

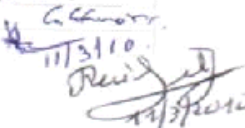


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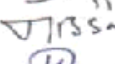
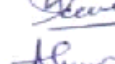
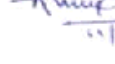
SDCCL
SAP ECC 6.0 Implementation

SDCCL - Materials Management (SAP MM)
Business Blueprint Document
Version 2.0 | 05-02-2010

Document Control Sheet

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This document is a result of workshop study and requirement analysis carried out at SDCCL Jamnagar Plant. The purpose of this document is to map the SDCCL's requirements on to SAP standard functionality of the Materials Management based on the requirements narrated in the CIMPOR global Templates. This document is to be studied by SDCCL Management and users. The preparation of this document is an essential precursor to prototyping and testing.

This Blueprint has been developed by documenting all input gathered from the business process owners/core users by scheduling meetings and workshops based on the guidelines and templates narrated in the CIMPOR Global templates.

1 Organizational Units

1.1 Plant

Requirements/Expectations

- Manufacturing facility, sales depot etc are to be mapped in SAP
- A Valuation level is to be mapped in SAP

General explanations

- A plant is an organizational entity for the purpose of inventory management, physical inventory and planning functions.
- A plant is an independent unit that has its own inventory management and orders its own stock.
- To manage the inventory, the one cement production facility will be defined as plant in SAP system from the inventory management perspective.
- Valuation will be at plant level. Material stocks will be valued at plant level.

Naming Convention

The naming convention is as follows:

Existing Plants

Plant Code	Description	Business Area	Description
SC01	SDCC SIKKA	SC01	SDCC SIKKA
SC02	SDCC AHMEDABAD	SC02	SDCC AHMEDABAD
SC03	SDCC ANAND	SC03	SDCC ANAND
SC04	SDCC BARODA	SC04	SDCC BARODA
SC05	SDCC BARODA RAIL HEAD	SC05	SDCC BARODA RAIL HEAD
SC06	SDCC BHAVNAGAR	SC06	SDCC BHAVNAGAR
SC07	SDCC GANDHIDHAM	SC07	SDCC GANDHIDHAM
SC08	SDCC GODHRA	SC08	SDCC GODHRA
SC09	SDCC GODHRA RAIL HEAD	SC09	SDCC GODHRA RAIL HEAD
SC10	SDCC KANKARIA RAIL HEAD	SC10	SDCC KANKARIA RAIL HEAD
SC11	SDCC MEHSANA	SC11	SDCC MEHSANA
SC12	SDCC MEHSANA RAIL HEAD	SC12	SDCC MEHSANA RAIL HEAD
SC13	SDCC NADIAD	SC13	SDCC NADIAD
SC14	SDCC NADIAD RAIL HEAD	SC14	SDCC NADIAD RAIL HEAD
SC15	SDCC RAJKOT	SC15	SDCC RAJKOT
SC16	SDCC RAJKOT RAIL HEAD	SC16	SDCC RAJKOT RAIL HEAD

Of the above, the plant **SC01** (1921) is the manufacturing plant. All the three mines are taken as cost centres in the plant SC01.

Definition of Organizational Units

- A plant is an independent unit that has its own inventory management and orders its own stock.

Assignment of Organizational Units

- Plants will be assigned to company code SDCCL

1.2 Storage Location

Requirements/Expectations

- It is required to have a specific location for storing the material
- A location must be available to take the physical inventory count and maintain the material

General explanations

- Storage location is an organizational unit facilitating differentiation between the various stocks of a material within a plant.
- The physical inventory will be carried out at the storage location level in inventory management.
- About 200 physical storage locations required for storing various materials handled by a cement plant will be mapped in the system as storage bins in material master for easy identification.
- Logical storage locations will be defined in the system to cater to the mapping of the production and Sales processes in the Production planning, Sales & Distribution modules of SAP.

Naming Convention

Four digit alpha-numeric coding will be followed for storage locations.

Definition of Organizational Units

- Please refer to the Annexure 1: BBP-MM-OS-SLOC for the list of storage locations and their assignment.

Special Organisational Considerations

The stocks for the finished product storage location are to be allowed to be negative as the production order will be confirmed once in a month while the finished product is dispatched from the stores on a daily basis.

Assignment of Organizational Units

- Storage locations will be assigned to plants as per the assignment given in Annexure 1 :
BBP-MM-OS-SLOC

Changes to existing organization

- The bin level concept is used to replace the storage location concept.

2 Master Data

2.1 Global Settings

Requirements/Expectations

- Set countries
- Set currencies
- Set Units of Measure (UoM)
- Set calendar

General explanations

- The standard SAP settings shall be retained with respect to Countries, currencies.
- New currencies can be added if required.
- Unit of measurement are needed in applications to make calculations with quantities and physical units. Units of measurement are needed for their screen display and for internal conversions (such as Kilogram > gram, but also centimeter > inch). The International system of units (SI) is used for this.
- Unit of measurement is held centrally in the SAP R/3 System for all applications. The conversion factors are stored in the system with a unique internal key (3 Characters). The external display specifications are maintained for each unit of

measurement language-dependently. For display options during transactions, a Commercial key (3 Characters) and a Technical key (6 Characters) should be maintained for each language.

- The Public Holiday and factory calendar is a central module in the SAP system. It is used in many areas in the standard version. A Factory Calendar is allocated to Plant in Logistics.

Naming/Numbering Conventions

- Standard SAP settings shall be retained for countries, currencies.

Authorization and user roles

- The authorizations to create/modify Factory calendars, UoMs shall be with Cimpor SAP IT team.

2.2 Vendor Master Record

Requirements/Expectations

- All the information related to vendors for purchasing and accounting is to be contained in the vendor master which are easy to use and understand.
- The following accounts groups are already available in the system for Vendor Master records and are to be continued.

ACCOUNT GROUP DESCRIPTION
Domestic Vendors
Foreign Vendors
Group companies - Domestic
Group Companies - Foreign
Personnel
One Time Vendor

- Bank details for each vendor to be captured in the master record.

General explanations

- Vendor master data contains information related to vendors who supply materials or render services.
- The vendor master database consists of a large number of individual vendor master records, each containing the relevant vendor's name and address as well as data such as

the currency used for ordering from the vendor, terms of payment, names of important contact persons (sales staff), group, scope of supply, ownership.

- Since in accounting, the vendor represents an account payable, the vendor master record also contains accounting information, such as the relevant control account (reconciliation account) in the general bookkeeping system. Therefore, the vendor master record will be maintained by both accounting and purchasing departments.
- The accounting data must be provided for a vendor before entering the vendor's invoice for payment in the system.
- Only the respective sections shall be authorized to create /change the data of their respective fields.
- A vendor master record is subdivided into three different data areas:
 1. General data: Data is applicable to the whole client (enterprise). group, scope of supply, ownership Address, telephone, communication details will be maintained in general data.
 2. Company code data: Data that is applicable to the company code. Payment transactions, reconciliation account, accounting data will be maintained at company code level.
 3. Purchasing data: Data that is applicable at purchasing organization level. Purchase currency, incoterms, schema group, contact person details will be maintained in purchasing data.
- Each vendor will be assigned to an account group. The account group will determine the numbering of vendor master records, the screens and fields, vendor partner schemas.
- There can be separate reconciliation accounts for local vendors, foreign vendors, one time vendors, finance vendors etc.
- Vendors will be numbered internally by the systems. The serial numbering will be based on the number assignment to account groups.
- Vendor master data creation will be required to facilitate PO/PR processing, vendor quotation processing or vendor invoice processing. While creating a vendor master record, it is a must to enter an account group which cannot be changed once created except by the system administrator who will be authorized to do so in exceptional cases.
- Each vendor master record will be assigned a unique number (the vendor's account number of SAP used by financial accounting) internally by the SAP system from a given range in a consecutive manner.
- Purchasing department personnel will enter purchasing specific information such as vendor number, address, order currency, terms of payment and any other optional information eg: country, language etc.
- Finance department will be responsible for entering those accounting specific data such as accounting information (reconciliation account), banking details, alternative payee, payment and dunning programs.

Special organizational considerations

- Please refer to the Annexure 2: BBP-MM-MD-VENDOR for further details on incoterms and terms of payments for vendors.

Changes to existing organization

- Not Applicable

Description of improvements

- Vendor master data is maintained in a single record and accessed by authorized departments. Maintenance of master data will be much simpler.
- Purchasing is the contact point for most vendor transactions and will be able to enter changes in address, contact persons, phone numbers as soon as the information is known. This will enable the information to be up to date without requesting another department to enter the information.

System configuration considerations

- Please refer to the Annexure 2: BBP-MM-MD-VENDOR for details on the configuration considerations for vendor master.
- Define text types for central texts - accounting note/purchasing memo
Standard SAP text types will be used.
- Account groups for vendors will be created in financial accounting. Separate vendor account groups (number ranges) will be created for various types of vendors.

Authorization and user roles

Authorization for maintenance of accounting data in vendor master will be given to finance department users whereas general and purchasing data authorization will be given to purchasing department users.

2.3 Material Master

Requirements/Expectations

- To maintain the materials in their company under standard SAP material types, as per their behavior.
- Each material will have only one part number assigned.
- The definition of the material has to be precise enough to separate materials with different form, fit and function.
- The material master has to be accessed across the plant.
- The materials Master should have sufficient fields to capture all data required for suppliers/manufacturers to easily identify the requirement and upload all the current data available in the legacy system.
- Materials with shelf life should have specific field to specify delivery certification requirements for such shelf life.

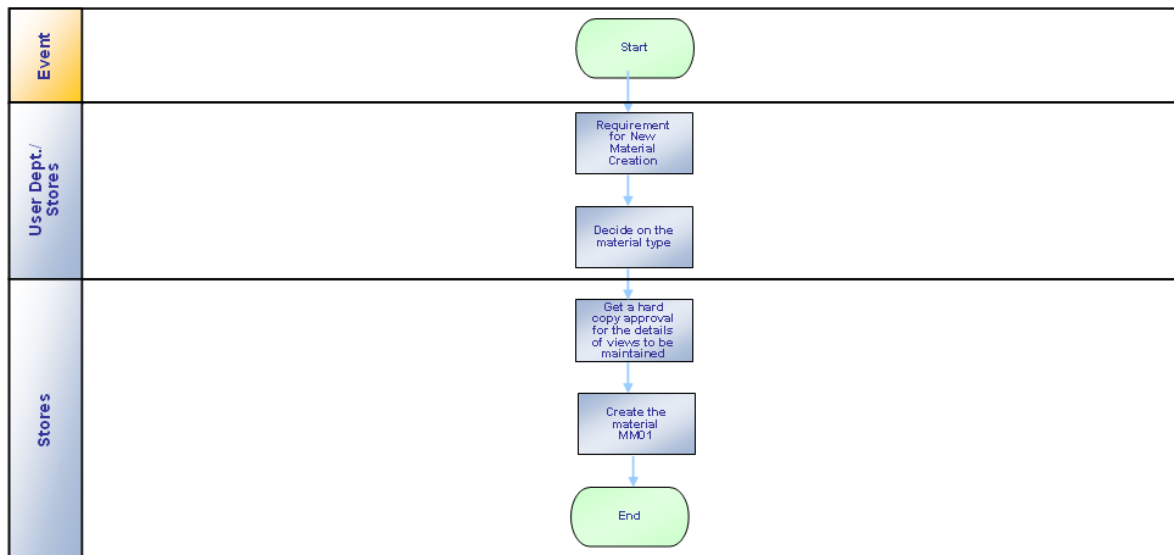
General explanations

The material master contains all the information on all the materials that a company procures, produces, stores, and sells.

- The material master contains all the data required to manage a material. This data is sorted according to various criteria.
- A material master record contains data of a descriptive nature (such as size and weight) and data with a control function (such as material type and industry sector). In addition to this data, which can be directly maintained by the user, it also contains data that is automatically updated by the system (such as stock levels).
- Materials will be grouped together under different material types.
- Whenever a material master record is created, it must be assigned to a material type.
- Type of price controls that will be used are:
 - V – Moving average Price
 - S – Standard Price
- For each material, it is a must to specify the price control in the material master record according to which the material is to be valued.
- Moving average price control will be used for all spares and raw materials. Standard price will be used for semi-finished and finished products.
- The valuation class is a group of materials with the same account determination.
- The valuation classes allowed depend on the material type.
- The link between the valuation classes and the material types is set up via the account category reference.

- The account category reference is a combination of valuation classes. Precisely one account category reference will be assigned to a material type.
- Please refer to the Annexure 2 : BBP-MM-MD-MATMAS for details on the Material types.
- The material master is the company's central source for retrieving material-specific data. It is used by all the components in the SAP logistics system.
- The integration of all material data in a single record object eliminates redundant data storage. Areas such as purchasing, inventory management, material requirements planning (MRP), invoice verification, and so on, will all use the same data.
- In the SAP logistics system, the data contained in the material master is required, for example, for the following functions:
 - In purchasing for ordering
 - In inventory management for goods movement postings and physical inventory
 - In invoice verification for posting invoices
 - In sales and distribution for sales order processing
- When creating the material master record, it is needed to specify material type, material number and industry sector. After that, different functions have to select and maintain different views:
 - MM: Basic data view for maintaining material description, unit of measure, material group.
 - MM: Purchasing view for maintaining unit of measure/dimension, basic purchase data, material status, purchase order texts, defining purchasing values and source determination.
 - MM: Storage view to maintain unit of measure/dimension data, hazardous material number, storage condition, shelf life, goods receipt/issue.
 - SD: Sales view for maintaining tax data, data relevant to price determination, sales status, quantity stipulations, shipping data, availability check, sales texts, product attributes, general plant parameters, foreign trade data and various groupings by statistics, volume rebate, commission, account assignment.
 - FICO: Accounting view to define valuation category, basic data such as Valuation class, standard price/moving average and balance sheet valuation data.
 - FICO: Costing view to maintain variance key, basic data for product costing and determine additional valuation methods.
- Material created after maintenance of the afore-mentioned views will lead to other processing such as material BOM, routing, RFQs etc.

Creating Material Master Record



Changes to existing organization

- The process of creating a new material number in the system has to be given to authorized users.
- The data required for maintaining the views has to be provided by respective department persons.
- The master record for the material will be created in SAP once all the hard-copy approvals for the same are obtained.
- As material master data is maintained in the system, this data will be adopted automatically to the documents when using the respective material number. This helps in saving processing time and data consistency.

Description of improvements

- Processing time for processing purchasing documents, inventory documents will come down drastically as the data is copied to the documents from the master data.

In the Purchasing View:

- Purchasing value key will be maintained to define the valid reminder days and tolerance limits applicable to the material.
- Material group will be maintained to do analysis for a group of materials i.e. stationary, kitchen items etc

In the Storage View:

- A 'unit of issue' will be maintained to specify how the materials will be issued.

System configuration considerations

- In Logistics General: Logistics Basic Data: Material Master; the complete section will be considered.

MATERIAL:

- Control Data: Make global settings; Maintain company codes for materials management; Define attributes of material types; Assign material types to special "create" transactions; Define output format of material numbers; Define material statuses; Define attributes of messages
Standard SAP configuration will be used
- Define number ranges for each material type
Please refer to the Annexure 2: BBP-MM-MD-MATMAS for the list.
- Define material groups
Please refer to the Annexure 2: BBP-MM-MD-MATMAS for a list of material groups.
- Field Selection: Assign fields to field selection groups; Maintain field selection for data screens; Define industry sectors and references for field selection; Define plant-specific field selection and plant-specific screen selection. Standard SAP configuration will be used
- In Materials Management, Purchasing, Material Master: Define shipping instructions, define purchasing value key. Standard SAP configuration will be used.
- Assignment of material type, valuation class and account category reference
Please refer to the Annexure 2: BBP-MM-MD-MATMAS for a list of valuation classes.
Refer to finance blue print document for G/L accounts assigned to valuation class.

Integration Considerations

- The material master is used by all components in the SAP logistics system. The integration of all material data in a single database object eliminates redundant data storage.
Refer to finance blue print document for G/L accounts assigned to valuation class.

Authorization and user roles

- In material master, Materials Section users will be authorized for maintenance of basic data1, basic data2, purchasing, MRP, accounting, costing, plant & storage location data views whereas finance department users will be authorized for accounting and costing views and sales department users will be authorized for sales views.

3 Business Processes

3.1 Purchasing

3.1.1 Organizational Units

3.1.1.1 Purchasing Organization

Requirements/Expectations

- Single purchasing department will handle all kinds of purchases of services/materials for the cement plant.

General explanations

- Purchasing organization is an organizational unit responsible for procuring materials or services for one or more plants and for negotiating general conditions of purchase with vendors. The purchasing organization assumes legal responsibility for all external purchase transactions.
- Both corporate and local purchases will be handled in the purchasing department.
- Vendor price negotiations for materials/services will be carried out in the purchasing department for corporate as well as for local purchases.

Naming Convention

Four digit numeric coding will be followed.

Definition of Organizational Units

The below purchasing organization will be defined in the system.

Purchasing Organization	Description
CC00	CENTRAL PURCHASE ORGANISATION SDCCL

Assignment of Organizational Units

This Purchasing organization is assigned to the company SDCCL.

3.1.1.2 Purchasing Group

Requirements/Expectations

- Individual buyers are to be identified in the system.
- Persons responsible for the procurement of materials based on the material/ material groups are to be identified.

General explanations

- A purchasing group is an organizational unit within logistics, serving to subdivide an enterprise according to IT, administration, procurement, maintenance, finance etc.
- Purchasing groups represent the buyers or the group of individuals of departments responsible for purchases.
- Purchasing group is a key for identifying the department who raised/created the purchasing document (Ex: Purchase requisition)

Naming Convention

Three digit alpha-numeric coding will be followed:

Definition of Organizational Units

- Please refer to the Annexure 1: BBP-MM-OS-PGROUP for the list of Purchasing Groups.

Assignment of Organizational Units

- Purchasing groups are not assigned to any organizational entity.
- Individuals will be authorized to procure against purchasing groups, this can be set in personal settings in purchasing documents which will be defaulted while creating purchasing documents.

3.1.2 Master Data

3.1.2.1 Purchasing Info Record

Requirements/Expectations

- Price conditions are to be maintained for each material/service - vendor relationship.
- The prices are to be defaulted automatically during processing of purchase orders.
- The history of Material Price (date-wise)

General explanations

- Purchase info record will serve as a source of information on a specific material/service and a vendor supplying the material.

-
- Purchase info record contains information on a specific material and a vendor supplying the material. For example, the vendor's current pricing is stored in the info record.
 - The info record will allow purchasing department users to quickly determine which materials have been previously offered or supplied by a specific vendor and which vendors have offered or supplied a specific material.
 - The info record contains data such as current prices and pricing conditions, the number of the last purchase order, tolerance limits for over deliveries and under deliveries, the planned delivery time (lead time required by the vendor to deliver the material), vendor evaluation data, an indicator as to whether the vendor counts as the regular vendor for the material. The info record contains quotation and ordering data.
 - The data in the info record (prices for example) is also used as default data for purchase orders. For instance, the current and future quotation conditions will be stored (discounts, fixed costs etc.) in the info record, in order to be able to copy them into purchase orders.
 - The vendor's conditions will be maintained directly in the info record with/without a material master record.
 - An info record contains general data that is valid for each purchasing organization or each plant (for example, origin data, reminder levels, and the order unit) and organizational data such as prices and pricing conditions for the relevant purchasing organization or plant can be stored.
 - The info record contains info record memo which is an internal note that is adopted in the PO item and is not printed out, PO text which corresponds to the PO text in the material master record, adopted in the PO item and included in the printout and short text which is adopted directly from the material master record into the PO or the outline purchase agreement.
 - The info record allows buyers in purchasing department to quickly determine:
 1. Which materials have been previously offered or supplied by a specific vendor.
 2. Which vendors have offered or supplied a specific material.
 - The condition technique of SAP will be used to determine the price in purchasing using pricing elements (conditions). The condition type represents the price factor. Example: Gross Price, Discounts, Surcharge, Freight, Insurance, etc.
 - Item level and header level conditions can be used.
 - Prices will be maintained for each material - vendor relationship in the info record.
 - Purchasing info record will be created/updated as a result of various processing such as contract, scheduling agreement, contract release order, and purchase order or vendor quotation.

- Most of the companies will use automatic creation of purchase info record via setting the info update indicator when maintaining a quotation, a purchase order, or an outline agreement.
- The purchase order data will be updated automatically in an info record. While creating an info record, it is required to specify the material, vendor, relevant purchasing organization and plant, whether it is standard or any other category.
- It is required to enter vendor data, order unit, origin data, supply option and preference data. Then it is necessary to enter delivery data relating to planned delivery time, purchase order quantities and tolerances, pricing data relating to price, quantity conversion and Inco-terms, and the conditions and validities. It may also need to enter and edit the info memo or the PO text. Lastly, info record will be saved /updated.

Changes to existing organization

- As the Info record master data is maintained in the system, this data will be adopted automatically to the documents when using the respective combination of vendor, material, purchasing organization and plant. This helps in saving processing time and data consistency will be there.

Description of improvements

- Purchase info records will provide a place to enter the results of negotiations and vendor/material specific data that is required to keep for future use.
- Purchase info records will provide scale pricing or date based price changes.

Authorization and user roles

- Authorizations for maintenance of purchasing info record will be given to purchasing department users.

3.1.2.2 Source List

Requirements/Expectations

- Maintain approved vendor list for items.
- Use the source list as a component of vendor selection processing.
- Purchasing department will maintain the ability to override the proposed vendor.

General explanations

- Source list will be used in determination of sources of supply.
- A source list specifies the allowed (and disallowed) sources of supply for material with in a plant. Source list also indicates the period for which the source is valid. Each source will be defined in the source list by means of a source list record.
- Source list will be maintained manually.
- Purchase orders will be placed only with vendors who are available in the source list if source list is maintained.

Explanation of functions and events

- Source for each material is defined by means of a source list record.
- While creating/entering a source list, determine the material and plant, the validity period, characteristics of the source of supply such as number of the vendor and the responsible purchasing organization, or number of the outline agreement (scheduling agreement or contract) that represents a source of the material.
- It is also needed to determine a fixed source, possible source of procurement plant (supplying plant) or a blocked source with the vendor or outline agreement not suggested during the source determination process. The source list so created will then be monitored for future/further processing.

Description of improvements

- The source determination facility helps the procurement department to find the most suitable source for a certain requirement from the large volume of data that is available, i.e. it suggests a suitable vendor or a contract for ordering purposes.
- The requirements of user departments can be covered quickly and efficiently, leading to optimization in work processes in purchasing.

Notes on further improvements

- Automatic processing of purchase orders (RFQs not POs unless a contract exists) based on source determination will speed up and optimize the purchasing process.
- Longer term purchasing relationships will allow fuller utilization of SAP's automatic source selection and reduce the lead time of 'requirement to order placement'.

Authorization and user roles

- Authorizations for maintenance of source list will be restricted to purchasing department users.

3.1.3 Business Processes

- Procurement of stock material, operating supplies, consumable and spares (MPR□PR□PO).
- Procurement of assets/capitals.
- Procurement of direct consumables.
- Procurement of raw materials.
- Procurement of services.
- Physical inventory.

3.1.3.1 Processing Material Planning

Requirements/expectations

- The replenishment for spares, consumables and operating supplies which are stock material will be based on the re-order point procedure.
- Purchase requisitions will be generated automatically from planned orders.

General explanations

- Re-order point procedure is a procedure of Materials Requirement planning (MRP).
- The various parameters required for re-order point like the re-order level, safety stock, maximum level and lot sizing procedures are maintained for all those materials that are to be covered by Consumption based planning.
- In reorder point planning, procurement is triggered when the sum of plant stock and firmed receipts falls below the reorder point.
- The reorder point should cover the average material requirements expected during the replenishment lead time. The safety stock exists to cover both excess material consumption within the replenishment lead time and any additional requirements that may occur due to delivery delays. Therefore, the safety stock is included in the reorder level.
- The following values are important for defining the reorder point:
 - Safety stock
 - Average consumption
 - Replenishment lead time .

- The following values are important for defining the safety stock:
 - Past consumption values (historical data) or future requirements
 - Vendor/production delivery timelines
 - Service level to be achieved
 - Forecast error, that is, the deviation from the expected requirements
- The parameters for reorder point planning are maintained in the material master.
- At each consumption, the system checks for the available quantity with re-order point and creates an entry in the planning file.
- The MRP is run on regular basis. In the MRP run the system calculates the requirement quantity and creates a proposal.

Changes to existing organization

- MRP to be run as a batch job at regular intervals. The frequency is recommended to be daily.

Description of improvements

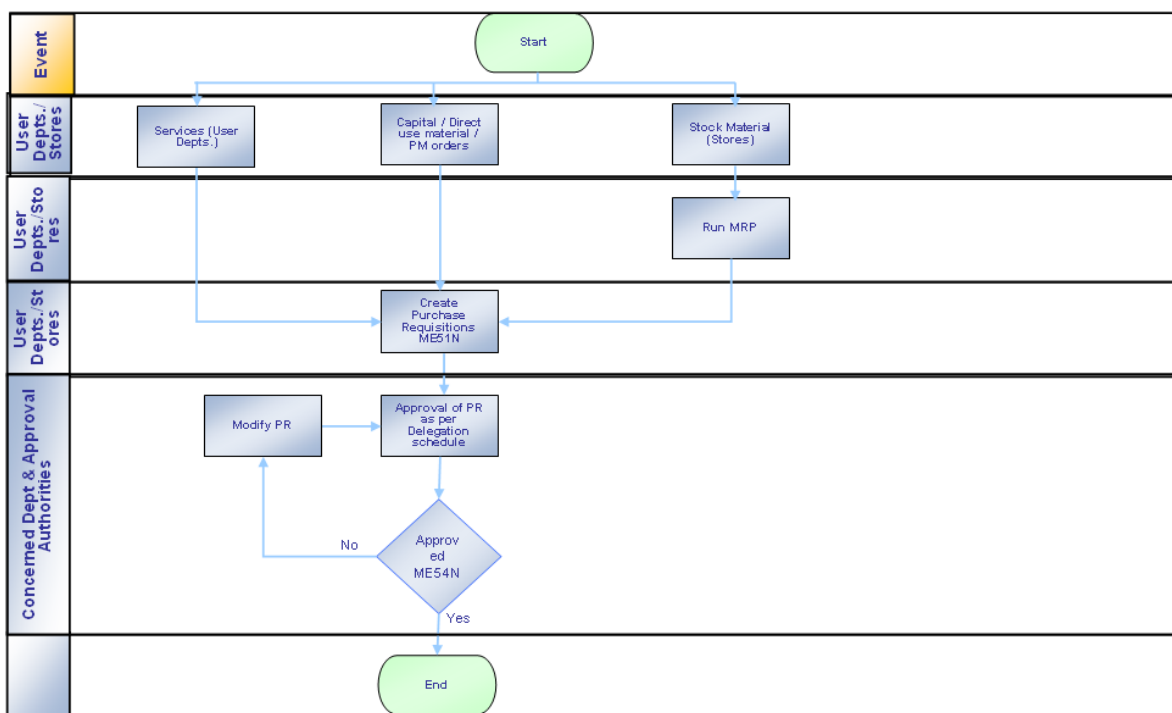
- MRP helps in optimizing the planning, execution and hence the levels of stock materials.

Authorization and user roles

- Authorizations to run MRP or view the MRP List shall be restricted to the authorized individuals only.

3.1.3.2 Processing Purchase Requisitions

Purchase Requisition Processing - For Plant & Direct Use Material



3.1.3.2.1 Create or process purchase requisitions

Requirements/Expectations

- To create a purchase requisition, which is a request or instruction to procure a certain quantity of a material or a service so that it is available at a certain point in time.
- Purchase requisition is to be created by concerned department for direct charge material, consumables, Capital items, and external services.
- Only Materials section shall create purchase requisitions for stock materials.
- Requisitioner's details to be captured in the purchase requisition. Purpose of request / justification of requirement to be mentioned. The details shall include also the estimate price(last purchase order price).
- Purchase requisitions are converted into request for quotations after being approved as per the Approval Authority Schedule.
- The system should allow PRs to be converted to purchase orders directly without RFQ.
- Materials must be selected from the material master if available, this in turn must default related data from the material master to the purchase requisition document.

•

General explanations

A purchase requisition defines a need for a material or service. It has the following characteristics:

- It is the primary instrument for identifying materials or services that need to be procured.
- It authorizes the procurement of specified quantities of materials and/or service within a specified time
- It is an internal document used to trigger procurement activity; it is not used outside the enterprise.
- Purchase requisitions will be created manually in the case of material for direct consumption, fixed assets and external services.
- Purchase requisitions - header note will be used to capture any comments or internal notes such as reason for request, etc. for manually created requisitions. Department name/ requisitioner name will be maintained against each item in "requisitioner" field of purchase requisition.
- Each requisition shall have a unique number which is automatically generated by the system .
- Account assignment category will be used to request purchases for direct consumption, services and fixed assets.
- For each item of a purchasing document, whether procurement is for stock or for direct consumption will be specified. In a purchasing document, items will be entered with or without account assignments. Account must be specified by requester at the requisition initiation for non-stock PRs.
- Stock materials ordered will have a material master record.
- Documents will be attached to purchase requisition transaction in either create or change mode. The documents attached will be part of the purchase requisition transaction.
- Internal numbering for purchase requisitions will be used

The purchase requisitions are created manually by

- i) The Materials section for stock materials using planned orders from MRP run.
- ii) The requesters from various departments for direct-use materials or services.
- iii) The stock material not covered by MPR.

For **stock materials**, The MRP run creates planned orders considering the net requirement. These planned orders are to be converted into PRs either manually or by MRP.

For **non-stock materials and services**, the requisitions are created by the respective departments which need these materials/services. The purchase dept then takes them over for further processing.

- The continuous monitoring of available stock within reorder point planning is carried out in Inventory Management. Every time a **material is withdrawn** from the stores, the system checks whether this withdrawal has caused stock levels to fall below the reorder level. If this is the case, the system makes an entry in the planning file for the next planning run. If a **material is returned** to the stores, the system checks in exactly the same way whether the available warehouse stock exceeds the reorder level again. If this is the case, an entry is made in the planning file, which acts as an indicator for the planning run to delete any unnecessary procurement proposals. If planned receipts are no longer required due to **material returns**, for example, then the system will suggest that these receipts should be cancelled. In this case, the MRP controller in cooperation with Purchasing or Production must check whether the purchase order or the production order can be cancelled.
- The system then **calculates the net requirements**. The system compares the available stock at plant level (including safety stock) plus the firmed receipts that have already been planned (purchase orders, production orders, firmed purchase requisitions and so on) with the reorder point. If the sum of the stock plus receipts is less than the reorder point, a material shortage exists. The system then calculates the **procurement quantity** according to the **lot-sizing procedure** defined in the material master. For reorder point planning, the system supports the *Fixed lot size* and *Replenish up to maximum stock level* lot-sizing procedures.
- Purchase requisition will be created manually for any requirement of material/external service.
- Materials will be selected from the material master if available, this in turn will default related data from the material master to the purchase requisition document.
- Purchase requisition will be released for further processing.

Special organizational considerations

- For direct use materials users shall be able to procure for their departments/cost centers only.

Changes to existing organization

- The current system sending the purchase requisition to stores for finding out the stock levels is eliminated

Description of improvements

- Using SAP business process eliminates the paper trail traveling from various departments to purchasing as purchase requisition is an electronic document in SAP, user will be able to track status of the purchase requisition (even upon purchase order being assigned) in the system.
- Purchase requisition acts as a trigger point of purchasing function. Using referencing technique, data entry will be reduced considerably resulting faster processing of purchasing documents.
Direct conversion from PR to PO (no approval or bid) for the items under Purchase Agreement shall considerably reduce lead time

Authorization and user roles

- Only designated user from the respective department will enter purchase requisition into SAP system and view the stock levels for a material.

3.1.3.2.2 Release purchase requisitions

Requirements/Expectations

- Purchase requisition release shall be in-line with the Approval Authority Schedule / DoP (Delegation of Power).
- If the respective employee approves the purchase requisition, it must go to next approval level until it reaches the last level in approval process.

General explanations

- Purchase requisitions will be approved using release/approval procedure using classification system. Purchase requisitions will be approved at document level.
- The purchase requisitions created manually will be approved by using purchase requisition approval function.
- The approver uses the release code assigned to him/ her and approves the purchase requisition.
- Purchase requisitions will be released document wise.

Explanation of functions and events

- Purchase requisition is to be released.
- SAP workflow will optimize release process. The approving authority will be intimated about purchase requisition awaiting approval. The purchase requisition released will be forwarded to the next authority in the release process. This will automate the release process reducing release process time. For this the HR org structure has to be made available.
- On final release, the purchase requisition document will be used for further processing (Ex. For creating an RFQ with reference to purchase requisition released).

Special organizational considerations

- The release strategies shall strictly adhere to the Approval Authority Schedule / DoP (Delegation of Power).

Changes to existing organization

- Approvals need to be carried and one approval level for P.R. according to the Purchasing Group
 - Automatic Purchase Requisition generated from MRP we will not request approval.

Description of improvements

- Purchase requisition approval process acts as an electronic signature
- No requirement to define the routing codes for approval. These have been already defined and the system picks the codes based on the criteria's set.

Notes on further improvements

- Using workflow the approver will be informed about pending purchase requisitions for approval. Acceptance and rejection information will be communicated to the requisitioned.

Authorization and user roles

Authorizations for release of purchase requisitions will be based on value, purchasing group and material group.

3.1.3.3 Processing Request for Quotation

Requirements/Expectations

- Prices provided by vendor may be inclusive of all discounts, freight charges etc, discounts are sometimes given as lump sums after negotiations, and freight charges are quoted separately.
- Assigning a common identification number to group RFQs sent for particular items to different vendors.
- Technical evaluation to be carried out prior to price comparison and price comparison only for the technically accepted quotations. all quoted prices and ranking of each bidder must appear on the price comparison sheet.

General explanations

Request for quotation (RFQ)

- Transmits a requirement defined in a requisition for a material or service to potential vendors.

Quotation

- Contains a vendor's prices and conditions and is the basis for vendor selection.
- In SAP, RFQ and Quotation are one and the same document. The quotation details received from the vendor are maintained on the same document.
- The purchase Section converts the approved purchase requisitions into RFQs. The buyer shall maintain the quotations once the bids are opened by the purchasing committee.
- The buyer shall decide and enter the vendors who are to receive the RFQs. The buyer can make use of source lists maintained for the materials for assistance. In case RFQs are called for from multiple vendors, buyer shall assign a "collective number" to all the RFQs for that specific requirement. Collective number assigned to each RFQ will enable tracking of all the RFQs for the requirement.
- The RFQs are printed/transmitted to vendors' by means of either by fax, email or hard copy.
- On receipt of quotations from vendors, the technical, commercial and other terms will be maintained in the system. RFQ number is used to enter these details. There is no provision available to compare quotations based on technical aspects. The technical details are to be maintained in the free texts available on quotations. There is an option to attach any technical documents submitted by the vendor at the item level of the quotation.
- The quotations which are not technically acceptable shall be rejected.

- The price comparison of the technically accepted quotations is carried out and the best quotation selected. The info-record update shall be done for the selected quotation. If the value of the quotation is higher than that of the requisition, the requisition is re-routed for approval. Please refer to the document on Release of Purchase Requisitions for further details on the re-routing.
- Approved purchase requisitions will be processed as request for quotation when no agreement (contract) exists, or when converting them to PO directly (confirming orders).
- Request for quotation (RFQ) is created with reference to the purchase requisition. The vendor number, quotation deadline will be maintained in the RFQ to be sent to the vendor. RFQ is assigned a "collective number" manually if RFQs have to be sent to multiple vendors.
- RFQ will be printed / transmitted to vendor.
- On receipt of quotation from vendors, the same will be maintained in the quotation in the system.
- Price comparison will be made.
- The most favourable quotation will be saved in an info record.

Changes to existing organization

- Possible sources of supply for a material will be maintained in the system so that the buyer can decide on the vendors to whom the RFQ shall be sent to.

Description of improvements

- Quotation price history will be analyzed by updating RFQs to purchase info records.
- Automatic default of data in RFQ and price during purchase order processing reduces processing time.

Description of functional deficits

- There is no provision to compare quotes on technical aspects.
- There is no provision to do price comparison for only those quotations which are technically acceptable.

Approaches to covering functional deficits

- The Technical evaluation results/comments shall be updated in the quotations using the standard texts of the quotation. The buyer shall then, after sending the rejection letters, set the deletion flag for those quotations which are rejected after technical evaluation.

Notes on further improvements

- Using SAP source determination, a purchase requisition can be assigned to selected vendor and processing of RFQ's done from assignment list resulting in further reduction of processing time.

Authorization and user roles

- Authorizations for create, change of request for quotation transaction will be given to purchasing department users.

3.1.3.3.1 Create Request for Quotation

Requirements/Expectations

- Until purchase requisition approval, system must not allow to create a RFQ referring to the respective purchase requisition.
- The buyers should be able to convert one PR to a no. of RFQs and vice versa and also be able to move line items form one RFQ to another RFQ as needed).

General explanations

- The buyer converts an approved requisition into an RFQ. An RFQ can also refer to multiple requisitions. All the material details from the requisition are copied onto the RFQ. The buyer shall enter other details like the Collective Number, Bid closing date etc. The terms and conditions for the supply are entered in the standard texts of the RFQ.
- The buyer shall then select, one after another, the vendors who are to receive the RFQ from within the same screen. A new document created for each vendor.
- The collective number is used to track all the RFQs belonging to the same requirement.
- RFQ will be created by purchasing department personnel referencing a purchase requisition.

- Vendor is specified in the RFQ to whom the RFQ is intended to send. A separate document is then created for each addressee.
- Prices and conditions set out in the quotation submitted by the vendor will be entered into the RFQ document.
- A comparative appraisal will be carried out of several vendor quotations by means of the price comparison list.
- The individual quotations will be compared item by item. The mean value quotation represents the average value of the individual quotes.
- The most favorable quotation will be saved in an info record and rejection letters will be sent to unsuccessful bidders.
- Monitoring will be done on the status of follow-on activities relating to the RFQ and quotation (e.g. a contract is set up or a purchase order issued)

Description of improvements

- Reminders can be automatically sent from the system.
- Multiple requisitions can be converted into one RFQ and vice versa giving the Buyer the greater flexibility.

Authorization and user roles

- Authorizations for create, change of request for quotation transaction will be given to purchasing department users.

3.1.3.3.2 Print/Transmit RFQ

Requirements/Expectations

- Request for quotations is to be printed / transmitted to vendors either by fax, email, or hard copy.

General explanations

- SAP system will allow printing/transmitting request for quotations to the vendors either by fax, email, or hard copy.

- The following are the options available for outputting messages (e.g. as printout or fax or email) from the message queue:
 - Immediate output
The system outputs the message from the queue directly when the document is saved.
 - Later output
The system outputs the message either through a scheduled background job, which processes the message queue at predefined intervals, or by initiating output directly via the purchasing menu by the purchasing department personnel.
- The message condition record for message output will be maintained at document type level.
- The printer will be set in the condition record, so that the message will be printed without dialog (this is particularly important in immediate processing). Choose Communication in the condition record and enter the printer as the output device in the subsequent screen.
Print output includes
 - formatting the message after a smart form on pre printed stationary.
 - Output to the spool, from where the data goes either immediately or later to the selected printer

Special organizational considerations

- Layout of RFQ shall be as per the existing one to be developed.

Authorization and user roles

- Authorizations for printing/transmitting request for quotation to vendors will be given to purchase department users.

3.1.3.3.3 Maintain Quotations Requirements/Expectations

- Updating of the request for quotation with the information of quotations submitted by potential suppliers.

- SDCCL receives quotations from the vendors through fax/email/hard copy by post.
- Quotations submitted by the vendors are to be automatically compared by the system.
- A quotation contains the vendor's pricing and conditions for providing the status of the RFQ/quotation document will be monitored as it changes during the course of further processing.

General explanations

- For the Material or service stated in the RFQ, Vendor's pricing and conditions will be entered in the original RFQ. Then it will be
 - Useful in price comparison list which will be helpful in determining the best quotation
 - store the pricing and terms of delivery for certain quotations in the info record for future reference
- The technical aspects of the quotation submitted by the vendor are to be entered using the standard texts provided in the RFQ and/or attaching the documents submitted by vendor at the item level of the RFQ. Documents will be attached to quotations transaction in either create or change mode but not in display mode. And the documents attached will be part of the quotation transaction.
- The technical evaluation committee shall be informed to evaluate on technical grounds the vendor's quotation. The comments of the technical evaluation committee and the results of evaluation are to be entered in the standard texts of the RFQ. If the quotation is rejected on technical grounds, the rejection flag for the items shall be set in the quotation.
- If the value of the selected quotation is higher than that of the requisition, the requisition shall be re-routed for additional approval. Please refer to the document on Purchase Requisition release for further details on the re-routing process.
- The Technical evaluation of received quotations is to be carried out outside the system. The comments/results of technical evaluation are entered as standard text in the quotation.
- The prices and conditions set out in the quotation submitted by the vendor will be entered into the RFQ document.

Description of improvements

- Electronically maintained quotations make it easier for a new person to take over a vendor portfolio in case of workload shift, absence or change of employee. Less information is lost in a person's individual files and memory in the change cases above.

- The communication with the vendor will be captured in text note which helps in case of discrepancy.

Description of functional deficits

- Functionality to carryout technical evaluation using the system is not available.

Approaches to covering functional deficits

- The technical information provided by the vendor has to be captured using the header texts available on a quotation in the system and /or by attaching documents to the quotation at the line item level.

Notes on further improvements

- If given access to required vendors, through portal the vendors will be able to update the quotation with price, terms and conditions which will reduce the quotation processing time.

Authorization and user roles

- Authorizations will be given to purchasing department users.

3.1.3.3.4 Process price comparison

Requirements/Expectations

- Technically acceptable Quotations submitted by the vendors are to be automatically compared by the system.

General explanations

- Quotations submitted by the vendors, that are technically accepted, will be automatically compared by the system by price simulation process.
- A comparative appraisal of several vendor quotations will be carried out by means of the price comparison list.
- The individual quotations are compared item by item. The mean value quotation will represent the average value of the individual quotes.
- The price details of the most favorable quotation will be saved in an info record and rejection letters to unsuccessful bidders can be sent. Purchasing committee signature/approval is required on the document; the output layout should allow that.
- The status of follow-on activities relating to the RFQ and quotation will be monitored (e.g. a contract is set up or a purchase order issued).

Changes to existing organization

- By price simulation, processing of quotations becomes simpler. Quotations will be maintained in the system which helps in storing historical information on all interactions with the vendors.

Description of improvements

- Price comparison will be carried out in the system automatically.

Description of functional deficits

- No functionality available to flag the technically unacceptable quotations and keep them out from price comparison.

Approaches to covering functional deficits

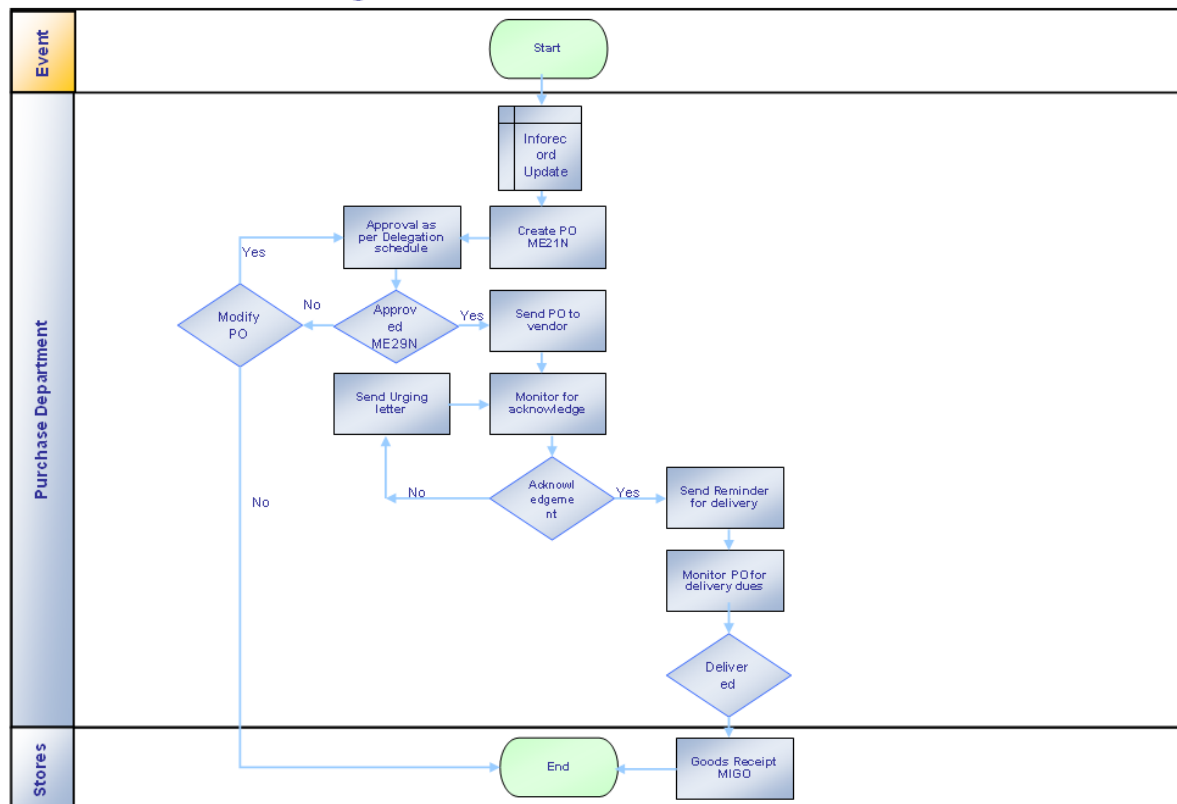
- Upon technical evaluation completion, the un-acceptable quotations shall be rejected by setting the rejection flag in the system and a deletion flag set for the rejected quotations. This will ensure that the system picks only the technically accepted quotations only for price comparison.

Authorization and user roles

- Authorizations for price comparison will be given to purchasing department users

3.1.3.4 Processing Purchase Orders

Purchase Order Processing - For Plant & Direct Use Material



3.1.3.4.1 Create or process purchase orders

Requirements/Expectations

The "Purchasing" component should cover the following tasks within Materials Management (MM):

- External procurement of materials and services
- Determination of possible sources of supply to cover a requirement
- Monitoring of goods receipts and payment for same
- Automatic conversion of requisitions to purchase orders.
- Delivery location and contact person is to be indicated in the purchase order.
- Delivery terms, payment terms to be mentioned in the purchase order.
- Facility to incorporate additional instructions like insurance details, etc will be possible.
- Other terms and conditions will be required on the PO output sometimes, like:
 - mode of shipment: Road, air, sea, courier, post parcel
 - ship to:
 - order value in words

General explanations

Purchase orders are created by Purchasing section.

The purchasing component will be having the following tasks:

- The purchase order represents a formal request to a vendor to supply certain goods or services in accordance with stipulated terms and conditions. It will identify the following:
 - The vendor
 - The material or service to be ordered
 - The quantity
 - The price
 - The delivery date and terms of delivery
 - The terms of payment
- In addition, the purchase order will determine whether the ordered material is

to placed in stock or consumed immediately upon receipt. The purchase order serves as the basis for processing goods receipts and for invoice verification.

- For each item of a purchasing document, whether procurement is for stock or or direct consumption will be specified through account assignment object.
- Stock materials ordered will have a material master record. Consumable materials ordered may have a material master record.
- Account assignments will be possible for the following:
 - Cost centers
 - Maintenance/Production orders
 - Project/WBS Element
- Delivery terms and payment terms will be defaulted from vendor master data and can be changed if necessary.
- Shipping instructions if any is mentioned in purchase order supplementary texts and it appears on the purchase order print out.
- Documents will be attached to purchase order transaction in either change or create mode but not in display mode. The documents attached will be part of the purchase order transaction.
- Internal numbering for purchase order will be used.
- Purchasing communicates with other modules in the SAP system to ensure a Constant flow of information. For example, it works side by side with the following modules:

Controlling (CO)

The interface to the cost accounting system (Controlling) will be seen above all in the case of purchase orders for materials intended for direct consumption and for services, since these will be directly assigned to a cost center or an asset.

Financial Accounting (FI)

Information on each vendor is stored in a vendor master record, which contains both accounting and procurement information. The vendor master record represents the creditor account in financial accounting.

Through purchase order account assignment, purchasing will also specify which G/L accounts are to be charged in the financial accounting system.

- Purchase order will be processed with reference to quotation received from vendor selected for ordering.
- Purchase order will be created with reference to purchase requisition or RFQ document. Appropriate document type is selected while processing the purchase order.
- Price for each item is maintained or defaulted values changed if necessary.
- Relevant pricing conditions in the purchase order are checked and maintained.

- Additional information (shipping instructions) is maintained in purchase order texts.

Special organizational considerations

- For direct use materials users shall be able to procure for their departments/cost centers only.

Changes to existing organization

- Creating Purchasing Orders without PR and RFQ and zero value, for samples and FOC materials.
- Creating Purchasing Orders from PR only without RFQ (Confirming orders)

Description of improvements

- Maintenance of pricing in purchase orders is simpler as price will be maintained manually or automatically picked up by the system based on previous purchase order.
- Multiple RFQs can be combined onto one Purchase Order.

Notes on further improvements

- Purchase orders can be generated automatically from approved and assigned purchase requisitions. Maintenance of accurate data like source of supply, updated prices will help the organization to optimize purchasing process.

Authorization and user roles

- Authorizations for create, change and display of purchase order transaction will be given authorized users.

3.1.3.4.2 Release purchasing documents

Requirements/Expectations

- The approval shall be in-line with the AAS / DoP.
- Purchase orders are to be approved before being issued to vendors. But provision to be able to print the PO during approval process shall be done.
- In case of amendments the purchase order shall be re-routed for approval. The criteria for re-routing is the PO value.

General explanations

- Purchase order release process will be used for approval of purchase orders. The approval process will act as an electronic signature.

- Purchase orders created in the purchase department will follow the release process stipulated and can be printed/transmitted to vendors only on final release (approval).

Explanation of functions and events

- The purchase order released will be forwarded to the next authority in the release process. This will automate the release process reducing release process time.
- On final release, the purchase order document will be printed/transmitted to the vendor.

Changes to existing organization

- Electronic Approval of purchase orders.

Authorization and user roles

- Authorized individuals will be assigned the release codes to approving the Purchase Orders.

3.1.3.4.4 Monitor the output of messages

Requirements/Expectations

- Ability to send the purchase orders created from SAP system to the vendors, via hard copy/email/fax.

General explanations

- SAP system will allow the user to create messages with respect to the purchase order document.
- Purchase orders will then be printed / transmitted out via different transaction codes either individually or in a mass.
- SAP system will allow printing/transmitting purchase orders to the vendors either by fax, email, or hard copy.
- The following are the options available for outputting messages (e.g. as printout or fax or email) from the message queue:
 - Immediate output
The system outputs the message from the queue directly when the document is saved.
 - Later output
The system outputs the message either through a scheduled background job, which processes the message queue at predefined intervals, or by initiating output directly via the purchasing menu by the purchasing department personnel.

- The message condition record for message output will be maintained at document type level.
- The printer will be set in the condition record, so that the message will be printed without dialog (this is particularly important in immediate processing). Choose Communication in the condition record and enter the printer as the output device in the subsequent screen.
Print output includes
 - formatting the message after a smart form
 - output to the spool, from where the data goes either immediately or later to the selected printer

Changes to existing organization

- Only after approval, approved purchase orders will be printed / transmitted directly to the vendors from the system.

Description of improvements

- Approved purchase orders will be sent to vendors either by fax / email / hard copy after final approval. This facilitates internal control in the organization.

Authorization and user roles

- Authorizations for printing/transmitting purchase orders to vendors will be given to purchase department users.

3.1.3.4.5 Monitor Purchase Orders

Requirements/Expectations

- Send urging letters to suppliers to acknowledge the receipt of the purchase orders issued.
- Send reminders to suppliers for the delivery of goods and services.

General explanations

- Urging letters can be sent to suppliers asking them to acknowledge the receipt of the purchase orders. The urging letters are sent as long as the acknowledgement from the vendor is not received.
- Once the acknowledgement is received, reminders/expeditors are sent to the supplier for the delivery of goods and services.

- The time intervals to send reminders/expediters can be maintained in material master or purchasing info-record. If both are maintained the purchasing info record takes precedence. These can also be changed manually in the line item details of the purchase order.
- The program to identify the purchase orders, which need reminders/expediters to be sent, is run.
- Buyer monitors the receipt of acknowledgements. If received, updates the same in the purchase order.
- Buyer issues urging letters to suppliers for acknowledgement.
- The program to send reminders is run at regular intervals to send reminders/expediters to the suppliers.

Description of improvements

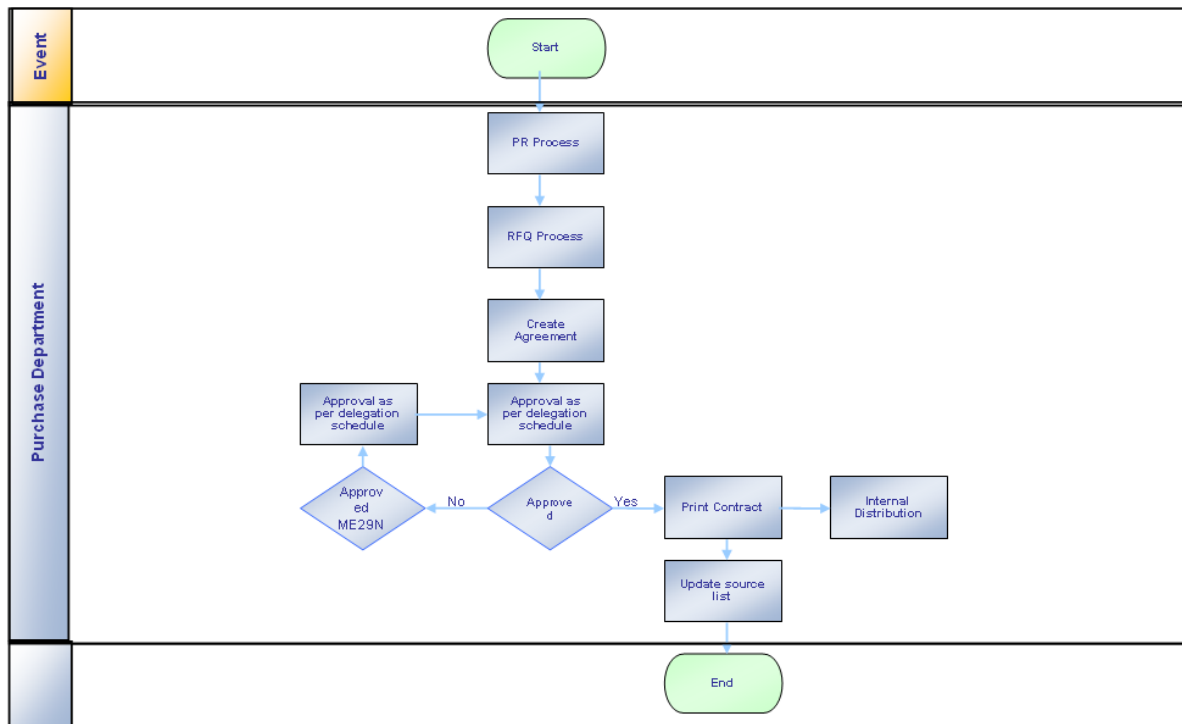
- Urging Letters for acknowledgements can be automatically issued from the system. The system keeps track of all those purchase orders for which acknowledgement has not been received/entered.

Authorization and user roles

- Only Authorized individuals will run the programs for sending urging letters and reminders/expediters.

3.1.3.5 Processing Contracts and Sourcing Rules

Purchase Agreements Processing - For Plant & Direct Use Material



3.1.3.5.1 Process contracts in ERP

Requirements/Expectations

- Ability to create contracts and create release orders referring to the contract.
- Both value and quantity contracts will be used.
- Ability to attach supporting documents to contracts.

General explanations

- Long term agreements (contracts) with vendors for the supply of materials like coal, lime stone etc can be created in SAP using Outline agreements.
- Internal numbering for contracts shall be used.
- Appropriate document type is selected while processing the contract.
- Price for each item will be maintained or defaulted values changed if necessary.

- Relevant pricing conditions in the contract will be checked and maintained.
- Additional information will be maintained in contract texts.

Changes to existing organization

- Contract will be created in the system instead of filling a hard copy and will be useful in further communications with the vendor. Requisitioned can know the status of contract from the system. Tracking of contract status becomes easier for the procurement department.

Description of improvements

- Long term relationship will be built with vendors.
Purchase orders will be created with reference to the contract.
- Contracts are processed with reference to purchase requisitions and RFQ/Quotations. Data entry will be minimized resulting in faster processing of purchase orders. Status tracking and reference to preceding documents are maintained. Contracts processing will be optimized as the present practice of creating contract twice will be eliminated if there is any change in price, delivery dates etc.
- Maintenance of pricing in contracts becomes simpler as price will be maintained manually or automatically picked up by the system based on previous contract.

Notes on further improvements

- Maintenance of accurate data like source of supply, updated prices will help the purchasing organization to optimize purchasing process.

Authorization and user roles

- Authorizations for create, change and display of contract transaction will be given to purchasing department users.

3.1.3.5.2 Release Contract

Requirements/Expectations

- Contracts are to be approved and approved contracts will be issued to vendors if required.
- Contracts created are to be approved as per the AAS/DoP.

General explanations

- Contract release process will be used for approval of contracts. The approval process will act like an electronic signature.
- Contracts created in the purchase department will follow the release process stipulated and will be transmitted to vendors only on final release (approval).
- The contract released will be forwarded to the next authority in the release process. This

will automate the release process reducing release process time.

- On final release, the contract document will be printed and sent to the vendor or transmitted to the vendor.

Special organizational considerations

- The approval shall be in-line with the AAS/DoP.

Changes to existing organization

- All contracts will be approved online on the system.

Description of improvements

- Contract approval process will act as an electronic signature.
- Contracts created in system will be blocked initially for transmission and follow on function like release order till the contract is released in the system. This facilitates internal control in the organization.
- Contracts released will be transmitted to vendors by email/fax/paper as a document.

Authorization and user roles

- Authorizations for release of contract will be based on value.

3.1.3.5.3 Process message conditions

Requirements/Expectations

- To send the contracts created from SAP system to the vendors through hard copy/email/fax.

General explanations

- SAP system will allow the user to create messages with respect to the contract document type.
- Contracts will be printed / transmitted out via different transaction codes either individually or in a mass.
- SAP system will allow printing/transmitting contracts to the vendors either by fax, email, or hard copy.
- The following are the options available for outputting messages (e.g. as printout or fax or email) from the message queue:
 - Immediate output

The system outputs the message from the queue directly when the document is saved.

- **Lateroutput**

The system outputs the message either through a scheduled background job, which processes the message queue at predefined intervals, or by initiating output directly via the purchasing menu by the purchasing department personnel.

- The message condition record for message output will be maintained at document type level.
- The printer will be set in the condition record, so that the message will be printed without dialog (this is particularly important in immediate processing). Choose Communication in the condition record and enter the printer as the output device in the subsequent screen.

Print output includes

- Formatting the message after a smart form.
- output to the spool, from where the data goes either immediately or later to the selected printer

Changes to existing organization

- Only after approval, approved contracts orders will be printed/transmitted directly to the vendors from the system.

Description of improvements

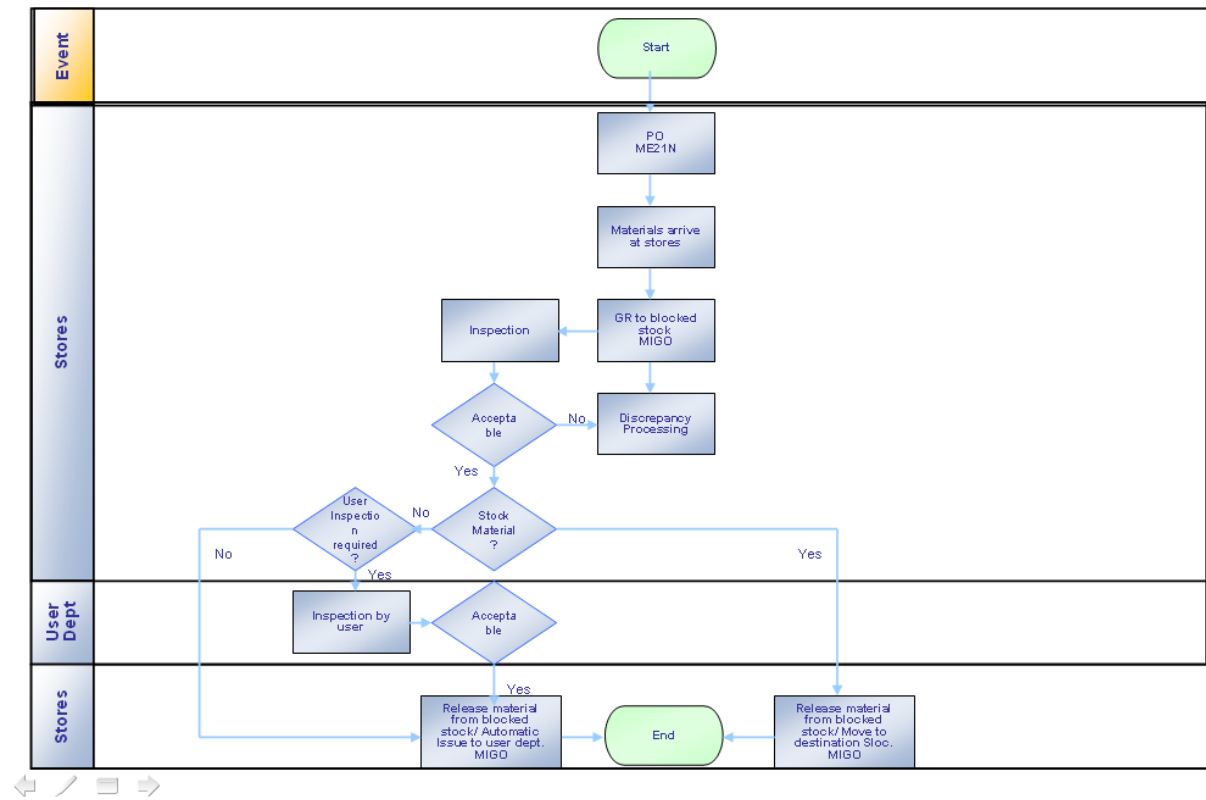
- Approved contracts will be sent to vendors either by fax/email/hard copy after final approval. This facilitates internal control in the organization.

Authorization and user roles

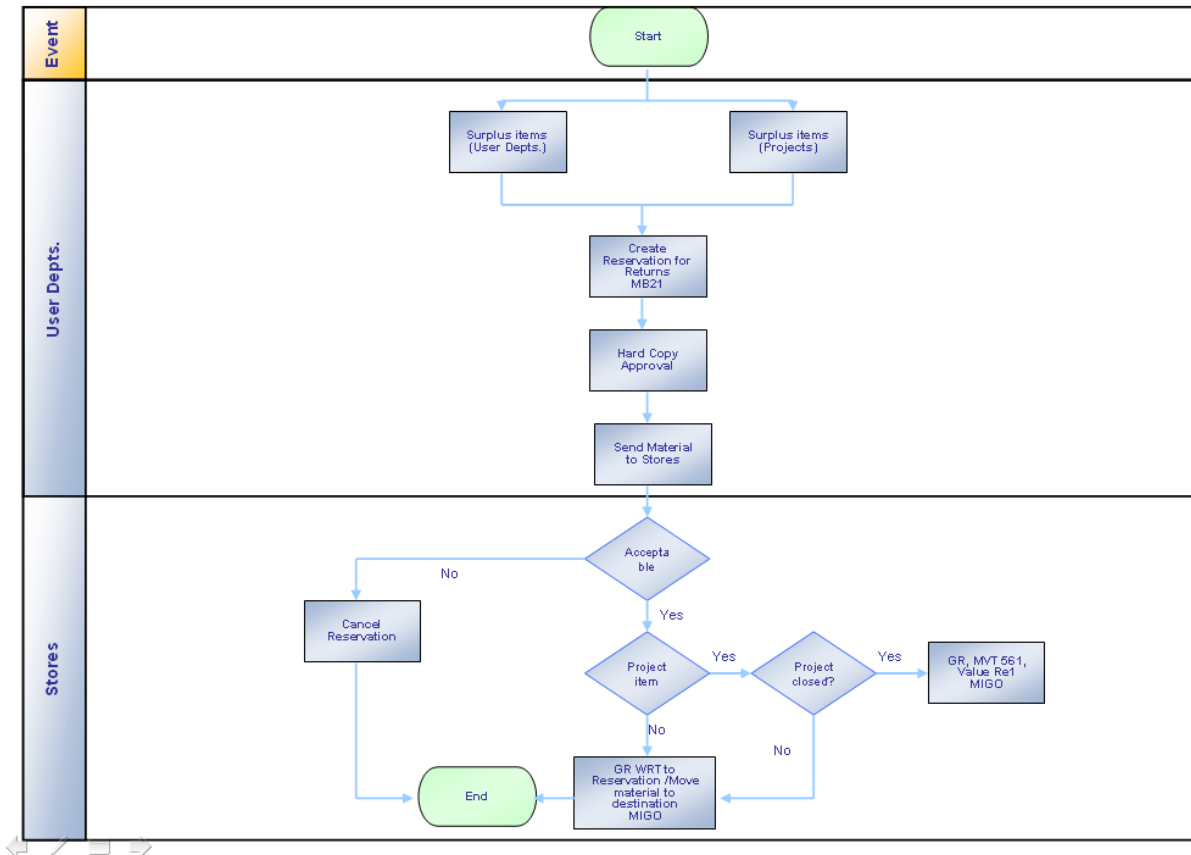
- Authorizations for printing/transmitting contracts to vendors will be given to purchase department users.

3.1.3.8 Inbound Processing and Receipt Confirmation with Inventory Management

Goods Receipt Processing - For Material (Stock / Direct use / Capital)



Goods Receipt Processing - Others



3.1.3.8.1 Post goods receipt

Requirements/Expectations

- System has to capture receiving details of the materials (Stock Items, Non-stock Items)
- Quality inspection at Goods Receipt and handling of discrepancies.
- Capital items are inventoried and managed on quantity basis in storage location.

General explanations

The receipts of materials are mainly from vendors with reference to a purchase order. The various modes of receipt explained here are:

- 1) Materials received from vendors for
 - Stock Materials
 - Non-Stock Materials & Capital materials

The receipt is

- with reference to a Normal Purchase Order
- with reference to a scheduling agreement

- with reference to a return delivery

2) Other Receipts are:

- Return from user department (Surplus item)
- Initial entry of stock balance upon codification

Please refer to the Annexure A : BBP-MM-MOVTYPES for a list of all Movement Types.

Material received from Vendors:

With reference to a normal purchase order:

On receipt of material at the stores from the vendors the details of the consignment like purchase order number, date, material specification and the condition of the packaging are checked.

If destination inspection is required, the user department responsible shall be intimated through SAP Mail by the stores personnel.

The **stock materials** are received, with the movement type 103, to GR Blocked Stock in the system.

If the material is found acceptable, the material status shall be changed to unrestricted use stock with the movement type 105.

The **non-stock materials** (non-codified) are received, with the movement type 103, to GR Blocked stock. This ensures that the receipt is not valued till inspection is complete.

If the material is found acceptable, the material receipt is posted with movement type 105 (Accounting entries are posted at this stage)

For **Capital materials**, the goods receipt is posted with movement type 103. If upon inspection the material is found acceptable, the posting with movement type 105 is carried out (Accounting entries are posted at this stage).

These are again taken back to stock with movement type 242 (return from Asset). This is to maintain these capital items in the stores on quantity basis.

The moving average price of the material is always maintained as 1.

The Goods receipt document for movement type 101,103,105 is printed for all the items if required.

With reference to return delivery:

Materials rejected and returned back to vendors are subsequently replaced by them.

Please refer to the document on Return delivery for further details.

The usual receiving process as explained above is to be followed for this. The material document number of the earlier rejection (return delivery) may be entered in text for reference.

Other Receipts:

Return of materials from user department (unused material):

From Cost Center / WBS element / Maintenance Order (Charged off Item)

This process is for materials that were earlier issued and charged off to various account assignment objects.

A receipt reservation (request to receive the stock of material into the stores from where the material was initially drawn) is created by the users.

The storekeeper shall be informed of this reservation before the material is sent to stores. If the material is not accepted by stores, the stores personnel shall duly inform the requester and the reservation shall be cancelled by the requester.

The storekeeper receives the material into stock. The cost center returning the material gets the credit for the value of the items returned at the current moving average price.

The material movements for these receipts are similar to the ones specified above.

If the return is from a project and the project is open, the material is taken into stock in the same way as mentioned above. If the project is closed, then the material shall be taken into stock at 1 value.

There are other types of miscellaneous returns like the return of the material found lying idle in the plant and is worth some use. These materials after proper identification and inspection are taken into stock at 1 value.

The receipts at 1 value, as mentioned above, shall be posted using the movement type 561 and specifying the value.

Initial entry of stock balance from the legacy system from all locations:

Historical stocks at the time of migration from legacy to SAP will be uploaded into SAP. It is recommended to complete the following activities before stock upload:

- (i) Segregate the stocks as per the organizational structure and the organization structure defined in SAP (Plant / storage location).
- (ii) The total value of stocks should be exactly as per the accounting figures for each stock category (Stock GL account wise total amounts should match) .
- (iii) Complete stock verification and post adjustments necessary if any, in legacy system, before giving the data for upload in SAP.

Discrepancies:

Following are the various types of possible discrepancy scenarios.

- Transit shortage
 - The carrier has delivered part of the consignment and some items not yet delivered.
 - Claim with Carrier / Insurance.
- Packing shortage
 - Package was received in intact and externally sound condition. On opening and checking the intact cases, items received short.
 - Claim with Carrier / Insurance.
 - Also take up with supplier for making good the short received items, free of cost.
- Intact Delivery Inside damage.
 - Packages received intact and in externally sound condition. On opening and checking the intact cases, items were found in damaged condition although the packaging was adequate.
 - Claim with Carrier / Insurance
 - Also take up with supplier for making good the short received items free of cost
- Non delivery of entire consignment.
 - The carrier has not delivered the entire consignment.
 - Claim with Carrier / Insurance
 - Inform Requester / MM (Planning) to review their requirement and raise fresh PR.
- Quality discrepancy
 - The material delivered does not meet the quality norms specified.

The return of the un-acceptable quantity of the material to the vendor can be done with the movement type 124 (Return delivery).

Claim Processing:

Claim on Carriers / Insurance is required to be lodged for all cases where materials are found short, damaged and also in case of non delivery of entire consignment.

A provisional claim is lodged immediately on Carrier and Insurance when any shortage/damage is recorded.

For stock materials, claim can be lodged for Transit Shortage, Transit damage and packing shortage before 103 GR, however in case of Non Stock materials, the claim can be lodged for Transit Shortage & Transit damage only before raising of 103 GR.

For packing shortage, claim can be lodged, after 103 GR but before 105 transfer, after opening the boxes and checking the materials by the Indenter.

The claim no. is incorporated in the discrepancy report raised for the discrepancy. After assessing the damage/shortage by the Surveyor from the Insurance Company and getting necessary shortage/damage certificate from the transporters, the claim is forwarded to Finance department.

Based on these documents, Finance Department lodges the final claim. Presently the system is manual and there is no provision in SAP system also.

There is no provision in the SAP system for Discrepancy Report generation and Claim generation. This shall be carried out manually but the GR slip can be used to substantiate, as proof, the claim for discrepancy if any.

Changes to existing organization

- All Goods movement transactions are to be carried out in the SAP system.

Description of improvements

- The delivery data is updated in the purchase order history in the purchase order document, allowing the purchasing department to monitor the purchase order history and initiate reminder procedures in the event of a late delivery.
- Accounting entries are posted into financial system as soon as the goods receipt is posted by the stock holder. No separate interface is required.
- System provides the facility of reversal of any document generated and keeps the record in the system.
- The details of the GR's prepared by the Receiving Section but not taken into charge by stockholder can be viewed in the system.
- System allows to post / transfer a material into blocked stock (which cannot be issued). No further movement is possible till the Block is removed.
- A document with partially entered data can be put on hold. It can be edited at a later date and can be posted after entering the complete data.

Integration Considerations

- Number assignment for accounting documents will be maintained by finance and please refer to finance blueprint document.
- Relevant G/L accounts will be updated upon goods movement. For further details please refer to finance blueprint.

Authorization and user roles

- Authorizations need to be given to users based on the transactions to be done by them and the organization elements like Plant / SLOC for which they are authorized.

3.1.3.8.2 Raw Material Procurement and Weighbridge Integration

Requirements/Expectations

- Ability to capture the cost of limestone to material

General explanations

- This process is used for bringing the lime stone excavated from mines to the manufacturing plant stores and include all the costs involved to the cost of the material.
 - Lime stone is mined in the quarries which are defined as plants and then sent to the stores
 - During the process costs are incurred and all these costs are captured to the material
 - Material will be mined at the quarry using various equipment and sent to the Sikka plant.
 - At the end of the day an STO is created for all the material that is sent from the quarry to the Sikka plant.
 - Upon receipt of the material at Sikka plant the gross weight of the truck is taken. This weight is captured in a custom developed table along with other details.
 - Once the truck is unloaded it comes back to the weighbridge and its tare weight is taken.
 - SAP captures through the custom developed programs the nett weight of the material and posts the line item in the Goods receipt transaction.
 - The goods receipt is posted once all the truck weights from the mine/vendor for the day are completely captured.
- The material document and the accounting document are created during the posting which takes place once in a day.

Changes to existing organization

- The individual weight of the material per truck (weigh Bridge Interface) developed by

Cimpor Team, will be studied whether it meets the Requirements of SDCCL. In case if it does not meet the requirement a new development to be considered.

- Lime stone is taken into the storage location using the movement type 101.

Special Organisational Considerations

Custom programs will be developed to capture the GR details for the raw materials in integration with Weighbridge

Integration Considerations

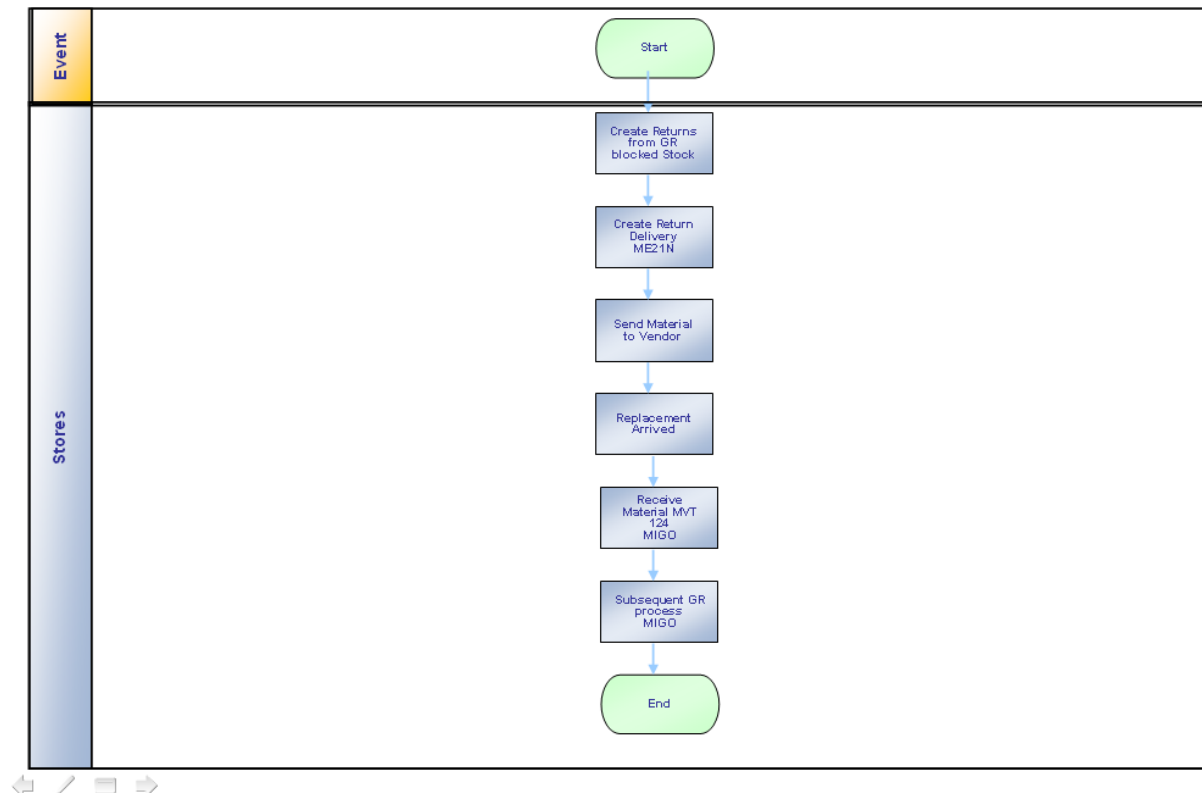
- Upon posting of Goods receipt, stock and G/L account get updated. For further information on updation of G/L accounts, please refer to finance blueprint.

Authorization and user roles

- Authorizations for inventory management related transactions will be given to stores department users.

3.1.3.9 Processing Returns

Processing Returns



3.1.3.9.1 Return Delivery

Requirements/Expectations

- All goods receipts at receiving section will be subjected to source inspection / destination inspection carried out by the User / Indenting Department. For any rejection, the system has a provision of recording the same and returning the material to vendor.

General explanations

- The return delivery document is prepared in the system for the materials that are rejected by the user department at destination.
For such return to vendor, the following steps are done on the system
 - Receive the material in the GR blocked stock by Receiving Section. The stocks are not valuated.
 - Return the rejected quantity from GR-Blocked stock with movement type 124.

- Return the rejected quantity from Valuated stock (material that has been taken on charge by the stockholder) with movement type 122.
- When the material, received in stores, is found defective, material will be returned to the vendor through return delivery functionality.
- Return delivery will be posted with reference to the goods receipt material document for the material.

Results of the Return Delivery Posting:

- Material document is created
The system creates a material document for the return delivery. You can print this document as a return delivery slip. Since the return delivery is valuated, the system also creates an accounting document.
- Stock and G/L accounts are updated
In the case of a return delivery, the system reverses all stock and G/L account updates that occurred during the goods receipt posting. For further information on G/L accounts updation, please refer to finance blueprint.
- Purchase order is updated
System will update the purchase order history accordingly. The open purchase order quantity is increased by the returned quantity.

Changes to existing organization

- Return delivery with reference to goods receipt in SAP are posted with movement type 122 or 124.
- Reversal of return delivery is posted with movement type 123.

Description of improvements

- As returns are handled in SAP, visibility of returns will become more evident.
- The data is updated in the purchase order history in the purchase order document, allowing the purchasing department to monitor the purchase order history and initiate reminder procedures in the event of a substitute delivery.
- Inventory will be tracked easily in case of inventoried materials.

Integration Considerations

- On posting of return delivery material document, relevant G/L accounts get updated. For further information, please refer to finance blueprint.

Authorization and user roles

- Authorizations need to be given to users based on the transactions to be done by them and the organization elements like Plant / SLOC for which they are authorized.

3.1.3.9.2 Subsequent Delivery

Requirements/Expectations

- Ability to capture subsequent delivery.

General explanations

- This process is used to take into stock the replacements sent by vendor for the rejected items.
- Subsequent delivery for the goods from the vendor will be carried out by referencing the material document posted while returning the goods to the vendor.
- This establishes the link between the original receipt, the return and the receipt of replacement.

Explanation of functions and events

- Material will be received from the vendor for returned delivery.
- Subsequent delivery will be posted with reference to the return delivery sent to the vendor.
- Upon posting of subsequent delivery, stock and G/L account get updated. For further information on updation of G/L accounts, please refer to finance blueprint.

Changes to existing organization

- As the subsequent delivery is created with reference to the return delivery document, the system will propose data from the return delivery document posted (for example, the material received, its quantity, and so on). This simplifies both data entry and checking.
- Subsequent delivery with reference to return delivery document in SAP is posted with movement type 101.

Description of improvements

- The data is updated in the purchase order history in the purchase order document, allowing the purchasing department to monitor the purchase order history.

Integration Considerations

- Upon posting of subsequent delivery, stock and G/L account get updated. For further information on updation of G/L accounts, please refer to finance blueprint.

Authorization and user roles

- Authorizations for inventory management related transactions will be given to stores department users.

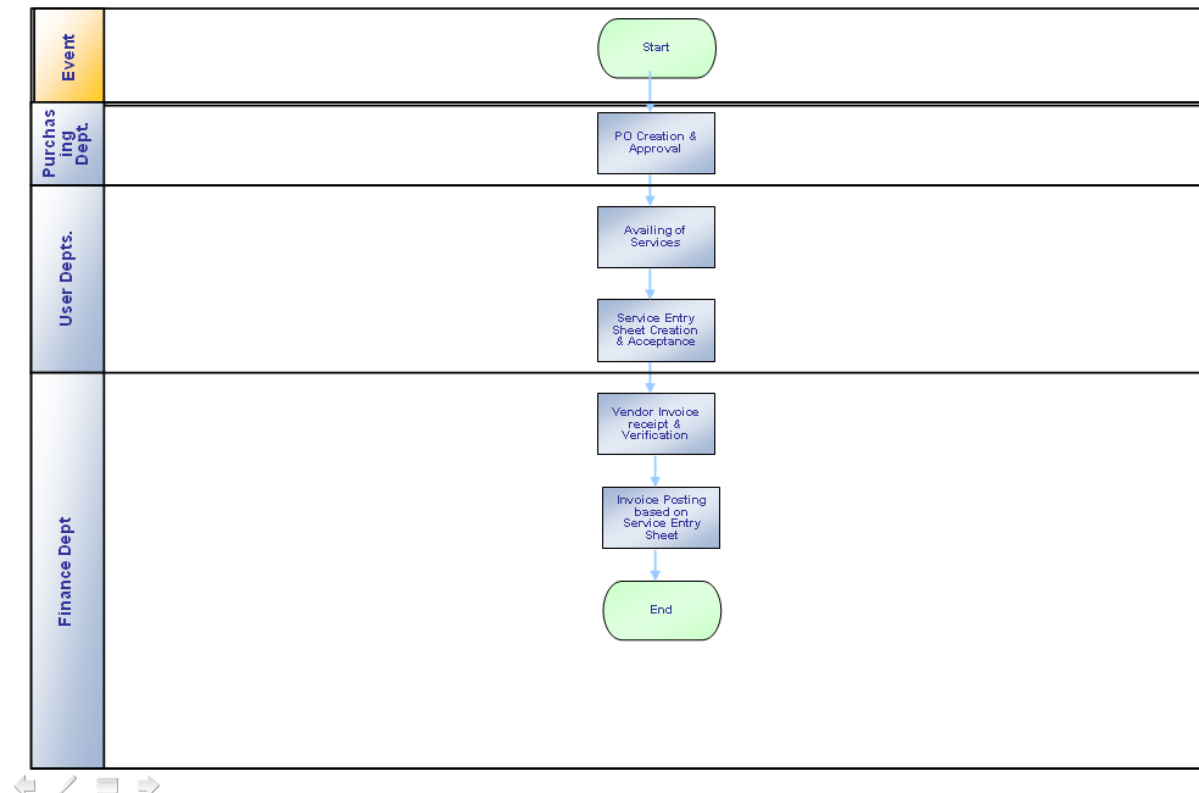


SDCCL Materials Management Business Blueprint



3.1.3.10 Entering Services

Service Entry Sheet



3.1.3.10.1 Process service entry sheets

Requirements/Expectations

- Procurement department wants to create a purchasing document as an instrument used by purchasing for the procurement of services.
- Partial receiving of services shall be allowed.

General explanations

- In general, creation of service entry sheet means that services have been performed by the Contractor. Acceptance of the service entry sheet implies a certification by the user of the services that services performed are of desired quality and Contractor's invoice may be accepted.
- The service entry sheets are prepared by the user department.

-
- The periodicity of preparation of service entry sheets will depend upon service type. The periodicity is fixed (say, monthly) in some cases. In some cases, the entry is done as soon as the services have been performed. After preparation of the service sheets, these shall be accepted.
 - At financial year end time, service entry sheets with approximate quantities will have to be prepared so as to record provisional liability. In the new year these are reversed and created with the actual quantity of work done.
 - Each Service entry sheet will have a unique number which will be generated by the system.
 - Service entry sheets can be maintained with reference to Work Orders. Entry sheet is created item-wise.
 - Account assignment category in Service Entry Sheet determines the cost booking to a Cost Object (such as cost center, WBS element, etc.). This is mandatory at Service Entry Sheet level.
 - Start and end of period in which the service was performed may be maintained as per requirement given in the Contract.
 - As and when the vendor performs the services, the designated user will create a service entry sheet with reference to the purchase order.
 - Detail data, account assignment will be copied from purchase order to the service entry sheet.
 - Services rendered will be entered and accepted in the service entry sheet.
 - Upon acceptance of service entry sheet relevant G/L accounts will be updated. For further information on updation of G/L accounts, please refer to finance blueprint.
 - Vendor evaluation shall be done by the user at the end of the service period (PO closed)

Changes to existing organization

- Service Entry Sheet has to be created in SAP system.
- Acceptance of Services performed will be done in the system.

Description of improvements

- Accounting will be able to determine if the service has been performed satisfactory and pay the vendor's invoice with less manual intervention.

System configuration considerations

- Define attributes of system messages
SAP standard attributes system message will be used.
 - Number ranges

Existing number ranges will be used

- Define Screen Layout
SAP standard screen layout will be used.

Integration Considerations

- Upon acceptance of service entry sheet relevant G/L accounts will be updated.

For further information on updation of G/L accounts, please refer to finance blueprint document.

Authorization and user roles

- Authorizations for service entry sheet transaction will be given to User department users.

3.1.3.11 Outbound Processing with Inventory Management

3.1.3.11.1 Process Reservations

Requirements/Expectations

- Option to reserve materials for issue/return.
- Automatic deletion of un-used reservations based on the need date expiry excluding Turnaround reservations.

General explanations

- Reservation in SAP is a process by which the user makes a request to the stores to keep the material ready for withdrawal later for a certain purpose. This helps the stockholder to simplify and accelerate the goods issue process.
- Various departments can create a reservation for goods issue/receipt (return) for various account assignment objects (such as Projects, Maintenance, Production and Cost Centre). The user shall select the appropriate movement type for the reservation.
- Reservation will ensure that a material will be available when it is needed. It also serves to simplify and accelerate the goods issue process and prepare the tasks at the point of goods issue.
- Reservation will be searched in the system by entering selection criteria in the dialog box (for example: material number and plant).

- The system displays the lists of selected items. From the list, select and adopt the desired items.
- As and when a material is required to get issued/ required to be returned, designated users from various departments will create reservation.
- Following information will be inputted.
Movement type, plant, account assignment (cost center) material and quantity, requirement date.
- Reservation should undergo Offline approval process on the hardcopy of the print out.
- When a reservation is posted, the following events occur in the system:
 - The system creates a reservation document, which serves as proof of the request.
 - In the material master record, total stock and unrestricted-use stock of the material remain unchanged. Reserved stock is increased by the reserved quantity.
- Goods movement used to create a reservation depends on the cost object.
- A reservation results in an increase in reserved stock in the stores.
- Goods will be issued against the reservation document. For further information, please refer to goods issue process document.

Description of improvements

- Un-used/un-claimed reservations are deleted automatically when the reservation management program is run at regular intervals

System configuration considerations

- Number Assignment

Number range No.	Number range
01	1000000000 – 1999999999

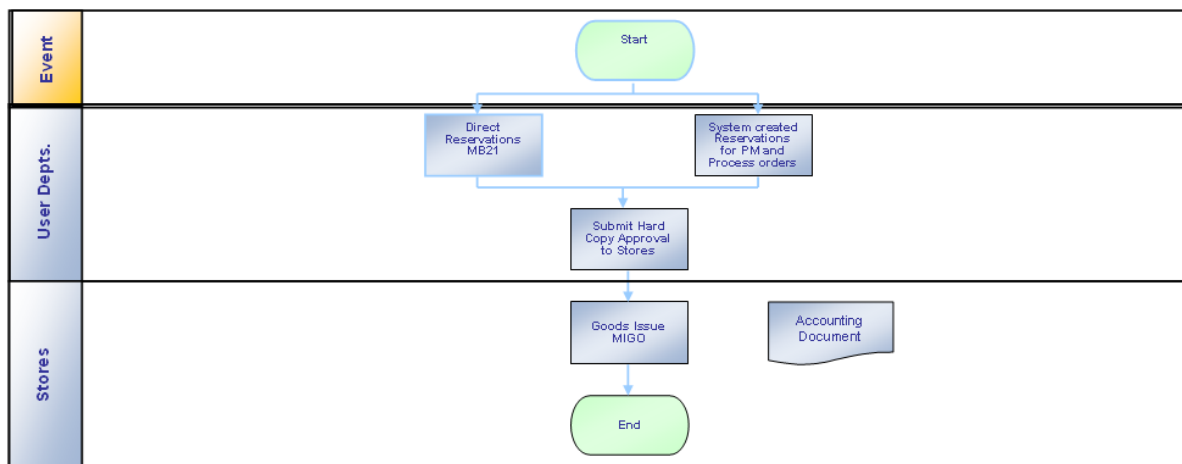
- Maintain copy rules for reference documents
SAP standard copying rules for reference documents will be used.

Authorization and user roles

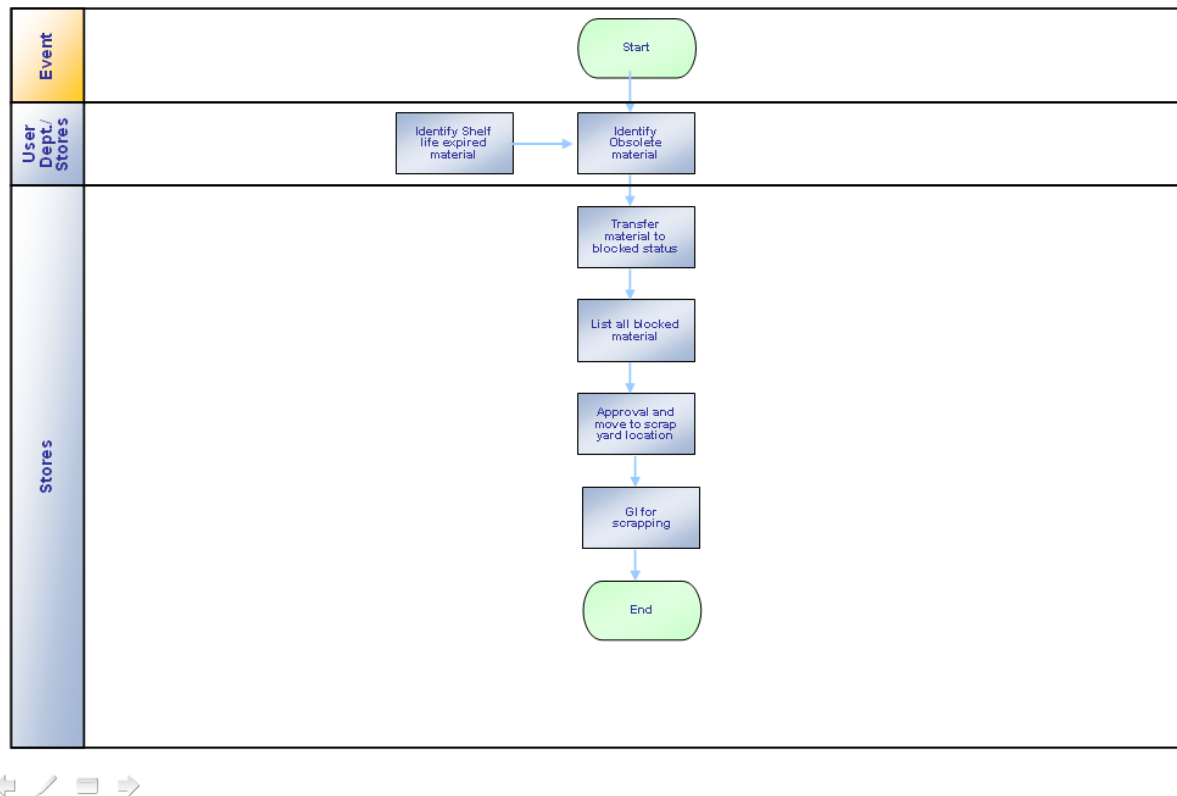
- Authorizations need to be given to users based on the transactions to be done by them and the organization elements like Plant / SLOC for which they are authorized.
- The stores department shall be given the authority to manually close any reservation made when required. This is required in case of urgent need to issue materials under long time reservation or reservations made by mistake or unrealistic need date is put .

3.1.3.11.2 Post goods issue

Goods Issue Process



Material Scrapping Process



Requirements/Expectations

- System has to capture the issue details of the materials.
- Stocks to get updated in the respective stores, after issue.
- Any issue from stores shall have a preceding document properly approved.

General explanations

The issue of materials from stores is:

- For consumption of user departments (Stock, Capital items)
- For scrapping
- For return delivery

Issue for Consumption:

The user departments shall create reservations for their requirements specifying the right movement.

Please refer to the document on Reservation for further details on Processing Reservations.

The store keeper shall check for the availability of the material in the system and if available post a goods issue with reference to the reservation.

Issue for Scrapping:

The items that are identified as obsolete/damaged/ to be scrapped are blocked. A transfer posting to change the status of the item to "Blocked" shall be done by the concerned person from stores.

After sufficient accumulation of such materials, a list is prepared to be sent for approval for scrapping.

The material engineer shall initiate a location transfer (from normal location to scrap location) in the system with movement type 311, for all the materials for write-off or for sale as the case may be.

After the physical movement out of storage is complete the transfer order shall be confirmed by the store keeper.

After the materials have moved to scrap location, the authorized stores person shall scrap the material in the scrap location in the system using the movement type 551 or issue the material to sales department for sale referring to a sales order.

Issue for Return Delivery:

The items are returned to the vendor in case of any discrepancy and a decision made to return the items.

The items from "un-restricted /blocked" status shall be returned using the movement type 122.

If the initial receipt of the items was into GR Blocked Stock (No valuation of such stock), the movement type to be used to return to vendor is 124.

Please refer to the document "Return Delivery" for further details.

- Goods movement is used to post the issue of materials to a cost center. A goods issue results in decrease in stock in the stores.
- The subsequent movements in stores are completed.
- Please refer to Annexure for Business Process Flow

Changes to existing organization

- In SAP, issue will be against receipt reservations created in the system.

Description of improvements

- The issues are made to various cost objects/agencies/contractor/vendor which would facilitate tracking of materials.
- Accounting entries are posted as soon as the goods issue is posted. No separate interface is required.
- Goods request made by cost centers will be handled on-line via reservation.
- Stock overview is available in the system for a material. The goods movements will be tracked in the system.

Integration Considerations

- Number assignment for accounting documents will be maintained by finance. Please refer to finance blueprint document.
- Upon posting of goods issue material document for cost center, stock and G/L account get updated. For further information on up dation of G/L accounts, please refer to finance blueprint.
- Upon posting of goods issue material document for material scrapping from unrestricted stock, stock and G/L account get updated. For further information on updation of G/L accounts, please refer to finance blueprint.

Authorization and user roles

- Authorizations need to be given to users based on the transactions to be done by them and the organization elements like Plant / SLOC for which they are authorized.

3.1.3.12 Stock Transfer

3.1.3.12.1 Stock Transfers & Transfer Postings

Requirements/Expectations

- Provision to carryout internal storage location transfers/ stock transfers from one location to another.
- Provision to carryout transfer postings with respect to material status change/material to material transfer posting.

General explanations

- Stock transfers in SAP involve a physical movement of the stock from one location to another whereas Transfer postings may not necessarily involve a location change.

- Transfer postings may involve a status change of the stock (for example from quality inspection stock un-restricted or un-restricted to blocked etc) or may even be a material to material transfer. Material status changes are known as posting .
- In stores, the materials may need to be transferred from one location to another. There are three options available when doing a storage location to storage location transfer.
 - Stock transfers that involve the movement of materials from one storage location to another storage location are first processed using the Inventory Management component.

In IM, the transfer of stock from one storage location to another storage location is processed as a **transfer posting**.

This posting change procedure shall be implemented for Changes to the stock status between quality inspection stock, blocked stock, and unrestricted-use stock.

- Depending upon the type of transfer, a stock transfer/transfer posting shall be carried out in Inventory Management.

Reporting Considerations

- Standard SAP reports available, to list the various movements within the plant/stores, shall be used.

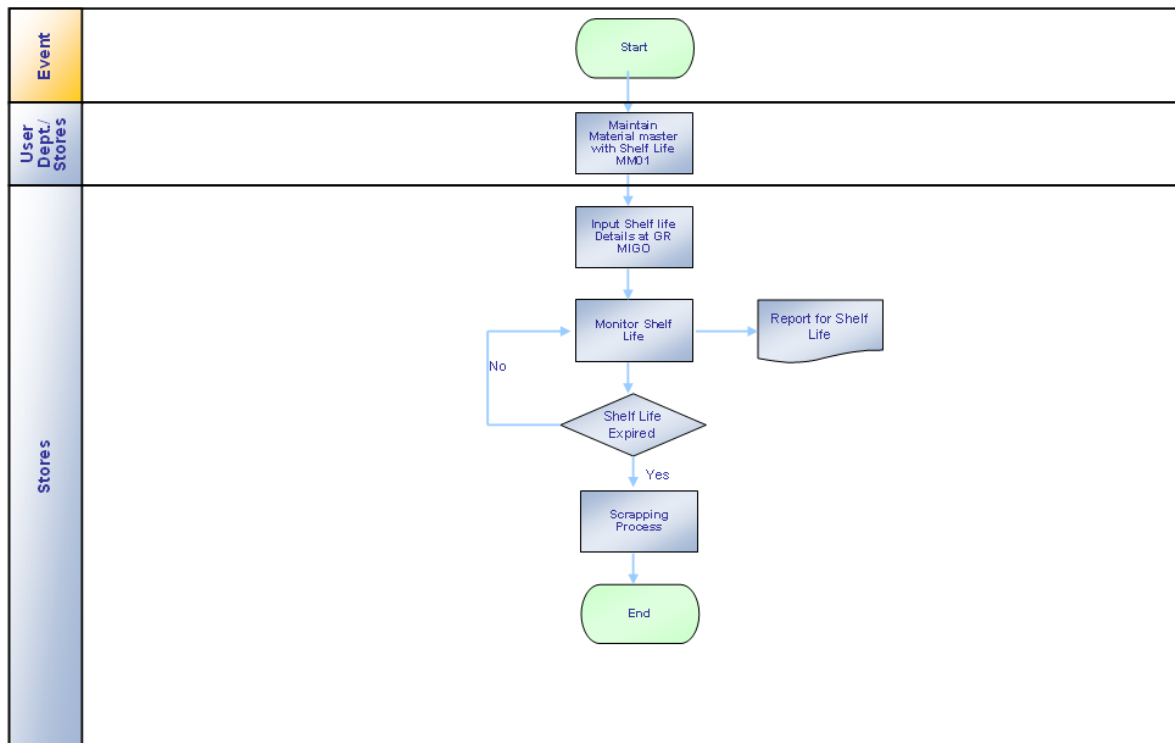
Authorization and user roles

- Authorized individuals shall be allowed to carryout the stock transfers in the system.

3.1.3.13 Cross-Application Processes

3.1.3.13.1 Shelf Life Management

Managing Shelf Life Material



Requirements/Expectations

- Record the Shelf life details of the materials upon receipt.
- Monitor the shelf life materials.

General explanations

The stock items like chemicals need shelf life management to optimize their usage and storage in the storage location. These are the materials that also need batch management.

The shelf life requirements for these materials like the minimum remaining shelf life are maintained in the material master.

The shelf life expiry date of these materials is also maintained as a characteristic in the batch master record for these materials.

Please refer to the document Material Master for further details on maintaining material master.

The store keeper at the time of Goods Receipt (GR) for the purchase order, enters the production date or the shelf life expiry date of the items being received.

The system calculates the remaining shelf life and if the remaining shelf life is not more or equal to the duration specified in the material master record, the GR cannot be processed.

If the GR is successful, these details are stored in the batch master record.

The Batch Information Cockpit shall be used to track the materials nearing expiry date.

- Maintain the material master with the shelf life data.
- Specify the Production date or the SLED at the time of GR
- Monitor the shelf life materials.

Changes to existing organization

- The Shelf life details of the material shall be maintained in the material master.
- The production date or the SLED of the materials shall be specified at the time of GR

Description of improvements

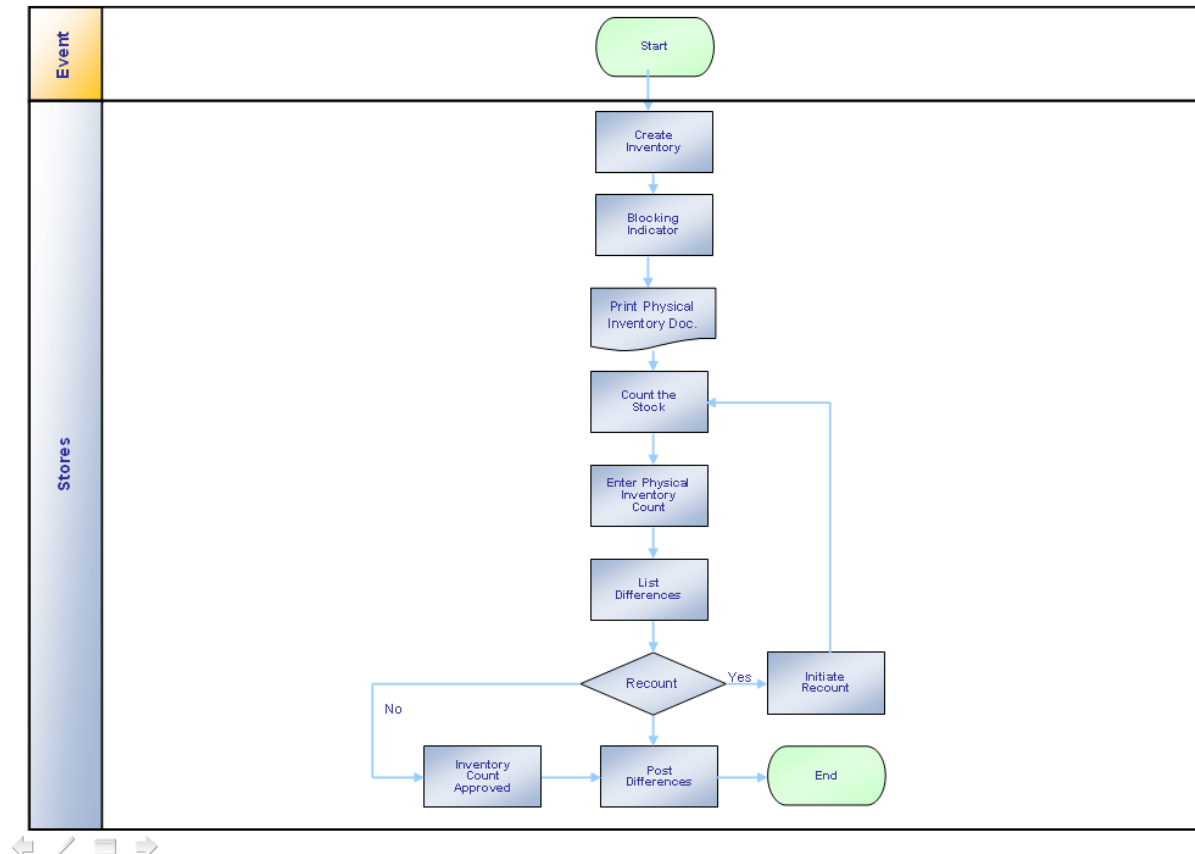
- The status of the shelf life materials can be monitored easily and their use optimised.

Authorization and user roles

- Authorized individuals shall be allowed to carryout transactions related to shelf life materials.

3.1.3.14 Physical Inventory on storage location level

Physical Inventory & Inventory Count



Requirements/Expectations

- Provision to carryout physical inventory using the system
- Update the book stocks with the actual stocks.

General explanations

- A material has to be counted atleast once a year or as per the requirement.
- The physical inventory method "Continuous Inventory" shall be used.
- In **continuous inventory**, the physical inventory for all storage locations is distributed over the course of the fiscal year, and inventories at different times can be carried out as required.
- The storage location/materials for which the physical inventory is to be carried out at a certain point of time are selected.

- A system inventory record is created. The system creates the system inventory record
- In the inventory document header, the Inv. Status indicator has the value N (Not counted).
- The materials that have been selected for physical inventory will be blocked for posting.
- Carryout the physical inventory for the selected storage locations
- Enter the count results in the system and save.
- The system sets the Inv. Status indicator to Z (counted) in the system inventory record. The physical inventory count is complete.
- Clear the inventory differences.

Authorization and user roles

- Authorized individuals shall be given rights for the transactions to create physical inventory documents, enter count results or clearing of differences.

3.1.3.14.1 Prepare physical inventory

Requirements/Expectations

- Physical Inventory document to be created for materials to be counted.

General explanations

- All stocks of the company will be physically counted at least once a year or as per the requirement.
- During counting, the material being counted must be blocked for material movements.
- If a material does not exist in a storage location, this means that no goods movement has ever taken place for the material in the storage location. The material, therefore, has never had any stock in this storage location. The material does not exist at stock management level in the storage location. It is therefore not possible to carry out a physical inventory for the material in this storage location.
- This is not to be confused with a material for which a goods movement has taken place and for which the stock balance is currently zero.
- A physical inventory must be carried out in this case, since storage location data is not deleted when the stock balance is zero.

- Physical Inventory document will be created for materials to be counted manually.
- Book inventory balance can be frozen during Inventory count.
- Physical Inventory document is printed.

Changes to existing organization

- Physical inventory process will be carried out in the system.

Description of improvements

- The physical inventory function will allow overview of the progress of the physical inventory for each material at each stage of the process - from creating the physical inventory document to posting the physical inventory differences.

Reporting Considerations

- Reports will be run online by authorized individuals.
- The following SAP standard reports will be used.
 - Physical inventory documents for material – MI22
 - Physical inventory data for material – MI23
 - Physical inventory list – MI24
 - Difference list – MI20
- Other reporting requirements, not covered by standard reports available in SAP, shall be taken up for development if approved by the steering committee.

Authorization and user roles

- Physical inventory process will be jointly carried out by stores and finance department users.

3.1.3.14.2 Process physical inventory count

Requirements/Expectations

- To enter the physically counted stocks of the materials in the physical Inventory document.

General explanations

- After the count has been performed, the results of the count will be entered into the physical inventory document in the system.
- Book inventory balance can be frozen during Inventory count.
- Posting block is set for the materials to be counted
- Physical Inventory document is printed.
- Inventory count is carried out and entered in the system with reference to the physical inventory document.

Description of improvements

- The physical inventory function will allow overview of the progress of the physical inventory for each material at each stage of the process - from creating the physical inventory document to posting the physical inventory differences.

Reporting Considerations

- Reports will be run online by authorized individuals.
- The SAP standard reports will be used.

Authorization and user roles

- Physical inventory process will be jointly carried out by stores and finance department users.

3.1.3.14.3 Initiate recount

Requirements/Expectations

- Ability to initiate a recount.

General explanations

- In case of wrong entries entered in the physical inventory document after counting the stock of materials, a recount will be initiated.
- Inventory count is carried out and entered in the system with reference to the physical inventory document.
- A recount is initiated because of wrong entries.

Changes to existing organization

- Physical inventory process will be carried out in the system

Description of improvements

- The physical inventory function will allow overview of the progress of the physical inventory for each material at each stage of the process - from creating the physical inventory document to posting the physical inventory differences.

Authorization and user roles

- Physical inventory process will be jointly carried out by stores and finance department users.

3.1.3.14.4 Clear differences in quantities and values

Requirements/Expectations

- Differences to be displayed and cleared after entering of Inventory count in the system.

General explanations

- If the physical inventory is different from the book inventory, correct the book inventory balance by posting the differences. This step ends the physical inventory.
- When the differences are cleared, the system creates a material document that records the adjusted stock balances and an accounting document that contains the necessary account activities.
- When inventory differences are posted, the material master record is changed, total stock is automatically adjusted to the counted quantity.
- From the accounting point of view, this will correspond to a goods receipt or goods issue, meaning that when the inventory difference is posted, the stock account is debited or credited:
 - If the counted quantity is smaller than the book inventory balance, the stock account is credited with the following value, inventory difference x price. The offsetting entry is made in the "Expense from physical inventory" account.
 - If the counted quantity is greater than the book inventory balance, the stock account is debited with the value of the inventory difference x price. The offsetting entry is made to the "Income from physical inventory" account.
- Since the amount posted is calculated on the basis of the current standard or moving average price, posting inventory differences will not lead to a price change.
- For further information on updating of G/L accounts, please refer to finance blueprint.
- Inventory count is carried out and entered in the system with reference to the physical inventory document.
- Differences in inventory are analyzed.
- Differences are posted to update inventory balance after obtaining necessary approval from management.

Changes to existing organization

- Physical inventory process will be carried out in the system.

Description of improvements

- The physical inventory function will allow overview of the progress of the physical inventory for each material at each stage of the process - from creating the physical inventory document to posting the physical inventory differences.
- There is automatic update of stock and accounts due to posting of Inventory differences.
- Display of physical inventory history of each material and analysis of data is possible.
- Upon posting inventory difference document, stock and G/L accounts get updated. For further information on updating of G/L accounts, please refer to finance blueprint document.

Authorization and user roles

- Authorizations for clearing differences will be given to finance department users.

4 Annexures

4.1 Annexure – 1

4.1.1 BBP-MM-OS-SLOCS

Table : List of Storage Locations

Plant Code	Warehouse/ SL Code	Warehouse /Storage Locartion
SC01	SS01	Finish Goods
SC01	SS02	Semi-Finish Goods
SC01	SS03	Raw Materials
SC01	SS04	Mines
SC01	SS05	Combustibles
SC01	SS06	General Warehouse
SC01	SS07	Scrap Stock
SC02	SA01	AHMEDABAD
SC03	SA01	ANAND
SC04	SB01	BARODA
SC05	SB01	BARODA RAIL HEAD
SC06	SB01	BHAVNAGAR
SC07	SG01	GANDHIDHAM
SC08	SG01	GODHRA
SC09	SG01	GODHRA RAIL HEAD
SC10	SK01	KANKARIA RAIL HEAD
SC11	SM01	MEHSANA
SC12	SM01	MEHSANA RAIL HEAD
SC13	SN01	NADIAD
SC14	SN01	NADIAD RAIL HEAD
SC15	SR01	RAJKOT
SC16	SR01	RAJKOT RAIL HEAD
SC17	SR01	JETTY (HARBOR)

4.1.2 BBP-MM-OS-PGROUP

Table : List of Purchasing groups

S.NO.	PURCHASING GROUP	Department	Responsible
1	C01	P.G. STORES	Anand Sharma
2	C02	P.G. RAW MATERIALS	R.B. Saxana
3	C03	P.G. MARKETING	K.P. Nair
4	C04	P.G. GEN. ADM SERVICES	Rejee Rajan
5	C05	P.G. MECHANICAL SERV.	V.S.Faldu
6	C06	P.G. CIVIL SERV.	Arif
7	C07	P.G. ELEC. & INSTRUM. SERV.	A.P.Gupta
8	C08	P.G. MINES SERV.	V.S.Rathore
9	C09	P.G. COAL	Jaideep Gupta

4.2 Annexure – 2

4.2.1 BBP-MM-MD-GLOBAL

Table: List of UoMs

Int.Meas.unit	Commercial	Technical	Meas.unit text	Unit text
1	ONE	One	One	One
10	D	d	Days	Days
2M	CMS	cm/s	cm/s	Centimeter/Second
2X	M/M	m/min	m/min	Meter/Minute
4T	PO	pF	pF	Pikofarad
A87	GOH	GOhm	GOhm	Gigaohm
A93	GM3	g/m3	g/m3	Gram/Cubic meter
B34	KD3	kg/dm3	kg/dm3	Kilogram/cubic decimeter
B45	QML	kmol	kmol	Kilomol
B47	NI	ND	ND	Kilonewton
B73	MN	MN	MN	Meganewton
B75	MGO	MOhm	MOhm	Megohm
B78	MHV	REI	REI	Megavolt
BAG	BAG	Bag	Bag	Bag
BAR	BAR	bar	bar	bar
BOT	BOT	Bottle	Bottle	Bottle
BQK	BQL	Bq/kg	Bq/kg	Becquerel/kilogram
C10	RF	mF	mF	Millifarad
C39	NA	nA	nA	Nanoampere
C3S	C3S	cm3/s	cm3/s	Cubic centimeter/second
C41	R-U	nF	nF	Nanofarad
C56	NMM	N/mm2	N/mm2	Newton/Square millimeter
CCM	CCM	cm3	cm3	Cubic centimeter
CD	CD	cd	Cd	Candela
CDM	DM3	dm3	dm3	Cubic decimeter
CM	CM	cm	cm	Centimeter
CM2	CM2	cm2	cm2	Square centimeter
CMH	CMH	cm/h	cm/h	Centimeter/hour
CO	CO	COIL	COIL	COIL
CS	CAS	Case	Case	Case
CTL	CL	cl	centiliter	centiliter
D41	TOM	t/m3	t/m3	Ton/Cubic meter
D46	CT	CT	CT	Voltampere
DEG	DEG	deg	Degree	Degree
DM	DM	dm	dm	Decimeter

DR	DRM	Drum	Drum	Drum
DZ	DZ	dz	Dozen	Dozen
EA	EA	EA	each	each
EE	EU	EU	Enzy.Units	Enzyme Units
EML	EML	EU/ml	Enzyme/ml	Enzyme Units / Milliliter
F	F	F	F	Farad
FT	FT	Foot	Foot	Foot
FT2	FT2	ft2	Square ft	Square foot
FT3	FT3	ft3	Cubic ft	Cubic foot
G	G	g	g	Gram
G/L	G/L	gai/l	gai/liter	gram act.ingrd / liter
GAU	GAU	GAU	Gram Gold	Gram Gold
GHG	GHG	g/hg	g/hg	Gram/hectogram
GJ	GJ	GJ	GJ	Gigajoule
GKG	GKG	g/kg	g/kg	Gram/kilogram
GLI	GLI	g/l	g/l	Gram/liter
GLL	GAL	gal US	US gallon	US gallon
GM	GM	g/mol	g/mol	Gram/Mol
GM2	GM2	g/m2	g/m2	Gram/square meter
GRO	GRO	gro	Gross	Gross
GW	GAi	gai	g act.ing.	Gram act. ingrd.
H	H	h	h	Hour
HAR	HA	Hectar	Hectare	Hectare
HL	HL	hl	hl	Hectoliter
HPA	HPA	hPa	hPa	Hectopascal
HZ	HZ	Hz	Hz	Hertz (1/second)
J	J	J	J	Joule
JKG	JKG	J/kg	J/kg	Joule/Kilogram
JMO	JMO	J/mol	J/mol	Joule/Mol
JOB	JOB	JOB	JOB	JOB
K	K	K	K	Kelvin
KA	KA	kA	kA	Kiloampere
KAN	CAN	Can	Canister	Canister
KAR	CAR	Car	Carton	Carton
KBK	KBK	kBq/kg	kBq/kg	Kilobecquerel/kilogram
KG	KG	kg	kg	Kilogram
KGF	KGF	kg/m2	kg/m2	Kilogram/Square meter
KGK	KGK	kg/kg	kg/kg	Kilogram/Kilogram
KGM	KGM	kg/mol	kg/mol	Kilogram/Mol
KGS	KGS	kg/s	kg/s	Kilogram/second
KGV	KGV	kg/m3	kg/m3	Kilogram/cubic meter

KGW	KAI	kgai	kg ac.ing.	Kilogram act. ingr.
KHZ	KHZ	kHz	kHz	Kilohertz
KI	CRT	Crate	Crate	Crate
KJ	KJ	kJ	kJ	Kilojoule
KJK	KJK	KJ/kg	KJ/kg	Kilojoule/kilogram
KJM	KJM	kJ/mol	kJ/mol	Kilojoule/Mol
KL	KL	KL	Kilolitre	Kilolitre
KM	KM	km	km	Miles/Kms
KM2	KM2	km2	km2	Square kilometer
KMH	KMH	km/h	km/h	Kilometer/hour
KMK	KMK	m3/m3	m3/m3	Cubic meter/Cubic meter
KMN	KMN	K/min	K/min	Kelvin/Minute
KMS	KMS	K/s	K/s	Kelvin/Second
KOH	KOH	kOhm	kOhm	Kilohm
KPA	KPA	kPa	kPa	Kilopascal
KSC	KSC	kg/cm2	kg/cm2	Kilogram/Square Centimetre
KV	KV	kV	kV	Kilovolt
KVA	KVA	kVA	kVA	Kilovoltampere
KW	KW	KW	kW	Kilowatt
KWH	KWH	kwh	kwh	Kilowatt hours
KWK	KIK	kai/kg	kai/kg	kg act.ingrd. / kg
L	L	l	l	Liter
L2	LMI	l/min	l/min	Liter/Minute
LB	LB	lb	US pound	US pound
LE	PU	PU	Power unit	Power unit
LMS	LMS	l/m_.s	l/mol.s	Liter/Molsecond
M	M	m	m	Meter
M%	M%	%(m)	%(m)	Percent mass
M%O	M%O	%O(m)	%O(m)	Permille mass
M/S	M/S	m/s	m/s	Meter/second
M2	M2	m2	m2	Square meter
M2S	M2S	m2/s	m2/s	Square meter/second
M3	M3	m3	m3	Cubic meter
M3S	M3S	m3/s	m3/s	Cubic meter/second
MA	MA	mA	mA	Milliampere
MBA	MBA	mbar	mbar	Millibar
MBZ	MBZ	m.b_/s	m.bar/s	Meterbar/second
MEJ	MEJ	MJ	MJ	Megajoule
MG	MG	mg	mg	Milligram
MGF	MGF	mg/cm2	mg/cm2	Milligram/Square centimeter

MGG	MGG	mg/g	mg/g	Milligram/gram
MGK	MGK	mg/kg	mg/kg	Milligram/kilogram
MGL	MGL	mg/l	mg/l	Milligram/liter
MGQ	MGQ	mg/m ³	mg/m ³	Milligram/cubic meter
MGW	MGW	MW	MW	Megawatt
MHO	MHO	MHO	Mhos	Unit for Conductivity
MHR	MHR	MHR	Man Hour	Man Hour
MHZ	MHZ	MHz	MHz	Megahertz
MI	MI	mile	Mile	Mile
MI2	MI2	Mile ²	Squar.mile	Square mile
MIN	MIN	min	min	Minute
MIS	MIS	µs	µs	Microsecond
MJ	MIJ	mJ	mJ	Millijoule
ML	ML	ml	ml	Milliliter
MLK	MLK	ml/m ³	ml/m ³	Milliliter/cubic meter
MLW	MLI	mlai	ml act.in.	Milliliter act. ingr.
MM	MM	mm	mm	Millimeter
MM2	MM2	mm ²	mm ²	Square millimeter
MMA	MMA	mm/a	mm/a	Millimeter/year
MMG	MMG	mmol/g	mmol/g	Millimol/gram
MMH	MMH	mm/h	mm/h	Millimeter/hour
MMK	MMK	m_/kg	mmol/kg	Millimol/kilogram
MMO	MMO	mmol	mmol	Millimol
MMQ	MM3	mm ³	mm ³	Cubic millimeter
MMS	MMS	mm/s	mm/s	Millimeter/second
MN3	MN3	MNM3	MillionNM3	Million NM3
MNM	MNM	mN/m	mN/m	Millinewton/meter
MOK	MOK	mol/kg	mol/kg	Mol/kilogram
MOL	MOL	mol	mol	Mol
MON	MON	Months	Months	Months
MPA	MPA	MPa	MPa	Megapascal
MPB	MPB	ppb(m)	ppb(m)	Mass parts per billion
MPM	MPM	ppm(m)	ppm(m)	Mass parts per million
MPS	MPS	mPa.s	mPa.s	Millipascal seconds
MPT	MPT	ppt(m)	ppt(m)	Mass parts per trillion
MPZ	MPZ	m.Pa/s	m.Pa/s	Meterpascal/second
MQH	M3H	m ³ /h	m ³ /h	Cubic meter/Hour
MS	MS	ms	ms	Millisecond
MS2	MS2	m/s ²	m/s ²	Meter/second squared
MSM	MSM	MSM3	MillionSM3	Million SM3
MT	MT	MT	Metric Ton	Metric Tonnes
MTE	MTE	mT	mT	Millitesla

MTI	MTI	mtai	MTonAcIng.	Metric Ton -Active Ingredient
MTS	M/H	m/h	m/h	Meter/Hour
MV	MV	mV	mV	Millivolt
MVA	PCT	PCT	PCT	Megavoltampere
MW	MW	mW	mW	Milliwatt
MWH	MWH	mwh	mwh	Megawatt hours
N	N	N	N	Newton
NAM	NAM	nm	nm	Nanometer
NM	NM	N/m	N/m	Newton/meter
NM3	NM3	Nm3	Nm3	Normal Cubic Meter
NMH	NMH	NMH		NM3 per hour
NOS	NOS	Number	Numbers	Numbers
NPK	NPK	NPK	No. / KG	No. / KG
NS	NS	ns	ns	Nanosecond
NTU	NTU	NTU	Turbidity	Nesselers Turbidity Unit
OHM	OHM	Ohm	Ohm	Ohm
OZ	OZ	oz	Ounce	Ounce
OZA	FOZ	foz US	Fld.oz US	Fluid Ounce US
P	P	P	Points	Points
PA	PA	Pa	Pa	Pascal
PAA	PAA	PAIR	Pair	Pair
PAK	PAC	PAC	Pack	Pack
PAL	PAL	PAL	Pallet	Pallet
PAS	PAS	Pas	Pascal sec	Pascal second
PC	PC	PC	Pieces	Pieces
PKT	PKT	PKT	Packet	Packet
PMI	PMI	1/min	1/min	1/minute
PPB	PPB	ppb	ppb	Parts per billion
PPM	PPM	ppm	ppm	Parts per million
PPT	PPT	ppt	ppt	Parts per trillion
PRC	PRC	Perc	Perc.prop.	Percentatge Proportion
PRS	PRS	PRS	Persons	Number of persons
PS	HP	ps	ps	Picosecond
PT	PT	pt US	Pint US I	Pint, US liquid
QT	QT	qt US	Quart US I	Quart, US liquid
RHO	RHO	g/cm3	g/cm3	Gramm/Cubic centimeter
ROL	ROL	ROL	Role	Role
S	S	s	s	Second
SET	SET	SET	SET	SET
SM3	SM3	Sm3	Sm3	Standard Cubic Meter

SMH	SMH	SMH		SM3 per hour
ST	ST	items	items	items
STD	HR	hrs	Hours	Hours
TAG	DAY	Days	Days	Days
TC3	TC3	1/cm3	1/cm3	1/cubic centimeter
TES	TES	T	T	Tesla
TH	TS	thou	Thousand	Thousand
TM3	TM3	1/m3	1/m3	1/cubic meter
TN3	TN3	TNM3	Thou. NM3	Thousand NM3
TO	TO	TO	MT	Tonnes(Metric)
TON	TON	ton	US ton	US ton
TSM	TSM	TSM3	Thou. SM3	Thousand SM3
V	V	V	V	Volts
V%	V%	%(V)	%(V)	Percent volume
V%O	V%O	%O(V)	%O(V)	Permille volume
VAL	VAL	val	Value	VO mat.
TPD	TPD	Ton/Day	Ton/Day	Tons per Day
TPH	TPH	Ton/Hour	Ton/Hour	Tons per Hour
MPH	MPH	Mile/Hour	Mile/Hour	Miles per Hour
M3H	M3H	M3/Hour	M3/Hour	Cubic Meter per Hour

4.2.2 BBP-MM-MD-MATMAS

The following is the list of material types that will be maintained at SDCCL.

Mat. Type	Description
ZFPR	Finished Product
ZRAM	Raw materials
ZPMA	Production Materials
ZMMA	Maintenance Materials
ZCOM	Consumables Materials
ZPCM	Packaging
ZCOB	Combustibles
ZSEC	Safety Materials
ZLAB	Chemicals & Laboratory
ZSER	Services
ZNSM	Non-Stock materials
ZSFP	Semifinished Product
ZMAR	Merchandises
ZINV	Investments

Material Type Vs Number Range

Internal number range will be followed for all the materials

Mat. Type	Description	Lower Limit	Upper Limit
ZFPR	Finished Product	000000000000000001	000000000000109999
ZRAM	Raw materials	000000000001000000	000000000001499999
ZPMA	Production Materials	000000000002000000	000000000002999999
ZMMA	Maintenance Materials	000000000003000000	000000000003999999
ZCOM	Consumables Materials	000000000005000000	000000000005999999
ZPCM	Packaging	000000000006000000	000000000006999999
ZCOB	Combustibles	000000000008000000	000000000008999999
ZSEC	Safety Materials	000000000009000000	000000000009999999
ZLAB	Chemicals & Laboratory	000000000010000000	000000000010999999
ZSER	Services	000000000011000000	000000000011999999
ZSFP	Semifinished Product	000000000013000000	000000000013999999
ZMAR	Trading Goods	000000000014000000	000000000014999999
ZSTR	Strategic Spare Parts	000000000015000000	000000000015999999
ZINV	Investments	000000000016000000	000000000016999999

Material Type Vs Price Control

Mat. Type	Description	Valuation Type
ZFPR	Finished Product	Standard Price
ZRAM	Raw materials	Moving Average Price
ZPMA	Production Materials	Moving Average Price
ZMMA	Maintenance Materials	Moving Average Price
ZCOM	Consumables Materials	Moving Average Price
ZPCM	Packaging	Moving Average Price
ZCOB	Combustibles	Moving Average Price
ZSEC	Safety Materials	Moving Average Price
ZLAB	Chemicals & Laboratory	Moving Average Price
ZSER	Services	Moving Average Price
ZNSM	Non-Stock materials	Moving Average Price
ZSFP	Semifinished Product	Standard Price
ZMAR	Merchandises	Moving Average Price
ZINV	Investments	Moving Average Price
ZSTR	Strategic Spare Parts	NA

Material Type Vs Stockable or not

ZRAM	Raw Materials	Stockable
ZSFP	Semi finished products	Stockable
ZFPR	Finished products	Stockable
ZMMA	Maintenance material	Stockable
ZCOM	Consumable materials	Stockable
ZCOB	Combustable materials	Stockable
ZPCM	Packing Materials	Stockable
ZPMA	Production Materials	Stockable

ZLAB	Chemicals & Laboratory	Stockable
ZSER	Materials	
ZSEC	Services	Non Stockable
ZMER	Safety articles	Stockable
ZINV	Merchandise	Stockable
	Investment	Non Stockable

Material Groups

The following is the list of Material groups given by SDCCL. However SDCCL has taken up the task of regrouping their material in line to CIMPOR guidelines.

PAINT
OIL & LUB
GREASE
CEMENT COLOUR
BRASS ROUND BAR
BRASS SHEET
BRASS FLAT
COPPER STRIP
COPPER TUBE
COPPER WIRE
ALLU.PLATE,FLAT
BOLT & NUTS
IRON WOOD SCREW
IRON M/C SCREW
BRASS & CSK
WOOD SCREW
M.S.& BRASS STUD
M.S.NUTS
BRASS NUTS
M.S.WASHER
BRASS & LEAD
WASHER
SPRING WASHER
TAPER WASHER
COTTER PIN
M.S.& COPPER
BRASS RIVET
WIRE NAIL
SHACKLE & CLAMP
LOCK
HARD WARE GOODS
IRON PULLEY
RAILWAY GOODS
PIPE
BEND
ELBOW TEE
SOCKET
NIPPLE
UNION

PLUG & FERRULE
FLANGE
WHEEL VALVE &
SLUICE VALVE
SANITARY FITTING
WELDING GOODS
WELDING RODS
BRAZING MATERIAL
AUGURS
PAINTING BRUSH
ARMATURE & DRILL
M/GRINDING
FILE
DIES & TAPS
SPANNERS
CUTTER
DRILL BIT
REAMER
AMMETER &
THERMOMETER
MEASURING TOOLS
PRESSURE GAUGE
GRINDING WHEEL
& EMERY CLOTH
EMERY PAPER &
SAND PAPER
CONDUIT PIPE PVC
PIPE & FITTING
SOCKET COPPER
CABLE
WOODEN BOARD &
BATTEN
JOINT CLIP
SHEET,BACKLITE
ROD SHEET TUBE
PIN SOCKET
ELECT FITTING
SWITCH
LAMP
TUBE & CHOKE
STARTER FITTING
PORCELAIN PIN
INSULATORS

EMPIRE TUBE
FIBRE PVC TUBE
ELECT TAPE
& PAPER
GLASS FIBER TUBE
& ELEMENTS
SUPER ENAMELLED
WIRE, WIRES DCC
GRINDING MEDIA
FIRE BRICKS
LINING PLATE
IRON & STEEL
BEARINGS
SLEEVE
PLUMBER BLOCK
CONVEYOR BELT & V BELT
CONVEYOR BELT SOLUTION
TYRE & TUBE
SPARES FOR DOZER
Spares for Crane (feeding)
SPARES FOR SWING MACHINE

SPARES FOR HYDRA
SPARES FOR NEW RAW MILL
SPARES FOR NEW UNIT
SPARES FOR KCP MILLS
SPARES FOR HAMMER (FEEDING)

SPARES FOR CRANE(FEEDING)

SPARES FOR TRUCK UNLOADER

SPARES FOR PACKER
ELECTRICAL
INSTRUMENT
FURNICHURE FIXTURE
PROJECT MATERIALS
ELECTRIC MOTOR
SPARES FOR ELECTRIC MOTOR

ELECTRIC PUMP
SPARES FOR ELECTRIC PUMP
GEAR BOX
SPARES FOR GEARBOXES

FLUID COUPLING
SAPRES FOR FLUID COUPLING

Material Type and Valuation Classes

Material Type	Description	Val. Class	Despcription
ZCOB	Combustibles	3000	LDO
ZCOB	Combustibles	3001	Petcock
ZCOB	Combustibles	3002	Coal
ZCOB	Combustibles	3003	Breeze
ZCOB	Combustibles	3004	Lignite
ZCOB	Combustibles	3005	Furnace Oil
ZCOB	Combustibles	3006	High Speed Diesel
ZCOB	Combustibles	3007	Diesel
ZPCM	Packing Materials	0601	43 gr. Project (Bags)
ZPCM	Packing Materials	0602	53 gr.
ZPCM	Packing Materials	0603	53 Project
ZPCM	Packing Materials	0604	53 Precast
ZPCM	Packing Materials	0605	PPC PROJECT
ZPCM	Packing Materials	0606	KAMAL PPC
ZPCM	Packing Materials	0607	53-S OPC
ZPCM	Packing Materials	0608	SRPC HDPE
ZPCM	Packing Materials	0609	OWC
ZPCM	Packing Materials	0610	Jumbo
ZPCM	Packing Materials	0611	Paper(k)
ZPCM	Packing Materials	0612	SRPC TRADE
ZPCM	Packing Materials	0613	Export bags
ZRAM	Raw Materials	0100	Limestone Purchased
ZRAM	Raw Materials	0101	Sand Stone
ZRAM	Raw Materials	0102	Iron Ore (OPC)
ZRAM	Raw Materials	0103	Gyp.Marine
ZRAM	Raw Materials	0104	Gyp.Mineral
ZRAM	Raw Materials	0105	Gyp.Chemical
ZRAM	Raw Materials	0106	Gyp. PP Mold
ZRAM	Raw Materials	0107	Adjuvante CBA 1164
ZRAM	Raw Materials	0108	Pozzolna/Fly Ash
ZRAM	Raw Materials	0109	Iron Ore (OWC)
ZRAM	Raw Materials	0110	Marl

ZRAM	Raw Materials	0111	Clinker Purchased
ZRAM	Raw Materials	0112	Morrum
ZRAM	Raw Materials	0113	Other Raw Materials
ZPMA	Production Materials	0300	Grinding Media
ZPMA	Production Materials	0301	Bricks
ZPMA	Production Materials	0302	Explosives
ZSFP	Semi Finish Products	1000	HG Limestone (Pachter)
ZSFP	Semi Finish Products	1001	LG Limestone (Gop)
ZSFP	Semi Finish Products	1002	Limestone (Chorbedi) feedable
ZSFP	Semi Finish Products	1003	Crushed Mixture (crushed lime stones & Adi.)
ZSFP	Semi Finish Products	1004	Crushed Gyp
ZSFP	Semi Finish Products	1005	Farine OPC
ZSFP	Semi Finish Products	1006	Farine OWC
ZSFP	Semi Finish Products	1007	Coal Milled
ZSFP	Semi Finish Products	1008	Clinker OPC
ZSFP	Semi Finish Products	1009	Clinker OWC
ZSFP	Semi Finish Products	1010	Clinker SRPC
ZSFP	Semi Finish Products	1011	Cement SRPC
ZSFP	Semi Finish Products	1012	Cement T-40
ZSFP	Semi Finish Products	1013	Cement OWC
ZSFP	Semi Finish Products	1014	Cement PPC
ZSFP	Semi Finish Products	1015	Cement 43 gr.
ZSFP	Semi Finish Products	1016	Cement 53 gr.
ZMMA	Maintenance Materials	0400	Bag Filter
ZMMA	Maintenance Materials	0401	Motors and Transmis Organ
ZMMA	Maintenance Materials	0402	Connection and Fixation Organs
ZMMA	Maintenance Materials	0403	Welding Material
ZMMA	Maintenance Materials	0404	Bearings and Bearing Hous
ZMMA	Maintenance Materials	0405	Electrical Material
ZMMA	Maintenance Materials	0406	Óils and Lubricants
ZMMA	Maintenance Materials	0407	Tires and Tires Tubes
ZMMA	Maintenance Materials	0408	Spare Parts
ZMMA	Maintenance Materials	0409	Other Maintenance Materials
ZMMA	Maintenance Materials	0410	Others Devices
ZMMA	Maintenance Materials	0411	Internal Plates for Mills
ZMMA	Maintenance Materials	0412	AM - IRON & STEEL

ZSEC	Safety Material	0500	Safety Material
ZCOM	Consumables	0510	Stationery
ZCOM	Consumables	0511	Cleaning
ZCOM	Consumables	0512	Food Nutriments
ZSER	Services	4000	To be Incorporated as per requirement
ZSER	Services	4001	To be Incorporated as per requirement
ZSER	Services	4002	To be Incorporated as per requirement
ZSER	Services	4003	To be Incorporated as per requirement
ZSER	Services	4004	To be Incorporated as per requirement
ZSER	Services	4005	To be Incorporated as per requirement
ZSER	Services	4006	To be Incorporated as per requirement
ZSER	Services	4007	To be Incorporated as per requirement
ZSER	Services	4008	To be Incorporated as per requirement
ZSER	Services	4009	To be Incorporated as per requirement
ZSER	Services	4010	To be Incorporated as per requirement
ZSER	Services	4011	To be Incorporated as per requirement
ZSER	Services	4012	To be Incorporated as per requirement
ZSER	Services	4013	To be Incorporated as per requirement
ZSER	Services	4014	To be Incorporated as per requirement
ZLAB	Chemicals & Laboratory	0800	Chemicals & Laboratory
ZMER	Trading Goods	0700	Clinker OPC
ZMER	Trading Goods	0701	Clinker OWC
ZMER	Trading Goods	0702	Clinker SRPC
ZMER	Trading Goods	0703	Cement SRPC
ZMER	Trading Goods	0704	Cement T-40
ZMER	Trading Goods	0705	Cement OWC
ZMER	Trading Goods	0706	Cement PPC
ZMER	Trading Goods	0707	Cement 43 gr.
ZMER	Trading Goods	0708	Cement 53 gr.
ZSTR	Strategic Spares	0900	Strat.Mot & Transm.Organs
ZSTR	Strategic Spares	0901	St.Connec.Fixation Organs
ZSTR	Strategic Spares	0902	Strat.Bearings & Housings
ZSTR	Strategic Spares	0903	Strat. Spare Parts
ZINV	Investment	5000	Investment

ZFPR	Finish Products	2000	Clinker OPC
ZFPR	Finish Products	2001	Clinker OWC
ZFPR	Finish Products	2002	Clinker SRPC
ZFPR	Finish Products	2003	Cement SRPC
ZFPR	Finish Products	2004	Cement T-40
ZFPR	Finish Products	2005	Cement OWC
ZFPR	Finish Products	2006	Cement PPC
ZFPR	Finish Products	2007	Cement 43 gr.
ZFPR	Finish Products	2008	Cement 53 gr.

4.2.3 BBP-MM-MD-VENDOR

Table : Terms of payment

Standard delivered Payment Terms will be used.

Table : Incoterms

Incoterms	Description
CFR	Cost & Freight (named port of dest.)
CIF	Cost, Insurance & Freight (named port of dest.)
CIP	Carriage & Insurance Paid To (place of dest.)
CPT	Carriage Paid To (place of dest.)
DAF	Delivered At Frontier (named place)
DDP	Delivered Duty Paid (place of dest.)
DDU	Delivered Duty Unpaid (place of dest.)
DEQ	Delivered Ex Quay (port of Dest.)
DES	Delivered Ex Ship (port of dest.)
EXW	Ex Works (named place)
FAS	Free Alongside Ship (port of shipment)
FCA	Free Carrier (named place)
FOB	Free On Board (port of shipment)

Table : Vendor Master – Account Groups

ACCOUNT GROUP	DESCRIPTION	Number range
Z001	Domestic Vendors	01
Z002	Foreign Vendors	02
Z003	Group Companies - Domestic	03
Z004	Group Companies - Foreign	03

Z005	Internal Plants	05
Z006	Personnel	06
Z007	Other Vendors	07
Z008	One-time Vendor	08

	Intervals	
01	0001000000	0001999999
02	0002000000	0002999999
03	0003000000	0003999999
05	0000050000	0000059999
06	0021400000	0092149999
07	0007000000	0007999999
08	0000080000	0000089999

4.2.4 BBP-MM-MD-SERVICES

Table: List of Service Categories

Standard delivered Service Categories will be used

Table: Service Categories Number Ranges

Standard delivered Number Ranges will be used.

Table : Service Groups

Standard delivered Service Groups will be used.

4.2.5 BBP-MM-MD-INFORECORD

Table : Condition Types for Info Records

Local Purchases

Condition type	Description	Transaction Key
PB00	Basic Price	BSX & GBB
FRA1	Freight %	FR1
FRB1	Freight value	FR1
FRC1	Freight quantity	FR1

Import Purchases

Condition type	Description	Transaction Key
PB00	Basic Price	BSX & GBB
FRA2	Freight %	FR2
FRB2	Freight value	FR2
FRC2	Freight quantity	FR2
ZCUS	Clearing/Custom charges	FR3

4.3 Annexure – A

4.3.1 BBP-MM-PREQ

Table: Purchase Requisition Document Types

Document Type	Doc Type Desc	Item	No. range internal	Field Selection
NB	Standard	10	01	NBB
FO	Blanket	10	01	FOF
PM	Plant Maintenance	10	01	NBB

Table: Purchase requisition Number Ranges

Interval Number	Interval	Internal / External
01	1000000000 - 3999999999	Internal

Table: Purchase Requisition Release Strategies

Characteristics:

1. Document type

Class – PRREL

Assign characteristics to class PRREL

4.3.2 BBP-MM-RFQ

Table: RFQ Document Types & Number Ranges

Document Type	Doc Type Desc	Item	No. range internal	Field Selection
AN	Standard	10	60	ANA

Table: Number ranges for request for quotation

Document type	Internal Number
AN	6000000000 - 6099999999

4.3.3 BBP-MM-PO

Table: PO Document Types & Number Ranges

New Proposed

Document Type	Doc Type Desc	Item	No. range internal	Field Selection
NB	Standard	10	45	NBF
FO	Blanket Orders	10	45	FOF
ZSTO	Stock Transport order	10	49	UBF
ZIMP	IMPORT PURCHASE	10	46	NBF
ZST	SALE TRANSPORT SUBCON	10	47	NBF

Number ranges for purchase order

Document type	Internal Number
45	4500000000 – 4599999999
46	4600000000 – 4699999999
47	4700000000 – 4799999999
49	4900000000 – 4999999999

Table: Pricing Schema Details

Domestic pricing procedure

Import Pricing Procedure

Stock Transfer Pricing procedur

Tax calculation procedure

S.No	Requirement	Fitment in SAP CIN
1	Finished Goods Master Item code, Item name, UOM, Accessible value and Tax rates (BED, ECS) at Sub-Head Details.	To be Maintained as Master data in SAP CIN intain all Item codes in one place (j1id) - only once for all. intain Excise Tax condition records (vk11) - only once for all.

2	Chapter Heading Master Chapter no: Chapter Description	Maintain the Chapter Ids (j1id). For maintain Tax conditions, various options of combinations available. Some examples: a. Country, plant, Chapter-Id, Material Combination b. Plant, Vendor, Material Combination
3	Input Item Master Item code, Item name, Input nature, Accessible value, UOM, and Tax rates (BED, ECS) at Cenvat Rate to avail details	Maintain the combination for all materials (Raw materials/Finished Products) Example: Material, plant, Chapter Id, whether it's relevant for Subcontract process etc
4	Capital Goods Master Item code, Item name, Input nature, Accessible value, UOM, and Tax rates (BED, ECS) at Cenvat Rate to avail details.	Maintain the combination for materials (Assets) Example: Material, plant, Chapter Id, mat. Type-Asset etc,
5	Excise Details Range, division and their relevant addresses, Commissionerate, ECC No, CST No, LST No, PLA a/c No, CESS a/c No,	Maintain above details in excise master data except G/L no.s as they are maintained at configuration level.
6	Bank Details Bank code, Bank Address, Pan no etc.,	Maintain above details
7	Service Tax Master Tax code, Tax Description, Service tax rate, Cess on service tax.	To be Maintained as Master data in SAP CIN
8	CENVAT RM RECEIPT WITH INVOICE Supplier code, Range, division, Commissionerate, ECC No, Invoice no, Invoice Date, Item No, Item name, Input nature, UOM etc.,	Functionality can be achieved in SAP.
9	CENVAT RM RECEIPT WITHOUT INVOICE Supplier code, Range, division, Commissionerate, ECC No, Invoice no, Invoice Date, Item No, Item name, Input nature, UOM etc.,	Functionality can be achieved in SAP.

10	CENVAT CREDIT Supplier code, Range, division, Commissionerate, ECC No, Invoice no, Invoice Date, Item No, Item name, Input nature, UOM etc.,	Functionality can be achieved in SAP.
11	Input Issue To Production Document No, Document Date, Item No, Item name, UOM, Quantity etc.	Need to maintain as Master data in SAP. Required functionality can be achieved in SAP.
12	Journal Entry Details PLA, AII, CII, Service Tax, Credit, Debit, Excise tax rates etc.,	RG23A Part1 RG23A Part2 RG23C Part1 RG23C Part2 PLA RG23D RG1 The above registers are available to take Print as per Standard SAP format. The excise tax rates/values also get displayed.
13	Duty Debit Module PLA, RG23A-II, RG23C-II, Service Tax, Invoice No, Invoice Date , Excise tax amounts, Chapter Id etc.,	All balances can be displayed RG23A Part1 RG23A Part2 RG23C Part1 RG23C Part2 PLA RG23D RG1 For Service Tax details get the details by executing another transaction code.(J2iun)
14	Service Tax Entry Supplier code, Invoice no, Invoice Date, Service Tax code, Taxable amount etc.,	There is no need to update/enter service details separately. All Service Tax details could be available by executing by one transaction code (J2iun). Could be Credit/Payable – choose any of these options, while executing this transaction.
15	PLA Register Excise Tax Details	Tax details are available.

16	DSA Register Excise Tax Details	Tax details are available by executing one transaction code (J2i6 – Rg1)
17	CENVAT Credit Register Excise Tax Details	Tax details are available by executing one transaction code (J2i6 – Rg23a2/c2)
18	CENVAT Credit Return Excise Tax Details	Available in SAP CIN tax details are get updated at proper G/Ls.
19	CENVAT Abstract Excise Tax Details	Excise Tax details are available from SAP Tr.code.J2i5, j2i6
20	Delivery Challan part-I Challan No, Date, Buyer information, Item No, Item name, etc.,	Available in SAP
21	Delivery Challan part-II Transporter, Vehicle No, LR No, Order No, Excise Tax etc.,	Available in SAP
22	Despatch Report Invoice No, Party Name , Item Name, Excise tax details etc.,	Available in SAP (A report which has to be developed)
23	CENVAT Credit Report Excise tax details etc,	All above Tax details are available by executing one transaction code (J2i6 – Rg23a2/c2)
24	Revenue Statement Excise tax details etc,	All above Tax details are available by executing one transaction code (J2i6 – Rg23a2/c2)
25	Duty Payable Statement Customer name, Excise tax details of PLA, RG23A2, RG23C2 etc,	All above Tax details are available from SAP Tr.code.J2i5, j2i6
26	F/G Stock Statement Item code, Item name, Unit, Opening, Receipts, Issues, closing etc.,	Available in SAP

Table: PO Release Strategy

Characteristics

1. Document type
2. Purchasing organization
3. Total Value of Order

Class – POREL

Assign characteristics to class POREL

Department	Plant Code	Rel. Strategy	Levels	1ST Level	2nd Level	3rd Level
			PO Amount/Rel, Code	01	02	02
P.G. STORES	sikka	10	0 - 49999	anand sharma		
P.G. STORES	sikka	11	50000 - 99999	anand sharma	gdgupta	
P.G. STORES	sikka	12	100000 - 19999999	anand sharma	gdgupta	panair
P.G. STORES	sikka	13	> 19999999	anand sharma	gdgupta	panair
P.G. STORES	sikka	10	0 - 49999	anand sharma		
P.G. STORES	sikka	11	50000 - 99999	anand sharma	gdgupta	
P.G. STORES	sikka	12	100000 - 7500000	anand sharma	gdgupta	panair
P.G. STORES	sikka	13	> 7500000	anand sharma	gdgupta	panair
P.G. RAW MATERIALS	sikka	10	0 - 49999	CSJASOL		
P.G. RAW MATERIALS	sikka	11	50000 - 99999	CSJASOL	gdgupta	
P.G. RAW MATERIALS	sikka	12	100000 - 19999999	CSJASOL	gdgupta	panair
P.G. RAW MATERIALS	sikka	13	> 19999999	CSJASOL	gdgupta	panair
P.G. MARKETING	sikka	10	0 - 49999	PRATEEK GAUR		
P.G. MARKETING	sikka	11	50000 - 99999	PRATEEK GAUR	gdgupta	
P.G. MARKETING	sikka	12	100000 - 19999999	PRATEEK GAUR	gdgupta	panair

P.G. MARKETING	sikka	13	> 19999999	PRATEEK GAUR	gdgupta	panair
P.G. GEN. ADM SERVICES	sikka	10	0 - 49999	CSJASOL		
P.G. GEN. ADM SERVICES	sikka	11	50000 - 99999	CSJASOL	gdgupta	
P.G. GEN. ADM SERVICES	sikka	12	100000 - 19999999	CSJASOL	gdgupta	panair
P.G. GEN. ADM SERVICES	sikka	13	> 19999999	CSJASOL	gdgupta	panair
P.G. MECHANICAL SERV.	sikka	10	0 - 49999	PBPATEL		
P.G. MECHANICAL SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. MECHANICAL SERV.	sikka	12	100000 - 19999999	PBPATEL	gdgupta	panair
P.G. MECHANICAL SERV.	sikka	13	> 19999999	PBPATEL	gdgupta	panair
P.G. CIVIL SERV.	sikka	10	0 - 49999	PBPATEL		
P.G. CIVIL SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. CIVIL SERV.	sikka	12	100000 - 19999999	PBPATEL	gdgupta	panair
P.G. CIVIL SERV.	sikka	13	> 19999999	PBPATEL	gdgupta	panair
P.G. ELEC. & INSTRUM. SERV.	sikka	10	0 - 49999	PBPATEL		
P.G. ELEC. & INSTRUM. SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. ELEC. & INSTRUM. SERV.	sikka	12	100000 - 19999999	PBPATEL	gdgupta	panair
P.G. ELEC. & INSTRUM. SERV.	sikka	13	> 19999999	PBPATEL	gdgupta	panair
P.G. MINES SERV.	sikka	10	0 - 49999	CSJASOL		
P.G. MINES SERV.	sikka	11	50000 - 99999	CSJASOL	gdgupta	
P.G. MINES SERV.	sikka	12	100000 - 19999999	CSJASOL	gdgupta	panair
P.G. MINES SERV.	sikka	13	> 19999999	CSJASOL	gdgupta	panair
P.G. CIVIL SERV.	sikka	10	0 - 49999	PBPATEL		
P.G. CIVIL SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. CIVIL SERV.	sikka	12	100000 - 7500000	PBPATEL	gdgupta	panair
P.G. CIVIL SERV.	sikka	13	> 7500000	PBPATEL	gdgupta	panair
P.G. ELEC. & INSTRUM. SERV.	sikka	10	0 - 49999	PBPATEL		
P.G. ELEC. & INSTRUM. SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. ELEC. & INSTRUM. SERV.	sikka	12	100000 - 7500000	PBPATEL	gdgupta	panair
P.G. ELEC. & INSTRUM. SERV.	sikka	13	> 7500000	PBPATEL	gdgupta	panair
P.G. MECHANICAL SERV.	sikka	10	0 - 49999	PBPATEL		

P.G. MECHANICAL SERV.	sikka	11	50000 - 99999	PBPATEL	gdgupta	
P.G. MECHANICAL SERV.	sikka	12	100000 - 7500000	PBPATEL	gdgupta	panair
P.G. MECHANICAL SERV.	sikka	13	> 7500000	PBPATEL	gdgupta	panair
P.G. COAL	sikka	10	0 - 49999	JAIDEEP GUPTA		
P.G. COAL	sikka	11	50000 - 99999	JAIDEEP GUPTA	gdgupta	
P.G. COAL	sikka	12	100000 - 19999999	JAIDEEP GUPTA	gdgupta	panair
P.G. COAL	sikka	13	> 19999999	JAIDEEP GUPTA	gdgupta	panair

4.3.4 BBP-MM-OA

Table: Purchase Agreements – Document Types and Number Ranges

Document Type	Doc Type Desc	Item	No. range internal	Field Selection
MK	Quantity contract	10	51	NBF
WK	Value contract	10	51	NBF

Number ranges for contract

Document type	Internal Number
MK	5100000000 - 5199999999
WK	5100000000 - 5199999999

Release procedure

Class: CTREL

- Characteristics:
1. Document type
 2. Purchasing organization
 3. Net Value

Assign characteristics to class CTREL

4.3.5 BBP-MM-MOVYPES

Table : List of Movement Types

Movement Type	Description	Movement Type	Description
101	GR goods receipt	501	GI receipt w/o PO
102	Reversal of GR	502	RE receipt w/o PO
103	GR into blocked stck	503	GI receipt to qual.
104	Rev. GR to blocked	504	RE receipt to qual.
105	GR from blocked stck	505	GI receipt to blockd
106	Rev.GR from blocked	506	RE receipt to blockd
107	GR to Val. Bl. Stock	511	GI deliv. w/o charge
108	GR to Val. Bl. Rev.	512	RE deliv. w/o charge
109	GR fr. Val. Bl. St.	521	GI receipt w/o PrOrd
110	GR fr. Val. Bl. Rev.	522	RE receipt w/o PrOrd
122	RE return to vendor	523	GI quality w/o PrOrd
123	RE rtn vendor rev.	524	RE quality w/o PrOrd
124	GR rtn blocked stck	525	GI blkd w/o prod.or.
125	GR rtn blkd stck rev	526	RE blocked w/o PrOrd
141	GR G subseq. adjustm	531	GI by-product
142	GR G subseq. adjustm	532	RE by-product
161	GR returns	533	GI by-product
162	GR rtns reversal	534	RE by-product
201	GI for cost center	541	GI whse to subc.stck
202	RE for cost center	542	RE subctrStck toWhse
221	GI for project	551	GI scrapping
222	RE for project	552	RE scrapping
231	GI for sales order	553	GI scrapping QI
232	RE for sales order	554	RE scrapping QI
241	GI for asset	555	GI scrapping blocked
242	RE for asset	556	RE scrapping blocked
251	GI for sales	557	GI adjust. transit

252	RE for sales
261	GI for order
262	RE for order
281	GI for network
282	RE for network
291	GI all acc. assignmts
292	RE all acct assignmts
301	TF tfr.plnt.to plnt.
302	TR tfr.plnt.to plnt.
303	TF rem.fm.stor.to pl
304	TR rem.fm.stor.to pl
305	TF pl.in stor.in pl.
306	TR pl.in stor.in pl.
309	TF tfr.ps.mat.to mat
310	TR tfr.ps.mat.to mat
311	TF tfr. within plant
312	TR transfer in plant
313	TF rem.fm.str.toSLoc
314	TR rem.fm.str.toSLoc
315	TF pl.in str.in SLoc
316	TR pl.in stor.inSLoc
317	Create struct. mat.
318	RE create struc. mat
319	Split structured mat
320	RE split struct.mat.
321	TF quality to unrest
322	TR quality to unrest
323	TF quality in plant
324	TR quality in plant
325	TF blocked in plant
326	TR blocked in plant
331	GI to sampling QI
332	RE to sampling QI
333	GI to sampling unre.
334	RE to sampling unre.
335	GI to sampl. blocked
336	RE to sampling blkd
340	TF bch revaluation
341	TF unrestr.to restr.
342	TF unr. to rstricted
343	TF blocked to unre.
344	TR blocked to unre.
349	TF blocked to qual.
350	TR blocked to qual.

558	GI adjust. transit
561	GI entry of st. bals
562	RE entry of st.bals.
563	GI EntrStBals: QI
564	RE EntrStBals: QI
565	GI EntrStBals: blkcd
566	RE EntrStBals: blkcd
571	GI receipt assembly
572	RE receipt assembly
573	GI rcpt QI assembly
574	RE rcpt QI assembly
575	GI rcpt blkd assmbly
576	RE rcpt blkd assmbly
581	GI by-prod. network
582	RE by-prod. network
602	RE goods deliv. rev.
603	TF rem.fm.stor.to pl
604	TR rem.fm.stor.to pl
606	TR pl.in stor.in pl.
621	GI ret.pack.:lending
622	GI ret.pack:ret.del.
631	GI consgmt: lending
632	GI consgmt:ret.delvy
646	TR cross company
661	GI returns to vendor
662	RE ret. to vdr revrs
671	TR to stck in trans.
672	TF to stck in trans.
6A5	TF CC GI1
6A6	TR CC GI1
6B5	TF CC GI2
6B6	TR CC GI2
6W5	TF GI1 consi
6W6	TR GI1 consi
701	GR phys.inv.: whse
702	GI phys.inv.: whse
703	GR phys.inv: QI
704	GI phys.inv: QI
707	GR phys.inv.:blocked
708	GI phys.inv.:blocked
711	GI InvDiff.:whouse
712	GR InvDiff.:wrhouse
713	GI InvDiff: QI
714	GR InvDiff: QI

401	TP own from sls.ord.	715	GI InvDiff.:returns
402	TP own to sales ord.	716	GR InvDiff.:returns
403	TP own from consgt.	717	GI InvDiff.: blocked
404	TP own to consgt.	718	GR InvDiff.: blocked
405	TP own from project	801	GR adv. inv. + tax
406	TP own to project	802	RGR ad. inv. + tax
411	TP own to own	803	GR AI ICMS/IPI
412	Reversal own to own	804	RGR AI ICMS/IPI
413	TP SLoc to sls order	805	GR bl. AI w. tax
414	Rev. SLoc to sls ord	806	RGR bl. AI w. tax
415	TP SLoc to project	811	GR TP dely w. tax
416	Rev. SLoc to proj.	812	RGR TP dely w tax
441	TP unrstr.to tiedEmp	815	GR B TP dely w. tax
442	TP tiedEmp.to unrstr	816	RGR B TP dely w. tax
451	GI returns	821	GR val. VS w. tax
452	RE returns (rev.)	822	RGR val. VS w. tax
453	TP returns to own	825	GR B val. VS w. tax
454	TP own to returns	826	RGR B val. VS w. tax
455	TF st.tfr. returns	833	Reval. iss. w. tax
456	TR St.tfr. returns	834	R reval. iss. w tax
457	TP Ret.to own QIS	835	Reval. rec. w. tax
458	TP Own QIS to ret.	836	R reval. rec. w tax
459	TP Ret.to own blkcd	843	GR RTP w. tax
460	TP Own blkct to ret.	844	RGR RTP w. tax
922	RE return to vendor	901	GI internal c.center

Table : Document Types & Number Ranges for Material Documents

Transaction/ Event type	Document type	Year	Number range	Internal/ external
WE(receipt)	WE	2009	5000000000 – 5999999999	Internal
WA(issue)	WA	2009	4900000000 – 4999999999	Internal

4.3.6 BBP-MM-MVT-REASONS

Table : Reasons for Returns

Mvt type	Mvt type text	Reason	Reason for Movement
122	Return to vendor	0001	Poor quality
122	Return to vendor	0002	Damaged Product
122	Return to vendor	0003	Short Receipt
122	Return to vendor	0004	Wrong Supply
122	Return to vendor	0005	Excess receipt

122	Return to vendor	0006	Damaged Packing
122	Return to vendor	0007	Specification mis-match
122	Return to vendor	0008	Others

5 SAP Standard Reports

The attachment contains list some of the most common standard T_Codes used in SAP



SAP Std reports

In addition to the attached list any other requirements not covered by the standard SAP reports will be taken up for development if agreed by the project management team.

6 List of objects identified for Development

The following list contains identified objects for development

Module	Description development
MM	Printing out put Purchase Order / Smart Form or Script
MM	Quotation Comparative Statement
MM	Request for Quotation / Smart Form for Script
MM	Reservation Slip (Store Issued Voucher)
MM	Material Serial Number (Work Flow)
MM	Contract Scheduling Aggrement (Work Flow)
MM	Po/Std Po Print out / Email to Accounts (Work Flow)
MM	Print out for Credit Memo / Smart From or Script
MM	Way Bridge Integration with SAP