Λ

P 1 C M M Ca M Cl O In C C Sa Co C G M Si Si Si C C A \*I ea fo \*I ea a \* gr A N If I-Fa O

It---It can be automatically proposed

#### **Mandatory in customer master**

Sold to Party---Pricing, Incoterms, and Shipping Conditions.
Payer---Terms of Payment and Credit Limit Check.
Ship to Party---Shipping Address, Goods Receiving Hours, and Tax.
Billing Address---Bill to Party.

## Partner Types

AP-Contact Person KU-Customer LI-Vendor PE-Personnel

### **Partner Determination Procedure**

Super---Customer Master Slam---Sales Doc Header Seven---Sales Doc Item Basket---Billing Header Ball---Billing Item Dunk---Delivery Contest----Customer Master

# **Assigning of Partner Procedures**

# **Partner Object** Assignment of Partner Procedures

Customer Master > Account Group
Sales Doc. Header>Sales Doc Type
Sales Doc Item> Item Cat in Sales
Delivery>Delivery Type
Shipment>Shipment Type
Billing Header>Billing Type
Billing Item>Billing Type
Sales Activities (CAS)>Sales Activity Type

#### **Outline Agreements**

**Two Types of Outline Agreements.** 1. Scheduling agreements 2. Contracts

Three Types of Scheduling Agreements. 1. SA Scheduling agreement 2. BL Scheduling

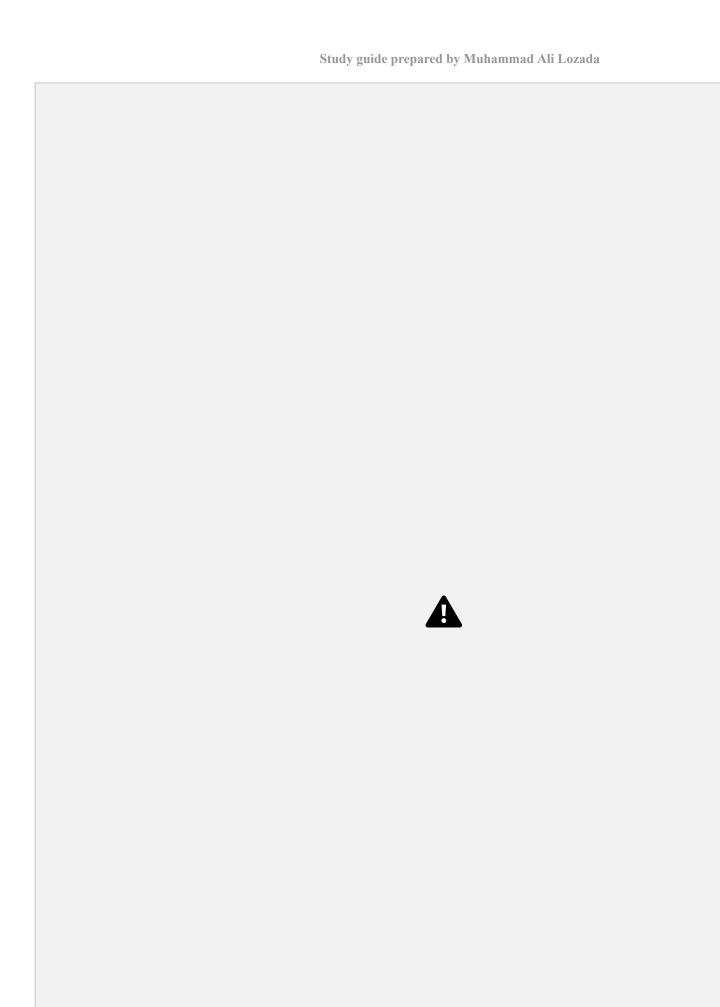
Agreement with delivery. 3. Del Scheduling Agreement for external line agent.

\*Scheduling Agreements- Between you and customer sold to party. [Valid for a certain period of time, Fixed Delivery Qty and dates, and Dates are contained in the Schedule Lines.] Difference between S.A. and sales order is in S.A. you work on the schedule lines and is made manually.

**Two Types of Contracts.** 1. Quantity Contract 2. Value Contracts

Quantity Contract- Is between you and customer. [Valid for certain period of time, No schedule lines in contract, No delivery date, and no delivery quantities.]

Value Contract- Is between you and customer. (Like the quantity will be reserved and as you consumed you will pay on the same price in contract.) Schedule lines are created in the release order when it is placed.



Two Types of Value Contract- WK1=General value contract, WK2=Material related value contract/Contains exactly 1 material.

[In Contract you don't know when you have to delivery/release. In Scheduling Agreement you do.]

### **Material Determination**

Tool for automatically exchanging materials in the sales document. When you process a document the system automatically Searches for valid master records. You don't need a master record for the material number that you are replacing. During order entry the material ordered by the customer is replaced by the substitute defined in the master record.

## **Two Types of Material Determination**

- 1. Manual Product Selection-[The system does not automatically replace the product.

  Displays a list of all the substitution materials. There is 1 reason for substitution. 1. For manual product selection=0005.]
- 2. Automatic product selection-[The system replaces the entered material automatically. Reruns material determination. Fill the quantity of the order with the first material; if not enough material it will fill the remaining quantity with the next material. Two reasons for substitution 0004, 0006.]
- \*Material Determination is assigned in condition Technique.

## **Material Type controls**

Views

Default Item Category Group Number Ranges

### **Determines Material Master Views**

Material Type

#### **Material Master varies by**

Sales Organization/Distribution Channel

Plant/Storage Location

Division is at the Client Level

#### **Material Master Tabs**

The <u>Basic data</u> on the material master is valid for all organizational units and relevant to all areas The <u>Sales: S/org data</u> on the material master is valid for Sales Organization / Distribution channel and relevant to Sales.

The <u>Sales: General/Plant data</u> and <u>Foreign Trade data</u> on the material master is valid for delivering plant and relevant to Sales

- \*Certain fields such as sales units can have multiple sales units depending on the Sales org / Distribution channels.
- \*Certain fields such as loading group's can have multiple loading groups depending on the plant. \*A company sells 2 materials out of 10 plants. You need 2 material master records.

## **Material Types**

VERP---Packaging HAWA---Trading Goods FERT---Finished Product

LEIH---Returnable packaging

NLAG---Non Stock Item

\*You want to create a material for an externally produced material. The material is kept in stock and is used in the bill of materials. It is not sold directly. Which material type do you select? ROH.

## \*Which of the following data is proposed for the sales process from the material master?

Weight and volume

Delivering plant

Text and availability

Pricing

### **Customer Material Info Record**

Cookies---Customer Material

Come---Customer Description

Slow ---Search Term

Peanut B. ---Plant

Doesn't----Delivery Priority

Monkeys---Minimum Delivery Quantity

Play---Partial Delivery/item

On---Over Delivery Tolerance

Bed---Batch Split Allowed

Money --- Maximum Partial Delivery

In ---Item Usage

UBL---Unlimited Tolerance

Uvault---Under Tolerance

\*What is maintained in the customer / material info record?

Information that is specific to when a certain customer orders a certain product.

Customer material number and description. Texts.

\*You can set specific shipping information for a customer / material such as: Partial Delivery Indicators, Default Delivery Plant, and Delivery Priority and delivery tolerances

### **Output Types**

Pizza---Partner Functions Tacos---Transmission Medium Tortilla---Time Lasagna---Language

## **Output Type Controls**

Timing

**Output Perimeters** 

Medium

Layout Set

- \*Output determination takes place using the condition technique.
- \*In the output master data you define the Medium, Time and Partner function per output type.
- \*Output types can be set up for Inquiries, Quotations, Sale Order documents, Delivery and billing documents.

\*Transmission data include EDI, Printers, Mail and Fax.

#### **Determining incompletion log** Sales

Doc Type (Sales Header)

Item Category (Item)

Schedule Line Category (Schedule Line)

Partner Function (Partner Function)

Delivery Type (Delivery Header)

Delivery Item Category (Delivery Item Level)

- \*The system determines which fields will be displayed in the incompletion log. These fields can be changed in customizing to suit a customer's unique requirements
- \*The incompleteness log function is available in the Sales order, Delivery and the Billing document.

### **Assign Incompleteness Procedures To**

Daniel---Delivery Types

So---Sales Document Types

Dumb---Delivery Item Types

Person---Partner Functions

Sitting---Schedule Line Categories

In---Item Categories

Store---Sales Activities

#### **Condition Master**

Please---Prices

Subscribe---Surcharge & Deals

For---Freight

The---Taxes

Diary---Discounts

- \*You can maintain values in condition records according to a scale and there is no limit to the number of scale levels.
- \*You can restrict a price agreement by using validity periods.
- \*You can have a percentage, Quantity dependent or Amount dependent discount or surcharge, depending on the condition type.

#### SALES

#### **Sales Order Types**

Standard Order OR

Contract

Cash Sales BV Rush

Order SO

Free Of Charge Delivery FD

Returns RE

Consignment Fill Up KB Consignment Pickup KA Consignment Issue KE

Credit/Debit Request CR/DR

## **Sales Order Document Type Control**

D---Default Functions Date, Delivery Type, Billing Type, Blocks

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A

- E---Enhancement for Contracts
- A---Allowed Item Categories
- **D---**Determining Materials
- M---Mandatory Reference
- O---Output Types Available
- P---Partner Determinations
- F---Free Date
- I---Incompleteness
- N---Number Assignment
- P---Pricing
- C---Checks Division, open quotes/contracts/Info Record

## **Sales Order Processing**

Within a document you can <u>fast change</u> the <u>Delivery date</u>, <u>delivery block</u>, <u>delivery priority</u>, <u>billing block</u>, <u>reason of rejection</u>, and <u>plant</u>.

In more than 1 document you can mass change the Plant, material, pricing, and currency.

In sales order you can <u>block</u> the <u>delivery</u> at <u>header</u> and <u>schedule line</u>. In sales order you can <u>block</u> the <u>billing</u> at <u>header</u> and <u>Item line</u>.

## **During Sales Order Processing, it's Basic Functions**

- C---Calculating pricing & Taxes
- C---Checking Credit limits
- A---Availability check
- T---Transferring requirements to materials planning (MRP)
- D---Delivery Scheduling
- O---Outputs
- T---Text
- S---Sales Information Systems
- \*When you click the **Delivery Block** in the order you can BLOCK:

Order, Confirmation, Print Out, Delivery Pull List, Picking, and PGI.

## **Determine pricing procedure**

Soda---Sales Area

So---Sales Document Type

Cold---Customer Master

## **Pricing Types in Sales Order**

- A---Copied from REF updated with scale
- B---Perform New Pricing
- C---Manual elements copied others are redetermined
- G---Only tax redetermined
- H---Only freight redetermined

#### **Determination of Sales Item Category Auto.**

<sup>\*</sup>In Sales Document Type you can block the **delivery** and **billing**.

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Item Category Group (M.M)

Item Usage

High Level Item (BOM)

Basically from order type n Material

AGTX-Text Item in Quotation KMN-Standard Item in Quantity Contract TANN, BVNN, KEN, REN, TAN, KLN

## **Sales Order Item Category Controls**

P---Pricing Relevancy carried or not

B---Billing Relevancy Carried out or not

O---Output

M---Message if item cannot fully delivered

B---BOMS

C---Completion Rule

I---Is difference allowed from header levels

T---Text Determination

I---Incompleteness

B---Billing Block

I---Item level Partner Determination

D---Delivery Relevancy material or text item

S---Schedule lines allowed

## **Copy Control Procedure**

Data Transfer Routines---Control how fields are copied from the preceding document. Copying Requirements---Like incompletion Log if copy from reference is not 100%. Switches---Set specific controls for each transaction. Ex: Activate or deactivate transfer of item numbers from pre- docs.

## **Sources of Information (Document Data)**

Maria---Master Data

Enters---Existing Document Data

Church---Customizing

Hourly---Hard-coded controls

## <u>Information Structure is composed of:</u>

Chicago---Characteristics

Times---Time Units

**Key Figures** 

#### **Determine Availability Check at**

Schedule Line Category

Material Master

## **Availability Checking for**

Sales Order

Material Availability Date

Plant

Controls

## **Determination of Schedule Line Category Auto.**

Item Category

<sup>\*</sup>In Item Category you can block the **Delivery** and **Billing**.

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## MRP Type

### Schedule Line Category has an effect on

Ant---Availability Check

Goes---Goods Movement Type for GI

Down---Delivery Relevance

Town---They are assigned to Item Categories

Round---Requirements Transfer to MRP

Park---Purchasing (PR auto created)

# **Controlling Schedule lines in Sales Documents**

Quotation Schedule Line--- Not Relevant for delivery, No Req. Transfer BN, No Movement Type Requirements planning in order---Relevant for delivery, Requirements Transfer CP, Movement Type 601

Returns Schedule Line---Relevant for delivery, No Requirements Transfer DN, Movement Type 651(Block Stock Return)

#### Cash Sale (BV)

Pull---Payment made at the time of the order (invoice printed)

Out---Order & delivery created at the same time

Gun---GI posted at a later date to avoid delays

Unit---Uses billing doc type CS

sends the invoice to the printer using RD03

Nine---No output determination

Nine---No price determination

Four---FI posting made to cash settlement

**Rush Orders (SO)** When saved creates Delivery Type LF Auto.

## **Consignment Processing**

CF-Consignment Fill up- Stay in valuated stocks of delivering plant. [Order, Delivery, Picking, PGI]

CI-Consignment Issue- When goods are issued both customers stock n stock in delivering Plant are reduced. [Order, Delivery, PGI, Billing Doc]

CP-Consignment Pick up- Return goods to you so you credit them. [Order, Inbound Delivery, Goods Receipt]. No billing

CR-Consignment Return- The goods issue puts stock back in customers' special stock and issue a credit memo. [Order, Inbound Delivery, Goods Receipt, Billing Doc].

# **Determine Free Goods TANN**

Sun---Sales Area

Desert---Document Pricing Procedure

Cold---Customer Pricing Procedure

Frost---Free Goods Procedure

Inclusive Bonus Quantity- Free goods that involve the same material. Quantity units must be the same.

Exclusive Bonus Quantity- Are extra goods delivered free of charge. Not displayed on invoice.

#### 3 calculation rules

- 1. Prorated
- 2. Unit Related

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#### 3. Whole Unit

#### **Determination of Tax Rate in a document**

Business transaction- domestic or export/import Tax Liability Tax Liability of the material

## What controls Delivery item scheduling?

Transit Time
Pick/Pack Time
Loading Time
Transportation Lead Time

## **Determination of Delivering Plant**

Customer Material Info Record. Customer Master from- ship to party Material Master

# **How do we handle customer complaints?**

Returns request Credit/Debit memo request Invoice correction Invoice Cancellation

## Delivery

## **Delivery Types**

EL---Inbound Delivery

LB---Delivery for subcontract order

LD---Decentralized Shipping

LF---Outbound Delivery

LO---Delivery without Reference

LP---Delivery from Project

LR---Returns Delivery

NL---Replenishment Delivery

# The **Delivery Type Controls**

W---Which Screens to Present

O---Output

R---Route Re-Determination

D---Delivery Split by Warehouse Number

Puerto---Picking Determination Rule?

Rico---Relevant for Shipment or Transportation Processing

Puerto---Partner

Rico---Reference to Order

Too---Text

Night---Number Assignment

### **Outbound Delivery Functions**

M---Material Substitution

C---Credit & Risk Management

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Donald---Delivery Split by Warehouse Number

Eats---Export Control

Tacos---Text

Gorditas---Group of Outbound Deliveries

Cookies---Controllable Error Messages

Donuts---Dangerous Goods Check Quarter

Pounder---Quantity Checks

## **Determination of Delivery Item Category Auto (When not copied from sales doc.)**

Delivery Type

Item Category Group (m.m.)

Item Usage (additional Usages)

### The Delivery Item Category Controls

P---Picking Relevancy A---Availability

Check

C---Check for OverDelivery

P---Packing Control

C---Check Minimum Delivery Quantity

P---Picking Location Determination

A---Auto Batch Determination

R---Relevant for Proof of Delivery

T---Text

#### What Determines the Delivery Schedule?

Oh---Order Date

My---Material Availability Date (Sufficient Goods Available)

Lord---Loading Date (picking/packing completion date)

Great---Goods Issue Date (From Delivery Plant)

Directions---Delivery Date (Arrival Date at Customer)

### **Determination of Route**

Ducks---Departure Zone from customizing for shipping point

Swimming---Shipping Conditions from Sold To Party Customer Master

Thru---Transportation Group from Material Master

Toronto---Transportation Zone from Ship-To Party Customer Master

### **Route Schedule contains**

A Route

A Weekday as departure date along with a depart time

A list of ship-to-parties An Itinerary

(optional)

## What we find or see in a route?

Transit Time.

Transportation Planning Time, and Forwarding Agent

## Picking Location determined by (MALA rule)

**Shipping Point** 

Plant

Storage Condition from MM.

10

### **Copy Control in Delivery Specifies**

Which Sales Doc Types are to be copied into deliveries

Which Item Categories are copied into deliveries

What conditions data is copied into deliveries Rules for

combining orders into one delivery

Which Data is to be transferred

Whether the referenced doc in recorded in the document flow

# **Shipment Type Controls** No---Number

Assignment

To---Texts

Ocean---Output

Sea---Shipping type (Truck, Train, Etc)

Lion---Leg Determination

Cause---Copying Rule

Lion---Leg Indicator

Probably---Planning Profile

Seen---Split Profile

Corps---Completion Type

### **Shipping Processing Functions**

Making---Monitoring of Deadlines

Chips---Creation & Processing of outbound deliveries

Making---Monitoring of goods availability

Money---Monitoring of capacity situation in warehouse

Stacking---Support for picking

Paper---Packing of the Delivery

Putting---Printing & Distribution of Shipping Documents

Pocket---Processing goods issue

## **Shipping Document Functions**

Cargo---Combining inbound deliveries to form inbound shipments

Passing---Partner Information

Atlantic---Assigning Service Agents, Modes of Transport, Shipment Types

Ocean---Output

Down---Deadlines

Too---Texts

Shiny---Shipping Stages

South---Shipping Units

Carolina---Combining outbound deliveries to form outbound shipments

## **Determination of Shipping Point Auto.** (Normally determined in sales doc)

Shipping condition field from sales doc type or sold to party C.M. (shipping requirements)

Loading Group from M.M (loading Equipment) (Sales/Plant Data screen)

Delivering Plant from CM, or MM

## What do we find in a shipping point?

Loading Lead Time Pick/Pack Lead

time

#### **Post Good Issue**

Updates the quantities in inventory management and delivery requirements in material planning. Updates the value change in the balance sheet accounts for inventory accounting (cost of Material)

Generates additional documents for accounting.

Generates the billing due list.

Updates the status in all relevant sales docs.

## Warehouse consist of the following organizational units

Warehouse Number Storage Type Picking & Staging Area

## **Movement Type Controls**

Change in stock quantity
Change in stock type or material number
Goods Issue
Goods Receipt

# Transfer order includes the following info.

Material Number
Quantity to be moved
Source & Destination bins

#### Billing

# **Billing Types**

F2---Invoice

F8---Pro-Forma Invoice

G2---Credit Memo

L2---Debit Memo

RE---Returns

S1---Cancellation Invoice

S2---Cancellation Credit Memo

LR---Invoice List

LG---Credit Memo List

IV---Intercompany billing (invoice) & Delivery

IG---Intercompany billing (credit Memo)

BV---Cash Sale

## **Billing Type Controls**

No---Number Assignment

Pay---Partner Functions

Till---Texts

Received---Rebates

Overtime---Outputs

Properly---Posting Block

In---Invoice List Type

Company---Cancellation Billing Type

At---Account Determination

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## **Billing Document**

Contains item line and header no schedule lines

Header contains info of Billing date, customer number of payer, Net value of entire doc.

Item line contains info on Material and Billing quantity

System shows delivery number and sales order number at item line

Order Item Category determines if it is delivery related or order related billing.

## **Pricing Types in billing document determined by**

Billing Type

Item Category

# **Pricing Types in Billing Doc**

A-Copied from REF updated with scale

B-Pricing redetermined

C-Manual elements copied others are redetermined

D-All Copied with no changes

G-Only tax redetermined

H-Only freight redetermined

## **Determination of Credit Control Area** User Exit

(only header data considered)

Sales Area segment from payer master record

Sales Area

Company Code

## **Credit Check can be carried out at:**

Sales Order (blocked)

Outbound Delivery (blocked) Goods Issue

(error Message)

## Data flow from reference docs controlled by

Billing Types

Copying Control

Data Transfer Routines

#### **Business Area**

Blue---By Plant/Item Division

Berry---By Sales Area

Boy---By Sales Organization. Distribution Channel, Item Division

## Revenue Account Determination use to find the General Ledger Account

Chart of Accounts, Sales Organizations, Account Assignment group of the payer, Account assignment group for materials, Account Key (assigned to condition types)

1. Billing Date 2.Billing Value 3.Account Determination 4.Output Determination

<sup>\*</sup>These things can be changed before an accounting document is created.

- \*Reference field is in the accounting document header. Allocation number is in the customer line item and is used for sorting.
- \*The Goods receipt number and Goods Issue number cannot be used as a reference or allocation number for the accounting document type.

#### **Billing Date**

Billing Date can be changed in the billing document.

You maintain the calendar if billing is to be done on specified days in the customer master. It's proposed auto. But can be overridden.

If using delivery-related billing the billing date is based on goods issue. If using order-related billing the billing date is based from the order.

**Periodic Billing** is often used for rental & service contracts for agreements in order to bill the amount periodically at certain dates.

<u>Milestone Billing</u> is often used in plant engineering & construction in order to spread billing of the full amount over several dates within the billing plan.

Milestone can be blocked for billing. When created updates the status of the billing plan dates. In sap milestone is stored in a network along with planned and actual project data. M. are assigned to the billing plan dates & blocked for billing until the milestone is confirmed as completed. In Milestone billing you can control whether a billing date is a \*fixed date \*required to be updated with the actual date of the m. \*Update with the actual date of the milestone, if production is completed before the planned billing date.

<u>Determining the billing value</u> needs a billing rule, in order to determine the value to be billed on a particular date or not. Ex: Net Value X (%) of billing plan = Billing value

### Determining billing plan type

Document item category

Relevance for billing (relevant for order-related billing-billing plan)

Date categories defined have a control function at billing date level. (They determine which billing rule is used to settle the date, whether the billing date is a fixed date and whether a billing block is set for this date.) Date rules are needed in the billing plan in order to define the start date & end date.

To differentiate between milestone and periodic billing you use billing plan type.

Down Payments Request are usually arranged with plant engineering, construction, and capital good customers.

\*Down Payment Agreements in the sales order

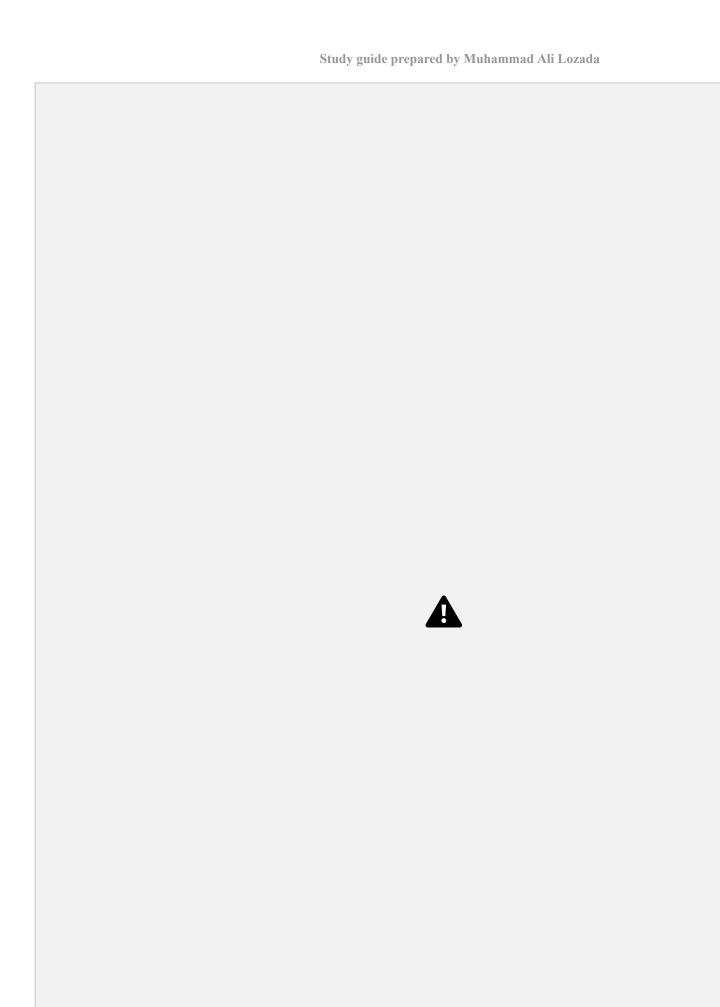
When processing down payments the billing plan functionality is utilized.

Control is carried out via the billing rule:

Billing rule 4: Down P. for percentage milestone billing.

Billing rule 5: Down P. for percentage milestone billing.

Down payment agreement can be assigned to an item or for all the items in the orders. Special Condition Type AZWR is used for down payment items in sales doc. Condition Category E & Calculation rule B (fixed amount) are assigned to condition type AZWR. When AZWR is determined all other condition types are set to inactive.



As soon as the billing date (in the billing plan) for the down p. has been reached, the system creates a sown payment invoice & sends to the customer. Billing Type FAZ used for down payment request. This request can be created auto. Via billing due list processing in a collective run or explicitly by specifying the order # via the transaction create billing doc.

Installment Plans only 1 billing document is created for all of the installment payments. You have to define installment payment terms in customizing. And when you define the payment terms you must specify the number & amount of the installment in percentage & payment term for each installment payment.

\*Sales Account Determination is carried out using the condition technique depending on the billing type.

## Pricing

Pricing Procedure can contain any number of <u>subtotals</u> between <u>gross</u> & <u>net price</u>.

### You can mark a condition type in the pricing procedure as being:

Manually entered condition For statistical purposes only

## **Pricing Procedure is determined by:**

Sales Area
Customer pricing procedure field in the customer master.
Sales Doc Type, Document pricing procedure field
Sold to party

\*The system reads the condition type of the first step. It determines the assigned access sequence for the condition type. The system then reads the access sequence. The sequence of condition tables represents the search strategy for finding the relevant condition record. Each condition table represents one access which can be made for a condition record with the specified key. The system searches for valid condition records with the key specified key. The system searches for valid condition records with the key specified by the condition table (Accesses). If the first access does not find a valid condition record, then the system searches for the next access using the next condition table. Once the system finds a valid condition record and copies the value that corresponds to the scale into the sales order doc. The whole process is repeated for each condition type until the system has finished the entire pricing procedure.

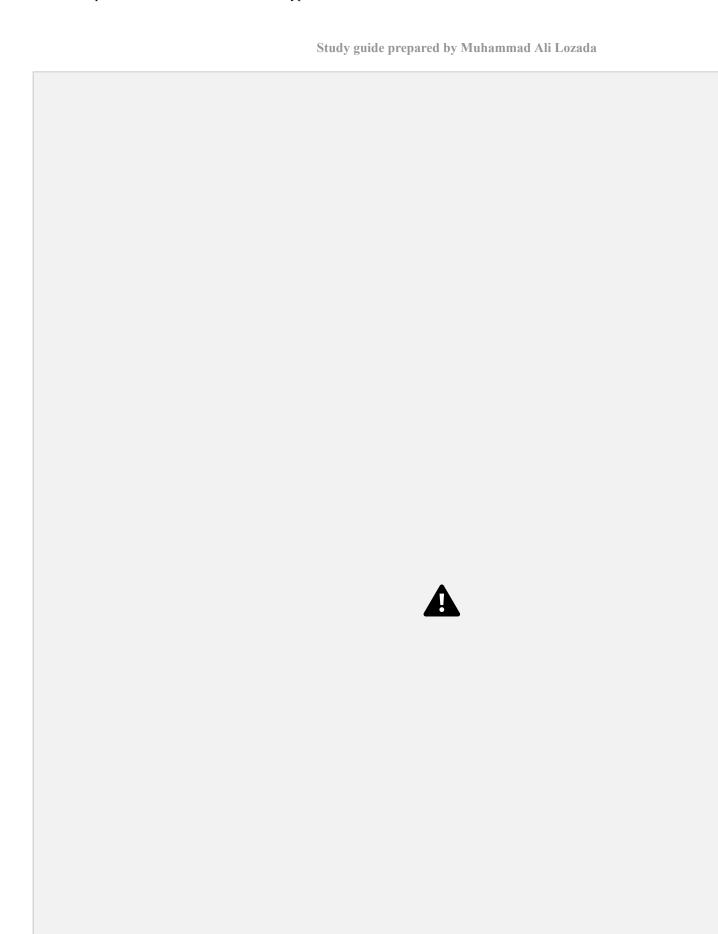
## **Group Condition**

In customizing you can set a condition type to be a group condition. For group conditions with varying keys, item quantities are accumulated for scale point determination purposes but the rate for each item is taken from its individual condition record. Ex: discount if u purchase 10-20lb of ice cream 5% discount, 30-40lb 10% discount.

Control data: Entry for condition type Group condition: X

Unit of measure for accumulation, e.g. pieces GrKey Number: 1, 2, or 3 (see explanation below)

1. Complete document:



- 2. For all condition types:
  - All quantities are accumulated which belong to condition type routine 2.
- 3. Material pricing group:

All quantities with the same condition type and material pricing group are accumulated

#### **Condition Exclusion Indicator**

In pricing Procedure there can be requirements on the conditions. This requirement can look at the condition exclusion indicator & ignore the condition if set. Condition types to be compared are first placed in an exclusion group.

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\*During pricing the conditions which result in the best price (lowest charge or highest discount) are selected from this group. All others are deactivated. (19-8)

There are several comparison methods which may be used:

A All conditions found within the first exclusion group are compared and the condition with the best price is chosen. All others are deactivated.

B All condition records found for one condition are compared. The best price is chosen. All others are deactivated. This method can be used with condition type PR00, for example.

C The total of condition records found in the first exclusion group is compared to the total of condition records found in the second exclusion group. The group resulting in the best price is chosen. The conditions of the other group are deactivated.

D If a condition record is determined for the condition types of the first exclusion group, all condition records for the second exclusion group are deactivated.

E As for method B, except the worst (highest charge or lowest discount) price is chosen.

F As for method C, except the group with the worst overall price is chosen. The conditions of the other group are deactivated.

# **Condition Supplements**

\*Group several conditions together in a condition supplement procedure if you want these conditions to be accessed together during pricing.

#### Hierarchy Access 1

Hierarchy accesses optimize pricing for hierarchy data structures, such as the product hierarchy. <u>Hierarchy Access 2</u>

To define the condition table key for hierarchies like this, you might have to include partial quantities for a pre-defined quantity of characteristics.

Without hierarchy accesses, you would need to create a condition table for each combination and assign all the accesses to these tables in an access sequence.

This requires a lot of maintenance and will reduce system performance. The sequence of the accesses will also be fixed.

This is particularly disadvantageous for hierarchy data such as product or customer hierarchies.

## Hierarchy Access 3

The functions in hierarchy accesses enable you to solve these problems by using a single access to a condition table.

<sup>\*</sup>The condition exclusion indicator can be set in either the condition type or the condition record.



In condition record maintenance, when you create the access sequence for using this condition table at field level, you have to define whether each field is a fixed component of the key or whether it is an optional field.

Priorities are assigned to the optional fields.

During pricing, the system sorts the records found with this access according to priority and displays the record with the highest priority.

Hierarchy accesses also provide clearer and easier master data maintenance because the different condition records for a condition type are created together in the quick entry screen for maintaining conditions.

#### **Data determination in Access**

\*For pricing you can determine & use data that isn't contained in the document. These can be performed in 2 steps: 1. Data Determination 2. Data Use

The two steps for determining and using the data differ in the way that they collect data, which means that a distinction must be made between three data determination procedures:

Data determination using the communication structure KOMPAZD

Data determination using routines (condition 202, base value calculation formula 202)

Data determination for sales deals (condition class H)

#### **Data determination in Access-Price Book**

The term **price book** refers to a price determination strategy.

Pricing procedure RVAA02 was delivered in the SAP standard system as an example of this

The aim here is to set certain prices for a group of customers.

Special agreements are also to be set for these prices, depending on the material.

This can be achieved using two-step data determination:

Step 1: A sales deal number (condition type PBU) is determined, depending on the customer group, for example.

Step 2: Using the material group as a basis, for example, special agreements are determined, which take:

Pricing date

Scale quantity Item

price list

Into account (condition type PBUD).

In the following condition type PBBS, the special agreements determined are used and base prices therefore read.

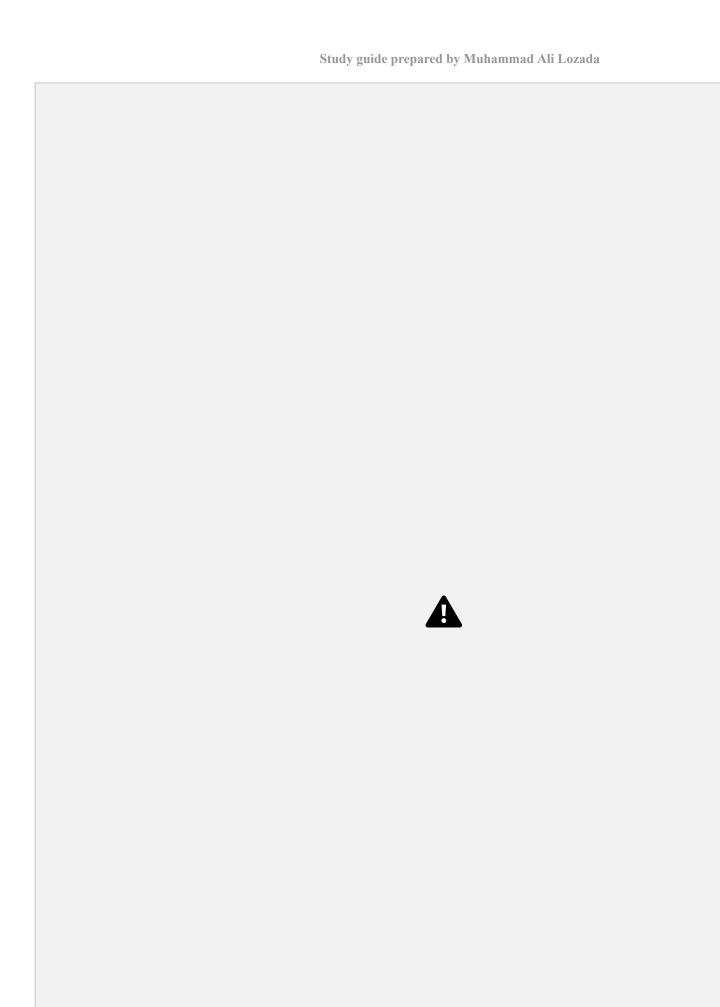
On the basis of these prices, the gross price is calculated in the following condition type PBUP using the percentage value from condition type PBUD.

You can configure the pricing behavior in the pricing type.

#### **Controlling the New Pricing**

Update prices on condition screens is available at header & Item level.

To use the new pricing document function for sales or billing document Edit New Pricing Document, assign a new pricing type to the pricing procedure. If you do not use the entry it will use (B) carry out new pricing.\*these functions are supported for billing & Sales Order.



### **Pricing type**

- A) Copy pricing elements and update scales
- B) Carry out new pricing
- C) Copy manual pricing elements
- G) Redetermine taxes
- H) Redetermine freight conditions
- X,Y) Reserved for Customer 1-9) Reserved for Customer

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\*Condition record are always created using a specific key.\*Use tables for help in defining the structure of condition record keys.\*The key fields of a condition table must appear at the start of the table, in other words, non-key fields must not appear between any two key fields.\*An Access sequence is composed of one or more condition tables.

## Creating Access Sequence (Search Strategy)

You can define prices, discounts, and surcharges at various levels. Each field is defined by a combination of fields or by a field in a condition table. Access Sequence is assigned to condition type.

- \*Access Sequence is defined for each n every condition type except for header & Mandatory Condition Types.
- \*A.S. is the way the sap system reads the condition records for the condition type.
- \*In each A.S. you have condition tables. Condition Table is combination of fields which make the key for a condition record. (Each table represents one access which can be made for a condition record with a specific key

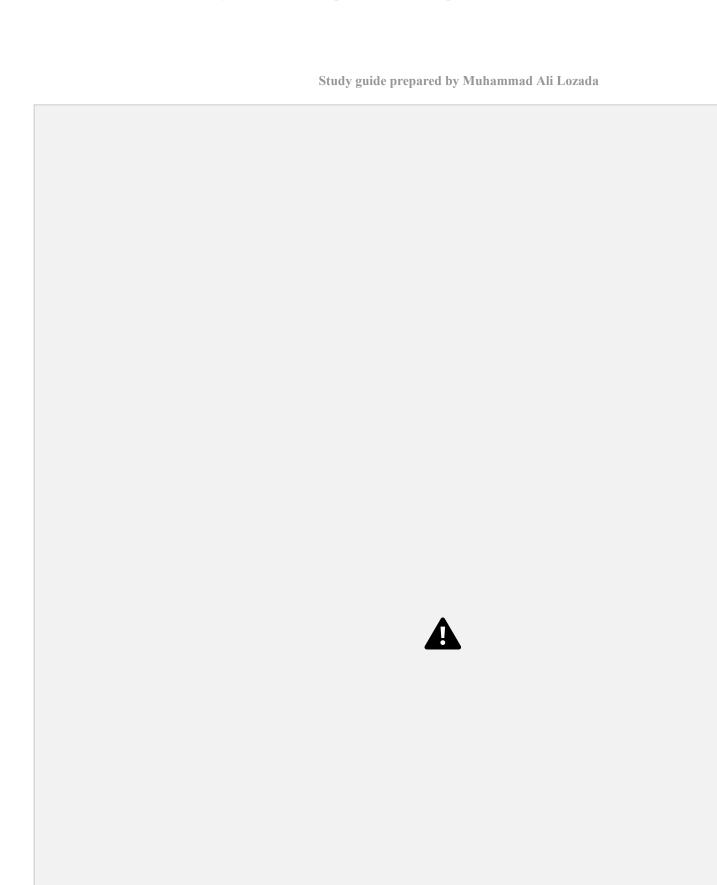
### **Condition Types**

- \*Header condition HM00 allows you to enter the order value manually, and this price will be distributed proportionally across the items based on previous net value.
- \* Item Condition PN00 allows you to enter a net price per Item. This will deactivate any other pricing for that item.
- \*Rounding can be down up or down depending on the setting. Condition DIFF is group condition and is distributed across all items according to value.
- \*Condition VPRS is used for cost of sales in the pricing procedure.
- \*Condition MWST is used for tax.

#### **Special Condition Types**

- \*HM00 and PN00 are also included.
- \*Condition AMIW allows you to create a minimum value for each order. (If the value in the order header falls short of this minimum order value in pricing, the system will take this price and replace the net order value automatically).
- \*Condition AMIZ Has calculation formula 13 assigned to it in the pricing procedure. This calculates the minimum value surcharge by subtracting the net item value from the minimum order value AMIW.
- \*Condition PR02 (Internal Price) allows you to maintain condition records with interval scales if the condition type is set to scale type D in customizing. Interval scales can't be used for group conditions.
- \*Condition KP00 (Pallet Discount) grants the customer discount for whole units of measure only. Ex: Controlled by basic formula 22 in p.p. which takes complete whole pallet into account.
- \*Condition KP01 (incomplete pallet surcharge) if customer has incomplete pallet they have to pay. Ex: order 70 but 50=1 pallet. Condition record \$50 per pallet. Use formula 24 in p.p.
- \*Condition KP02 (Mixed Pallet Discount) Adds the quantities of the individual items, and then calculates the discount for complete pallets only. This is controlled by condition type KP02

(group condition = X, unit of measure = PAL) and the corresponding condition record. \*Condition KP03 (Surcharge for incomplete mixed pallets) adds the quantities of the individual items. It then calculates the surcharge on any fractional portion of the total quantity. This is



controlled by condition type KP03 (group condition = X, unit of measure = PAL and scale formula 23, which calculates the fractional proportion of the total quantity).

\*Rounding DIFF You can maintain a rounding unit in Table T001R for each company code and currency. If the final amount in the order header differs from the rounding unit, the system will round the amount up or down as specified. Condition DIFF determines the difference amount. Condition type DIFF is a group condition and is distributed among the different items according to value.

## **Statistical Condition Types**

When processing a pricing procedure, it is often necessary to determine and make values in the procedure available for various purposes. These however, do not change the net value of the item. This can be done by marking a condition type as "statistical".

\*Cost (VPRS) is used to retrieve standard cost of the material. This is used for information value purposes only by the pricing procedure. In the condition category G, of VPRS, accesses the valuation segment of the material master locating either the standard cost of the moving average cost. Condition category S Always accesses the moving Average Cost. Condition category T Always accesses the moving average cost.

\*Cash Discount (SKTO) is used to retrieve the cash discount rate. Used for info. Purposes only.
\*Customer Expected Prices (EDI1 & EDI2) can be entered manually in the order or retrieved from the incoming IDOC in an EDI environment. EDI1 is used to compare the net price for each

item. EDI2 is used to compare the overall item value (net price x quantity).

## Condition Types are combined in required sequence in pricing procedure

- 1 Price
- 2. Material Discount

### **Customer Hierarchy**

Can be used during sales order & Billing for determining pricing. Customer Hierarchy consists of nodes (A point in a network at which lines cross or branch.)

- \*To create Customer Hierarchy: 1. Create Master Records per node.
  - 2. Assign nodes to each other.
  - 3. Assign Customer Master to relevant nodes.

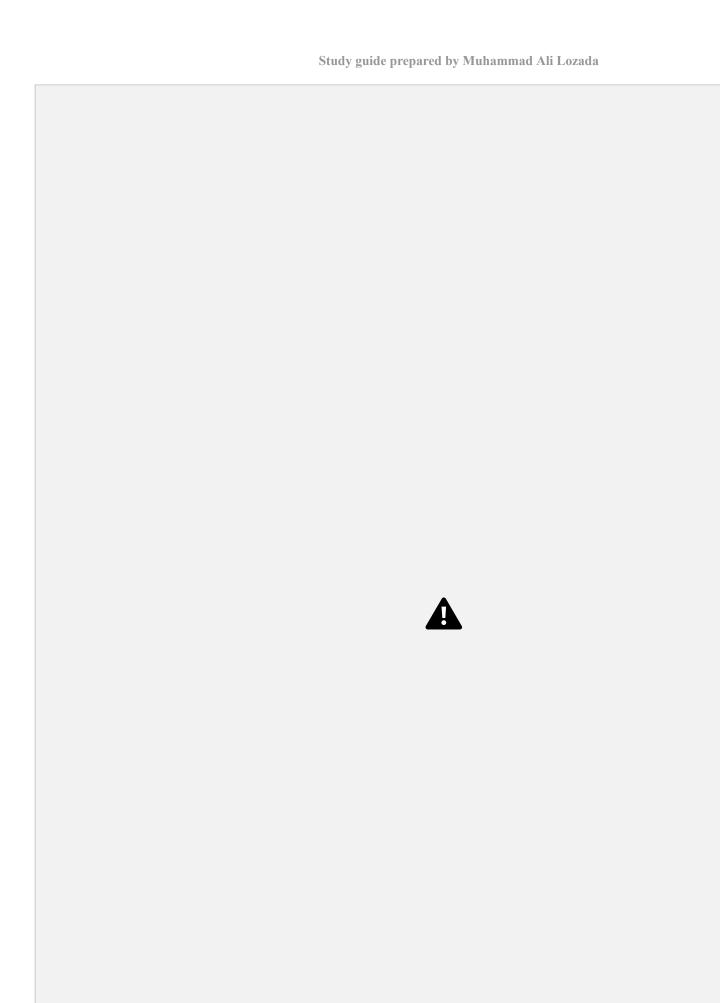
\*Hierarchy nodes are only valid for a certain period of time. They may also be moved. If node is moved, system automatically reassigns all related nodes & customer master records. Basically, you can assign price or rebate agreements to higher level nodes. These agreements will be valid for all subordinate levels to this node. Each node can also, have pricing condition records which are relevant for pricing. If one or more node in the hierarchy path of sales orders contains pricing, info system then takes them into account automatically. Condition HI01 Ex: customer \*\*\*\* is from Pakistan give 8% discount.

- \*Condition Table-Define key fields of the condition records.
  - \*Access Sequence-Contains Hierarchy for condition record access.
  - \*Condition Type-Represents properties of the pricing conditions.
  - \*Pricing Procedure-Defines how condition types are linked.
  - \*Procedure Determination-Selects correct pricing procedure.

## **Determining Condition Records**

- 1. Customer/Material
- 2. Price List Type/Currency/Material
- 3. Price List Type/Currency/Material Foreign Currency
- 4. Material

# Creating Condition Records with Reference



New condition Records can be created with reference to existing condition records.\*Changes can be made to the Rate, Validity Period, and additional sales data. <---This is good for efficiently updating condition records simultaneously.

## **Changing condition records**

\*Can be changed using price change function which will allow you to maintain multiple condition records simultaneously.

## **Copying Condition Records**

\*Multiple condition records can be creating copying existing condition records.

If you are copying a Customer-Specific Price condition record the system offers 2 possibilities: 1. Create the target conditions over a specified range of customer numbers. 2. Create the target conditions over a specified range of material numbers.

## **Searching for Condition Records using Condition Indexes**

You can create and use condition indexes to search for condition records that were created for a variety of condition types & condition tables. Ex: Want to see all C.R. for particular cust or prod. The activation function displays a list of all available condition indexes & indicates which are active. The system can only use the condition indexes when there active. Note: Before you can use condition indexes you must first ACTIVATE them. However if you create your own index the system activates them when you generate them. But you must specify an update requirement for each index. You can specify if the system updates the cond. Index when you post cond. Records for the corresponding condition type.

## **Release Procedure for Conditions**

When a condition table is created you can allow a release procedure to be used, by selecting the with release status checkbox. This then adds 2 functions to the condition table: 1. KFRST-Release status as last key field. 2. KBSTAT-Processing status as a field of the variable data part (Non Key Field). The release status is set indirectly by defining a processing status in customizing for pricing and assigning a release status to it. Also, you can convert old records to new ones. Now you can choose a calculation type when creating condition records at the same time.

## **Pricing Condition Tables**

Additional Condition tables can be created for specific requirements They are used to determine the key in the condition records.

You can add fields to the field catalog in order to create new condition records based on different

It is important to list the fields in a condition table in the proper order.

- \*Long text can be added to Rebate Agreements, Promotions, and Sales Deals.
- \*Long text in the rebate agreement can be copied into a credit memo request for rebate payments and then into the credit memo.
- \*Text is not copied when you create condition records with reference.
- \*A condition type can be classified as a group condition.

### **Price Update**

Values can be accumulated in condition records to test against those limits. Condition type must be set for "condition update" in IMG. Condition update can be set for maximum condition value.

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Cumulative values cannot be displayed.

Condition update cannot be set for number of orders.

- \*Condition supplement do not have their own access sequence but is based on other conditions. They are found with the underlying condition records.
- \* Multiple conditions can be grouped together in a group supplement procedure.
- \* The system will allow you create conditions based on customer or material hierarchy. The system process however requires a lot of maintenance and reduces system performance and is considered a disadvantage.
- \* Without hierarchy accesses you need to create a condition table for each combination and assign all accesses to these tables in the access sequence.

#### **Taxes**

\*You can assign a rule (**Blank, A, or B**) at the sales organization level to determine sales tax id# in the order & billing.

For the status 'BLANK', the standard priority rules are as follows:

- 1. If PY has a sales tax ID and a different SP
- The tax number and tax classification are taken from PY (the SH is then no longer relevant).

The tax number is determined according to the 'tax destination country'.

- 2. If 1. does not apply:
- If the SH has a sales tax ID or the SP has NO sales tax ID, the tax number and tax classification are taken from the SH.
- 3. If 2. does not apply:

Tax number and tax classification are transferred from the sold-to party.

With status 'A', the tax number and tax classification are generally transferred from the sold-to party. The tax number is transferred according to the 'tax destination country'.

With status 'B': Data is transferred from the payer in the same way as rule A.

The following factors play a role in tax determination:

Business transaction - domestic or export/import

Tax liability of the ship-to party/comes from the customer master

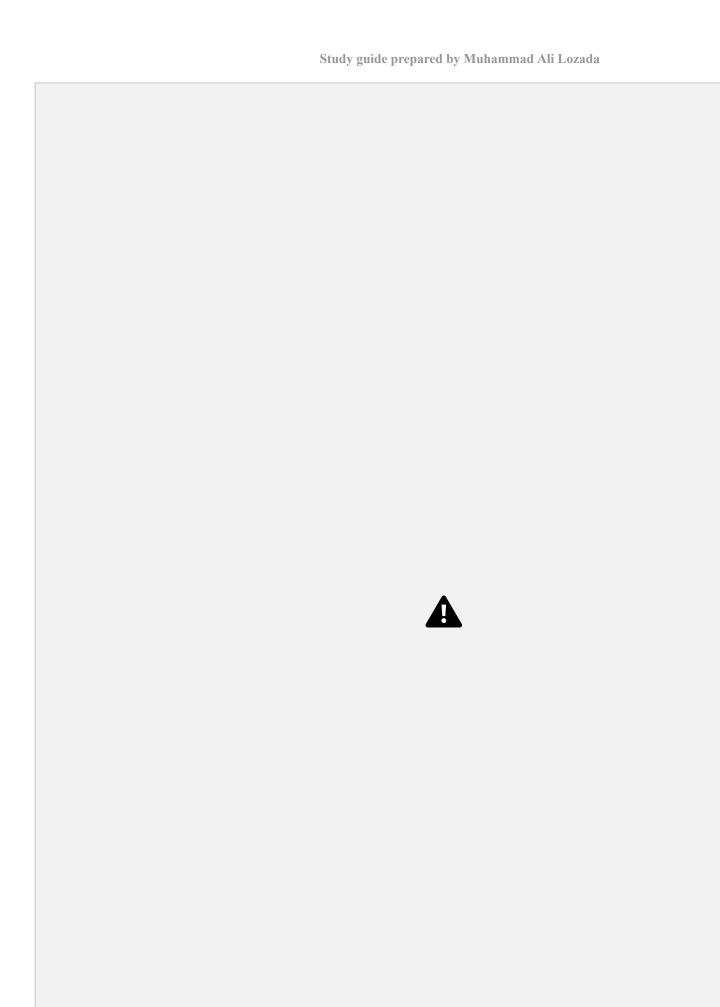
Tax liability of the material/comes from the Material Master

The system determines a tax rate in the document (order/billing document) on the basis of these three criteria.

- \*Taxes are determined with the normal 5 step condition technique
- \*Condition type for tax will be part of the normal pricing procedure

## **Agreements (Promotions & Sales Deals)**

\*You can define a promotion or general marketing plan for a product line for a certain period of time. You can then link this promotion with specific sales deals, which are linked to special condition records. These condition records can be used for promotional pricing or discounts. The sales deal number and the promotion number will be displayed in the detail of the billing document item line and will then also update SIS accordingly.



## **Release Status for Sales Deals**

The release status of a sales deal controls where you can find the condition records for a sales agreement. \_\_=Released, A=Blocked, B=Released for price simulation, C=Released for price simulation and Planning.

### Rebates

The following must be <u>activated</u> for <u>rebate processing</u> to function:

Sales Organization (If not needed deactivate for better performance)
The Payer Master
Billing Document Type
22

Rebates are discounts, which are granted subsequently to rebate recipients, based on defined sales volumes within certain periods of time. To determine the values required for a rebate settlement within the validity period, you create rebate agreements. The system uses the accumulated amounts in the rebate agreement to create a rebate settlement.

## Rebate Agreement Types

0001--->Material Create

0002--->Customer Rebate

0003--->Customer Hierarchy Rebate

0004--->Material Group Rebate

0005--->Independent of Sales volume

Rebate Agreement is created with a specific Rebate Agreement types. Rebate Agreement types contain all the rules and control that will influence the behavior / features of a rebate agreement. Rebate condition records are linked to rebate agreements specifying the Rebate rate & Accrual rate. You can specify in the agreement type 1) Condition types used with this rebate agreement type. 2) Validity period proposal.\*Rebate agreements can be settled partially.

\*The payer must be relevant for rebate processing. Rebate processing begins by creating a rebate relevant billing document. The valid rebates are determined by the pricing procedure using rebate basis total. Each rebate condition type has an assigned access sequence. The system then uses the Access Sequence to look for valid rebate condition records. If found then the accrual rate is read. Requirement 24 in pricing procedure says that the rebate condition are used only in billing doc. Requirement 25 in p.p. says that rebate conditions be used only in rebate-relevant billing doc. The rebate accrual amount is calculated using rebate basis in billing doc. The system posts an accrual to FI-Accounting as soon as the rebate-relevant billing doc. is released to accounting. The system then updates the rebate basis & accrual amount in the rebate agreement sales volume screen.

## Rebate Settlement

The system uses the accumulated amounts in the rebate agreement to create a rebate settlement.

**Status A** refers to an open rebate agreement. The system generates a rebate credit memo request for the rebate payment amount specified. You can display the sales volume and drill down in the rebate agreement.

You can carry out a final settlement for the rebate agreement either:

\*manually

\*automatically

\*in the background (batch programs: RV15C001 and RV15C002)

Accruals are reversed as soon as the rebate agreement is settled by credit memo.

Retroactive rebate agreements allow you to take into account billing documents created before the rebate agreement is created. The rebate basis for the billing documents created previously is accumulated and recorded in the rebate agreement. The accrual amount is not automatically updated for previously created billing documents. This amount must be entered manually. Rebate-relevant billing documents created after the rebate agreement has been created, will update both the rebate basis and accrual fields automatically.

### **Partial Rebate Settlement**

Partial rebate settlements can be limited for each rebate agreement type as follows:

- \*up to the accumulated accrual amount
- \*up to the calculated payment amount for the current date
- \*Unlimited

Accruals are cancelled automatically when a credit memo is created, provided that the rebate agreement type is set accordingly in Customizing

### **Settlement Material**

You may have a rebate that does not refer to a particular material, but rather to a group of materials or to a customer. In this case, you must refer to a settlement material in order to provide information at the material level. Maintain the rebate material in the material master in the Sales and Accounting views. When creating a credit memo, the settlement material is the source for important material master data. For example, account determination.

## Free Goods

You have created an exclusive free goods agreement and you would like the ordered item to absorb the cost of the free goods. In order to transfer the correct information to CO-PA from SD billing, you have to deactivate pricing in the item category of the free item, and Set the cumulative indicator in copying control for the billing item.

### Solution Manager

The system landscape does include solution manager.

Solution manager is needed to efficiently and effectively only implement and operate an enterprise sap solution. **False** 

In implementation soleman covers more than one of the following areas: <u>functional</u> implementation, <u>technical</u> implementation, and <u>implementation of operations</u>.

Sap soleman is a <u>customer platform</u> that enables representation and documentation of the entire customer-specific solution, including sap and non-sap components.

Soleman enables <u>process-oriented</u> versus <u>component-orientated configuration & Testing</u>.

Sap roadmap **5** phases: Project preparation, Business Blueprint, Realization, Final Preparation, and Go live & support.

Phase 2--->Finalizing the project scope, Defining and documenting all business requirements, both functional and technical.

Phase 3--->Configuring the system, testing the system to ensure that it meets the specified business requirements, and developing training materials.

- \*It is an integrated platform that controls both implementation and operation of the live system.
- \*Supports customers in ALL project phases, from creating a blueprint to configuring business processes and testing through support of the live environment.

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\*Accelerators are found in the Knowledge Warehouse in SAP Solution Manager in the form of templates.

<u>Document Management Systems</u> in soleman have these key highlights: \*Central Storage of all project documentation. \*Provides functionality for creating, editing, storing, uploading and downloading documentation. \*Reporting features (by assignment->Documentation) allow you to track and filter all available documents.

Soleman as the <u>technical and operations infrastructure</u> has more than the following components: Services for operations, Solution monitoring, and Support

Sap Soleman is more than \*A Proactive Methodology \*Business Process Orientated \*Software Solution landscape Oriented \*Configurable

Sap marketplace can be accessed thru Solution Manager whenever needed.

\*A new business process procedure can be created from a standard template. \*The Knowledge Warehouse contains numerous accelerators.

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