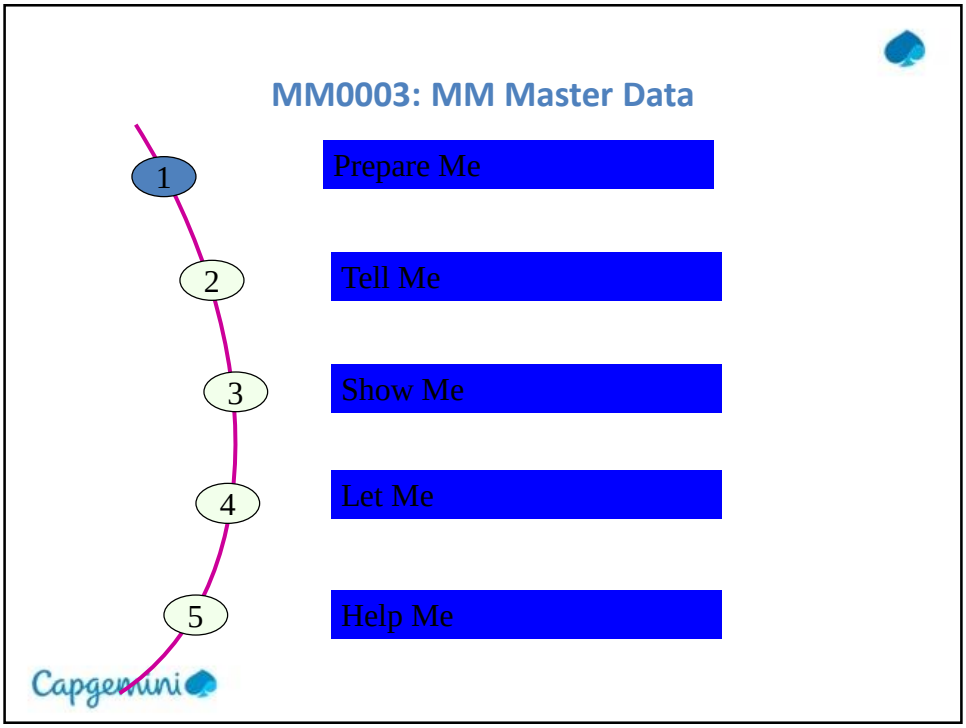
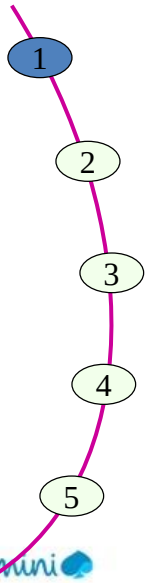

MM0003: MM Master Data
1
Prepare Me
2
Tell Me
3
Show Me
4
Let Me
5
Help Me
Capgemini

Master Data



Prepare Me

Tell Me

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Prepare Me

In this section , we will cover 3 topics which are,

1. Purpose
2. Use
3. Challenges

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Data Entry
Repeated, laborious & time consuming task of entering data during every Transaction Processing

Consistency
Lack of Consistency and accuracy due to manual Data entry

Imagine!

A World without Master Data

Inadequate Control
Need to authorize every user to enter / change / modify even the sensitive information

Training Impact
Specialized trainings required to teach what to enter and where to enter

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Master Data…?

The facts describing your core business entities: Example. Customers, Suppliers, other business partners, products, chart of accounts, & employees

The high value Information that an organization uses repeatedly across many business processes

Master Data is critical because it provides the business context by providing concrete data models for business processes

Ensures consistent master information across for transactional and analytical systems purposes

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Use

- Master Data are centrally stored and shared across departments – to eliminate data redundancy
- Master Data helps in keeping validation & fast user entry for transactions
- One time creation of data which is rarely changed. Only the incremental data required to be maintained

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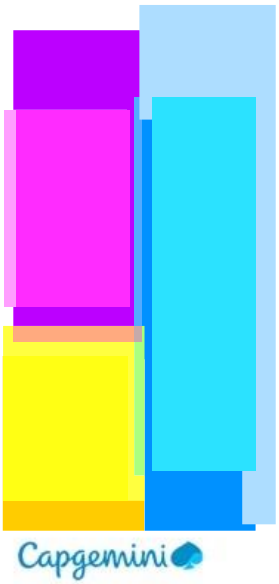
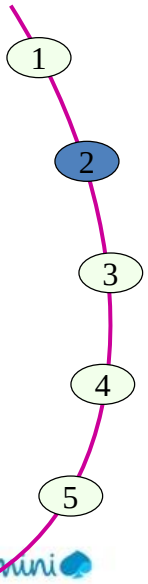
Challenges



- Managing all the Master Data, important for the organization, centrally.
- Validating & ensuring correctness of data entered in the Master record.
- Avoiding duplication of data
- Formalizing a search strategy to search Master Data.
- Creating procedures & guidelines for periodic maintenance of the Master data records.

Master Data



Prepare Me

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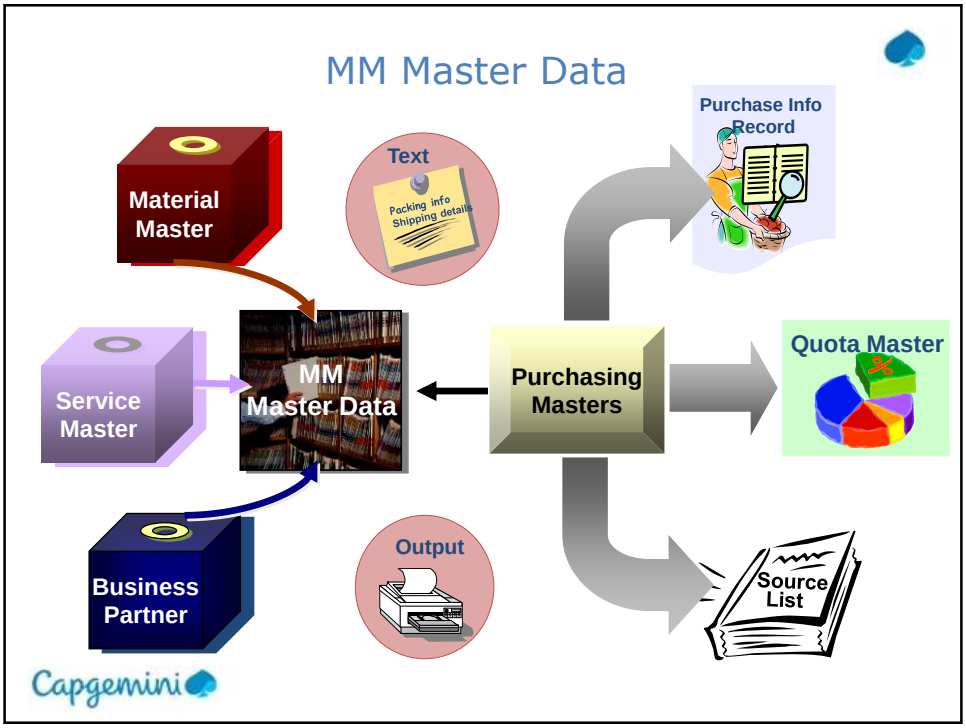
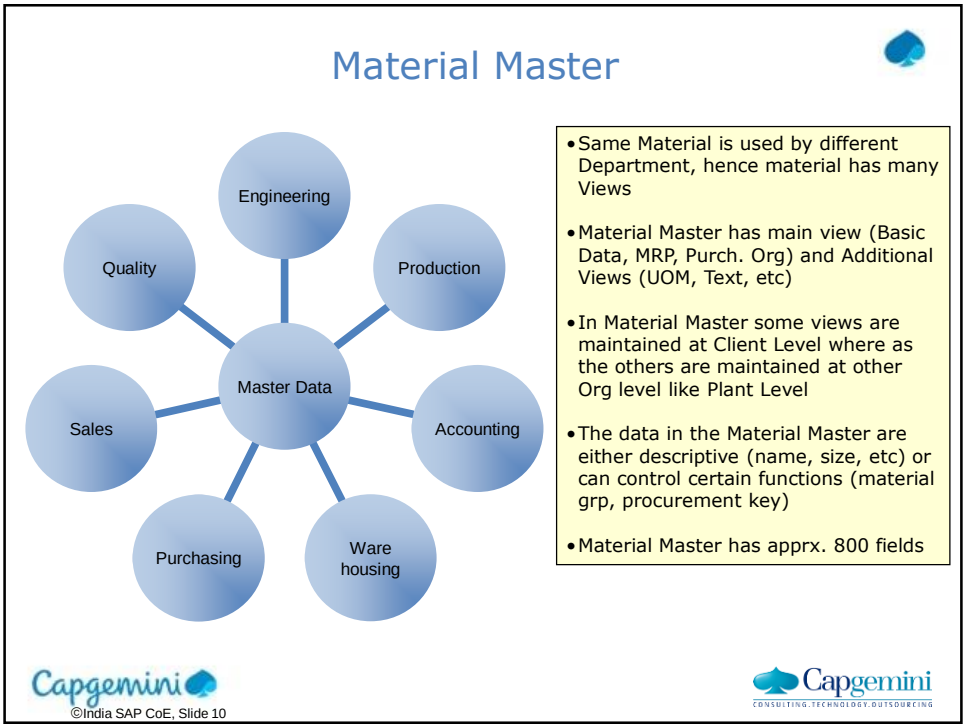


Master data contains data records that are centrally stored in the database for a long period of time and are used & processed on a cross application basis. This prevents the multiple storage (redundancy) of data.

While creating a Purchasing documents, the relevant data's are copied from the existing master data thereby reducing the data entry work.



Material Master contains information on all the materials that a company procures or produces, stores and sells.

The data contained in the material master is required 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

In Production Planning and Control for material requirements planning, scheduling, and work scheduling

Material Type in Material master controls the number range, the views and the screen layout.

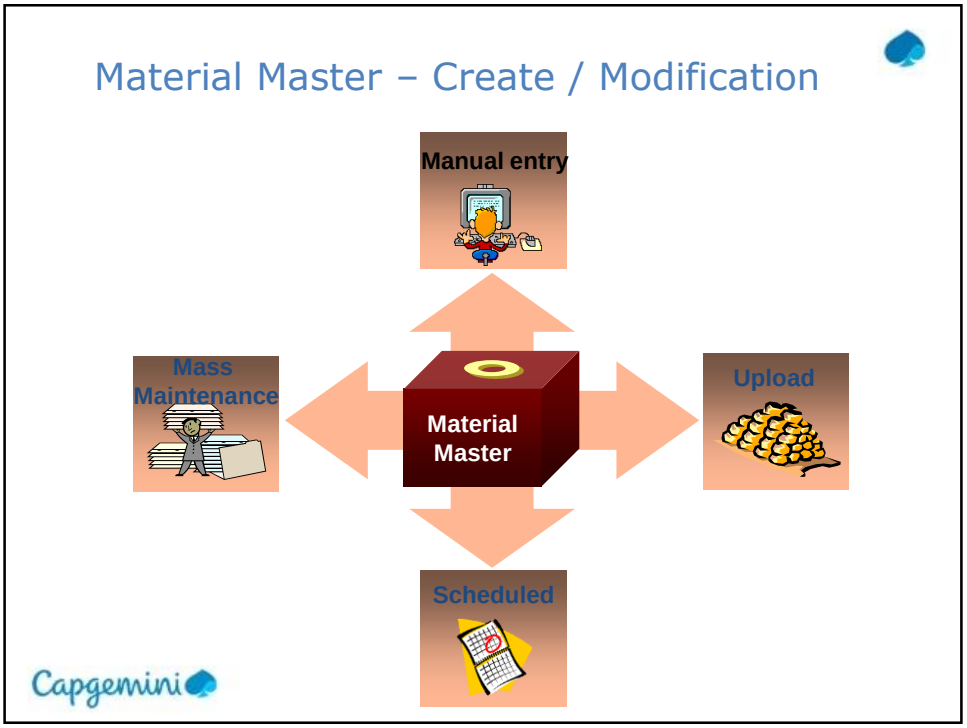
All the view in material master are maintained at certain org level.

Example: Basic data is maintained at client level. This means all the company codes under a client will have same value under basic data for a material.

Purchasing view are maintained at plant level. You can maintain different value in the purchasing view of a material for different plants.

MRP view are maintained at Plant, Storage location level.

Material master also has addition data where material text, conversion of various unit of measures.



Material Master can be created or modified through

• Manual Entry, where Material are created one by one

•Mass Upload via LSMW, BDC, CAT. The process of Mass upload is normally done during the Implementation phase when huge lot of Material Master needs to uploaded from Legacy to SAP system.

•Material Master can also be scheduled for creation. While creating material master specify the time when the Material needs to be created. In such scenario the Material get created, but is only available for display and for use only after the Scheduled time.

•A Material can be extended or modified through Mass Maintenance. Mass maintenance are generally used when values in same fields needs to be changed for a large volume of material.

S/4HANA future-oriented Business Partner

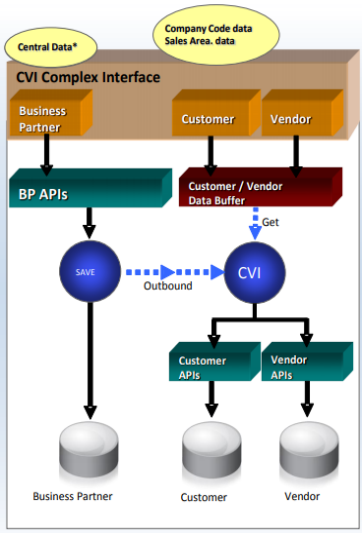
- In S/4 HANA we provide with the business partner as leading object additional embedded future-oriented features to provide new processes and improving the existing ones
- The BP transaction is the single point of entry to create, edit, and display master data for business partners, customers, and vendors

Business Partner Approach: Specific Information

S/4HANA future-oriented Business Partner

- A legal entity is represented with one Business Partner – One unique Business Partner for different roles e.g. Customer, Supplier, Contact, (Employee not part of CVI).
- Different Business Partner Categories – Organization, Person, Group
- Maximal data sharing and reuse of data which leads to an easier data consolidation
- General Data available for all different business partner roles, specific data is stored for each role
- Several Addresses possible with a default Address
- Flexible Business Partner Relationships possible like contact, married etc
- Time dependency on different sub entities e.g. roles, address, relationship, bank data etc.
- Future – Field Extensibility and Process Extensibility out of the box – Fiori User Interface with a specific Customer, Supplier and Business Partner App

Integrated Object Model: Customer / Vendor Integration



- A Business Partner is always created when a customer or supplier is created.
- The complex interface of the CVI (Customer-Vendor-Integration) contains Business Partner specific data as well as Customer and Vendor specific data.
- Partially, the data of the Business Partner and Customer/Vendor are redundant For instance 'Name and Address specific attributes' are available in both persistencies.
- Customer or Vendor specific data is routed through the Customer/Vendor specific interface and mixed up with the Business Partner central data. On commit, the Business Partner and corresponding Customer and/or Vendor is maintained / created.

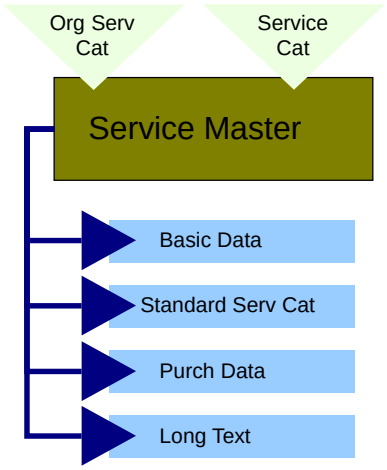
Obsolete Transactions related to Vendor & Customer master :

- The old specific transactions like XD01,XD02, XD03 or VD01, VD02, VD03 / XK01, XK02, XK03 or MK01, MK02, MK03 etc. are not available in SAP S/4HANA Enterprise management Version i.e. since 1511 and 1610 onwards.
- Currently mass maintenance for customers and vendors via transaction MASS is not available.

Service Master

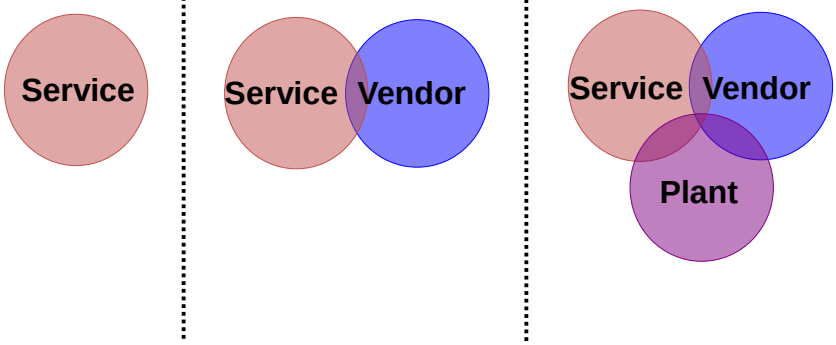
- Service Master serves as a Master Data within External Service Management and the data stored in the Service Master can be called while creating service specifications
- Service Master contains the short and long description of services that need to be procured are stored
- Along with description, Service Master contains
  - Unique Service Number
  - Service Category
  - Base Unit of Measure
  - Material Group
- Price can be defined in the Service Master through Service conditions

Service Master



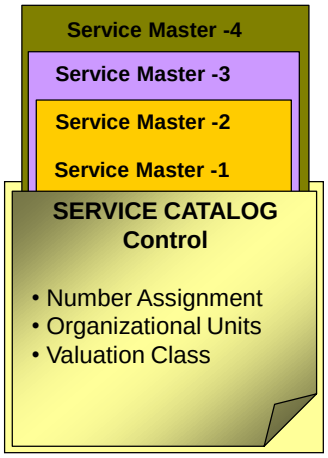
- Organization Service Category controls the Views in Service Master
- Service Category controls the Number range, default value for Valuation Class, etc.
- Basic Data contains data like Material Grp, Division, Valuation Class, and Authorization Group
- Purchasing status, Validity, EAN is maintained in Purchasing data
- Service Master can be created through Transaction Code: **AC03**

Service Master



- Master Conditions can be maintained at:
  - Service Level → Transaction Code: ML45
  - Service – Vendor Level → Transaction Code: ML39
  - Service – Vendor – Plant Level → Transaction Code: ML33
- Prices stored in the Master conditions are proposed in service specifications

Service Master - Service Category



- Service Category helps in grouping Service Master records based on their usage
- Service Category is the most important criterion for structuring Service Master
- It provides default value for the Valuation Class
- Service Category also controls the number range assignment for Service Master
- The standard Service Category available are:
  - Master Records describing internal
  - service
  - Master records describing externally
  - procured services
  - Master records describing third party
  - performed services

Purchase Info Record

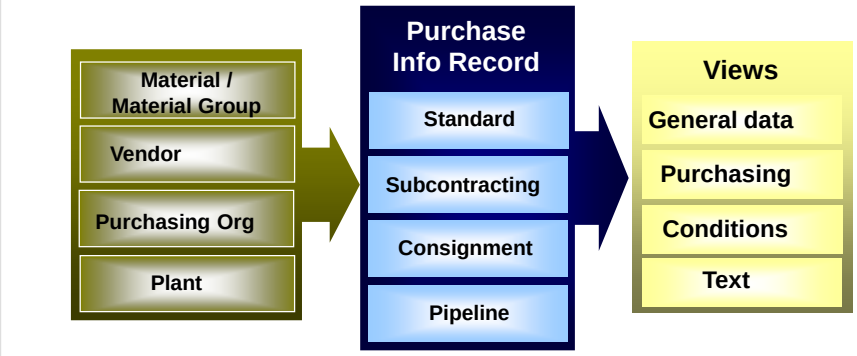
- Purchase Info Record represent Vendor-Material relationship and it contains concise information about the Vendor and a Material
- Purchase Info Record can be created manually or automatically during maintenance of Quotations, Purchase Order or Outline Agreements
- Purchase Info Record can be created with or without material. In case of without material, it is created for a Material Group
- Purchase Info Record also shows the last purchasing document created for the Material Vendor combination

Purchase Info Record

- SPRO → Materials Management → Purchasing → Purchase Info Record

- We can customize:
- Whether to have an internal or external number range. Standard SAP have separate number ranges for Stock material and Non-stock Material
- The field status (optional, mandatory, display or suppressed) through Field Selection group
- The header and item text for Info Record
- Whether the Purchase order price history is to be updated with the net price or the effective price
- Our own search help over and above provided by the standard SAP. Standard SAP provides
  - Search via Vendor
  - Search via Material
  - Search via Material Group
  - Search for External Processing

Purchase Info Record



- PIR are created for Standard, Subcontracting, Pipeline & Consignment Purchase
- PIR contains information like Vendor price, Payment Terms, Standard Qty, Text
- PIR is valid for all Plant covered by the Purchasing Organization
- Purchasing Info Record also displays the Order price history for each purchase order created

Purchase Info Record

Purchase Info Record: 1

Material: 0001 **Purch Org : 1000**
Vendor : 1001 **Plant : 1000**

Valid From 01 – Jan – 07 Valid To 31 – Jan - 07

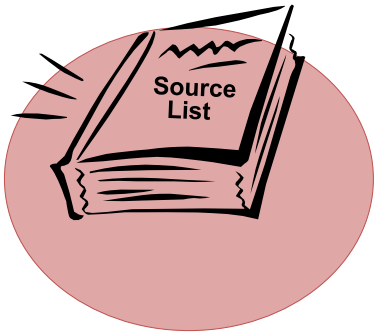
Condition Type	Amt	Unit	Per	UOM
Gross Price	**100**	**USD**	**1**	**EA**
Discount	**10**	**USD**	**1**	**EA**
Freight %	**1**	**USD**	**1**	**EA**

Valid From 01 – Jan – 08 Valid To 31 – Jan - 08

Condition Type	Amt	Unit	Per	UOM
Gross Price	**200**	**USD**	**1**	**EA**
Discount	**15**	**USD**	**1**	**EA**
Freight %	**1**	**USD**	**1**	**EA**

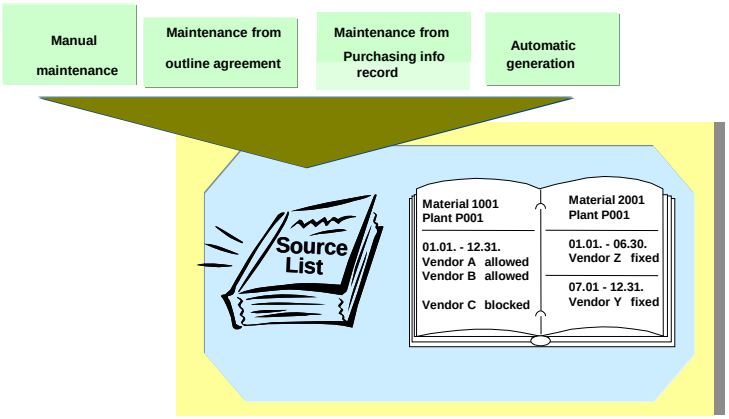
- Price and conditions maintained in the PIR are picked in all the Purchasing documents created for the Material/Vendor combination
- Scales can also be maintained for certain Condition Types

Source List



- Source List is maintained for a Material, Plant combination and helps in Source Determination
- Source list display for a material all the allowed and disallowed Vendors within a Plant for a specified period
- Every Source in Source List is maintained for a specified period of time
- Plant can also be assigned as a source of supply in the Source List

Source List

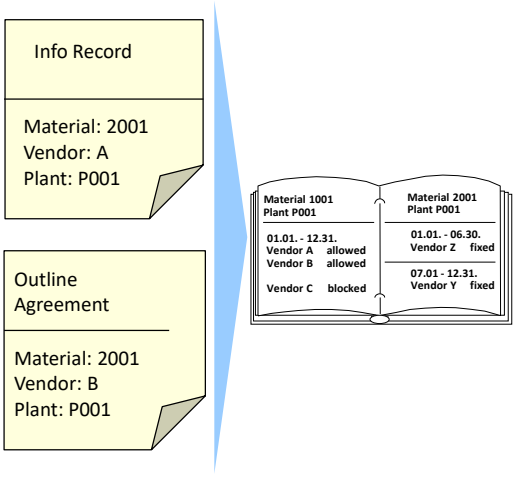


- Source List contain allowed, preferred or blocked source of supply of a Material in a Plant
- Within Contract maintenance function, Source List can be created for a material grp for Contract Items with the Item Category M (Material Unknown) or W (material group)

We can define a Vendor as fixed for a certain period of time. Fixed Vendors are Vendors only from whom the material would be procured.

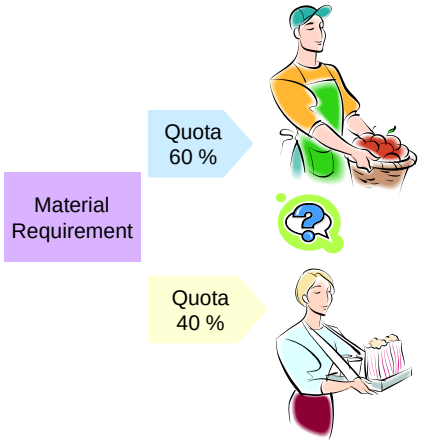
We can also control whether a Purchase requisition or a schedule line needs to be created through MRP. We can also assign a Outline agreement as a source of supply in source list.

Source List Creation - Collectively



- The Trans Code to create Source List collectively is ME05
- It allows to update all of the material source of supply
- It considers the Info Record and the Outline Agreement available for a Material Vendor combination
- There is a preview function for creating Source List. This allows to simulate the Source List before actual creation
- After update the Source List can be restored to their original status

Quota Arrangement



- Quota Arrangement divides the total requirement of a material over a period among certain sources of supply by assigning a quota to each source
- Quota can be of 2 types

Allocation Quota: The Vendor who scores the lowest Quota rating gets the order. The Quota rating is calculated based on:

Quota allocated qty + base qty

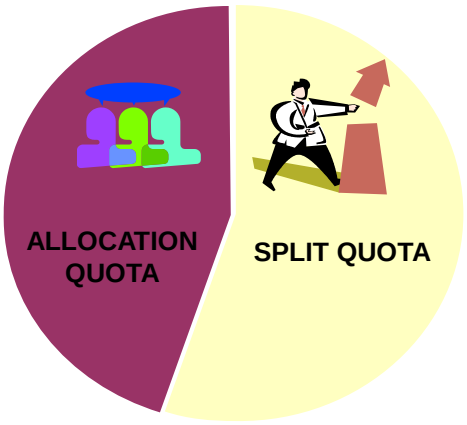
Quota

Base qty is a manual qty added to Vendors account

Split Quota: The requirement is simply distributed among Vendors based on the pre defined ratio

- Quota also has feature of controlling
  - Min & Max Qty
  - Lot Size
  - Blocking of Vendor

Quota Arrangement



- Quota can be Allocated and Split Quota. Split Quota is controlled by the Lot Size maintained in the Material Master
- System generates a Unique No to each Quota Arrangement
- Quota also controls
  - Min & Max Qty
  - Lot Size
  - Blocking of Vendor

Quota Arrangement – Allocation Quota

Quota rating = Allocated Qty + Quota base Qty
Quota

Material: A
Reqt: 1000

Source	Quota	Allocated Quantity	Base Quantity	Quota Rating
Vendor – A	25	500	100	24
Vendor – B	75	3000		40

- The source with the lowest Quota Rating represents the effective source
- If more that one Quota has the Quota rating as zero, then the source with highest Quota is the effective source
- The Quota base quantity can be used when a new source is included in an existing Quota arrangement. The Quota base quantity enables to prevent a situation in which the new source is assigned all requirement until its
  Quota allocated quantity exceeds the quota allocated quantity of one of the
  old sources

Quota Arrangement – Split Quota

Quota rating = Quota Source of Supply X Required Quantity / Total of all Quota

Material: A
Reqt: 1000

Source	Quota	Quantity
Vendor – A	5	500
Vendor – B	3	300
Vendor – C	2	200

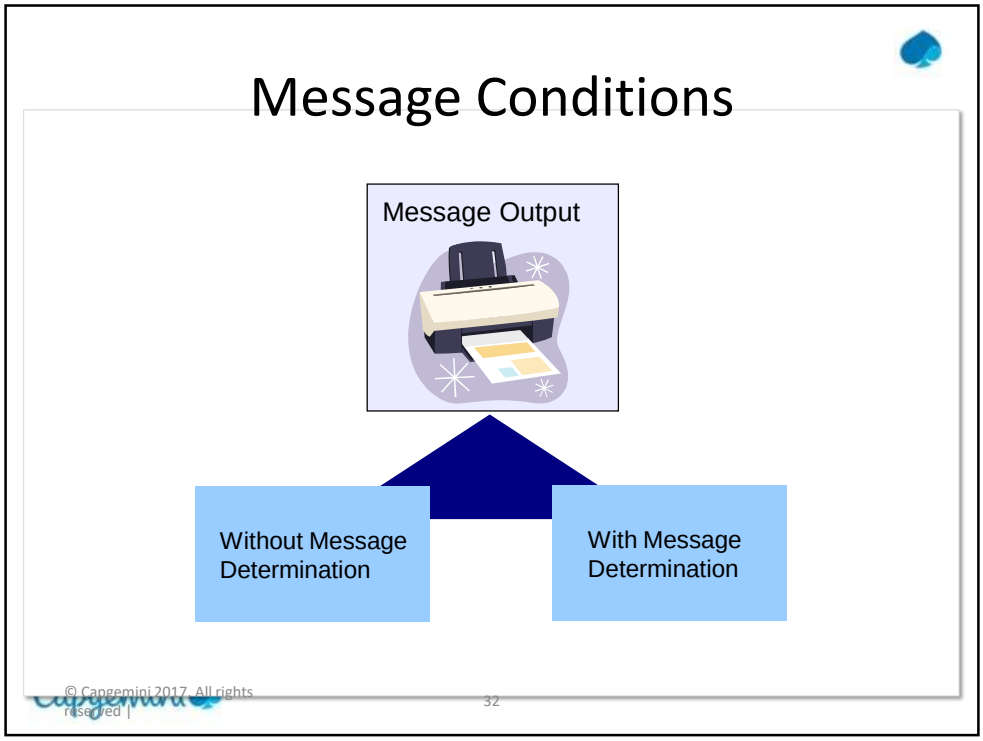
Min Splitting Qty: 200

Material: A
Reqt: 1000

Source	Quota	Quantity
Vendor – A	5	200
Vendor – B	3	
Vendor – C	2	

Quota Arrangement – Other Control

- Maximum limit can be maintained for a Source for a specified period of time. If the max limit is reached or exceeded within the period, then the source is no longer suggested for the Quota arrangement
- Minimum & Maximum Lot Size can also be maintained for a Source
- Maximum Lot size refers to the greatest possible order proposal quantity. If a requirement exceed the maximum lot size quantity, several order proposals are suggested with quantities equal to maximum lot size, unit the total quantity required is covered
- Minimum Lot size refers to the minimum quantity of order proposal. If a source is determined by Quota arrangement for which minimum lot size is maintained, and if the quantity required is less than the minimum lot size, then the order proposal is generated for a quantity equal to minimum lot size
- The minimum & maximum lot size maintained in the Quota overrides the lot size maintained for the material master, but only for the sources maintained in the quota



Message Output without Message Determination

•In case of Message Output without Message Determination, system only considers the Standard Output Type. Example: NEU.

•The system only generates messages using the Standard Parameters. We can change the proposed value latter.

•System determines the printer in the following sequence:

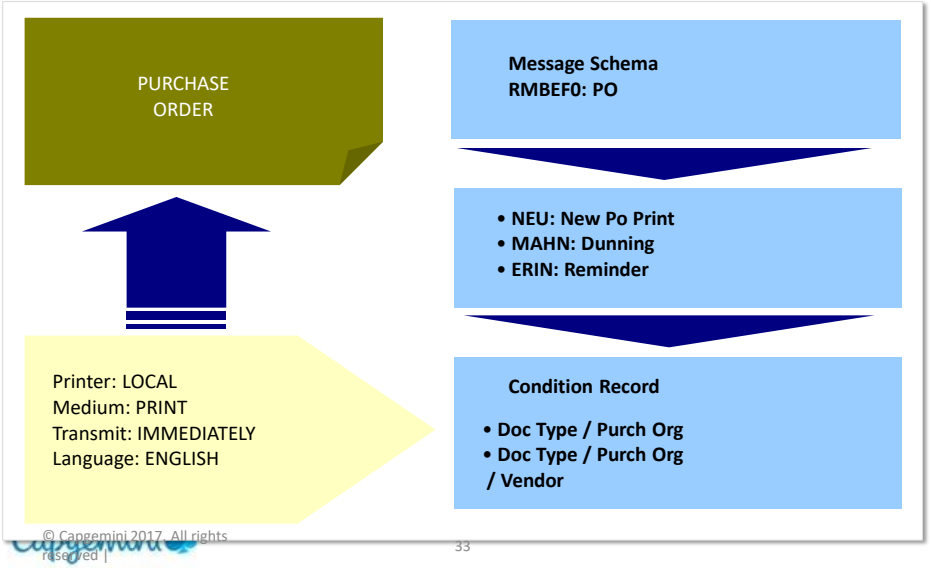
- •Printer defined for the Purchasing group
- •Printer defined in the User parameter
- •Printer defined in User default.

Message Output with Message Determination

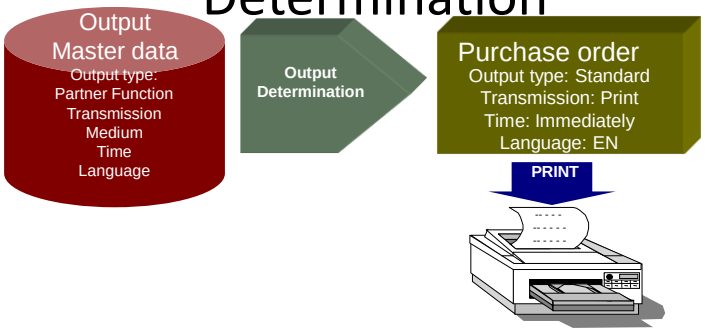
•The aim of Message Determination is to manage messages according to predefined criteria

•The system can suggest the output medium and time depending on the specific values of the influencing factors.

Message Conditions – Message Determination

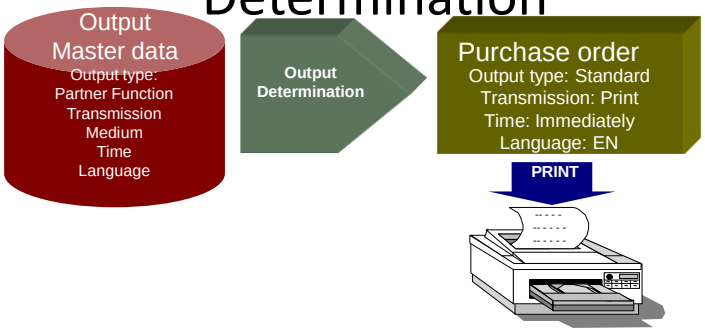


Message Conditions-Output Determination



- Output is triggered when a new Purchasing Document is created or any of the Purchasing Document has been changed
- Output type can be maintained at various combinations like Purchase org / Vendor, Document type/purchase org/vendor, document type, etc.
- Output can be generated with or without Message Determination

Message Conditions-Output Determination



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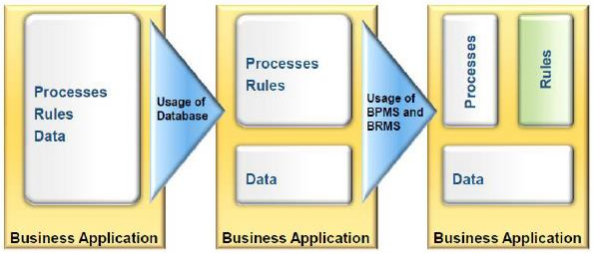
- Output can be generated with or without Message Determination

Overview of BRF+

- BRF+ is an API and user interface for defining and processing business rule. It allows us to model rules in an intuitive way and to reuse the these rules in different application.
- BRF+ function provides an interface between business rule and an application using that rule.
- Rules are implemented as expression which are assigned to a function. The rule input is known as context and the rule output is called result.
- Context and result consists of data object which is called decision table, structure, decision tree.
- BRFplus supports features such as simulation, trace, transport, XML export and import.

Advantage of BRF+

- Separation of program and business rules.
- Rules can be changed without programming
- Business users instead of programming can define and maintain rules
- Rules change can be carried out faster
- BRFplus is a part of SAP NetWeaver

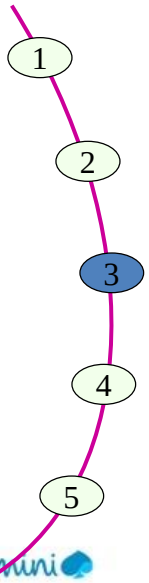


NAST Output management	S4HANA output management
Leverages condition tables and communication structures	Leverages BRF+ rules
Ability to create a number of custom condition tables and access sequences	Supports building conditions using BRF+ using the fields supported by the application object
Flexibility to add ABAP code in output requirements for more fine-tuned control	The application object is supported by one CDS view
Ability to extend communication structures and literally populate any value in the communication structure using the user exits.	CDS view can be extended with CDS extensions but in a limited fashion
Requires Print programs and forms. Limited support to Legacy output forms	Not a whole lot of possibilities to add custom code to handle complex logic

NAST Output management	S4HANA output management
Requires Print programs and forms. Limited support to Legacy output forms	Not a whole lot of possibilities to add custom code to handle complex logic
One output type can only trigger one output per document	Requires Print programs and Adobe forms. Limited support to Legacy output forms
Supports multiple output mediums – Print, Fax, Telex, external send, EDI, Special functions, ALE etc.	One output type can trigger any number of outputs
Archive link is optional. But not very integrated with output management. You cannot view old outputs from archive link from output screen	Supports multiple channels Print, Email, XML, IDOC. Documentation and SAP notes say Fax is not supported but can be made to work
Works for all of Sales and purchasing documents	Does not support special functions explicitly but the same can be accomplished by adding code to any print program/channel

NAST Output management	S4HANA output management
Configuration and approach is different for finance, WM, Production	Supports multi tenancy and works with cloud solutions
	Archive link is standard
	Retains a copy of original output, very helpful to keep track of different versions sent to the customer
	SAP's direction seems to be converging all the outputs into BRF+ approach. Underlying technology for BRF+ lends itself to be used with any document
	Much cleaner email templates that can leverage a lot of context sensitive data that can be leveraged

Master Data



PrepareMe

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MM Master Data

Configuration of Master data

Maintenance of Master data

Capgemini

MM Master Data

Configuration of Master data

Maintenance of Master data

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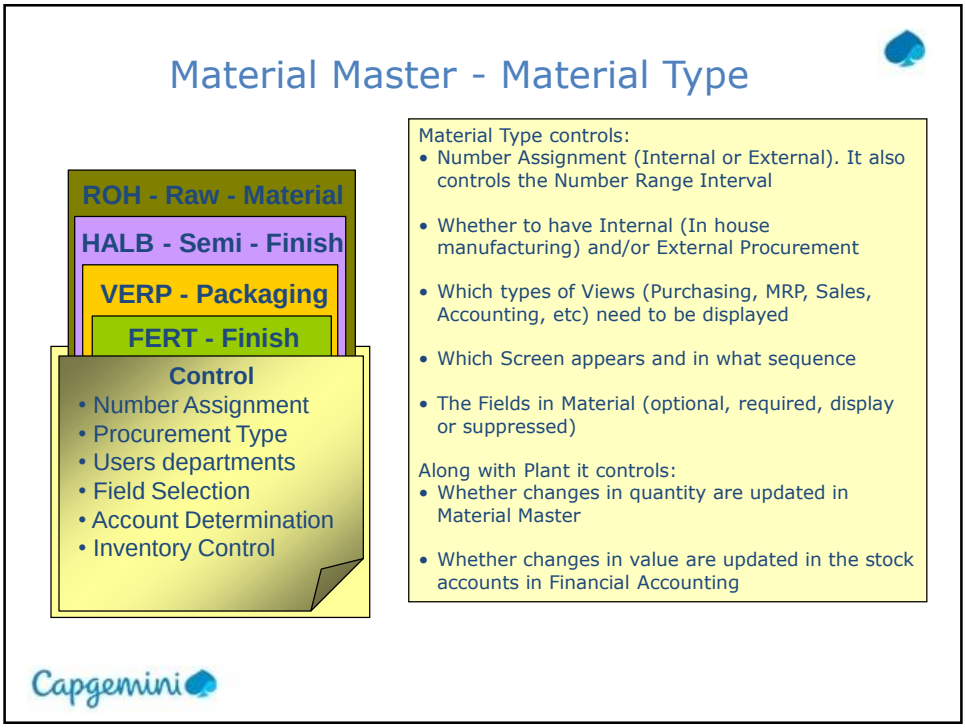
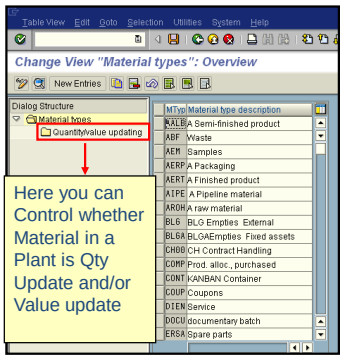


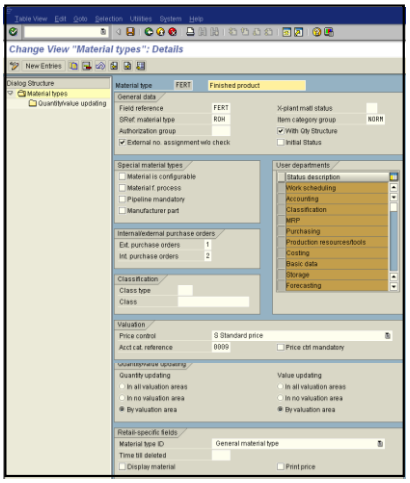
Material Type groups Materials with similar attributes. Example: All the Raw Materials will be created under Material Type : ROH – Raw Material.

This allows to manage materials with similar attributes in a uniform manner as per the company's requirement.

Material Master - Material Type

SPRO → Logistics General → Material Master → Basic Settings → Material Types → Define Attributes for Material Type





Select to display the details of Material Type

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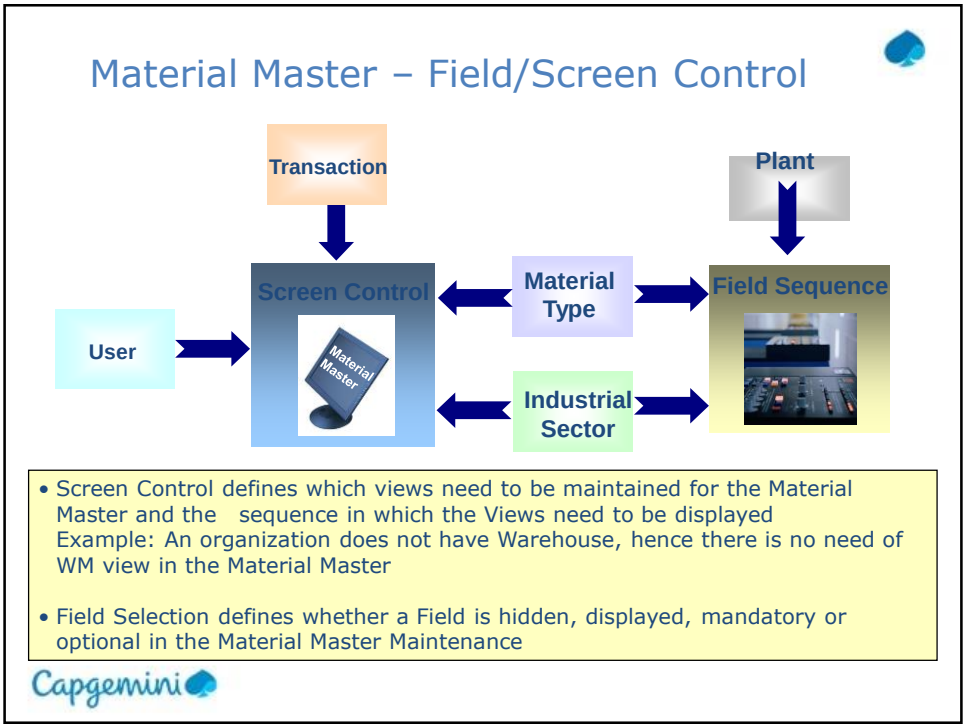
•A new Material Type should be always created by coping a standard Material Type.

In the details screen of Material type you can maintain:

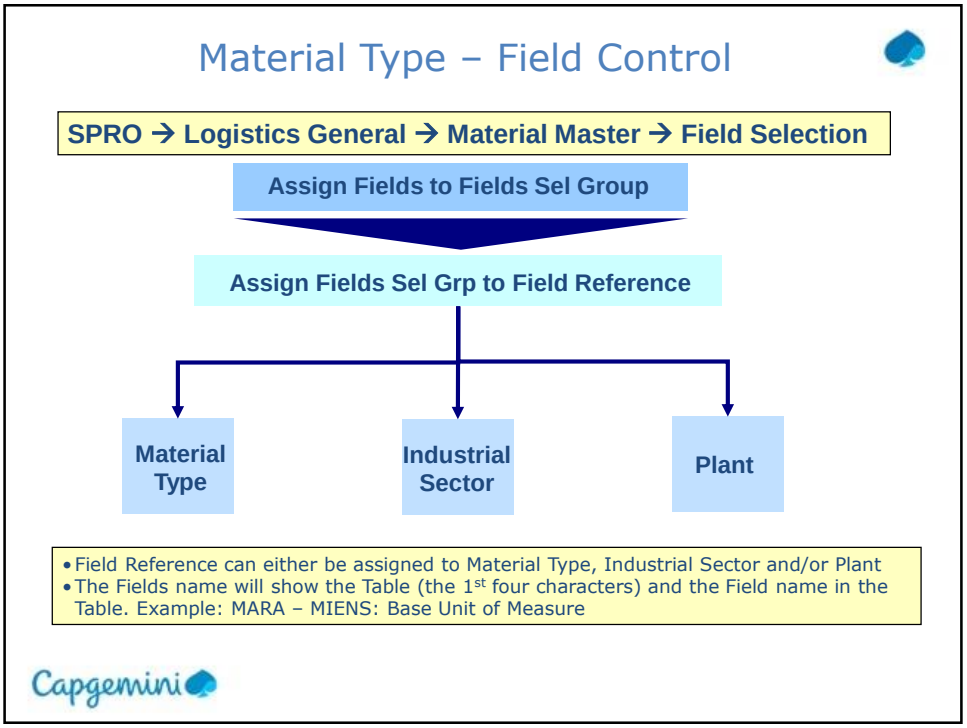
- •Field Reference: It controls the Fields Status (Display, Hidden, Mandatory or Optional) in the Material Master.
- •Plant Material Status: It controls the status of Material in each Plant. Example: Material can be blocked for Procurement, Blocked for Costing, Obsolete Material.
- •Item Category Group: The value entered gets default populated in the Material Master.
- •Control the Views required.
- •Control whether material can be Internally procured and/or externally procured. The values can populated in the Material Master. You can also control whether it is modifiable or not.



Field Selection can be controlled at Plant, Material Type and/or Industrial Sector.

Where ever there is a conflict in the Field control, the Field Attribute would be determined in the priority Sequence given below

1. Hide
2. Display
3. Required Field
4. Optional Field



Assign Fields to Fields Sel Group:

•Here you control whether the Field can be Displayed, Hidden, Mandatory or Optional.

•A single Field can be assigned to more than one Fields Sel Group.

•In Standard SAP, Fields Sel Group from:

- ❑ 001 – 110 is for Material Master for Industry
- ❑121 – 150 is for Material Master for Industry
- ❑151 – 210 is for Material Master for Retail

Assign Fields Sel Group to Field Reference:

•"Field Reference" groups multiple "Field Selection Group".

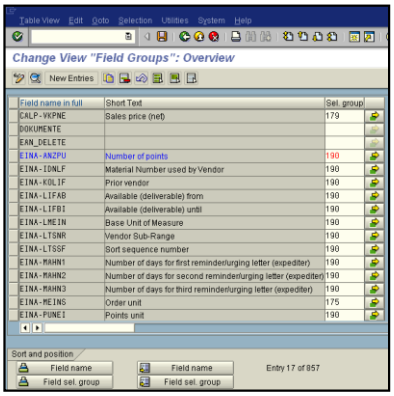
•"Field Selection Group" can be assigned to multiple "Field Reference"

If the Field status needs to be controlled at Plant level, then assign Field Reference to Plant Code

If the Field status needs to be controlled at Industrial Sector, then assign the Field Reference to Industrial Sector

Material Type – Field Control

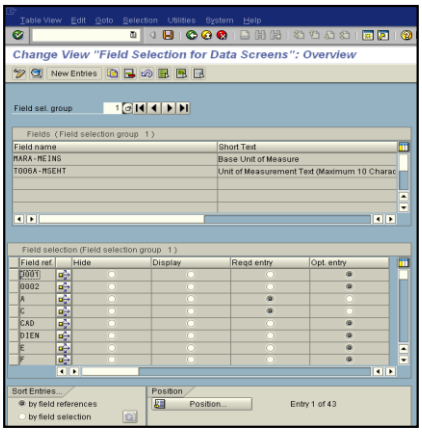
Assign Field to Field Sel Group



Search the Field through Field name

Search the Field Grp through Field sel. group

Assign Field Sel Group to Field Ref



Select to check the where use list of Field Reference

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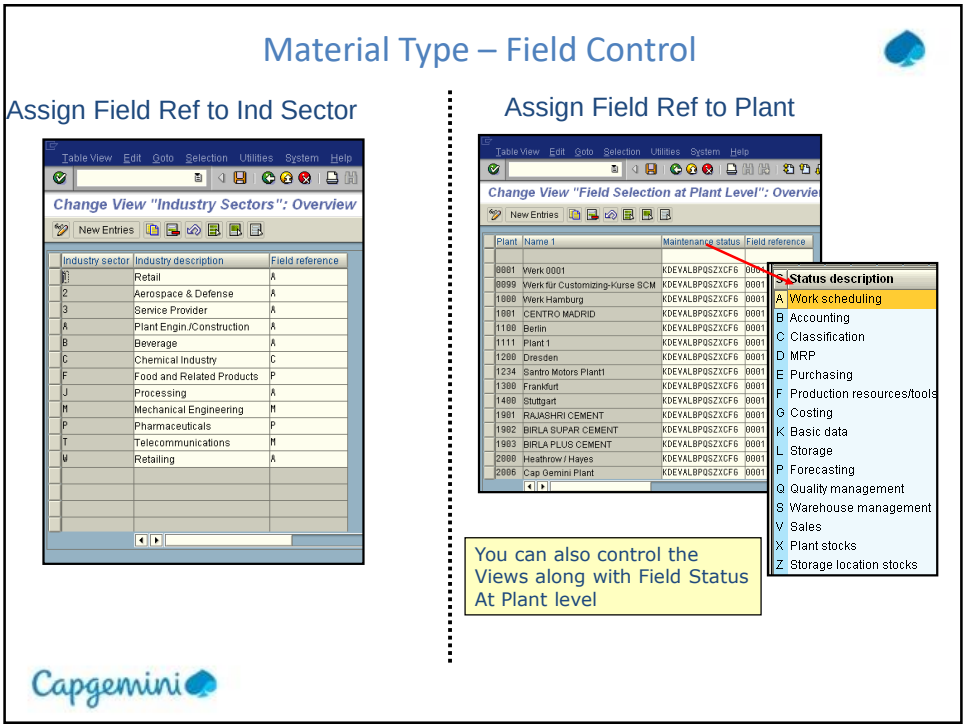
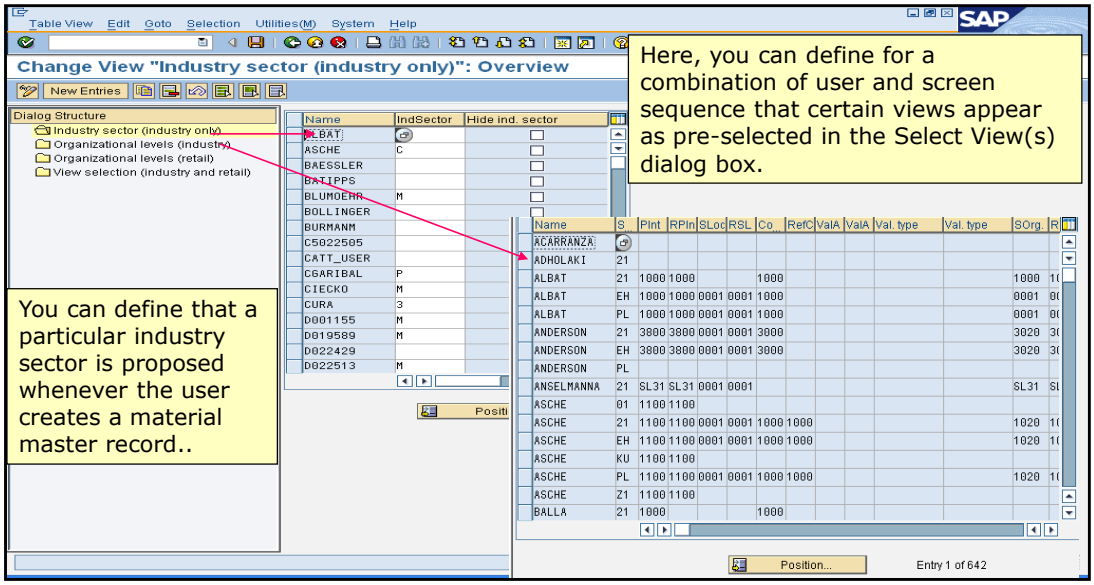


Field Reference can be assigned to Material Type in the option “Define Attributes to Material Type”.

Material Master – Screen Control



Here, you can define for a combination of user and screen sequence that certain views appear as pre-selected in the Select View(s) dialog box.

You can define that a particular industry sector is proposed whenever the user creates a material master record..

You can define for a combination of user and screen sequence, the organizational levels that are proposed whenever the user creates, changes, or displays a material master record

SAP S/4HANA MATERIAL MASTER DATA CHANGES

In terms of structure, material master is still the same. Old transactions (mm01, mm02, mm03) still exist in the SAP S/4HANA world. A few fields have been removed, new material types have been added, and the length of material has been changed. Beyond that, there is not much change from a functional perspective.

Changes with Simple Logistics Material Ledger

The material ledger is now mandatory for material valuation.

Changes with Foreign Trade Data
Foreign trade data is no longer relevant in S/4HANA. It is now a part of GTS.

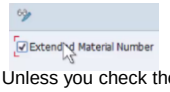
Introduction of a New Material Type
A new material type, SERV, is available in SAP S/4HANA for services.

The views available are:
Basic data
Sales view
Purchasing view
Accounting

Changes in Material Master Field Length

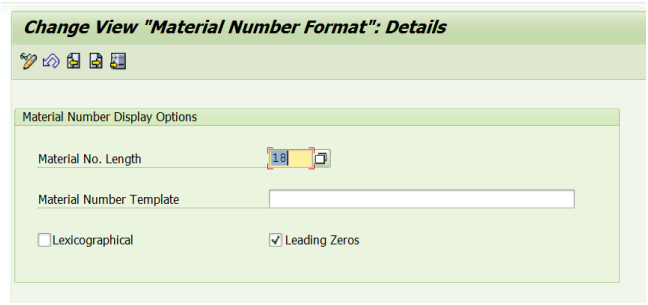
In ECC, the material master field length was 18 characters. Now, it has changed to 40 characters in SAP S/4HANA. But, by default, it is switched off. This means that technically, the material length can take on 40 characters but doesn't operate that way by default. You have to check the extended material field. The menu path to check the flag for an extended material field is

SPRO –> IMG –> CROSS-APPLICATION FUNCTIONS –> GENERAL APPLICATION FUNCTIONS –> FIELD LENGTH EXTENSION –> ACTIVATE EXTENDED FIELDS
GO TO NEW ENTRIES AND CHECK THE FLAG



Unless you check the flag, SAP will not use the entire 40 characters for external interface communications. When you use the interface to communicate, like sales order or purchase order using IDOC or any other mechanism, SAP still uses the old 18-character material length. BAPIs and systems which were built and are in-place have 18 characters.

For a functional consultant, the definition of material is 40 characters. The external systems do not know the definition of material. You have to check the Flag for the extended material number so that SAP starts to use the extended field for communication with external systems regarding the material master. You can also restrict the length of the material master. In addition, you can use the transaction OMSL to specify the format of material master.



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Changes in Material Master Field Length

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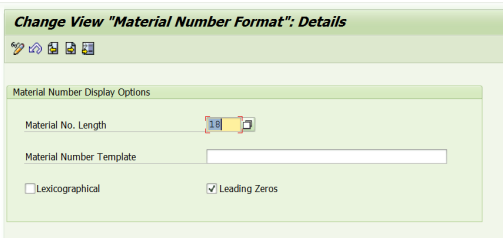
For the S/4 HANA system ,now the definition of material is of 40 characters. The external systems may not know this extended definition of material. You have to check the Flag for the extended material number so that SAP starts to use the extended field for communication with external systems regarding the material master. You can also restrict the length of the material master. In addition, you can use the transaction OMSL to specify the format of material master.



MRP fields in Material Master : The SAP S/4HANA simplification is done on the following tabs in transaction **MM01/02/03**.

1. Lot Size data in MRP1 Tab:
   - **Unit of Measure Group (MARC-MEGRU)**
2. Procurement in MRP2: MRP considers quota arrangements always, henceforth it is not required to switch it on in the material master.
   - **Quota arr. usage. (MARC-USEQU)**
3. BOM explosion /dependent Requirement tab in MRP4
   - **Selection Method (MARC-ALTSL)**
4. Repetitive manufacturing /assembly /deployment strategy tab of MRP4
   - **Action control (MARC-MDACH)**
   - **fair share rule (MARC-DPLFS)**
   - **push distribution (MARC-DPLPU)**
   - **Deployment horizon. (MARC-DPLHO)**
5. Storage Location in MRP4
   - **SLoc MRP indicator (MARD-DISKZ)**
   - **spec.proc.type SLoc (MARD-LSOBS)**
   - **Reoder Point (MARD-LMINB)**
   - **Replenishment qty. (MARD-LBSTF)**
6. Also the backend database fields for these "omitted functionality" remains existing in the system.

MRP fields in Material Master

Scheduling Margin Key

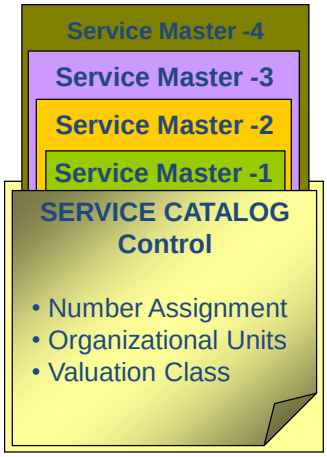
In S/4HANA, the scheduling margin key (field MARC-FHORI) is mandatory if defined in t-code OMSR. By default the scheduling margin key is not mandatory.

In ECC, the scheduling margin key (field MARC-FHORI) was mandatory if MRP Type was:

- Not reorder point planning
- Not time-phased planning

This was independent from the customizing in t-code OMSR.

Service Master - Service Category



- Service Category helps in grouping Service Master records based on there usage
- Service Category is the most important criterion for structuring Service Master
- It provides default value for the Valuation Class
- Service Category also controls the number range assignment for Service Master
- The standard Service Category available are:
  - Master Records describing internal service
  - Master records describing externally procured services
  - Master records describing third party performed services

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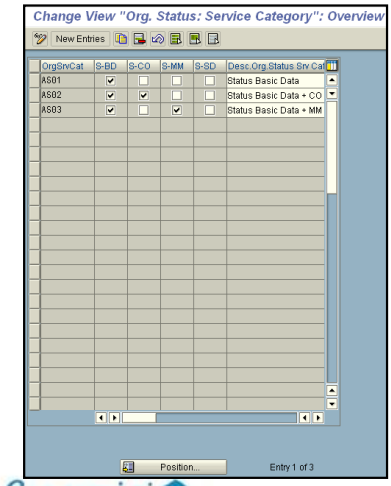
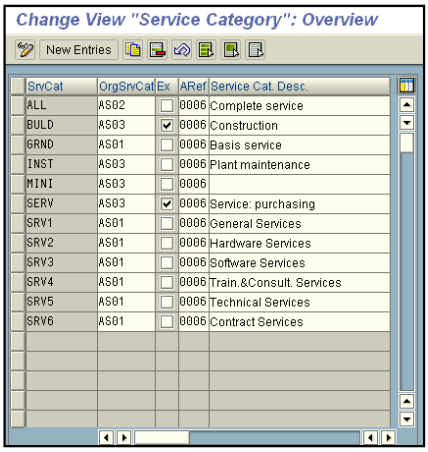
Service Master - Service Category

SPRO → Materials Management → External Service Management → Service Master





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Service Category are assigned to organization status which indicates the area in which Service Master records are used.

Example: Units of your company may use services provided internally by other units of the company, or procure services externally (from other companies).

Purchase Info Record

SPRO → Materials Management → Purchasing → Purchase Info Record

You can customize:

- Whether to have an internal or external number range. Standard SAP have separate number ranges for Stock material and Non-stock Material
- The field status (optional, mandatory, display or suppressed) through Field Selection group
- The header and item text for Info Record
- Whether the Purchase order price history is to be updated with the net price or the effective price
- Your own search help over and above provided by the standard SAP. Standard SAP provides
  - Search via Vendor
  - Search via Material
  - Search via Material Group
  - Search for External Processing

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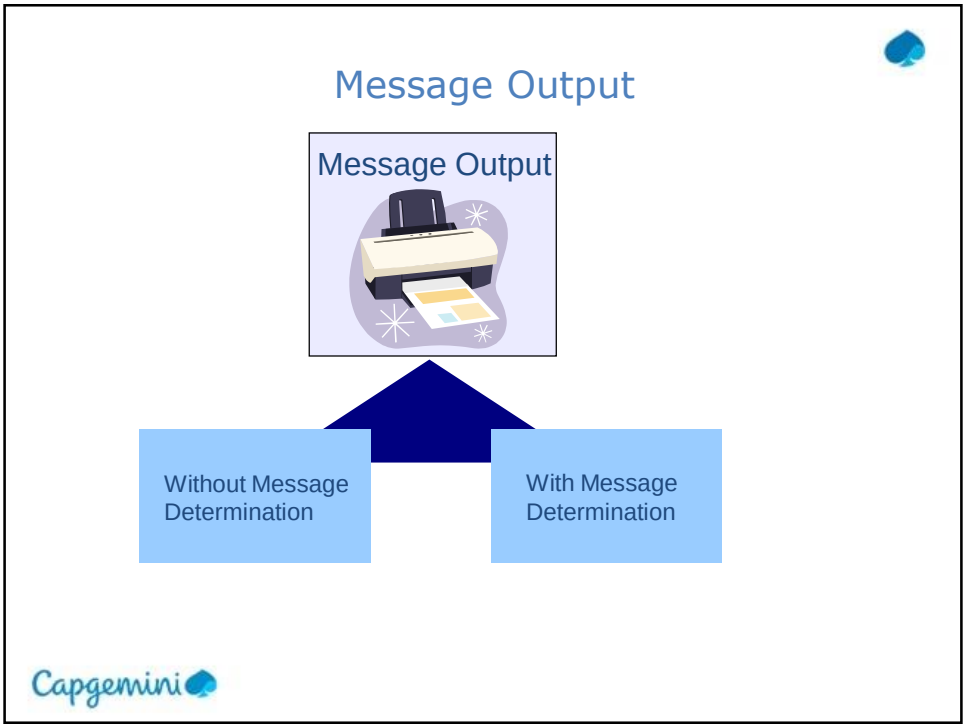


Message Output without Message Determination

•In case of Message Output without Message Determination, system only considers the Standard Output Type. Example: NEU.

•The system only generates messages using the Standard Parameters. You can change the proposed value latter.

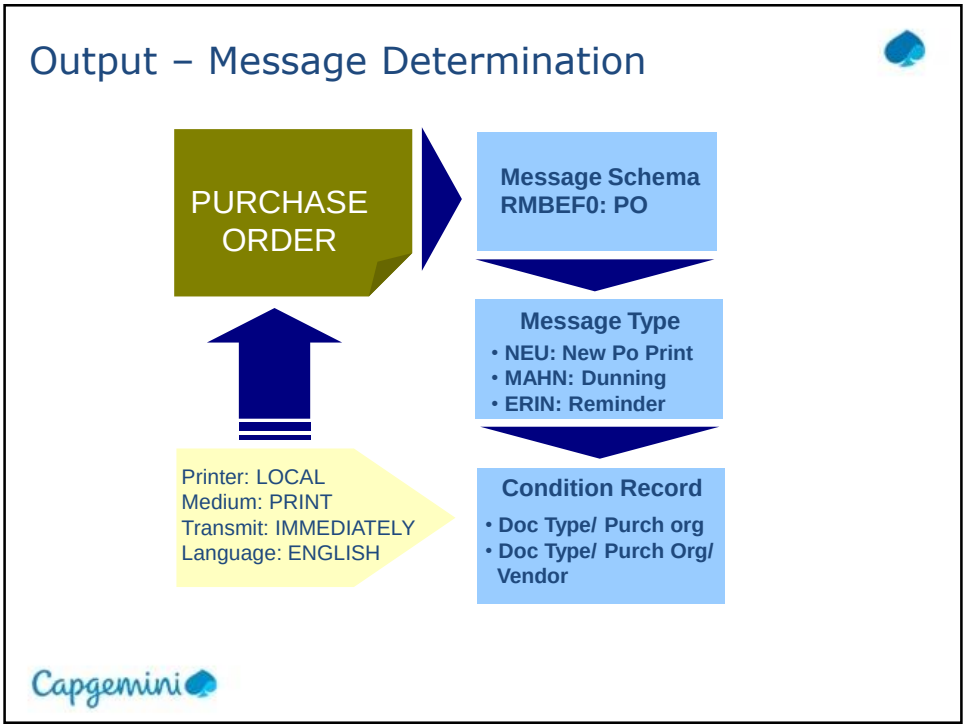
•System determines the printer in the following sequence:

- •Printer defined for the Purchasing group
- •Printer defined in the User parameter
- •Printer defined in User default.

Message Output with Message Determination

•The aim of Message Determination is to manage messages according to predefined criteria

•The system can suggest the output medium and time depending on the specific values of the influencing factors.



•Message determination function enables to determine allowed message for a purchasing transaction and selects the suitable one.

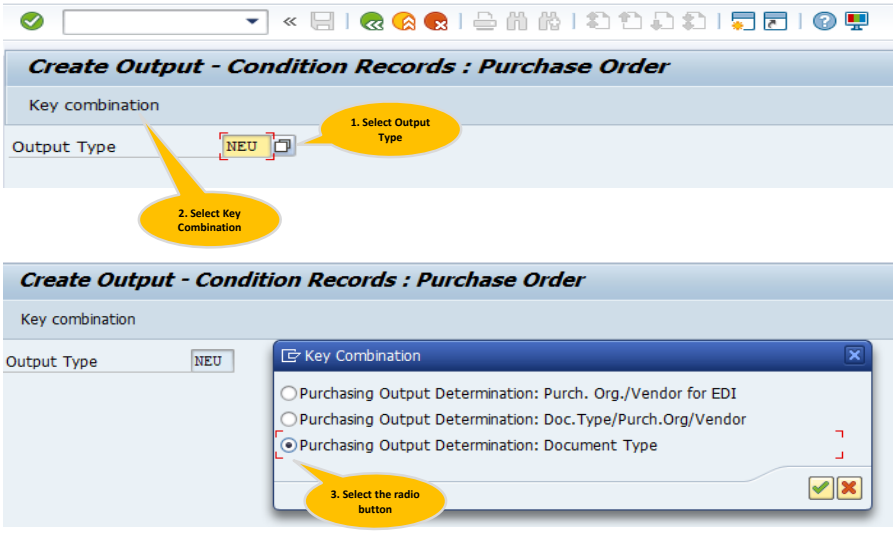
•The every type of Purchasing Document determines a Message Schema. Example the Standard Message Schema for PO is RMBEF0

•Each Message Schema has multiple Output types assigned to it

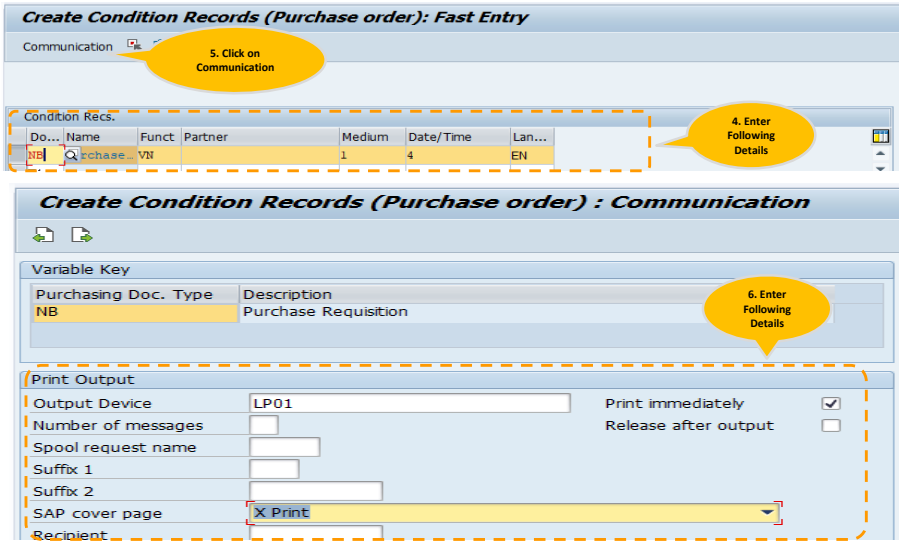
•Output Type controls the Layout of the Output. The Program, Forms determining output is maintained in the Output Type

•Each Output Type has multiple Conditions Records Assigned to it. Condition records defines the output details such as time, no of copies, Mode (Print / Fax), printer name, etc.

MN04 Create Message: PO



MN04 Create Message: PO



MM Master Data

Configuration of Master data

Maintenance of Master data

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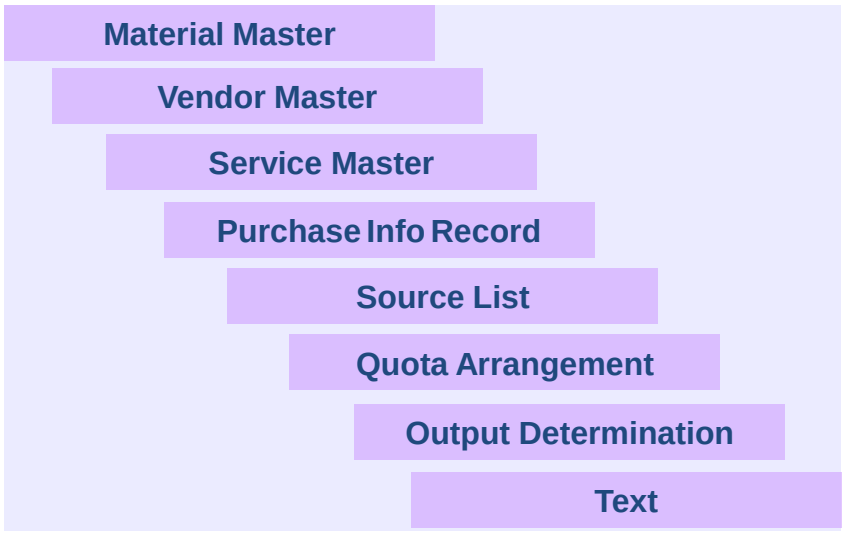
Agenda



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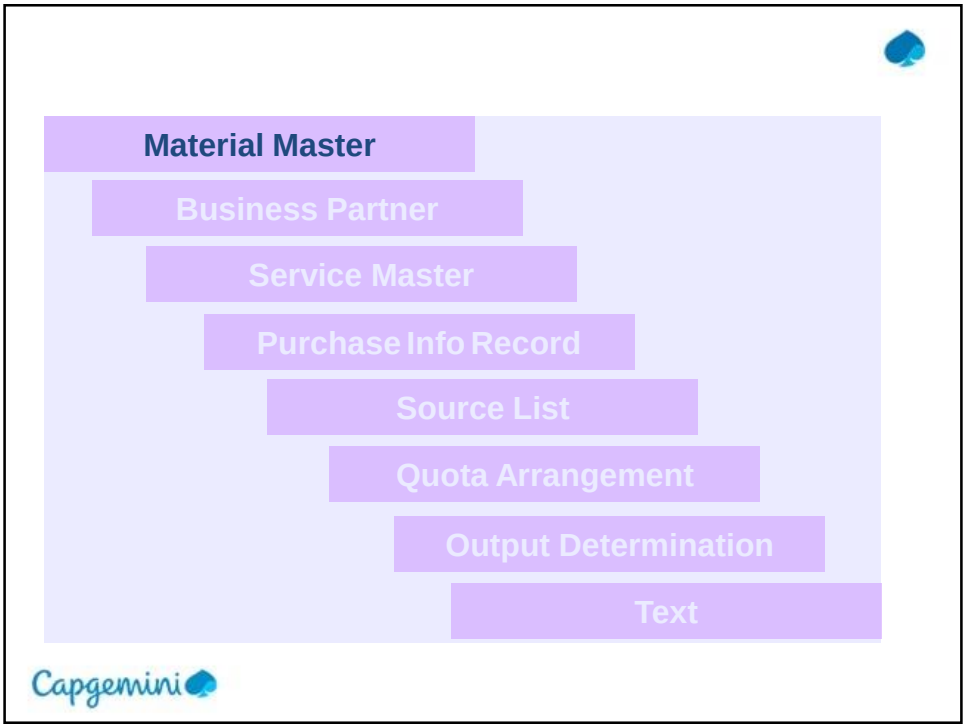
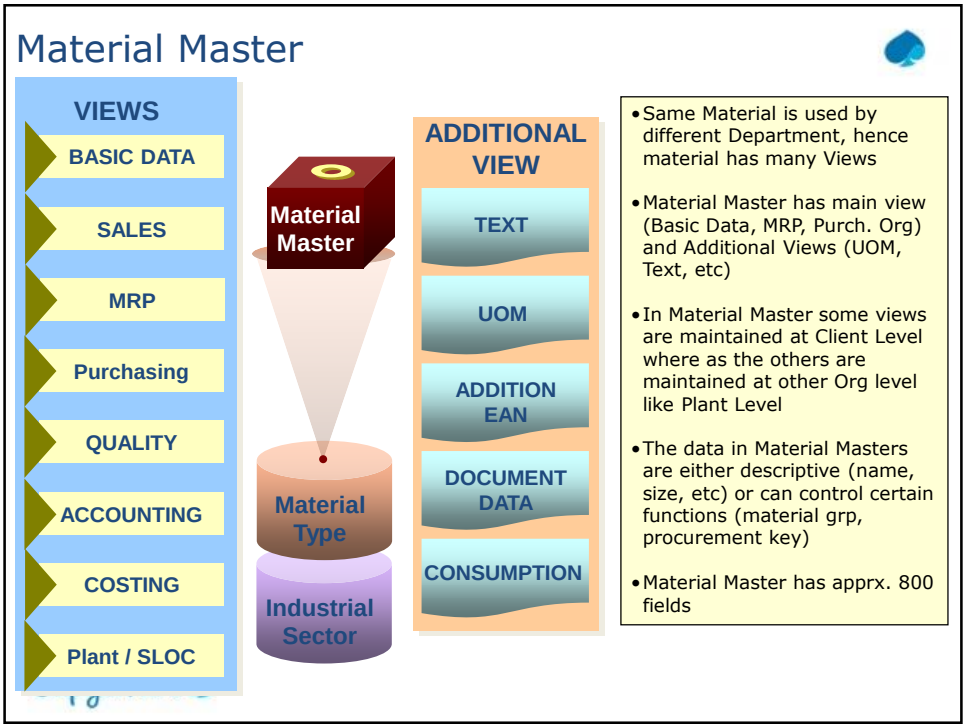

Material Master
Business Partner
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini



Material Master is created for a combination of Material Type and Industrial Sector. Industrial Sector controls the screen sequence and fields selections in the Material Master. The industry sector groups together companies according to their activities (for example, Plant engineering and construction, mechanical engineering, the chemical industry, and the pharmaceutical industry).

Every Material Master has a unique Material Number which differentiates one material from another.

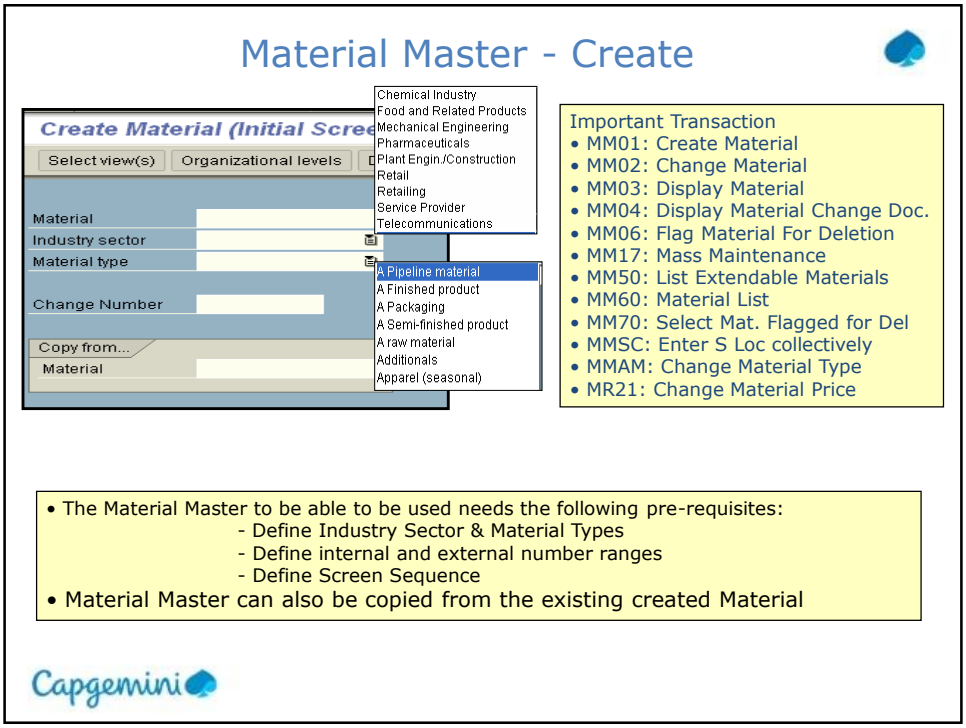
Material Master is one of the most important master data as it is used by all the components in the R/3 Logistics System.

Example:

•Purchasing Data in Material Master is used to create Purchase Documents

•MRP data controls the Planning activities.

•Inventory Management data controls the posting of goods movement and Physical Inventory.



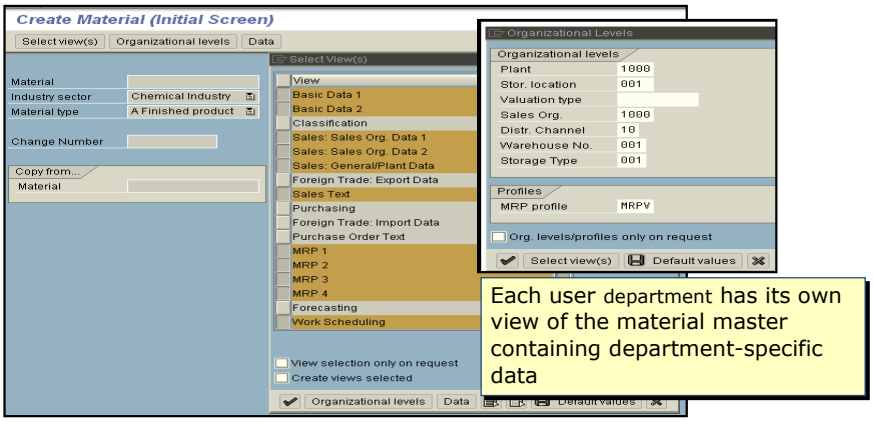
The Material Master to be able to be used needs the following pre-requisites:

- Define Industry Sector & Material Types
- Define internal and external number ranges
- Define Screen Sequence

Industry Sector : Key that specifies the branch of industry to which the material is assigned.

Material Type : Key that assigns the material to a group of materials

Material Master – Create



In Material Master some views are maintained at Client Level where as the other are maintained at other Org level like Plant Level. Purchasing View are maintained at Plant Level

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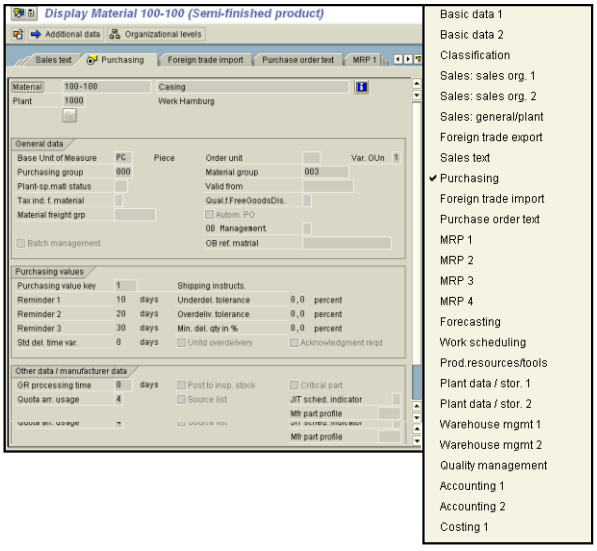
In MRP Profile you can specify the following information:

•Fields you want the profile to contain

•Values you want these fields to contain

•Whether the values copied from the profile to the respective *MRP* or *Forecasting* screen in the material master can be overwritten (default values) or not (fixed values)

Material Master - Create



- Select  to display all the views of Material Master
- Select  to get the general information on Material
  Example: Creation date, User Id of the person who has created

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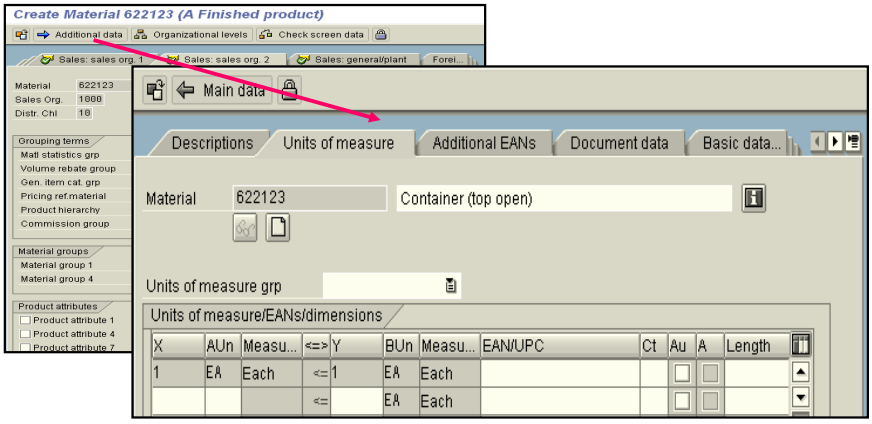
Material Master – Additional Data



Descriptions in different languages, Units of measure, Basic Data Text etc can be maintained in Additional data

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Material Master

Views	Org Level	Attributes
Basic Data - 1	Client	Base Unit Measure, Material Grp, Division, Gross Weight, Net Weight
Basic Data - 2	Client	Details of Design Drawing, Variant Configuration
Sales Org - 1	Plant - Sales Ord - Dist	Delivering Plant, Dist Channel, Division, Tax data, Sales Unit
Sales Org - 2	Plant - Sales Ord - Dist	Item Cat Grp, Acct assignment Grp, Mat Statistics Grp, Product Hierarchy
Sales General	Plant - Sales Ord	Loading Grp, Trans Grp, Profit Center
Purchasing	Plant	Purchasing Grp, Order Unit, Purchasing Value key, Plant sp material status
MRP - 1	Plant - Storage Loc	MRP Grp, MRP Type, Reorder Point, MRP Controller, Lot size, MRP Area
MRP - 2	Plant - Storage Loc	Procurement Type, Prod S Loc, Default supply area, Quota Arrangement, Safety Stock, Schedule
MRP - 3	Plant - Storage Loc	Period Indicator, Availability check,
MRP - 4	Plant - Storage Loc	BOM explosion details, Repetitive manufacturing

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Material Master once created needs to be only extended to other Plant, Sale Org or Storage Location as and when required.

Material Master can be also created with reference to an existing Material.

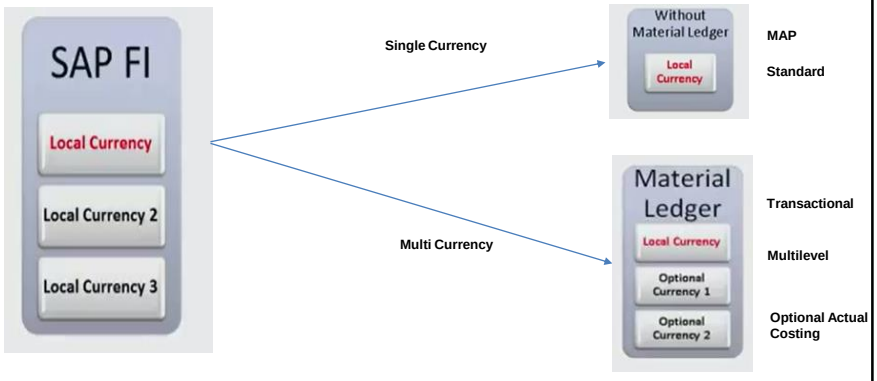
Material Master

Views	Org Level	Attributes
Plant/S Loc -1	Plant - Storage Loc	Shelf life data
Plant/S Loc -2	Plant - Storage Loc	Serial No data
Accounting - 1	Plant - Valuation type	Valuation Class, Price Control, Moving Price, Standard Price, Total Value, Valuation Category
Accounting - 2	Plant - Valuation Type	Tax Price
Costing - 1	Plant	With Qty Structure, Variance key, Production Version
Costing - 2	Plant	Cost Estimate,
Plant Stock	Plant	Current Period, Previous Period, Plant Stock Current Period, Plant Stock Previous Period.
S Loc Stock	Plant - Storage Loc	Current Period, Previous Period, S Loc Stock Current Period, S Loc Stock Previous Period

Material Ledger

With SAP S/4HANA, it is obligatory to use the Material Ledger. Latest trends in material management aim for improved and more flexible valuation methods in multiple currencies and parallel accounting standards while simultaneously reducing required system resources and improving scalability of the business processes. Since the data model of the Material Ledger (ML) module supports these business requirements, it was chosen as the basis for material inventory valuation in the new solution SAP S/4HANA.

Inventory Valuation



Material Ledger

ECC Setup

In SAP ERP System, you can have one company code currency (Local Currency 1) and up to two parallel currencies (Local Currency 2 and Local Currency 3) in the FI module. We have the option of adopting the currencies used in the FI module, the CO module, or both, or of assigning currency types individually. The currencies are translated based on the historical rates in the Material Master.

S/4 Hana Setup

In SAP S/4HANA, a key improvement that SAP has made with parallel currencies is to allow up to eight freely definable currencies in the Universal Journal table, in addition to fixed (local and global) currencies as follows:

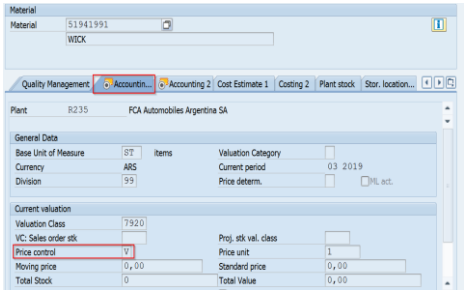
Local : The company code currency

Global: The Controlling area currency

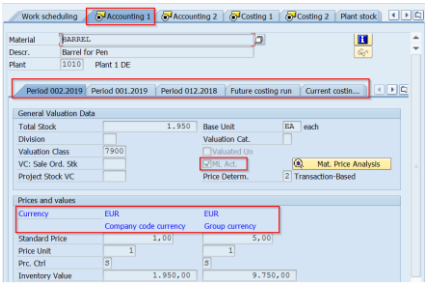
Freely defined: Up to eight currency types

Material Master Changes due to material Ledger activation

ECC Material Master Accounting tab



S/4 Hana Material Master Accounting tab



The Inventory Value shown in the Material Master is based on the different valuation views multiplied by the current level of inventory.
In SAP S/4HANA, currency and valuation views must be assigned to a ledger because, with the integration of the FI and CO modules in the Universal Journal, the Ledger field, which was formerly only used in FI, is now a key field for reporting CO dimensions as well.

Material Ledger

ECC - Challenges with Material Ledger (ML)

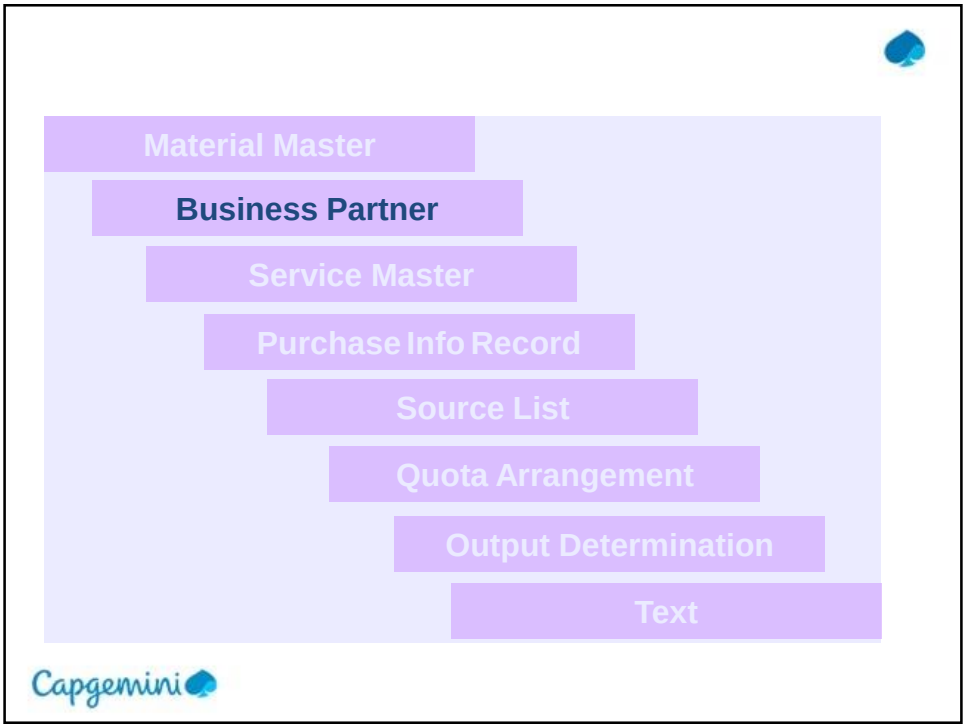
Material ledger functionality is present in SAP ERP , but not many companies have implemented it mainly due to

1. Several configurations (perceived to be complex)
2. Production startup activity (Perceived to be complex with considerable business down time)
3. Additional period end activities (Specially when actual costing is active)
4. Performance (Transaction run time gets impacted due to update in several ML tables during goods movement , invoices and additional period end activities)
5. Analytics (Analysis of price to be drilled down to individual document takes time)

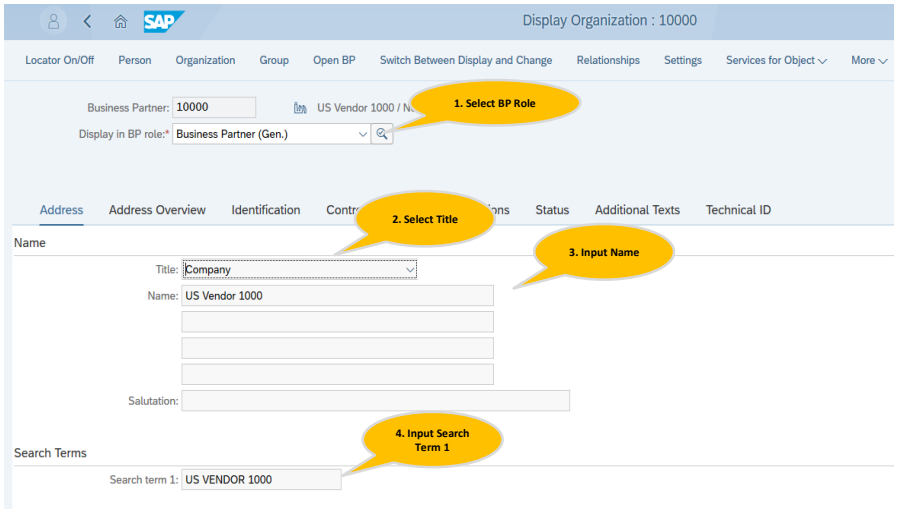
S/4 – Simplified Data Model in S/4 Hana

Data will now be stored mainly in universal journal table ACDOCA , several ML tables have been replaced with HANA views with same name.

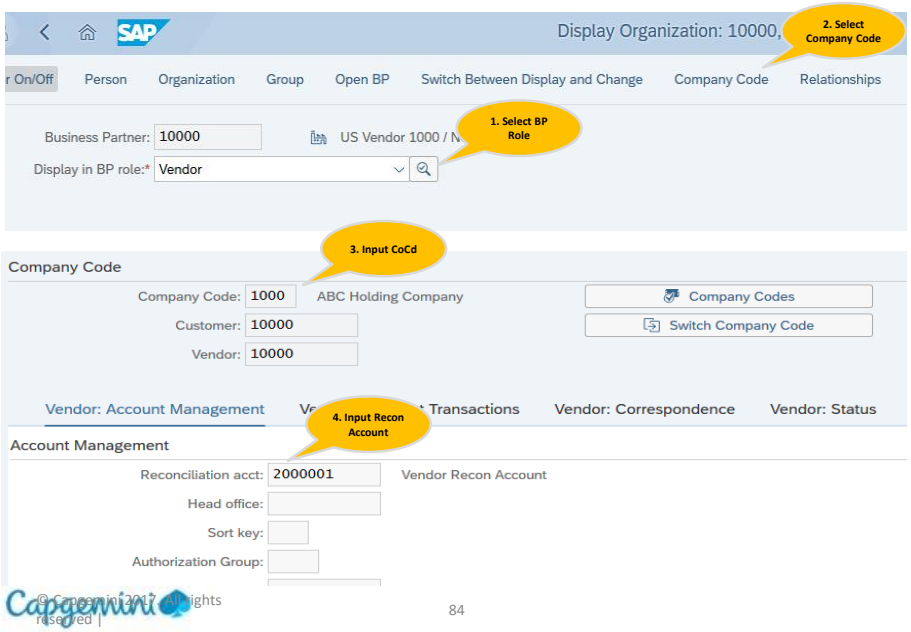
1. Performance and analytics will be eliminated through simplified data model, higher throughput, 'on the fly' aggregates, real time reporting.
2. Some of the period end activities (for reconciliation etc) may not be needed with single table ACDOCA


Material Master
Business Partner
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

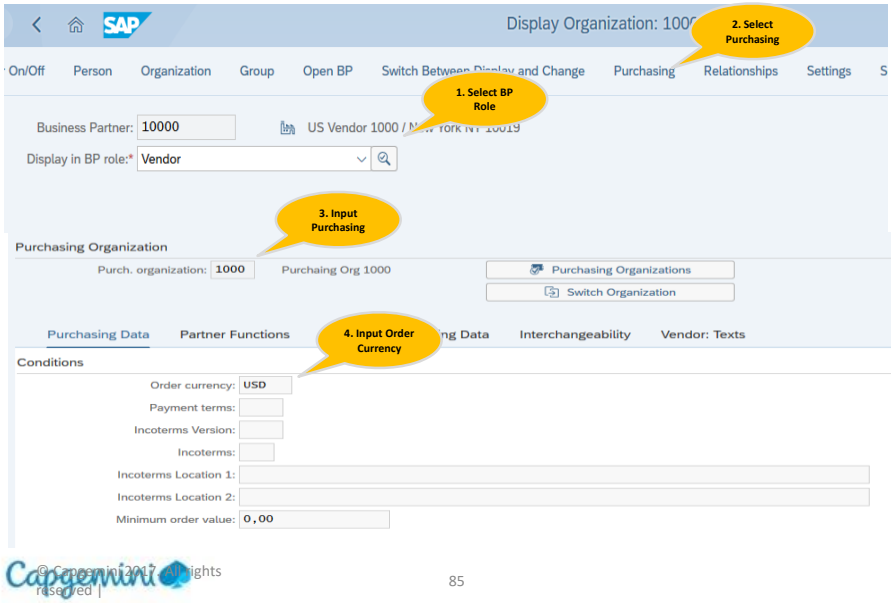
Maintain Business Partner-General View (Create)



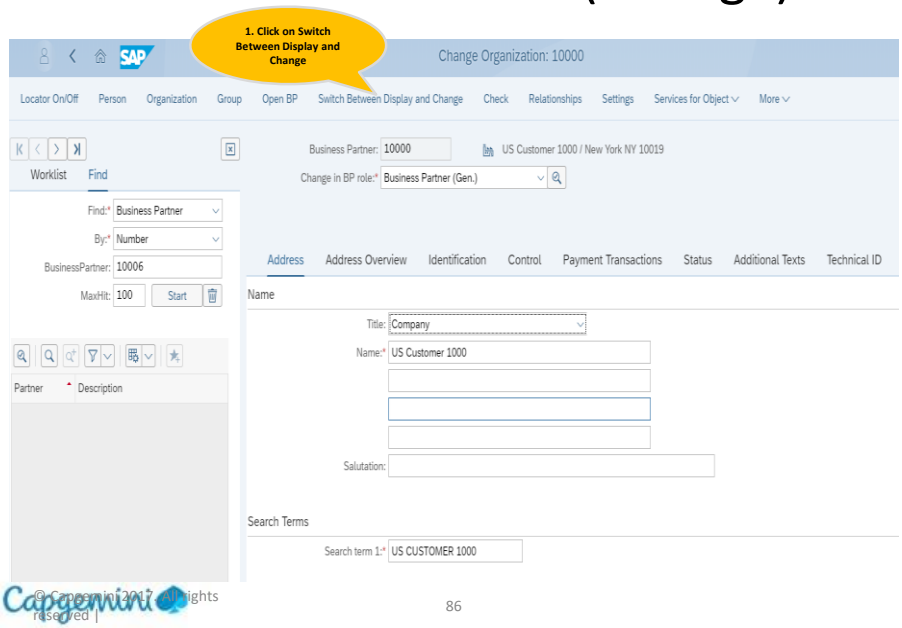
Maintain Business Partner-CoCd View (Create)

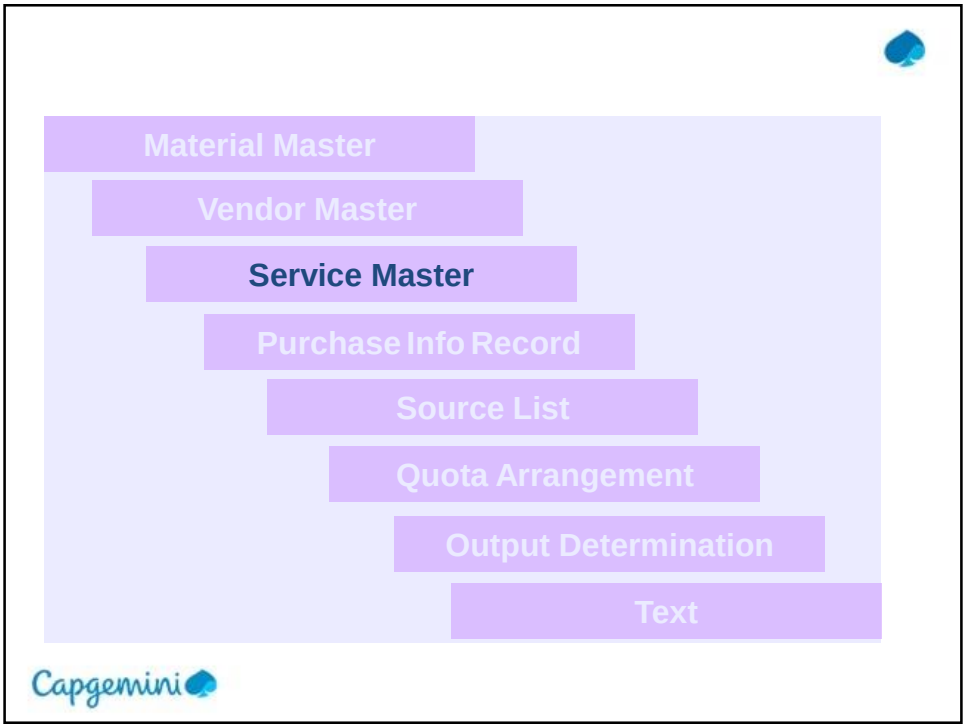


Maintain Business Partner-Purchasing View (Create)

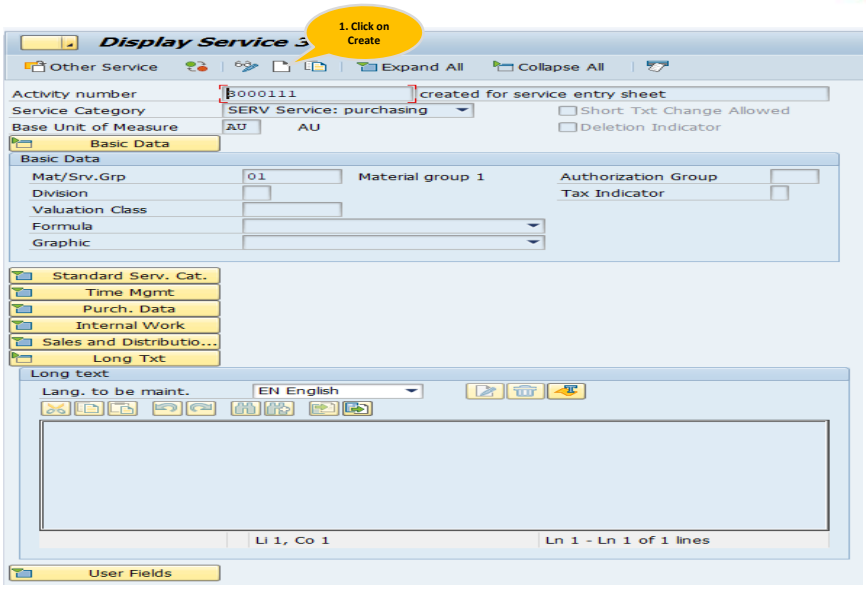


Maintain Business Partner (Change)

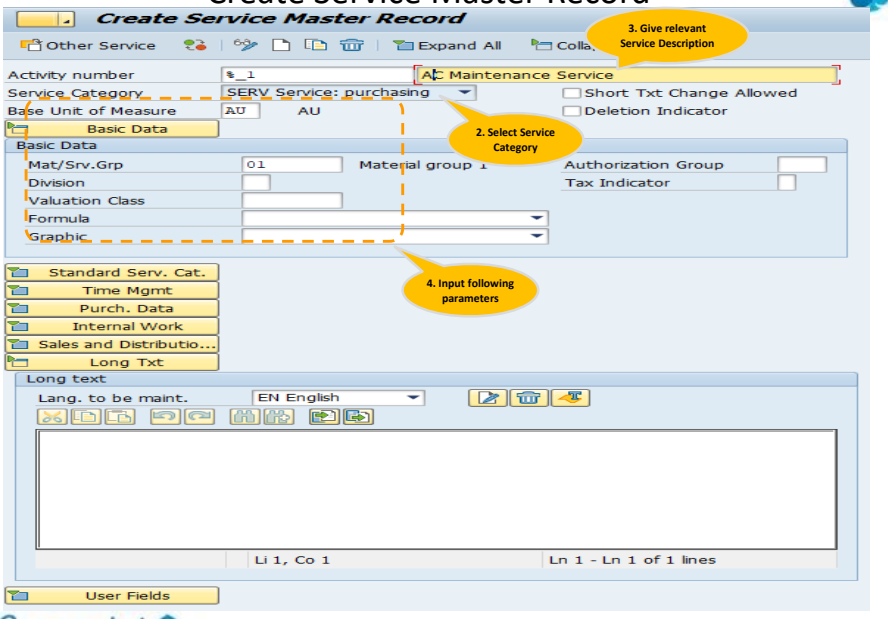



Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

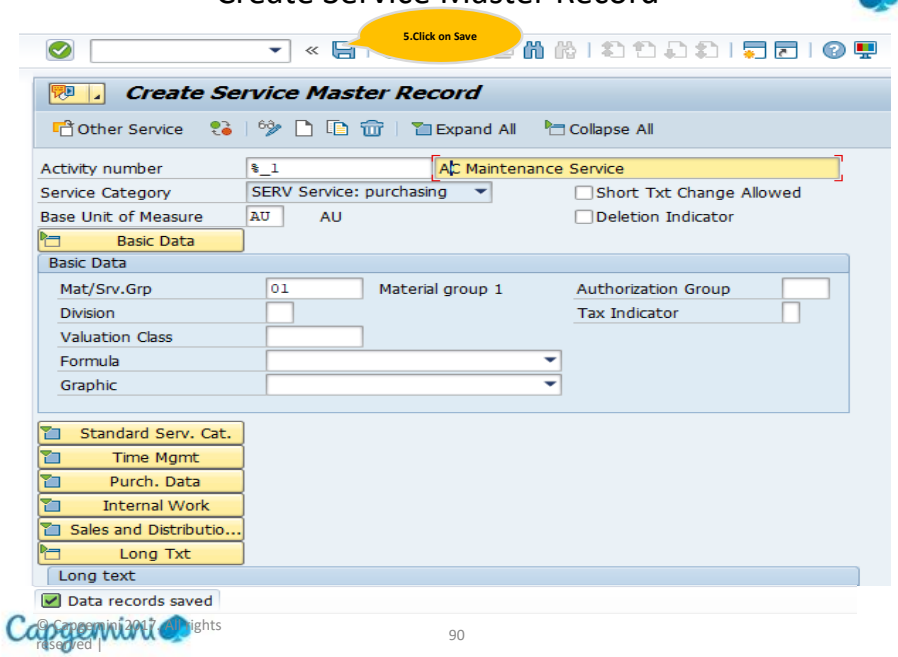
Create Service Master Record



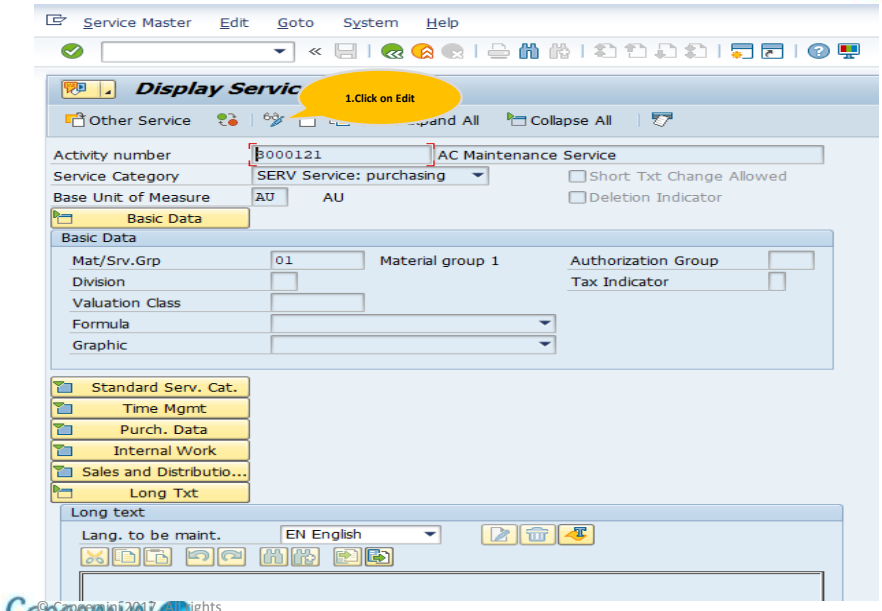
Create Service Master Record



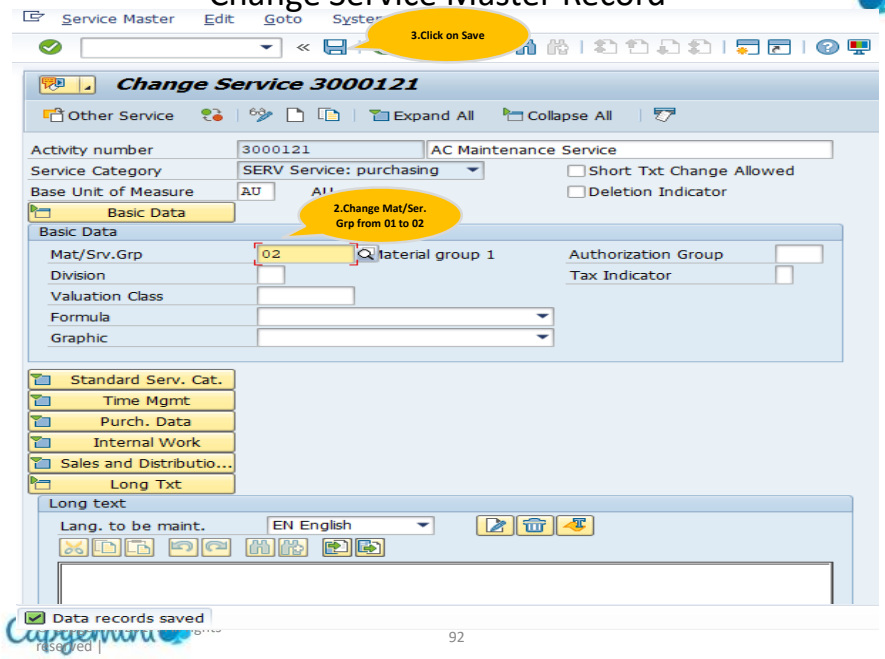
Create Service Master Record

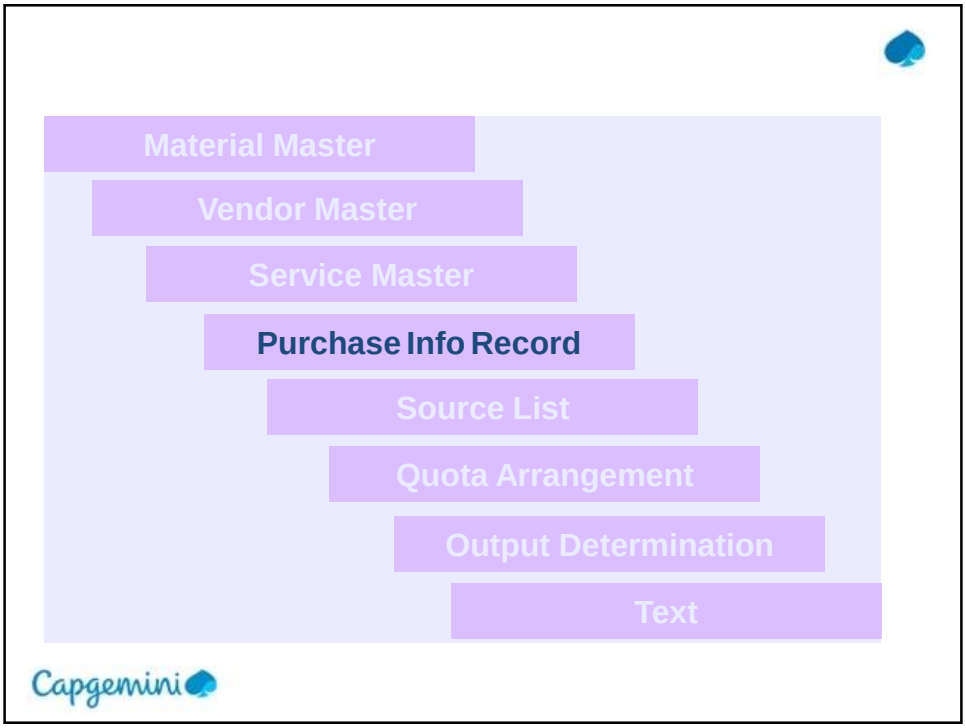


Change Service Master Record

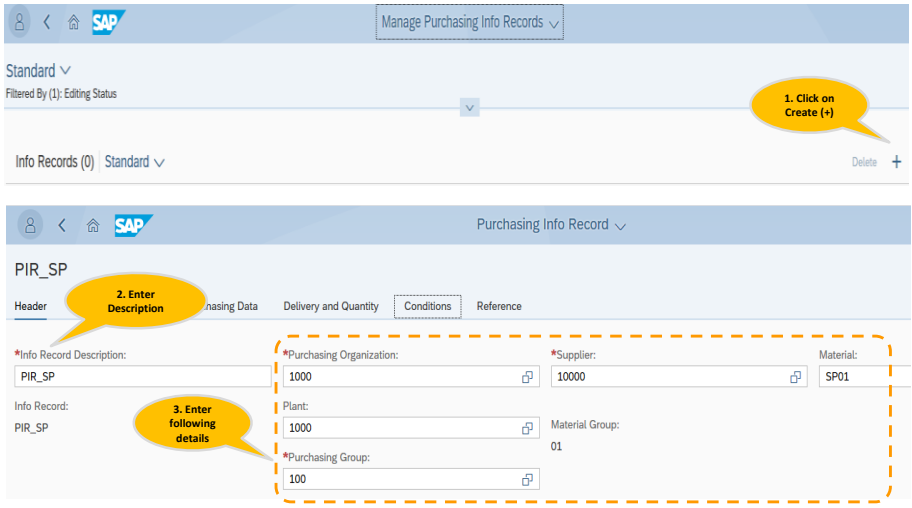


Change Service Master Record

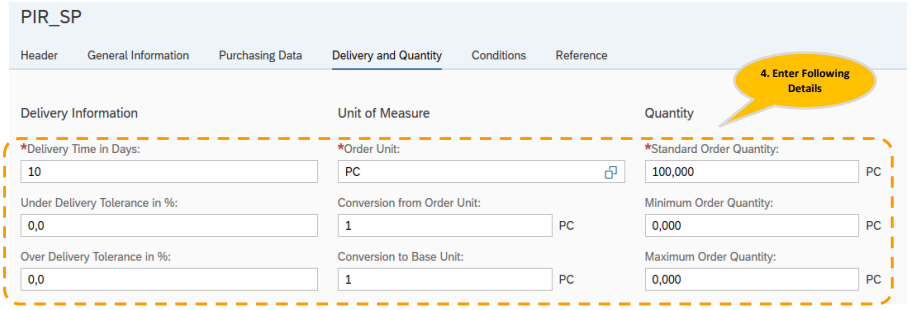


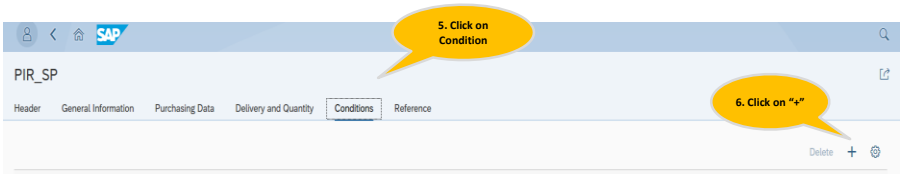

Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

Manage Purchasing Info Records (Create)

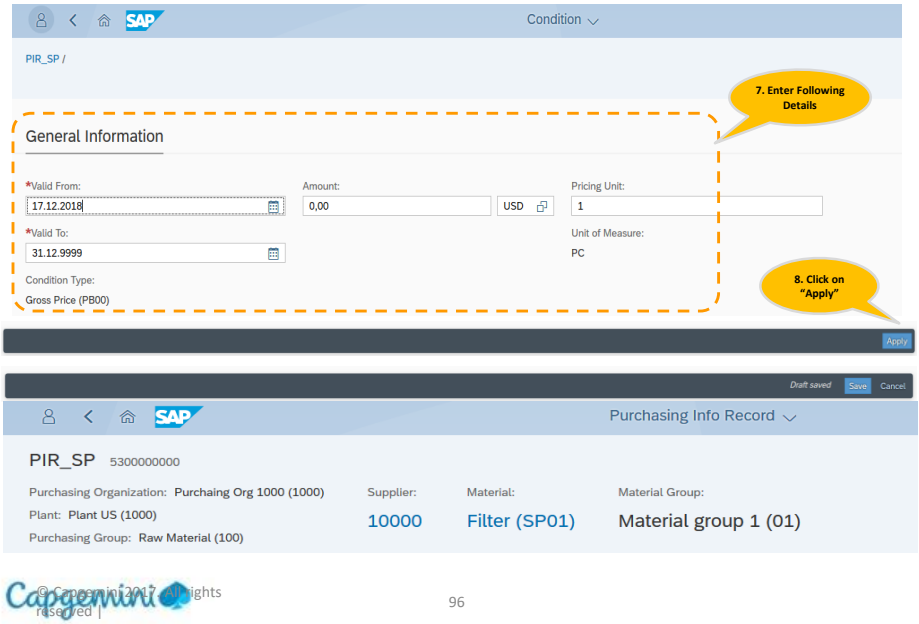


Manage Purchasing Info Records (Create)

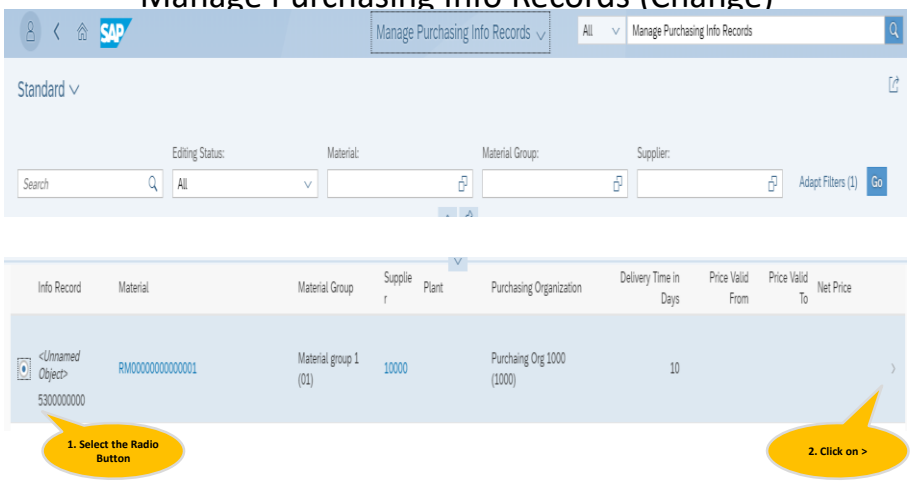




Manage Purchasing Info Records (Create)



Manage Purchasing Info Records (Change)



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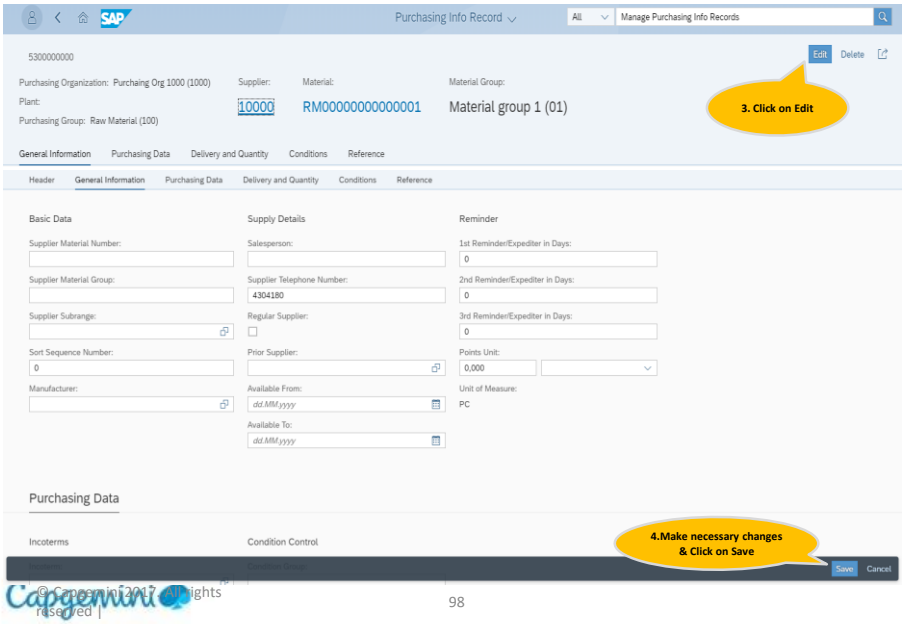
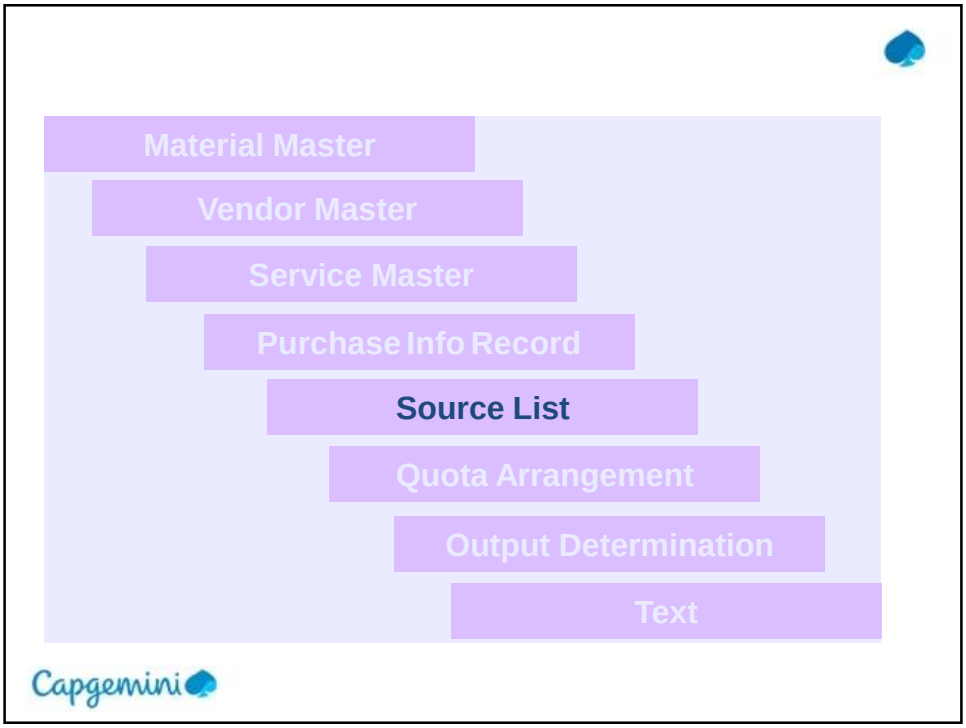
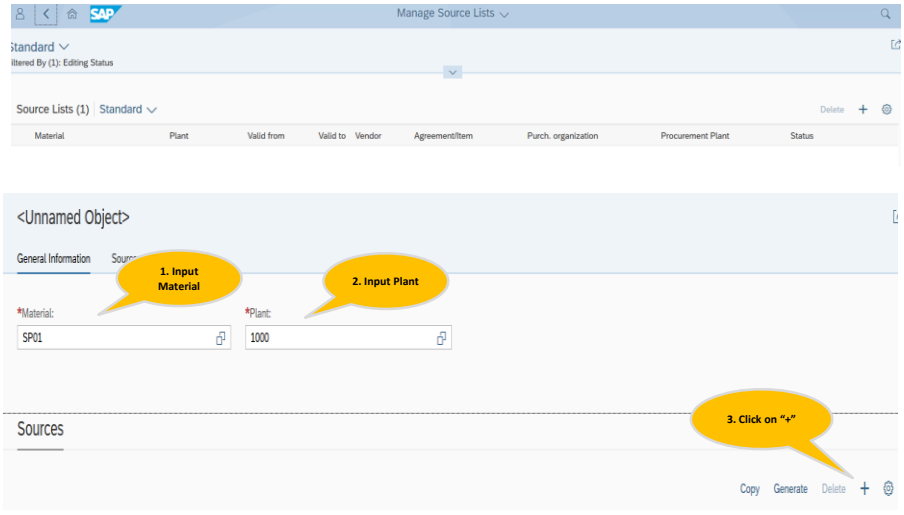
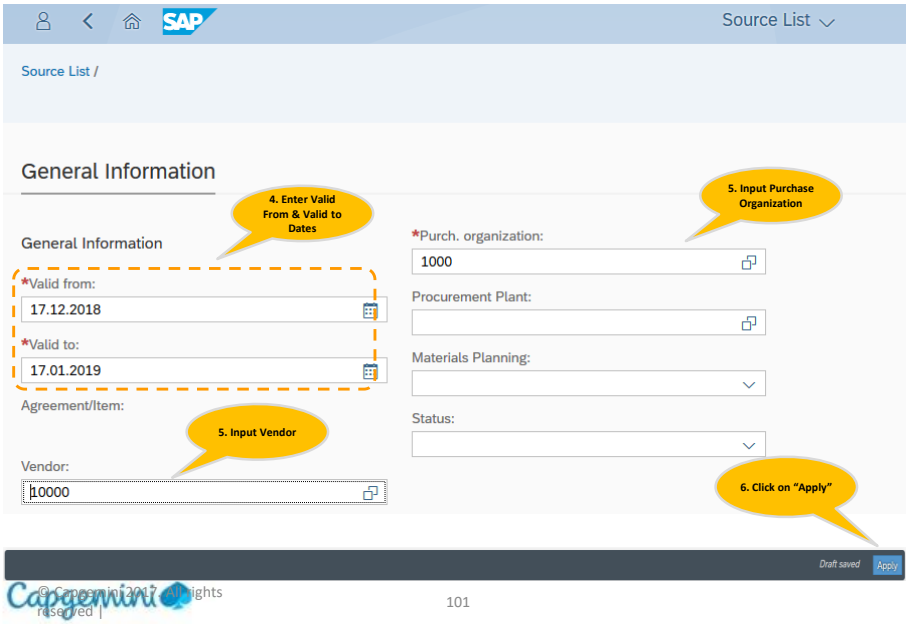



Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

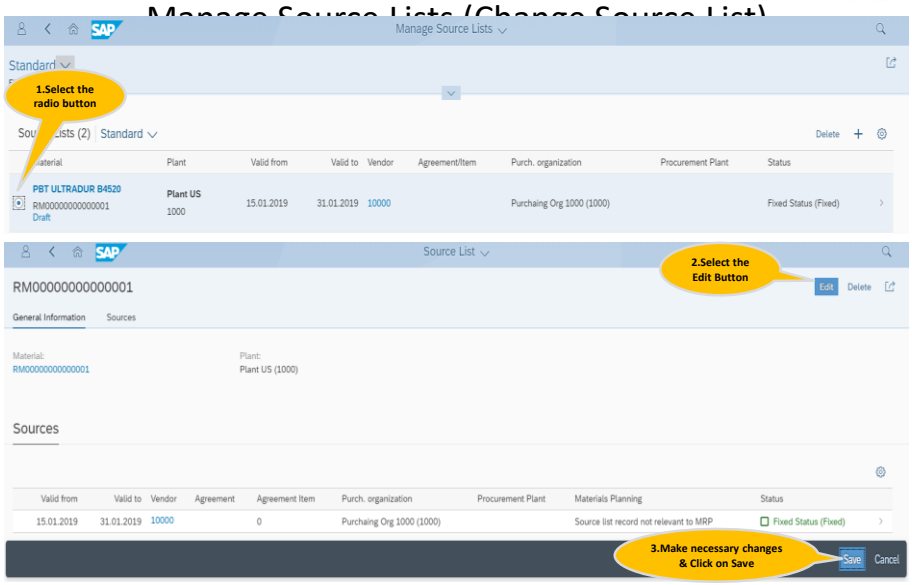
Manage Source Lists (Create Source List)

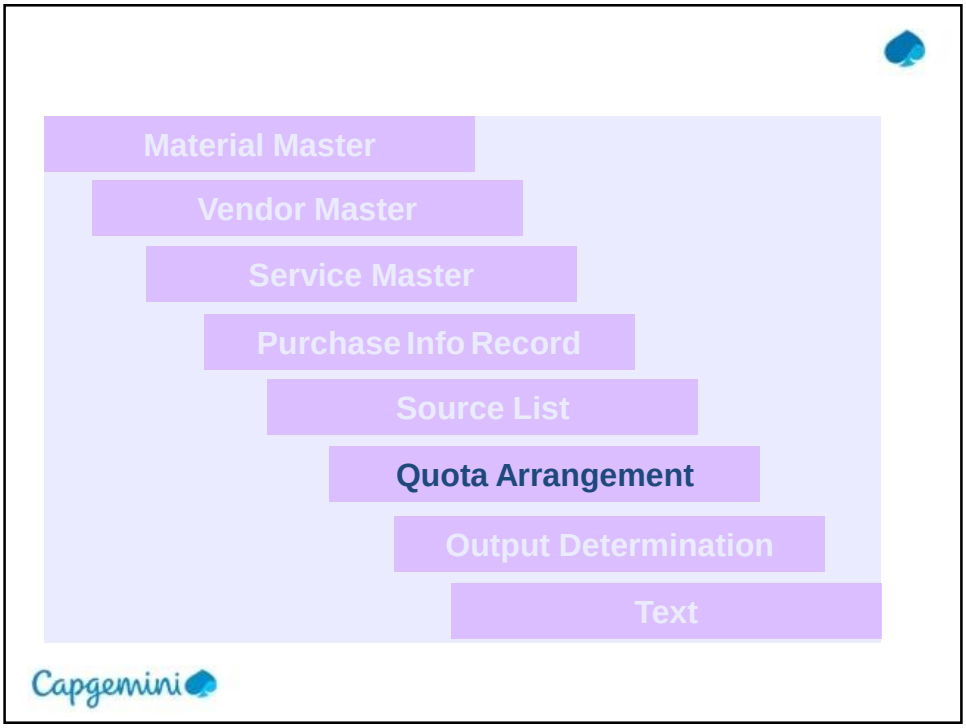


Manage Source Lists (Create Source List)

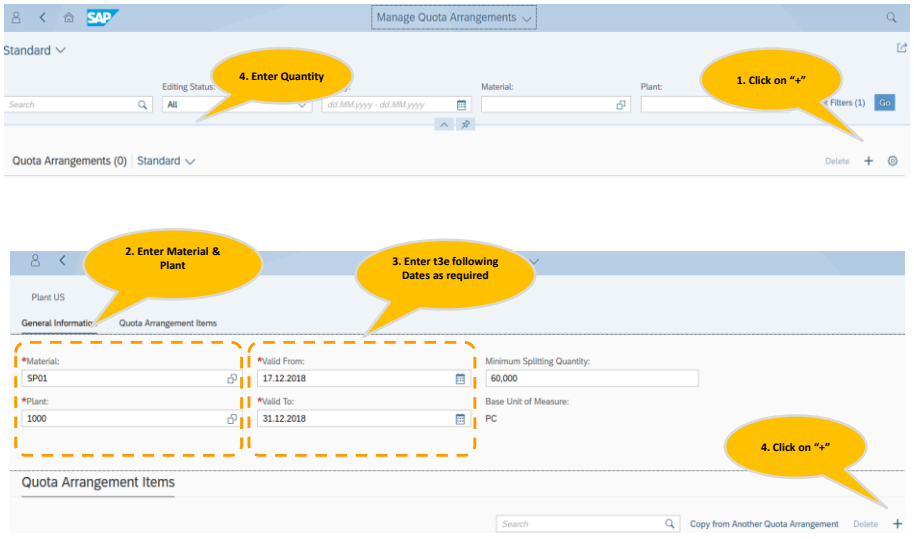


Manage Source Lists (Change Source List)




Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

Manage Quota Arrangements (Create)



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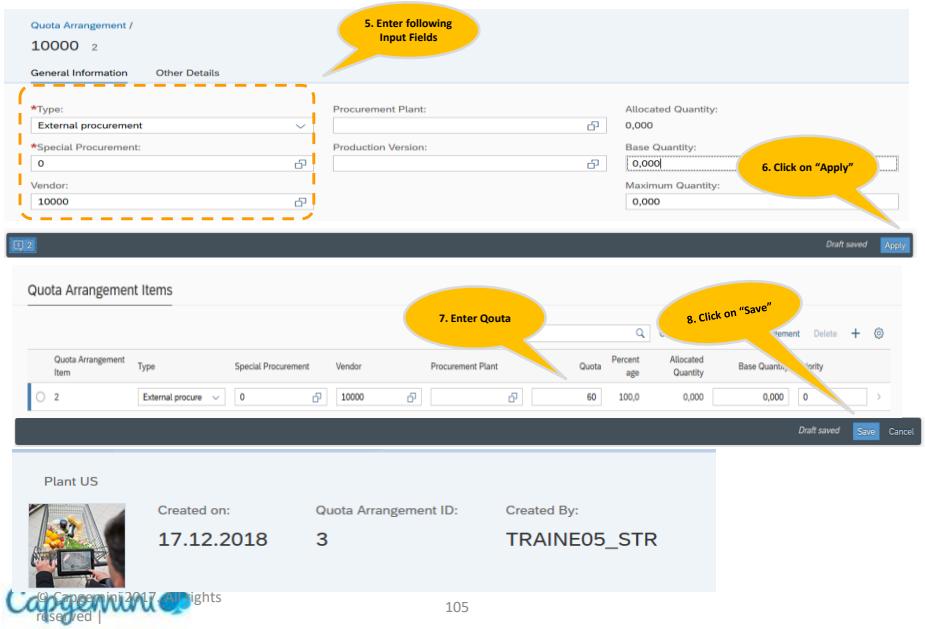
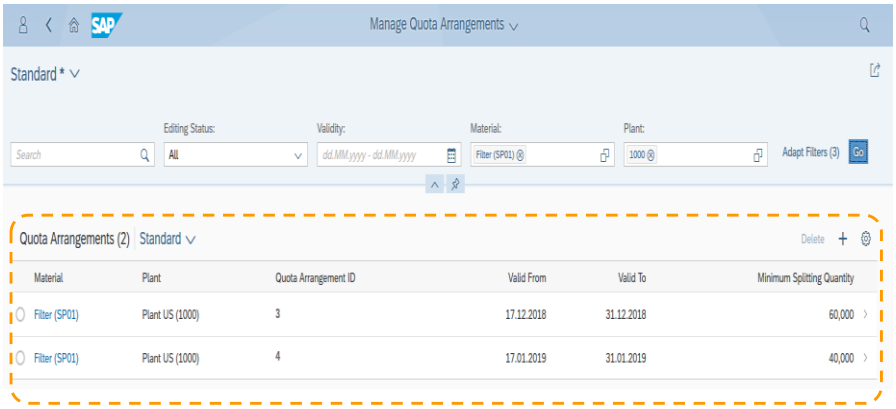
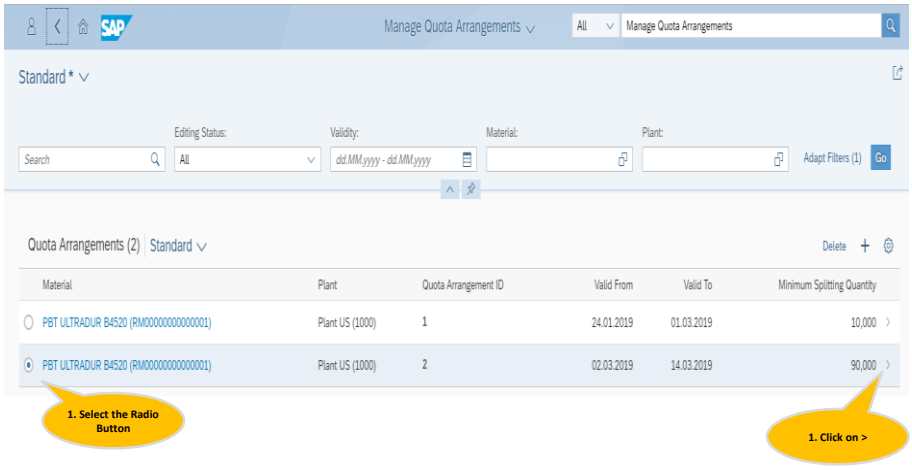
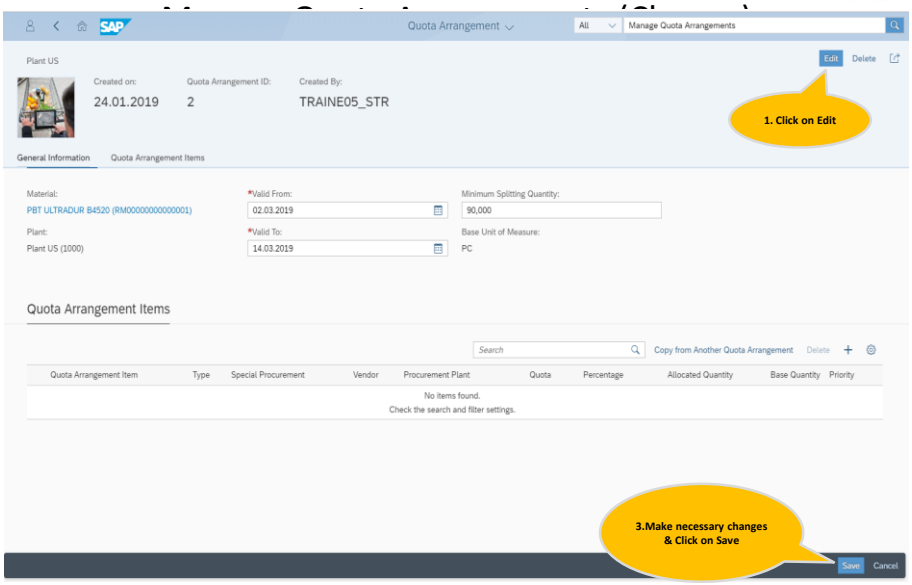


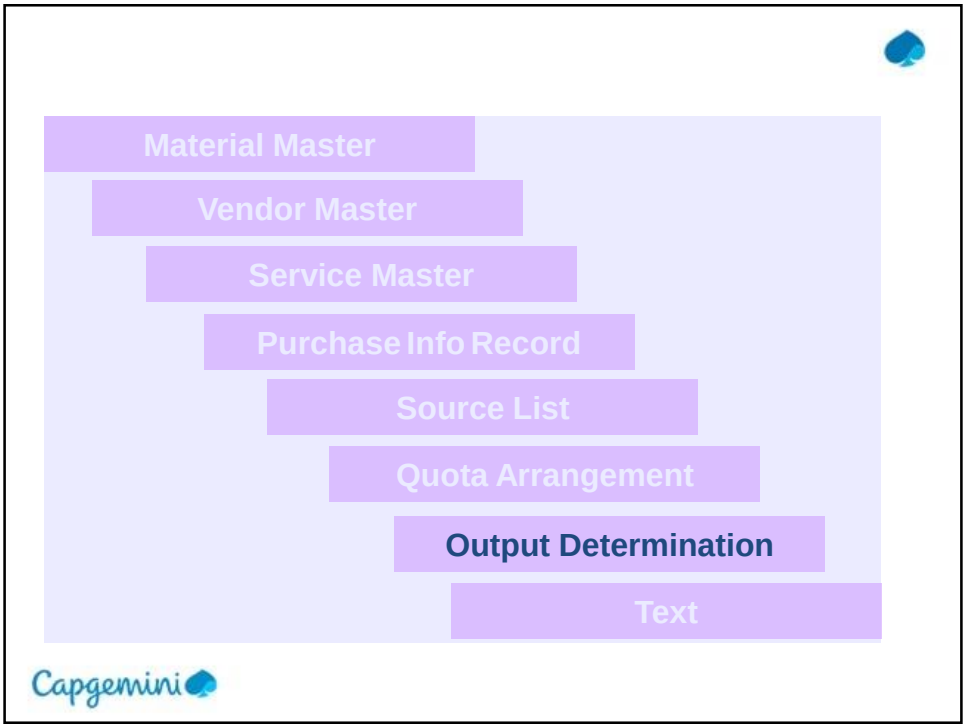
Manage Quota Arrangements (Create)



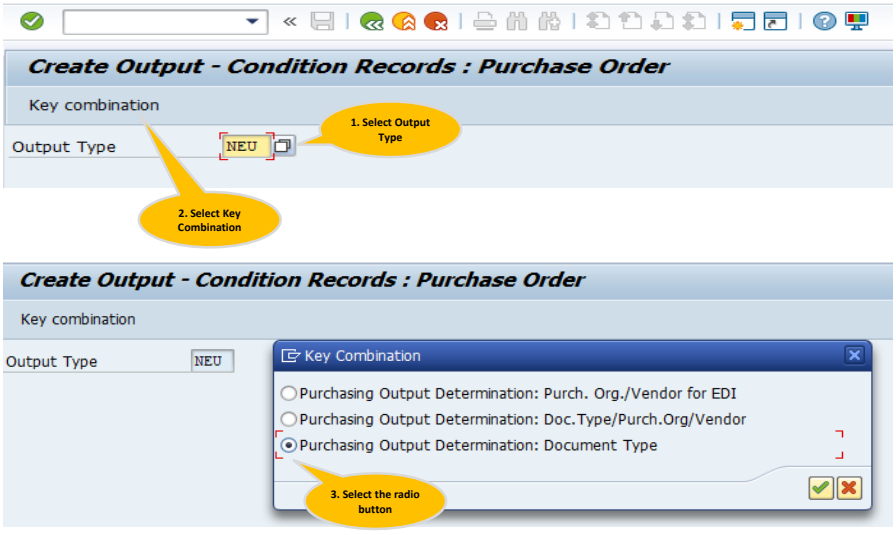
Manage Quota Arrangements (Change)



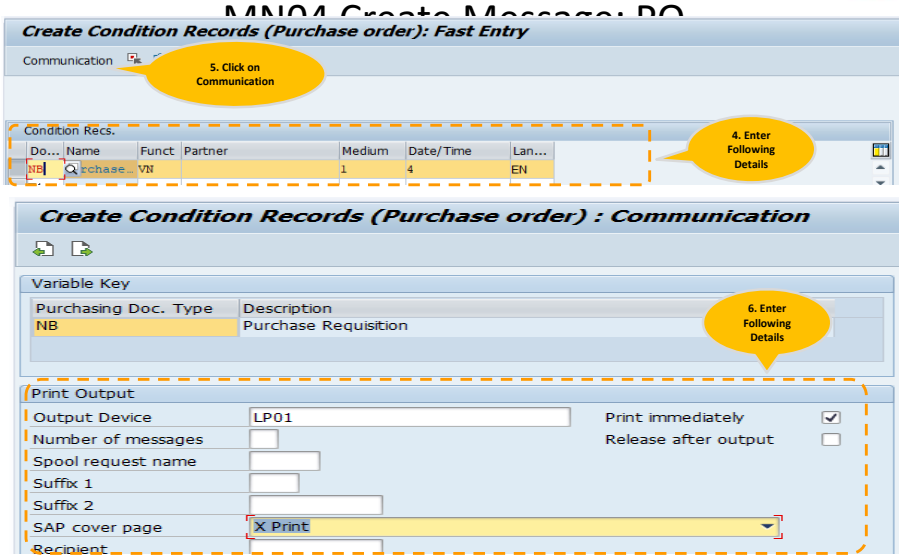



Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

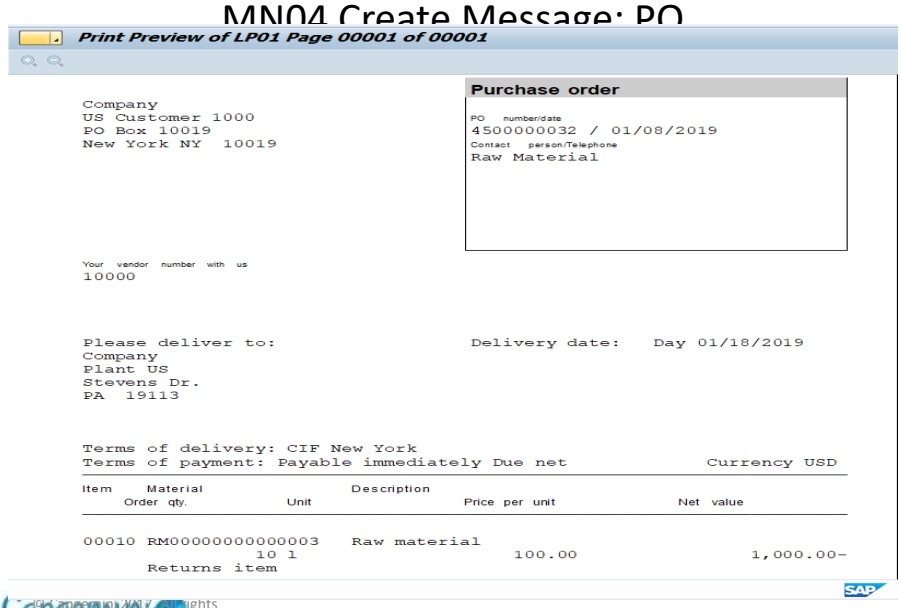
MN04 Create Message: PO



MN04 Create Message: PO



MN04 Create Message: PO



Print Preview of LP01 Page 00001 of 00001

Purchase order

Company
US Customer 1000
PO Box 10019
New York NY 10019

PO number/date
4500000032 / 01/08/2019
Contact person/Telephone
Raw Material

Your vendor number with us
10000

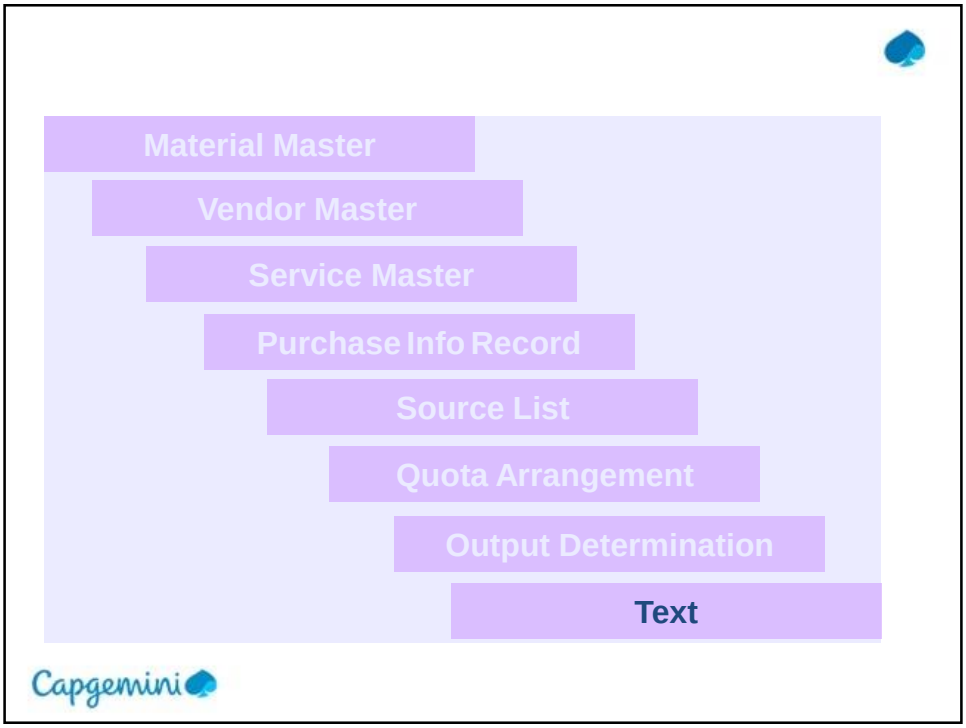
Please deliver to:
Company
Plant US
Stevens Dr.
PA 19113

Delivery date: Day 01/18/2019

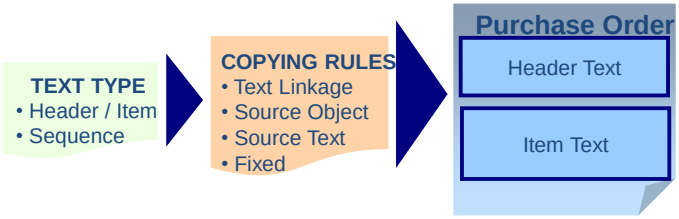
Terms of delivery: CIF New York
Terms of payment: Payable immediately Due net Currency USD

Item	Material / Order qty.	Description / Unit	Price per unit	Net value
00010	RM00000000000003 10 1 Returns item	Raw material	100.00	1,000.00-

SAP


Material Master
Vendor Master
Service Master
Purchase Info Record
Source List
Quota Arrangement
Output Determination
Text
Capgemini

Text Determination



- Text Type determines the Header Text and Item Text. It also determine the sequence in which the Text needs to be displayed in the Purchasing document
- Text Type are assigned to the Source Object and Source Text to copy the values into relevant Text Type
- Fixed Indicator controls:
  - Whether the Text gets copied to the target object and fixed immediately
  - Whether the Text gets copied only if required
  - Whether the Text cannot be copied to the Target object.

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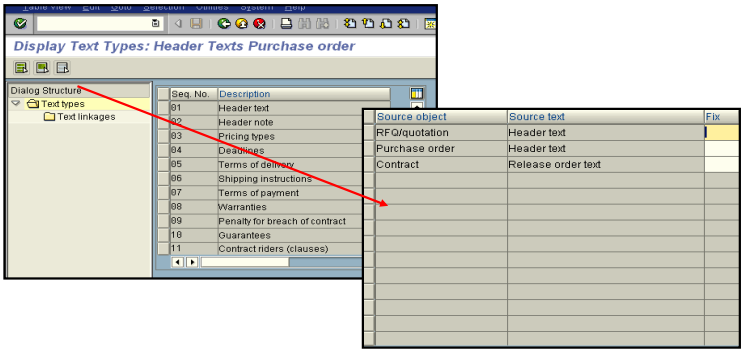
Text Determination

SPRO → Materials Management → Purchasing → Purchase Order → Text for Purchase Order



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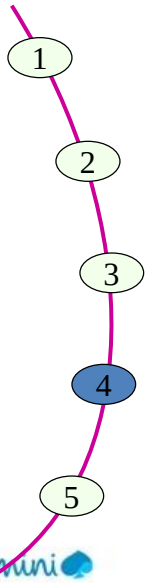
Master Data



PrepareMe

TellMe

ShowMe

LetMe

HelpMev

Capgemini

Let me

ABC Corporation has 2 Plants in Germany. Each Plants have 2 Storage Locations.

Create following Masters for ABC Corporation

- Create 3 Material Master with Material Type : ROH Raw Material, FERT Finished Goods & HALP Semi Finished Goods respectively
- Create a Vendor Master for ABC Corporation
- Create a Purchase Info Record for Material (with Material Type: ROH Raw Material) Vendor combination. Maintain 2 prices, one for Validity period 01-Jan – 14 to 31 – Apr – 14 and 01-May-14 to 31-Dec-17
- Created Source List for 2 Material (with Material Type: ROH Raw Material & FERT Finished Goods) in both the Plants. Assign Vendor Code to it
- Maintain Output Type: NEU, for PO for a combination of Purchasing Org and Vendor

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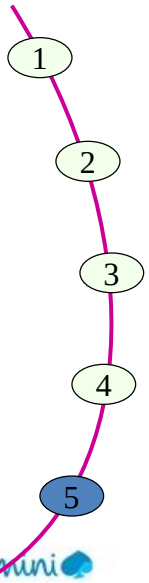
Master Data



PrepareMe

TellMe

ShowMe

LetMe

HelpMe

Capgemini

Additional Info

- To find number of material per plant. T Code: S_ALR_87101053
- You can see where used list of a material through T Code: S_ALR_87012963
- You can control the input and output length of Material Number. The maximum length of Material number is 18 characters. T Code: OMSL
- You can see the list of Sales Document of a material:
  Material Master (Sales View) → Environment → Sales Functions
- You can use Change Management to track the changes done in a Material Master
- You can check all the reference material created with reference to a Material:
  Material Master → Environment → List referring Materials
- To find all the Vendor Address per Account Grp: T Code: S_ALR_87010052
- To Find all the Vendor Details per Account Grp: T Code: S_ALR_87010036
- To Find all the Vendor Changes: T Code: S_ALR_87010039
- You can list the entire order price history of a Purchase Info Record:
  Purchase Info Record → Environment → Order price history
- You can check the last document created for a Purchase Info Record:
  Purchase Info Record → Environment → Last document

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Case Study- Service Master Record

Business Example

The fluorescent tubes in your offices have to be replaced due to wear and tear. An external service provider will be carrying out this work. Test the procurement process for external services.Service master records exist in the system for regular maintenance work involving the replacement of worn-out fluorescent tubes on your company's premises. Check this master data and the conditions for these services.

1. **Display a service master record**

   Display the service master records **T-LM1## (removal of fluorescent tubes)** and **T-LM2## (installation of fluorescent tubes).**

Hint: Choose *Other service and then enter the service number.*

You can close the service overview using *Hide Overview.*

2. **Is there a long text describing the service in more detail in each case?**
3. **What is the unit of measure for managing the services?**

_____

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Test Your Knowledge

1. Which of the following master data is relevant to the procurement of external services?

Choose the correct answer(s).

- □ A Vendor master record
- □ B Material master record
- □ C Service master record
- □ D Purchasing info record
- □ E Bill of materials
- □ F Service conditions

2. When you enter vendor-specific conditions, you create a separate service info record for each service and vendor (comparable to the purchasing info record for material).

Determine whether this statement is true or false.

- □ True
- □ False

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Test Your Knowledge

3. Which of the following statements are correct?

Choose the correct answer(s).

- □ A For service procurement, you can work with or without a service master record.
- □ B The account assignment category unknown (U) is allowed only in purchase orders with item category D (service).
- □ C You must specify a limit in a service item.
- □ D The service specification of a service item can be structured in a maximum of four hierarchy levels.
- □ E You cannot specify a single limit in a service item. One service specification must have at least one service.

4. **List different procedures for maintaining a source list.**

_____

_____

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Answers

1. Which of the following master data is relevant to the procurement of external services?
Answer: A, C, F
For the procurement of external services, you need a vendor master record for the service provider. You can also use master records for services and service conditions. Bills of material, purchasing info records, and material master records are used for the procurement of materials.

2. When you enter vendor-specific conditions, you create a separate service info record for each service and vendor (comparable to the purchasing info record for material).
Answer: False
Service conditions are entered for each vendor. You can enter conditions for several services for one vendor at the same time.

3. Which of the following statements are correct?
Answer: A, D
For B: Account assignment category U is also allowed for item category B (limit). For C and E: It is possible, but not necessary, to enter a limit for unplanned services. You are also allowed to specify a single limit, but no services.

Answers

4. List different procedures for maintaining a source list.

Answer:

1. Manually, per material and plant
2. Automatically by the system, per material and plant or for several materials and plants
3. When creating or changing an outline agreement or a purchasing info record, per material and plant

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