, the trade agreement has a scale code defined as 0-'Best possible trade agreement rate' which has a mandatory normal rate of 6.5.

Period	Paying amount	Reservation rate	Reservation amount
1	50	6.5%	325
2	100	6.5%	650
Total	150		975

After creation of periodic settlement for periods 1-2, a credit amount is calculated based on the rate defined in the recipient, since advance method is fixed percent ($150 \times 6.5\% = 975$). This is the amount to be credited for the selected period.

When the credited amount for the periodic settlement is modified, a redistribution takes place. In this case, the current credited amount of the advance 975 is modified to 500.

Note: A redistribution of rates also takes place if there is a difference of rates and amount calculated between the reservation amounts in the trade agreement, and the rate and calculated amount in the payout.

A new rate is calculated for the new credit amount as follows:

- credited amount/Paying amount = $500/150$
- rate adjusted after modifying the credited amount = 3.33.

Once a periodic settlement is credited to the recipient, a record is created in the trade agreement transaction file (OIS435) with transaction line type 15-'Advance and settlement' indicating the credited amount and the credit invoice created. An additional record is then created in the transaction file with transaction line type 19-'Redistribution according to final rate'.

This table shows the trade agreement transaction file records:

Period	Paying amount	Reservation rate	Reservation amount	Credited amount	Transaction line type
1	50	6.5	325		

Period	Paying amount	Reservation rate	Reservation amount	Credited amount	Transaction line type
		3.33	-158.50		19
2	100	6.5	650		
		3.33	-317		19
				500	15

The record for the new reservation amount is the adjustment based on the calculation (paying amount * adjusted reservation rate).

Workflow

Advances and periodic settlements must be activated by specifying the advance method for the trade agreement on (OIS430/E).

- 1 Start (OIS445). You can access it through related option 15='Trade Agreement Payout. Open' in (OIS430).
- 2 Specify if an advance or periodic settlement is to be created:
 - For advances that are created through option 10, it is mandatory to set the year and '**to period**'.
 - For periodic settlements that are created through option 20, it is not permitted to set '**from period**'. Periodic settlements can be created with or without year entered. The '**to period**' depends on the settlement frequency defined in (OIS430).

Note: Creation of advances (option 10) is not permitted if a periodic settlement is created for the trade agreement. See [Manage and create advances and periodic settlements](#).
- 3 After specifying the option to use to create advances or periodic settlements, select options - create. Check information on (OIS445/E).
 - Select '**Chk paid inv**' field if you want to check the paid invoices against the original invoices to ensure that they are fully paid.
 - Select '**perform redistribution**' if redistribution of rates is to be calculated after modifying the proposed credit advance amount. This function is only for periodic settlements created with option 20.
 - Select '**hold settlement**' if the advance or periodic settlement created is to be on hold. Release advances and periodic settlements that are on hold by selecting option 22-'Release for settlement' on the advance or periodic settlement created in (OIS445).

Press Enter to confirm the information and return to (OIS445/B). An advance or periodic settlement record with status 10-'Ready for proposal' is created.
- 4 Select related option 20='Crt adv proposl' to create an advance or periodic settlement proposal for the selected period. The advance or periodic settlement record is updated with status 30-'Proposal ready'. To change the proposal, go to step 5, otherwise go to step 8.
- 5 Select related option 11='Suggested Trade Agr Payout Amount. Open' to review the advance or periodic settlement created in (OIS446).
- 6 The recipient's calculated credit amount can be modified. Select the recipient you want to change. Select change to proceed to (OIS446/E).
- 7 Change the calculated credit amount on the E panel. Press Enter to return to (OIS446/B). Press F3 = 'End' to return to (OIS445).

- 8 Select the advance or periodic settlement record and select option 35='Crt adv/stl/pre' to send the advances or periodic settlements with the batch order entry and create advance or periodic settlement credit invoices. The record is updated to status 90-'Process completed'.
- 9 A record in the trade agreement transaction file in (OIS435) is created with transaction line type 15-'Advance and settlement' indicating the credited amount and the credit note invoice. An additional record is created in the transaction file with transaction line type 19-'Redistribution according to final rate' for periodic settlement redistribution of rate.
- 10 A document is then printed for the advance or periodic settlement OIS447PF.

Setup

This setup is for advance or periodic settlement payouts:

- Advance method on (OIS430/E).
- Status of the trade agreement on (OIS430/E) – applicable for status 40 and 70 agreements.
- Reservation rate per recipient (OIS431) for trade agreements with fixed percent advance method defined.
- Scale rates per recipient (OIS432) for trade agreements with dynamic percent advance method defined.
- Payment schedule per recipient (OIS449) for trade agreements with fixed amount advance method defined.
- Per settlement activated for trade agreements (OIS430/F) for periodic settlements that are created with option 20.
- Perform redistribution activated for trade agreements (OIS430/F) if redistribution of rates are to be calculated after modifying the proposed credit amount, or if there is a difference of rates between the calculated reservation amount and the calculated credit amount for the trade agreement.

Annual and final settlement

This document describes how to set up and manage trade agreement annual and final settlements.

Introduction

Settlement is the final calculation carried out for the recipients included in the trade agreement. After the validity of the trade agreement has passed, a settlement is created. For trade agreements that cover several years, annual settlements are made at the end of year, or after the validity of the agreement has passed. A settlement can also be created before the agreement's end date.

When you use periodic settlement, you do not need to create a final settlement, as each period is settled individually. Instead, you can create additional periodic settlements for the final period to issue payouts for invoices that were still unpaid at the time of the original settlement. Closing the agreement is a manual step that updates the status to 90-'Finished'. You can do this using option 95='Close Agreement' in 'Trade Agreement. Open' (OIS430) or in 'Trade Agreement Payout. Open' (OIS445).

Advances and periodic settlements that have been credited to the recipient are deducted from the final settlement. When advances and periodic settlements credited are more than the accumulated accruals in the trade agreement, a debit invoice is created for the adjustment.

Settlements are created through invoices in the batch order entry process. These invoices could either be credit, debit, or zero.

Manage annual and final settlements

Final settlements are created in (OIS445). This can be accessed with related option 15 in (OIS430).

Advances, periodic settlements, and final settlements are managed in (OIS445). The type of settlement created is controlled by the option selected.

The annual or final settlement is created by selecting option 90 on (OIS445/B1). An adjustment record is created with status 10-'Ready for prop'. It is mandatory to specify the year of the settlement. If the agreement spans several years, annual settlements are created for the agreement.

A final settlement proposal can be generated through a related option 20='Crt Proposal' in (OIS445). This allows you to validate the final settlement in 'Suggested Trade Agr Payout Amount. Open' (OIS446) before generating a credit or debit customer order for the trade agreement.

The final adjustment is then calculated and credited by selecting related option 35='Crt adv/stl/pre'. The status of the final settlement is updated to 90-'Process completed'.

If the final settlement is set to on hold, settlement can be released with relation option 22='Release for settlement'.

Annual and final settlements are paid using credit invoices, which are transferred to account receivable using the regular invoice routine.

Once a final settlement is credited to the recipient, a record is created in the trade agreement transaction file in 'Trade Agreement Transaction File. Open' (OIS435) with transaction line type 15-'Advance and settlement' indicating the credited amount and the credit invoice created.

The parameter 'Settled' is activated for the transactions in the trade agreement transaction file, indicating that the trade agreement is now settled. A document is printed for the final settlement OIS447PF.

When a trade agreement is fully settled, the agreement is updated to status 90-'Finished'.

Note: When 'Chk paid inv' is activated, processing of the final settlement is not allowed if open invoices exist for the trade agreement.

Periodic Accrual Proposals

This document describes how accruals are transferred to the general ledger.

Introduction

This supporting function is used to generate financial entries for calculated periodic accruals and record entries in the general ledger for trade agreements.

Before you start

To use this function, accounts must be entered for the following accounting types in 'Accounting Rule. Set' (CRS395) for accounting event OI40 (Trade agreement – Settlement):

- 168-Trade agreement
- 169-Trade agreement reservation.

The accounting event for trade agreement settlement (OI40) is made available in 'Accounting Event. Open' (CRS375) by using F14='Actions'.

Accounting types '168 - Trade agreement' and '169 - Trade agreement reservation' are made available in 'Accounting Type. Open' (CRS385) by using F14='Actions'.

Accounting rules 'OI40/168' and 'OI40/169' are made available in 'Accounting Rule. Set' (CRS395) by using F14 = 'Actions' and specifying the account event 'OI40/168' and 'OI40/169'.

The field group 'CRACC' is made available in 'Field Group. Open' (CRS108) by using F14='Actions'. The permitted fields for trade agreement should also be available in the field group. The permitted fields for field group 'CRACC' can be accessed by using related option 11-'Fields', and fields are added by using F14='Actions'.

Voucher details for accounting event OI40 must set in 'FAM Function. Open' (CRS405).

Other prerequisites for processing trade agreements are described in [Trade agreements - Overview](#) on page 768.

Create a periodic accrual proposal

A periodic accrual proposal is created through 'Trade Agr FIM Periodic Proposal. Open' (OIS455).

Specify the accounting period for the periodic accrual proposal in the range 'YYYYPP' where 'YYYY' is the year and 'PP' is the period. For example, 202001 is year 2020 and period 01, then enter the version for the accounting period specified. There can be several versions per accounting period.

Use option 1-'Create' to create the periodic accrual proposal for the accounting period specified. The status of the proposal is initially set to status 10-'Record created'.

Generate a periodic accrual proposal

This function handles the generation of accounted entries based on the accounting period specified. This triggers the batch program (OIS455S1) by selecting related option 15-'Generate Accrual Proposal' in (OIS455).

This function generates a range of calculated trade agreement accruals that is not yet transferred to the general ledger. The entered accounting period determines the range of trade agreement accruals to be generated. Upon generation, the status of the proposal is raised to 20-'Accounted entries are generated'.

The proposal lines for the generated accounting period are then populated in 'Trade Agr FIM Periodic Proposal Ln. Open' (OIS456). This can be accessed by using related option 12 in (OIS455).

Proposal lines in (OIS456) will be under one provisional voucher. The provisional voucher will have the following proposal line types:

- Proposal line type 1 records are the sales deduction amount (accrual) per trade agreement, invoice number, and invoice line. These records use the accounting rule OI40/168.

- Proposal line type 2 record is the aggregation amount per agreement which is the deferred cost/revenue that balances all the cost transactions. These records use the accounting rule OI40/169.

After creation of the periodic proposal, qualified records in the trade agreement transaction file (OIS435) are set to transaction status 1-'Included in accrual proposal'.

Note: Creating another version of the periodic proposal will not include already transferred records. When no records are available for the period entered, the created periodic proposal is set to status 18-'No records exist for the selection'.

When an error is detected upon generation of accounted entries, the proposal has status 19-'Error detected-rerun the process'.

Modify a periodic accrual proposal

Accounting dimensions for the proposal lines can be modified in (OIS456). Upon modification, the status of the periodic accrual proposal is set to 30-'Periodic proposal manually adjusted'.

Note: Only proposals in status 20 and status 30 can be modified.

Transfer periodic accrual proposal to general ledger

This function handles the transfer of accounted entries to general ledger which triggers the batch program (OIS455S2) by selecting related option 19-'Transfer to GL' in (OIS455).

Upon transfer to general ledger, the periodic accrual proposal is raised to status 60-'Transferred to GL'. A voucher is generated for the proposal lines and is reflected in (OIS456). This can be viewed in 'Voucher. Display' (GLS200). (GLS200) can also be accessed by selecting related option 14 in (OIS456).

After transfer to the general ledger, transferred records in the trade agreement transaction file (OIS435) are set to transaction status 2-'Transferred to FIM (the accruals are generated in General Ledger)'.

Viewing of related options 12-'Trade Agreements. Open' and 13-'Invoice. Display' is only possible for proposal line type 1 records.

Items that are only tagged as generating in the item master 'Item. Open' (MMS001) are items with 0 reservation amounts. These are generated in (OIS456) but are not included in the transfer to the general ledger. No voucher number is populated for these records.

Limitations

- Printout for the periodic accrual proposal is not available.

Monitor Trade Agreements

This document describes how to monitor trade agreements.

Calculated accruals, credited, and reservation amounts can be previewed per recipient in the trade agreement and are displayed in three levels.

Bonus status per recipient

The total calculated amount for the specific trade agreement recipient is displayed in 'Bonus Status per Recipient. Open' (OIS433). This can be accessed by using related option 13-'Bonus Status per Recipient' in 'Trade Agreement Recipients. Open' (OIS431).

The total accrued generating value paying amount, adjustments, advanced percentages are displayed in (OIS433). The initial status of the trade agreement recipient in (OIS433) is 10-'Active'. This can be changed to either 90-'Final Settlement' after settlement is done or manually set to 99-'Manually inactivated by user' in which the recipient will not receive accruals, credited advances, or final adjustments.

Bonus status per recipient per period

The total generating value, paying amount, reserved amount, and credited amount per recipient per period is displayed in 'Bonus Status per Recipient and Prd. Open' (OIS434). This can be accessed by using related option 11 in (OIS433).

For each period, the accumulated generating value, paying amount, reserved amount, and credit amount is displayed for the recipient.

The initial status of the trade agreement recipient in (OIS434) is 10-'Preliminary'.

Status is updated to the following when advance settlement and final settlement is done for the trade agreement:

- 40-'Settlement exists for this period' - if an advance settlement exists for the transactions per period
- 70-'Unpaid invoices exist for periodic settlement' - if unpaid invoices exist for the settlement done per period
- 80-'All invoices paid for periodic settlement' - if all invoices in the settlement done per period are paid
- 90-'Blocked/expired' - when final settlement is done for the trade agreement.

Trade agreement transaction file

Detailed records of the calculated invoiced customer order lines per period, per trade agreement is displayed in 'Trade Agreement Transaction File. Open' (OIS435). This can be accessed by using related option 11 in (OIS434).

For each period, a detailed record of calculated invoiced customer order lines, credited advances or periodic settlements, annual/final settlement, and redistribution of rates is displayed for the recipient.

Trade Agreements - Generating Value across Recipients

This document is a guide on how to set up and manage trade agreements with a cross-recipient parameter activated.

Introduction

A trade agreement with multiple recipients that belong to the same organization can be defined as having a common accumulated generating value to retrieve the rate used to calculate accruals, advances, and settlements for each recipient. The generating value used by all recipients connected to the agreement is accumulated and stored in the blank recipient.

It is mandatory to enter a blank recipient in 'Trade Agreement Recipients. Open' (OIS431), which is used to store the accumulated generating value for qualified customer invoiced lines of all connected recipients.

Note: Only the total accumulated generating value in 'Bonus Status per Recipient. Open' (OIS433) and total accumulated generating value per period in 'Bonus Status per Recipient and Prd. Open' (OIS434) of all recipients connected to the agreement are stored in the blank recipient.

Setup

- 1 Select the 'Cross recipient' parameter on 'Trade Agreement. Open' (OIS430/F) to activate accumulation of generating value in a blank recipient.
- 2 You must create a blank recipient in (OIS431). You cannot set the agreement to active if there is no blank recipient defined.
- 3 The recipient rate in (OIS431) and the scale rates in 'Trade Agreement Scale Rates. Open' (OIS432) that will be used for the whole agreement are only defined in the blank recipient. You cannot define recipient rates and scale rates for other recipients connected to the agreement.

Note:

- Cross recipient can only be activated when:
 - trade agreement is not active (status 40)
 - there are no scale rates defined in (OIS432) for recipients connected in the trade agreement.
- Cross recipient can only be deactivated when:
 - trade agreement is not active (status 40)
 - blank recipient is not defined in (OIS431)
 - there are no transaction file records in 'Trade Agreement Transaction File. Open' (OIS435).
- Only the rates are defined in the blank recipient. Other parameters like advance percent, hold settlement, maximum paying unit, and maximum agreed amount are still defined per recipient.
- You cannot copy a blank recipient to another recipient and vice versa.

Manage accruals

Update from invoice

For qualified customer invoiced lines, the rate for the whole agreement is retrieved from the rates defined in the blank recipient. You cannot define rates for other recipients connected to the trade agreement.

Rules to retrieve the rates from the blank recipient to calculate the reservation amount of invoices in the transaction file are the same. See [Reservation rates](#) on page 780 for rules on recipient rate in (OIS431) and recipient scale rates in (OIS432).

The accumulated accrued generating amount of all recipients connected to the trade agreement is displayed in the blank recipient:

- In (OIS433), only the accumulated generating value of all recipients is displayed.
- In (OIS434), only the accumulated generating value of all recipients per period is displayed.

Note: No records are displayed in the transaction file (OIS435) for the blank recipient. As usual, the recipients still display their individual qualified invoice records in (OIS433), (OIS434), and (OIS435).

Reverse transactions

When transactions are reversed by selecting the 'Rev transaction' parameter in 'Trade Agreement Calculation. Open' (OIS450), the generating value of the blank recipient is reduced by the reversed transactions.

Update rate

The recipient rate and scale rates defined in the blank recipient can be modified during the lifespan of the agreement. When rates are modified and 'Update rate' is selected in (OIS450), a new record is displayed in the transaction file of the connected recipients. The rate retrieved to calculate the new reservation amount is from the blank recipient. See [Reservation rates](#) on page 780 for rules on recipient rate in (OIS431) and recipient scale rates in (OIS432).

Reverse invalid transactions

When invalid transactions are reversed by selecting the 'Re inv trans' parameter in (OIS450), the generating value of the blank recipient is reduced by the reversed invalid transactions.

Manage advances and periodic settlements

The advance and periodic settlement processes are the same as those in the standard trade agreement functionality. (See [Advances and Periodic Settlements](#) on page 785) with the difference on how the rates are retrieved for the settlement. All recipients connected to the agreement use the same rate defined in the blank recipient.

Settlement rates to calculate the credited amount are retrieved from the blank recipient:

- When advance method is set to 1-'Fixed percent' on (OIS430/E), the rate retrieved is from the blank recipient in (OIS431).
- When advance method is set to 2-'Dynamic percent' on (OIS430/E) and scale code on (OIS430/F) is set to 0-'Best possible trade agreement rate', the rate retrieved is based on the accumulated generating value of the selected settlement periods of the blank recipient and its corresponding rate.
- When advance method is set to 2-'Dynamic percent' on (OIS430/E) and scale code on (OIS430/F) is set to 1-'Graduated trade agreement rate', the rate retrieved is based on a graduated methodology where parts of the selected periods receive different trade agreement rates. The rates retrieved are based on the accumulated generating value per period of the blank recipient.

Limitations

- Generating value across recipients is not available for fixed amount trade agreements.
- Existing trade agreements with transactions cannot be changed to utilize this functionality.
- You cannot exclude recipients from using the shared aggregation if they are connected to the trade agreement.