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Introduction

Package: It is a collection of executable programs, functions, and actions.

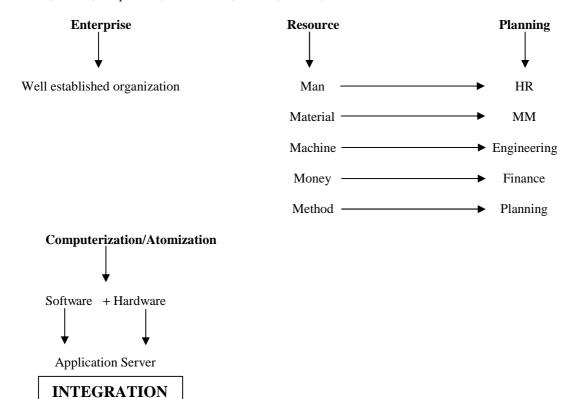
Ex: MS - Office, ATM, Railway Reservation, etc.

Language: It is a collection of executable statements/instructions to the system.

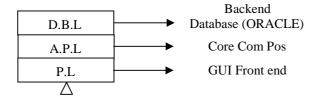
Ex: C, C++, Java, etc.

ERP: Enterprise Resource Planning

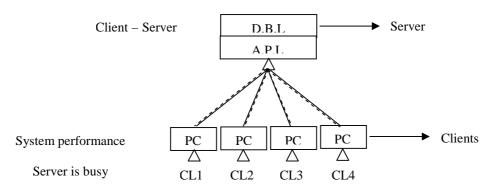
Ex: SAP, Oracle, People Soft, JD Edwards, BAAN, SIBEL, etc.



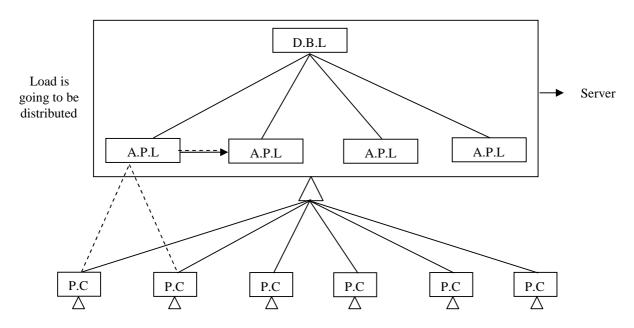
Single – Tier Architecture: Standalone system. Ex: PC



Two – Tier Architecture: Client – Server → Multi viewer concept developed by IBM.

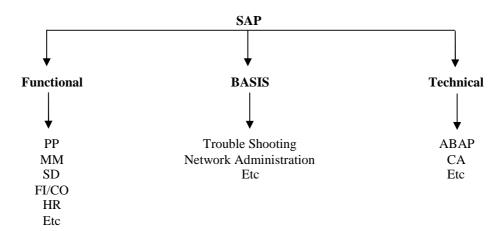


Three – Tier Architecture:



IDES: Internet Demonstration and Evaluation System

SAP: Systems, Applications, and Products in Data Processing.



Technical Modules: ABAP: Advanced Business Application Programming.

ABAP Workbench.

Advanced 4th generation language.

ABAPERS: Upload the data from legacy system to R/3 system.

BDC, LSMW.

Managements User – exit, Menu – exit, Screen – exit, and Field – exit.

Reports.

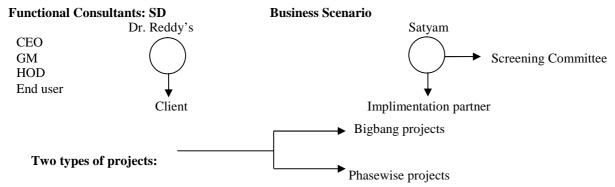
Functional Modules: SD, MM, FI/CO, PP, HR, etc.

SAP, SAPGUI.

IMG tool used by function consultants.

Administration Modules: BASIS

New Dimensions: CRM, APO, SEM, SCM, etc.



Implementation Partner: Implementation partner is a person who impliments SAP for our company.

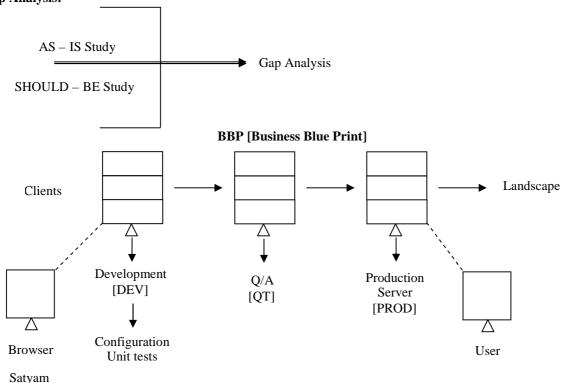
Company Representative: Company representative is a person who knows very well about company and came to explain about company to implimentation partner.

Business partner: He is a person who purchases SAP software from IDES AG.

AS – IS Study: Understanding the business requirements of the client.

SHOULD BE Study: How you map the requirements of the customer/client.

Gap Analysis:



Servers:000 = Reference client server.

100 = Configure and customizing server.

200 = Copy from configure/customizing where we do some sort of testing.

300 = Here also we do some sort of testing.

Server \rightarrow Instant \rightarrow Environment all is same where we use in real time.

End users use production server.

Development server is used to develop SAP according to client requirements.

Functional consultants work on this server.

VPN = Virtual Private Network.

CENTREX

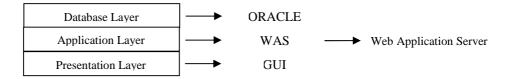
SAP AG R/3 4.7 EE

SAP: Systems, Applications, and Products in Data Processing.

AG: German company extension.

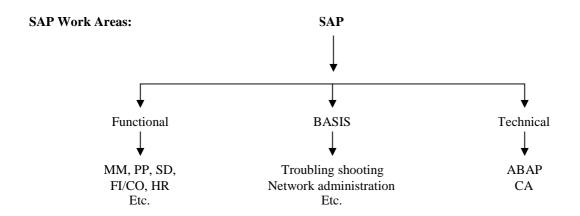
Ex: India = Limited. USA = Inc.

R/3: Real time 3 tier architecture.



4.7: Version extension

EE: Enterprise Edition



NOTE: SAP has strong **Integration** with all modules.

Introduction to SAP

The name SAP, being a German company is an acronym for "System, Anwendungen, and Produkte in Der Datenverarbeitung". This is translated into English as "Systems, Applications, and Products in Data Processing". The SAP system consists of complex integration of different modules or applications, each representing part of the basic business process. SAP runs on a 4th generation programming language called Advanced Business Application Programming (ABAP).

SAP is an Enterprise Resource Planning product capable of integrating multiple business applications with each applicant is representing a specific business area. SAP processes a product that is capable of great depth in specific application area.

The SAP Graphical user Interface

SAP has also developed a user interface called the SAP graphical user interface (SAPGUI), which runs on Windows 3.1/95/98/NT, Motif, OS/2 presentation manager, and Macintosh. All SAPGUIs look identical, regardless of the operating system on which they are running. This interface varies according to the version of SAP or SAPGUI you are running; however, the difference in appearance is minimal. The appearance of the screens and means is configurable.

The Application Integration

SAP is an "Enterprise Resource Planning" (ERP) software product capable of integrating multiple business applications, with each application representing a specific business area. These applications update and process transactions in real time, thus allowing seemingly effortless integration and communication between areas of a business.

Customizing Tools

The cornerstone of SAP is its ability to be configured to meet the needs of your business. This is done by customizing or adapting the system to your business requirements, which is the process of mapping SAP to your business process. Since SAP version 3, the "Reference Implementation Guide" (IMG) for R/3 customizing has been available. Until this version, customizing had to be done in the menu paths of the system with considerably more hassle. This IMG screen is the backbone for SAP and the entries placed in it determine how the system functions. We will be using this screen extensively for the purpose of configuring the SD module.

R/3 Applications overview

R/3 applications are categorized into 3 core functional areas: Logistics, Financial, and Human Resources of these three functional areas, there is a further subdivision into applications or modules. In addition to these applications, SAP creates "Industry – Specific Solutions (ISs), which are, as the name defines, created tailor – made for a specific industry. A few examples of these would be:

IS – OIL = The SAP industry solution for oil companies.

IS - T = The SAP industry solution for Telecommunications.

 $\begin{array}{lll} IS-B &=& The\ SAP\ industry\ solution\ for\ Banks. \\ IS-Retail &=& The\ SAP\ industry\ solution\ for\ Retail. \end{array}$

In addition to these industry solutions of which there are currently 19, standard cross – application components are available, such as the SAP business workflow. The following is a brief description and overview of a few of the major functional areas in SAP.

Financial Applications: This functional area contains the necessary information on profitability analysis, general ledger accounts, and information on reporting using the "Executive Information system (EIS). This area contains the following modules:

FI = Financial Accounting

CO = Controlling

EC = Enterprise Controlling IM = Investment Management

TR = Treasury

Human Resources: This functional area includes support on salary and payroll administration as well as areas such as work schedule models. This core functional area is very country – specific, due to country – related taxes, employee benefits, and employment laws. This are contains the following modules:

PA = Personnel Administration PD = Personnel Development

Logistics Applications: Logistics is the largest of the three functional areas. It includes, among others, the following modules:

SD = Sales and Distribution

MM = Materials Management

WM = Warehouse Management

PP = Production Planning

LO = General Logistics

QM = Quality Management

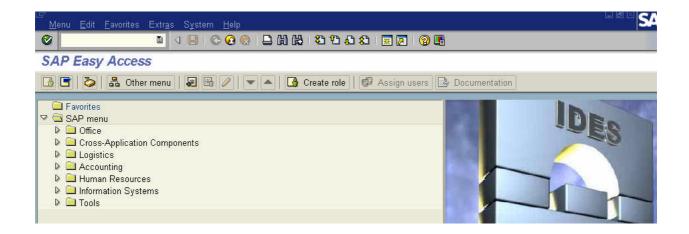
The Sales and Distribution module (SD)

SD module integrates with every other R/3 application including FI, CO, MM, PP, and so on. The SD module is made up of multiple components. Here is a brief list of these:

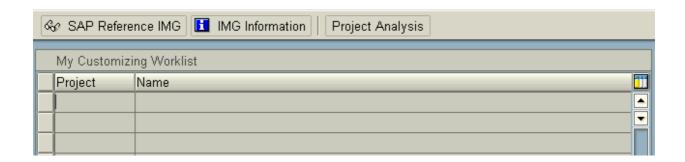
SD - MDMaster Data = SD - BFBasic Functions subdivided into multiple components, such as pricing, output, and so on. SD - SLSSales = SD - SHPShipping = SD - TBA**Transportation** = SD - FTT Foreign Trade = SD - BIL Billing SD - CASSales support SD - EDIElectronic Data Interchange = SD - ISInformation System

Basic Transaction codes

Transaction codes are the short path to s specific screen in SAP. They are found by selecting System: Status. The SPRO transaction code is the shortcut for the business IMG. The standard menu path is always described from the logistic screen (unless specifically stated from the IMG). Thus the menu path to get to the IMG from the Logistics screen is as follows:



- Tools
- Customizing
- > IMG
- SPRO Edit Project
- > SAP Reference IMG



NOTE: Transaction codes call up screens, there must be a link from the screen you are trying to access to the relevant screen you wish to call up; thus, you will not be able to use the transaction codes whilst in the IMG. As a general rule, you can access every screen from the logistics screen.

The Structure of SAP SD Master Data

Master data forms the basis of the SD processing. Master data is the responsibility of all modules, as each module has an element of it. However, many other modules other than SD, such as PP, FI, AND CO, will access the SD master data. The structure of this master data represents how the system is to perform in the future. It is the highest level of data and thus it has the largest effect on the standard business process. Master data in SD is divided into three main areas:

Organizational Data: This is the structure of the company, whereby each area of the business is represented by a hierarchical element. For example, a sales area is constructed of a sales organization, a distribution channel, and a division. The Finance module uses the highest form of master data, which is the "company code". The SD module integrates with this company code via the sales organization. Thus, due to the link between the sales organization and the company code in Finance, SAP knows which company code to post a sales transaction to. This is based on the sales organization in the sales order.

Customer and Material Master Data: As goods and services are sold by the company, for which the organizational data has been maintained, we need to represent this material and service data in our system as well as maintain and represent all our different sold-to-parties and partners.

Document Master Data: Business transactions are stored in the form of documents. These SD documents are structured in such a way that all the necessary information is stored in a systematic way.

Global Settings: This area defines the country keys and currencies. This data is application independent; however, these settings are a prerequisite for handling all business transactions.

Organizational Data: You must set the organizational data in SAP before you can process SD transactions. For example, without a sales organization, it is not possible to create a sales order in SAP. This data reflects the structure of your business. Every transaction occurs within this structure. The organizational data is like the steel girders in a building, so setting them up correctly is essential to a sound structure.

Relationships

Company-to-Company code: One Company can have many company codes. But one company code has to be assigned to one company. So the relation is **one to many**.

Company code to Sales Organization: One company code can have many sales organizations. But one sales organization has to be assigned to one company code. So the relation is **one to many**.

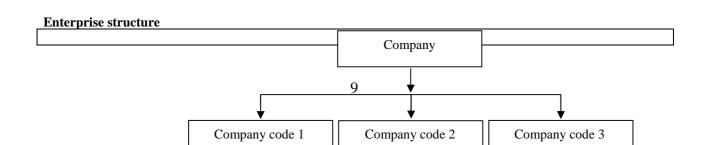
Sales Organization to Distribution Channel: One sales organization can have many distribution channels. One distribution channel can be assigned to many sales organizations. So the relation is **many to many**.

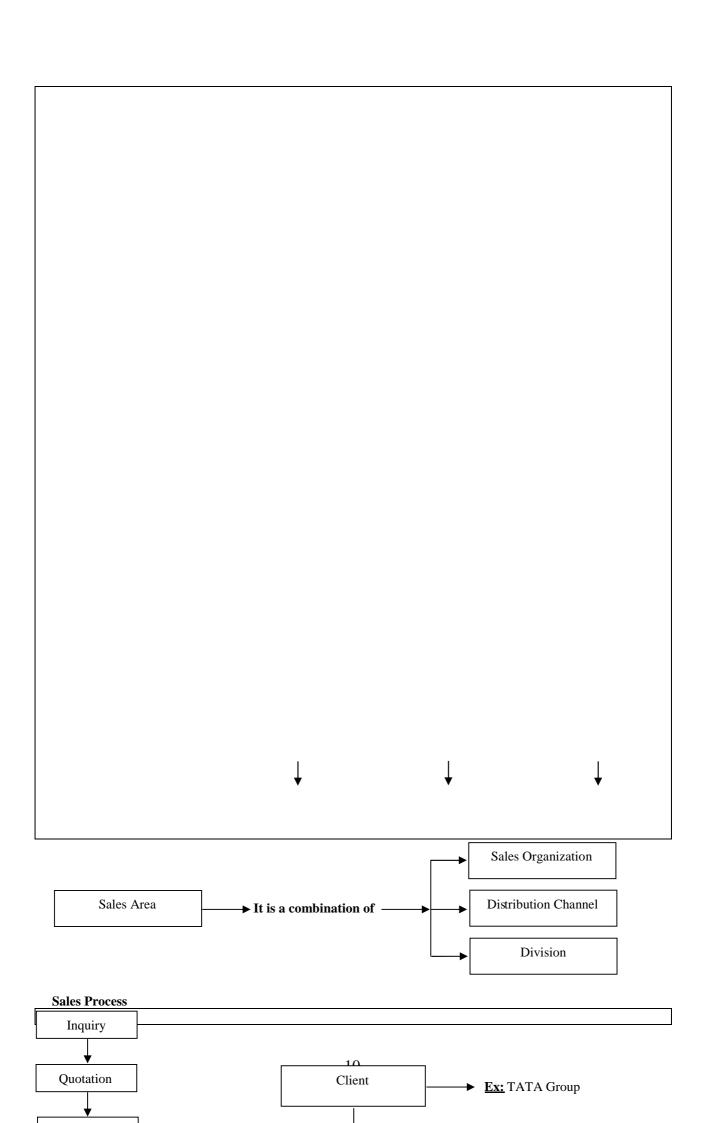
Sales Organization to Division: One sales organization can have many divisions. One division can be assigned to many sales organizations. So the relation is **many to many**.

Distribution Channel to Division: One distribution channel can have many divisions. One division can be assigned to many distribution channels. So the relation is **many to many**.

NOTE: Division is always sales organization specific.

If sales organization wants to use a plant that plant must be assigned to sales organization.





Ent	erprise structure		
NOTE: Sales Organization takes care about the "sales process".			

Definition of Enterprise structure:

Company: [RCOMP] Company is nothing but it is a client to whom we are going to implement SAP. It represents a corporate group. It is the highest organizational unit in the enterprise structure.

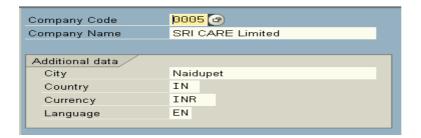
Path:

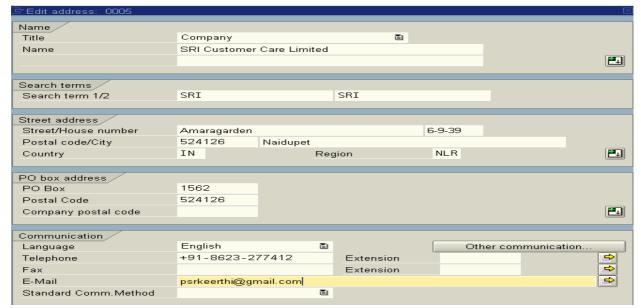
- IMG
- > Enterprise Structure
- Definition
- Financial Accounting
- Define Company
- Click on New Entries on the application toolbar
- > Define your company by filling the data in the required fields
- Save and Edit



Company Code: [BUKRS] Company code is nothing but it is an independent organization unit that represents subsidiary of company. It has his own set of database tables from which we can drawn out reports Ex: Balance sheets Profit and Loss accounts that are required by law and those reports can be consolidated at company code level. One company can have many company codes. It means one company code should be assigned to only one company. So the relationship between company and company code is one to many. It means company code should be assigned to company.

- IMG
- ➤ Enterprise Structure
- Definition
- Financial Accounting
- ➤ Edit, Copy, Delete, Check company code
- Edit company code data
- Click on New Entries on the application toolbar
- ➤ Define your company code by filling the data in the required fields
- Save and Exit





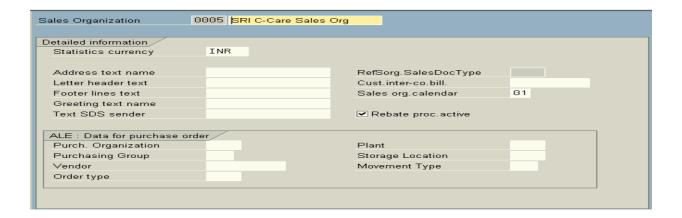
NOTE: Company and company code defines and maintain by FI/CO consultants.

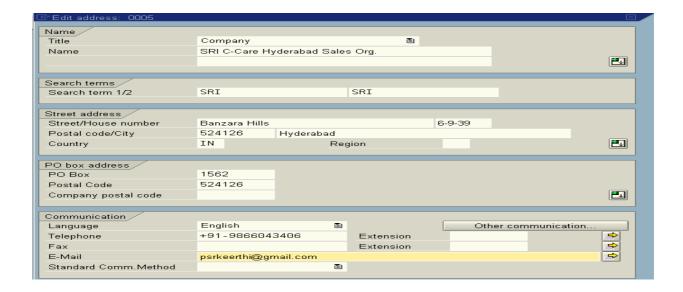
Sales Area: Sales area is not a physical entity it is only represents the combination of physical organizational units or entities that are sales organization, distribution channel, and division. This sales area can be used to refer certain sales transaction.

Sales Organization: [VKORG] Sales organization is an organizational unit that sells and distributes precuts, negotiates terms of sale, and is responsible for these transactions. It is also responsible for business daily operations as well as legal obligations also.

One company code can have number of (many) sales organizations. It means one sales organization should be assigned to only one company code. So the relationship between company code and sales organization is one to many. It means sales organization should be assign to company code.

- > IMG
- > Enterprise Structure
- Definition
- > Sales and Distribution
- ➤ Define, Copy, Delete, Check sales organization
- Define Sales Organization
- Click on New Entries on the application toolbar
- ➤ Define your Sales Organization by filling the data in the required fields
- Save and Exit





Note: Check **Rebate** processing active if you want to process "**Rebate**" for particular customer and for particular material. For this (3) three main control parameters should be activated.

- A. In definition of sales organization "**Rebate**" processing active should be check.
- B. In customer master (payer) "Rebate" should be active
- C. In billing document (F2) "Relevant for Rebate" should be activate.

Note: Due to system performance deactivates these (3) three control parameters if you are not going to process rebate.

Distribution Channel: [VTWEG] A distribution channel is a channel through which materials or services reach customers. Typical distribution channels include wholesale, retail, and direct sales.

One sales organization can have many distribution channels and one distribution channel can be assign to many sales organizations. So the relation ship between sales organization and distribution channel is many to many. It means distribution channel should be assign to sales organization.

- > IMG
- > Enterprise Structure
- Definition
- > Define, Copy, Delete, Check distribution channel
- > Define distribution channel
- > Click on **New Entries** on the application toolbar
- Define your distribution channels by filling the data in the required fields
- Save and Exit



Division: [SPART] A division is a product group that can be defined for a wide-ranging spectrum of products. It is a group or range of products.

One sales organization can have many divisions and one division can be assign to many sales organizations. So, the relationship between sales organization and division is many to many. It means division should be assign to sales organization.

Path:

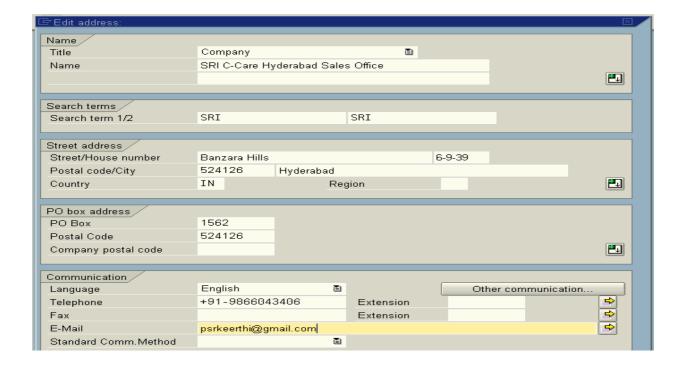
- > IMG
- > Enterprise Structure
- Definition
- Logistic General
- > Define, Copy, Delete, Check division
- Define division
- > Click on **New Entries** on the application toolbar
- > Define your division by filling the data in the required fields
- Save and Exit



Sales Office: [BKBUR] Geographical aspects of the organization in business development and sales are defined using the term "sales office". It is a geographical aspect of sales area. A sales office in turn assigned to a sales area. Sales area can have number of sales offices that means sales office should be assign to sales area.

- > IMG
- Enterprise Structure
- Definition
- > Sales and Distribution
- > Maintain sales office
- Click on New Entries on the application toolbar
- > Define your sales office by filling the data in the required fields
- Save and Exit





Sales Group: [VKGRP] The staff of a sales office may be subdivided into sales groups. For example sales group can be defined for individual divisions. The group of employees under one sales office is called as sales group. Sales office can have number of sales groups that means sales groups should be assign to sales office.

Path:

- > IMG
- > Enterprise Structure
- Definition
- Sales and Distribution
- Maintain sales group
- Click on New Entries on the application toolbar
- ➤ Define your sales group by filling the data in the required fields
- Save and Exit



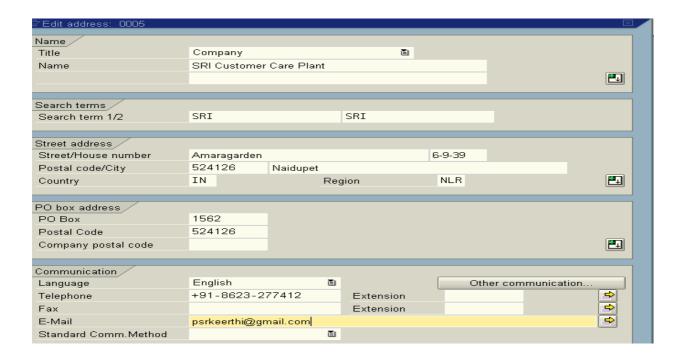
NOTE: Sales area, sales office, sales group, shipping point always defined and maintained by SD consultants.

Plant: [WERKS] Plant is an independent organizational element where we manufacture or kept goods and services. Company code can have number of plants. It means plant should be assign to company code. One plant can be assign to several company codes through sales organization and distribution channel.

Plant is an independent organizational element where we produce goods and service. One sales organization can do business from number of plants. The plant that defined under one company code can provide the goods and services to another sales organization that has been defined under another company code (inter company sales).

- IMG
- ➤ Enterprise Structure
- Definition
- ➤ Logistics General
- Define, Copy, Delete, Check plant
- Define plant
- Click on New Entries on the application toolbar
- > Define your plant by filling the data in the required fields
- Save and Exit

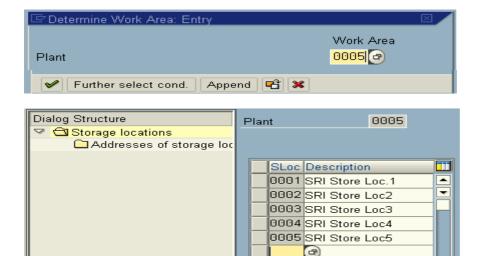




Storage Location: [LGORT] Storage location is nothing but subdivision of plant. A storage location is, as the name says, storage is for the stock in a plant. Plant can have number of storage location. That means storage location should be assign to plant.

Path:

- > IMG
- ➤ Enterprise Structure
- Definition
- Material Management
- Maintain storage location
- > Specify the plant to which we are going to define this storage location in the **work area** [Ex: 100] [This is internal assignment of storage location to plant]
- ➤ Click on continue button or press **ENTER**
- Click on New Entries on the application toolbar
- > Define your storage location by filling the data in the required fields
- Save and Exit



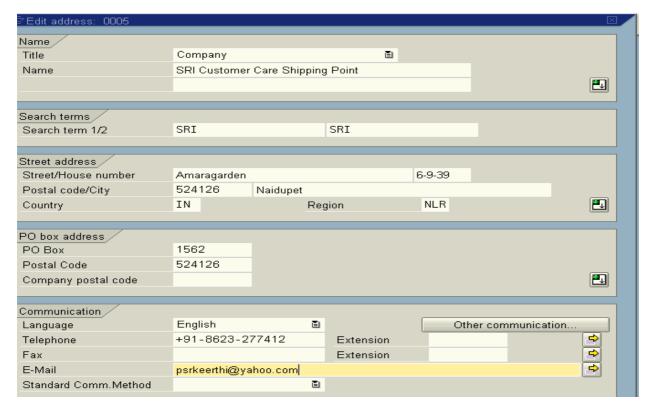
NOTE: Plant and storage location is defined and maintained by MM consultants.

Shipping Point: [VSTEL] Shipping point is an independent organizational unit and it is the place for departure or receiving point for product (movement). The deliveries (inbound/outbound) should/can takes place from single shipping point. They are the top level of the organization in shipping.

A shipping point is assigned one or more plants and can be subdivided into several loading points. It means shipping point should be assign to plant.

- IMG
- Enterprise Structure
- Definition
- ➤ Logistics Execution
- > Define, Copy, Delete, Check shipping point
- Define shipping point
- > Click on **New Entries** on the application toolbar
- Define your shipping point by filling the data in the required fields
- > Save and Exit
- Select our shipping point and click on details icon on the application tool bar

Shipping Point	0005	BRI C-Ca	re Shipping Point				
Location	IN	Departure	7000				
Codility	111	Departure	z Zone				
Times							
Factory Calendar	01 Factory calen	dar Germa	ny etandard				
Working Times	WTGE2S	aar oema	, standard				
vvoiking rimes	**. 0220						
Determine Times							
Determine Load, Time	C Default fro	m shippi	ng point				
Loading Time - w.Hrs	: 06						
Det.Pick/Pack Time	C Default fro	m shippi	ing point				
Pick/pack time-wk hrs	: 06						
· ·							
Form Text Names			Print Picking List				
Address Text Name			Output Type				
Letter Header Text			Message Language		EN		
Text Name Foot.Lines			Number of Messages		2		
Text Name Greeting			Send Time		4		
Text Name SDB Sender			Transmission Medium		1		
			Subsystem				
Background Processing Others							
			Pick confirmation				
Country and transportation zone copied from the address data							



Location:

Country: Where the shipping point existed.

Departure zone: The value of this field will be taken into consideration to determine "ROUTE" for a line item in the sales order.

Time section:

Factory calendar: We can assign a factory calendar to one shipping point in which we maintain public holidays, working days for this shipping point. So that shipping point works accordingly.

Working times: We can assign working times for shipping point in shift wise.

Determine time:

Determine loading time: We can specify the loading time for particular shipping point to determine automatically for particular line item in the sales order at the time of delivery processing.

Loading time can be proposed from "ROUTE" also.

Determine picking and packing times: We can specify picking and packing times to be determined automatically by the system for a line item in the sales order from the shipping point. Picking and packing can be proposed form "ROUTE" and shipping point.

- Rounding workdays: We can specify working days to be rounded ships.
- **Picking confirmation:** We can create transfer order from the warehouse subject to picking confirmation from shipping point.

Assignment of Enterprise Structure

In the assignment of organizational data, you create the linking that integrates the different modules in the system. After you have defined your data and the other modules have defined theirs, such as FI for company codes and MM for plants, it is time to assign the SD organizational data.

Company to company code:

Path:

- > IMG
- Enterprise structure
- Assignment
- > Financial accountancy
- Assign company code to company
- Click on position button
- Choose our company code from position button
- Specify our company code in company field and press ENTER
- Save and Exit

Sales organization to company code: Transaction code: OVX3

Path:

- > IMG
- Enterprise structure
- Assignment
- > Sales and distribution
- Assign sales organization to company code
- Click on **find** button on the application tool bar
- Choose our company code form find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- Choose our sales organization from the list and press ENTER
- Save and Exit

Distribution channel to sales organization: Transaction code: OVXK

- > IMG
- > Enterprise structure
- Assignment
- Sales and distribution
- Assign distribution channel to sales organization
- Click on **find** button on the application tool bar
- > Choose our sales organization from find button
- Select it by double clicking on it
- > Click on **assign** button on the application tool bar
- Choose our distribution channels from the list and press ENTER
- Save and Exit

Division to Sales organization: Transaction code: OVXA

Path:

- > IMG
- > Enterprise structure
- > Assignment
- Sales and distribution
- Assign division to sales organization
- > Click on **find** button on the application tool bar
- Choose our sales organization from find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- ➤ Choose our divisions from the list and press ENTER
- Save and Exit

NOTE: How many distribution channels can be assigning to one "sales area"?

ANS: Only one

Setup sales area: Transaction code: OVXG

Path:

- > IMG
- Enterprise structure
- Assignment
- Sales and distribution
- Setup sales area
- Click on find button on the application tool bar
- Choose our sales organization form find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- ➤ Choose our distribution channels form the list and press ENTER
- Select distribution channel
- Click on assign button again
- > Select our divisions from the list and press ENTER
- Repeat the same process for all distribution channels to setup all sales areas
- Save and Exit

Sales office to sales area: Transaction code: OVXM

- > IMG
- > Enterprise structure
- Assignment
- Sales and distribution
- Assign sales office to sales area
- > Click on **find** button on the application tool bar
- ➤ Choose our sales area [sales organization] from find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- ➤ Choose our sales office from the list and press ENTER
- Repeat the same process for remaining sales areas
- Save and Exit

Sales group to sales office: Transaction code: OVXJ

Path:

- > IMG
- Enterprise structure
- Assignment
- > Sales and distribution
- Assign sales group to sales office
- Click on **find** button on the application tool bar
- Choose our sales office from the find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- Choose our sales group from the list and press ENTER
- Save and Exit

Plant to company code: Transaction code: OX18

Path:

- > IMG
- > Enterprise structure
- > Assignment
- ➤ Logistics General
- > Assign plant to company code
- > Click on **find** button on the application tool bar
- Choose our company code from the find button
- Select it by double clicking on it
- Click on assign button on the application tool bar
- > Choose our plant from the list and press ENTER
- Save and Exit

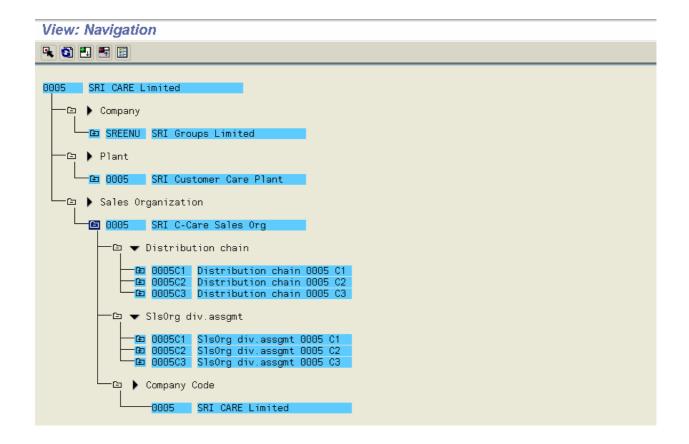
Sales organization – Distribution channel – Plant (sales line): Transaction code: OVX6

If the plant gets the material from another plant, that has been defined under another company code. That plant should be assign here for inter company sales.

- > IMG
- ➤ Enterprise structure
- Assignment
- Logistics Execution
- > Assign shipping point to plant
- Click on **find** button on the application tool bar
- ➤ Choose our shipping point from the find button
- Click on assign button on the application tool bar
- > Choose our shipping point from the list and press ENTER
- Save and Exit

To see our company structure

- > Type "EC02" transaction code in the easy access menu
- Click on **structure** icon on the application tool bar [shift + F1]
- Click on the navigation icon on the application tool bar [control + F3]
- \triangleright Click on find button on the application tool bar [control + F]
- ➤ Enter our company code and press ENTER Here we can see our company structure



Master data

Master data is a pool of data that is going to be created centrally in the system and that is available for relevant documents when ever they want to access master data.

Customer master: The customer master record is the basis for all sales transactions as well as deliveries and payments. It maintains the details of the customer in the form of master data. Every customer master is made up with three (3) sections: (A) General data [KNA1 – Table]

(B) Company code data [KNB1 – Table]

(C) Sales area data [KNVV – Table]

The customer master partner functions captured into $\ensuremath{\mathsf{KNPA}}-\ensuremath{\mathsf{Table}}$

The customer master shipping details captured into KNPS – Table

VD01 is the customer record for sales view creation.

XD01 is the central customer master record creation with company code data.

General data section: In general data section data about the customer's personal details like name, address, and telephone numbers is maintained. The customer number, not by the company code or sales area, only identifies this data

Important fields: KUNNR Customer number LAND1 Country key = NAME1 Name = NAME2 Name = ORT1 City = ANRED Title =

STCEG = VAT registration number

Company code data section: It is only of interest to the accounting department. It includes information on insurance or account management. This data applies to only one company code. In company code data section data about the reconciliation account number, terms of payment, interest calculation indicator, etc that is related to financial accounting maintained.

Important fields: AKONT = Reconciliation account number

ZTERM = Payment terms

Sales area data section: In sales area data section data about the customer sales area like sales, shipping, billing, etc data maintained. It is only of interest to the SD area. It includes the data on pricing or shipping. This data only applies to one sales area and therefore is dependent on the sales structure (sales organization, distribution channel, and division)

You would not have different customer numbers if your customer is serviced by more than one company code. Nor would you have different customer numbers if your customer is serviced by more than one sales organization.

Important fields: VKORG = Sales organization

VTWEG = Distribution Channel

SPART = Division

KALKS = Pricing procedure
KDGRP = Customer group
KONDA = Pricing group
PLTYP = Price list type
INCO1 & 2 = Incoterms
LPRIO = Delivery priority
VSBED = Shipping conditions

WAERS = Currency

KKBER = Credit control area

Account group: FI/CO consultants define account groups for each and every partner function. By using this account group we can control customer master data by changing or assigning field status to each and every field. As every customer master is made up with number of fields. Depending upon the partner function and transaction we assign or change field status to a particular field. Depending upon the field status system prevents the particular field in the customer master while maintaining the customer master data.

The account group defines what fields are available in the customer master records.

A **sold** – **to** – **party** only needs sales relevant data. However, a sold – to – party can also be created as all the partner functions. A **ship** – **to** – **party** needs only shipping relevant data, such as unloading points and so on. A **payer** is the individual or company who settles the invoices for a service or for delivered goods. The **bill** – **to** – **party** need only have the basic data such as address and output fields.

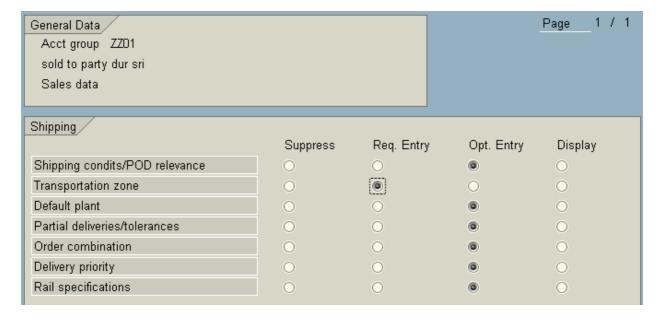
SAP Table	Field name	Description
RF02D	KUNNR	Customer number
RF02D	VKORG	Sales organization
RF02D	VTWEG	Distribution channel
RF02D	SPART	Division
KNVV	BZIRK	Sales district
KNVV	VKBUR	Sales office
KNVV	VKGRP	Sales group
KNVV	KDGRP	Customer group
KNVV	KLABC	ABC classification
KNVV	KONDA	Price group
KNVV	PLTYP	Price list type
KNA1	BRSCH	Industry
KNA1	BRAN1	Industry code
KNA1	KUKLA	Customer classification
KNVV	KVGR1	Additional data customer group
KNVV	KVGR2	Additional data customer group
KNVV	KVGR3	Additional data customer group
KNVV	KVGR4	Additional data customer group
KNVV	KVGR5	Additional data customer group

Partner functions: In the business every partner while performing business transactions they have to fulfill certain mandatory functions. They are:

Sold – to – party Ship – to – party Bill – to – party Payer

Standard account group	Partner functions	Description
0001	Sold – to – party	Who placed the order
0002	Ship – to – party	Who receives the order
0003	Bill – to – party	Who receives the invoice
0004	Payer	Who settles the bill

Field status: We can assign field status to each and every field.



Number ranges: For every customer master there should be one unique number by which business makes transactions with a particular customer. By using this unique number the business can identify the customer as a one-time customer or a permanent customer.

FI/CO consultants define and maintain these number ranges for particular account group. So that system or end user has to provide a unique number to each and every partner function (customer master). Depending upon the option that they assign to number range (option is external).

Number key	Number range	External
01	100 - 200	[]
02	201 - 300	[]
03	301 - 400	
04	401 - 500	[]

FI/CO consultants define account group, number range and assigning number range to account group, maintaining the data in the company code data section. As SD consultants we have to maintain the data in sales area data section and general data section.

Standard account group	Partner functions	Number key	Number ranges	External
0001	Sold – to – party	01	100 - 200	[]
0002	Ship – to – party	02	201 - 300	[]
0003	Bill – to – party	03	301 - 400	[]
0004	Payer	04	401 - 500	[]
A		1		
i		\		
4				

External: If we did not check external option then system will assigns a number internally from the specified number range. If we check the external option then the end user has to assign the number.

Define Account Group: Transaction code: OBD2

Path:

- > IMG
- Financial accounting
- > Accounts receivable and accounts payable
- > Customer accounts
- Master data
- > Preparation for creating customer master data
- Define account groups with screen layout (customers)
- ➤ Go to new entries
- > Specify your account group Ex: Z001
- ➤ Specify the description Ex: [name] Sold to party
- Select one time customer if he belongs to one time account customer
- Specify output determination procedure
- Save and Exit

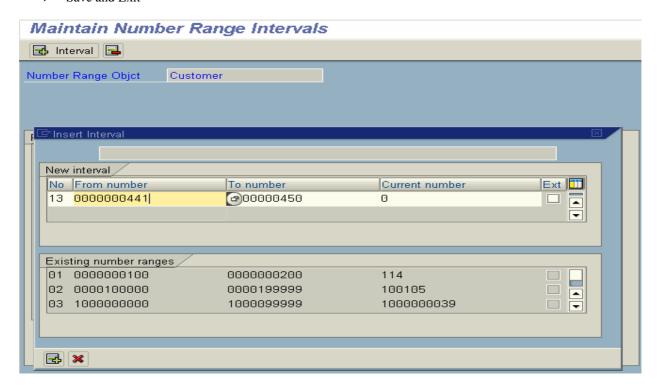


NOTE: We can specify the output determination procedure in the customer master from where system automatically proposes output type in the sales document.

Define Number Range: Transaction code: XDN1

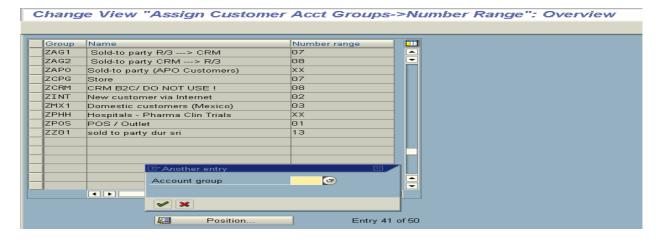
Path:

- > IMG
- Financial accounting
- > Accounts receivable and accounts payable
- Customer accounts
- Master data
- Preparation for creating customer master data
- Create number ranges for customer accounts
- Click on change intervals icon
- Click on insert intervals icon
- > Define number range key and number range
- Save and Exit



Assign Number range to Customer Account Groups: Transaction code: OBAR

- > IMG
- > Financial accounting
- > Accounts receivable and accounts payable
- > Customer accounts
- Master data
- Preparation for creating customer master data
- ➤ Assign number ranges to customer accounts groups
- Click on position button
- Choose our account group from position button
- Specify number range key that we defined in previous step
- Save and Exit



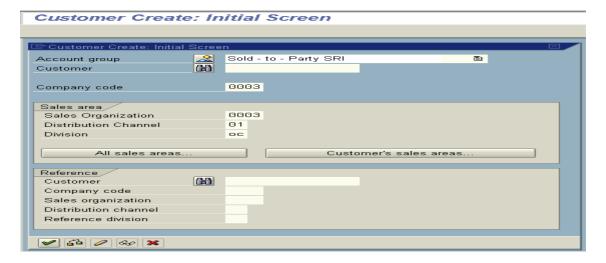
Using transaction codes can create customer master: XD01/VD01. If we used XD01 to create customer master that customer master is going to be created centrally with specific to company code. That means we should maintain data in company code data section. If we use VD01 to create customer master that customer master is going to create with specific to sales area that means we need not to maintain the data in company code data section.

Customer Master Record

Customer master records are made up of many fields. These fields may all be necessary in some business practices and may be unnecessary in others. Some fields may be crucial in order to ensure the consistency of data throughout the system, such as in the customer's pricing procedure indicator. Others may be not as critical. In order to control the customer master field input, you may indicate which fields are necessary.

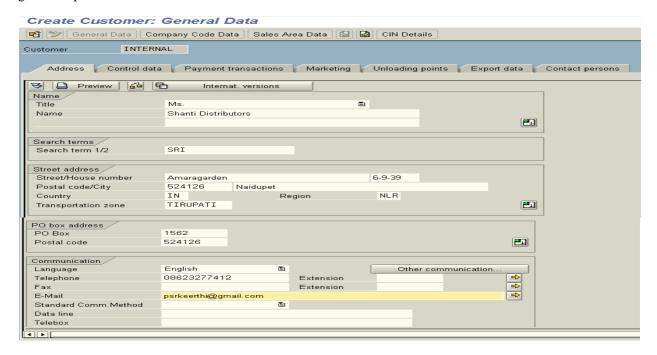
Create Customer Master: Transaction code: XD01/VD01

- Logistics
- Sales and distribution
- Master data
- Business partner
- Customer create
- ➤ VD01 Sales and Distribution
- Click on account group over view icon
- Choose our account group from the list by double clicking on it
- > Specify customer number if it is external or leave it if it is internal
- Specify our company code and sales area, and press ENTER
- Maintain data in general data section like Name, Address, etc.



General Data Section

In the general data section "Transportation zone": In sales and Distribution it represents regional zone of goods recipient.

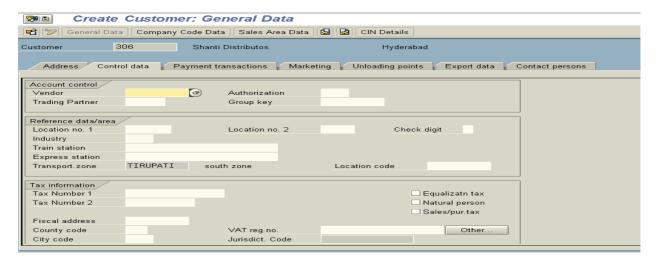


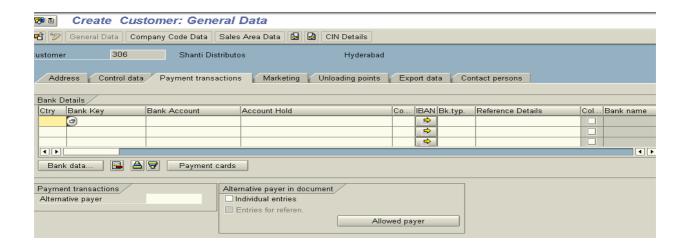
Use: system automatically proposes a suitable route by using a transportation zone of the goods recipient in the combination with other information about the delivery such as:

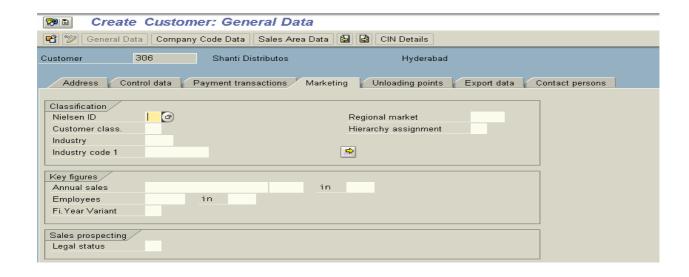
- (A) Countries of horizon and destination
- (B) Shipping conditions (customer master Ship to party)
- (C) Transportation group (from material master)

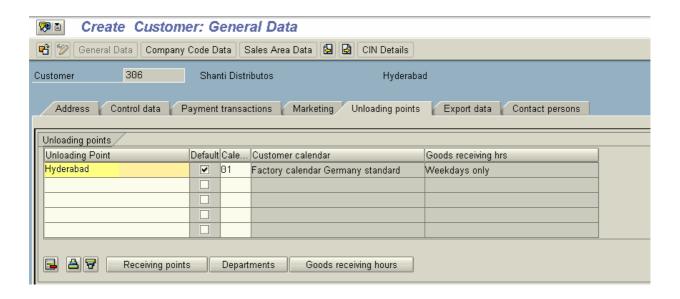
Define Regions

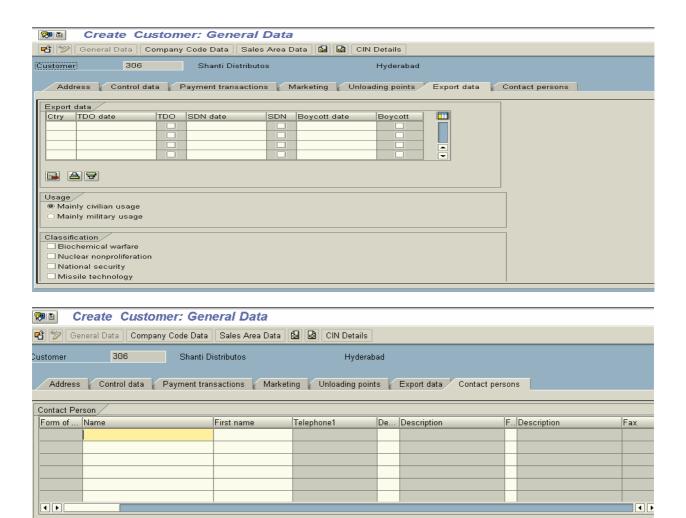
- > IMG
- > General settings
- Set countries
- Insert regions
- Go to new entries
- Define our regions
- > Save and Exit











> Click on Company Code Data on the application tool bar

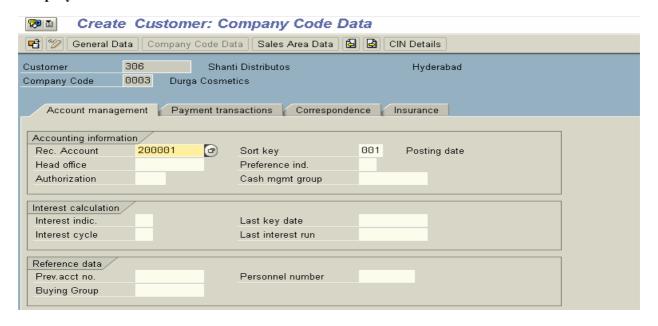
Department

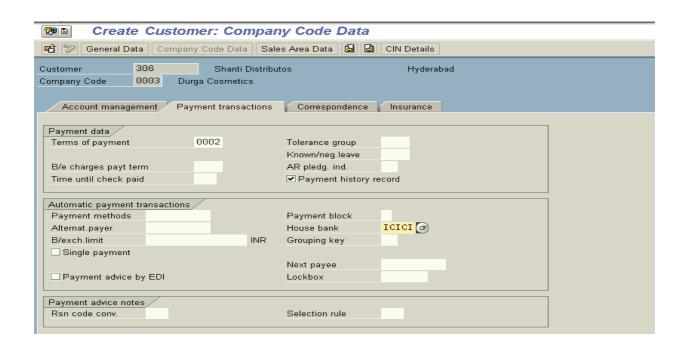
🔁 🕒 🗗 🔳 Home Address 🕲 Visiting Hours 💝 Partner Function 🖻 Further Data

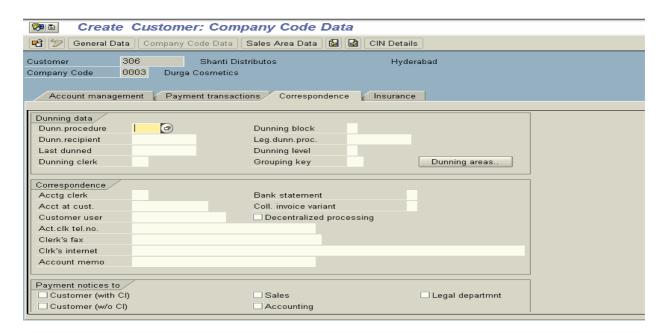
Company Code Data

Name

Position:



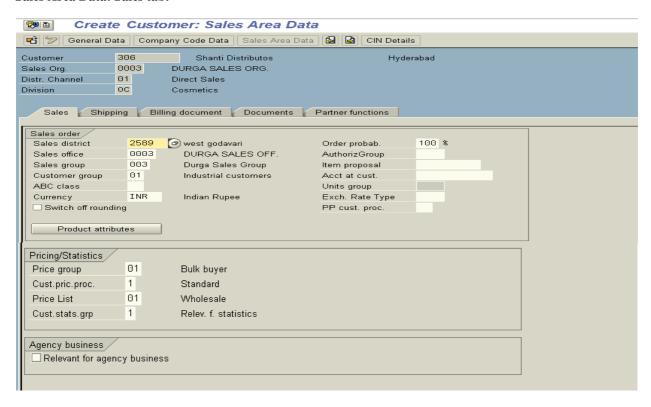






- Click on Sales Area Data button on the application tool bar
- Maintain data in Sales, Shipping, Billing document and Partner Functions tabs.

Sales Area Data: Sales tab:



Sales district: The customer belongs to a certain district. **Ex:** [NELLORE]. Sales districts, also referred to as cstomer diostricts, can be geographical areas or regions. They too can be used for statistics purposes as well as for pricing.

Transaction code: OVR0

Path:

- > IMG
- Sales and distribution
- Master data
- Business partners
- Customers
- Sales
- Define sales districts
- Click on new entries
- ➤ Define our sales districts by filling the data in all required fields
- Save and Exit

Sales office: Specify our sales office. **Ex:** [0003 = Sri Hyderabad Sales Office]

Sales group: Specify our sales group. **Ex:** [0007 = Sri Hyderabad Sales Group]

Customer group: Ex: [01 = Industrial customer]

System identifies a particular group of customers **Ex:** Wholesaler or Retailer for the purpose of pricing or generating statistics.

Use: We assign a customer group to the individual customer in either the customer master record of the Sold – to – party or in the sales document. In customizing we can give condition type that allows us to create pricing records for customer groups. In addition to that we can use it as a one of the selection criteria to generate statistics.

System proposes this value from the customer master into the sales document, which can be changed manually in sales document.

ABC class: The value of this field system takes into consideration for ABC analysis.

Currency: [INR] The system proposes this value by default from sales organization.

Switch off Rounding: It indicates whether rounding should be switched of for the customer.

Use: The system rounds quantities in the sales order depending upon the rounding profiles. For example the system could round 5 units to 6 units, which would correspond to one carton. We can maintain rounding profiles in the Customer Material Info Record or in the Material Master.

Order probability: The Probability of the customer confirming the inquiry or quotation item as a part of the sales order.

Use: The system combines the probability factors from the sales documents types (inquire, quotation, order IN, QT, OR) and from the customer master record of the Sole – to – party.

Example: If the probability is 80% of the sales document type and 50% of the customer master record then system combines the two vales and proposes 40% for the item.

Authorization group: The value of this field enables us to protect access to certain objects. Ex: The BASIS Administrators can control end users to access certain objects in the SD by specifying that activity plus authorization group for this customer.

Item proposal/Product proposal: Here we can specify the item proposal document number for this customer master. According to the item proposal document the end user can propose materials with or without default quantity on behalf of this customer.

Account at customer: we can specify the account number if our customer/vendor maintains.

Exchange rate type: We can specify the exchange rate type of this customer depending upon the country of the customers. (Basic settings by FI/CO consultants)

Customer procedure for product proposal: It determines which product proposal determination procedure the system automatically uses when we create a sales document for this customer.

Product proposal procedure: In product proposal procedure we determine how the product proposal should be displayed in the sales document. Example if the system accesses the order history (of this customer) how many columns should be displayed and the interval at which the historic order quantities should be displayed. Ex: Day wise, week wise, month wise.

Price group: Ex: [01 = Bulk buyer]

A group of customers who share's the same pricing requirements.

Use: We can define a group of customers to whom we want to give the same kind of discount. The system proposes the value into sales document header which can be change manually at the header level and item level.

Path:

- > IMG
- Sales and distribution
- Basic functions
- Pricing
- ➤ Maintain price relevant master data fields
- > Define pricing groups for customers
- Click on new entries
- ➤ Define our price groups by filling the data in the required fields
- Save and Exit

Customer pricing procedure: Ex: [1 = Standard]

The vale of this field will be taken into consideration by the system to determine pricing procedure.

FAQ: How system determines pricing procedure.

ANS: Pricing procedure determined by the system automatically by taking three factors into consideration.

They are: (1) Sales area (That the end user enters).

- (2) Document pricing procedure (VOV8 of document)
- (3) Customer pricing procedure (VD01)

Price list: Ex: [01 = Wholesale]

The value of this field can be taken into consideration to create condition table.

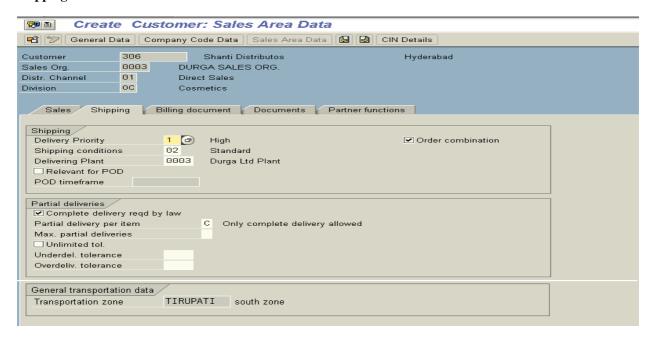
Path:

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- ➤ Maintain price relevant master data fields
- Define price list categories for customers
- > Click on **new entries**
- > Define our price list categories by filling the data in the required fields
- Save and Exit

Customer statistics group: Ex: [01 = Relevant for statistics]

This vale of this field will be taken into consideration to update LIS (it is a open data warehouse from where we can generate statistical reports).

Shipping tab:



Delivery priority: Ex: [01 = High]. The delivery priority assign to an item.

Use: We can assign delivery priority to either a particular material or to a combination of customer and material. When we process deliveries collectively we can use delivery priority as one of the selection criteria.

Procedure: We can maintain the delivery priorities in the customer master as well as Customer Material Info Record. If we maintain in the both areas system gives priority for Customer Material Info Record.

- IMG
- Sales and distribution
- Master data
- Business partners
- Customers
- Shipping
- > Define delivery priorities
- Click on new entries
- > Define our delivery priorities by filling the data in all required fields
- Save and Exit

Shipping conditions: Ex: [10 = Immediately]

The value of this field will be taken into consideration by the system to determine shipping point (outbound delivery) along with loading group from the material master and delivering plant of line item.

The value of this field also will be taken into consideration to determine ROUTE.

Example: If a particular customer requires always immediate delivery, then we have to enter in his customer master shipping conditions as a 10 = immediately. That means we have to process orders for this customer by giving high priority. System automatically proposes the express mailroom as a shipping point and the quickest way to the airport as a ROUTE.

Procedure: We can define shipping conditions in the customer master and in the VOV8 of that particular document. **Ex:** OR = Standard order

If we maintain in the both areas then system will give the priority for sales document type Ex: OR.

We cannot change the shipping conditions in delivery document processing.

The shipping conditions will not be copied from delivery document to shipment or shipping document.

Shipping conditions can be used as one of the selection criteria for deliveries when we create a shipment. We can enter shipping conditions manually in the shipment where it only serves as characteristics for grouping shipment.

Path:

- > IMG
- Logistics Execution
- Shipping
- > Basic shipping functions
- > Shipping point and goods receiving point determination
- > Define shipping conditions
- Click on new entries
- Define our shipping conditions by filling the data in required fields
- Save and Exit

Delivering plant: Ex: [0003 = Sri Plant - 1]

We can specify the plant from which the goods should be delivered to the customer.

Use: The plant is automatically copied into the sales order item as a default value.

Procedure: The value proposed in the item is either

- (A) Customer material info record
- (B) Customer master (Ship to party)
- (C) Material master record
- (D) **OR** Manually it is to be proposed

FAQ: How plant determines for a line item in the sales document?

ANS: System determines plant for a line item automatically by following above specified criteria.

Check Relevant for POD (Proof of Delivery): In general business process with reference to sales order delivery can be carryout with reference to delivery. The billing can be carried out between delivery and billing. The business can wait for acknowledgement form Ship – to – party whether the party has physically received goods. So as to map this business process we can **check relevant for POD** option in the Ship – to – party customer master. Then the system can wait for sometime (that is specified POD time frame field). The system waits up to that period for receiving POD and blocks billing document until that period. Once the POD has been received by the business, then system allows to raising the billing document.

If the business does not receive the POD that has been specified in the POD time frame then system assumes that goods has been received by the Ship – to – party physically and allows billing document processing.

POD time frame: This field qualifies the above field.

Check order combination: It indicates whether the business allows combining orders during delivery processing. Procedure: System proposes this value from the customer master (Ship - to - party) into the sales document. That can be changed manually.

If the business deliveries the goods to the same Ship - to - party, then those deliveries can be processed in a single document collectively. Provided shipping conditions and ROUTE is the same.

Partial deliveries: Complete delivery required by law: It indicates whether sales order must be delivered completely in a single delivery or whether the order can be partially delivered and completed over a number of deliveries.

Partial delivery for item: If the business wants to allow partial deliveries for item that we can specify here. **Ex:** Value "D" stands for no limit to subsequent deliveries.

Maximum partial deliveries: [9] The line item can be spitted into partial deliveries up to "9" only (system proposes this value). That means we cannot do more than "9" partial deliveries for line item. This value is not worthwhile if we set "D" in the partial delivery for item field.

Check unlimited tolerance: This control enables for under delivery and over delivery tolerance.

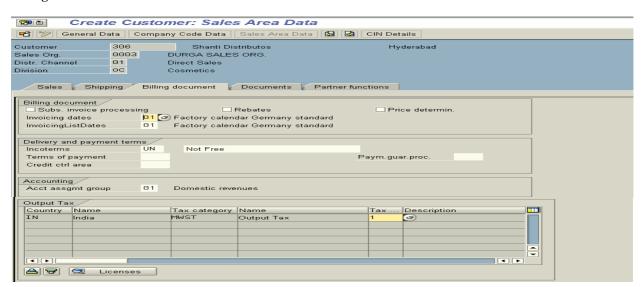
Under delivery tolerance and over delivery tolerance: These two fields qualify the above control. That is unlimited tolerance. If we check unlimited tolerance then system enables the end user for under and over delivery tolerance for particular order.

If the customer placed the order for 100 items then the business wants to send only 90 items. In some cases it wants to send 110 items. It can be map by under delivery and over delivery tolerance respectively. The tolerance percentage can be specified in under delivery and over delivery field.

General transportation zone: So as to determine ROUTE for particular line item system takes transportation zone from the:

- (A) Customer master (Ship to party)
- (B) Source and destination countries
- (C) Shipping conditions from the customer master (Ship to party)
- (D) Loading group from the material master.

Billing Tab:



Subsequent invoice processing: It indicates if the invoices for manual post processing should be printed out. If the business wants to post invoices manually (not by system automatically) that invoice can be printed out.

Check Rebates: If the business wants to process Rebates for this customer (Bill – to – party) then three-control parameters should be checked.

- (A) Definition of sales organization
- (B) Customer master (Bill to party)
- (C) At billing document level.

NOTE: Uncheck Rebate processing control parameters if you do not want to process Rebate as it affects system performance.

Check Price determination: If you want to process pricing for customer hierarchy then you should check it.

Invoice dates and invoicing list dates: It identifies the calendar that determines the schedule of billing dates for the customers.

Use: If a customer wants to consolidate the invoices that we send out, we can predefine the billing schedule in a calendar in the system. During billing the system automatically proposes the appropriate billing dates from the calendar.

Invoice list dates: An invoice list is a list of invoices (single or Collective) that we create for the customer either periodically or on predefined dates. The periods and dates define in the customer's factory calendar. The recipient of invoice list takes on the responsibility for collecting payments for numerous individual customers and receives a factoring discount for the service.

Procedure: We must assign factory calendar in the customer master (Bill – to – party).

Pre – requisite: We must define factory calendar in IMG sales or Logistics.

Define Customer Calendar: Transaction code: OVR3

Path:

- > IMG
- > Sales and distribution
- Master data
- Business partners
- Customers
- Shipping
- Define customer calendars
- Click on change icon
- Click on create icon on the application tool bar
- > Choose © with fixed date radio button
- Click on create icon or press ENTER
- > Define day, month and public holiday short and long description
- Click on create icon again
- Click on Go back icon or press F3
- Select holiday calendar
- Click on change icon
- > Again click on create icon
- > Define our calendar ID with description
- Specify the valid periods (in years)
- Click on assign public holiday push button
- > Choose our public holiday from the list
- Click on assign public holiday push button again
- > Save it and go back 2 times
- > © Define factory calendar by choosing factory calendar radio button
- Click on change icon
- > Click on create button
- Specify factory calendar ID, description, validity periods
- > Specify the holiday calendar ID that we defined in the previous step
- Choose working days in a week
- Save and Exit

INCO TERMS: International Chamber of Commerce of terms of liability for freight (charges) in transit.

Ex: [CIF = from Hyderabad].

Inco Term 1 and Inco Term 2: Specify inco term 1 and inco term 2. System takes the value of these two fields into consideration for condition type "KF00" for freight charges. The values will be proposed into sales (document) order that can be changed manually.

- IMG
- Sales and distribution
- Master data
- Business partners
- Customers
- Billing document
- Define Inco terms
- Click on new entries
- Define our Inco terms by filling the data in required fields with or without location mandatory
- Save and Exit

Terms of payment: The value of this field will be taken into consideration to calculate cash discount condition type "SKTO" can be used in pricing procedure.

Ex: 0001 = Payable immediately due not.

0002 = With in 14 days 3% cash discount.

With in 30 days 2% cash discount.

With in 45 days due not.

- IMG
- > Sales and distribution
- Master data
- Business partners
- Customers
- Billing documents
- > Define terms of payment
- Click on new entries
- > Define our terms of payments by filling the data in all required fields
- Save and Exit

Account assignment group: We can use this field to determine Revenue accounts, sales deductions, etc as an account determination. These fields will be used as a mandatory field for account determination (SD and FI/CO integration).

Output Tax: It specifies the tax liability of the customer based on the tax structure of the customer's country.

Use: We use the tax classification to specify whether the customer is liable for sales taxes **Ex:** VAT, sales tax, etc. During sales order processing, system determines tax for the customer as well as for the material by following the below specified search criteria.

- (A) First it searches customer master (Payer). If the payer is different from the Sold to party and the sales tax identification number is maintained for the payer.
- (B) Then it searches customer master (Ship to party). If the sales tax identification number of the Ship to party is maintained.
- (C) It the customer master (Sold to party) will be taken into consideration. If A and B the tax classification number has not maintained.

During pricing, system calculates input/output tax by taking the following factors into consideration.

- (A) Tax classification of the customer and the material.
- (B) The country keys of the customer and the delivering plant.

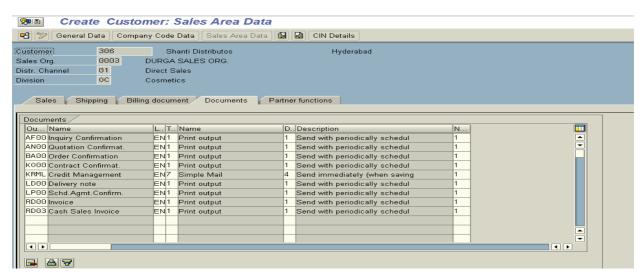
Condition type: "MWST"

FAQ: How system determines Tax

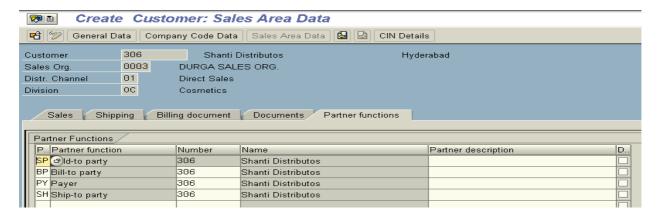
ANS: Above procedure

The condition value of the "MWST" maintained and provided by FI/CO consultants. As a SD consultant we can specify that code while maintaining condition records for this condition type "MWST".

Documents Tab



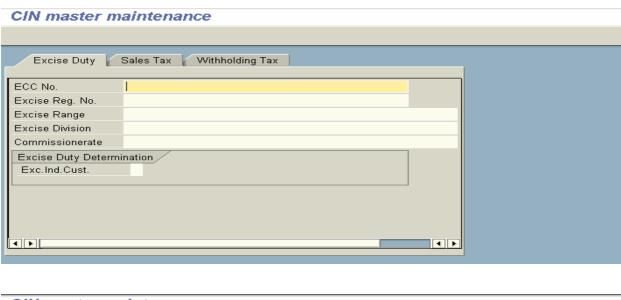
Partner Functions Tab:

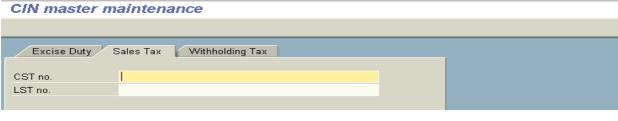


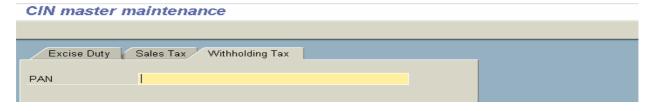
Check whether four mandatory partner functions have been determined automatically by the system.

➤ Click on CIN Details button on application tool bar

CIN Details







- Save i
- Note down the **customer number** that has been displayed on the status bar.

Material Master

Material master usually defined and maintained by MM, PP AND SD consultants. As a SD consultant authorization will be given to create material master that is material type trading goods (HAWA). Every material is going to be created with specific to division.

The material master data is used by the system to represent the data pertinent to the product or service your company is selling or producing. It is configured much the same way as the customer master record with different views. As your can see, you have the option to create references to already created materials. This is a popular solution, should you wish to copy the data from our material into another that is similar.

You are provided with a number of views from which to select. Like the customer master record, you have sales views as well as accounting views. A few relevant material master views are as follows:

Accounting: This screen contains the valuation and costing information.

Ex: Standard price, past and future price, and moving average cost price.

Materials Requirements Planning (MRP) 1, 2, 3, and 4: These screens provide information for material requirements planning (MRP screens) and consumption – based planning/inventory control/availability checks.

Ex: Safety stock levels, planned delivery time, and reorder levels for a material.

Purchasing: purchasing for a material provides Data here.

Ex: Include the purchasing group responsible for a material, over delivery and under delivery tolerances, and the order unit.

Storage: This screen contains information relating to the storage/warehousing of a material.

Ex: Unit of issue, batch management, and storage conditions.

Forecasting: Here you will find information for predicting material requirements.

Ex: How the material is procured, the forecasting period, and past consumption/usage.

Sales and Distribution: These views are most relevant for SD team. It covers information pertinent to sales orders and pricing.

Ex: Delivering plant, taxes, pricing reference material, item category group, and availability check.

Transaction code: MM01

Path:

- Logistics
- > Material management
- > Material master
- Material
- Create (general)
- ➤ MM01 Immediately

Create Material (Initial Screen)				
Select view(s) Organizational levels Data				
Material		6		
Industry Sector	Retailing	=		
Material Type	Finished product	=		
Change Number				
Copy from				
Material				

Material: We can specify the description of the material or if we leave it the system assigns a number internally.

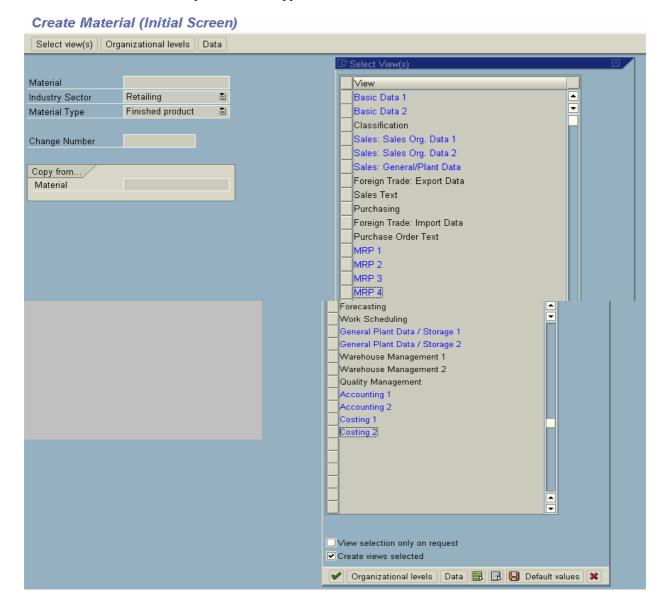
Industry sector: The material that we are going to create belongs to certain industry sector.

Ex: Chemical industry, mechanical, pharma, service industry, etc.

Material type: The material that we are going to create belongs to certain type.

Ex: Finished products, raw materials, semi – finished products, packaging materials, etc. The material type signifies whether the material can be procured internally or externally. **Ex:** If it is raw material system can understand that the material can only be procured internally. If it is finished product both procurements are possible.

Click one select views push button on application tool bar



Choose Basic data 1

Sales: Sales organization data 1 Sales: Sales organization data 2 Sales: General/plant data General plant data/storage 1 General plant data/storage 2 and Accounting 1

NOTE: MRP1, MRP2, MRP3, MRP4 views are maintained by PP consultants. Purchasing and purchasing order text, warehouse managements are maintained by MM consultants. If warehouse management type is lean warehouse SD consultants maintain the data.

Click on organizational levels push button

Create Material (Initial Screen)							
Select view(s) Organizational levels Data							
Material							
Industry Sector	Retailing 🗓						
Material Type	Finished product						
Change Number							
Copy from							
Material							
	☐ Organizational Levels ☑						
Organizational levels							
	Plant 0003 (a) Durga Ltd Plant						
	StorageLocation 0003 Durga1Store Loc.						
	Sales Org. 0003 DURGA SALES ORG.						
	Distr. Channel 01 Direct Sales						
	☐ Org. levels/profiles only on request	☐ Org. levels/profiles only on request					
Select view(s) □ Default values ★							

➤ Specify our Plant: Ex: SRI

Storage location: Ex: SRI
Sales organization: Ex: SRI
Distribution channel: Ex: SRI

NOTE: In enterprise structure client (company) is the highest organizational element/unit.

In Sales and Distribution sales organization is the highest organizational unit.

For material management plant is the highest organizational unit.

ERROR: Company code (Ex: SRI Inc. Corporation Limited) has not been fully maintained or defined.

As FI/CO consultants and MM consultants has to do some basic settings like below:

Maintain materials at company code level: Transaction code: OMSY

As the materials in the plant moved to different plants, it has to be maintained in all relevant plants.

- Choose our company code from position button
- > Specify current year (as a posting means) and specify current month in the period field
- **Check** ABp (allowed back posting periods), which allows back posting.

The materials in the industry moved in and to of the plant. The movements should be updated with in a specified fiscal year (financial year) can be a financial year that can be identified by fiscal year variant.

Ex: K4 = Calendar year

V3 = Year dependent

Save and Exit

Quantity/Value updating of material: Transaction code: OMS2

> Choose material type FERT from position button (as we have choose in material type as a finished product)

SAP system can recognize material type by its KEY

Ex: FERT = Finished product HALB = Semi – finished product

HAWA = Trading goods VERP = Packaging material

LEIH = Returnable packaging material

NLAG = Non – stock material
PIEP = Pipeline material
DIEN = Service item

ERSA = Spare parts

KMAT = Configurable material

- Select the FERT
- ➤ Click on Quantity/Value updating control button under dialog structure sub screen
- Choose valuation area and material type from position button.

Ex: Valuation area = 0003 - SRI Plant

Material type = FERT

As all the materials are valuated at plant level or company code level.

- Select our valuation area and material type
- > Check quantity updating and value updating

These are the control parameters to update material quantity and value. As materials moved in and moved out from the plant, the materials should be updated in respective G/L accounts.

Save and Exit

Assign company code variant to fiscal year variant: Transaction code: OB37

Path:

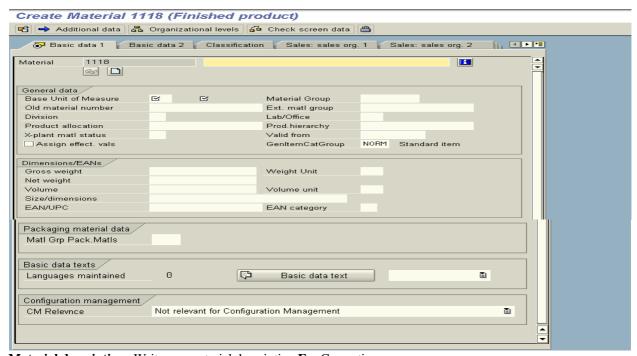
- IMG
- Financial accounting
- Financial accounting global setting
- > Fiscal year
- Assign company code to fiscal year variant
- Choose our company code from position button
- Assign fiscal year to our company code as K4 (calendar year)
- Save and exit

Assign chart of accounts: Transaction code: OB62

Path:

- > IMG
- > Financial accounting
- General ledger accounting
- ➤ G/L Accounts
- Master records
- Preparations
- Assign company code to chart of accounts
- Choose our company code from position button
- Assign chart of accounts to our company code as INT (International)
- Save and Exit
- Now come back to MM01 and maintain the description.

TAB: Basic data 1



Material description: Write our material description Ex: Cosmetics

Base unit of measure: Ex: EA = Each: This is the unit of measure used as a basis for all transactions. All quantity movements in other units of measure, should any exist, are converted automatically by the system in the base unit of measure.

Specify the material group: Ex: 00208

Division: Ex: OC: Here specify our division

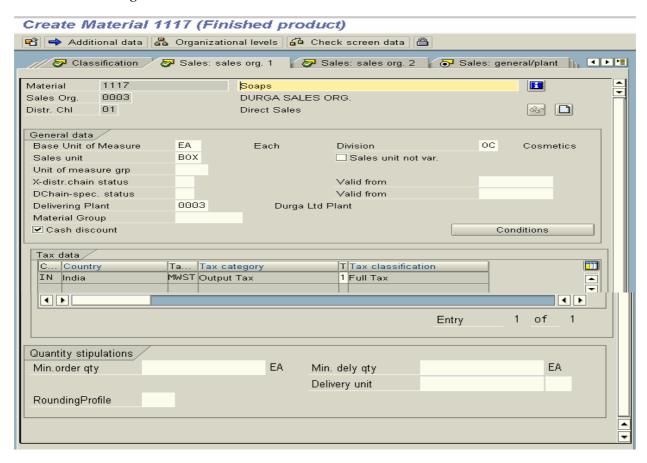
General item category group: Ex: NORM = Standard item

System proposes general item category group and system use this item category group to determine item category of line item in the sales order. The material has been categories as a standard item \rightarrow

NORM = Standard item 0001 Make - to - order 0002 Configuration =Individual purchase order BANC = Third party item BANS =DIEN = Service without deliver LUMF = Structure/material - below Structure/material - above ERLA = Non – stock material NLAG = VERP = Packaging material → As a Standard item TAN Free of charge item **TAAN** =Text item **TATX**

Gross weight: Ex: 100 kgs Maintain gross weight Net weight: Ex: 100 kgs Maintain net weight

TAB: Sales: Sales organization data 1



Sales unit: Sales unit is nothing but a selling unit. The unit of measure in which materials are sold is referred to as a sales unit. The value you define in the material master record is proposed during business transactions relevant for sales. You can replace them with other alternative units of measure in the sales order.

Ex: Box, piece, box or bottle.

1 box contains 100 units. Then selling unit is 1 box

Delivering plant: Ex: SRI Plant

System determines a plant for a line item in the sales order by following a search criteria like below:

- (A) Customer Material Info Record
- (B) Customer master
- (C) Material master record
- (D) OR Manually it has to be determined in the sales order level.

Check cash discounts: In the business all the materials may or may not be eligible for cash discounts. The material that is eligible for cash discounts, this control should be check (condition type SKTO used in pricing procedure).

Tax: Specify the tax indicator to determine output tax. **Ex:** 01 = Full tax

Quantity stipulations: Minimum order quantity: Ex: 5 Boxes

We can specify the unit of measure for minimum order quantity. The minimum order quantity refers to the minimum quantity the customer must order. A warning message appears if the minimum order quantity is not reached during order entry.

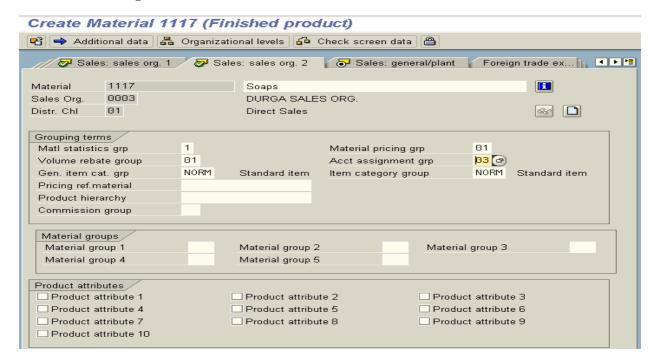
Minimum delivery quantity: We can specify unit of measure for minimum delivery quantity. The minimum delivery quantity refers to the minimum quantity you must deliver to the customer. This quantity is automatically checked during delivery processing. A warning message appears during delivery processing if you enter a delivery quantity lower than the minimum delivery quantity.

Ex: 100 Boxes.

Conversion factors for unit of measure: Maintain the conversion factor.

Ex: 1 **X** 100: 1 Box = 100 items.

TAB: Sales: Sales organization 2



Material statistics group: Ex: 1 = Relevant for statistics.

The value of this field system will be taken into consideration to update LIS.

Material pricing group: We can group the materials as $\mathbf{Ex:}\ 01 = \mathbf{Standard}$. So that we can create condition type KG29 during pricing. We can create single condition record for all the materials that belongs to this group.

Volume rebate group: Ex: 01 = Maximum rebate.

The volume of this field, system will take into consideration to settle rebates.

Account assignment group: Ex: 03 = Finished goods

System takes the value of this field into consideration to determine revenue account determination for this item along with account assignment group field from the customer master.

General item category & Item category group: Both are NORM

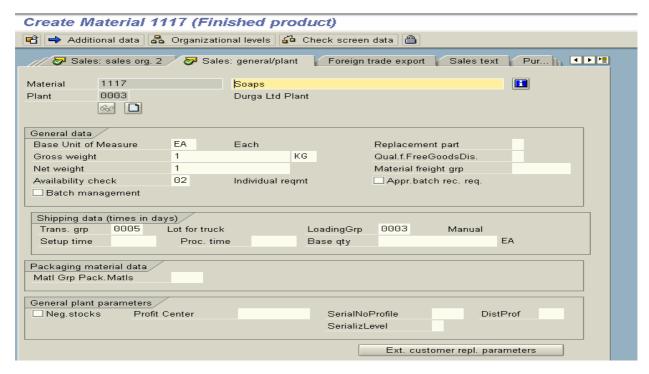
As materials has been categorized normal, non – stock able, packaging groups, etc. System proposes the group of the material depending upon the material type that we have chooses. The value of this field system will be taken into consideration to determine ITEM CATEGORY of line item in the sales order. In addition to other values such as sales document type (that the end user enters) plus, item category group (of the material: MM01) plus, usage (of the material) **Ex:** Standard, free, batch spilt, etc plus, higher level item category.

FAQ: How system determines item category?

ANS: (A) Sales document type plus,

- (B) Item category group of materials plus
- (C) Usage plus,
- (D) Higher level item category.

TAB: Sales: General/plant



Availability check: Ex: 02 = Individual requirement: Checking group for availability check.

The value of this field has two uses:

- (A) It specifies whether and how the system checks availability and generates requirements for material planning.
- (B) In flexible planning (together with the checking rule) the different MRP elements that make up this key figure.

Use: The value that we enter in this field that defines:

- (A) Which MRP elements (Ex: Purchase orders, purchase requisitions, etc) the system includes in the availability check.
- (B) Whether the system checks availability only until the end of the RLT (Replenishment Lead Time) or whether it checks availability over the entire period for which MRP elements exist.
- (C) Whether the system generates individual requirements or summarized requirements, if we enter sales order or delivery this material

- **Replenishment Lead Time** (**RLT**): The total time for the in house production or for the external procurement.
- Individual requirements: Each schedule line of sales order passed on to MRP to create demand.
- **Summarized requirements:** Summarized requirements are nothing but collective requirements. The total requirements of sales order like daily bases or weekly bases etc passed on the MRP to create demand.

ATP = Warehouse stock + Goods receipts – goods issues.

Goods receipts = Purchase requisitions, purchase orders, stock in transfer, stock at quality inspection check, etc.

Goods issues = Outstanding sales orders, etc.

Check batch management: It enables the system to carryout batch management process automatically.

Transportation group: Ex: 0001 = Pallets, 0002 = Liquid form.

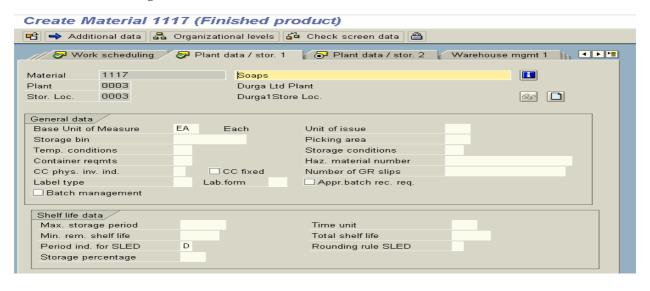
Groups of material that are share the same root and transportation requirements.

Use: Transportation groups are used for automatic route schedule line during sales order and delivery note processing. **Ex:** For all perishable goods that require refrigeration we can create transportation group as a "Trucks with refrigeration facility". The value of this field system will be taken into consideration to determine route for a line item in the sales order.

Loading group: Ex: 0001 = Crane, 0002 = Forklift, 0003 = Manual

Groups of material that are share the same loading requirements. System takes the value of this field to determine shipping point for a line item in the sales order along with another two fields that are shipping conditions from customer master and delivering plant.

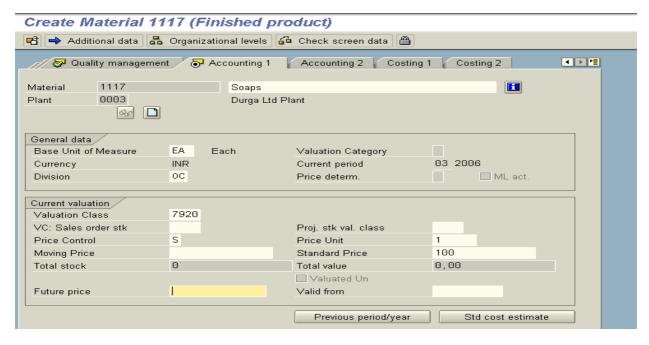
TABS: Plant data storage 1 and 2





We have to maintain values in these two views when we configure warehouse along with warehouse management 1 and 2.

TAB: Accounting 1



Price control: It indicates the price control used to valuate the stock of the material. We can valuate the material based on **Standard price** (S) or **Moving average price** (V).

Pre – **requisite:** The material ledger should be activated, Moving average price (OR) Standard price should be specified and price determination indicator also should be activated to determine at which the standard price (OR) moving average price (periodic unit price) this material is valuated.

Standard price: A constant price at which a material is valuated without taking goods movements and invoices into account.

Moving average price: A price that changes in consequences of goods movement, and the entry of invoices and which is used to valuate a material. The moving average price is calculated by dividing the value of the material by the quality of material in stock. It is automatically recalculated by the system after each goods movement or invoice entry.

The value of this field will be taken into consideration by the system as a COST of the material and used to calculate profit margin of a line item (of this material) during pricing. Condition type **VPRS** can be used. MM consultants will use this field to calculate stock balance. SD consultants will use this field to calculate profit margin of line item in the sales order.

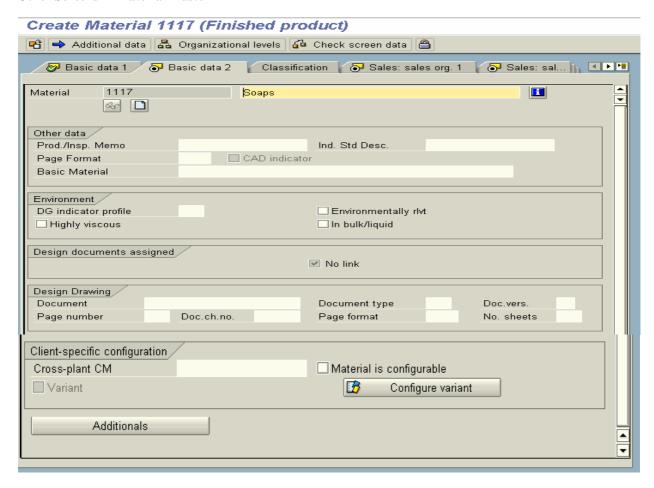
Ex: Moving price: 2500 Price unit: 1

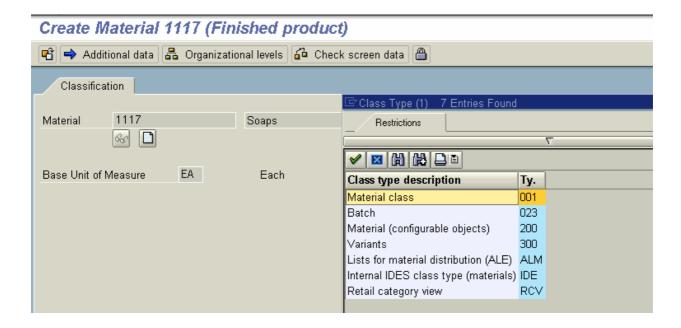
Save the Material Master and Exit.

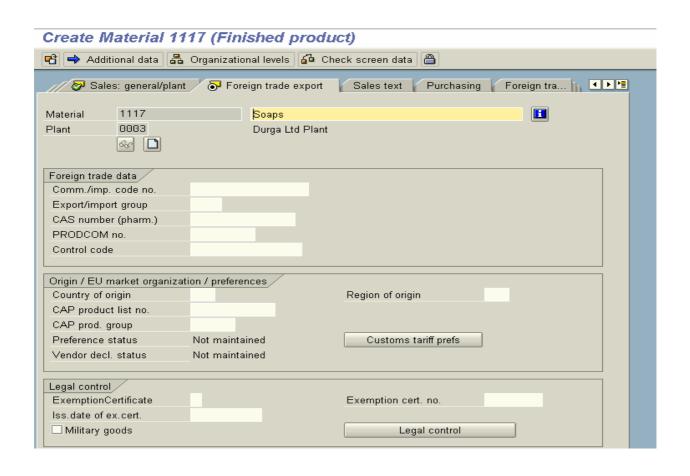
NOTE: To initialize TAX field in MM01 and XD01

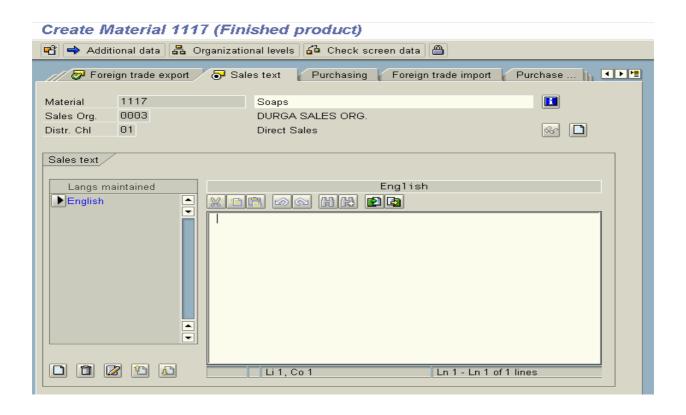
- > OVK1
- ➤ Go to new entries
 Specify Tax country [IN], Sequence [1] and Tax category [MWST]
- Save and Exit

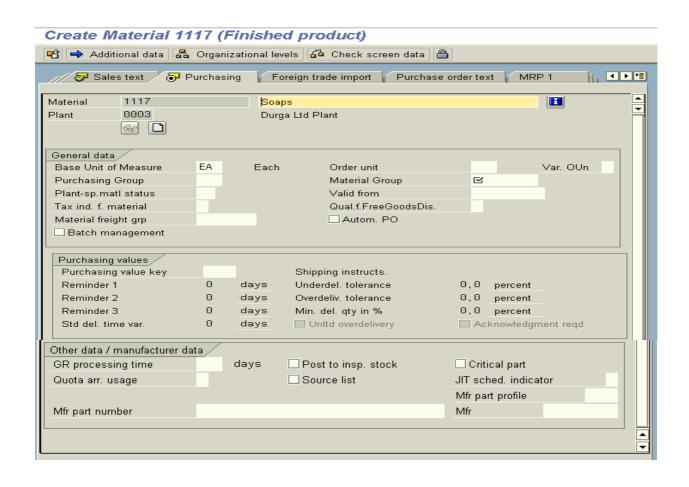
Other Screens in Material Master

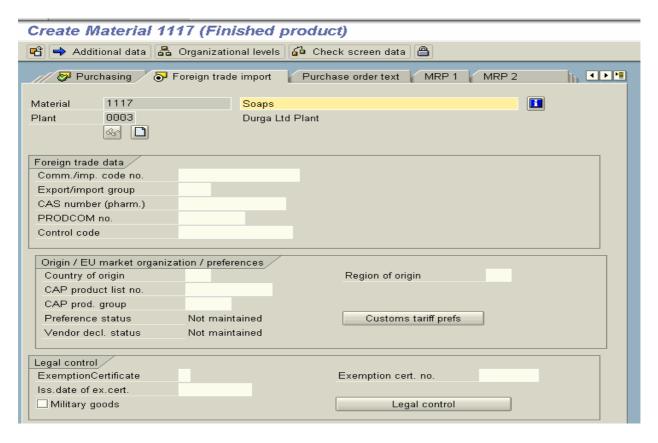


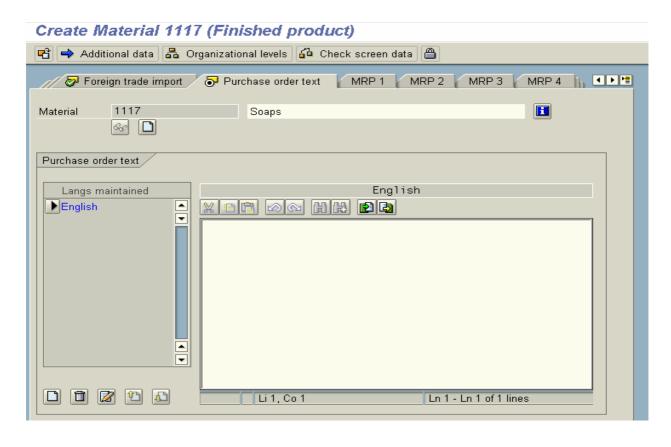


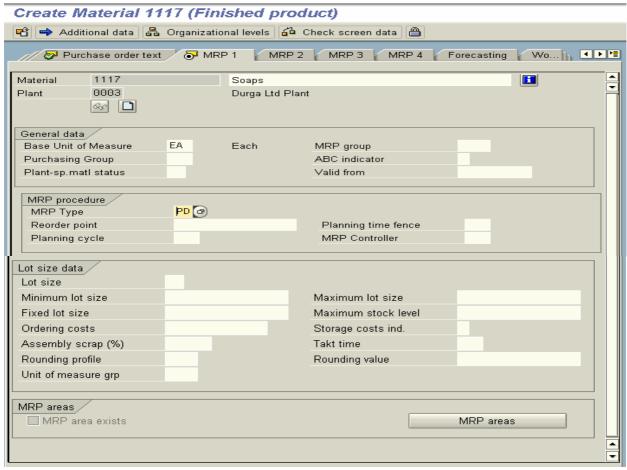




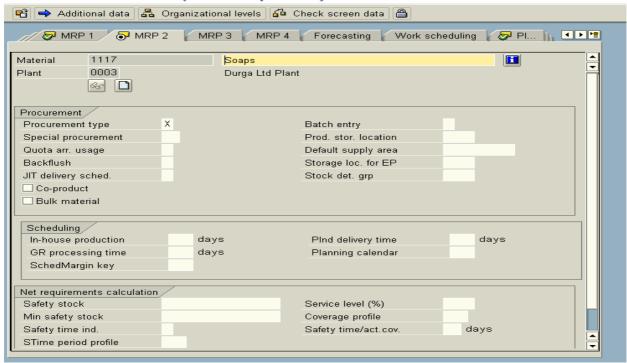


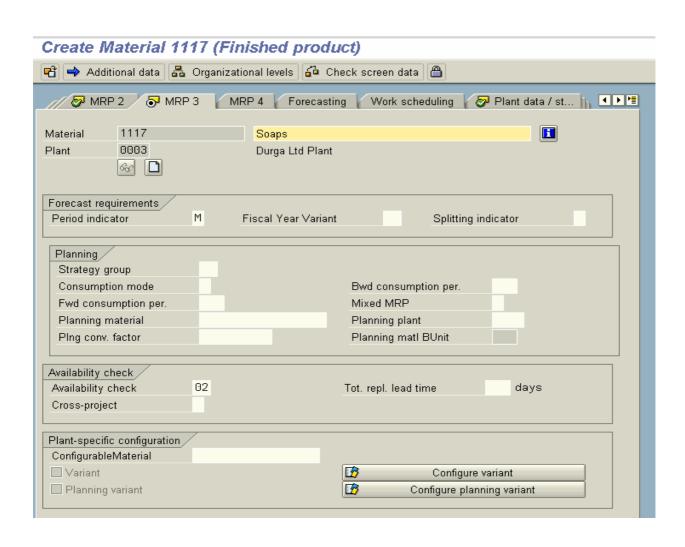


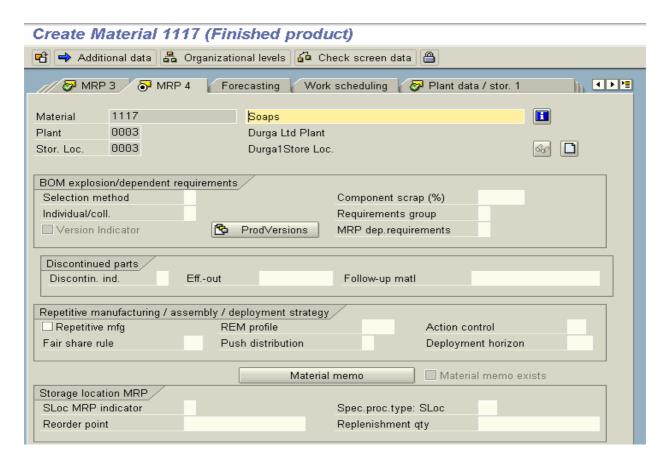


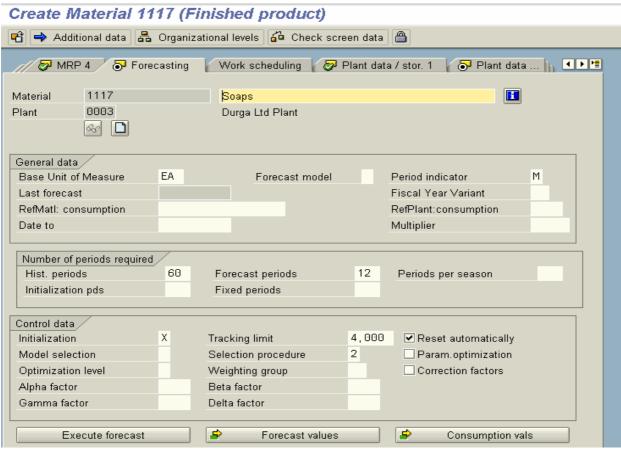


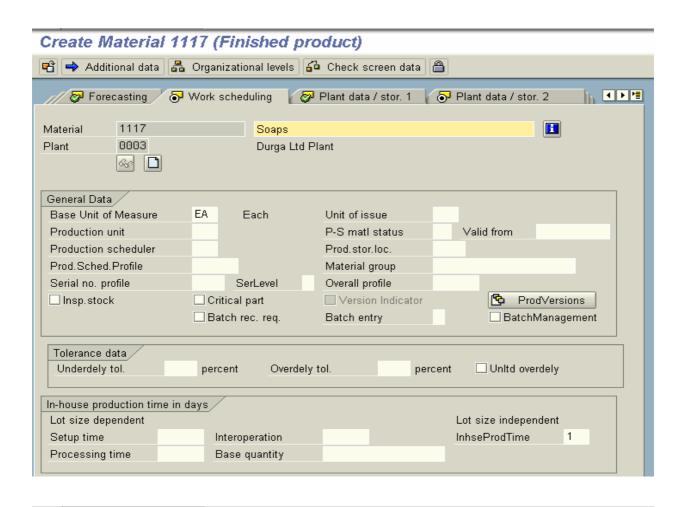
Create Material 1117 (Finished product)

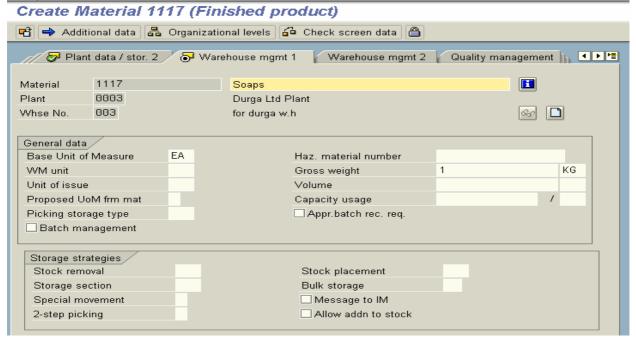


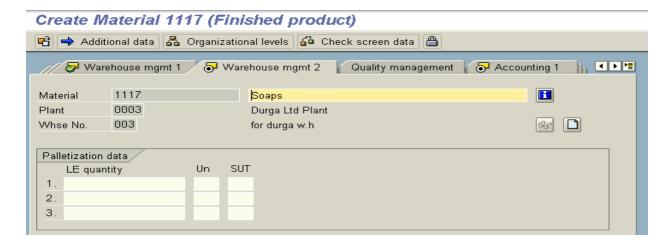


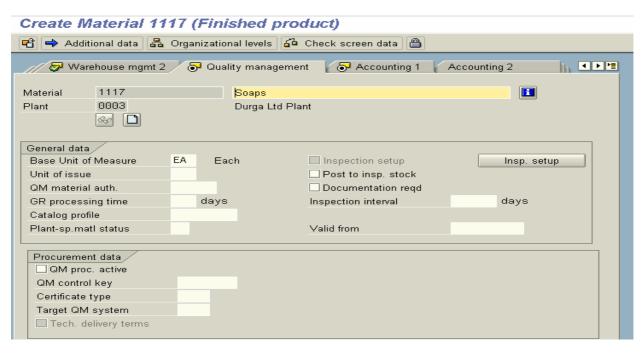


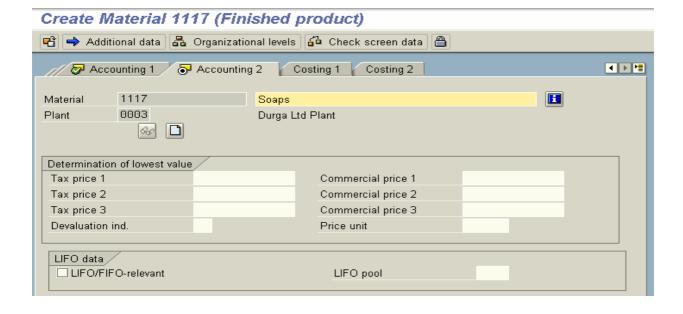


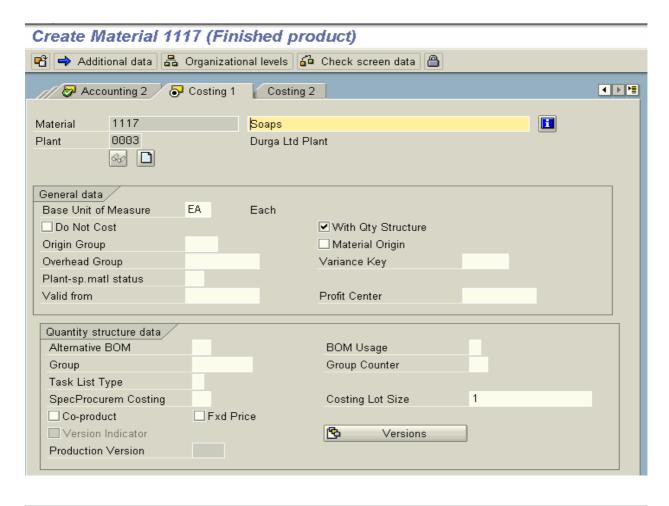


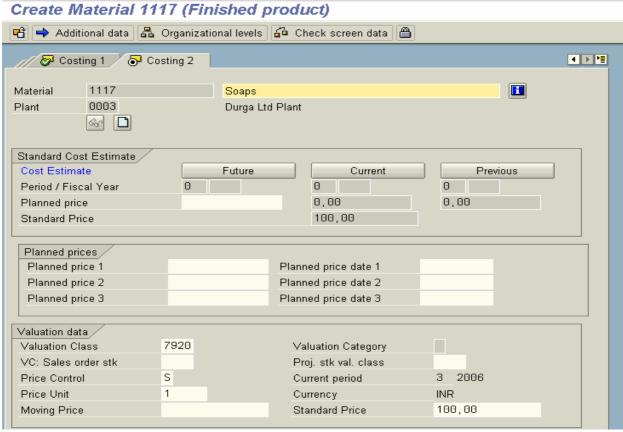




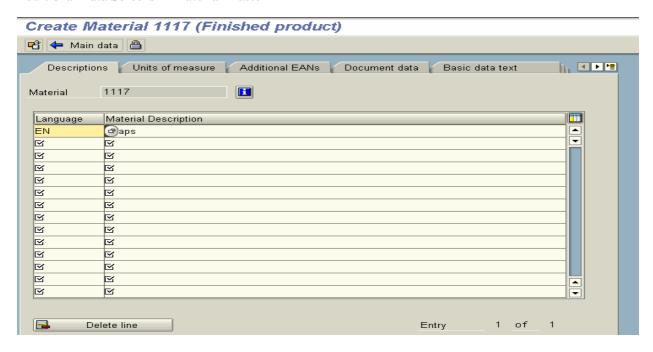


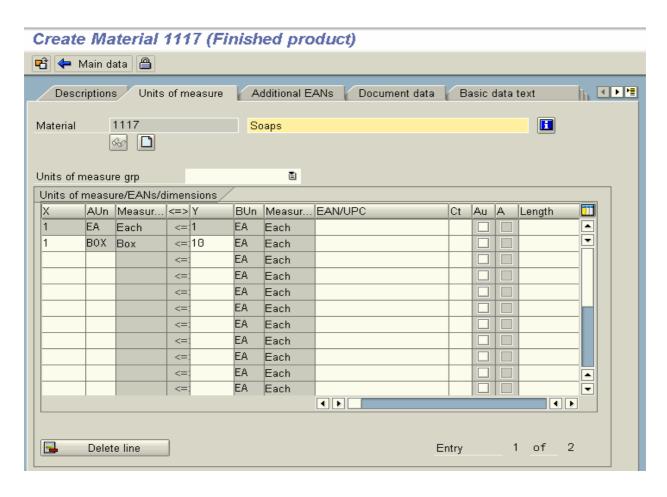


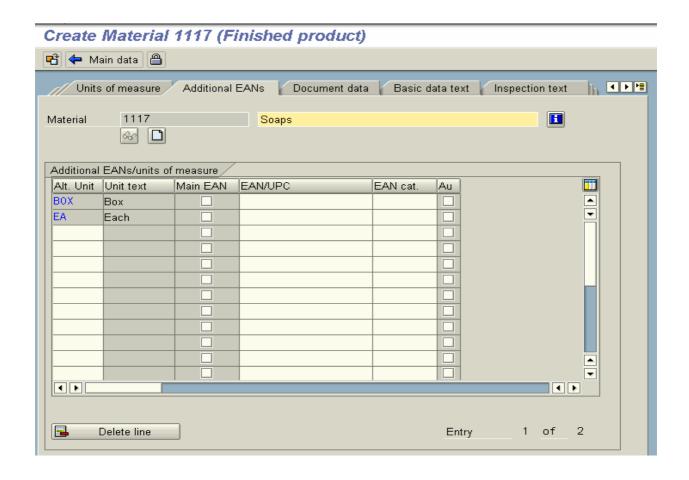


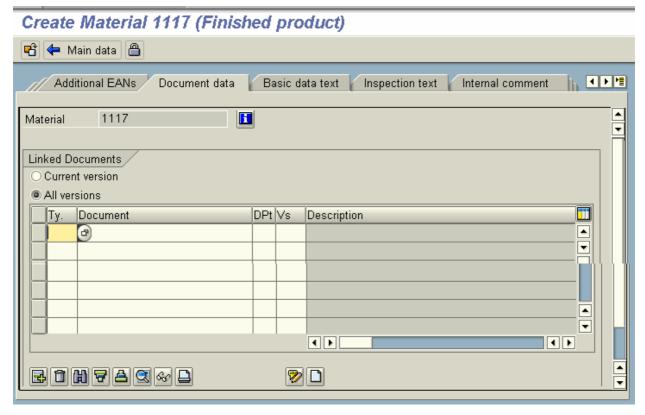


Additional Data Screens in Material Master

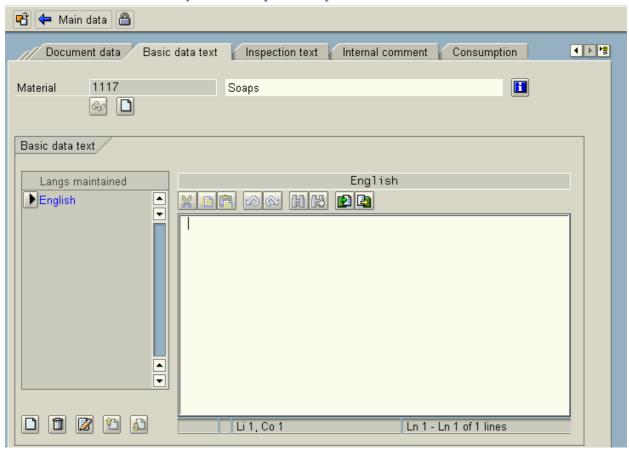


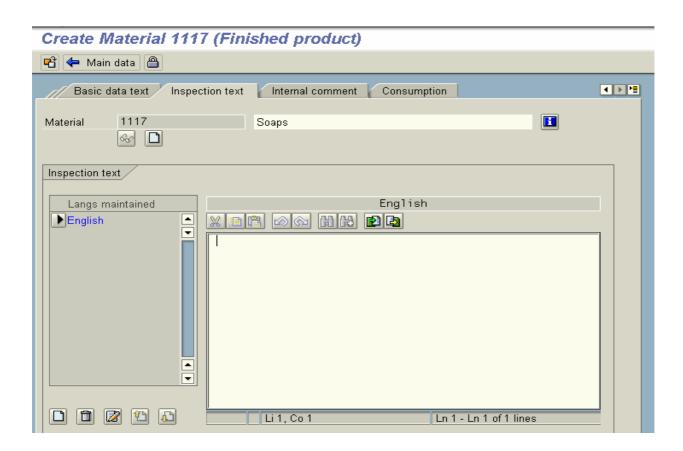


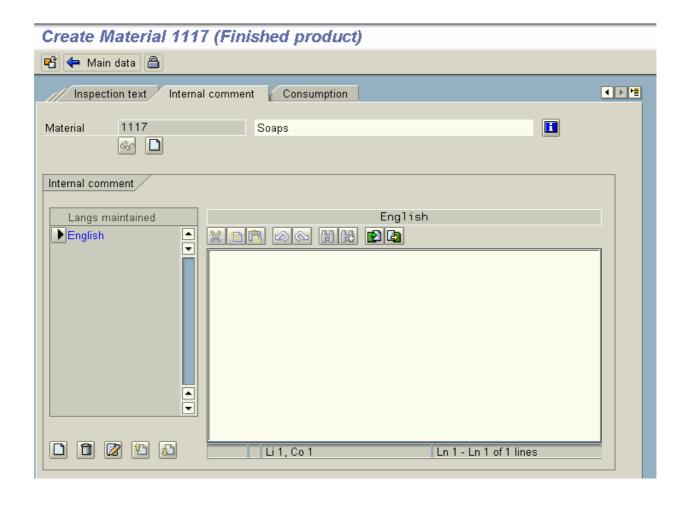


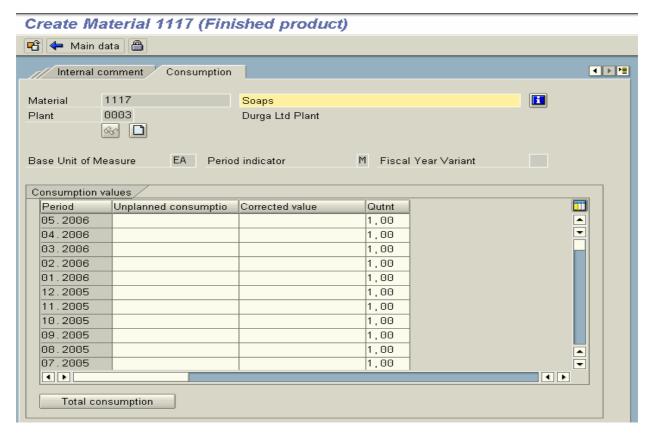


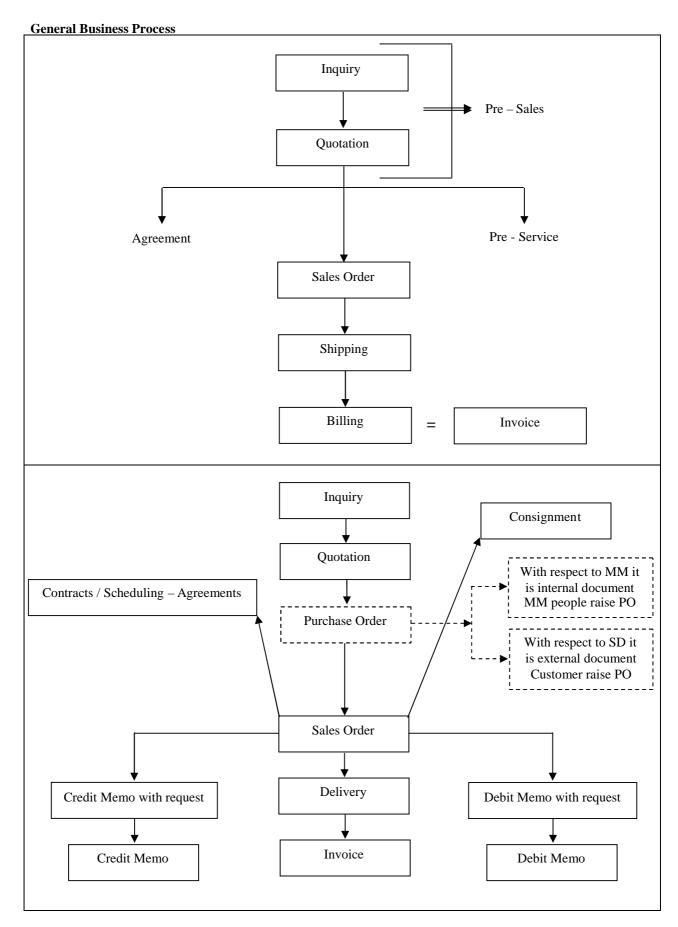
Create Material 1117 (Finished product)







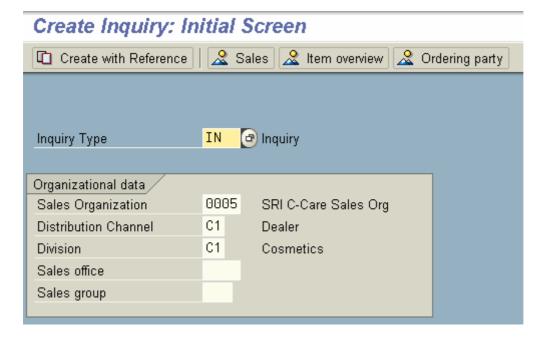


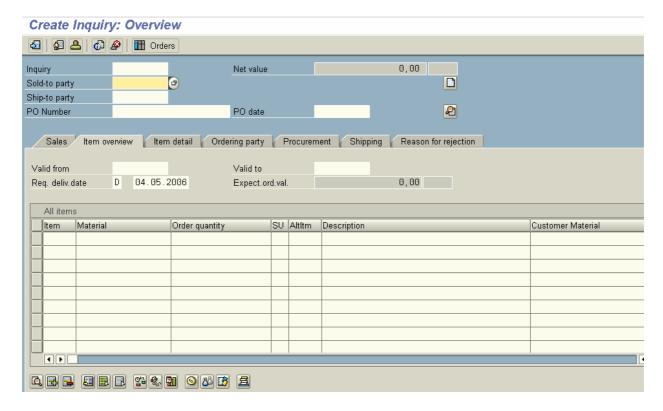


General business process starts with Inquiry and ends with Invoice.

Inquiry: Transaction code: VA11

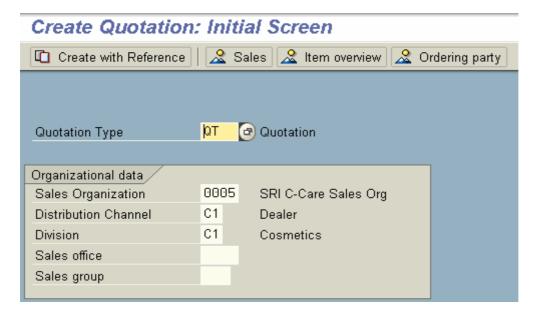
- Logistics
- > Sales and Distribution
- > Sales
- Inquiry
- ➤ VA11 Create
- > Specify the (document) Inquiry type: IN
- > Specify sales area and press ENTER
- ➤ Specify Sold to party, Material quantity, etc.
- Save the document, note down the inquiry document number, and Exit

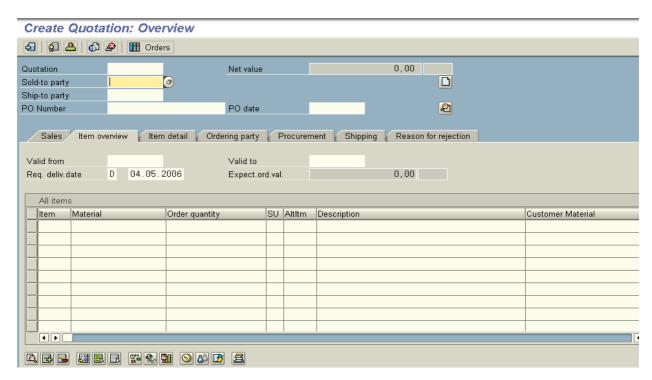




Quotation: Transaction code: VA21

- Logistics
- > Sales and Distribution
- > Sales
- Ouotation
- ➤ VA21 Create
- > Specify the (document) Quotation type: **QT**
- > Specify the sales area and click on **create with reference** button on application tool bar
- Specify the Inquiry document number that we raised in the previous step
- Click on selection list button
- Click on **copy** button on the application tool bar
- Maintain the relevant data in the Quotation document
- > Save the document, note down the quotation document number, and Exit



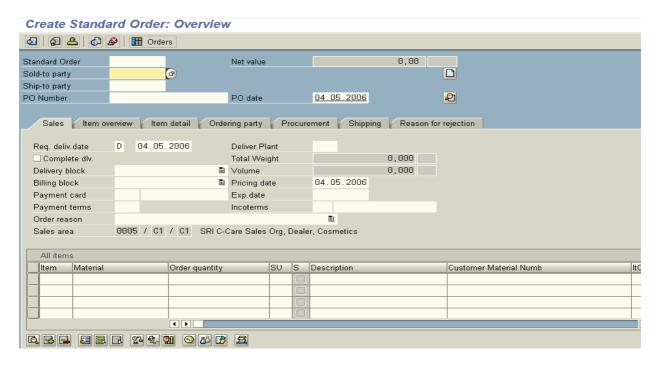


Sales order: Transaction code: VA01

A sales order is a contractual agreement between a sales organization and a customer (Sold – to – Party) for the supply of services or products over a specific period of time and in certain quantities. A sales order copies all relevant information and master data from the customer master record and the material master record for a specific sales area.

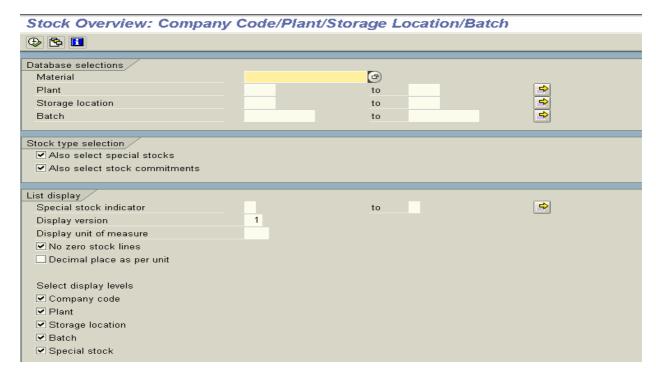
- Logistics
- > Sales and Distribution
- Sales
- Order
- ➤ VA01 Create
- Specify the (document) Order type: OR
- > Specify the sales area and click on **create with reference** button on application tool bar
- > Specify the Quotation document number that we raised in the previous step
- Click on selection list button
- Click on copy button on the application tool bar
- Maintain the relevant data in the quotation document
- Save the document, note down the order document number, and Exit





Stock overview: Transaction code to see the Stock overview: MMBE

- > Specify the material number, plant, and storage location in the selection screen
- ➤ Click on **executive icon** on the application

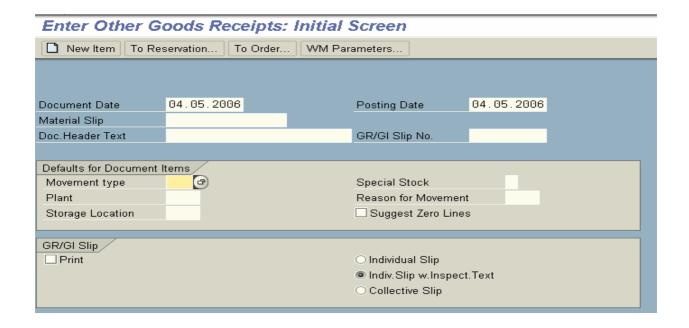


Then the system will show the stock overview.

Initialize the stock:

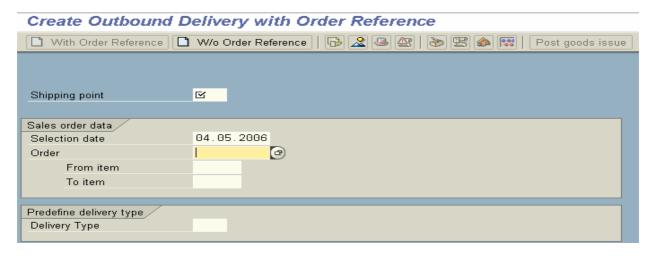
Transaction code for (initialize the stock) for other goods receipts: MB1C

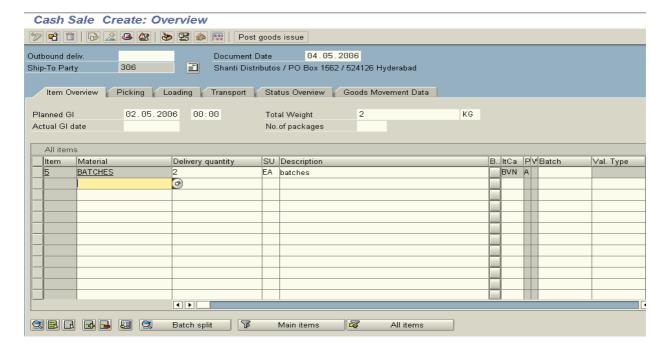
- > Specify movement type: 561
- > Specify our plant and storage location and press ENTER
- > Specify the material number and quantity and press ENTER
- Save and Exit



Outbound delivery: Transaction code: VL01N

- Logistics
- ➤ Logistics Execution
- Outbound process
- Goods issue for outbound delivery
- Outbound delivery
- Create
- > Single document
- > VL01N with reference to sales order
- > Specify our shipping point Ex: SRI
- > Specify the selection date (sales order schedule line confirmed quantity date)
- Specify the sales order number
- > Specify the delivery document type **LF** and press ENTER
- Click on **picking** tab, and specify the picking quantity as confirmed quantity
- Click on post goods issue button on the application tool bar
- Save the document, note down the delivery document number, and Exit

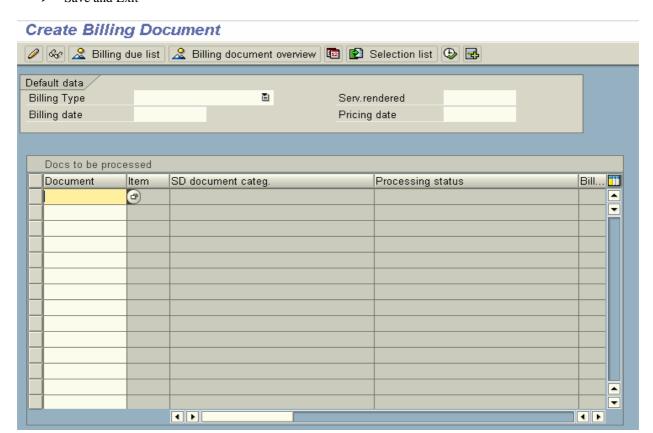




Invoice: Transaction code: VF01

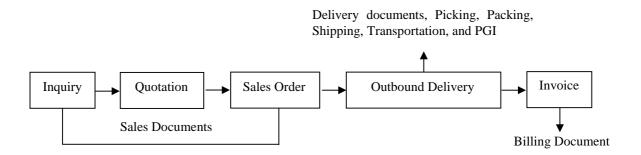
Path:

- Logistics
- > Sales and Distribution
- Billing
- ➤ Billing document
- ➤ VF01 Create
- > Specify the delivery document number
- > Specify the billing type Invoice (F2)
- > Specify the billing date, service rendered date, and pricing date and press ENTER
- Save and Exit



Document flow: To see the document flow:

- ➤ Go the VA02 (change mode of order)
- > Specify the (sales order) document number
- Click on display document flow icon on the application tool bar
- > See the document flow



ERROR: Order type <IN, QT, OR> has not been define in sales area <0003, 01, OC>

- > IMG
- Sales and distribution
- Sales
- Sales documents
- > Sales document header
- Assign sales document to permitted sales area Combine sales organization
 Combine distribution channel
 Combine division
- > Do the process for all the above objects
- Save and Exit

Sales Documents

Sales documents are the core components of SAP's selling process and sales and distribution module. A sales document defines how the data is to function, how it is to be displayed, the pricing that happens during the output, and so on. It is the heartbeat of the sales environment.

A sales order is a contractual agreement between a sales organization and a customer (Sold – to – Party) for the supply of services or products over a specific period of time and in certain quantities. A sales order copies all relevant information and master data from the customer master record and the material master record for a specific sales area.

Sales related business data maintained/captured into sales documents

Sales document types: According to business transaction sales documents has been categorized into four sections:

(1) Pre – Sales activities: Ex: Inquiry (IN)

Quotation (QT)

(2) Sales order: Ex: Standard order (OR)

Cash sales (CS)
Rush order (RO)

(3) Customer outlines agreements: Ex: Contracts and Scheduling Agreements.

The difference between contracts and scheduling agreements is contracts do not have any schedule lines. Scheduling agreements contains schedule lines.

Ex: Quantity contracts (NMS)

Value contracts (WK1 and WK2)

Service contracts (SC) Master contracts (GK) Scheduling agreement (SA)

(4) Customer complaints: Ex: Credit memo request (G2)

Debit memo request (L2) Invoice correction request (RK)

Subsequent free of charge delivery (SDF)

Free of charge delivery (CD)

Returns (RE)

In addition to this we have some sales documents so as to map consignment business process:

- 1. Consignment fill up (CF)
- 2. Consignment issue (CI)
- 3. Consignment returns (CR)
- 4. Consignment pick up (CP)

Sales document architecture:

Every sales document is made up with three tiers: Header level category (VBAK)

Item level category (VBAP) Schedule line category (VBEP)

Depending upon the sales document type schedule line category may be activated or deactivated, according to sales document architecture these three tiers should be existed.

Header level category: [VBAK]: In each and every sales document data that belongs to whole document captured into header level. **Ex:** Sold – to – party, Ship – to – party, Bill – to – party, Payer (Partner functions) and, sales area order value, etc. The data that going to be stored at header level captured into VBAK table. Header level category controlled by document type **Ex:** IN, QT, OR CS, etc.

Item level category: [VBAP]: At item level category data that is going to be stored belongs to a particular item in the sales order. **Ex:** Net value, plant, storage location, shipping point, route, etc. Item level category is controlled by item category itself.

Ex: TAN (Standard item), TANN (Free of charge item), TATX (Text item). The data that is going to be stored at item level captured into VBAP table.

Schedule line category: [VBEP] Schedule lines are nothing but customer intended delivery date plus (+) quantity to be confirmed (for a line item in the sales order).

Every line item in the sales order must have one or more than above schedule lines. The schedule line category of line item forms basis for a delivery document. Schedule line category is controlled by schedule line category itself.

Ex: Deterministic MRP CP No MRP CN

FAQ: What are the sales document control parameters?

ANS: Every Sales document controlled by: Header level category (Ex: OR) Item level category (Ex: TAN) Schedule line category (Ex: CP)

Header	VBAK
Item	VBAP
Schedule line	VBEP

Header level category determination:

Header level category determines manually (by the end user).

Item level category determination:

Item category determined by the system automatically unlike header level. System determines item category by taking four factors into consideration. Those are:

- (1) Sales document type (that the end user enters Ex: OR) plus
- (2) Item category group (from the material master Ex: NORM) plus
- (3) Usage (of the material Ex: NIL) plus
- (4) Higher level item category (of the line item Ex: NIL) then

Default item category (of the line item) in the sales order Ex: TAN



Items have been categorized in SAP as:

Standard item = TAN
Free of charge item = TANN
Text item = TATX
Value item = TAW
Service item = TAX

Item category determination:

Item No.	Sales document type	Item + category group	+	Usage	+	Higher level item	+	Default item category
10	OR	NORM		NIL		NIL		TAN = Standard item
20	OR (sub)	NORM		FREE		TAN		TANN = Free of charge item
30	OR (direct)	NORM		FREE		NIL		TANN = Free of charge item
40	OR	DIEN		NIL		NIL		TAX = Service item
50	OR	NIL		TEXT		NIL		TATX = Text item
60	OR	WERT		NIL		NIL		TAW = Value item

NOTE: Service item (DIEN) is only for information purpose. Physically goods are not existed. The information can be used only for statistical purpose.

Value item (TAW) is more or less standard item whose price is going to be changed frequently. Ex: Gold.

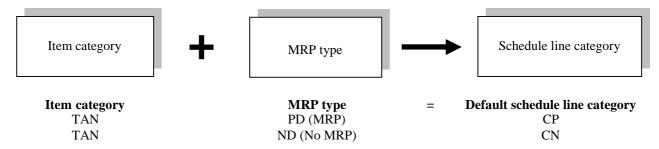
Item category	Delivery	Billing
Standard item (TAN)	✓	✓
Free of charge item (TANN)	✓	✓
Text item (TATX)	✓	✓
Service item (TAX)	X	✓

Schedule line category determination

Every line item of sales order must have one or more than schedule lines. Schedule line category determine by the system automatically by taking two factors into consideration:

Item category (of line item) plus

MRP type (in the material master)



Sales documents are the core components of SAP's selling process and Sales and Distribution module. A sales document defines how the data is to function, how it is to be displayed, the pricing that happens during the output, and so on. It is the heartbeat of the sales environment.

Define sales document type: Transaction code: VOV8

Path:

- > IMG
- > Sales and distribution
- Sales
- Sales documents
- Sales document header
- Define sales document types
- Click on position button
- Choose sales document type **OR** from position button
- > Click on **details** icon



Sales document type: OR [AVART] Standard order

Sales document category: [C] = Order

A classification of different types of documents Ex: IN, QT, OR.

Use: The document category determines how the system stores and keeps track of document data. It enables the system to provide status information about delivery processing, billing processing and about the documents that were used as a reference documents for this sales document type. **Ex:** IN, QT.

Indicator: [] = No classification.

This indicator again, to classifies document type. It is only for to display in TVAK table. TVAK is the table where all the sales document types going to be stored.

Sales document block: [] = No block

If we want to block this sales document for processing at client level.

Section number systems

01	Item no.increment	10
02	Sub-item increment	
		01 Item no.increment 02 Sub-item increment

Number range internal assignment: [01] Number range external assignment: [02]

We can define number ranges in IMG and we can assign those number range keys in number range system section. System gives the priority for internal assignment if we assign the value otherwise end user has to assign a value externally form the specified number range. As soon as, the end user saves the document system assigns the number.

Item number increment: [10]: We can assign a number in this field. So that system generates numbers for all items in the sales order by incrementing specified number.

Sub – item increment: []: We can assign a number for sub – item. So that system generates accordingly.

General control Section

General control		
Reference mandatory		Material entry type
Check division		✓ Item division
Probability	100	✓ Read info record
Check credit limit	D	Check purch.order no
Credit group	01	☐ Enter PO number
Output application	V1	Commitment date

Reference mandatory: [] = No reference required.

We can specify the reference document as a mandatory for this document processing. The document does not have a mandatory reference before an order can be created, such as reference to a quotation is mandatory.

Check division: [] = No dialog.

If the division differs with header division how system should respond like, system should not respond, it has to show the message or error.

Probability: [100]: The probability of the customer confirming the inquiry or quotation as a part of sales order. **Use:** The system uses the probability and net value of each item to calculate total expected order value for the sales

Use: The system uses the probability and net value of each item to calculate total expected order value for the sales document.

Ex: A quotation contains two items. Item 1 has a value of 100/- Rs and the probability is 100%. Item 2 have a value of 200/- and the probability is 25%. Then the system calculates that probability as follows:

(Rs $100 \times 100\%$ + Rs $200 \times 25\%$)/300 = 50%. That means the probability of this quotation resulting in sales order is 50%.

Check credit limit: [**D**] = Credit management: Automatic credit control.

In SAP we have an option to configure credit management features for particular customer. As in every business, credit sales are more or less mandatory. When the credit sales exist it is essential to monitor credit risk of particular customer. We can configure two kinds of credit checks. Those are:

- (A) Simple credit check
- (B) Automatic credit check
- Simple credit check: In simple credit check, credit exposure of customer comes with

Total document value PLUS

Customer master (payer) credit limit.

System compares these two factors for credit exposure and reacts according to the value that we set here.

Values:

- [] No credit limit check
- [A] Run simple credit limit check and warning
- [B] Run simple credit limit check and error message

[C] Run simple credit limit check and delivery block

• **Automatic credit check:** System can automatically checks credit limit of the customer by following methods: Dynamic,

Static, and

Check based on total document value

In static and dynamic credit check credit exposure results from the total of open orders, open deliveries, open receivables and open items. Depending upon the credit exposure system responds according to the value that we set here that is [D] = Credit management: Automatic credit control. Consequently system blocks the delivery document from processing. An authorized should release the document.

The difference between dynamic and static is, dynamic contains time/horizon/attachment period. This time period used by the system where we specify time in months **Ex:** 2 months. System will use this period to take open orders, open deliveries, etc (all open documents) to get credit exposure.

NOTE: Credit management can be configured at order, delivery, PGI level not at billing level

Credit group: [01] = Credit group for sales order

It specifies the document credit group for a particular sales document.

Use: The document credit group enables us to combine different sales document types for the purpose of credit management for credit exposure.

Output application: [V1] = Sales.

• Output determination: In SAP by using condition technique we can configure output for a particular document for which SAP follows output determination procedure. We can generate and send output of document by e – mail, fax, and telex or by local printer.

Material entry type: [] = Enter with material number.

It enables the user to enter material in the sales document by its number or if you configure product catalog, then the material to be entered with order number and product catalog determination. The material can be entering with its number and product catalog determination.

Item division: This indicator enables the system to go to material master of line item and it copies its division and proposed into sales order. If you do not check it then system treats all items in the sales order as a header division item.

Read Info record: [Customer Material Info record]: We can create customer material info record master data to maintain the customers own description for the particular material. The customer can place the order by specifying his own description. Then system copies the material description from customer material info record and places the relevant material in the sales order. In addition to customer own description we can maintain plant delivery priority etc. System gives the top priority for customer material info record.

If you maintained customer material info record, then this indicator enables the system to read that customer material info record, while raising sales order of this sales document type.

Purchase order number: [] No check.

System checks whether the purchase order number existed or not for this sales document type.

Enter purchase order number: This indicator checks for the purchase order number and if the purchase order number not existed then system takes sales order number as a purchase order number.

Commitment date: [] Do not maintain commitment date.

It is a key that controls how the commitment quantities should be calculated for sales document type.

Use: The commitment date is calculated using the delivery time for releases to contracts with delivery times (OR) sales order that refers to quotations containing delivery times. The committed quantity results from the agreed delivery time or confirmed quantity according to the calculation rule that we set here.

- Calculation rules:
- [A] Consider agreed delivery time: Here all required schedule lines are committed for the date that lies at the agreed distance from the delivery time, according to the date on which the order was placed. If the customer requests a letter date that can be confirmed, the confirmation does not effect the calculation. If we do not enter delivery time system does not calculate a committed quantity.
- **[B] First confirmation date:** The committed quantity is calculated according to the first confirmed quantity. If the delivery time exists for the item, system takes it into consideration as in rule "A" and confirms the earlier date. The commitment date is recalculated if the material, quantity, first date or delivery time changes. The quantities confirmed they are valid once the document has been saved.

- [C] First confirmation date: Rule "C" is the same as a calculation rule is "B". But it applies for new items.
- No entry: If it is blank, no calculation rule is applied.

Transaction flow Section

Transaction flow			
Screen sequence grp.	AU	Sales Order	Display Range UALL
Incompl.proced.	SRI	SRINU INC	FCode for overv.scr. UER1
Transaction group	0	Sales order	Quotation messages B
Doc. pric. procedure	Α		Outline agrmt mess.
Status profile			Message: Mast.contr.
Alt.sales doc. type1			ProdAttr.messages
Alt.sales doc. type2			✓ Incomplet.messages
Variant			

Screen sequence group: [AU] = Sales Order

This screen sequence group specifies the system to display the screens for this sales document type and specify the sequence in which they have to be displayed.

Incompletion procedure: [11] = Sales order

SAP has provided a feature that is called incompletion procedure by which system reminds the end user about the fields in which the values has not been maintained, while saving the document as these fields will have a influence eon proceeding documents that are deliveries and billing documents. If the end user does not maintained the values in those important fields then it cannot process subsequent documents that are dependent on the values of these fields. So that system reminds the end user about the missing of the data subsequently end user can maintain the data in those fields before saving this document. SAP follows incompletion procedure to which incompletion log has been assigned. So system logs the important fields into separate area and shows those fields to the end user.

Transaction group: [0] = Sales order

A group that allows us to control certain characteristics of a transaction according to the sales documents type.

Use: The transaction group controls the types of sales documents that we can process with certain system transactions in sales processing. The transaction group controls for which sales, shipping, billing documents should update reporting indices.

Document pricing procedure: [A] = Standard

System takes the value of this field into consideration to determine pricing procedure for this sales document type by considering another two factors that are sales area and customer pricing procedure (VD01).

FAQ: How system determines pricing procedure?

ANS: System determines pricing procedure by taking three factors into consideration:

- (A) Sales area (that the end user enters) **plus**
- (B) Document pricing procedure (Ex: VOV8 of OR) plus
- (C) Customer pricing procedure (VD01)

Status profile: It is a key that identifies a status profile. It is a cross application component it is used to control user statuses. In status profile we can define the sequence in which the user statuses can be activated. We can define initial statuses we can allow or prohibit certain business transactions.

Cross applications: SAP has provided cross applications to transport the data from one instance to another instance, from one system to another system means R/3 to non R/3 in the form of IDOCS (intermediately documents) and ALE (application link enabling). IDOCS are used for holding or carrying the data. ALE used for to line the R/3 system with EDI (electronic data interchange) or any other non-R/3 system.

Alternative sales document type 1 and Alternative sales document type 2: We can assign alternative sales documents types for this sales document types Ex: Cash sales and Rush orders. So that the end user will have a chance to switch over into those documents while processing these sales document type.

Note: Number ranges should be same for these document types.

Transaction variant: We can specify the transaction variant to link this document to work flow object.

Display range: [UALL] = All items

We can control the display of "line items".

Function code for overview screen: [UER1] = Press ENTER to go to general overview.

The value of this field determines the system to take the end user into a particular screen (tab) as soon as he pressed enter after providing document type and sales area.

Quotation messages: [**B**] = Check at item level.

We can switch off or switch on messages about open quotations at header level or item level.

Outline agreement messages: [B] [] Check at item level.

We can switch on or switch off messages about outline agreements.

Message: Master contract: [] = do not check.

We can switch on or switch off messages about master contracts.

Product attribute messages: [] = No message.

If the user wants to change the properties of products manually how system should respond like no message, dialogue or error message.

Incomplete messages: This indicator if we check it does not allow the end user to save the document if he forgets to maintain the data in certain field.

Scheduling agreement section

This section deals with scheduling agreement document type.

Scheduling agreement	
Corr.delivery type	Delivery block
Use	
MRP for DlvSchType	

Correction delivery type: [] We can assign delivery document type Ex: LFKO for correction deliveries.

Use: [] Specify the use of the material how it is going to be used in the scheduling agreements. The usage defines the conditions under which a material is sold. It can be entered at item or header level.

The same material but with different uses can be sold to the same customer in separate items or orders. We can enter the material as a spare or replacement part, as a sample, part of series in a repetitive manufacturing. It is useful for automobile industry.

MRP for delivery schedule type: [] = Delivery schedules are not used.

We can specify MRP type for delivery scheduling document types.

Ex: No MRP, just in time, etc.

Delivery block: [] We can set a delivery block for scheduling delivery document types when the tolerance check in the scheduling agreement is not successful. That means tolerance limit in days, week or percentage was not met or exceeded **Ex:** Change in quantity.

Shipping section



Delivery type: [LF] = Delivery

Delivery document type "LF" has been assign to sales document type "OR". So system automatically proposes these delivery document type "LF" when we raise the sales order document type "OR".

Delivery block: [] It indicates if an entire sales document is blocked for delivery.

• **Process:** System proposes delivery block at header level. This block applies to whole items in the sales order. We can propose header level delivery block for sales document type like free of charge deliveries where it is important that someone should check before shipping.

If we use credit limit check, the system can automatically block the delivery.

Shipping conditions: [] We can maintain shipping conditions for this sales document type **Ex:** 01, 10, etc. We maintain the shipping conditions in the customer master as well as sales document type. If we maintain in the both areas system gives the priority for sales document type.

For sales document type "CS" shipping condition 10 is must.

Shipping cost info profile: [STANDARD] = Standard freight information.

We can assign shipping cost information profile that contains proposal values for the shipment cost information in the sales order. **Ex:** Transportation planning point, shipment type, shipment cost pricing procedure. System automatically proposes this shipping cost information profile.

Immediate delivery: [] = Create delivery separately.

We can specify the value in this field by which system automatically creates delivery document for the sales document as soon as the end. User saves the document value "X" is most relevant for sales document type "CS" as cash sales document should create delivery document as soon as the end user saves the document type "CS".

Billing section

Billing				
Dlv-rel.billing type	F2	Invoice	CndType line items	EK02
Order-rel.bill.type	F2	Invoice	Billing plan type	
Intercomp.bill.type	IV	Intercompany billing	Paymt guarant, proc.	01
Billing block			Paymt card plan type	03
			Checking group	01

Delivery related billing type: [F2] = Invoice

Order related billing type: [F2] = Invoice

Billing document type F2 has been assigned to this sales document type. So that system automatically proposes the billing document for this sales document type.

Intercompany billing type: [IV] = Inter company billing.

We assign the inter company billing type to the sales document type. So that when the inter company billing process takes place for this order so that the system automatically proposes this inter company billing document type "IV".

• Intercompany billing process: If the company has two company codes and each company has two plants, then one plant may get the material from another plant for its customer. Then the delivering plant sends/delivers the material to the end customer of ordering plant, delivering plant bill the ordering plant (inter company billing) and ordering plant bills the end customer.

Billing block: [] It indicates if the item is blocked for billing. System automatically proposes a billing block for sales documents that must be checked before billing **Ex:** RE, G2, and L2. System proposes the block for all items. If one item has two schedule lines then block applies to each item.

Condition type line items: [EK02] = Calculated costs.

It is a condition type for copying cost from line items. This is the condition type that we want to use to determine the results of the sales order pricing for SD document item.

If we enter this condition type in requirements class then it applies to all sales document items that containing requirement type which indicates requirement class. If we enter the condition type into the sales document type this condition type is used for all items in the sales documents of this sales document type. EK01 and EK02 have been provided for cost transfer of line items.

- **EK01:** If we choose it the result of the sales order costing (integration with controlling) is first printed to the pricing screen for the item. The value can be used as a basis for price calculation.
- **EK02:** System simply takes the result of the sales order costing as a statistical value (only for information purpose).

Billing plan type: [] We can assign billing plan type for this sales document type as an **Ex:** Standard billing, periodic billing (for rented or maintenance contract). The entire value to be billed is billed in each billing plane date.

• **Milestone billing (for) projects:** The total value to be billed is distributed between the individual billing planned dates (that can be amount or percentage wise).

Payment guarantee procedure: [01] = Standard

The key identifies the document payment guarantee procedure for this sales document type. It defines which payment guarantee procedure system automatically uses for this sales document type. With in receivable risk management system determines payment guarantee procedure by taking following factors into consideration.

- (A) Key of document payment guarantee procedure from the header of the sales document type.
- (B) Key of customer payment guarantees procedure from customer master.

The payment guarantee procedure defines the type and sequence forms of payment guarantee that the system assigns to sales document types.

Payment card plan type: [03] = Payment card

It specifies the payment plan type for payment cards. The payment card plan type specifies how the sales document to which it is assigned will be settled for payment in this case one or more payment cards.

Checking group: [01] = Standard

It specifies how the system carries out checks on payment card data in different SD documents. It is done on the basis of checking group assignment to different sales document types.

Requested delivery date/Pricing date/Purchase order date Section

This section deals with default dates for delivery pricing and purchase order date.

Requested delivery date/pricin	g date/purchase order date
Lead time in days	✓ Propose deliv.date
Date type	✓ Propose PO date
Prop.f.pricing date	
Prop.valid-from date	

Lead-time in days: [7]

It specifies the number of days after the current date that the proposal for requested delivery date in the sales document should be.

Date type: [] It identifies the date type internally in the system. When we create schedule lines for the sales document types we can specify different formats for the delivery date.

Proposal for pricing date: [] = Proposal based on today's date.

Proposal for pricing date is based on the requested delivery date. We can enter the date, which we want the system to propose for the pricing date when sales document is created.

Ex: We want the date on which the contract becomes valid to be the date, which is proposed, has the pricing date in the sales document. So that value "B" can be set here.

Proposed valid from date: [] No proposal

Specify the ID for the date which, the system proposes for valid from date.

Ex: When we enter a quotation.

Propose delivery date: It indicates whether the system automatically proposes the current date as the delivery date.

Propose PO date: System proposes current date as a purchase order date.

Contract section

This section deals with contracts documents.

Contract			
PricProcCondHeadr		Contract data allwd.	
PricProcCondItem		FollUpActivityType	
Contract profile		Subseq.order type	
Billing request	L2	Check partner auth.	Α
Group Ref. Procedure		Update low.lev.cont.	

Pricing procedure condition Header: [] Pricing procedure for conditions at header level **Ex:** PABR01. We can assign a procedure for contract document header level that applies to all items in the contract document. This procedure can be assigned for service items.

Pricing procedure condition Item: [] Pricing procedure for contract conditions at item level **Ex:** PABR02. We can assign a pricing procedure for contract documents at item level. This procedure applies to only item.

Contract profile: [] For contract documents we can define contract profile in which we can specify contract validity periods and cancellation rules that system automatically uses.

Billing request: [L2] = Debit memo request

We can assign billing request L2 (debit memo request) for business compensations.

Group reference procedure: [SDGK]: We can assign a reference in procedure to which master contracts and lower level contracts can be linked with each other.

Contract data allowed: [] = No contract data allowed for order type.

The value of this field determines:

- (A) Whether the contract data allowed for this sales document type that we enter.
- (B) How the changes affect that we made to header level.
- Values: "X" or "Y"
- If it is "X": If we set "X" the change that we made to the header level will not be copied to the items, it applies even the header data is identical with item level data.
- If it is "Y": If we set "Y" the changes that we made to header level copied automatically into items.

Follow up activity type: [] Ex: 0003 = Sales letter

We can specify the follow up activity type that is to be created when sales activity is defined as the follow up action for this kind of contract sales document type.

Ex: Follow up activity type 0003 can be assigned with contract document type "MV" (rental contract). We can create follow up activity work list by choosing outline agreements \rightarrow contract \rightarrow subsequent functions \rightarrow follow up actions, then enter selection criteria, select all contracts with follow up action that is created sales activity and choose edit follow up actions. Then system automatically proposes follow up activity type 0003.

Subsequent order type: [] It's a proposal for order type for the subsequent functions. We can assign an order type that system proposes automatically with in subsequent processing.

Ex: For maintenance contract (that has a validity period one year) we can create follow up action that is create quotation that is to be carried out before the contract end date. We can assign order type "AG" as a follow up action.

To create follow up actions:

Path:

- > IMG
- Outline agreement
- Contract
- Subsequent functions
- > Follow up actions

The system proposes follow up action document type "AG" that we specified in this field.

Check partner authorization: [A] = Check partner authorized to release in contract.

[B] = Check partner authorized to release in customer.

In addition to normal partner functions we can assign another partner function that is "AA" (partner to release contracts) in the customer master or in the contract document header while determining partner determination procedure.

Partner determination procedure: We can determine relevant mandatory partner (functions) for objects

Ex: Customer, sales document header item, delivery/billing documents header level and item level. In contracts in addition to these four partner functions we can assign another partner (function) whose responsibility to release this contract.

Update lower level contracts: This indicator enables the system to update lower level contracts that are assigned to master contracts if any changes are made to the master contract.

Availability checks Section



Business transaction: [OR]: We can specify rule based availability check for sales document types. As this sales document types (OR) business transaction it is relevant for availability check. So that we can assign document type to carryout availability check.

It is meaningless to specify business transaction is relevant for availability check for sales document type's cash sales "CS" and rush order "RO".

Define number ranges for sales documents:

Path:

- > IMG
- Sales and distribution
- Sales
- Sales documents
- Sales document header
- Define sales document
- Define number range for sales document
- Click on change intervals icon
- Click on intervals icon
- Click on intervals icon
- > Define number ranges with or without "external" option
- Save and Exit
- ➤ Go to "VOV8" of "OR" and assign number ranges keys in: Internal

External

Number range fields in number system section

Define order Reasons:

Transaction code: OVAU

We can define our own "order reasons" for sales documents.

- > IMG
- > Sales and distribution
- Sales
- > Sales documents
- Sales document header
- > Define order reasons
- > Go to new entries
- > Define your order reasons
- > Save and Exit
- > Save the sales document header data and Exit

Stand Order (OR)

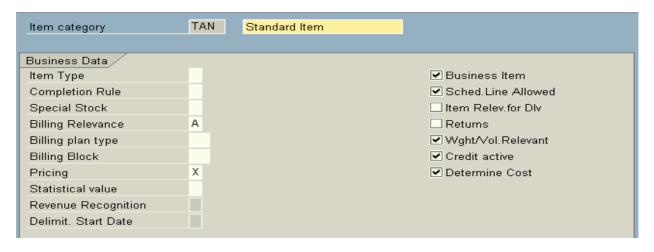
Sales document catego C Number systems	Sales document type	OR	Standard Order					
Number systems No range int. assgt. 01 No range ext. assg 02 Sub-item increment 10 Sub-		С		Sales document block				
No. range ext. assg. 01 Sub-item increment 16 Sub-item incr	Indicator							
No. range ext. assg. 01 Sub-item increment 16 Sub-item incr	Number systems							
No. range ext. assg. D2		01		Item no.increment	10			
General control Reference mandatory Check division Probability 188 ✓ Read info record Check purch order no Credit group Output application V1 Commitment date Display Range UALL Transaction flow Screen sequence grp. AU Sales Order Credit group Ober Sales order Sales order Sales order Outline agmit mess. B Status profile Alt. sales doc. type1 Alt. sales doc. type1 Alt. sales doc. type2 Variant Scheduling agreement Coar delivery type Use MRP for DivSchType LF Delivery type Delivery block Shipping conditions Shipping conditions Shipping Level Intercomp bill type Delivery block Billing type Delivery type		02		Sub-item increment				
Reference mandatory Check division Probability 168 Probability 168 Probability 168 Probability Proposition Proposition Probability Proposition Proposi								
Reference mandatory Check division Probability 168 Probability 168 Probability 168 Probability Proposition Proposition Probability Proposition Proposi	General control							
Check division Probability Probability Probability Check credit limit D Credit group Output application V1 Commitment date Transaction flow Screen sequence grp. AU Sales Order SRI SRINU INC Transaction group Doc. pric. procedure A Status profile Doc. pric. procedure Alt. sales doc. type1 Alt. sales doc. type2 Variant Corr. delivery type Use WRP for DNSchType Shipping Delivery type Use Shipping conditions Shipping conditions Shipping conditions Shipping conditions Shipping conditions Shipping type Delivery block Shipping conditions Shipping type Delivery block Shipping type Delivery block Shipping conditions ShippostherProfile STANDARD Standard freight information Billing DN-rel billing type Dr-rel billing type Intercomp. bill t				Material entry type				
Check credit limit Credit group G1 Credit group G1 Cutput application V1 Commitment date Transaction flow Screen sequence grp. AU Sales Order SRINU INC Transaction group G1 Dc. pric. procedure A Sales order G2 G2 G3 G3 G3 G3 G4 G3 G4 G4 G4 G5 G7 G7 G7 G7 G7 G7 G7 G7 G7	Check division							
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		OR						

Define item categories: Transaction code: VOV7

Path:

- > IMG
- > Sales and distribution
- Sales
- > Sales documents
- Sales document item
- Define item category
- > Choose stand item category Ex: Item category = [TAN] from position button
- Select it, and go to details button.

Business data section



Item type: [] Standard item

System process item that refer to a specific material differently then items that don't refer to a material **Ex:** TEXT items. As text items does not require processing pricing, taxes, and weight and volume calculations.

Completion rule: [] Not relevant for completion

(It is for quotations and contract items). We can specify that a quotation is complete only after its quantity has been fully referenced by subsequent document.

• **Dependencies:** In copy control sales document to sales document, check update document flow option at item category level.

Ex: If the item category for quotations is "AGN", then the value will be "8".

Special stock: [] We can specify a separate stock **Ex:** consignment stock of material. In inventory management stock of materials must be managed separately for reasons of ownership or location. Specify "W" for item category "KEN" (consignment issue)

Billing relevance: [A] = Delivery related billing document.

The value determines what kind of billing document it has to generate for this item. That is order related billing document or delivery related billing document.

Billing plan type: [] We can assign billing plan type for this particular item that is standard billing, periodic billing and milestone billing.

Billing block: [] The billing block indicator is used to block each item of this category for billing.

Pricing: [X] = Pricing standard

It indicates whether the system automatically carried out pricing for this item.

Ex: For text item it is grade out.

Statistical value: [] = System will copy item to header totals.

It indicates whether the system takes the value of an item into account when it determines the total value of document.

Business item: It allows the business data at header level differs with item level business data.

• Business data: Business data is nothing but sales, shipping and billing data that is called as a business data. Ex: We maintain payment terms in customer master. When we raise the sales order for this customer the payment terms are copied into the sales document header from customer master. If we do not maintain payment terms in the customer and we maintain payment terms in the sales document header manually then those payment terms applies whole item in the sales order. If we have number of items in the sales order and if we want to change payment terms for particular line item, system allows us to do so, if business item field has been checked. Otherwise system will not allow changing the payment terms at item level.

Schedule line allowed: It indicates whether we can create schedule lines for the item. Sales order items always will have a schedule lines. The items like credit memo request and contracts do not have any schedule lines.

The items that have a schedule lines will be copied into the delivery document. The only one item category that is text item has an exemption. For text items with or without schedule lines we can create delivery documents.

Item relevant for delivery: It indicates whether a text or value item is relevant during delivery processing. The item itself is not delivered. But it serves only for information purpose in delivery documents.

Returns: It indicates the item is return item Ex: REN

Weight/volume relevant: This indicator enables the system to calculate weight and volume of materials.

Credit active: This indicator enables to configure credit management functions for this item.

Determine cost: This indicator enables the system to calculate cost of the material of this item category (condition type VPRS is used to calculate the cost price).

General control section

General Control			
Autom.batch determ.	Rounding permitted	Order qty = 1	

Automatic batch determination: This indicator enables the system to determine batch automatically of this item category.

Rounding permitted: If you check it system rounds of the quantity of the material for this item category type.

Order quantity = 1: If you check it system enables one quantity for line item. it does not accept more than one quantity.

Transaction flow section



Incompletion procedure: [20]: Incompletion procedure has been defined in IMG and assign to item category of this type. System follows this incompletion procedure and remains the end user if he does not maintain any values at item category level in the sales document.

Partner determination procedure: [N]: Partner determination procedure "N" has been defined and assigned to item category. So that system follows this partner determination procedure at item level and decides itself sold – to – party, ship – to – party, bill – to – party and payer for this item.

Text determination procedure: [01]: Text determination procedure 01 has been defined and assigned to item category of this type (TAN). So system follows this text procedure to determine output.

Item category statistics group: [1]: It specifies a statistics group for this item category and helps to determine which data the system should update in LIS.

Screen sequence group: [N] = Item

It controls which screens we see during the particular transaction and in which sequence they appear. **Ex:** We can differentiate sequence of screens in inquires and quotations with sales order.

Status profile: [] status profile can be defined and assigned to the item category that defines use status by which we can restrict the user to access the item.

Create PO automatically: This indicator used in third party and individual purchase order items where the system has to generate purchase orders automatically when R/3 is connected to ALE (application link enabling).

Bill of material configuration section

Bill of Material/Configuration	
Config. Strategy	
Mat. Variant Action	☐ Variant Matching
ATP material variant	
Structure scope	Create Delivery Group
Application	☐ Manual Alternative
	✓ Param. effectivities

Configuration strategy: [] It controls checks and processes that are run automatically or are allowed during configuration. System takes this value while we configure of material of item category of configuration material. **Ex:** Item category TAC = Variant configuration.

Material variant action: [] It controls how the system reacts when it determines that an existing configuration is already used as a stock able type.

ATP Material variant: [] = No ATP check

We can specify ATP check for material variants in the variant configuration.

Structure scope: [] = Do not explode material structure.

This field will be used for BOM items.

• **BOM:** When specific material consists of number of items and those items can be sold as a individual items, then that particular item is called as a BOM.

Ex: [Computer]: As computer consist of header item (monitor) as well as sub items (keyboard, mouse, hard disk, etc). Business treats this item as a single item and sells the item to the customer as one. When we raise the sales order we have to specify only header item that is monitor. Then system automatically explodes remaining items as a BOM. The BOM can be single level or multi level. The value of this field determines whether the item is a BOM item. If it is so, how it should be exploded.

Application: [] As the BOM can take place in production planning, materials management, sales and marketing areas. System should know where it is to be applied. As it is a sales area we have to specify as SD01 that is for sales and distribution.

Variant matching: This will activate variant determinations during variant configuration of the material.

Create delivery group: [Delivery group]: In the sales order if there are items with different schedule lines then we can create delivery group for all items into a single delivery with latest schedule line confirmed quantity of line item.

Ex: If we have three items with delivery dates that is today, tomorrow and day after tomorrow. Then we have to specify in the sales order in overview screen shipping tab specify the delivery group number in delivery group field. Then system confirms latest delivery date for all items in the sales order.

As the BOM contains number of items, the sub – items may not be confirmed by the system on a single day. Then system reschedules all items confirmed quantity dates with same or latest schedule line and creates delivery group.

Manual alternative: It allows choosing alternatives for BOM items manually.

Check parameter affectivity: Parameter affectivity is a concept through which we can change the property of material or product.

Ex: Seasonal changes (color) to a certain period. It is integrated with engineering changes management cross functionality function.

Value contract section:



Value contract material: [] The system copies value contract item that we specified here into the value contract, if it has not already been maintained in contract.

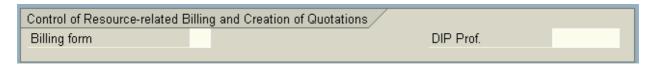
Contract release control: [B]: Here we can specify the system responses when the target value of value contract has been reached while releasing the contract.

Service management section



Repair procedure: [] We can assign repair procedure for service items.

Control of resource - related billing and creation of quotations section



Billing form: [] The billing form specifies whether a flat rate or the dynamic items are invoiced individually when performing billing using a resource related billing document (it is for service items).

DIP profile [Dynamic Item Processor]: We can assign dynamic item processor profile for dynamic item. Dynamic item processor is a toll that the system uses to summaries data into dynamic items in sales price calculation, resource related billing or data determination.

- **Dynamic items:** Customer service items are called as dynamic items.
- > Save the Item category and Exit

Stand Item (TAN)

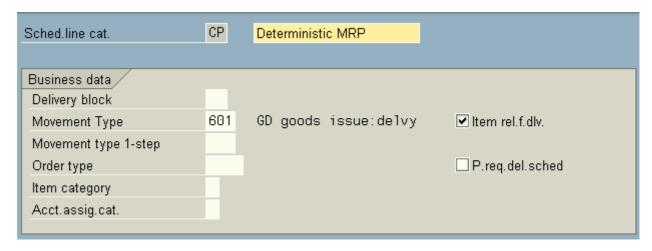
Item category	TAN	Standard Item	
Business Data			
Item Type			✓ Business Item
Completion Rule			✓ Sched.Line Allowed
Special Stock			☐ Item Relev.for DIv
Billing Relevance	Α		Returns
Billing plan type			✓ Wght/Vol.Relevant
Billing Block			✓ Credit active
Pricing	Χ		✓ Determine Cost
Statistical value			
Revenue Recognition			
Delimit. Start Date			
General Control			
Autom.batch determ.		Rounding permitted	☐ Order qty = 1
E / Natoni. Bateri determi.			_ Order quy
Transaction Flow			
Incompletion Proced.			Screen Seq.Grp N
PartnerDetermProced.	N	Standard Item	
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Config. Strategy			
Mat. Variant Action			☐ Variant Matching
ATP material variant			
Structure scope			Create Delivery Group
Application			Manual Alternative
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Contract Release Ctrl			
Service Management			
Repair proced.			
Control of Resource-related	Billing a	and Creation of Quotations	
Billing form			DIP Prof.

Define schedule line category: Transaction code: VOV6

Path:

- > IMG
- > Sales and distribution
- Sales
- Sales documents
- Schedule lines
- > Define schedule line categories
- Click on position button
- ➤ Choose schedule line category Ex: CP = Deterministic MRP
- Select it
- Click on details button

Business data section



Delivery block: We can specify delivery block that the system applies automatically during processing. **Ex:** We can specify delivery block for all free of charge deliveries as these documents have to be approved before processing.

Movement type: [601] = GD goods issue: delivery.

Inventory management for goods movement into different purposes uses this movement. Goods movement is nothing but a physical or logical movement of materials leading to a change in stock levels is resulting in the consumption of the material.

Movement type 1 – step: [] It is used for inter company billing movement type.

Order type: [] It is a purchase order type. **Ex:** Document type NB can be assigned. In individual purchase order and third party sales order system automatically creates purchase requisition. So as to create it automatically purchase requisition document type should be assigned here.

Item category: [] We can specify the item category for purchase requisition documents.

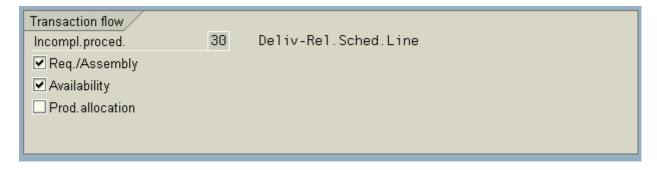
Ex: "0" for individual purchase orders and "5" for third party orders.

Account assignment category: [] We can assign account assignment category for third party and individual purchase order transactions. So that respective accounts get updated.

Check item relevant for delivery: It indicates the document item is relevant for delivery and it causes to create delivery document.

Purchase requisition delivery schedule: In third party and individual purchase orders the vendor supplies materials to the end customer through the company or directly. When the vendor has to send the materials the business requires certain time for goods receiving process. The time can be specified as a delivery schedule lines in purchasing documents. This indicator creates those schedule lines in purchase requisition documents.

Transaction flow section



Incompletion procedure: [30] = Delivery relevant schedule line.

Incompletion procedure has been defined and assigned to the schedule line category CP. System follows this incompletion procedure and remains the end user if do not maintain any values in schedule line category fields before saving the document.

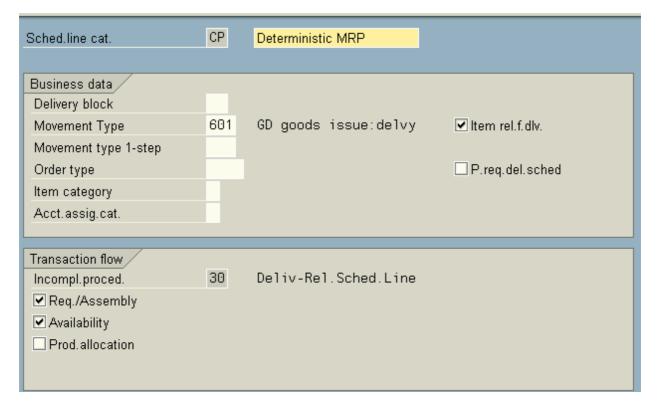
Check transfer of requirements (Req. / Assembly): Requirements of sales document whether individual or summarized should be transfer to MRP by system automatically to create demand.

Check availability check: If the system has to carryout availability check for materials and quantities in the sales order it should be checked.

Product allocation: Through product allocation we can allocate products for customers evenly.

> Save the Schedule line category and Exit

Stand Schedule line category (CP)



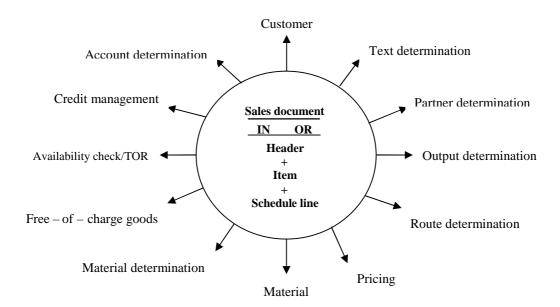
Pricing

Pricing is the combination of creating correct pricing procedures that map the business needs and processes such as correct pricing and discounting, and keeping to the legal requirements placed on the business, such as adhering to the tax laws of the respective country.

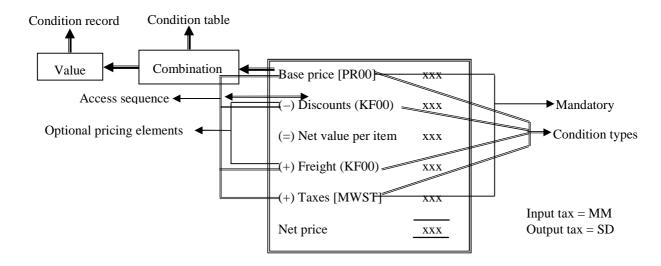
A pricing procedure consists of a list of condition types in defined orders, such as price, less (–) discount, plus (+) tax. Some controls exist in the pricing procedure.

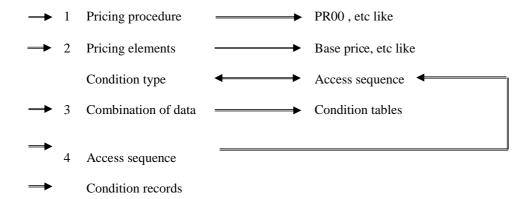
Pricing is the calculation of costs (for internal purpose) and revenues (for external purpose) by following tax class of a particular country.

The pricing procedure is also used in account determinations. This determines the general ledger (GL) accounts to which type prices, discounts, and taxes must be posted. The condition types in the pricing procedure are linked to an account key. This key in turn is linked to the GL Accounts. This shows the integration between the pricing in the invoice and the Financial Accounting (FI) Module.



Pricing Procedure



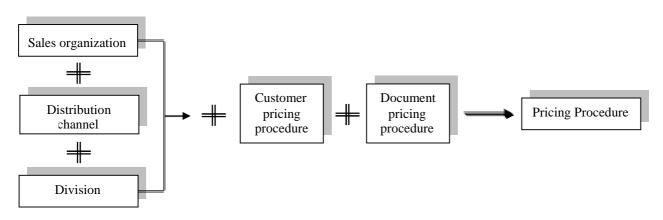


FAQ: How system determines pricing procedure?

ANS: Sales area (that the end user enters) **plus**

Document pricing procedure (Ex: $OR \rightarrow Pricing procedure = PR00$) plus

Customer pricing procedure (Ex: Whole seller, etc).



Define pricing procedure: Transaction code: V/08

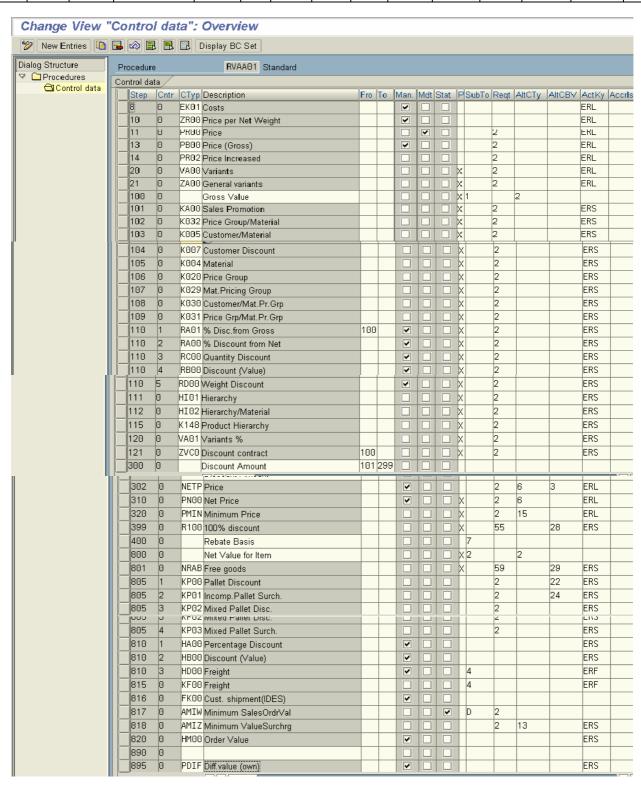
Path:

- > IMG
- Sales and distribution
- Basic functions
- Pricing
- Pricing control
- > Define and assign pricing procedure
- ➤ Maintain pricing procedures
- ➤ Click on **position button**
- ➤ Choose standard pricing procedure **RVAA01** form position button
- > Select it and click on **copy icon** on the application tool bar
- Rename it and press ENTER till we get a message that is 72 entries has been copied
- Save and select our pricing procedure
- Click on control data icon under dialog structure
- Select all conditions types by clicking on **select all icon**
- Click on delete icon and save it (do not forget to save it)
- ➤ Go to **new entries** and maintain values like below:

Step	Cntr	Ctyp	Description	From	To	Man	Mdt	Stat	Print	Subto	Reqt	Altcty	Altcbv	Actkey	Accrls
10	0	PR00					✓	1						ERL	
20	0		Gross value	10					X	1					
30	0	K004		20		✓								ERS	
40	0	K005		20		✓								ERS	
50	0	K007		20		✓								ERS	
60	0		Tot.	21	59				X	2					
			discount												

92

70	0	KF00			✓				12	ERF	
75	0		Net value					2			



	900	0		Net Value 2						3		2			
	901	0	B001	Group Rebate	400						24			ERB	ERU
	902	0	B002	Material Rebate	400						24			ERB	ERU
	903	0	B003	Customer Rebate	400						24			ERB	ERU
	904	0	B004	Hierarchy Rebate	400						24			ERB	ERU
	905	0	B005	Hierarchy rebate/mat	400						24			ERB	ERU
	906	0	ZB07	Cust. hier./p-group	400						24			ERB	ERU
	908	0		Net Value 3											
	910	0	PI01	Intercompany Price				~	~	В	22			ERL	
	911	0	AZWR	Down Pay./Settlement							2	48		ERL	
	914	0	SKTV	Cash Discount					~	D	14		2		
	915	0	MWST	Output Tax							10		16	MWS	
	919	0	DIFF	Rounding Off				~			13	16	4	ERS	
	920	0		Total						Α		4			
	930	0	SKTO	Cash Discount					~		9		11		
	932	0	RL00	Factoring Discount					~		23		2	ERS	
	933	0	MW15	Fact.Discount Tax	932			~	✓		21			MWS	
	935	0	GRWR	Statistical Value					~	С	8		2		
	940	0	VPRS	Cost					~	В	4				
	941	0	EK02	Calculated costs			~		✓	В					
	942	0	EK03	Calculated ship.cost			~		~						
	950	0		Profit Margin								11			
ľ ľ	933	0		Fact.Discount Tax	932			~	V		21			MWS	
	935			Statistical Value	002	\dashv			V	c	8		2	1 1113	
	940		VPRS			\dashv		H	V	В	4		_		
	941		-	Calculated costs		\dashv	~	ᆔ	V	В	+				
	942		_	Calculated ship.cost		\dashv	~		V	+					
	950	0	_	Profit Margin				H				11			
	970		_	Cust.expected price			~	Ħ	~			9			
	971		_	Cust.expected value			~	Ħ	~			8			

Step: It indicates the step number of condition type in pricing procedure. **Ex:** 10, 20, 30, and etc. It is possible to number the steps in intervals of 1, but this can make changing the procedure in the future very difficult.

Counter: System uses the counter while accessing the condition types in our pricing procedure. This is used to show a second mini – step within an actual step. For example, you may have all your freight surcharges assigned to step 100; however, there may be three condition types, each representing a different freight surcharge. Thus, you8 can assign a freight condition type to step 100, counter 1; another to step 100, counter 2; another to step 100, counter 3; and so on.

Condition type: The condition type is the link from the access sequence all the way to the actual condition record. We specify condition types (pricing elements) that are participating to calculate net value in our pricing procedure. **Ex:** PR00, K004, K005, K007, and etc.

Description: System copies the description of the condition type from definition of condition type (V/06).

From and To: These two columns serve two purposes.

- (A) As a range between the condition types of some conditions we can specify the same condition type with in one range. So that all values of condition types added together and deducted or added to the base value.
- (B) As a base to calculate further value of condition type. We can specify the base for condition type. So that system takes the base (step).

Manual: It determines how the condition type is going to be determining in our pricing procedure manually or automatically. **Ex:** Some condition types that do not have any access sequence should/can be determined manually. That means they do not directly come to the pricing procedure automatically. **Ex:** Condition type PR00 can be determined automatically and condition type HA00 (header condition) should be defined manually.

Mandatory: Mandatory indicates that the particular condition type is mandatory in pricing procedure. So that the end user should maintain the value of a particular condition type in condition records or at least during sales order processing. Otherwise system will not allow the document to be process for further move. **Ex:** Condition types PR00 and MWST are mandatory conditions.

Statistical: It indicates the purpose of condition type is only for information purpose. The value of condition type will not be taken into consideration in the net value calculation.

Ex: Condition type VPRS (cost)

As this VPRS copies cost of the material from the material (master) and deducts the value from not value for items to calculate profit margin. So the purpose of having VPRS is only to copy the cost of the material and it is not at all participating in calculation of net value. So that it should be a statistical.

Print: It indicates the value of the condition type can be printed in a document. **Ex:** X

Sub – total: The value of this field determines where the value of the sub – totals is going to be stored in the database. Sub – total 1 = KOMP - KZWI 1 and Sub – total 2 = KOMP - KZWI2

Requirement: Requirement is nothing but a routine that has been written by ABAPers according to the client requirement. Requirement is used for condition type that excludes particular condition type while determining the net value.

Ex: Routine No: 23 and 24 can be used only in billing document with condition type BI01, BI02, and BI03 (condition types for rebates) as these condition types should be activated only in the billing document level. We include these condition types in our pricing procedure and system deactivates at sales order level and activates in billing document level. System takes this requirement into consideration and activates or deactivates accordingly.

PR00: As it is quite possible some items are not relevant for pricing, it is advisable to assign a requirement indicating this condition type is not necessary for items not relevant for pricing. Assigning the requirement 002 to the requirement column can do this.

K004, K005, K007: These condition types are only valid should the item in the sales order be relevant for pricing; thus assign requirement 002 to the tree new discounts.

Alternative formula for calculation type: We can specify the alternative formula instead of standard one as a condition type in the form of routines. **Ex:** Routine No: 11 profit margins can be used as a alternative formula for condition type to calculate profit margin as there is no standard condition type to calculate profit margin.

Alternative formula for condition base value: Instead of using from column as a basis to calculate further value for particular condition type we can use a formula in the form of routine to use base.

Ex: Routine No: 12 or 13 gross weight or net weight can be used with condition type KF00 to calculate fright charges. As for freight charges always weight of the material taken as a base.

Accounting keys and accruals: We can define and assign accounting keys for each and every pricing element groups. So that, the values of the pricing elements (condition types) can be posted in the respective G/L accounts, through this accounting keys.

Ex: ERL = Sales revenues (Ex: PR00)

ERS = Sales deductions (Ex: K004, K005, K007, and etc)

ERF = Freight revenues (**Ex:** KF00) MWS = Tax revenues (**Ex:** MWST)

ERU = Rebate accruals (Ex: BI01, BI02, and BI03)

> Save the pricing procedure and Exit

Define determination of pricing procedure: Transaction code: OVKK

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- Pricing control
- > Define and assign pricing procedure
- Define pricing procedure determination
- ➤ Go to **new entries** and maintain values like below:

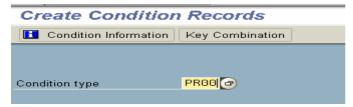
Change View "Pricing Procedures: Determination in Sales Docs.": Over 🎾 New Entries 📭 🖪 🔊 🖪 🗒 SOrg. DChl Dv DoPr Cu... PriPr. Pricing procedure CTyp Condition type • OC A SRINU andard SRINU PR00 Price 0003 01 RVAA01 Standard 0003 01 oc c PR00 Price 0003 01 oc v WK0001 Value Contract Procedu WK00 Targ. Val. Value Cont 0003 01 OC Y WK00 Targ. Val. Value Cont WK0001 Value Contract Procedu

Sales organization	Distribution channel	Division	Customer pricing procedure	Product pricing procedure	Pricing procedure	Condition type
SREENU	SRI	CNU	A	1	SRINU	PR00

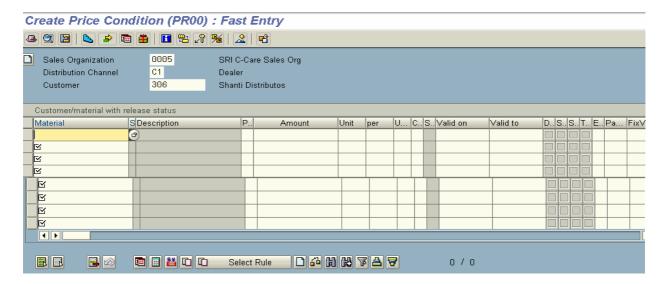
Save and Exit

Maintain condition record: Transaction code: VK11

- Logistics
- Sales and distribution
- Master data
- Conditions
- > Select using condition type
- ➤ VK11 Create
- > Specify the condition type PR00 and click on **key combination** (access sequence)
- ➤ Choose first condition table (© Customer/material with release status)
- Click on continue button
- > Specify sales organization, distribution channel, and customer number.
- Specify material number and pricing amount
- Save and Exit







NOTE: Every condition record maintained with specific to sales organization and distribution channel. Maintain condition records for remaining condition types K004, K005, K007, and KF00 etc by repeating the same above process.

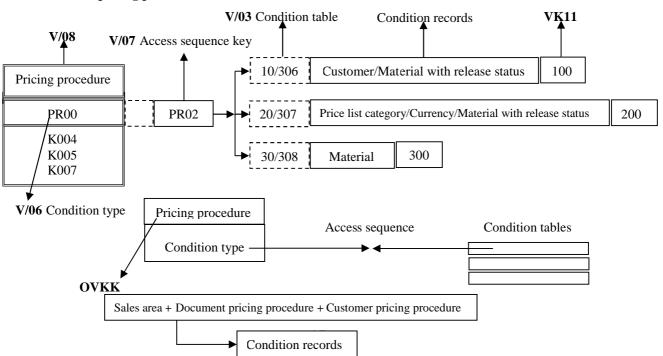
- ➤ Go to **VA01** and raise the sales order
- \triangleright Select line item and go to Go to \rightarrow Header \rightarrow Sales and
- Check our pricing procedure determine or not
- Select line item and go to Go to \rightarrow Item \rightarrow Conditions in the condition screen
- ➤ In the condition screen ANALYSIS and UPDATE

ANALYSIS: By using this **analysis** option we can analyze our pricing procedure like how many base prices, discounts freights and taxes are taken into consideration to determine net value for line item.

UPDATE: We can carryout new pricing procedure at sales order, delivery and billing level. System does not change the old values in the condition master records. Eg: When we raise the billing with reference to delivery document there may be a chance to change the tax rates. Then we have to carry out new pricing procedure by re-determining taxes.

FAQ: How you can carry out new pricing within the validity periods of condition records? **ANS:** By carrying out new pricing option in UPDATE in pricing condition screen at item level.

Define our own pricing procedure:



Creation of pricing procedure Steps:

- (1) V/03 = Create condition table
- (2) V/07 = Create access sequence
- (3) V/06 = Define condition type
- (4) V/08 = Define pricing procedure
- (5) OVKK = Define pricing procedure determination
- (6) VK11 = Maintain condition records

Create condition table: Transaction code: V/03

Condition table is a combination of fields that forms a key to assign to condition type (access sequence)

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- Pricing control
- Define condition tables
- Create condition tables
- > Specify the condition **Table No: Ex:** 567 (between 501 to 999)
- > Choose the fields from the field catalog Ex: Sales organization, distribution channel, customer, etc
- > Click on generate icon
- > Click on local object
- > Go back and create more tables with another combination if you want
- > Save and Exit

Create access sequence: Transaction code: V/07

Access sequence is a search strategy that SAP follows to find out suitable condition record for condition type with specific to generic manner.

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- Pricing control
- Define access sequence
- Maintain access sequence
- > Go to new entries
- > Define the access sequence with description
- Save it and select it
- ➤ Click on access control button under dialog structure
- > Go to new entries
- > Specify the access sequence numbers, place our condition tables and check exclusive option
- Save and Exit.

Exclusive: The exclusive indicator prevents the system from reading the condition records, if it found value for existing condition table. It is a control for the system to access condition record from the database.

Ex: If you assign a exclusive option for a condition table in access sequence and if the system finds condition records for condition tables in access sequence, then system does not go to the next condition table.

Define condition type: Transaction code: V/06

Condition type represents pricing element as a base price, taxes, discounts or freight charges. While defining condition type we assign the attributes of condition type.

- > IMG
- Sales and distribution
- Basic functions
- > Pricing
- Pricing control
- Define condition types
- Maintain condition types
- Click on position button
- ➤ Choose PR00 condition type from position button and click on **copy** as icon
- Rename the condition type Ex: PR00 = ZSRI
- > Click on details icon on the application tool bar



Condition type: [PR00] = Price

Access sequence: [Ex: PR02]: Access sequence PR02 has been defined and assigned to condition type PR00. As every condition type is associated with one access sequence that access sequence should be assign here.

Control data one section:



Condition class: [**B**] = Prices

It is a classification of condition types as prices, taxes, discounts, etc. as PR00 is base price. So it has been classified as B.

Calculation type: [C] = Quantity

Calculation type for condition that is, how the calculation should be done for this condition type based on quantity or percentage or fixed amount.

Ex: If it is K004 and K005 [B] = Fixed amount

If it is K007 [A] = Percentage If it is KF00 [D] = Gross weight

Condition category: [] A classification of conditions according to predefined categories. For example all conditions that is related to freight cost.

Ex: KF00 = FreightHD00 = Freight

Rounding rule: [] = Commercial

Rounding rule "commercial", round up or round down can be assigned.

Structure condition: [] The condition type is used in BOM or configurable material, then that can be indicated by structure condition.

Ex: KUMU = Cumulation condition [B] DUPL = Duplicate condition [A]

Plus/Minus: [] Positive a

The value of this field determines the value of the condition type should be added or deducted.

Ex: $PR00 \rightarrow Positive$

K004, K005, etc. all discounts → Negative

Group condition section:

Group condition		
Group cond.	GrpCond.routine	
RoundDiffComp		

Group condition: It indicates whether the system calculates the basis for the scale value for more than one item in a document.

Ex: If a sales order contains two items and both items belongs to the material group 01. The group condition indication typeset in the definition of condition type for material group discount. [Ex: K020]. Then the condition record for material group 01 includes the following pricing scale like [From 1 PC \rightarrow 1% From 200 PC \rightarrow 2%]. Then the order has been placed for 150 and 100 quantities for each material. Then system takes the total quantity as 250 and applies discount 2% as both materials belongs to same material. If those materials not belong to one group, then group condition cannot be applied and system cannot apply the discount value.

Rounding difference comparison: It is an indicator that controls whether rounding difference is settled for group conditions with a group key routine. That means the system compares the condition value at header level with the total of the condition values at item level. Then the difference is added to the largest item.

Group condition routine: [] We can specify the routine to the group condition type [Ex: 1 Total document] to meet the business requirement like, if the total weight of the materials of order exceeds certain weight then only the Sold - to - party eligible to have certain discount amount.

Changes, which can be made section:

	Changes which can be mad	de /		
	Manual entries	C Manual entry has priority		
	Header condit.		✓ Amount/percent	Qty relation
	✓ Item condition	Delete	□Value	Calculat.type
1				

Manual entries [C] = Manual entry has priority

The value of this field determines whether the condition type determined manually or not at sales order level.

Ex: AMIW has a value D not possible to process manually. The value of this field controls mandatory option indirectly.

Header condition: The value of the header condition applies to whole items in the sales order. Header conditions do not have any access sequence. The values should be entered manually in the sales order level. **Ex:** HA00, BH00, HD00, etc.

Check item condition: The value of the item condition applies to only at item level. Item conditions must have access sequence. **Ex:** PR00, K004, KF00, etc.

Delete: This indicator enables to delete the condition type at sales order level.

Amount/Percentage: It specifies whether the amount or percentage for the condition type can be changed during document processing. These changes will not affect the condition master data.

Value: Scope for changing the value. It specifies whether the value of the condition type can be changed during document processing.

Quantity relation: It specifies the scope of changing conversion factors. That means whether the conversion factors for the unit of measure in conditions of this type can be changed during document processing.

Ex: Base unit of measure is EACH Selling unit of measure is BOX Condition records unit of measure is BOX Sales order unit of measure is EACH

Calculation type: If you want to change calculation type this indicator should be set.

Ex: Normal calculation type is fixed amount and sales order level calculation type is percentage.

Master data section:

Master data				
valid from	Today's date	PricingProc	PRASAD	
Valid to	31.12.9999	delete fr. DB	Do not d	elete (set the deletion fl 🖺
RefConType		✓ Condition index		
RefApplicatio		Condit.update		

Valid from: [] = Today's date

It specifies the beginning validity date that the system automatically proposes when we create a rebate agreement of this type. It is most relevant for condition type B001, B002, and B003.

Valid to: [] = 31-12-9999

The proposed value for how long a condition should remain valid. System proposes this value for the valid to date when we create the condition records.

Reference condition type: [] In our pricing procedure if we have SAME condition types, then we can maintain condition records for one condition type and we can specify another condition type as a reference condition type for this condition type. So that, no need to create condition records for reference condition types.

Ex: MWSI can be specified as a reference condition type for condition type MWST. So that condition records can be maintained for MWSI only. The same way for condition types AMIW and AMIZ.

Reference application: [] If you reference one condition type for another condition type, we should specify in which application area this referencing procedure takes place. **Ex:** Sales, purchasing, etc [Sales = V]

Pricing procedure [PR00]: Condition supplement: When the business wants to give certain conditions.

Ex: Discounts for all the customers and materials till certain period, then the business can use the feature that is **condition supplement** where we specify the discount condition types as a condition supplements along with base price. To implement this condition supplement feature, one separate pricing procedure should be defined and assigned to the particular condition type [**Ex:** PR00] and condition records should be maintained. Then whenever system uses the PR00 condition type those discount condition types also accompanies PR00 condition type.

Deletion from database: [Do not delete (set the deletion flag only)]: We can set system responses when the condition record is going o be deleted from the database like with popup or without popup messages.

Check condition index: We can create condition index for this condition type. So that by using the condition index we can maintain the condition records of this condition type. **Ex:** We can change, delete, etc.

Condition update: This field qualifies condition index. This indicator updates the condition type.

Ex: "By value".

Scales section:

Scales						
Scale basis	С	Quantity scale	Scale formula			
Check value	Α	Descending	Unit of meas.			
Scale type		can be maintained in con				

Scale basis: [C] = Quantity scale

Scale is nothing but the range of order quantity. According to the pricing element depending upon the range of quantity prices may be increased or decreased, higher discounts, low freight charges can be offered.

Ex: When 1 item cost is 100/- Rs, and if the customer placed the order for:

1 - 10 = 100/- Rs. 11 - 20 = 95/- Rs. 21 - 30 = 90/- Rs.

Check value: [A] = Descending

We can specify the checking rule for scale rates as a ascending or descending.

Scale type: [] = Can be maintained in condition record

The indicator controls the validity of the scale value or percentage from a certain quantity or a value. Alternatively it is possible to work with interval scales that must be stored in the condition type. That is the scale type the interval scale cannot be changed in the condition record due to the technical reason.

Ex: Condition type PR02 graduated scales.

Scale formula: [] We can specify the formula for determining the scale base value we can provide formulas that has not been provided in the standard system.

Ex: Condition type KP03 to support mixed pallet surcharges can be used.

Unit of measure: [] System uses unit of measure to determine scales when we use group conditions. System proposes unit of measure when we maintain condition records for group conditions that are either weight or volume dependent.

Ex: K029.

Control data 2 section:

Control data 2			
Currency conv.		Exclusion	
Accruals	☐ Variant cond.	Pricing date	Standard (KOMK-PRSDT; ta
☐ Inv.list cond.	✓ Qty conversion		
☐ Int-comBillCond		Rel.Acc.Assig	Relevant for account ass
ServiceChgeSe			

Currency conversion: It controls the currency conversion where the currency in the condition record varies with document currency.

Ex: Condition records currency = INR Document currency = USD

To calculate a condition value in a document the system multiplies the amount that results from the condition record by the item quantity. This indicator controls whether the system carries our currency conversion before or after the multiplication takes place. If you mark this field the system converts the condition value into the document currency after multiplication. If you leave the field blank the system converts the condition value into the document currency before multiplication.

Accruals: It indicates that the system posts the amount resulting from this condition to the financial accounting as a accruals. If you mark this field the condition appears in the document as a statistical value.

Invoice list condition: If the condition type is relevant for internal costing, mark this field.

Inter-company billing condition: If the condition type is inter-company billing purpose, mark this field. **Ex:** Condition type PI01.

Service charge settlement: It indicates that the trading contract conditions should be calculated using vendor-billing document.

Variant condition: If the condition type is for variant pricing [Variant configuration] marks this field.

Ex: Condition type VA00

Quantity conversion: This field controls the quantity conversion during determination of the condition bases. This field only relevant for calculation rule C quantity dependent condition types. If you deactivated it, then the condition bases quantity is converted via the quantity to the stock-keeping unit. This means that the condition quantity is determined for planned factors. That means the changes to the conversion factors in the delivery or the order are not taken into consideration.

If you activated this field, then the quantity unit and the condition quantity unit are identical. Then the quantity of the document item is used that is actual quantity.

Exclusion: [] In SAP we can offer best condition type among the same conditions to the customer by using "condition exclusion" feature. If you want to use this feature we can set the control at the definition of the condition type or maintaining condition record level.

Pricing date: [] = Standard (KOMK – PRSDT, Tax and Rebate KOMK - FBUDA)

We can specify the pricing date at which this condition to be affected.

Relevant for account assignment: [] = Relevant for account assignment

We can indicate whether this condition type is relevant for account assignment or not. It is the main control to post the values of condition type into the respective G/L accounts.

Text determination section:



Text determination procedure: [] and Text ID: []

We can define and assign text determination procedure and ID in the IMG to get the text output.

- > Specify our access sequence in the access sequence field.
- Save and Exit.

Change View "Conditions: Condition Types": Details								
New Entries								
Condit. type	PR00 Price	Access seq.	PR02 Price with Release St Records for access					
Control data 1 Cond. class Calculat.type Cond.category Rounding rule StrucCond.	B Prices C Quantity Commercial		Plus/minus positive a					
Group condition Group cond. RoundDiffComp		GrpCond.routine						
Changes which can Manual entries Header condit. Item condition	n be made C Manual entry has priority □ Delete	y ☑ Amount/percent □ Value	☐ Qty relation ☐ Calculat.type					
Master data valid from Valid to RefConType RefApplicatio	Today's date 31.12.9999	PricingProc delete fr. DB ☑ Condition index ☐ Condit.update	PRASAD Do not delete (set the deletion fl					
Scales Scale basis Check value Scale type	C Quantity scale A Descending can be maintained in con	Scale formula Unit of meas.						
Control data 2 Currency conv. Accruals Inv.list cond. Int-comBillCond	☐ Variant cond. ☑ Qty conversion	Exclusion Pricing date Rel.Acc.Assig	Standard (KOMK-PRSDT; ta Relevant for account ass					
Text determination TextDetPrc	Ē	Text ID						

Define Pricing procedure: Transaction code: V/08

Path:

- > IMG
- > Sales and distribution
- Basic functions
- > Pricing
- Pricing control
- > Define and assign pricing procedure
- > Maintain pricing procedure
- > Go to new entries
- > Define our pricing procedure
- > Select our pricing procedure
- Click on **control data icon** under the dialog structure
- Go to new entries
- ➤ Specify our condition types Ex: ZSRI etc
- Save and Exit

Define pricing procedure determination: Transaction code: OVKK

Path:

> IMG

- Sales and distribution
- Basic functions
- Pricing
- Pricing control
- > Define and assign pricing procedure
- Define pricing procedure determination
- ➢ Go to new entries
- > Specify our sales area, document pricing procedure, customer pricing procedure, specify our pricing procedure, and condition type like below:

Sales	Distribution	Division	Document pricing	Customer pricing	Pricing	Condition
organization	channel		procedure	procedure	procedure	type
0003	01	OC	A	1	SREENU	ZSRI

Save and Exit

Maintain condition records: Transaction code: VK11

Path:

- Logistics
- > Sales and distribution
- Master data
- Conditions
- Select using condition type
- ➤ VK11 Create
- Specify our condition type Ex: ZSRI
- Click on key combination push button on application tool bar
- > Check our condition tables are existed or not
- Click on continue button or press ENTER
- Maintain the values in the condition record
- Save and Exit
- ➤ Go to VA01 and raise the sales order
- ➤ Select line item and go to **Go to** → **Header** → **Sales** and check our pricing procedure has been determined or not (In the pricing procedure field system shows our pricing procedure name)
- \triangleright Exit from the screen and go to Go to \rightarrow Items \rightarrow Conditions and check the condition type and price.

Condition Exclusion Groups

In pricing procedure it is quite common that to have common condition types **Ex:** Different types of discounts. If we include these discounts in pricing procedure, then customer will receive all the discounts. So that the total discount value became higher than the actual price. So consequently business incurs loss. So as to avoid this kind of situation we can use the option that is condition exclusion groups by which we can offer best condition among the condition types to the customer.

Configuration Settings

Define exclusion groups: Transaction code: OV31

- IMG
- Sales and distribution
- Basic functions
- Pricing
- > Condition exclusion
- Condition exclusion for groups of conditions
- > Define condition exclusion groups
- ➢ Go to new entries
- ➤ Define our condition exclusion group Ex: S001

Save and Exit

Assign condition types to the exclusion group: Transaction code: OV32

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- > Condition exclusion
- Condition exclusion for groups of conditions
- Assign condition types to the exclusion groups
- ➤ Go to new entries
- > Specify our condition exclusion group (Ex: S001) and assign condition types
- Save and Exit

Maintain condition exclusion for pricing procedures: Transaction code: VOK8

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Pricing
- ➤ Condition exclusion
- > Condition exclusion for groups of conditions
- Maintain condition exclusion for pricing procedures
- Click on **position** button and choose our pricing procedure
- Click on exclusion icon
- ➢ Go to new entries
- Specify the condition exclusion procedure
 - **Ex:** A = Best condition between the condition types
 - B = Best condition within the condition types
 - C = Best condition between the two exclusion groups
 - D = Exclusive
 - E = Least favorable within the condition type
 - F = Least favorable between the two exclusion groups
- > Assign our exclusion group S001
- Save and Exit
- ➤ Go to vk11 and maintain condition records for condition types that are included in "condition exclusion groups"
- ➤ Go to VA01 and raise the sales order
- \triangleright Select line item and go to Go to \rightarrow Item \rightarrow Conditions
- > Check whether our condition exclusion group is existed or not

Condition supplement

Business scenario

When the business wants to give certain discounts irrespective of the customer and material till certain period, then we can map the business scenario with condition supplement feature.

Configuration settings:

> Step 1: Define new pricing procedure in V/08 and include conditions that are going to participate as a condition supplements for base price.

Ex:	Step	Counter	Condition type		
	10	0	PR00		

20	0	K004
30	0	K005
40	0	K007

- Save and Exit
- > Step 2: Specify this new pricing procedure in the pricing procedure field of master data section at definition of PR00 [V/06].
- Save and Exit.
- ➤ **Step 3:** Go to VK11
- Specify condition type PR00
- Maintain the condition record to the line item and select line item
- \triangleright Go to Go to \rightarrow Condition supplement
- Maintain condition records for K004, K005, and K007
- Save and Exit
- **Step 4:** Go to VA01 and raise the sales order.
- \triangleright Go to Go to \rightarrow Item \rightarrow Conditions
- > Check whether our condition supplement is existed or not

Free Goods

Free goods can be configured in SAP by following two methods.

- (1) Manually
- (2) Automatically

Manually: By specifying higher level item category for a line item we can determine free goods as a free of charge items during sales order processing.

Automatically: System proposes free of goods automatically in the sales order. In automatic free goods configuration system follows two methods.

- (1) Exclusive
- (2) Inclusive

Exclusive: System configures free goods in exclusive option like free goods quantity is going to be excluded in order quantity. **Ex:** For 10 items 1 item is free. Then system configures free goods as 10 + 1.

Inclusive: System configures free goods in inclusive option like free goods quantity is going to be included in order quantity. **Ex:** For 10 items 1 item is free. Then system configures free goods as 9 + 1.

NOTE: In exclusive method other items also can be given as a free of charge items for order item.

Configuration steps: INCLUSIVE

SAP follows condition technique to configure free goods automatically.

Maintain pricing procedure

- IMG
- Sales and distribution
- Basic functions
- > Free goods
- Condition technique for free goods
- > Maintain pricing procedures
- > Choose free goods procedure NA0001 and select it
- Click on **copy** icon on application tool bar and rename it **Ex:** SRI001
- Condition type is NA00 and Access sequence also NA00
- Save it and Exit

Activate free goods determination

Path:

- > IMG
- Sales and distribution
- Basic functions
- > Free goods
- Condition technique for free goods
- > Activate free goods determination
- Go to new entries
- > Specify our sales area, document pricing procedure, customer pricing procedure and specify our free goods procedure Ex: SRI001
- Save and Exit

Control free goods pricing

Path:

- > IMG
- Sales and distribution
- Basic functions
- > Free goods
- Control free goods pricing
- Control pricing for free goods item category
- Choose item category TAN from **position** button
- Specify the pricing as X = Pricing standard
- > Choose item category TANN from **position** button
- Specify pricing as B = Pricing for free goods (100% discount)
- Save and Exit

Maintain condition type for 100% discount

Path:

- > IMG
- Sales and distribution
- Basic functions
- > Free goods
- Control free goods pricing
- ➤ Maintain condition type for 100% discount
- ➤ Check whether condition type R100 is available or not (R100 = is 100% discount)
- Exit

Maintain pricing procedure for pricing

- > IMG
- Sales and distribution
- Basic functions
- > Free goods
- > Control free goods pricing
- > Maintain pricing procedure for pricing
- Choose our pricing procedure form **position** button and select it

- > Click on **control data** icon under dialog structure
- ➤ Include condition type R100 between the steps of discounts.
- Specify requirement = 55 and Routine No: 28 (100% discount) in Alt. CBV.
- Save and Exit

Requirement 55: The Routine No. 55 is assigned to condition type R100. If the user wants to look both revenues and sales deductions for the free items since the product that we are going to give as a free of charge item can be sold separately in the same sales order. Then the item category of free goods TANN has the pricing value as B. Then the system calculates value of the free goods as 100% discount as we discussed above the same material [that is going to be given as a free of charge item]. Some times the same item is going to be given as a normal item. Then system calculates price for normal item and system should not calculate price for same item [free of charge item]. So as to perform this calculation we have to assign Requirement/Routine 55 is to assign condition type R100.

Alt CBV = 28: [100% Discount] Condition type R100 should be taken as a ZERO value. The formula 28 calculates condition type R100 value as a ZERO.

Set Transfer of cost to Main item: [Copy control]: Transaction code: VTFL

Copy control is a concept by which the system copies the data from source document to target document.

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Pricing
- > Free goods
- Control free goods pricing
- > Set transfer of cost to main item [copy control]
- ➤ Choose Billing type **F2** Delivery document type **LF** from **position** button
- > Select it and click on **item** icon under dialog structure
- Choose item category Ex: TAN
- Click on details icon
- Click on display or change icon
- Choose item category as TAN again
- > Select it and click on **details** icon
- Check cumulative cost
- Save and Exit

Cumulative cost controls whether the cost value (VPRS) is to be copied from relevant sub items into main items. Sub items cost are not relevant for billing.

Maintain copying control: Transaction code: VTAA

Path:

- IMG
- > Sales and Distribution
- Basic functions
- Free goods
- Control free goods pricing
- Maintain copying control

We maintain copy control at item level category for free goods. In this field we can control whether the free goods should also be transferred when we copy from one document to another document.

- > Choose source document type as **QT** and target document type as **QR** from **position** button
- > Select it and click on **item control button** under dialog structure
- > Choose AGN item category from **position** button
- Click on **display** or **change** button

- Again click on AGN
- > Click on **details** icon
- ➤ Check Re explode structure/Free goods
- Save and Exit

This indicator controls whether the free goods are copied from source document to target document or redetermined again.

Maintain condition records for Free goods [INCLUSIVE]: Transaction code: VBN1

Path:

- Logistics
- Sales and Distribution
- Master data
- Conditions
- Free goods
- ➤ VBN1 Create
- > Specify condition type NA00
- > Click on **key combination**
- > Specify all the data
- Choose inclusive by clicking the INCLUSIVE/EXCLUSIVE push button
- > Specify the Material No., Minimum order quantity (Ex: 10), Specify [from] the free goods quantity (Ex: 10), Unit of measure "EA" (Each), Free goods (are free goods) as "1".

Calculation procedure: We can specify the Routines for calculation procedure as 1 or 2 or 3

- 1 = Pro Rata (Proportionate): Ex: If the customer places order for 100 cases of material "X", then customer receives 20 cases of same material as free. That means, the business can say that buy 100 and get 20. If the customer orders for 162 cases, then system automatically grants 32 cases as a free of cost $(162 \times 20/100 = 32 \text{ Cases})$.
- **2 = Unit of reference:** When customer orders for 100 cases of material "X", then the customer receives an additional 20 cases as a free of goods. That means business can say that buy 100 get 20 free by granting 200 free for every full of 100 cases. The customer places order for 162, then system automatically grants only 20 cases $(100 \times 20/100 = 20)$.
- 3 = Whole unit: When a customer places order for 100 cases of material "X", then the customer receives additional 20 cases of material "X" as a free of goods item. The business can say that buy 100 and get 20 free of charge items. If the customer orders for increment of 100 that means 200 (100 + 100) items, then he gets 40. If he placed the order for 101 199 items he gets only ZERO.
 - > Save and Exit

Condition record for EXCLUSIVE: Transaction code: VBN1

- Logistics
- > Sales and Distribution
- Master data
- Conditions free goods
- Specify the discount type "NA00"
- Click on key combination
- ➤ Click on Choose inclusive by clicking the INCLUSIVE/EXCLUSIVE push button
- Specify the sales organization, distribution channel
- > Specify customer number and validity periods, material, minimum quantity, order quantity, unit of measure, calculation procedure, free goods (3)
- > Specify additional material free goods (if other goods is going to be given as a free of charge item.
- Save and Exit
- ➤ Go to VA01 and raise the sales order for INCLUSIVE and EXCLUSIVE.
- See the Free Goods effect.

Condition type NRAB = Free goods: Requirement = 59, Alt CBV = 29: [only for INCLUSIVE purpose]

Requirement 59: We have to assign requirement 59 to the condition type NRAB. If the customer buys 100 cases of product "X", then he receives 10 cases of the product free. If the user would not like the additional line item in the sales order for free goods rather than the discount of the 10 cases is represent in the same line item as other 90 cases. If the free goods discount should not apply on credit for returns that do not make reference in the previous document.

Alt CBV 29: The condition type NRAB is to be assigned with 29 formula to support inclusive free goods agreement where the user would have to apply the discount to the order item rather than having a sub item generated for the free quantity.

Ex: The customer orders for 100 cases of product "X", 10 cases are free instead of having a free sub item generated b the system to represent the free 10 cases, the user would like to have a discount applied to the 100 cases line item equal to the value of the 10 cases.

NOTE: Free goods can only be configured on document category type "C" (OR). That means we cannot configure free goods on Inquiry and Quotation.

Header Conditions

SAP has delivered two kinds of condition types:

(1) Header conditions

(2) Item conditions

Header conditions: The value of the header condition applies to the whole items in the sales document.

Header conditions do not have any access sequence.

So that, value of the header conditions should be maintained manually.

Ex: HA00, HB00

Configuration settings:

- > Include condition types HA00, HB00 in V/08 in between the discount condition types.
- ➤ Go to VA01 and raise the sales order
- > Select line item and go to **Go to** button
- ➤ Header → Conditions
- ➤ Include condition type HA00 HB00 with values [HA00 is percentage discount and HB00 is absolute discount]

If HA00 = 1%, then system applies 1% on base value on all items in the sales order.

If HB00 = 100/- Rupees, then system applies 100/- Rupees proportionately to all items in the sales order. If sales order has two items, then system applies 50/- Rupees to each item.

- Click on activate button
- ➤ Go to item condition screen
- > Check how system applied header conditions for line items

NOTE: Make sure that sales order contains more than one item.

Condition Scales

We can maintain scales for each and every condition type. So that we can determine pricing conditions values depending upon the range of the order quantity.

Ex: If you maintain condition record for PR00 for material one as a 100/- Rs. For 1 material, then we can maintain scales for this material like below:

From Quantity	Price
1 – 10	1000
11 - 20	999
21 - 30	998
31 - 40	997

Configuration settings:

- ➤ Go to VK11
- ➤ Maintain condition record for PR00
- Select line item and click on scales icon on the application tool bar
- > Maintain scales and scale rates accordingly
- Save and Exit
- ➤ Go to VA01 and raise the sales order
- Enter the order quantity according to the scale and see the scale effect

Pricing Scales:

You can maintain the condition records with graduated scales by using it. It allows us to price an item for each level of pricing scale. By comparison when we use normal scales the system determines one price depending on. **Ex:** On the item quantity, the same price applies to the each unit of item quantity. With graduated scales the multiple prices can appear in the pricing screen for individual item.

NOTE: Graduated scales are used in prices, discounts and surcharges. However we cannot use it for group conditions.

Configuration settings:

- ➤ In pricing procedure V/08 maintain condition type PR02 instead of PR00
- ➤ Go to V/06 and select PR02 and check condition type must be "**D**" [Scale type]
- ➤ Go to VK11 and maintain condition records like below

Scales to	Price
10	300
20	290
50	280

- Save it
- ➤ Go to VA01 and raise the sales order
- \triangleright Enter material with quantity = 25
- ➤ Observe that in the condition screen gross value per item.
- Average 292/- Rs. per item. For 25 items that comes to 7300/- Rupees. That means the system calculates per item by averaging the price with order quantity according to scale.

$$1^{\text{st}}$$
 10 pieces = 300 x 10 = 3000
 2^{nd} 10 pieces = 290 x 10 = 2900
 3^{rd} 5 pieces = 280×5 = 1400
 25 = 7300/25 = 292

HM00 = Manual order value

It allows us to enter order value manually the difference between the old and new order value is distributed between the items (by taking into the account net item value) taxes are re-determined for each item.

Configuration settings:

- ➤ In V/08 specify the header condition HM00 after freight condition type step
- Check manual option
- ➤ Go to VA01 and raise the sales order
- Go to header conditions
- ➤ Maintain value for HM00
- Click on activate icon
- > Go to item condition screen
- > Check how system proportionately applied HM00 value

NOTE: Maintain condition records for two materials in the VK11. The purpose of HM00 is to determine the order value manually.

PN00 = Net Price

The PN00 condition type in the standard system allows us to specify net price per item manually.

Configuration settings:

- ➤ In V/08 specify the condition type PN00 in the prices section
- \triangleright Check manual option [Requirement = 2 and Alt CTvp = 6]
- ➤ Go to VA01 and raise the sales order
- ➤ Go to condition screen
- Check system determines net value per item by following the pricing procedure
- ➤ Enter PN00 value manually
- > Then system determines PN00 value as net value for line item and deactivates PR00 value.

PMIN = Minimum Price

It is a surcharge. PMIN can be used to charge as a surcharge, if the system determines the line item price less than the predetermined price.

NOTE: This condition type has an access sequence.

Configuration settings:

- ➤ Go to VK11 and maintain condition record for PMIN
- \triangleright Include PMIN in our pricing procedure (V/08) with requirement = 2 and Alt CTyp = 15
- ➤ Go to VA01 and raise the sales order
- Check whether system has taken PMIN value or not

Minimum order values: AMIW and AMIZ

We can create a minimum value for each order using condition type AMIW.

If the value in the order header falls shorter of this minimum order value during pricing, then the system will copy it as the net order value automatically.

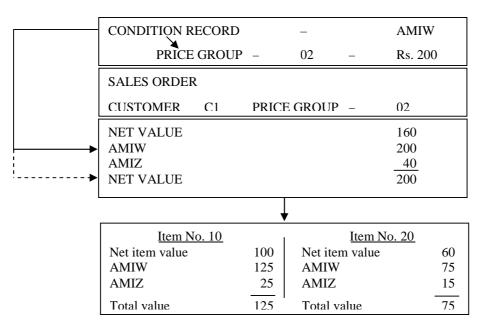
It is a statistical condition and group condition.

Calculation formula 13 is assigned to AMIZ.

That calculates minimum value surcharge by subtracting the net item value from minimum order value that is AMIW.

Business scenario: If business would like to define minimum order value for their customers **Ex:** minimum order value 200 is defined for customer "A" (that means he should place the order that should not be less than the 200). Otherwise he may be charged the difference amount as a surcharge by the system by using the condition type AMIZ and AMIW.

NOTE: AMIW condition type used as a reference condition type for AMIZ. So that condition record can be maintained only for AMIW not for AMIZ.



Pallet Discount

Discounts can be given on pallets KP00, KP01, KP02, and KP03

KP00 = **Discounts** on full pallets

- Formula = 2, Alt CBV = 22 should be assigned.
- ➤ Maintain condition record as 5/- Rs. per pallet.
- In material master maintain conversion factors as 50 cartons as one pallet.
- ➤ Go to VA01 and raise the sales order like below:

Order 1 for 50 cartons KP00 = 5/-Order 2 for 100 cartons KP00 = 10/-Order 3 for 70 cartons KP00 = 5/- Base Unit = CAR Sales Unit = PAL 1 PAL = 50 CAR

KP01 = Incomplete pallet Surcharge

- \triangleright Condition record KP01 = 50/- per pallet
- \gt 50 cartons = 1 pallet
- ➤ Go to VA01 and raise the sales order like below: Order 1 for 50 cartons = 50/- per pallet For 70 cartons = 50/- per pallet
- > Assign formula as 24

KP02 = Mixed Pallet Discount on Full Pallets

It accumulates the quantities of the individual items calculates discounts for complete pallet only.

- ➤ KP02 = Group condition
- ➤ Maintain condition record for KP02 from 1 pallet 10/-

2 pallets 20/-

- ➤ In material master M1 and M2 maintain 50 cartons = 1 pallet
- ➤ Go to VA01 and raise the sales order: 1

Header KP02 = 10/- \rightarrow Material 1 = 20 Cartons, Material 2 = 30 Cartons

Raise the sales order: 2

Header KP02 = 10/- \rightarrow Material 1 = 20 Cartons, Material 2 = 40 Cartons

NOTE: After entering the items in the sales order with KP02 \rightarrow The condition screen \rightarrow Go to header condition screen \rightarrow See the effect.

KP03 = Surcharge for incomplete mixed Pallets

It accumulates the quantities of the individual items. It then calculates the surcharge on any fractional portion of the total quantity.

- ➤ KP03 = Group condition
- Unit of measure = PAL
- > Scale formula = 23 (that calculates the fractional portion of the total quantity)

SKTO = Cash Discounts

It is used to retrieve the cash discount rate. It is used as a statistical value by the pricing procedure. Table T052 is accessed using condition category "E" and amount is calculated from the first percentage rate of the item payment terms.

Configuration settings:

- Include condition type SKTO in our pricing procedure
- Requirement = 9, Alt CBV = 11, and Check statistical.
- In VA01 specify the payment terms
- In V/08 it should be before Net Value and after Tax [between Net value and Tax]
- Maintain payment terms in the customer master or sales document header
- Check cash discount in material master

Customer Expected Price

This price either entered manually in the order or retrieved from the incoming I DOC through EDI.

- Condition type EDI1 is used to compare the net price for each item
- ➤ Condition type EDI2 is used to compare the overall item value (Net price X Quantity)
- For EDI1 Alt Ctyp = 9 and EDI2 Alt Ctyp = 8
- > Check both Manual and Statistical
- ➤ In V/08 these two condition types should exist as last steps.

Customer expected price differs from the automatically determined price or value by more than the maximum difference allowed. Then that will regard this order as incomplete when it is saved.

NOTE: The blocked sales orders should be release by concerned person through work list

Transaction code: V.25

Path:

- Logistics
- > Sales and Distribution
- Sales
- ➤ Information system
- Work list
- ➤ V.25 Release customer expected price
- > Select the sales order
- ➢ Click on Release
- > Save and Exit

VPRS = **Cost**

It is used to retrieve the standard cost of the material. It is a statistical value.

- > Profit margin is calculated using Formula 11 in V/08. This formula subtracts the cost form the net value
- ➤ In V/08 it should be **check** Statistical
- \triangleright Sub total = 8 and Requirement = 4
- ➤ In V/08 at last specify VPRS condition type with statistical, subtotal = 8, and Requirement = 4
- ► **Profit:** Specify the condition type = **Profit Margin** and specify Alt CTyp = 11
- \triangleright Go to VA01 \rightarrow Raise the sales order \rightarrow check the condition

K029 = Group conditions

By defining a condition as a group condition we can maintain a single condition record for a number of materials. So that the materials are linked to condition record via "pricing group" field in material master, then system allocates the value from condition record according to its scale and applies to each item proportionately.

Business Scenario: If the business wants to give certain discount for a group of materials, we can implement this requirement by using group conditions.

Configuration settings

- ➤ Include K029 condition type in pricing procedure
- > Create two materials with same material pricing group

Ex:	Material	Price group	Base unit
-----	----------	-------------	-----------

M1	01	KG
M2	01	KG

- > Go to VK11 and maintain values for K029 by specifying material pricing group that we maintain in the material master
- Maintain condition sales like below:

From 1 KG → 10/-

From 10 KG → 20/-

From 30 KG → 30/-

➤ Go to VA01 and raise the sales order for two materials by specifying quantity as 70 KGs and 60 KGs respectively and check it.

Criteria for Tax Determination:

We can assign a value ([] Blank, [A], [B]) at the sales organization level to determine the sales tax identification number in the order and billing document.

- ➤ **If blank** []: Priority will be
 - 1 (ONE): If payer has a sales tax ID and different Sold to Party, the tax no. and tax classifications are taken from payer.

The Tax no. is determined according to the tax destination country.

• 2 (TWO): 1st point does not apply

If Sold - to - party has a Sales tax ID and ship - to - Party has no Sales tax ID. The Tax No. and Tax classifications takes from Ship - to - party. IF

• 3 (Three): 2 points does not apply.

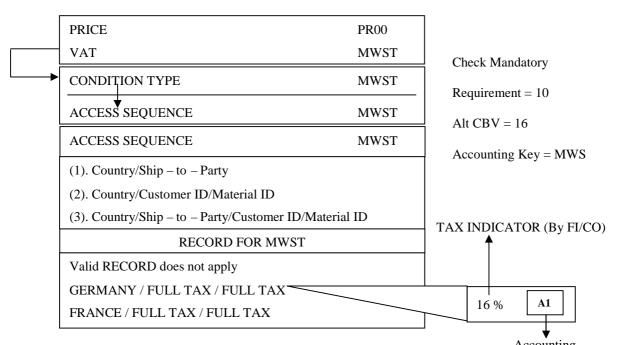
The Tax No. and Tax classifications are taken from Sold – to – Party.

- ➤ **If value [A]:** The Tax No. the Tax classifications are generally transferred from Sod to Party. The Tax No. is transferred according to the tax determination country.
- ➤ If value [B]: Tax No. and Tax classification is transferred from same way in Value "A".

Tax classification: The following factors place a role in tax determination.

- 1. Business transaction: Domestic or Import.
- 2. Tax liability of the Ship to Party.
- 3. Tax liability of the material

PRICING PROCEDURE - TAX



DUPL = **Duplicate** condition

DUPL is copied during pricing to the entire sub items assign to the main item. It makes sense to use this condition type only for BOM items and configurable material. **Ex:** Material 1 has 10% of condition type UDPL and it has sub items **Ex:** M2 and M3 during sales order processing the duplicate condition of 10% is displayed in components M2 and M3.

Pre – Requisite: In V/06 of condition type DUPL value 'A' should be maintained in structure condition field.

Constraints: Duplicate conditions can only be percentage rate conditions. Duplicate conditions cannot be use as header conditions. These conditions cannot be changed manually. When we copy sales document to billing document the condition value of duplicate condition is FROZEN. That means the condition is not re-determined when it is copied regardless of pricing type.

KUMU = Cumulative condition

It enables the end user to display the total of the net value of an item and the sub items that belongs to that item. Cumulative conditions cannot be used as a header conditions.

Constraints: Cumulative conditions cannot be processed manually.

When we copy sales document to billing document the condition rate and condition value of cumulative condition is FROZEN.

Gross Price

The gross price is relevant when selling goods to end customer.

The pricing procedure RVAB02 is available as a reference for this sales process.

The pricing procedure RVABB02 is flexible as it can be used for net price calculation.

Features: RVAB02 has following functions

- Entry of the Gross price and Discounts.
- Separate transfer of new prices and discounts into profitability analysis.
- Determination of Net prices from gross prices for customer, not subject to Tax.

Structure of the pricing procedure: RVAB02

(1) **Prices:** Gross price determination - [Condition type] = PR01.

(OR)

Gross price entry – [Condition type] = PB00. Displaying the gross price in sub – totals.

(2) **Discounts:** Gross discount determination and entry

Displaying the cumulative discounts in a sub – total.

(3) **Taxes:** Determination of tax contained in price [Condition type MWI1]

Determination of tax contained in discounts [Condition type MWI2].

(4) Net Prices and Discounts: Option of transferring net prices and discounts into the profitability analysis separately.

(5) **Rounding correction:** The correction with the condition type NETD is necessary as there may be differences between the total of MWI1 + MWI2 + MWIS.

Net Sales: RVABB02: In the case of net sales (customer not taxable or foreign business) the condition type MWIG is used instead of MWIS and net goods value is determined. If we wish to we can calculate tax on the net value VAT.

NOTE: Requirement 70 and 71 in the pricing procedure controls whether a sale is net or gross.

Condition Record maintenance

Changing condition records manually: Transaction code: VK12

Path:

- Logistics
- Sales and Distribution
- Master data
- Conditions
- Select using condition type
- ➤ VK12 Change
- > Enter condition type
- > Click on **continue** button
- ➤ Select © Record
- ➤ Maintain data
- Click on executive icon [F8]
- > Enter material, amount
- Save and Exit

Maintaining changes automatically

If you want to apply the same price charges **Ex:** 5% increase to number of different condition records we can change it automatically.

- ➤ Go to VK12
- > Select condition record
- Click on change amount icon

We can change the condition value by percentage, by absolute amount, by rounding rule

- Click on copy
- Go back

(to deduct the value specify – Minus)

Upper limit and Lower limit

We can specify the upper limit and lower limit to the condition record. So that the end user can manipulate the condition record with that limits only.

- ➤ Go to VK11 or VK12
- Select condition record line item
- Click on details icon [F6]
- > Specify the upper limit and lower limit
- Save and Exit

Change document for condition record

We can display the reports of changed condition record.

- Go to VK11
- > Change the price 2, 3 times

- Save and Exit
- ➤ Go to VK12 again
- ➤ Choose environment → Changes → Per condition record
- > See the changes

Mass maintenance

We can maintain the condition records in mass VK31.

Path:

- Logistics
- > Sales and Distribution
- Master data
- Conditions
- ➤ VK31 Create

You can make changes for prices, discounts/surcharges, freights and taxes conditions.

Copying condition records

The copying function allows us to create multiple condition records at a time. We can copy either one or more existing condition records into a new condition record or we can create a new condition record and use it as a base for copying condition records all in one step. We can copy condition records even when source and target records have different condition type's condition table's key field values.

Pre – **Requisites:** Only one table may differ between two condition fields. The condition table must contain same number of fields.

Copying rules

There are rules are defined in IMG for sales and they must need the pre – requisites listed above.

Path:

- > IMG
- > Sales and Distribution
- **▶** Basic functions
- Pricing
- > Copy control for conditions
- Copying rule for condition type
 Copying rule for condition

Examples of different scenarios:

• Scenario 1: Same condition types and same condition tables:

Special discount to a particular price group.

(A group of customers in VD01) in this case condition type "K020 – Condition table 20" are identical for both source and condition records.

Scenario 2: Same condition types and different condition tables

If PR00 has access sequence of PR02 to which number of tables are assigned.

It means condition records with same condition type can have different keys. We can copy condition records where condition type is the same but condition tables are different.

Ex: Material specific discount to a particular price group (K032 is the condition type -32 is the condition table) we can copy this condition record for a specific customer [K032 -5] (K032 is the condition type -5 is the condition table).

Scenario 3: Different condition types different condition tables

Ex: K020 - 20 (K020 is the condition type -20 is the condition table) to another price group but to a new customer specific discount K007 - 7.

Configuration steps:

➤ In VD01 for two customers maintain the data like below:

Customer No.	Customer group	Price group: (for K020)
X	01	01
Y	02	02

- Maintain the condition record for K020 for 01 01 combination in VK31
- \triangleright Go to VA01 and raise the sales order for customer "X" (01 01 combination) and

Go to item condition screen

Check whether K020 value has been accepted or not (system accepts because already we maintained the condition record)

 \triangleright Go to VA01 and raise the sales order for customer "Y" for (02-02 combination)

Go to pricing condition screen and check K020 value has been taken or not

(System does not take it) because we did not maintain condition record

➤ Go to VK32

Select discount/surcharges

By price group

Specify K020 and price group as 01

Click on copy condition/select rule button

Then system copies it to the new group

Save it

If you want to delete the condition

- ➤ Go to VK12
- > Select the condition item
- > Click on **delete row** icon
- Click on undo icon

Condition Index: We can create condition index to maintain the condition records for prices, surcharges and discounts.

In SAP standard condition indexes are 0001 for Material 0002 for Customer

By using these two indexes we can select the condition record for a specific customer and specific material. We can define our own condition indexes for each condition type and before using condition index must be activated in IMG

We can create the condition index by copying the existed condition index.

We can choose the fields from field catalog to create condition indexes and we can include new fields into the field catalog.

Create condition indexes by using condition tables 501 to 999.

Generated condition index (system automatically activates it)

In the field condition index on the details screen of the respective condition type, select the condition types to be taken into account for the condition index.

Re - Organization of standard indexes

We must reorganize condition indexes in the following cases:

We must create a new condition index and we want to set it up for existing condition records. If we want to change an existing condition index and we want to set it up with current condition records.

Steps: Enter a condition index or interval of indexes.

And then enter the date and time when the condition indexes are updated.

Pre – **Requisite:** In V/06 condition type condition index option should be activated.

Transaction code: OV09

Path:

- > IMG
- Sales and Distribution
- Basic function
- Pricing
- Pricing control
- Maintain condition index
- ➤ Maintain condition tables for index
- > Choose condition tables from field catalog Ex: Sales organization, Distribution Channel, and Division
- Click on generate icon
- Click on local object
- Come back
- > Save and Exit

Transaction code: V/I1

Click on activate of condition index
 Check whether system has activated condition index or not

Save and Exit

➤ Go to V/07

Choose access sequence Ex: K004

Go to new entries

Include our condition index

Save and Exit

Go to V/06

Choose K004

Check condition index and condition update has been activated or not

Go VK11

Choose our condition table

Maintain condition record

Save and Exit

➤ Go to VK12

Click on select using index option

Select our condition table

Click on execute icon

Do the changes accordingly

Click on details icon		
Maintain the lower limit and upper	limit, if we want to main	ntain the limits
Go to button → Additional data		
Maintain limits for pricing like belo	ow:	
Maximum condition value		INR
Maximum number of orders		
Maximum condition base value		EA

We can specify the maximum condition value for this condition type. So that when system reaches that maximum value, then automatically it terminates the condition type. If you specify maximum number of orders **Ex:** 3 system will accept this condition type only for first 3 sales orders. 4th sales order onwards system world not take this condition type.

Maximum condition base value: We can specify the maximum condition base value for the condition record. **Ex:** If certain discount offer to the customer with a limited number of cases, then we can specify the number of cases in this field. When the systems reach this, and then automatically terminate this condition type.

Cumulative values: When system updates the values according to the limits for pricing fields, we can see the status of updating by going to Extras \rightarrow Cumulative values option \rightarrow Save and Exit.

- ➤ Go to VA01 and raise the sales order for 3 times.
- ➤ Check whether system has taken K004 or not
- ➤ Go to VA01 4th time and check whether system has taken K004 or not.

Pricing condition report

We can generate report for prices, discounts, freights, and taxes.

Pre – **Requisites:** For respective condition type, condition update and index should be activated in definition of condition type. That means condition table for condition index should be defined and maintained.

Configuration steps: Transaction code: V/LA

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Pricing
- Pricing control
- Maintain pricing report
- Create pricing report
- Specify the name of List [] and Description []
- Choose the fields that we have selected to create condition index
 - Ex: Sales organization, Distribution channel, Division, Material, Customer, etc.
- Go to edit
- ➤ Choose continue with AND
- Select our condition table that we have created for condition index
- Click on continue arrow
- Choose report header level, item level layer
- ➤ Select default values for the selection screen
 - Ex: Display scales and display validity period
- Save and Exit

Run the pricing report: Transaction code: V/LD

Path:

- Logistics
- Sales and Distribution
- ➤ Master data
- > Information systems
- Condition & Pricing
- Pricing reports
- Specify pricing report [A1]
- ➤ Click on **execute** icon
- Again click on **execute** icon
- > Specify the values in the selection screen
- > Execute

Account determination (SD & FI Integration) FI settings for SD

Define company

Path:

- > IMG
- > Enterprise Structure
- Definition
- > Financial Accounting
- Define company
- ➤ Go to New Entries
- ➤ Define your Company
- Save and Exit

Define company code

- > IMG
- > Enterprise Structure
- Definition
- > Financial Accounting
- > Edit, Copy, Delete, Check Company code
- > Edit Company code data

- Go to New Entries
- > Define your Company code
- Save and Exit

Assign company code to company

- > IMG
- ➤ Enterprise Structure
- > Assignment
- Financial Accountancy
- Assign Company code to Company
- ➤ Choose our Company code from **Position Button**
- Specify our Company in Company Field
- Save and Exit

Define Business area

Path:

- > IMG
- > Enterprise structure
- Definition
- > Financial accounting
- > Define business area
- Go to new entries
- Define your business are
- Save and Exit

Define Consolidated Business Area

Path:

- > IMG
- Business consolidation
- > Integration: Preparation for consolidation
- Provide Information for transactional sending system
- Define Consolidation Business Area

>

Assign Business Area to Consolidation Business Area

- > IMG
- Assignment
- > Financial Accounting
- > Assign Business Area to Consolidation Business Area
- ➣
- Z

Business area account assignment (SD setting)

Path:

- > IMG
- Enterprise structure
- Assignment
- > Sales and Distribution
- Business area account assignment
- Define rules by sales area
- Choose our sales area from position button
- Assign the determination rule 001 or 002 or 003
- Save and Exit

Assign Business area to Plant and Division

Path:

- > IMG
- > Enterprise structure
- > Assignment
- > Sales and Distribution
- > Business area account assignment
- > Assign business area to plant and division
- > Go to new entries
- > Choose our plant and division and assign sales are
- Save and Exit

NOTE: Business area can be determined by sales area or by plant and division.

Assign Business area to Plant/Valuation area and Division:

Path:

- > IMG
- > Enterprise structure
- > Assignment
- > Logistic general
- Assign business area to plant/valuation area and division
- ➤ Click on Plant Division
- Go to new entries
- > Specify plant division and our business area
- Click on Valuation area Division
- Go to new entries
- Specify valuation area as Plant, specify division and business area
- Save and Exit

Define Purchase Organization

Path:

- IMG
- Definition
- Material Management
- Maintain Purchasing Organization

Transaction code: OMJ7

- Go to New Entries
- > Define your Purchasing Organization
- Save and Exit

Assign Purchase Organization to Company code: Transaction code: OX01

Path:

 \triangleright

Assign Purchase Organization to Plant: Transaction code: OX17

Path:

 \triangleright

Define Chart of accounts list: Transaction code: OB13

Path:

- > IMG
- Financial accounting
- > General ledger accounting
- ➤ GL Accounts
- Master records
- Preparations
- Edit chart of accounts list
- Choose existing chart of accounts
- Click on copy as icon
- Define chart of accounts with description
 Specify length of GL Account number

Choose manual creation of cost elements in controlling integration field

Save and Exit

Assign company code to chart of accounts: Transaction code: OB62

Path:

- > IMG
- > Financial accounting
- > General ledger accounting
- ➢ GL Accounts
- Master records
- Preparations
- Assign company code to chart of accounts
- Choose our company code from position button
- Assign our chart of accounts
- Save and Exit

Define account group: Transaction code: OBD4

- > IMG
- > Financial accounting
- > General ledger accounting
- ➤ GL Accounting
- > Master records
- Preparations

- > Define account group
- Go to new entries

Specify our chart of accounts, account group, account name and number range

Save and Exit

NOTE: Define Sales account, Current liabilities account, Reserves & Surplus account, Current assets account, and Loans & Advances account (Number ranges can be define as you like).

NOTE: For creating GL accounts range for account groups separate series should be used for assets, income, liability, and expenses.

Define Retained earnings accounts: Transaction code: OB53

Path:

- > IMG
- Financial accounting
- ➤ General ledger accounting
- ➢ GL Accounts
- Master records
- Preparations
- Define retained earnings accounts
- > Specify our chart of accounts []
- ightharpoonup Check P & L statement as a value X and account number (Reserves & Surplus by default)

X Reserves & Surplus number

Save and Exit

NOTE: Retained earnings accounts are used to transfer the difference amount of P & L account to next fiscal year.

Define Fiscal year variant: Transaction code: OB29

Path:

- > IMG
- Financial accounting
- Financial accounting global settings
- Fiscal year
- Maintain fiscal year variant
- Select one existed fiscal year Ex: K4 or V3
- Click on copy as icon and rename it by changing the data
- Save and Exit

Assign Company code to fiscal year variant: Transaction code: OB37

- > IMG
- Financial accounting
- Financial accounting global settings
- > Fiscal year
- > Assign company code to fiscal year variant
- Select your company code from position button
- Assign your fiscal year variant
- Save and Exit

Define Variants for open posting periods

Path:

- > IMG
- > Financial accounting
- Financial accounting global settings
- Documents
- Posting periods
- Define variant for open posting period
- Go to new entries
- ➤ Define our variant Ex: 0002 SRI Variant
- Save and Exit

Open and close posting periods

Path:

- > IMG
- Financial accounting
- > Financial accounting global settings
- Documents
- Posting periods
- > Open and close posting periods
- ➤ Go to new entries
- Choose our posting period variant
- Check posting periods from and to year as 2006

For: + = Valid for all account types
A = Assets
D = Customers
K = Vendors
M = Materials
S = Sales
V = Contract Accounts

Save and Exit

Assign variants to company code

Path:

- IMG
- > Financial accounting
- > Financial accounting global settings
- Documents
- Posting periods
- > Assign variants to company code
- Choose our company code from position button
- > Assign posting period variant
- Save and Exit

Define document Number ranges:

These number ranges for financial documents that have to be generated by system. **Ex:** When we raise the invoice system automatically generated document type RV.

Transaction code: FBN1

- > IMG
- > Financial accounting
- > Financial accounting global settings
- Document

- Document
- Number ranges
- Define document
- Number ranges
- Specify your company code
- > Click on **change intervals** icon
- Click on insert intervals icon

Specify number ranges key and number range with current number status as well as external option []

Save and Exit

Define Document type: Transaction code: OBA7

Path:

- > IMG
- Financial accounting
- > Financial accounting global settings
- Document
- Document header
- Define document types
- ➤ Choose document type "RV Billing document transfer" from position button
- Select RV and click on details button
- > Click on **number ranges information** button
- Specify your company code
- Click on change intervals icon

Check the number range that we defined in the previous step existed or not Make sure that the number range key has been existed or not

- Save and Exit
- Choose the document type: SA GL Account Document

DR - Customer invoice

DZ – Customer payment

- > Do the same process for all these documents
- Save and Exit

NOTE: When we do PGI system automatically has to generate document WA = Goods issue

When we initialize the stock WE = Goods receipt

Do the same above process for these documents also

Maintain field status variants

Path:

- > IMG
- > Financial accounting
- > Financial accounting global settings
- Document
- ➤ Line items
- Controls
- Maintain field status variant
- Select existed one
- Click on copy as icon
- > Define your field status variant by changing the data
- Choose our field status variant
- Select it and click on field status groups

This field status variant s determines the field status of the GL Accounts

- ➤ Select field status group Ex: G001
- Click on field statuses icon
- Go to general data section
- Make **Text field** as a required entry
- Go back
- Click on additional accounts assignments field

- Make Business area as mandatory
- Save and Exit
- Come back
- ➤ Choose field status group Ex: G005
- > Click on **field statuses** icon
- > Click on **general data** section
- Make **Text field** as a mandatory
- Come back
- Click on additional account assignments field
- Make **Business area** field as mandatory
- Save and Exit

Assign Company code to field status variant

Path:

- > IMG
- > Financial accounting
- > Financial accounting global settings
- Document
- Line items
- Controls
- > Assign company code to field status variant
- > Choose our company code from position button
- Assign field status variant to company code
- Save and Exit

Define Tolerance groups for employees

Path:

- > IMG
- > Financial accounting
- > Financial accounting global settings
- Document
- ➤ Line items
- Define tolerance groups for employees
- Choose existing company code
- Click on copy as icon
- > Specify your company code

Specify the upper limits for posting procedure, permitted payment differences

Save and Exit

Define House Bank: Transaction code: FI12

Path:

- IMG
- Financial accounting
- Bank accounting
- Bank accounts
- Define house banks
- Specify our company code in work area
- Go to new entries

Specify house bank Ex: SBI

Country is **IN** and bank key also **Ex:** 08623-277412 or CA (Current Account)

- Click on Bank accounts under dialog structure
- Go to new entries

Specify company code, house bank and account ID Ex: CA

Specify the GL account number that we defined [Bank account number]

Save and Exit

NOTE: Create this House Bank [FI12] account after creation of bank account in FS00

Create GL Accounts: Transaction code: FS00

Path:

- Accounting
- Financial accounting
- General ledger
- Master records
- Individual processing
- ➤ FS00 Centrally

Sales: Specify the GL Account No, company code

➤ Click on **create** icon (or) GL Account → Create

GL Account No. and maintain the data in the tabs

TAB: Type/Description

Account group: Sales

© Choose P & L statement account

Maintain short text and GL account long text Choose group account number "300100" standard

TAB: Control Data

Specify account currency INR

Check line item display

Specify sort key [003]

TAB: Create/Bank/Interest

Assign field status group [G001]

House bank: SBI

Account ID: CA

TAB: Key work/Translation

Choose language as English

Save the sales account and Exit

NOTE: For FS00 sales account, use OBD4 sales account number. Filed status group for sales account = G001 **Customer:** Specify the GL Account No, company code

Click on create icon

TAB: Type/Description

Account group: Current liabilities

© Balance sheet account

Maintain short and long text

TAB: Control data

Tax category: "+" = only output tax allowed

Specify reconciliation account for accounting type is: [Customer]

Check line item display

Specify the sort key [003]

TAB: Create/Bank/Interest

Specify field status [G001]

House bank [SBI] Account ID [CA]

TAB: Key word/Translation

Choose language as English

> Save the customer account and Exit

NOTE: For FS00 customer account, use OBD4 Current Assets account number. Filed status group for customer account = G001.

NOTE: For FS00 vendor account, use OBD4 Current Liabilities account number. Filed status group for vendor account = G001.

Bank: Specify GL Account No, company code

> Click on create icon

TAB: Type/Description

Account group: Current Assets, Loans and Advances

© Balance sheet account Specify short and long text

TAB: Control data

Check only balance in local currency

Check display line item

Sort key [003]

TAB: Create/Bank/Interest

Specify field status group as [G005]

Check relevant to cash flow

House bank [SBI] Account ID [CA]

TAB: Key word/Translation

Choose language as English

Save the Bank account and Exit

NOTE: For FS00 bank account, use OBD4 Current Assets account number. Filed status group for customer account = G005

NOTE: FI12 assign Bank GL account number that we created in the previous step in House bank → Bank accounts → GL Accounts field.

Revenue Account determination [SD - FICO integration]

System automatically posts the values of each pricing element like price, tax, discounts into respective GL accounts. So as to post respective GL accounts through accounting keys that we specify for each price element group in our pricing procedure the values of the pricing elements automatically posted in a respective GL accounts by revenue account determination, which is carryout by the system by using condition technique.

Pre - Requisite:

- Respective GL accounts should be defined and assigned to our accounting key.
- The FI/CO consultants should define GL accounts.
- Once the billing document transfers to FI module then account determination automatically determined by the system.

Ex: Document type RV – Billing transfer

These documents receives information from billing document and it sends the information to FI and when the customer makes the payment FI/CO module receives the money and post the customer invoice through document type DR – Customer invoice

(OR)

DZ - Customer payment

Then system automatically shows the status of the invoice as completed. After doing FI/CO settings to define GL accounts as a SD consultant we have to configure remaining account determination configuration. SAP uses condition techniques to determine GL accounts.

As system uses condition technique to determine respective GL accounts for accounting keys it has a procedure that is KOFI00 and it has a condition type KOFI.

It has access sequence KOFI.

It has condition tables 001,002,003,004, and 005.

Configuration settings

Define account assignment groups for customers and materials: Transaction code: OVK8

Path:

- > IMG
- Sales and Distribution
- **▶** Basic functions
- > Account assignment/Costing
- > Revenue account determination
- > Check master data relevant for account assignment
- Materials: Account assignment group
- ➤ Go to new entries
- > Define material account group
- Save and Exit

NOTE: Define customer account groups also in the same process by using the same path. The value of this field will be taken into consideration to determine account determination as a pre – requisites.

Define dependencies of revenue account determination: Transaction code: V/12

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Account assignment/Costing
- > Revenue account determination
- > Define dependencies of revenue account determination
- > Account determination: Create tables
- Specify the Table No.
- > Choose the fields from the field catalog
- Click on generate icon
- Click on local object
- Go back
- Save and Exit

Define access sequence and account determination types

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Account assignment/Costing
- > Revenue account determination
- > Define access sequence and account determination types
- Maintain access sequences for account determination
- Check access sequence KOFI is existed or not
- Save and Exit

Define account determination types

- ➤ IGM
- Sales and Distribution
- Basic functions
- ➤ Account assignment/Costing
- > Revenue account determination
- Define access sequences and account determination types
- Define account determination types
- Check account determination type KOFI is existed or not
- Assign access sequence KOFI to condition type KOFI
- Save and Exit

Define and assign account determination procedures

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Account assignment/Costing
- > Revenue account determination
- > Define and assign account determination procedures
- > Define account determination procedure
- > Check account determination procedure KOFI00 and, go and
- ➤ Check whether condition type KOFI is existed or not in the control data button
- Save and Exit

Assign account determination procedure

Path:

- > IMG
- Sales and Distribution
- Basic functions
- ➤ Account assignment/Costing
- ➤ Revenue account determination
- > Define and assign account determination procedures
- > Assign account determination procedure
- Choose our billing document type F2
- Assign account determination procedure KOFI00 for the document
- Save and Exit

Define account keys

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- ➤ Account assignment/Costing
- Revenue account determination
- Define and assign account keys
- Define account keys
- ➤ Here we define accounting keys like ERL, ERS, ERF, etc
- Save and Exit

Assign account keys

Path:

IMG

- Sales and Distribution
- Basic functions
- Account assignment/Costing
- Revenue account determination
- > Define and assign account keys
- > Assign account keys
- ➤ Choose our pricing procedure

Make sure that relevant accounting keys have been assigned or not

Save and Exit

Assign GL accounts: Transaction code: VKOA

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Account assignment/Costing
- > Revenue account determination
- > Assign GL Accounts
- Maintain GL accounts for condition tables 004, 005
- ➤ Go to new entries
- Maintain the values like below

Application	Condition type	Chart of	Sales organization	Accounting key	GL Account
		accounts			No.
V	KOFI	< 0002>	<sri></sri>	ERL	<100000>

- Save and Exit
- Go XD01 instead of VD01 and create Customer Master

In customer master company code data section maintain Reconciliation account number

Check payment history record in payment transaction tab

It is the main control to update the customer payments in credit control area

Maintain sales area data

Make sure that account assignment group maintained in the billing document tab

Save and Exit

$$F-22 = RV$$
 Document
 $F-28 = Invoice posting$

- \triangleright VL01N → VF01 → Save → VF02 → Go to button → Accounting overview
- > Check whether system has determined accounting document type RV

NOTE: The system sends billing data of invoices, credit memos and debit memos into financial account and post them into correct GL account.

The data that we can change before an account document created: pricing data, billing data and account determination output.

NOTE: Once the billing document has been receiving the accounting only output determination can be changed.

Reference number and allocation number: We can automatically fill reference number and allocation number in the financial document with the numbers from the SD documents.

Reference number: It is a header field of accounting document and can be used for clearing.

Ex: "E" current billing document number.

It is the customer line item and used for sorting line item.

Ex: Delivery document number.

In copy control of billing we can control which fields can be used as a reference or allocation number (Delivery to Billing) (LF to F2) header level fields reference number and allocation number.

FI Documents: The definition of billing document type, the field document type is contained accounting documenting type that is to be generated.

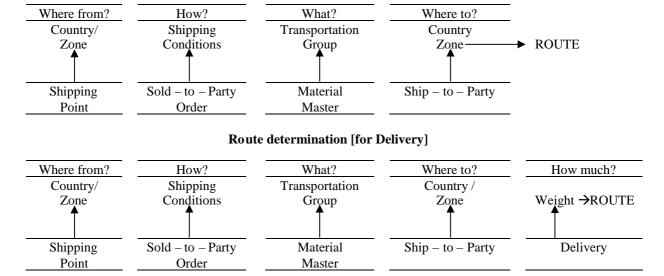
Ex:	Invoice	Accounting document type
	F2	DR or RV
	G2	DG
	DR	NN

If it does not contain any value then system generates the accounting document type "RV".

Route Determination

The "Route" determined by the system automatically by using condition technique. The route determination involves means of transport and legs. Route can be determined for order.

Route determination [for Order]



Route can be re – determined at delivery level also.

Route is determined for the line item in the sales order by taking the below specified factors:

- 1. Country and departure zone of shipping point.
- 2. Shipping conditions from the customer master.
- 3. Transportation group from the material master.
- 4. Country and transportation zone of Ship to Party. and
- 5. Delivery group of material master if the Route is re determined in the delivery document.
- At order level route is applied to single item.
- In delivery level route is applied to all items.

Route is automatically proposed to each line item in the sales order. It is a process where by one can assign specific routes with transportation legs using different shipment types can carriers.

- Route can be determined in the delivery again.
- In delivery route applies to all items in the delivery.

Configuration steps: Define data that is used to determine "Route"

Define modes of transport

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Routes
- Define routes
- Define modes of transport
- Go to new entries
- Define your transport group
- Save and Exit

The modes of transport are self explanatory Ex: Road or Plane.

Define shipping types

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Routes
- Define routes
- Define shipping types
- Go to new entries
- > Define your shipping points
- Save and Exit

Shipping types are the actual vehicles used for transport materials and can be defined as a train or mail. **Ex:** Truck, Mail, etc.

NOTE: Assignment also takes place in the same step Ex: 01 Truck \rightarrow 01 Street.

Transportation connection points: Transportation connection points can be beginning or ending points of the leg.

Path:

> IMG

- > Sales and Distribution
- Basic functions
- Routes
- Define routes
- Define transportation connection points
- > Go to new entries

Ex: [NAIDUPET] [Naidupet – Leg beginning]

Characteristic attribute

- Check load transportation point
- Again go to new entries to define ending of the leg
 Ex: [NELLORE] [Nellore Leg ending]
- > Check load transportation point
- Save and Exit

Define routes and stages: Transaction code: OVTC

Path:

- > IMG
- Sales and Distribution
- > Basic functions
- Routes
- Define routes
- Define routes and stages
- Select existing route
- Click on copy as icon
- Define route, description, route ID
- Assign service agent (The shipping and transportation can be entrusted to shipping agent vendor)

NOTE: Create vendor

Create vendor

Path:

- Logistics
- > Sales and Distribution
- Master data
- Business partner
- > Forwarding agent
- \triangleright Create V.11

Specify vendor No. "This is EXTERNAL" **Ex:** 50 Specify company code and account group 0005 = Vendors

NOTE: Create a vendor by specifying GL account (FS00)

Mode of transport border [3]

Shipping type [01] [01] [01] Distance [1000] [KM]

Check relevant transportation

This indicator enables particular route for transportation.

Schedule line

Specify transportation time [24] Hours Allowed weight [100] KGs

- Save it
- Click on route stages control button under dialog structure Specify departure point and destination point Specify service agent (transportation connection points)
 Leg indicator [DIRECT LEG]
 Procedure [SDFC00] standard

This procedure will be used by the system to calculate shipping cost for agent.

Stage category [Load transfer]

> Check shipment cost relevant

This indicator signifies that this stage is relevant for shipment cost

Save and Exit

Define route determination

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Routes
- ➤ Route determination
- > Define route determination
- Define transportation zone
- Go to new entries
- > Define your transportation zone
- > Save and Exit

Maintain country and transportation zone for shipping point

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Routes
- Route determination
- Maintain country and transportation zone for shipping point
- > Choose your shipping point from position button
- Assign country and transportation zone

NOTE: This value will be proportionate to customer master

> Save and Exit

Define transportation groups

- > IMG
- Sales and Distribution
- Basic functions

- Routes
- > Route determination
- Define transportation groups
- Go to new entries
- Define your transportation group
- Save and Exit

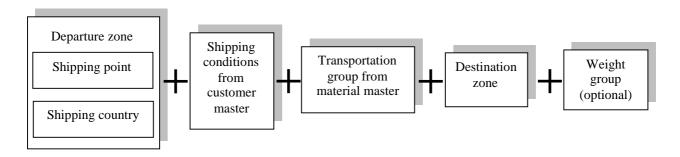
NOTE: This value will be proportionate to material master

Maintain route determination

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Routes
- Route determination
- > Maintain route determination
- ➤ Go to new entries
 - Specify departure country, departure zone
 - Specify destination country, receiving zone
- Select it and click on route determination without weight group
- ➤ Go to new entries
 - Specify the shipping condition [CMR]
 - Specify transport group [MMR]
 - Specify the proposed route
- Save and Exit
- ➤ Go to VA01 and raise the sales order and check our route existed or not

Route Determination Factors



Partner determination procedure

- Business may have a great deal of contact with natural and legal persons.
- Partner determination in sales and distribution enables us to display the partners involves in business transactions, their functions and relationships in R/3.
- When create/processes sales document systems determines partner automatically.
- The functions that a partner fulfils in a business process are shown in R/3 system as a partner functions.
- This component offers various partner functions that are import for sales and distribution processing.
- We can use PARTNER PROCEDURE to assign group of partner functions in IMG for each transactions.
- We can maintain PARTNER RELATIONSHIPS in customer master and sales and distribution documents.
 As we maintain PARTNER RELATIONSHIP in customer master they are automatically proposed into sales documents (Header).

Partner control: Since in sales and Distribution processing in the R/3 system the right partner is automatically setup with the required functions in document.

Process flow for partner determination:

- 1. Define partner functions for different tasks.
- 2. Combine these partner functions together into PARTNER PROCEDURE and assign these to the document types.
- 3. Assign business partner functions on the debit side to customer group.

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Partner functions: By assigning a partner function to a partner we can determine which functions partner fulfils in the business processes.

A partner can have more than one function.

Ex: Sold – to – Party, Ship – to – Party, Bill – to – Party, Payer, Forwarding agent, Contract person, etc.

Among these, Sold – to – Party to Payer are mandatory partner functions.

Partner functions are classified using partner types.

Partner types enable general scheduling of partner function as in creditors, customer, personal and contact person.

Partner type – Customer: Sold – to – party, Ship – to – party, Bill – to – party, and Payer.

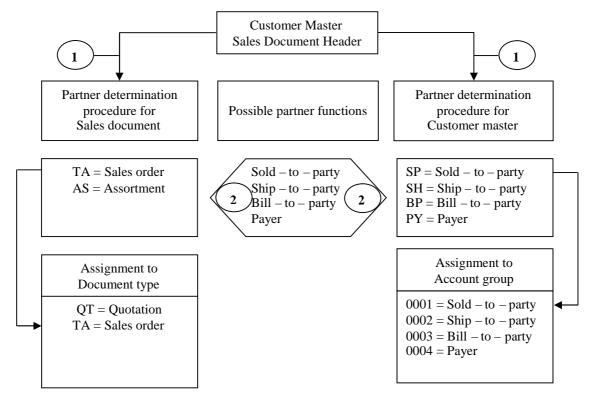
Partner type – Contact person: Contact persons are natural persons to whom we must contact at the customer for business processing. We can create contact person in customer master record.

Partner type – Vendor: Forwarding agent

Partner type – Personal: Employee responsible, Sales person

Partner determination procedure: In the partner procedure we can determine whether partner functions can/should occur in a partner object (customer master, sales document, item category, etc)

- We can determine partner functions for the objects.
- By assigning procedure we determine for which account group, which sales document type, for which item categories this procedure is valid.



In partner determination procedure we can determine each partner function:

- Whether the partner function is an obligatory partner function
- Whether the partner function may be changed in the documents.

Partner determination is used in the sales and distribution processing in two ways:

- 1. Creating customer master
- 2. Creating sales documents

Authorized partner for release orders: When we create a release order for a contract, we enter the contract number and the name of the partner who requesting goods. Then system checks if the business partner is authorized to release contract.

Then system checks the: Partner in the contract (Rule 'A').

If partner has partner functions (AG) (AA) Sold - to - party for releasing orders in the contract. Then system accepts Sold - to - party for releasing order.

Partner in the hierarchy (Rule 'B')

After authorization check, the system also checks if more than one Ship - to - party is defined in the contract. If system contains "WE" (Ship - to - party) and several "AWS" (Ship - to - party to release orders), then the system lists the possible Ship - to - party in a dialog bin. We can define authorized Sold - to - parties (AA) and addition Ship - to - parties (AW) in the customer master record. When we create contract for customer these partners are proposed for selection.

Pre – requisite:

- Activate partner determination check in VOV8 of contract document type.
- Partner determination procedure "KAB" (Partner in contract) contains the partner function AA/AW. We must assign this procedure to the sales document types (contracts) for which the partner authorization check is relevant. Make this assign in IMG.
- Define and assign partner determination procedure.
- Copy control we can determine only releasing partner should copy from contract to release order, and other partners are copied from customer master of the Sold to party.

Configuration steps:

Define account groups: Transaction code: OBD2

Path:

- > IMG
- Financial accounting
- > Accounts receivable and accounts payable
- Customer accounts
- Master data
- > Preparation for creating customer master data
- > Define account groups with screen layout (customer)
- Go to new entries
- Specify your account group and description
- Save and Exit

NOTE: Select one time customer account if he belongs to one time account customer.

Specify output determination procedure: We can specify the output determination procedure in the customer master from where system automatically proposes output type in the sales document.

Define number ranges: Transaction code: XDN1

Path:

- > IMG
- > Financial accounting
- > Accounts receivable and accounts payable
- Customer accounts
- Master data
- Preparation for creating customer master data
- Creating number ranges for customer accounts
- > Click on change intervals icon
- Click on insert intervals icon
- ➤ Define number range
- Save and Exit

Assign number ranges to customer account groups: Transaction code: OBAR

Path:

- > IMG
- > Financial accounting
- > Accounts receivable and accounts payable
- > Customer accounts
- Master data
- > Preparation for creating customer master data
- Assign number ranges to customer account groups
- > Choose our account group from position button
- Specify number range key that we defined previous
- Save and Exit

Define partner functions

Path:

- > IMG
- Sales and distribution
- Basic functions
- Partner determination
- Setup partner determination
- > Setup partner determination for customer master
- ➤ Click on **partner functions** control button
- Go to new entries
- > Define your partner functions [OR]
- Choose existed partner functions like below:

Partner function	Name	Partner type	Unique in customer master
SP	Sold - to - party	KU	✓
SH	Ship – to – party	KU	
BP	Bill – to – party	KU	
PY	Payer	KU	

> Save and Exit

Define partner determination procedure

- > Click on partner determination procedure under control button
- Go to new entries
- Define your own partner determination procedure
- Save and Exit

Assign partner functions in the partner determination procedure

- Select our partner determination procedure
- Click on partner functions in procedure
- ➤ Go to new entries
- > Specify partner functions like below:

Partner determination procedure	Partner function	Name	Not changeable	Mandatory
	SP	Sold - to - party	✓	✓
Ex: SREE	SH	Ship – to - party		✓
	BP	Bill - to - party		✓
	PY	Payer		✓

Save and Exit

Partner determination procedure assignment

- ➤ Click on partner determination procedure under dialog structure
- Choose our account group from position button that we defined in OBD2
- Assign partner determination procedure that we created in the previous step
- > Save and Exit

Account groups - Function assignment

- ➤ Click on account groups function assignment button under dialog structure
- ➤ Go to new entries
- > Specify partner functions

Partner function	Name	Account group
SP	Sold – to – party	0001
SH	Ship – to – party	0001
BP	Bill – to – party	0001
PY	Payer	0001

- Save and Exit
- ► Go to XD01 to create customer master \rightarrow Save \rightarrow Exit
- ➤ Go to XD02 → Extras → Administrative data Check our partner procedure existed or not

Partner determination procedure for sales document header

SAP uses condition technique to determine partner functions for sales document header and item. We can determine partner functions to sales document header directly or we can propose partner functions from customer master.

Configuration settings:

Define partner functions

Path:

- > IMG
- Sales and distribution
- Basic functions
- > Partner determination
- > Setup partner determination
- > Setup partner determination for sales document header
- ➤ Go to partner functions under dialog structure
- ➤ Go to new entries
- > Define partner functions [OR]
- > Choose existed partner functions like below:

Partner function	Name	Partner type	Unique in customer master
SP	Sold - to - party	KU	✓
SH	Ship - to - party	KU	
BP	Bill – to – party	KU	
PY	Payer	KU	

Save and Exit

Define partner determination procedure

- ➤ Click on partner determination procedure under dialog structure
- Go to new entries
- Define partner determination procedure
- > Save and Exit

Assign partner functions in the partner determination procedure

- Select our partner determination procedure
- > Click on partner functions in procedure
- ➤ Go to new entries
- Specify partner functions like below:

Partner determination procedure	Partner function	Name	Not changeable	Mandatory
•	SP	Sold – to – party	√	✓
Ex: SREE	SH	Ship – to - party		✓
	BP	Bill – to – party		✓
	PY	Payer		✓

Specify [] blank in the [C] original table (as partner functions from "KNVP" or AG mandatory partner type "KU").

> Save and Exit

Partner determination procedure assignment

- Click on partner determination procedure assignment under dialog structure
- Choose our sales document type "OR" from position button
- Assign our partner determination procedure that we defined previous step
- Save and Exit

Assign partner functions to account group

- Click on account groups function assignment under dialog structure
- > Check our account group has been assigned to our partner determination procedure by system automatically.
- (OR) Assign partner functions to our account group
- > Save and Exit

NOTE: Partner functions in the sales document header directly proposed into sales document header from customer master.

- ➤ Go to VA01 and raise the sales order with our newly created customer.
- \triangleright Go to go to button \rightarrow Header \rightarrow Partner \rightarrow and check our partner functions are proposed or not
- \triangleright Go to go to button \rightarrow Item \rightarrow Partner \rightarrow and check partner functions in shipping tab and billing tab
- Save and Exit

Output determination

Output is a form of media from a business to one of its business partners. Ex: Printouts, Faxes, Telexes, E – mails and Electronic Data Interchange (EDI). The Output determination component offers output functions for Sales, Shipping and Billing to help in manage sales transactions with our customers and within the organization.

Output can be sent to any of the partners defined in the document.

Outputs are usually in the form of order confirmations, delivery notes, invoices and shipping notifications.

The output determination component offers output functions for sales, shipping transportation and billing to help in manage sales transactions with our customers and with in the organization.

We can create output.

We can group output.

Employers can send/receive output.

Output directly linked to the corresponding sales transaction Ex: Trough EDI.

System automatically proposes output for a sales and distribution document.

System uses condition technique to determine output.

We use output type to control how the output should be transmitted.

Ex: Via EDI, be printed.

We can determine output for all kinds of objects in SAP – SD. Ex: For sales activities sales documents delivery documents and billing documents.

We can determine output, we can process output, and we can send output.

SAP uses condition technique to determine output.

Output types can be Inquiry, Quotation, Order confirmation, Shipping document, Billing document, etc.

The output can be sent through transmission mediums.

Ex: Local printer, Fax, Telex, E – mail, SAP inbox or even to SAP.

Output determination closely integrated with technical module as technical consultant prepares the output format in SAP script or smart forms.

Configuration settings:

Output determination for sales documents: Transaction code: V/57

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Output control
- Output determination
- Output determination using the condition technique
- Maintain output determination for sales documents
- Maintain condition tables
- Maintain output condition table for sales documents

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 \triangleright

Save and Exit

Maintain output types: Transaction code: V/30

We define output types for output type records. Out put type represents different output. **Ex:** Quotation, Order confirmation, etc.

Path:

- > IMG
- Sales and distribution
- Basic functions
- Output control
- Output determination
- > Output determination using the condition technique
- Maintain output determination for sales documents
- Maintain output types
- Check different output types existed or not

Ex: AF00 = InquiryAN00 = Quotation

BA00 = Order confirmation

LP00 = Scheduling agreement

MAIL = Internal message

RD03 = Cash sales invoice

- Click on change/display icon
- Choose "BA00"
- Click on **copy** icon (press ENTER till 28 entries copied) and rename it
- Select our output type
- Check "Mail title" and "Text" control button whether mail and texts are existed in all languages or not
- Check processing routines for all transmission mediums are existed or not
- > "Program", "FORM routine", "Form" are maintained and provided by technical consultants.
- Check partner functions has been assigned to transmission mediums in partner functions control button
- Save (press ENTER up to "SAVE" request disappears)
- Come back
- Go to details icon
- Assign access sequence [] (create access sequence in next step)
- In general data section

Check access to conditions

In **default values** section

Maintain dispatch time as "send immediately"

Transmission medium: "Print out"

Partner function: SP

➤ In **time** section

Check timing: 1

Save and Exit

Maintain access sequence

Path:

- IMG
- Sales and distribution
- Basic functions
- Output control
- Output determination
- > Output determination using the condition technique
- Maintain output determination
- > For sales documents
- Maintain access sequences
- Go to new entries
- > Define your access sequence
- Select it and click on accesses icon
- Go to new entries
- Specify access sequence No. 10

Table No. Ex: 001

Save and Exit

Assign output types to partner functions

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Output control
- Output Determination
- > Output determination using the condition technique
- Maintain output determination for sales documents
- Assign output types to partner functions
- Check whether the system has copied output types with relevant transmission mediums and partner functions
- Save and Exit

Maintain output determination

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Output control
- Output determination
- Output determination using the condition technique
- Maintain output determination for sales documents
- Maintain output determination procedure
- ➤ Choose standard output determination procedure "V10000"
- Copy and rename it
- > Save and select our output determination procedure
- Click on **control data** button and change output type "BA00" as ours **Ex:** SREE
- Save and Exit

Assign output determination procedure

Allocate Sales Document Header: Transaction code: V/43

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Output control
- Output determination
- Output determination using the condition technique
- > Maintain output determination for sales documents
- Assign output determination procedure
- Assign Sales Document Header
- ➤ Choose sales document type "OR" from position button
- Assign out output determination procedure (ours) Ex: SREE
- Save and Exit

Sales Document Item: Transaction code: V/69

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Output control
- Output determination
- Output determination using the condition technique
- Maintain output determination for sales documents
- > Assign output determination procedure
- Assign Sales Document Items
- ➤ Choose item category as "TAN" form position button
- ➤ Assign our output determination procedure
- Save and Exit

Maintain condition record: Transaction code: VV11

Path:

- Logistics
- > Sales and distribution
- Master data
- Output
- > Sales document
- ➤ VV11 Create
- > Specify our output type **Ex:** SREE
- Click on key combination
- Maintain the details like below

Customer No.	Partner	Message transmission medium	Dispatch date	Language
	function	[M]		
1001007	SP	1	18 - 02 - 06	EN

- > Select condition line item
- > Click on **communication**
- > Specify output devise [LP01]
- Check print immediately
- Save and Exit
- ➤ Go to VA01 and raise the sales order
- ➤ Go to Extras → Output → Edit → Check condition record values are copied or not
- Save and Exit
- \triangleright Go to VA02 → Extras → Output → Header → Print preview
- Check the result

Steps:

- 1. Put the fields into the field catalog that you will need.
- 2. Create the condition tables.
- 3. Create the access sequence
- 4. Assign the condition tables to the access sequence
- 5. Create the condition types
- 6. Assign the access sequence to the condition type
- 7. Create the determination procedure (if necessary) and assign the condition types to it.
- 8. Assign the determination procedure.
- 9. Create your condition records.

Text determination

Text can be used to exchange the information between the documents with partner, between the users. We can create text for objects like customer master, customer material info record, sales document header and item, delivery document header and item, billing document header and item and condition records also.

Text can be sales text, customer text, etc. SAP uses condition technique to determine text.

Configuration settings:

Text determination for customer master

Access sequence is not necessary for the customer master record text, as the customer master record is the highest level possible in text determination.

NOTE: Customer master record Text does not have any access sequence with respect to text determination customer text maintained in KNVV table.

If you have difficulty creating new text types, it is possible to overwrite an existing text type entry and description. The system will then proceed in automatically creating a new entry while leaving the previous text type unchanged.

Define text types: Transaction code: VOTXN

The classification of texts that user can define in the master records or in the documents. **Ex:** Sales text, Shipping text, Internal note, etc.

Path:

- IMG
- Sales and distribution
- Basic functions
- Text control
- Define text types
- Customer
- © Choose sales and distribution
- Click on **text types**
- Select existed text type
- Click on **copy** as icon and rename it
- Save and Exit

Define text determination procedure

Path:

- IMG
- Sales and distribution
- **>** Basic functions
- > Text control
- Define text types
- > Click on change icon
- ➤ Go to new entries
- > Define text determination procedure
- Save

Assign text ID's to text determination procedure

- > Select our text determination procedure
- Click on **text ID's in text procedure** under dialog structure
- ➤ Go to new entries
- > Assign text ID **Ex:** 0001
- > Specify sequence number as [1]
- Save and Exit

Assign text determination procedure for account group

- Select our text determination procedure
- Click on text procedure assignment under dialog structure
- > Choose account group 0001
- Assign our text determination procedure (that we created in the 2^{nd} step)
- Save and Exit

Maintain text in the customer master:

- ➤ Go to XD02
- Go to sales area data section
- \triangleright Go to Extras \rightarrow Text
- > Specify the language and maintain the text in the "first line"
- ➤ Double click on it (OR) Click on **change text** for SAP script editor
- Save and Exit

Text determination procedure for sales document header

We can determine text determination procedure for sales document header or else we can import from customer master.

Text can be proposed in sales document header during copying or text can be determined in the sales document itself.

Configuration settings:

Define Text type: Transaction code: VOTXN

Path:

- > IMG
- > Sales and distribution
- Basic functions
- > Text control
- Define text types
- Sales document
- O Select **Header**
- Click on text types
- Select existing text type
- > Click on **copy** as icon and rename it
- Save and Exit

NOTE: Sales document header text maintained in VBBK table.

Define Access Sequence

- Click on change icon
- Click on access sequence control button
- ➤ Go to new entries
- Specify access sequence number and description
- > Save and Exit

Define Text Determination Procedure

- **▶** Click on **Text procedure**
- Select existed one
- > Click on **copy** as icon and rename it
- ➤ Click on skip icon till access sequence is copied
- Save and Exit

You can also specify if the Text is to be mandatory or not. If the text is specified as mandatory and does not exit in the sales document, the system will place an entry in the sales Incompletion Log.

Assign text ID's in text procedure

- > Select our text determination procedure
- Click on text ID's in text procedure
- Select all entries
- Delete
- Save
- > Go to new entries and maintain the fields like below:

Text ID: That we defined in the previous step

Sequence No. 1

✓ Check reference

It is an indicator to specify whether text is copied or reference

Specify text will be displayed during copied specify access sequence

Save and Exit

Assign access sequence for text ID's

- > Select our text determination procedure
- Click on access sequence for text ID's control button
- Specify the access sequence number in the work area
- Go to new entries
- Maintain the details like below

Sequence No.	Text object	ID	Partner function	Language
10	KNVV (from customer master)	That we created in	SP	EN
	VBBK (sales document header)	customer master		
	VBBP (sales document item)			

Save and Exit

Assign document type to text determination procedure

- Select our text determination procedure
- ➤ Click on **text procedure assignment**
- > Choose sales document type "OR" and assign our text determination procedure to it
 - Check **text in overview screen** option

(If you want to display the text in sales document header level)

- Save and Exit
- ➤ Go to VA01 and raise the sales order
- > Specify the customer number
- > Check our text has been proposed or not

NOTE: In the maintenance of access sequences, it is useful to know the different text objects. The following are as most common:

KNVV = Customer sales texts in the customer master from one of the sales screens.

KNA1 = Customer master central texts in the customer master from one of the general screens.

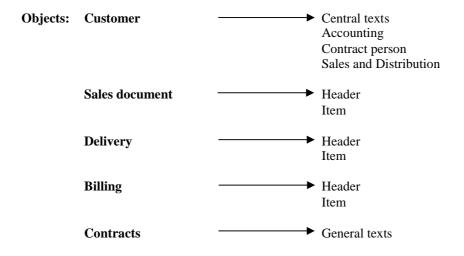
KNB1 = The accounting texts

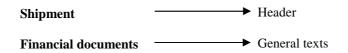
KNMT = Texts defined for the customer material information record. KNVK = Texts from the contact persons screen in the customer master.

MVKE = Texts from the sales text screen in the customer master record (only one ID = 0001).

TEXT = This refers to standard text that applies across the system.

NOTES: The SD module is used in the text determination for the following text objects:



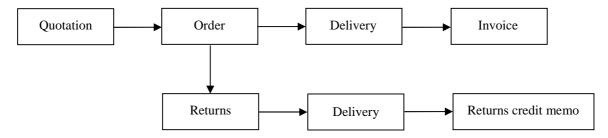


Copy Control for Sales Documents

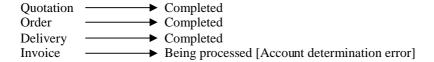
Source Document <u>Ex:</u> IN	Copy control	Target Document <u>Ex:</u> QT
Header	Header	Header
Item	Item	Item
Schedule line	Schedule line	Schedule line

SD business process reflects by the flow of documents in the system. We can use copy control to define the requirements and options when transferring the data from reference document to its subsequent document.

Document flow



Document flow for order



- 1. Document flow is updated for whole document.
- 2. When the indicator update document flow is set in copying control the individual items are also gets updated.
- 3. We can display additional data for each document that is listed in the document flow.

We can create sales documents with reference to documents that we created previously. We can enter different requested delivery date, quantity in the new documents for all the items.

We can call – up the selection screen for the referenced document.

When we select the data from selection screen the system checks the following things:

- 1. Both documents have the same Sold to party or not.
- 2. Was the item being copied or rejected?
- 3. Have the items being copied already been referenced.
- 4. Has the validity period of the reference document been exceeded?

We can combine several quotations for one customer in one sales order by using "create with reference".

Copying control tables:

They control many of the functions perform when we create a document with reference to preceding document.

There are copying control tables for sales, delivery, billing documents.

Each table has the settings for the applicable level of the document.

Ex: Header, Item, Schedule lines.

Before the data is copied from source document to target document certain requirements must be satisfied at each level of the document.

These routines are contained in ABAP – 4 programming.

"VOFM" is the transaction code to define own requirements.

Once the copying requirements are satisfied, then certain "Routines" are executed.

Sales Document to Sales Document:

Transaction code: VTAA

Path:

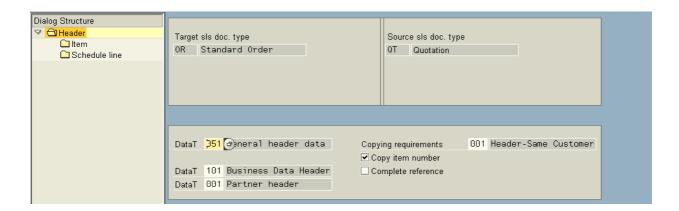
- IMG
- Sales and distribution
- Sales
- Sales documents
- Maintain copy control for sales documents
- Copy control: sales document to sales document
- Click on **position** button
- Choose sales documents as: Source document [QT]

Target document [OR]

- > Select the combination and click on **details** icon
- Click on change/display icon
- Again click on **position** button
- Again select: Source document [QT]
 - Target document [OR]
- > Click on **details** icon again
- ➤ Click in **Header** control button under dialog structure

Header level

Then the screen contains copying requirements, data transfer routines, whether item number can be copied into target document, fully reference (or) complete reference (system messages if quantity not fully referenced).



- 051 = General header data: [051 = Data transfer routine number] In order to enable copying of basic header data such as tax jurisdiction codes from quotation to sales order. This routine can be used to assign sales document header "VBAK".
- 101 = Business data header: This routine can be used to transfer the data like sales district and inco terms. And certain data that is related to purchase order of the customer should not be transferred from sales document to target document.
- 001 = Partner header: This routine transfers the partners assigned to the header of the reference document to the target document header. Invalid partners are removed, and missing partners are filled automatically.

To transfer the partner functions from quotation to sales order this routine should be assigned.

Copying requirements: [001] – Header same customer

[002] – Header different customer

This routine checks partner functions of header, while copying source document to target document whether same Sold – to – party is being copied or not.

Check copy item number: This is the control to copy the same item number from source document to target document.

[] Complete reference: This is the control to show the messages about the referenced quantity like – fully or partially.

Exercises: Copying requirements: Business scenario: A new document can be raised with reference to preceding document.

Ex: Sales order can be raised with reference to quotation. That means quotation has been raised for customer "A". Then sales order should be raised with reference to this quotation for only this customer. According to the "copying requirement" 001 (partner header – same customer) that has been specified in copying control of "VTAA" at header level.

According to the new scenario system should accept another Ship - to - party instead of actual Ship - to - party while raising the new document with reference to preceding document (that has been raised for actual customer).

Solution:

- ➤ Go to VTAA
- Choose: Source document type as [QT] Target document type as [OR]
- Select it
- Go to change mode
- ➤ Change copying requirement field as [002] = Header Different customer
- Save and Exit

Copying item numbers: Business scenario: While copying source document to target document system has to copy material numbers along with item numbers. This indicator enables the system to copy the same item number from source document to target document. This indicator enables the system to do so.

If the business wants to assign new numbers in target document deactivate this control (do not forget to maintain new items in sales document type VOV8 of target document).

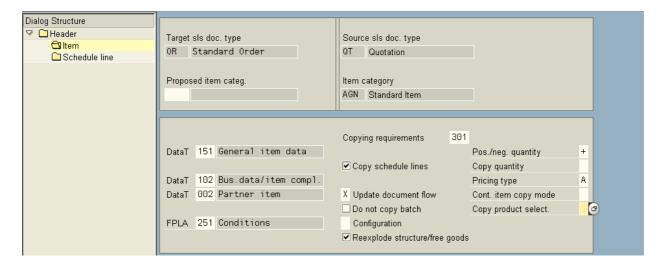
Complete reference: Business scenario: If you mark this field the system copies the source document to target document completely. Then system also copies the complete reference indicator. Then you cannot change the indicator in the target document.

If you raised the quotation for 10 items, if you marked this field and you raised the sales order for 10 items and if you want to change quantity in target document level, then system shows a message.

> Save and Exit

Item level

Item level controlled by each item category. In copying control the details screen that item level contains copying requirements, data transfer routines, quantity rules, copy quantity, pricing type, update document flow.



- Click on **item** control button under dialog structure
- ➤ Choose item category AGN from position button
- Click on details icon

Proposed item category field []: The field specifies the item category that system proposes during copying for the item in the target document.

It can be used:

- A Whether the system is not supposed to determine a new item category in the target document.
 Ex: In free goods the free goods item category TANN should not be pre determined as default in the sales order.
- **B** When the item category in the source document is not supposed to be valid for the target document. **Ex:** In billing cost determination is not to take place for credit memos for third party order (G25). Therefore, the system should use item category TASG as default since it does not determine cost, rather than copying the source documents item category (TAS).

151 = General item data: This item is used to transfer general item data from reference document to target document.

Ex: While copying data from source document to target document it should be feasible that some field such as product hierarchy and material group from reference item to target item should be transferred and re-determined.

In addition to this if the Sold - to - party also same, then some fields from Sold - to - party transferred into target document.

102 = Business data/item completion: This routine transfer's business data of the item from source document to target document.

But some specific data like purchase order of the item should not be transferred. We can assign this routine to do so.

002 = Partner item: This routine transfers the partners of the item from source document to target document, like necessary partners are copied unnecessary partners are removed, and missing partners are fulfilled.

In addition to that, it also checks whether the Sold - to - party for the item is same or not in the source and target documents. If it is not same system will not copy the data.

Ex: We can assign this routine when you copy the sales order.

FPLA [251] = Billing plan (conditions – it is not in use)

Copying requirements [301] = Item rejection reason

This routine checks whether there are any rejected items in source document. If there are any rejected items then system will not copy those items.

Copy schedule lines: It indicates whether system automatically copies schedule lines from the source sales document to target document.

Ex: If you copy schedule lines from quotation to order you should check it. In case of subsequent free of charge sales delivery you should not check it, since we enter the quantity manually.

Update document flow [X]: It specifies whether the system creates document flow record when you create a sales document item with reference to previous document or if you create a new document with reference to existing document. The system copies the indicator from copying control for the sales document item to the target document item.

Use: A document flow record contains information about the values and quantities that have been copied from source document to target document. System uses the document flow to determine status of the source document.

- If you choose blank [] system does not create document flow record.
- If you choose [X] system creates document flow records from source sales document item to target sales document item.

Ex: If you copy quotation to sales order, then sales order create document flow record for the quotation and also delivery, goods issue, and billing documents creates document flow records for sales order and also for quotation.

• If you choose [2] it creates document flow record except for delivery/goods issue/billing documents.

It creates document flow records from target document item to preceding document item and also to new document item.

System does not create any document flow record from a subsequent document item to source document item and preceding document item, if subsequent document is delivery good or billing document.

Ex: Source document is a customer contract; target document is a sales order. Then sales order creates a document flow record for contract. The delivery, goods issue, billing documents only creates document flow record for sales order not for contract.

Update indicator "2" is particularly useful for improving system performance when the source document is a contract, and target document is a release order if the contract has a several release orders.

Do not copy batch: It indicates whether system has to copy the item batch number from preceding document line item to target document line item.

[] **Configuration:** This field controls the copy logic to configuring item. This control should only be used for main item. When you copy the configuration the target document simply uses the configuration in the source document and the system does not run the dependencies and the BOM is not being re-exploded.

Once we copied the configuration, if it is changed in the source document, it will also change in the target document.

If the configuration is fixed in the target document, you cannot change the configuration; the document cannot be unfixed.

[] **Re** – **explode structure/Free goods:** This field controls the copy logic for main items with BOM explosion. BOM explosion in the SD document is either on the SD BOM's or results of variant configuration.

We can re-determine the BOM items according to a new date and a new quantity. So that other components also determined in this way. It is relevant for item categories TAQ and TAE.

Positive/Negative quantity [+]: Quantity is calculated positively or negatively. It indicates during copying the quantity or value in the target document has a negative effect or positive effect or no effect at all. The quantity is still to be completed in the source document.

Use: System uses this indicator to determine how the quantity in the source document is affected.

Ex: If you create pieces and raised the sales order for 80 items, then quotation has a positive effect. That means 80 pieces of the quotation treated as "completed" and 20 pieces of the quotation treated as "remained to be completed".

In sales document:

Quotation
Contract
Sales order:

Return:
Negative
Sales order:
No effect

Billing document:

Delivery

Copying quantity []: It defines the quantity that is copied to the target document. If you leave this field then, system tries to copy the best possible quantity depending on situation.

Ex: System copies open quantity if it is from quotation to order.

System copies completed quantity if it is billing to credit memo.

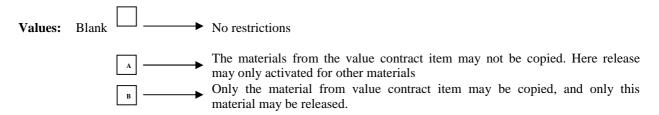
Pricing type [A] = Copy price components and re-determine scales.

It specifies how the system treats pricing data when copying documents.

Ex: According to "A" we raised the quotation for 100 items with maintained scales, and then system determines the scales for 100 items according to the scale rate. Now we raised the sales order for 50 items. Now system determines pricing according to the scale for 50 items.

Copy mode for material in value contract item []: It is for value contracts.

It specifies how the system should copy the materials in the value contract into release order.

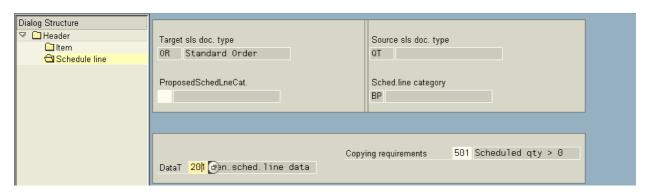


Copy product selection []: It specifies whether system automatically copies the results of the product selection from the source document to target document. If you want to copy the results of the product selection from source document to target document mark this field.

If you want to re – run product selection in the target document leave this field.

Save and Exit

Schedule lines



- Click on schedule line control button under dialog structure
- Choose schedule line category BP from position button
- Click on details icon

Proposed schedule line category []: The schedule line category that the system tries to copy into respective schedule line in the target sales document.

Use: If you leave this field blank and if you enter a new value during sales document processing then the system automatically determine the new schedule line category.

201 = General schedule line date: This routine is used to transfer the fields of schedule line from source document to target document.

Ex: When we copy the schedule lines from source document to target document some fields of items should be transferred and not re-determined. For instance schedule line quantity and unit of measure are copied as it is while the actual schedule line number and dates are re-determined based on the current availability situation at the time of creation. In addition to this if the Sold - to - party is same for the both documents, and the fields that are related to Sold - to - party that should also be transferred.

Copying requirement [501] = Scheduled quantity > 0

This requirement specifies only that schedule line that has requested quantity that is greater than "0" should be copied into the target document.

Copy control	Transaction code
Sales document to Sales document	VTAA
Sales document to Delivery document	VTLA
Sales document to Billing document	VTFA
Delivery note to Billing document	VTFL
Billing document to Billing document	VTFF
Billing document to Sales document	VTAF

Incompletion log

Incompletion procedure: As sales, delivery, billing data is recorded into the system through the data entered in the sales, delivery and billing documents. It is important that specific controls are maintained. The data that has been maintained in the sales document passed through delivery document and finally billing document. Billing document also need some important data to be maintained. So that if we forget to maintain the data and saved the document we may have to face problems during sub – sequent document processing.

So as to remain us about missing of this valuable data SAP provided this "incompletion log" facility. Its main function is to highlight the missing data

Configuration settings

Define status group: Transaction code: OVA0

Path:

- > IMG
- > Sales and distribution
- Basic functions
- ➤ Log of incomplete items
- > Define status groups
- ➤ Choose existed status group [01]
- > Select it and click on **copy** as icon
- Rename
- Save and Exit

Incompletion process inspects the objects such as line item and also inspects specific fields that have been maintained or not. If data did not maintained in the system, then system told how to respond. That is does/does not give warning message and what extent does it allow further processing of the document.

The incompletion log cannot register what data is maintained in the specific field and compare it to the data that should be in the specific field.

Ex: VBKD – BSTKD (purchase order number) – KBES ✓

We can create incompletion log for the following objects like: Sales document header, Sales document item, Sales document schedule lines, etc.

First we have to define "status group" by using OVA0 transaction code. Status groups are assigned to specific fields in the incompletion log. So it is possible to specify in a sales document like:

- A: It may be incomplete but not prevent the document processing further while.
- **B:** It may be incomplete and the case of sales documents being blocked for further processing.

Status group settings:

- ✓ **General:** If you set it to the status group to a field in the incompletion procedure that will cause sales document is incomplete. But it will allow the document to be processed further.
- ✓ **Delivery:** It will cause the sales document to be incomplete for further processing. That means creation of the delivery document will not prevent the processing of the billing document. But it affects when saving the billing document.
- ✓ **Billing document:** It will cause the sales document and delivery document to be incomplete for further processing. That is the creation of the billing document should the associated field not be filled.
- ✓ **Price:** It will cause the sales document to be incomplete for further processing should pricing not have been carried out.
- ✓ Goods movement: It will cause the delivery document to be incomplete for further processing. That for goods movement should a field not be filled such as quantity picked.
- ✓ **Picking:** It will cause the delivery document to be incomplete for further processing. That is picking should a field not be filled such as serial number.

		vill cause the de lled such as qua		e incomple	te for further processing that is packing, should a
Define	incompletio	n procedure:	Transactio	n code: O	VA2
	Path:				
A A A A A A A A A A A A A A A A A A A	Define inco Select grou Click on pr Go to chang Select inco Click on co Define you Select your Click on fice	ions completion items completion procec p "A" – [sales decocdures contre ge icon impletion procect py icon (or) go r incompletion p incompletion p elds control butt	locument header] ol button under dialo lure [11 – sales order to new entries procedure rocedure	rs]	
	Table VBAK	Field name AUGRU	Warning option ✓	Screen KKAU	[This is for order reasons]
>	Save and E	xit			
We can	n see the orde	r reason is relev	ant as incomplete.		
The as	signed screen	KKAU is the	screen that the syste	m takes th	e user through in order to complete the missing
			number which we do acomplete for further		vious step) which we defined as a deliver and
So that	we have to c	reate incompleti	ion procedures for or	der reasons	s and assign it to the sales document header.
	Table VBKD	Field name VSTKD	Warning option ✓	Screen KBES	[This is for purchase order number]
Assign	incompletio	n procedure:	Transactio	n code: VI	U A2
	Path:				
A A A A A A A A	Assign inco Assign proo Choose sale	ions omplete items ompleteness procedures to the sa	ales document types be OR from position	outton	
	With or w	rithout IC – dial	og ☐ OR ✓	Yo	u can leave the blank
-	mark this field document is Save and E	incomplete.	o save a sales docum	ent in whic	h information is missing, the system advises you
>	Go to VOV	78			

- Check incompletion procedure field in transaction flow section
- Save and Exit

NOTE: Item category and schedule lines are also same.

Important notes: We can create incompletion logs for the following:

- 1. Sales document header data [Incompletion group = A].
- 2. Sales document item data [B].
- 3. Sales document schedule line data [C].
- 4. Sales activity data [F].
- 5. Partner data in sales documents, deliveries and sales activities [D].
- 6. Delivery header data [G].
- 7. Delivery item data [H].

NOTE: The tables that can be used in the maintenance of the incompletion procedure are as follows:

VBKD = Business data
VBAK = Header data
VEDA = Contract data
VBAP = Item data
VBKA = Sales activities
VBEP = Schedule line data

VBPA = Partner

LIKP = Delivery header data LIPS = Delivery item data

Bill of Materials [BOM]

BOM item consist of combination of the materials by having a structure like header and sub – items. Different combination of the materials combined together to make one single object. The complete combination of materials only called as a BOM item.

Ex: "Computer" as it contains monitor as a header item and keyboard, hard disk, mouse as sub-items. The BOM items can independently sold to the customers separately.

Ex: If the mouse is going to participate as sub-item in the BOM.

But the customer requires same mouse as a "stand by" (spare). So the business can offer.

In BOM the pricing, delivery can be carried out at header level item (above structure) or sub-item level (below structure).

If BOM with above structure then system carries out delivery, billing process only for header item (item category group ERLA). Then system treats sub-items as text items (no pricing and no delivery for text items).

Above structure: Item category TAQ for header item. Item category TAE for sub – items.

If BOM with below structure then system carries out delivery and billing process only for sub – items (item category group LUMF). Then system treats header item as text item.

Below structure: Item category group for header item TAP

Item category group for sub – item TAN

Delivery group: The delivery group facilitates to confirm the quantities of all items in the BOM with best schedule lines.

Ex: As the BOM contains number of items system can confirm the quantities for some items on required delivery date, and it may not confirm the quantity for some items on required delivery date. In this context we can put all the items in a single delivery in a delivery group by specifying delivery group as one in delivery group field at header level of sales document under shipping tab in delivery group field.

NOTE: Item category group should only be changed for header item.

BOM can be exploded in application areas like production planning, material management and sales and distribution. While configuring BOM we have to specify the application area where it has to explode. BOM can be exploded single level or multilevel. Usually multilevel BOM's are exploded in production planning.

Ex: Material is the "Bike", as it has so many sub-items, again those sub-items will have some sub-items.

Configuration settings: [ABOVE structure]

- Create a material with item category group ERLA
- > Create another 2 materials as sub-items with item category group NORM
- ➤ Go to MB1C and maintain the stock for 3 materials
- ➤ Go to VK11 and maintain condition records for 3 materials

Configure BOM item: Transaction code: CS01

Path:

- Logistics
- Production
- Master data
- Bills of Material
- ➤ Bill of Material
- Material BOM
- ➤ CS01 Create
- > Specify the BOM header item [ERLA item] and plant
- ➤ Specify usage as [5] → Sales and Distribution
- ➤ Maintain the sub items
- Save and Exit

NOTE: Item category "L" → Stock item.

It is categorization item in the BOM according to set criteria.

Use: This categorization allows us to process data that is relevant to individual items in a BOM. It controls field selection default values for BOM triggering of specific system activities.

> Go to VA01 and raise the sales order by specifying header item and check whether BOM has exploded or not.

Item	Item category	Schedule line
Header item	TAQ	CP = Deterministic MRP
Sub – item	TAE	CT = No inventory management, No goods issue.

VOV7 of TAQ → Extent delivery

- ➤ Go to VOV7
- Select TAQ from position button
- Click on **details** icon and maintain the values like below

Billing relevance [A] = Delivery related billing document.

Price [X] = Standard

Structure scope [A] = Explode single level of Bill of Materials

[The value of this field causes to explode BOM in the document]

Application [SD01] = Sales and Distribution

It indicates the applications are where it has to explode

✓ Check manual alternatives.

Change View "Maintain Item Categories": Details 🎾 New Entries 📭 뒄 🐼 🚨 👪 TAQ Item category Extent delivered Business Data , ✓ Business Item Item Type ✓ Sched.Line Allowed Completion Rule Special Stock Item Relev.for Dlv Α Returns Billing Relevance ✓ Wght/Vol.Relevant Billing plan type ✓ Credit active Billing Block χ ✓ Determine Cost Pricing Statistical value Revenue Recognition Delimit, Start Date General Control Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / 20 Incompletion Proced. Standard Item Screen Seq.Grp PartnerDetermProced. N Standard Item TextDetermProcedure 01 Sales item Status Profile Item Cat.Stats.Group 1 Order, debit memo Create PO Automatic. Bill of Material/Configuration Config. Strategy Mat. Variant Action Variant Matching ATP material variant В Structure scope Create Delivery Group SD01 ✓ Manual Alternative Application Param. effectivities Value Contract / Value contract matl Contract Release Ctrl Service Management Repair proced. Control of Resource-related Billing and Creation of Quotations , Billing form DIP Prof.

VOV7 of TAE → **Explanation**

Change View "Maintain Item Categories": Details 🦅 New Entries 📭 榋 🐼 🚨 👪 TAE Item category Explanation Business Data Item Type Business Item Sched.Line Allowed Completion Rule Special Stock Item Relev.for Dlv Returns Billing Relevance Billing plan type ■ Wght/Vol.Relevant Billing Block ✓ Credit active Pricing Determine Cost Statistical value χ Revenue Recognition Delimit, Start Date General Control / Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / Incompletion Proced. Screen Seq.Grp Ν No Item Partner PartnerDetermProced. TextDetermProcedure 01 Sales item Status Profile Create PO Automatic. Item Cat.Stats.Group Bill of Material/Configuration Config. Strategy Mat. Variant Action Variant Matching ATP material variant Structure scope Create Delivery Group Manual Alternative Application Param. effectivities Value Contract / Value contract matl Contract Release Ctrl Service Management, Repair proced. Control of Resource-related Billing and Creation of Quotations Billing form DIP Prof.

 \triangleright Statistical value [X] = No cumulation values cannot be used statistically.

VOV6 of CT → No inventory management/No goods issue

Change View "Maintain Schedule Line Categories": Details 🎾 New Entries 📭 榋 🔌 🚨 🚨 🗸 CT Sched.line cat. No inv.mgmt/no Gdsls Business data > Delivery block ✓ Item rel.f.dlv. Movement Type Movement type 1-step P.req.del.sched Order type Item category Acct.assig.cat. Transaction flow Incompl.proced. Req./Assembly Availability Prod.allocation

✓ Check item relevant for delivery It is used for only information purpose

Item category determination table:

Configuration settings: [BELOW structure]

- > Create material with item category group in the header item should be LUMF
- ➤ Go to VA01 and raise the sales order by specifying header item
- Check the BOM explosion

NOTE: For **Below structure** also we have to follow all the steps like **above structure**, except the creation of LUMF material instead of ERLA material.

VOV7 of TAP:

Billing relevance is [A] Pricing [NIL] Structure scope [A] Application [SD01]

Change View "Maintain Item Categories": Details 🎾 New Entries 📭 榋 🐼 🚨 👪 TAP Item category Extent delivered Business Data Business Item Item Type Completion Rule ✓ Sched.Line Allowed Item Relev.for Dlv Special Stock Α Returns Billing Relevance ■ Wght/Vol.Relevant Billing plan type Billing Block ✓ Credit active Pricing Determine Cost Statistical value Revenue Recognition Delimit, Start Date General Control Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / 26 Incompletion Proced. Free of charge serv. Screen Seq.Grp Ν Τ PartnerDetermProced. No Item Partner TextDetermProcedure 01 Sales item Status Profile 1 Create PO Automatic. Item Cat. Stats. Group Order, debit memo Bill of Material/Configuration, Config. Strategy Mat. Variant Action ■ Variant Matching ATP material variant Α X Create Delivery Group Structure scope SD01 ✓ Manual Alternative Application Param. effectivities Value Contract > Value contract matl Contract Release Ctrl Service Management Repair proced. Control of Resource-related Billing and Creation of Quotations DIP Prof. Billing form

VOV6 of CT:

- ✓ Check item relevant for delivery
- ➤ Go to VL01N and do the delivery
- ➤ Go to VF01 and raise the invoice

Item	Item category	Schedule line
Header item	TAP	CT
Sub – item	TAN	CP

Multilevel BOM: [ABOVE structure]

	Item category	Schedule line
Header item:	TAQ	CP
	TAE	CT
	TAE	CT
	TAE	CT

Multilevel BOM: [BELOW structure]

Item category	Schedule line	
TAP	CT	
TAN	CP	
TAN	CP	
TAN	CP	

Important notes:

- → For **Above structure** in the material master record should have the item category group ERLA in the Sales: Sales organization 2 screen.
- → This process ensures that pricing, inventory control and delivery processing is carried out at the "header level item" only.
- → That means the associated sub-items function only as text items, and thus is not relevant for delivery.
- → For **Below structure** item category group is LUMF.
- → In this process the sub-items are responsible for pricing, inventory control and delivery processing.
- → To ensure all the components in a "single delivery" use the functionality of the "delivery group".

The delivery group: The sub-items of a BOM may be available at different times due to the lead times in procurement (MM) and production (PP). You can use the delivery group to indicate that all the sub-items must be delivered as a group (single delivery).

Material determination [OR] Product selection

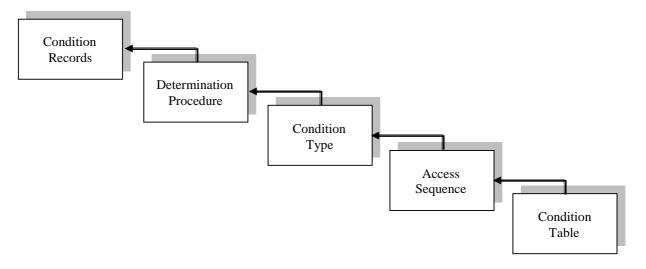
In SAP so as to swap the order material with other material this kind of feature can be mapped for the business scenarios like when the business wants to provide:

In other words it is possible to use the condition technique to substitute one material in the sales order for another.

It can also be used to swap a customer's part number for the business part number.

- A Same material with special packing.
- B If the business wants to change material number with EAN numbers.
- C The old stock is to be exhausted.

Material determination can be used for Advertising campaign or Internet article number or promotion. SAP uses condition technique for material determination.



Configuration steps:

Create Condition Tables

Maintain Access Sequence

Define Condition types

Define Material determination procedure

Path:

- IMG
- > Sales and distribution
- Basic functions
- > Material determination
- ➤ Maintain pre requisites for material determination procedure
- ➤ Maintain procedure
- ➤ Choose standard material determination procedure **A00001** from position button
- Click on **copy** as icon
- > Rename
- > Select it and click on **control data** under dialog structure
- Check condition type A001 is existed or not
- Save and Exit

Assign procedures to sales document type:

Transaction code: OV14

Path:

- > IMG
- > Sales and distribution
- Basic functions
- Material determination
- Assign procedures to sales document types
- ➤ Choose sales document type **OR** from position button
- Assign our material determination procedure
- > Save and Exit

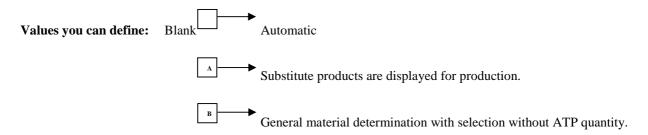
Define substitution reasons:

Transaction code: OVR0

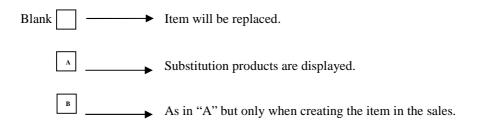
Path:

- > IMG
- Sales and distribution
- Basic functions
- > Material determination
- ➤ Define substitution reasons Ex: [0001]

Strategy: Substitution strategy controls whether product selection should occur automatically in the background or whether the alternative materials should be offered for selection in a dialog box.



Outcome of substitution: It controls whether the outcome of product selection should replace the original entry or whether it should be recorded as a sub-item of the original item.



Substitution category [A] = Equipment is substituted by service product (Service)

The substitution category "A" controls that the service product is entered automatically in the material field in the repair request item.

> Save and Exit

Maintain the condition records for material determination: Transaction code: VB11

Path:

Logistics

- Sales and distribution
- Master data
- Products
- ➤ Material determination
- ➤ VB11 Create
- Specify the material determination type [A001]
- **▶** Click on **key combination**
- > Specify the proposed reason [0001]
- Enter the material number that the end user enters
- Enter the material that the system should swap
- Enter the unit of measure, specify reason for material substitution

Ex:	Material entered	Material swap	Unit of measure	Reason
	007	008	EA	0001

- > Select line item
- ➤ Go to button → Alternative materials and
 - ✓ Check MRP indicator: That the system has to carryout MRP for swap item
- Save and Exit
- ➤ Go to VA01 and raise the sales order and enter the material Ex: 007 System swaps the 007 to 008

Special scenarios

Configuration settings

Scenario 1: If the business wants to display substitution material also along with original material.

- \triangleright Go to OVR0 \Rightarrow define substitution reasons in IMG
- Select substitution reason [0001]
- > Choose outcome value as [A]
- > Save and Exit
- ➤ Go to VA01 and raise the sales order.
- > Enter the material number **Ex:** 007
- ➤ Check system shows substitution material 008 as sub-item along with 007

Scenario 2: If the business wants substitution item (s) for selection in the sales order, then specify strategy as [A] in substitution reason [0001] in IMG "OVR0".

- ➤ Go to VA01 and raise the sales order
- Select the substitution item from the list

NOTE: In other words it is possible to use the condition technique to substitute one material in the sales order for another that is called as MATERIAL DETERMINATION.

STEPS:

- 1. Put the fields you need into the field catalog.
- 2. Create the condition tables you need.
- 3. Create the access sequence you need.
- 4. Assign the condition tables to the access sequence.
- 5. Create the condition types.
- 6. Assign the access sequence to the condition types.
- 7. Create the determination procedure (if necessary) and assign the condition types to it.
- 8. Assign the determination procedure.
- 9. Lastly, create your condition records.

Item proposal [Product proposal]

Item proposal or product proposal worked as an order entry tool. As we can maintain the condition record for all the materials with or without default quantity that particular customer regularly purchases. So that the business facilitates the end user to enter the materials in the sales order.

End user has to select the option proposed items from the menu bar before entering the material. Then system presents all the materials with/without default quantity for selection. SAP uses condition technique for item proposal.

Configuration steps:

Create item proposal: Transaction code: VA51

Path:

- Logistics
- > Sales and Distribution
- Master data
- Products
- > Item proposal
- ➤ VA51 Create
- Create a sales document with the document type PV
- Enter all the materials that are to be proposed as a item proposal
- Save \rightarrow Note down the item proposal document number \rightarrow Exit
- ➤ Go to **XD02**
- Specify the item proposal document number in the item proposal field [] under sales tab under sales area data section
- Save and Exit
- ➤ Go to **VA01** and raise the sales order
- \triangleright Go to edit \rightarrow Propose items [CTRL + F11]
- > Select the document with or without default quantity option
- > Check whether the material has been proposed directly or not from the item proposal document

NOTE: An item proposal is a list of materials and order quantities that can be copied into the sales order.

Items can also be selected from a list and copied into a sales order.

Sales document type for item/product proposal [MS].

You can select propose default, with or without quantity and offer a selection list.

Configure Item Proposal Transaction code: VOV8

Path:

- IMG
- Sales and Distribution
- Master data
- ➤ Item Proposal [Product Proposal]
- Define Item Proposal types
- > Choose sales document type MS from the **position** button
- Select it and click on details icon

Change View "Ma	aintai	n Sales Order Types	s": Details				
New Entries							
Sales document type SD document categ. Indicator	MS D	Product proposal	Sales document block				
Number systems No.range int.assgt. No. range ext. assg.	11 12		Item no.increment Sub-item increment	10			
General control Reference mandatory Check division Probability Check credit limit Credit group Output application	100		Material entry type ☑ Item division ☐ Read info record Check purch.order no ☐ Enter PO number Commitment date				
Transaction flow Screen sequence grp. Incomp1.proced. Transaction group Doc. pric. procedure Status profile Alt.sales doc. type1 Alt.sales doc. type2 Variant	MA 5 C	Product proposal Item proposal	Display Range FCode for overv.scr. Quotation messages Outline agrmt mess. Message: Mast.contr. ProdAttr.messages Incomplet.messages	UALL UER1			
Scheduling agreement Corr.delivery type Use MRP for DlvSchType			Delivery block				
Shipping Delivery type Delivery block Shipping conditions ShipCostInfoProfile			Immediate delivery				
Billing Dlv-rel. billing type Order-rel. bill.type Intercomp. bill.type Billing block			CndType line items Billing plan type Paymt guarant. proc. Paymt card plan type Checking group				
Requested delivery date/price Lead time in days Date type Prop.f.pricing date Prop.valid-from date	ing date	purchase order date	☑ Propose deliv.date ☐ Propose PO date				
Contract PricProcCondHeadr PricProcCondItem Contract profile Billing request Group Ref. Procedure			Contract data allwd. FollUpActivityType Subseq.order type Check partner auth. Update low.lev.cont.				
Availability check Business transaction							

> Save and Exit

Material listing and exclusion

As the business wants to list (include) some materials for particular customers and it wants to exclude some materials. So that we can include whatever the materials that are eligible to be purchased by the customer in material listing, and we can include what are the materials that are not to be purchased by customer in exclusion. So that system reacts accordingly, when that materials are entered in the sales document. SAP uses condition technique for material listing and exclusion.

Configuration settings:

Maintain condition tables for Listing/Exclusion

Maintain access sequences for Listing/Exclusion

Maintain Listing/Exclusion types

Procedure for maintaining Material Listing and Exclusion

Path:

- > IMG
- Sales and Distribution
- **>** Basic functions
- ➤ Listing/Exclusion
- ➤ Procedures for maintaining Listing/Exclusion
- Choose existed Listing/Exclusion procedures: A00001 for Listing

B00001 for Exclusion

- Click on copy as icon and rename
- Select our listing/exclusion procedure
- Click on control data under dialog structure
- ➤ Check condition types [A001] and [B001] existed or not
- Check access sequence [A001] and [B001] existed or not
- > Save and Exit

Activate Listing/Exclusion by sales document types:

- Choose sales document type OR from position button
- ➤ Assign our Listing/Exclusion procedures
- Save and Exit

Maintain condition records: Transaction code: VB01

Path:

- Logistics
- > Sales and Distribution
- Master data
- Products
- ➤ Listing/Exclusion
- ➤ VB01 Create
- Specify the listing/exclusion condition type [A001 or B001]
- Click on key combination

(Select © customer/material condition table for A001)

- Enter the materials that are to be listed/excluded (for this customer)
- Save and Exit
- > Go to VA01 and raise the sales order with a material that has not been listed for this customer
- Check the effect

Transaction code: OV04

NOTE: With material Listing/Exclusion we may list products that a specific customer may not buy or conversely you may list only the products that the customer can select.

Steps:

- 1. Put the fields you will need into the field catalog.
- 2. Create the condition tables you will need.
- 3. Create the access sequence you will need.
- 4. Assign the condition tables to the access sequence.
- 5. Create the condition types.
- 6. Assign the access sequence to the condition types.
- 7. Create the determination procedure (if Necessary) and assign the condition types to it.
- 8. Assign the determination procedure.
- 9. Lastly, create your condition records.

Cross Selling

Cross selling is a concept by which business can suggest combination material for order material. SAP uses condition technique to determine cross selling. System automatically popup cross-selling materials during sales order processing.

NOTE: Cross selling can be configured with ATP check for cross selling items.

Configuration steps:

Create condition tables: Transaction code: OV46

Path:

- > IMG
- > Sales and Distribution
- Basic function
- Cross selling
- > Define determination procedure for cross selling
- Create condition tables
- Specify the condition table number **Ex:** 501 [between 501 to 999]
- > Choose the fields from the field catalog Ex: Sales organization, Material, Division
- ➤ Click on **generate** icon [shift = F4]
- Click on yes
- Click on local objective
- Go back
- Save and exit

Maintain access sequence: Transaction code: OV41

Path:

- > IMG
- Sales and Distribution
- ➤ Basic function
- Cross selling
- > Define determination procedure for cross selling
- ➤ Maintain access sequence
- > Go to new entries
- > Define your access sequence
- Select it
- Click on access sequence button under dialog structure
- Assign our condition table to your access sequence
- Select it
- Click on fields control button under dialog structure
- Check it
- Save and Exit

Define condition types: Transaction code: OV42

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Cross selling
- > Define determination procedure for cross selling
- Define condition types
- ➤ Go to new entries
- Define our condition types
- Save and Exit

Maintain procedures for cross selling:

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Cross selling
- Define determination procedure for cross selling
- Maintain procedure
- ➤ Go to new entries
- Define our cross selling procedure
- Select it
- Click on control button under dialog structure
- ➤ Go to new entries
- Assign our condition type that created in previous step
- Save and Exit

Define customer procedures for crossing selling

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Cross selling
- Maintain customer/document procedures for cross selling
- > Define customer procedures for cross selling
- ➤ Check whether: A = Product proposal

B = Cross selling existed or not

Transaction code: OV43

Save and Exit

Define document procedures for cross selling

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Cross selling
- > Maintain customer/document procedures for cross selling
- > Define document procedures for cross selling
- \triangleright Check whether: A = Product proposal

B = Cross selling existed or not

Save and Exit

Assign document procedure for cross selling to sales document

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Cross selling
- Maintain customer/document procedures for cross selling
- Assign document procedure for cross selling to sales document
- Select document type OR from position button
- Assign procedure [B] = Cross selling
- Save and Exit

Define Cross Selling profile

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Cross selling
- Define and assign cross selling profile
- > Define cross selling profile
- Go to new entries
- ➤ Define our cross selling profile and maintain the values like below:

Cross-selling profile [KEY]

Cross-selling procedure [OURS]

Specify product proposal procedure [B00001]

Cross selling pricing procedure [OURS]

Pricing procedure [SREENU]

Specify dialog box indicator to present it to the end user with a list of materials that we are going to be participated in cross selling in cross selling dialog box indicator [] Blank

- ✓ Check cross selling ATP indicator if you want to carryout ATP check on cross selling material0
- Save and Exit

Assign cross selling profile:

Path:

- IMG
- Sales and Distribution
- **▶** Basic functions
- Cross selling
- Define and assign cross selling profile
- > Assign cross selling profile
- ➤ Go to new entries
- Maintain the values like below:

Specify your Sales area, Cross selling customer procedure, Cross selling document procedure and

- Assign our cross selling procedure
- Save and Exit

Maintain condition records: Transaction code: VB41

Path:

- Logistics
- > Sales and Distribution
- Master data
- Products
- Cross selling
- Create
- > Specify the condition type [OURS]
- Click on key combination
- > Select the © condition table and maintain the record
- Enter the material that is going to be entered as order material
- Enter material that is going to be given as a combination material for order material
- Press ENTER and select line item
- > Click on alternative materials icon with unit of measure and delivery proposal
- > Save and Exit

- Go to XD02
- Assign product proposal procedure [B] for customer [B = Cross selling] in sales tab of sales area data section
- Save and Exit
- Go to VA01 and raise the sales order
- Enter order material and press ENTER
- System popup the cross selling material Enter the material quantity which you want
- Click on copy icon
- Save and Exit

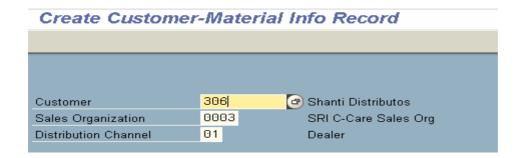
Customer Material Info Record

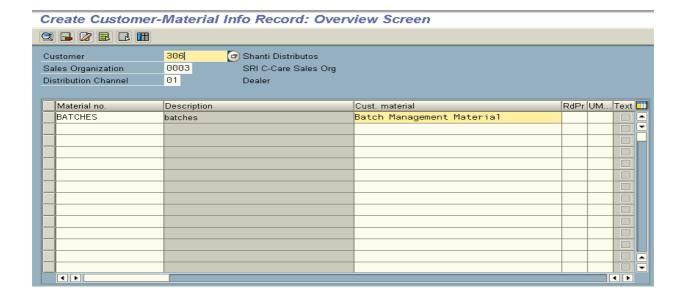
Customer Material Info Record is one kind of master data where we can maintain customers own description for the order material along with description. We can maintain Plant, Delivery priority also. In determination of Plant, Delivery priority, etc system gives the high priority to "Customer Material Info Record".

Creation of Customer Material Info Record: Transaction code: VD51

Path:

- Logistics
- Logistics execution
- Master data
- > Customer material information
- Create
- Specify the Customer No., Sales organization, Distribution channel
- Specify material No. [order material]
- > Specify the **customer material number** (or) **description** and press ENTER
- > Select line item
- > Click on **details** icon
- Specify the Customer description, Plant, Delivery priority, Minimum delivery quantity, Partial deliveries If you want these values necessarily then only enter, because system will give first priority to customer material info record. (Create 2 plants to check it clearly).







- > Save and Exit
- ➤ Go to VA01 and raise the sales order
- > Specify the customer number to whom we maintain the customer material info record
- > Specify the customer material info record no. (or) description in the line item
- > Press ENTER and check whether system automatically has taken original material number or not

NOTE: In VOV8 [sales document header] you should check the

✓ Read Info Record

If you do not checked the Read Info Record system should not read Info Record while raising the sales order and system did not present the Info Record.

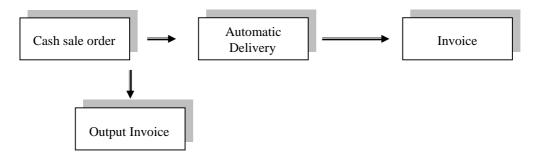
Cash Sales

Cash sales are a special sales document type by which we can map the business process of immediate sales. In this business scenario customer pays the money and picks the material immediately.

System automatically generates delivery document type **BV** and it triggers output type **RD03**, which generates cash sales, order as output and can be given to the customer as billing.

Cash sales order does not have any invoice. But system generates duelist for billing document type **BV**. In cash sales cash account directly updated.

In cash sales if there are any changes we can do those changes before PGI and we can reprint the output by using **Repeat output** function.



Configuration settings:

Go to VOV8 and choose sales document type BV or CS

Check delivery type is [BV]

Shipping conditions is [10]

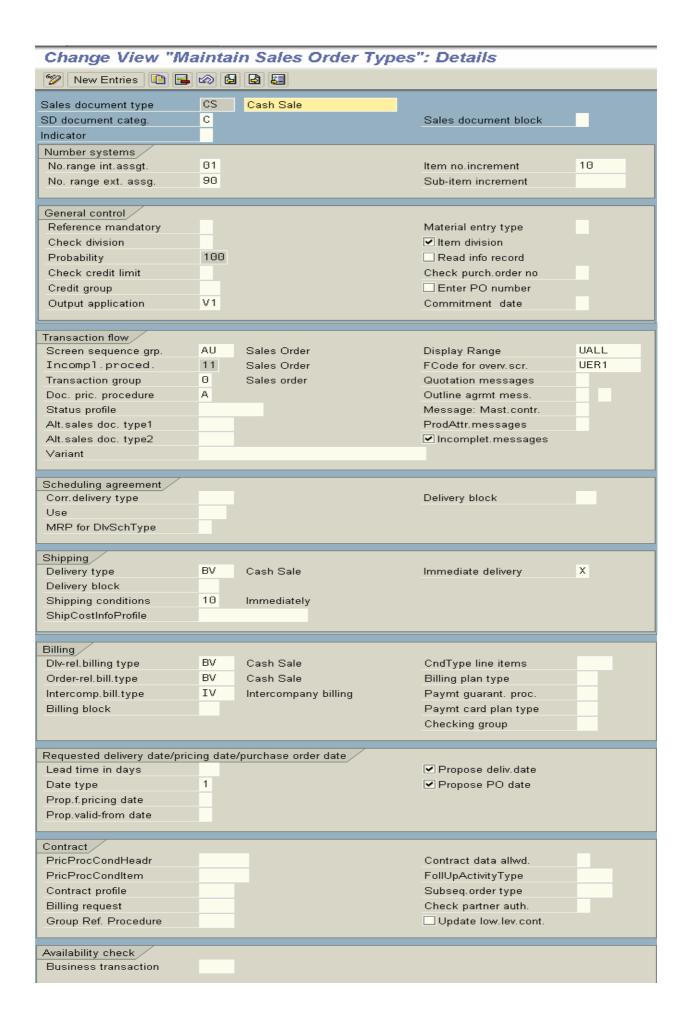
Immediately delivery is [X] in shipping tab

Delivery related billing [BV] BV = Germany Order related billing [BV] in billing tab CS = English

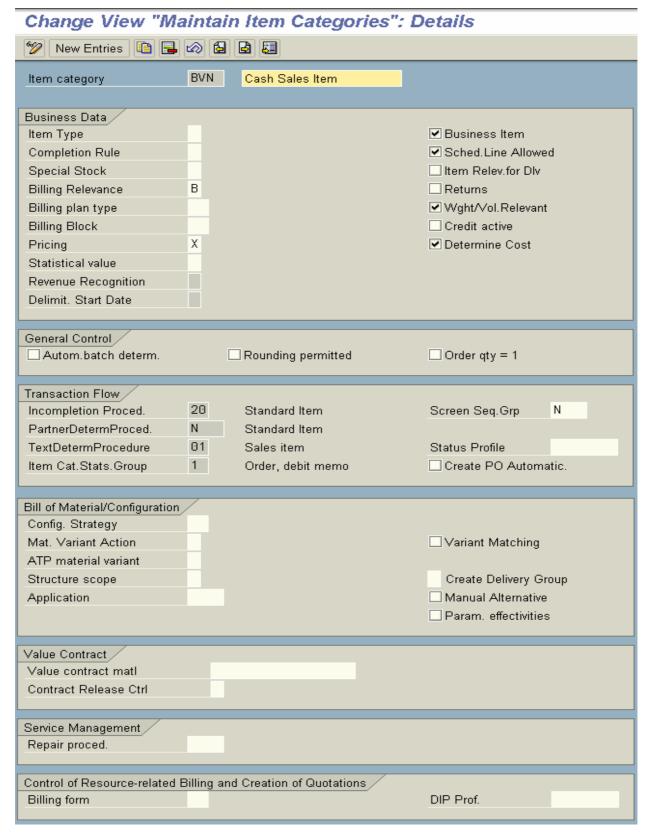
NOTE: System proposes current date as delivery date and billing date.

- ➤ Go to VA01 and raise sales document type [BV] or [CS]

 Note down the delivery document number that has been created automatically by the system along with sales order number.
- \triangleright Go to VA02 and \rightarrow **Header Output** icon and check whether system generated output or not.
- ➤ Go to VL02N and do the picking and PGI
- Save and Exit
- Go to VF01 and raise the invoice Check billing due list has been updated or not



➤ Go to VOV7 and choose item category BVN = Cash sales item Billing relevance [B] = Relevant for order related billing in business data tab



Save and Exit

Rush order

Rush order and cash sales more or less same like cash sales system generates delivery document as soon as the end user saves the document.

In the rush order processing the customer places the order and collects the items immediately or we ship the materials immediately. However, we only invoice the customer later.

The system automatically creates a delivery when we save the sales order, but no invoice is printed. Instead, the system follows the stand procedures for creating the invoice. Both the rush order and the cash sales process utilize the shipping conditions passed on from the sales document.



Configuration settings:

Go to VOV8 and choose sales document type RO

Delivery type is [LF]

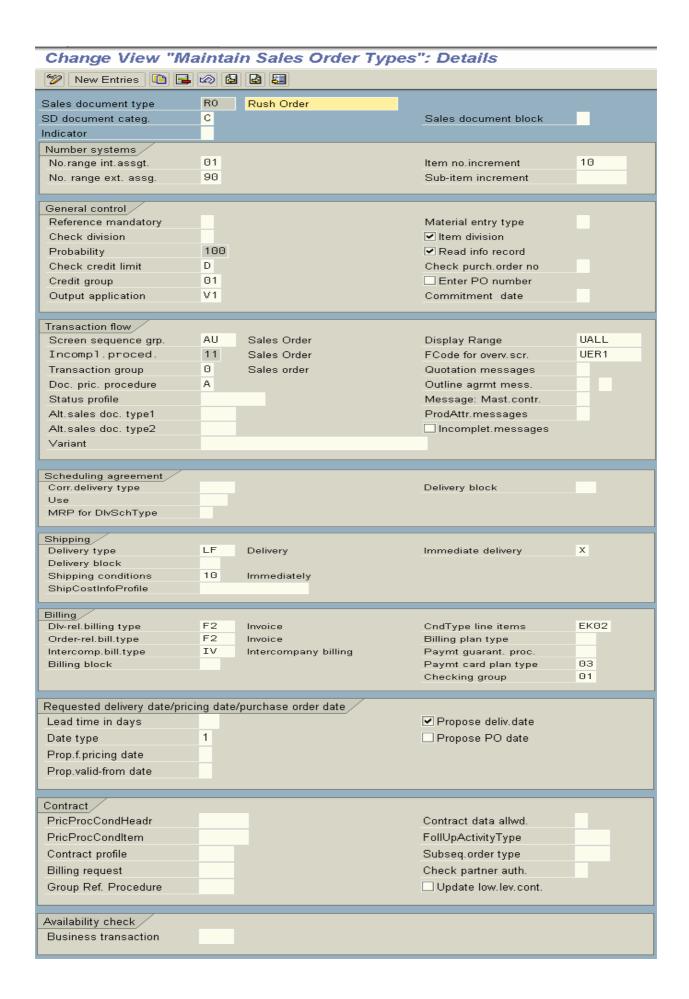
Shipping conditions is [10]

Immediately delivery [X] in shipping tab

Delivery related billing [F2]

Order related billing [F2] in billing tab

- ➤ Go to VA01 and raise the sales order by specifying document type RO Save the document and note down the delivery number
- ➤ Go to VL02N and do the picking and PGI
- ➤ Go to VF01 and raise the billing document type F2



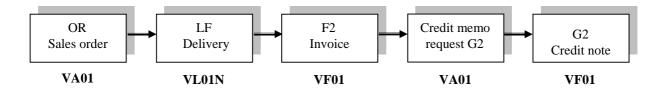
Customer complaints

Credit Memo Request

This would be used in the following examples:

- 1. The customer discovers the products we sent him are defective, and the costs to initiate a return delivery would exceed the costs obtained rehabilitation or repair of the product.
- 2. The customer is overcharged for a product or service and we issue a credit for the difference.

Once the customer receives the material and finds faulty or damaged material in the shipment, then the customer informs about the loss that he incurs. Then the business can compensate the customer for damaged goods by raising credit memo with reference to credit memo request.



VOV8 of G2

SD document category [K]
Document pricing procedure [A]
Order related billing document type [G2]
Billing block [08] = Check credit memo

VOV7 of G2N

Billing relevance [C] = Relevant for order related billing according to target quantity

VOV6: NIL

No schedule lines

Copy control: Transaction code: VTAF

Billing document to Sales document

- > Choose sales document type [G2] and Billing document type [F2]
- ➤ Go to **Header** details
 [52] = Billing document header

[052]: This routine transfers general billing header data from the reference document to target document.

[103]: This routine transfers business data Ex: Inco-terms from preceding document to new document.

[003] = Billing header partner: This routine copies Bill – to – party form invoice to sales document.

Copying requirements [021]: (Billing header)

This routine checks Sold – to – party, sales area, and currency is same or not when copying billing document to sales document.

Item level = TAN

153 = **Item from billing document:** This routine copies all relevant data from preceding document to new document at item category level (invoice to invoice cancellation).

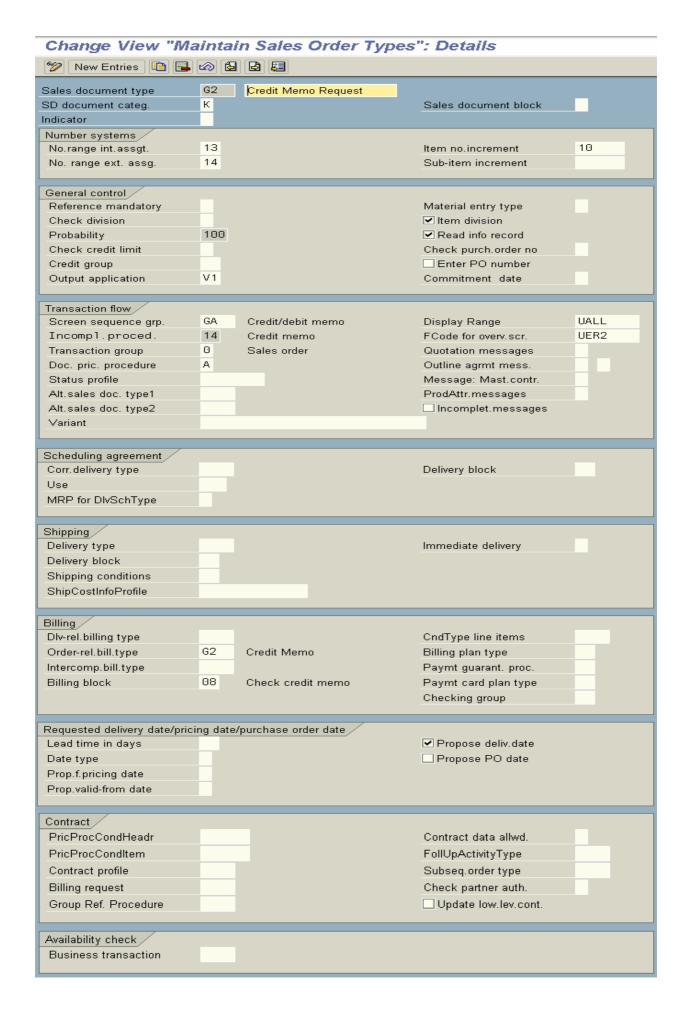
104 = Business data item billing: This routine copies business data from invoice to sales document. Ex: Inco-terms at item level.

004 = Billing item partner: This routine copies Bill - to - party or payer from invoice to sales document.

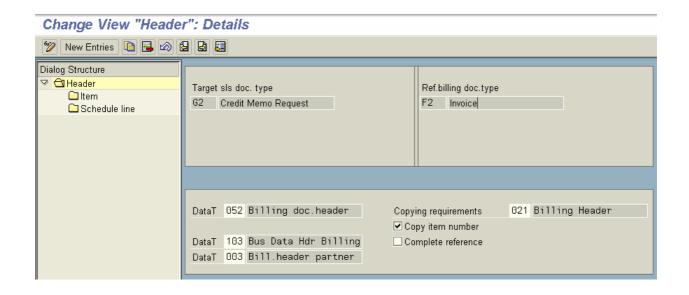
Copying requirements [303] = Always an item
All standard items are copied into target document
[] Uncheck copy schedule lines
[X] Update

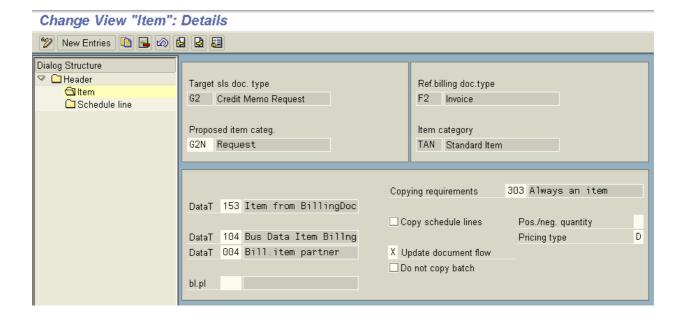
Pricing type [D] = Copy pricing elements unchanged

Schedule lines: NIL = No schedule lines



Change View "Maintain Item Categories": Details 🎾 New Entries 📭 뒄 🐼 🔕 👪 G2N Request Item category Business Data / Item Type ✓ Business Item Sched.Line Allowed Completion Rule Item Relev.for Dlv Special Stock С Billing Relevance ✓ Returns ✓ Wght/Vol.Relevant Billing plan type Credit active Billing Block χ ✓ Determine Cost Pricing Statistical value Revenue Recognition Delimit, Start Date General Control > Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / 21 Incompletion Proced. Credit/Deb.Memo Item Screen Seq.Grp N PartnerDetermProced. N. Standard Item TextDetermProcedure 01 Sales item Status Profile 2 Item Cat. Stats. Group Returns, credit memo Create PO Automatic. Bill of Material/Configuration Config. Strategy Variant Matching Mat. Variant Action ATP material variant Create Delivery Group Structure scope Manual Alternative Application Param, effectivities Value Contract / Value contract matl Contract Release Ctrl Service Management, Repair proced. Control of Resource-related Billing and Creation of Quotations DIP Prof. Billing form

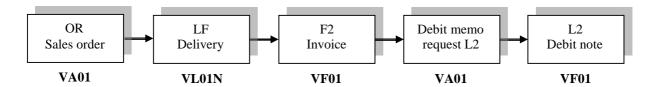




Debit memo request

When the business incurs loss in a transaction then the business should be compensated by the customer in the form of debit memo with reference to debit memo request.

Ex: Miss calculation of price or Excessive delivery than order quantity



VOV8 of L2:

SD document category [L]
Order related billing document type [L2]
Billing block [09] = Check debit memo

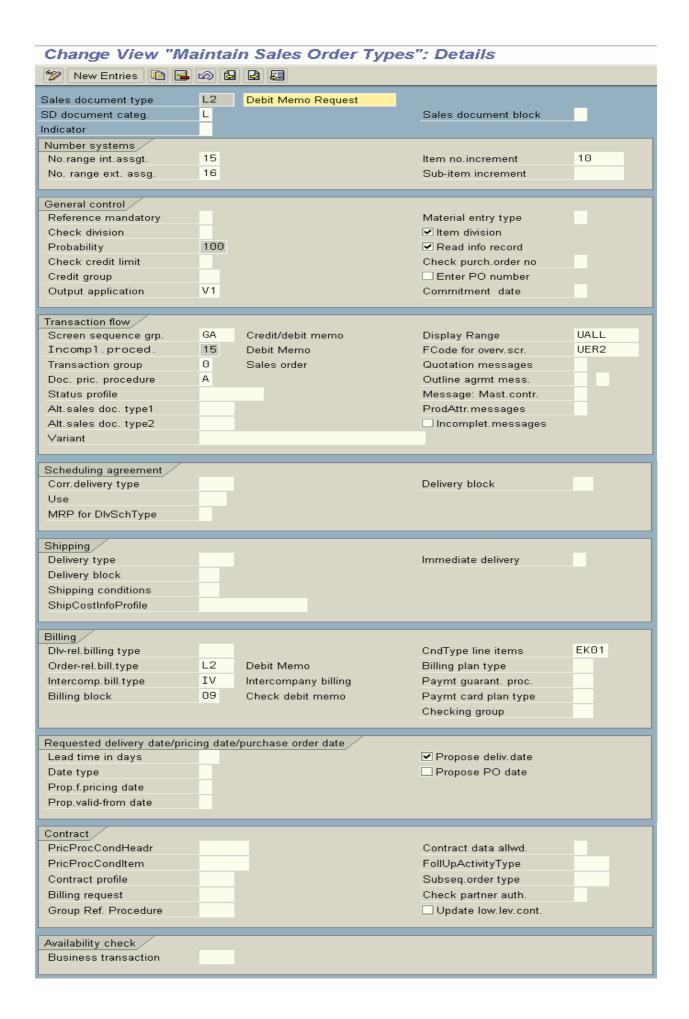
VOV7 of L2N:

Billing relevance [C] = Relevant for order related billing according to target quantity. Pricing [X]

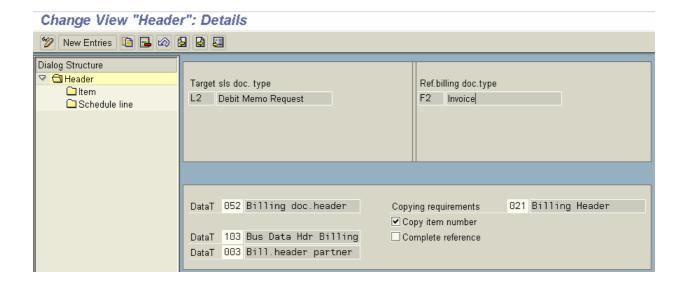
VOV6 = NIL

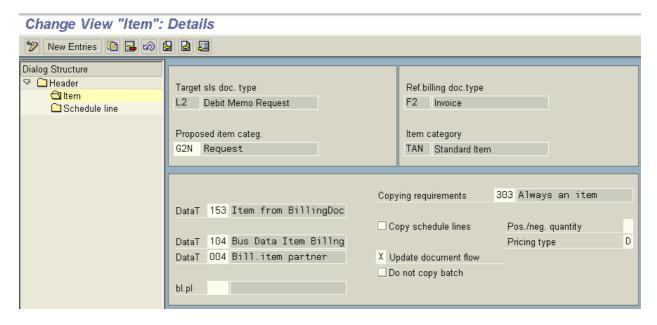
No Schedule Lines

NOTE: Copy control is same as Credit memo



Change View "Maintain Item Categories": Details 🎾 New Entries 📭 榋 🐼 🚨 👪 L2N Request Item category Business Data / Item Type ✓ Business Item Completion Rule Sched.Line Allowed ☐ Item Relev.for Dlv Special Stock С Returns Billing Relevance Billing plan type ✓ Wght/Vol.Relevant Billing Block ✓ Credit active χ Pricing ✓ Determine Cost Statistical value Revenue Recognition Delimit. Start Date General Control / Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / Incompletion Proced. 21 Credit/Deb.Memo Item Screen Seq.Grp N N PartnerDetermProced. Standard Item TextDetermProcedure 01 Sales item Status Profile Create PO Automatic. Item Cat.Stats.Group 1 Order, debit memo Bill of Material/Configuration Config. Strategy Mat. Variant Action □ Variant Matching ATP material variant Structure scope Create Delivery Group Manual Alternative Application Param. effectivities Value Contract > Value contract matl Contract Release Ctrl Service Management, Repair proced. Control of Resource-related Billing and Creation of Quotations Billing form DIP Prof.





Returns

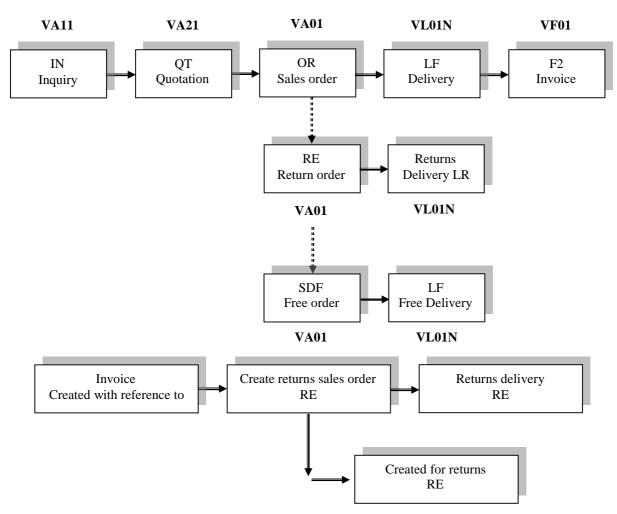
In SAP business can be mapped the returns process [customer compensation]. In general customer makes inquiry about product, business raises the quotation, customer raises the purchase order, business raises the sales order, and business does the outbound delivery and raises invoices according to the purchase order.

When the business wants to receive damaged goods for testing purpose before compensation, the end customer has to return the damaged goods, and business has to receive those goods into a separate storage location.

When the business test the material by certain persons and if found that some of the damaged goods are rectifiable and some goods are not rectifiable. Then the business has to rectify the goods and it has to transfer the rectified goods into main storage location and it has to transfer un-rectified goods into separate storage location that has been created for scrapping materials. Then the scrapped material can scrap by following a normal business process. SD or MM consultants can scrap scrapped material.

After completion of this business process, business will compensate the customer accordingly.

So as to map this business process we have to use movement type [453] = Transfer posting. Transaction code for transfer posting = MB1B



Slaes document type for Returns = RE

NOTE: Some business purchases the scrap material

Configuration settings:

- \triangleright Go to VA01 → VL01N → VF01
- ➤ Go to VA01 again (document type RE) and click on create with reference Change the quantity (damaged quantity0
- Click on **copy** button
- ➤ Go to item level and specify the another storage location Ex: SL2
- Save and Exit
- ➤ Go to MMBE [stock overview]
- ➤ Double click on plant [PL1]
- ➤ Check returns status in list [Returns = 0]
- ➤ Go to VL01N (document type = LR) and specify delivery type [LR] There will not be any picking
- ➤ Do the [PGR] = Post goods receipt
- Save and Exit
- ➤ Go to MMBE and specify Material, Plant, Storage location [SL2] and see the Returns stock = 6

As the quality inspector test the damaged goods and certified that out of 6 damaged goods, 4 goods are rectifiable and 2 goods are un-rectifiable. Then the business has to transfer rectified 4 goods into main storage location [SL1] and remaining 2 items transfer to [SL3] scrapping storage location.

Transferring the goods: MB1B

➤ Go to MB1B = Transfer of posting

Specify the movement type [453]

Plant [OURS]

Storage location [SL1] (Receiving storage location)

Specify the business area [OURS]

Customer [OURS]

Issuing storage location [SL2] (From which we are transferring the returned goods [rectified] to SL1)

- Save and Exit
- > Go to MMBE and check the stock balance for storage location [SL1] whether the stock balance has been increased or not
- ➤ Go to MMBE/MB1B and check the stock balance for SL2 whether stock balance has been reduced or not
- ➤ Go MB1B (sending un-rectified goods from SL2 to SL3)

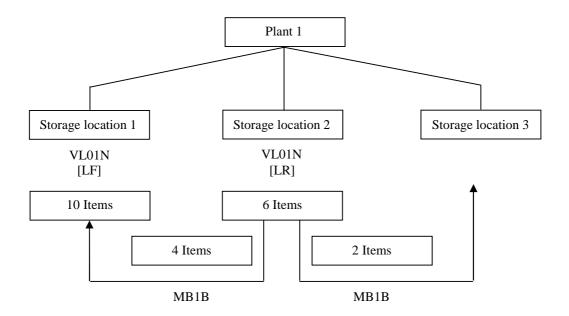
Movement type [453]

Plant [PL1]

Storage location [SL3]

Specify Business area, Customer number and issuing storage location [SL2]

Save and Exit



Transfering storage location = SL1 Issuing strorage location = SL2

Transfering storage location = SL3 Issuing storage location = SL2

- > Go to MMBE and check the stock balance for SL3, whether the stock balance has been increased or not.
- > Go to MB1B and check the stock balance for SL2, whether stock balance reduced or not.

NOTE: According to normal business process, scraped material should move out from the scraping storage location (SL3) by following normal business process (VA01 \rightarrow VL01N \rightarrow VF01).

Pre - requisites:

Make sure that enterprise structure contains 3 storage locations for a material that is for

Normal	Returns	Scrap
SL1	SL2	SL3

- Make sure that the material has been extended to 3 storage locations
- To extend the material go to MM01 and specify the material number Ex: 007, industry sector and material type
- > Specify the same material number in copy from Ex: 007
- Click on **select views** and select the views what you required, and
- Maintain organizational levels like below:

Organizational levels		Copy from	
Plant	0003	Plant	0003
Storage location	SL2	Storage location	SL1
Sales organization	0003	Sales organization	0003
Distribution channel	10	Distribution channel	10

SL3

SL1

VOV8 of RE:

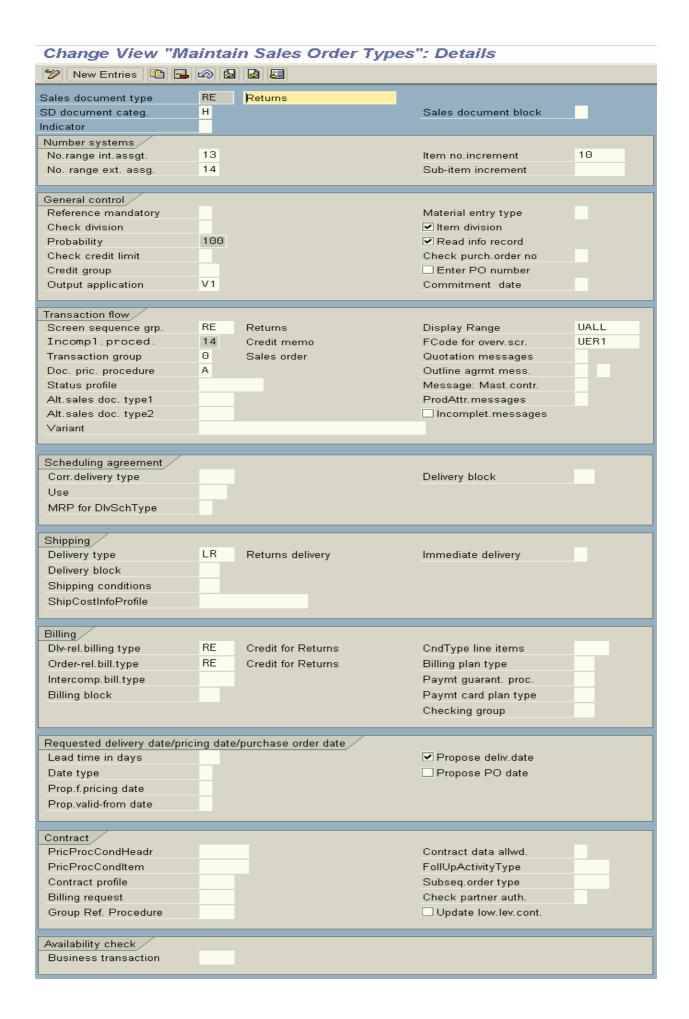
Delivery type [LR]
Delivery related billing [RE] = Credit for returns
Order related billing [RE] = Credit for returns
Billing block [08]

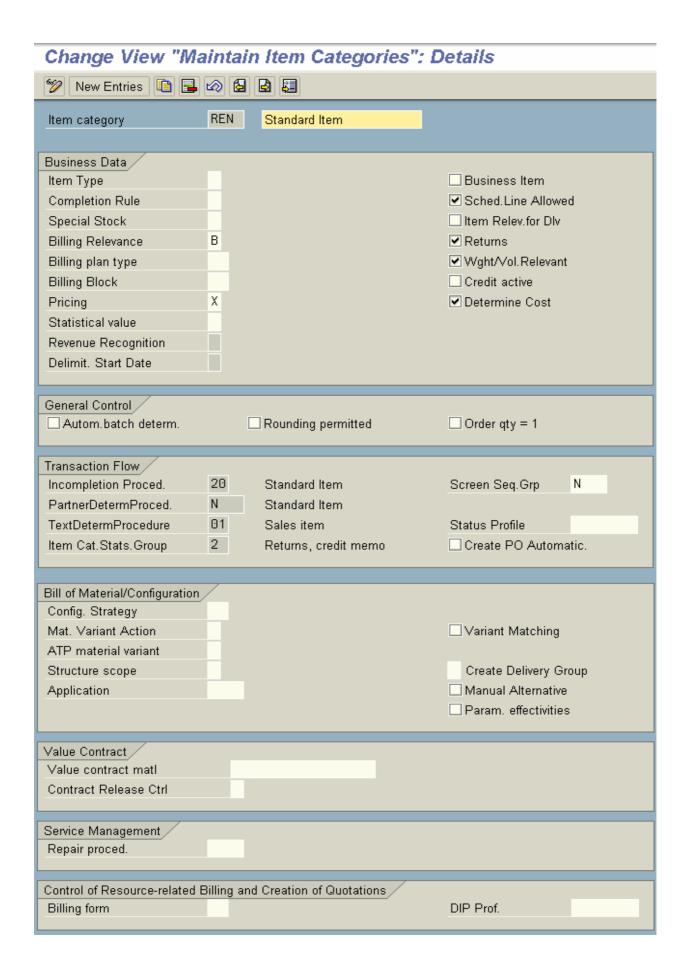
VOV7 of REN:

Billing relevance is [B]

VOV6 of DN:

Movement type [651]



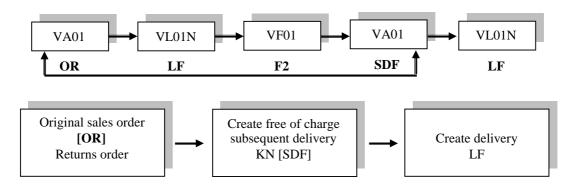


Change View "Maintain Schedule Line Categories": Details 🎾 New Entries 📭 🔒 🙆 🚨 Sched.line cat. DN Returns Business data / Delivery block 651 GD ret.del. returns ✓ Item rel.f.dlv. Movement Type Movement type 1-step P.req.del.sched Order type Item category Acct.assig.cat. Transaction flow 30 Deliv-Rel.Sched.Line Incompl.proced. Req./Assembly Availability Prod.allocation

Subsequent Free of Charge Delivery

Document type = SDF[KN]

Business Scenario: When the customer incurred loss, then the business can compensate him by sending normal items as compensation.



VOV8 of SDF:

SD document category [I] Document pricing procedure [C] Delivery type [LF]

VOV7 of KNL:

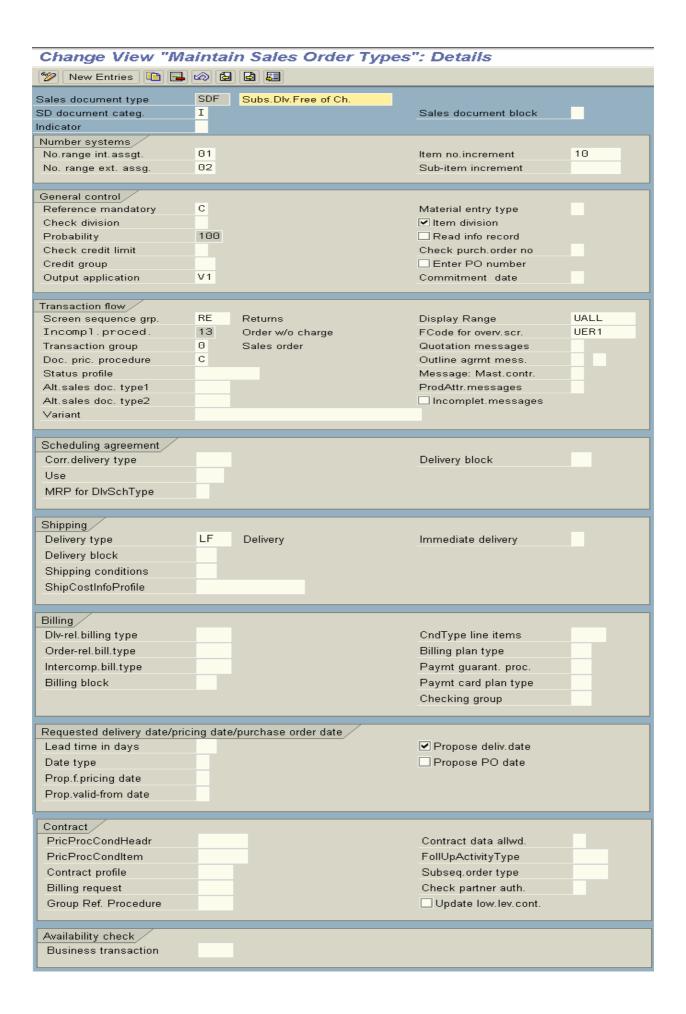
NIL

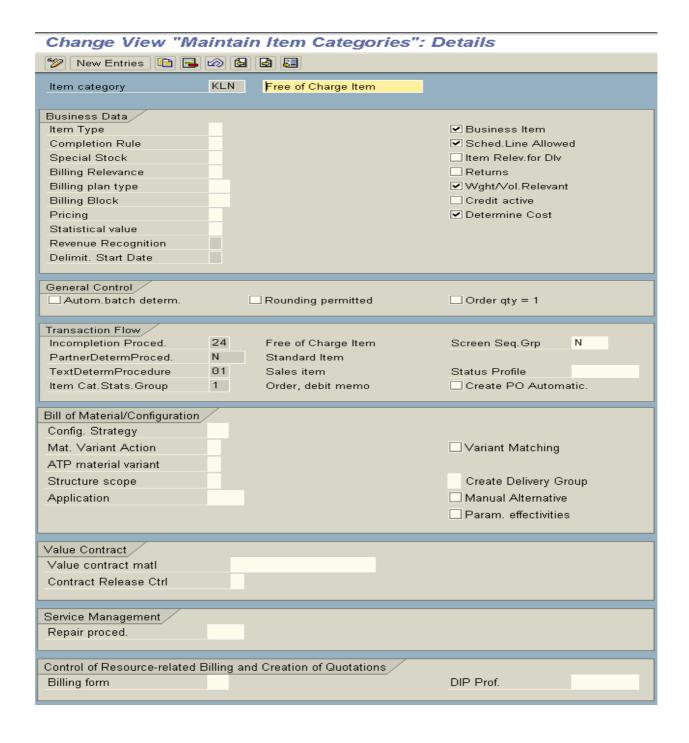
VOV6 of CP:

Deterministic MRP

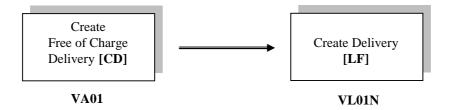
NOTE: If the business does not want to credit the customer for the return, it possible to instead issue a free – of – charge subsequent delivery. Such a delivery is a sales order document type, such as returns order or a contract.

You do not have to use create with reference to free - of - charge subsequent deliveries if you enter the order type and then choose ENTER. When creating the sales document using [VA01] a dialog box will appear where you can enter the number of the order to which you are referring.



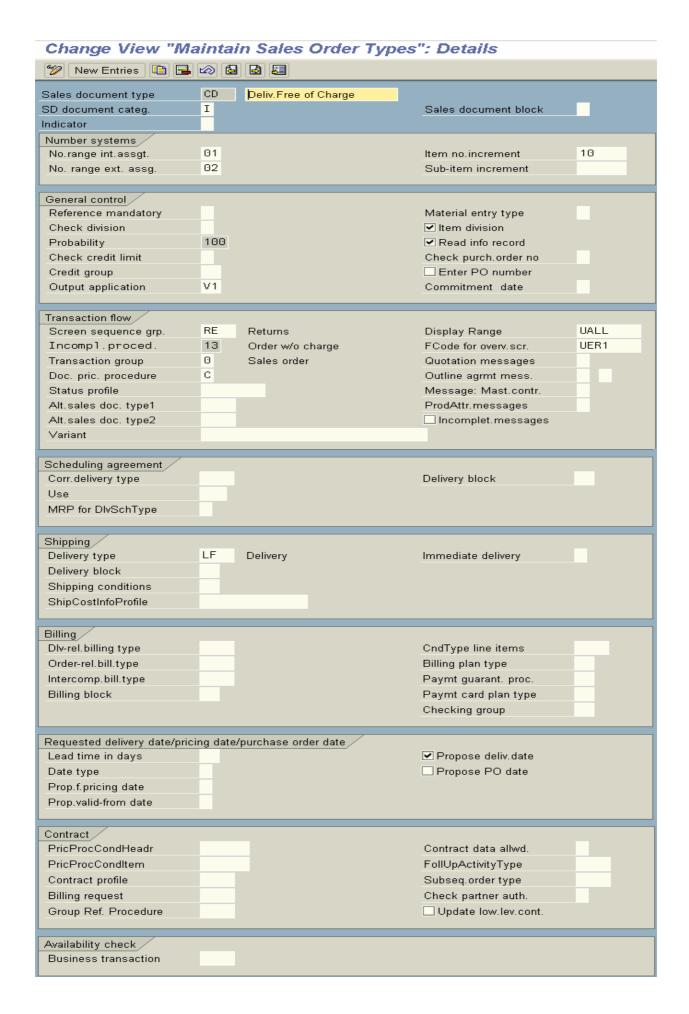


When the business wants to send samples to the customers then the business can map the scenario with the free of charge deliveries.



Item category group = KLN

NOTE: VOV8 of CD [FD], VOV7 of KLN and VOV6 of CP is same as above subsequent free of charge delivery.



Invoice Correction Request

Document type = RK

In SAP after 4.6C Version a new sales document type Invoice Correction Request has been delivered, so as to compensate the customer as well as compensate the business also, in the form of invoice correction request (a single document).

NOTE: Instead of using G2 and L2 for customer and business compensation we can use single sales document. Invoice correction request creates two items for a single item in a sales order as a credit item and debit item. The first item is the credit item and the second item is the debit item.

The invoice correction request represents combination of credit and debit memo requests. One side credit is granted fully for that incorrect billing item, while it is simultaneously debited (automatically created) as a debit memo item. The difference created represents the final full amount to be created. The invoice correction request must be created with reference to billing document.

When we create invoice correction request the items are duplicated. The resulting item category must have plus (+) [credit] or minus (-) [debit] values. First all credit items are listed followed by debit items. We can delete credit or debit in pairs.

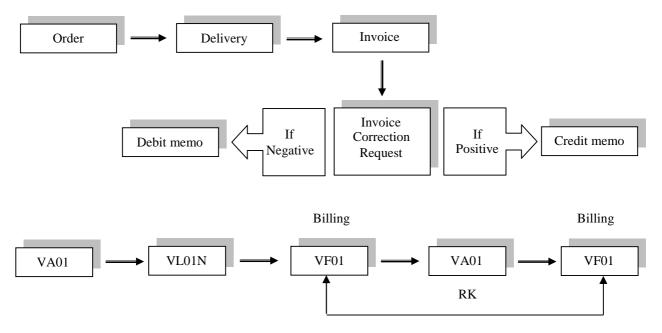
Business scenarios:

Quantity difference: It can be used when a customer complaints for the damage.

Ex: Damaged quantity or high price. The system corrects the quantities to be billed via the debit memo item.

Price difference: When the business incurs loss. Then the business also can be compensated via the debit memo item only.

Item category = L2N



NOTE: We have to change the quantity or price for customer compensation or business compensation to the debit item only, as system corrects only through debit item. According to compensation system generates invoice.

VOV8 of RK:

SD document category [K] Sales document indicator [D] Order related billing document [G2]

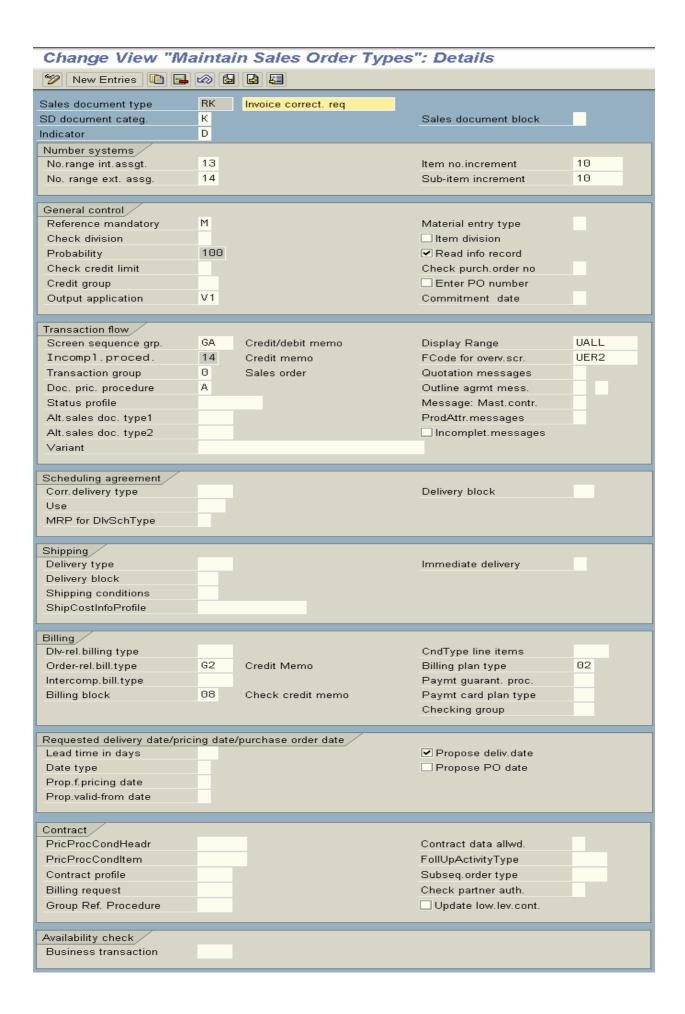
VOV7 of L2N:

Billing relevance [C] Pricing [X]

NOTE: There are no schedule lines.

IMP: VKM4 \rightarrow to check SD documents.

NOTE: This invoice correction request document proposes a new way of processing complaints and issuing credit and debit memos. This document enables you to correct the quantity and/or the price for one or more items in an invoice.



Contracts/Outline Agreements

Business can enter contracts with a certain customer for a certain material for certain quantity for certain period. Contracts can be entered for materials, value, and service.

SAP has provided document types: Quantity contract = NMS

Value contract = WK1 and WK2

Service contract = SC Rental contract = QP Master contract = Maintenance contract =

© Contracts do not have nay schedule lines.

Contracts/Outline agreements play an important role in all business process. There are two types of outline agreements are there. They are:

Scheduling agreements \rightarrow Ex: Document type SA or DS

Contracts → Ex: Value contracts, Quantity contracts, Service and Maintenance contracts, Rental contracts and Master contracts.

One partner function should be existed to release the contracts. Partner function type is:

AA = Sold - to - party to release orders.AW = Ship - to - party to release orders.

Contract should be released in a order Ex: OR

All contracts can be released by standard sales document type OR. But value contract WK1 can be released by document type WA.

Scheduling Agreement types

It is an outline agreement between the business and S0ld – to – party that is valid for certain period of time.

Scheduling agreements contain fixed delivery dates and fixed quantities.

The dates are contained in the schedule lines in the scheduling agreement will become a due for delivery.

Then the business can process delivery – standard or delivery due list.

If the customer requests then we can process invoices periodically Ex: Once in a month.

All the deliveries due for a billing document combined in a collective invoice.

Scheduling agreement types: DS = Scheduling agreements

BL = Scheduling agreements with delivery schedule lines

DEL = Scheduling agreement Ex: AG

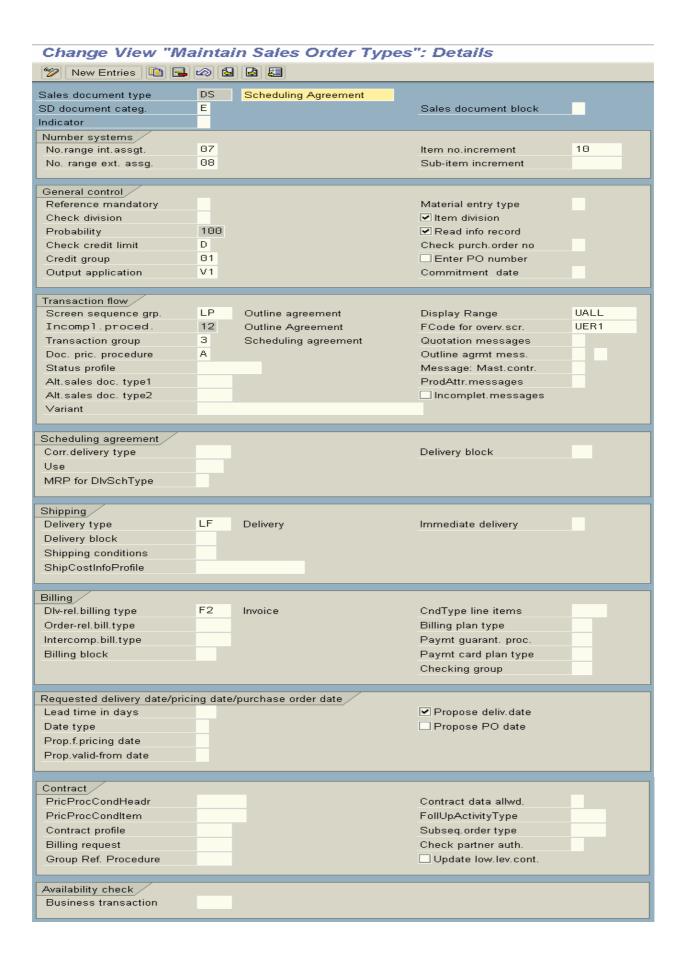
Delivery type = LF

Item category = LZN [TAN]

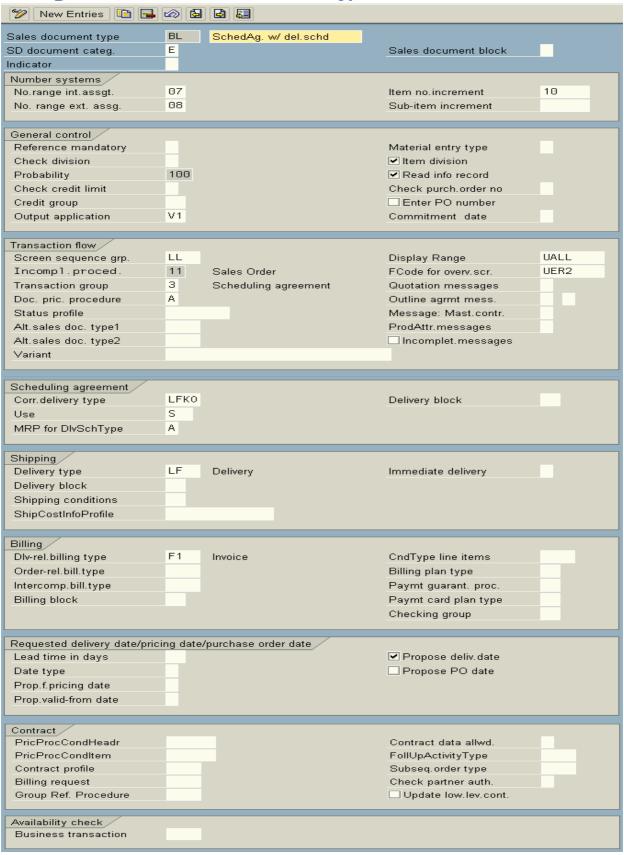
Schedule line categories = CP → Deterministic MRP

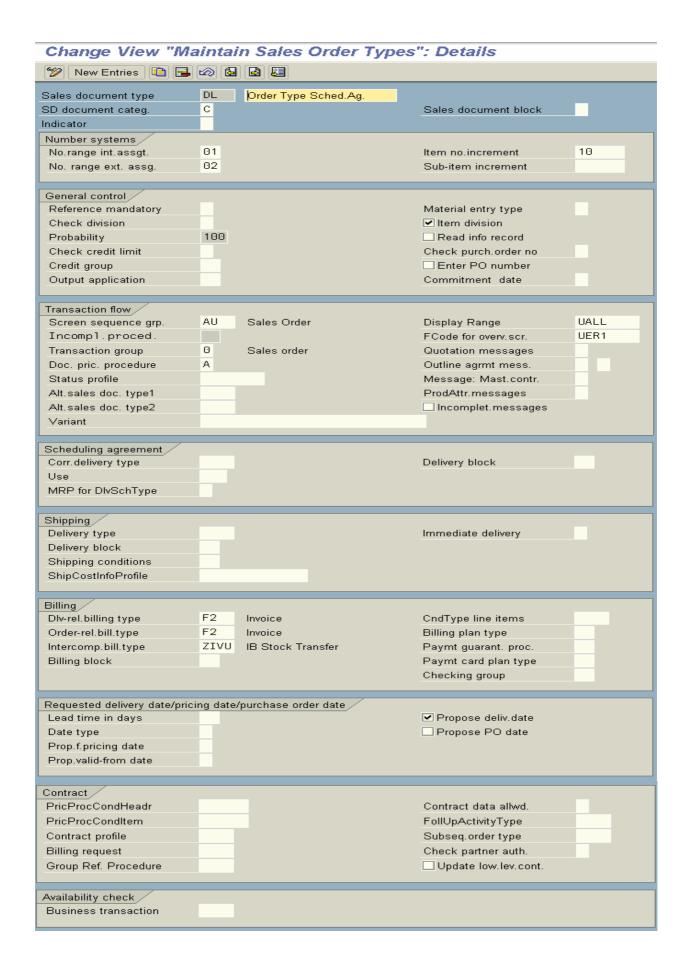
 $CV \rightarrow Consumption MRP$

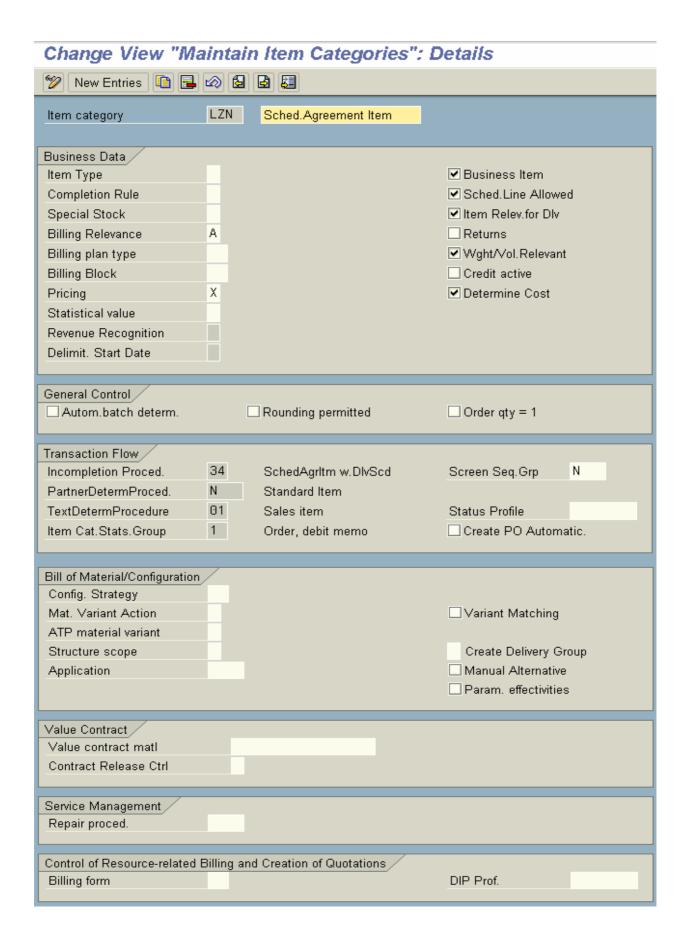
CN → No MRP

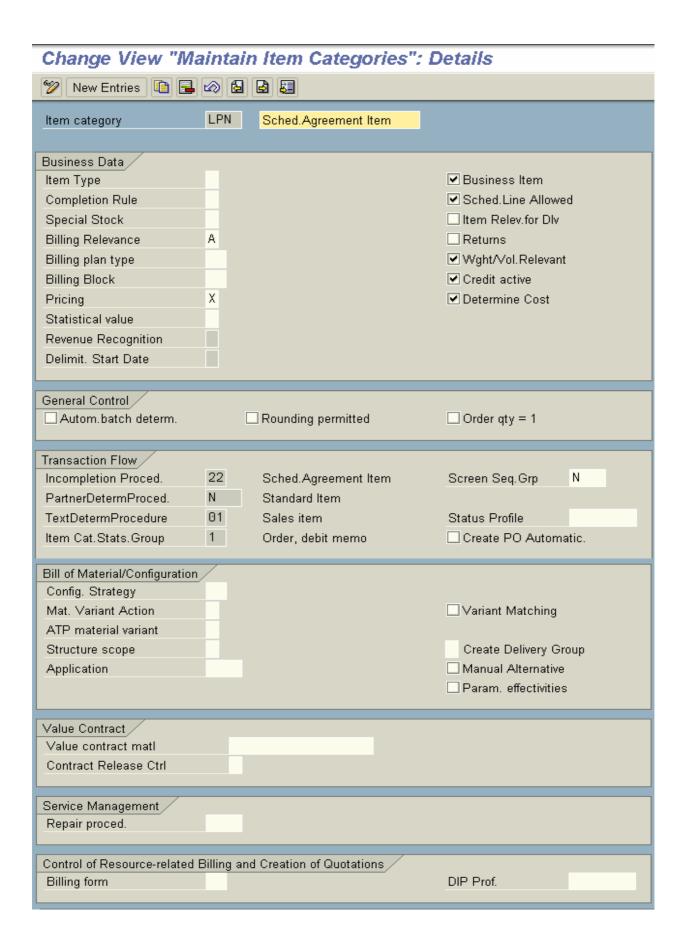


Change View "Maintain Sales Order Types": Details

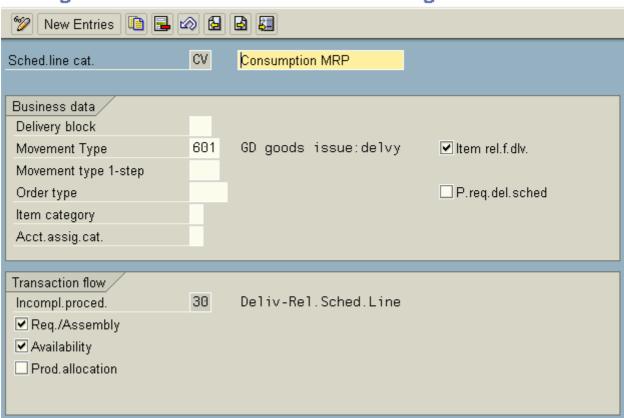




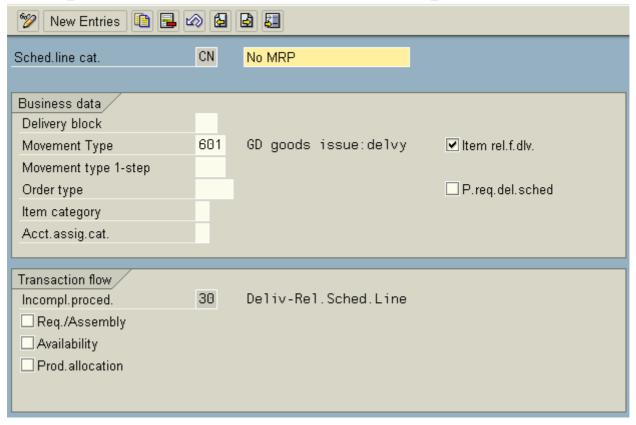




Change View "Maintain Schedule Line Categories": Details



Change View "Maintain Schedule Line Categories": Details



Create Scheduling Agreements:

Path:

- Logistics
- > Sales and Distribution
- Sales
- Scheduling agreements
- ➤ VB31 Create
- > Specify the scheduling agreement document type [DS] Enter material and quantity and press ENTER
- Select line item
- \triangleright Go to \rightarrow Item \rightarrow Conditions
- ➤ Go to schedule lines tab
- Enter delivery dates with quantity
- Save and Exit

Here item category = LPN Schedule line category [CP]

NOTE: Deliveries are automatically created for the schedule lines of these scheduling agreements. This deliveries takes place when the delivery due list is run on the due date. We can do the delivery manually also.

Transaction code: VA31

After creating the delivery

- > Go to status overview tab to check the status.
- Do the PGI manually
- Go to VL01N and VF01

Contracts

Numerous business relationships relate to contracts or agreements with customers and the represented business, based upon material, price and quantity over a fixed period of time. They facilitate planning on behalf of the business and guarantee a fixed price agreement with the customer.

Configuration steps:

Define contract profiles: Transaction code: VOVR

Path:

- > IMG
- Sales and Distribution
- Sales
- Sales documents
- Contracts
- Contract data
- Define contract profiles

Contract profiles contain values that can be proposed into the contracts. We can assign contract profile in the sales document type definition VOV8 of respective contract document in respective contract data section.

We can define the default settings like:

Date determination rule for contract start date.

Date determination rule for contract end date.

Validity period category.

Cancellation procedure.

Follow – up action to be carried out before the contract expires.

Date determination rule that specifies when the follow – up action is to be carried out.

- > Choose existing contract document type
- Select it and click on **copy** as icon

- > Rename it
- Maintain the contract data profile like below:

Contract start rule [01] = Today's date

Contract end rule [10] = Today's date + 1 year

Validity period category [02] = 1 year

Cancellation procedure [0001]

Action [0003]

Action date rule [19] = Contract end date

Save and Exit

Define validity period categories

Path:

- > IMG
- Sales and Distribution
- Sales
- Sales documents
- Contracts
- Contract data
- Define validity period categories

Define rules for determining dates:

Path:

- > IMG
- Sales and Distribution
- > Sales
- Sales documents
- Contracts
- Contract data
- Define rules for determining dates

Here we define the data determination rules

Select 01 and maintain the data in control data section

Baseline date [01]: It can be a contract sign date.

Ex: If a customer takes a mission on rental basis then the contract for the use and maintenance will have validity period of one year. Then system calculates end of the contract like below:

Transaction code: OVBS

Baseline date = Date contract signed (13-03-2006)

Time period = 1 year (12-03-2007)

Calendar = Months end

Therefore contract end date = (12-03-2007)

Control cancellation: Here we define the cancellation rules.

Define cancellation reasons

Path:

- IMG
- Sales and Distribution
- Sales
- > Sales documents
- Contracts
- ➤ Contract data
- > Control cancellation
- Define cancellation reasons

We define the cancellation reasons to terminate the contract. The cancellation reasons can be entered in the VOV8 of the contract document. It is only information purpose. It does not have any controlling effect.

- Go to new entries
- Define our cancellation reasons
 - Ex: 01 = Too expensive
- Save and Exit

Define cancellation procedures

Path:

- > IMG
- Sales and Distribution
- Sales
- Sales documents
- Contracts
- Contract data
- Control cancellation
- > Define cancellation procedures

We define the cancellation procedures that are allocated to contracts or contract item, when entering a contract. Using the assignment of cancellation procedures and cancellation rules system determines a cancellation rule that is valid for a contract, which specifies the time at which the contract may be terminated. Validity periods can be specified for cancellation procedure.

- Go to new entries
- > Define our cancellation procedure
- Save and Exit

Define cancellation rules

Path:

- > IMG
- Sales and Distribution
- Sales
- Sales documents
- Contracts
- Contract data
- > Control cancellation
- Define cancellation rules

Here we define the cancellation rules, which specify the points at which a contract may be terminated. There are 2 types of cancellation rules.

- (1) Defining a date for the earliest contract cancellation (Normal cancellation).
- (2) Specifying the period within which cancellation can occur (Right of cancellation).
- The cancellation rule contains:
- (A) Cancellation date: It specifies when the contract can be ended.

Ex: Start of contract +2 weeks.

(B) **Period of notice:** It specifies the date up to which the cancellation message must have been received from the customer by provide of the service.

Ex: One week before the cancellation date.

Cancellation period: The system calculates the next possible cancellation date with cancellation period on the basis of the entered cancellation receipt date and the requested cancellation date in the document. This period can be use to extend the contract automatically if no cancellation was received.

Validity period of the rule: This period specifies the validity period of the rule.

- Choose existing cancellation rule and select it
- Click on copy as icon and rename it
- Maintain the data like below:

Cancellation date [01]

Notice period [1] Cancellation unit [1] Period unit [1] Rule to validity periods [12]

Save and Exit

NOTE: We can define cancellation rules by going New Entries also.

Assign cancellation rules and cancellation procedures

In this activity we assign cancellation procedures to cancellation rules.

Path:

- > IMG
- Sales and Distribution
- Sales
- Sales documents
- Contracts
- Contract data
- Control cancellation
- > Assign cancellation rules and cancellation procedures
- Go to new entries
- > Assign our cancellation rules to cancellation procedure
- Save and Exit

Quantity contract

This kind of contract can be entered with the customer when there is demand for the product and supply is low. Contracts can be release by releasing partners through release orders (sales orders)

Releasing partner can be same Sold – to – party or you can define and determine another partner function to determine the releasing partner function.

Release the contract: Transaction code: VA41

Release order can be [OR]

Path:

- Logistics
- > Sales and Distribution
- > Sales
- Contracts
- ➤ VA41 Create

Specify the document type [NMS]

Specify the Sold – to – party, Description, Contract start and end dates

Assign the master contract number (if you want to assign this contract as a lower level contract to master contract).

Enter material number and quantity

> Save and Exit

Here item category is KMN

Partner function for releasing the order is [AA]

NOTE: Contracts does not contain schedule lines.

- ➤ Go to VA01 [Document type = OR] to raise the release order with reference to the contract
- Save and dot the VL01N and VF01

VOV8 of NMS:

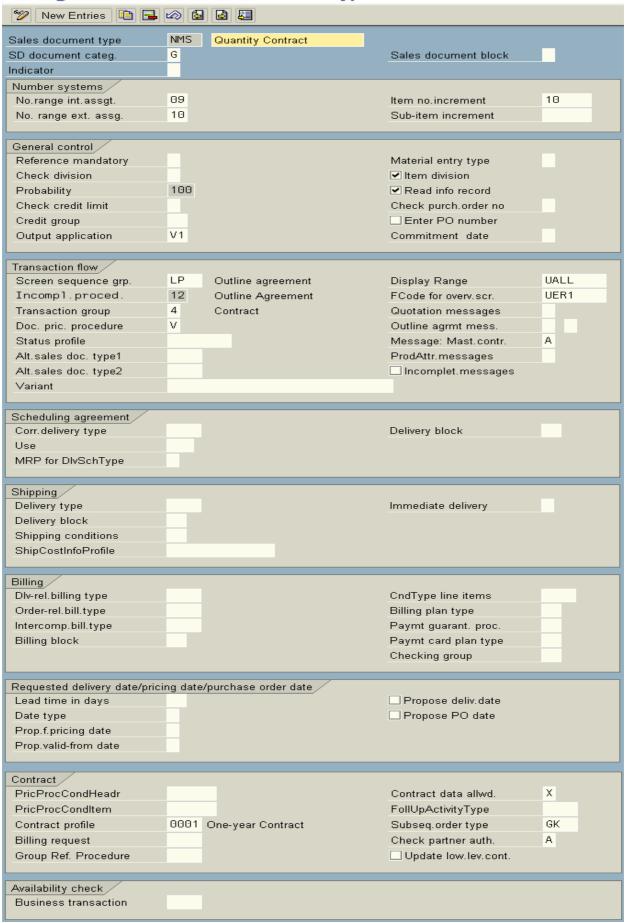
Document pricing procedure [V] Contract profile [0002] Contract data allowed [X] = Contract data allowed for contracts Sub - sequent order type [GK] Check partner authorization [A]

VOV7 of KMN:

Completion rule [C] Pricing [X]

NOTE: No schedule lines

Change View "Maintain Sales Order Types": Details



Change View "Maintain Item Categories": Details 🎾 New Entries 📭 榋 🐼 🔕 👪 KMN Item category Qty Contract Item Business Data / Item Type ✓ Business Item С Completion Rule Sched.Line Allowed Special Stock Item Relev.for Dlv Returns Billing Relevance ✓ Wght/Vol.Relevant Billing plan type Credit active Billing Block χ ✓ Determine Cost Pricing Statistical value Revenue Recognition Delimit, Start Date General Control Autom.batch determ. Rounding permitted Order qty = 1 Transaction Flow / Incompletion Proced. 23 Qty Contract Item Ν Screen Seq.Grp N PartnerDetermProced. Standard Item TextDetermProcedure 01 Sales item Status Profile Item Cat.Stats.Group Create PO Automatic. Bill of Material/Configuration, Config. Strategy Mat. Variant Action Variant Matching ATP material variant Structure scope Create Delivery Group Manual Alternative Application Param, effectivities Value Contract > Value contract matl Contract Release Ctrl Service Management, Repair proced. Control of Resource-related Billing and Creation of Quotations Billing form DIP Prof.

Value contract

The value contract is similar to quantity contract by which we can limit materials or services to a customer. But it's ceiling based on total value.

Transaction code:

Document types:WK1 = for assortment module

WK2 = for specific material [configurable material]

Assortment module [WK1]:

WSV2 = Create WS02 = Change WS03 = Display

WS04 = Delete

It is an order entry that display's a list of materials and services that can be released from a value contract.

Path:

- Logistics
- Sales and Distribution
- Master data
- Products
- ➤ Value contract Assortment module
- ➤ WSV2 Create
- > Specify the short description of the assortment module
- > Enter the material with the validity periods
- Save and Exit
- ➤ Go to VA41

Specify the document type [WK1]

Maintain the data and specify the assortment module number (S)

Specify the quantity to each number

Save and Exit

NOTE: Make sure that enter our material number in → Value contract field → in Value contract tab of WKN

➤ Go to VA01 [Document type = OR] and raise the release order with reference to contract by specifying release order document type [OR] or [WA]

Item category is WAN

Release order schedule lines = CP

Similarities of WK1 and WK2:

Both have header level and item level

None of them have schedule lines

Document type [WK1] \rightarrow Item category [WKN] \rightarrow Usage [VCTR]

Document type $\{WK2\} \rightarrow Item \ category \ [WKC] \rightarrow Usage \ [VCTR]$

Item category group = VCIT

Document pricing procedure [Y]

Pricing procedure [WK0001]

Condition type [WK00]

We can release value contracts by using release orders.

We can bill the value contracts directly or we can bill each release order.

Billing a release order:

We can use standard order OR for release orders.

Then billing can be either order related or delivery related.

Billing a value contract:

Order type WA in standard system for the release order.

Item category is WAN

The value contract can bill according to order.

A billing plan allows us to bill the contract for several dates and partial quantity at once.

The release order can be created in any currency.

Partner authorization to releasing contract:

Sold – to – party authorized to release the contract.

To meet this requirement, in VOV8 of WK1 specify rule in Check partner authorization field as [A].

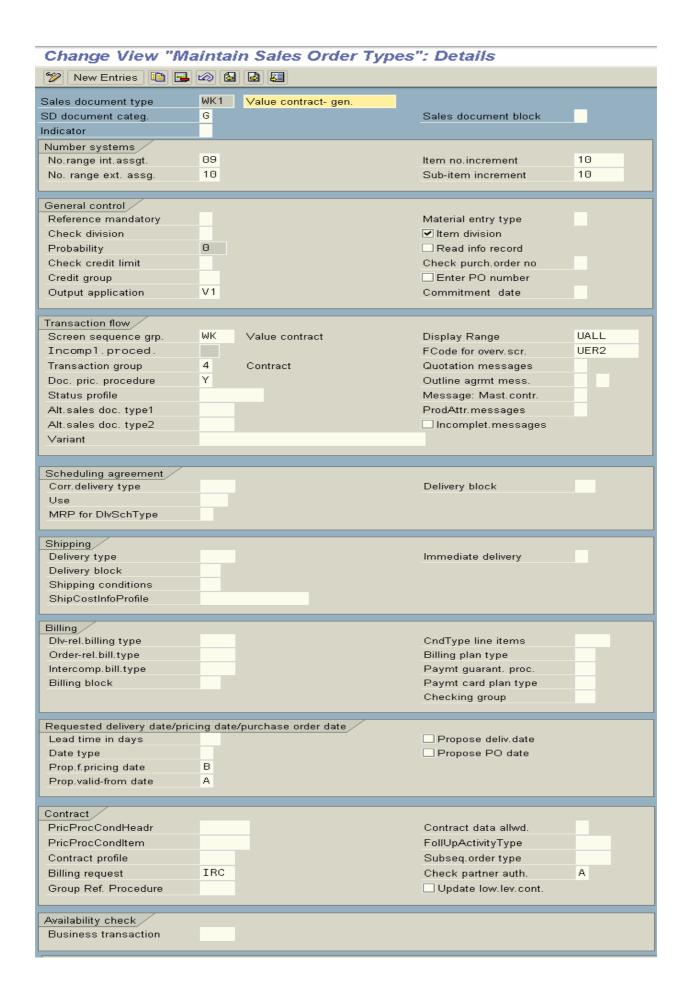
Rule – **A:** Check contract partners

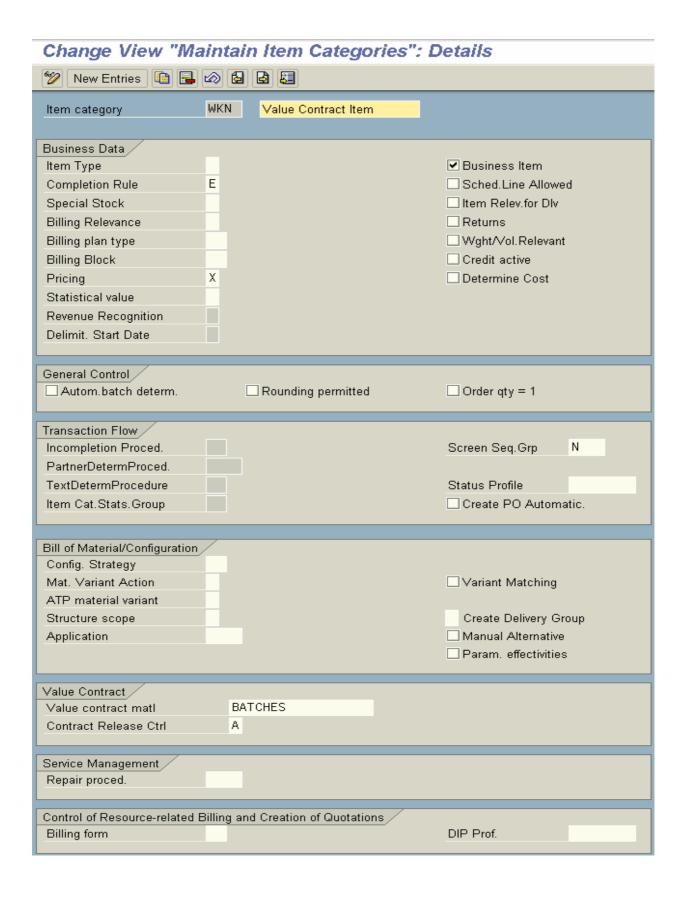
If there is customer risk we can store the partners authorized to release directly in the partner screen in the contract document. In the standard system partner function AA has been defined for use as optional Sold – to – party partner function the relevant partner determination procedure (KAB).

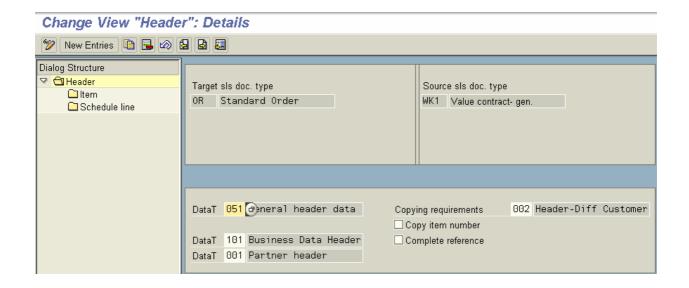
Alternative Ship – to – party represented by partners authorized to release the contract.

FAQ: Where do we determine value contract material should be transferred to the release order?

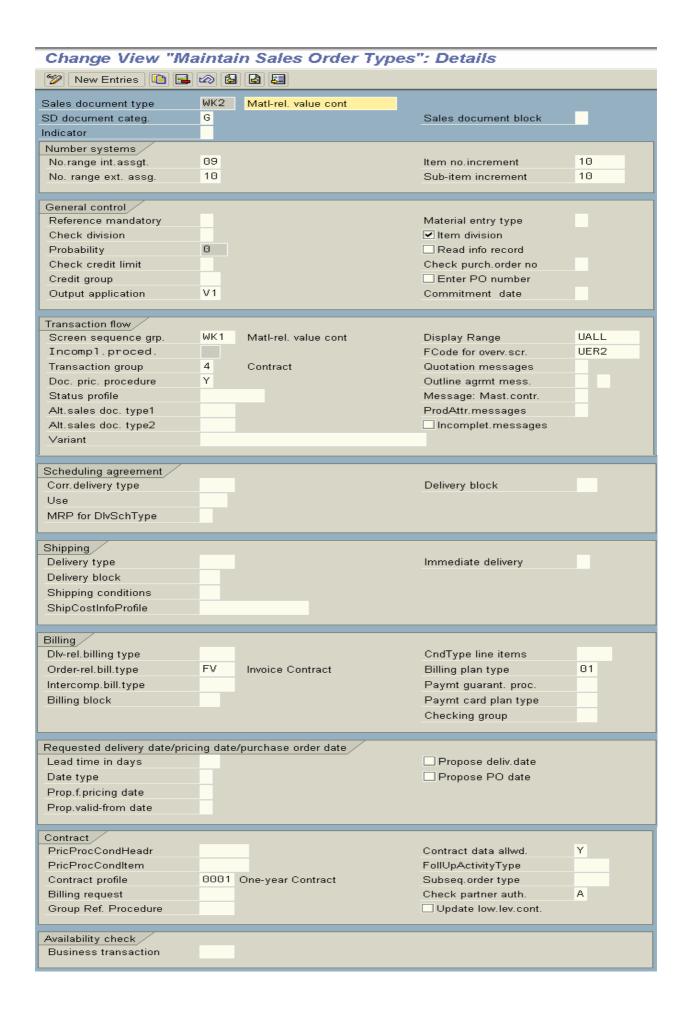
ANS: In copy control of sales document \rightarrow to \rightarrow sales document [OR \rightarrow to \rightarrow WK1] at \rightarrow Item level \rightarrow Contract item copy mode field.

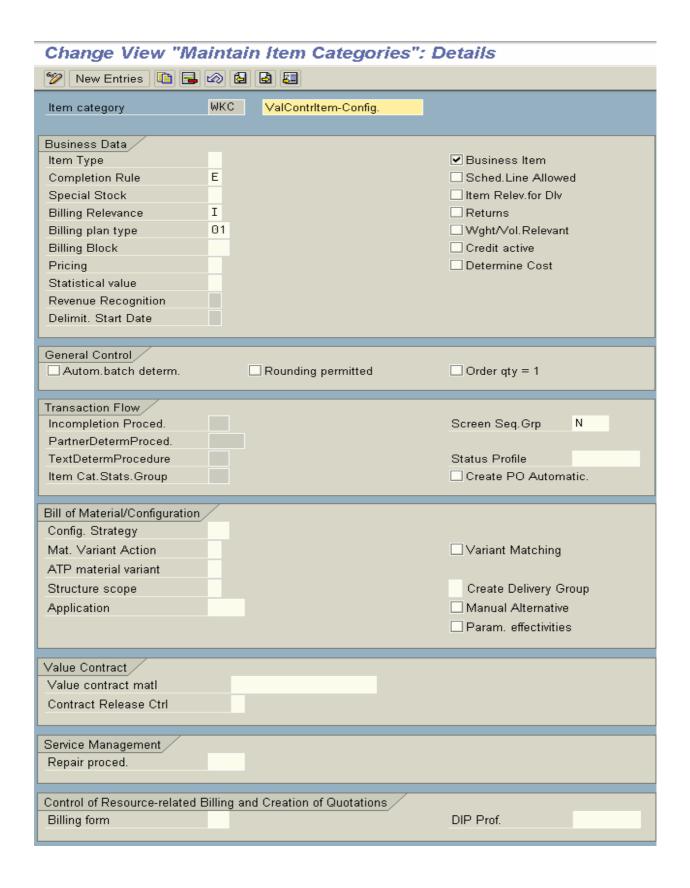


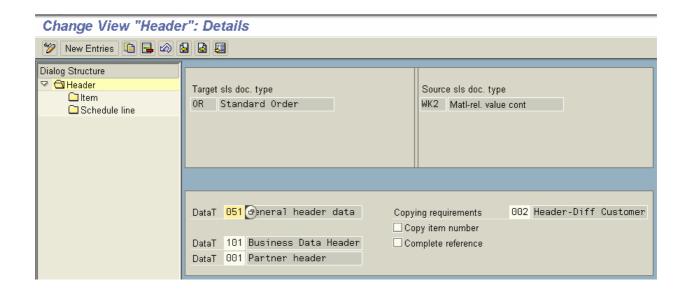














Service contract [or] Maintenance contract

It is an interface and the legal agreement between the receiver of the service and the business supplying the service. We can do automatic billing of routine services at regular intervals.

Sales document type [SC] = Monthly maintenance

[QP] = Rental

We need not to have call – off release order.

It needs not to have delivery process.

It should have own pricing procedure.

Standard pricing procedure [PSER01]

Condition type = PPSV - Monthly fee (Based on material).

Condition type = PPSG – Monthly fee (Based on material group).

Item category – DIEN/KMAT

© Create Service material in MM01

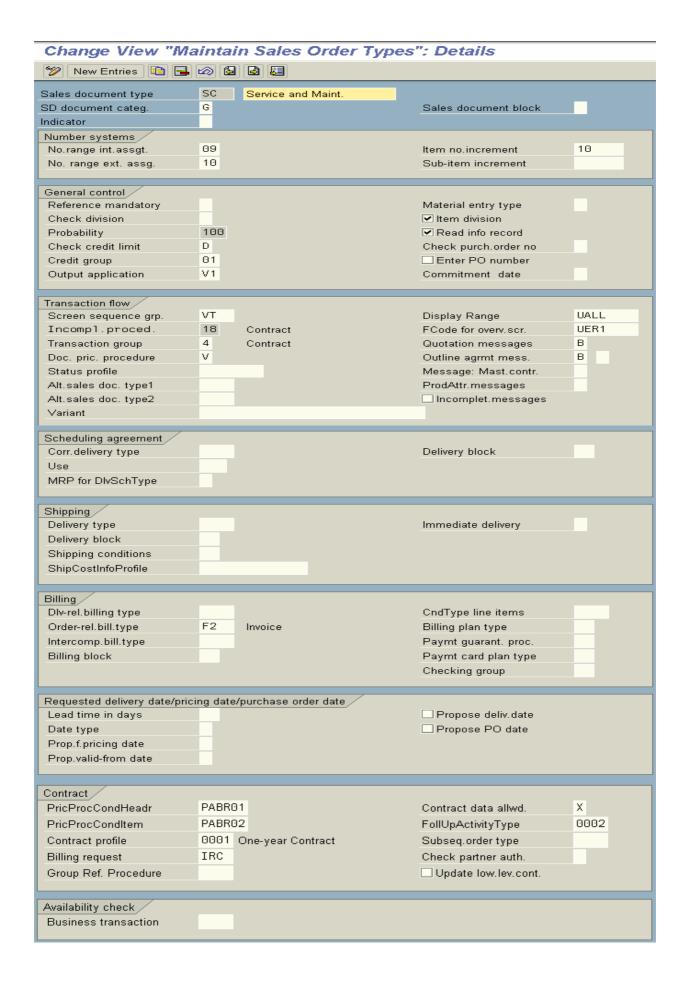
© Base unit always DAY or HOUR

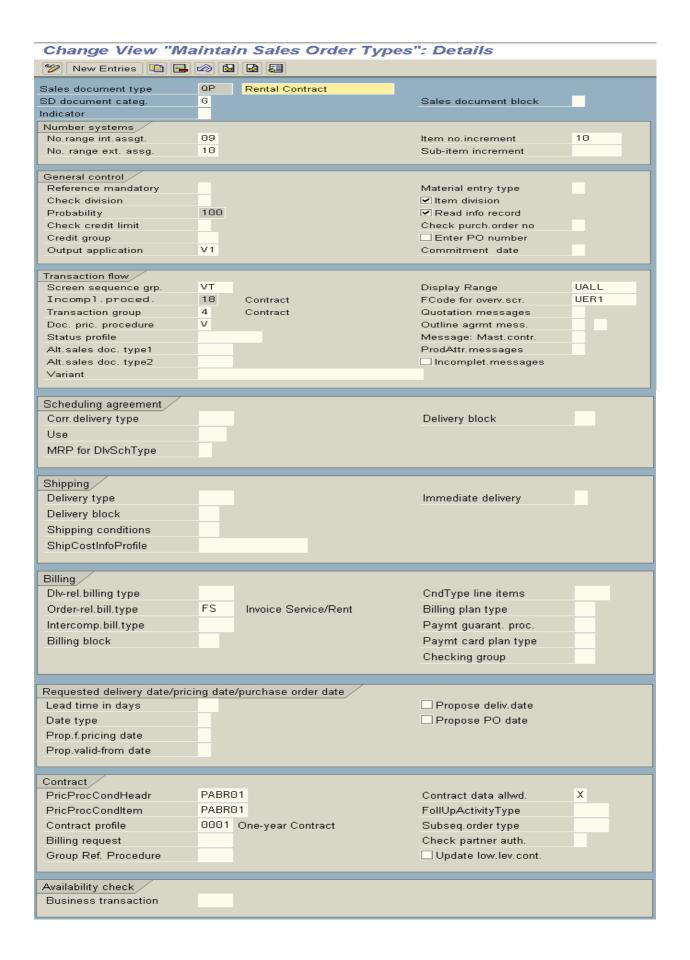
Contract profile: We can define contract profile in IMG and we can assign it to document type.

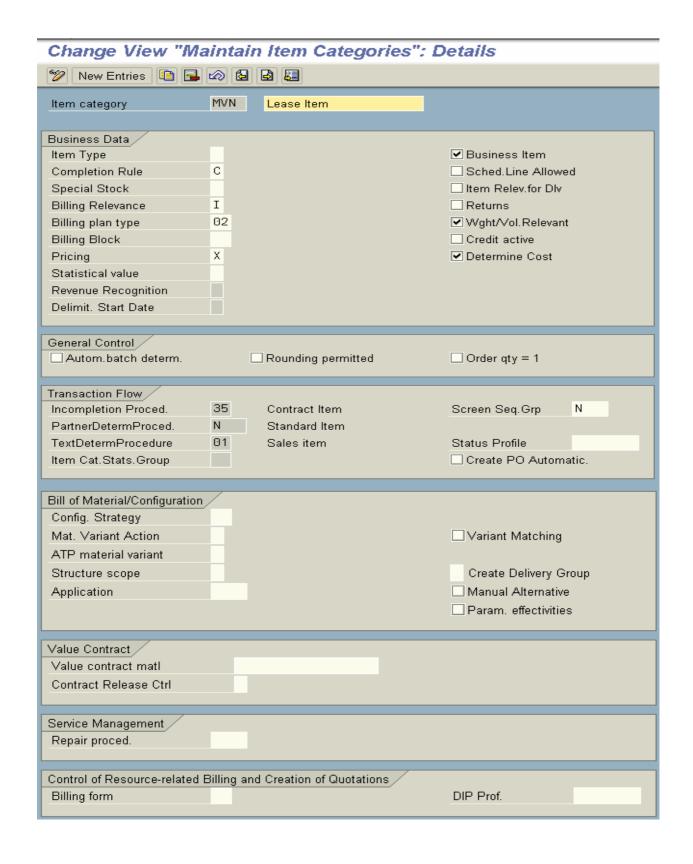
Contract profile contains contract start date, (Rules) contract start rule, end rule, validity periods, cancellation procedure, action and action date value.

Reference procedure: It is used for mater contract to determine which data is to be copied or proposed into lower level contracts.

Contract data allowed: It indicates the system what to do, when the data differs between header and item level. **Ex:** X and Y.







Create one new material in MM01 Sales document type [QP] Billing document type [FS] Item category [MVN]

Master contracts

It consists of other contracts that are grouped as lower level contracts.

Master contracts contain general data that relevant to lower level contracts.

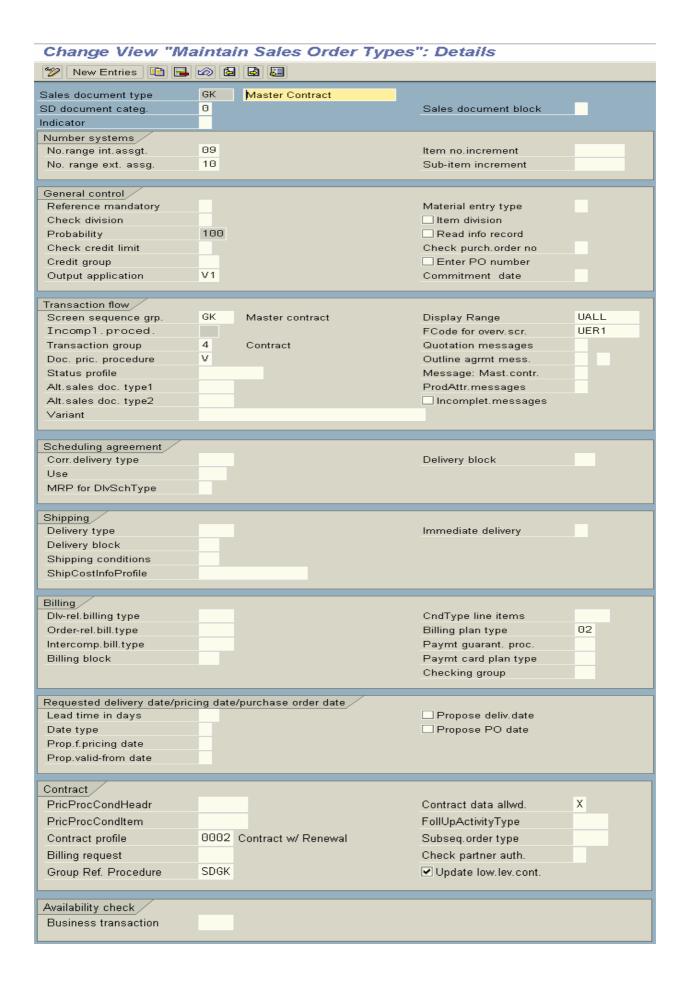
The grouping of the data ensures the lower level contracts remain consistent and terms granted in the master contract are copied into all lower level contracts.

Documents can be grouped under master contract are quantity contract, value contract, service contract.

Master contract contains header data as well as billing plan data, partner data, business data and contract data.

Contract grouping: It is the procedure where by lower level contracts are linked to one master contracts to ensure data consistency.

To group the contracts we have to define referencing requirements.



Define referencing requirement procedure

Path:

- > IMG
- Sales and Distribution
- > Sales
- Contracts
- ➤ Master contracts
- Define referencing requirement
- Define referencing sales document type
- Go to new entries
- Assign all the lower level contracts to the master contract [GK]
- Save and Exit

Define referencing procedure

Path:

- > IMG
- Sales and Distribution
- Sales
- > Sales documents
- Contracts
- Master contracts
- Define referencing requirements
- Define reference sales document types
- Choose SDGK form position button
- Select it and click on **copy** as icon
- Select all entries and delete them
- > Rename it and maintain the values like below:

Table	Field name	Partner function	Copy rule	Message
VBPA	KUNNR	SP	A	✓
VEDA	VLAUFZ		A	✓
VBAK	AUGRU		C	✓
VBKD	INCO1		В	✓

➤ Go to VOV8 of GK and specify the data in contract section

Contract profile [0002]

Group reference procedure Ex: SRI

Contract data allowed [X]

- ✓ Update lower level contract
- Save and Exit

Link a contract to master contract

➤ Go to VA41 and raise the master contract

Specify the document type [GK]

Give the description, Sold – to – party, and validity periods

- Save and Note the master contract number
- Go to change mode of the lower level contracts and specify this master contract number in master contract field at header level.
- Save and Exit
- ➤ Go to VA41 again and maintain the lower level contracts

Enter master contract number

Save the document

- > Go to change mode of master contract and check these lower level contracts has been assigned or not at item level.
- Through "work flow" this master contract can be executed

Consignment Business Process

Consignment is the business process where by the business appoints consignment agent on behalf of business.

Consignment agents sell the materials to the end customer (may be on commission basis).

Consignment agent receives the material and he sells the material to the end customer.

Consignment agent has the right to return the materials if he does not want to sell the remaining goods.

Business treats the consignment stock as special stock (indicated in item category).

We can map the business process of consignment in 4 phases.

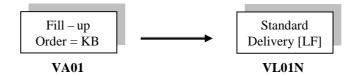
- (1) Consignment fill up.
- (2) Consignment issue.
- (3) Consignment returns
- (4) Consignment pick up.

Consignment Fill – up

Document type = KB

The consignment fill – up stage/phase business fills the stock with consignment agent.

This phase will have only delivery.



Item category = KBN

Schedule lines = EI (stock transferred to consignment/order without acknowledgement)

Procurement tab → Movement type 631

VOV7 of KBN:

NIL

VOV6 of EI:

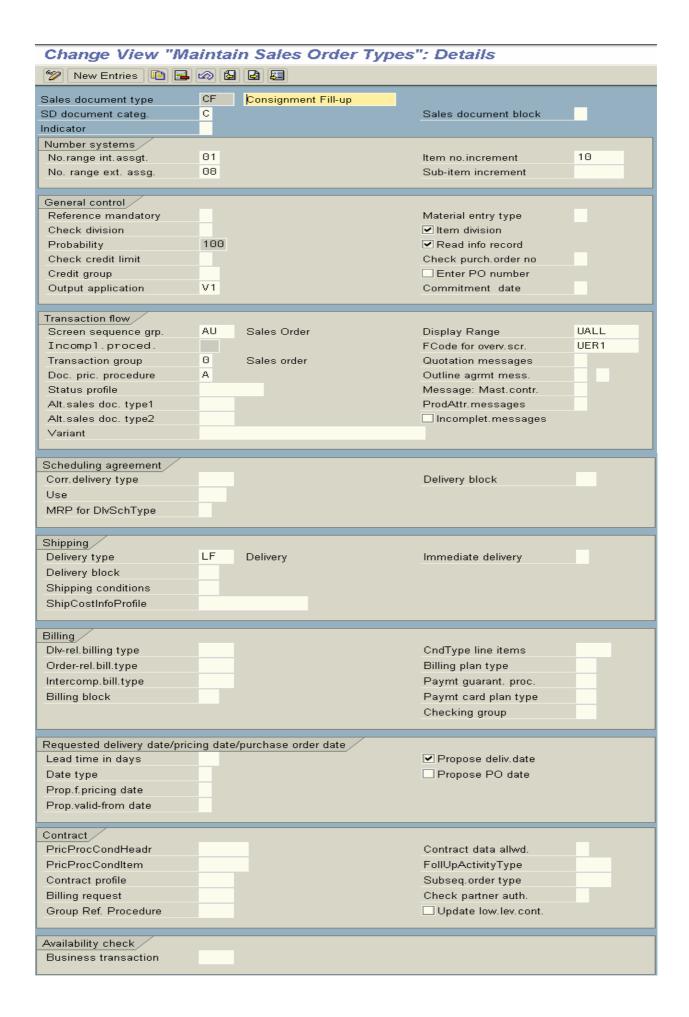
Movement type [631] = Goods issue – Consignment: Lending

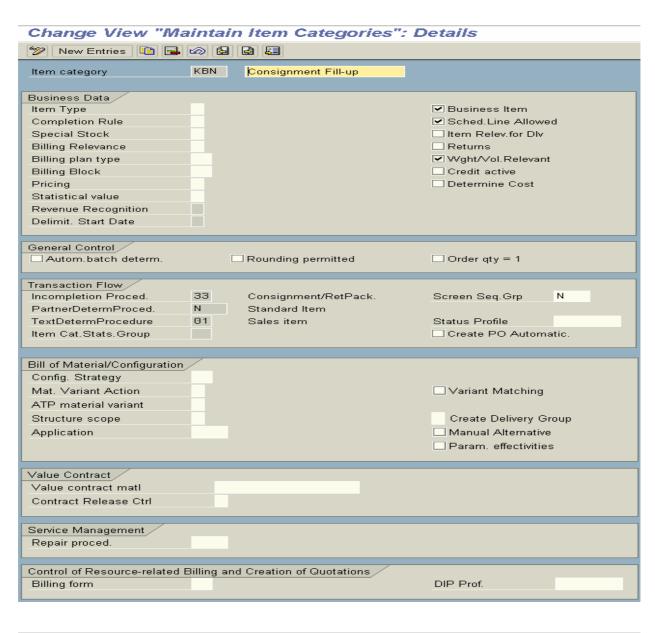
✓ Item relevant for delivery

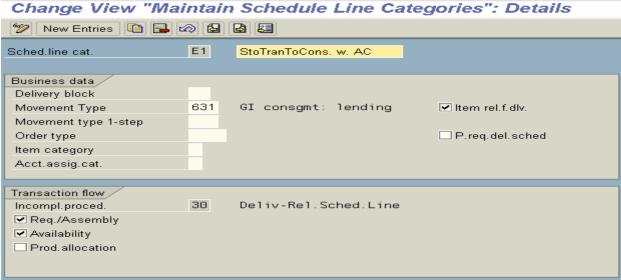
✓ TOR

✓ Availability

NOTE: When a consignment fill – up is carried out, the system checks the available quantity of stock in the delivering plant to see if this quantity can be met. When the system proceeds with a consignment issue or consignment pick – up, the system checks the stock represented at the customer's site to see if there is an available quantity.



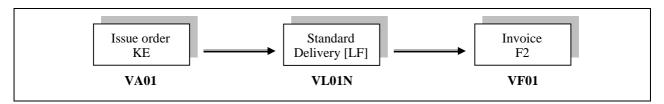




Consignment Issue

Document type KE

In this process consignment agent sells the goods to the end customer.



Item category = KEN

Movement type = 633

Schedule line category [C1] = Consignment issue without availability check

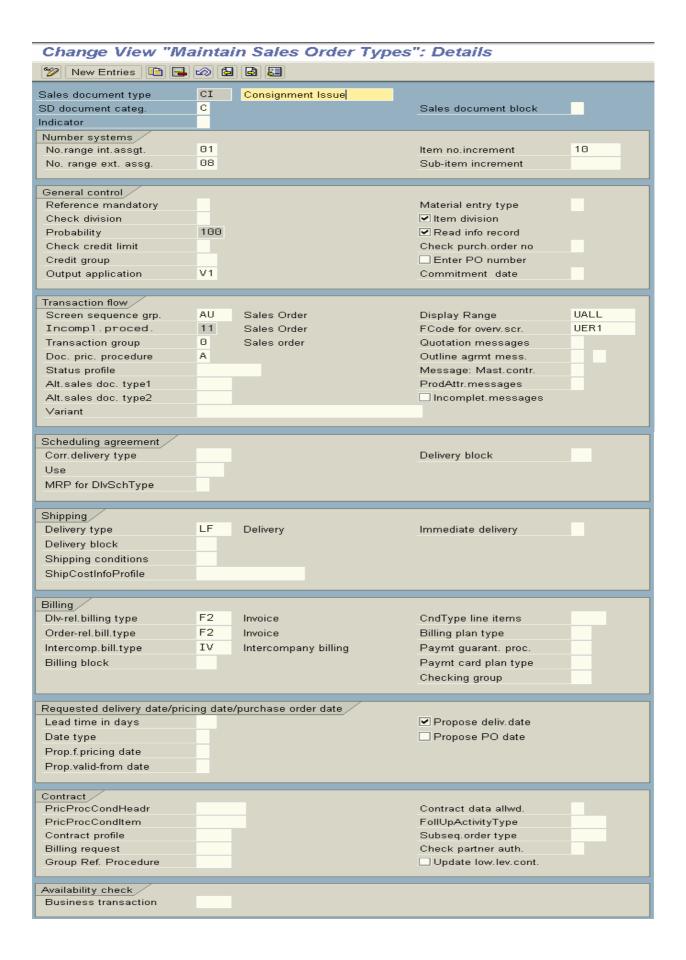
VOV7 of KEN:

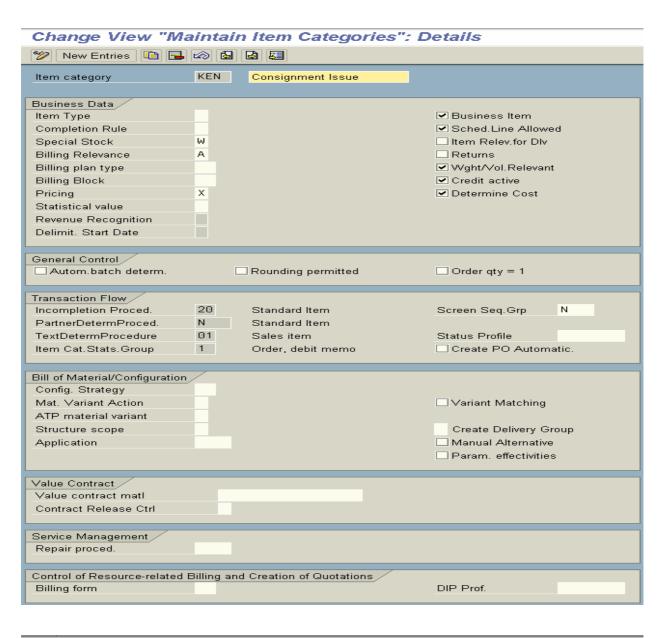
Special stock [W] Billing relevance [A] Pricing [X]

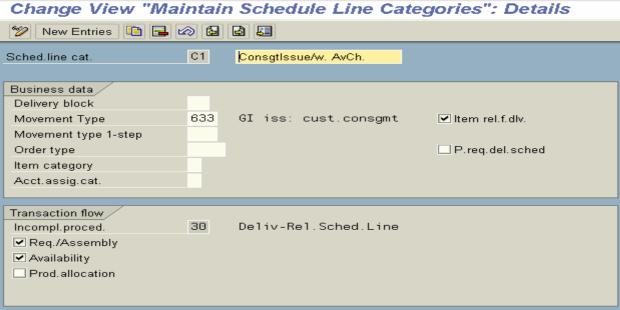
VOV6 of C1:

Movement type [633] = Customer consignment

- ✓ Item relevant for delivery ✓ Requirement/Assembly (TOR)
- ✓ Availability







Consignment Returns

Document type KR

As end customer returns the damaged goods to the consignment agent. Consignment agent has to receive those damaged materials.



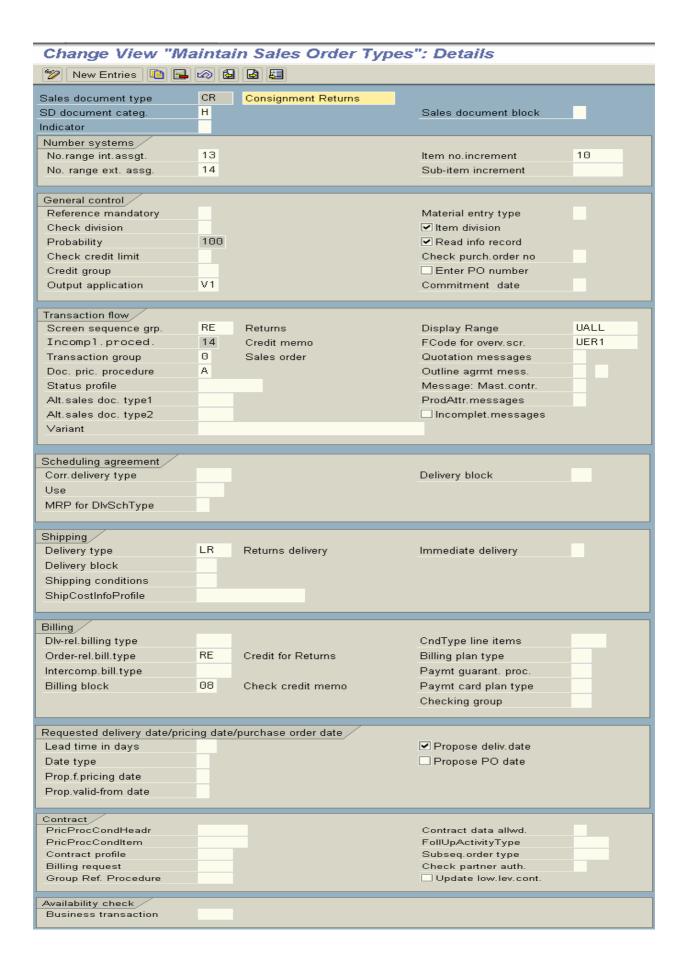
Item category = KRN Schedule line category [D0] = Consignment returns Movement type = 634

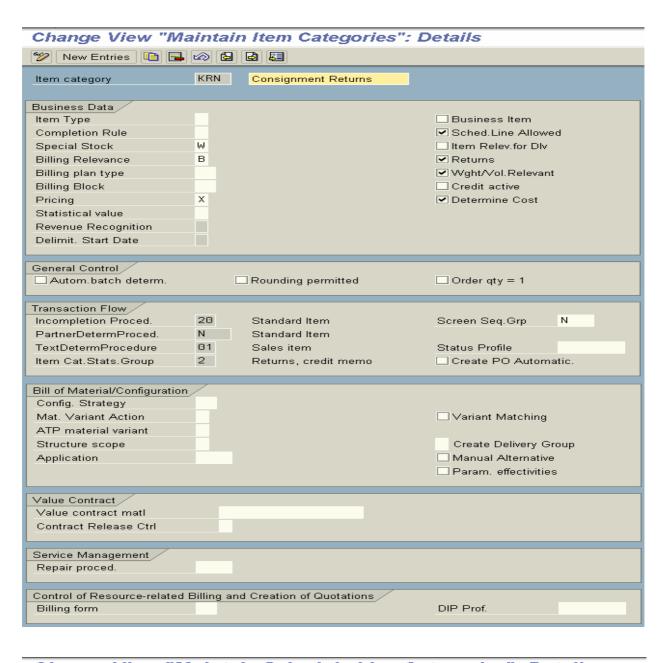
VOV7 of KRN:

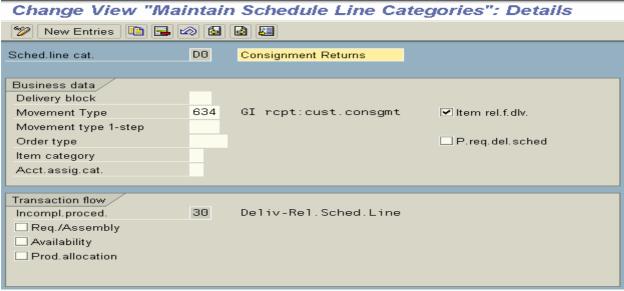
Special stock [W] Billing relevance [B] Pricing [X]

VOV6 of D0:

Movement type [634] = Goods receipt customer consignment ✓ Item relevant for delivery



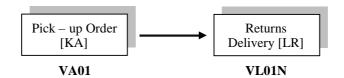




Consignment Pick - up

Document type KA

The consignment agent returns the remaining goods to the business. So that business has to pick up the stock from the consignment agent.



Item category = KAN

Movement type = 632

Schedule line category [F1] = Consignment pick – up with availability check.

VOV7 of KAN:

NIL

VOV6 of F1:

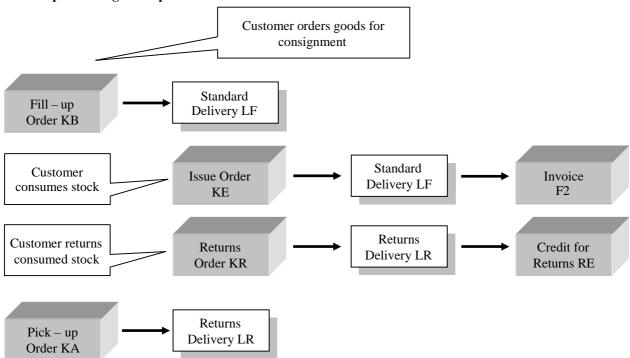
Movement type [632] = Goods issue consignment return delivery

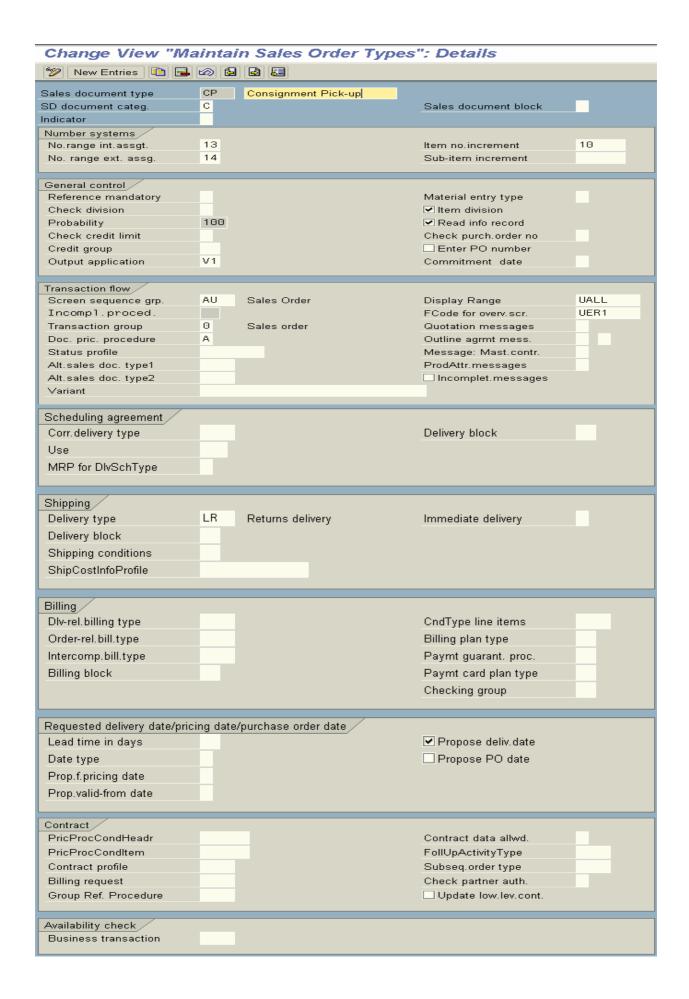
- ✓ Item relevant for delivery
- ✓ Requirement/Assembly (TOR)
- ✓ Availability

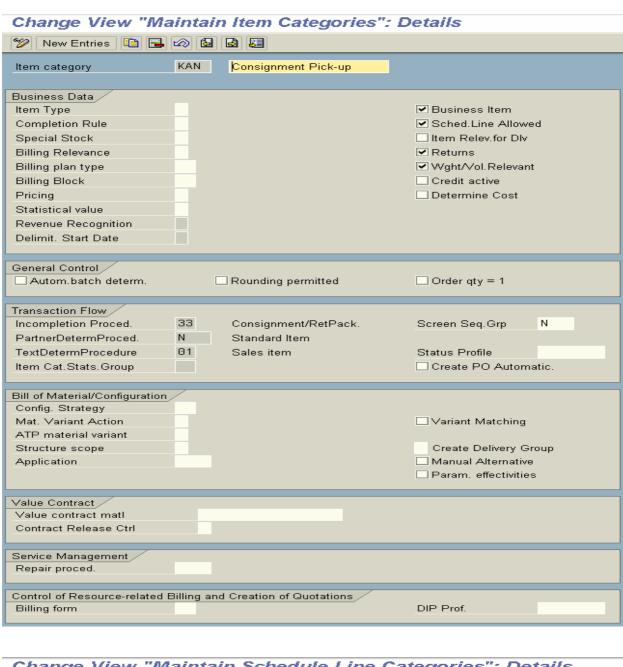
NOTE: Item categories, Schedule lines, Movement type numbers are very important for INTERVIEW.

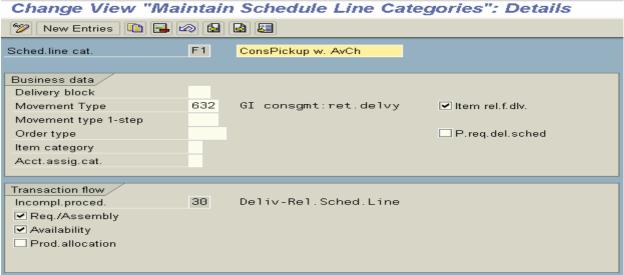
	Document type	Movement type	Item category	Schedule lines
Consignment Fill – up	KB [CF]	631	KBN	E1
Consignment Issue	KE [CI]	633	KEN	C1
Consignment Returns	KR [CR]	634	KRN	D0
Consignment Pick - up	KA	632	KAN	F1

The complete consignment process









Credit Management

In SAP there are some checks available to carryout credit checks for particular customer as credit sales is common to every business. When the credit sales granted for the particular customer, monitoring the credit history of a particular customer is essential with every transaction.

SAP has provided two kinds of credit checks to carryout credit management functions:

- (1) Simple credit check
- (2) Automatic credit check

Simple credit check: In simple credit check the system compares the credit exposure with payers credit limit. The credit exposure results from the total of the net document value and the value of the open items.

We can set the following system responses at when the credit limit has been reached.

- A Warning message
- B Error message
- C Delivery block

Specify in VOV8 \rightarrow Credit limit [C]

Configuration settings:

Sales documents types – Credit limit check: Transaction code: OVAK

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Credit management/Risk management
- > Simple credit limit check
- > Choose sales document type OR
- Specify value
 - [] = No credit limit check
 - [A] = Run simple credit limit check and warning message
 - [B] = Run simple credit limit check and error message
 - [C] = Run simple credit limit check and delivery block
- Save and Exit

Define credit control area: Transaction code: OB45

Credit control area is an organizational unit that specifies and checks the credit limit for customers. A credit control area can include one or more company codes. It means we can assign one credit control area to number of company codes.

NOTE: Within credit control area the credit limit must be specified in the same currency.

Path:

- > IMG
- > Enterprise structure
- Definition
- Financial accounting
- Define credit control area
- ➤ Go to new entries

(OR)

- Choose existing credit control area
- Select it and click on **copy** icon
- Rename it and click on **details** icon Specify currency [INR]

Data for updating SD fields

Update [000012]: Open order value on time axis, delivery and billing document value. This field value controls when the values are open sales orders, deliveries, billing documents are updated in LIS. We can specify the following update groups for updating credit related statistics.

▶ Update group 000012:

Sales order: Increase open order value from delivery relevant schedule lines.

Delivery: Reduces open order value from delivery relevant schedule lines.

Increases open delivery value

Billing document: Reduces the open delivery value, increases open billing document value.

Financial accounting document: Reduces open billing document value

Increases open items.

Update group 000015:

Delivery: Increases open delivery value.

Increases open billing document value.

Financial accounting document: Reduces open billing document value

Increases open items.

Update group 000018:

Sales order: Increases open delivery value **Billing document:** Reduces open delivery value.

Increases open billing document value.

Financial accounting document: Reduces open billing document value.

Increases open items.

Fiscal year variant [K4]: It indicates specific fiscal year variant for particular credit control area. The fiscal year variant is essential when a credit control area covers multiple company codes whose fiscal years are different. Then the values of the open orders are updated by posting period.

Specify risk category [001]: 001 = High risk

002 = Medium risk

003 = Low risk

This risk category entered in the related control area of the customer's credit master record, which is automatically created when a customer is created in a company code.

The credit master record is automatically maintained when at least one of the below fields is maintained for the corresponding control area.

- (A) Risk category
- (B) Credit representative group
- (C) Credit limit

Credit limit: The credit limit that we enter here in the specific credit control area of the customer's credit master record. This is automatically created when a customer is created in a company code (in XD01).

NOTE: This credit limit is not a total credit limit for the control area.

Representative group [001]: Define credit representative group in IMG.

- ✓ **All company codes:** If we want to tell to the system that, this credit control area is permitted for postings in every company code we have defined.
- Save and Exit

NOTE: After this create Risk categories and Credit representative groups and come back to this step and assign these values to our credit control area.

Risk category and Representative group defined and maintained by FI/CO consultants in IMG.

Assign company code to credit control area: Transaction code: OB38

Path:

- > IMG
- > Enterprise structure
- Assignment
- Financial accounting
- Assign company code to credit control area
- Choose our company code from position button
- Click on assign button on the application tool bar
- > Select our credit control area from the list and assign it
- Save and Exit
- Go to FD32 and check whether system created customer's credit master data automatically or not.

System creates customers credit master data automatically when we (FI/CO) people) configure credit control area in IMG.

So as to perform simple credit check we have to specify customer master payers limit in the credit control area, and create customer master in XD01 transaction code.

- > Specify reconciliation account number (GL account number)
 - ✓ **Payment history record:** Check payment history record control in payment transaction tab. It is the control parameter to update the payment details that are made by customers and system will show the payment details in the FD32.
- > Specify the credit control area in credit control area field in billing document tab.
- > Save and Exit
- Go to VA01 and raise the sales order

Check the system responses in each and every level of sales document processing and check whether the system blocked the delivery document (due to the setting in VOV8 of OR in check credit limit field [C] = Blocked for delivery).

> To release the delivery go to VKM4 and release the delivery document.

Automatic credit check

We can configure credit related management functions that are to be carried out by the system automatically. System automatically carries out credit related management functions by taking some factors into consideration.

In automatic credit related functions system gets the credit exposure of a particular payer by taking factors like:

- (1) Open sales orders (that are raised, yet to pass to delivery process) +
- (2) Open delivery documents (that are raised, yet to pass to PGI) +
- (3) Open PGI documents (that are PGI process done, and yet to pass to billing document) +
- (4) Open billing documents (that are raised, but yet to pass to accounting (FI) +
- (5) Attachment/Time/Horizon period. Ex: 2 Months.

Horizon period: It is the period in which system will take the above sited all open documents into consideration that falls during this period. This time period only applies for dynamic check. It will not be applied for static. As in automatic credit check SAP provides Dynamic and Static methods.

Configuration steps:

Define credit control area: Transaction code: OB45

Path:

- > IMG
- Enterprise structure
- Definition
- Financial accounting
- > Define credit control area
- ➤ Go to new entries

(OR)

- Choose existing credit control area
- Click on **copy** as icon
- Define our credit control area by changing the data
- Save and Exit

Assign permitted credit control area to company code

Path:

- > IMG
- > Financial accounting
- > Accounts Receivable/Accounts Payable
- Credit management
- Credit control account
- Assign permitted credit control areas to company code
- Go to new entries
- > Assign credit control area to company code
- Save and Exit

NOTE: Definition and assignment takes place in single step. Here we can assign 'N' number of credit control areas to one company code.

Path:

- > IMG
- > Enterprise structure
- > Assignment
- Financial accounting
- > Assign company code to credit control area
- Choose our company code from position button
- Click on assign button on the application tool bar
- Select our credit control area form the list
- > Assign
- Save and Exit

NOTE: If our client has different business areas, we can assign each business area with credit control area.

Ex: 0001 for business area 'A'.

0002 for business area 'B'.

0003 for business area 'C'.

In this case the same customer master record can have different credit limits for different business areas.

Define risk categories:

Transaction code: OB01

Path:

- > IMG
- > Financial accounting
- Accounts receivable and accounts payable
- Credit management
- Credit control account
- Define risk categories
- Go to new entries
- Define our risk categories

Ex: 001 = High risk 002 = Medium risk 003 = Low risk

- Assign our risk categories to our credit control area
- Save and Exit

NOTE: Definition and assignment takes place in one step.

Define preliminary settings for credit management

Path:

- > IMG
- Financial accounting
- Accounts receivable and accounts payable
- Credit management
- Credit control account
- Define preliminary settings for credit management
 - ✓ Check credit read A/R summary
 - ✓ Check create A/R summary
- Save and Exit

Define text IDs for credit management: Transaction code: OBT3

Path:

- > IMG
- > Financial accounting
- Accounts receivable and accounts payable
- > Credit management
- > Credit control account
- > Define text IDs for credit management
 - ✓ Check relevant text for 0001 = Internal information

0002 = External information 0003 = Action

Save and Exit

, but and Emi

Maintain text IDs for central text in credit management: Transaction code: OBT3Z

In this context central means that the texts are independent of a credit control area.

- > IMG
- > Financial accounting
- Accounts receivable and accounts payable
- > Credit management
- > Credit control account
- Maintain text IDs for central text in credit management

- ➤ If we want we can CHECK relevant text
 - ✓ 0001 = Test
- Save and Exit

Define credit representative groups: Transaction code: OB02

Path:

- > IMG
- > Financial accounting
- Accounts receivable and accounts payable
- Credit management
- Credit control account
- > Define credit representative groups
- ➤ Go to new entries
- Define credit representative groups
- Save and Exit

NOTE: Assignment also does here.

Define groups

Path:

- > IMG
- > Financial accounting
- Accounts receivable and accounts payable
- Credit management
- Credit control account
- Define groups
- Go to new entries
- Maintain credit management group for credit control area
- Save and Exit

NOTE: Assignment also does here.

Define credit representatives: Transaction code: OB51

Path:

- IMG
- > Financial accounting
- > Accounts receivable and accounts payable
- Credit management
- Credit control account
- Define credit representatives
- ➤ Go to new entries
- > Specify credit representative, credit control area, and partner function (KB = Credit representative)

 Specify partner counter (The sequential number that the system applies when there is more than one partner for a particular partner function)
 - ✓ Check CO (system copies this credit representative into sales order)

NOTE: Create a partner function for representative by copying KB (in basic functions \rightarrow Partner functions determination) and specify it here.

- Specify personal number
- Save and Exit
- ➤ Go to FD32

Specify customer number and credit control area

Overview ✓ Overview General data ✓ Address ✓ Central data Credit control area data ✓ Status ✓ Payment history

Customer's credit master record has been segregated as above sited sections. Maintain the data in the above-sited sections.

Overview: In this section we can have the overview of the customers credit related information like credit limit, credit exposure, credit limit use, horizon, etc.

 \triangleright Click on \rightarrow Next icon

Address: In this view system copies address details from customer master general data section

➤ Click on → Next icon

Central data:

Maximum permitted credit limit

The value of this field specifies the overall credit limit that the customer may receive in all credit control areas.

Individual limit: The value of this field specifies the credit limit of the customer within specified credit control area.

Currency INR: We can specify the currency type that the particular customer makes a transaction from this credit control area.

➤ Click on → Next icon

Credit limit data

The amount that we enter here specifies an upper limit for the total receivables and the forcible (expecting) receivables from the customers.

Credit horizon data: It is a date that the system takes to calculate credit exposure by using horizon period.

Internal data

Risk category 001 = High risk: Specify the risk category of customer that we defined in IMG.

- Specify credit representative group and customer credit group
 - [] **Blocked:** We can block the customer for all credit management business transactions.

Ex: Order acceptance, delivery, goods issue.

- But we still post that invoices for goods, which were already delivered
- ➤ Click on → Next icon

Payment history: In this screen system shows the payment history of the particular customer for credit sales.

NOTE: Pre - requisite in XD01: In company code data of the customer master in payment transaction tab

- ✓ Check payment history record
- Save and Exit

Define credit limit check by sales document type: Transaction code: OVAK

Path:

- > IMG
- > Sales and Distribution
- > Basic functions
- Credit management/Risk management
- Credit management
- Assign sales documents and delivery documents
- Credit limit check for order types
- ➤ Choose sales document type OR

Assign Check credit [D] = Credit management: Automatic credit control

Credit group [01] = Credit group for sales order

> Save and Exit

Define credit limit check by delivery order: Transaction code: OVAD

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Credit management/Risk management
- Credit management
- > Assign sales documents and delivery documents
- Credit limit check for delivery types
- ➤ Choose delivery document type LF from position button
- Assign delivery credit group [02] = Credit for delivery Goods issue credit group [03] = Credit group for goods issue
- Save and Exit

Define credit limit check by item category: Transaction code: OVA7

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Credit management/Risk management
- Credit management/Risk management settings
- > Determine active receivables per item category
- Choose item category TAN from position button
 - ✓ Check credit active
- Save and Exit

Define credit groups: Transaction code: OVA6

We can define credit groups so as to group together different business transactions in the same manner to carryout credit check.

NOTE: Use standard credit groups: 01 = Credit group for sales order

02 = Credit group for delivery

03 = Credit group for goods issue (PGI)

- IMG
- > Sales and Distribution
- Basic functions
- Credit management/Risk management
- Credit management

- > Define credit groups
- > Go to new entries
- Define our credit groups
- Save and Exit

Define Automatic credit control: Transaction code: OVA8

Here we define whether system has to carryout Dynamic or Static.

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Credit management/Risk management
- Credit management
- Define automatic credit control
- Go to new entries
- Specify our credit control area, risk category and credit group

Document controlling

✓ **Item check:** It indicates that system carries out credit check not only when you save the document but also when we enter single item or header data. System generates warning message only for first item.

Credit limit seasonal factor

% [] = Seasonal factor in %: It specifies percentage tolerance limit up to which a customers credit limit may be temporarily extended or reduced.

Ex: Specify 5% with a "minus". If customer's credit limit is 10,000/- then his limit is going to be reduced by 500/- (5%) (It becomes 9,500/).

✓ **Minus:** It controls whether the credit limit may be increased or reduced by the specified percentage rate. If you check it the percentage rate is going to be decreased.

From [] and To []: In this field we can specify the periods for season factors.

Checks

Here we define whether the system has to carryout static, dynamic or on maximum document value also.

	Reaction	Status/Block		
[] Static	[A]	✓	[] Open orders	[] Open deliveries
[] Dynamic	[A]	✓	Horizon [1]	[M] (Dynamic only)
[] Document value	[]	[]	Maximum document value	[]
[] Critical fields	[]	[]		

- Check by giving different values in above fields.
- Check by giving maximum document value and without maximum document value.
- [] Static: It indicates whether system has to carryout static credit check.
- [] **Reaction** [A] = Warning: Specifying the reaction of ht system when system carries out the credit check.
- ✓ Status/Block: System sets the credit status after carrying credit check.
- [] Open orders: It takes the open order value.
- [] Open deliveries: It takes the open deliveries value.

[] **Dynamic:** It indicates whether system has to carryout dynamic credit check.

Reaction [A] = warning **Check** Status/Block Horizon [1] [M] one month

[] **Document value:** It indicates whether system has to carryout credit check based on the document value.

> Specify the Reaction, Status/Block and Maximum document value []

It specifies the maximum document value for credit check based on the value of a sales order or delivery.

Use: It will be useful for new customers, for whom credit limits have not yet been established. That credit check can be triggered by the risk category that we define especially for new customers.

[] Critical fields: It specifies whether system has to carryout credit check against critical fields (fixed value dates). If you check this field the system checks whether critical fields have been changed.

Ex: Payment terms

Additional value dates

Fixed value dates

> Specify the Reaction and Status/Block

NOTE: It is only useful for sales documents.

[] Next review date: It specifies whether system has to carryout credit check against next customer review date.

Use: The next credit review date is stored in the credit data in the customer master record.

When you process a document the next credit review date must not be beyond the current date.

NOTE: We can specify the time buffer for this type of credit check in the next field, and we can specify number of days that are added to the next credit review date.

> Specify the Reaction, Status/Block, and Number of days []

Open items: It specifies whether system has to carryout credit check based on the over due of open items.

Use: This type of credit check works in conjunction with two fields.

- (A) Maximum percentage of over due items in open items.
- (B) Number of days, which the open items are over due.
- > Specify the Reaction, Status/Block, Maximum open item % [] and Number of days for considering open items []

[] Oldest open item: It specifies whether system has to carryout credit check based on the age of the oldest open item.

Use: The oldest open item must not be older than the number of days specified.

If you do not want to deliver to the customer even, when one invoice is over due.

- > Check the Oldest open item
- > Specify 1 in the field "Days oldest []" (It is number of days that are allowed for overdue of payment terms).

Use of this kind of check: If the user attempts to alter the order quantity of the released sales document that was previously blocked, it would be re-blocked again by the system.

Specify Reaction, Status/Block

[] Highest dunning level: It specifies whether system has to carryout credit check against highest dunning level allowed.

Use: It specifies the highest dunning level that we want to use in the next field. The dunning process is recorded in the customer master credit record.

The highest dunning level exceeds during order or delivery level this credit check can be carried out

> Specify the Reaction, Status/Blocked, and Highest dunning level []

[] User 1	
[] User 2	This field is inactive in the standard system, but can be used for credit check that we defined.
[] User 3	

Save and Exit

NOTE: In VOV8 of OR check credit limit field must be [D] = Automatic System carryout automatic credit check based on the credit control area, risk category and credit group.

Automatic credit check steps

- Customer master should have been created by using transaction code XD01
- ➤ In VOV8 of OR check credit limit field must be [D] = Automatic
- FD32 should have been created and credit limit should have been specified/maintain (When we define the credit control area system automatically creates FD32)
- In VOV8 of OR we should specify the credit checking method as: Simple, Static, Dynamic, Document value, etc.
- > Go to VA01 and raise the sales order. Check the system statuses regarding credit check
- > Go to VL01N and check the system status, whether the system blocked the delivery or not
- ➤ So as to release the blocked document go to VKM4
- Maintain the selection criteria
- Click on execute icon
- > Select the document
- > Click on release icon
- > Save and Exit
- Go to VL01N and raise the delivery process
- ➤ Go to VF01 raise the invoice

Transfer of Requirements and Availability check

Transfer of Requirements [SD + MM + PP]: As the end user specifies the customer material number in the sales order system has to confirm the quantity in a particular day. So, as to confirm the quantity on a particular day (customer requested delivery date) system should know the requirements of the particular material for sales order or delivery.

System can get the requirements of the order/delivery of a material by a function called Transfer of Requirements 9TOR).

TOR carries out requirements of order to MRP and creates a demand. Once TOR creates a demand with MRP, then system can carryout availability check for particular material for particular order? During carrying out the availability check function system tries to determine ATP (Available to Promise) quantity.

System calculates ATP quantity by taking Warehouse stock plus Planned receipts minus Planned issues.

ATP quantity = Warehouse stock + planned receipts – Planned issues.

Planned receipts: Planned orders, Production orders, Purchase requisitions, Purchase orders, Stock in transfer, Stock in transit, Stock at inspection, etc.

Planned issues: Sales orders, Deliveries, etc.

System creates a demand with MRP by requirement type **041**.

Path to see the requirement type is sales order overview screen (VA01) \rightarrow Procurement tab \rightarrow Requirement type 041.

At the same line system shows ATP quantity also.

The requirement type points to requirement class that defines requirement class:

- → Whether availability check is carried out for a transaction,
- → Whether the requirement is relevant for MRP,
- → The allocation indicator from the sales view, which controls the settlement of the customer requirements with a planned independent requirement,
- → Whether the item is to be settled to an auxiliary account assignment, the settlement profile, and the result analysis key.

NOTE: The TOR and Availability check are controlled globally using the requirement class for all sales documents. Depending upon the transaction we can deactivate these functions in the schedule line category of sales document.

Ex: For inquiry and quotation system need not to carryout TOR and availability check functions. So that we can deactivate these two controls in the definition of the schedule line category, as these controls directly proposed from the requirement class into schedule line category.

Requirement type: Requirement type is going to be determining by item category + MRP type as a one of the factor.

Ex: Requirement type = Item category group + MRP type 041 = TAN + PD

- System determines requirement type by following a search strategy like below:
- (1) It first searches the strategy group from MRP3 view in material master.
- (2) If strategy group has not been maintained, then it will go to the MRP group in the MRP1 view of material master.
- (3) If MRP group has not been maintained system uses "material type" instead of MR group (Ex: Finished product, etc).
- (4) If no requirement type is found here, then the system assumes a special rule that is "Item category and MRP type".
- (5) If this is not possible, then system tries to find out the requirements only with item category.
- (6) Finally system assumes that this transaction is not relevant for TOR and availability check.



Configuration settings: As SAP provided standard settings we need not to configure new settings.

Define requirements classes: Transaction code: OVZG

Path:

- > IMG
- Sales and Distribution
- Basic functions
- Availability check and Transfer of Requirements
- > Transfer of Requirements
- ➤ Define requirements classes
- ➤ Choose standard requirement class 041 from position button
- Select it and click on details icon
- Check
 - ✓ Availability
 - ✓ Requirement transfer
 - ✓ Product allocation
- > Save and Exit

NOTE: These values will be proposed into definition of the schedule line category.

Define requirements types: Transaction code: OVZH

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- > Availability check and Transfer of Requirements
- > Transfer of requirements
- > Define requirements types
- ➤ Choose requirement type 041 from position button
- > Assign our requirement class
- > Save and Exit

Determination of requirements types using transactions

Path:

- > IMG
- > Sales and Distribution
- Basic functions
- Availability check and Transfer of Requirements
- Transfer of requirements
- Determination of requirement types using transaction
- Choose item category TAN and MRP type PD

Item category		Requirement type		
TAN	+	PD	=	041
TAN	+	_	=	041

Save and Exit

Define procedure for each schedule line category

Here we specify for the respective schedule line categories of the sales documents whether an availability check and TOR functions should be carried out or not.

It offers a fine-tuning to TOR and availability check functions at schedule line category level.

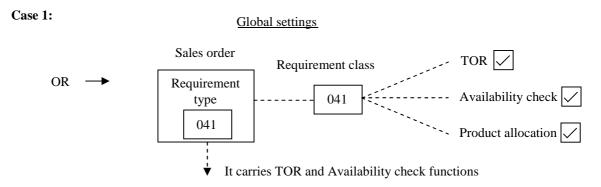
We can only deactivate an option that we selected in the requirement class level. But we cannot activate it. **Ex:** We activated TOR and availability check functions in the requirement class level, and we can deactivate at schedule line category level. But this deactivation will not affect the requirement class.

NOTE: If we do not activate these functions in the requirements class level and you tried to activate in the schedule line category, then system would not accept it (if will not effect).

Use: If we want to implement availability check function without TOR function at requirement class level, TOR and availability check functions should be activated and TOR function should be deactivated at schedule line category level.

Path:

- > IMG
- > Sales and Distribution
- > Basic functions
- > Availability check and Transfer of Requirements
- Transfer of requirements
- Define procedure for each schedule line category



Case 2: It should carryout availability check function without transfer of requirements in schedule line CP.



NOTE: Here system follows 6 steps search strategy that we discussed previous.

- ➤ Choose schedule line category CP from position button
- Check availability check
 - ✓ Availability check
 - ✓ TOR
 - ✓ Product allocation
- Save and Exit

Block quantity confirmation in delivery blocks

Path:

- IMG
- Sales and Distribution
- > Basic functions
- > Availability check and Transfer of Requirements
- Transfer of requirements
- Block quantity confirmation in delivery blocks
- Deliveries: Blocking reasons/Criteria

When requirements transferred to MRP, the confirmed quantity is also reserved for confirmed sales documents. If the transactions are blocked for delivery the required stock will be blocked. So it cannot be used elsewhere in the system. To prevent this, we can block the TORs for delivery block in this step.

In this case the order quantity will still be transferred to MRP as a requirement. But it will not be reserved. We can see this one by going to change mode of the sales document in the schedule lines that specifies zero (0) or confirmed quantity.

When the block is removed the availability check is automatically carried out by the system, and also we may push back the material staging date by number of days.

NOTE: We can carryout availability check at anytime in spite of these blocks if transaction permits. Then system creates a temporary schedule lines with confirmed quantities, which are then removed when the document is saved.

Transaction code: OVB8

- Choose Blocking reasons/Criteria from position button
 - **Ex:** 01 = Credit limits
- Check
 - ✓ Confirmation block
 - ✓ Picking block
 - ✓ Goods issue block
- Save and Exit

Maintain requirements for Transfer of Requirements:

Here we can maintain our own requirements for TOR

Path:

- IMG
- Sales and Distribution
- Basic functions
- Availability check and Transfer of Requirements
- > Transfer of Requirements
- Maintain requirements for Transfer of requirements

Ex: Requirement 102 – That prevents reservations from being created in the event of a credit block

Save and Exit

Maintain requirements for purchase and assembly orders: Transaction code: OVB5

- IMG
- > Sales and Distribution
- Basic functions
- > Availability check and Transfer or Requirements
- Transfer of Requirements
- Maintain requirements for purchase and assembly orders

Ex: 102 = Purchase requisition

105 = Assembly

106 = Block construction

Save and Exit

Availability check

In SAP availability check can be carried out in the sales orders and deliveries for an item, and also it creates MRP records and passes them into materials requirement planning.

Availability check is carried out at plant level.

SD settings:

(1) Define requirement class:

(2) **Define checking group:**

That determines standard Replenishment Lead Time (RLT) [together with MRP group], and the type of requirement records.

Ex: Individual records or summarized records to be created.

(3) **Define checking rule:** It determines the scope of the availability check and whether or not RLT should be taken into consideration.

Material master record specifications: We should specify the below settings to carryout availability check and TOR.

- (1) **Checking group:** (Sales/Plant data view or MRP2)
- (2) **MRP group:** (in MRP1 view) system uses this group to determine requirement type relevant for transaction.
- (3) **Strategy group:** It will be used as an alternative to MRP group.

Availability check can be carried out by:

- (1) With ATP logic or against planning:
- (2) **Against product allocation:** It will be used, when the shortage of the supply of the material. During sales order processing an availability check can be carried out against product allocations. The result of this check informs whether an order requirement can be confirmed according to product quantity allocated to customer.
- (3) **Rules based availability check:** With this check we can carryout availability check in several plants and with several alternative materials. It will be useful in the APO (Advanced Planner and Optimizer).

Configuration settings:

Define checking groups: Transaction code: OVZ2

- IMG
- Sales and Distribution
- Basic functions
- > Availability check and Transfer of Requirements
- Availability check
- Availability check with ATP logic or against planning
- Define checking groups

- Define checking groups by which we specify the type of requirements that system has to create during sales order or delivery document processing
- Requirements can be individual requirements or summarized requirements
- Individual requirements are created for each sales document
- Summarized requirements are a group of requirements for a particular material. Summarized requirements are again two types:
 - (1) Summarized requirements per each day.
 - (2) Summarized requirements per each week.

The value of this field will be proposed into material master in "Sales/Plant" view.

- 02 → Individual requirements → Total sales order requirements [A] Total delivery requirements [A]
- ✓ Block quantity required

System gives the message for blocked requirement for the user.

Save and Exit

Define material block for other users

Path:

- > IMG
- > Sales and Distribution
- ➤ Basic functions
- > Availability check and Transfer of Requirements
- Availability check
- Availability check with ATP logic or against planning
- > Define material block for other users.

Here we defined each checking group and initiator.

- > Whether the material master record should be blocked for other orders during availability check.
- If it is blocked we cannot create two orders for the same material at the same time.

Specify 02 = Individual requirements

Initiator [A]

- ✓ Block
- Save and Exit

Define checking groups default values

Path:

- IMG
- Sales and Distribution
- Basic functions
- Availability check and Transfer or Requirements
- Availability check
- Availability check with ATP logic or against planning
- Define checking groups default values

In this step we define the checking groups that the system proposes when we create a new material master record. The default value depends on the material type and plant.

- Go to new entries
- > Specify material type Ex: FERT, Plant and Requirement type [02]
- > Save and Exit

Carryout control for availability check: Transaction code: OVZ9

Path:

- > IMG
- > Sales and Distribution
- > Basic functions
- > Availability check and Transfer or Requirements
- > Availability check
- Availability check with ATP logic or against planning
- Carryout control for availability check

We define the checking rules for availability check and allocate them to the checking group.

The checking rule specifies the scope of the availability check for the respective transactions in SD by which we can tell to the system, which kind of planned receipts and planned issues we should take into account during availability check.

Every checking rule allocated to checking group. These two elements control the availability check.

Ex: Checking group 02 = Individual requirement. Checking rule 01

Save and Exit

Define procedure by requirements class: Transaction code: OVZ0

Path:

- > IMG
- Sales and Distribution
- Basic functions
- ➤ Availability check and Transfer of Requirements
- > Availability check
- Availability check with ATP logic or against planning
- Define procedure by requirements class

The settings that we see in this step copied from globally specified settings that are (TOR) transfer of Requirements.

Ex: 041 check

- ✓ Availability check
- ✓ TOR
- ✓ Product allocation
- Save and Exit

Define procedure for each schedule line

Path:

- > IMG
- > Sales and Distribution
- Basic function
- > Availability check and Transfer of Requirements
- Availability check
- Availability check with ATP logic or against planning
- > Define procedure for each schedule line category

These settings also proposed from TOR only.

> Save and Exit

Determine procedure for each delivery item category

In this step we can Switch on or Switch off the availability check for particular items in the delivery. **Ex:** For return orders we should switch off.

Path:

- > IMG
- Sales and Distribution
- Basic functions
- > Availability check and Transfer of Requirements
- Availability check
- Availability check with ATP logic or against planning
- Determine procedure for each delivery item category
- Save and Exit

Checking rule for updating back orders

Path:

- > IMG
- Sales and Distribution
- Basic functions
- > Availability check and Transfer of Requirements
- > Availability check
- Availability check with ATP logic or against planning
- Checking rule for updating back orders

We assign a checking rule to a plant. The checking rule that we entered here is used in the production planning. During back order processing (CO06) and the availability overview (CO09) we should make sure that we are not using any checking rules that deviate from the SD configurations.

- ➤ Checking rule "A" for orders, and "B" for deliveries
- Save and Exit

Define default settings

In this step we can propose the result of the availability check, and we can set the indicator for fixing the date, quantity and rules.

- IMG
- Sales and Distribution
- Basic functions
- Availability check and Transfer of Requirements
- Availability check
- > Availability check with ATP logic or against planning
- Define default settings
 - (A) **Fixed date and quantity:** We specify for a sales area whether the delivery dates and quantities confirmed after availability check should be set.
 - (B) **Rules for transferring the availability results:** Here we can specify the system response to shortage for a sales area.
 - **Ex:** One time delivery or full delivery in the dialog box.
- Choose our sales area
 - ✓ Fixed date and quantity

> Specify the system responses in the case of the shortage of the material in availability checking rule [D] = Dialog box for delivery (one time delivery).

When we have insufficient stock ($\mathbf{Ex:}\ 100\ \text{quantity}$ in the storage location) and the system response is D (one time delivery) and order quantity in VA01 is 200. Then system confirms only 100.

> Save and Exit

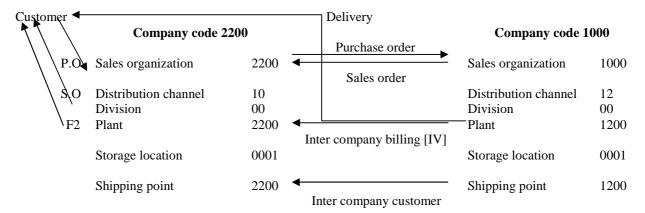
Inter company sales

In the normal business process the end customer place the purchase order with ordering plant. Then the ordering plant if the material is not available then the ordering plant will raise the purchase order with delivering plant, and the delivering plant raises the sales order with reference to purchase order, subsequently it will deliver the foods directly to the end customer, and issue on INTER COMPANY BILLING to ordering plant. Then the ordering plant raises the standard invoice in favour of end customer. With this step inter company billing/sales process will complete.

Pre - requisites:

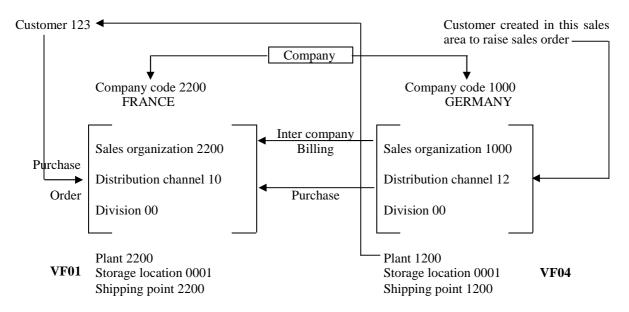
- One customer existed to represent ordering plant, to place the purchase order with delivering plant.
- Direct customer should exist to raise the sales order with ordering plant.
- Material should be existed and extended in both plants.
- In the pricing procedure to represent inter company billing condition type PI01 should be existed.
 PI01 = Absolute amount

PI02 = Percentage



ERROR: For object RF_BELEG 1000, number range interval <50> does not exit FBN1

- ➤ Go to FBN1 and create number range with Number key <50> and Current year
- Save and Exit



2200 orders for goods from 1000 for its customer 123 1000 raise invoice to 2200 and 2200 raise invoice to customer

Configuration steps:

- ➤ Create customer by using Transaction code XD01 with the account group 0001 under Sales Area 2200 10 00 with France address.
- > Save and Exit

NOTE: Plant must be 2200

 Create material master by using Transaction code MM01 Industry sector → Mechanical engineering Material type → Finished product

Select the views and specify the organization level like below: Plant = 2200, Storage location = 0001, Sales organization = 2200, and Distribution channel = 10

NOTE: Make sure that language as EN, DE, and FR in Additional data icon on the application tool bar.

- > Save and Exit
- > Extend the material to 1000 company code under plant 100
- ➤ Go to MM01 and specify: Material number Ex: 888 Copy from material 888

	Copy from	/
Plant	1200 Plant	2200
Storage location	0001 Storage location	0001
Sales organization	1000 Sales organization	2200
Distribution channel	12 Distribution channel	10
Shipping point	1200 Shipping point	1200

Change plant as 1200 in Sales: Sales organization 1 view

NOTE: As we are extending material from plant 2200 into 1200 plant, system copies all the data into the new plant. So that we have to change the delivering plant in delivering plant field as 1200 in Sales: Sales organization data 1 view.

Create inter company customer

As ordering plant has to raise the purchase order with delivering plant, the delivering plant has to raise the sales order with reference to this purchase order for the ordering plant. So that one customer should be existed (created) under 1000 - 12 - 00 sales area, and should be assigned to 2200 - 10 - 00.

- ➤ Go to XD01
- ➤ Specify the account group ZAG2 → Standard
- \triangleright Specify the sales area 1000 12 00
- Save & Exit and note down the customer number

Define the internal customer number by sales organization

Path:

- > IMG
- Sales and Distribution
- Billing
- Inter company billing
- Define internal customer number by sales organization
- Click on activate button
- > Go to position button
- Specify sales organization 2200
- Assign inter company customer that we created in 4th step
- Save and Exit

Setup sales line with delivering plant

Path:

- > IMG
- Enterprise structure
- Assignment
- Sales and Distribution
- ➤ Assign Sales organization Distribution channel Plant
- ➤ Choose our sales organization and distribution channel 2200 10
- Click on assign icon
- Select the 1200 plant and assign it
- Save and Exit
- Raise the sales order by using Transaction code VA01 under 2200 10 00 sales area and maintain all the relevant data in the sales order, and check which plant system determined automatically for a line item.
- System determines 2200 plant.
- So as to process the inter company sales, we have to change the plant as 1200. Then we get an ERROR mandatory condition PI01 is missing.
- Then go to the condition screen and maintain the price for PI01.

NOTE: PI01 is the base price that charged by 1000 company code to the 2200 company code.

- Specify the storage location 0001
- Save & Exit and note down the sales document number
- ➤ Go to MB1C to initialize the stock

Specify the plant = 1200 and storage location 0001

- Save and Exit
- Go to VL01N for outbound delivery

Specify shipping point = 1200

Go pick the quantity \rightarrow Go to Subsequent functions \rightarrow Create TOR

- Go to change mode of VL02N and do the PGI
- Save and Exit
- ➤ Go to Vf01 and raise the invoice

This is the normal invoice that rose by 2200 company code to the end customer.

➤ Go to VF04 to raise the inter company billing

Specify the billing (Document) type [IV]

✓ Inter company billing option under "Documents to be selected"

- Click on display billing list on the application tool bar
- Select delivery document and click on "Individual billing"

Then system generates inter company billing

Save and Exit

➤ Go to VA02 of sales order and see the document flow

Inter company customers (that is the customer), which represent the sales entity purchasing between company codes with in the same client.

ERROR: To create version for fiscal year

Path:

- > IMG
- Controlling
- General settings
- Organization
- Maintain versions
- > Select our version **Ex:** 0
- > Click on setting for each fiscal year
- Enter our controlling area Ex: 2200 Version 0
- ➤ Go to new entries
- > Define our variant with fiscal year (which year we need)

Fiscal year [2006]

- ✓ Check integrated planning
- ✓ Copying allowed

Exchange rate [M] = Standard translation at average rate

Valuation date []

Receiver's version [0] (that we are defined)

Save and Exit

ERROR: Inter company sales process "Version 0"

Path:

- > IMG
- Controlling
- > Cost controlling accounting
- Planning
- > Basic settings for planning
- Define version
- > Maintain settings of version in control area
- Save and Exit

ERROR: Period <17-03-2006> is not opened for account type and G/L 799999.

Path:

- > IMG
- > Financial accounting
- Financial accounting global settings
- Document
- Posting periods
- > Open and close posting periods
- > Change the periods for all accounts as current periods to our company code

For: + A D K

S

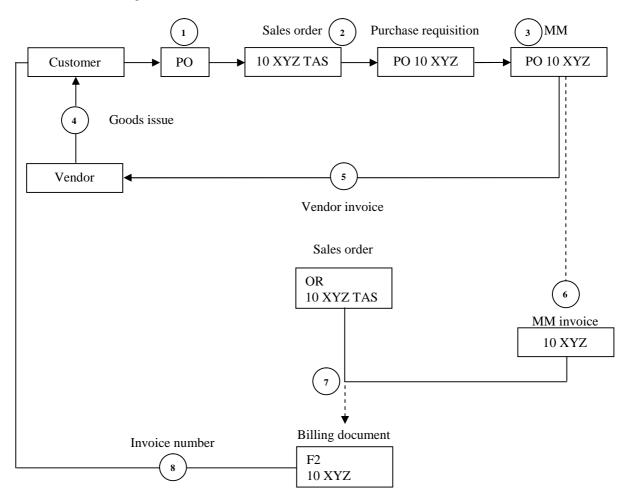
V

M

Save and Exit

Third party sales order

In the third party order processing the business gets the orders from the customer and it passes to the third party vendor who delivers the goods to the customer, and bills the business.



In the process of third party order is controlled via material types. Material types define whether a material is produced only internally can be ordered only from third party vendors or from both possibilities.

Ex: Trading goods (HAWA) can only be ordered from third party vendors. Third party items can be created automatically by the system or standard items can be changed manually by the end user by changing item category during sales order processing.

Ex: MN	MM01	Item category group	Item category
		BANS	TAS
		NORM	TAS

- If the Ship to party address changed in the sales order that changes passed on to the purchase requisition and purchase order that are already created.
- We can see the Ship to party address in purchase order in the attributes of the item category.
- When we save the sales order that contains the third party item, then the system automatically creates purchase requisition in purchasing (we can see the purchase requisition number in VA02 of sales order in schedule lines).
- During creation of the purchase requisition system automatically determine the vendor.
- Purchase order created from purchase requisition usually.
- During creation of purchase order system automatically copies the delivery orders from corresponding sales order.
- The number of the purchase order appears in the document flow of the sales order.

All changes made in the purchase order automatically affects in the sales order. But the changes that we
made in the sales order will not reflect in the purchase order.

Configuration steps:

- > Create customer master with XD01 by using account group 0001 under 2200 10 00 sales area.
- Create a material master with MM01 with the material type "Trading goods". Maintain the data in all the views and make sure that general item category group BANS Purchasing group [000] in purchasing view
- ➤ Create a vendor using transaction code XK01
 Specify vendor number [] → Here it is external
 Company code [2200]
 Purchasing organization [2200]
 Account group [0001] and press ENTER
 Maintain the data in all the required fields
- \triangleright Go to \rightarrow Next screen option

Specify Reconciliation account number [] sort key [] Cash management group [A1]

Order currency [EUR] (customer is from France)

- Save and Exit
- ➤ Go to VA01 and raise the sales order

Change the item category as TAS (from TAN to TAS)

- > Save the document and note down the sales order number and Exit
- ➤ Go to (sales order) VA03 → Schedule lines and note down the purchase requisition number that has been displayed in purchase requisition field.
- Raise the purchase order with reference to purchase requisition number by using Transaction code ME21 Specify the vendor number []

Purchasing group [005] = Standard

Again purchasing group [000] and press ENTER

- Click on with reference to purchase requisition
- > Select line item and click on **Adopts** + **Details** push button on application bar

In this section we have to specify the net price (cost that we maintained in the material master).

[] Un – check GR (Goods Receipt)

If you uncheck GR, we can do the invoice verification based on the goods receipts.

- > Save the document and note down the number and Exit
- ➤ Go to MIRO for invoice verification

Here we have to specify invoice date and purchase order number and specify purchase order number in purchase order number [] field of PO reference tab and specify reference field and press ENTER Then you can view balance amount from right side

The same amount should be specified in amount [] field and press ENTER

Then system makes balance amount 0 (zero). That means invoice verification has been done (completed).

- > Save the document and note down the number and Exit
- Raise invoice to the customer [VF01]

Specify the standard order number and raise the invoice

- Save and Exit
- ➤ Go to VA02 (sales document) and observe the document flow

Make - to - Order

Make – to – order production is nothing but manufacturing the standard material by taking/changing characteristics of the material that slightly changes the standard material. Customer will have a choice to choose this characteristic depending on the requirements from the customer. This specific material is going to be produced and can be maintained in the system as Make – to – order product (sales order item) by specifying a special stock indicator in **upper case E** sales order requirements passed on to MRP through "requirement type" from the sales order and subsequently the business produces this materials by adding this feature.

The cost and revenues that are involved in this product collectively assign to sales order item. The costs are allocated to profitable analysis.

Make – to – order the requirement type controls production. The requirement type is determined on the basis of the MRP group and strategy group in the material master.

When we save the sales order by specifying the Make - to - order item that initiates the production, and production order created on the basis of these requirements.

Configuration steps:

Create material by specifying item category group as 0001 = Make - to - order (Normal item) In MM01 Basic data tab, General item category field [0001] = Make - to - order, 0002 for configurable material

Make – to – order checking group for availability check should be [02] = Individual requirements in Sales: General/Plant tab.

Go to VA01 and raise the sales order by specifying this material that we created in the previous step Item category is TAK

Schedule line category = CP

Requirement type = KE [Sales order Header → Procurement → Requirement field]

KE = Individual customer order without consumption

(For standard items item category group = NORM)

System determines requirement type 041-order/delivery requirements. This requirement type points requirement class where we can control whether the system has to carryout TOR, Availability check, and Product allocation functions.

NOTE: Make sure that controlling area and fiscal year defined and maintained.

- Save and Exit
- ➤ Go to MB1C to initialize the stock

Movement type [561]

Specify special stock [E]

E = Receipt without purchase order in unrestricted sales order stock

Specify the sales order number [] and item number [10]

Specify the material with quantity

- Save and Exit
- ➤ Go to MMBE and check the stock balance
- ➤ Go to VL01N do the delivery
- ➤ Go to VF01 and raise the invoice

VOV7 of TAK:

Billing relevance [A] = Delivery related document Pricing [X]

VOV6 of CP:

Movement type: 601

Variant configuration

Manufacturing of complex products with large number of variants is always considered is a stringent task. The business should be in a position to offer this kind of products according to customer requirements, as it is not a standard item.

VARIANT CONFIGURATION is a tool that offers the flexibility of the configuration of the material during the sales order processing by the end user according to the customer requirements.

Variant configuration has integration with following applications:

CA = Classification
LO = Material master
PP = BOM and routings
PP - PI = Master receipts
SD = Sales, conditions
MM = Purchasing
CO = Costing
PP MRP production orders

Variant configuration offers a unique feature by which requirement of creating separate material for each variant of product is eliminated by using "configurable material", that contains all the components and operations for production planning requirements.

Characteristics: Characteristics are used to define the features of configurable material. These characteristics are assigned to CLASS TYPE 300. Customers can choose different options fro each characteristic, which are termed as a "VALUES".

- The only limitations are combination of features that are not possible for either technical or marketing reasons.
- Variant configuration offers "source code" creation tool called "DEPENDENCIES" that prevents the combination of options that are not allowed.
- Dependencies select right BOM components and operations to produce a variant.
- Each configurable material is assigned to a "CLASS" via "CONFIGURATION PROFILE" which controls
 the configuration in the sales order.
- Variant dependent PRICE can be calculated and maintained in VARIANT CONDITIONS.

Pre – requisites: Maintain plant parameters

We have to specify all the plant parameters for MRP

- IMG
- Material Management
- ➤ Consumption Based planning
- ➤ Plant parameters
- > Carryout overall maintenance of plant parameters
- Click on Create and specify our plant
- Click on Create → Create → Save
- Click on Maintain → Maintain → Number Ranges → Planned Orders Specify number range Ex: 01 → Save
- \triangleright Click on **RESV/Depend. Req. Mts.** and specify number range **Ex:** 01 \rightarrow Save
- \triangleright Click on **Purchase Requisition** and specify number range **Ex:** 01 \rightarrow Save
- ► Click on **MRP LIST** and specify $01 \rightarrow Save$
- \triangleright Click on **Sim. Dependent Reqt.** and specify 01 \rightarrow Save

Master DATA

- ➤ Click on MRP controllers → Go to new entries and specify our plant, MRP controller Ex: 999 = SrinivaS Business Area
- \triangleright Click on **special procurement** \rightarrow Go to new entries and specify our plant, SP type **Ex:** [SP] DCS [xxx], Procurement type [E] and special procurement [E] \rightarrow Save
- Click on Floats and go to new entries and specify our plant → Save

Planned orders

- \triangleright Click on Cons. Pls. Ord & Purch. Req. \rightarrow Specify 10 \rightarrow Save
- Click on Dep. Reqmt. Availability → Specify check rule [01] = Checking rule 01

Planning Run

Click on External procurement and specify purchase procurement time [7]
 Sub. Pur. Group [NIL]

Account assignment unknown [U]

- Click on Rescheduling 2 → Save
- > Click on **planning horizon** and specify [7]
- > Click on Avt. Stock and "check" all the options
- Click on Err. Handling and specify maximum purchase orders Ex: [10] SMRPG [999]
- Click on **order start is past** and check start is past allow

Performance

- ➤ Click on **Aggregation of MRP list** → **check** Transfer MRP
- Save and Exit

Create MRP groups: It is an organizational object used to assign group of materials with special control parameters for the planning run.

Path:

- > IMG
- Material Management
- ➤ Consumption Based planning
- ➤ MRP groups
- > Carryout overall maintenance of MRP groups
- Specify plant
- Click on create → Specify MRP group DESC → create → CREATE → create → Maintain → Maintain

External procurement

➤ Scheduling DOC. Type → check and specify [NB] [NB] [NB]

Planning intervals

- **Reschdu. Horizon** and specify Reschedule Horizon [7]
- ➤ **Planning horizon** and specify planning horizon [7]

Planning Run

Maximum MRP interval [10] days

Safety stock [100]

Creation indicator → Create purchase requisition [3] planned orders

Create MRP list [3] No MRP list Schedule lines [7] Schedule lines

Proj. plng. Reqmts. Grp. → **check** group requirement

Save and Exit

Define MRP group for each material type

Path:

- > IMG
- > Material Management
- ➤ Consumption Based planning
- MRP groups
- > Define MRP group for each material type
- > Go to new entries and define:

Ex:	Type	Plant	MRP group
	KMAT	0003	999

Save and Exit

Number ranges for planning run

Path:

- > IMG
- > Material Management
- ➤ Consumption Based planning
- Number ranges
- > Define number ranges for planning run

Planned orders \rightarrow intervals [01] \rightarrow number ranges [01] Dept. Requirement [01] [PLANT|01]

 Purch. Req.
 [01]
 [PLATN|01]

 No. Rg. MRP list
 [01]
 [PLANT|01]

Total MRP list [01]

Sim. Dept. Req. [01]

Save and Exit

Define number ranges for manual processing

Path:

- IMG
- Material Management
- ➤ Consumption Based planning
- Number ranges
- > Define number ranges for manual processing

Depend Reqmt. [INTERVALS]

Purchase order [] Purchase Req. []

Save and Exit

Master Data

It is a P.L step before maintaining plant parameters

Define MRP controllers, MRP types, Define special procurement types, MRP areas, and activate MRP for MRP area.

Planning

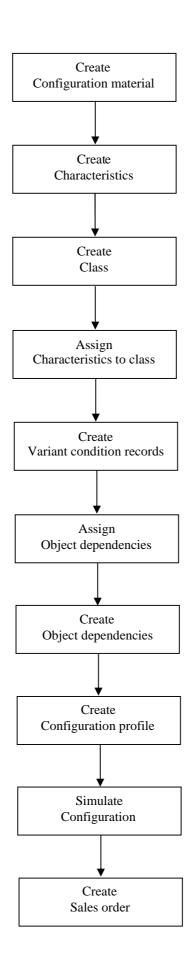
- IMG
- Material Management
- ➤ Consumption Based planning
- Planning

- Activate material requirements planning [Material Requirements Planning] [0003] Activate requirements planning
- > Save and Exit

Define scheduling margin key

- > IMG
- Production
- > Material Requirement Planning
- Planning
- Scheduling and capacity parameters
- > Define floats (scheduling margin key)
- ➤ Go to new entries and define Ex: 000
- Save and Exit

Process flow



Create configurable material

1	C - 4.	$_{0}$ MM $_{0}$
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Specify the Industry sector

Material type: Configurable Material

Select the Required views

Basic Data

Base unit of measure [EA]

Material group [02001]

General Item category group [0002] = Configuration

Make sure that [CM = Configuration management] CM relevance field contained [Relevant for configuration management] as a value at the bottom of the Basic Data 1 tab.

Sales: Sales Organization 1

Maintain the conditions by checking on **Conditions** push button.

Specify the quantity and value

Sales: Sales Organization 2

General Item category group [0002] Item category group [0002]

Sales: General/Plant

Checking group for Availability check [02]

MRP 1

Specify the MRP Group [0003]

MRP Type [PD]

MRP Controller [999]

Lot size [EX] = Lot for lot order quantity

MRP 2

Procurement type [E] = In house production (System proposes by default)

In house production [7] Days

Scheduling margin key [003]

MRP 1

Strategy group [25] = Make to order fore configurable material

Save and Exit

Create Characteristics: Transaction code: CT04

Path: 4.6

- Logistics
- Central functions
- Classification
- Master data
- Characteristics
- > Create

Path: 4.7

- Logistics
- Central functions
- > Variant configuration
- > Environment
- > Classification
- Master data
- Characteristics
- ➤ Enter characteristic name **ENGINE_CAP** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi c	Descriptio n	Characte r Group	Status	Data Type	No. of Characte rs	Value Assignme nt	Characte r Values	Descriptio n
ENGINE_CA P	Engine capacity	Automatic	Released	Character format	10	© Single Value	800 1000 1400 1800	800 CC 1000 CC 1400 CC 1800 CC

- Save and Exit
- ➤ Enter characteristic name **TRANS** and click on **create** icon
- ➤ Click on Description tab \rightarrow Basic data \rightarrow Values tab

Characteristi c	Descriptio n	Characte r Group	Status	Data Type	No. of Characte rs	Value Assignme nt	Characte r Values	Descriptio n
TRANS	Transport Capacity	Automatic	Released	Character format	10	© Single Value	1 2 3 4	1+3 1+4 1+5 1+6

- Save and Exit
- > Enter characteristic name **FUEL** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi c	Descriptio n	Characte r Group	Status	Data Type	No. of Characte rs	Value Assignme nt	Characte r Values	Descriptio n
FUEL	Fuel System	Automatic	Released	Character format	10	© Single Value	PET DIES GAS	Petrol Diesel Gas

- Save and Exit
- Enter characteristic name **STEER** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi	Descriptio	Characte	Status	Data	No. of	Value	Characte	Descriptio
c	n	r Group		Type	Characte	Assignme	r Values	n
STEER	Steering System	Automatic	Released	Character format	10	© Single Value	POW CROS	Power Cross ply

- Save and Exit
- Enter characteristic name **TYRE** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi c	Descriptio n	Characte r Group	Status	Data Type	No. of Characte rs	Value Assignme nt	Characte r Values	Descriptio n
TYRE	Tyres	Automatic	Released	Character format	10	© Single Value	RADI NORM	Radial Normal

- Save and Exit
- Enter characteristic name **ACCE** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi	Descriptio	Characte	Status	Data	No. of	Value	Characte	Descriptio
c	n	r Group		Type	Characte	Assignme	r Values	n
					rs	nt		
ACCE	Accessories	Automatic	Released	Character format	10	© Single Value	ADL	Automatic Door Lock
							SM	Special Mirrors
							CG	Crash Guard
							SC	Special Cushion
							SS	Stereo System

- Save and Exit
- ➤ Enter characteristic name **COMF** and click on **create** icon
- ➤ Click on Description tab → Basic data → Values tab

Characteristi	Descriptio	Characte	Status	Data	No. of	Value	Characte	Descriptio
c	n	r Group		Type	Characte	Assignme	r Values	n
					rs	nt		
COMF	Comforts	Automatic	Released	Character format	10	© Single Value	RR	Remote Release
							PF	Perfume
							SB	Seat Belt

- Save and Exit
- Enter characteristic name **SDCOM** and click on create icon
- Maintain data in Basic data, Description and Additional data Tabs
- > Save it

Go to change mode of same characteristic

> Go to Additional data tab and maintain details

Table name [SDCOM] Field name [VKOND]

- Save it
- ➤ Again go to change mode of same characteristic
- > Go to Values Tab and maintain values for characteristic

Characteristi c	Descriptio n	Characte r Group	Status	Data Type	No. of Characte	Value Assignme	Characte r Values	Descriptio n
					rs	nt		
SDCOM	Variant Condition	Automatic	Released	Character format	10	© Multiple Value	ADL	Automatic Door Lock
							SM	Special Mirrors
							CG	Crash Guard
							SC	Special Cushion
							SS	Stereo System

Go to Additional data tab

Uncheck Not Ready for Input

Save and Exit

NOTE: SDCOM is to be assigning to the CLASS if we want to carryout variant pricing.

Create class: Transaction code: CL01

Path:

- Logistics
- Central functions
- Variant configuration
- Environment
- Classification
- Master data
- Characteristics

NOTE: Same transaction code CL02 for creation and change of CLASS

CLASS: In variant configuration, class is used to hold the characteristics that describe the material by linking the class to the configurable material. We are allowing the material to be configured by using this characteristic class.

Specify the Class CAR_BENZ Class type: 300 (Standard class)

NOTE: Use standard class type 300 = Variants

> Click on create icon

Maintain the data in Basic data tab Specify the description **CLASS_CAR-BENZ** © Check warning message

Maintain the data in Characteristic Tab

Characteristic Values

ENGINE_CAP

TRANS

FUEL

STEER

TYRE

ACCE

COMF

SDCOM

Save and Exit

NOTE: Assignment also takes place here only.

Create Configuration Profile: Transaction code: CU41

Path:

- Logistics
- Central functions
- Variant configuration
- Configuration profile
- ➤ CU41 Create

Configuration profile used to define central settings for configuration objects. We can create several configuration profiles with different settings for an object. We use the configuration profile to assign the configuration object to one or more variant classes. This links the object to the characteristics of class for configuration.

- > Choose material that we created in first step
- Select it and click on continue button

Specify our Material and press ENTER

Specify priority [01]

Specify configuration profile name [CONFIG_PROF_BENZ]

Specify the class [300]

Specify the organizational area [V] = Sales and Distribution

Click on © Class Assignments push button

Specify our class [CAR_BENZ]

Save and Exit

Create Object Dependencies: Transaction code: CU01

- Logistics
- Central functions
- Variant configuration
- Dependency

- > Single dependency
- Create

It allows us to create relations and restrictions between different characteristics and characteristics values.

Dependencies are: (A) Pre – Condition

(B) Selection Condition(C) Action Condition

(D) Procedure

Pre – **Condition:** Pre – Conditions are used to hide characteristics and a characteristic value that is not allowed, and there by ensure that the configuration object is consistent.

Ex: Comforts like Remote Release, Perfume, Seat Belt cannot be given for 800 CC cars. That means if the user selects a value 800 cc for characteristic ENGINE_CAP, then the characteristic COMF should to be displayed for input values.

- Specify the dependency name: [ENGINE_CAP_COMF_Pre Condition] and press ENTER Specify the description: ENGINE_CAP_COMF_Precondition
 © Check Pre Condition option in dependency type
- > Click on **Dependency Editor** and enter the source code like below:

ENGINE CAP IN ('1000', '1400', '1800').

- Click on Check icon and check the status in the status bar
- Save and Exit
- > Go to change mode of the same dependency
- \triangleright Change the status as 1 =Release
- Save and Exit

Selection Condition: Selection conditions are used to ensure that all the objects are relevant to a variant is specified. They define which variants required a specific component or operation. They determine when it is a mandatory to assign a value to a characteristic.

EX: 800, 1000, and 1800 can only have fuel as petrol, where as 1400 can have fuel as either Petrol or Diesel. But any one of it is mandatory.

- > Enter dependency name: ENGINE_CAP_FUEL_Selection Condition and press ENTER
- Specify the description: ENGINE_CAP_FUEL Selection Condition
 © Check Selection Condition option in dependency type
- > Click on **Dependency editor** and enter the source code like below

ENGINE_CAP IN '1400'.

- Click on **Check** icon and check the status in the status bar
- Save and Exit
- > Go to change mode of the same dependency
- \triangleright Change the status as 1 = Release
- > Save and Exit

Action Condition: Action condition is used to infer values for characteristics. Values that are set by an action cannot be overwritten.

EX: 1000 CC can be supplied only with 1 + 4 transmission (TRANS) system. That means if the user selected 1000 CC for ENGINE_CAP characteristic, then 1 + 4 TRANS should get determined automatically.

- ➤ Enter dependency name: ENGINE_CAP_TRANS_Action Condition and press ENTER
- Specify the description: ENGINE_CAP_TRANS Action Condition
 - © Check **Action Condition** option I dependency type
- Click on **Dependency Editor** and enter source code like below:

\$ SELF.TRANS = '1' IF ENGINE_CAP = '1000'.

- Click on **check** icon and check the status in the status bar
- Save and Exit
- Go to change mode of the same dependency
- \triangleright Change the status as 1 =Release
- Save and Exit

Procedure: Procedure is used to infer values for characteristics. This condition is more or less action condition. The difference is we can overwrite the values. We can set default values for characteristics. We can define processing sequence also.

EX: Radial Tyres can be given for 1400 CC and 1800 CC with power steering. Normal Tyres can be given for 800 CC and 1000 CC with cross ply.

- ➤ Enter dependency name: ENGINE_CAP_STEER_TYRE_Procedure and press ENTER
- > Specify the description: ENGINE_CAP_STEER_TYRE_Procedure

© Check **Procedures** option in dependency type

Click on **Dependency editor** and enter the source code like below:

\$SELF.TYRE = 'RADI' IF ENGINE CAP IN ('1400', '1800') AND STEER = 'POW',

> Click on Insert line icon on the menu bar to create new line, if the space is not sufficient.

\$SELF.TYRE = 'NORM' IF ENGINE_CAP IN ('800', '1000') AND STEER = 'CROSSPLY'.

Transaction code: CT04

- Click on **Check** icon and check the status in the status bar
- Save and Exit
- > Go to change mode of the same dependency
- \triangleright Change the status as 1 =Release
- > Save and Exit

Assign Object Dependencies:

Path:

- Logistics
- Central functions
- > Variant configuration
- > Environment
- > Classification
- Master data
- ➤ CT04 Characteristics

We can assign the dependencies to the characteristics and configuration profiles via change mode of create characteristics.

- ➤ Go to CT04 of a characteristics and enter the dependency name **COMF**
- Click on change icon
- Click on values tab and select characteristic values
- ➤ Go to Extras → Object dependencies → Assignments
 Specify the 1st dependency type: ENGINE_CAP_COMF_Pre Condition
- Save and Exit
- > Enter the dependency name **FUEL**
- > Click on **change** icon
- > Click on values tab and select characteristic values
- \rightarrow Go to Extras \rightarrow Object dependencies \rightarrow Assignments

- Specify the 2nd dependency type: ENGINE_CAP_FUEL_Selection Condition
- Save and Exit
- > Enter the dependency name **TRANS**
- Click on **change** icon
- ➤ Click on values tab and select characteristic values
- Go to Extras → Object dependencies → Assignments
 Specify the 3rd dependency type: ENGINE_CAP_STEER_TYRE_Action Condition
- Save and Exit
- > Enter the dependency name **TYRE**
- Click on change icon
- Click on values tab and select characteristic values
- ➤ Go to Extras → Object dependencies → Assignments
 Specify the 4th dependency type: ENGINE_CAP_STEER_TYRE_Procedure
- Save and Exit

Maintain Condition Records:

Path:

- ➤ Go to VK11 and specify condition type VA00
- > Click on **key combination**
- > Check variants and maintain the values for variants

ADL	4000	1
SM	5000	1
CG	8300	1
SC	10000	1
SS	30000	1

> Save and Exit

So as to carryout variant pricing we have to create object dependency along with condition records.

➤ Go to CU01 and specify the dependency name: VARIANT_PRICE_BENZ and press ENTER

Transaction code: VK11

- > Specify the description: Variant Pricing
 - © Check **Action Condition** option in dependency type
- > Click on **Dependency editor** and enter the source code like below:

```
$SELF.SDCOM = 'ADL' IF ACCE = 'ADL',
$SELF.SDCOM = 'SM' IF ACCE = 'SM',
$SELF.SDCOM = 'CG' IF ACCE = 'CG',
$SELF.SDCOM = 'SC' IF ACCE = 'SC',
$SELF.SDCOM = 'SS' IF ACCE = 'SS'.
```

- Click on **check** icon and check the status in the status bar
- Save and exit
- Go to change mode of the same dependency
- \triangleright Change the status as 1 =Release
- Save and Exit

Simulate configuration:

Path:

- Logistics
- Central functions
- > Variant configuration
- > Environment

Transaction code: CU50

- ➤ CU50 Configuration simulation
- Specify the material number and quantity (Variant configuration material)
- Select Sales and Distribution
- > Select BOM
- Click on configuration icon
- Check the conditions whether it working properly or not
- Save and Exit
- ➤ Go to V/08 and include variant condition type VA00 in our pricing procedure
- ➤ Go to VA01 and raise the sales order

$$\label{eq:category} \begin{split} & Item\ category = TAC\\ & Schedule\ line\ category = CP\\ & Requirement\ type\ [KEK] = Make-to-Order\ configurable\ material \end{split}$$

Save and Exit

Individual Purchase Order

The vendor ships/delivers the materials to the business and business in turn sends the goods to the customer. The stock considers as a part of inventory and we manage them as a sales order stock.

Item Category Group	Item Category
BANC	TAB
NORM	TAB

Display the current stock situation: Transaction code: MMBE

Path:

- Logistics
- Material management
- Inventory management
- Environment
- Stock
- Stock overview
- ➤ MMBE Stock overview

Specify stock indicator as [E] Select display levels:

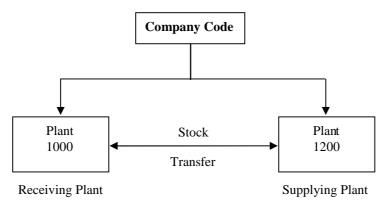
Company code Batch

Plant

Storage Location Special Stock

- ➤ Go to programs → Execute (OR) Click on **Execute** icon
- Select the stock line
- ➤ Go to Edit → Choose F2 and note down the stock status

Stock Transfer Order [STO]



When the stock is going to be moved between two plants or two storage locations that are under single company code called as stock transfer order business process. Receiving plant raises the purchase order with supplying plant; supplying plant delivers the goods to the receiving plant by raising sales order.

Configuration steps:

Create Vendor: Transaction code: XK01

Path:

- Logistics
- > Material management
- Purchasing
- Master data
- Vendor
- Central
- ➤ XK01 Create

Company code 1000 Purchase organization 1000 Account group 0001

> Save and Exit

Assign Plant to Vendor

- ➤ Go to change mode of Vendor [XK02]
- Specify Vendor number that we created in the previous step

Company code 1000 Purchase organization 1000

Check purchasing data under purchasing organization data tab page and press ENTER

Go to Extras → Add purchasing data Here we assign supplying plant 1200 to vendor

- Save and Exit
- > Create customer master in XD01

Account group 0001

Company code 1000

Sales organization 1000

Distribution channel 12

Division 00

Plant in shipping data tab 1200

Save and Exit

Define shipping data for plants

Path:

- > IMG
- Material management
- Purchasing
- > Purchase order
- > Setup stock transfer orders
- > Define shipping data for plats
- > Choose our plant from position button
- Click on details icon

Here we have to assign customer number to receiving plant [1000]

Save and Exit

Create material by maintaining "Purchasing" view:

Transaction code: MM01

Plant 1000 Storage location 0001 Sales organization 1000 Distribution channel 12

Specify the delivering plant as 1000 in Sales: Sales organization 1 data tab Purchasing group 005

Save and Exit

Extend the material from 1000 to 1200

➤ Go to MM01 and specify the material number that we created in previous step Ex: 277412

Copy from material: 277412

		Copy from	
Plant	1200	Plant	1000
Storage location	0001	Storage location	0001
Sales organization	1000	Sales organization	1000
Distribution channel	12	Distribution channel	12

➤ Change plant as 1200 in Sales: Sales organization 1 view

NOTE: As we are extending material from plant 1000 into 1200 plant, system copies all the data into the new plant. So that we have to change the delivering plant in delivering plant field as 1200 in Sales: Sales organization data 1 view.

- Save and Exit
- ➤ Go to MB1C and initialize the stock

Movement type 561 Plant 1200 Storage location 0001

Save and Exit

Create Purchase order: Transaction code: ME21N

Path:

- Logistics
- Material management
- Purchasing
- > Purchase order
- Create

Select the transfer order Document type is UB

Click on Header level icon

Specify vendor number Supplying plant 1200 Purchasing organization 1000 Purchasing group 005 Company code 1000

Click on Item level icon

Maintain the material and purchase order quantity Plant 1000 Storage location 0001

Save and Exit

Activities due for Shipping (Purchase order fast display): Transaction code: VL10B

Path:

- Logistics
- Logistics execution
- Outbound process
- ➤ Goods issue for outbound delivery
- Outbound delivery
- Create
- Collective processing of documents due for delivery
- ➤ VL10B

Shipping point 1200 Specify purchase order number and material

- > Click on add document data icon on the application tool bar
- Select the line item
- ➤ Click on **background button** from application tool bar
- > Click on **next** and note down the SD document number

- ➤ Go to change mode of outbound deliveries (VL02N)

 Now create transfer order by using transaction code LT03 and do the PGI
- Go to MMBE and observe the stock in plant 1200 Stock is going to be reduced

Display stock in transit: Transaction code: MB5T

Path:

- Logistics
- Material management
- Inventory management
- > Environment
- > Stock
- ➤ MB5T Stock in Transit

Specify the material number Receiving plant 1000

Click on execute icon
 Here we can observe that stock is in transit

Goods receipt: Transaction code: MIGO

Path:

- Logistics
- > Material management
- > Inventory management
- Goods movement
- ➤ MIGO Goods movement (MIGO)

Specify purchase order number and item number

➢ Click on execute icon

Check item OK in the bottom of the page

> Click on **POST** icon on the application tool bar

Now stock is posted

➤ Go to MMBE to see the stock overview and observe the stock in the plant 1000

Stock movement types: INTRA and INTER

• INTRA

Stand order type (Document type) = UB Delivery type = NL

Determination of document type:

Supplying plant + Receiving plant = UBSupplying plant + UB = NL

Movement types:

	Issuing plant	Receiving plant
Single step	647	101
Two step	641	101

• INTER

Standard order type (Document type) = NB Delivery type = NLCC

Determination of document type:

Supplying plant + Receiving plant = NB Supplying plant + NB = NLCC

Movement types:

	Issuing plant	Receiving plant	
Single step	645	101	
Two step	643	101	

PBXX is the Gross price condition type for Stock Transfer Order

Vendor = Supplying plant Customer = Receiving plant

NOTE: In single step method updations takes place in both plats simultaneously. In two-step method updations should takes place manually.

Outbound Deliveries

Delivery Documents: So as to determine delivery process SAP has defined delivery documents. Like sales documents we have different delivery documents so as to map different delivery business scenarios in that the settings control how a delivery is to be carried out at the highest level.

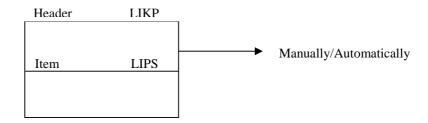
EX: LF = Standard delivery

LR = Return delivery

LO = Delivery without Order Reference

NL = Replenishment delivery NLCC = Replenishment delivery

Like sales documents, delivery documents has a common architecture.



Delivery document header data is going to be stored in the table LIKP

Delivery document item category is going to be stored in the table LIPS

Delivery document header can be proposed automatically from the sales document header or manually.

Delivery Document Item Category:

Delivery document type (+) Item category group (+) Usage (+) Higher level item category

Transaction code to check this is: Q184

Usage:

PACK = For generating Packaging item

CHSP = For Batch item

PSEL = For Product selection

Define Delivery Document: Transaction code: OVLK

Path:

- > IMG
- Logistics execution
- Shipping
- Deliveries
- > Define delivery types
- > Choose delivery document **LF** from position button
- Click on details icon



Document category [J] = Delivery

A classification for the different types of documents that you can process in the sales and distribution system **EX:** Quotations, Sales orders, Deliveries and Invoices



NR internal assignment & **NR external assignment:** Number that determines how documents are to be numbered by the user. It indicates which number range is relevant for a document type.

Item number increment: The increment by which you want the item numbers is a sales, delivery, or billing document, to increase when the system automatically generates item numbers.



Order required [X] = Sales order required

Indicates whether a delivery that has no reference to an existing sales order is allowed. If it is LO order is not required.

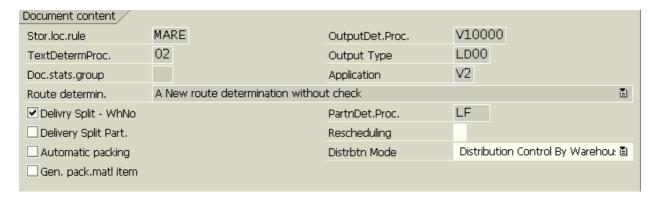
Default order type [**DL**] = Default order type for deliveries without reference to order

When you create delivery documents that do not refer to existing orders, you must provide some of the control criteria that are normally copied from a sales document header into the delivery document.

Here we assign delivery order type for deliveries that are creating without reference to order. It is called as PSEUDO document. We can define PSEUDO documents types in table TVAK.

Item requirement [202] = Requirement for item that does not refer to a sales order.

It identifies a requirements routine for a delivery item that does not refer to a sales document. The delivery item must meet the requirements of the routine before it can be further processed.



Storage Location Rule [MARE]: It specifies how the system determines the picking location when you create a delivery without entering a storage location for the items.

Text determination procedure [02]: It identifies a group of text types that you can use in, for example, standard terms of delivery. The text procedure also determines the sequence in which the text types appear in the document.

Document statistic group []: It specifies a statistics group for this sales document type and helps determine which data the system updates in the logistics information system.

We can assign statistics groups to:

- Item category
- Sales document type
- Customer
- Material

Route determination [A] = New route determination without check

It specifies whether, during delivery processing, the system uses the route that is determined during sales order processing or whether it determines a new route.

Output determination procedure [V10000] = Header output

It defines the output categories that are allowed in a document and the sequence in which the output categories appear in the document.

Output type [LD00] = Delivery note

If specifies the kind of output to be produced

Application [V2] = Shipping

It identifies the applications from which output can be sent. The output is divided according to output types and assigned to these applications.

[] Delivery split Warehouse Number: It enables delivery split according to warehouse number

[] **Delivery split Partner:** This indicator controls the system is split behavior when delivering preceding documents that are assigned to different partner functions. Set the indicator if different partner functions in the preceding items to be delivered should always cause the system to perform a delivery.

[] Automatic packing: If this field is checked, the automatic packing proposal is retrieved when a delivery is created. All items will be packed.

[] General packing material item: We can use this indicator to dictate whether you want to permit generation of delivery items for packaging materials I deliveries of this delivery type.

Partner determination procedure [LF] = Delivery note

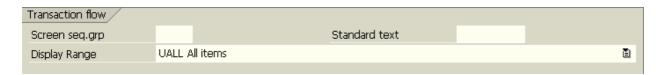
A grouping of partner functions. The procedure specifies which partner functions are allowed for a particular business transaction and which of those partner functions are mandatory.

Rescheduling []: You can control whether a redetermination of shipping deadlines should be run for backlogged deliveries using this indicator.

During rescheduling, it is assumed that the activities that are to be carried out for the backlog delivery can begin on the current day at the earliest. The new shipping deadlines are redetermined from the current date using forward scheduling.

Distribution mode [] = Distribution control by warehouse

We use this setting to specify the time at which an inbound/outbound delivery is distributed to the decentralized WMS. The setting is valid for all inbound/outbound deliveries with the relevant delivery type.



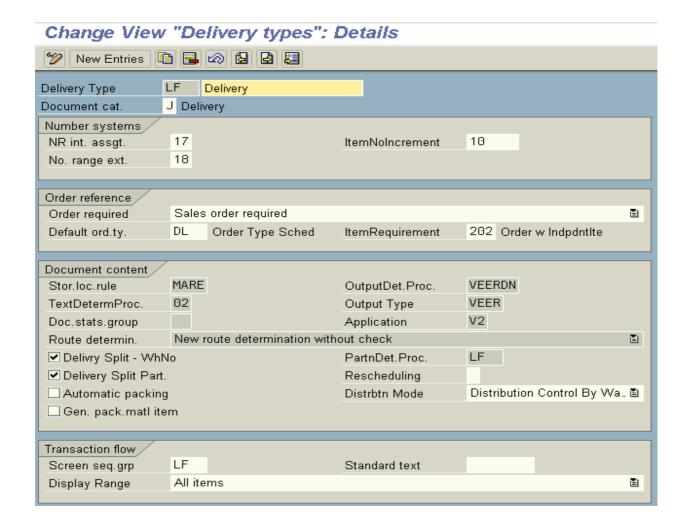
Screen sequence group []: It controls which screens you see during a particular transaction and in which sequence they appear.

Standard text []: Number of the standard text. This is not used at present.

Display range [UALL] = All items

It specifies the kinds of items that the system automatically displays during document processing.

Save and Exit



Define Item category for deliveries: Transaction code: OVLP

Path:

- > IMG
- Logistics execution
- Shipping
- Deliveries
- Define item categories for deliveries
- Choose item category DLN from position button
- Click on details icon



Document category [J] = Delivery

A classification for the different types of documents that you can process in the sales and distribution system **EX:** Quotations, Sales orders, Deliveries and Invoices



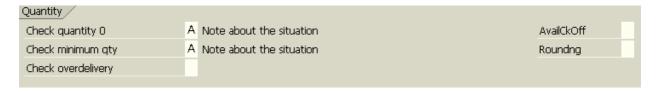
[] Material number 0 allowed: It controls whether it makes sense to enter an item in the SD document with this item category without specifying a material. It allows to create a delivery document for a line item with 0 quantity.

Use: It would make sense to set this indicator for text items.

Item category statistics group [1] = Order, debit memo

It specifies a statistics group for this item category and helps determine which data the system updates in the Logistics Information System.

Stock determination rule []: Stock determination rule and stock determination group are combined into one key for stock determination strategy. It will be used in the repetitive manufacturing process.



Check quantity 0 [A] = Note about the situation

It specifies when we create an item that has a 0 quantity. In this situation how system should give message. It is useful for the items that are creating without order.

Check minimum quantity [A]: Note about the situation

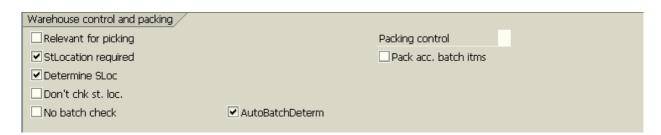
It specifies whether system has to check minimum delivery quantity, and system reactions when the minimum delivery quantity has been to yet reach. This field works according to the customer material info record, and material master record. System gives warning or error message.

Check over delivery []: It specifies how the system reacts whether warning or error message during delivery processing when original order quantity exceeds delivering order quantity.

It works according to customer material info record.

Availability check off []: It is the control to switch on/off availability check for delivery items.

Rounding []: This indicator specifies rounding rules for whole number unit of measure. It is useful for BOM items.



- [] Relevant for picking or put away: It indicates whether item of this type are relevant for picking or put away. In the outbound delivery process, only delivery items that are relevant for picking are transferred to the warehouse management. Service items and text items are not transferred to the warehouse. In the case of inbound deliveries this indicator controls whether the item is relevant for put away in the warehouse.
- [] Storage location required: This indicator makes storage location as mandatory in the delivery document.
- [] **Determine storage location:** It indicates whether system has to determine storage location automatically.

[] Do not check storage location: It indicates whether system should run a check for the storage location that was determined.

[] No batch check: It specifies system checks the batch number that entered in the delivery document.

Packing control []: It indicates whether delivery items with this item category:

- May be
- Cannot be
- Must be packed

[] Pack accumulated batch items: It specifies if for a batch material only the main item with accumulated batch quantity is to be packed in the delivery, or if only items in which the batch is recognized can be packed.

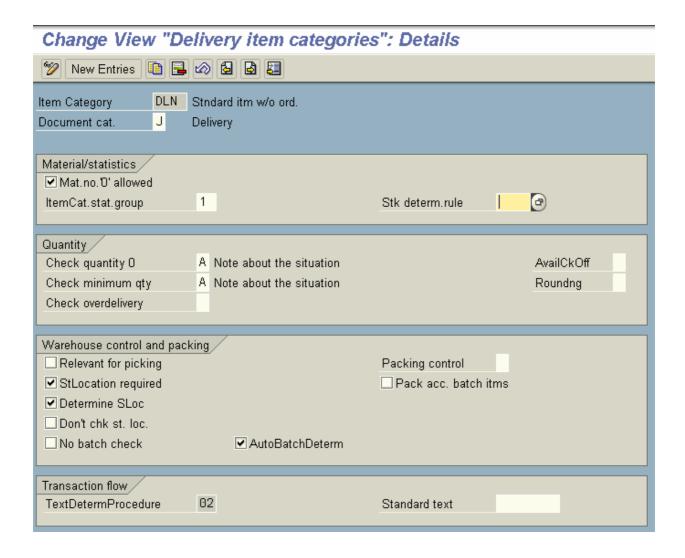
[] Automatic batch determination: This indicator enables to determine batch automatically in the delivery documents.



Text determination procedure [02]: It identifies a group of text types that you can use in, for example, standard terms of delivery. The text procedure also determines the sequence in which the text types appear in the document.

Standard text []: Number of the standard text. This is not used at present.

Save and Exit



Shipping point determination: Transaction code: OVL2

Path:

- > IMG
- Logistics
- Execution
- Shipping
- Basic shipping functions
- Shipping poi8nts and goods receiving point determination
- Assign shipping points
- Go to new entries

Specify Shipping Conditions + Loading Group + Delivering Plant = Proposed Shipping Point

Save and Exit

Route determination: Route can be redetermined in the deliveries. System redetermines the route by taking weight group in to the consideration along with other factors that are required to determine route. Route determination procedure is same as we defined earlier.

Incompletion control for deliveries: We can determine incompletion procedure for

- Delivery Document Header [G]
- Delivery Document Item [H]

Procedure is same to define incompletion control for deliveries as we defined earlier.

Availability check and TOR: procedure is same to configure Availability check and TOR for delivery documents as we defined earlier.

Output control: We can determine output for outbound deliveries, inbound deliveries, and handling units and for groups. Procedure is same to configure output for delivery.

Output types for outbound deliveries:

- CANO = Forwarding notification
- LALE = Shipping notification to Sold to party
- LAVA = Outgoing shipping notification
- LD00 = Delivery note
- MAIL = Mail
- PL00 = Packing list

Output determination procedures:

- V10000
- V20001

Partners: We can determine master data like delivery priorities, customer calendars, and goods receiving hours.

Partner determination procedure:

- LF = Delivery note
- LO = Delivery without order
- EL = Shipping notification

Text control: We can determine text for delivery document header and item. Procedure is same as we define earlier.

Pricing: We can define and assign pricing procedure for value contracts. We can define pricing procedure for delivery and we can assign pricing procedure for deliveries.

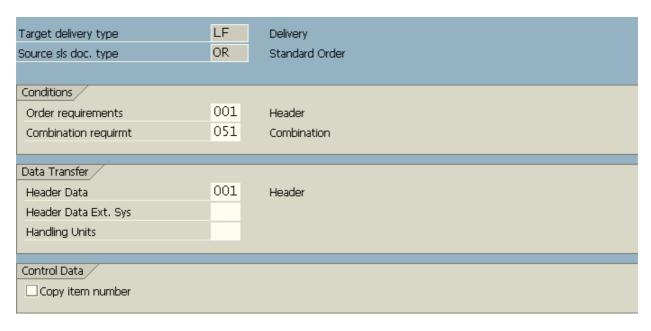
Material determination: We can map the material determination as well as listing and exclusion also for deliveries. Procedure is same as we defined earlier.

Proof of Delivery [POD]: We can map Proof of Delivery in deliveries section. We can release POD automatically by using transaction code: **VLPODQ**.

Copy control:	Transaction code: VTLA
Path:	

We can maintain the copy control for sales document to delivery document.

Sales document to Delivery document - Header



Order requirements [001] = Header

In order to form the basis of a delivery, a sales document must be a sales order and not for an inquiry or a quotation.

Combination requirement [051] = Combination

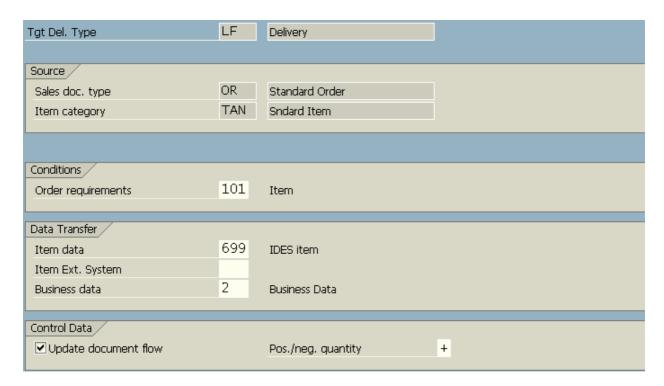
The sales orders you want to combine must have the same sales organization, the same billing type and the same partial delivery agreement.

Header data [001] = Header

According to the routine, the system checks that certain sales document header fields I the source document meet the right conditions. If they do, the system copies them into the target document.

[] Copy item number: It indicates whether the system copies the item numbers from the source document into the target document. If you expand a document by copying in only partial item information from another document, the system does not copy the item numbers.

Sales document to Delivery document - Item



Order requirements [101] = Item

In order to form the basis of a delivery, a sales document must be a sales order and not for an inquiry or a quotation.

Item data [699] = IDES item

According to the routine you specify, the system checks that certain sales document item fields in the source document meet the right conditions. If they do, the system copies them into the target document.

Business data [2] = Business Data

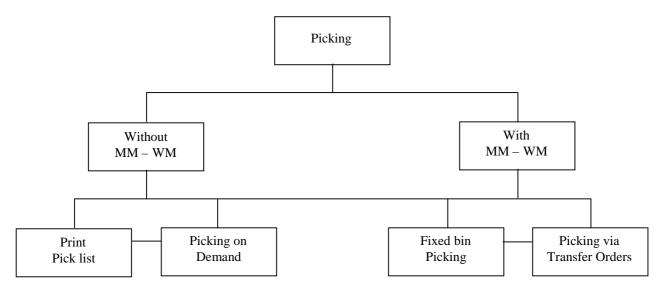
According to the routine you specify, the system checks that certain business data fields in the source document meet the right conditions. If they do, the system copies them into the target document.

[] Update document flow: It indicates whether the system creates a document flow record when you copy one sales document into another.

Use: The flow record includes information about how much of the quantities and values in the source document have been copied into the target document.

Positive/Negative quantity [+]: Indicates whether, during copying, the quantity or value in the target document has a negative effect, positive effect, or no effect at all on the quantity still to be completed in the source document.

Picking: Under picking we configure warehouse managements (Lean warehouse) for deliveries.



Ware House Management

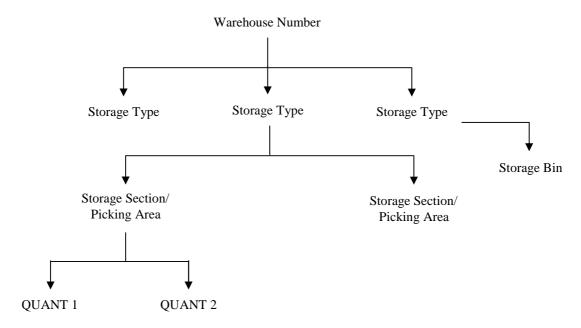
Warehouse is a complete physical warehouse is defined under a single warehouse number. By using this warehouse number we can manage several individual warehouse buildings that together form a complete warehouse complex.

Warehouse number encompasses (include) the organizational plan and physical aspect of warehouse complex in a single concept. Warehouse can be used to kept finished products.

Warehouse can be:

- Goods receipt area
- Goods issue area
- Hall with high rack shells
- Bulk storage area
- Picking area with fixed bins
- Outside storage yard for special goods

Warehouse structure:



A complete physical warehouse is defined under a single warehouse number.

Storage type: Storage type is nothing but a storage area, warehouse facility. Warehouse zone that we defined for warehouse number. It is a physical or logical sub – division of a warehouse complex that characterized by its warehouse technique, the space used, its organizational form or its function. A storage type consists of one or several storage bins.

EX: Bulk storage, open storage, high rack storage, picking area, and shelf storage type.

We have to define important control indicators/parameters for storage type that determines material flow (put away/picking activities).

EX: Put away, Picking, Blocking indicators, and Inventory procedure.

Storage section: It is an organizational subdivision of a storage type that groups together storage bins with similar features for the purpose of putting away stock. We must create at least one storage section for each storage type.

Picking area: Picking area is a section within a storage type in which all picking activities are carried out in the same way. It groups storage bins together from the view point of picking strategies and is a counter part to the storage section which groups bins from the view point of put away strategies.

Storage bins: A storage type generally contains several storage spaces or straights. These are called storage bins in the warehouse management. The storage bin is a smallest available unit of space in a warehouse. The storage bin therefore describes the position in the warehouse where the goods can be stored since the address of the storage bin derived from a co – ordinate system.

EX: 01, 02, and 03

- 01 for Row
- 02 for Stack
- 03 for Level

We have to address storage bin with coordinate. We assign each storage bin to specific warehouse number and storage type.

We must assign each storage bin to a storage section. We can define maximum weight, total capacity, fire continent section, storage bin type, etc.

Create Storage Bins: Transaction code: LS01N

Path:

- Logistics
- Logistics execution
- Master data
- Warehouse
- > Storage bin
- Create
- ➤ LS01N Manually

Quant: It is a stock of any material with same features in one storage bin.

Door: Where the goods arrive at or leave the warehouse. It is an organizational unit that is assign to the warehouse number. The doors are located in a close proximity to the respective staging area.

Staging area: It is an organization unit that is assigned hierarchy to the warehouse number. It is used to organize the goods flows in the warehouse. It is used as an interim storage of goods in the warehouse. It is assigned to doors.

EX: Goods receipts and Goods issues.

NOTE: Warehouse management configured by MM consultants. Lean warehouse management configured by SD consultants.

Lean warehouse management: In warehouse management system, goods movements and stock changes takes place at storage bin level. But with lean warehouse management, inventory management takes place at storage location level.

We used to process goods receipts and goods issues. We have to create transfer orders for deliveries. Transfer order serves as a picking list.

Pre – Requisites: We can only implement it with fixed storage bin.

- Assign a newly defined storage location to warehouse umber.
- Setup at least two storage types.
 - 1. Picking storage type as the source storage type.
 - 2. In shipping area as a destination storage type for deliveries.

Configuration setting:

Define warehouse number

Path:

- > IMG
- Enterprise structure
- Definition
- Logistics execution
- Define, copy, delete, check warehouse number
- > Define warehouse number
- > Choose existing lean warehouse number
- > Click on **copy** as icon and rename
- Save and Exit

Define new storage location

Path:

- > IMG
- Enterprise structure
- Definition
- > Material management
- > Maintain storage location
- > Enter plat in work area and press enter
- Go to new entries
- Define storage location
- Save and Exit

Assign warehouse number to plant/storage location

Path:

- > IMG
- > Enterprise structure
- > Assignment
- Logistics execution
- > Assign warehouse number to plant/storage location
- Go to new entries
- Specify the plant, storage location and warehouse number
- Save and Exit

Define master data

- > IMG
- Logistics execution
- Warehouse management
- Master data
- Define control parameters for warehouse number
- > Choose our warehouse number from position button
- Select it
- Click on details icon
- ➤ Maintain the details
- Save and Exit

Define number ranges

Path:

- > IMG
- Logistic execution
- Warehouse management
- Master data
- Define number ranges
- ➤ Click on **number ranges** push button [**Transaction code: OMLW**]
- Choose our warehouse number

Assign
$$NR - TO$$
 01 $[01]$ - Number range for the assignment of Transfer order numbers $NR - Group$ 01 $[01]$ - Number range for assignment of WM reference numbers

- Click on For transfer requirements for our warehouse and maintain number ranges to it. [LN01]
- > Click on For transfer order for our warehouse and maintain number ranges. [LN02]
- ➤ Click on **For quant** and maintain number ranges. **[LN03]**
- Click on For post change notice and maintain number ranges. [LN04]
- Click on **For groups** and maintain number ranges. [**LN06**]
- Click on For storage unit and maintain number range to it. [LN08]
- > Save and Exit

Define storage types

Path:

- > IMG
- > Logistic execution
- > Warehouse management
- > Master data
- Define storage types
- ➤ Choose warehouse No. 001 and Storage type 005 from position button
- > Select it and click on **copy** icon
 - Change warehouse number with our warehouse number
- Save and Exit

Define storage sections

- > IMG
- Logistic execution
- Warehouse management
- Master data
- > Define storage sections
- > Choose existing storage section Warehouse No. 001, Storage type 001, and Storage section 001
- > Select it and click on **copy** icon and rename with our warehouse number and storage type
- Save and Exit

Define picking areas

Path:

- > IMG
- > Logistic execution
- > Warehouse management
- Master data
- Define picking areas
- ➤ Select Storage type 005 and Picking area 001 from position button
- Click on copy icon
- Rename with our warehouse number
- Save and Exit

Define storage bins

Path:

- > IMG
- Logistic execution
- > Warehouse management
- Master data
- > Storage bins
- > Define storage bin types
- > Define storage bins
- Choose existing storage bin EX: B1 and B2
- Click on copy icon and rename with our warehouse number
- Save and Exit

Define blocking reasons

Path:

- > IMG
- > Logistic execution
- ➤ Warehouse management
- ➤ Master data
- Storage bins
- > Define blocking reasons
- ➤ Choose existed blocking reason **EX**: 01 from position button
- Click on **copy** icon and rename with our warehouse number
- > Save and Exit

Define storage bin structure for automatic creation:

Path:

- > IMG
- Logistic execution
- > Warehouse management
- Master data
- Storage bins
- > Define storage bin structure
- ➤ Choose Warehouse No. 001, Storage type 005, and Sequence No. 001
- Click on copy icon
- Rename storage bin structure with our warehouse number
- Save and Exit

Transaction code: LS10

Define storage type indicators

Path:

- > IMG
- ➤ Logistic execution
- ➤ Warehouse management
- Master data
- Materials
- ➤ Define storage type indicators
- Choose existing Warehouse No. 001, and Storage type indicator FIX
- Click on copy icon and rename with our warehouse number
- Save and Exit

Define storage unit types

Path:

- > IMG
- Logistic execution
- Warehouse management
- Master data
- Materials
- > Define storage unit types
- Choose existing storage units Warehouse No. 001 and Storage unit type BX1, BX2, and BX3
- Click on **copy** icon and rename with our warehouse number
- Save and Exit

Define storage section indicators

Path:

- > IMG
- Logistic execution
- > Warehouse management
- > Master data
- Material
- > Define storage section indicators
- ➤ Choose existing Warehouse No. 001 and Storage section indicator 001
- Click on **copy** icon
- > Rename with our warehouse number
- Save and Exit

Define special movement indicators

- > IMG
- Logistic execution
- > Warehouse management
- Master data
- Material
- Define special movement indicators
- ➤ Choose Warehouse No. 001 and special movement indicator [A] from position button
- Click on **copy** and rename with our warehouse number
- Save and Exit

Activate storage type search:

Path:

- > IMG
- ➤ Logistic execution
- > Warehouse management
- Strategies
- Activate storage type search
- Click on define for storage type indicator
- Check our warehouse number existed or not
- Save and come back
- Click on determine search sequence for storage type search
- Choose Warehouse No. 001 and Storage type indicator FIX and Storage types 005 and 001

Transaction code: OMLY

Transaction code: OMLZ

- Click on copy and rename with our warehouse number and storage types
- Save and come back
- Click on **define** for movement type references
- ➤ Check our warehouse number with movement types is existed or not
- Save and come back
- Click on storage type search for access optimization
- > Choose warehouse number 001
- > Click on copy icon
- > Rename with our warehouse number
- Save and Exit

Activate storage section search:

- > IMG
- ➤ Logistic execution
- > Warehouse management
- Strategies
- Activate storage section search
- > Click on **define** for storage section indicator
- > Check our warehouse number is existed or not
- ➤ Click on **determine search sequence** for storage section search
- > Go to new entries and maintain values like below:

Ware House No.	Storage type	Section indicator	Class	WPC
0003	001	001	5.1 B	0
0003	005	005	5.1B	0

- > Click on activate for storage section check
- ➤ Choose our warehouse number and storage type from position button
- Assign X[X = Storage section determination and check] for storage section check
- Save and Exit

Activate storage bin type search:

Path:

- > IMG
- ➤ Logistic execution
- > Warehouse management
- Strategies
- Activate storage bin type search
- Click on storage bin types for definitions
- Check our storage bins are existed or not
- Click on storage unit type for definitions
- Check our storage units are existed or not
- ➤ Click on **storage type** for assignments storage unit types
- Choose existing assignment and click on **copy** icon
- Rename with our warehouse number and storage types
- Save and come back
- ➤ Click on **storage bin types** for assignments storage unit types
- Choose existing assignment and click on copy icon
- Rename with our warehouse number, storage unit types and storage bin types

Transaction code: OMM1

- > Save and come back
- Click on activate for storage unit type check
- > Check our warehouse with our storage types or existed or not
- Save and exit

Put away strategies

Define strategy for fixed bins

Path:

- > IMG
- ➤ Logistics execution
- > Warehouse management
- Strategies
- > Put away strategies
- > Define strategy for fixed bins
- Check our warehouse with fixed bins existed or not
- > Save and Exit

Define strategy for open storage

- IMG
- Logistic execution
- Warehouse management
- Strategies
- Define strategy for open storage
- > Check our warehouse with storage types or existed or not
- Save and Exit

Define strategy for addition to existing stock

Path:

- > IMG
- ➤ Logistic execution
- > Warehouse management
- Strategies
- Define strategy for addition to existing stock
- Check our warehouse with storage types existed or not
- Save and Exit

Define strategy for empty storage bin

Path:

- > IMG
- Logistic execution
- > Warehouse management
- Strategies
- > Define strategy for empty storage bin
- Check our warehouse with our storage type existed or not
- Save and Exit

Lean Warehouse

Configuration settings:

Define control parameters and number ranges for warehouse number

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- > Define control parameters and number ranges for warehouse number
- > Define control parameters and number ranges for warehouse number
- Choose our warehouse number from position button
- Go to details icon
- ➤ Check **Lean WM** active
- Save and Exit

Maintain umber range intervals for transfer order

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- Lean WM
- > Define control parameters and number ranges for warehouse number
- ➤ Maintain number range intervals for transfer order
- Specify our warehouse number

Use the warehouse number range interval that we defined earlier or define new number range

> Save and Exit

Maintain number range intervals for reference number

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- Lean WM
- > Define control parameters and number ranges for warehouse number
- ➤ Maintain number range intervals for reference number
- > Specify our warehouse number

Use the warehouse number range interval that we defined earlier or define new number range.

Save and Exit

Define storage types

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- Define storage types
- > Check our warehouse number and storage types existed or not
- > Select it and click on **details** icon
- Uncheck for our both storage types
 - [] Stock placement requires confirmation
 - [] Stock removal requires confirmation
- Save and Exit

Define doors

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- Define doors
- Choose the existing doors from position button
- > Click on **copy** and rename with our warehouse number
- Save and Exit

Define material staging areas

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- Lean WM
- > Define material staging areas
- Choose existing staging areas from position button
- Click on **copy** ad rename with our warehouse number
- Save and Exit

Define picking areas

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- Define picking areas
- Check our warehouse number with picking areas existed or not
- Save and Exit

Define transfer types

Path:

- > IMG
- ➤ Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- > Define transfer types
- Choose existing one from position button
- Select it and click on **copy** icon
- Rename with our warehouse number
- Save and Exit

Define movement types

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- Lean WM
- Define movement types
- Choose movement types 255, 601, and 930 from position button
- Click on copy icon and rename with our warehouse number

Remove the destination value and paint code value

[] Uncheck manual transfer order creation not allowed

> Save and Exit

Define difference indicators

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- Define difference indicators
- ➤ Choose existing difference indicator 010 from position button
- Select it and click on **copy** icon and rename with our warehouse number
- Save and Exit

Control Plant/Storage Location/Warehouse number assignment

Path:

- > IMG
- Logistics execution
- Shipping
- Picking
- ➤ Lean WM
- Control Plant/Storage Location/Warehouse number assignment
- Choose our Plant, Storage Location and Warehouse number
- Assign degree of activation as 1 [1 = Lean warehouse management in connection with deliveries]
- > Specify storage type 005 fixed bins that we define
- Save and Exit
- ➤ Go to MM01 and create a material master with Warehouse management 1 and Warehouse management 2 at Plant, Storage Location, [that we created newly] Warehouse number and storage type.
- ➤ Go to MB1C and maintain the stock under new storage location
- ➤ Go to VA01 and raise the sales order
- > Go to VL01N and raise the delivery document. Save the delivery document without doing PGI + Picking.
- Go to LT03 to create transfer order. Transfer order is which acts as a picking order Save the document.
- Go to VL02N and click on picking tab and check picking quantity has been picked by transfer order. Do the PGI and Save it

Transaction code: MB1C

➤ Go to VF01 and raise the Invoice

Other goods movement:

- Logistics
- Material management
- Purchasing
- > Inventory management
- > Inventory management
- ➤ Goods movement
- Goods receipt
- ➤ MB1C Other

Stock overview:

Transaction code: MMBE

- Logistics

 Material management

 Inventory management

 Environment

 Stock

- MMBE Stock overview

Packing

Packing is carried out at item level. We can determine that a specific item is to be mandatory packed or will be packed necessary. This packed item then in turn may be packed again into a shipping unit, which in turn may be packed into another shipping point. Then it is called as multilevel packing.

Configuration settings:

Handling unit: Handling unit is the combination of

- Vehicle +
- Package material +
- Material to be packed

The whole unit is called as a handling unit

Define number ranges for handling unit: Transaction code: VNKP

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- > Define number ranges for handling units
- Click on insert intervals icon define number ranges
- Save and Exit

Packing control by item category

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- Packing control by item category
- ➤ Choose item category TAN from position button
- Assign value in packing control field
 - [] Can be packed
 - [A] Must be packed
 - [B] Can not be packed
- Save and Exit

Define requirements for packing in the delivery: Transaction code: VPBD

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- Define requirements for packing in the delivery

We can specify the requirement for packing when there is credit block existed. Routine [112] = Packing

- Check whether this routine is existed or not
- Save and Exit

Define packing material types:

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- Define packing material types

We define packing material types Ex: V010 by which we can control packing material output determination

Transaction code: VHAR

Procedure [V00001] shipping unit procedure 000001

Output type [0001] shipping unit

Plant determination [B] plant determined from the first item that was packed.

Packing material category [C] packing materials

Packing material has been categorized as [C]

Generate division items [A] item is going to be generated if the Ship – to – Party is same

Number assignment [A] SSCC 18 already created for handling unit

Handling unit type [5] unrestricted use

- Choose existing one from position button
- > Click on **copy** icon and rename
- Save and Exit

Define material group for packaging materials

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- > Define material group for packaging materials

For packaging materials item category is VERP

We can then assign material group for the shipping material in the shipping field in MM01

The shipping material group also assigned to the standard item that are to be packed

It enables similar materials to be grouped together

Ex: Materials may all be to be packed into carton, then shipping material group = Carton is necessary for shipping material.

Some standard items may be packed into cartons that are **fragile**. Thus there may be a need to call a group **fragile**. Then the assignment of **fragile** would be on the basic data screen of standard item in the material master.

- ➤ Choose standard packing material group G010 = Skeleton box
- > Click on **copy** icon and rename it
- Save and Exit

Define allowed packaging material

Path:

- > IMG
- Logistic execution
- Shipping
- Packing
- > Define allowed packaging material

Here we assign allowed packing material types for material group of packaging materials

- Go to new entries
- Choose our packing material group
- Assign our packaging material type
- Save and Exit
- ➤ Go to MM01 create a material with material type packing [**VERP**]

Base unit of measure [BOX]

Material group [008]

Assign packaging material group [OURS]

Assign packing material type [008] in Sales: General/Plant tab

- Save and Exit
- > Go to MM01 again and create material that is to be packed and assign our material group packing material [OURS]

Make sure that in Sales: General/Plant tab material group for packing material [OURS] has been maintained, and tax classification number also maintain

- Save and Exit
- ➤ Go to MB1C and initialize the stock
- ➤ Go to VA01 and raise the sales order. Enter the material that is to be packed
- ➤ Go to VL01N do the picking

Select the line item

Go to Edit → Pack

Now the screen has been sub – divided into two sections

Upper screen is for packing materials

Lower screen is for material to be packed

> Specify the packing material in the packing materials field in the upper screen and press ENTER

Check system automatically created handling unit for this packaging material

- Select two line items
- \triangleright Go to Edit → Pack → Pack

Note down the status on the status bar that is materials was packed Given the storage location for two line items under the storage location field in the delivery document.

- Back
- Do the PGI
- Save and Exit
- ➤ Go to VF01 and raise the Invoice

Returnable Packaging

It is used in the process where by the business sells items to the customer. These items are packed into shipping units such as Boxes and Crates. Then the customer can keep the boxes or crates up to a certain period of time and then must return the item. Should the customer not have return the shipping units with in specified date or have been destroyed, and then business may bill the customer for damage goods.

The stock we deliver as special packaging materials. We kept at customer site. It can be viewed in MMBE with indicator V.

Item category group is VERP General item category is LEIH LAN for returnable packaging pickup LNN for returnable packaging issue Material group = 00804

If you proposed packaging material in the order (Edit \rightarrow Packaging proposal) then it will be copied into the delivery. If we do not enter packaging material as a item in the sales document. Then we enter the item category in the shipping point.

Path:

- ➤ Edit → Packing proposal screen
- > Select general header data button

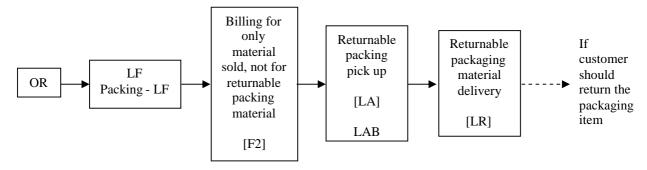
Then SAP will create a delivery item for the shipping material from the packing proposal.

Ex: If we enter TAL (Item category for returnable packaging) in the shipping unit header, then when we create the delivery, SAP will also create an item TAL for that shipping material in the delivery. For the goods issue SAP records that shipping material has been issued to the customer and must be return. We have to price the returnable packaging in the returnable packaging issue order document.

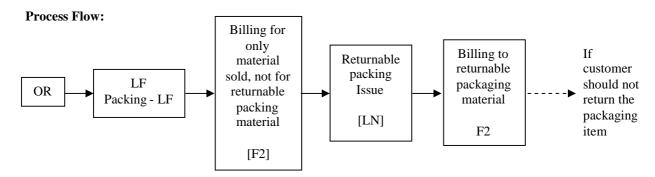
When the customer should return the packaging material, then we have to pick up the returnable packaging item from the customer site.

When the customer return the packing material

Process Flow:



When the customer does not return the packing item.



Configuration steps:

- > Create a material with material type is returnable packing and make sure that general item category group LEIH
- Go to MB1C and initialize the stock Specify stock indicator V
- > Go to VA01 and raise the sales order by specifying the material that is to be packed [Normal] by returnable packaging material
- ➤ Go to VL01N → Picking

Select line item and Go to Edit \rightarrow Pack Specify the returnable packaging item in upper screen Select two line items Go to Edit \rightarrow Pack \rightarrow Pack

Note down the status that is material was packed.

- Go back and do the picking and PGI
- > Save and Exit
- > Go to MMBE and check the stock balance of packing item and returnable packing item. Notice that in the returnable packing stock system shows the status as Returnable packaging at customer.
- ➤ Go to VF01 and raise the Invoice.

Scenario 1: If the customer returns returnable packaging material, then business has to pick up returnable packaging material from customer site.

➤ Go to VA01 and raise the sales order [Document type AT]

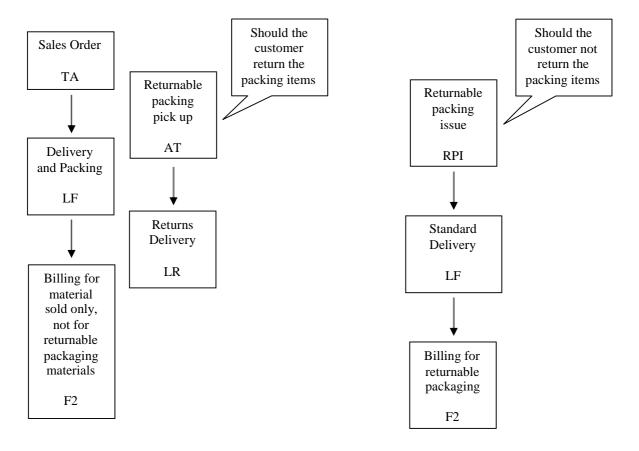
Specify the returnable packaging stock quantity

- Save and Exit
- ➤ Go to VL01N and do the return delivery for returnable packaging quantity
- > Do the PGR and save the document

Scenario 2: If the customer does not return the returnable packaging items, then business has to bill the customer.

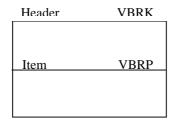
- Go to VA01 [Document type LN] and raise the order
 Specify the reason as goods damaged at customer place
- Save and Exit
- ➤ Go to VF01 and raise the Invoice with reference to LN document

The process flow in returnable packing:



Billing Documents

The header data of the billing document defines how the invoice is to behave. Billing document uses only internal number range assignment.



Define Billing types: Transaction code: VOFA

Path:

- > IMG
- > Sales and Distribution
- Billing
- ➤ Billing documents
- Define billing types
- Define billing types
- > Choose billing document type F2 from position button
- Click on details icon

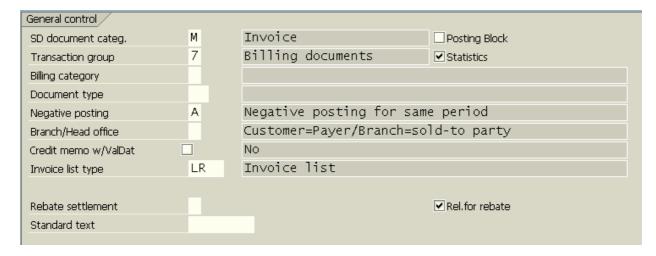


Created by []: Name of the person who created the object.



Number range internal assignment [19]: Number that determines how documents are to be numbered by the user. It indicates which number range is relevant for a document type. Here number range is only internal.

Item number increment: The increment by which you want the item numbers is a sales, delivery, or billing document, to increase when the system automatically generates item numbers.



SD document category [M]: That defines what type of document the system is using.

Transaction group [7] = Billing document

A group that allows you to control certain features of transaction flows by sales, shipping and billing documents.

Use: The transaction group controls:

- Which sales document types you can process with which system transactions during sales order processing.
- For which sales, shipping, and billing documents the system updates indexes for reporting purposes.

Billing category []: It is used to differentiate the billing documents.

Document type []: The document type classifies accounting documents. As invoice generates FI document type RV (Billing data transfer) we have to assign in the document type field under general control section.

Negative posting [A] = Negative posting for same period

This indicator causes the transaction figures to be reset for a document item. If the indicator is set, then the transaction figure update is changed. A correspondingly set posting on the debit side reduces the credits side of the account. A credit posting reduces the debit side of the account.

Use: The indicator can be entered in billing types for credit memos and cancellations. It only has the required effect in FI, if the company code permits negative posting.

Branch/Head office []: The indicator controls, which partner functions of the billing document, can be forwarded to financial accounting.

Credit memo with value date []: If the field is set, the reference billing document is not settled and the payment deadline date for the base billing document comes after the billing date for the credit memo.

Invoice list [LR]: It is a classification that distinguishes between invoice li8st types that require different processing by the system. To create invoice list, invoice document type LR proposed.

[] **Posting block:** If you check it billing document is going to be blocks automatic transfer of the data from invoice to FI document. Manually the invoice has to be released.

[] **Statistics:** the value of the billing document is going to be updated in LIS. It indicates whether the system stores information from billing documents of this type for the purposes of statistical analysis.

Rebate settlement []: If indicates whether the billing type is used exclusively during rebate processing.

Use: If you create a billing document of this type as the final settlement of a rebate agreement, the system indicates in the agreement that the rebate has been completely paid.

[] **Relevant for rebate:** This indicator is one of the pre – requisite to process rebates. This indicates whether billing documents of this type are relevant during rebate processing.

Standard text []: Number of the standard text. This is not used at present.

Cancellation		
Cancell.billing type	S1	Invoice Cancellation
Copying requirements		
Reference number		
Allocation number		

Cancellation billing type [S1] = Invoice cancellation

It specifies the default cancellation for this billing type. For canceling the invoice the billing type [S1] can be proposed for F2 and [SV] for BV.

Use: If you enter the number of an existing billing document in the document field on the initial screen for creating a billing document, the system automatically creates a cancellation document of this billing type.

Copying requirements []: The routine checks that certain requirements are met when one document is copied into another.

Ex: When you copy a quotation into a sales order, the system can check each item in the quotation to make sure that it has not been rejected by the customer for some reason.

Reference number []: The reference number is a piece of additional information forwarded from SD and FI.

Ex: Customer purchase order, Sales order number, Delivery number, External delivery number, and Current invoice number.

If you do not make an entry and the field is not filled in the order, the billing number is adopted automatically.

Allocation number []: You can find the allocation number under additional information in the (document) line item that is forwarded from SD to FI.

Ex: Customer purchase order, Sales order number, Delivery number, External delivery number, and Actual invoice number.

If you do not make an entry and the field is not filled in the order, the field remains empty.

Account assignment/pricing			
AcctDetermProc.	KOFI00	Account Determination	
Doc. pric. procedure	Α	Standard	
Acc. det. rec. acc.			
Acc. det. cash. set.			
Acc. det. pay. cards	A00001	Standard	

Account determination procedure [KOFI00]: It specifies the condition types that the system uses for a particular type of document (**Ex:** Invoice) to determine the G/L Accounts to which amounts should be posted. The values of the invoice are going to be posted in respective G/L Accounts through this field assignment.

NOTE: For proforma invoices **Ex:** F5 and F8 do not contain any value. Due to this assignment, system can understand whether it has to transfer the billing data from invoice to FI module. Proforma invoices only used for information purpose. They do not carry the any information from invoice to FI.

Document pricing procedure [A] = Standard

The key that specifies the pricing procedure for this type of sales document. The pricing procedure determines how the system carries out pricing for a particular sales document.

Ex: Which pricing condition records it accesses and in which sequence.

Account determination reconciliation account []: It determines the condition types that the system uses for determining the reconciliation account that the system uses for a certain document type **Ex**: Invoice.

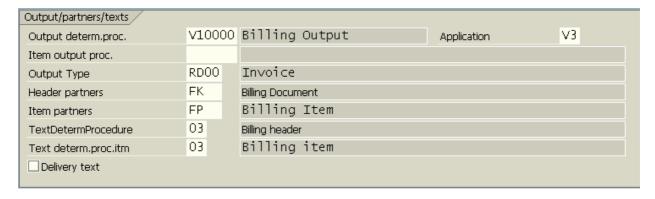
If a G/L Account is determined here, then the reconciliation account stored in the customer master record is ignored.

Account determination cash settlement []: It determines the condition types that the system uses for a certain document type (**Ex:** Invoice) during determination of the G/L Account for cash settlement.

If this field is filled, then the billing document is not posted on the debit side. In this case the G/L Account determined is posted.

Account determination pay cards [A00001] = Standard

It specifies the condition types that the system uses to determine general ledger accounts for document types used in payment card transactions.



Output determination procedure [V10000] = Billing output

It defines the output categories that are allowed in a document and the sequence in which the output categories appear in the document

Item output procedure []: It is the combination of output categories that you are allowed to use when you process output at the item level in a document

Ex: Output for a sales order item.

Output type [RD00] = Invoice

It specifies the kind of output to be produced

Header partners [FK] = Billing document

It specifies which group of partner functions the system automatically proposes at the header level in this type of billing document.

You define partner determination procedures in table TPAER

Item partners [FP] = Billing item

It specifies which group of partner functions the system automatically proposes at the item level in this type of billing document.

Text determination procedure [03] = Billing header

It identifies a group of text types that you can use for this document header

Ex: Standard terms of payment

Text determination procedure item [03] = Billing item

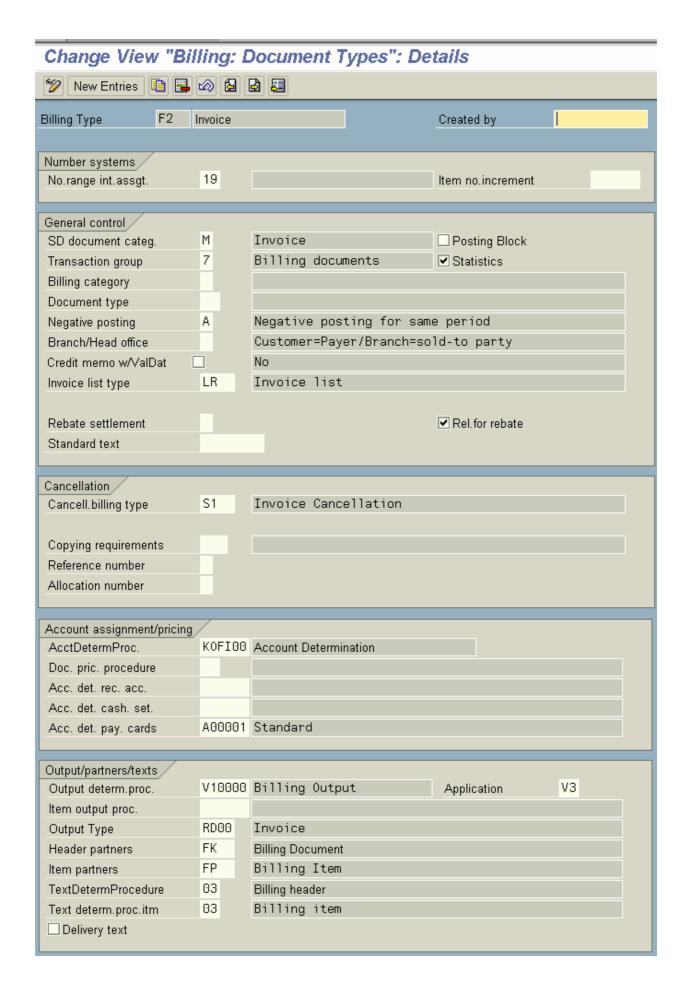
It specifies the procedure that determines which texts are automatically assigned to each item in a billing document.

Application [V3] = Billing

It identifies the applications from which output can be sent. The output is divided according to output types and assigned to these applications.

Delivery text: If you check this field it enables to copy texts from delivery note.

> Save and Exit



Billing document types:

- F1 = Standard invoice
- F2 = Standard invoice
- F5 = Proforma invoice for sales order
- F8 = Proforma invoice for delivery
- G2 = Credit memo
- L2 = Debit memo
- RE = Credit for returns
- S1 = Cancellation invoice
- S2 = Cancellation credit memo
- IV = Intercompany billing

Rebates

A rebate is a trade allowance, which is going to be paid retroactively to customers based on their accumulated sales on sales volume over a defined period.

Rebate agreement types:

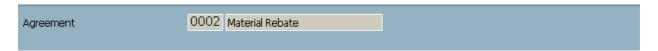
- 0001 = Group rebate
- 0002 = Material rebate
- 0003 = Customer rebate
- 0004 = Hierarchy rebate
- 0005 = Independent of sales volume

The rebate agreement has a separate condition record for each product that customer buys. These condition records specify the rebate amount or percentage. Due to the customer for each product with sale a rebate agreement is finally settled when a credit memo is issued to the customer for accumulated rebate total.

Define rebate agreement types: Transaction code: VB(2

Path:

- > IMG
- > Sales and distribution
- Billing
- Rebate processing
- > Rebate agreements
- > Define agreement types
- Define agreement types
- ➤ Choose material rebate agreement type 0002 from position button
- Click on details icon



Agreement [0002] = Material Rebate



Proposed valid – from [3] = First day of year

Proposed valid – to [2] = End of the current year

Here we define the rebate agreement valid period. Usually rebate agreement valid for one year.

Payment method []: Here we specify the payment method for rebate settlement. **Ex:** Cash, Cheque, DD, etc.

Default status []: It specify the status of the rebate agreement like:

- Settlement is being checked for release
- Released for settlement
- Settlement has been created
- Final settlement already created

Control data		
Cond.type group	0002	Material
Verification levels	F	Display totals by payer/material
Different val.period		Rebate agreement and cond.record have same validity
ManAccrls Order type	R4	✓ Manual accruals
Arrangement calendar		

Condition type group [0002] = Material

It specifies a grouping of condition types and condition tables for use during rebate processing. Generally one condition type assign to this agreement type.

Use: As a rule, the condition type group consists of only our rebate condition type. However if your rebate processing requires it, you have the following possibilities:

- You can assign more than one condition type to a group
- You can enter the save condition type in a group more than once and use different condition tables, or key combinations, for each instance.

Verification levels [F] = Display totals by Payer/Material

It determines the level of the detail, one see when displaying total for a rebate agreement.

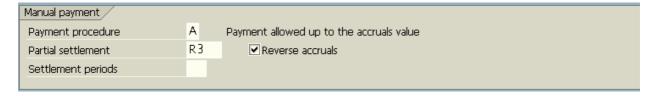
[] **Different validity period:** Rebate agreement and condition record have same validity. It indicates rebate agreement and condition record of the same validity periods or not.

Manual accruals order type [R4] = Rebate request for manual accruals

It is a sales document type assigned to the rebate agreement and used in the manual accruals in a rebate agreement.

[] Manual accruals: It enables manual accruals. Activate this field if you want to be able to post manual accruals for this agreement type.

Arrangement calendar []: Assign calendar for rebate agreement. The arrangement calendar defines the end of the validity period of rebate arrangements and controls their extension.



Payment procedure [A] = Payment allowed up to the accruals value

When we allow manual payment of the rebate to the recipient we indicate that system has to create credit memo request of the type specified in the partial settlement field for the specified amount then when the system carries out final settlement system takes into account the amount that business paid and remaining amount is going to be paid.

SAP uses partial settlement document type R3 and associated order related billing type is B3.

Partial settlement [R3] = Partial rebate settlement request

It specifies the sales document type, which should be used when you perform partial settlement for an agreement. SAP uses partial settlement document type R3.

[] **Reverse accruals:** It ensures the system that it has to reverse the accruals up to the amount specified in the manual payment. Should the accruals not be as high as the payment to be made the system will reverse whatever accruals it has.

Settlement periods []: The settlement periods define that periodic partial settlement is to be carried out for a rebate agreement. This can be carried out at the relevant settlement dates.

Use: Rebate agreements with settlement periods are used in rebate agreements for which a certain, regular amount is to be paid according to the payment procedure. Only the revenue up to the relevant settlement date is taken into account for the partial settlement.



Final settlement [B1] = Rebate credit memo request

For final settlement system proposes credit memo request type B1.

Correction [**B2**] = Rebate correction request

Rebate correction request document type B2 has been assign. System proposes this document type for rebate corrections that has been taken place in the settlement.

Minimum status [**B**] = Agreement released for settlement

We have to specify the rebate agreement document type [0002] for settling the rebates. It specifies the minimum status that a rebate agreement must have before the settlement can be calculated. During the processing of a final settlement, the system checks whether the rebate agreement is assigned the minimum status.

Ex: B – Agreement released for settlement

- C Credit memo request already created for settlement
- D Final settlement of agreement already carried out



Text determination procedure []: It determines the sequence in which the text types appear in the document.

Text ID: It specifies which text ID appears in text edits control. The text ID defines the different types fo texts that belong to a text object.

Save and Exit

Agreement	0002 Material Rebate
Proposed valid-from Proposed valid-to Payment method	3 First day of year 2 End of the current year Default status
Control data Cond.type group Verification levels Different val.period ManAccrls Order type Arrangement calendar	0002 Material F Display totals by payer/material Rebate agreement and cond.record have same validity R4 ✓ Manual accruals
Manual payment Payment procedure Partial settlement Settlement periods	A Payment allowed up to the accruals value R3 Reverse accruals
Settlement Final settlement Minimum status	B1 Correction B2 B Agreement released for settlement
Text determination TextDetermProc. Text ID	

Configuration settings:

Pre – Requisites: So as to process rebates the main 3 control parameters are:

- At definition of sales organization
- At customer master payer
- At definition of billing document

Should be activating in this 3 places.

Create condition record rebate agreements:

Path:

- Logistics
- > Sales and distribution
- Master data
- > Rebate arrangements
- > Rebate arrangement
- ➤ VB01 Create

Specify agreement type 0002 and press ENTER

Specify the rebate recipient [Customer master payer number]

Specify the validity period of the agreement

Specify the agreement status: Blank [] = Open

Transaction code: VB01

Specify the verification level [F] = Display totals by Payer/Material

- Click on conditions
- Specify the material number
- Select condition line item
- Click on scales and maintain the scales
- Save it and exit
- ➤ Go to V/08 and choose our pricing procedure from position button Include the rebate condition type B002 in between the discount Specify the requirement as 24

 Assign ERB as accounting key ERU as accruals
- Save and Exit
- ► Go to VA01 \rightarrow VL01N \rightarrow VF01
- > Select line item
- ➢ Go to → Item → Item conditions Check rebate condition type BO02 has been activated or not
- > Save and Exit
- \triangleright Like this raise another VA01 \rightarrow VL01N \rightarrow VF01 and note down all document numbers.

Display the rebate agreement

- ➤ Go to VB02
- Specify the rebate agreement number and press ENTER
- Note down the ERROR

ERROR: The sales volume for agreement <111> is not current

- > FB03 to see the document overview
- > Exit

Then go to:

- Logistics
- Sales and distribution
- Billing
- Rebates
- Update billing document

In order to execute a report specify SDBONT06 in SE38

Then accruals and business volume are updated when the accounting document for billing is created.

Setting the rebates: For partial settlement

- ➤ Go to VB02
- > Enter rebate agreement number

Change agreement status field as B

Choose create manual accruals and enter the amount to be paid

Save and Exit

Note down the credit memo request automatically by going to VB03

- Enter agreement number
- \rightarrow Choose rebate payment \rightarrow Rebate document \rightarrow Select partial settlement

- Click **choose** button and note down the credit memo request number
- Now go to create credit memo with reference to credit memo request
- Now release the credit memo to the accounting [If it was blocked]
- Logistics
- Sales and distribution
- Billing
- Billing document
- Change
- Enter billing document number to release to accounting
- Now check accruals in rebate agreement by going to VB03
- Enter agreement number
- Choose conditions
- > Select condition line item
- Choose payment details

Steps for Rebate process:

- (1) Create sales document type R3, R4, B1, and B2 [VOV8]
- (2) Item category B1N [VOV7]
- (3) Define rebate agreement type 0002 [VB(2]
- (4) Define condition type group [VB(3]
- (5) Assign condition type/tables to condition type group [VB(4]
- (6) Assign condition type groups to rebate agreement type [VB(5]
- (7) Activate account determination [VKOA]
- (8) Activate rebate with reference to billing document [OVB0]
- (9) Activate rebate with reference to sales organization [OVB1]
- (10) Activate rebate with reference to payer master record [XD02]
- (11) Maintain relevant rebate condition types in pricing procedure [V/08]
- (12) Assign sales document to sales [OVAZ]
- (13) Maintain condition record for rebate agreements [VB01]

Batch Management

In normal business process especially in the pharma business all the material may be processed batch wise. The material movement from production to invoice can be processed through batch wise. SAP follows condition technique to determine the batch number.

Configuration settings:

- > Create material master by specifying checking group of availability check in Sales: General/Plant data as [CH]
 - [] Check approved batch record required
 - [] Check batch management
- Save and Exit

Specify batch level and activate status management

Path:

- > IMG
- Logistics general
- > Batch management
- > Specify batch level and activate status management
- Click on **batch level** to determine batch level [**OMCE**]

As processing can be done plant level, material level, and client level

If it is client level the batch number with specifications are same in all areas and organizational levels.

If it is at plant level the batch number and specifications should be changed or different from plat to plant.

If it is at material level the batch has its own individuality. That means the specifications and batch number never changed.

Transaction code: ODOC

- © Check batch unique at material level
- Save and go back
- Click on batch status management [OMCS]
 - © Activate Batch status management active
- > Save and Come back
- ➤ Click on plants with batch status management [OMCU]
- Choose our plant from position button
 - [] Activate batch status management
- Save and go back
- Click on initial status of new batch [OMAB]
- Choose the material type FERT from position button
 - [] Check initial status
- Save and Exit

Activate document management for batches:

- IMG
- Logistics general
- > Batch management
- Batch master
- ➤ Activate document management for batches
 - © Activate document management for batches active
- Save and Exit

Activate internal batch number assignment:

Path:

- **IMG**
- Logistics general
- Batch management
- Batch number assignment
- Activate internal batch number assignment
- Internal batch number assignment for assigned goods receipts
- Choose our plant from position button
 - [] Check batch number automatic for goods receipt with account assignment

Transaction code: OMCZ

Transaction code: SNUM

Save and Exit

Maintain internal batch number assignment range:

Path:

- IMG
- Logistics general
- > Batch management
- ➤ Batch number assignment
- Maintain internal batch number assignment range
- Click on number ranges
- > Click on insert intervals
- Define number range
- Save and Exit

Define batch search procedure allocation and check activation

Path:

- IMG
- Logistics general
- > Batch management
- ► Batch determination and batch check
- ➤ Batch search procedure allocation and check activation
- Allocate SD search procedure/activate check
- Go to new entries

Specify our sales area, document type [OR],

Assign search procedure [SD0001]

SD0001 = Standard SD search procedure

Save and Exit

Activate automatic batch determination in SD

Path:

- **IMG**
- Logistics general
- Batch management
- Batch determination and batch check
- Activate automatic batch determination in SD
- Click on automatic batch determination for sales order items
- Choose item category TAN from position button [] Check automatic batch determination
- Save and Exit

23.

Activate automatic batch determination for delivery item categories

Path:

- > IMG
- Logistics general
- > Batch management
- > Batch determination and batch check
- Activate automatic batch determination for delivery item categories
- Choose item category TAN, DLN from position button[] Check automatic batch determination
- > Save and Exit

Create Batch: Transaction code: MSC1N

Path:

- Logistics
- Central functions
- Batch management
- Batch
- ➤ MSC1N Create

Specify the material number, plant, and storage location and press ENTER

Basic data 1

Specify the production date, shelf life, expiration date, available from, and next inspection date

Basic data 2

Specify the short text

- Save and Exit
- Go to change mode of batch creation MSC2N
 © Check unrestricted use in basic data 1 field
- Save and Exit
- Create another batch by using same transaction code MSC1N
- Save and Exit

Define batch determination: Transaction code: VCH1

Path:

- Logistics
- Central functions
- Batch management
- ➤ Batch determination
- Batch search strategy
- For sales and distribution
- ➤ VCH1 Create

Specify strategy type SD04 = Customer/Material

- > Click on **key combination** and © Select Customer/Material
- > Specify customer number, validity periods and materials
- Save and Exit

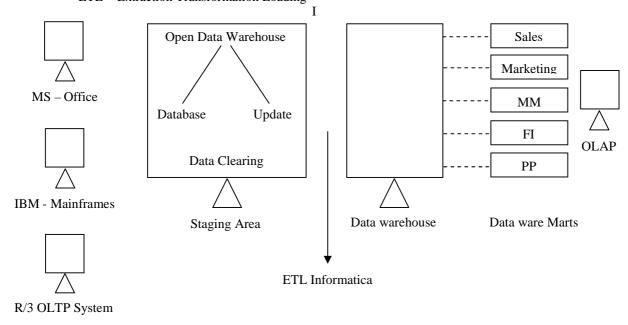
- ➤ Go to MB1C and initialize the stock along with batch
- ➤ Go to MMBE to check the stock overview
- > Go to VA01 and raise the sales order Specify batch material number and check the status on the status bar
- Go to the line item put [*] in the batch field or press F4 and choose the batch number Save and Exit

Logistics Information System [LIS]

So as to generate statistical report of transactions like sales, delivery, billing SAP has provided open data warehouse.

Data warehousing:

- OLAP = Online Analytical Processing
- OLTP = Online Transactional Processing
- ETL = Extraction Transformation Loading



SAP open data warehouse contains database and updating

Database: In database we define the characteristics and key figures and we built info structure.

Updating: In updating we define the updations rules to upload the data.

Configuration steps:

Define field catalog [Self]:

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- > Logistics data warehouse
- Databases
- Field catalogs
- ➤ Maintain self defined field catalogs
- Create

Characteristics are nothing but the fields are which the values cannot be accumulated. The report is going to be generated for these fields.

Transaction code: MC18

Ex: Customer number, Sales organization, Distribution channel, Division, Material, Material group

Specify the field catalog name Ex: ZSRI Application [01] = Sales and Distribution

- Choose © Characteristic catalog [as catalog category] and press ENTER
- Click on **characteristics** push button on the application tool bar

- Choose Sales document: Header data from right screen
- ➤ Choose Sales document type, Sales organization, Distribution channel, Division, and Sold to Party from left screen
- ➤ Choose Sales document: Item data from right hand screen
- > Choose material group from left screen
- Click on Copy + Close push button
- Click on Copy button
- Save and Exit

Create key figures catalog

Key figure is nothing but the value of the field accumulated.

Path:

- IMG
- Logistics general
- ➤ Logistics Information System
- Logistics data warehouse
- Data basis
- > Field catalogs
- ➤ Maintain self defined field catalogs
- Create

Specify the field catalog name ZKEY

Application area [01] = Sales and Distribution

- Choose © Key figures field catalog and press ENTER
- Click on **key figures** push button on the application tool bar
- ➤ Choose Sales document: Header data from right screen
- Choose net value for left screen
- Click on Copy + Close push button
- Click on Copy button
- Save and Exit

Create Self – Defined Info structure:

Path:

- IMG
- > Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Data basis
- ➤ Information structures
- ➤ Maintain Self Defined Information structures
- Create
- ➤ Give the info structure number **Ex:** S501 [S501 to S999] Application area [01] = Sales and Distribution
- > Click on choose characteristics
- Choose our characteristics catalog from right screen
- > Select the fields we required to setup info structure by double click on the fields from the left screen

Transaction code: MC21

- ➤ Click on **Copy** + **Close** push button
- Click on Copy button
- > Click on **choose key figures** button
- Choose our key figures field catalog from right screen
- > Select the fields from left screen that we required to setup info structure by double click on it
- Click on Copy + Close push button
- Click on Copy button
- > Click on **Generate** icon on the application tool bar
- Click on local object
- Come back
- Save and Exit

Updating

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- > Updating definition
- > General definition using update groups
- Maintain update groups
- > Check update group 1 is existed or not
- Save and Exit

Specific definition using update rules:

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- Updating definition
- > Specific definition using update rules
- Maintain update rules
- Create
- ➤ Specify our info structure Ex: S501and Update group status [1] and press ENTER

Transaction code: MC24

- Click on **rules for key figure** push button
- \triangleright Specify the event [VA] = Sales order scheduling agreement

Update type [A] = Cumulative updating

Specify the source table [MCVBAK] = Sales document header data

Source field name [NETWR] = Net value

Table for date [MCVBAK]

Date field [ERDAT] = Date on which the record was created

- ➤ Click on **Copy** button
- Click on rules for characteristics push button
- Click on Copy
- Click on check icon on the application tool bar
- ➤ Click on **generate** icon
- Click on updating icon
- > Choose our info structure by double click on it
- Select © Day
 - © Synchronous updating [1]
- Save and Exit

Updating control: Transaction code: OM01

- IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- Updating control
- Activate update
- > Sales and distribution
- > Choose our info structure by double click on it
- Check update rules as earlier

- © Day
- © Synchronous updating [1]
- Save and Exit

Settings: Sales and Distribution

Maintain statistics groups for customers: Transaction code: OVRA

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- > Logistics data warehouse
- Updating
- Updating control
- Settings: Sales and Distribution
- > Statistics group
- Maintain statistics groups for customers
- \triangleright Check 1 =Relevant for statistics
 - 2 =Not relevant for statistics existed or not
- > Save and Exit

Maintain statistics groups for material: Transaction code: OVRF

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- > Logistics data warehouse
- Updating
- Updating control
- > Settings: Sales and Distribution
- > Statistics groups
- ➤ Maintain statistics groups for material
- \triangleright Check 1 = Relevant for statistics
 - 2 =Not relevant for statistics existed or not
- > Save and Exit

Maintain statistics groups for sales documents

- > IMG
- Logistics general
- Logistics Information System [LIS]
- > Logistics data warehouse
- Updating
- ➤ Updating control
- > Settings: Sales and Distribution
- Statistics groups
- Maintain statistics groups for sales document
- ightharpoonup Check 1 =Relevant for statistics
 - 2 = Not relevant for statistics existed or not
- Save and Exit

Assign statistics groups for each sales document type

Path:

- > IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- Updating control
- > Settings: Sales and Distribution
- Statistics groups
- Assign statistics groups for each sales document type
- ➤ Select document type OR from position button
- Check statistics group [1] = Order, debit memo is assigned or not
- > Save and Exit

Assign statistics groups for each sales document item type

Path:

- > IMG
- Logistics general
- Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- Updating control
- > Settings: Sales and Distribution
- Statistics groups
- Assign statistics groups for each sales document item type
- Select TAN from position button
- ➤ Check statistics group [1] = Order, debit memo is assigned or not
- Save and Exit

Assign statistics groups for each delivery type

- IMG
- > Logistics general
- ➤ Logistics Information System [LIS]
- > Logistics data warehouse
- Updating
- Updating control
- Settings: Sales and Distribution
- Statistics groups
- Assign statistics groups for each delivery type
- > Select document type LF from position button
- ➤ Check statistics group [1] = Order, debit memo is assigned or not
- Save and Exit

Assign statistics groups for each delivery item type: Transaction code: OVRL Path: **IMG** Logistics general Logistics Information System [LIS] Logistics data warehouse Updating Updating control Settings: Sales and Distribution Statistics groups Assign statistics groups for each delivery item type Select item category DLN from position button Check statistics group [1] = Order, debit memo is assigned or not Save and Exit **Update** group Transaction code: OVRP Assign update group at item level: Path: IMG Logistics general Logistics Information System [LIS]

- Logistics data warehouse
- UpdatingUpdating control
- > Settings: Sales and Distribution
- Update groups
- > Assign update group at item level
- ➤ Go to new entries
- > Specify our sales area

Customer statistics group [1]
Customer group material [1]
Statistical group for sales document [1]
Statistics group sales document [1]
Statistics group document item [1]
Update group [1]

Save and Exit

Assign update group at header level:

Path:

- IMG
- Logistics general
- ➤ Logistics Information System [LIS]
- Logistics data warehouse
- Updating
- Updating control
- > Settings: Sales and Distribution
- Update grou8ps
- Assign update group at header level
- Go to new entries
- Specify sales area and specify all fields as [1]
- Save and Exit
- Go to Logistic screen/Easy access screen
 System → User profile → Own data → Go to parameters

Transaction code: OVRO

Parameters	Value		
MCL	X		
POK	X		
WLC	X		

- Press ENTER
- > Save and Exit
- ➤ Go to XD02

Make sure that customer statistics group [1] under sales tab should be maintained.

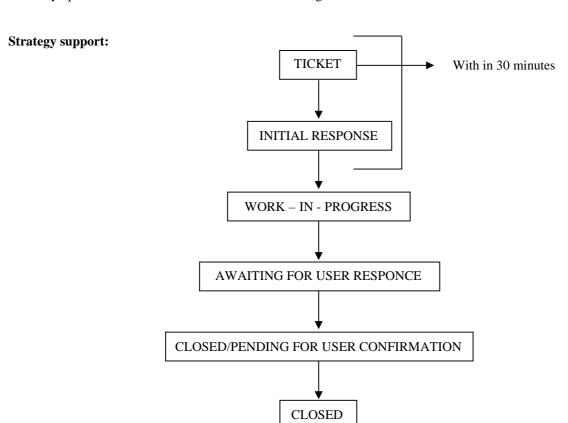
Go to MM02

Make sure that material statistics group [1] under Sales: Sales organization 2 should be maintained.

- ➤ Go to VA01 and raise the sales order
- Save and exit
- ➤ Go to MCS1
- Choose our info structure
- > Maintain the data in the selection screen
- Click on execute icon
- > Save and Exit

Maintenance and Supporting

Ticket: It is a problem, which can be called as issue that are facing by end user. User sends his problems in the form of tickets through mails. Once we received the tickets [Ticket will be pop up/displayed in our desktop] within 30 minutes we have to give the reply to end user to confirm that we have started work on particular issue. It is called as an initial response. After initial response, we have to start work in progress. In the next stage, if we have to do any updations that we have to send to the user through mails.



The next stage we closed the ticket but wails for the user response. Once user sends confirmation, we close the ticket.

NOTE: In some cases project coordinator assigns tickets to the consultants. In some cases functional consultant himself has to assign tickets

Ticket types:

- Problem request tickets
- Enhancement tickets

Tickets priority:

- Critical tickets → Priority 1
- High priority → Priority 2
- Medium priority → Priority 3
- Low priority → Priority 4

Priority	Description	Response time	Resolution time	
1	Emergency: System shutdown or severe restrictions in the production system → Business interruption in any critical function.	100% within 30 minutes	100% within 4 hours	
2	Urgent: Production system is up, but critical business processes are not working and no workaround is available.	100% within 60 minutes	100% within 1 day	
3	High priority [Default]: Production system is up, but Non – Critical business processes are not working or critical business processes are not working but workarounds are available.	100% within 4 business hours	100% within in 2 working days	
4	Medium – Low priority: No disruption to business processes. Required information can be easily obtained through alternative methods.	Under investigation	Under investigation	

Ticket management software:

- Clarify
- Remedy
- Peregrine IBM
- Service center, etc.

Internal mailing system:

- Lotus domino
- IP [Internet Protocol Message], etc.

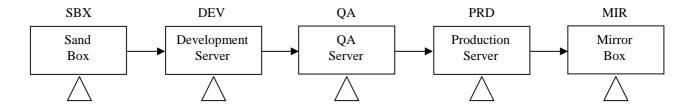
User types:

Core user: Someone with or without good knowledge in SAP.

Super user: Who has lot of authorizations.

SLA = Service Level Agreement: So as to give support the agreement takes place between the client and implementation partner. That agreement is called as Service Level Agreement.

Typical landscape



Types of projects:

- Supporting
- Implementation
- Up gradation
- Maintenance
- Roll outs, etc.

Transportation



15 days of before going to the Go – Live data should be send to the server from the legacy system.

Cut – **Over data:** Stocks, pending vendor payments, block the materials, and sales orders information should be provided to the system. Before 2 days of the Go – Live support this information should be given to the system.

NOTE: If 5th of the month implementation work starts that is called as cut over data.

Go - Live: Go - Live is the day when the client starts his transaction with SAP.

Cut – **over strategy:** Going to the production server ad cutting the legacy system process I percentage wise like 20% of the first day, 30% of the next day and 50% of the other day like that.

Cut – over strategy depends upon the organizations how they design their data and strategy. In general we decide the sequence of the data loads for configuration settings.

Ex: Transactional data, master data, which follows what and then, make the copy of the production system a day before after checking the successful data loads. Then we Go - Live with 100%.

Functional specifications: It is a document that contains day-to-day tools, inputs, and outputs. Client gives inputs to the functional consultants and functional consultants in turn gives outputs.

- BPR = Business Process Review
- KT = Knowledge Transfer

Technical specifications [Specks]

- Technical specks for ABAPers
- Functional specks for functional consultants

Unit testing: It is usually carried out to test multiple objects in single module. Unit testing is done in QA server or some times in development server.

Ex: Pricing, Output, Partner functions, Text, etc. in SD.

Integration testing: It usually carried out between two modules in QA server.

Ex: SD and MM

Test case [UAT= User Acceptance Testing]: Basis people usually refreshes Quality Assurance server which takes place 4 to 10 hours. For every refresh we have a list of transports.

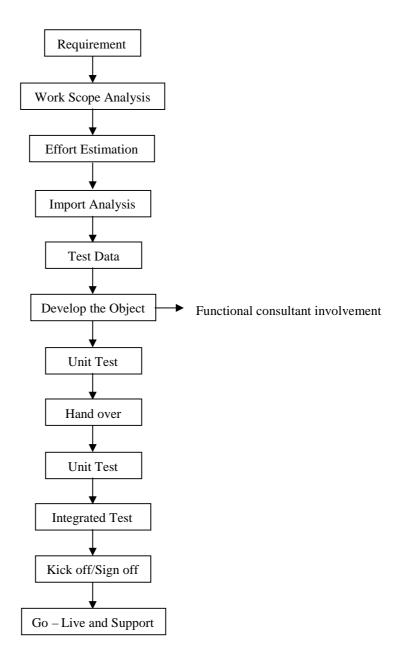
CATT Test System: The **Computer Aided Test Tool** [CATT] can be used to automate test sequences for key business processes. The results are logged in details and then reviewed. CATT is also used for quality tests during release changeovers and for simulating complete business process. System administration testing involves testing the activities of a system administrator, such as managing job scheduling, administering corrections and transports, reacting to R/3 system alerts and logs.

Login into SAP server:

IP address is a number Ex: 128.198.84.79

- Click on logon pad
- Go to the properties
- Specify the description
- > Specify the application server [IP address]
- Specify the system number Ex: 00
- > Then one user will be create

Testing process with Implementation:



Transportation request: It is a 12 digit alphanumeric number

- SE01 to transport the request for business user
- SE10 to transport the request to the server
- Click on create button
 Select customizing request
 Give the short description
- > Save it
 - Select/Place the cursor on the request number
- Then click on add user icon Specify your user name and press ENTER
- Click on release directly

Basis people maintain connections between Development server and Quality Assurance server. In weekend all the requests are send to the production server.

NOTE: Once the customization has been transported to the server that cannot be changed.

ASAP Methodology

Accelerated SAP [ASAP] is SAP's standard implementation methodology. It contains the roadmap, a step-by-step guide that incorporates experience from many years of implementing R/3. The road map defines control points/milestones and also specifies the major deliverables within each milestone. In road map we follo0w the identities the activities within each phase and assign dates to these milestones. At the end of the each phase we come up with deliverables/work packages. At the end of the each phase we perform quality check.

5 phases in ASAP Road Map:

- Project preparation
- Blue print
- Realization
- Final preparation
- Go live and support

Phase 1: Project preparation: In this phase of the ASAP roadmap, decision makers define clear project objectives and an efficient decision making process. We define our project goals and identify scope of project

Scope of the project: Identifying the business process that we want to map into SAP, which modules we are going to use and what functionality we are going to use for each modules. Then we decide whether we are going to go live by big bang implementation or phased implementation, which can be described in EASD [Enterprise Area Scope Development].

- We develop the structure of the project organization and identify the members to be included in the steering committee for the project.
- Assigning the resources to work on the project.
- Identify the proper hardware to be able to support development work on SAP R/3.
- Preparing the development server.
- Planni9ng for giving training for project people.
- Identifying the business and project measurements.
- Establishing standards [For proper documentation, reporting frequency and hierarchy, communication between team members].
- Identifying the persons to give authorization to access OSS note, early watch and going live check.
- Having a assistance from independent party to conduct Audit/Quality checks.
- Developing landscape, that is defining client instance strategy.
- Defining our system upgrade strategy.
- Defining procedures to manage transport requests.
- Organizing kick off meetings in which we declare the structure, roles and responsibilities.
- Perform quality checks and sign off.
- Concept check tool can be used in theses project.

Phase 2: Blue print: It's a document that specifies all requirements of our company within identified scope of the ASAP project.

- Conceptual design phase of the project in which project team defines current business process or the AS IS process first.
- Based on this AS IS business processes, project team develops SHOULD BE processes by using business re – engineering techniques.
- Mainly in this phase where we identify the requirements, perform re engineering and record what our SAP system to deliver.
- In this phase we identify the BASELINE scope.
- In order to determine business requirements we integrate with end users. We use SAP tool that is Q & A database that is generated from the EASD. Q & A database includes issue database where issues relating project can be logged and get the resolutions from project management. By Q & A database we can generate reports.
- When answering the Q & A database we also identify the base line scope [80% of requirements].
- The entire realization phase can be divided baseline scope period, one to four unit test cycles and two integration test cycles.
- We could use two of the four unit test cycles to complete our 20% configurations.

- Based on the transactions that we identify in scope, we can specify which transactions are applicable to which cycle. This input is trigger point for generation of the business process master list [MS Excel file].
- Based on the questions that we entered, team SAP members enter answers in the form of analysis of requirements, and then we can generate business blue print itself.
- Implementing the initial stages of the system landscape and development environment.
- System administration work starts here. So that development environment is ready with necessary logins.
- Finalize the technical design of hardware archi8techture.
- Establishing transport request management and release strategy.
- Remote connection to SAP, installing SAP GUI's.
- Deciding the two/three tire architecture and setting up database and application layers accordingly.
- Establishing SAP clients and their purposes.
- Develop and finalize the training strategy.

Phase 3: Realization: Purpose of this phase is to implement all documented requirements in the business blue print.

- Performing integration testing.
- Getting ready of SAP system to productive operation.
- This phase is subdivided into:
 - (A) Base line phase [Configuration]
 - (B) Final configuration and
 - (C) Integration test

Base line phase [Configuration]: By considering business process transactions identified in the business process master prints, team SAP members perform configuration. While they doing the system configuration, developing necessary programs and interfaces, we can send project members to get the training. In this configuration minor critical processes are implemented in R/3. They demonstrate the functionality of system to team.

Final configuration: In this step team SAP will go back a little bit and allow the project team to complete 20% project.

- The work that is done at base line configuration can be refined in this phase.
- Unit/Cycle tests are developed processes.
- Problems are fixed if they found any errors, before moving to realization phase.
- The business master list contains the lists of transactions that need to be tested and that serve as a guideline for unit tests.
- These two phases can be used to develop customer-designed reports and transactions, test interfaces, test and develop all forms and data conversion programs.
- Developing quality assurance system where all integration tests would be performed.

Integration test: Performing tests on cross module processes or phase processes that involve more than one module of SAP to complete.

Integration test phase 1 constraints on transactions, which involve a data flow from one module to another module.

Integration test phase 2 is to execute back-to-back processes as if the entire process was entirely within one module.

- If any error finds that should be fixed and documented.
- Technical team defines authorizations for end users.
- Functional team creates user specific menus
- Technical team procure/plan for productive environment and archiving strategy also should be defined.
- Identifying the end users and impart training.

Phase 4: Final preparation: This phase is to finalize our entire system configuration and environment, including tests, user training, productive system setup.

- Developing a cut over plan.
- Scheduling the going live check. It is a service provided by SAP in which SAP employed experts logon into SAP and check for factors that could affect system performance by doing test on the scope of the project, and they give advices in a report to improve fine tune system configuration.
- Setting up the helpdesk facility [Single level/Two level].
- Finally start the conversion of data from legacy system to R/3 productive system. This requires downloading the data from legacy to proper format and then uploading the data into R/3. Data can be uploaded by manually or data conversion programmes.

Phase 5: Go live and support: The purpose of this phase is to go productive with production system, dismantle existing system.

• End user starts their transactions in R/3.

Implementation steps: ASAP Methodology – Five phases are considered

Project preparation: Requirements of the project in all aspects.

- Identification of team members
- Developing a high level plan
- Estimation of cost of the project
- Duration of the project

Business blue print:

- To understand the business goals of the company.
- To determine the business requirements needed to support the business goals.
- Formulating the TO BE processes after through review of questionnaires sent to the key users/core users.

Realization:

- Mainly to implement all the business and process requirements based on the business blue print.
- The system is customized step by step in two work packages: Baseline and Final configuration.
- The mapping done on how the system should get configured and tested.

Final preparation:

- Main purpose is to complete testing, end user training, system management and cut over activities.
- Critical open issues should be resolved here.
- Upon successful completion of this phase the business transactions are ready to run in the SAP system.

Go live and Support:

- Transition from a project oriented, pre productive environment to a successful and live productive operation.
- Post implementation support.
- System monitoring and fine-tuning.