Volume

1

CHARMINAR STEEL CASTINGS

As- Is Process Mapped to SAP To- be process

Business Blue Print

BUSINESS BLUE PRINT

A Complete Process Manual For The Configuration of SAP

KIT PVT LTD

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Chapter 1

Finance and Controlling

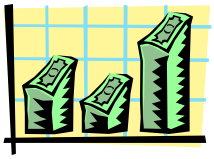
Finance and Controlling is the Key to start the Configuration of an SAP System

Any SAP Implementation starts with the Creation of Company Code which is created by FI Module of SAP. Finance Module is to develop a framework under which, the rest of modules will work. Here in this Chapter we will discuss various parameters in respect to Finance and Controlling that is going to be the guiding principle for the implementation and Functioning of SAP System in Charminar Steel Castings.

FI-AREAS
G/L Accounts
A/C Receivables
A/C Payables
Assets

The Overview

Here in FI And CO we Start Creating Company code, Plants Business Areas which will be followed by Financial Accounting Settings, Creation of General Ledger Accounts, Configuring the Bank Accounts, Mapping the Accounts Receivables and Payables, Listing the Payment Terms, Etc and will Conclude with Controlling Aspects of the Finance. Gaps are identified and measures to fill the gaps are mentioned thereon.



Controlling

Controlling concept is used generally for cost accounting purpose in SAP R/3 System for internal reporting. It also uses sub modules like cost center accounting Cost element accounting Profit Center Accounting Product Costing and internal orders and profitability analysis.

Here in controlling the integration with Production Planning Modules done through assignment of Cost Center to Work center. And also used for planning purposes like COPA (Profitability Analysis).

As Is Vs To Be

As Is Process	To Be Process
(1) Organization Structure	
1.1 Group of Companies. Reddy Group of Companies having Six subsidiaries.	**1.1** In SAP Company can be created with a six-character code. **(REDDYS)** **T Code: OX15**
1.2 Company	
Charminar Steel Casting Limited, Nacharam, Hyderabad.	**1.2** In SAP a four character Company Code can be created. **(CSCL).** **T Code: OX02**
	Company Code is assigned to Company. **T Code: OX16**
1.3 Manufacturing Units	
Charminar Steel Casting Limited consists of two manufacturing units. Domestic Export	**1.3** In SAP Plants can be created with a four-character code. And Are assigned to their Respective Company Codes. **T Code: OX10**
(2) Accounting Process	
2.1 Financial Year	
Company follows April to March as its Financial Year	Fiscal Year variant can be maintained for the Financial Year and assigned to Company Codes. Fiscal Year Variant consists 12 periods starting from April to March. And 4 special periods can be maintained for closing purpose. **T Code: OB29**
	Fiscal year variant can be assigned to Company code. **T Code: OB37**
2.2 Books of Accounts	
Books of Accounts are maintained for the 12 months periods from April to March every year.	In SAP periods can be opened and closed by using posting period variant and assigned to Company Code. Define Variant for open and close period. **T Code: OBBO**
	Open and close periods. **T Code: OB52**
	Assigned to Company Code. **T Code: OBBP**

2.3 Currencies	
Book of accounts are maintained in Indian Rupee (INR). Apart from the Indian Rupee for the purpose of Exports, the Company is dealing with Euro, Singapore Dollars and Indonesian ruphaih.	In SAP we can create and maintain Currency codes. **T Code: OY03**
(3) Accounting Structure	
3.1 Journal Day to day transactions are recorded in journals. Separate journals are maintained for cash, sales daybook, sales returns book, purchases daybook and purchase returns book.	In SAP document types classify transactions. A Document number identifies each journal entry. Document number intervals are assigned to Number range of document types in company code.
	Document types **T Codes: OBA7**
	'Internal Number Ranges' are maintained for Document Numbering.
	Maintain Number ranges. **T Code: FBN1**
(4) General Ledger Accounting	
The 'Account Groups' for creation of GL Accounts:	In SAP a Chart of Accounts can be created which contains list of G/L Accounts. Under the Chart of Accounts, G/L accounts are classified under Account groups. **T Code: OBD4**
Account Groups:	
Liabilities: Share Capital, Reserves & surplus, Secured Loans, Unsecured Loans, Current Liabilities & Provisions;	**Liabilities: -** Share Capital Reserves & Surplus Secured Loans & Unsecured Loans Current Liabilities & Provisions
Assets: Fixed Assets, Investments, Current Assets, Loans & Advances. Liabilities:	**Assets: -** Fixed Assets Investments Current Assets Loans & Advances
Incomes and Expenditure.	
GL account is recognized by description.	GL Master Records G/L Master record is maintained for each General Ledger account. A number recognizes each G/L master. **T Code: FS00**

(5) Voucher Types	
Receipt vouchers for Bank and Cash with one Serial Number. Payment vouchers for Bank and Cash with one Serial Number. Petty Cash Vouchers are used at Plants and also at Head Office with respective Serial Numbers. Journal vouchers. Two types of Sales Invoices are used - one for exports and other for domestic sales. Purchase Invoices with the name of bill passing voucher.	**Internal Number Ranges** are maintained for Document Numbering.
6.Bank Accounting	
Bank A/c's:	In SAP, a House bank can be maintained for each bank account
a) State Bank Of India b) Ing Vysya Bank	a) State Bank Of India b) Ing Vysya Bank
All the Business transactions are carried out through State Bank of India.	Each bank can be treated as a house bank. **T Code: FI12**
All the Administration transactions are carried out through Ing Vysya Bank. Based on the bank statements, the amounts are accounted in the books of accounts.	
Bank reconciliation is done manually at the end of every month.	For Bank reconciliation purpose we can maintain Bank Accounts like main bank a/c, cheques deposit a/c, cheques issue a/c and etc
(7) Cash Management	
Authorized persons maintain cashbooks to record cash Receipts & payments both at the plant and administration Office.	In SAP Cash Journals can be maintained for cashbooks. **T Code: FBCJCO**
(8) Payment Terms	
8.1 Sundry Creditors	
A 60 days credit limit is generally obtained for the Vendor payments. Payment done by cheques to Vendors.	In SAP Terms of Payment are maintained for both customers and vendors are same. **T Code: OBB8**
8.2 Sundry Debtors	
Receipts from customers are also by cheques only. On order the customers pay 30% of the invoice Amount.	

The company allows 30 days of credit limit for the remaining amount.	
If the invoice amount is paid completely the customer is eligible for 2%discount.	
Interest @ 24% will be charged after due date i.e. 30days	
(9) Loan Management	
Interest on Cash Credit Account is credited to the Bank Account on the basis of Bank Statement only. No separate system for calculation of the interest on Cash Credit A/c. On personal loans interest will be settled finally on full repayment	The existing system can be followed by way of GL Postings. In case of Customers / Vendors: The 'Interest calculation' is done by settings made, by assigning an Interest Indicator' to the master records of the customer and vendor accounts for which interest is required to be calculated. **T Code: OB46**
(10) Budgeting System	
A yearly budget is prepared based on the Previous Year Statistics. Later the same is converted into Monthly Budgets on uniform basis. Budget amounts are compared with the Actual amounts under Expenditure, Revenues, Purchases and Sales heads. Cash Flow Statements and Funds Flow Statements are prepared on monthly basis.	
(11) Salaries and Advances	
HR Department prepares the 'Salary Statement' and passes it to the Finance Department.	
Finance department checks and pays the salaries through ING VYSYA (Salary) A/c.	
The finance department handles advance to the employees against salary and in the month end a summary statement will be sent to HR department. Based on that 'Salary Statement' will be prepared after incorporating the proper deductions.	
Each employee is maintained as a separate record in the sub ledger.	

For travel advances, Finance dept gives the advances and accounted against that particular employee as 'Advance against Travel'. After the tour based on actual expenditure, an expenditure entry will be booked and the travel advance is reversed.	
(12) Taxes	
The following taxes are levied / collected wherever applicable	
12.1 Tax on Sales and Purchases	
Excise duty payable / paid. Customs duty payable / paid. Central sales tax payable / paid. Value added tax payable / paid. Cess payable / paid.	In SAP, Account key is created for each Tax. Tax procedure is maintained and assigned to country India. Tax codes are created with the percentage of Taxes. Account keys **T Code: OBCN** Condition types **T Code: OBYZ** Tax procedure **T Code: OBQ3** Assign country to calculation procedure **T Code: OBBG** Calculation method. **T Code: FTXP**
12.2 Withholding Taxes	
As per the Income Tax Act 1961, TDS is deducted on service related payments under the following categories.	In SAP, Withholding Tax types and Withholding Tax codes can be maintained for each category of Withholding Tax.
Salaries 192b Dividends 194 Interest payments 194a Contract payments 194c Rent 194i Professional & Technical fees 194j	We are deducting the withholding tax based on payment types like contract payment, salaries, interest payments, etc….
	We are deducting withholding tax on total amount or down payments which ever is earlier.
	In SAP, Remittance challans can be created. **T Code: J1INCHLN**
	In SAP. Withholding Tax certificate can be created. **T Code: J1INCERT**

(13) Exports	
Export procedures are followed for payment of duty/ exemption of duty/ duty draw back etc.	Not implementing in SAP system.
(14) Sundry Debtors	**(14) Accounts Receivable**
The accounts department is maintaining a debtors ledger which contains customers sub-ledger accounts consisting of regular and one time customers	In SAP, generally customers are created by the Sales department in FI customers are grouped as customer account groups. **T Code: OBD2**
List of customers.	
–Govt.(Defense) -Domestic -Foreign -One Time Customer	For accounting purpose we are creating Customers. **T Code: OBD2**
	An account group can be created for regular customers and one-time customers.
	A customer master record is maintained for each customer.
	Customer master record is recognized by a number from the number range interval and assigned to account group.
	In SAP Billing Document / Invoice can be created. **T Code: VF01**
	In SAP a house bank is maintained for each bank account for receivable purpose.
(15) Sundry Creditors	**(15) Accounts Payable**
The accounts department is maintaining a Creditors ledger, which contains vendor sub-ledger accounts consisting of regular, and one time Vendors.	In SAP, generally Vendors are created by Material Management dept, in FI we only group the similar type of vendors as vendor account groups. **T Code: OBD3**
List of vendors	
–Domestic –One time vendors -Statutory Vendors -Employees	For accounting purpose we are creating Vendors. **T Code: XK01**
	An account group can be created for regular vendors and one-time vendors.
	A vendor master record is maintained for each vendor.

	Vendor master record is recognized by a number from the number range interval and assigned to account group.
	In SAP, advance to parties are done through special GL transactions
	Invoices can be created. **T Code: MIRO**
	House banks are maintained for each Bank and cheque lots can be maintained for outgoing payment to Suppliers by manual as well as automatic payment programs. **T Code: FBZP**
	Automatic Payment Program Run. **T Code: F110**
(16) Reminders	
To follow up the advances paid to the Vendors for Goods, a statement prepared by the Accounts Department is sent to the Purchase Department on periodic basis. The Purchase Department checks the pending Purchase Orders and Deliveries and Bills with the vendor and sends some sort of reminders to the Vendors. To follow up the outstanding amounts from customers the accounts department sends periodic reminders.	To be addressed through 'Dunning'. The SAP System allows using either the automatic dunning program, which duns all overdue items in accordance with selection criteria, or, if required, individual customers or vendors can be dunned. **T Code: FBMP**
	Dunning Program Run. **T Code: F150**
(17) Advances	
Advance to Suppliers, Payments of EMDs / Security Deposits and other Deposits viz., Telephone, Electricity and Bank Guarantees etc.,	Advance to Suppliers, Security deposits and guarantees can be dealt with in SAP as 'Special G/L Transactions'.
The EMD amount is received back on completion of the tender process.	
(18) Forms	
For the exports the relevant records to be maintained after export of material, the proof of export should be submitted to Excise / Customs and also to Bankers to settle/ Claim the Excise Duty Refund / Duty Draw Back claims Submission of	

Documents to the Bankers and realization of Receipts is done as per the requirement.	
(19) Asset Management	
19.1 Asset Accounting	
Asset accounting is utilized for managing companies fixed assets, we can categorize assets and to the said values for depreciation for each fixed asset. Fixed assets having a useful life and are utilized for business process. In the course of process some wear and tear will occur, for that reason we calculate depreciation. An asset management team is sitting in every manufacturing unit and at the corporate office, which is responsible for Asset account maintenance and disclosure in the financial statements as per accounting standard 10 of ICAI	In SAP an asset class can be created for each head. Asset class consists of account determination key, number range and screen layout.
Acquisition of assets	G/L master record is created for each asset class.
Retirement of assets	An asset master is created for each asset. A number recognizes each asset master.
Calculation of depreciation on assets	Asset master: **T Code: AS01**
	Asset classes: **T Code: OAOA**
	Screen layout: **T Code: AO21**
	IN SAP chart of depreciation can be created and assign to company code
19.2 Depreciation Policy	
Depreciation is provided on depreciable assets under section 205(1) of the schedule XIV of companies Act, 1956 Charminar steels follows written down value as per income tax act 1951 and straight line methods as per companies act 1956.	Method of depreciation and Rates of depreciation is provided in depreciation keys.
	Copy reference chart of depreciation T Code: EC08
	Define depreciation areas. **T Code: OADB**
	Depreciation key. **T Code: AFAMA**
	Acquisition from purchase vendor: **T Code: F-90**

Cost Accounting	
(1) Costing	
Cost Accounting provides supporting information to Management for the purpose Planning, Monitoring and Reporting the operations of their Business.	In SAP a controlling area is created for the purpose of cost accounting..
Charminar steel castings limited is maintaining cost accounts for Calculation of Costs for output produced.	Assignment of controlling area to company codes. **T Code: OKKP**
It helps the management to take decision making for cost control and cost reduction Management makes policy decisions for effective and smooth running of business.	Number ranges are maintained for **CO** documents. **T Code: KANK**
(2) Cost Element Structure	
Charminar Steel Casting Limited	
Maintaining costs records in the form cost elements.	Cost element can created. **T Code: KA01**
Cost elements are classified into: Direct material, direct labor, direct expenses and overheads	**T Code: OKP2**
	Cost element category can be created. **T Code: OKA2**
(3) Overheads	
Distribution of Overheads. It Involves Three Stages	In SAP over heads can be distributed/apportioned or absorbed by using assessment cycles **T Code: KSU1**
Collection and Classification of Overheads Departmentalization of Overheads: Allocation / Apportionment of Overheads Absorption of Overheads	
(4) Cost Center Structure	
Cost Center is an area for which cost is to be ascertained for the purpose of Cost Control and Cost Analysis. An area may be a Location or Persons or Group of Persons or any Allocated Units	In SAP Cost centers can be created in controlling area. **T Code: KS01**
4.1 Cost Centers	
Charminar Steel Castings Limited is maintaining cost accounts for Cost Centers	
Maintaining Cost centers for collection and distribution of costs	**LISTED SEPERATLY**
Cost centers are classified into Production Cost Centers and Service Cost centers.	

Cost Centers and Service Cost centers.	
(5) Product Cost	
It provides to Management the ability to analyze their Product Cost and to make Decisions on the Optimal Price to market their products. The result arrived in product costing helps the Management to fix the Pricing flows and to Optimize Cost of Goods Manufactured and Cost of Goods Sold.	**LISTED SEPERATLY**

Information Systems	
Reports	
Financial Accounting	
External	
Profit and loss account for yearly, half yearly and quarterly basis	
Balance sheet	In SAP these are standard reports available. For Balance sheet and profit & loss statement. **T Code: S_ALR_87012284**
Cash flow statement	Cash flow statement. **T Code: S_ALR_87012271**
Funds flow statement	
Remittance challans	Remittance challans. **T Code: J1INCHLN**
With holding tax certificates	With holding tax certificates. **T Code: J1INCERT**
Reminder notice to customer for over due items	Dunning Notices
Reminder notice to vendors for settlement of advances	Dunning Notices
Internal	
Weekly, fortnight, monthly, quarterly, half-yearly, and yearly sales reports	**T Code: S_ALR_87012186**
Over due items from customer statements.	**T Code: S_ALR_87012168**
Outstanding payments to accounts payable statement	**T Code: S_ALR_87012084**
Cost Accounting	
Reconciliation Statement of Financial Accounting with Cost Accounting	In SAP standard reports are available for all the reports mentioned in AS IS.
Cost Sheet	
Production Statement	
Cost Element allocation to Cost Objects report	
Cost Center Actual/Actual, Plan/ Actual Comparison, period comparison Reports	
Variance Analysis reports	
Allocation of OH Summary	
Absorption of OH Summary.	

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1.INTRODUCTION

Charminar Steel Castings Ltd. is one of the Leading Manufacturer of Investment Steel Castings to diversified sectors like automobile, surgical, defense etc, with Quality and Design as the core competence, charminar enjoys high degree of confidence among the clients in various parts of the world.

We have two units both located in Hyderabad one each for domestic orders and other for export orders. Administered centrally from Balaji Bhavan Hyderabad, plant has its separate manager who will report directly to the executive director of operations. The company has a strong marketing network in Southeast Asia, Europe along with Domestic network in India. The total turnover for the company for the financial year 2006-07 is 200 crores with a growth rate of 20%. The company's objective is to cross 500crores by 2010-2011.The company has been awarded ISO 9001:2000 and AD2000 for its quality management systems.

2.ENTERPRISE STRUCTURE

2.1 Company

Reddy Group of Companies having six company codes.

A Company is created with a six-digit character code with the information of address, language, currency and country. The Company is used for the consolidation of financial results of the companies within the group.

Company – REDDYS

T Code: OX15

2.2 Company Code

A four character Company Code is created.

Company Code – CSCL **T Code: OX02**

Company code is assigned to company.

T Code:OX16.

2.3 Plant

Charminar Steel Castings Limited consists for two Manufacturing units.

Plants are created with four-character code.

Domestic plant code – **"CSDP"**

Export Plant code – **"CSEP"**

Transactioncode:OX10

Plants are assigned to Company code.

T Code:OX18

2.4 Business Areas

Charminar Steel Casting Limited having 4 Market segments.

- North - BANO
- East - BAET
- West - BAWT
- South - BASO
- Export - BAEX

These business areas are created for internal reporting purpose

T Code:OX03

3. Financial Accounting Global Settings

3.1 Fiscal Year Variant

Books of Accounts are maintained by the Company with Financial year April to March. Fiscal Year variant is maintained for the Financial Year.

Fiscal Year Variant - CS

Fiscal Year Variant

T Code: OB29

Fiscal Year Variant consists 12 periods starting from April to March.
4 special periods can be maintained for closing purpose.
Fiscal Year variant **CS** is assigned to Company Code.

T Code: OB37

3.2 Posting period variant

In every financial yearbooks are opened on 1st April and closed on 31st March. Books are closed in every month and balances are carried forward to next month.
So, Posting period variant is created. **Posting Period Variant CSCL** is used.

T Code: OBBO

Posting period variant is assigned to Company Code.

T Code: OBBP

3.3 Open posting periods

Periods are opened for the fiscal year through the posting period variant.

T Code: OB52

3.4 Field Status Variant

Field Status Variant is copies from standard SAP with 47 field status groups.
Field Status group defines the status of the fields while making posting to the GL accounts.

Field status variant –CSCL

T Code: OBC4

Field Status variant is assigned to Company Code.

T Code: OBC5

3.5 Tolerance Groups

Tolerance group for GL Account is created in each Company Code. In Tolerance groups the permissible amounts for accounts and for line items are specified

T Code: OBA0

Tolerance group for employees is created in each Company Code.
This group defines different amount limits for your employees. It determines:

The maximum amount for which an employee is permitted to post a document. The maximum line item amount an employee is permitted to enter in a customer, vendor or general ledger account.

The percentage amount related to cash discount.
The maximum permitted payment differences.

T Code: OBA4

Tolerance group for (vendor / customer) is created for each company code. In the tolerance group limits for vendor / customer payment differences are defined. The tolerance group determines:

Limits to which differences in payments are posted automatically to expense or revenue accounts when clearing open items.
Terms of payments are used for settle the invoices.

T Code: OBA3

4. DOCUMENTS

4.1 Document Types

Every transaction is recorded in Journal at the first and separate journals are maintained for cash, sales daybook, sales returns, and purchase daybook, purchase returns.

Standard SAP Document Types are used to classify the transactions.

Document number intervals are maintained for each document type. From this number interval, system picks and assigns a number to each transaction in SA.

Doc.type	Description	No. Range	No. Intervals From	To
SA	GL account document	01	100000	199999
AA	Asset accounting document	01		
AB	Reversed clearing document	01		
DR	Customer invoice	18	200000	299999
KR	Vendor invoice	19	300000	399999
DZ	Incoming payment	14	400000	499999
KZ	Outgoing payment	15	500000	599999
DG	Customer memos	16	600000	699999
DA	Reversal/Clearing Doc. of customers	16		
KG	Vendor memo	17	700000	799999
KA	Reversal/Clearing Doc. Of vendor	17		
AF	Depreciation posting	04	800000	899999

4.1 Document type

T Code:OBA7

4.2 Document number range interval

Number intervals

T Code: FBN1

4.3 Posting Keys

Standard posting keys defined in SAP are used.

T Code: OB41

5. General Ledger Accounting

5.1 Chart of Account:

Chart of Account Consists list of GL accounts

Chart of accounts defines the language, length of GL accounts and its helps to integration with Controlling.

Chart of Account: CSCL

T Code:OB13

Chart of accounts CSCL is assigned to Company Code.

T Code:OB62

5.2 Account Groups

- General ledger accounts are maintained under various heads like Capital, Liabilities, Assets, Income, Expenditure, Creditors and Debtors ledger
- List of General Ledger Accounts, Account Groups and Document Posting
- Same List of General Ledger Accounts is used for each company.
- Account groups and number ranges to be created based on the nature of account
- GL Account numbers shall be externally assigned.
- Field status groups shall be created for controlling transaction processing.
- Reconciliation accounts shall be identified.
- Open items accounts shall be identified.
- Accounts where line items display is required shall be identified.
- Cost elements for P&L accounts shall be created in controlling module.
- GL account is recognized by description and Number Range.
- The 'Account Groups' for creation of GL Accounts:
- The 'Account Group' is a summary of characteristics that control the creation of master records. The following are the Account groups.

Assets: Fixed Assets, Investments, Current Assets, Loans & Advances.

Liabilities: Share Capital, Reserves & surplus, Secured Loans, Unsecured Loans, Current Liabilities & Provisions;

Incomes

Expenditure.

T Code:OBD4

The following account groups are created for the Chart of Accounts **CSCL**

COA	Acc. Group	Description	From Account	To Account
CSCL	SC10	Share Capital	100000	100199
CSCL	RS11	Reserves & Surplus	100200	119999
CSCL	SU12	Secured and Unsecured Loans	120000	149999
CSCL	CL15	Current Liabilities & Provisions	150000	199999
CSCL	FA20	Fixed Assets	200000	209999
CSCL	IN21	Investments	210000	219999
CSCL	CA22	Current Assets	220000	289999
CSCL	LA29	Loans & Advances	290000	299999
CSCL	IC30	Incomes	300000	399999
CSCL	EX40	Expenses	400000	499999

T Code:OBD4

5.3 Retained earnings

One retained earnings account is created with GL account 110000 and P&L statement account type X.

T Code:OB53

5.4 GL Master Records

G/L Master record is maintained for each General Ledger account.
Each G/L master record is recognized by a number and text
GL master record consists of two segments chart of account segment and company code segment.

T Code: FS00, OBY7, OBY2.

6. BANK ACCOUNTING

6.1 House Bank

In SAP, a House bank can be maintained for each bank account.

T Code: FI12, FCHI.

House bank of a company code is denoted as banks ID every account specifies by an account ID in the SAP system.
In the SAP system, use the bank ID and the account ID to specify bank details. These specifications are used to determine the bank details for payment.

Bankers: CSCL dealing with SBI, ING VYSYA BANK.

One House bank is created for each bank account.

Co. code	House bank	Bank Key	Description	Bank Ac. No	GL account
CSCL	SBI	SBICSCL	SBI Bank	123456789	221000
CSCL	IVY	IVYCSCL	IVY Bank	123456789	222000

T Code: FI12

6.2 Cash Journal

The cash journal is a sub ledger of Bank Accounting. It is used to manage record the cash receipts and payments. The Company would be maintaining two Cash Books, One is for the Main Cash and other is for Petty Cash Book.

By setting the cash balance at the beginning of the day, the cash journal shows the cash balance at any time by adding the cash receipts and deducting the cash payments. The cash journal also serves as a basis for entries in the general ledger and thereby represents the "Cash" G/L account.

Settings for Cash journal

GL account for Cash journal – 210000
Document type for Cash journal – **SA** (General Accounting Document)
Number Range Intervals-01: 1 – 999999 **T Code: FBCJC1**
Set up Cash Journal **T Code: FBCJC0**
Create Bank transactions **T Code: FBCJC2**
Set up print parameters **T Code: FBCJC3**
Postings to cash journal is made through **T Code: FBCJ**

7. ACCOUNTS RECEIVABLE

The Accounts Receivable application component records and manages accounting data of all customers. It is also an integral part of sales management. All postings in Accounts Receivable are also recorded directly in the General Ledger.

7.1 Credit Control Area

Credit Control Area is responsible for granting and monitoring credit to the customers.

Credit Control Area Code – CSCL

Maintain credit control area

T Code: OB45

Company Code CSCL is assigned to credit control area CSCL.
Assign credit control area to company code.

T Code: OB38

7.2 Sales Areas

7.3Customer Account Groups

Customer Account Groups

Account Group	Description
CSGC	Govt. (Defence) Customers
CSDC	Domestic Customers
CSFC	Foreign Customers
CSOT	One time Customers

T Code: OBD2

Number range for customer account groups

Account group	Number range	Number interval	
		From	To
CSGC	GC	10000	19999
CSDC	DC	20000	29999
CSFC	FC	30000	39999
CSOT	OT	40000	49999

T Code: XDN1

Number ranges are assigned to customer account groups.

T Code: OBAR

7.4 Customer Master Records

Customer master record is maintained for each customer. Each customer master record is recognized by number.

Customer Masters: Customer Master record consists of three segments, general data, company code data and sales area data

T Code: FD01, XD01

7.5 Customer Billing

Customer billing is done through the following steps:

Sales order

T Code: VA01

Outbound Delivery

T Code: VL01N

Billing a Document

T Code: VF01

7.6 Customer Payments

Payments are accepted from customers through Cheque, Bills Receivable and Cash.

Document type – **DZ** is used to make payments.

Incoming payments are made through cheques.

T Code: F-28

7.7 Special GL transactions

Advances from customers are treated as Special GL transactions

F – Down payment request

A – Down payments

T Code: OBXR

8. ACCOUNTS PAYABLE

The Accounts Payable application component records and manages accounting data for all vendors. It is also an integral part of the purchasing system: Deliveries and invoices are managed according to vendors.

8.1 Purchase organization

8.2 Vendor Account Groups

Vendor Account Groups

Account Group	Description
CSDV	Domestic Vendors
CSEV	Employees
CSOV	One time Vendors
CSSV	Statutory Vendors

T Code:OBD3

Number range for vendor account groups

Account group	Number range	Number interval	
		From	To
CSDV	DV	50000	59999
CSEV	EV	70000	79999
CSOV	OV	80000	89999
CSSV	SV	90000	99999

T Code: XKN1

Number ranges are assigned to vendor account groups.

T Code: OBAS

8.3 Vendor Master Records

A Vendor master record is maintained for each Vendor. Each Vendor master record is recognized by number.

Vendor Masters: Vendor Master record consists of three segments, general data, company code data and purchasing data.

T Code: FK01, XK01

8.4 Invoicing

Invoicing is done through the following steps:

Purchase order

T Code: ME21N

Goods receipt

T Code: MIGO

Invoice verification

T Code: MIRO

8.5 Invoice clearing

Invoices are cleared through cheques, Bills Payable and Cash.

Payment method – C (Cheque payment)

Document type – KZ

T Code: F-53

8.6 Special GL Transactions

Advances made to vendors are treated as Special GL transactions

Special GL indicators

F – Down payment request

A – Down payments

G – Bank guarantees

T Code: OBYR

8.7 Automatic Payment Program

Steps involved in APP:

1. All Company Codes for payment transactions
2. Paying Company Codes
3. Payment methods in Country
4. Payment methods in Company Code
5. Bank Determination
6. House Banks

T Code: FBZP

9. TERMS OF PAYMENTS

9.1 Sundry Creditors

A 60 days credit limit is generally obtained for the Vendor payments.
Payment is done by cheques to Vendors.

9.2 Sundry Debtors

Customer's payments received by cheques only.
On order the customers pay 30% of the invoice Amount in Advance.
The company allows 30 days of credit limit for the remaining amount.
If the invoice amount is paid completely in advance, the customer is eligible for 2%discount.

Terms of payment

1. 0001 Payable Immediately
2. CSCL 30 Days credit

T Code: OBB8

Payment Terms for installments

3. CSCI Installment Payments

T Code:OBB9

10. INTEREST SETTINGS

Interest Calculation: As per the Company Policy, interest is calculated @ 24% p.a. on the balance overdue. Company has taken working capital loans from their bankers for which they are paying interest @ 14% p.a.

Account balance interest or Interest on arrears can be calculated on customer as well as vendor accounts Balance interest calculates interest on balance amounts periodically where as Item interest calculates interest for the overdue or delayed days of payments.

Standard Interest Calculation Types available

P: Item Interest
S: Balance Interest
Z: Penal Interest

Interest Indicators

CB: Balance Interest Indicator
CI: Item Interest Indicator

T Code: OB46

Reference Interest rates

CSC1: Reference Interest @ 24%
CSC2: Reference Interest @ 14%

T Code: OBAC

Time based terms

CB: Term – Debit Interest: Balance Interest calculation
CB: Term – Credit Interest: Balance Interest calculation
CI: Term – Debit Interest: Arrears Interest calculation
CI: Term – Credit Interest: Arrears Interest calculation

T Code: OB81

11. REMINDERS

11.1 Dunning Procedure

The dunning procedure determines how business partners can be dunned. It contains the number of dunning levels, dunning frequency, minimum amounts and dunning activities.

Dunning Level indicates how often an item or an account has been dunned and describes the steps to be maintained for a dunning procedure. Dunning levels control the dunning process.

Dunning Area is an organizational unit within a company code from which dunning is conducted. The dunning procedure is controlled and the dunning notices are sent separately per dunning area.
A dunning area can represent the following:

Business Area
Sales Organization
Distribution Channel
Division

11.2 Dunning Notices

Weekly reminders are sent to customers with regard to overdue more than Rs.30000/-.
Fortnightly reminders are sent to customers with regard to overdue less than Rs.30000/-.
Yearly once Balance confirmation statement is sent to vendors Dunning charges will be charged.
Interest notice send to the customers on overdue

Dunning procedure: CSCL
Dunning Interval in days: 7
Dunning levels: 4
Minimum amount for dunning: INR 30000
Dunning charges: INR 100 to 500

T Code: FBMP

12. TAXATION

12.1 Taxes on Sales & Purchases

The following are the Taxes, which the company is paying on Sales and Purchases

Sales: Output Tax: Excise duty payable,
Customs Duty payable,
Cess payable,
SH Cess payable,
VAT payable,
CST payable,

Purchases: Input Tax: Excise duty paid,
Customs Duty Paid,
Cess paid,
VAT paid,
CST paid.

Tax on sales and purchases are procedure-based taxation in FI component.

Condition Types:

Condition Types	Description
CS01	Excise Duty Paid
CS02	Education Cess Paid
CS03	SH Education Cess Paid
CS04	VAT Paid
CS05	CST Paid
CS06	Customs Duty Paid
CL01	Excise Duty Payable
CL02	Education Cess Payable
CL03	SH Education Cess Payable
CL04	VAT Payable
CL05	CST Payable
CL06	Customs Duty Payable

Note: CS – Input Tax, CL – Output Tax **T Code: OBQ1**

Account Keys:

A/c Key	Description	Type	Not Deductible	Posting Indicator
CS1	Excise Duty Paid	Input Tax		2
CS2	Education Cess Paid	Input Tax		2
CS3	SH Education Cess Paid	Input Tax		2
CS4	VAT Paid	Input Tax		2
CS5	CST Paid	Input Tax		2
CS6	Customs Duty Paid	Input Tax		2
CL1	Excise Duty Payable	Output Tax		2
CL2	Education Cess Payable	Output Tax		2
CL3	SH Education Cess Payable	Output Tax		2
CL4	VAT Payable	Output Tax		2
CL5	CST Payable	Output Tax		2
CL6	Customs Duty Payable	Output Tax		2

NOTE: - 2 - Separate line item.
3 - Distribute to relevant expense / revenue item. T Code: OBCN

Tax Procedure:

A calculation procedure is defined for each country INDIA, containing the specifications required to calculate and post tax on sales/purchases. Calculation procedure contains tax types, which are called condition types in the procedure.

The system defaults condition types when you define a tax code. The condition type (such as input or output tax) specifies the base amount on which the tax is calculated and the account key that is used to post the tax. The specifications necessary for calculating and posting tax have been defined for the condition type and account key.

Tax Procedure – CSCL

Step	Condition Type	Description	From	To	Account Key
10	BASB				
100	CS01	Excise Duty Paid –Input Tax	10		CS1
110	CS02	Education Cess Paid- Input Tax	100	100	CS2
120	CS03	SH Education Cess Paid- Input Tax	100	100	CS3
130	CS04	VAT paid-Input Tax	10	120	CS4
140	CS05	CST Paid –Input Tax	10	120	CS5
150	CS06	Customs Duty Paid- Input Tax	10		CS6
200	CL01	Excise Duty Payable-Output	10		CL1
210	CL02	Education Cess Payable-Output Tax	200	200	CL2
220	CL03	SH E Cess Payable-Output Tax	200	200	CL3
230	CL04	VAT Payable-Output Tax	10	220	CL4
240	CL05	CST Payable – Output Tax	10	220	CL5
250	CL06	Customs Duty Payable – Output Tax	10		CL6

T Code: OBQ3.

Tax procedure **CSCL** is assigned to country India.

T Code: OBBG

Tax Codes

The tax code represents a tax category, which must be taken into consideration when making a tax return to the tax authorities. Tax codes are unique per country.
The tax rate calculation rules and further features are stored in a table for each tax code.

Tax Code	Description	Tax Type
I0	Input Tax Exempted	V
I1	Customs Duty	V
I2	Excise + Cess + VAT	V
I3	Excise + Cess + CST	V
I4	Customs + Excise + Cess	V
O0	Output Tax Exempted	A
O1	Customs Duty	A
O2	Excise + Cess + VAT	A
O3	Excise + Cess + CST	A
O4	Customs + Excise + Cess	A

Maintain tax codes **T Code: FTXP**

Rates of Tax

Tax	Rate of Tax (Percentage)
Customs Duty	8
Excise Duty	16
Education Cess	2
SH Education Cess	1
VAT	12.5
CST	3

12.2 Withholding Tax

As per the Income Tax Act 1961, TDS is deducted on service related payments under the following categories.

Salaries,
Dividends,
Interest payments,
Contract payments,
Rent,
Professional & Technical fees

Quarterly Returns are submitted to the Tax Department

At the Year End, TDS certificates are issued to the concerned parties from whom the TDS is made.

When customer makes TDS, it is not accounted until receipt of certificate. Up to that time it is shown as outstanding against certificate.

In the year-end TDS certificates are obtained from the customers.
Withholding Tax types and Withholding Tax codes are maintained for each category of Withholding Tax.
Withholding tax types

01: TDS on Payment posting
02: Surcharge on TDS
03: Cess on TDS
04: Higher Education Cess on TDS
05: Cess on Surcharge
06: Higher Education Cess on Surcharge

Withholding tax codes
Remittance challans are created in

T Code: J1INCHLN

Withholding Tax certificates are created in
T Code: J1INCERT

12.ASSET ACCOUNTING

Asset Accounting is utilized for managing companies fixed assets, we can categorize assets and to the said values for depreciation for each fixed asset. Fixed Asset having a useful life and are utilized for business process. In the course of process some wear & tear will occur, for that reason we calculate depreciation. An Asset Management Team is sitting in every Manufacturing Unit and at the Corporate Office, which is responsible for

→ Asset Account Maintenance and Disclosure in the Financial Statements as per Accounting Standard 10 of ICAI
→ Acquisition of assets
→ Retirement of assets
→ Calculation of Depreciation on assets

Charts of depreciation

A chart of depreciation is used in order to manage various legal requirements for the depreciation and valuation of assets.

Chart of Depreciation code: CSCL

T Code: EC08

Depreciation areas: **Book depreciation**

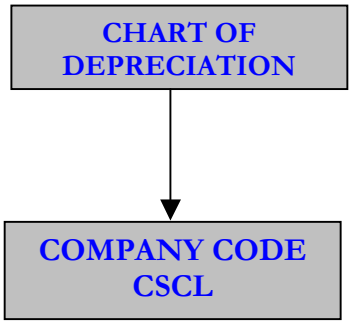


Chart of depreciation CSCL is used for company code CSCL to country India

T Code: OAOB

Tax codes to assigned to non-taxable transactions

Input Tax: I0 – **exempted**
Output Tax: O0 – **exempted**

Assets are grouped under the following heads
Plant and Machinery, land and Buildings, Furniture and fixtures and Vehicles.

12.1 Asset Classes

Asset classes are used to structure fixed assets. Asset classes are applied to all Company Codes. Asset classes provide default values for all asset master records.

Asset classes consists of account determination, screen layouts and number ranges.

Account Determination

GL accounts for acquisition, retirement, profit or loss on sale of assets, accumulated depreciation; depreciation and special reserve are specified in account determination.

Account Determination number	Description
200000	Land & Buildings
201000	Plant & Machinery
202000	Vehicles
203000	Furniture & Fixtures
204000	Low Value Assets
205000	Asset Under Construction

Number interval for asset numbers in asset class.

Number range	From	To
01	10000	19999
02	20000	29999
03	30000	39999
04	40000	49999
05	50000	59999
06	60000	69999

T Code: AS08

Asset class

Asset Class	Description	Account Determination	Screen layout	Number Range
200000	Land & Buildings	200000	1100	01
201000	Plant & Machinery	201000	2000	02
202000	Vehicles	202000	3100	03
203000	Furniture & Fixtures	203000	3000	04
204000	Low Value Assets	204000	3300	05
205000	Asset Under Const	205000	4000	06

12.2 Depreciation Keys

Depreciation method – The Company follows Written down value method for depreciation Rates of depreciation

Company is following the Depreciation rates prescribed by Schedule 14 of the Companies Act 1956.

For each rate of depreciation, a Depreciation Key is maintained.

T Code: AFAMA

13. INFORMATION SYSTEM

Standard Reports

13.1 External Reports

Report	Standard Report
Profit and loss account for year	S_ALR_87012284
Profit and loss account half yearly or quarterly	
Balance sheet actual / actual year	
Cash flow statement	S_ALR_87012271

13.2 Internal Reports

Report	Standard Report
Weekly, fortnight, monthly, quarter- year, half-yearly, yearly Sales reports	S_ALR_87012186
Over due items from customers statement	S_ALR_87012168
Outstanding payments to accounts payable statements	S_ALR_87012084

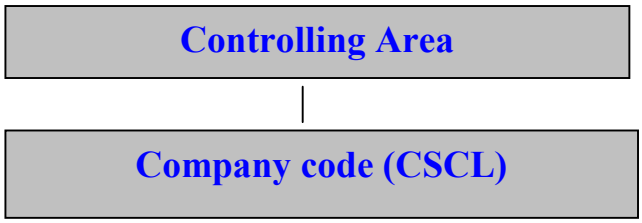
14. CONTROLLING

Controlling (CO) module is one of the integral components of standard SAP R/3 system. Controlling module provides information to the organization in decision-making. It facilitates coordination, monitoring and optimization of all processes in an organization

CSCL is maintaining cost accounts for the purpose of controlling costs in manufacturing units

Controlling Area represents a closed system used for cost accounting purposes.

T Code: OKKP



Company code CSCL is assigned to Controlling Area CSCL

Components are activated in the Controlling Areas

Number intervals for controlling areas are maintained at

T Code: KANK.

Versions
Version 0 (Plan / Actual Version) is maintained for controlling areas.

Cost Element Accounting: This process takes care of integrating FI GL accounts with CO. Through cost element accounting, an enterprise can get complete information on what costs are

incurred within the enterprise. Maintenance of Cost Element accounting of the enterprise is for the preparation of internal reporting.

Cost Center Accounting: This functionality enables an enterprise to get information on where costs are incurred. It provides supporting data for management decision making to check/control the costs of individual functional areas (cost centers). This requires that all costs be assigned according to their source. However, source-related assignment is especially difficult for overhead costs. Cost Center Accounting lets you analyze the overhead costs according to where they were incurred within the organization.

Internal Orders: Internal orders are used to plan, collect, and settle the costs of internal jobs and tasks. The SAP system enables you to monitor your internal orders throughout their entire life cycle; from initial creation, through the planning and posting of all the actual costs, to the final settlement. Internal order is also a powerful tool to collect expenses posted in FI to suitably segregate through creation and deployment of statistical orders.

Product Cost Controlling: This part of CO enables determination of:
Cost of goods manufactured
WIP calculation
Variance Analysis and
Inventory Valuation (at actual cost with the activation of Material Ledger and Actual Costing)

Profitability Analysis: This functionality of CO enables an enterprise to get profitability related information that is critical and useful for Sales & Marketing strategic decisions. The functionality uses critical Sales & Marketing related characteristics (such as Sales order, customer, division, sales organization) mapped as profitability segment and value figures are captured for profitability analysis. These in turn provide input for strategic decisions relating to product mix, regional focus, specific customer care etc. Operating concern is the organizational unit created for profitability analysis.

Profit Center Accounting: Profit centers are another organizational units in CO similar to cost centers. The objectives of creation of profit centers are of two fold:
To enable transfer price mechanism within organization between two profit centers
To evaluate performance of profit centers based on ROI, where the numerator is costing based profits earned by profit center and the denominator is investment in the profit center (fixed assets and current assets are values are derived from these assets assigned to cost centers, which are in turn assigned to profit centers) overhead costs. Cost Center Accounting lets you analyze the overhead costs according to where they were incurred within the organization.

14.1 Cost Element Accounting- Cost Elements-Master Data:

CSCL expects cost accounting records should be updated automatically when the corresponding financial documents are posted in Financial Accounting to know what costs incurred within organization.

General Explanations: Cost and revenue elements describe the origin of costs, revenues. Cost elements are defined as either primary cost elements or secondary cost elements.

Primary cost elements in Controlling are created with reference to corresponding expense or revenue accounts in Financial Accounting. It is a prerequisite to create relevant general ledger accounts in FI, in order to create corresponding primary cost elements in CO. Examples for primary cost elements are material costs, salary costs. To be able to post to a primary cost element, you require cost carrying object such cost center or internal order etc. to identify the origin of the cost.

T Code: KA01; OKB2

Secondary cost elements are used exclusively in CO to record internal value flows like assessments, activity allocations and settlements. Secondary cost elements can be created only in Controlling and they do not have any corresponding general ledger accounts in FI.

T Code: KA06

When you create a cost element, you must assign a cost element category. This assignment determines the transactions for which you can use the cost element. CSCL uses primary cost elements based on requirements under the following categories:

Primary costs/cost reducing revenues,
Accrual/deferral per surcharge,
Accrual/deferral per debit = actual,
Revenues,
Sales deductions and
External settlement

Similarly you can define secondary cost elements under the following categories:

Internal Settlement,
Overheads,
Internal activity allocation
Order/project results analysis,
Assessment and Distributions,

Cost Element Groups are created to group together the cost elements of similar kind of nature to process the cost elements collectively in cost center planning, assessment etc. Cost element groups are also useful in deriving information regarding group wise totals.

A new secondary cost element should be created when ever a new assessment or activity allocation or settlement are created for existing/ new controlling objects like cost center, internal order etc. A corresponding primary cost element should be created whenever a new expense/revenue account in general ledger accounts is created.

14.2 Cost Center Accounting- Cost Center-Master Data

CSCL expects to compare actual operating results (cost / revenue) with the planned cost / revenue and identify the variance that serve as signals to take corrective measures at cost center level, by updating cost center records automatically on online real time basis when ever corresponding business transaction takes place.

General Explanations:

Cost centers are locations at which costs are incurred or revenues are generated. Cost centers are designed based on functional requirements, activities provided and areas of responsibility. In CSCL, cost centers are created according to the cost center categories of Management, Production, Administration, Other Services, Sales and Distribution, Personnel and Purchases.

For over head cost controlling, cost centers are of similar type are grouped in to Cost Center Groups, for instance, Inventory Management, Information Systems, Accounting etc., to process the group of cost centers together in cost center planning, assessment, information system to generate reports.

A new cost center should be created whenever there is a need for CSCL to further classify the originations of the costs for controlling purposes.

T Code: KSH1

Standard Cost Center Categories are used for

1: Production	7: Service Cost Center
5: Management	Cost center categories
8: Purchasing	7: Personnel
3: Sales	4: Administration

Cost Center Groups

Cost Center Groups are created to classify the Cost Centers

Cost Center Structure – CSCL Groups

Under this group, Cost Centers are grouped into the following heads

0000	Management	1000	Production
2000	Administration	3000	Purchasing (M&m)
4000	Sales & Distribution	5000	Other Services

T Code: KSH1

Cost Centers: CSCL

Cost Center	Description		CC Category	Hierarchy
STEELMNGT	Management		5	0000
STEELPROD	Production		1	1000
STEELPD&D		DES&DEV	1	1000
STEELPWAX		WAXING	1	1000
STEELPASM		ASSEMBLY	1	1000
STEELPPRC		PRE COAT	1	1000
STEELPSHB		SHELBLDG	1	1000
STEELPDWX		DEWAX	1	1000
STEELPSSK		SHELSOAK	1	1000
STEELPMLT		MELTING	1	1000
STEELPFTL		FETTLING	1	1000
STEELPHET		HEATTRTM	1	1000
STEELPFNG		FINISHING	1	1000
STEELSADM	Administration		4	2000
STEELSPUR	Purchasing		8	3000
STEELSSND	Sales & Distribution		3	4000
STEELSOSR	OTHERSERVICES		7	5000
STEELSPER		Personnel	7	5000
STEELSPWR		Power	7	5000
STEELSDSL		Diesel	7	5000
STEELSRNT		Rent	7	5000
STEELSR&M		Repairs & Maintenance	7	5000
STEELSQAS		QUATYASS	7	5000
STEELSPKG		PACKING	7	5000
STEELSDSP		DISPATCH	7	5000

T Code: KS01

Cost Center Accounting-Master Data-Statistical Key Figures

CSCL desires to distribute the expenses of service and administrative cost centers expenses on a logical basis to other cost centers.

General Explanations

Statistical key figures serves as tracing factors for periodic transactions such as assessment to allocate the costs from non-production cost centers to production cost centers. Statistical Key Figures are defined such as power consumption units, telephone units etc., for the purpose of allocation of power costs, communication costs respectively to the consumption cost centers.

Statistical key figures can be defined as fixed value or as a total value. The fixed value is carried over from the period in which it is entered to all subsequent periods of the same fiscal

year. You need to enter a new posting only if the value changes. The total value posts the value only in the period, which it was entered. This means that if the statistical key figure is a total value, it has to be entered for each period.

Statistical Key Figures

Statistical Key Fig	Description	Units	Category
1000	Number of Employees	Each	Fixed
2000	Area Occupied	FT2	Fixed
3000	Power	KW	Total
4000	Repairing Hours	Hours	Total
5000	Admin Hours	Hours	Total
6000	Asset Value	Each	Fixed
7000	Purchase Order	Unit	Total

T Code: KK01

Cost Center Accounting-Master Data-Activity Types

There is a need for CSCL to allocate proportionate cost of a (production) cost center to a production order on logical basis such as machine hour rate or labor hour rate etc. for each of production order on online real time basis using SAP functionalities.

General Explanations:

Activity Types categorize production and service activities provided by a cost center to the organization and used for allocating costs of internal activities to the respective production departments, for example, in CSCL, activity types are defined in such a way that all activity types should be measured in terms of quantity and value.

T Code: KL01

Activity Types of **CSCL**

ACTIVITY TYPE	DESCRIPTION	ACTIVITY UNITS
500000	MACHINE HOURS	HOURS
501000	LABOUR HOURS	HOURS
502000	SET UP HOURS	HOURS
503000	PROCESS HOURS	HOURS
504000	TESTING HOURS	HOURS
505000	PRODUCTION HOURS	UNITS

Activity types are classified into two categories namely, direct activity allocation and indirect activity allocation.

Direct activity allocation: is used to allocate the production process costs directly to the respective production cost centers.

Indirect activity allocation: is used to allocate costs of cost center such as utility costs (Power and Steam) activities costs to the respective production cost centers.

T Code: KP06

While designing cost center accounting and activity types, it has been firmed up that the activity type would be designed for production cost centers only. Thus, only direct activity allocation functionality would be designed and would be machine hour, process hour and labor hour as the basis.

Activity types in a cost center are closely correlated with the operations performed in the corresponding work center in PP. As such, any change in production process or creation of new work center and cost center calls for corresponding designing of activity types.

T Code: KP26

Through designing of activity types, the costs of production (cost of goods manufactured) are computed in line with configured parameters. This is achieved on online real time basis for each of the production order / each of the semi-finished / finished goods.

Cost Center Accounting-Planning

In order to determine the overhead absorption / recovery rate it is imperative to prepare the budget estimate of expenses that would be part of costs.

General Explanations

The basic goals of cost center's cost planning are:

Plan and structure of company's future operations for specific period in monetary terms
Create benchmarks for controlling the business transactions within an accounting period
Monitor efficiency by means of plan/actual comparisons and
To Valuate organizational activities, though estimating the unit cost of a specific activity in given period.

T Code: KP04

The cost and activity inputs section of planning facilitates in planning of both activity-independent and activity-dependent primary costs based on cost elements of cost centers periodically. In activity-independent primary cost planning, planning will be done only for fixed costs.

Activity-dependent primary cost planning enables to plan primary costs on a cost center that are dependent on the work performed by the cost center, in terms of activity quantities.

In activity-dependent planning, provision is made to plan the costs dependent on these activities in fixed and variable portions. This means that the activity type price include two fixed cost portions per cost center: Activity-independent plan costs and activity-dependent fixed plan costs.

The Activity output/prices segment of planning assists in planning of which cost centers provide which activity at what price. These planned prices are used to calculate the actual activities value by considering actual quantities of activities, carried out at production cost centers.

T Code: KP26; KP06

Planning of statistical key figures (such as number of power units per cost center that are used as tracing factors) is for periodic transactions such as assessment. These statistical key figures can be defined as fixed value or as a total value. The fixed value is carried over from the period in which it is entered to all subsequent periods of the same fiscal year. You need to enter a new posting only if the value changes. The total value posts the value only in the period, which it was entered.

T Code: KP46

Cost Center Accounting-Actual Postings-Reposting

Errors are unavoidable and may result particularly during initial days of SAP live operations. Thus, there will be occasions where postings are assigned to the wrong controlling object, and CSCL should be able to rectify posting errors related to erroneous assignment to controlling objects.

General Explanations

CSCL can repost primary costs from one controlling object to another using transaction-based transfers; the original cost element is always retained. This function is designed to correct posting errors. Posting errors should preferably be corrected in the application component where they originate, so that external and internal accounting (FI and CO) is always reconciled.

Cost Center Accounting-Period-End Closing-Assessment

CSCL anticipate automating the process of allocating primary and secondary costs of some non-production cost centers to the production cost centers based on predefined apportionment basis with statistical key figure, periodically (say monthly).

T Code: S_ALR_87005742

General Explanations

Assessment is the process used to transfer primary and secondary costs from sender cost center to receiving controlling objects. Cost centers are used as senders, where as receivers can be cost centers, internal orders, or cost objects. During assessment, the original cost elements are summarized into assessment cost elements and assessed to the receiving object.

Should consider the following sender and receiver relations before allocating the costs, from which objects the costs are allocated, which objects costs are allocated to, which costs should be allocated, how the costs are distributed among the receivers.

Can combine sender and receiver relations using sender and receiver rules.

Sender values can be posted values, fixed amounts as well as fixed prices. On the receiver side rules can be, fixed amounts, fixed percentages, fixed portions and variable portions. The tracing factor of the variable portion identifies a posted value on the cost center as an allocation base. Provision is made to specify whether the variable portion is to consist of costs, consumption, statistical key figures, or activities. Plan and actual values can be used as an allocation base.

In assessment, line items are posted for the sender as well as receiver, enabling the allocation to be recorded exactly. The system does not display the original cost elements in the receivers.

T Code: KSU5

Distribution of overheads

Overhead Structure

Overhead Structure defines the rules for the calculation of the values to be posted.
An overhead structure consists of the following rows:
Base row - Contains the amount used as a basis for the overhead application.
Calculation row - Contains the overhead percentage rate to be applied to the base row.
Totals row - Contains the sum of the base and overhead amounts
Overhead structures are used to calculate accrual costs.
It involves three stages
Collection and classification of overheads
Departmentalization of overheads: allocation / apportionment of overheads
Absorption of overheads

Overheads can be distributed/apportioned or absorbed by using assessment cycles

T Code: KSU1

14.3 Internal Orders

Internal Orders are normally used to plan, collect and settle the cost of internal jobs and tasks. You can create an internal Order to monitor the cost of a time-restricted jobs are the cost for the production of activities.

Internal Orders can be used to monitor the cost of short-term measures, the cost and revenues related to a specific services and monitor on going costs.

Internal Orders are categorized as :

Orders used only for monitoring objects in Cost Accounting (such as, Advertising or Trade Fair Orders)

Productive Orders that are value added i.e. Orders that can be capitalized (Such as in-House construction of an assembly line)

Type of Internal Orders:

1) Accrual Orders: This is used to Monitor such a period-related accrual calculations for Cost Accounting.
2) Capital Investment Orders: These are used to monitor Investment Costs that can be capitalized. These Investment cost can then be settled in the fixed assets.
3) Orders With Revenues: You can use Orders with revenues to perform Tasks such as:
   a) Monitoring activities for Partners outside the business organization.
   b) Monitoring organizational activities that do not affect the core business of the organization
4) Overhead Cost Orders: These are used to Monitor Overhead Costs independently of the cost center structure and process unit.

Master data is partly used for system- technical purposes, and partly for business process. You use the master data to define the attributes of an internal order, such as the purpose and the processing possibilities.

Define order type	**T Codes: KOT2**
Maintain number ranges for orders	**T Code: KONK**
Creation of Internal orders	**T Code: KO01**
To see Internal Orders	**T Code: KOB1**

14.4 Product costing

Product cost controlling is part of R/3 controlling application component and is a tool for managing costs related to manufacturing process and rendering of services.

It uses information from the overhead cost-controlling tool to calculate such cost as labour, machine or factory overhead and it supplies information to profitability Analysis.

Product costing tools:

A) Product cost planning: It is a planning tool that helps you predicts the cost incurred when you manufacture a product or provide a services.

It shows us

Cost composition of each product

Value added in each manufacturing step

Value added in each overhead process

Value added by each profit center, plan, business area and company.

B) Cost object controlling: It is a management tool that Traces the cost incurred when you manufacture a product or provide a service.

It Answers recurring question like:

How high or actual cost by period in my area?

How high should the cost have been given actual production output?

Do some product groups perform significantly better than others?

Can I identify the cause of these variant?

C) Actual costing: Initially the system values goods movement with a standard price and collects all variances against this standard price into a ledger. Uses these values to calculate the actual cost for each material at the end of period.

D) Information System: It helps you perform high-level analyses of the cost by plant, area of responsibility, product groups and so on. It provides a variety of report that display the detail of individual orders and postings.

Benefit of product cost controlling

Product cost controlling application components support both management and legal requirements. You can customize it to meet your company specific needs without addition tools.

Management requirements:

Cost Reduction
Evaluation of effectiveness
Variance analysis
Support strategies, decisions that effect which products are manufactured.
Supports operating decisions such as pricing a particular product re determining the effectiveness of changing the manufacturing process i.e. Activity based costing tools.

Legal requirements:

Product cost controlling helps you satisfy two legal requirements.

A. Inventory valuation

valuated according to tax law and commercial law and inter company consolidation.

Work in process Inventory: Done at the closing of period, outstanding orders and update balance sheet and p&l a/c statements.
Raw material Inventory:

B. Provision for losses:

In a make to order environment, we may expect certain losses, we can use result analysis to create reserves and update p&l and balance sheet statements accordingly.

Detail functions of product cost planning:

Material cost estimates:

Costed BOM (Bill of Material) Steps:
Determine cost of Raw material, purchased items and Trading goods by selecting price from the material master.
Calculate the cost of finished and semi – finished products using BOM
Itemization: Itemization is done to show the cost of operation in each phase and itemization based on standard routings

Cost component splits:

Cost of goods manufactured: Shows value added in each production level, Typical cost components included Direct material cost, Direct labour, direct cost, Material over head, Factory over head etc..
Primary cost component split: Shows the production resources used in manufacturing process. Typical cost components include direct material cost energy cost, depreciation, wages, and salaries and so on.

PRODUCT COST PLANNING

The following settings are made for the Product Cost Planning.

A. Calculation bases are defined

B. Overhead rates are defined

C. Overhead Cost Elements are maintained for Material overheads, Personnel overheads and Manufacturing Overheads

D. Credits are defined

E. Cost sheets

1. Cost Sheets defines how values are posted in the SAP system
2. A cost sheet consists of the following lines:
   - **i.** Base lines - These contain the amount or quantity on which the overhead is calculated.
   - **ii.** Calculation lines – Contain the percentage rate to be applied to one or more base lines.
   - **iii.** Totals lines – These contain the sum of the base amount and calculated amounts.

F. Cost Component Structure.

G. Cost Estimation with Quantity Structure.

Cost Object Controlling

The following steps are involved in Cost Object Controlling

Order Type – Standard Order Type PP01 is used. **T Code: OPJH**

Order Type dependent parameters are defined. Plant is specified in this step. **T Code: OPL8**

Scheduling parameters for Production orders are defined

T Code: OPU3

Confirmation of parameters. **T Code: OPK4**

Costing Variants

PPP1 - Production Order: Planned

PPP2 - Production Order: Actual are used **T Code: OPL1**

Work in Process (WIP)

The following steps are involved for calculating Work in Process

Result Analysis Keys. **T Code: OKG1**

Define Cost Element for WIP Calculation. **T Code: KA02**

Define Result Analysis Versions **T Code: OKG9**

Define Valuation Methods. **T Code: OKGC**

Define Line Ids

Define Assignments **T Code: OKGB**

Define Posting Rules for settling WIP **T Code: OKG8**

Calculation of WIP **T Code: KKAX**

Maintain Automatic Account Assignment of Revenue element **T Code OKB9**

14.5 Profit center Accounting:

Profit centers are another organizational unit in CO similar to cost centers. The objectives of creation of profit centers are of two fold:
To enable transfer price mechanism within organization between two profit centers.
To evaluate performance of profit centers based on ROI, where the numerator is costing based profits earned by profit center and the denominator is investment in the profit center (fixed assets and current assets are values are derived from these assets assigned to cost centers, which are in turn assigned to profit centers) overhead costs. Cost Center Accounting lets you analyze the overhead costs according to where they were incurred within the organization.

Dummy Profit Center **T Code KE59**
Define Profit Center **T Code KE51**
Maintain Automatic Account Assignment of Revenue element
T Code OKB9

15. INFORMATION SYSTEM

15.1 Reporting

Costing Reports	Standard SAP Reports available
Reconciliation statement of financial accounting with cost accounting	S_ALR_87013603
Production statement (periodic)	S_ALR_87013158
Cost element allocation to cost centers report	S_ALR_87013601
Cost center plan/ actual comparison,	S_ALR_87013611
Cost center actual/actual	S_ALR_87013623, S_ALR_87013624
Production Variance Analysis Report	S_ALR_87013143

16.INTEGRATIONS

16.1 Integration with SD

The integration with SD happens through **T Code- VKOA,** a combination of particulars of customer Account Assignment group, Material Account Assignment group and Account key in an access sequence. The related GL accounts are assigned to Condition types (The condition type denotes the discount offered on the net / gross price on sales), The Account assignment group (The customer account assignment group denotes the type of customer, the material account assignment denotes the type of material), and Account keys **- ERL, ERS, ERF, MWS** (The account keys denotes the respective G/L accounts for the transactions involved in sales) map up the FI – SD integration.

T Code – VKOA

16.2 Integration with MM

The data integration happens through Account Determination Linkage of Account Key with General Ledger Accounts by the following.

1. **Movement Types:** The Posting and Updating of the stock fields in the Material Master.
2. **Valuation Class:** The assignment of G/L Accounts use to determine the respective G/L Accounts, which is to be updated as result of goods movements.
3. **Transaction / Events Key:** It differentiates various transactions such as goods movement that occurred in inventory.
4.
5. **Material Type:** Each material should be assigned material type in material master record. Which in turn updates the changes made in quantity and values in stock account.

The integration between FI – MM through the T Code

T Code – OBYC

16.3 Integration with PP

The integration with PP – CO is through Cost Centers and Activity Types.

Activity types in a cost center are closely correlated with the operations performed in the corresponding work center in PP. Through designing of an Activity Types, the cost of production are computed through configured parameters.

Activity Types of CSCL

ACTIVITY TYPE	DESCRIPTION	ACTIVITY UNITS
500000	MACHINE HOURS	HOURS
501000	LABOUR HOURS	HOURS
502000	SET UP HOURS	HOURS
503000	PROCESS HOURS	HOURS
504000	TESTING HOURS	HOURS
505000	PRODUCTION HOURS	UNITS

Change Cost Element / Activity input planning

T Code – KP06

Change activity type /Price Planning

T Code – KP26

Set Planner Profile

T Code – KP04

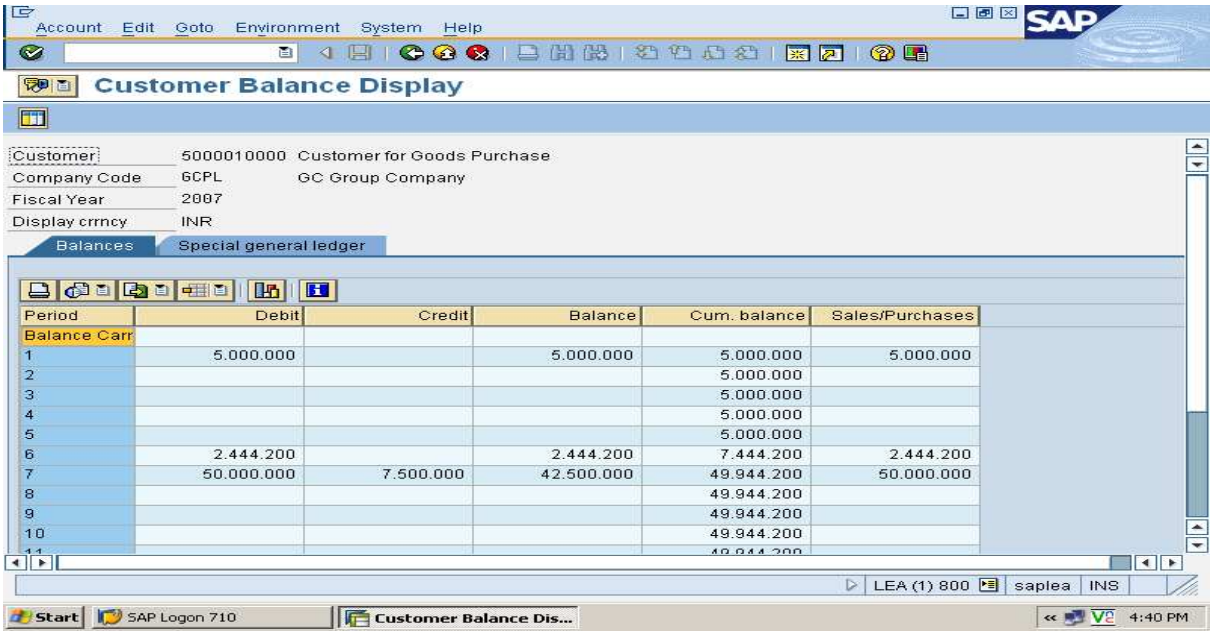
16.4 Integration with HR

Integration with hr involves assignment of Company code, cost center (mgmt) and through the creation of related GL accounts like salaries and allowances, medical aid, and bonus a/c.

17.GAPS

1. Customer statement of accounts- to get the report showing opening balance, credits & debits closing balance based on fiscal year.

But our customers want their own format for identification of their transactions during the FINANCIAL YEAR.
Customer balance as is Format.



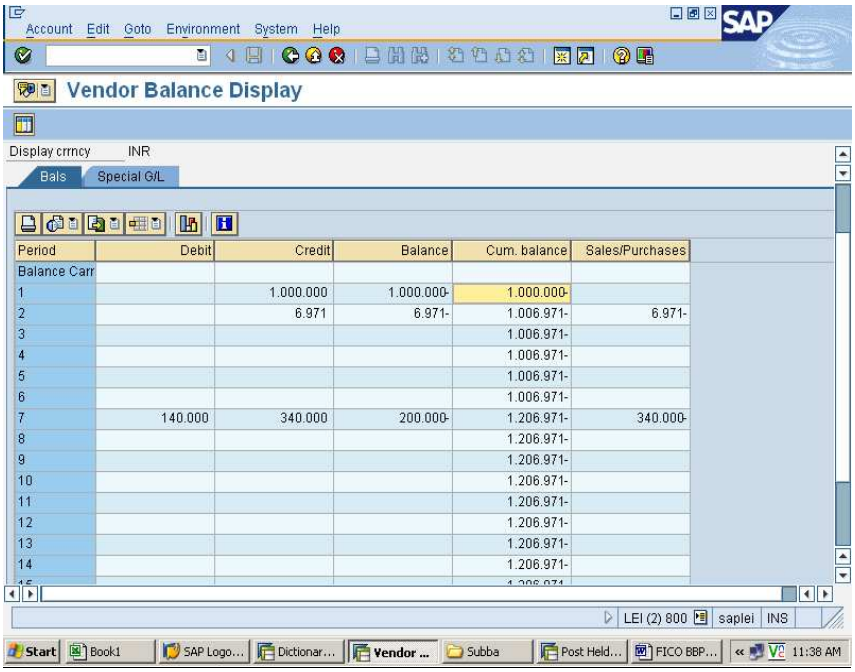
Output desired

Customer Statement							
Company Code		Customer Name					
Fiscal year		Customer No					
		City					
Sl No	Document Date	Particulars	Debit	Credit	Discount	Interest	Outstanding Balance

2. Vendor statement of accounts- to get the report showing opening balance, credits & debits closing balance based on fiscal year.

But our Vendors want their own format for identification of their transactions during the FINANCIAL YEAR.

Vendor balance as is Format



Output desired

Vendor Statement of Accounts

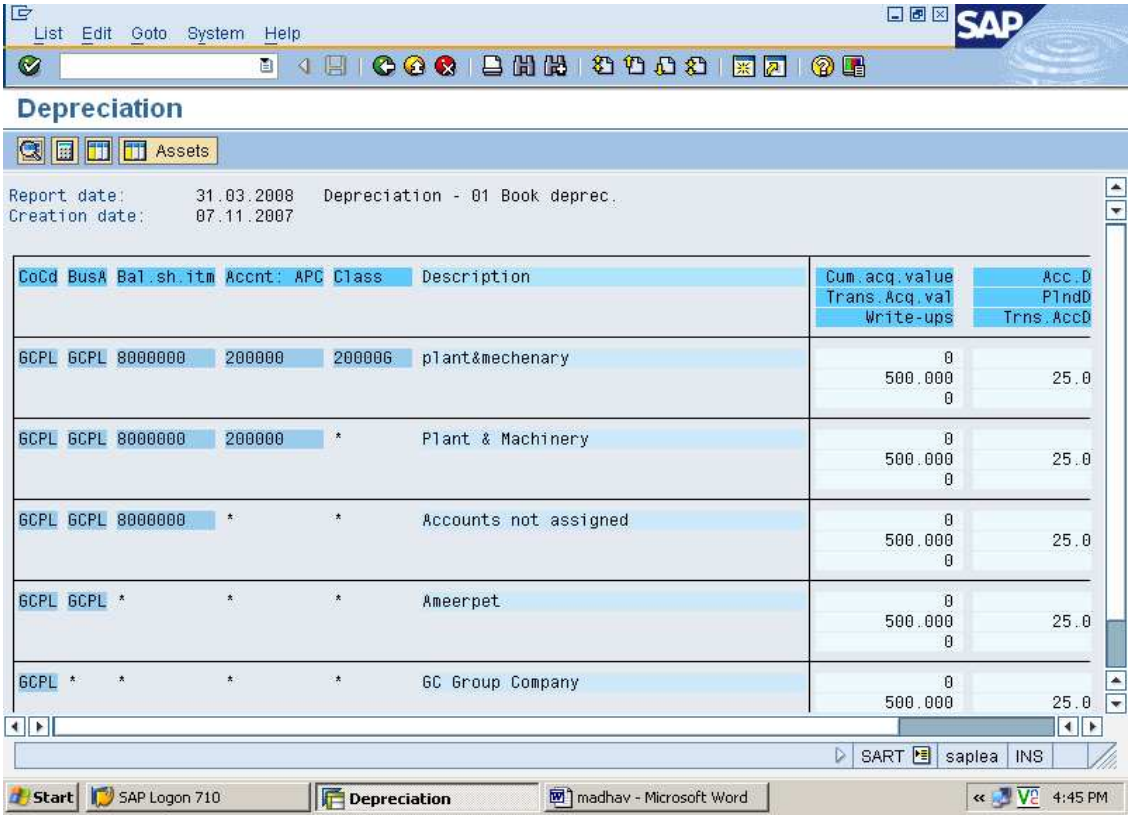
Company Code	
Fiscal year	

Vendor name	
Vendor No	
City	

Sl No	Document Date	Particulars	Debit	Credit	Discount	Interest	Outstanding Balance

3. Depreciation posted for each month customized reports showing opening balance and transactions in a columnar fashion is not available in standard sap reports in T Code- ART0 (Asset Accounting Info systems).

Asset Depreciation as-is format (output screen)



Output desired

Depreciation for monthly wise statement													
Depreciation													
Asset class	Asset No		Posting periods										
	Main	Sub	1	2	3	4	5	6	7	8	9	10	11	12

4. Reports on RELATED PARTY'S USING USER EXITS. Transaction occurred with related parties are to be reported as per the ICAI guidelines. There are **SCAC** and other fields, which are active, we need to have only **SCAC** field mandatory.

Related party reports

DESIRED OUTPUT

Report on Related Party Transactions for the Year / Quarter				
Company Code				
Address				
Sl.No	**Date**	**Name of Vendor**	**Particulars of Transaction**	**Amount**

Chapter 2

Materials Management

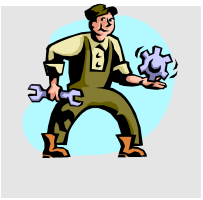
Materials Management Module is where Key Sources like Materials and Vendors are defined in the System

Materials is the central point of the business process in the company. This module basically deals with the record and defining of Enterprise elements, Master date, Purchasing data, Inventory Management & Physical inventory, Logistics Invoice Verification, Valuation & Account Determination & External Service Management etc.

ICON KEY
Enterprise Structure
Master Data
Purchasing
Inventory Management
Invoice Verification

The Overview

Here in Material Management Module we calibrate the system to understand various types of materials that are used in the business process. Mapping different business processes like Stock/Non stock item purchase, sub contracting, Stock transfers, services etc. It also configures different purchase documents like PR, RFQ, PO, Contract and Schedule Agreement etc with or without Release procedure. Logistics invoice verification for incoming invoice checking.

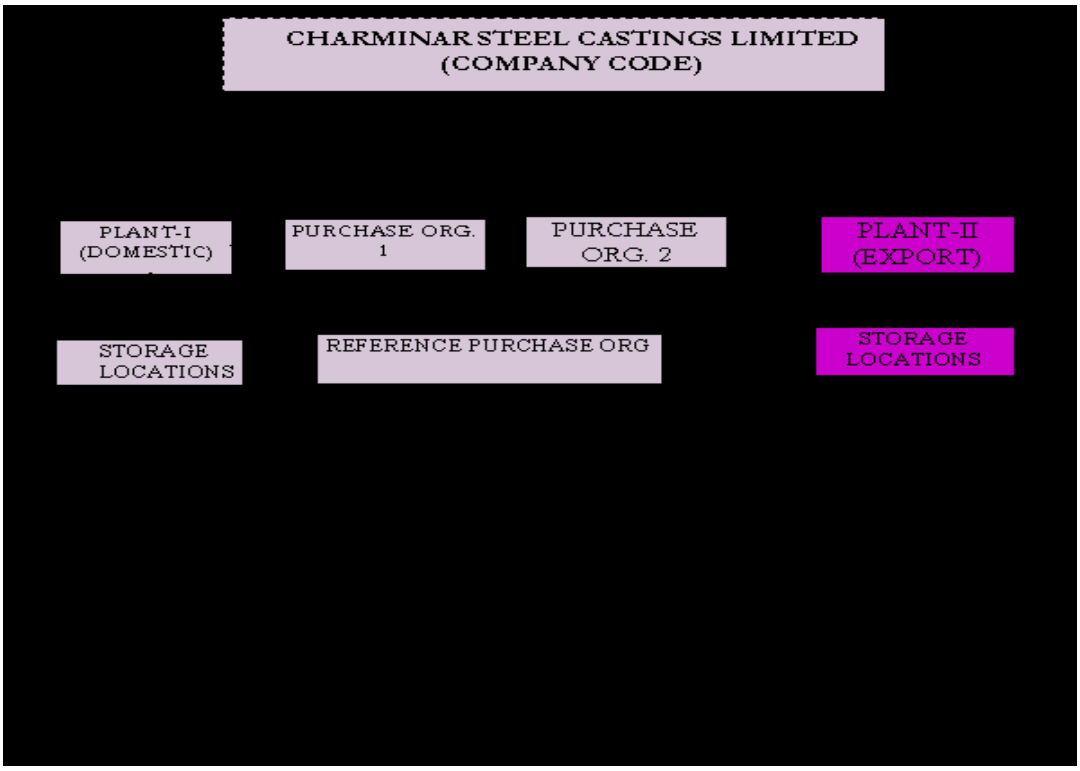


Configuration

Creating the types of materials, the types of sales, various types orders in respect to purchases and sales, Storage locations, Configuring the Pricing Procedures are some the many important configuration elements that are deals by a Material Management Consultant. In Addition Material Management Consultant also looks after issue and receipt of goods, Posting, inventory. The various reports that could be generated by a consultant are the key factors to depend on when crucial decision-making is done. Material Management Consultant is responsible for one of the crucial element of the sap implementation-Material Maste3r.

INDEX

1. ORGANIZATION STRUCTURE

1. 

1.1 Plants

Company Code	Plant Description	SAP Code	Location
CSCL	PLANT 1 (DOMESTIC)	PL01	Hyderabad
CSCL	PLANT 2 (EXPORT)	PL02	Hyderabad

STORAGE LOCATIONS

SAP solution will have the following storage locations.

Sr. No	Plant	Storage Location	Nomenclature In SAP
1	PL01	Raw Materials	RM01
2		Consumables	CO01
3		Maintenance, Repairs & Operational Spares	MR01
4		Semi-Finished	SF01
5		Finished Products	FG01
6		Packing Material Store	PK01
7		Scrap Yard	SC01
8	PL02	Raw Materials	RM01
9		Consumables	CO01
10		Maintenance, Repairs & Operational Spares	MR01
11		Semi-Finished	SF01
12		Finished Products	FG01
13		Packing Material Store	PK01
14		Scrap Yard	SC01

PURCHASE ORGANIZATION

SAP solution will have the following Purchase Organizations:

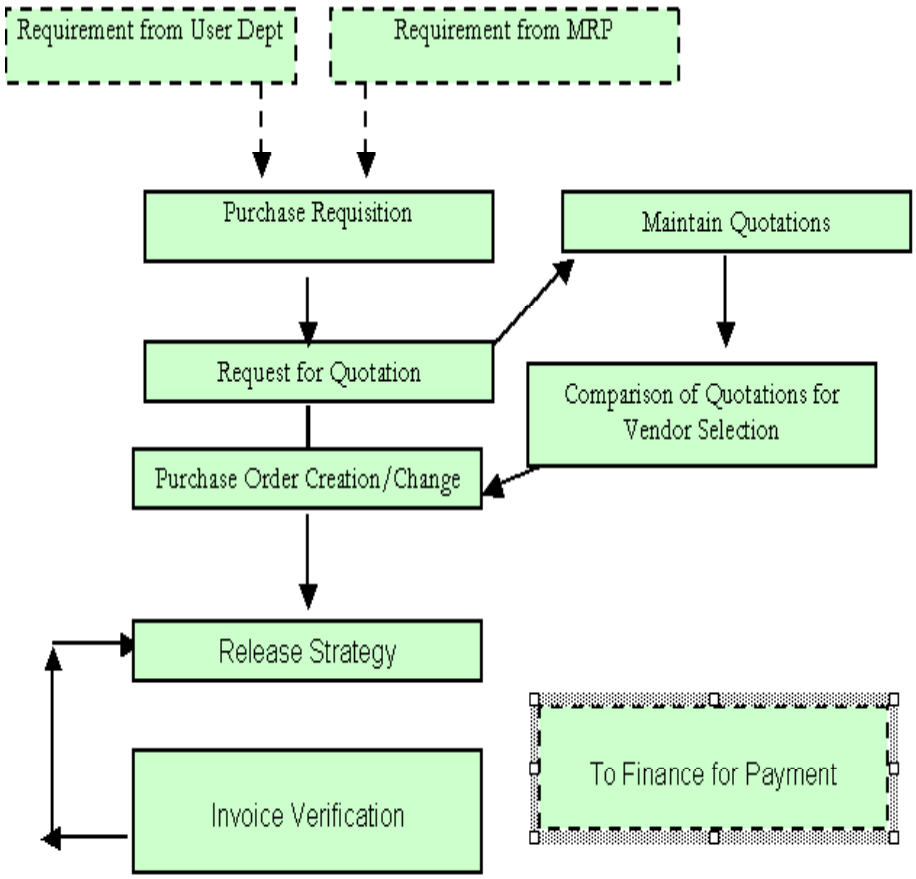
Sr. No.	Company Code	Plant	Purchase Organizations		
			Normal	Standard	Reference
1	CSCL	PL01	CPO1	CPOS	CPOR
2		PL02	CPO2		

1.4 PURCHASING GROUPS

The purchasing groups defined for CSCL.

Company	Purchasing Group	Description	Telephone Number
CSCL	PG01	Raw Material	9989860101
	PG02	Consumables	9989860102
	PG03	Spare Parts	9989860103
	PG04	Services	9989860104
	PG05	Raw Material	9989860105
	PG06	Consumables	9989860106
	PG07	Spare Parts	9989860107
	PG08	Services	9989860108

PROCUREMENT PROCESS



2. MASTER DATA

2.1 Material Master

Material master contains information of all the materials that a company produces & procures, stores & sales. It is the company's central source for retrieving material specific data.

2.1.1 MATERIAL TYPES

The following material types are used in PL01 & PL02.

Material types	Description
ROH	Raw materials
KMAT	Configurable Materials
HALB	Semi finished materials
LIEH	Returnable Packaging
HIBE	Operating Supplies
HAWA	Trading goods
FERT	Finished products
ERSA	Spare Parts
VERP	Packing Material
NLAG	Non stock items
PIPE	Pipe line
DIEN	Services
UNBW	Non valuated items

2.1.2 NUMBER RANGE FOR MATERIAL TYPES

All materials are having external number ranges, each material number contains 10 digits in which first four letters represents the material type and the remaining 6 digits tell the sequence number of that material type.

Material types	Number Range	
	From	To
ROH	RAWM0000001	RAWM9999999
KMAT	CONF0000001	CONF9999999
HALB	SEMI0000001	SEMI9999999
LIEH	LIEH0000001	LIEH9999999
HIBE	CONS0000001	CONS9999999
NLAG	NONS0000001	NONS9999999
HAWA	TRAD0000001	TRAD9999999
FERT	FINI0000001	FINI9999999
ERSA	SPAR0000001	SPAR9999999
VERP	PACK0000001	PACK9999999
PIPE	PIPE0000001	PIPE9999999
DIEN	SERV0000001	SERV9999999
UNBW	NONV0000001	NONV9999999

2.1.3 MATERIAL VALUATION

In PL01 & PL02 materials are valuated according to material type

Sr. No.	Material Type	Moving Avg. Price	Standard Price
1	ROH	X	
2	KMAT	X	
3	HALB	X	
4	LIEH	X	
5	HIBE	X	
6	NLAG	X	
7	HAWA		X
8	FERT		X
9	ERSA	X	
10	VERP	X	
11	PIPE	X	
12	DIEN	X	
13	UNBW		X

2.1.3 MATERIAL VIEWS

Sr. No.	Material Type	Basic Data	Sales	MRP	Purchase	Store	A/c	Fore caste	Costing
1	ROH	X	-	X	X	X	X	X	-
2	KMAT	X	X	X	X	X	X	X	-
3	HALB	X	X	X	X	X	X	X	-
4	LIEH	X	-	-	X	X	X	-	X
5	HIBE	X	-	X	X	X	X	X	-
6	NLAG	X	-	X	X	X	X	X	-
7	HAWA	X	X	X	-	X	X	X	-
8	FERT	X	-	X	X	X	X	X	-
9	ERSA	X	-	-	X	-	X	-	-
10	VERP	X	-	-	X	X	-	-	-
11	PIPE	X	-	-	X	X	-	-	-
12	DIEN	X	-	-	X	X	-	-	-
13	UNBW	X	-	-	X	X	-	-	-

2.1.5 MATERIAL GROUPS

Sr. No.	Material Group	Code (SAP)
1	Chromium	MG01
2	Manganese	MG02
3	Scrap	MG03
4	Sand	MG04
5	Bismuth Metal	MG05
6	Tin Metal	MG06
7	Furniture	MG07
8	Cobalt	MG08
9	Welding Rods	MG09
10	Hand Gloves	MG10
11	Wax	MG11
12	Bearings	MG12
13	Wooden Boxes	MG13
14	M Seal	MG14
15	Silicon	MG15
16	Services	MG16
17	Oils	MG17
18	Gases	MG18
19	Stationary	MG19
20	Nickel	MG20
21	Office Equipments	MG21

2.2 VENDOR MASTER

The vendor master contains information on vendors from whom a company procures materials or services. Business transactions are posted to vendor accounts and managed using these documents. Data in vendor master record control how transaction data is posted and processed for a vendor. The vendor master record also contains all the data required to do the business with vendors.

2.2.1 VENDOR ACCOUNT GROUPS

Vendor account group is classifying feature in vendor master that determines

- The type of number assignment
- A number range for assigning account numbers
- Which fields are displayed and whether their entry is optional or required when you enter or change vendor master data

Whether the account is for one time vendor?

Vendor Account Group	Description
0001	Main Vendor
0002	Goods supplier
0003	Alternative payee
0004	Invoicing party
0005	Freight Vendor
0006	Ordering address
0007	Plants
OTVN	One time vendor

2.2.2 NUMBER RANGES

Internal number ranges are used.

Vendor Account Group	Number Ranges	
	From	To
0001	110000	119999
0002	120000	129999
0003	130000	139999
0004	140000	149999
0005	150000	159999
0006	160000	169999
0007	170000	179999
MNFR	180000	189999
OTVN	190000	199999

2.2.3 INCO TERMS

The following INCOTERMS (Price Basis) will be maintained in the SAP system

Sr. No.	INCO Terms	Description
1	EDS	Ex-destination station
2	EXW	Ex- works
3	EVG	Ex-vendor go-down
4	EVS	Ex-vendor station
5	ONS	On site
6	FOB	Free on board
7	EXS	Ex- (our) site

2.3 PURCHASING INFORMATION RECORD

Vendor and material information is stored in SAP in the form of purchase info record.

Info record will have the following key data

- Info record number * Vendor code
- Material code * Purchasing organization
- Info Category (standard, sub-contracting, pipeline).

2.4 SOURCE LIST

- To define a source of supply as fixed. Such sources count as preferred sources over a certain period of time.
- As an aid in selecting the preferred source during the source determination process.
    - To block the external procurement of a material with respect to a particular vendor for a specified period of time.

3. PROCUREMENT

3.1 PURCHASE REQUISITION

Purchase requisition processing:

At CSCL internal number range will be used for PR documents, these will be identified basing on the document types of PR.

In SAP	Description	Document type	Number Range	
			From	To
NB	Standard	STD	100000000	109999999
FO	Framework	FRM	110000000	119999999
RV	Outline Agreement	AGR	120000000	129999999

Item categories – standard ()
Sub contracting (L),
Stock transfer (U),
Services (D),
Third Party (S).

3.2 REQUEST FOR QUOTATION

Document type for this will be **AN**
Number range for this document --- 20000000 ---29999999

The vendor pricing and different pricing conditions can be entered in the maintenance of the quotation document.

3.2.1 APPROVAL OF QUOTATION

Through the price comparison screen SAP ranks all the quotations based on the price. The other details such as delivery date and the related information is also displayed the entire quotation of the vendors also can be viewed from the same screen.

The decision to select/reject a vendor can be based on the price comparison list generated by the system and by checking the vendor's technical competency (specifications, delivery terms, free sample inspection), which will be done outside the system.

Once the vendor is selected the price can be updated in the info record from the price comparison list by selecting the info record indicator.

3.3 PURCHASE ORDER

In CSCL plant wise procurement is as follow

	Type of the procurement			
	Standard	Sub-contracting	Third Party	Stock transfer
PL01	X	X	X	X
PL02	X	X	X	X

3.3.1. STANDARD PURCHASE ORDER

The approved requisitions can be converted to a purchase order, if there is a preferred vendor or if there is an existing contract. By using with reference functionality, a single PO can be created with multiple requisitions. Individual requisitions will be represented as separate line items in the PO to maintain the reference of the PR.

3.3.2. SUB-CONTRACTING

Order Processing
In a sub-contracting purchase, the normal purchase order is raised with a sub contracting **item category indicator L.** SAP allows creation of the purchase order without creating a RFQ also.

Issue of components
Receipt of the final product
Once the vendor sends the final product, it will be received against the sub-contract purchase order. The system will copy the quantity of the final product and the components mentioned at the time of the PO in the goods receipt document. Based on the consumption quantity mentioned by the sub-contractor or the transferred quantity, the components quantity will be adjusted in the Goods Receipt document before posting.

3.3.3. THIRD PARTY

Order processing
In CSCL, manufacturing plant is having third party process. As per the requirement from the sales department (sales order) a standard purchase order created with account assignment 1 & item category S. These purchase orders are sent vendors who are approved only.

Receipt of Third Party Stock
No stock is received against purchase order into receipt storage location in our plant but we will get the acknowledgement from the customer about the same.

Vendor will send the invoice to us for the payment.

3.3.4. STOCK TRANSPORT ORDER

In Plant 2, manufacturing plant procures components from the plant 1, the procurement is done with billing.

Vendor master and customer master will be created to manage intra business unit purchases and will be handled through stock transport order procedure of SAP.

Procurement Process
When the goods are received at the receiving business unit, a goods receipt will be posted against the delivery document of the issuing plant. The goods are posted to Unrestricted Use Stock.

Invoice is entered in the receiving plant against the stock transfer order of the receiving plant. The required reconciliation accounts will be done in the financial module with the defined account groups of internal vendors.

3.4 TRANSMISSION OF PURCHASE ORDER

Purchase orders will generally be sent through electronic - mail and hard copy by out put device settings.

Summary of Purchasing Document Types and Number Ranges

Sr. No.	Document	Document type	Allowed item Categories	Number ranges	Internal /external
1	Standard PO	NB	Standard. Stock transport. Sub-contracts, Third Party	Standard	Internal
2	Stock transfer	UB	Stock transport	Standard	Internal

3.5 CONTRACTS

Central purchase organization will create the contract after arrival of the total requirements of individual plants after negotiations with vendors.
Referring to the contracts individual purchase organizations will raise the Release order as per the plant requirement.

There are two types of contract.

Description	Doc type	Number Range
Value contract	WK	Standard
Quantity contract	MK	Standard

3.6 RELEASE OF PURCHASE ORDER

3.6.1. CHARACTERISTICS AND CLASS

- The parameters VALUE, PLANT, PURCHASING GROUP, COST CENTRE AND DOCUMENT TYPE are main criteria to release the purchase order, these can be created as **characteristics** in SAP
- These **characteristics** are grouped into **classes**

3.6.2. RELEASE CODE

- The release code is a two-character ID allowing a person to release (clear, or approve) a requisition or an external purchasing document.
- In CSCL the release of PO has four releasing authorities, these authorities can be created as release codes in SAP.

Release Code	Release Authority
01	Purchase Officer
02	Asst. Manager – Purchase
03	Purchasing Manager
04	Commercial Director

3.6.3 Release Group

All the releasing authorities are grouped in one group. And the class is assigned to the release group.

Release Group	Name of the Release Group
PO	Purchase Order Release Group

Value / Plant	<= 100000 (INR)	> 100000 (INR)
Plant 1	Purchasing Asst.	Purchasing Asst.
	Asst. Manager Purchasing	Asst. Manager Purchasing
	Manager-Purchasing	Manager-Purchasing
		Commercial Director
Plant 2	Purchasing Asst.	Purchasing Asst.
	Asst. Manager Purchasing	Asst. Manager Purchasing
	Manager-Purchasing	Manager-Purchasing
	-	Commercial Director

3.8 PRICING PROCEDURE

We define access sequence and condition types in purchasing conditions and assign these condition types in the pricing procedure.

Schema Group

Schema group allow you to group together certain purchase organizations that uses the same calculation schema, we can also use them to group together vendors for whom the same calculation schema is valid.

Schema Group For Purchase organization	Purchase for
ZSGC	All Purchasing Organizations in PL01 & PL02

Schema Group Vendor

We will assign these schema groups to the pricing procedure based on the vendor it triggers the corresponding pricing procedure in the purchasing document.

Schema group purchase org.	Schema group vendor	Pricing Procedure	Description for Pricing Procedure
ZSGC	All Vendors	RM0000	Domestic Procurement

The procedure can be defined by using the following pricing conditions.

Condition Types	Percentage	Value	Quantity
Gross Price Automatic			X
Gross Price Manual			X
Discount	X	X	X
Packing and forwarding	X	X	X
Excise Duty	X	X	
Educational Cess	X	X	
Service Tax	X	X	
Educational Cess on ST	X	X	
Manual LST (VAT)	X	X	X
CST	X	X	
Insurance	X	X	
Freight	X	X	X
Cash Discount.	X	X	X
Loading Charges	X	X	X
Unloading Charges	X	X	X
Surcharge On Gross	X	X	X
Surcharge On Net	X	X	X

4. VALUATION AND ACCOUNT DETERMINATION

4.1 VALUATION

4.1.1 VALUATION AREA

All materials are valuated at plant level only. Each material is assigned to valuation class while creation of its master record.

4.1.2 VALUATION CLASS

Grouping of similar accounting requirement materials for automatic determination of G/L accounts is called valuation Class.

4.1.3 ACCOUNT CATEGORY REFERENCE

Grouping of valuation classes for the purpose of automatic account determination is called as account category reference.

In CSCL the following valuation classes and account category references are defined.

Material type	Valuation class	Valuation class description	Account category reference
ROH	3000	Indigenous Raw materials	0001
HALB	7900	Semi finished materials	0008
FERT	7920	Finished goods	0009
HAWA	3100	Trading goods	0005
ERSA	3040	Mechanical spares	0003
ERSA	3040	Electrical spares	0003
HIBE	3030	Operating Supplies	0002
VERP	3050	Packing Material	0004
NLAG	9000	Non Stock Items	0010
DIEN	3400	Services	0006
UNBW	3300	No valuated	0007

4.1.4 VALUATION GROUPING CODE

Grouping of valuation areas for the purposes of automatic account determination

Valuation Area	Valuation Grouping Code
PL01	0001
PL02	0001

4.2 ACCOUNT POSTING

In SAP automatically the G/L accounts are updated while goods receipt and invoice receipt according to the movement type control data. To up date the stock accounts the following transaction/event keys are defined for CSCL.

Event Key	Description
BSX	Inventory postings
WRX	GR/IR clearing account
BSV	Stock change account
GBB	Off setting entry for inventory postings
UPF	Unplanned Freight
PRD	Price difference accounts
KON	Consignment Liabilities
FRL	Purchasing Services.
FR1	Freight clearing
FR2	Freight provision
FRE	Purchase price account

Account Modifiers:

Account Modifiers	Description
GBB	
AUF	Goods Receipt for Purchase Order
BSA	Initial Entry of Stock Balances
INV	Expenditure / Income from Inv. Diff. (Physical Inv.)
VAX	Goods Issue for Sales Order
VBO	Consumption from Stock of Material Provided to Vendor
VBR	For Internal Goods Issue (Cost Center)
VNG	Scrapping / Destruction
VQP	Withdrawal of Samples
ZOB	Goods Receipt without Purchase Order
ZOF	Goods Receipt without Production Order
PRD	
BLANK	Goods & Inv. Receipt against Purchase Order
PRF	Goods Receipt against Production Order
PRA	Goods issue & other Movements
PRU	For Transfer Posting
KON	
PIP	Pipeline Materials Liabilities

5. INVENTORY MANAGEMENT & PHYSICAL INVENTORY

5.1 INVENTORY MANAGEMENT

5.1.1 GOODS RECEIPT:

A goods receipt (GR) is goods movement with which the receipt of the goods from a vendor or from a production is posted. A goods receipt leads to increase in the stock in the storage location.

5.1.2 GOODS ISSUE:

a goods issue is a goods movement with which a material withdrawal or material issue, a material consumption, or a shipment of goods to customer is posted. A goods issue leads to reduction in warehouse stock.

5.1.3 TRANSFER POSTINGS:

a transfer posting is a general term for stock transfers and changes in stock type or stock category of a material. It is relevant whether the posting occurs in conjunction with a physical movement or not**.**

5.1.4D PHYSICAL INVENTORY POSTINGS:

after user decides to carry out physical count, user will have to create physical inventory document, enter the count and post the difference (excess/shortage). At the time of posting the difference the system will generate the material document. For valuated stocks accounting document will also be generated.

ventory

In SAP system the Physical inventory is done in three steps.

- Creation of physical inventory documents
- Counting of physical stock and entering physical stock into the system
- Simulate and posting the differences, recounting if necessary and re-posting where the difference goes to the Profit and Loss statement i.e. automatic charging of GL a/c and adjustment in the physical inventory.

6. LOGISTICS INVOICE VERIFICATION

It is in Logistics Invoice Verification that incoming invoices are verified in terms of their content, prices, and arithmetic. When an invoice is posted, the invoice data is saved in the system. The system updates the data saved in the invoice documents in Materials Management and Financial Accounting.

Process Decided

There will be two types of invoice verifications, one for the vendor who has supplied the material and the other is for freight/ delivery cost / services.
Invoice verification will be performed with reference to a Purchase Order or a Delivery Note, based on provision created at the time of Goods receipt. Invoice verification can be done after goods receipt.
Any cost, which needs to be loaded on the inventory, should be incorporated in the purchase order as a part of price.

7. EXTERNAL SERVICE MANAGEMENT

External Services Management provides a basic process for the procurement of externally performed services. This basic process comprises the following functionality:

Service master records in which descriptions of all services that may need to be procured can be stored. In addition, a standard service catalog (SSC) and model service specifications (MSS) are available.

A separate set of service specifications can be created for each concrete procurement project in the desired document (e.g. PM maintenance plan or maintenance order; PS network; MM purchase requisition, RFQ, contract, purchase order, or service entry sheet).

- **External Services Management offers two basic ways of specifying services:**

7.1 As planned services with description, quantity, and price.

By "planned services" we mean services whose nature and you know scope at the start of a procurement project or transaction.

At the time the services are requested, the individual specifications are entered either with the aid of a service master record or directly as short and long texts. Price and quantity are specified in both cases.

a. As unplanned services with the setting of a value limit only.

By unplanned services, we mean services that cannot be specified in detail because their precise nature and scope are not initially known, or services which - for various reasons - you do not wish to plan. Unplanned services therefore have no descriptions.

They are entered in the form of maximum values in the relevant currency. Services may be performed up to a value not exceeding these value limits. This ensures an element of cost control.

REPORTS

Sr. No.	Title	Code	Purpose	Intended For
1	Stock Overview for Material Number wise	MMBE	To check the current stock levels	Director, Manager, Asst. Manager, Officer & Assts.
2	Material Document List	MB51	To know details of Material doc.	Director, Manager, Asst. Manager, Officer & Assts.
3	Materials analysis, Purchasing values, Basic List	MC$G	To know Material / Plant / Pur. Org. wise PO Value, GR Value, Invoice Amt.	Director, Manager, Asst. Manager, Officer & Assts.
4	List of GR/IR balances	MB5S	To know GR/IR balances with reference to vendor, Pur. Org., Pur. Group, Material, Pur. Doc. or Item	Director, Manager, Asst. Manager, Officer & Assts.
5	Display of Stock in Transit	MB5T	To know stock in transit with reference to material, sending plant, receiving plant or company code.	Director, Manager, Asst. Manager, Officer & Assts.
6	Materials List	MM60	To know the list of materials available in SAP with reference to material, plant, material type, material group or created by	Director, Manager, Asst. Manager, Officer & Assts.
7	Material analysis Stock selection	MC.9	To know the report on material, valuated stock, consignment stock	Director, Manager, Asst. Manager, Officer & Assts.
8	Storage location analysis, Stock selection	MC.5	To know the report on valuated stock & consignment stock of storage location	Director, Manager, Asst. Manager, Officer & Assts.
9	Key-figure, Slow Moving Items	MC46	To know the slow moving items (number of days wise) and total stock value.	Director, Manager, Asst. Manager, Officer & Assts.
10	Purchasing Doc. Per Vendor	ME2L	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.

11	Purchasing Doc. Per Material	ME2M	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
12	Purchasing Doc Per Account Assignment	ME2K	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
13	Purchasing Doc Per Project	ME2J	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
14	Purchasing Doc Per Material Group	ME2C	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
15	Purchasing Doc Per requirement Tracking Number	ME2B	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
16	Purchasing Doc Per Doc. Number	ME2N	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
17	Purchasing Doc Per Supplying Plant	ME2W	List of Purchase Docs. & status of GR, IV	Director, Manager, Asst. Manager, Officer & Assts.
18	Stock on Posting Date	MB5B	Stock on Posting Date	Director, Manager, Asst. Manager, Officer & Assts.
19	List of Vendors	MKVZ	List of Vendors	Director, Manager, Asst. Manager, Officer & Assts.
20	List of Inventory Diff.	MI20	List of Diff. between the physical count entered and the book stock.	Director, Manager, Asst. Manager, Officer & Assts.
21	List of Inbound Deliveries	VL06I	List of Inbound Deliveries	Director, Manager, Asst. Manager, Officer & Assts.
22	List of POs Pending Release	ME55	List of POs pending release	Director, Manager, Asst. Manager, Officer & Assts.
23	List of PRs	ME5A	List of PRs	Director, Manager, Asst. Manager, Officer & Assts.

UPLOADS

Uploads that are identified to be loaded in the system through customized program

1. Material Master 2.Vendor Master 3. Purchase orders

9. GAP ANALYSIS

1. **GAP:**

In the Collective Number (10 char) field of the RFQ, The number in series should be automatically generated by the system while the document is saved.

CHARMINAR STEEL CASTINGS LIMITED

TO	PURCHASE ORDER
	DOC NO:
	DATE
	PR NO:
	DATE
YOUR REF:	TIN No:
	CST NO:
	ECC No:

With reference to your quotation and further negotiations, we are pleased to forward the order- as per the terms and conditions hereunder and as mentioned overleaf and any annexure thereof:

Sl.#	Our Mat. Code	Item Description	UOM	QTY	RATE	TOTAL

Rupees (in words):		Total Amount	
Price Basis:	Terms	% age	
Date of delivery:	Discount		
Special Instructions:	P & F		
	EXCISEDUTY		
	Edu. Cess		
Material to be delivered at:	VAT/CST		
	Freight		
	Insurance		
	Grand Total		

We request you to send an acknowledge receipt and acceptance of the order.

CHARMINAR STEEL CASTINGS LIMITED

TO	**PURCHASE ORDER**
	DOC NO:
	DATE
	PR NO:
	DATE
YOUR REF:	TIN No:
	CST NO:
	ECC No:

With reference to your quotation and further negotiations, we are pleased to forward the order- as per the terms and conditions hereunder and as mentioned overleaf and any annexure thereof:

Sl.#	Our Mat. Code	Item Description	UOM	QTY	RATE	TOTAL

Rupees (in words):		Total Amount	
Price Basis:	Terms	% age	
Date of delivery:	Discount		
Special Instructions:	P & F		
	EXCISEDUTY		
	Edu. Cess		
Material to be delivered at:	VAT/CST		
	Freight		
	Insurance		
	Grand Total		

We request you to send an acknowledge receipt and acceptance of the order.

CHARMINAR STEEL CASTINGS LIMITED

TO,S011_LIFNR	**PURCHASE ORDER**
	DOC NO:EKPO_EBELN
	DATE S011_SPTAG
	PR NO: **EBNA_BANFN**
	DATE **EBNA_BADAT**
YOUR REF:	TIN No:
	CST NO:
	ECC No:

With reference to your quotation and further negotiations, we are pleased to forward the order-
as per the terms and conditions hereunder and as mentioned overleaf and any annexure thereof:

Sl.#	Our Mat. Code	Item Description	UOM	QTY	RATE	TOTAL

Rupees (in words):			Total Amount	
Price Basis:		Terms	% age	
Date of delivery:		Discount		
Special Instructions:		P & F		
		EXCISEDUTY		
		Edu. Cess		
Material to be delivered at:		VAT/CST		
		Freight		
		Insurance		
		Grand Total		

We request you to send an acknowledge receipt and acceptance of the order.

Chapter

3

Sales and Distribution

" Cavet Emptor " Or Customer is the king
… and SD module is the Link between the Company and the Customer.

Sales and Distribution Module of SAP have key elements like sales offices, Customer data base, or A Sale as a whole under its jurisdiction. Sales and Distribution will be responsible to configure all the elements that are related to sale and client either independently or in co ordination with Finance and Controlling. This Module works closely with all the other modules as it is the link between the customer and the company which puts sales and distribution module in a key junction which is of crucial nature. .

ICON KEY

Sales Order Processing

Warehouse Management

Billing

Credit Management

The Overview

Sales and Distribution Module will Create, Configure and Operate the key elements like customer database , sales offices, and various documents like sales orders, quotation. Credit management will be working in parallel with Finance and Controlling of SAP and Product Costing will bring Material Management and Production Planning into Picture. Revenue Account is determined at sales end.

Sales and Distribution module will create Sales office, various types of sales, shipping types. Customer Database is the key for various decision-making aspects of an organization. This module also covers various external elements like return goods policy, shipping forms, taxation aspects etc, for whole and broader smooth functioning of an organization.

INDEX

1.AS – IS TO BE

AS - IS	TO – BE
Organization Charminar Steel castings have five operating companies. The group runs its sales through 4 Branch offices at mumbai, Calcutta, Kanpur and Trichy. Export sales is routed through the consultant and its operated from sales head office Hyd.	For mapping the company's organizational structure in SAP standard system the following has been done:- Operating Companies - Company codes Sales head office – Sales Organizations (1) Taking care of both Domestic and Export market Branch Offices – Sales Offices Domestic (4) Based at mumbai, Calcutta, kanpur and trichy, Sales office export- hyderabad Sales personal – Sales groups
Channels Charminar Steel Castings has 3 various approaches where in the products of the company are reached to customers. They are Direct selling, Institutional selling and Exports	In SAP standard system these 3 approaches have been mapped to Distribution Channels, Which are nothing but channels through which material or services, is reached to customer. They are as follows:- Direct selling – Direct Sales Institutional selling – Institutional Sales Export sales – Export Sales (direct sales)
Products Charminar Steel Castings has various products group like Defence, Surgical, Engineering and Pressure valve.	In SAP standard system the products of the group have been mapped to Divisions. Division is nothing but a group or range of products. Defence Surgical Engineering Pressure Valve
Customers Charminar Steel Castings has its customers in the form of Institutions like government, Defence public sectors, MNC's and Private Institutions.	In SAP standard system the data on business partners Charminar Investment Steel Castings has a business relationship is kept in master records. Master records contain all data necessary for processing business transactions. A customer master record is created when you start a business relationship with a new customer. Customers have been mapped to Regular customer, One time Customers.
Materials Charminar Steel Castings procures most of its materials from local suppliers / vendors and process	In SAP standard system, Sales and Distribution data in a material master record is defined for a specific sales organization and distribution channel. The division, delivering plant, sales

them further to make finished products.	groups, grouping terms for price agreements and sales texts etc are included in sales and distribution data. The fact that a material is linked to a distribution channel allows the material to be sold with different conditions.
Inquiry Inquiry for domestic market and export market are for all the charminar steel products. An Inquiry can relate to materials or conditions and if necessary delivery dates	In SAP standard system, Inquiry is a customer's request to the company that they provide a quotation or sales information without obligation.. The sales area that accepts the inquiry becomes responsible for further processing. The total quantity of an inquiry item can be subdivided between the schedule lines in different amounts and relevant delivery dates.
Quotations The company quotes to the customer a specific price with a validity period along with the terms & condition.	Quotations are created when a customer has an informed sales query. The customer wants to know, for example, how much a certain quantity of a product will cost and when it will be available for shipping.
Sales Orders After the customer agrees to the terms and condition given in the Quotation, they will issue purchase order with the required quantity of goods to be delivered on a specific date. Based on the requested delivery date the company will check the availability and proceed further to delivery. If the stock is not available then the next possible delivery date will be intimated to customer.	During sales order processing, the system carries out monitoring the sales transactions, checking for availability, transferring requirements to materials planning (MRP), scheduling the delivery, checking credit limits and creating printed or electronically transmitted documents (confirmations, and so on).
Delivery Based on the requested delivery date given by the customer, the company will deliver the goods from a particular plant.	Outbound delivery supports all shipping activities including picking, packing, transportation and goods issue. During the outbound delivery process, shipping-planning information is recorded, status of shipping activities is monitored and data accumulated during shipping processing is documented. When the outbound delivery is created, the shipping activities, such as picking or delivery scheduling, are initiated, and data that is generated during shipping processing is included in the delivery.
Billing	Billing is done on the basis of sales orders and

After delivering the goods an Invoice is raised as per the delivery depending on the price.	deliveries, which includes Invoice, Credit and Debit memo, Performa Invoice. If no complaints are made about the delivery, the business transaction is considered complete from the sales point of view. Credit and Debit Memo: Credit memo: A sales document created on the basis of a customer complaint. This reduces receivables in Financial Accounting. Debit memo: A sales document created on the basis of a customer complaint. This increases receivables in Financial Accounting. Credit memos are created for various reasons (for example, because of defective goods or because you have overcharged a customer). Similarly, you may need to create a debit memo (for example, you have not charged the customer enough). When you create a credit or debit memo, you can refer to an invoice or a credit memo request.
Returns If the customer returns the goods a returns delivery is created and credit memo is issued to the customer.	Returns documents are created when the customer wants to return damaged goods or goods that were delivered on a trial basis. The returns document can be created with or without reference to the sales order. When the returned goods arrive back at the warehouse, you then create a returns delivery, which refers to the returns document you already created. The goods issue posted for the return delivery records the inward movement of the goods into your own stock.
Exports Charminar Steel castings is primarily being exported to European countries. The nature of business is bulk. The sale is done through agents	In SAP standard system the exports sales process is mapped just like that normal sales order process except that distribution channel involved will be Exports through which the products reach its customer in the European countries.
SPECIAL SALES PROCESSES	
Cash Sales This process occurs when the customer is ready to take the Product by paying the required amount immediately.	In SAP standard system this sales process can be configured by sales document type (CS) available. The delivery is done automatically along with the sales order, while an Invoice is raised when the order is created.
Rush Order The Rush Order also follows a cycle similar to the Cash Sales	In SAP standard system this sales process can be configured by special sales document type (RO) available. Only difference to that cash sales and

except that an Invoice is raised later and customer pays the amount at a later date.	rush order is that invoice is raised later and customer pays the amount at a later date.

Third Party Sales All orders for Charminar Steel Castings Limited are procured through the Vendor using third party sales process. Vendor directly sends the goods to the customer as per the requirement mentioned in the sales order and vendor bills the company.	In the SAP standard system, control parameters like Item Category group (BANS) and Item Category (TAS) map Third party sales. The Standard sales document type is used to execute the third party sales.

Make-to-order When a customer orders for a particular material, which are not maintained in stock, based on the customer requirement, company, manufacture the products and supplies to that particular customer only	In SAP standard system the make-to-order process is mapped by using standard sales order process, he item category group 0001 in the material master and requirement type KE. The item category TAK is triggered in sales document.

2.EXECUTIVE SUMMARY

OVERVIEW OF THIS REPORT

A Business Process Workshop (BPW) was held with the key users of Sales & Distribution. Over these discussions, the Implementation Team has developed a high degree of process understanding. During the BPW, various business scenarios have been discussed that needs to be addressed. The purpose of this report is to confirm the understanding of these business scenarios and freeze these business requirements, which will form the basis for development or configuration activity.

This document would provide the way forward during the Realization phase, where these processes will be configured in the SAP System.

SCOPE FOR THIS REPORT

For Sales & Distribution:

The complete Sales structure and Master data as well as the business process will be included in the scope of the project.

This project will include the following business processes of Sales & Distribution.
Export sales
Domestic sales
Direct Sales
Institutional Sale
Sales Returns

3 ORGANIZATIONAL STRUCTURE

3.1 Sales Organization

The following Sales Organizations are created for Project.

- Sales Organization is an organizational unit that sells and distributes products, negotiates terms of sale, and is responsible for sales transactions. The zonal nature of the organization structure is mapped using sales organizations.

SALES ORGANIZATION	DESCRIPTION
1001	Charminar steel casting Sales Organization

3.2 Distribution Channel

A distribution channel is a channel through which materials or services reach to customers. The following three Distribution Channels will be created for Project Charminar Investment Steel Castings Limited.

CHARMINAR STEEL CASTING SALES ORGANIZATION	
Distribution Channel	Description
10	Direct Sales
11	Domestic Institutional Sales
12	Exports

3.3 Division

A division is a product group that can be defined for a wide ranging spectrum of products. The above divisions have been created to indicate the Four main product groups in the company.

The following divisions will be created for Project Charminar steel casting Limited.

10	Defence
11	Surgical
12	Engineering
13	Pressure Valve

3.4 SALES OFFICES

Sales office is defined as it is a physical location (for example, a branch office) that has responsibility for the sale of certain products or services within a given geographical area.

The following Sales Offices will be created for Project Charminar Steel Casting Limited.

1001	North Office (kanpur)
1002	South Office (Trichy)
1003	East Office (Calcutta)
1004	West Office (Mumbai)
1005	Export sales office (Hyderabad)

3.5 SALES GROUP

Sales Group is a group of sales people who are responsible for processing sales of certain products or services. By using sales groups you can designate different areas of responsibility within a sales office and also can be used for reporting purposes.

The following Sales Groups will be created for Project Charminar Steel Castings Limited

110	Sales Group North Office
111	Sales Group South Office
112	Sales Group East Office
113	Sales Group West Office
114	Sales group export office

3.6 SHIPPING POINTS

The shipping point is the top level in the organization for shipping. A delivery is always initiated from exactly one shipping point. Thus, all items of a delivery belong to one shipping point. Groups of deliveries also belong to exactly one shipping point.

The following Shipping Points will be created for Project Charminar Steel Castings Limited..

1001	Shipping point Standard
1002	Shipping Point Returns

3.7 LOADING POINTS

The loading point is the top level in the organization for loading. Picking is always initiated from exactly one loading point. Thus, all items of a picking belongs to one loading point. Loading Points are assigned to Shipping Points.

The following loading Points will be created for Project Charminar Steel Castings Limited

Charminar Steel Castings Limited SALES ORGANISATION		
SHIPPING POINT	**LOADING POINT**	**DESCRIPTION**
1001	10	LP 1D
1002	11	LP 1R

ASSIGN SALES ORGANIZATION TO COMPANY CODE

The purpose of this is to allocate the company code so that it establishes a link between the SD and FI systems. A sales organization belongs to just one company code

Sales Org	Desc	Company Code	Desc
1001	CSCL Sales	CSCL	Charminar Steel Castings Ltd.

ASSIGN DISTRIBUTION CHANNELS TO SALES ORGANIZATION

The purpose of this step is to allocate the distribution channel to Sales organization to find out which distribution channel is responsible for the sale.. A distribution channel can be valid for several sales organizations.

CHARMINAR STEEL CASTINGS LIMITED					
SALES ORG	DESC	DIST CHANNEL	DESC	DIV	DESC
1001	CSCL Sales	10	Direct Sales	10	DEFENCE
1001	CSCL Sales	10	Direct Sales	13	ENGINEERING
1001	CSCL Sales	10	Direct Sales	12	PRESSURE VALVE
1001	CSCL Sales	10	Direct sales	11	SURGICAL
1001	CSCL Sales	11	Institutional Sales	11	SURGICAL
1001	CSCL Sales	12	Exports	12	PRESSURE VALVE

Charminar Steel castings Limited			
Sales Org	Desc	Dist Chl	Desc
1001	CSCL Sales	10	Direct Sales
1001	CSCL Sales	11	Institutional Sales
1001	CSCL Sales	12	Export Sales

ASSIGN DIVISION TO SALES ORGANIZATION

The purpose of this step is to allocate as many as division desired to a sales organization. Any one division can belong to several sales organizations.

Charminar Steel castings Limited			
Sales Org	Desc	Div	Desc
1001	CSCL Sales	10	Defence
1001	CSCLSales	11	Surgical
1001	CSCL Sales	12	Pressure
1001	CSCL Sales	13	Engineering

SETUP SALES AREAS

Sales area is a combination of sales organization, distribution channel and division. The following Sales Areas will be created for Project Charminar Steel Castings Ltd.

The purpose of this step is that you can allocate as many as desired . Any one sales office can belong to several sales areas at the same time.

Charminar Steel Castings Limited	
Sales Area (Sales Org + DC + DIV)	**Sales Office**
CSCL (1001)-Direct(10))-Defence (10)	1001 (Kanpur), 1002 (Trichy), 1003 (Calcutta), 1004 (Mumbai)
CSCL (1001)-Direct(10))-Surgical (11)	
CSCL (1001)-Direct(10))-Pressure Valve (12)	
CSCL (1001)-Direct(10))-Engineering (13)	
CSCL (1001)-Institutional (11))-Surgical (11)	1001 (Kanpur), 1002(Trichy), 1003(Calcutta), 1004(Mumbai)
CSCL (1001)-Export (12))-Pressure Valve (12)	Export sales office Hyderabad (1005)

Assign sales groups to sales office

The purpose of this step is that you can assign as many as desired. Any one sales group can belong to several sales offices.

ALES OFFICE	SALES GROUP	DESC
1001 (kanpur)	110	Sales Group North Office
1002 (Trichy)	111	Sales Group South Office
1003 (Kolkata)	112	Sales Group East Office
1004 (Mumbai)	113	Sales Group West Office
1005	114	Sales group Export Hyderabad

Assign sales organization, distribution channel to plant

The purpose of this step is to assign any number of Distribution Channel to a combination of Sales Orgonization and a plant.

Charminar Steel Castings Limited					
SALES ORG	**DESC**	**DC**	**DESC**	**PLANT**	**DESC**
1001	CSCL Sales	10	Direct Sales	Domestic	DP
1001	CSCL Sales	11	Institutional Sales	Domestic	DP
1001	CSCL Sales	12	Export	Export	EP

Assign shipping points to plant

The purpose is to allocate as many shipping points as desired to the plants. Any one shipping point can belong to several plants.

CHARMINAR STEEL CASTINGS SALES ORGANISATION			
1001	Shipping point Standard	Domestic Plant	DP
1002	Shipping Point Returns	Export Plant	EP

4. MASTER DATA

Create Customer Master Record

The customer master record is the basis for all sales transactions as well as deliveries and payments. It represents the data relevant to the entity being dealt with.

Here, we maintain Customer related information for all the customers of Charminar Steel Castings Limited in the following fields.

- General data.
- Company specific i.e. Company code related data.
- Sales area related data.

Inputs

- New Customer details
- Customer details modification

The process will be managed in SAP as follows

- The customer master will be maintained centrally for SD and FI purposes using transaction XD01. Customer numbers will be generated internally.

- Specific inputs from finance view will be detailed on the reconciliation account, receipt of payment modes, terms and the credit limit. Also information like House Bank for receipt of payment from the customer. Receipt payment method, planning group etc. will be entered.
- One authorization profile will be created for maintaining the customer master for all fields in finance view.
- The new customer master record will be created and / or the changes will be recorded.

- **CUSTOMER ACCOUNT GROUPS / PARTNER FUNCTIONS**

Account Group: Account Group is grouping of customers or classification of customers.
Partner Functions: The rights and responsibilities of each partner in a business transaction.

- When creating a customer account, we must specify an account group. We can specify a reference account group under "Control" in the "General data" part of a one-time account's master data. If we do not specify a reference account group, then, as previously, all fields of the one-time account screen are ready for input during document entry.
- We use the account group to determine:
  - The interval for the account numbers
  - Whether the number is assigned internally by the system or externally by the user (type of number assignment)
  - Whether it is a one-time account
  - Which fields are ready for input or must be filled when creating and changing master records (field status)

Following Customer groups will be created for all Charminar Steel Castings Ltd business sector

ACCOUNT GROUP

0001	Sold to Party	01-1000
0002	Ship to Party	1001-2000
0003	Payer	2001-3000
0004	Bill to Party	3001-4000
0005	Export Agent	4001-5000

CREATE MATERIAL MASTER RECORD.

- The material master data is used by the system to represent the data pertinent to the products your company is selling or producing.
- It is configured much the same way as the customer master record with different views.

Maintain Material related information for all the materials of Charminar steel castings ltd. in the following fields

- ✓ Industry Sector
- ✓ Material Types

✓

INPUTS

✓ Plants
✓ Sales Organization
✓ Distribution Channel

The process will be managed in SAP as follows:

✓ The material master will be maintained centrally for SD and MM purposes using transaction MM01.
✓ Material Numbers will be created externally for all products and services.
✓ A product hierarchy will be assigned to each material. Product hierarchy will be created based on the products or service group.

Scenario: Material Master Creation
Transaction: MM01
Organizational Level
Plant
Sales Organization
Distribution Level

Basic data 1 (To be maintained by MM)
Base Unit of Measure
Material Group
Material Group Packaging Material

Sales Organization
Delivering Plant
Cash Discount Option
Product Hierarchy
Material Pricing Group
Account Assignment Group
Transportation Group
Loading Group

Foreign Trade Export
Export / Import Group
Country of Origin
Region of Origin
Exemption Certificate

Sales Text
Long Text
Short Text.

5.BASIC FUNCTIONS

Pricing

In SAP standard system we use pricing to calculate price and cost of the material by using Condition Technique.

CONDITION TECHNIQUE

Condition technique is a method by which system determines the values from the information stored in condition record during sales order processing.

PRICING PROCEDURE

The following factors influence condition technique:

CONDITION TABLE

In a condition table, you define the combination of fields for which you can create condition records.

CONDITION TABLE	DESCRIPTION
601	Customer Price
602	Material Price
603	Customer Discount
604	Material Discount
605	Freight
606	Domestic Taxes

MAINTAIN CONDITION TYPE (V/06)

Price elements are represented in the SAP system by condition types. Price elements can be, for example, prices, surcharges, discounts, taxes or, freight, and are stored in the system in condition records.

COND TYPE	DESC	ACC SEQ	DESC
PR00	Price	PR00	Price
K004	Material Discount	K004	Material Discount
K007	Customer Discount	K007	Customer Discount
KF00	Freight	KF00	Freight
MWST	Output Tax	MWST	Output Tax

Maintain Access Sequence (V/07)

The access sequence is a search strategy, which the SAP System uses to search for condition records valid for a condition type.

Access Sequence	Description
PR00	Price
K004	Material Discount
K007	Customer Discount
KF00	Freight
MWST	Output Tax

Maintain Pricing Procedure

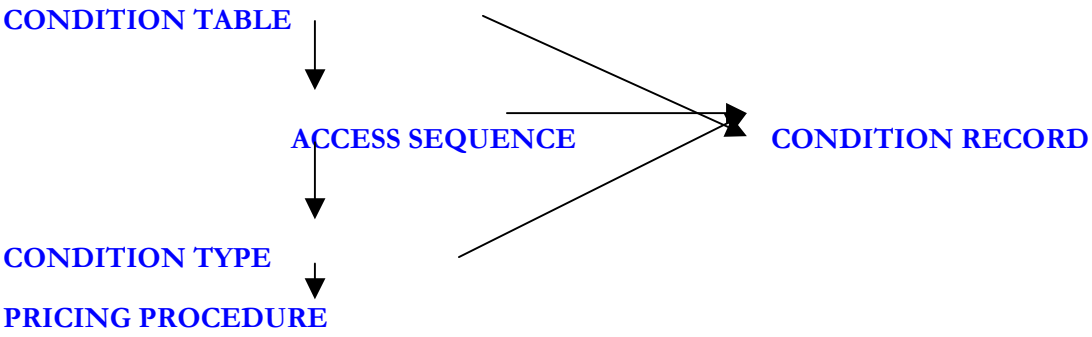
CHARMINAR STEEL CASTINGS LIMITED	
Procedure	**Description**
CSCL10	Direct Sales (Dealers)
CSCL11	**Institutional**
CSCL12	Exports

Maintain Pricing procedure determination

Pricing Procedure Determination for Company Code CSCL

Charminar steel castings Limited						
Sales Org	Dist Channel	Division	Doc. Pricing Proc	Cust Pricing Proc	Pricing Proc	Condition Type
1001	10	10	A	1	CSCL10	PR00
1001	10	11	A	1	CSCL10	PR00
1001	10	12	A	1	CSCL10	PR00
1001	10	13	A	1	CSCL10	PR00
1001	11	11	A	1	CSCL11	PR00
1001	12	13	A	1	CSCL12	PR00

CONDITION TECHNIQUE:



Customer Pricing Procedure

It is one of the elements to determine the pricing procedure. We specify the customer determination procedure in the customer master record for each sales area.

Document Pricing Procedure

It is also one of the elements to determine the pricing procedure. We specify the document pricing procedure for each sales document type.

Sales area: We define sales area in enterprise structure.

MAINTAIN CONDITION RECORDS (VK11)

We maintain Condition Records for pricing elements in VK11.

Assign document pricing procedure to order type

Sales Doc Types	Description	Doc Price Proc	Description
OR	Standard Order	A	Standard
CR	Credit Memo Request	A	Standard
DR	Debit Memo Request	A	Standard
RO	Rush Order	A	Standard

Assign document pricing procedure to billing type

Billing Doc Types	Description	Doc Pricing Proc	*Description*
F2	Invoice	A	Standard
L2	Debit Memo	-	-
LG	Credit Memo List	-	-
LR	Invoice List	-	-

Define Pricing by Item Category

Here we show the relevancy of Pricing by Item Category.

Item Category	Description	Pricing
AFN	Inquiry Item	X
AGN	Quotation Item	X
TAN	Standard Item	X
TAS	Third party item	X
TANN	Free of charge Item	-
BVN	Cash Sales Item	X
REN	Standard Item (Return)	X

Cost Determination for Item Category

- Carry out pricing: **Indicates whether the system automatically carries out pricing at the item level**
- Determine cost: **Indicates whether, during pricing, the system determines the cost (stock value) of a sales document item.**

Item Category	Description	Carry out Pricing	Determine Cost
AFN	Inquiry Item	-	-
AGN	Quotation Item	X	X
TAN	Standard Item	X	X
TANN	Free of charge Item	-	X
BVN	Cash Sale Item	X	X
REN	Standard Item (Return)	X	X
TAS	Third party item	X	X

In SAP we are implementing special functionality in Pricing.

1. Condition Exclusion Group
2. Condition Supplement
3. Pricing Limit
4. Scale Price
5. Header, Item and Group Conditions.

TAXES:

We define the defaults for tax calculation. In pricing the SAP System automatically calculates the taxes. Here tax classifications indicates at what level customer and material is liable for tax

Define Determination rules

We define the rules for tax calculation. The SAP System determines the taxes automatically within pricing

Define Regional codes

We define the following indicators for tax calculation:

- Country-specific regional codes (county codes), which represent, for example, states in the USA or counties in Great Britain
- Country-specific city codes

ASSIGN DELIVERING PLANTS FOR TAX DETERMINATION

We allocate the plants to a country, and if appropriate to a geographical region, a county/state code as well as a city code. The allocation always depends on the countries in which you are using the SAP System.

Define Tax relevancy for master record

Customer Taxes

Tax Cat	Desc	Tax Class	Desc
MWST	Output tax	0	Tax Exempt
MWST	Output tax	1	Taxable

Material Taxes

Tax Cat	Desc	Tax Class	Desc
MWST	Ouput tax	0	Exemption
MWST	Ouput tax	1	Taxable

REVENUE ACCOUNT DETERMINATION

Check Master Data relevant for Account Assignment

Revenue determination is dependent upon the following master data fields:

- **Account group for material in the material master record**
- **Account group for customer in the customer master record**

Settings have to be maintained for Material account assignment group for account determination.

For Charminar Steel Castings Limited, following configuration settings are maintained

Account Assignment Group	Description
01	Finished Goods
02	Trading Goods

CUSTOMER ACCOUNT ASSIGNMENT GROUP

Settings have to be maintained for customer account assignment group for account determination.

For Charminar steel castings Limited, following configuration settings are maintained

Account Assignment Group	Description
01	Domestic Revenues
02	Foreign Revenues

Define dependencies of Revenue Account Determination

The purpose of defining the dependencies for the revenue account determination is to store the combination of criteria on which should depend in an account determination table.

You can select the following criteria for an account determination table:

- Condition Type
- Chart Accounts
- Account group customer
- Account group material
- Account key

Create the condition table used for account determination. When creating the condition table, remember that you have to select a key between 501 and 999 for the condition table.

By defining access sequences and account determination types revenue account determination is made automatic.

Using the, you define

- With which condition tables the SAP System is to access condition records
- In which sequence the condition tables are to be read
- With which field contents the are to be read

In the account determination type, you define the control data and validity date.

Acc No	Table	Description
10	601	Cust.Grp/MaterialGrp/AcctKey
20	602	Cust.Grp/Account Key
30	603	Material Grp/Acct Key
40	604	Acct Key
50	605	General

The purpose is to define account determination procedures and allocate them to the billing types.

In an account determination procedure, you define the sequence in which the SAP System should read the account determination types used for Revenue Account Determination.

You allocate the account determination procedures to the billing types for which a corresponding account determination is to be carried out. Charminar Steel Castings Ltd. follows the standard condition type KOFI

Step	Cntr	Ctype	Description
10	1	KOFI	Acct Determination
10	2	KOFK	Acct Determination with CO

The Purpose to define account keys is to allocate them to the condition types in the pricing procedures. With the account keys, you group together similar accounts in financial accounting. Using the account key, the SAP System finds the desired G/L Account. This way you can allocate a separate account key to each condition type within a pricing procedure to implement detailed revenue account determination.

For example, you can allocate a freight condition to a freight revenue account, or a surcharge for packaging costs to a corresponding account for packaging revenues

Account Keys

Account Key	Description
ERL	Sales Revenues
ERS	Sales Deductions
ERF	Frieght Revenue
MWS	OutPut Tax

Assign G/L Accounts

The purpose is to allocate G/L accounts for revenue account determination. You have to make the allocation for every access sequence you have defined beforehand.

A variety of criteria is valid for a G/L account, depending on the key combination. For the key combination "Customer Group/Material Group/Account key" a G/L account depending upon the following criteria, for example, is given:

- Application (key for SD application)
- Condition type
- Chart of accounts (from the module FI)
- Sales organization
- Account assignment group for Customer
- Account assignment group for Material
- Account key

App	Cndty	Ch	S Org	AAG C	AAG M	Actky	G/L A/c NO	G/L A/c No
V	KOFI	CSCL	1001	01	01	ERL		
V	KOFI	CSCL	1001	01	01	ERS		
V	KOFI	CSCL	1001	01	01	ERF		
V	KOFI	CSCL	1001	01	01	MWS		

CREDIT MANAGEMENT

In business process credit sales is quite common to encourage the customer as well as slow moving goods. While generating credit to the customer, the business should be cautious other wise business may go bankrupt; so as to avoid these kinds of situations SAP delivers a feature called "Credit Management"

Here we have "centralized Credit Control Area" to monitor the credit limit of the customer.

The credit limit of the individual customer can be carried out through "Automatic Credit Check" by taking three factors in to consideration.

Credit Control Area: Credit control area is an independent organizational unit, which is responsible to monitor credit of the customer, and it is defined in FI/CO module.

Credit Control Area	Description
IACC	Credit Control Area

- **Risk Category:** Classifying attributes for customers from the viewpoint of credit risk such as: - high risk category, medium risk category and low risk category, which is maintained in FI Customizing

Risk Category	Description
001	High Risk
002	Medium Risk
003	Low Risk

Configuration Settings

Define Credit Groups

Credit group group's together different business transactions that at which document level credit check is going to be carried out, whether it is at

Credit Group	Document credit group
01	Credit Group for Sales Order
02	Credit Group Delivery
03	Credit Group for Goods Issue

Assign Sales Documents and Delivery Documents

Credit Limit Check for Order Types

SaTy	Description	Check Cr	Description	Cr.Group	Description
OR	Standard Order	D	Automatic Credit Check	01	Credit Group for Order Level
RO	Rush Order	D	Automatic Credit Check	01	Credit Group for Order Level

Check Credit Limit for Delivery Types

DelTy	Description	Check Cr	Description	Credit Gr.	Description
LF	Delivery	D	Auto Cr.Chk	or	Del.Lvl or PGI Lvl.
LO	Dlv.W/O	D	Auto Cr.Chk	or	Del.Lvl or PGI Lvl.

Define Automatic Credit Control

CCAR	Risk Cat.	Cr. Group	Cr. Control
IACC	001 or 002 or 003	01 or 02 or 03	High Risk or Med. Risk or Low Risk

DETERMINE

ACTIVE RECEIVABLES PER ITEM CATEGORY

Item Category	Credit Active
TAN – STANDARD ORDER	Yes
BVN – CASH SALES	Yes
RO – RUSH ORDER	Yes
TAS – THIRD PARTY ITEM	Yes
TAK-MAKE TO ORDER	Yes

ORDER TYPES ASSIGNED WITH RESPECTIVE CREDIT CHECK PARAMETERS.

Sales Doc Type	Description	Check Credit	DESCRIPTIOPN
OR	STANDARD ORDER	D	AUTOMATIC CREDIT CHECK
RO	RUSH ORDER	D	AUTOMATIC CREDIT CHECK

The meaning of Check Credit is whether system has to carry out simple or automatic credit check as follow

DELIVERY TYPES

Del type	Description	Del Credit Gp
LF	Outbound Delivery	01
LO	Returns	02
LR	Delivery without Reference	03
LF	Outbound Delivery	02
LO	Returns	02
LR	Delivery without Reference	02

5.3 OUTPUT DETERMINATION

Purpose:

Outputs are an important media for communicating with **Business Partners** or with your own employees in sales processing. Sales and distribution output can be sent both electronically and by mail. Output control which is dependent on various criteria allows output to be processed and sent subject to certain conditions and restrictions.

You have to define the following:

- Rules of output determination
- Print parameters
- When the sending of output is to be initiated

Output Determination Using the Condition Technique

Purpose:

You can use the condition technique to propose output in SD documents. This can be done according to criteria which you freely define. There are however some limitations to the

condition technique in picking lists. For more information see the chapter on output determination for picking lists in the Implementation Guide.

In this case, you can control output processing individually for each output recipient.

Maintain Output Determination for Sales Documents

Maintain Condition Tables

CONDITION TABLE	DESCRIPTION
501	Sales Org/Customer
502	Sales Org/Material

OUTPU T TYPE	DESCRIPTION
AF00	Inquiry
AN00	Quotation
BA00	Order Confirmation
K000	Contracts
LP00	Scheduling Agreements
RD03	Cash Sales

MAINTAIN ACCESS SEQUENCE

ACCESS SEQUENCE	DESCRIPTION
601	Sales Org/Customer.

ASSIGN OUTPUT TYPES TO PARTNER FUNCTION

In this step, you assign the allowed output types to Partner Functions .In addition, you can specify the allowed type of output processing for the combination of output types and partner functions.

MAINTAIN OUTPUT DETERMINATION

PROCEDURE	DESCRIPTION
V01000	Inquiry Output
V02000	Quotation output
V03000	Order output
V04000	Contract output
V05000	Scheduling Agreement output
V06000	Cash sales output
V07000	Item output

ASSIGN OUPUT DETERMINATION PROCEDURE

Here we assign output determination procedures to the documents. You may also specify an output type, which is to be displayed when the relevant document is displayed or changed.

MAINTAIN MASTER RECORDS.

OUTPUT DETERMINATION FOR OUTBOUND DELIVERIES

CONDITION TABLE

CONDITION TABLES	DESCRIPTIION
504	Sales Org/Customer

OUTPUT TYPES

OUTPUT TYPES	DESCRIPTION
LD00	Delivery Note

ACCESS SEQUENCE

ACCESS SEQUENCE	DESCRIPTION
	Sales Org/Customer

ASSIGN OUTPUT TYPES TO PARTNER FUNCTIONS

In this step, you assign the allowed output types to Partner Functions. In addition, you can specify the allowed type of output processing for the combination of output types and partner functions.

OUTPUT

PROCEDURE	DESCRIPTION
V08000	Delivery Output procedure

DETERMINATION PROCEDURE

ASSIGN OUTPUT DETERMINATION PROCEDURES

Here we assign output determination procedures to the documents. You may also specify an output type, which is to be displayed when the relevant document is displayed or changed.

OUTPUT DETERMINATION FOR BILLING DOCUMENTS

CONDITON TABLE

CONDITION TABLE	DESCRIPTION
505	Sales Org/Customer
506	Sales Org/Material

OUTPUT TYPES

OUTPUT TYPE	DESCRIPTION
RD00	INVOICE
RD04	INVOICE RECEIPT

ACCESS SEQUENCE

ACCESS SEQUENCE	DESCRIPTION
602	Sales Org/Customer

ASSIGN OUTPUT TYPES TO PARTNER FUNCTIONS

In this step, you assign the allowed output types to Partner Functions . In addition, you can specify the allowed type of output processing for the combination of output types and partner functions.

OUTPUT DETERMINATION PROCEDURES

PROCEDURE	DESCRITION
V09000	BILLING

5.4 TEXT DETERMINATION

Purpose:

In this IMG activity, you define the rules for text determination. You must carry out the following steps:

- Select a text object and define the rules for text determination for this object. Text objects are, for example, the sales texts in the customer master record or the sales document header.

- Define the permitted Text Type for every text object. If the text types contained in the standard SAP R/3 System are not sufficient, create new ones.

- Define the Access sequence . This way, you define how the SAP System should determine the texts for a text type.

- Group the text types together in Text determination procedure. The SAP System then proposes the text types from the procedure when you maintain a customer master record or a sales & distribution document. The search for the respective text is carried out using the access sequence, which you have stored for each text type in the procedure.

- Allocate the text determination procedures so that a procedure applies to the following criteria in each case:

Account Group customer
Sales & distribution document type
Item category

The following text objects exist:

Customer
Central texts
Accounting texts
Texts concerning the contact persons
Sales and distribution texts

Sales Document

Header texts
Item texts

Delivery

Header texts
Item texts

Billing Document

Header texts
Item texts
CAS

Define Text Types

Purpose:

You define the text types in this menu option. Different texts can exist for every text object. These are distinguished by there

Text types.

- ❖ Sales note for the customer
- ❖ Shipping instructions
- ❖ Selection for shipping
- ❖ Marketing notes
- ❖ Customer text

For every text type, you have to make the following definitions:

- ID (key of the text type)
- Description (description of the text type)
- Include ID (not yet used)
- Display text name

Define Access Sequences For Determining Texts

Purpose:

In this IMG activity, you define the **Access sequences**, which the SAP System uses to determine the texts for a text object.

Afterwards, you specify an Access sequence for the text search in the **determination procedure** for every **text type**.

You only define access sequences for **sales and distribution documents**, not for customer master records. With an access sequence, you define the sequence and the requirements of the search used by the SAP System to find a text.

NOTE: It is recommended to select the same text type for the text to be copied. For example, the text for the form header in the customer master record (text type 0001) should be copied into the text for form header of a sales document (text type 0001).

Define And Assign Text Determination Procedures

Purpose:

The **Text types** of a text object are grouped together in **Text determination procedures**. You assign a text determination procedure using certain keys, for example, account group customer or sales document type.

Afterwards you assign the defined text determination procedures as follows:

Text object	Key
Customer master record	Account group
Sales document header	Sales document type
Sales document item	Item category
Delivery header	Delivery type
Delivery item	Item category
Billing header	Billing type
Billing item	Billing type
CAS	CAS sales activity type

Note

Currently you cannot set up your own error groups for the incompletion log for texts in customizing.

In the standard SAP R/3 System, error group "50" is defined for texts. The incompletion log takes it into account if the texts are additionally characterized as required in the procedure.

5.5 LOG OFF INCOMPLETION ITEMS

Purpose

To have complete Document, it doesn't effect to subsequent document.

We define when a sales document or sales activity should be regarded as incomplete and how the system should respond when you create a document.

The system can make an entry in the incompletion log for the following data:

GROUP	DESCRIPTION
A	Sales-Header
B	Sales-Item
C	Sales-Schedule line
D	Partner
E	Sales Activity
F	Delivery header
G	Delivery Item

SALES HEADER

Incomplete Procedure	DESCRIPTION
10	Inquiry or Quotation
11	Sales Order
12	Outline Agreement
14	Credit Memo
15	Debit Memo
16	Item Proposal
17	Contract

SALES ITEM

Incomplete Procedure	DESCRIPTION
20	Standard Item
21	Credit/Debit memo Item
22	Sched.Agreement Item
23	Qty Contract Item
24	Free Charge of Item
33	Consignment/Ret.Pack.
35	Contract Item

SALES SCHEDULE LINE

INCOMPLETE PROCEDURE	DESCRIPTION
30	General Schedule line
31	Sched.Line w/Pur.Req

PARTNER

INCOMPLETE PROCEDURE	DESCRIPTION
07	Customer

DELIVERY HEADER

INCOMPLETE PROCEDURE	DESCRIPTION
K0	Outbound delivery
K2	Inbound delivery

DELIVERY ITEM

INCOMPLETE PROCEDURE	DESCRIPTION
L0	Out bound delivery
L2	Inbound delivery

ASSIGN INCOMPLETION PROCEDURE

Here we assign procedures to the different incomplete objects.

DEFINE STATUS GROUPS

We use status groups to define the status of incomplete sales and distribution documents. Then assign the status group to the fields in an incompletion procedure

5.6 AVAILABILITY CHECK & TRANSFER OF REQUIREMENT

Purpose:

Depending on the system configuration, the SAP System can check availability for every item in a sales document or delivery. Furthermore, it creates MRP records and passes them on to materials planning. The availability check is carried out at plant level.

TRANSFER OF REQUIREMENTS

The Transfer of requirements is basically dependent upon the following factors:

Requirements Class
Requirement Types
Check group
Schedule line category

Purpose:

The requirement class controls the MRP and the requirements consumption strategy as well as the relevancy for planning.

Define Requirements Types

Purpose:

Together with the item category and the MRP type of the material, an allocation to the individual transactions in sales and distribution is carried out by means of the requirements type. Requirements type. Every requirements type is allocated to a requirements class with its corresponding control features.

Determination Of Requirement Types Using Transaction

Purpose:

In the standard system, requirements types are determined according to a specific search strategy beginning with the material strategy group.

Define procedure for each schedule line category

In this IMG step, you specify for the respective schedule line categories of the sales documents whether an availability check and/or transfer of requirements should be carried out. These configurations are only relevant for the sales documents.

Maintain Requirements for Transfer of Requirements:

In this step you can maintain your own requirements for the transfer of requirements.

Maintain requirements for purchase and assembly orders

Purpose:

In this step you can maintain your own requirements for creating purchase requisitions.

AVAILABILITY CHECK

The availability check is controlled by means of the same elements as the transfer of requirements:

Requirements class
Requirements type
Checking group
Checking rule
Schedule line category
Strategy group
Planning strategy

In this step, make settings for planning and the availability check in ATP logic.

Purpose:
In this IMG activity, you define the checking group that the system proposes when you create a new material master record. You can overwrite the default value for the checking group in the material master record.

Carry out control for availability check

When specifying the inspection scope for a certain checking rule, you can currently select the following receipts and issues:

Purchase orders
Production orders
Purchase requisitions
Planned orders
Dependent requirements
Reservations
Dependent reservations
Sales requirements
Delivery requirements

SD requirements (= sales requirements and delivery requirements) reduce an available stock or inward stock movement on the material availability date so that other issues cannot access the reserved quantity.

When specifying the inspection scope for a certain check rule, you can currently select the following stock elements:

- **Safety stock** (to be maintained in material master record, MRP data)
- **Stock in transfer** in the receiving plant
- **Stock in quality inspection**
- Blocked stock

Replenishment lead time

Purpose:

The replenishment lead time specifies the time which is needed to order or produce a certain material. The system determines the replenishment lead-time as follows:

- For internally procured materials the replenishment lead-time is determined from the in-house production time and the goods receipt processing time or alternatively from the total replenishment lead time, if it is specified.

- For externally procured materials the replenishment lead time is determined from the goods receipt processing time and the processing time for purchasing.

Define procedure by requirements class

Purpose:

In this IMG activity you define for each requirements class whether an availability check and/or transfer or requirements should be carried out.

Define procedure for each schedule line category

Purpose:

In this IMG step, you specify for the respective **schedule line categories** of the **sales documents** whether an **availability check** and/or transfer of requirements should be carried out. These configurations are only relevant for the sales documents.

Requirements

The schedule line categories must already have been defined (see section **Defining and allocating schedule line categories**). The defined schedule line categories are automatically displayed for maintaining.

Determine procedure for delivery item category

Purpose: In this step, you can switch off the availability check for particular item categories in deliveries.

The availability check should be switched off for transactions such as returns delivery.

Checking rule for updating backorders
Purpose:

In this IMG step, you assign a checking rule to a plant. The checking rule specifies for the individual applications the checking rule according to which the **availability check** is carried out. The checking rule is described in the section **"Carry out control of the availability check"**.

Note:- The checking rule entered here is used in production planning. During backorder processing (CO06) and the availability overview (CO09), you should make sure that you are not using any checking rules that deviate from the SD configurations (checking rule A for orders and checking rule B for deliveries).

6.SALES CYCLE

6.1 SALES: Sales Document Types

The sales document types represent the different business transactions in sales, such as inquiry processing, quotation processing, and consignment stock processing. Following sales document types have been defined for Charminar Steel Castings Limited

IN	Inquiry	A
QT	Quotation	B
OR	Standard Order	C
BV	Cash sale	C
SO	Rush Order	C
RE	Sales Returns	H
CR	Credit Memo Request	K
DR	Debit Memo Request	L
RK	Invoice Correction Request	K
FD	Delivery Free of Charge	I
PV	Item Proposal	D

Number Ranges

When creating a sales document, a unique number is assigned which identifies the sales document. The number comes from the number range which is provided for the document type.

There are two possible types of number assignment:

- Internal number assignment (The SAP System automatically assigns a consecutive number from the defined number range.)
- External number assignment (You specify a number from the external number range.)

Charminar steel castings Limited is following the internal number ranges only.

Number ranges for sales document types (Comp code -)

Sales Doc Type	No Range	From Number	To Number
IN	01	1	10000
QT	02	10001	20000
OR	03	20000	30000
BV	04	30001	40000
SO	05	40001	50000
RE	06	50001	60000
CR	07	60001	70000
DR	08	70001	80000
RK	09	80001	85000
SD	10	85001	90000
FD	11	90001	95000
PV	12	95001	100000

Item Category

AFN	Inquiry Item
AGN	Quotation Item
TAN	Standard Item
TATX	Text Item
BVN	Cash Sale Item
REN	Sales Return Item
G2N	Credit Memo Request
L2N	Debit Memo Request
TAS	Third Party Sales
TAB	Individual Purchase
TAX	Non - Stock Item
PVN	Item Proposal
TA	Make to order

Item Category Group

The purpose for using the item category group is you group together different material types for item category determination. For every material type, you can define a default item category group which is proposed by the SAP System when you create a material master record. For Oil and Foods Limited following Item category groups are being maintained

Item Category Group	Description
NORM	Standard Item
ERLA	Header Level BOM
LUMF	Item Level BOM
BANS	Third Party Sales
BANC	Individual Purchase Order
0001	Make to order

Item Category Usage

The purpose to specify item category usages is to control the usage of an item. Item category usage controls, for example, the system response if during document processing an item does not refer to a material but to a text item. Item category usage can also be maintained via the item categories.

For Charminar Steel Castings Limited following usages is maintained:

Item Category Usage	Description
TEXT	Text Item

ASSIGNING ITEM CATEGORIES

The purpose of assigning item categories is to specify which item categories the system proposes during document processing for each sales document type and item category group. At the same time, you can specify additional item categories with which the system default can be overwritten.

The system default and the allowed alternatives are always determined from the sales document type and one or two further criteria. The system default depends on the following criteria:

- Sales Document Type
- Item Category Group
- Item Category Usage
- Item Category Of The Higher-Level Item

The SAP System automatically copies the item category determined for a sales document item to the delivery.

Item category assignment for Company Code - BFLC

Sales Doc Type	Item Cat Grp	Usage	High Level Item Cat Grp	Item Cat	Description
IN	NORM		--	AFN	Inquiry Item
QT	NORM		--	AGN	Quotation Item
OR	NORM		--	TAN	Standard Item
OR	NORM	TEXT	TAN	TATX	Text Item
OR	BANS			TAS	Third party
OR	BANC			TAB	Individual Purchase
BV	NORM			BVN	Cash sales
SO	NORM			TAN	Rush order
RE	NORM			REN	Sales Returns
PV	NORM			PVN	Item Proposal
OR	0001			TAK	Make To order

SCHEDULE LINES

Charminar Steel Castings Limited is following Standard SAP Schedule line categories and assignments.

Item Cat	MRP Ty	Schedule Line
AGN	ND	BN
TAN	PD	CP
REN	-	DN
TAS	-	CS
TAK	-	CP
LAN	-	F3
LNN	-	C3
TAL	-	E3

Copy controls for Sales Documents

The Purpose of defining copy controls is to control data for the GL Document Flow of Sales Documents. Here we can specify for a particular sales document type, which document type is to be assigned to copied reference documents, and which item categories or schedule line categories are to be copied.
Sales Doc types to Sales Doc types for **Company Code - CSLC**

Target S Doc	Description	Source S Doc	Description
QT	Standard Quotation	IN	Standard Inquiry
OR	Standard Order	QT	Standard Quotation
RE	Returns	OR	Standard Order
G2	Credit Memo Request	OR	Standard Order
L2	Debit Memo Request	OR	Standard Order
G2	Credit Memo Request	G2	Credit Memo Request
L2	Debit Memo Request	L2	Debit Memo Request
OR	Standard Order	OR	Standard Order

Billing Document types to Sales Doc types for Company Code – CSLC

G2	Credit Memo Request	F1	Invoice
G2	Credit Memo Request	F1	Invoice
L2	Debit Memo Request	F2	Invoice
RK	Invoice correction request	F2	Invoice
L2	Debit Memo Request	F2	Invoice

Delivery

Outbound delivery supports all shipping activities including picking, packing, transportation and goods issue. During the outbound delivery process, shipping-planning information is recorded, status of shipping activities is monitored and data accumulated during shipping processing is documented. When the outbound delivery is created, the shipping activities, such as picking or delivery scheduling, are initiated, and data that is generated during shipping processing is included in the delivery.

Delivery Processing

Charminar Steel Castings Limited has the need to do on-line release of goods to eliminate confusion whether it be product specific, customer specific, delivery hold, etc.

The delivery serves as a basis for:

Planning material requirements (MRP)

Picking

The process of grouping goods (materials) from the warehouse on the basis of sales orders, deliveries, or for staging materials for production.

A reduction in warehouse stock due to a withdrawal of stock or the delivery of goods to a customer.

The delivery forms the basis of goods issue posting. The data required for goods issue posting is copied from the delivery into the goods issue document.

When the goods have left your plant, the business transaction is regarded as completed from the point of view of shipping.

The material stock is reduced by the goods issue quantity and the corresponding value changes take place in accounting. This ensures that the quantity and value flows are parallel.

Material requirements for the delivery are reduced

The delivery status is updated

Delivery documents used for **Company Code – CSCL**

Delivery Doc Type	DESCRIPTION	Doc Category
LF	Outbound Delivery	J
LR	Returns Delivery	T
LO	Del. Without Ref.	J

Number Ranges

Number ranges used for Delivery documents (**Company Code - CSCL**):

Delivery Doc Type	NUMBER RANGE		
	CODE	FROM	TO
LF	33	1	100000
LR	34	100001	200000
LO	35	200001	300000

Item Category Determination for Deliveries

Ddocty	Itctrgr	Usage	Hgitctr	Dfitctr
LF	NORM	-	-	TAN
LO	NORM			DLN
LR	NORM			REN
LF	NORM	-	-	TAN
LO	NORM	-	-	DLN
LR	NORM	-	-	REN

Sales doc types to Delivery doc types for the Company Code - CSCL:

Target S Doc	Description	Source S Doc	Description
LF	Outbound Delivery	OR	Standard Order
LR	Returns Delivery	RE	Returns
LF	Outbound Delivery	BV	Cash Sale
LF	Outbound Delivery	RO	Rush Order

6.3 Billing

A key functional area of SAP that provides information about customer contracts rebates, billing status, and accounts.

6.3 Billing Document Configuration

1. Check billing block
2. Select type of invoice creation
3. Create billing document from delivery / sales order
4. Determine billing prices and taxes
5. Determine rebate amounts and accrual rates
6. Billing document relevant to accounting created
7. Monitor billing document
8. Send billing document

Billing Documents

Billing documents used for the **Company Code - CSCL**

Billing Type	Description
F2	Invoice
G2	Credit Memo
L2	Debit Memo
LG	Credit Memo List
LR	Invoice List
LS	Cancel Invoice List
S3	Cancellation
F5	Proforma Invoice for Order
F8	Proforma Invoice for Delivery
F1	Invoice
BV	Cash Sale
SV	Cancel cash sale

Number Ranges

Number ranges used for Billing documents (**Company Code - CSCL**):

Billing Type	NUMBER RANGE		
	CODE	FROM	TO
F2	39	1	100000
G2	40	100001	200000
L2	41	200001	300000
LG	42	300001	400000
LR	43	400001	500000
LS	44	500001	600000
S3	45	600001	700000
SV	46	700001	800000
F5	47	800001	900000
F8	48	900001	1000000
F1	49		
BV	50		

Sales Doc to Billing Doc for the Company Code - : CSCL

Target	Billing Doc Type	Source	Sales Doc Type
F2	Invoice	OR	Standard Order
G2	Credit Memo	G2	Credit Memo Request
L2	Debit Memo	L2	Debit Memo Request
BV	Cash Sale	BV	Cash Sale
F5	Proforma Invoice for Order	OR	Standard Order
F1	Invoice	OR	Standard Order
LR	Returns	LR	Returns

Delivery Doc to Billing Doc for the **Company Code - CSCL**:

Target S Doc	Description	Source S Doc	Description
F1	Invoice	LF	Delivery
F1	Invoice	LO	Delivery without Ref.
F2	Invoice	LF	Delivery
F2	Invoice	LO	Delivery without Ref.
LF	Outbound Delivery	RO	Rush Order
F8	Proforma Invoice for Invoice	LF	Delivery
JX	Excise Invoice India	LF	Delivery

Billing Doc to Billing Doc for the **Company Code - CSCL**:

Target	Billing Doc Type	Source	Billing Doc Type
L2	Debit Memo	F2	Invoice
LG	Credit Memo List	G2	Credit Memo
G2	Credit Memo	F2	Invoice
LR	Invoice List	F2	Invoice
LR	Invoice List	L2	Debit Memo
LS	Cancel Inv List	F2	Invoice
LS	Cancel Inv List	G2	Credit Memo
LS	Cancel Inv List	L2	Debit Memo
JX	Excise Invoice India	F2	Invoice
LR	Invoice List	F1	Invoice
LS	Cancel Inv List	F1	Invoice

CASH SALES

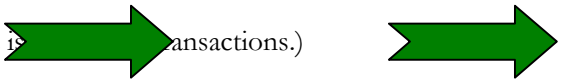
A cash sale is an order type for when the customer orders, picks up and pays for the goods immediately. The delivery is processed as soon as the order has been entered. A cash invoice can be printed immediately from the order and billing is related to the order. Receivables do not occur for the customer as they do for rush or standard orders, because the invoice amount is posted directly to a cash account.

Sales document type BV is used for cash sales with immediate delivery type BV. Once the customer has received the goods and is satisfied with them, the transaction is considered to be complete.

The system automatically processes the delivery in the background and prints out a cash sale invoice. The amount of the sale is processed later in an order-related billing transaction. The amount is posted to financial accounting, using the order number as reference. Because this is a cash sale, no invoice is produced during the billing run.

Cash sale **Delivery** **Billing**

(Document type is ansactions.)

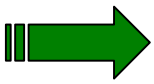


RUSH ORDER

In a rush order transaction, the customer picks up the goods or delivers the goods on the same day as the order is placed. When the sales document type save, a delivery is automatically created and billing is related to the delivery.

Sales document type RO is saved for rush orders with immediate delivery type LF.

RUSH ORDER(RO) **DELIVERY(LF)**



SALES RETURNS

Charminar Steel Castings Limited requires the ability to process returns for defective goods/rework/wrong shipments etc.

Charminar Steel Castings Limited has to improve the efficiency and turn around time in processing Returns

Returns processes vary between Company and Distribution Channel

Returns Documents Configuration

1. Delivery for Returns
2. Goods Receipt Processing for Returns
3. Create Inbound Delivery
4. Post goods Receipt

Return of Goods from Dealer to Plant - Business Process

- Returns are created when distributor returns the goods to the company.

- Returns scenario is only applicable for sales to domestic market.

Return of Goods from Institutional Customer to Plant - Business Process

- Returns are created when customer returns the goods to the company and returns the gods to Plant.

- Returns scenario is only applicable for sales to domestic market.

THIRD PARTY SALES

Business Process

In third-party order processing, your company does not deliver the items requested by a customer. Instead, you pass the order along to a third-party vendor who then ships the goods directly to the customer and bills you. A sales order may consist partly or wholly of third-party items. Occasionally, you may need to let a vendor deliver items you would normally deliver yourself.

If you order products from a third-party vendor, who delivers the goods directly to you so that you can then deliver them to the customer yourself, you can use individual purchase order processing.

Processing Third-Party Orders in Sales

Third-party items can be created automatically by the system, depending on how your system is set. However, you can also change a standard item to a third-party item during sales processing manually.

- **Automatic third-party order processing**

If a material is always delivered from one or more third-party vendors, you can specify in the material master that the material is a third-party item. During subsequent sales order processing, the system automatically determines the appropriate item category for a third-party item: TAS. To specify a material as a third-party item, enter **BANS** in the ***Item category group*** field in the *Sales 2* screen of the material master record.

- **Manual third-party order processing**

In the case of a material that you normally deliver yourself but occasionally need to order from a third-party vendor, you can overwrite the item category during sales order processing. For a material that you normally deliver yourself, you specify the item category group **NORM** in the material master.

If, as an exception, you use a third-party material, change the entry **TAN** to **TAS** in the *ItCa* field when processing the sales document. The item is then processed as third-party item.

Processing Third-Party Orders in Purchasing

When you save a sales order that contains one or more third-party items, the system automatically creates a purchase requisition in Purchasing. Each third-party item in a sales order automatically generates a corresponding purchase requisition item. During creation of the requisition, the system automatically determines a vendor for each requisition item. If a sales order item has more than one schedule line, the system creates a purchase requisition item for each schedule line.

Comparing Purchasing Data with Sales Data

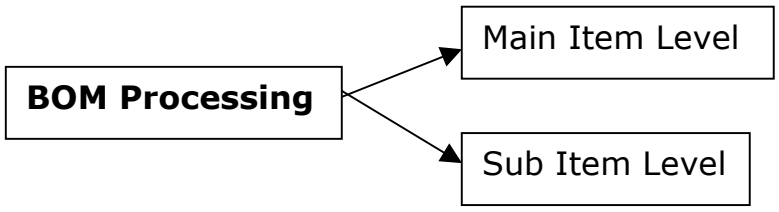
You can create a list of all sales orders with third party items for which there are discrepancies between the quantities ordered, invoiced, canceled, or credited in Sales and the quantities ordered, invoiced or credited in Purchasing.

ITEM CATEGORY DETERMINATIONS

SATY	ITCATGR	ITEMUSAGE	HGLVLITCTR	DFITCTR
OR	BANS	-	-	TAS
YOR	BANS	-	-	TAS

BILL OF MATERIAL (BOM)

Charminar Steel Castings Limited is using the BOM for its finished products and the subcomponents it is comprised of and the pricing of different sub items of its Consumables.



In Processing we maintain pricing.

We maintain Inventory and Pricing for Sub-items. Main item, which is composed by sub items, may not involve in either pricing/inventory. Based on the sub-items selected the system displays price of the main item.

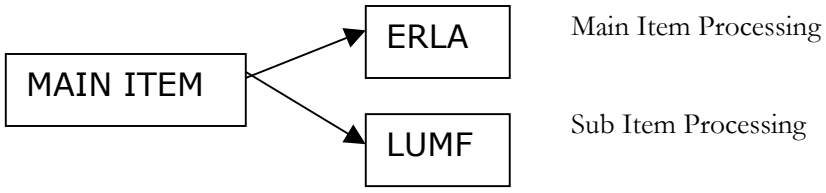
System Configuration Considerations

When maintaining pricing

For main item, the Item Category Group of the should be ERLA.

When maintaining Pricing of sub-item

For sub-items the Item Category Group of the should LUMF



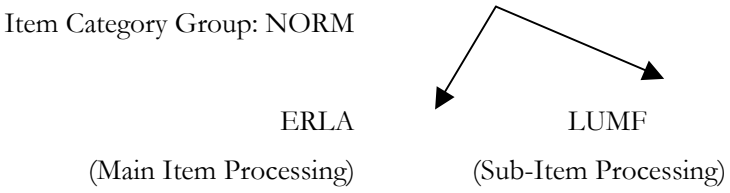
When it is Main Item processing – Item Category Group ERLA and main item –Item Category is TAQ and Sub-item Item Category is TAE.

When it is Sub-Item processing – Item Category Group LUMF and main item – Item Category is TAP and sub-item Item Category is TAN.

The TC code to create the BOM is CS01.

In this we are assigning sub-component as a stock item to main item.

In Material Master Record(MMR) Sales Org. 2 Screen we maintain under the General Item Category group :



Item Category Determination for BOM

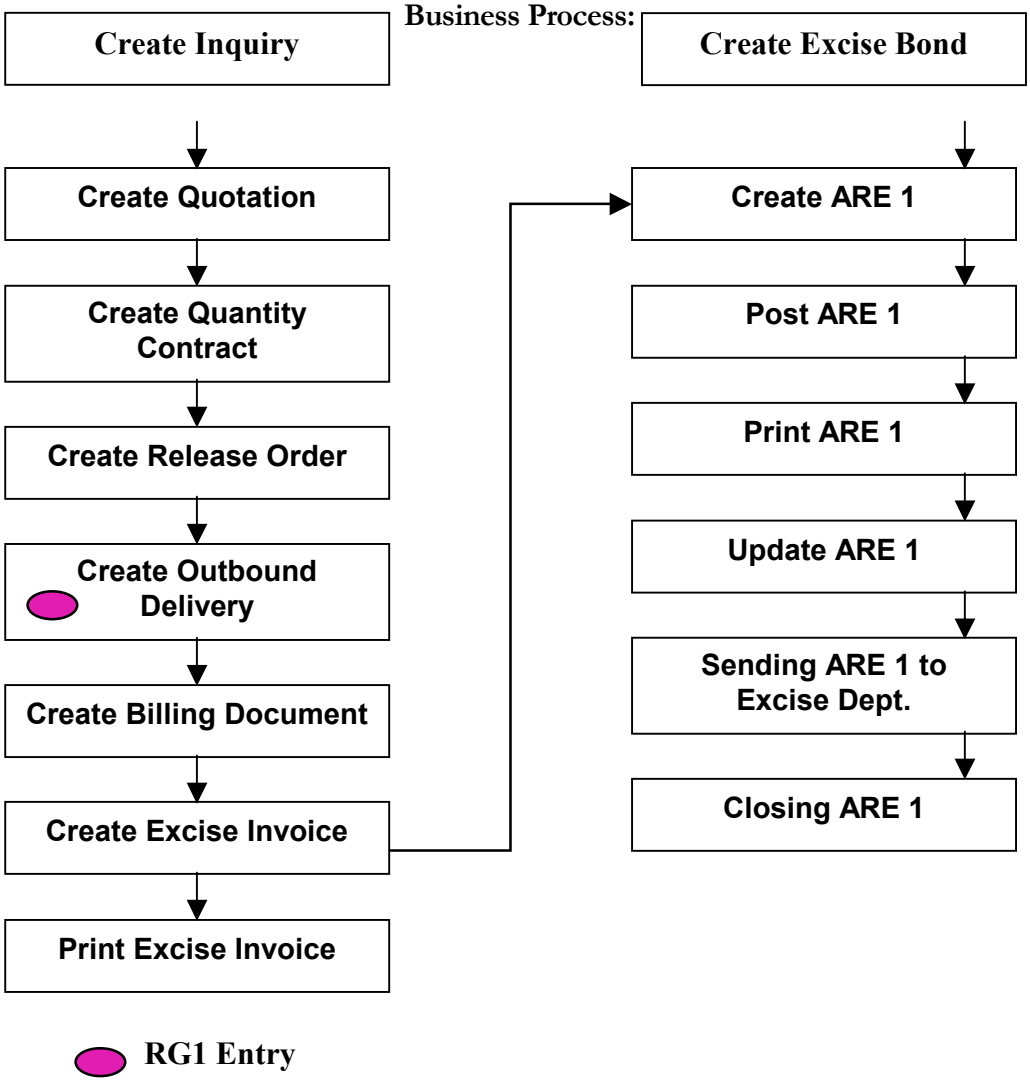
SATY	Itctrgr	ItemUsage	Hg.it.ctlvl	Dfitmcat
OR	ERLA	-	TAQ	TAN
OR	LUMF	-	TAP	TAE
YOR	ERLA	-	TAQ	TAN
YOR	LUMF	-	TAP	TAE

7. BUSINESS SCENARIO 1

Sales from plant to International MARKET **SCENARIO – A**
Process: For New Inquiries

This scenario covers creation of quantity-based contract for Make to Order based orders received from customers from overseas market.
A typical Quantity contract may have the following components:
Target quantity of the products with relevant prices.
The release order will be created as per customer requirement and subsequently billing to be done.

Business Process:



SCENARIO B

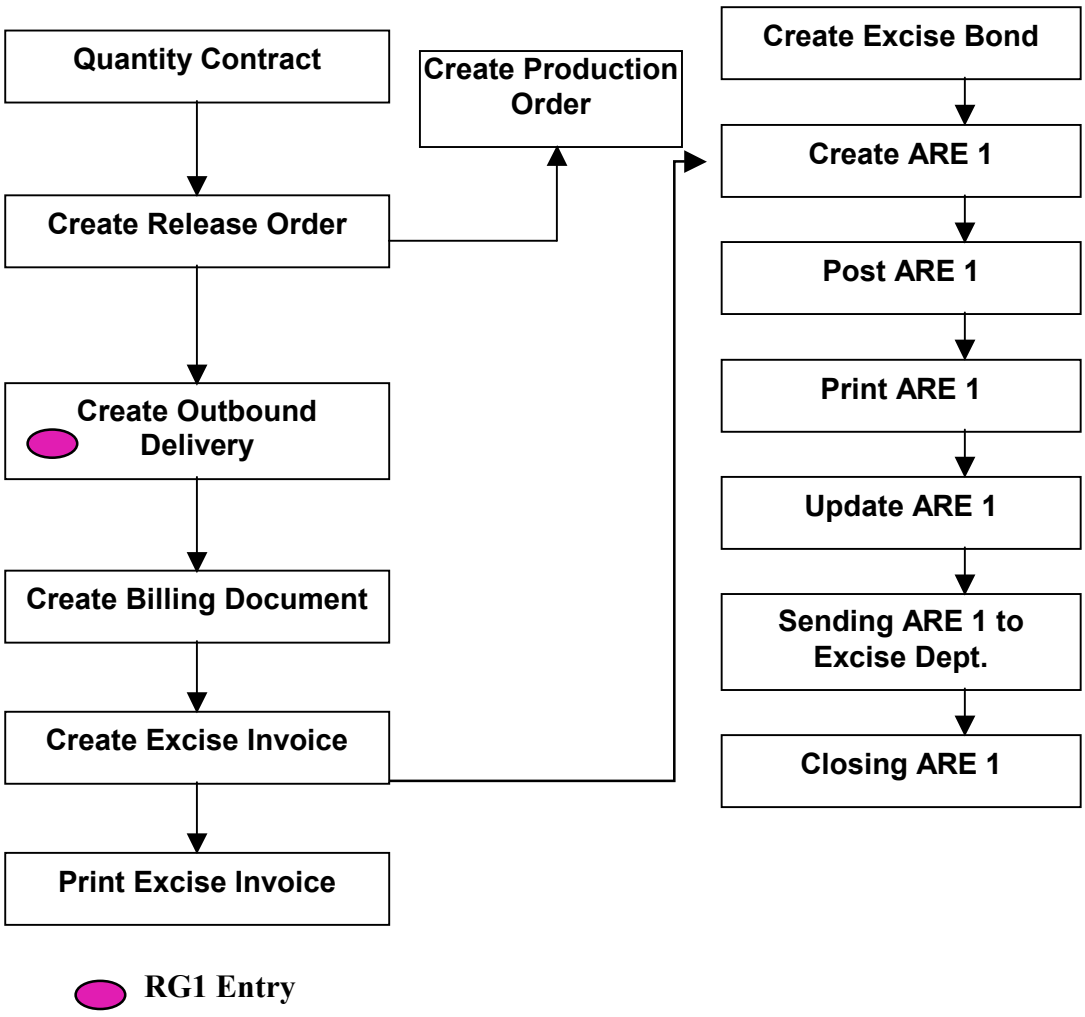
Process: For Existing Contracts

- A typical Quantity contract may have the following components:

Target quantity of the products.
Fixed price for the quantity.

- The release order will be created as per customer requirement and subsequently billing to be done.

Business Process:

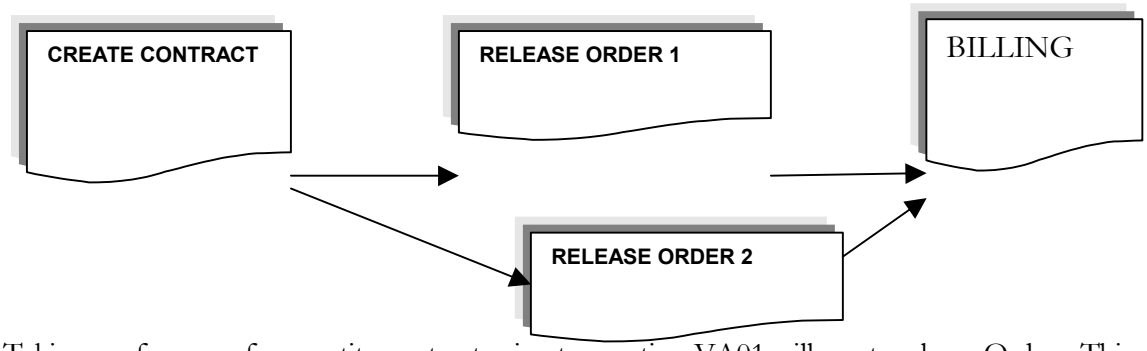


CREATION OF QUANTITY CONTRACT

Creation of quantity contract by setting a target quantity at header level and entering the items with basic information with prices but no schedule of specific delivery dates and quantities.

Release order will be created against the quantity contract and subsequently billing will be done. During creation of release orders, items selection will be done based on target quantity. Quantity contract provides the feature to check the released quantity as needed against the target quantity. A check on the target quantity will be put so that release order cannot be made once the target quantity is reached. The target quantity may be changed later after agreement with the customer.

creation of released order



Taking a reference of a quantity contract using transaction VA01 will create release Orders. This will help in selecting individual items from the target quantity. Billing will be done after release the release order using transaction **VF01.**

Billing

Billing will be done using transaction VF01 for the release order created against a quantity contract. Billing type F2 will be used for order related billing.

8. BUSINESS SCENARIO 2

SALE FROM PLANT TO DOMESTIC MARKET

SCENARIO A: Sale from Plant to Domestic Market

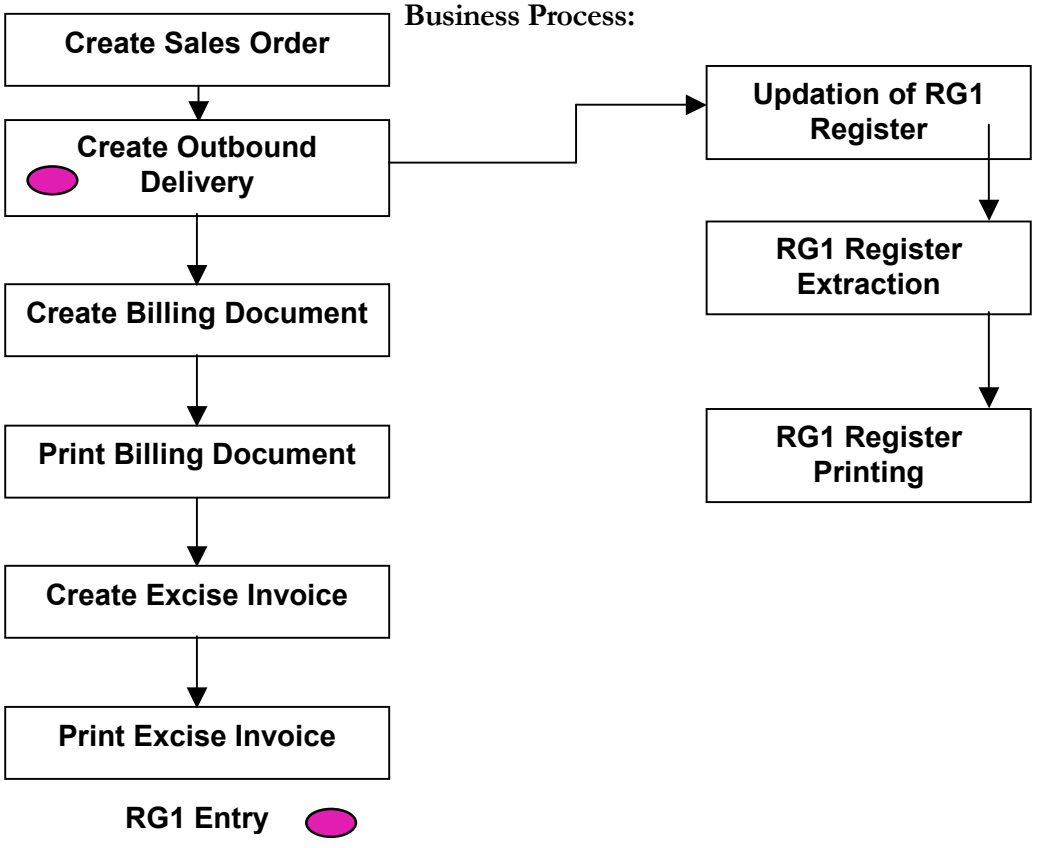
Business Process

- This scenario covers creation of sales orders for the Domestic for all over India from all the Hyderabad plants.
- The Sales Order will be created based on purchase order received from the Domectis market.

Additional items and rates will be decided as per the price list maintained for the domestic Market.

- Discounts & Schemes, if any to be kept in the sales order.
- Payment terms to be mentioned in the sales order.

Business Process:



9. BUSINESS SCENARIO 3

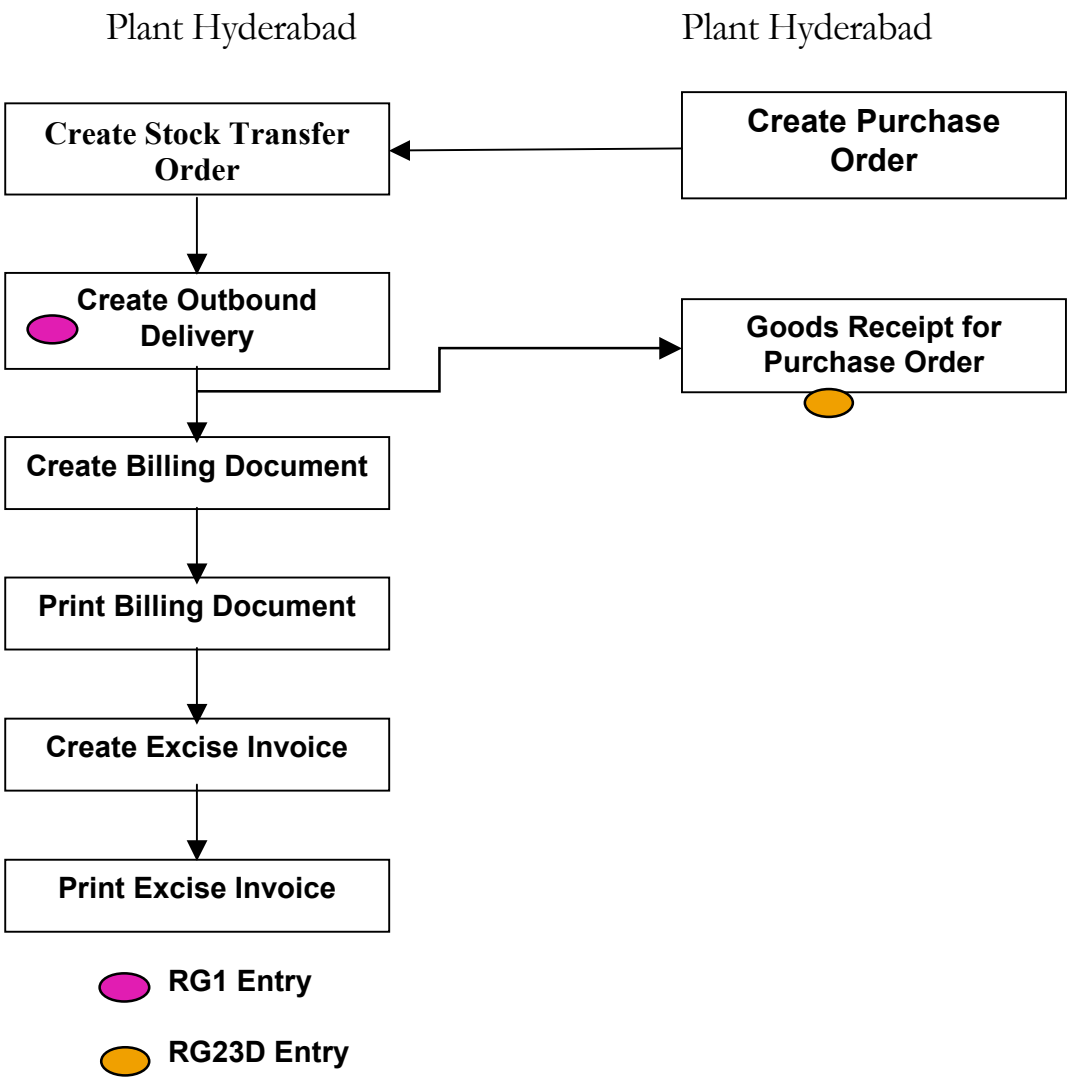
STOCK TRANSFER FROM PLANT TO PLANT

Scenario a: INTRACOMPANY PLANT TO PLANT STOCK TRANSFER

Business Process

This scenario covers delivery of goods from one plant to another with in the same company.

Business Process:

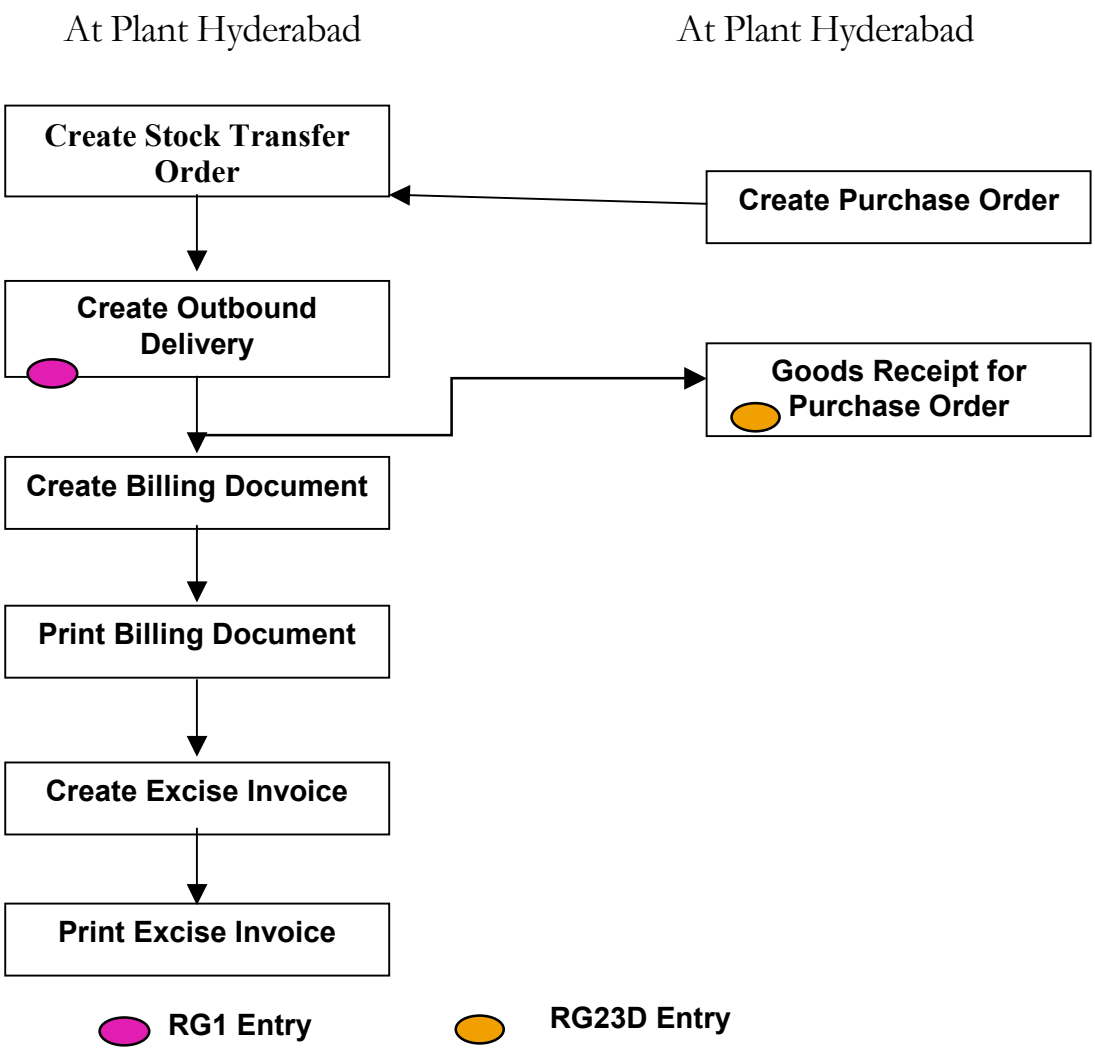


Business Process

- This scenario covers stock transfer of goods from one manufacturing plant to another manufacturing plant.

  - In Charminar Steels Limited two manufacturing plants, bothof them in Hyderabad .

Business Process:



10. BUSINESS SCENARIO 4

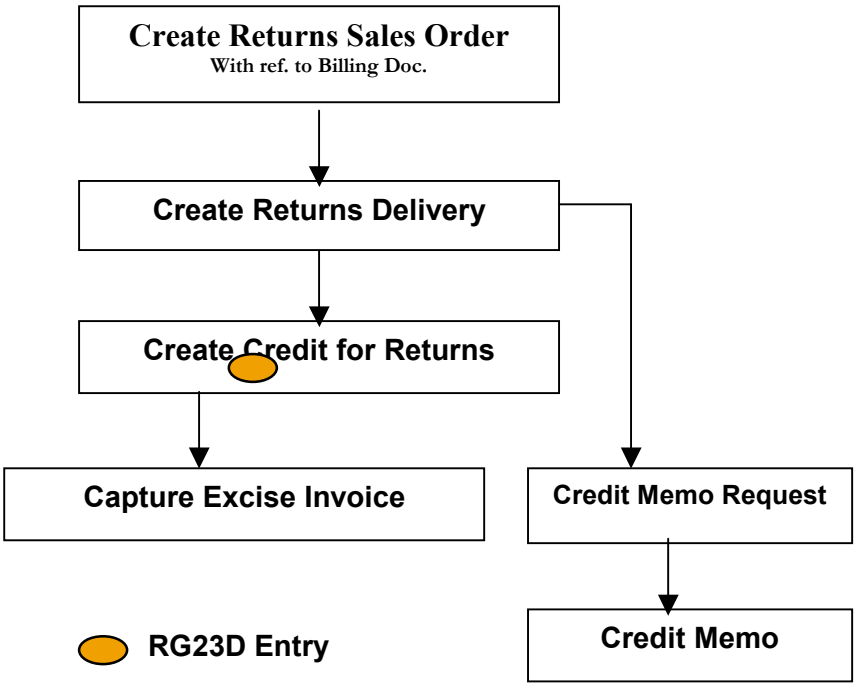
RETURN OF GOODS

Scenario a: RETURN OF GOODS FROM DISTRIBUTOR TO PLANT

Business Process

- **Returns are created when distributor returns the goods to the company.**
- **Returns scenario is only applicable for sales to domestic market.**

Business Process:

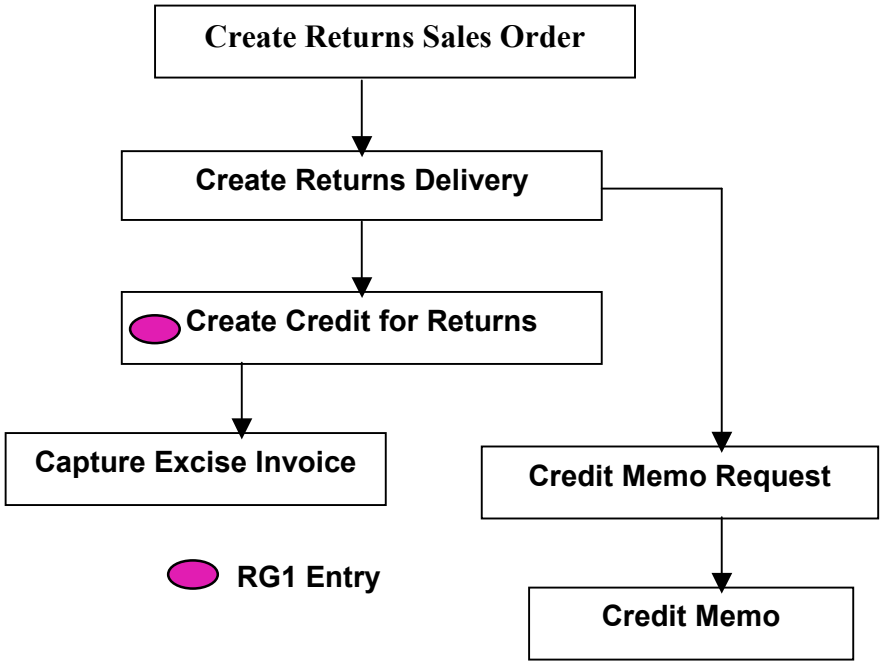


SCENARIO B: Return of Goods from Institutional Customer to Plant

Business Process

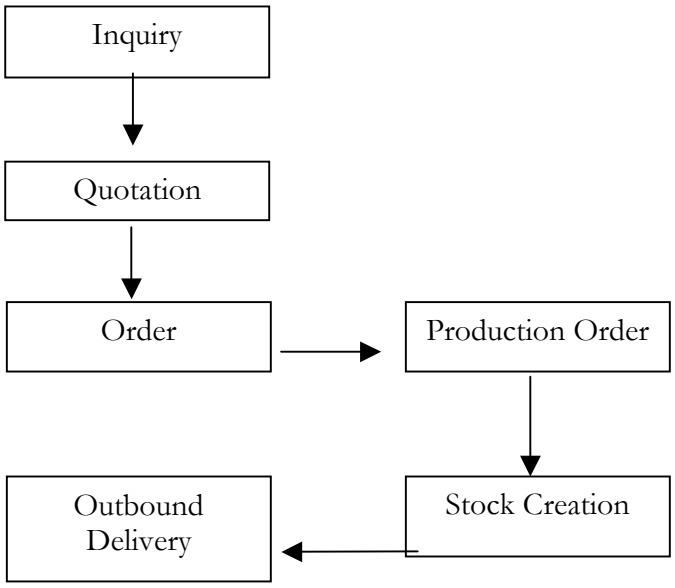
- Returns are created when customer returns the goods to the company and returns the gods to Plant.
- Returns scenario is only applicable for sales to domestic market.

Business Process:



11. BUSINESS SCENARIO 5

Make to Order



13.REPORTS

Reports can be generated in SD module from Sales Information System (SIS), which have a standardized interface and similar basic functionality. SIS is based on information structures. These statistics tables contain transactional data from the different applications. This data is constantly collected and updated by the System.

REPORTS REQUIRED FOR CHARMINAR STEEL CASTINGS LTD.

- Customer and material wise reports.
- Sales documents status wise reports such as sales order, delivery, billing etc.
- Sales Area wise reports. (export & Imports)
- Sales employee wise reports
- List of items with qty. already released against quantity contract.
- Cumulative invoice status quarterly/half yearly/annually against the contract.
- Payment received status customer wise/Business Area wise.
- Payment outstanding status customer wise/Business Area wise.
- Sales Report (Dealer Wise with cumulative past sales history) (Customized report)

Reporting Requirement

- List of items with qty. already released against different release orders of a contract.
- Cumulative invoice status quarterly/half yearly/annually against the contract.
- Billing status customer wise / Business Area wise.
- Payment receipt status customer wise/Business Area wise.
- Payment outstanding status customer wise/Business Area wise.

Standard Transaction Codes to be used are:

MCTA: Customer analysis
MCTC: Material Analysis
MCTE: Sales Organization Analysis
MCTI : Sales Employee Analysis
VA05 : Display list of Sales/Release Order (Area Wise)
VA05 : Display list of Sales/Release Order (Month/Year Wise)
VF04 : Display Billing Due List (Month/Year Wise)
VC/2 : Sales Summary (Area Wise / Month/Year Wise)
V.02 : Display list of incomplete orders (Area /Year/Month Wise)
SDV3 : Display list of complete orders (Area /Year/Month Wise)
VF06 : Create background processing of Billing (Batch Billing)
F.35 : Credit Master Sheet (Customer Wise)

14. PARAMETERS USED FOR SIS:

- Customer Statistical Group:

CUSTOMER STAT. GROUP	DESCRIPTION
1	`A' group
2	`B' group

- Material Statistical Group

MATERIAL STAT. GROUP	DESCRIPTION
1	`A' Material group
2	`B' Material group

The Following rules are used for Sales Information Structure:

In charminar steel casting Limited we are following the rules for updating the data of the sales documents into SIS. They are

UPDATING RULES	DESCRIPTION
1	Sales doc. Delivery doc. Billing doc.
2	Return order, Return delivery, Credit Memo
401	Third party: Sales Document, Delivery, billling document,
402	Return order, Return Delivery, Credit memo
403	Deliveries where preceding doc. Is purchase order
404	Returns deliveries where preceding doc. is purchase order

15.GAPS IDENTIFIED

- Customers advance payments in the form of deposits to be reflected in the Invoice.
- Sales Persons Employe ID to be reflected in the Invoice raised.
- Company logo and Terms and Conditions to be reflected in the Invoice.
- Billing doc no. and accounting no should be same.
- Customers One time deposit to be reflected in the Customer Master.

First ,Second and Third gaps will be address in the following way.

Customers advance payments to be reflected in the Invoice in Make to order scenario.

Sales Persons Employee ID to be reflected in the Invoice.

Company logo and Terms and Conditions to be reflected in the Invoice

INVOICE FORMAT

INVOICE

Address:----------

NUMBER\DATE Xxxxxx\\xxxx
REFNO\DATE Xxxxxx\\xxxx
DELIVERY NOTENO\DATE
Xxxxxx\\xxxx
Order No\Date Xxxxxx\\xxxx
Customer No Xxxxxx
SALES PERSONNEL IDNO
Xxxxxx

CUSTOMER ADVANCE PAYMENT
RS xxxxxx

Terms Of Payment Upto date. xxxxxxx without deduction currency INR
Terms of Delivery xxxxxxxxxxx
Weight \Volume selection
Gross weight xxxxxx units xxxxxx Net weight xxxxxx units xxxxxx

ITEM	MATERIAL	DESCRIPTION	PRICE	PRICE UNIT	VALUE

Discount XXXXX
Net Value of item
xxxxxxxxx Total Value of item
xxxxxxxxx

INTEGRATION WITH OTHER MODULES

FINANCE&CONTROLLING (FI/CO):

1.SALES ORGANISATION ASSIGNING TO COMPANY CODE:

Sales Org	Descripti	Company Code	Description
CSCL1	Sales O:	CSCL	CSCL company code

2.ACCOUNT GROUPS

0001	Sold to Party		0-1000
0002	Ship to Party		1001-2000
0003	Payer		2001-3000
0004	Bill to Party		3001-4000
0005	Export Agent		4001-5000

ACCOUNT GROUP ASSIGNED TO PARTNER DETERMINATION PROCEDURE AND PARTNER FUNCTIONS

ACCOUNT G	PARTNER DETERMINATI PRO.
0001	CSCl
0002	CSCL
0003	CSCL
0004	CSCL
0005	CSCL

ACCOUNT GROUP	PARTENER FUNCTIONS
0001	SP
0002	SH
0003	PY
0004	BP
0005	EA

Sales O	DIST.CHANN	DIVISION	CREDIT CONTROL ARI
SORG	Direct Sales	Defence	
SORG	Direct Sales	Surgical	
SORG	Direct Sales	Pressure valve	
SORG	Direct sales	Engineering	
SORG	Institutional Sal	Surgical	
SORG	Export Sales	Pressure Valve	

3.CREDIT CONTROL AREA ASSAIGNED TO SALES AREA AND CREDIT GROUPS

CREDIT CONTROL	RISK CATEGOR	CREDIT GRO	CREDIT CONTROL
		01	CR.GR. FOR SALES ORI
		02	CR.GR.FOR DELIVERIE
		03	CR.GR. FOR GOODS ISS

4. REVENUE ACCOUNT DETERMINATION;

App	Cond ty	Ch Ac	S. Org	AAG C	AAG M	Actky	G/L A/c N	G/L A/c
V	KOFI		SORG	01	01	ERL		
V	KOFI		SORG	01	01	ERS		
V	KOFI		SORG	01	01	ERF		
V	KOFI		SORG	01	01	MWS		
V	KOFI		SORG	02	01	ERL		
V	KOFI		SORG	02	01	ERS		
V	KOFI		SORG	02	01	ERF		
V	KOFI		SORG	02	01	MWS		
V	KOFI		SORG	01	02	ERL		
V	KOFI		SORG	01	02	ERS		
V	KOFI		SORG	01	02	ERF		
V	KOFI		SORG	01	02	MWS		

5. MAKE -TO-ORDER

- Separate G/L account for make to order

6. CUSTOMER MASTER RECORD

- General data
  i. Payment transactions
- Company code
  ii. Account management
  iii. Payment transactions
  iv. Correspondence
  v. Insurance
- Sales area data
  i. Terms of payment
  ii. Tax codes

PRODUCTION PLANNING (PP);

1. AILABILITY CHECK AND TRANSFER OF REQUIREMENTS

Item Cat	MRP Type	Schedule Line
AGN	ND	BN
TAN	PD	CP
REN	-	DN
TAS	-	CS
TAK	-	CP
LAN	-	F3
LNN	-	C3
TAL	-	E3

2.MATERIAL MASTER RECORD

- Sales/General plant
- Gross Weight
- Net Weight

Material Management(MM):

1. MATERIAL MASTER RECORD

Sales Org 1

Fields

- Sales Unit
- Delivery Plant
- Material Group
- Division
- Tax Data
- Minimum Order Qty
- Minimum Deliver Qty
- Delivery Unit
- Rounding Profile

Sales /General Plant

- Availability Check
- Transport Group
- Loading Group
- Material Group Packing Materials

Sales text

- Customer text
- Material text

CUSTOMER MASTER:

Billing documents

incoterms

Chapter

4

Production Planning

Production Planning the Heart of the operations module and is the essence of implementing SAP. Cost Cutting and Efficient Use of Resource

Production Planning is where the logistics of the Shop Floor is taken Care. This is where important elements like functioning of Shop Floor, Planning of the Material, Designing of Production Scheduled Etc. In Production Planning Sales Data from the Sales and Distribution is used for Planning and After a Cross check with cross modules will be Production Planning will plan the production of Shop Floor.

ICON KEY
Bill Of Materials
Production Orders
Shop Floor Control
Sales and Operations Plan

Overview

In Production Planning Material Requirement Is Planned. Operations are Planned in response to the Orders from Sales and Distribution, Shop Floor Activities Like Production Orders, Creation, Release, Confirmation are taken Care of. Demand Management is Done and Material Requirement Planning Elements are Taken care Off.. Production Planning Module integrates with various other modules like Finance and Controlling, Material Management, Sales And Distribution in various Regards pf the Functioning of the Organization.

Configuration

In Production Planning Bill Of Materials Are Designed and Configured, Work Centers are Mapped and Configured and Routing of the materials is charted out and configured. Functioning of the module involved in various key elements of the organization, which influences the performance and costing of the company.

Index

1. MASTER DATA

MATERIALS Types:

Sr. No.	Material Type	*Description*
1	**ROH**	Raw Materials
2	**HALB**	Semi Finished Products
3	**FERT**	Finished Products
4	**ERSA**	Spare parts
5	**VERP**	Packing Material
6	**PIPE**	Pipeline Material
7	**FHMI**	Production resources / Tools
08	**UNBW**	Non–Valuated Materials
09	**NLAG**	Non–Stock Materials
10	**ABF**	Waste
11	**DEN**	Service
12	**PROD**	Product groups
13	**VKHM**	Additional
14	**WERB**	Product catalogs

1.1. MATERIAL MASTER
For Plant 1 – Domestic

The materials are categorized into three types namely

i. Finished Product
ii. Semi-Finished Products
iii. Raw Materials

FINISHED PRODUCTS

Category	Product code	Description
Defense	DDE-REA143/07	Pistol Body
	DDE-ROA144/07	Revolver Body
	DDE-PIB144/07	Fire Arm
	DDE-PIC145/07	Rifle bracket
	EKE-PIC12/07	2.84Gun body
Engineering/ Automobile	DMM-PIA12/07	Switch Gear
	DMM-PIB12/07	Housing gear
	DMM-PIC12/07	Machine tool
	DTA-PIA25/07	Loom part
	DMM-COA12/07	wippe
Surgical	DYR-LIV1/07	Knee Cap
	DYR-LIU1/07	A M Tail
	DYR-LIU2/07	A M Head
	DYR-LIU3/07	Lever Arm
	DYR-LIK03/07	Mobilty 135
Oil and Gas	DOG-PIS1/07	Pressure valve
	ESH-VLV02/07	Beel typre body
	ESH-VLV03/07	Lantern ring
	ESH-VLU03/07	flange
	ESH-VLU04/07	Gas valve

RAW MATERIALS

This is the List of aw Materials Used In Charminar Steel Castings and are sorted Section wise

Section Used	Raw Material
Waxing	Filled Wax
	Paraffin Wax
	Re-Used Wax
Pre Coat	Zircon Floor
	Colloidal Silica 1
	Trichlorine Ethelyne 2
	Laboline
	Pctonil
	Zircon Sand
Shell Building	Gorg 200
	16/30 Malachite
	30/30 Malachite
Melting	Carbon
	Silicon
	Manganese
	Chromium
	Molybdenum
	Vanadium
	Copper
	Titanium
	MS(Scrap)
	SS(Scrap)
	Cobalt

SEMI FINISHED PRODUCTS

Work Center	Semi Finished for reference	Semi Finished(Actual)
Waxing	Wax Pattern	Wax Pattern
	Runner Bars	Runner Bars
	Risers	Risers
Assembly	Assembly Tree	Assembly Tree
Pre Coat	Slurry(Precoat)	Pre coated shell builded shell
	Pre Coated 1 Sheel	
	Precoated 2 Shell	
Shell Building	Shell Building 16/30	
	Shell Building 30/30	
	Slurry(Shell Building)	
De-Waxing	De-Waxed Shell	De-Waxed & Pre heated Shell
Pre Heat	Pre Heated Shell	
Melting	De-Waxed & Pre heated Shell	Casted Shell
	Charge(MS + Alloys)	
	Charge(SS + Alloys)	
	Charge(Re-cycled MS + SS)	
Fettling	Chemical Composition Casted Castings	Castings

1.2. BILL OF MATERIAL

Bill of materials is used in their different forms in various situations where a finished product is assembled from several component parts or materials. The structure of BOM is a multi level BOM and various scrap (component, operation & assembly) are considered during the production process.

BILLS OF MATERIAL IN PRODUCTION PLANNING

Bills of material (BOMs) and routings contain essential master data for integrated materials management and production control. In the design department, a new product is designed such that it is suitable for production and for its intended purpose. The result of this product phase is drawings and a list of all the parts required to produce the product. This list is the bill of material.

The data stored in bills of material serves as a basis for production planning activities such as:

- A design department (working with CAD) can base its work on bills of material. You can also create a BOM in the R/3 System from your CAD program, via the SAP-CAD interface.
- A material requirements planning (MRP) department explodes bills of material on a certain date to calculate cost-effective order quantities for materials.
- A work-scheduling department uses bills of material as a basis for operation planning and production control.
- A production order management department uses bills of material to plan the provision of materials.

	Finish and Semi Finished Products				Pistol Body	A M Tail	Loom part	Flange
	Base Qty				1Tree= 4nos	1Tree= 8nos	1Tree= 20nos	1Tree= 10nos
	Operation Loss				0.50%	1%	0.75%	0.80%
	Selling Cost In Rs				800	1600	1000	2000
Sr. No	Raw Material	Material GR	U/M	Purchase Cost In Rs.	Qty.	Qty.	Qty.	Qty.
1	Filled wax		Kg	120	2	2.25	2.35	2.5
2	Paraffin Wax		Kg	74	1	1.25	1.5	1.6
3	Re-used wax		Kg		1	1.25	1.5	1.6
4	Zircon Flour		Kg	53.82	0.1	0.2	0.25	0.5
5	Colloidal silica 1		Lit	17.5	0.1	0.15	0.2	0.25

6	Zircon Sand		Kg	40	0.5	0.6	0.8	0.85
7	Grog 200		Kg	8.82	0.2	0.25	0.35	0.45
8	16/30 Molachite		Kg	6.86	2	2.25	2.5	2.6
9	30/80 Molachite		Kg	6.86	2	2.25	2.5	2.65
10	Carbon		Kg	17.5	0.05	0.006	0.04	0.007
11	Silicon		Kg	45	0.055	0.1	0.023	0.075
12	Manganese		Kg	46	0.075	0.2	0.065	0.075
13	Chromium		Kg	60	0.1	1.8	0.103	1.9
14	Nickel		Kg	2400		1.25		0.95
15	Molybdenum		Kg	1975		0.25	0.03	
16	MS (scrap)		Kg	22	9.6		14.74	
17	SS (scrap)		Kg.	290		17.79		23.47
18	Re-Used MS Scrap		Kg					
19	Re-used SS Scrap		Kg					
20	Power		KW hr		40	40	42	45
21	Diesel		Kg		13.7	13.1	13.5	13.6
22	Wooden Box		1 no.	138	0.08	0.1	0.12	0.15

Product Code	Category	Description	Carbon	Silicon	Manganese	Chromium	Nickel	Molybdenum	Vanedium	MS Scrap	SS Scrap	Cobolt	Total Tree Weight
DDE-REA143/07	Defense	Revolver Body	40	45	75	100		17		9723			10000
DDE-ROA144/07		Rocker Arm	41	40	65	30		40	10	9774			10000
DDE-PIB144/07		Pistol Body	50	55	75	100				9720			10000
DDE-PIC145/07		Pistol Trigger	60	65	100	115			60	9600			10000
EKE-PIC12/07		LMG Bracket	20	40	70					9870			10000
DMM-PIM55/07	Engineering/ Automobiles	Forward Gear	40	43	75					14842			15000
DMM-PIB12/07		Gear Insert	55	43	65					14837			15000
DMM-PIC12/07		Piston Ring	40	23	78	100				14759			15000
DTA-PIA25/07		Loom Part	40	23	65	103		30		14739			15000
DMM-COA12/07		Piston	35	33	155			28		14749			15000
DYR-LIV1/07	Surgical	Knee Cap	35	100	100	2800	100		600	100	17742	16365	20000
DYR-LIU1/07		Knee Joint	8	100	200	1700	1200		250		18535		20000
DYR-LIU2/07		Mobility Joint	15	100	100	1250	100				17644		20000
DYR-LIU3/07		Am Tail	6	100	200	1800	1250	250			17792		20000

Storage Locations:

Sr. No	Plant's	Description	Nomenclature in sap
01	DOMESTIC Plant	Raw Material storage	SD10
02		Spare parts storage	SD20
03		Finished Products storage	SD30
04		Recycled wax	SD40
05		Recycled Metal	SD50
06		Scrap storage	SD60
07	EXPORT Plant	Raw Material storage	SE10
08		Spare parts storage	SE20
09		Finished Products storage	SE30
10		Recycled wax	SE40
11		Recycled Metal	SE50
12		Scrap storage	SE60

INTEGRATION

The data stored in bills of material is also used in other activities in a company such as:

Material Management (MM)
Reservation and goods issue
Finance and Controlling (FI / CO)
Product costing
To calculate the costs of materials required for a specific product

6.3. WORK CENTER

The work centers represent the different processing centers or production line responsible for the production of the finished product.
Processing of the work centers involves the maintenance of the following data:

- ✓ Basic Data
- ✓ Capacity data
- ✓ Scheduling data
- ✓ Costing data

Operations are carried out at a work center. It is categorized as follows

- o Machines, machine groups
- o Production lines
- o Assembly work centers

- Employees, groups of employees

- The different screens are controlled by the **work center category**, whereas the capacity data is differentiated according to the capacity category.
- The basic data view includes the description of the **work center**, the **task list usage** and the **standard value key**. The usage describes the usability of the work center in routings or other task lists.
- The standard value key supports the parameters, which represent the individual operational segments like machining and labor etc.
- The capacity view contains all the data for the availability of the capacity and the different formulas for the capacity requirement calculation.
- The scheduling view contains the scheduling data.
- The cost center view contains the costing data.

Work Centers and Machinery Plant wise

Name Of The Work Center		Design And Development		
		Plant 1 And 2	Plant 1& 2	Plant 1& 2
		CDDDW	Category	Activity type
Machines	CNC Lathe Machine 1	CDDDM101	Machine	Set, Mach, Labour, Power
	CNC Lathe Machine2	CDDDM102		
	Milling Machine1	CDDDM103		
	Milling Machine2	CDDDM104		
	Drilling Machine	CDDDM105		
	Die Making Machine	CDDDM106		
Instruments	Vernier Height Guage	CDDDI101	Instrument	Testing Time, Lab time
	Slip Guage	CDDDI102		
	Vernier Calipurse	CDDDI103		
	Digital Micro Meter	CDDDI104		
	Measurement Guage 1	CDDDI105		
	Measurement Guage 2	CDDDI106		
	Measurement Guage 3	CDDDI107		
	Surface Base Plate	CDDDI108		

Name Of The Work Centre		Waxing				
	Plant 1	Plant 2	*BCT in Hrs/batch)*		Plant 1 & 2 Work center category	Activity type
Waxing	**CDWPW1**	**CEWPW1**				
35 Ton Wax Injection Machine	CDWPM201	CEWPM201	**4**	**4**		
12 Ton Wax injection Machine	CDWPM202	CEWPM202	4	4		
10 Ton Wax injection Machine	CDWPM203	CEWPM203	4	4		
Wax Melting Tank (Used Wax)	CDWPM204	CEWPM204	2	2		
Fresh Wax melting Tank	CDWPM205	CEWPM205	2	2	Machine	Setup, Machine, Labour, Power
Pneumatic Wax Machine	CDWPM206	CEWPM206	4	4		
Water Cooler for Wax m/c cooling	CDWPM207	CEWPM207	4	4		
Drying machine	CDWPM208	CEWPM208	4	4		
1 HP Single Air Compressor	CDWPM209	CEWPM209	4	4		
Vernier Caliper,	CDWPI201	CEWPI201	1	1	Instrument	Testing time, Lab time
Micro Meter,	CDWPI202	CEWPI201	1	1		

Name OF the Work Center		PreCoat 1					
		Plant 1	Plant 2	Plant 1	Plant 2	Plant 1 & 2	
		CDPCW1	CEPCW1	BCT in Hrs/batch		Category	Activity type
Machine	Slurry tank	CDPCM401	CEPCM401	4	4	Machine	setup, labour, machine, power
	Slurry tank	CDPCM402	CEPCM402	4	4		
	Pre Coat Slurry Tank	CDPCM403	CEPCM403	2	2		
	Sand Raining Machine	CDPCM404	CEPCM404	1	1		
	Wall Mounted Air Circulating Machine	CDPCM405	CEPCM405	1	1		
	Slurry Mixing Machines	CDPCM406	CEPCM406	1	1		
	Wax De Waxing Tank	CDPCM407	CEPCM407	2	2		
Instruments	B4 Cup,	CDPCI401	CEPCI401	1	1		
	Dry and wet temperature Indicator,	CDPCI402	CEPCI402	1	1	Instrument	Testing, labour
	Digital Hydro Meter	CDPCI403	CEPCI403	1	1		

Name Of The Work Centre			Assembly Line			
	Plant 1	Plant 2	Plant 1	Plant 2	plant1& 2	
Assembly Line	CDALW	CEALMW	BCT in Hrs/batch		Work center category	Activity Types
Soldering Guns	CDALM301	CEALM301	4	4	Machine	Setup, machine, labour, power
Assembly Making Machine	CDALM302	CEALM302	2	2		

Name Of the Work Centre		Pre Coat 2					
		Plant 1	Plant 2	Plant 1	Plant 2	plant 1& 2	
				BCT in Hrs/batch		Work center category	Activity Type
		CDPCW2	CEPCW2				
	Slurry tank	CDPCM501	CEPCM501	4	4		
	Slurry tank	CDPCM502	CEPCM502	4	4		
	Pre Coat Slurry Tank	CDPCM503	CEPCM503	2	2		
	Sand Raining Machine	CDPCM504	CEPCM504	1	1		
Machine	Wall Mounted Air Circulating Machine	CDPCM505	CEPCM505	1	1	Machine	Setup, Labor, Machine, Power
	Slurry Mixing Machines	CDPCM506	CEPCM506	1	1		
	Wax De Waxing Tank	CDPCM507	CEPCM507	2	2		
				1	1		
	B4 Cup,	CDPCI501	CEPCI501				
Instruments	Dry and wet temperature Indicator,	CDPCI502	CEPCI502	1	1	Instrument	Testing, Labor
	Digital Hydro Meter	CDPCI503	CEPCI503	1	1		

Name Of The Work Center		Shell Building 1					
		Plant 1	Plant 2	Plant 1	Plant 2	Plant 1&2	
	Shell Building 1	**CDSBW1**	CESBW1	***BCT in Hrs/batch***		**Category**	**Activity Type**
				2	2	Machine	Setup,labour, machine, power
Machines	Slurry Making Machine,	CDSBM601	CESBM601				
	Ceramic Sand Raining Machine	CDSBM602	CESBM602	4	4		
	Drying Machine	CDSBM603	CESBM603	2	2		

Name Of The Work Center		Shell Building 2					
		Plant 1	Plant 2	Plant 1	Plant 2		Plant 1 & 2
	Shell Building 2	**CDSBW2**	**CESBW2**	**BCT in Hrs/batch**		**Category**	**Activity type**
Machines	Slurry Making Machine,	CDSBM701	CESBM701	2	2	Machine	setup, labour, machine, power
	Ceramic Sand Raining Machine	CDSBM602	CESBM602	4	4		
	Drying Machine	CDSBM603	CESBM603	2	2		

Name Of The Work Center		De Waxing					
		Plant 1	Plant 2	Plant 1	Plant 2		Plant 1 & 2
	De Waxing	**CDDWW1**	**CEDWW1**	BCT in Hrs/batch		**category**	**Activity type**
Machines	De Waxing Tank	CDDWM801	CEDWM801	2	2	Machine	setup, labour, machine, power
	De Waxing Tank	CDDWM802	CEDWM802	2	2		
	De Waxing Tank	CDDWM803	CEDWM803	2	2		

Name Of The Work Center		Pre Heat 1					
		Plant 1	Plant 2	Plant 1	Plant 2		Plant 1 & 2
	Pre Heat	**CDPHW1**	**CEPHW1**	BCT in Hrs/batch		**Category**	**Activity type**
Machines	Diesel Fired Furnace	CDPHM850	CEPHM850	2	2	Machine	Setup, labor, machine
	Diesel Fired Furnace	CDPHM851	CEPHM851	2	2		

Name Of The Work Center		Melting					
		Plant 1	Plant 2	Plant 1 BCT in Hrs/batch	Plant 2 BCT in Hrs/batch	Category	Activity type
Machine	Name Of The Machine	CDMSW1	CEMSW1				
	Induction Melting F/C 25Kg	CDMSM881	CEMSM881	1	1		
	Induction Melting F/C 35Kg	CDMSM882	CEMSM882	2	2		
	Induction Melting F/C 75 Kg	CDMSM883	CEMSM883	3	3		
	Diesel Fired Furnace1	CDMSM884	CEMSM884	1	1	Machine	Setup, Machine, Labour, Power
	Diesel Fired Furnace2	CDMSM885	CEMSM885	1	1		
	Diesel Fired Furnace3	CDMSM886	CEMSM886	1	1		
	1HP Single Head Air Compressor	CDMSM887	CEMSM887	1	1		
	WaterSoftening Plant	CDMSM888	CEMSM888	1	1		

Name Of The Work Center		Fettling					
		Plant 1	Plant 2	Plant 1	Plant 2	Plant 1 & 2	
		Plant 1	**Plant 2**	***BCT in Hrs/batch***		**Category**	**Activity type**
		CDFEW1	**CEFEW1**				
	Shot Blasting Machine1	CDFEM901	CEFEM901	1	1		
	Shot Blasting Machine 2	CDFEM902	CEFEM902	1	1		
	Shot Blasting Machine3	CDFEM903	CEFEM903	1	1		
	Belt Polishing Machine1	CDFEM904	CEFEM904	1	1		
	Belt Polishing Machine2	CDFEM905	CEFEM905	1	1		
	Belt Polishing Machine3	CDFEM906	CEFEM906	1	1		
	Pneumatic Gun1	CDFEM907	CEFEM907	1	1		
	Pneumatic Gun2	CDFEM908	CEFEM908	1	1		
Machines	Pneumatic Gun3	CDFEM909	CEFEM909	1	1	Machine	setup, labour, machine ,power
	Pneumatic Gun4	CDFEM910	CEFEM910	1	1		
	Pneumatic Guns5	CDFEM911	CEFEM911	1	1		
	Electric Heat Treatment Furnace2	CDFEM912	CEFEM912	4	4		
	Muffle Furnace	CDFEM913	CEFEM913	1	1		
	Virgo (Electric)	CDFEM914	CEFEM914	1	1		
	Cuttinv MachineX2)	CDFEM915	CEFEM915	1	1		
	Hydraullic Press Machine	CDFEM916	CEFEM916	1	1		
	Shelll Knocking Machine	CDFEM917	CEFEM917	1	1		
	Chain Pulley Block	CDFEM918	CEFEM918				

Name Of The Work Center		Quality Assurence					
		Plant 1	Plant 2	Plant 1	Plant 2	Plant 1 & 2	
		CDQMW1	**CEQMW1**	**BCT in Hrs/batch**		**Category**	**Activity types**
Machine	Tensile Testing Machine	CDQMM951	CEQMM951	1	1	Testing Machines	Testing time, Labor time, power
	Brinell Hardness Testing Machine	CDQMM952	CEQMM952	1	1		
	Rockwell Hardness Testing Machine	CDQMM953	CEQMM953	1	1		
	Impact Testing Machine	CDQMM954	CEQMM954	1	1		
	Spectro Meter	CDQMM955	CEQMM955	1	1		
	Crack Detection Machine (Magnetic Machine)	CDQMM956	CEQMM956	1	1		
	Crack Detection Machine (Dye Penetrant)	CDQMM957	CEQMM957	1	1		
Instruments	Digita Verneir Calipurse	CDQMI950	CEQMI950	1	1	Testing Instruments	Testing time, Labour time
	Digital Micrometer	CDQMI951	CEQMI951	1	1		
	Guage 1	CDQMI952	CEQMI952	1	1		
	Guage 2	CDQMI953	CEQMI953	1	1		
	Guage 3	CDQMI954	CEQMI954	1	1		
	Gauge 4	CDQMI955	CEQMI955	1	1		

SHIFT AND SHIFT SEQUENCE

The available capacity of a shift is defined by the following data:

- Shift start, shift end, break times
- Capacity utilization rate
- Number of individual capacities

Shift start, shift end and break times can be manually maintained in capacity. You can however also use shift

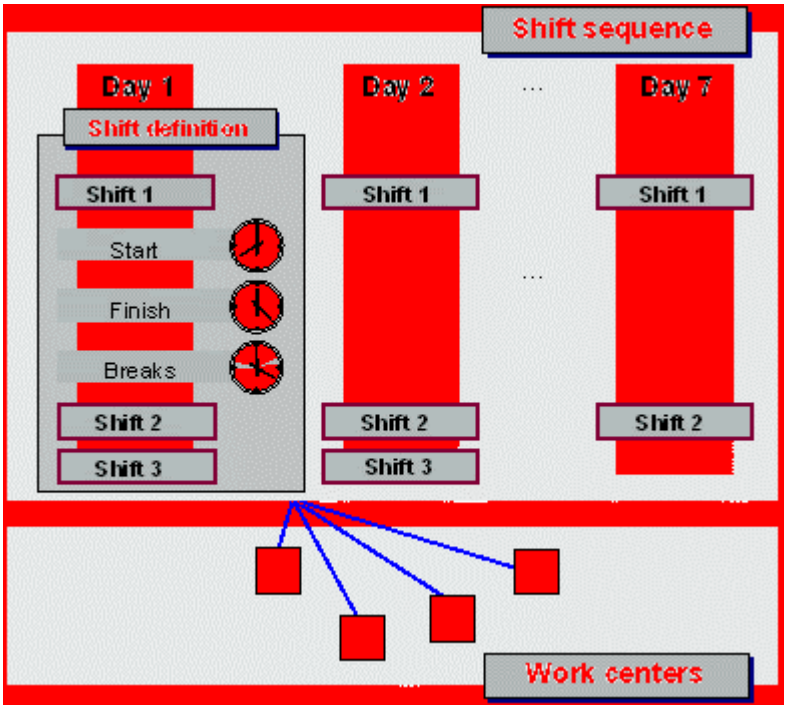
Shift definition

In a shift definition you define the start, finish, break times, and validity period of a shift.

Shift sequence

In a shift sequence, you define how shifts follow another on a daily basis for the duration of a Cycle. You use shift definitions to do this.

The following graphic illustrates the principle of shift definitions and shift sequences:



INTEGRATION

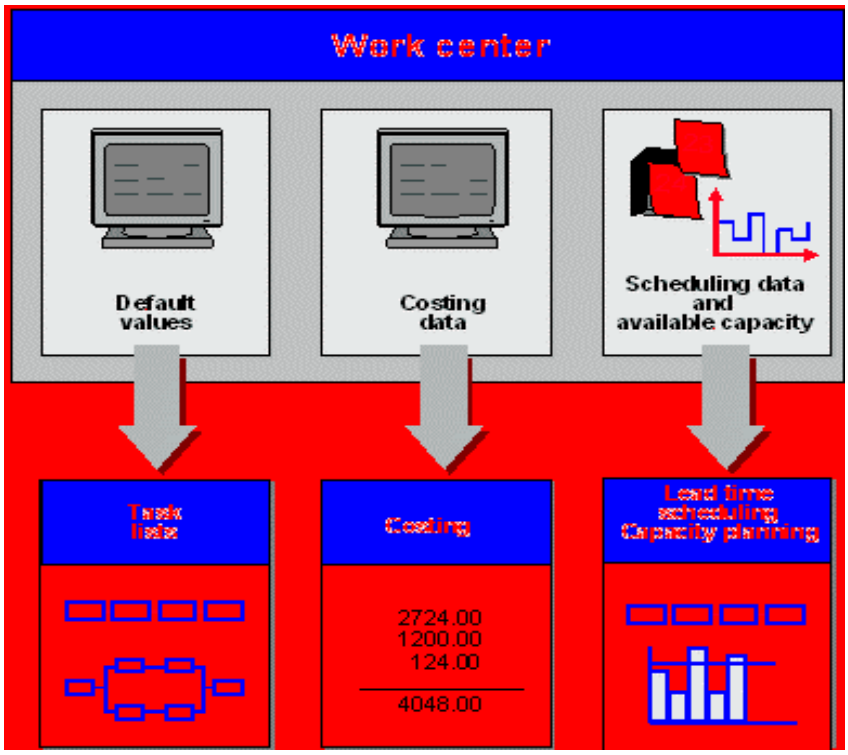
Human Resource (HR)

A Logistics work center can be assigned to either an organizational unit or a work center in the Human Resource Management System (HRMS). Assignments to other HR-objects, for example employees or qualifications, can be maintained via the HR work center.

Finance and Controlling (FI / CO)

- Costing

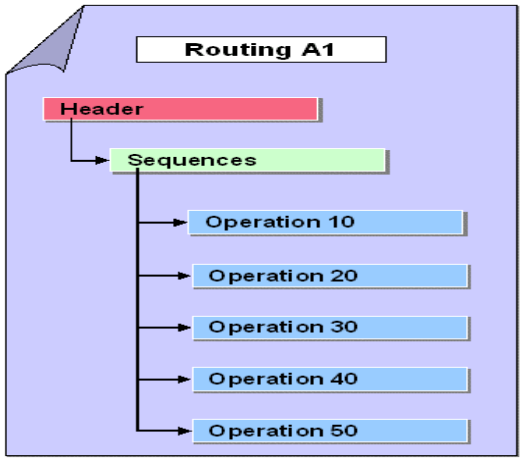
Formulas are entered in the work center, so that the costs of an operation can be calculated. A work center is also assigned to a production cost center and the production cost center has been assigned to appropriate activity types. The prices for these activity quantities are calculated using the activity prices.



6.4. ROUTING

Routings enable you to plan the production of **materials** (products). Therefore, routings are used as a template for production orders and run schedules as well as a basis for product costing.

As the production scenario in plant1, plant3 and plant1 (auto-components) is of discrete manufacturing, so normal routing is considered for the above plants.



Routing	Plant 1	Plant 2
Design & Development		CDDDW
Waxing	CDWPW1	CEWPW1
Assembly	CDALW1	CEALW1
Pre Coat 1	CDPCW1	CEPCW1
Pre Coat 2	CDPCW2	CEPCW2
Shell building 16/30	CDSBW1	CESBW1
Shell Building 30/80	CDSBW2	CESBW2
De Waxing	CDDWW1	CEDWW1
Pre – Heat	CDPHW1	CEPHW1
Melting	CDMLW1	CEMLW1
Fettling	CDFEW1	CEFEW1
Heat Treatment	CDHTW1	CEHTW1
Finishing	CDFIW1	CEFIW1
Testing	CDQAW1	CEQAW1
Packing	CDPKW1	CEPKW1

Rate Routing

A routing for whose operations the production quantity and a fixed duration has been defined. Thus the production rate is also defined.

Rate routing is considered for plant 1 (Domestic) as it purely involves repetitive manufacturing scenario.

Plant wise list Of Production Resource Tools for Plant 1.

Sr.No	PRTs	U/M	Pistol Body	A M Tail	Loom part	Flange
1.	Pistol Body Die	Nos	1			
2.	A M Tail Die	Nos		1		
3.	Loom Part Die	Nos			1	
4.	Flange Die	Nos				1
5.	Weighing Balance	Nos	1	1	1	1
6.	Trolleys	Nos	1	1	1	1
7.	Lift	Nos	1	1	1	1
8.	Samplers	Nos	10	10	15	10
9.	Temp Indicator	Nos	10	10	10	10
10	B4 cup	Nos	1	1	1	1
11	Vernier caliper	Nos	1	1	1	1
12	Micro Meter	Nos	1	1	1	1
13	Pressure Indicator	Nos	1	1	1	1

Plant wise list Of Production Resource Tools for Plant 2.

Sr. No	PRTs	U/M	Pistol Ring	Knee Joint	Pressure Valve	Bell Type body
1	Pistol Ring Die	Nos	1			
2	Knee Joint Die	Nos		1		
3	Pressure Valve Die	Nos			1	
4	Bell type Body Die	Nos				1
5	Weighing Balance	Nos	1	1	1	1
6	Trolleys	Nos	1	1	1	1
7	Lift	Nos	1	1	1	1
8	Samplers	Nos	10	10	15	10
9	Temp Indicator	Nos	10	10	10	10
10	B4 cup	Nos	1	1	1	1
11	Vernier caliper	Nos	1	1	1	1
11	Micro Meter	Nos	1	1	1	1
12	Pressure Indicator	Nos	1	1	1	1

INTEGRATION

Material Management (MM)

- Plan the usage of materials
- Plan the external processing of operations

Finance and Controlling (FI / CO)

- Prepare cost calculation according to routings

7. PRODUCTION PLANNING

7.1SALES & OPERATIONS PLANNING (SOP)

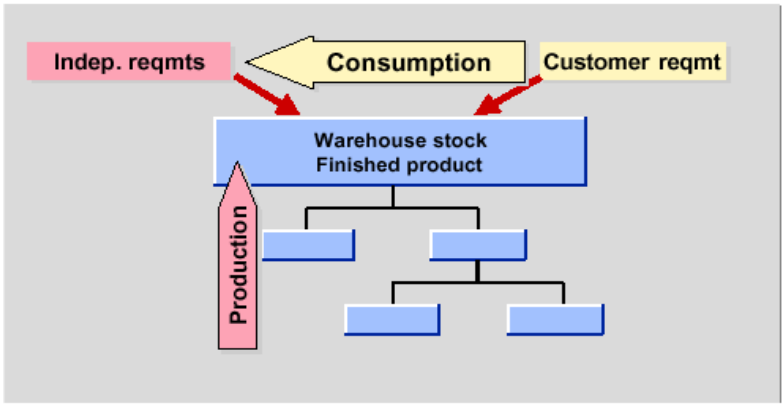
Sales & Operations Planning (SOP) is a flexible forecasting and planning tool with which sales, production, and other supply chain targets can be set on the basis of historical, existing, and estimated future data. **Rough-cut planning** can also be carried out to determine the amounts of the capacities and other resources required to meet these targets. SOP is particularly suitable for long- and medium-term planning.

For planning purpose, the required sales plan can be gathered from various sources like Forecasting, Sales Information Systems and Co-PA (Cost-Profitability analysis) or can be created manually.

Based on sales plan, the production plan is created and the requirements are then transferred to demand management.

- Planning with final Assembly – 40

Target: Fast reaction to customers' demands keeping production as smooth as possible.

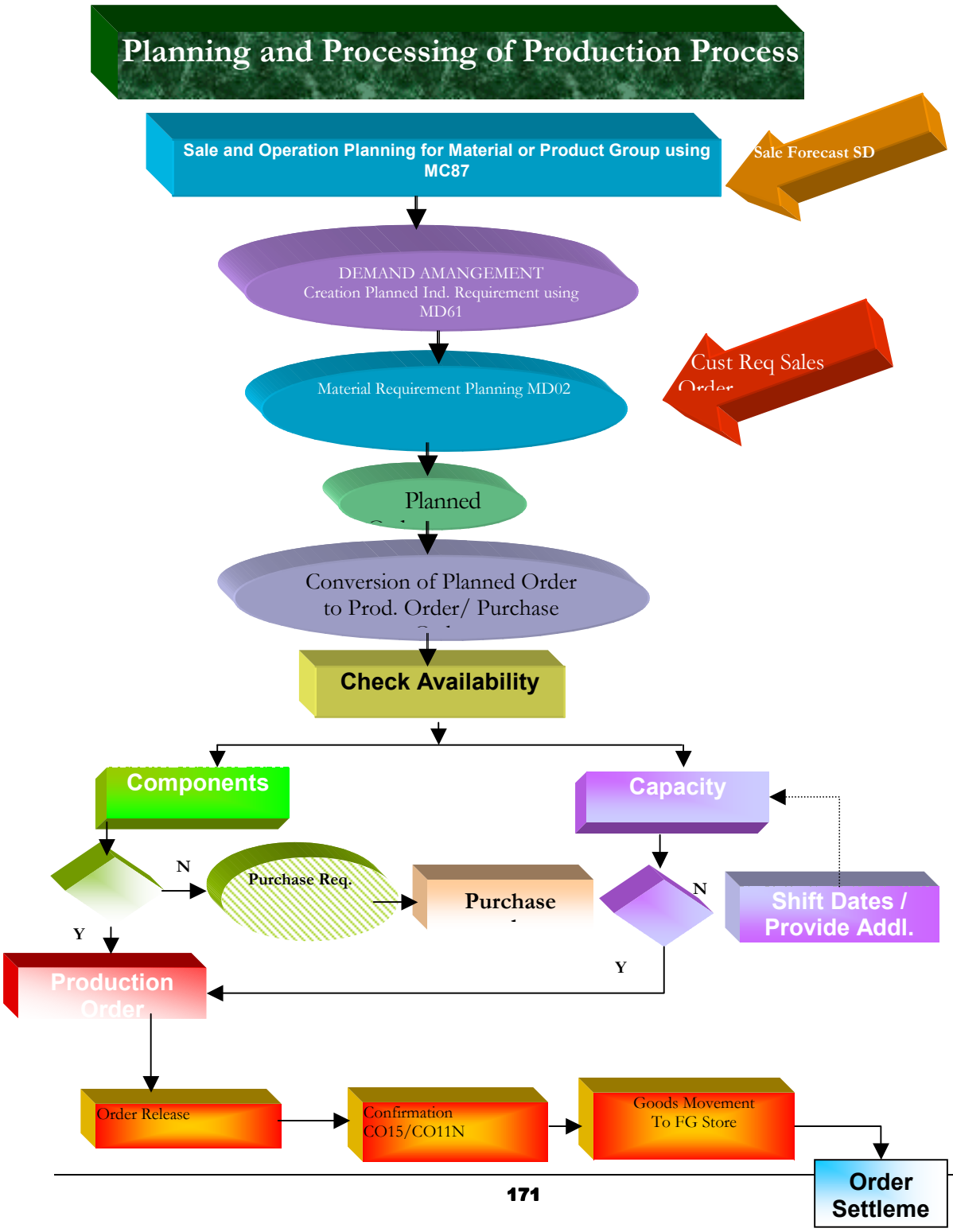


Sales orders affect requirements and consume planned independent requirements

PLANT 1:

This is a domestic plant. Here we use strategy 40 i.e planning with final assembly. In this PIR's are created based on the forecast of sales plan and sets the targets for the future.

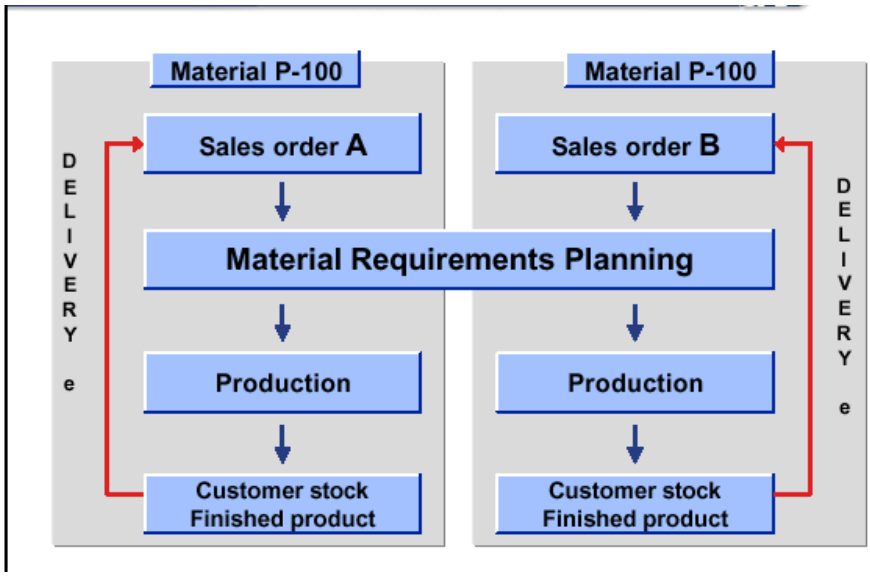
Transaction code: MC87



PLANT2:

This is an export plan. Here we use strategy 20 i.e make to order. In this plant SOP is not maintained as production depends on sales orders only.

- **Make-to-Order - 20**



INTEGRATION

Sales and Distribution (SD)

✓ SOP constitutes the planning functionality of the LIS information systems.

✓ SOP plans are passed on to Demand Management in the form of independent requirements. In turn, this data is fed to Master Production Scheduling and Material Requirements Planning.

Finance and Controlling (FI/CO)

✓ An interface with Profitability Analysis (CO-PA) allows using CO-PA data as the basis for sales planning in SOP.

✓ SOP results are passed on to Profitability Analysis (CO-PA), Cost Center Accounting and Activity-Based Costing.

7.2 DEMAND MANAGEMENT

The function of Demand Management is to determine requirement quantities and delivery dates for finished products assemblies. Customer requirements are created in sales order management.

- The demand program is created in the form of planned independent requirements. Demand management uses **planned independent requirements** and **customer requirements**. Customer requirements are created in sales order management

- To create the demand program, define the planning strategy for a product. **Planning strategies** represent the methods of production for planning and manufacturing or procuring a product.

- Using these strategies, it can be decided if production is triggered by sales orders (**make-to-order** production), or if it is not triggered by sales orders (**make-to-stock** production).
- Or, you may want both sales orders and stock orders in the demand program. If the production time is relatively long in relation to the standard market delivery time, you may want to produce the product or, at least, certain assemblies before any sales orders exist. In this case, the sales quantities are preplanned (for example, with the aid of the sales forecast).

PLANT 1:

Here planning with final assembly strategy was fallowed. Demand program is created in the form of PIR's and also sales orders. According to this strategy, Sales forecast quantity can be transferred to demand management that planned independent requirements quantity needs to be produced and creates Planned Orders at that time of MRP run.
Transaction code: MD61

PLANT 2:

Here Make to Order Planning strategy was fallowed. Demand program is created from sales orders. According to this strategy Customers requirement (Sales Orders) quantity to be produced and create Planned Orders at that time of MRP Run.

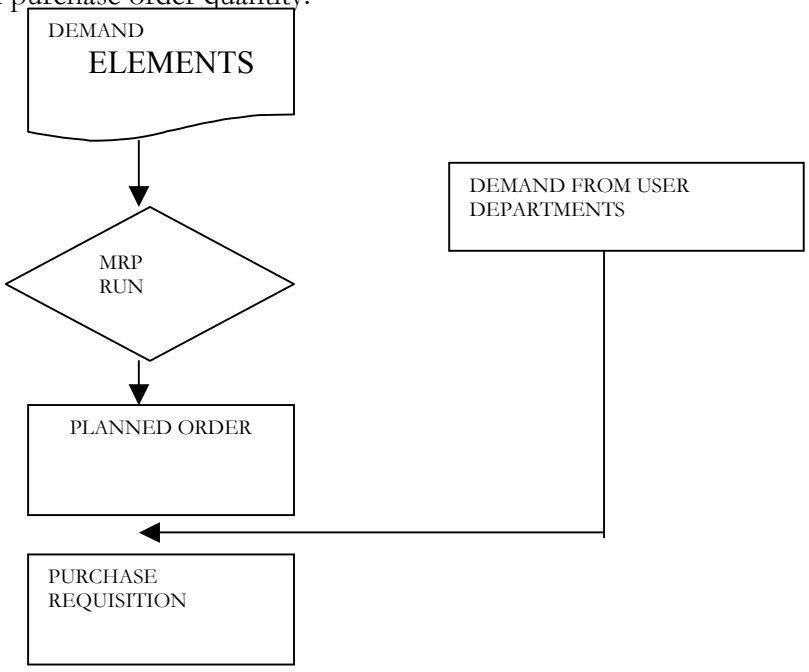
Transaction code: VA01

8. MATERIAL REQUIREMENT PLANNING

The main function of material requirements planning is to guarantee material availability, that is, it is used to procure or produce the requirement quantities on time both for internal purposes and for sales and distribution.
This process involves the monitoring of stocks and, in particular, the automatic creation of procurement proposals for purchasing and production.
In doing so, MRP tries to strike the best balance possible between
Optimizing the service level and
Minimizing costs and capital lockup.
So, when MRP run is carried out using PD (normal planning) as MRP type, the PLANNED ORDERS are generated according to the demand mgmt (Planned Independent requirements). The MRP controller checks the scheduled dates of the planned orders and converts them into the production orders.

Material requirements planning take current and future sales as its reference points. The planned and, depending on planning strategy, actual requirements trigger the MRP calculation. In MRP the requirements include sales orders, planned independent requirements, material reservations, the dependent requirements created by exploding the BOM and so on.

In case of in-house production the system creates planned orders for planning of production quantities. When planning is complete planned orders can be converted into production orders.
In case of external procurement the system creates either a planned order or directly creates a purchase requisition or a schedule line for a pre-existing scheduling agreement for planning the external purchase order quantity.



Create the master data to be able to work with the MRP component. To do this, we require the following components:
Material master
Bills of material
When you use MRP for in-house production dates we require
Work center
Routings
Demand Management component to define requirement quantities and requirements dates for finished products and important assemblies. Demand Management also determines the strategy you are to use for planning, procuring, or producing a certain finished product.

MRP control parameters Transaction code: MD02

Various control parameters are available for the total planning procedure and for single-item planning and multi-level planning, which you can set in the initial screen of the planning run. You use these parameters to determine how the planning run is to be executed and which results are to be produced.
The control parameters include:

- **Planning run type**

o Regenerative planning --NEUPL

o Net changing planning– NTECH

Net change planning in the planning horizon ---NETPL

- **Creation indicator for procurement proposals for materials that are procured externally**

For materials procured externally, purchase requisitions will be generated and for the material produced in-house, planned orders will be generated.

- **Creation indicator for MRP lists**

It defines whether MRP lists are to be created or not.

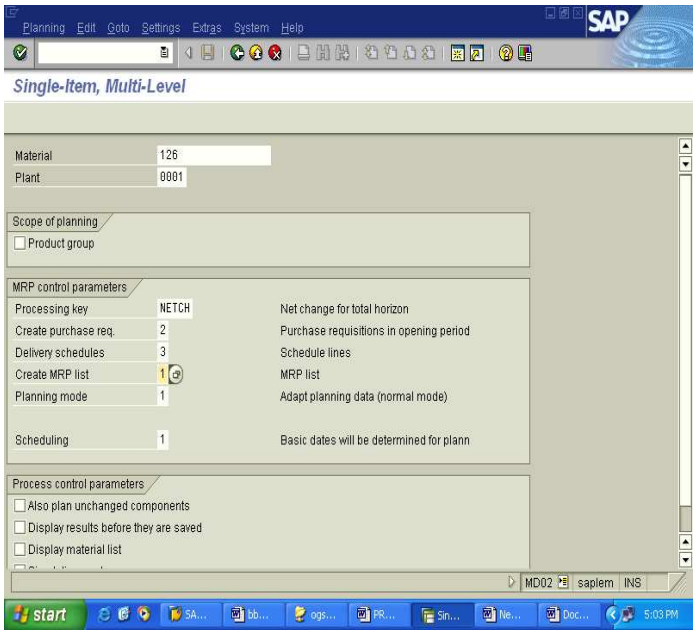
- **Planning mode**

Determine how the system is to deal with procurement proposals (planned orders, purchase requisitions, scheduling agreement lines) from the last planning run, which are not yet firmed, in the next planning run.

- **Scheduling**

Scheduling is based on lead time scheduling.

Screen shot for MRP run



During the planning run, the system analyzes the requirements that exist for the planned materials and creates procurement elements that cover these requirements. The evaluations in the component display all receipt and issue elements for a material in the form of a table and enable you to gain a quick overview of the stock/requirements situation for the material as well as to branch into the editing function for the MRP elements for this material.

MRP Out put

The following evaluations are available for analyzing the planning result:

MRP list (MD02)
Stock/requirements list (md04)
Planning result (corresponds to the MRP list with individual evaluation layout)
Planning situation (corresponds to the stock/requirements list with individual evaluation layout)

CAPACITY PLANNING

Capacity planning comprises the following partial components:
The Objective of Capacity Planning's to ensure optimum utilization of resources

- **Capacity evaluation**

In the capacity evaluation, available capacity and capacity requirements are determined and compared with each other in lists or graphics.

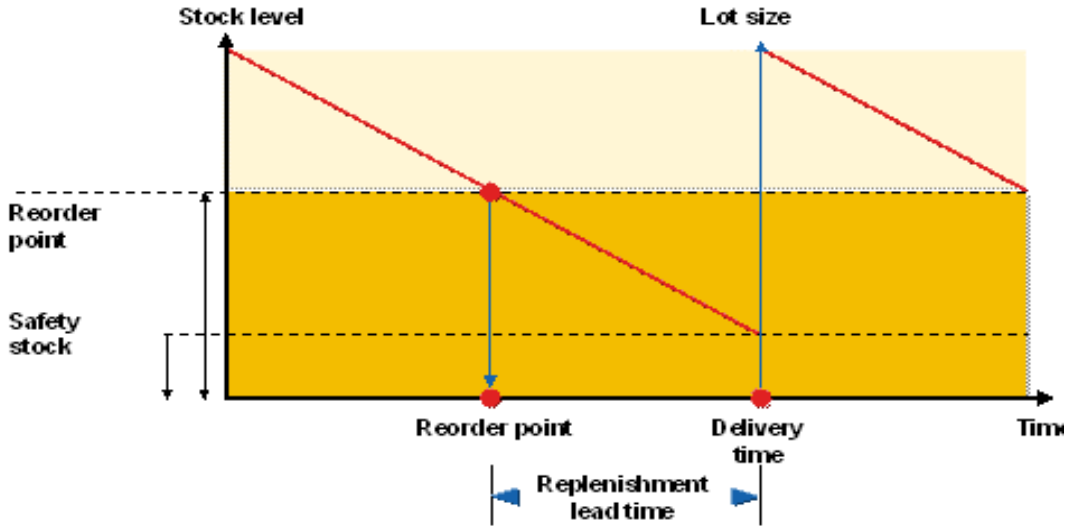
- **Capacity leveling**

The objectives of capacity leveling are:
Optimal capacity commitment
Selection of appropriate resources
In most applications, you can use two types of planning table (graphical and tabular versions) to display the capacity situation and to carry out capacity leveling.

CONSUMPTION BASED PLANNING

Consumption based planning is based on consumption values and uses forecasts or statistical procedures to determine future requirements. Consumption based planning is characterized by its simplicity and is mainly used for low value items. Manual reorder point planning is a typical process in consumption based planning.

PLANNED ORDER PROCESSING



Manually **Transaction code: MD11**
The MRP controller enters a planned order manually. He determines which material is to be procured, the required quantity, the date required, and whether the material is to be procured externally or internally.

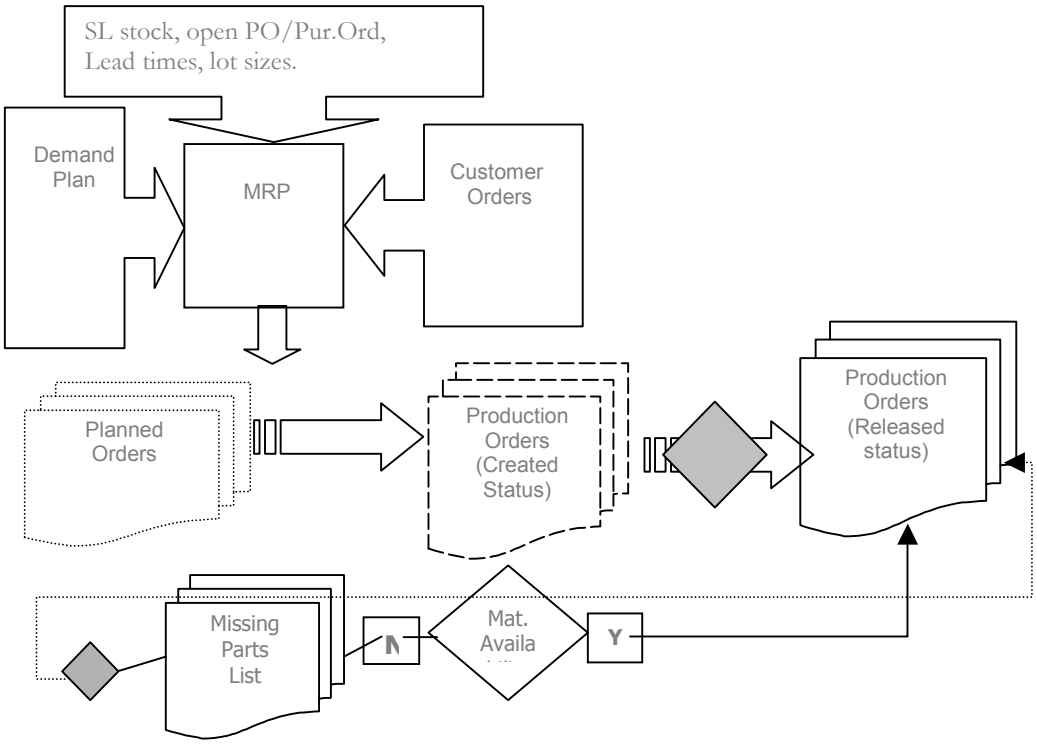
Automatically **Transaction code: MD02**
During the planning run, the system automatically determines the materials to be procured as well as the required quantity and the required date.

After the planned order is created either manually or automatically a planned order profile is allocated and data is processed. The data would include: material, plant, order quantity and

basic order dates. This will trigger the processing of material components, schedule the planned order, edit account assignment and process the source of supply.
The system will check component and capacity availability and if needed, capacity leveling can be carried out. Saving the planned order creates a purchase requisition, planned load, creates dependent requirements and allows the processing of the planned order.

9. SHOP FLOOR CONTROL

Plant – 1 (Repetitive Manufacturing)



9.1. PRODUCTION ORDER

A production order defines which material is to be processed, at which location, at what time and how much work is required. It also defines which resources are to be used and how the order costs are to be settled.

- The work processes within a company are executed using orders.
- As soon as a planned order or a company-internal requirement is generated from previous planning levels (material requirements planning) shop floor control takes over the information available and adds the order-relevant data to it to guarantee complete order processing.

- Production orders are used to control production within a company and also to control cost accounting.

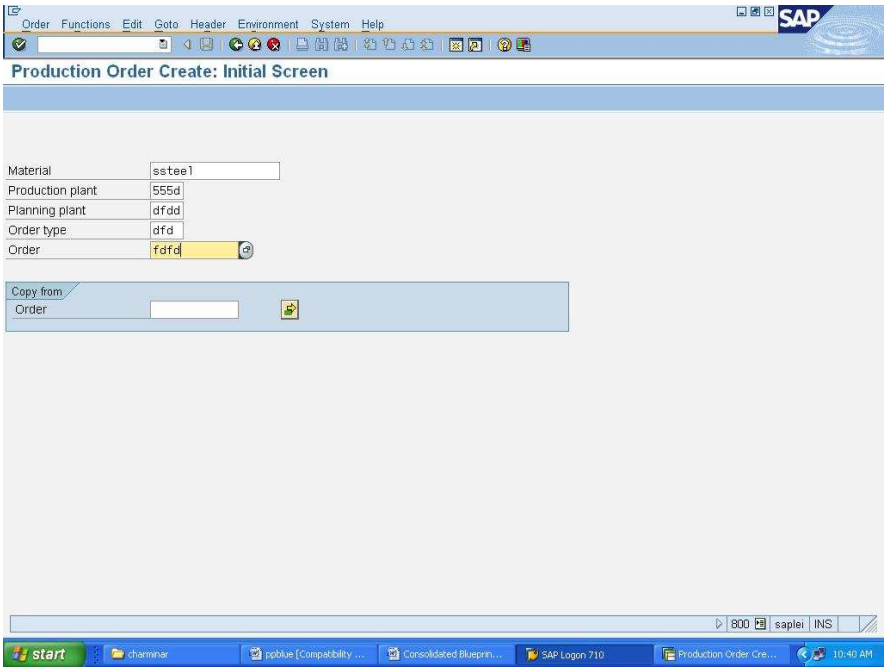
- The production scheduler confirms and releases the order to shop floor for actual production. After production, operation wise confirmation of the order is carried out and relevant goods are sent (GR) into the storage location.

9.2. PRODUCTION ORDER CREATION

This function supports the production of goods in-house using the production order or work order concept. The different functions involved are:

- Order creation
- Order release
- Inspection lot processing
- Goods issues
- Order confirmation
- Goods receipt
- Order settlement

For creation of a production order, the data that is to be entered includes the material number of the finished good to be produced, the plant, the WO/production order number and the order type. The order type selected The properties and the control parameters are to be customized for the order type for that product's manufacturing. Here, among the other things it will be decided whether the WO will have external no. or internal number.
Then subsequently the order quantity and the planned start or the finish dates depending on whether it is forward or backward scheduling is to be entered. At the time of order creation, the system copies the BOM and the Routing of the finished good to be produced and schedules the order. At this point of time, the system performs the availability check for the raw materials and PRTs, checks the capacity creates the inspection lot and does the preliminary costing and creates the order.



PROCESS FLOW

During the course of the production order processing, we can track down the different data related to the scheduling, capacity utilisation, material availability, inspection lot processing, preliminary costing, goods issues, order progress confirmations, tools receipt and order settlement.

9.3 RELEASE OF PRODUCTION ORDER

Release of the production order is an important business function, which controls things like the goods issue for the order, confirmation of the order progress etc. Here either individual production operations or the order itself can be released.

The production order release function is to be exercised in each production order, in the transaction menu of the order header, after the creation of the production order. This function sets the "released" status in the order header

After the creation of the production order, the individual operations or the order header itself can be released as per the release date specified in the material master scheduling margin key.

9.4. ORDER CONFIRMATION

A confirmation documents the processing status of orders, operations, sub-operations and individual capacities. It is an instrument for controlling orders.

With a confirmation you specify

- The quantity in an operation that was produced as yield, scrap and the quantity to be reworked
- How much work was actually done
- Which work center was used for the operation
- Who carried out the operation
- Exact confirmation shortly after completion of an operation is essential for realistic production planning and control.

The following business transactions can be executed via confirmations:

- Updating order data (for example, quantities, activities, dates, status)
- Back flushing of components
- Automatic goods receipt (for one operation per order max.)
- Capacity reduction in the work center
- Updating costs based on confirmed data
- Updating MRP-relevant excess or missing quantities in the order
- You can enter confirmations for
- An order- to be entered daily
- An operation- to be done before period closing for inventory valuation of WIP.
- A sub-operation
- An individual capacity in an operation
- An individual capacity in a sub-operation
- For scrap, rejection, reworks, operation confirmation will be done.

9.5. PRINTOUT OF PRODUCTION ORDER

This function controls the printing of the shop papers, such as the operation confirmation slips, time tickets etc.
The printing of the different shop papers is controlled by the settings made in the control key attached to the individual production operations.

INTEGRATION

Production orders is fully integrated in the Logistics (LO) component and has, among others, interfaces to

- Sales and Distribution (SD)
- Materials Management (MM)
- Controlling (CO)

Plant – 2 (Discrete Manufacturing)

Purpose

This component can be used for production planning and control in a repetitive manufacturing environment.
You can use repetitive manufacturing as either make-to-stock REM or make-to-order REM such as in the automotive industry, for example.

The goals of repetitive manufacturing are the following:

- Creation and revision of production quantities on a period and quantity basis (reduction in individual lot and order-specific processing).
- Reduction in the production control effort and simpler back flushing tools (with the option of using the full scope of the PP functionality).

Implementation considerations

You can implement Repetitive Manufacturing if the following is true of your production process:

- You produce the same or similar products over a lengthy period of time.
- You do not manufacture in individually defined lots. Instead, a total quantity is produced over a certain period at a certain rate per part-period.
- Your products always follow the same sequence through the machines and work centers in production.
- Routings tend to be simple and do not vary much.

Integration

Within logistics, Demand Management precedes Repetitive Manufacturing:

- SD Sales Operations (Receipt of sales orders)
- PP Demand Management (Creation of PIR)
- PP MRP

The following Logistics components are also relevant:

- PP Work Centers
- PP Routings
- PP Bills of Materials
- If required, Line Design for mapping complex production lines

Features

- Master data

There is specific master data required for Repetitive Manufacturing. This includes the repetitive manufacturing profile and the product cost collector.

- Planning table

Within the framework of repetitive manufacturing, planning and control is carried out on the basis of time buckets. Starting from the existing requirements situation, you can plan production quantities based on periods. The scheduling data for products and product groups is thus broken down into a series of time buckets, the user being presented with period views for the purposes of checking and revision.

- Sequencing

You can use Sequencing to carry out takt-based scheduling which determines the sequence in which planned orders are produced on the production line. Sequencing simplifies the dispatching process, especially for high order volumes, and enables you to display them in a graphic.

- Pull list

You can use the pull list to control in-house material flow, supplying production with materials. The pull list checks the stock situation at the production line, calculates the missing parts for the components and triggers replenishment for these missing parts.

- Back flushing

Production completion confirmations are simplified and are made with reference to the material being produced. The completion confirmation usually includes the backflushing of components and the posting of production costs.

- Cost Object Controlling

In repetitive manufacturing, you ususally detemine costs per material or per production version via a product cost collector (product cost per period).

Master Data for Repetitive Manufacturing

The following master data is available:

- The repetitive manufacturing profile is set in Customizing for repetitive manufacturing and is entered in the material master record. You must also authorize the material for repetitive manufacturing in the material master record.

- You create the production version in the material master record.

- If you want to plan using a planning ID , you must define one and enter it in the material master record.

- If you want to use a production line for planning purposes, you must create one and enter it in the material master record.

- If you use repetitive manufacturing in conjunction with the component *PP line Design*, you can represent the production line as a line hierarchy. This makes sense if you have complex production lines, which you want to schedule using takts.

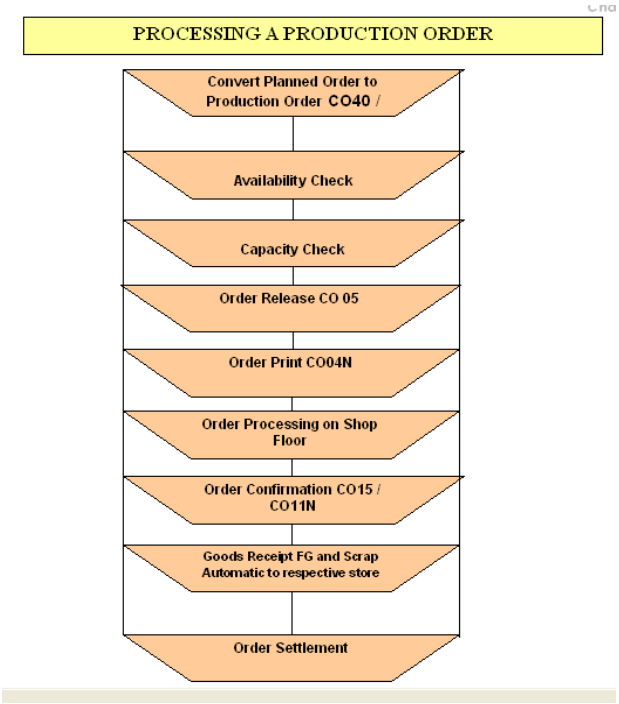
- If you want to plan capacity, you must create a routing and enter it in the production version.

- You create a product cost collector for creating production costs.

INTEGRATION

Production orders is fully integrated in the Logistics (LO) component and has, among others**, interfaces to**

- Sales and Distribution (SD)
- Materials Management (MM)
- Controlling (CO)



10 BATCH MANAGEMENT

The quantity or partial quantity of a certain material or product that has been produced according to the same batch, and represents one homogenous, non- reproducible unit with unique specifications.

10.1 Purpose of batch management

Legal requirements (for example, the guidelines set out by GMP-Good Manufacturing Practice) or regulations on hazardous material.

- · Defect tracing, callback activities, and regression requirement.

- · The need for differentiated quantity-and value-based Inventory Management (for example, due to heterogeneous yield/result qualities or varying constituents in Production.

- · Differences in usage and the monitoring thereof in materials planning in SD and Production.

- · Production or procedural requirements (for example, settlement of material quantities on the basis of different batch specifications

10.3 CLASSIFICATION

The classification system allows you to use characteristics to describe all types of objects and to group similar objects in classes – to classify objects

Characteristics describe the properties of objects. The values of a characteristic specify these properties.

When you create or change a characteristic, you can define the following settings:
Format For example, numeric format is for figures, and character format is for alphanumeric characters.
Units of measure for numeric values
Templates for entering values
Required entries for a characteristic (required characteristics)
whether intervals are allowed as values
Language-dependent descriptions and texts for characteristics and characteristic values
Display options for characteristics on the value assignment screen
Allowed values
Default values that are set automatically on the value assignment screen Class:
Classes allow to group objects together according to criteria that is.
Create classes for certain object types for example, material, workplace, equipment.
Use the class type to determine which object types can be classified in a class.
Assign characteristics to class. These describe the objects classify in class. When assign a characteristic to a class, it can adapt (overwrite) the characteristic.

CLASS TYPE

The class type is a central concept in the classification system. The class type determines how classes are processed, and how objects can be classified and retrieved in these classes. Class types for a specific object type, such as materials. Then use classes of this class type to classify objects of this object type. First create a class, and then enter a class type for the class. Each class type is a closed system. There is no link between the different class types.

11. REPORTS

Following reports will be provided

1. Shift Wise / Daily Production Reports
2. Monthly Production Reports
3. Daily Rejection Report
4. Monthly Rejection Reports
5. Rework Report
6. Scrap Generation Report
7. Shift Wise / Machine Report
8. Stock Status Report Of Raw Material
9. Order Status

The following **standard reports** are to be used in the Production Planning module

10.2 Features of batch management

· Batch Number Assignment

This function used to assign a batch with a number that uniquely identifies it.

· Batch Specification

This function used to describe each batch uniquely using characteristics and characteristic values. It specifies the permitted value range in the allocated material master record.

· Batch Status Management

This function used to indicate whether a batch is usable or unusable. We can set this status
Manually in the batch master record or at goods receipt
Automatically in the usage decision in quality management

· **Batch Determination**

With this function, we can use various criteria to search for batches that are in stock, for example:-
When posting goods issues
When combining suitable material components for production orders and process orders
When creating a delivery according to particular customer requirements

· Batch Where-Used List

The batch record contains all quality-relevant planned and actual data for the production of a batch and complies with the GMP guidelines (Good Manufacturing Practices) for the pharmaceutical industry and food industry.
The batch where-used list shows the path of the batch from its procurement to its delivery to your customer.

TRANSACTION CODE	PURPOSE
M M S C	This report allows a user to easily create, or view, storage location views for a material.
CRO5	This report produces a list of all work centers.
CR06	This report produces a list of all cost center assignments.
CR07	This report produces a list of all work center capacity.
CA60	This report enables you to list changes to individual routing fields in the sequence which they occurred.
MD73	In the "Total Requirements Display", you can check and, if necessary, change the planning figures. With this evaluation function you can list all the planned independent requirements that exist for a particular material or a product group. From this total requirements display, you can access more detailed information or you can branch into the change mode.
MD04	In the stock/requirements list, the most up-to-date development of stocks and requirements is displayed. The layout of the list on the screen is the same as that of the MRP list.
MD05	Once you have carried out the planning run for the material via single-item or total planning and where you have also specified that an MRP list is to be created, you can then display one of the lists with the function individual display. Proceed as follows: Starting from the menu screen of material requirements planning, select Evaluations -> MRP list ->Individual display. The initial screen for the Individual Display of MRP List appears. Enter the material number and the plant and press ENTER. The MRP List screen now appears with an overview of the Individual Lines.
MD06	With the collective display, all planned orders which correspond to the specified selection criteria are displayed; for example, all planned orders of a certain MRP controller.
MS07	The results of long-term planning are simulative planned orders at finished product level for the long-term planning version of the demand program. Simulative dependent requirements and receipts are created for the components. Simulative capacity requirements are also created for

	materials that are produced in-house. Separate MRP lists are also created for long-term planning. In the long-term planning menu, the stock/requirements list is also available as well as the planning situation as an individual layout.
MD09	With the evaluation, "Pegged requirements", you can retrace which requirements are the source of which order proposals and which independent requirements (especially sales orders) will be affected if an order proposal is cancelled or if its date or quantity is changed. With the function, "Pegged requirements", you can determine which requirements and order proposals caused the current stock/requirements situation. This information is particularly useful when you have to find out which independent requirements (especially sales orders) are endangered if planned orders are cancelled or if they cannot be delivered on time.
CO20	This report shows a list of production orders according to the selection criteria entered. The material produced, the order schedule dates, the status of the order, and more are shown for each production order. From this list, the user can view the components and operational information for each order. This report is one that is standard delivered with the information systems, and in standard it does not include any totals listing. Using this report requires that certain info structures are active to reflect current data.
CO24	This report shows a list of missing parts according to the selection criteria. You can use the missing parts information system to display the missing parts list for a selection of materials, or for all materials. It is possible to restrict your selection to a specific plant, MRP group or requirements data.
CO26	The Production Order Information System offers various list types in reporting. Their layout can be adapted to suit your requirements. The information displayed in the production order information system as well as the layout of the information is controlled via an overall profile, which you can enter on the initial screen. The overall profile contains several subordinated single profiles. They contain information regarding selection criteria and layout of lists. Overall Profiles
MM60	Your company may have so many materials that you will not always know whether a specific material already exists in the material master. You can find this out with the help of the materials list.

CM01	Cap. Planning Evaluation by Work Centers – Load
CM02	Cap. Planning Evaluation by Work Centers –Orders
CM05	This report list displays all work centers and capacities with overload in the next 60 calendar days.
CM21	This is a report of capacity leveling evaluation-work center view
MCP3	Report for Production order analysis
MCP7	Report for work center analysis
MCRE	Material usage analysis report
MCRI	Product cost analysis report

12. GAPS

12.1 IDENTIFICATION OF GAPS

The following gaps have been identified for Indian Automobiles

1. BOM weight calculation report

Bills of Material in As Is Process Contains A List Of Material with compostion in Percentage wise but the client required that BOM should contain the composition in respect to weight. To attain this we have to capture weights of materials involved and to be displayed in the bom list.

Solution Suggested

In Table STKO Fields IDNRK, MENGE, MEINS are to be captured and Weight to be captured from Material Master and to be adopted as new values in BOM in the said fields.

Name Of The Work Center		Name 1		**Batch Number**	Batch no.		
Date		Date 1		**Heat No**	Heat No		
Description	Description 1						
Material Used	Material 1	Material 2	Material 3	Material 4	Material 5	Material 6	**Total** Total 2
S.No.	**Description**	**Total Weight**	**No Produced**	**Avg Wt. Piece**			
	Part						
	Runner Bars						
	Riser Bars						
	Total of produced	TOTAL#					

2. Shift wise Plan/Actual Production report = cumulated

A Daily Production report that shows cumulative quantities of production per cost center and also the total planned quantity for that cost center. is to be developed in sap

The report have to be generated anytime the user wants and also at the end of the shift where the report to be emailed to the manager concerned. When BUDAT(Posting Date), WERK (Plant) is entered the Report have to extract records from MATNR,AUFNR,PSMNG(Prod order quantity), VORNR(Operation Number), POSID(Cost Center Number), and To Check the Status (Fully Confirmed, Delivery Complete, Locked, Technically Complete, Closed , Deletion Flag Etc.) and to populate the list with 4 columns viz. (MATNR,GSMNG,PSPEL,PRPS_MATNR)

Output Data Should be in the below mentioned format

	HEADING	DESCRIPTON	TABLE/FIELD
	"PLAN VS ACTUAL	(Production accumulation) report"	
1	**Material**	Material Number	
2	**For Batch**	Batch Number	
3	**For Cost Center**	WBS element Number	
4	**Qty**	WBS Lot Qty	
5	**Operation**	Operation Number	
6	**Production**	Production Qty	
7	**Accumulation**	Production Cumulative Qty	
8	**S.No From**	Serial Number From	
9	**S.No To**	Serial Numbr To	

3. Machine wise production report

We have to Capture the Production of individual machine Work Center wise and the individual who is responsible for the production, shift wise and a report to be generated with the details of machine start and stop time the name of the operator and the total produced and total planned

Date	Work center	Person	production			
			planned	actual		

Solution Suggested

SELECTION SCREEN

MACHINE WISE PRODUCTION REPORT

Plant	**(Mandatory)**	
Work center	**(Optional)**	
Date	**(Mandatory)**	

REPORT

S.N0	Plant	Work center	Person responsible	from date	to date	planned production quantity		Produced quantity	
						actual (date entered)	Cumulative	Actual (Today)	cumulative

TABLE & FIELDS

column	column description	formula
1	plant	AFRU-WERKS
2	work center	work center= selact all work centers from SO24-ARBPL where plant =column1
3	person responsible	select person responsible from CRHD-VERAN where work center=column2
4	FROM date	date=first date of the month
5	to date	date=date entered by the user
6	planed production qty	PLANNED QTY=qty released (AFKO-GAMNG) where plant=column1and date =released date(CAUFVD-FTRMS)
7	cumulative production	total of all released work center qtys
8	actual produced qty	Produced qty=Qty confirmed (AFRUD-LMNGA) on date =post date (AFRUD-BUDAT)
9	Cumulative production	total of all confirmed qtys

In Table CCRHD Fields ARBPL and Machine id and employee id and start time and stop time of the work center to be captured from the fields BEGZT and ENDZT . A user exit is requested so that we can able to capture the machine id and individual operating the machine so that we can do away with creating a work center for each individual machine

	Name Of The Work Centre			Work Centre 1			**Report**	**From Dt.**	**To Dt.**
	Machine ID			Machine 1					
		Machine			**Production**				
Date	**Shift**	**Start**	**Stop**	**Employee**	**Planned**	**Actual**			
	A								
	B								
	C								
	Total				Total#	Total#			

Gap 4

Total Production Status Report

Here the Client requires overall status of the whole production of the plant giving the detailed tabulated data of the production status as a whole.

Data from each process has to be captured batch and client wise and to be displayed in preformatted screen with interactivity and drilldown features to analyse bottlenecks and production overloads of the system.

Data to be collected

In Process data from each process to be captured like data to be collected from each workcentre at three different levels viz. ready for, in process, for/in qc and finished

Requested format of the report is

Date

Time

Design And Development	Waxing	Assembly Line	Pre Coat 1	Pre Coat 2	Shell Building 1	Shell Building 2	De Waxing	Preheat	Melting	Fettling	Quality Assurance

Client

Client 1 Client 2 Client 1 2

Batch Batch Batch

Batch 1 2 1 2

Machine

Machine 1 2

For Process

In Process

QC

12.2 ADDRESSING OF GAPS

The above gaps would be addressed by user exits/enhancements.

ANEXURE I

SHIFT SEQUENCE

	Shift Start	Shift End	Break	Break Type	Days/Week
Shift I	7:00 AM	3:00 PM	30 MIN	CCIS	6
Shift II	3:00 PM	11:00 PM	30 MIN	CC2S	6
Shift III	11:00 PM	7:00 AM	30 MIN	CC3S	6

BREAK DETAILS

Break	Break Text	Breaks Timings	Duration Of Break
CCIS			
	Lunch	11:30 am to 12:00 pm	30 Mins
	Tea	01:00 pm to 01:15 pm	15 Mins
CC2S			
	Dinner	07:00 pm to 07:30 pm	30 Mins
	Tea	09:00 pm to 09:15 pm	15 Mins
CC3S			
	Snacks	02:00 pm to 02:30 pm	30 Mins
	Tea	05:00 pm to 05:15 pm	15 Mins

CALENDAR

Requirements/Expectations

Factory calendar needs to be maintained in the system. In this the working days are to be defined and the holidays. This information is used in various modules. Country wise calendars are already maintained in the system.

The Factory Calendar needs to be updated each year based on the decided holidays. The Factory Calendar acts as the basis for Capacity Planning as it defines the working days in a year. In SAP there are two types of holidays. Holidays are to be created and then assigned to the factory calendar.

ANNEXURE II

Work Center Formulae

The execution time of an operation is defined as the sum of the set-up time and the processing time. The is expressed in the following formula.

F=SET+RUN*LOT/B

The meaning of the formula parameters and the origins of their values are given in the table below.

Meaning	Origin
Base Quantity	General Operation Value
Lot Size	General Operation Value
Processing time for base Quantit	Standard Value
Set-up time	Standard Value

Volume

5

Human Resources

The Nerve System of Any Organization, Human Resources are well taken care of with HR Module in SAP

Efficient Human Resources Management constantly requires complete, up-to-the-minute information on employees at the enterprise. The R/3 System's *Human Resources* (HR) component contains all relevant employee data. With its multitude of reporting and analysis options, HR helps you process data quickly. This provides you with the information you require, and supports your decision-making processes. *Human Resources* (HR) component is an efficient analytical reporting tool used for information and decision-making purposes, it provides solutions for your most frequent reporting requirements, Hierarchies are displayed as graphics and is user-friendly method of displaying hierarchical structures.

ICON KEY
Organizational Management
Time Management
Pay Roll
Planning

Orgonizational Management

This is the basis for additional Human Resources components and functions as well as for *SAP Business Workflow*. In order to carry out numerous business and human resources processes, you need an organizational plan, that is, a functional structure representing your enterprise based on tasks. .

Personnel Time Management:

This component offers you support in performing all human resources processes involving the planning, recording, and valuation of internal and external employees' work performed and absence times. It provides other SAP applications with planning data and delivers information to business processes.

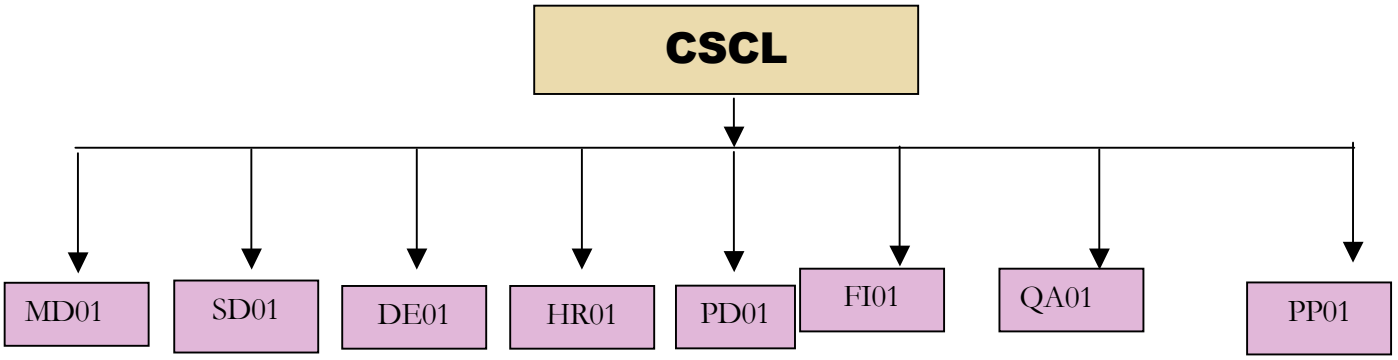
Payroll: The component uses data from other areas of SAP HR for calculating all statutory and non-statutory additions and deductions for your employees. SAP *HR Payroll India* offers a number of standard reports used in payroll, superannuation, leave, advance payments and taxation.

ORGANZATIONAL MANAGEMENT

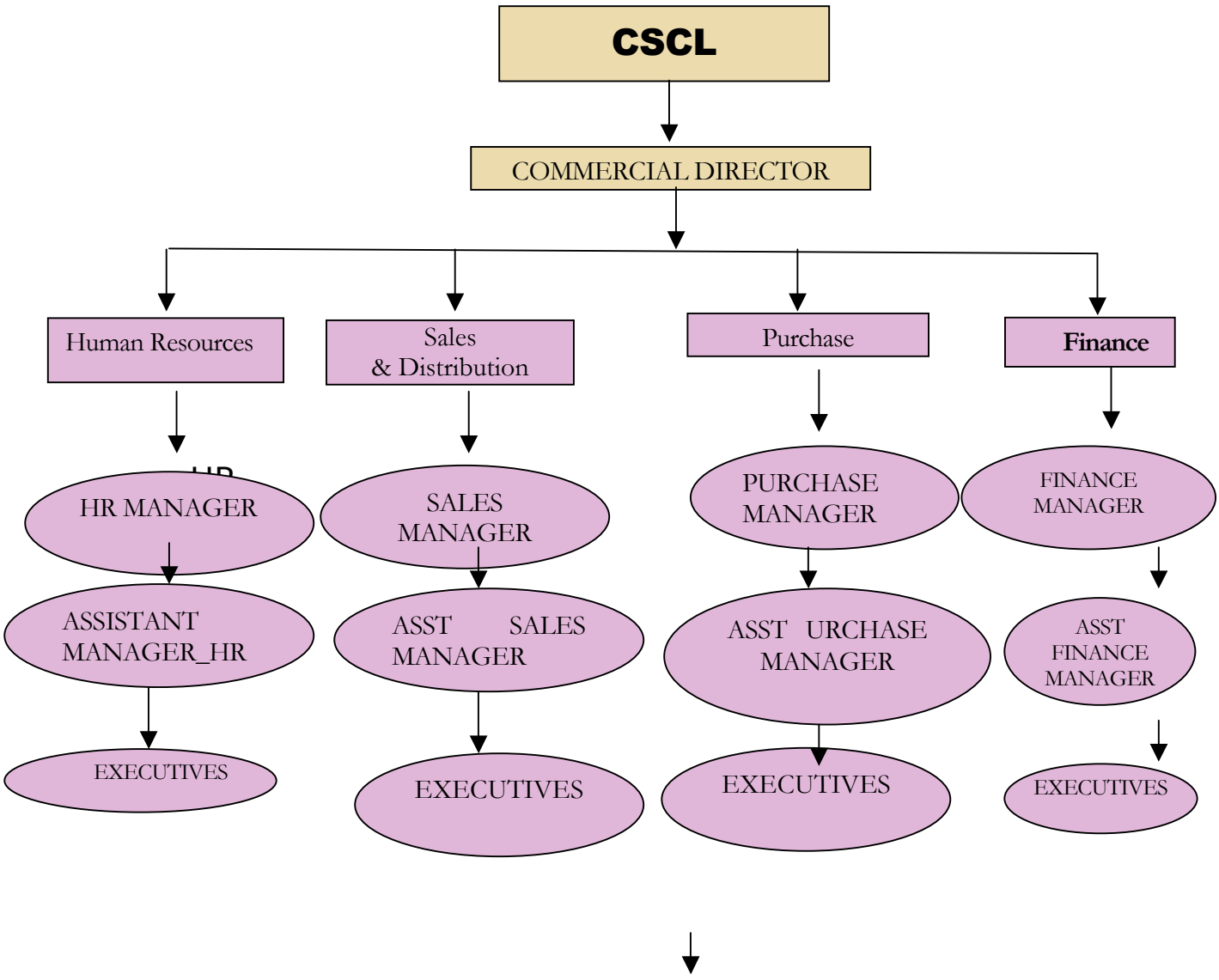
Organizational Management is the basis for additional Human Resources components and functions as well as for *SAP Business Workflow*. The fact that these components can be integrated should be taken into account when you are installing them.

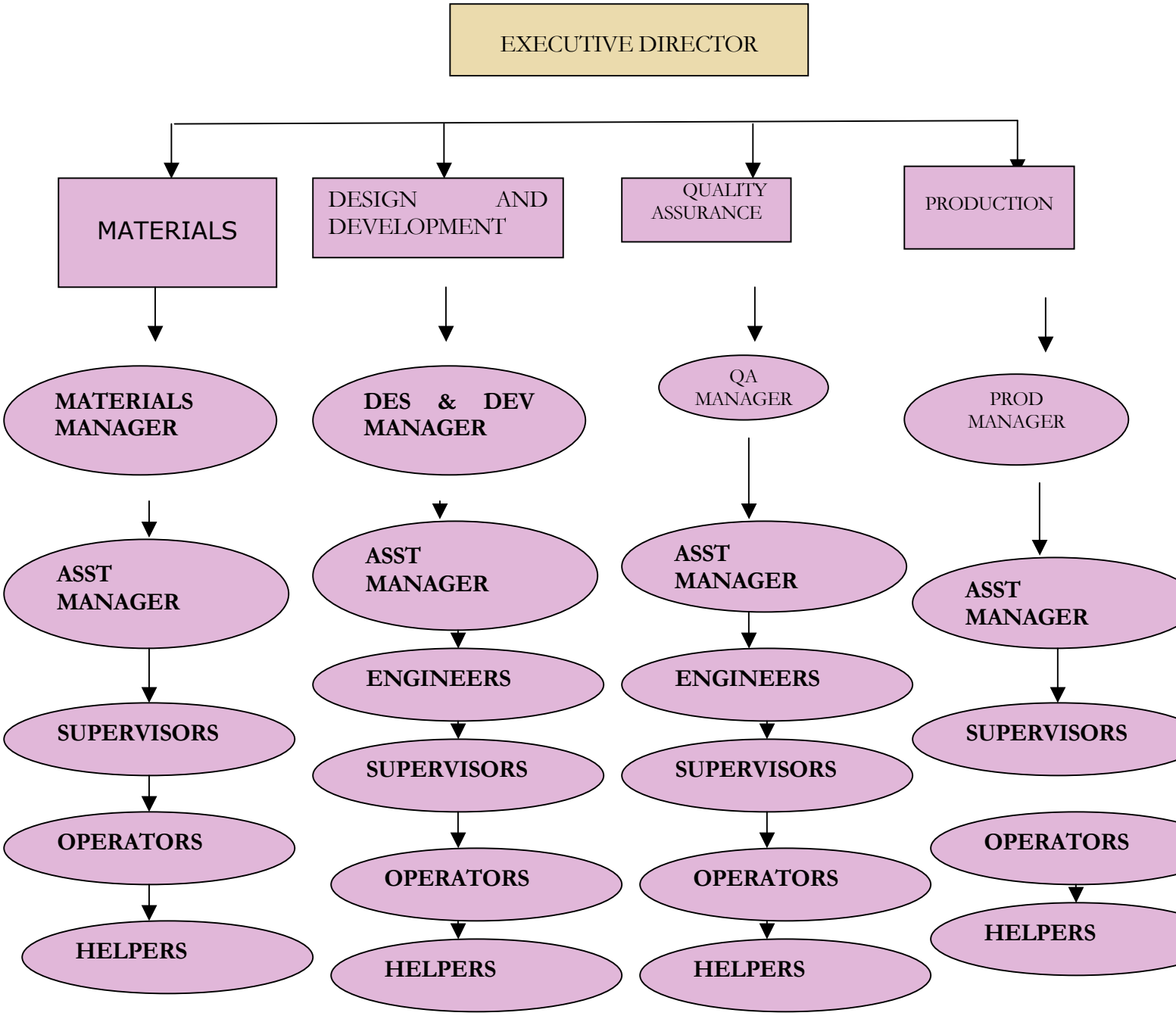
Personnel Development
Recruitment
Compensation Management
Personnel Cost Planning
Training and Event Management
Shift Planning
Capacity Requirements Planning
Personnel Administration
Human Resources Information System

ORGANISATION STRUCTURE



Materials Department	MD01	Sales And Distribution	SD01
Design And Development	DE01	Human Resources	HR01
Purchase Department	PD01	Finance Department	FI01
Quality Assurance	QA01	Production And Planning	PP01


CSCL
COMMERCIAL DIRECTOR
Human Resources
Sales & Distribution
Purchase
Finance
HR MANAGER
SALES MANAGER
PURCHASE MANAGER
FINANCE MANAGER
ASSISTANT MANAGER_HR
ASST SALES MANAGER
ASST URCHASE MANAGER
ASST FINANCE MANAGER
EXECUTIVES
EXECUTIVES
EXECUTIVES
EXECUTIVES


EXECUTIVE DIRECTOR
MATERIALS
DESIGN AND DEVELOPMENT
QUALITY ASSURANCE
PRODUCTION
MATERIALS MANAGER
DES & DEV MANAGER
QA MANAGER
PROD MANAGER
ASST MANAGER
ASST MANAGER
ASST MANAGER
ASST MANAGER
SUPERVISORS
ENGINEERS
ENGINEERS
SUPERVISORS
OPERATORS
SUPERVISORS
SUPERVISORS
OPERATORS
OPERATORS
HELPERS
OPERATORS
HELPERS
HELPERS

ORGANISATION UNIT

Representation of the reporting structure and the distribution of tasks using organizational units for example, departments in an enterprise.

Definition and Meaning

Represents a functional unit in the company, for example marketing and sales department.
According to how tasks are divided up within an enterprise, that could be a department, group or project team.
Organizational units differ from other units in an enterprise such as personnel areas, company codes, business areas, etc.,
These are used to depict structures for example administration or accounting in the corresponding components.
We depict the functional units of our enterprise with organizational units.

We create an organizational structure by assigning these organizational units to each other.
The highest organizational unit in an organizational structure is the root organizational unit.

JOB

Jobs are classifications of functions in an enterprise (for example administrator), which are defined by the assignment of characteristics. Jobs serve as job descriptions that apply to several positions with similar tasks or characteristics.

Sl no	Job type	Job code
1	Chairman	CH
2	Director	DIR
3	Manager	MR
4	Assistant Manager	AMR
5	Engineer	EGR
6	Supervisor	SUP
7	Executive	EXE
8	Operator	OPR
9	Helper	HLP

POSITION

Represents a post, which can be occupied by a person (employee) in the staff assignments of an organizational unit.

For example, job = manager and position = manager-hr.

S.No	Job	Position	No of employees
1	Chairman	Chairman	1

2	Director	Commercial Director	1
		Executive Director	1

3	Manager	Hr Manager	1
		Sales Manager	1
		Purchase Manager	1
		Finance Manager	1
		Materials Manager	1
		Design and Development Manager	1
		Quality Assurance Manager	1
		Production Manager	1

4	Assistant Manager	Assistant Manager_Hr	1
		Assistant Manager Sales	1
		Assistant Manager Purchase	1
		Assistant Manager Finance	1
		Assistant Manager_Materials	1
		Assistant Manager_Des&Dev	1
		Assistant Manager_QA	1
		Assistant Manager_Prod	1
			1

5	Engineer	Engineer_Des&Dev	
		Engineer_QA	

6	Supervisor_Materials	
	Supervisor_Des&Dev	
Supervisor	Supervisor_QA	
	Supervisor_Prod	

7	Executive_Hr	5
	Executive_Sales	5
Executive	Executive_Purchase	5
	Executive_Finance	5

8	Operator_Materials	
	Operator_Des&Dev	
Operator	Operator_QA	
	Operator_Prod	

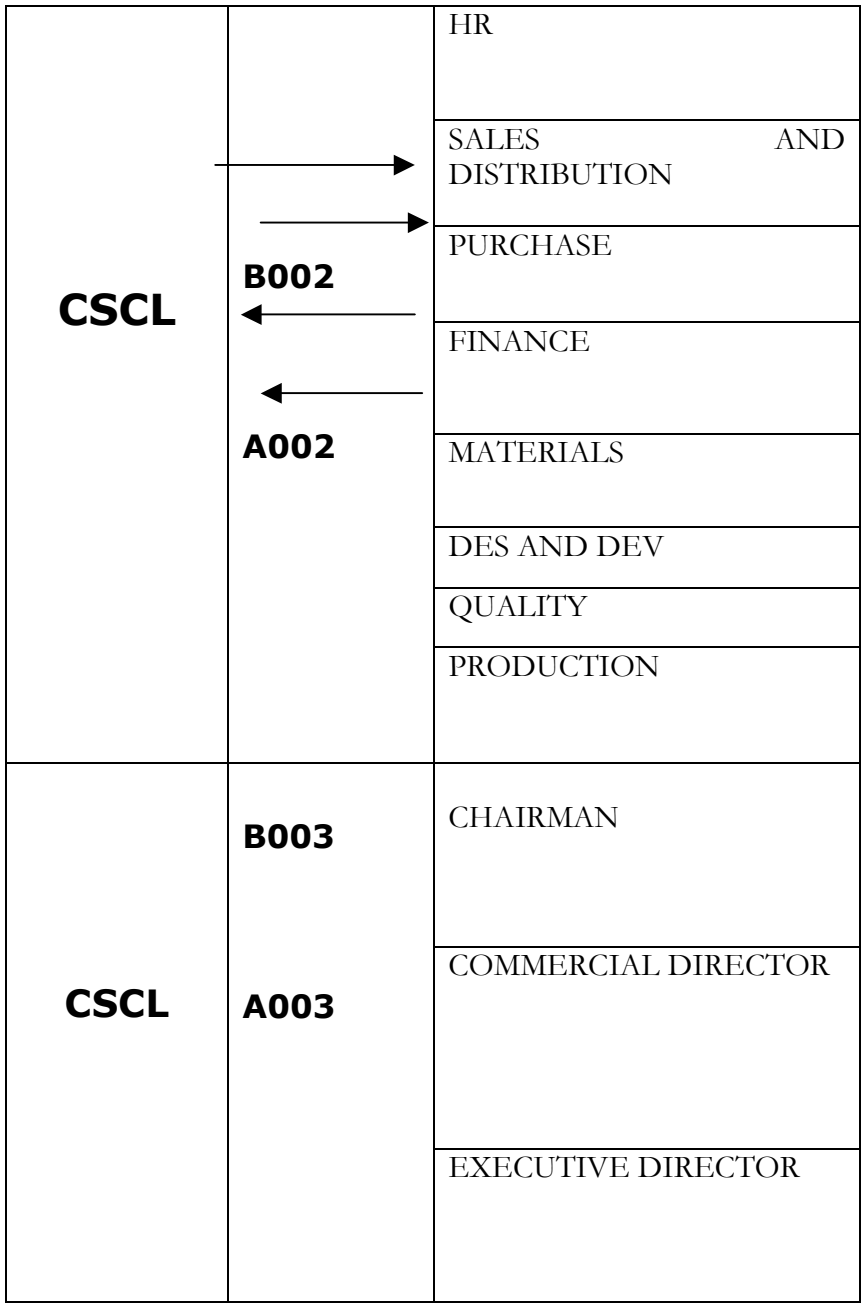
9	Helper_Materials	
	Helper_Des&Dev	
Helper	Helper_QA	
	Helper_Prod	

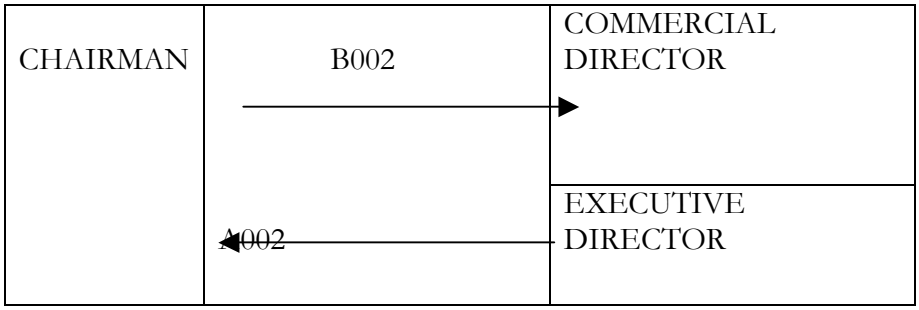
RELATIONSHIPS

Definition

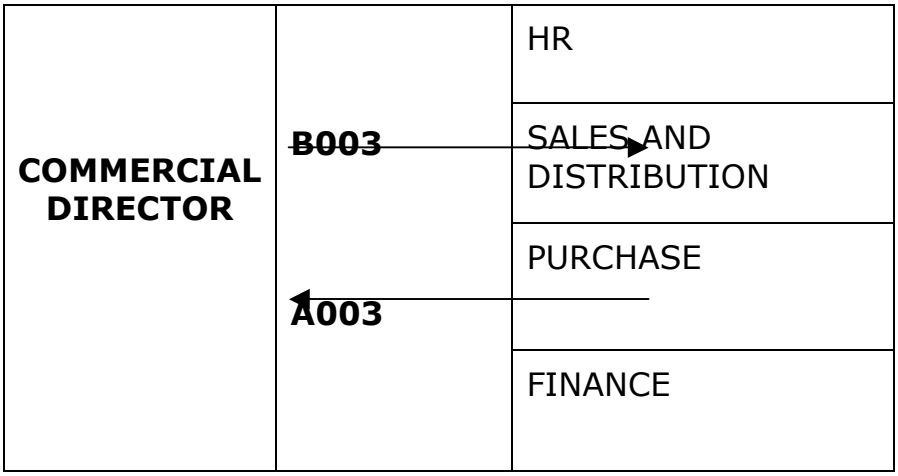
By defining relationships between objects, you create a hierarchy of objects that mirrors your organizational structure.The standard syntax used to identify a relationship is A/B 000. A/B refers to the two different sides of a relationship, which you create when you link two objects. The system calls these sides passive (A) and active (B). They form the reciprocal relationship, and are vital in holding the relationship together. The three-digit numerical code identifies the relationship.You assign a position to an organizational unit, to identify where the position is allocated. The system creates a relationship infotype record between the organizational unit and the position. You can check the relationship in the Relationship infotype screen in Detail Maintenance. This relationship is called 003. This means the position belongs to the organizational unit, which in turn incorporates the position. The organizational unit's relationship record is B 003 and the position's is A 003.

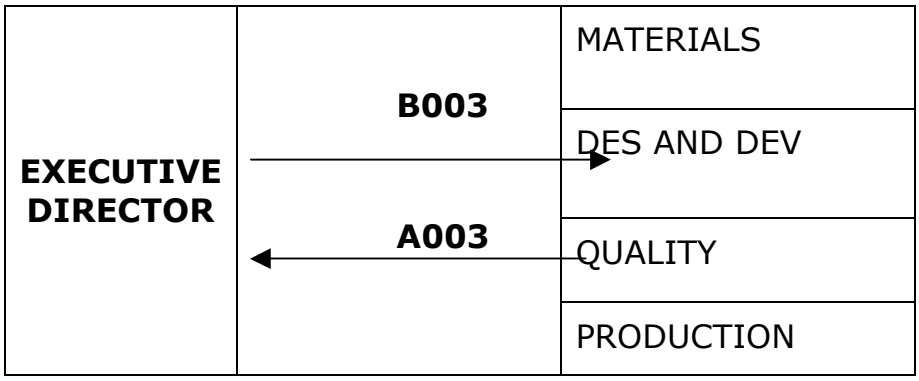
Relationship between root organization unit and other organization units


HR
SALES AND DISTRIBUTION
PURCHASE
FINANCE
MATERIALS
DES AND DEV
QUALITY
PRODUCTION
CSCL
B002
A002
CHAIRMAN
COMMERCIAL DIRECTOR
EXECUTIVE DIRECTOR
CSCL
B003
A003

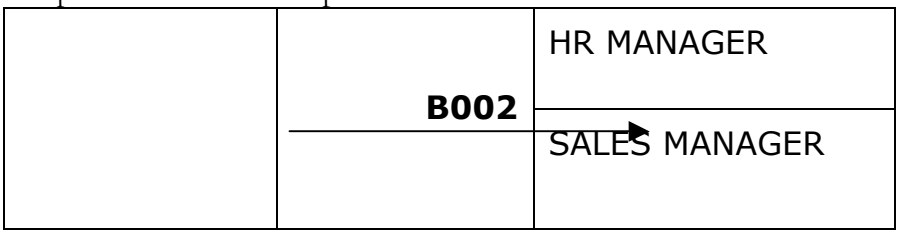


Relationship between position and organization units





Relationship between one position and another position



COMMERCIAL DIRECTOR	**A002** ←	PURCHASE MANAGER
		FINANCE MANAGER

EXECUTIVE DIRECTOR		MATERIALS MANAGER
	B002 →	DES AND DEV MANAGER
	← **A002**	QUALITY MANAGER
		PRODCTION MANAGER

HR DEPT	HR MANAGER	**B002** → ← **A002**	ASST MANAGER_HR
	ASST MANAGER_HR	**B002** → ← **A002**	EXECUTIVE_HR

SALES AND DISTRIBUTION DEPT	SALES MANAGER	**B002** → ← **A002**	ASST SALES MANAGER
	ASST SALES MANAGER	**B002** → ← **A002**	EXECUTIVE_SALES

PURCHASE DEPT	PURCHASE MANAGER	**B002** → ← **A002**	ASST PURCHASE MANAGER
	ASST PURCHASE MANAGER	**B002** → ← **A002**	EXECUTIVE_PURCHASE

FINANCE DEPT	FINANCE MANAGER	**B002** → ← **A002**	ASST FINANCE MANAGER
	ASST FINANCE HR	**B002** → ← **A002**	EXECUTIVE_FINANCE

MATERIALS DEPT	MATERIALS MANAGER	**B002** → ← **A002**	ASST MATERIALS MANAGER
	ASST MATERIALS MANAGER	**B002** → ← **A002**	SUPERVISOR_MATERIALS
	SUPERVISOR_ MATERIALS	**B002** → ← **A002**	OPERATOR_MATERIALS
	OPERATOR_MATERIALS	**B002** → ← **A002**	HELPER_MATERIALS

DESIGN AND DEVELOPMENT	DES AND DEV MANAGER	**B002** → ← **A002**	ASST MANAGER_DES AND DEV
	ASST MANAGER_DES AND DEV	**B002** → ← **A002**	ENGINEER_DES AND DEV

DEVELOPMENT DEPT	ENGINEER_DES AND DEV	**B002** → ← **A002**	SUPERVISOR_DES AND DEV
	SUPERVISOR_DES AND DEV	**B002** → ← **A002**	OPERATOR-DES AND DEV
	OPERATOR-DES AND DEV	**B002** → ← **A002**	HELPER_DES AND DEV

	QUALITY MANAGER	→ **B002** ← **A002**	ASST MANAGER_QUALITY
QUALITY DEPT	ASST MANAGER_QUALITY	→ **B002** ← **A002**	ENGINEER_QUALITY

DEPT	ENGINEER_QUALITY	→ **B002** ← **A002**	SUPERVISOR_QUALITY
	SUPERVISOR_QUALITY	→ **B002** ← **A002**	OPERATOR-QUALITY
	OPERATOR-QUALITY	→ **B002** ← **A002**	HELPER_DES AND DEV

PRODUCTION DEPT	PRODUCTION MANAGER	**B002** → ← **A002**	ASST PRODUCTION MANAGER
	ASST PRODUCTION MANAGER	**B002** → ← **A002**	SUPERVISOR_PRODUCTION
	SUPERVISOR_ PRODUCTION	**B002** → **A002** ←	OPERATOR_PRODUCTION

	OPERATOR_PRODUCTION	**B002** → ← **A002**	HELPER_PRODUCTION

Relationship between job and position

CHAIRMAN	**A007** → ← **B007**	CHAIRMAN

DIRECTOR	**A007** → ← **B007**	COMMERCIAL DIRECTOR EXECUTIVE DIRECTOR

MANAGER	**A007** → ← **B007**	MANAGER_HR MANAGER_SALES MANAGER_PURCHASE MANAGER_FINANCE MANAGER_MATERIALS MANAGER_DES AND DEV MANAGER_QUALITY MANAGER_PRODUCTION

ASST MANAGER	**A007** → ← **B007**	ASST MANAGER_HR ASST MANAGER_SALES ASST MANAGER_PURCASE ASST MANAGER_FINANCE ASST MANAGER_MATERIALS ASST MANAGER_DES AND DEV ASST MANAGER_QUALITY ASST MANAGER_PRODUCTION

EXECUTIVE	→ **A007** ← **B007**	EXECUTIVE_HR EXECUTIVE _SALES EXECUTIVE _PURCASE EXECUTIVE _FINANCE

SUPERVISOR	**A007** → ← **B007**	SUPERVISOR _MATERIALS SUPERVISOR _DES AND DEV SUPERVISOR _QUALITY SUPERVISOR _PRODUCTION

OPERATOR	**A007** → ← **B007**	OPERATOR _MATERIALS OPERATOR _DES AND DEV OPERATOR _QUALITY OPERATOR _PRODUCTION

HELPER	**A007** → ← **B007**	**HELPER** _MATERIALS **HELPER** _DES AND DEV **HELPER** _QUALITY **HELPER** _PRODUCTION

ENGINEER	**A007** → ← **B007**	**ENGINEER** _DES AND DEV **ENGINEER** _QUALITY

COST CENTERS

Definition

Organizational unit within a controlling area that represents a clearly delimited location where costs occur. There is one cost center and it is assigned to the organization units.
Relationship between org units and cost center

Human Resource	→ **A011**	**STEEL** **MNGT(Cost Center)**
Sales		
Purchase		
Finance		
Materials		
Des and Dev		
Quality		
Production		

PERSONNEL MANAGEMENT

ENTERPRISE STRUCTURE

The elements which define the ensterprise structure are the
Client
Personal area
Personal sub area

The client is an independent legal and organizational unit of the company.

Personnel area

A personnel area is a specific entity for personnel administration, it represents a sub division of company code .The personnel area, which is used in personnel administration, personnel time management, and payroll accounting in SAP, is unique in each client, which should be assigned to the company code.

Personnel area performs the following functions

It allows to generate default values for data entry, for example, for the payroll accounting area (eg determination of payroll accounting areas)

Acts as a selection criterion for reporting; and

Acts as a unit in authorization checks.

S.NO.	PERSONNEL AREA TEXT	PERSONNEL AREA CODE
1	PLANT	0007

Personnel sub area

Personnel sub-areas are sub divisions of personnel areas. Personnel sub-area is the smallest element in the company. The principal organizational aspects of human resources are controlled at this level, namely the pay scale and wage type structures and the planning of work schedules. The personnel sub-area is assigned a four-character alphanumeric identifier.

S.LNO	PERSONNEL SUB AREA TEXT	PERSONNEL SUB AREA CODE
1	SALES DEPT	1000
2	PURCHASE DEPT	1001
3	FINANCE DEPT	1002
4	HUMAN RESOURCE DEPT	1003
5	MATERIAL DEPT	1004
6	DESIGN DEPT	1005
7	QA DEPT	1006
8	PRODUCTION DEPT	1007

PERSONNEL STRUCTURE

Personnel structure displays the position of the individual employees in the enterprise as a whole.

Employee group

Employee group is used to classify employees in general terms. It defines the position of the employee with in the company's work force. Employee groups are used to generate default values for data entry, selection criterion for reporting, as an entity for authorization checks. Employee group consists of a number of employee sub groups

Employee Subgroup

Employee groups are divided into employee sub groups, which controls the following key functions:

You can standardize or differentiate how an employee is dealt with for a personnel calculation rule using the grouping of employee subgroups. For example, you can control whether an employee's remuneration is calculated on a monthly or hourly basis using this grouping.
You determine which wage types are permissible for which employee subgroups using the employee subgroup grouping for the primary wage types.

You determine which work schedules are permissible for which employee subgroups using the employee subgroup grouping for the work schedule.
The employee subgroup is a selection criterion for reports.
Employee subgroups are an authorization check unit.

S.No	Employee Group Code	Employee Group Text	Employee Subgroup Code	Employee Subgroup Text
1.	S	SENIOR MANAGMENT	S1	CHAIRMAN
			S2	DIRECTORS
2.	M	MID MANAGMENT	M1	MANAGERS
			M2	ASSISTANT MANAGERS
			M3	ENGINEERS
3.	L	JR. MANAGMENT	J1	EXECUTIVES
			J2	SUPERVISORS
4	T	TRAINEE	T1	OPERATORS
			T2	HELPERS

DATA STRUCTURE IN PERSONNEL ADMINISTRATION:

In the standard system, different types of employee data are stored in individual infotypes. Rather than accessing each infotype individually and entering data into them, the system can group together the most important infotypes into personnel actions and lead you through processing the employee data
An infogroup exists in the standard system for every personnel action type in the Personnel Actions section. In Customizing for Personnel Administration, you can modify the relationship between individual infogroup's and define the info groups as user-dependent.
In the standard SAP System, the following basic personnel procedures are represented as personnel actions in the HR master data system:

1. Hiring:

When a new employee is hired in the organization, a large amount of data about the employee has to be entered. We enter the employee data in different Infotypes in the SAP R/3 System. We hire the employee by performing a Personnel Action. When we perform the *Hiring* personnel action type, all of the infotypes that need to maintain to hire an employee are displayed automatically, one after the other.

CODE	INFO GROUP	N0	OPE	INFO TYPES	INFOTYPE TEXT
HI	Hiring	10	INS	0000	Actions
		20	INS	0001	Organization Assignment
		30	INS	0002	Personal Data
		40	INS	0006	Address
		50	INS	0007	Planned working time
		60	INS	0008	Basic Pay
		70	INS	0009	Bank Details
		80	INS	0021	Family Member/Dependents
		90	INS	0022	Education
		91	INS	0023	Other/Previous Employers
		92	INS	0041	Date Specifications

Organizational reassignment:

When we hire an employee, assign him or her to the Enterprise Structure and the Personnel Structure. If during the course of his or her employment, the employee changes positions, cost centers, or is moved to another subsidiary, his or her organizational assignment also change.

To record one of these developments in the system, you run a Personnel Action. In the personnel action type Organizational reassignment, the system automatically displays all the Infotypes, one after another, that must be maintained in order to record such a reassignment in the system.

CODE	INFOGROUP	NO	OPE	INFO TYPES	INFOTYPE TEXT
OR	Organization Reassignment	10	INS	0000	Actions
		20	COP	0001	Organization Assignment

Promotion:

When we hire an employee, assign him or her to the Enterprise Structure and the Personnel Structure. If during the course of his or her employment, the employee is promoted or demoted, we record one of these developments in the system and run Personnel Action. In the personnel action type Promotion/Demotion, the system automatically displays all the Infotypes, one after another, and that must be maintained in order to record in the system.

CODE	INFOGROUP	NO	OPE	INFOTYPES	INFOTYPE TEXT
PD	Promotion	10	INS	0000	Actions
		20	COP	0001	Organization Assignment
		30	COP	0007	Planned Working Time
		40	COP	0008	Basic Pay

CODE	INFO GROUP	NO	OPE	INFO TYPES	INFOTYPE TEXT
SP	Separation	10	INS	0000	Actions
		20	COP	0001	Organization Assignment
		30	COP	0006	Address
		40	LIS9	0009	Bank Details
		50	LIS9	0014	Recurring payments /deductions
		60	COP	0015	Additional payment

4. Transfer:

When an employee is transferred them one business unit/location to another and retain its identity after the transfer .So New recruits for a new location will not be considered as a transfer. Moving from a city to other, which by virtue are same cities will not be considered as a transfer.

CODE	INFOGROUP	NO	OPE	INFO TYPES	INFOTYPE TEXT
TR	Transfer	10	INS	0000	Actions
		20	COP	0006	Address
		30	COP	0007	Planned Working Time
		40	COP	0008	Basic pay

5. Separation:

A large amount of employee data is stored in the system during the period of employment in the company. This data is stored in individual Infotypes.

If the employee leaves the company, certain infotypes must not be changed as they contain data that is used to create histories. Other infotype records must be delimited in the system.

Furthermore, you must ensure that the final payroll has run successfully, and that retroactive accounting runs have also been performed, if necessary.
When an employee leaves your company, the administer it using a Personnel Action. The personnel action type leaving only offers the data records for maintenance if they must be edited when an employee leaves the company.
Note, an employee's personnel number must never be deleted when they leave your company.
A distinction must be made between employees, who have left the company, and:
Employees who have retired
Employees who are absent for a long period of time, for example, for maternity protection or military or non-military service.

6. Increments:

Awarding an employee with certain benefits for which the reasons can be varied according to company's policies.

CODE	INFOGROUP	NO	OPE	INFOTYPES	INFOTYPE TEXT
IN	Increment	50	INS	0000	Actions
		60	COP	0001	Organization Assignment
		70	COP	0008	Basic pay

7. Rehire:

An employee is considered to be re-hired following a termination of employment lasting a minimum of 6 consecutive weeks.

CODE	INFOGROUP	NO	OPE	INFOTYPES	INFOTYPE TEXT
RE	Hire	10	INS	0000	Action
		20	INS	0001	Organization Assignment
		30	INS	0006	Address
		40	INS	0007	Planned Working Time
		50	INS	0008	Basic pay

ACTION REASONS:

The following are the delivered reasons associated with each action.

INFOTYPE MENUS:

SLNO	ACTIONS	CODE	REASONS
1	Hire	A1	New position
		A2	Expansion
		A3	Special project
		A4	Attrition
2	Organization Reassignment	B1	Position change
		B2	Reorganization
3	Promotion	C1	Pay scale increase
		C2	Promotion
4	TR-Transfer	D1	Re-organization
		D2	Career opportunity
		D3	Employee request
5	SP-Separation	E1	Resignation
		E2	Contract expired
		E3	Dismissal
6	IN-Increment	F1	Change in pay
7	Re-hire	G1	No reason

MENUS	MENU TEXT	NO	INFO TYPE	INFOTYPE TEXT
7A	Personnel Administration	O1	0000	Action
		02	0001	Organizational assignment
		03	0002	Personal data
		04	0006	Addresses
		05	0007	Planned working time
		06	0008	Basic pay
		07	0009	Bank details
		08	0040	Object on loan
		09	0105	Communication
7B	Payroll Information	01	0014	Recurring payments/deductions
		02	0015	Additional payment
		03	580	Previous employment tax detail
		04	581	Housing (hra / cla / coa)

		05	582	Exemptions
		06	583	Car & conveyance
		07	584	Income from other sources
		08	585	Section 80 deductions
		10	587	Provident fund contribution
		11	588	Other statutory deductions
		12	590	Long term reimbursements
		13	591	Nominations
		14	267	Off cycle payments
7C	Time Management	01	0007	Planned working time
		02	2001	Absences
		03	2006	Absence quotas
		04	0416	Time Quota Compensation
		05	2010	Employee Remuneration Info

MAINTAIN NUMBER RANGE INTERVALS FOR PERSONNEL NUMBERS:

No	From number	To number	Current no	Internal
01	00000001	00008000	0	

Personal data:

The following areas are maintained in personal data.

Forms of address:

The common forms of address used in SAP. The gender has also been attached to the form of address to allow for the default on infotype 0002.

NO	DESCRIPTION	GENDER
1	MR	1
2	MRS	2
3	MISS	2
4	MS	2

Marital status:

The most commonly used marital statuses have been configured into SAP.

TYPE	DESCRIPTION
0	Single
1	Married
2	Widow
3	Divorce
5	Separated

Family and related persons:

The family /related persons infotype 0021 the following categories are available. Remember to update this list with all potential benefit plan dependants' beneficiaries' categories. As defined within your benefit policies.

TYPE	DESCRIPTION	TIME CONSTRAINT
1	Spouse	2
8	Related person	2
11	Father	2
12	Mother	2
2	Child	2
5	Guardian	2
7	Emergency contact	2

Addresses:

An additional address type has been created in SAP. Every employee must have an address type "1" permanent residence which is include

TYPE	DESCRIPTION	TIME CONSTRAINT
1	Permanent residence	1
2	Temporary residence	3
3	Home address	2
4	Emergency address	2

The following communication types have also been configured for use on the address info type 0006.

TYPE	DESCRIPTION	CATEGORY	CATEGORY TEXT
CELL	Cell phone	1	Telephone
FAX1	Fax machine	2	Telefax
TEL2	Telephone	1	Telephone

Bank details:

The following identifies those bank connection, type available for use.

TYPE	BANK CONNECTION TYPE TEXT	TIME CONSTRAINT
0	Main bank	1
1	Other bank	3

Payment methods:

PAY METHOD	PAY METHOD TEXT
C	Cheque
T	Transfer

Reports in Personnel Administration:

Employee List
Employee Entered & Left
Family members
Birthday List
List of employees having company provided vehicles
Family members details
Service Anniversaries (List of employees who have completed specific number of days)
Employees Remuneration Statements.
Employees wage type statements.
Employees Absences and Attendance statements.
Total no of employees in each department and their Salary related reports.
Total no of vacancies in each department.
Time Recording reports for each employee for every month.

Gaps and possible Approaches to bridge the gaps

Triggering of Mails in the resignation action

- Maintaining checklist for previous employee details.

TIME MANAGEMENT

Employees in CSCL are entitled to leave, additional training, and so on. These types of entitlements can be stored in quotas and deducted from attendances and absences. We can determine which entries the system checks when an absence is recorded. Enables flexible representation of all personnel procedures involved in recording and evaluating employee time data

–Infrastructure for time data recording
–Work schedules
–Record of planned attendance and absences
–Recording of attendance and absence
–Annual and Sick Leave accrual
–Time evaluation

Ability to transfer absence and attendance data to other SAP applications

INTEGRATING TIME MANAGEMENT IN CSCL ORGANIZATIONAL STRUCTURE:

The Time Management component is closely integrated in the organizational structure of your enterprise. When working with Time Management, it is therefore essential that you maintain certain master data infotypes for your employees. One of the most important infotypes is *Organizational Assignment* (0001), which contains data on the organizational units to which the employee is assigned within the enterprise (personnel area, employee subgroup, and so on).

Public Holiday Calendar:

In *SAP Time Management*, public holidays are grouped together in the public holiday calendar. To set up a work schedule, you need a valid public holiday calendar including company-wide public holidays relevant for CCL.

At CCL the factory calendar is same as the Holiday calendar.The employees of the Charminar Castings will be granted with 12 days of holidays per year out of which 2 are Optional Holidays for the choice of employees dependence on the region wise

S.No	Holiday	Date	Day
1	Pongal	January 15t^{h}	Monday
2	Republic Day	January 26th	Friday
3	Holi	March 3rd	Saturday
4	Ugadi	March 20th	Tuesday
5	Good Friday	April 6th	Friday
6	Labour Day	May 1st	Tuesday
7	Independence Day	August 15th	Wednesday
8	Krishna Jamastami	September 5th	Wednesday
9	Gandhi Jayanthi	October 2nd	Tuesday
10	Ramzan	October 15th	Monday
11	Dasara/Vijayadasami	October 22nd	Monday
12	Deepavali	November 8th	Thursday
13	Id-Ul-Fitr/ Bakrid	December 21st	Friday
14	Christmas	December 25th	Tuesday

Daily Work Schedule:
The daily work schedule determines the structure of working times in your enterprise at the daily level.

Break Schedules:

You define the break rules in the work schedule for any particular working day and assign them to a *personnel subarea grouping for work schedules*.

Personal Work Schedules:

Work schedules for individual employees include data from Absences (2001), Attendances (2002) and Substitutions (2003).

Work Schedule Rules:

You specify in the work schedule rule which period work schedule is to be used when and on which day of the period for the work schedule to be generated.

S.NO	Code	Period Work schedule Text	Planned Time
1	CSGN	General Shift	9:00 - 17:00
		Lunch Break (Paid)	12:00 - 12:30
		Tea Break (Un-Paid)	15:45 - 16:00
2	CSS1	Shift 1	06:00 - 14:00
		Tea Break (Paid)	07:45 - 08:00
		Lunch Break (Un-Paid)	10:30 - 11:00
3	CSS2	Shift - 2	14:00 - 22:00
		Tea Break (Un-Paid)	15:45 - 16:00
		Lunch Break (Un-Paid)	18:30 - 19:00
4	CSS3	Shift - 3	22:00 - 06:00
		Tea Break (Un-Paid)	23:45 - 24:00
		Refreshment Break (Un-Paid)	02:30 - 03:00
		Tea Break (Un-Paid)	04:45 -05:00
5	3CSR	3 Shifts Rotation	Rotating Shift
	CSOF	Weekly Off	OFF

SL No	Code	Work Schedule Rule Text
1	CSGN	WSR - General Shift
2	CSS1	WSR - Shift 1
3	CSS2	WSR - Shift 2
4	CSS3	WSR - Shift 3
5	Rotating_ CSCL	WSR - Rotating Shift

Time Data Recording and Administration:

Time Recording and Administration component, you can record and manage time data effectively and efficiently. Time recording allows you to enter employee time data for working time, leave, business trips, and substitutions using different methods. This data can be entered as clock times or in hours and can contain account assignment specifications for other SAP applications.

Absences:

Absences are times when employees are not at work. Employees are absent if their planned working time, as stipulated in their work schedules, is not fully worked. If any employee joines in a middle of the year, leaves can be allotted on prorata basis.

Sl No	Absence Code	Absence Text	Entitlement
1	CSCL	Casual Leave	12
2	CSEL	Earned Leave	20
3	CSPL	Paternity Leave	03
4	CSML	Maternity Leave	12 Weeks
5	CSSL	Sick Leave	10
6	CLOP	Loss Of Pay	-

Casual leave:

The casual leaves will be given 12 days in a calendar year Here the term calendar means that year starting from 1st January to 31st Dec. The casual leaves are allowed in pro rata basis. An employee will not be allowed to use to go on leave more than 3 at a time. If an employee does not take the 12 CLs in a calendar year his CL will not be carried forward however he will be reimbursed with Basic wages for the remaining leaves.

Earned leave:

All the employees working in the CSCL are entitled for 20 ELs in a calendar year The calculation for the ELs will be as for 20 Physical working days 1 EL will be accumulated. The employee has to put his service at least 240 days per a calendar year. Els can be carried forward

Sick leave:
Sick leave eligibility is for the employees who are not covered under ESI act 10 Sick leaves per year are given. The employee who is applying for this should submit the physical fitness certificate from the asst civil surgeon rank Doctor while resuming towards duties. We feel that the employees who are working with us should not fall sick.

Maternity leave:
Maternity leave is applicable only for married woman who will not fall under ESI act. The maternity leave will be for a period for 12 weeks. It is expected from the employee that who ever is availing this leave should intimate before pr15 days before proceeding on leave, This either she could take from 30 days before delivery date are as advised by the doctor. Eligibility is the candidate should complete at least one year of service with company. This leave would be given two times in her whole lifetime.

Leave policy on miss carriage:
The married female employees will be entitled for this two times in her whole service. For each miss carriage 15 days will be given as paid leave.

Paternity leave:
All the married male employees are entitled for 3 days paternity leave. However the employee who is availing this would give the birth certificate for his son/daughter obtained form the nursing home.

Loss Of Pay:
Unauthorized absence from the planned working time is considered as Loss of Pay.

Counting Rules:
A counting rule is assigned to the absence type to determine the payroll hours and days for the duration of this absence. The sequence for deducting quotas of different quota types is specified in the deduction rules.

Deduction Rules:
The rules according to which absences are to be deducted from the absence quotas. Quota deduction does not depend on individual absence types, but is determined by the Counting rule for absences that is assigned to an absence type

Absence Quotas:
Employees in the enterprise are entitled to leave, additional training, and so on. These types of entitlements can be stored in quotas; from which absences are deducted we set up employees. An absence quota is an employee's time-limited entitlement to an absence.

Sl No	Absence Code	Absence Text	Entitlement	Absence Quota	Counting Rule	Deduction Rule
1	CSCL	Casual Leave	12	001	001	CS
2	CSEL	Earned Leave	20	002	001	CD
3	CSPL	Paternity Leave	3	003		CD
4	CSML	Maternity Leave	12 Weeks	004		CD
5	CSSL	Sick Leave	10	005		CD
6	CLOP	Loss Of Pay	0	006		CS
7	CESI	ESI Leave	0	007		CS

Infotypes used To Be in Time Management:

Sl No	SAP Info type	Info type Text
1	0007	Planned working time
2	2001	Absences
3	2006	Absence quotas
4	0416	Time Quota Compensation
5	2010	Employee Remuneration Info

PAYROLL

Payroll is used to calculate remuneration for work performed by individual employees. Payroll is an umbrella term for a variety of work processes, such as the creation of payroll results and remuneration statements, bank transfers and payments by check. It also covers a number of subsequent activities such as the posting of results to Accounting and other evaluations.

S.NO	Payroll area	code
1	Payroll area for CSCL	Co

Payroll Area Text	Payroll Run Date	Pay Date
Monthly	1st of every month	6th Of every Month

Remuneration is calculated in two main steps:

Calculation of remuneration elements
Statutory and voluntary deductions (which are country-specific)

Purpose

The payroll program is run at a specific point in time, not only to calculate an employee's basic remuneration but also any special payments, overtime payments or bonuses that must be effected for the period in question.

Wage Types:

Wage elements, statutory deductions, and voluntary deductions are all based on the individual payments and deductions that are calculated for an employee during a payroll period. The payments and deductions are Stored as wage types and then included in the payroll calculation.

An employee's wage elements are determined on the basis of the individual Wage types used in a payroll period. Payments that may be included in the calculation of remuneration are, for example, basic pay, bonuses, Vacation allowances gratuities. Company-owned apartments, Company-sponsored day care services and the like can all cause deductions from an employee's pay. Such payments and deductions can increase or reduce the amount of an employee's income that is subject to tax, and this is determined by a variety of factors such as the laws of a specific country or a particular company's policies.

The compulsory info types for calculation of payroll is:

S.N.	Infotype	Text
1	0000	Actions
2	0007	Planned working time
3	0008	Basic pay
4	0009	Bank details

Additional info types for calculation of payroll is :

S.NO	INFO TYPE	INFO TYPE TEXT
1	580	Previous Employment Tax Details
2	581	Housing (Hra / Cla / Coa)
3	582	Exemptions
4	583	Car & Conveyance
5	584	Income From Other Sources
6	585	Section 80 Deductions
8	587	Provident Fund Contribution
9	588	Other Statutory Deductions
10	590	Long Term Reimbursements
11	591	Nominations
12	267	Off Cycle Payments

The basic pay differs from one group to the other group. HRA, DA CA will be calculated based on the percentage of Basic Pay.

Basic pay wage types

Basic Pay:

It is the minimum earning of the employee out of his gross salary, which is a must. it would be minimum of 60% out of agreed cost to company. This is to protect employee's interest.

HRA:

50% of Basic pay is paid as House Rent Allowance to all the employees.

Conveyance Allowance:

Paid to all employees of the company i.e. managerial and above entitles of Rs.2000 and others Rs.1500

DA:

30% of basic is paid as dearness allowance to all the employees.

OVERTIME:

Calculation rule
Basic+DA*No.of overtime hours/total no. of hours in month..

Leave Encashment

Calculation rule Basic+DA*No. Of Days/30.

Additional Payments of Info Type 15

1.**LTA**

LTA paid to all the employees of the company and they pays Rs.25000to manager and above and the rest Rs.15000.

2.**Medical**

Medical paid to all the employees who are not covered under ESI of the company and they pays Rs.15000to manager and above and the rest Rs.6000.

3.**Variale pay**

Paid to all the employees on performance basis twice in a year and the amount decided by the management.

4. **Buddy referral**

If any new employee joined in company on referral and the person who refers him gets Rs.10000 as incentive.

5. **Festival Bonus**

Paid to all the employees at the time of dasera festival Rs.10000.

6. **Salary Advance**

Every employee entitles to get 2-month salary as advance and repaying the amount only he can eligible for next.

7. **Attendance Incentive**

Statutory Deductions:

Provident Fund: Paid to the institution of Provident Fund on behalf of the Employees by Employers. It is 12% of the Basic pay + Dearness Allowance as per the Employees' Provident Funds and Miscellaneous Provisions Act 1952.

Gratuity: According to the Payment of the Gratuity Act 1972,employer pays the employee at the rate of 15 days pay based on the pay last drawn by the employee concerned after the completion of every year of his/her service.

IF ANY EMPLOYEE OF THE COMPANY ATTENDS TO OFFICE WITH OUT ANY ABSENCE IN ANY MONTH THEN HE GETS ONE-DAY SALARY AS INCENTIVE.

ESI: According to the State Insurance Act 1948.

Labor welfare Fund: Every employee contributes Rs.2 every month to labor welfare trust.

Deductions:

The loans availed by the employee, and the PF, Professional Tax, IT, third Party deductions like LIC, Bank Loans will be deducted from pay that is paid to the employee by the employer.

Income Tax:

The will be deducted by the employer and paid to the Income tax Office as per the rule of the Government at the end of every financial year i.e. March.

CSR:

Every employee contributes Rs.20 every month to a NGO.

Professional Tax slabs

Range end	PT Amount
1,499.99	0.00
1,999.99	16.00
2,999.99	25.00
3,999.99	35.00
4,999.99	45.00
5,999.99	60.00
9,999.99	80.00
14,999.99	100.00
19,999.99	150.00
9,999,999.99	200.00

PAY SCALE STRUCTURE

PAY SCALE TYPE:

The pay scale type defines the area of economic activity for which a collective agreement is valid. The area in which it is valid may be determined at company and often applies to a whole industry.

SN	Pay scale type code	Pay scale type text
1	C1	Charimnar

PAY SCALE AREA:

Pay scale area defines the geographical area in which a collective agreement is valid. The geographical validity area is determined by the size of the pay scale area. With in a pay scale

area, you define the pay scale groups and levels for each pay scale type and employee subgroup grouping for collective agreement provisions.

SN	Pay scale Area code	Pay scale Area text
1	CH	HYDERABAD

PAY SCALE GROUP & LEVEL

Pay scale groups and pay scale levels are the criteria used to classify data for job evaluations and indirect valuations. Pay scale levels are subdivisions of pay scale groups

SN	Pay scale Group
1	Chairman
2	Director
3	Manager
4	Asst. Mang
5	Engineer
6	Executive
7	Supervisor
8	Worker
9	Helper

Payment Method:

All the employees paid through bank except workers and helpers, they paid by cash.

Rounding Off:

Remuneration Statement:

ROUNDING OFF TO AMOUNTS IS NEAREST TO UPPER RUPEE.

The SAP System enables you to create remuneration statements for your employees. A remuneration statement contains a clear list of payments and deductions effected during a payroll run for an employee.

Pay Slip Form Name: CSCL

Integration

Various components of the R/3 system interact when *posting to Accounting*:

Payroll (PY)

The *Payroll* component creates payroll results for each payroll period. To do so, wage types with different business purposes are created. They are created according to tax, social insurance law, industrial law, pay scale and operative points of view.

Financial Accounting (FI)

Financial Accounting illustrates all business transactions in the enterprise using postings to the relevant accounts. *Posting to Accounting* provides the necessary data for the following components in *Financial Accounting*:
General Ledger Accounting (FI-GL)
Accounts Payable (FI-AP)
Accounts Receivable (FI-AR)
Special Ledger (FI-SL)
Funds Management (FI-FM)

The graphic shows how the components link together when posting to Accounting

Implementation Considerations

The components involved in *posting to Accounting* do not have to be in the same client in the R/3 system. If the components involved are in different R/3 systems, R/2 systems or third-party systems, you can find more information in the following sections:
In Customizing of Cross-Application Components, under Predefined ALE Business Processes Human Resources HR <--> AC Posting of Payroll Results to Accounting
The wagetype components to be transferred to Symbolic Accounts/G/L accounts are as below.

The Navigation path as follows:

Payroll Customizing, under *Reporting for Posting Payroll Results to Accounting* → *Special Scenarios* → *Posting in Previous Releases* → *Set Up Export to s R/3 System*

The following various components of the R/3 system interact when *posting to Accounting*:

SN	Pay Component	G/L Account
1	Basic pay	
2	HRA	
3	Dearness Allowance	
4	Leave Travel allowance	
5	Leave Encashment	
6	Overtime allowance	
7	Festival Bonus	
8	Medical Reimbursement	
9	ESI (ER)	
10	PF (ER)	
11	Labor welfare fund	
12	Pension	
13	Gratuity	
14	PF (EE)	
15	ESI (EE)	
16	LWF (EE)	
17	Professional Tax	
18	Income tax	
19	Loss of Pay	
20	Conveyance allowance	
21	Attendance Incentive	
22	Variable Pay	
23	Buddy referral	
24	Salary advance	
25	CSR	

Cost Accounting (CO)

Cost Accounting provides information on the relationship between costs and activities within the enterprise. To do so, costs are either assigned to a cost center or to another account assignment object. The posting to Accounting component usually posts to the following account assignment objects:
Cost center
Order
It is also possible to post to the following account assignment objects:
Cost object
Work breakdown structure element
Network number

Activity number

Project Name	CSCL HR		
Document Name	Functional Specification For "Appointment Letter"		
Document ID	CSCL_PA01_FS_Appointmentletter	Version ID	1.0
Prepared By		Date	
Reviewed By		Date	
Approved By		Date	
Released By		Date	

Sales order
Item in sales order
a master cost center via relationship *A 011 (cost center assignment)* or with several via relationship *A 014 (cost center distribution)*

Organizational unit within a controlling area that represents a clearly delimited location where costs occur. There is one cost center and it is assigned to the organization units.

Personnel Cost Planning (PA-CM-CP)

The system can provide *Personnel Cost Planning* with data based on simulated or actual payroll results from *posting to Accounting*
Relationship between org units and cost center(STEELMNGT) which is provided by FICO module consultants will be integrate while posting the Symbolic Accounts.

Human Resource		
Sales		
Purchase	~~A011~~ →	**STEELMNGT (Cost Center)**
Finance		
Materials		
Des and Dev		
Quality		
Production		

1. Functional Specification on Appoint Letter

Revision History:

S.no	Version ID	Date Of Revision	Section No	Description Of Change	Reason For Change	Change Made By	Revised By
1.	1.0	dd.mm.yy		Initials			

SAP_ABAP_FUNCTIONAL SPECIFICATION
Identification

Module	Personnel Administration
Process	Functional Specification For "Appointment Letter"
FS ID	CSCL_PA01_FS_Appointmentletter

GENERAL REQUIREMENTS

S.No	Topics
1.1	Functional Description
	Description: A Customized Appointment Letter. Expected data volume
1.2	Development Plan
	Required start date of Development: Required end date of Development:
1.3	Testing/Validation Plan
	Required start date of Testing: Required end date of Testing: Availability of Test Date:

DETAILED FUNCTIONAL DESCRIPTION

S.No	Topics
2.1	Input Requirements
	Selection Option on the screen

Date 1	DD.MM.YYYY	(Mandatory)
Personnel number	PERNR	
Personnel area	WERKS	
Personnel sub area	BTRTL	
Employee group	PERSG	
Employee subgroup	PERSK	
Name	Free Text	(Mandatory)

2.2	Processing Requirements
	Date 1: Get date from selection screen Address: Get value from P0006-01 – STRAS and ORT01 Employee name: Get value from infotype P0001 – ENAME Position: Get value from IT P0001 – PLSTX, where IT0001-BEGDA= IT0000= BEGDA, where MASSN=01. Date 2: IT0000= BEGDA, where MASSN=01 Value1: Get value from IT P0008 - BETRG, wage type is 9001, where IT0008-BEGDA= IT0000= BEGDA, where MASSN=01. Value2: Get value from IT P0008 – BETRG, wage type is 9002, where IT0008-BEGDA= IT0000= BEGDA, where MASSN=01. Value3: Get value from IT P0008 – BETRG, wage type is 9003, where IT0008-BEGDA= IT0000= BEGDA, where MASSN=01. Value4: Get value from IT P0008 – BETRG, wage type is 9004, where IT0008-BEGDA= IT0000= BEGDA, where MASSN=01. Name: Get Name from selection screen
2.3	Output Requirements
	Report should be updated with Date, Address, Employee name, Position, Pay values and Name. Report  Application Letter The output is to be given in Word format.
2.4	Authorizations

Project Name	CSCL HR		
Document Name	Functional Specification For User Exit For Medical & LTA		
Document ID	CSCL_TM1085_FS_Medical_LTA	Version ID	1.0
Prepared By		Date	
Reviewed By		Date	
Approved By		Date	
Released By		Date	

FUNCTIONAL SPECIFICATION SIGNOFF

Module	Personnel Administration
Process	Functional Specification For "Appointment Letter"
FS ID	CSCL_PA01_FS_Appointmentletter

		Client Name		
Project Manager	Consultant	Organizational Units	Core Team Member	Project Manager

2. Functional Specification on Medical and LTA:

Revision History

S.no	Version ID	Date Of Revision	Section No	Description Of Change	Reason For Change	Change Made By	Revised By
1.	**1.0**	**03.11.07**		Initials			

SAP_ABAP_FUNCTIONAL SPECIFICATION

IDENTIFICATION

Module	**Time Management**
Process	**User Exit For Medical & LTA**
FS ID	**CSCL_TM1085_FS_Medical_LTA**

GENERAL REQUIREMENTS

S.No	Topics
1.1	Functional Description
	o Description: A Customized User Exit For Medical & LTA o Expected data volume
1.2	Development Plan
	o Required start date of Development: o Required end date of Development:
1.3	Testing/Validation Plan
	o Required start date of Testing: o Required end date of Testing: o Availability of Test Date:

DETAILED FUNCTIONAL DESCRIPTION

S.No	Topics
2.1	**Input Requirements**
	Infotype 0015
2.2	Processing Requirements
	System should check IT0015-lgart = 1050 or 1060, If Yes, Then check Begda-P0015, if BEGDA is > IT0000 – Begda, where MASSN = 05, Then allow the system to save the record. Else If 1050, then System should give Error Message "Not Eligible for Medical". If 1060, then System should give Error Message "Not Eligible for LTA".
2.3	Output Requirements

Project Name	CSCL HR		
Document Name	Functional Specification For User Exit For Sick Leave		
Document ID	CSCL_TM2001_FS_Sickleave	Version ID	1.0
Prepared By		Date	dd.mm.yy
Reviewed By		Date	dd.mm.yy
Approved By		Date	
Released By		Date	
	As per requirement		
2.4	Authorizations		

Module	Time Management
Process	**User Exit For Medical & LTA**
FS ID	**CSCL_TM1085_FS_Medical_LTA**

		Client Name		
Project Manager	**Consultant**	**Organizational Units**	**Core Team Member**	**Project Manager**

Functional Specification Sign Off

3. Functional Specification on Sick Leave:

REVISION HISTORY

S.no	Version ID	Date Of Revision	Section No	Description Of Change	Reason For Change	Change Made By	Revised By
1.	1.0	dd.mm.yy		Initials			

SAP_ABAP_FUNCTIONAL SPECIFICATION

IDENTIFICATION

Module	Time Management
Process	User Exit For Sick leave
FS ID	CSCL_TM2001_FS_Sickleave

GENERAL REQUIREMENTS

S.No	Topics
1.1	Functional Description
	o Description: A Customized User Exit For Sick Leave o Expected data volume
1.2	Development Plan
	o Required start date of Development: o Required end date of Development:
1.3	Testing/Validation Plan
	o Required start date of Testing: o Required end date of Testing: o Availability of Test Date:

DETAILED FUNCTIONAL DESCRIPTION

S.No	Topics
2.1	Input Requirements
	Infotype P2001
2.2	Processing Requirements
	IF IT2001, Subtype = SL BEGDA (MM/YYYY) = IT0000-BEGDA (MM/YYYY), where MASSN=01 IF yes, Get wage type from IT0008, IT0014, where LGART=1000,1010,1020 and 1040, then check table v_512_w_d, where cummulation class=12, if maintained then get the total amount <X> Check if X is > 10000.01, then system should allow saving the record. Else Error message "Employee is not eligible for SL" Else If MM = 04 or 10 Check if X is > 10000.01, then system should allow saving the record. Else Get the amount from RT where In Period=IT2001-BEGDA MM-1 (In Period = For Period), where LGART=/3E1, if exists Error message "Employee is not eligible for SL" Else System should allow saving the record.
2.3	Output Requirements
	As per requirement
2.4	Authorizations

FUNCTIONAL SPECIFICATION SIGNOFF

Module	Time Management
Process	User Exit For Sick leave
FS ID	CSCL_TM2001_FS_Sickleave

		Client Name		
Project Manager	Consultant	Organizational Units	Core Team Member	Project Manager

4.Functional Specification on Cost to The Company(CTC)

Project Name	CSCL HR		
Document Name	Functional Specification of customized infotype For “Cost To Company”		
Document ID	CSCL_PA9001_FS_CTC	Version ID	1.0
Prepared By		Date	dd.mm.yy
Reviewed By		Date	dd.mm.yy
Approved By		Date	dd.mm.yy
Released By		Date	

Revision History

S.no	Version ID	Date Of Revision	Section No	Description Of Change	Reason For Change	Change Made By	Revised By
1.	1.0	dd.mm.yy		Initials			

SAP_ABAP_FUNCTIONAL SPECIFICATION

Identification

Module	Payroll
Process	Infotype for Cost to company
FS ID	CSCL_PA9001_FS_ CTC

General Requirements

S.No	Topics
1.1	Functional Description
	Description: A Customized Infotype for Employees Expected data volume
1.2	Development Plan
	Required start date of Development: Required end date of Development:
1.3	Testing/Validation Plan
	Required start date of Testing: Required end date of Testing: Availability of Test Date:

Detailed Functional Description

S.No	Topics
2.1	Input Requirements
	Annual Salary <Free Text> (0) <u>Monthly:</u> Basic <Free Text> (1) HRA <Value (2)> Metro Non-Metro (By default) DA <Rs.1000> (3) Conveyance Allowance <Rs.2000> (4) Special Day < Value (5)> Total <Total (A)> LTA < Free Text >(6) Medical < Free Text >(7) Bonus < Free Text >(8) Total <Total (B)> PF < Value (9)> Gratuity < Value (10)> Superannuation < Value (11)> Total: <Total (C)> GRAND TOTAL: <Total A+B+C>
2.2	Processing Requirements
	Annual Salary (0): Free Text, Currency.

	Basic (1): Free Text, Currency Value (2): If Metro, 50% of (1), Currency If Non Metro, 40% of (1), Currency DA (3): Rs.1000/- Fixed, Currency Conveyance (4): Rs.2000/- Fixed, Currency Value (5): Annual Salary (0)-Grant Total, Currency Condition: If the value is greater than or equal to zero, then add to special pay, Else, "Error message" Total A = (1)+(2)+(3)+(4)+(5), Currency LTA (6): Free Text, Currency MEDICAL (7): Free Text, Currency BONUS (8): Free Text, Currency Total B = (6)+(7)+(8), Currency Value (9): 12 % on (1) + (3), Currency Value (10): 4.25% on Basic <1>, Currency Value (11): 15 % on Basic <1>, Currency Total C = (9)+(10)+(11), Currency Grant Total =Total A+ Total B+ Total C Time Constraint = 1 for this Infotype
2.3	Output Requirements
	Infotype should be as per requirement Infotype

Project Name	CSCL HR		
Document Name	Functional Specification For "Report on Leave Details Of Employees"		
Document ID	CSCL_TM2006_FS_Leavedetails	Version ID	1.0
Prepared By		Date	dd.mmyy
Reviewed By		Date	dd.mm.yy
Approved By		Date	dd.mm.yy
Released By		Date	
	 Microsoft Excel Chart		
2.4	Authorizations		

Functional Specification Signoff

Module	Payroll
Process	Infotype for Cost To Company
FS ID	CSCL_PA9001_FS_CTC

		Client Name		
Project Manager	Consultant	Organizational Units	Core Team Member	Project Manager

5. Functional Specification on Leave Details:

FUNCTIONAL SPECIFICATION

REVISION HISTORY

S.no	Version ID	Date Of Revision	Section No	Description Of Change	Reason For Change	Change Made By	Revised By
1.	1.0	dd.mm.yy		Initials			

IDENTIFICATION

Module	Time Management
Process	Report on Leave Details Of Employees
FS ID	CSCL_TM2006_FS_Leavedetails

General Requirements

S.No	Topics
1.1	Functional Description
	Description: A Customized Report on Leave Details Of Employees Expected data volume
1.2	Development Plan
	Required start date of Development: Required end date of Development:
1.3	Testing/Validation Plan
	Required start date of Testing: Required end date of Testing: Availability of Test Date:

DETAILED FUNCTIONAL DESCRIPTION

<table>
<tr><td>S.No</td><td>Topics</td></tr>
<tr><td>2.1</td><td>Input Requirements</td></tr>
<tr><td></td><td>Selection Option on the screen
<table>
<tr><td colspan="5">Period:</td></tr>
<tr><td>Start Date:</td><td>DD.MM.YYYY</td><td>End Date:</td><td>DD.MM.YYYY</td><td>(Mandatory)</td></tr>
</table>
<table>
<tr><td>Personnel number</td><td>PERNR</td><td></td></tr>
<tr><td>Personnel area</td><td>WERKS</td><td></td></tr>
<tr><td>Personnel sub area</td><td>BTRTL</td><td></td></tr>
<tr><td>Employee group</td><td>PERSG</td><td></td></tr>
<tr><td>Employee subgroup</td><td>PERSK</td><td></td></tr>
<tr><td>Absence Type</td><td>P2006-KPART</td><td>(Mandatory)</td></tr>
</table></td></tr>
<tr><td>2.2</td><td>Processing Requirements</td></tr>
<tr><td></td><td>PERNR: IT0001-PERNR

Employee Name: IT0001-ENAME

From Period: Get Value from Selection Screen Start Date

To Period: Get Value from Selection Screen End Date

A = Entitlement: Get Value from P2001-ANZHL, where subtype = selection screen subtype, where Period = Selection Screen Period.

B = No of Leave: Get Value from P2001-KBERB, where subtype = selection screen subtype, where Period = Selection Screen Period.

Remaining Leave: A-B.</td></tr>
<tr><td>2.3</td><td>Output Requirements</td></tr>
<tr><td></td><td>Report should be updated with Personnel Number, Employee name, Leave Entitlement, Leave Taken and Leave Remaining.

Report</td></tr>
</table>

	 Output Table The output is to be given in Text format.
2.4	Authorizations

Functional Specification Signoff

Module	Time Management
Process	Report on Leave Details Of Employees
FS ID	CSCL_TM2006_FS_Leavedetails

		Client Name		
Project Manager	Consultant	Organizational Units	Core Team Member	Project Manager

* * * End of Report * * *