

# Material Master



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	Recommendation
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## Material Master

### Purpose

The material master contains information on all the materials that a company procures or produces, stores, and sells. It is the company's central source for retrieving material-specific data. This information is stored in individual material master records.

### Integration

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

In [Customizing for the Material Master \[Ext.\]](#), you can configure the material master to suit your specific requirements. You do this in the section [Configuring the Material Master \[Ext.\]](#).

### Additional Information

CA Data Transfer Workbench [Transfer of Material Master Data \(Industry\) to the R/3 System \[Ext.\]](#).

---

**Corporate Structure**

## Corporate Structure

### Definition

The material master has a hierarchical structure resembling the organizational structure of a company. Some material data is valid at all organizational levels, while other data is valid only at certain levels. The organizational units are as follows:

- [Client \[Page 11\]](#)
- [Company code \[Page 12\]](#)
- [Plant \[Page 13\]](#)
- [Storage location \[Page 17\]](#)
- [Purchasing organization \[Page 14\]](#)
- [Sales organization \[Page 16\]](#)
- [Warehouse number \[Page 17\]](#)
- [Storage type \[Page 17\]](#)

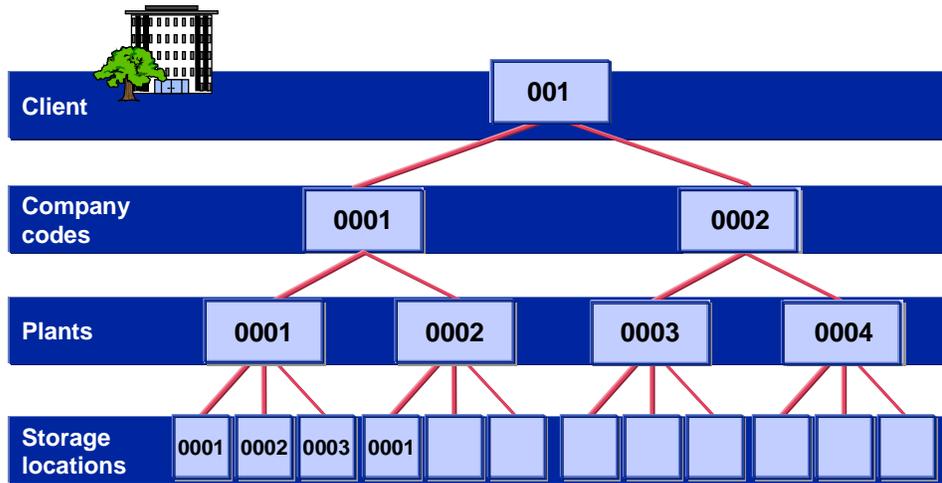
### Structure

The client is the top level. Several company codes can be assigned to it. In turn, several plants can be assigned to a company code, and several storage locations assigned to a plant.

Plants must always be consecutively numbered for all company codes. Consequently, plants assigned to different company codes cannot have the same number. However, the numbers of storage locations can be repeated, as long as they are assigned to different plants.

### Integration

The following graphic representation contains a possible corporate structure:





## Client

### Definition

In commercial, organizational, and technical terms, a self-contained unit in an R/3 System with separate master records and its own set of tables. A client can, for example, be a corporate group.

### Integration

General material data applicable to the entire company is stored at client level. This includes, for example, the material group, base unit of measure, material descriptions, and conversion factors for alternative units of measure.

---

**Company Code**

## Company Code

### Definition

The smallest organizational unit for which a complete self-contained set of accounts can be drawn up for purposes of external reporting. This involves recording all relevant transactions and generating all supporting documents for financial statements such as balance sheets and profit and loss statements. A company code can, for example, be a company or subsidiary

### Integration

All data that is valid for a particular company code, as well as for the plants and storage locations assigned to it, is stored at company code level. This includes, for example, accounting data and costing data if valuation is at company code level.

## Plant

### Definition

An organizational unit serving to subdivide an enterprise according to production, procurement, maintenance, and materials planning aspects. It is a place where either materials are produced or goods and services provided.

### Use

The preferred shipping point for a plant is defined as the default shipping point, which depends on the shipping condition and the loading condition.

For the placement of materials in storage (stock put-away), a storage location is assigned to a plant. The storage location depends on the storage condition and the placement situation.

The business area that is responsible for a plant is determined as a function of the division. As a rule, a valuation area corresponds to a plant.

### Structure

A plant can assume a variety of roles:

- As a maintenance plant, it includes the maintenance objects that are spatially located within this plant. The maintenance tasks that are to be performed are specified within a maintenance planning plant.
- As a retail or wholesale site, it makes merchandise available for distribution and sale.

A plant can be subdivided into storage locations, allowing stocks of materials to be broken down according to predefined criteria (for example, location and materials planning aspects).

A plant can be subdivided into locations and operational areas. Subdivision into locations takes geographical criteria into account, whereas subdivision into operational areas reflects responsibilities for maintenance.

### Integration

All data that is valid for a particular plant, as well as for the storage locations belonging to it, is stored at plant level. This includes, for example, MRP data and forecast data.

---

**Purchasing Organization**

## Purchasing Organization

### Definition

An organizational unit subdividing an enterprise according to the requirements of Purchasing. It procures materials and services, negotiates conditions of purchase with vendors, and is responsible for such transactions.

### Structure

The form of procurement is defined by the assignment of purchasing organizations to company codes and plants.

The following forms of purchasing exist:

- Corporate-group-wide  
A purchasing organization procures for all the company codes belonging to a client.
- Company-specific  
A purchasing organization procures for just one company code.
- Plant-specific  
A purchasing organization procures for a plant.

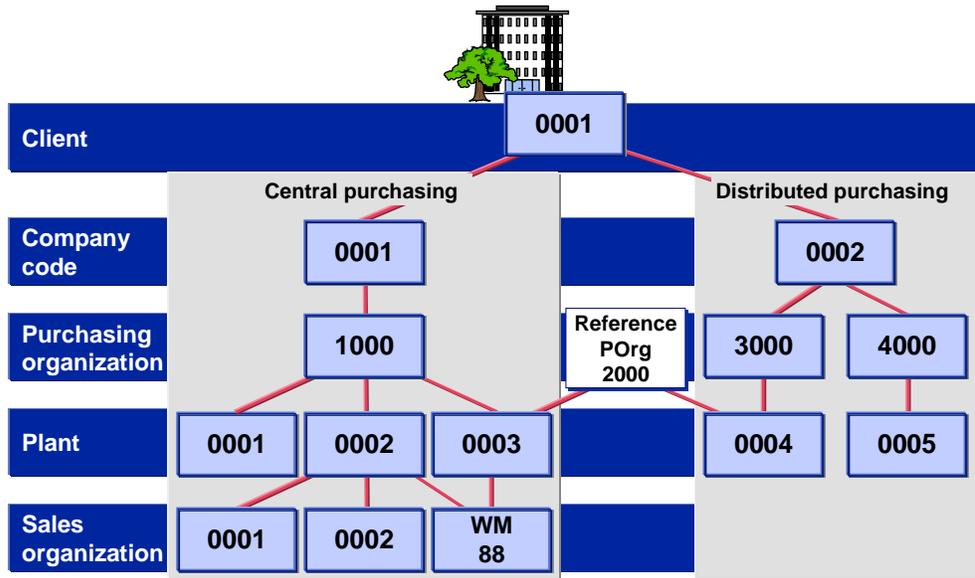
Mixed forms are possible, which can be replicated in the system by the use of reference purchasing organizations.

A purchasing organization can utilize the more favorable conditions and contracts of the reference purchasing organization that has been assigned to it.

### Integration

An example of corporate structure with purchasing organization is given in the following graphic representation:

Purchasing Organization



## Sales Organization

## Sales Organization

### Definition

An organizational unit subdividing an enterprise according to the requirements of Sales. It is responsible for selling materials and services.

### Structure

A sales organization can be subdivided into several distribution chains which determine the responsibility for a distribution channel.

Several divisions can be assigned to a sales organization which is responsible for the materials or services provided.

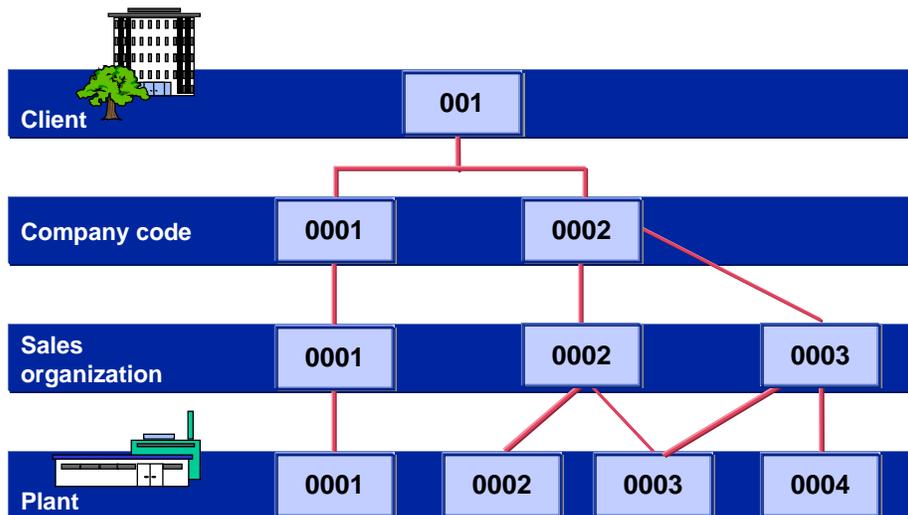
A sales area determines the distribution channel used by a sales organization to sell a division's products.

### Integration

A sales organization is always assigned to one company code. The accounting data of the sales organization is entered for this company code.

A distribution chain can act for several plants. The plants can be assigned to different company codes. If the sales organization and plant are assigned to different company codes, an internal billing document is sent between the company codes before the sales transactions are entered for accounting purposes.

An example of corporate structure with sales organization is given in the following graphic representation:



## Storage Location, Warehouse Number, Storage Type

### Definition

#### Storage Location

An organizational unit allowing the differentiation of material stocks within a plant. All data referring to a particular storage location is stored at storage location level. This applies mainly to storage location stocks.

#### Warehouse Number

An alphanumeric key defining a complex warehousing system consisting of different organizational and technical units (storage areas). All material data specific to warehouse management and relating to a particular warehouse number is stored at warehouse number level. This includes, for example, data on palletizing, stock placement, and stock removal.

#### Storage Type

A physical or logical storage area that can be defined for a warehouse in the Warehouse Management (WM) system. It consists of one or more storage bins.

Storage types differ according to organizational and technical criteria. The following are typical examples of storage types that can be defined using the WM system:

- Goods receipt area
- Goods issue area
- Picking area
- High rack storage area

All material data specific to warehouse management and relating to a particular storage type is stored at storage type level. This includes, for example, fixed storage bins as well as maximum and minimum storage bin quantities.

### Use

The warehouse number and storage type are of relevance only if your company uses the WM system.

### Integration

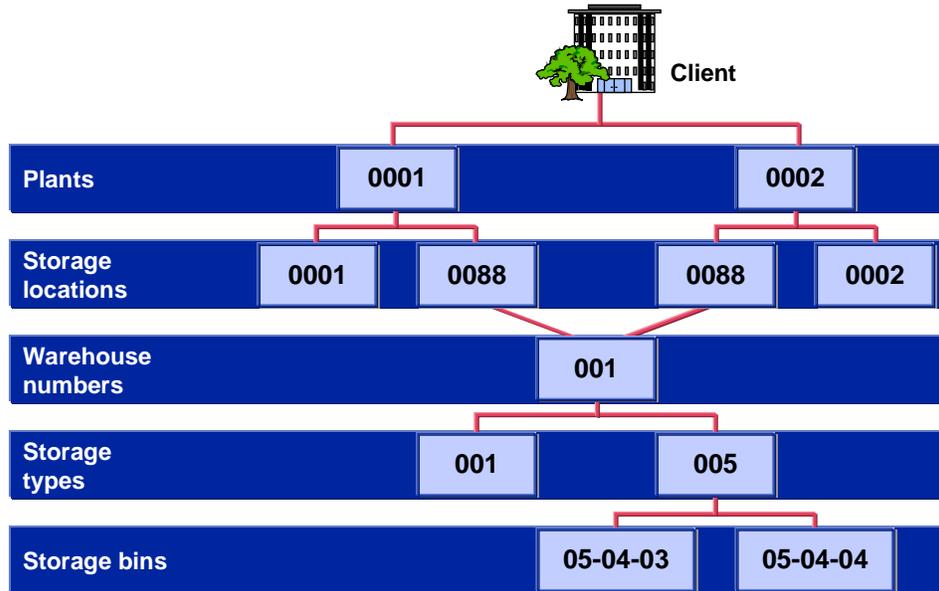
Several storage locations can be assigned to a plant. However, only one storage location per plant can be assigned to a warehouse number.

Storage locations assigned to different plants can be managed under the same warehouse number. Here too, only one storage location per plant can be assigned to the warehouse number.

One warehouse number may exist for several physical warehouses, these being represented as storage types in the WM system. One storage type groups together several storage bins. A storage bin is the smallest physical unit the system can address.

**Storage Location, Warehouse Number, Storage Type**

A plant may have storage locations that are not managed using the WM system. An example of corporate structure with storage locations, warehouse numbers, and storage types is given in the following graphic representation:

**Additional Information**

In the SAP library:

- [MM Warehouse Management Guide \[Ext.\]](#)
- [MM Inventory Management \[Ext.\]](#)

## Storage-Location-Specific Data

### Use

A material can be stored at several storage locations. To store data specific to each storage location, you must create the relevant material master record (or extend an existing material master record) for each storage location.

### Activities

If the material master record already exists, it can be extended to include storage-location-specific data in one of the following ways:

- Automatically

The material master record is automatically extended the first time a goods receipt is posted for the material. All data specific to the storage location is updated in the material master record. The system can be configured in this way in Customizing for *Inventory Management* in *Create Storage Location Automatically*.

- Manually

You enter the storage locations for a material master record collectively. This is much less time-consuming than entering the data for each storage location individually. See [Entering Storage Locations Collectively \[Page 20\]](#).

---

**Entering Storage Locations Collectively**

## Entering Storage Locations Collectively

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Enter storage locations*.

The initial screen appears.

2. Enter the material and the plant.
3. Choose *Enter*.

An overview appears.

4. Enter the storage locations as required.

If you want the stock to be included in storage location MRP at storage location level, enter the MRP indicator for that storage location in the *MRP* column, and also specify a reorder point and a fixed lot size.

5. Save your data.

## Material Master Records

### Definition

All the information your company needs to manage a material is stored in a data record in the material master, sorted by various different criteria.

### Use

You can enter and change most of the data in a material master record yourself. However, some information can only be updated by the system. For example, the system updates the administrative data when you process a material master record, and stock balances when goods receipts or goods issues are posted.

### Structure

The data in a material master record can be divided into two categories:

- Data of a purely descriptive nature  
This is data with an information content such as name, size, or dimension.
- Data that the system uses to perform a control function  
This is data such as MRP type and price control.

### Integration

Since different departments in a company work with the same material, but each department uses different information on the material, the data in a material master record is subdivided by user department. For more information, see [User Departments \[Page 54\]](#).

---

**Material Numbers**

## Material Numbers

### Definition

Number uniquely identifying a material master record, and thus a material.

### Use

For every material that your company uses, you must create a material master record in the material master. This record is uniquely identified by a material number.

You can assign mnemonic keys or nonmnemonic keys as material numbers, depending on the method your company prefers. For this reason, you have the following types of number assignment in the R/3 System:

- External number assignment  
If your company uses mnemonic keys (normally alphanumeric), you enter the character string you want to use as the material number when you create the material master record.
- Internal number assignment  
If your company uses nonmnemonic keys, you do not enter a material number when creating a material master record. Instead, the system assigns a consecutive number to the material. This number is visible when you maintain the material master record.

Your system administrator defines the required type of number assignment in Customizing for the *Material Master* in [Define Number Ranges \[Ext.\]](#). After defining a number range, he or she can flag it, if external number assignment is required, as an external number range. Your system administrator then assigns it to one or more material types. As a result, when creating a material master record, the type of number assignment allowed depends on the material type chosen. In the standard R/3 System, one external number range and one internal number range can be defined for each material type or group of material types.

Further options are provided by the following SAP Enhancements:

- SAP Enhancement MGA00002  
This enhancement contains three customer exits that you can use for the following purposes:
  - To modify material numbers entered externally by users, for example, by appending a check digit
  - To assign material numbers internally by customer programs
- SAP Enhancement MGA00003  
This enhancement allows you to edit the display of material numbers as required. For example, a material is assigned the number 123. With this enhancement, you can define that the material number is displayed with, for example, the prefix MAT-, even though the number in the database is still 123.

## Structure

You can define the length of your material numbers to suit your company's requirements. This is done by your system administrator in Customizing for the *Material Master* in [Define Output Format of Material Numbers \[Ext.\]](#). Material numbers can be up to 18 characters long.

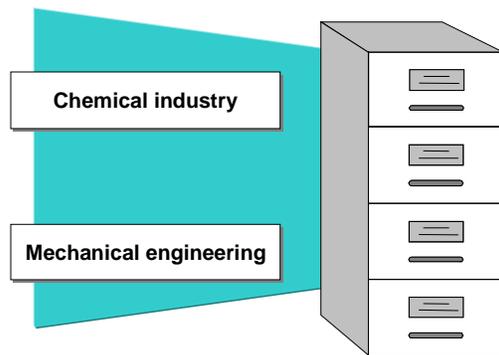
## Industry Sectors

# Industry Sectors

## Use

When you create a material master record, you are required to classify the material according to industry sector and material type.

Like material types, industry sectors have control functions in the R/3 System. For example, it is a factor determining the [screen sequence and field selection \[Page 96\]](#) in a material master record. Once you have assigned an industry sector to a material, you cannot change the industry sector again afterwards.



## Features

The standard R/3 System contains the following industry sectors. The ID used to identify the industry sector internally appears in parentheses.

- Plant engineering and construction (A)
- Chemical industry (C)
- Mechanical engineering (M)
- Pharmaceuticals (P)

The other sectors are for retail.

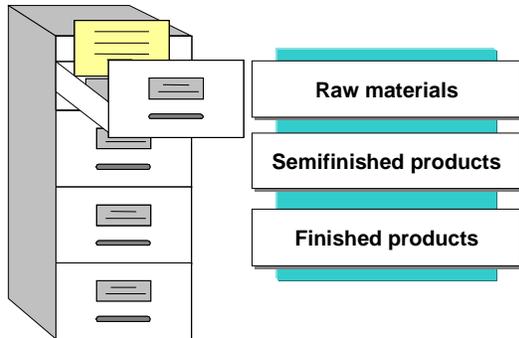
## Activities

Your system administrator can define other industry sectors in Customizing for the *Material Master* in [Define Industry Sectors and Industry-Sector-Specific Field Selection \[Ext.\]](#).

## Material Types

### Use

Materials with the same basic attributes are grouped together and assigned to a material type. This allows you to manage different materials in a uniform manner in accordance with your company's requirements. Examples of material types are given in the graphic below.



### Integration

When creating a material master record, you must assign the material to a material type. The material type determines certain attributes of the material and has important control functions. For example, it is a factor determining the [screen sequence and field selection \[Page 96\]](#) in a material master record.

### Features

When you create a material master record, the material type you choose determines:

- Whether the material is intended for a specific purpose, for example, as a configurable material or process material
- Whether the material number can be assigned internally or externally
- The number range from which the material number is taken
- Which screens appear and in what sequence
- Which departmental data you may enter
- What procurement type the material has; that is, whether it is manufactured in-house or procured externally, or both

Together with the plant, the material type determines the material's inventory management requirement; that is:

- Whether changes in quantity are updated in the material master record
- Whether changes in value are also updated in the stock accounts in financial accounting

In addition, the accounts affected by a material entering or leaving the warehouse depend on the material type.

## Material Types

### Activities

Material types are configured by your system administrator in Customizing for the *Material Master* in [Define Attributes of Material Types \[Ext.\]](#).

## Standard Material Types

### Definition

See [Material Types \[Page 25\]](#).

### Use

The standard R/3 System comes with the following material types. The ID used to identify the material type internally appears in parentheses. It is sometimes necessary to know this ID, for example, when defining the attributes of material types in Customizing for the *Material Master*.

- Additional (VKHM)

Additional (VKHM) are assigned to a material to be sold to ensure its effective presentation to customers.



- Clothes hangers
- Care labels
- Services such as pressing clothing for display or arranging it on hangers

For more information on the retail side, see [Additional \[Ext.\]](#) in the SAP library documentation *SAP Retail*.

- Advertising media (WERB)

Advertising media (WERB) are means of presentation used in advertising, grouping together advertising messages about a number of materials.



- Printed mail-order catalogs
- Computer catalogs on CD-ROM
- Promotional fliers

- Apparel, seasonal (MODE)
- Beverages (FGTR)
- Competitive products (WETT)

Competitive products (WETT) are products of your competitors. Observing and evaluating the activities of your competitors is essential for optimum market analysis. You can enter basic data on the products of your competitors in material master records of this material type. By specifying a competitor number, you can assign the product to a particular competitor. For more information, see [Competitive Products \[Ext.\]](#) in the SAP library documentation *SD Sales Support: Computer-Aided Selling (CAS)*.

- Configurable materials (KMAT)

Configurable materials (KMAT) are materials that can have different variants. For example, an automobile can have different types of paintwork, trim, and engine. The *Material is configurable* indicator is already set for this material type in Customizing for the *Material*

## Standard Material Types

Master in [Define Attributes of Material Types \[Ext.\]](#). For more information on configurable materials and variants, see the SAP library documentation [LO Variant Configuration \[Ext.\]](#).

- Empties (industry LEER, retail LGUT)

Empties are a type of returnable transport packaging generally subject to a deposit. They can consist of several components grouped together in a bill of material (BOM) that are assigned to a full product. For example, an empty crate and the empty bottles are assigned to the full product beer. Each of the components in the BOM has a separate material master record. For more information on the retail side, see [Articles: Empties and Full Products \[Ext.\]](#) in the SAP library documentation *SAP Retail*.
- Finished products (FERT)

Finished products are produced in-house. Since they cannot be ordered by Purchasing, a material master record of this material type does not contain purchasing data.
- Foods excluding perishables (FOOD)
- Full products (VOLL)

Full products are the counterpart to empties. For example, with a crate of lemonade, the full product is the lemonade itself, while the empties are the individual bottles and the crate. For more information on the retail side, see [Articles: Empties and Full Products \[Ext.\]](#) in the SAP library documentation *SAP Retail*.
- Intra materials (INTR)

Intra materials exist only temporarily between two processing steps. A material master record of this material type contains neither purchasing nor sales data.
- KANBAN containers (CONT)

This material type is recommended for creating KANBAN containers as a material. In the standard R/3 System, only the *Basic Data* view is offered. Using this material type makes it easy to search for KANBAN containers.
- Maintenance assemblies (IBAU)

Maintenance assemblies are not individual objects, but logical elements to separate technical objects into more clearly defined units in plant maintenance. For example, an automobile can be a technical object, and the engine, gearbox, chassis, and so on the maintenance assemblies. A material master record of this material type can contain basic data and classification data.
- Manufacturer parts (HERS)

Manufacturer parts are materials that can be supplied by different manufacturers and/or vendors who use different manufacturer part numbers to identify the materials. For more information, see [Manufacturer Part Numbers \(MPNs\) \[Ext.\]](#) in the SAP library documentation *MM Purchasing*.
- Nonfoods (NOF1)

Nonfoods are items sold in grocery stores, other than food.



- Paper products

Standard Material Types

- Magazines
- Nonstock materials (NLAG)
 

Nonstock materials are not held in stock because they are consumed immediately.
- Nonvaluated materials (UNBW)
 

Nonvaluated materials are managed on a quantity basis, but not by value.
- Operating supplies (HIBE)
 

Operating supplies are procured externally and required for the manufacture of other products. A material master record of this material type can contain purchasing data, but not sales data.
- Packaging materials (VERP)
 

Packaging materials are used to transport goods and come with the goods free of charge. A material master record of this material type is managed on both a quantity basis and value basis.
- Perishables (FRIP)
 

Goods that are perishable in an assortment.



- Fruit and vegetables
  - Dairy products
  - Meat
- Pipeline materials (PIPE)
 

Materials such as oil, power, or water that flow into the production process directly from a pipeline, line, or other type of conduit. Since pipeline materials are always available, they are not planned.
- Process materials (PROC)
 

Process materials are used in the manufacture of co-products. They are not physical entities, but represent production processes. They are useful if production is initiated by the availability of input materials and capacities, and not by material requirements planning.
- Product groups (PROD)
 

Product groups aggregate materials according to certain freely definable criteria. For example, the products may be similar to each other in some way, or they may be finished products that were produced on the same machine.
- Production resources/tools (FHMI)
 

Production resources/tools are procured externally and used in production or plant maintenance. A material master record of this material type can contain purchasing data, but not sales data. It is managed on a quantity basis.



- Jigs and fixtures

**Standard Material Types**

- Measuring and test equipment
- Raw materials (ROH)

Raw materials are always procured externally and then processed. A material master record of this type contains purchasing data, but not sales data since they cannot be sold.
- Semifinished products (HALB)

Semifinished products can be procured externally and manufactured in-house. They are then processed by the company. A material master record of this material type can contain both purchasing and work scheduling data.
- Services (DIEN)

Services can be performed internally or procured externally (outsourced). They cannot be stored or transported.


  - Construction work
  - Janitorial/cleaning services
  - Legal services
- Spare parts (ERSA)

Spare parts are used to replace defective parts. They may be kept in stock. A material master record of this material type can contain purchasing data, but not sales data.
- Trading goods (HAWA)

Trading goods are always procured externally and then sold. A material master record of this material type can contain purchasing data and sales data.
- Value-only articles (WERT)

A value-only article represents a group of articles whose inventory is not managed on an article basis. All goods movements for this group of articles are posted to the value-only article. For more information, see [Articles: Value-Only Articles \[Ext.\]](#) in the SAP library documentation *SAP Retail*.

## Specifying a Material Type

### Prerequisites

Consider your choice of material type carefully as it is not always possible to change it.

### When Creating Materials of the Same Material Type

In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Create (special)* → *<material type>*. The initial screen appears for creating a material master record of the material type chosen.



Creating materials in this way has the following advantages:

- You do not have to enter the material type in the *Material type* field.
- Users can be authorized to create materials of specific material types.

The relevant authorization object is S\_TCODE.

### When Creating Materials of Different Material Types

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Create (general)* → *Immediately* or *Schedule*.

The initial screen appears for creating a material.

2. In the *Material type* field, enter the material type as required.

You can then continue to create the material master record.

## Changing a Material Type

# Changing a Material Type

## Use

In certain circumstances, it may be necessary to change the material type. For example, a material that was always procured externally in the past and whose material type allows only external procurement is also to be produced in-house in the future. Therefore, you must assign the material to a material type that also allows in-house production.

## Integration

Since the material type influences the way transactions are processed in the R/3 System, the system checks any change to the material type to see whether it is allowed.

## Prerequisites

- If you use the material ledger, the material must be settled in it.
- If the old material type did not require you to specify a price control (for example, standard price or moving average price) for the material, the new material type must not be configured such that it allows only standard price as the price control.
- If the material has been maintained from the *Production Resources/Tools* view, this view must also be allowed for the new material type.
- If the material is not a configurable material, the new material type must not be allowed only for configurable materials.
- In Customizing for the *Material Master* (in [Define Attributes of Material Types \[Ext.1\]](#)), the following indicators must have the same setting for the old material type and for the new material type:
  - *Material for process* indicator
  - *Manufacturer part* indicator
- If inspection plans are required for quality management inspection of the material, they must be allowed for the new material type.
- The *Material type ID* indicator (presently used only in Retail) must be the same for the old material type and for the new material type.

If the material is already in stock, or if reservations or purchasing documents exist for it, the following conditions must also be met:

- The stock values of the material of the new material type must be updated in the same G/L account as the stock values of the material of the old material type.
- Quantities and values of the material of the new material type must be updated in exactly the same way in all plants as quantities and values of the material of the old material type.
- If there is a transfer requirement for the material and if quants of the material exist, the new material type must also allow the material data to be maintained from the *Warehouse Management* view.

---

**Changing a Material Type**

If the material, whose material type you want to change, was handled in batches and if, due to the maintenance statuses of the new material type, the material can no longer be handled in batches, although batches still exist, you cannot change the material type.

### Activities

If you change from a material type that allows only in-house production to a material type that allows only external procurement, or vice versa, the system converts the procurement type accordingly.

If you change to a material type that allows different user department data than the old material type, the system does the following:

- Resets to their initial value all fields for a user department that no longer exists
- Lists user department fields that become required fields as a result of changing the material type

You can maintain these fields by choosing *Material* → *Change*.

---

**Example of How to Change the Material Type**

## Example of How to Change the Material Type

### Scenario

You want to produce a material that was only procured externally until now and whose material type is *raw material*. You now need to assign it to the material type *semifinished product*. In our example, no stocks exist yet for the material.

### Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Change material type*.  
The initial screen for changing the material type appears.
2. In the *Material* field, enter the number of the material whose material type you want to change, and, in the *New material type* field, enter **semifinished product**.  
If you choose *Enter*, the system enters the old material type in the *Old material type* field.
3. Choose *Execute*.  
A message appears telling you that you are changing the material type.
4. Confirm this message by choosing *Enter*.



If, due to their valuation class, the two material types refer to different accounts, a dialog box appears asking you to enter a valuation class that is valid for the new material type for all plants or company codes. Confirm the new valuation class by choosing *Enter*.

### Result

A message appears telling you that the material type has been changed.

## Creating Material Master Records

### Use

You create a material master record in the following cases:

- If no material master record exists for a particular material.  
In this case, you **create** the material master record.
- If a material master record exists for a particular material, but the master data for your user department is missing.  
In this case, you **extend** the material master record.
- If a material master record exists for a particular material and the master data for your user department has been entered, but not at the appropriate organizational level (for example, if it has been entered for a different plant).  
In this case, you **extend** the material master record.

### Features

You can create or extend a material master record in one of the following ways:

- Immediately
- By scheduling it  
This makes it possible, for example, to create a skeleton material master record in advance which you can supplement with relevant data once the material is actually used.  
You can also create scheduled material master records with reference to a change number. For more information, see [Special Features for Materials \[Ext.\]](#) in the SAP library documentation *LO Engineering Change Management*.  
Scheduled material master records must always be activated. You do this using the same function as to activate scheduled changes. For more information, see [Activating Scheduled Changes to Material Master Records \[Page 45\]](#).

### Activities

At most companies, material master records are created in one of the following ways:

- Centrally  
A central body enters a minimum amount of all user department data. Users in the individual departments add to this data in *Change* mode. For the central body to create data for all departments, it must be authorized to process all user department data.
- Decentrally  
Each department creates its own material master records. Users are authorized to process data for one or more departments as required.

## Creating a Material Master Record

# Creating a Material Master Record

## Prerequisites

Before you create (not extend) a material master record, check that one does not already exist for this material. You can check this using the search help or by calling up the [materials list \[Page 119\]](#).

Check whether a material master record exists for a similar material that you can use as a reference; that is, whose data you can copy as default values.

## Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose one of the following options:
  - If you want the data to be available immediately, choose *Material → Create (general) → Immediately*.
  - If you want to schedule the material master record, choose *Material → Create (general) → Schedule*.
  - If you want to create a material master record of a particular material type, choose *Material → Create (special) → <Material type>*. This saves you having to enter the material type on the following screen. However, it is not possible to schedule material master records of this kind.

The initial screen for creating a material master record appears.

2. Enter the following data:
  - Material number (only in the case of external number assignment and if allowed by the material type; otherwise leave this field blank)
  - Industry sector
  - Material type (unless you have created the material by choosing *Material → Create (special) → <Material type>*)

If you want to use another material master record as a reference, enter the number of the reference material under *Copy from*.

If you are scheduling the material master record, enter the following data:

- Key date from which the material master record is to be valid
- Change number if you want to use engineering change management

If you have entered a key date, the system checks that it does not precede the valid-from date of the change number. If you have not entered a key date, the system uses the valid-from date of the change number. In both cases, the date must be in the future.

Choose *Enter*.

The *Select View(s)* dialog box appears. The views displayed at this point depend on how the material type has been configured in Customizing for the *Material Master* in *Define Attributes of Material Types*.

3. Select the views, that is, the user departments, for which you want to enter data and choose *Enter*.

---

**Creating a Material Master Record**

The *Organizational Levels* dialog box appears.

Specify the organizational levels as required and, if appropriate, enter a profile.

If you have specified a reference material, also specify under *Copy from* the organizational levels of the reference material whose data is to be copied as default values. If you do not do this, the system will copy only the data at client level.

Choose *Enter*.

The data screen for the first user department appears.

4. Enter the material description and the base unit of measure in the appropriate fields (if not already copied from the reference material). This information is mandatory and identical for all user departments. Consult with the other users to decide what you are going to enter here.

Enter the data for your user department as required.

Choose *Enter* to access the data screen for the next user department and enter your data for the other user departments selected in the *Select View(s)* dialog box. The system issues a message telling you when you have reached the data screen for the last user department selected.

If you want to enter data for a user department that you did not select in the *Select View(s)* dialog box, you can access the user department direct by choosing it, but only if you are authorized to process data for this user department and if the user department is allowed by the material type.

5. Save your data.

The initial screen appears, where you can start to create the next material master record.

## **Additional Information**

[Default Industry Sectors, Views, Organizational Levels, Profiles \[Page 117\]](#)

[Profiles \[Page 126\]](#)

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**Extending Material Master Records**

## Extending Material Master Records

### Use

If one user department has already stored data on a material in a material master record, and you work in another user department and want to enter data on the same material, you do not have to create another material master record. Instead, you **extend** it to include the information relevant to your own user department.

You also extend a material master record if the same user department wants it to include data for other organizational levels.



You create a material master record for the user department *Purchasing*, but do not specify a plant. In this case, you can maintain only data at client level. You subsequently want to maintain purchasing data for a specific plant. You do this by extending the material master record and specifying the plant concerned. You can now enter data at plant level, but not change the data you have already entered at client level.

### Integration

#### Maintenance Statuses

The maintenance status of a material master record is important for extending such records. This indicator, which is set in a material master record when a user department creates data for a material, allows you to see what departmental data has already been entered. For an overview of the maintenance statuses defined in the material master, see [Maintenance Statuses \[Page 99\]](#).

To maintain all material master records as fully as possible, users need the following information:

- User departments that need to extend a material master record
- Material master records that a user department needs to extend

For a description of how to obtain this information, see [Finding Information for Extending Material Master Records \[Page 41\]](#).

#### Mass Maintenance

Using a special cross-application tool, you can extend several material master records at the same time. However, this tool must be used only by experienced users. For more information, see the SAP library documentation [CA Cross-Application Mass Maintenance \[Ext.\]](#).

## Extending a Material Master Record

1. In the [Material Master \[Ext.\]](#) menu, choose one of the following options:
  - If you want the data to be available immediately, choose *Material* → *Create (general)* → *Immediately*.
  - If you want to schedule the material master record, choose *Material* → *Create (general)* → *Schedule*.

The initial screen for creating a material master record appears.

2. Enter a material number.

This number is essential, even if only internal number assignment is allowed at your company, because you are extending an existing material master record by adding data to it. If you do not enter a number, you will create a new material master record.

You do not need to enter an industry sector or a material type since the system will copy them from the existing material master record.

If you are scheduling the material master record, enter the following data:

- Key date from which the material master record is to be valid
- Change number if you want to use engineering change management

If you have entered a key date, the system checks that it does not precede the valid-from date of the change number. If you have not entered a key date, the system uses the valid-from date of the change number. In both cases, the date must be in the future.

Choose *Enter*.

If you have entered an industry sector and/or material type on the initial screen that differ from those already entered by another user department, the system replaces them with the values from the existing material master record, and issues a warning that you confirm with *Enter*.

If you have not entered any values, you confirm the message that appears with *Enter*.

The *Select View(s)* dialog box appears.

3. Select the views, that is, the user departments, whose data you want to add to the material master record and choose *Enter*.

The *Organizational Levels* dialog box appears.

Specify the organizational levels as required and, if appropriate, enter a profile.

Choose *Enter*.

The data screen for the first user department appears and the system issues a message telling you that you are extending the material master record.

The data that has already been entered and that is valid for all user departments is displayed. This includes, for example, the material description and the base unit of measure. You cannot change this data. The fields are ready for input only if entries have not already been made in them by other user departments.

4. Enter your data as required and save it.

The initial screen appears, where you can continue.

Extending a Material Master Record

**Additional Information**

[Default Industry Sectors, Views, Organizational Levels, Profiles \[Page 117\]](#)

[Profiles \[Page 126\]](#)

## Finding Information for Extending Material Master Records

### Which User Departments Need to Extend a Material Master Record?

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Extend material view(s)*.  
The initial screen appears.
2. Enter the material number and choose *Execute*.  
An overview appears of the user departments (indicated by the maintenance status) that still need to extend the material master record.
3. Select the user department(s) for which you want to enter data, and choose *Maintain materials*.  
The first user department screen appears, where you can enter your data.
4. Save your data.  
The initial screen for maintaining material master data appears because you have not finished maintaining the material master record. To access the next screen you selected in the overview, choose *Enter*.
5. Repeat step 4 until you have entered all the data for the material and have returned to the overview.

### Which Material Master Records Does a User Department Need to Extend?

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Extend material view(s)*.  
The initial screen appears.
2. In the *Maintenance status* field, enter the indicator for the user department concerned.  
You can also define other selection criteria, such as the date created, organizational levels, material type, and so on. The system selects those records that satisfy **all** your selection criteria. If you want the system to select those records that satisfy **one** of your selection criteria, set the relevant indicator.  
Choose *Execute*.  
An overview appears of the materials that your user department still needs to extend.
3. Select the materials whose data you want to extend and choose *Maintain materials*.  
The user department screen appears for the first material you selected.
4. Enter and save your data.  
The data screen for the next material appears.
5. Repeat step 4 until you have entered your data for all the materials and have returned to the overview.

---

**Changing Material Master Records**

## Changing Material Master Records

### Use

You can change the data contained in a material master record in one of the following ways:

- Immediately
- By scheduling the change

In both cases, you can make your changes with reference to a change number. This identifies a change master record in engineering change management and has the advantage that changes to different objects (such as the material, bill of material, or routing) can be grouped together under this number. If, for example, a particular product gives rise to a complaint, you can record any resulting changes to the relevant objects under this number. For more information, see [Special Features for Materials \[Ext.\]](#) in the SAP library documentation *LO Engineering Change Management*.

Any changes that you make to material master records are recorded in [change documents \[Page 46\]](#). In the case of scheduled changes, the change is stored in the change document and not in the material master record itself. The date at which the change is to take effect is stored in the document header. Such changes have to be activated. For more information, see [Activating Scheduled Changes to Material Master Records \[Page 45\]](#).

### Integration

Using a special cross-application tool, you can change several material master records at the same time, for example, if you need to adapt existing data to a change in circumstances. However, this tool must be used only by experienced users. For more information, see the SAP library documentation [CA Cross-Application Mass Maintenance \[Ext.\]](#).

### Prerequisites

The material master record must already exist in the material master. However, it may happen that you cannot access the data screen for your user department by choosing *Change*. This is because another department has already created data for the material, but no data has been entered yet for your user department. Therefore, you must first extend the material master record to include your data. For more information, see [Extending a Material Master Record \[Page 39\]](#).

## Changing a Material Master Record with Immediate Effect

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Change* → *Immediately*.  
The initial screen appears.
2. Enter a material number.  
If you want to refer to a change number, enter one in the appropriate field. The date of the change number must be prior to or the same as the current date.  
Choose *Enter*.  
The *Select View(s)* dialog box appears.  
Select the user departments whose material data you want to change and choose *Enter*.  
The *Organizational Levels* dialog box appears.  
Enter your organizational levels and choose *Enter*.  
The first data screen appears.
3. Make your changes and save them.

---

**Scheduling Changes to a Material Master Record**

## Scheduling Changes to a Material Master Record

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Change* → *Schedule*.  
The initial screen appears.
2. Enter a material number and specify the date from which the change is to be valid.  
If you want to refer to a change number, enter one in the appropriate field. The date from which the change is to be valid must be in the future and not precede the valid-from date of the change number.
3. Choose *Enter*.  
The *Select View(s)* dialog box appears.
4. Select the user departments whose data you want to change and choose *Enter*.  
The *Organizational Levels* dialog box appears.
5. Specify the organizational levels as required and choose *Enter*.  
The first data screen appears.
6. Make your changes and save them.



Scheduled changes must be activated. See [Activating Scheduled Changes to Material Master Records \[Page 45\]](#).

## Activating Scheduled Changes to Material Master Records

### Use

Scheduled changes to material master records must be activated manually. They are not activated automatically.



When you activate scheduled changes to material master records, the following objects are also activated:

- Scheduled material master records
- Scheduled deletion flags

### Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Change* → *Activate*.

The initial screen appears.

2. Enter your data as required and choose *Execute*.



To save you effort, you can create a variant so that the system performs this job daily at a specified time. You do this as follows:

- a. Access the ABAP Editor by choosing transaction SE38 and execute program MMCHACTV.
- b. Make sure that both date fields are blank. This ensures that the changes activated are only those for the day on which the program is run.
- c. Choose *Goto* → *Variants* → *Save as variant*, and save the variant.
- d. In the ABAP Editor, specify program MMCHACTV and choose *Execute with variant*.
- e. Choose the variant, and set up the job to be run daily in the background.

### Result

The system selects all the change documents with the corresponding material(s) and date(s) in the header and updates the changes in the relevant material master records **immediately**. It creates a new change document, and informs you that the scheduled changes have been activated.

---

**Change Documents**

## Change Documents

### Definition

Document detailing changes to master records, tables, documents, and so on.

### Use

Normally, all changes to a material master record are stored in change documents automatically. Changes made in a single step are stored in the same change document, while changes made at different times are stored in different change documents. All the change documents that exist for a material make up its change history.

### Structure

Change documents contain the following information:

- When the change was made
- Who made the change
- What value the field contained before and after the change

## Displaying Change Documents and the Relevant Changes

### From a Data Screen in the Material Master

This provides you with a list of all the change documents for a particular material, selected by the data you specified in the *Organizational Levels* dialog box. It does not include scheduled changes.

1. Choose *Environment* → *Display changes*.  
The overview screen appears.
2. Position the cursor on the change document containing the changes you want to view, and choose *Choose*.

### From the Material Master Screen

This provides you with a list of all the change documents for a particular material, selected by the criteria you enter on the selection screen. You have the following options:

- Displaying active changes
  - Displaying scheduled changes
1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Display changes* → *Active changes* or *Scheduled changes*.

The initial screen for selecting change documents appears.

2. Enter the number of the material whose changes you want to display.

You can also define other selection criteria. This makes it possible, for example, to view all the changes made at a particular organizational level or by a particular person.



If you enter a plant and a sales organization, the system displays all the change documents containing changes that affect either the plant or the sales organization.

If you enter a sales organization only, the system displays all the change documents containing changes that affect this sales organization in all plants.

3. Choose *Execute*.  
An overview appears of all the change documents matching your selection criteria.
4. Position the cursor on the change document containing the changes you want to view, and choose *Choose*.

## Flagging Material Master Records for Deletion

# Flagging Material Master Records for Deletion

## Use

For a material master record to be deleted by the archive and delete program, it must be flagged for deletion. You can set deletion flags at different organizational levels, for example, at plant level or at sales organization level. The material master record is then deleted at this level and at all lower levels.



You set a deletion flag at client level. Since it is the highest hierarchy level, the material master record is deleted at this level and at all lower levels.

You set a deletion flag at plant level. Since it is below client level, the material master record is deleted at plant level and at all lower levels (for example, at storage location level), but not at client level.

## Integration

At most companies, the archive and delete program is run at regular intervals by the system administrator. For information on archiving and deleting material master records, see [Archiving Material Master Records \(LO-MD-MM\) \[Ext.\]](#) in the SAP library documentation *CA Application Data Archiving*.

## Features

When flagging a material master record for deletion, you have the following options:

- Setting the deletion flag with immediate effect
- Scheduling the setting of the deletion flag

As an aid, you can choose the materials to be flagged for deletion from a proposal list. This list contains all materials without stocks.

## Activities

When you flag a material master record for deletion, the system creates a change document. For more information, see [Change Documents \[Page 46\]](#).

## Flagging a Material Master Record for Deletion

### Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Flag for deletion* → *Immediately* or *Schedule*.

The initial screen appears.

2. Enter the number of the material you want to flag for deletion and specify the organizational levels at which it is to be deleted.

If you want to schedule the setting of the deletion flag, enter the date required.

3. Choose *Enter*.

A data screen appears containing the organizational levels you specified on the initial screen.

4. Select the organizational level at which you want to flag the material for deletion and save your data.



If you scheduled the setting of the deletion flag, it must be activated. You do this using the same function as to activate scheduled changes to material master records. See [Activating Scheduled Changes to Material Master Records \[Page 45\]](#).

### Result

The next time the archive and delete program is run, the system processes only those materials flagged for deletion.

---

**Flagging Materials for Deletion Using a Proposal List**

## Flagging Materials for Deletion Using a Proposal List

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Flag for deletion* → *Immediately or Schedule*.

The initial screen appears.

2. Choose *Extras* → *Proposal list*.

An overview appears of all materials without stocks.

3. Choose the material you want to flag for deletion.

The system copies the material to the initial screen.

4. Specify the organizational level(s) at which you want to flag the material for deletion and, if you are scheduling the setting of the deletion flag, the date required, and choose *Enter*.

A data screen appears containing the organizational level(s) you specified on the initial screen.

5. Select the organizational level(s) at which you want to flag the material for deletion and save your data.

## Cancelling Deletion Flags

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Flag for deletion* → *Immediately* or *Schedule*.  
The initial screen appears.
2. Enter the number of the material and specify the organizational levels at which you want to cancel the deletion flags.
3. Choose *Enter*.  
A data screen appears containing the organizational levels you specified on the initial screen.
4. Cancel the deletion flag(s) by deselecting the organizational levels as required.
5. Save your data.

---

**Displaying Material Master Records**

## Displaying Material Master Records

### Use

Just as you can create or change a material master record immediately or schedule this, you can display a material master record as it currently is or as it will be at a key date.

### Activities

If you display a material master record at a key date, the system reads all the change documents for the material master record from the current date through to the specified date, and uses them to simulate the situation at this date. However, it is not possible to display the following data at a key date. The system always displays the data as it currently is:

- All types of long text (such as purchase order texts)
- Document data
- Manufacture of co-products
- Average plant stock
- Sales price conditions, customs tariff preferences, and export licenses
- Assignment to configurable material and the configuration value assignment
- QM inspection data
- Production versions
- Consumption values and forecast values
- Classification data

## Displaying a Material Master Record

1. In the [Material Master \[Ext.\]](#) menu, choose *Material* → *Display* → *Display current* or *Display at key date*.

The initial screen appears.

2. Enter a material number and, if you are displaying a material master record at a key date, enter the date required.

Choose *Enter*.

The *Select View(s)* dialog box appears.

3. Select the user departments whose material data you want to display, and choose *Enter*.

The *Organizational Levels* dialog box appears.

4. Specify the organizational levels whose data you want to display, and choose *Enter*.

The first data screen appears. You can access the data screens for other user departments in the following ways:

- By choosing *Enter*

In this case, you go from one data screen to the next according to the standard sequence defined in the program

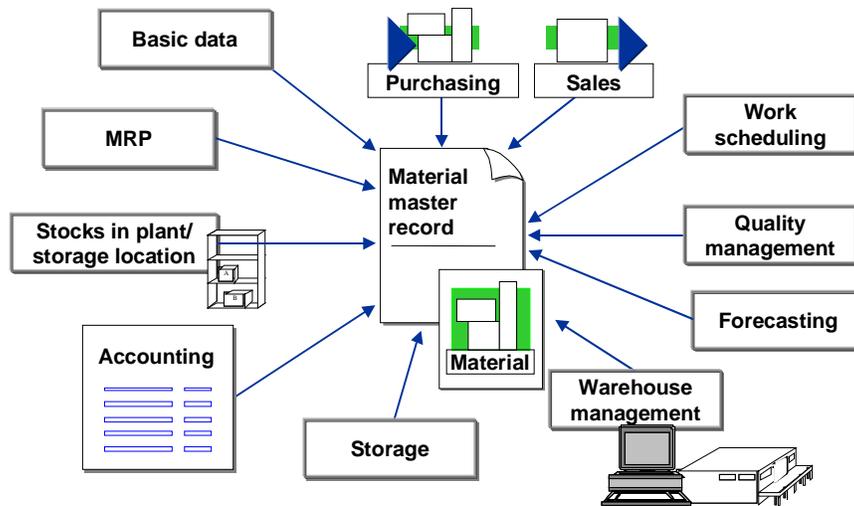
- By choosing the user department direct

## User Departments (Main Data)

## User Departments (Main Data)

### Use

Since different departments in a company work with the same material, but each department uses different information on the material, the data in a material master record is subdivided by user department. This is illustrated in the following graphic representation:



The industry material master contains the following user departments:

- [Accounting \[Page 56\]](#)
- [Basic data \[Page 60\]](#)
- [Classification \[Page 62\]](#)
- [Costing \[Page 63\]](#)
- [Forecasting \[Page 65\]](#)
- [Material requirements planning \[Page 74\]](#) (MRP)
- [Production resources/tools \[Page 77\]](#)
- [Purchasing \[Page 79\]](#)
- [Quality management \[Page 83\]](#)
- [Sales \[Page 85\]](#)
- [Stocks, plant and storage location \[Page 89\]](#)
- [Storage \[Page 90\]](#)
- [Warehouse management \[Page 91\]](#)
- [Work scheduling \[Page 92\]](#)

## Features

When you access a material master record, the user departments that you selected in the *Select View(s)* dialog box are indicated by an icon in the tab index. Once you have accessed the user department, this icon changes its appearance to remind you which user departments you have already accessed in the current transaction.

By choosing *Information on material* on any of the main or additional screens, you can display the following information:

- Industry sector and material type
- Whether the material is flagged for deletion, at what organizational level, when it was flagged for deletion, and by whom
- Person who created and/or last changed the user department data, at what organizational level, and when

Even more detailed information is available in change documents. For more information, see:

- [Change Documents \[Page 46\]](#)
- [Displaying Change Documents and the Relevant Changes \[Page 47\]](#)

## Activities

The following fields appear in each user department:

- Material description
- Base unit of measure

This information is mandatory and identical for all departments. Consult with the other users to decide what you are going to enter here.

## Additional Information

[Maintenance Statuses \[Page 99\]](#)

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**Accounting**

## Accounting

### Prerequisites

#### Organizational Level

Your system administrator defines centrally in Customizing for *Enterprise Structure* (in [Define Valuation Level \[Ext.\]](#)) whether the accounting data for a material is managed at company code level or plant level. When you create accounting data, you must therefore enter either a company code or a plant.

#### Valuation Type

You can also specify a valuation type for the material in the *Organizational Levels* dialog box. By assigning a material to several valuation types, you can manage different stocks separately and therefore value them differently.



This field only appears if you have already defined split valuation for the material by entering a valuation category on the *Accounting* screen. If you want to value stocks separately, first read [Inventory Valuation \[Page 57\]](#).

### Activities

Besides other accounting data, you normally enter data relevant to valuation in the current period here. However, this data is also used on the *Costing* screen, where it **cannot** be changed. If it is created on the *Costing* screen, it is proposed on the *Accounting* screen, where it **can** be changed.

To enter accounting data as the base values for valuation in the previous period or in the previous year, choose *Previous period/year* and enter the corresponding data in the dialog box.

To display the standard cost estimate for the material, choose *Std cost estimate*. The system bases the standard cost estimate on the bill of material (BOM) and routing for the material. To copy the results to the material master record, you must first flag the standard cost estimate and then release it.

### Additional Information

SAP library documentation [MM Material Valuation \[Ext.\]](#)

## Inventory Valuation

### Use

The R/3 System allows you to value stocks of a material either together or separately, that is, according to different valuation criteria. Split valuation is necessary if, for example:

- Stock from in-house production has a different valuation price than externally procured stock.
- Stock obtained from one manufacturer is valued at a different price than stock obtained from another manufacturer.
- Different batch stocks of a material have different valuation prices.

### Integration

The way the stocks of a material are valued depends on how you define the following:

- Valuation category  
This defines whether the stocks are valued jointly or separately. If stocks are to be managed separately, it also specifies the criteria used to value the stocks, that is, whether they are valued by origin, in-house production/external procurement, or individual batches.
- Valuation type  
This is a further subdivision of the valuation category. For example, if the valuation category is *origin*, a company may want to define the valuation types *stock from Los Angeles* and *stock from Detroit*.

This data is stored in the material master record.

### Prerequisites

Your system administrator has defined whether valuation at your company is at company code level or plant level and whether split valuation is allowed. For more information see [Accounting \[Page 56\]](#).

### Activities

#### Joint Valuation

If you want to value all stocks of a material at the same price, you specify neither a valuation category nor a valuation type.

#### Split Valuation

If you want to value stocks of a material separately, you must create a material master record with the appropriate valuation category. This record is called the valuation header record. Each material always has only one such record for each company code or plant (depending on whether the material is valued at company code level or plant level).

Once you have specified the valuation category, you can create a material master record for each quantity of the material you want to value separately, with the appropriate valuation type and accounting data.



## Specifying Split Valuation

1. Create a material master record, selecting the user department *Accounting*.
2. Enter your data as required on the *Accounting* data screen, specifying a valuation category. Be sure that the price control indicator is *V* for moving average price and enter a moving average price.



In the case of split valuation, you can create only one valuation header record with price control *V* because the individual stock values are cumulated, and this total value is written to the valuation header record.

3. Save your data.  
The initial screen appears.
4. Extend the material by creating new material master records from the *Accounting* view. For the first material, specify a valuation type in the *Organizational Levels* dialog box and enter the respective accounting data on the data screen. Proceed likewise for the other materials, distinguishing between them by valuation type.



You want to value the stock of material XYZ that you obtain from manufacturer A in Los Angeles at a different price than the stock you obtain from manufacturer B in Detroit. In this case, the valuation category is *H* for origin. Your valuation types can be *LOS ANGELES* and *DETROIT*.

---

**Basic Data**

## Basic Data

### Use

On this data screen, you enter data that is also used by other user departments.

### Prerequisites

Since basic data is valid for the whole company, the *Organizational Levels* dialog box does not appear before you access this data screen.

### Features

For information on:

- Basic materials, checking them against a check table in Customizing, and how the system is to respond if they are not contained in the check table, see the documentation for the activity [Define Basic Materials \[Ext.\]](#) in Customizing for the *Material Master*
- Cross-plant material statuses, see [Material Statuses \[Page 93\]](#)
- Document management, see [Document Management \[Page 112\]](#)
- EAN management, see [International Article Numbers \(EANs\) \[Page 107\]](#)
- Variant configuration (configurable materials and variants), see the SAP library documentation [LO Variant Configuration \[Ext.\]](#)

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

---

**Classification**

## Classification

### Use

Classes allow you to classify materials with the same characteristics. A material can be assigned to one or more classes. Classification data is valid for the whole company.

### Activities

You can assign a material to a class in one of the following ways:

- From the *Classification* screen in the material master
  - When you create classification data, the system asks you to choose a class type in a dialog box. If necessary, you can change the class type on the following screen, where you assign the material to one or more classes. Entries are made in the *Description*, *Status*, and *Icon* fields automatically on the basis of the classes you have chosen. If you have assigned the material to more than one class, you can flag one of the classes as the standard class. You can then assign values to the characteristics. For example, if the characteristic is *color*, you can assign it the value *blue*.
- By including the *Characteristics* subscreen on a data screen in the material master
  - On this subscreen, you can maintain the characteristics of a class as additional fields. In the standard R/3 System, this subscreen remains hidden until you assign it to a material master data screen of your choice. You do this in Customizing for the *Material Master* in [Define Structure of Data Screens for Each Screen Sequence \[Ext.\]](#).
  - The characteristics (that is, fields) that appear on the subscreen depend on the class assigned to the material type. You can assign a class to a material type in Customizing for the *Material Master* in [Define Attributes of Material Types \[Ext.\]](#), where this subscreen and the procedure necessary to implement it are described in detail in the documentation for the field *Class*.
- By using a separate function in the classification system
  - For more information, see the SAP library documentation [CA Classification \[Ext.\]](#).

## Costing

### Prerequisites

To access this data screen, valuation at your company must be at plant level. This is defined by your system administrator in Customizing for *Enterprise Structure* in [Define Valuation Level \[Ext.\]](#). You must therefore specify a plant in the *Organizational Levels* dialog box before you can create costing data.

### Features

Besides costing data, data on the standard cost estimate is also displayed on the *Costing* screen, though this data cannot be changed here. For more information, see the user department [Accounting \[Page 56\]](#).

### Activities

Besides costing data, you can also define valuation data on this screen. This data is identical with that on the *Accounting* screen. In most cases, it will already exist on the *Costing* screen because it has already been entered on the *Accounting* screen. If it is entered on the *Costing* screen first, it will appear on the *Accounting* screen as default values that can be overwritten. (See also the user department [Accounting \[Page 56\]](#).)



You can list the materials for which accounting data, but not yet costing data, has already been maintained, provided the material type allows the maintenance of costing data. You do this from the [Material Master \[Ext.\]](#) menu by choosing *Other* → *Extend material view(s)*. You can then maintain this data. For more information, see [Finding Information for Extending Material Master Records \[Page 41\]](#).

---

**Material Statuses**

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01  
The material is blocked for Purchasing.
- 02  
The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Forecasting

### Prerequisites

Since material requirements are forecast at plant level, you must enter a plant in the *Organizational Levels* dialog box. You can also enter a forecast profile in this dialog box if you want to enter forecast data using a profile. For more information, see [Profiles \[Page 126\]](#).

### Activities

On the *Forecasting* screen, you have the following options:

- You can access the screens on which you enter consumption values and forecast values as a basis for the initial calculations.
- You can directly execute an individual forecast for a material. Starting from the maintained forecast parameters, you can simulate the forecast in several dialog steps.

The forecast values are updated only when you save the material master record. The MRP parameters *Reorder point* and *Safety stock*, which are based on the forecast, are adjusted dynamically at the same time.

---

**Consumption Values**

## Consumption Values

### Use

Consumption values are used as a basis for forecasting.

### Activities

There are two sorts of consumption in a material master record:

- Total consumption

This is the sum of planned and unplanned consumption.

If materials are planned using consumption-based planning, the system always updates the total consumption.

If materials are planned using material requirements planning (MRP) and withdrawn on the basis of a reservation, the system updates only the total consumption, provided the quantity withdrawn does not exceed the reservation.

- Unplanned consumption

This is updated only for materials planned using MRP. This occurs in the following cases:

- If goods are withdrawn from the warehouse without a reservation
- If goods are withdrawn on the basis of a reservation, but the quantity actually withdrawn exceeds the reservation

Planned consumption is not displayed in the material master record. However, you can calculate it yourself by subtracting unplanned consumption from total consumption.

The system normally updates the consumption values in the material master record automatically whenever stock is withdrawn from the warehouse. However, you can enter consumption values manually for the following purposes:

- As a basis for the first forecast
- To correct automatically updated consumption values if the values are atypical and would distort the next forecast

## Entering Consumption Values

1. Enter your data on the *Forecasting* data screen as required and specify in the *Period indicator* field whether you want the consumption values to be managed in days, weeks, months, or according to the fiscal year variant.
2. Check the proposed values under *Number of periods required* and change them if necessary.
3. Choose *Consumption values*.
4. Enter the consumption values, starting with the current period and working backwards.  
You can enter as many values as you like, both for total consumption and for unplanned consumption. To switch between the entry screens for the two, choose *Unplanned consumption* or *Total consumption*.
5. Save your data.

---

**Changing Consumption Values**

## Changing Consumption Values

1. On the *Forecasting* data screen, choose *Consumption values*.

A screen appears showing the consumption values updated by the system.

2. Change the consumption values by entering in the *Corrected value* field the period values on which the next forecast run is to be based.

If you also want to change the unplanned consumption values, choose *Unplanned consumption* and correct the values.

When you choose *Enter*, the system divides the corrected value by the original value and displays the result in the *Quotient* field, showing the relationship between the two values.

3. Save your data.

## Displaying Consumption Values

1. On the data screen of a user department for which you can enter data at plant level, choose *Additional data* → *Consumption*.  
A screen appears showing the consumption values.
2. To switch between the values for unplanned consumption and total consumption, choose *Unplanned consumption* and *Total consumption* respectively.

---

**Forecast Values**

## Forecast Values

### Use

Forecast values indicate the future consumption for a material within a certain period.

### Activities

Forecast values are usually determined by the system in forecasting and updated in the material master record. However, you can enter forecast values manually for the following purposes:

- As a basis for material requirements planning
- To correct the forecast values calculated by the system

This is necessary, for example:

- If less is to be produced because of the run-up to the company holidays
- If higher consumption is expected due to an imminent advertising campaign

## Entering Forecast Values

1. Enter your data on the *Forecasting* data screen as required and specify in the *Period indicator* field whether you want the forecast values to be managed in days, weeks, months, or according to the fiscal year variant.
2. Choose *Forecast values*.
3. Enter as many forecast values as you like.
4. Save your data.

---

**Changing Forecast Values**

## Changing Forecast Values

1. On the *Forecasting* data screen in *Change* mode, choose *Forecast values*.

A dialog box appears containing the forecast values calculated by the system.

2. Change the forecast values as required by entering in the corrected forecast value field the period values on which the next planning run is to be based.

When you choose *Enter*, the system sets the *F* (fixing) indicator to show that the forecast values have been fixed and can no longer be changed automatically in subsequent forecast runs.

If you want to fix forecast values without entering corrected values, set the fixing indicator accordingly. Here too, the values will no longer be changed in subsequent forecast runs.

3. Save your data.

## Displaying Forecast Values

On the *Forecasting* data screen, choose *Forecast values*.

---

**Material Requirements Planning (MRP)**

## Material Requirements Planning (MRP)

### Prerequisites

Since materials are planned at plant level, you must specify a plant in the *Organizational Levels* dialog box to access the *MRP* screen.

If you want to enter data specific to a storage location, you must also specify the storage location concerned. You must specify a storage location if you want a material to be included in storage location MRP. Storage locations are considered as independent units for MRP purposes.

If you want to create MRP data using a profile, you must specify an MRP profile in the *Organizational Levels* dialog box. For more information, see [Profiles \[Page 126\]](#).

### Features

#### Discontinued Materials and Parts

See the following SAP library documentation:

- [Discontinued Parts \[Ext.\]](#) in *PP Material Requirements Planning*
- [Discontinuation \[Ext.\]](#) in *PP Bills of Material Guide*

#### Material Memo

You use this text to store additional MRP-relevant information for a specific plant. This text can also be accessed from the stock/requirements list. You enter your text in SAPscript in the language assigned to the plant. For information on how to use SAPscript, see the SAP library documentation [BC Word-Processing in the SAPscript Editor \[Ext.\]](#).

#### MRP Areas

See [MRP Areas \[Ext.\]](#) in the SAP library documentation *PP Material Requirements Planning*.

The *MRP areas* pushbutton is visible only if your system administrator has activated the MRP areas for the whole client. Your system administrator does this in *Customizing for Material Requirements Planning* in [Activate MRP for MRP Areas \[Ext.\]](#).

#### Planning Cycles

See [Time-Phased Planning \[Ext.\]](#) in the SAP library documentation *MM Consumption-Based Planning*.

#### Plant-Specific Material Statuses

See [Material Statuses \[Page 93\]](#).

#### Production Versions

See [Production Versions \[Page 121\]](#).

#### Variant Configuration (Configurable Materials and Variants)

See the SAP library documentation [LO Variant Configuration \[Ext.\]](#).

## Additional Information

[PP Material Requirements Planning \[Ext.\]](#)

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**Material Statuses**

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01  
The material is blocked for Purchasing.
- 02  
The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Production Resources/Tools

### Use

Production resources/tools (PRTs) are mobile operating facilities used in production or plant maintenance. The R/3 System distinguishes between the following types of production resource/tool on the basis of their attributes and business function:

- Materials considered in materials management, for example, in inventory management, material requirements planning, and procurement
- Equipment such as measuring devices or high-quality tools requiring preventive maintenance
- Documents such as drawings or programs for which document management functions are used
- Other PRTs (with a PRT master record) requiring less maintenance

In the following objects, you can assign PRTs to operations and phases:

- Task lists (including standard networks and recipes)
- Production orders and maintenance orders
- Networks

If a PRT is required for inspections during production, you can assign it to the relevant inspection characteristic in the task list as test equipment.

### Integration

Using the classification system, you can group PRTs according to your own criteria, making it easier to search for the PRTs.

You can also link PRTs to document info records to refer to additional information such as a design drawing.

### Prerequisites

The standard R/3 System contains the special material type FHMI for production resources/tools. The standard system is configured such that the user department *Production Resources/Tools* appears only for materials of this material type. However, your system administrator can change this in Customizing for the *Material Master* in [Define Attributes of Material Types \[Ext.\]](#).

Since PRT data is created at plant level, you are required to specify a plant in the *Organizational Levels* dialog box to access the data screen for this user department.

### Activities

In the material master record of a PRT, you specify data required by PRT management. For information on PRT management, see [Production Resources/Tools \[Ext.\]](#) in the SAP library documentation *PP Routings*.

## Material Statuses

# Material Statuses

## Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

## Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Purchasing

### Prerequisites

You can specify a plant in the *Organizational Levels* dialog box before you access the *Purchasing* screen, but you do not have to do so since not all purchasing data is plant-specific. As a result, the data displayed depends on whether you enter a plant or not.

### Features

#### Plant-Specific Material Statuses

See [Material Statuses \[Page 93\]](#).

### Activities

The following data on the *Purchasing* screen is also used by other user departments so consult with the other users before making your entries:

- Batch management
- Goods receipt processing time

If you have specified a plant in the *Organizational Levels* dialog box, you can maintain the following data on the *Foreign Trade: Import Data* screen:

- Customs tariff preferences

By choosing this function, you access a dialog box in which you can enter preference data for each customs area assigned to the country of the plant. On the *Foreign Trade: Import Data* screen, the system merely displays whether the preference status and vendor declaration status are OK or not.

The preference status is not OK if a negative preference indicator (A, D, or E) is assigned to at least one customs area.

The vendor declaration status is not OK if a negative vendor declaration indicator (A or D) is assigned to at least one customs area.



If you want to copy the data in the *Customs Tariff Preference* dialog box from the reference material, the *Propose field cont.* indicator must be set for field RM03M-DMAPE in Customizing for the *Material Master* in [Assign Fields to Field Selection Groups \[Ext.\]](#). It is set already in the standard R/3 System.

- Export licenses

By choosing this function, you access a dialog box in which, for each material classification, you can assign a grouping in accordance with the legal regulation of the country of the plant.



If you want to copy the data in the *Export License* dialog box from the reference material, the *Propose field cont.* indicator must be set for field RM03M-DMAEX in

**Purchasing**

Customizing for the *Material Master* in *Assign Fields to Field Selection Groups*. It is set already in the standard R/3 System.

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Purchase Order Texts

# Purchase Order Texts



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*, and *site* for *plant*.

## Use

A purchase order text is a text describing the material in more detail. This text is subsequently copied to purchasing documents (such as purchase requisitions or purchase orders) automatically, where you can change it if necessary. It is valid for all organizational levels, not for a specific plant. You can enter a purchase order text in the material master record in as many languages as you like, though only one text is allowed per language.



This data screen does not support batch input. If you want to transfer data using a batch input program of your own, define your own screen sequence in Customizing for the *Material Master* in [Define Structure of Data Screens for Each Screen Sequence \[Ext.\]](#) and replace subscreen 2321 by 2322.

## Integration

Apart from the *Purchase Order Text* screen, a *Purchase order texts* subscreen has been created which you can include on a data screen in the material master. This subscreen indicates the number of languages in which the purchase order text has been created and contains a pushbutton to access maintenance of the text. This subscreen remain hidden until you assign it to a data screen. You do this in Customizing for the *Material Master* in *Define Structure of Data Screens for Each Screen Sequence*. The subscreen has the number SAPLMGD1 2323 for industry and SAPLMGD2 2323 for retail.

## Activities

### Maintaining Purchase Order Texts

1. This step depends on whether your system is an industry system or a retail system:
  - Industry  
Access the material master record in *Create* or *Change* mode, and access the *Purchase Order Text* view.
  - Retail  
Access the article master record in *Create* or *Change* mode, access the user department you require, and choose *Additional data* → *Purchase order text*.
2. Please follow steps 2 and 3 in [Basic Data Texts, Inspection Texts, Internal Comments \[Page 115\]](#).

## Quality Management

### Prerequisites

Since quality management data is managed at plant level, you must specify a plant in the *Organizational Levels* dialog box to access the *Quality Management* screen.

### Features

QM inspection data is a prerequisite for creating inspection lots for the material in Quality Management. Inspection lots are created for all goods movements that are relevant to QM. You determine the types of movement relevant to quality management in the material master record.

For more information on quality management, QM inspection data, and how to create it, see the SAP library documentation [QM Basic Data \[Ext.\]](#).

---

**Material Statuses**

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Sales

### Prerequisites

In the *Organizational Levels* dialog box, you can enter a valid combination of sales organization and distribution channel before you access the *Sales* screens, but you do not have to do so because not all sales data is specific to a particular combination of sales organization and distribution channel. As a result, the data displayed depends on your entries in this dialog box.

By assigning a material to different distribution channels, you can sell the same material at different prices or in different quantities. This allows, for example, the quantity you sell to retailers to differ from the quantity you sell to wholesalers.

You need consider whether to specify a plant only in the case of the *Sales: General/Plant Data* screen. However, you can maintain certain data such as the gross weight, net weight, and transportation group without specifying a plant.

See also [Interdependency of User Department and Organizational Level \[Page 94\]](#).

### Features

#### Distribution-Chain-Specific / Cross-Distribution-Chain Material Statuses

See [Material Statuses \[Page 93\]](#).

#### Field Selection

If the material is **not** a packaging material, the standard field selection defined in Customizing for the *Material Master* (in [Maintain Field Selection for Data Screens \[Ext.\]](#)) is such that the following fields are hidden on the *Sales: General/Plant Data* screen:

- Shipping material type
- Allowed packaging weight
- Allowed packaging volume
- Filling level
- Stackability factor
- Weight tolerance limit
- Volume tolerance limit

#### Replenishment Parameters for External Customers

See [Article Master Data for External Customers \[Ext.\]](#) in the SAP library documentation *LO SAP Retail*.

#### Sales Texts

See [Sales Texts \[Page 88\]](#).

#### Activities

On the *Sales: Sales Organization Data* screen, you can enter the sales prices of the material in *Create* mode or *Change* mode by choosing *Conditions*.

## Sales

On the *Sales: General/Plant Data* screen, the unit of weight is a required field because it is copied to sales orders for the material, where it cannot be changed. Your system administrator can specify a unit of weight that is proposed by the system when creating materials from the *Sales* view. This unit of weight can be defined in Customizing for the *Material Master* in [Define Material Groups \[Ext.\]](#). If no material group is assigned to the material, or if a material group is assigned for which no unit of weight has been specified in Customizing, the SI unit (système internationale des unités) for the dimension MASS (normally kg) is proposed in the material master record.

If you have specified a plant in the *Organizational Levels* dialog box, you can maintain the following data on the *Foreign Trade: Export Data* screen:

- Customs tariff preferences

By choosing this function, you access a dialog box in which you can enter preference data for each customs area assigned to the country of the plant. On the *Foreign Trade: Export Data* screen, the system merely displays whether the preference status and vendor declaration status are OK or not.

The preference status is not OK if a negative preference indicator (A, D, or E) is assigned to at least one customs area.

The vendor declaration status is not OK if a negative vendor declaration indicator (A or D) is assigned to at least one customs area.



If you want to copy the data in the *Customs Tariff Preference* dialog box from the reference material, the *Propose field cont.* indicator must be set for field RM03M-DMAPE in Customizing for the *Material Master* in [Assign Fields to Field Selection Groups \[Ext.\]](#). It is set already in the standard R/3 System.

- Legal control

By choosing this function, you access a dialog box in which, for each material classification, you can assign a grouping in accordance with the legal regulation of the country of the plant.



If you want to copy the data in the *Legal Control* dialog box from the reference material, the *Propose field cont.* indicator must be set for field RM03M-DMAEX in Customizing for the *Material Master* in *Assign Fields to Field Selection Groups*. It is set already in the standard R/3 System.

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Sales Texts

# Sales Texts



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

## Use

A sales text is a text describing the material in more detail. This text is subsequently copied to sales documents (such as requests for quotations or sales orders) automatically, where you can change it if necessary. It is valid for a specific sales organization and distribution channel (that is, distribution chain). You can enter a sales text in the material master record in as many languages as you like, though only one text is allowed per language.



This data screen does not support batch input. If you want to transfer data using a batch input program of your own, define your own screen sequence in Customizing for the *Material Master* in [Define Structure of Data Screens for Each Screen Sequence \[Ext.\]](#) and replace subscreen 2121 by 2122.

## Integration

Apart from the *Sales Text* screen, a *Sales texts* subscreen has been created which you can include on a data screen in the material master. This subscreen indicates the number of languages in which the sales text has been created and contains a pushbutton to access maintenance of the text. This subscreen remain hidden until you assign it to a data screen. You do this in Customizing for the *Material Master* in *Define Structure of Data Screens for Each Screen Sequence*. The subscreen has the number SAPLMGD1 2123 for industry and SAPLMGD2 2123 for retail.

## Activities

### Maintaining Sales Texts

2. This step depends on whether your system is an industry system or a retail system:
  - Industry  
Access the material master record in *Create* or *Change* mode, and access the *Sales Text* view.
  - Retail  
Access the article master record in *Create* or *Change* mode, access the user department you require, and choose *Additional data* → *Sales text*.
3. Please follow steps 2 and 3 in [Basic Data Texts, Inspection Texts, Internal Comments \[Page 115\]](#).

## Stocks, Plant and Storage Location

### Use

Once you have created the material master record, you can select the following data screens in the *Select View(s)* dialog box for displaying the stocks held at a particular plant or storage location:

- Plant stock
- Storage location stock

### Integration

Besides displaying the stock balances on these data screens, you can display an overview of the existing stocks of a material at all organizational levels in the stock overview. For more information, access the stock overview from the [Material Master \[Ext.\]](#) menu by choosing *Other* → *Stock overview* and choose *Help* → *Application help* to access the program documentation.

### Prerequisites

To display plant stocks, you are required to specify a plant in the *Organizational Levels* dialog box. To display storage location stocks, you are required to specify a plant and a storage location in the *Organizational Levels* dialog box.

### Features

Stocks for the current period and for the previous period are displayed on a single screen.

### Activities

It is not possible to manually enter or change the stock balances displayed on these screens. The stock balances are updated by the system whenever goods are received or issued.

### Additional Information

- For information on the types of stock that can be managed in the R/3 System, see the SAP library documentation *MM Inventory Management* [Stocks in the Material Master Record \[Ext.\]](#).
- SAP library documentation [LO Batch Management \[Ext.\]](#)

---

**Storage**

## Storage

### Prerequisites

In the *Organizational Levels* dialog box, you can enter a plant or a valid combination of plant and storage location. However, you do not have to do so since not all storage data is specific to a plant and storage location. As a result, the data displayed depends on your entries in this dialog box.

### Activities

You need specify a unit of issue only if the unit in which the material is issued from the warehouse differs from the base unit of measure. This information is also used by other user departments so consult with them first.

You can specify data on the shelf life expiration date check performed by the system upon goods receipt. However, this requires the check to be activated in Customizing for *Inventory Management* in [Set Expiration Date Check \[Ext.\]](#).

## Warehouse Management

### Prerequisites

Warehouse management data is managed at warehouse number level and, optionally, at storage type level (that is, one or more storage bins) and plant level. In the *Organizational Levels* dialog box, you must therefore specify at least a warehouse number for each material with warehouse management data. As a result, the data displayed on the *Warehouse Management* screen depends on your entries in this dialog box.

### Additional Information

SAP library documentation [MM Warehouse Management Guide \[Ext.\]](#)

---

**Work Scheduling**

## Work Scheduling

### Prerequisites

Since work scheduling data is managed at plant level, you must enter a plant in the *Organizational Levels* dialog box to access the *Work Scheduling* screen.

### Features

For information on:

- Plant-specific material statuses  
See [Material Statuses \[Page 93\]](#).
- Production versions  
See [Production Versions \[Page 121\]](#).

### Activities

You can enter work scheduling times in one of the following ways:

- By entering the setup time, interoperation time, and processing time for the material, as well as the base quantity to which the processing time relates. You do this under *Lot size dependent in-house production time*.
- By entering the entire in-house production time, this being the sum of setup time, interoperation time, and processing time. You do this under *Lot size independent in-house production time*.

By choosing *Versions*, you access a dialog box where you can create production versions. For more information, see [Production Versions \[Page 121\]](#).

## Material Statuses

### Use

The material status tells you whether a material is subject to restrictions, and what they are. For example, a material may be a part under development or one to be discontinued. The use of a material can be restricted in a number of ways:

- The material can be blocked for use in certain business activities by assigning one or both of the following material statuses to it:
  - Plant-specific material status  
In the standard material master, this field appears on the *Costing* screen, *MRP* screen, *Production Resources/Tools* screen, *Purchasing* screen, *Quality Management* screen, and *Work Scheduling* screen.
  - Cross-plant material status  
In the standard material master, this field appears on the *Basic Data* screen. It is valid for the whole client.
- The material can be blocked for use in certain sales activities by assigning one or both of the following statuses to it:
  - Distribution-chain-specific material status
  - Cross-distribution-chain material status  
In the standard material master, both of these fields appear on the *Sales: Sales Organization Data* screen. The cross-distribution-chain material status is valid for the whole client.
- The material can be flagged for deletion. For more information, see [Flagging Material Master Records for Deletion \[Page 48\]](#).

### Activities

The plant-specific and cross-plant material status, or distribution-chain-specific and cross-distribution-chain material status, are considered jointly by the system.



You have the following material statuses:

- 01

The material is blocked for Purchasing.

- 02

The material is blocked for Inventory Management.

You assign material status 01 to the material at plant level, and material status 02 at cross-plant level (that is, at client level). As a result, you block the plant material both for Inventory Management and for Purchasing.

## Interdependency of User Department and Organizational Levels

## Interdependency of User Department and Organizational Levels

### Use

Depending on the user department to which you belong, you may need to enter additional organizational levels and control parameters. One important factor is the organizational level at which the data is managed.

### Activities

The following table shows you which data you must/can specify, and when.

#### User Departments and Required/Optional Entries

User department	Field	Entry
Accounting	Plant (if valuation at plant level)	Mandatory
	Company code (if valuation at company code level)	Mandatory
Basic data	N/A	N/A
Classification	N/A	N/A
Costing	Plant	Mandatory
Forecasting	Plant	Mandatory
	Forecast profile	Optional
MRP	Plant	Mandatory
	Storage location	Optional
	MRP profile	Optional
Production resources/tools	Plant	Mandatory
Purchase order text	Plant	Optional
Purchasing	Plant	Optional
Quality management	Plant	Mandatory
Sales: sales organization data	Plant	Optional
	Sales organization	Mandatory
	Distribution channel	Dependent on sales organization
Sales: general/plant data	Plant	Optional
	Sales organization	Optional
	Distribution channel	Dependent on sales organization

**Interdependency of User Department and Organizational Levels**

Sales text	Plant Sales organization Distribution channel	Optional Optional Dependent on sales organization
Storage	Plant Storage location	Optional Optional
Warehouse management	Plant Warehouse number Storage type	Optional Mandatory Optional
Work scheduling	Plant	Mandatory

---

**Screen Sequence and Field Selection**

## Screen Sequence and Field Selection

### Use

When processing a material master record, you work through its screens in a set sequence. This is the **screen sequence**. Certain fields on these screens are needed for some processes, but not for others. This is the **field selection**.

### Prerequisites

The screen sequence and field selection in a material master record are determined, for example, by the following factors:

- SAP R/3 application components used by your company  
If, for example, your company does not use the Warehouse Management component, the warehouse management screens do not appear.
- Industry sector to which your company and thus your materials belong  
If, for example, your company belongs to the chemical industry, the fields that appear on the screens will not be the same as for a mechanical engineering company.
- Material type to which you assign a material  
If, for example, the material is a raw material, the sales screens are not displayed in the standard R/3 System because raw materials are not sold.
- Organizational level(s) at which you enter data  
If, for example, you enter data at plant level only, storage-location-specific fields are hidden.

### Features

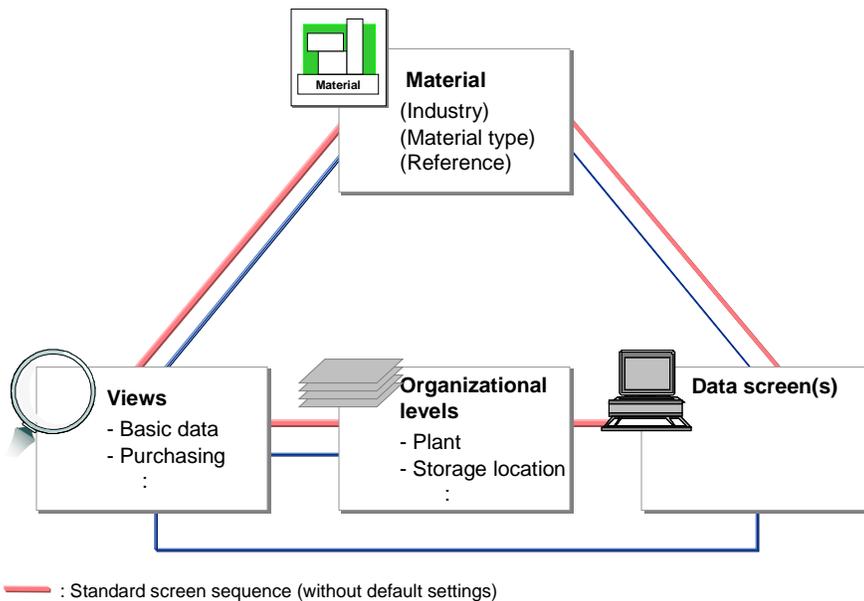
When accessing a material master record, the following dialog boxes appear:

- Select view(s)  
Here, you select the user department screens that you want for the material master record.
- Organizational levels  
Here, you specify the organizational levels such as plant, storage location, and so on.

The system then displays the first data screen.

This sequence is illustrated in the following graphic representation:

## Screen Sequence and Field Selection



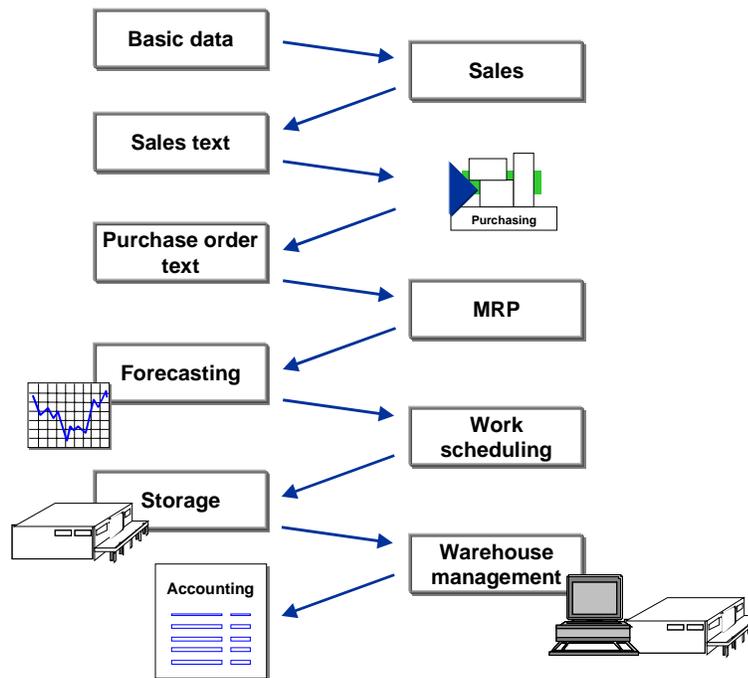
The data screens in a material master record can be divided into the following types:

- **Main screens**  
These are the screens of the individual user departments such as *Basic Data*, *MRP*, and so on. They also include the *Purchase Order Text* and *Sales Text* data screens, and also the stock screens.
- **Additional screens**  
These are data screens that can be accessed from any view in a material master record by choosing *Additional data* in the standard material master (with tab pages). Examples include units of measure, material descriptions, and consumption.
- **Secondary screens**  
These are screens that can be accessed either as an additional screen or by pushbutton.

A standard processing sequence is defined for the main screens. It is followed provided that all requirements such as material type, user department authorization, view selection, and so on, are met. To go from one main screen to the next, choose *Enter*.

The standard screen sequence is illustrated in the following graphic representation:

## Screen Sequence and Field Selection



## Activities

You can access any screen direct as long as the following conditions are met:

- You have the authorization for the user department concerned.
- The user department is allowed for the material type specified.

## Maintenance Statuses

### Use

When a user department creates its data for a material, the material master record acquires a corresponding maintenance status. The maintenance status is important for finding out which data has already been maintained and which data still needs to be maintained.

The table below shows the maintenance statuses that a material master record can have.

User department	Maintenance status
Accounting	B
Basic data	K
Classification	C
Costing	G
Forecasting	P
MRP	D
Plant stocks	X*
Production resources/tools	F
Purchasing	E
Quality management	Q
Sales	V
Storage	L
Storage location stocks	Z*
Warehouse management	S
Work scheduling	A

\* This data is used for display purposes only. It cannot be updated manually.

### Integration

A material master record also needs a certain status so that other SAP components can work with it. For example, accounting data must exist for a material before inventory management functions can be used.

---

**Additional Data**

## Additional Data

### Use

Data screen that can be accessed from any view in a material master record by choosing *Additional data* in the standard material master (with tab pages).

### Integration

In [Customizing for the Material Master \[Ext.\]](#), you can configure the material master as follows:

- Change the order in which additional screens appear as tab pages  
You do this in [Maintain Order of Main and Additional Screens \[Ext.\]](#).
- Define that a secondary screen is accessed by pushbutton from another screen  
You do this in [Assign Secondary Screens \[Ext.\]](#).

## Material Descriptions



Unless indicated otherwise, the information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

### Use

A short text describing a material. You can enter this text in the material master record in as many languages as you like, though only one text is allowed per language.

### Activities

#### Entering a Material Description

You normally enter the material description in the logon language on the first data screen you process. Since the material description is the same for all user departments, it is important to agree on a suitable description when the material master record is created.

#### Changing a Material Description

The material description can be changed on any data screen in the material master by users authorized to change fields valid at client level.



#### Retail only

In the article master, the article description cannot be changed for the variants of a generic article.

#### Entering/Changing Material Descriptions in Other Languages

1. Access the material master record in *Create* or *Change* mode and choose *Additional data* → *Descriptions*.
2. Enter the key of the required language and enter the description in this language, or change an existing description as required.

---

**Units of Measure**

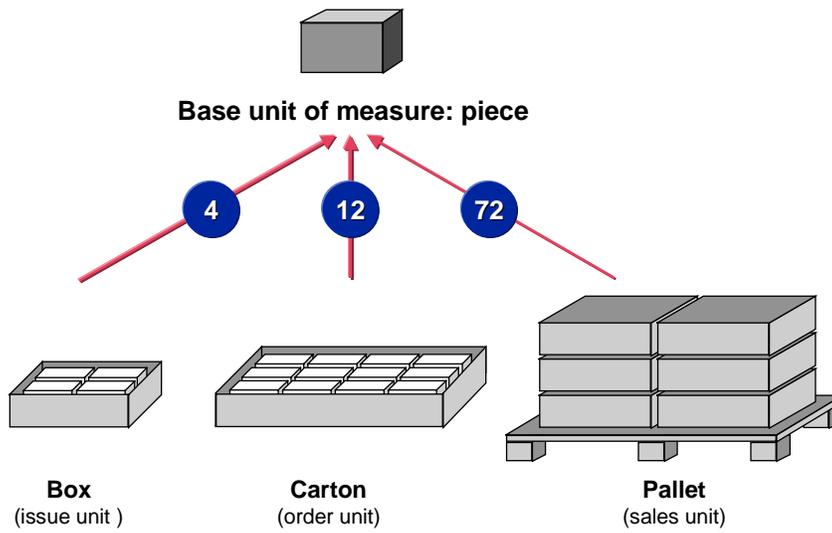
## Units of Measure

### Use

The R/3 System distinguishes between the following units of measure:

- Base unit of measure
  - This is the unit of measure in which the stocks of a material are managed. The system converts all quantities entered in other units to the base unit of measure.
- Alternative units of measure
  - Individual departments may have their own units of measure. For example, Purchasing may use a different unit than Sales or Warehouse Management (WM). All units of measure other than the base unit of measure are referred to as *alternative units of measure*. The R/3 System supports the following alternative units of measure:
    - Order unit
      - Allows a material to be ordered in a unit differing from the base unit of measure. The order unit is proposed automatically in purchasing functions, where it can be changed.
    - Sales unit
      - Allows a material to be sold in a unit differing from the base unit of measure. The sales unit is proposed automatically in the sales order, where it can be changed.
    - Unit of issue
      - Unit of measure in which the material is issued from the warehouse. It allows consumption, stock transfers, transfer postings, and physical inventories to be recorded in a unit differing from the base unit of measure and from the stockkeeping unit.
    - WM unit
      - Unit of measure in which materials are managed in Warehouse Management. For inventory management, the system converts the quantities entered in the WM unit to the base unit of measure. For example, if a material is normally managed using pieces as the base unit of measure, but several thousand pieces are contained in a box, it may be more appropriate to define a WM unit that is more manageable for WM purposes.

The relationship between the base unit of measure and alternative units of measure is illustrated below:



## Prerequisites

All material data is updated in the base unit of measure. Choose this unit carefully since an exact quantity can be expressed in an alternative unit of measure only if its value can be shown with decimal places. It is therefore important to observe the following two principles when defining the base unit of measure:

- The base unit of measure is the unit that provides the maximum precision necessary.
- Conversion from an alternative unit of measure to the base unit of measure should result in a simple decimal, not a recurring (or repeating) decimal.

## Features

### Units of Measure Groups

A units of measure group contains several alternative units of measure and the factors for converting them to the base unit of measure. You can define groups of this kind in Customizing for the *Material Master* in *Group Together Units of Measure*. When entering alternative units of measure, you can save time by specifying a units of measure group rather than entering the same alternative units of measure individually.

### Maintaining Units of Measure in Accordance with the Packaging Hierarchy

See [Articles: Maintaining Units of Measure in Accordance with the Packaging Hierarchy \[Ext.\]](#) in the SAP library documentation *SAP Retail*.

## Activities

All quantities that you enter in units other than the base unit of measure are converted to the base unit by the system automatically. It does this using a central conversion table. If you use units that are not contained in this table, you must state the factor for converting the alternative unit of measure to the base unit of measure in the material master record. You normally enter this information when specifying the alternative unit(s) of measure.

---

Units of Measure

## Entering Alternative Units of Measure



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

1. Access the material master record in *Create* or *Change* mode and choose *Additional data* → *Units of measure*.
2. Choose one or both of the following options:
  - Enter the alternative unit of measure and the factor for converting it to the base unit of measure.
  - Enter a units of measure group.

The system enters the alternative units of measure and the conversion factors defined in this group.
3. Choose the next function you want to perform, or save your data.

---

**Changing the Base Unit of Measure**

## Changing the Base Unit of Measure

### Prerequisites

It is only possible to change the base unit of measure in the following cases:

- If there are no stocks of the material in the system
- If there are no purchase requisitions, purchase orders, or scheduling agreements for the material
- If a purchase order or purchase order item is not being created or changed

If requests for quotations, purchasing info records, or contracts exist for a material, the system merely issues a warning when you change the base unit of measure. If one of these later becomes a purchase order, you simply have to specify the factor for converting the order unit to the new base unit of measure in a dialog box. The purchasing info record is then updated if necessary.

### Procedure

1. Access the material master record in *Change* mode.
2. Overwrite the old base unit of measure with the new one on any departmental data screen.
3. Save the change.

### Result

The system checks whether the base unit of measure can be changed. If it cannot be changed, a message appears to this effect. Choose *Display errors* to display the reason.

## International Article Numbers (EANs)

### Use

An International Article Number (EAN) (or Universal Product Code (UPC) in the United States of America) is an internationally standardized number uniquely identifying a material. It always refers to a specific unit of measure or type of packaging such as a pack of ten pieces or a box. For each unit of measure defined in a material master record, you can assign one or more EANs and specify packaging data (such as dimensions, volume, and gross weight).

### Features

An EAN normally has 13 digits and the following structure:

- EAN prefix  
This may be a country indicator, identifying the country from which the material comes, or, in the case of instore EANs, it may be company-specific.
- Article number
- Check digit

Its purpose is to ensure that no incorrect EANs are entered manually or scanned.

Position	Meaning
1–3	EAN prefix
1–12	Article number (the EAN prefix is a part of this)
13	Check digit

### Activities

EANs are normally assigned by the manufacturer of the material. They can also be assigned by a company using different instore numbering techniques. Instore EANs are known to the company only. They can be assigned in one of the following ways:

- Internally (by the system)  
Internal number assignment is preferable because there are a number of criteria that an EAN must fulfill, for example, it must:
  - Belong to a valid number range interval
  - Contain a valid EAN prefix  
This is usually if not always a requirement.
  - Satisfy a predefined check-digit algorithm
- Externally (by the user)  
Only assign an EAN externally if the number is predefined by your vendor or if you are familiar with configuring EANs in Customizing for the *Material Master*.

The type of number assignment is defined by the EAN category to which each EAN is assigned. The EAN category also determines the check-digit algorithm for the EAN. For more information

**International Article Numbers (EANs)**

on EAN categories, see the documentation for the activity [Define Attributes of EANs/UPCs \[Ext.\]](#) in Customizing for the *Material Master*.

## Assigning One EAN to a Unit of Measure

1. Access the material master record in *Create* or *Change* mode, and select the user department *Basic Data*.  
The *Basic Data* screen appears.
2. You now have the following options:
  - If EANs (International Article Numbers) are assigned internally, specify an EAN category, but not an EAN. The system determines the EAN automatically when you choose *Enter*.
  - If EANs are assigned externally, specify an EAN. If you do not specify an EAN category, it will be determined automatically when you choose *Enter*.

If the EAN has the EAN category for UPC-E (Universal Product Codes displayed in a contracted form), you must also specify the EAN category, but only if the EAN category for normal UPCs is also used in your system. For more information, see the documentation for the activity [Define Attributes of EANs/UPCs \[Ext.\]](#) in Customizing for the *Material Master*.

The EAN here always refers to the base unit of measure, as does any gross weight or volume that you enter.

To enter packaging data (such as dimensions, volume, and gross weight) for the EAN for the base unit of measure, choose *Additional data* → *Units of measure*. You can access this function from all user department screens. Any values for gross weight and volume that you have already entered on the *Basic Data* screen for the base unit of measure are displayed on the screen that appears. You can now enter all valid units of measure for the material. For each unit of measure, you can specify an EAN or EAN category, and also packaging data. The EAN for each unit of measure on this screen is the main EAN.

3. To return to the *Basic Data* screen, choose *Back*.
4. Save your data.

---

**Assigning Additional EANs to a Unit of Measure**

## Assigning Additional EANs to a Unit of Measure



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

1. Access the material master record in *Create* or *Change* mode and choose *Additional data* → *Additional EANs*.
2. Enter the unit of measure to which you want to assign additional EANs (International Article Numbers). You can enter only units of measure already specified on the *Units of Measure* screen.
3. You now have the following options:
  - If EANs are assigned internally, specify an EAN category, but not an EAN. The system will determine the EAN automatically when you choose *Enter*.
  - If EANs are assigned externally, specify an EAN. If you do not specify an EAN category, the system will determine it automatically when you choose *Enter*.



If the EAN has the EAN category for UPC-E (Universal Product Codes displayed in a contracted form), you must also specify the EAN category, but only if the EAN category for normal UPCs is also used in your system. For more information, see the documentation for the activity [Define Attributes of EANs/UPCs \[Ext.\]](#) in Customizing for the *Material Master*.

For each unit of measure, you must flag one EAN as the main EAN. When you exit the *Additional EANs* screen, this EAN is copied to the *Units of Measure* screen and, in the retail system, also to the *Basic Data* screen. In the industry system, it is copied to the *Basic Data* screen only if it is the EAN for the base unit of measure.

4. Repeat the above steps until you have assigned as many EANs as required.
5. Access the *Units of Measure* screen. Indicator *A* is now set, indicating that EANs exist in addition to the main one displayed here.



If you overwrite the EAN on the *Units of Measure* screen or on the *Basic Data* screen by entering another EAN, the EAN you enter is copied to the *Additional EANs* screen as the main EAN.

If, on the *Units of Measure* screen, you delete the EAN for a unit of measure for which additional EANs exist, a dialog box appears in which you must designate one of the additional EANs as the main EAN.

6. Save your data.

## Allowing an EAN to Be Assigned to Several Materials

### Prerequisites

Since an EAN (International Article Number) is used to identify a material uniquely, it is unusual to assign it more than once, that is, to different materials and packaging. However, under certain circumstances, you may decide that this is appropriate.

### Procedure

1. Access [Customizing for the Material Master \[Ext.\]](#) and choose *Define Attributes of System Messages*.
2. As the message category of message M3 348, enter either **w** for warning or leave the message category blank so that no message is issued.

## Document Management



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

### Use

A material may have various documents such as drawings and photographs assigned to it. The system differentiates between these documents by means of the document type. If your company uses SAP's document management system, you can manage documents and assign existing documents to a material in the material master record. Document data is managed at client level.

### Features

In the standard R/3 System, the document type *Design drawing* is preset as the standard document type, though, if required, your system administrator can define a different standard document type in Customizing for the *Material Master* in [Make Global Settings \[Ext.\]](#).

If one document of the standard document type has been assigned to the material, the details are displayed directly on the *Design documents assigned* subscreen. In the standard R/3 System, this subscreen appears on the:

- *Basic Data* screen in the **industry** system
- *Other Basic Data* screen in the **retail** system

You access the *Other Basic Data* screen from the *Basic Data* screen by choosing *Other basic data*.

If the document is not of the standard document type, the *No link* indicator is set on the *Design documents assigned* subscreen. You can display such documents by choosing *Additional data* → *Document data*. The *No link* indicator is also set if a document has not yet been assigned to the material.

If more than one document of the standard document type has been assigned to the material, the *Several links* indicator is set on the *Design documents assigned* subscreen. You can view these documents by choosing *Additional data* → *Document data*.

### Activities

You can create links to documents by choosing *Additional data* → *Document data* from any of the user department data screens. For more information, see [Assigning Documents to a Material Master Record \[Page 114\]](#).

If you specify a reference material when creating a material master record, the system copies any document data from the reference material. However, for it to display data on a document of the standard document type directly in the material master record, you must first adopt the document. You do this from any of the user department data screens by choosing *Additional data* → *Document data* to access and confirm the *Document data* screen.

If your company does not use SAP's document management system, you can use the *Drawing* subscreen to directly enter data on a design drawing.

## Additional Information

SAP library documentation [CA Document Management \[Ext.\]](#)

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**Assigning Documents to a Material Master Record**

## Assigning Documents to a Material Master Record



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*.

1. Access a material master record in *Create* or *Change* mode, and select the user department *Basic Data*.

2. To create links to documents, choose *Additional data* → *Document data*.

The *Link to Documents* dialog box appears.

Assign one or more documents to the material. If you do not know what the document number is, you can search for it using the search help or by choosing *Find document*.

When assigning a document to a material, you have the following options:

- Viewing the document by choosing it in the *Link to Documents* dialog box
- Viewing any originals of the document by positioning the cursor on the document and choosing *Display originals* in the *Link to Documents* dialog box

3. To return to the *Basic Data* screen, choose *Continue*.

4. Save your data.

## Basic Data Texts, Inspection Texts, Internal Comments



With the exception of the internal comment, the information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute *article* for *material*, and *site* for *plant*.

### Use

In a material master record, you can store the following different kinds of text at client level, meaning that they are also valid at all lower organizational levels (such as plant and storage location). You can enter each of these texts in as many languages as you like, though only one text is allowed per language.

- Basic data text  
You can use this text as you like, for example, to store additional, general information on the material.
- Inspection text  
You can use this text to stipulate rules on the procedure to be followed for inspecting a material, or any special points to be observed.
- Internal comment  
You can use this text as you like, for example, to store any specific points to be taken into consideration with regard to the material.



These data screens do not support batch input. If you want to transfer data using a batch input program of your own, define your own screen sequence in Customizing for the *Material Master* in [Define Structure of Data Screens for Each Screen Sequence \[Ext.\]](#) and replace the subscreens as follows:

- Industry
  - Replace 2031 by 2032 (basic data text)
  - Replace 2071 by 2072 (inspection text)
  - Replace 2051 by 2052 (internal comment)
- Retail
  - Replace 2261 by 2262 (basic data text)
  - Replace 2071 by 2072 (inspection text)

### Integration

Apart from the data screen for each of the above texts, the following subscreens have been created for each text. You can include these subscreens on a data screen in the material master. Each subscreen indicates the number of languages in which the relevant text has been created and contains a pushbutton to access maintenance of that text. Except for the *Basic data texts*

## Basic Data Texts, Inspection Texts, Internal Comments

subscreen in the *Basic Data* view in the standard material master for industry, these subscreens remain hidden until you assign them to a data screen. You do this in Customizing for the *Material Master* in [Define Structure of Data Screens for Each Screen Sequence \[Ext.\]](#).

- Industry
  - Subscreen SAPLMGD1 2033 (Basic data texts)
  - Subscreen SAPLMGD1 2073 (Inspection texts)
  - Subscreen SAPLMGD1 2053 (Internal comments)
- Retail
  - Subscreen SAPLMGD2 2263 (Basic data texts)
  - Subscreen SAPLMGD2 2073 (Inspection texts)

## Activities

### Maintaining Basic Data Texts, Inspection Texts, and Internal Comments

1. Access the material master record in *Create* or *Change* mode and choose *Additional data* → *<text type>*.
2. You have the following options:
  - Creating a new text

If a text of the text type has not yet been maintained, the system creates a blank text in the logon language. If you want to create a text in another language, choose *Create text* and specify the language in the dialog box that appears. Then enter your text as required. For more word-processing functions, choose *Editor* to enter your text in *SAPscript*. For information on how to use *SAPscript*, see the SAP library documentation [BC Word-Processing in the SAPscript Editor \[Ext.\]](#).

If you have already created a text and want to use it to create a text in another language, choose *Create text* and specify the language in which you want to create the text, and the language of the text you want to use as a reference. You can then overwrite the reference text in the new language.
  - Changing an existing text

Select the language of the text you want to change, and change the text as required.
  - Deleting an existing text

Select the language of the text you want to delete, and delete the text by choosing *Delete text*.
3. Choose the next function you want to perform, or save your data.

## Default Industry Sectors, Views, Organizational Levels, Profiles

### Use

If you frequently assign materials to the same industry sector, it is useful to define it as a default to save you having to keep entering it whenever you create or access a material master record. Likewise, if you always require the same views when creating or accessing material master records, you can define that they are selected by default in the *Select View(s)* dialog box. Like the industry sector, you can also predefine the organizational levels for which you maintain data, and the profiles you use.

You can also define that one or more of the following are hidden whenever you create a material master record:

- *Industry sector* field
- *Select View(s)* dialog box
- *Organizational Levels* dialog box (including profiles)

You can always cancel this setting. The relevant field or dialog box then reappears.

### Additional Information

[Industry Sectors \[Page 24\]](#)

[User Departments \(Main Data\) \[Page 54\]](#)

[Corporate Structure \[Page 8\]](#)

[Profiles \[Page 126\]](#)

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**Setting Default Industry Sectors, Views, Organizational Levels, Profiles**

## Setting Default Industry Sectors, Views, Organizational Levels, Profiles

1. On the *Create Material: Initial Screen*, enter an industry sector and material type, and choose *Defaults* and either:
  - *Industry sector*

In the dialog box, specify the industry sector you want to set as a default.
  - *Views*

In the dialog box, select the views you want to be selected by default.
  - *Organizational levels*

In the dialog box, specify the default values under *Organizational levels* and under *Profiles* as required.

If you want the system to propose certain organizational levels when you create a material master record using a reference material, specify the organizational levels under *Copy from* as required.

If you do not want the *Industry sector* field, or the *Select View(s)* dialog box, or the *Organizational Levels* dialog box to be displayed on the initial screen, set the relevant indicator. The field or dialog box will not reappear on the initial screen until you cancel this indicator.
2. To return to the initial screen and continue, choose *Enter*.

## Materials List

### Use

Your company may have so many materials that you will not always know whether a specific material already exists in the material master. You can find this out using the materials list. This function allows you to list materials according to one or more of the following selection criteria:

- Material number
- Plant
- Material type
- Material group
- Person who created the material

### Features

Besides the data you enter on the selection screen, the materials list also contains other useful data such as the material description, base unit of measure, price control indicator, price unit, and valuation price.

---

**Creating a Materials List**

## Creating a Materials List

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Materials list*.  
The selection screen appears.
2. Enter your selection criteria.  
You now have the following options:
  - *Valuated materials only* indicator set (default setting)  
Only materials with accounting data **and** data at plant level are listed.
  - *Valuated materials only* indicator not set  
All existing materials that meet your selection criteria are listed, including materials with accounting data that are not yet assigned to a plant. For technical reasons, the system displays only the general data for such materials and not the accounting data.
3. Choose one of the following options:
  - To display the list, choose *Program* → *Execute*.
  - To print the list, choose *Program* → *Execute and print*.  
Specify the print parameters on the next screen and choose *Print*.

## Production Versions

### Use

A production version determines the various production techniques that can be used to produce a material. It defines the following information:

- Alternative BOM for a BOM explosion
- Task list type, task list group, and group counter for assignment to task lists
- Lot-size restrictions and period of validity

A material can have one or more production versions.

### Prerequisites

In the standard R/3 System, you can process production versions for master recipes only in the master recipe if an approval procedure is stipulated by the change rule. However, you can also allow production versions of this kind to be maintained in the material master. You do this in Customizing for *Master Data* (Production Planning for Process Industries) by accessing the activity [Determine System Message Features \[Ext.\]](#) and defining that message C5 632 is displayed only as a warning or that it is not displayed at all. As a result, you can create the production version in the material master and maintain it in the master recipe, or vice versa. Please remember that the production version in the material master is not subject to an approval procedure.

### Activities

When creating or changing a material master record, you can create individual production versions at plant level for the following materials:

- Materials allowing in-house production
- Materials only procured externally

In this case, production versions can be useful if the materials are procured externally from a subcontractor.

You are free to define the number of the production version. However, the number must be unique.

---

**Creating Production Versions**

## Creating Production Versions

1. On the *MRP*, *Work Scheduling*, or *Costing* screen, choose *ProdVersions*.

The *Production Version Overview* dialog box appears.

2. Enter the following information:
  - Version number
  - Text describing the production version
  - Validity period

If a run schedule can be created for the production version, set the *RS* indicator.

To specify more information on the production version, choose *Details*. The *Production Version Details* dialog box appears. Enter your additional information as required and choose one of the following options:

- *Continue* to return to the overview
- *Next version* to access the *Production Version Details* dialog box for the next production version



If you know from the start that you will need to enter more data than that offered in the *Production Version Overview* dialog box, choose *New details*. The *Production Version Details* dialog box appears.

3. To return to the *MRP*, *Work Scheduling*, or *Costing* screen, choose *Continue*.
4. Save your data.

## Creating Production Versions with a Reference

### Prerequisites

When you create a material master record specifying a reference material and reference plant, the system proposes the production version(s) from the reference material. However, the production versions are adopted only after you have checked them by choosing *ProdVersions*.

The production versions are proposed only if the *Propose field cont.* indicator is set for the field MARC\_MKAL. It is not set in the standard R/3 System. You can check whether this is the case in Customizing for the *Material Master* in *Assign Fields to Field Selection Groups*.

### Procedure

1. On the *MRP, Work Scheduling, or Costing* screen, choose *ProdVersions*.  
The *Production Version Overview* dialog box appears.
2. Change the data as required and save your changes.

---

**Revision Levels**

## Revision Levels

### Use

A revision level identifies a specific change status of a material with reference to a change number. It is used, for example, to identify changes affecting other areas such as Production.

### Integration

You generally assign a revision level when processing a material BOM (bill of material created with reference to a material master record). However, you can also assign a revision level when processing a material master record.

### Activities

You can display a revision level assigned to a material by choosing *Display revision level* on a departmental data screen in a material master record.

For more information on revision levels, see [Revision Level \[Ext.\]](#) in the SAP library documentation *LO Engineering Change Management*.

## Assigning a Revision Level

1. On a departmental data screen in a material master record, choose *Create revision level*.  
A dialog box appears.
2. Enter a change number.  
The system has already determined the revision level automatically on the basis of the numbering configuration defined by your system administrator in Customizing for *Engineering Change Management* in [Define Revision Levels for Materials \[Ext.\]](#).
3. Choose *Continue*.  
A dialog box appears in which you can enter a description of the change made to the object.
4. Choose *Enter*.  
The system issues a message telling you that it has assigned the revision level to the material. You confirm this message by choosing *Enter*.
5. Choose the next function you want to perform or save your data.

## Profiles

# Profiles



Unless indicated otherwise, the information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

## Use

A profile is a collection of information used to configure certain objects. In it, you can store standard information that you need repeatedly in almost identical combinations when maintaining different objects. Thus, a profile simplifies the entry and management of data.

In the case of material master data, the objects are the material master records and the object data is the material requirements planning (MRP) or forecasting data which you can enter in the following profiles:

- MRP profile
- Forecast profile

## Integration

### Retail

When you create an article master record using a reference article to which a profile is assigned, the system proposes the logistics data (requirements planning and forecasting) for the reference site maintained for the reference article.

### Industry and Retail

Any changes to the **fixed** values defined in a profile are copied to the material master records to which the profile is assigned. For more information, see [Changing a Profile \[Page 130\]](#).

## Prerequisites

Before you can use a profile, it must be defined in the system.

## Activities

In a profile, you 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)

When creating a material master record, you can assign a profile to it as follows:

- Industry

In the *Organizational Levels* dialog box

- Retail

By choosing *Requirements planning profile* or *Forecast profile* on either of the *Logistics* screens in the standard article master

The values are written to the material master record when you save it.

## Creating a Profile

## Creating a Profile



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

1. In the [Material Master \[Ext.\]](#) menu, choose *Profile* → *MRP profile* or *Forecast profile* → *Create*.

The initial screen appears.

2. Enter the name you want to give the profile.

If you want to use an existing profile as a reference, enter its name under *Copy from* so that the system can copy its values to the new profile.

3. Choose *Selection screen*.

The selection screen appears. It shows all the fields that can be copied to the *MRP* or *Forecasting* screen in the material master record.

4. Enter a profile description and select the fields you want the profile to contain, specifying whether each field is to be copied to the material master record as a fixed value or as a default value.



It is not possible to select *Fixed lot size* and *Maximum stock level* in a single MRP profile. However, if you select *Maximum stock level*, you must also select *Lot size (materials planning)*.

5. Choose *Data screen*.



MRP profile data is spread over two screens. To switch from one screen to the other, choose *Data screen 1* or *Data screen 2*.

When you access the data screen from the selection screen, the system checks whether the fields selected are allowed to appear in the same profile.

The data screen appears, containing only the fields you selected on the selection screen. The fixed values and default values are displayed in different colors. All fixed values are required fields except where the field can also be left blank.



If, in the forecast profile, you enter **N** or **0** as the forecast model, no forecast is made.

**Like** forecast model N, if you enter forecast model 0 when maintaining a forecast profile, you will be unable to maintain any other field in the profile.

---

**Creating a Profile**

**Unlike** forecast model N, forecast model 0 deletes any existing forecast values when you change the material. This ensures that these values are no longer included in materials planning.

6. Enter the corresponding values and save the profile.

If the system detects inconsistencies or errors, it asks you to change the fields selected on the selection screen and/or to correct the values. Otherwise, the initial screen appears, where you can begin to create another profile.

## Changing a Profile

# Changing a Profile



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

## Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Profile* → *MRP profile* or *Forecast profile* → *Change*.

The initial screen appears.

2. Enter the name of the profile and choose *Selection screen*.

The selection screen appears. All fields belonging to the profile are selected.

3. Change the profile as required. You have the following options:

- Selecting new fields as fixed values or default values
- Changing fixed values to default values, or vice versa
- Deselecting fields that are no longer needed

When you change a profile, the same checks are carried out as when you create a profile (see [Creating a Profile \[Page 128\]](#)).

4. Choose *Data screen*.

The data screen appears.

5. Change the values as required and save the profile.

The initial screen appears, where you can continue.

## Result

When you change **fixed** values in a profile, the system updates the profile and also automatically creates the background job PROFILE to update all material master records to which this profile is assigned; that is, the changes to the fixed values are copied to the relevant material master records. A change document is created automatically for all materials where such changes are made. For more information on this background job, see the documentation for program RMMM0001.

## Deleting a Profile



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

## Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Profile* → *MRP profile* or *Forecast profile* → *Delete*.

The initial screen appears.

2. Enter the name of the profile you want to delete and choose *Enter*.

A dialog box appears asking whether you are sure you want to delete the profile. If you choose *Yes*, the initial screen appears, where you can continue.

## Result

The profile is deleted and the system automatically creates the background job PROFILE to cancel the assignment of the profile to all relevant material master records. However, the values originally copied from the profile are not deleted from the material master records. For more information on this background job, see the documentation for program RMMM0001.

## Displaying a Profile

## Displaying a Profile



The information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

1. In the [Material Master \[Ext.\]](#) menu, choose *Profile* → *MRP profile* or *Forecast profile* → *Display*.

The initial screen appears.

2. Enter the name of the profile and choose *Selection screen*.

In *Display* mode, only the fields defined in the profile are displayed.

3. Choose *Data screen*.

The values defined for the relevant fields in the profile are displayed.

## Displaying Where an MRP Profile Is Used



Unless indicated otherwise, the information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*
- *site for plant*
- *stock planner for MRP controller*

### Procedure

1. In the [Material Master \[Ext.\]](#) menu, choose *Profile* → *MRP profile* → *Usage*.

The selection screen appears.

2. Enter the name of the profile. You can also enter a plant and MRP controller to restrict the selection. Then choose *Execute*.

### Result

A list is displayed of the material master records in which the MRP profile is used. You now have the following options:

- You can display or change the MRP profile by choosing *Display profile* or *Change profile* respectively.
- You can display or change a particular material master record in which the MRP profile is used by choosing *Display material* or *Change material* respectively. In the material master for industry, the *MRP* view on the material master record appears, from which you can access the other views. In the article master for retail, the *Display or Change Article: Initial Screen* appears.

---

**Resetting an Assigned Profile**

## Resetting an Assigned Profile



Unless indicated otherwise, the information contained in this info object is relevant to the material master for industry and to the article master for retail. Retail customers are requested to substitute:

- *article for material*
- *requirements planning for material requirements planning or MRP*

### Use

If you have assigned an MRP profile and/or forecast profile to a material, it may later be necessary to:

- Cancel the assignment of the profile to the material if you want to overwrite the fixed values defined in the profile
- Assign the material to a different profile

### Procedure

1. On the *MRP* or *Forecasting* screen in the material master for **industry**, choose *Edit* → *MRP profile* or *Forecast profile*. On either of the *Logistics* screens in the article master for **retail**, choose *Requirements planning profile* or *Forecast profile*.

A dialog box appears.

2. You now have the following options:
  - To cancel the assignment of the profile to the material, delete the profile in the field *It will now be assigned* and leave the field blank.
  - To assign a different profile to the material, enter the new profile in the field *It will now be assigned*.
3. Choose *Enter*.

## Period Initialization

### Use

After creating a new company code, and, in particular, before the system goes into operation, your system administrator has to initialize the current period. This is because some data (stocks and certain valuation data such as total value, total stock, valuation class, price control indicator, and price unit) is managed both in the current period and in the previous period.

### Integration

This function allows you to create material master data relevant to inventory management, and to create this data in certain plants.

### Activities

Your system administrator initializes the current period in Customizing for the *Material Master* in [Maintain Company Codes for Materials Management \[Ext.\]](#). For more information, see [Initializing the Period \[Page 136\]](#).

---

**Initializing the Period**

## Initializing the Period

### Procedure

1. Access Customizing for the [Material Master \[Ext.\]](#) and choose *Maintain Company Codes for Materials Management*.

The overview screen appears.

2. For each company code you want to maintain, specify the following data:
  - Fiscal year of the current period
  - Current period (for example, the current calendar month)
3. Save your data.

### Result

The current period and the indicator allowing posting to the previous period (backposting) are set, and the control record is created. The control record contains the following information:

- Current period
- Previous period
- Last period of the previous year

If you do not want to allow data to be posted to the previous period, see [Disallowing Posting to the Previous Period \[Page 139\]](#).

## Period Closing

### Use

Some data (stocks and certain valuation data such as total value, total stock, valuation class, price control indicator, and price unit) is managed both in the current period and in the previous period. For values and goods movements to be posted to the correct period, the period must be set whenever a new period starts. This is done with the period closing program RMMMPERI.

### Activities

When the system is in operation, you normally run the period closing program once a month at the beginning of a new period. You can run it in one of the following modes:

- Online
- In the background

To run it in the background, you need to do the following:

- Create a selection variant

For information on selection variants, see the SAP library documentation *BC ABAP Workbench Tools* [Variants \[Ext.\]](#).

- Schedule a background job

For information on background processing and on how to schedule a job to be run at regular intervals, see the SAP library documentation *BC Computing Center Management System* [Background Processing: Concepts and Features \[Ext.\]](#).

If you use the material ledger, you normally run the period closing program in the background once the system is in operation, since no material master records must be locked, for example, by a goods movement. The program would otherwise terminate and the necessary changes not be made.

### Additional Information

Be sure to read the documentation for program RMMMPERI.

---

**Allowing Posting to the Previous Period**

## Allowing Posting to the Previous Period

### Prerequisites

Posting to the previous period (backposting) is allowed only if the corresponding indicator is set in the control record. This indicator is set automatically during initialization and after each change of period. However, it can sometimes be necessary to set it manually.

### For One Company Code

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Allow posting to previous period*.  
The initial screen appears.
2. Enter the company code and choose *Enter*.
3. Set the *Allow posting to previous per.* indicator.
4. Save your data.

### For More Than One Company Code

1. Access Customizing for the [Material Master \[Ext.\]](#) and choose *Maintain Company Codes for Materials Management*.  
The overview screen appears.
2. Set the *ABp* (allow backposting) indicator for each company code as required.
3. Save your data.

## Disallowing Posting to the Previous Period

### For One Company Code

1. In the [Material Master \[Ext.\]](#) menu, choose *Other* → *Allow posting to previous period*.  
The initial screen appears.
2. Enter the company code and choose *Enter*.  
You can now disallow backposting in one of two ways:
  - Either cancel the *Allow posting to previous per.* indicator. However, this indicator is set again automatically during period closing so as to reallow backposting after each change of period.
  - Or set the *Disallow backposting generally* indicator. If this indicator is set, backposting continues to be disallowed, even after a change of period.
3. Save your data.

### For More Than One Company Code

1. Access Customizing for the [Material Master \[Ext.\]](#) and choose *Maintain Company Codes for Materials Management*.  
The overview screen appears.
2. Set the *DBp* (disallow backposting after a change of period) indicator for each company code as required.
3. Save your data.

---

**Transfer and Distribution of Material Master Data**

## Transfer and Distribution of Material Master Data

### Use

One of the first steps required for putting the R/3 System into operation is normally to transfer material data from a legacy system. This is because it is not normally possible to re-create the materials manually since there are so many of them.

If your system is a distributed system, it is also necessary to exchange data between these systems. Other scenarios making it necessary to distribute material master data are as follows:

- Transfer of material data from an R/2 system
- Distribution of changed and/or re-created material data between R/3 systems, for example, an information system located on a separate computer
- Supply of legacy systems or non-SAP systems with changed and/or re-created material data
- Transfer of data from data pools
- Targeted distribution of materials (manual sending)

### Integration

You can transfer material master data from legacy systems in the following ways:

- By direct input

For a detailed description of direct input, the functions supported, and how to proceed, see the SAP library documentation *CA Data Transfer Workbench* [Transfer of Material Master Data \(Industry\) to the R/3 System \[Ext.\]](#).
- By Application Link Enabling (ALE)

For a detailed description of ALE, the functions supported, and how to proceed, see the following SAP library documentation:

  - [BC ALE Introduction and Administration \[Ext.\]](#)
  - [BC ALE Quick Start \[Ext.\]](#)
    - [Creating Material Master Data \[Ext.\]](#)
    - [Sending Material Master Data \[Ext.\]](#)
  - [BC ALE Programming Guide \[Ext.\]](#)
    - [Master Data Distribution \[Ext.\]](#)

## IDoc Types for Distributing Material Master Data by ALE

### Definition

SAP format in which material master data is to be distributed.

### Use

As in online mode, you can maintain materials with all additional data during data transfer and distribution, with the following exceptions:

- Configuration value assignment and assignment to a configurable material
- Export licenses / customs tariff preferences
- Production versions

The pure material data is sent in one IDoc and the additional data each sent in a separate IDoc. The data is not all sent in a single IDoc for the following reasons:

- IDocs and the corresponding distribution/transfer functions already exist for much of the additional data.
- It must be possible to distribute the additional data individually since, besides the integrated maintenance in the material master, there is normally a stand-alone maintenance option for the additional data.

This makes it necessary to specify the sequence in which the individual related IDocs have to be posted. During updating, abends may otherwise occur due, for example, to documents being assigned to a material that does not yet exist in the database. For this reason, you can define dependencies between objects in Customizing for *Distribution (ALE)*. This ensures that, when distributing the changes to a dependent object, the changes to the higher-level object are processed at the same time, and that both IDocs are thus created in the correct sequence.

As with the creation of the IDocs at the sending end, they are posted at the receiving end only when a corresponding control message has been received indicating that all related IDocs have reached the target system.

### Integration

The IDoc types relevant to the distribution of material master data are as follows:

- MATMAS03  
Pure material master data
- DOLMAS01  
Document assignment
- ECMREV01  
Revision levels
- CLFMAS01  
Classification
- MATQM01

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**IDoc Types for Distributing Material Master Data by ALE**

QM data

Besides the above data which can be maintained directly in the material master, the following additional data can be created using separate transactions, and distributed with separate IDocs:

- INFREC01  
Purchasing info records
- SRCLST01  
Purchasing source list
- COND\_A01  
Sales prices and sales price conditions, and purchasing info record conditions
- BOMMAT01  
Bill of material (BOM) structure

## Online Functions and Their Support in ALE

### Use

All essential functions for maintaining materials in online mode are also available when transferring and distributing material master data. This includes the following functions:

- [Number assignment in ALE \[Page 144\]](#)
- [Checks in ALE \[Page 145\]](#)
- [Field selection in ALE \[Page 146\]](#)
- [Customer-specific fields in ALE \[Page 147\]](#)

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**Number Assignment in ALE**

## Number Assignment in ALE

### Use

The following types of number assignment are supported when transferring and distributing material master data by Application Link Enabling (ALE):

- Internal

This type of number assignment is relevant only for initial data transfer. It is never used in the distribution of data by ALE since a material is always distributed with the number that it has in the source system.

With integrated data transfer, it is not possible to assign material numbers internally in the target system when posting the relevant IDocs, since this would require a dummy material number to be replaced in all IDocs belonging to this material. As a result, the internal numbers for materials must always be obtained from the target system before the IDocs are created. This requires you to call the **business application programming interface** BAPI\_STDMATERIAL\_GETINTNUMBER. The BAPI obtains the internal numbers from the target system by remote function call (RFC). You must then transfer the internal numbers to the relevant IDocs.

- External

This type of number assignment can be used for initial data transfer and also for distribution if the material numbers are copied from the legacy system unchanged.

## Checks in ALE

### Use

In the transfer and distribution of data by Application Link Enabling (ALE), all the data transferred is checked as in online mode.

### Activities

Besides the normal field checks, the system also checks foreign keys and required fields set in Customizing for the *Material Master* (in [Maintain Field Selection for Data Screens \[Ext.\]](#)).

## Field Selection in ALE

### Use

In the transfer and distribution of data by Application Link Enabling (ALE), the field selection defined by you in Customizing for the *Material Master* (in [Maintain Field Selection for Data Screens \[Ext.\]](#)) is interpreted in the same way as in online mode. However, in ALE, the following separate transaction references are used for field selection at transaction level:

- MAL1 (for creating materials)
- MAL2 (for changing materials)

In online mode, the transaction references used for field selection at transaction level are:

- MM01 (for creating materials)
- MM02 (for changing materials)

This makes it possible to specify a different field selection at transaction level for ALE and for online mode.

### Activities

Fields defined as not ready for input in Customizing for the *Material Master* are not transferred. The system issues a corresponding warning. Fields defined as required fields are checked.

## Customer-Specific Fields in ALE

### Use

In Customizing for the *Material Master*, you can configure the material master to include table fields of your own. You do this in the section [Configuring the Material Master \[Ext.\]](#). The data contained in the customer-specific fields can also be distributed by Application Link Enabling (ALE).

### Prerequisites

If you want to use ALE to distribute customer-specific data, you must do the following:

- Activate SAP Enhancement MG00001.
  - For more information, see the SAP library documentation [BC Changing the SAP Standard \[Ext.\]](#).
- Define the necessary source code for the following user exits contained in SAP Enhancement MG00001:
  - EXIT\_SAPLMV01\_002
  - EXIT\_SAPLMV03\_002

For more information, see the documentation for SAP Enhancement MG00001 and for the user exits.
- Create a new IDoc segment.
  - For more information, see the SAP library documentation *BC IDoc Interface/Electronic Data Interchange* [Defining New IDoc Types \[Ext.\]](#).

### Features

When material master data is distributed by ALE, the customer-specific data is read in outbound processing and transferred to the customer-specific IDoc segment via user exit EXIT\_SAPLMV01\_002. In inbound processing, the customer-specific data is taken from the corresponding IDoc segment and posted in the target system via user exit EXIT\_SAPLMV02\_002.

## Segment Filtering in ALE

### Use

In Customizing for *Distribution (ALE)*, you can define filter values for each receiving system and for the message type MATMAS. You do this in the activity *Maintain Distribution Model*. The system then filters the data records for the corresponding IDoc segments, distributing only those with the defined filter values.

### Features

The IDoc segments have a hierarchical structure. Due to these hierarchical dependencies, data for subordinate segments is also filtered automatically if data for the higher-level segment is filtered out.

## Error Handling in ALE

### Use

If, while the system is processing an IDoc, a **logical** error occurs whose cause is in material maintenance, the system cancels the corresponding maintenance transaction and gives the IDoc the status *incorrect*. If no logical errors occur, it is given the status *successful*.

### Activities

For IDocs with the status *incorrect* or *successful*, you can view in the application log the messages issued during processing of the IDoc. After resolving the cause of the logical error, you can repost the incorrect IDocs.

For information on troubleshooting and the recovery of **technical** errors, see the SAP library documentation on ALE. Error localization is primarily a question of checking the settings made in Customizing for *Distribution (ALE)*.

## Enhancements Using Customer Exits (Material Master)

## Enhancements Using Customer Exits (Material Master)

### Use

To optimize work flows, you can use [customer exits \[Ext.\]](#) to change some of the functions in the standard material master.



SAP Enhancement MGA00003 makes it possible to edit the display of material numbers as required. For example, if a material is assigned the number 123, you can use this enhancement to define that the material number is displayed with a prefix such as MAT-, even though the number in the database is still 123.

For more information, see the SAP library documentation *BC Changing the SAP Standard* [The R/3 Enhancement Concept \[Ext.\]](#).

### Features

The following overview shows the enhancements defined for customer exits in the material master.

#### Enhancements for Function Group XMG0 (Transfer of Material Master Data by Direct Input)

Use	Enhancement	Function Module
Extending and adding checks, and (to a restricted extent) changing data	MGA00001	EXIT_SAPLMGMU_001 (enhancements for material master tables)
Influencing how material numbers are assigned	MGA00002	EXIT_SAPLMG02_001 (internal number assignment)  EXIT_SAPLMG02_002 (external number assignment)

**Enhancements Using Customer Exits (Material Master)**

<p>Influencing how material numbers are displayed</p>	<p>MGA00003</p>	<p>EXIT_SAPLOMVCV_001 (number conversion from display format to DB format (input: start))</p> <p>EXIT_SAPLOMVCV_002 (number conversion from display format to DB format (input: end))</p> <p>EXIT_SAPLOMVCV_901 (number conversion from DB format to display format (output: start))</p> <p>EXIT_SAPLOMVCV_902 (number conversion from DB format to display format (output: end))</p>
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**Enhancements for Function Group XMGV (Distribution of Material Master Data by ALE)**

Use	Enhancement	Function Module
<p>ALE distribution</p>	<p>MGV00001</p>	<p>EXIT_SAPLMV01_002 (IDoc creation)</p> <p>EXIT_SAPLMV02_002 (IDoc posting)</p>

**Enhancements for Function Group XMG3 (Filter Objects for Material Master Distribution)**

Use	Enhancement	Function Module
<p>Reading customer-defined filter objects for a material</p>	<p>MGV00002</p>	<p>EXIT_SAPLMV03_001</p>

**Additional Information**

In the SAP library documentation [LO Material Master \[Ext.\]](#):

- [Material Numbers \[Page 22\]](#)
- [Transfer and Distribution of Material Master Data \[Page 140\]](#)

## Enhancements Using Business Transaction Events (Material Master)

## Enhancements Using Business Transaction Events (Material Master)

### Use

The business transaction event (BTE) interface can be used to transfer created or changed material master data to customer-defined processes. The interface cannot be used to change existing material master data.



Supplying an external system with created or changed material master data without having to use the ALE interface.

For more information, see:

- SAP library documentation *BC Changing the SAP Standard* [A Comparison of Different Enhancement Techniques \[Ext.\]](#)
- Implementation Guide (IMG) documentation [Using Business Transaction Events \[Ext.\]](#)

### Features

Event Number	Event Function Module	Sample Function Module
00001250	OPEN_FI_PERFORM_00001250_E Provides the data for the event	SAMPLE_INTERFACE_00001250 Template for a customer-defined function module that receives the event data provided

### Additional Information

SAP library documentation [LO Material Master \[Ext.\]](#)