

Batch Management (LO-BM)



HELP.LOBBM

Release 4.6C



Copyright

© Copyright 2000 SAP AG. All rights reserved.

No part of this brochure may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft®, WINDOWS®, NT®, EXCEL®, Word® and SQL Server® are registered trademarks of Microsoft Corporation.

IBM®, DB2®, OS/2®, DB2/6000®, Parallel Sysplex®, MVS/ESA®, RS/6000®, AIX®, S/390®, AS/400®, OS/390®, and OS/400® are registered trademarks of IBM Corporation.

ORACLE® is a registered trademark of ORACLE Corporation, California, USA.

INFORMIX®-OnLine for SAP and Informix® Dynamic Server™ are registered trademarks of Informix Software Incorporated.

UNIX®, X/Open®, OSF/1®, and Motif® are registered trademarks of The Open Group.







HTML, DHTML, XML, XHTML are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Laboratory for Computer Science NE43-358, Massachusetts Institute of Technology, 545 Technology Square, Cambridge, MA 02139.

JAVA® is a registered trademark of Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, CA 94303 USA.

JAVASCRIPT® is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

SAP, SAP Logo, mySAP.com, mySAP.com Marketplace, mySAP.com Workplace, mySAP.com Business Scenarios, mySAP.com Application Hosting, WebFlow, R/2, R/3, RIVA, ABAP, SAP Business Workflow, SAP EarlyWatch, SAP ArchiveLink, BAPI, SAPPHIRE, Management Cockpit, SEM, are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other products mentioned are trademarks or registered trademarks of their respective companies.

Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax
	Tip

Contents

Batch Management (LO-BM)	6
Batch	8
Batch Management in Logistics	9
Batch Level	12
Batch Number Assignment	14
Batch Specifications	16
Specifications in the Classification System	18
Classification with Standard Characteristics	20
Batch Specifications - Example	21
Assigning Target Values to a Material - Example	23
Differentiating Between Batch and Material	25
Batch Specifications for the Product Resin - Example	28
Usage Decision	31
Integrity Check for Batch Classification	32
Creating a Batch Master Record	35
Changing a Batch Master Record	37
Displaying Changes	38
Mass Processing of Batches	39
Deleting a Batch Master Record	41
Split Valuation with Batches	42
Valuation for a Single Batch	44
Assigning Authorizations	45
Authorization Profile for Batches - Example	47
Batch Status Management	48
Changes to Batch Status	51
Batch Determination	53
Batch Determination Process	54
Definition of a Batch Search Strategy	56
Creating a Batch Search Strategy	60
Changing and Deleting a Batch Search Strategy	61
Classification and Batch Determination - Example	62
Checking Manually Specified Batches	65
Batch Determination in Inventory Management	66
Triggering Batch Determination for Goods Issues	67
Displaying Information on Batch Determination	69
Changing the Results of Batch Determination	70
Batch Determination in Production	71
Batch Determination for Process and Production Orders	72
Classifying Material List Items and BOM Items	74
Triggering Batch Determination for Production Orders	75
Triggering Batch Determination for Process Orders	76
Batch Determination in Repetitive Manufacturing	77
Triggering Batch Determination for Repetitive Manufacturing	78
Batch Determination in Sales and Distribution	79

Batch Determination in Quotations and Quantity Contracts.....	80
Batch Determination in Sales Orders	81
Determining Batches in Sales Orders	82
Triggering Manual Batch Determination in Sales Orders.....	84
Batch Determination for Deliveries.....	85
Triggering Manual Batch Determination for Deliveries	86
Batch Determination in the Warehouse Management System	87
Batch Determination in the Transfer Order	88
Batch Handling in the WM/PP Interface.....	89
Batch Where-Used List	90
Top-Down Analysis	93
Bottom-Up Analysis	94
Building Up a Batch Where-Used File	95
Pick-Up Lists	96
Archiving Batch Where-Used Records.....	97
Batch-Specific Units of Measure.....	100
Batch-Specific Material Units of Measure	103
Batch-Specific Units of Measure in Logistics.....	104
Maintaining Data for Batch-Specific Units of Measure.....	107
Price Determination.....	109
Valuation.....	110
Calculating the Inventory Correction Factor	112
Conversion Factor from Two Units of Measure.....	115
Conversion Factors from Object Dependencies	117
Transfer Postings of Batches.....	119
Checking and Calculating the Shelf Life Expiration Date	120
Checking and Calculating the Shelf Life Expiration Date	122
Dynamic Date Determination.....	123
Creating a Function to Dynamically Determine the Date	125
Batch Worklist.....	127
Assigning Worklist Folders	129
Batch Information Cockpit.....	130
Selection	133
Batch Selection Result.....	135
Stock Selection Result.....	137

Batch Management (LO-BM)

Purpose

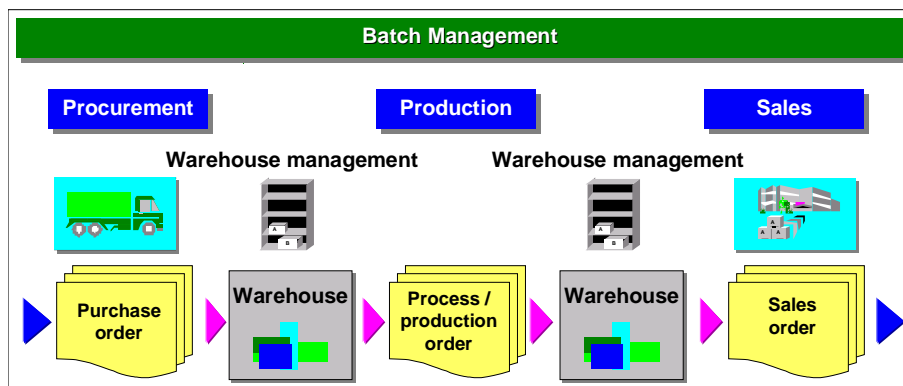
In various industries – particularly the process industry – you have to work with homogenous partial quantities of a material or product throughout the logistics quantity and value chain.

There are various reasons for this:

- Legal requirements (for example, the guidelines set out by GMP (Good Manufacturing Practice) or regulations on hazardous material)
- Defect tracing, callback activities, and regression requirement
- The need for differentiated quantity-and value-based Inventory Management (for example, due to heterogeneous yield/result qualities or varying constituents in Production).
- Differences in usage and the monitoring thereof in materials planning in SD and Production.
- Production or procedural requirements (for example, settlement of material quantities on the basis of different batch specifications).

Integration

Batch Management is integrated in all applications of the R/3 System. It supports the management and processing of batches in all of a company's business processes.



Features

- **Batch Number Assignment**
You use this function to assign a batch with a number that uniquely identifies it.
- **Batch Specification**
You use this function to describe each batch uniquely using characteristics and characteristic values. You specify the permitted value range in the allocated material master record.

- **Batch Status Management**

You use this function to indicate whether a batch is usable or unusable. You set this status:

- Manually in the batch master record or at goods receipt
- Automatically in the usage decision in quality management

- **Batch Determination**

With this function, you can use various criteria to search for batches that are in stock, for example:

- When posting goods issues
- When combining suitable material components for production orders and process orders
- When creating a delivery according to particular customer requirements

- **Batch Where-Used List**

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

For more information, refer to [Archiving Batch Records \(PP-PI\) \[Ext.\]](#) in the *BC - SAP ArchiveLink Scenarios PP* documentation.

- **Active Ingredient Management**

You use this function to administrate and process materials with active ingredients that are to be handled in batches.

Batch**Batch****Definition**

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

Structure

The batch object contains the following key fields

- Material
- Batch
- Plant

The plant key field is only relevant if plant level is selected as the [Batch Level \[Page 12\]](#) .

Integration

You can use batches in all processes throughout the supply chain.

Batches

- Are always assigned to a material
- Can only be used for materials that are to be handled in batches

Batch Management in Logistics

Purpose

The following process chain describes how batch management could look when integrated into the relevant SAP component.

Process Flow

Sales & Distribution

- A sales order for a material subject to handling in batches is posted. You have previously agreed with the customer that the batches of the material he is supplied with must meet certain specifications.
- you run a batch determination, as well as a batch availability and usability check. The system determines that the sales order cannot be met with the present stock.
- a requirement is transferred to production.

Production

- A production order (discrete manufacturing) or a process order (process manufacturing) is created for the material to be handled in batches due to the posted sales order.
- A batch number can be assigned for the quantity of material to be produced.
- As raw materials with certain specifications are required for the manufacture of this material, batch determination is triggered.
- If a sufficient quantity of raw material is available, the selected batches are reserved for the production or process order

Purchasing

- If there is an insufficient quantity of raw material, the required quantity with the appropriate specifications is ordered from the vendor.

Goods Receipt

- Due to the purchase order created by purchasing, the raw material is posted to the stock in quality inspection during goods receipt.
- The batch is assigned a batch number.
- An inspection lot is created.

Quality Management

- The delivered batch of raw material is subject to quality inspection.
- The inspection results are recorded, and become available to batch determination as soon as the usage decision has been recorded.
- The batch is posted to either restricted or unrestricted stock.

Batch Management in Logistics**Warehouse Management**

- The batch of raw material is placed into stock at storage bin level.

Production

- Before production commences, an availability check is run as part of batch determination.
- The production or process order is released.
- A batch number is assigned to the material to be produced.
- The shop floor papers (PI sheet, for example) are created.
- An order-related inspection lot is created for quality inspection.
- The raw materials warehouse is notified of the transport requirement for material provision.

Warehouse Management

- Using the transport requirement, the batch of raw materials is provided at the correct time and date.

Production

- The manufacturing process is completed, the batch of raw material is consumed.

Inventory management

- The goods issue for the batch of raw material required by production is posted.

Quality Management

- Inspections are conducted during the manufacturing process.
- The inspection results are recorded.
- A usage decision is made.

Inventory Management

- The batch produced is posted to the stock in quality inspection.
- An inspection lot is created.

Quality Management

- The batch produced is subject to a quality inspection for final release.
- The inspection results are recorded.
- A usage decision is made.

Inventory Management

- The batch produced is posted to unrestricted-use stock.

Sales & Distribution

- During delivery, batch determination is conducted with reference to the sales order.
- During batch determination, an availability check is carried out.
- Using the inspection results for quality management, inspection certificates can be automatically created.

Inventory Management

- The goods issue is posted.

For detailed information on batch management in Inventory Management, refer to the *MM - Inventory Management* documentation.

Batch Level

Batch Level

Use

You can manage batches in different plants for many materials. For this reason, batches must be uniquely identifiable. In the SAP System, the batch number uniquely identifies the batch. You use the **batch level** to specify whether the batch number for a material is unique in one plant, or in all plants.

Prerequisites

You choose the batch level in Customizing for *Batch Management* under *Specify Batch Level and Activate Status Management*.

Features

Batch Levels

- **Plant level**
The batch number is unique in connection with the plant and material.

The batch number is only known in the plant in which it was created if the stock is transferred to another plant, the batch is unknown in the recipient plant and the system does not adopt any data. You have to recreate and specify the batch in the receiving plant; that is, the same batch number may have different specifications in several plants.
- **Material level:**
The batch number is unique in all plants in connection with the material.

The same batch number has the same meaning for the material in all plants. One batch number cannot have different specifications in different plants. During stock transfer to another plant, the specification of the batch is known in the destination plant even if the batch is placed into storage in that plant for the first time.
- **Client level:**
The batch number is unique in the whole client. A batch number can only be assigned once in the client. You cannot assign the same batch number for different materials.

The batch number is only unique at the chosen level.

For more information about batch numbers, refer to [Batch Number Assignment \[Page 14\]](#).

Changing the Batch Level

In the standard SAP System, the plant level is set as the batch level. If you want to use a different level in your company, you have to change it in Customizing and carry out a conversion program.

You choose the batch level in Customizing for *Batch Management* under *Specify Batch Level and Activate Status Management*.



- While the conversion program is running, you can only post batches at the old level. You can only post batches at the new level after the conversion has been completed.

Batch Level

- You **cannot** change back from a higher level to plant level in the standard system. However, you can change the batch level from client level back to material level.
- To change the batch level from plant level to material level, the material has to be subject to batch management in all plants.

Batch Number Assignment

Batch Number Assignment

Use

You use this function to assign a unique key to a batch. This unique key is the batch number. The batch number uniquely identifies a batch in the SAP System. The [Batch Level \[Page 12\]](#) you choose determines the area in which the batch number is unique.

You can assign the batch number as different times, for example:

- During manual creation of a batch
- When carrying out goods movements, for example, goods receipt or transfer posting
- During creation of a process or production order
- When a usage decision is made in quality management
- During quality analysis (due to aging, for example)
- When creating a purchase order

Features

You assign the batch number either:

- Manually
- or
- Automatically using the Internal Batch Number Assignment function

You configure internal batch number assignment in the step *Internal batch Number Assignment* in Customizing for Batch Management.

Internal batch number assignment is activated for the complete client, unless you exempt individual plants or materials using a customer exit.

You define this in Customizing for Batch Management in the step *Set Up Customer Exits for Internal Batch Number Assignment*.



The SAP System informs you only once for each transaction that internal batch number assignment is active; for example, when you enter the first item on the multiple-entry screen.

Templates for Batch Numbers

If you want to configure how the batch numbers are set up by integrating the application data for a business transaction in the batch numbers, you define templates. Data in a template can be, for example:

- Plant of production
- Material type
- Order number
- Time intervals

You can find further information under *Configure Customer Exits for Intern. Batch Number Assignment* in the Implementation Guide (IMG) for *Batch Management*.

Batch Specifications

Batch Specifications

Purpose

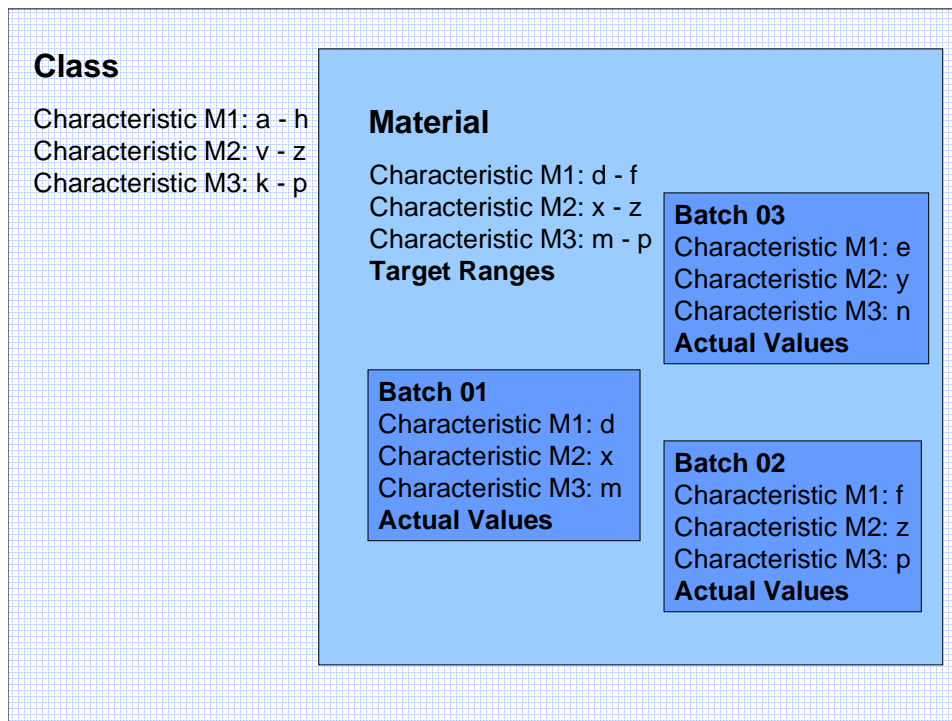
Batch specifications describe the technical, physical and/or chemical properties of a batch. You store batch specifications, such as batch status or active ingredient potency, as characteristics in the Classification System.



Batches of car paint are specified by color value, viscosity and expiration date. You store the characteristics color value, viscosity and expiration date for these properties in the classification system and assign the respective values to each individual batch.

You can use the classification system to assign the material specifications to the material of a batch. These material specifications are assigned to the same class as the batches of the materials. Thus you can store the target values of a batch with the respective tolerance range. These target values are, for instance, used in quality inspection or during the goods receipt transaction, if it is necessary to immediately classify a batch. The values are also employed for the usability check.

The graphic below shows the link between material specification and batch specification:



In the material, you store the target ranges for all characteristics. As the batch belongs to the same class as the material, the batch automatically receives the characteristics of the material. For each individual batch, you enter the exact actual values.

Integration

To use batch specifications, you must install the classification system.

Desired Function	Required Component
Usage decision for batches	Quality Management
Search for batches using specifications	Batch Determination

Features

- There are two kinds of characteristics: predefined [Standard Characteristics \[Page 20\]](#) and user-defined characteristics
- Batch specifications can be entered in different departments
 - During goods receipt, for example, expiration date can be entered
 - In the usage decision in quality inspection, for example, you can enter the values that were established
- You can check whether the batch is within the tolerance range.

You store the material specifications and therefore the target values in the material, and you store the batch specifications in the batch. When the batch is produced, the specifications are checked in the laboratory and values are determined for each batch. If these values lie within the specified range, the batch is accepted.



The characteristic values for the batch can be either interval values or fixed values.

- Material characteristics are inherited automatically by the batch of the material.

Material and batch belong to the same class. This then ensures that you use the same characteristics for both the material and the batch.

Specifications in the Classification System

Specifications in the Classification System

Purpose

This process describes how you create specifications for a material and its batches.

Process Flow

1. You define properties of the material and its batches and store them as characteristics in the classification system.

You can define all those properties that you consider important and useful for [batch determination \[Page 53\]](#) as characteristics.



If you create a numerical characteristic, you must enter a unit of measurement. If you do not enter the unit of measurement, you cannot link the characteristics to the master characteristics of the *Quality Management* component.

2. You create classes for the material and the batches and assign the characteristics to the classes.

You can use the same class for different materials.

Class type

You must assign the class to a class type. There are two class types of the category *Batch* for batches and their materials:

- 022 at plant level
- 023 at client or material level

3. You create the material master record, assign the desired class to the material and assign characteristics to the material.
 - You can store tolerance ranges for the batches of the material in the material master record. This is possible as the material and the batches are in the same class.
 - You can assign only one class of the class type “batch” (022, 023) to each material. This means that multiple classification is not possible.
 - You can only create batches for a material if the material is to be handled in batches. To do this, you must set the *Batch management* indicator in the material master record. Depending on the material type, you will find this indicator in either the Purchasing view, the Work Scheduling view, or the Storage view.
 - The replenishment lead time should **not** be considered in the dynamic availability check for batches, since batches are not reproducible. In the General Sales view, or in the MRP view, choose availability check group *CH*. Group *CH* takes the identical inward and outward movements as group 01 into account, but does not consider the replenishment lead time. For further information, see section [Types of Availability Check in Sales and Distribution Processing \[Ext.\]](#) in the *SD - Sales and Distribution Processing* documentation.
4. Depending on the system settings, you create the batch master record manually, or you let the system carry this out automatically.

Specifications in the Classification System

Assigning Actual Values to a Batch

Actual values can be assigned to batches in the following ways:

- The system automatically transfers the inspection results from Quality Management (QM) if the master inspection characteristics are linked to the general characteristics. See section [General Characteristic \[Ext.\]](#) in the *QM – Basic Data* documentation.
- You can use a customer exit in the background to assign values to characteristics that are not from QM (time of goods receipt, for example). All required goods movement data is available in the customer exit interface. The data is controlled according to the movement type. You make the necessary settings in Customizing for *Batch Management*, under *Batch valuation → Customer Exit for classification of user-defined characstic*.
- You enter the actual value manually.



For each movement type you can configure the system so that it branches automatically, or only on request to the classification system. See Customizing for *Batch Management* under *Define batch creation for goods movements*.

The characteristic values are contained under the Characteristics node (*Logistics → Central Functions → Classification → Master Data → Characteristics*). The material master record (*Logistics → Materials Management → Material Master → Material → Display*) contains the values that you have assigned to the material. To display the characteristic value assignment for a batch, go to the batch master record (*Logistics → Central Functions → Batch Management → Batch → Display*) or the object list (*Logistics → Central Functions → Classification → Environment → Reporting → Object List*).

Result

- The system recognizes that the material is to be handled in batches.
- You must enter a batch number for each goods movement of this material.
- You can create batch master records. See also [Creating a Batch Master Record \[Page 35\]](#).



You can also use batch management for materials that are assigned a serial number profile.

Classification with Standard Characteristics

Classification with Standard Characteristics

Use

You can use the following standard characteristics to classify batches:

Characteristic	Description and Use
LOBM_BWTAR	Valuation type (only for class type 022 = batch level at plant level). You can use this characteristic as a criterion for batch determination if your batches are assigned characteristic values separately.
LOBM_LVORM	Deletion flag If you no longer use a batch, you should flag it for deletion in the batch master record. Use batch reorganization runs regularly to delete all batches flagged for deletion. A reorganization run deletes all batches flagged for deletion if they have no more stocks. The deletion of a batch does not affect the batch where-used function.
LOBM_QNDAT	Next inspection date This characteristic refers to the next inspection date stored in the batch master record. It is determined using the date of the last goods receipt and the inspection interval stored in the material master record.
LOBM_VERAB	Availability date You use this characteristic, for instance, for batches whose contents must first mature or be held before they can be processed further or sold.
LOBM_VFDAT	Expiration date Use this characteristic if you work with the shelf life expiration date (SLED)/expiration date.
LOBM_ZUSTD	Status If batch status management is activated, you can work with this characteristic to use the batch status (<i>restricted</i> or <i>unrestricted</i>) as a selection criterion.

Activities

In Customizing for *Batch Management*, you copy the standard characteristics to the current client by choosing *Batch Valuation* → *Update Standard Characteristics*. The system creates and assigns to the standard characteristics the variant functions and dependencies that are required for using the standard characteristics in Batch Determination.

Batch Specifications - Example

Our example of Resin production illustrates how batch specifications are determined.

Characteristics of Material 8712_3	Target Value
Refraction index	1.55 – 1.58
Viscosity	41 - 50
Color value	3.1 – 6.0
Hydrolizable chloric content	23 - 25
Epoxy count	23 - 25
Volatile proportion	0.0 – 0.5

You define these specifications as characteristics of a class and assign them to a class. You then assign this class to a material master record. When you maintain the material master record, you can thus specify the target values of the specifications.

In the classification system, you first set up a class for this material called *Resin*. Under the characteristics, you set up:

Refraction index Value: 1.55 – 1.58

Viscosity Value: 41 -50

and so on.

The values for a material can be interval values, although interval values are not allowed for a material. When the batch is produced, the specifications are checked in the laboratory and concrete values for each batch are determined. If these values lie within the specified range, the batch is acceptable.

Batch specifications can be assigned when goods movements are posted. The specifications of material 8172_3 can be proposed by the system. Material 8712_3 and the manufactured batches for material 8712_3 belong to the same class. A relationship between the two objects is thus established.

The validity of the specifications you enter is immediately checked. This is possible in the system as the material and the batches belong to the same class.

In our example, the actual values attained for the specifications for batch B03031995 are as follows:

Characteristics of Batch B03031995	Actual Value:
Refraction index	1.555
Viscosity	45
Color value	3.5
Hydrolizable chloric content	24

Batch Specifications - Example

Epoxy count	23.5
Volatile proportion	0.10

In this example, a color value between 3.1 and 6.0 was expected for our material 8712_3. A color value of 3.5 was measured for our batch B03031995.

Assigning Target Values to a Material - Example

In this example, the material is a semi-finished product assigned to the industry sector **C** (chemicals) with material type **HALB**. It has the material number **350-105** and the base unit of measure **KG** (kilogram).

You assign class type **022** or **023** (batch) to the material as well as the class you set up previously, in this case **PAINT_350**. Once you have assigned your class, the system will display the characteristics contained in this class.

You will now need to assign target values to the characteristics of your material.

Assigning Values to Numeric Characteristics

In the material master record, you assign the property **pH value** an interval value of **1.0 - 13.0**. If you assign this property to the material, the pH value can be any value within this range.

In order to enable batches with this property to have a pH value from anywhere within the range **1.0 - 13.0**, you must not restrict the range in the material master. This means that if you were to assign the characteristic a value of **10.0** at material level, only the value **10.0** would be available for selection when you come to assign specifications to the batch.

However, you might want batches of this material to have a **pH value** within a restricted range of **6.0 - 11.0**. You would then assign **6.0 - 11.0** to the product at material level, in which case you could further restrict assignment at batch level and select definite values lying in this interval.

If you have entered an interval value for a numeric characteristic in the material master record, you will be able to assign either

- the whole interval
- a restricted interval
- a certain value within this interval to the material.

Assigning Values to Alphanumeric Characteristics

You want to limit the delivery of the material to particular regions. You therefore need to define the regions to which you want this material delivered by assigning the respective values to your material class. In this way, the regions to which the material **can** be delivered are defined at material level. When you assign characteristics to the batch, you can further restrict the values assigned to the material, and specify the regions to which this particular batch **may** be delivered.

In this case, **Available_for** is a characteristic you want to assign to batches to specify that certain batches can only be delivered to certain regions or countries. For example, a batch of a material can only be delivered within Europe and North America. Once a batch has been assigned this characteristic, you can restrict your batch determination procedure to select only those batches that are available for Europe and North America.

Availability of a characteristic of data type **CHAR** (character). Depending on your requirements, the batch might be usable for more than one region or country. In this case, you would set the *Multiple value* indicator. Thus when you set up the specifications for the material or for the batch itself, you can select both Europe and North America from a possible list of, for example, Australia, Europe, Asia, North America.

Assigning Target Values to a Material - Example

To enter more values for the material and the batch, set the *Additional values* indicator in the characteristic on the *Values* tab page (*Logistics* → *Central Functions* → *Classification* → *Master Data* → *Characteristics*).

Hidden Characteristics

Hidden characteristics are characteristics that you have defined as *hidden* in the *Interface control* screen. You can display them by choosing *Hidden characteristics*. Depending on how you have defined these characteristics when you set them up, you may or may not be able to enter values for them.

For example, you may have used existing inspection characteristics from QM in classification, which you do not want the system to display when you assign values.

Differentiating Between Batch and Material

Use

A batch features properties that provide a unique identification of the batch.

All the reproducible criteria are criteria concerning the material to which this batch belongs, and not criteria of the batch itself. For example, to produce repeated batches with a viscosity that is within a particular range, we thus need to set up a material master record with precisely this range of viscosity and with recipes that control production.

In addition, the same batch might be filled in different types of packaging. A batch of resin might be filled for example in 10 liter canisters as well as in 50 liter barrels. To be able to trace a product precisely, we will need to set up material master records for each type of packaging of each product. You allocate the batch packaged in a 10 liter canister to that material of the product which features the definition 'packaged in 10 liter canisters', that is the packaging type, e.g. a canister or barrel is considered an attribute of the material and is thus of importance to the definition of material master data.

Warehouse Management

The various batches of our product *Resin* are now packaged and stored as grade I, grade II and grade III materials. It is important that the various grades of the product are differentiated, so that:

- The batch can be traced or located
- The batch can be delivered to customers with specific requirements

Sales order

In customer order processing, customer requirements are dealt with on a differentiated basis for

- The grade of the material required
- The type of packaging

Costing

As far as the manufacturer is concerned, the difference between grades of material and types of packaging also affects costing, as different sales prices can be assigned, depending on these factors. A higher grade of material, for example, might be more expensive to produce. A more complicated type of packaging will almost certainly mean higher costs.

Taking the material requirements situation into consideration, our batches are now packed and filled in the various types of packaging, according to material requirements. It is important to note that the descriptive specifications of our batches, defined in the laboratory, are retained in the packaging procedure.

Features

- The connection between production and the filling/packaging process can be shown uniquely using a BOM. You can define allowed packing types for each product.
- Long-term and short-term planning, and thus material requirements planning, is clearer and can thus be carried out on a more precise basis.

Differentiating Between Batch and Material

Based on a customer order, Sales can specify the precise requirements using the material number:

- the precise batch is identified
 - the corresponding packaging type is chosen
 - the corresponding grade of the product is identified.
- The various types of package, as well as the operating supplies, can be planned and assigned by material requirements planning, according to requirements. These packaging types and supplies are set up in BOMs, which are used for planning and allocation purposes.
 - Production orders can be used to distribute and allocate the costs for each grade and type of packaging. Hybrid costing is not required.
 - Operations such as filling, packaging, etc., can be allocated uniquely to the finished product.
The same applies for criteria such as grade or viscosity. Here, too, the finished product can be costed according to the grade. Higher grades of material usually require higher manufacturing costs.
 - Handling in the stores is also more straightforward. Picking and packing activities for production, sales and shipment are easier and more reliable. Thus picking errors are avoided, and from the logistics point of view, costs are cut.
 - Stocktaking is simpler, quicker and can be carried out with less errors. Although a large amount of maintenance work is required, this is soon compensated by the cost savings during stocktaking and handling in the storage location.

Activities

When defining the material master data, you must take the following points into account:

- Only materials, not batches, can be assigned to a BOM, a routing or a master recipe
- Only materials, not batches, can be planned in Material Requirements Planning

The number of material master records you need to define depends on the respective profile of requirements. This includes such factors as:

- The level of detail required in the system for storing batches.
This is significant from the point of view of batch tracing.
- The level of differentiation you require for planning purposes.
For example, customer requirements: Are all grades of your material required in all different types of packaging, or is only one grade of material sold in differentiated packaging?
- Further processing of the batch.
Is the batch a finished product or a semi-finished product to be used in a further process? In this case, are the various grades or packaging vessels of significance?

You set up a separate BOM for each grade and packaging type for

Differentiating Between Batch and Material

- Material requirements planning
- Production order processing

Batch Specifications for the Product Resin - Example

Batch Specifications for the Product Resin - Example

In this example, 25,000 kg of the product *Resin* is manufactured in boilers with a capacity of 5,000 kg per charge. The quantity of our material *Resin* is split up into 5 charges of 5,000 kg each. Once the material has been produced, a separate batch number is assigned to each charge. Since each batch produced is unique, the actual values for the batch specifications must first be defined in the laboratory.

For the purposes of our example, material viscosity is defined for our production as follows:

- A viscosity of 10 - 20 indicates a grade I material
- A viscosity of 21 - 40 indicates a grade II material

The following values are ascertained in the laboratory for our first batch produced:

Characteristic	Actual Value:
Refraction index	1.555
Viscosity	15
Color value	3.5
Hydrolizable chloric content	24
Epoxy count	23.5
Volatile proportion	0.10

Every single batch of the product *Resin* indicates the precise rate of viscosity. In our example, the batch has a viscosity rating of **15**, and is thus classified as a grade I batch by quality management.

Our batches are now stored in 50-liter barrels and 10-liter canisters. Sales and Demand Management Planning now needs to be carried out separately for each grade of our product *Resin* and for each type of packaging. The individual MRP requirements for the batches to be produced must be determined for each range of viscosity.

MRP must take into account the grades of the material, and also the packaging vessels in accordance with requirements. To plan the packaging vessels, material BOMs are used.

Master Data

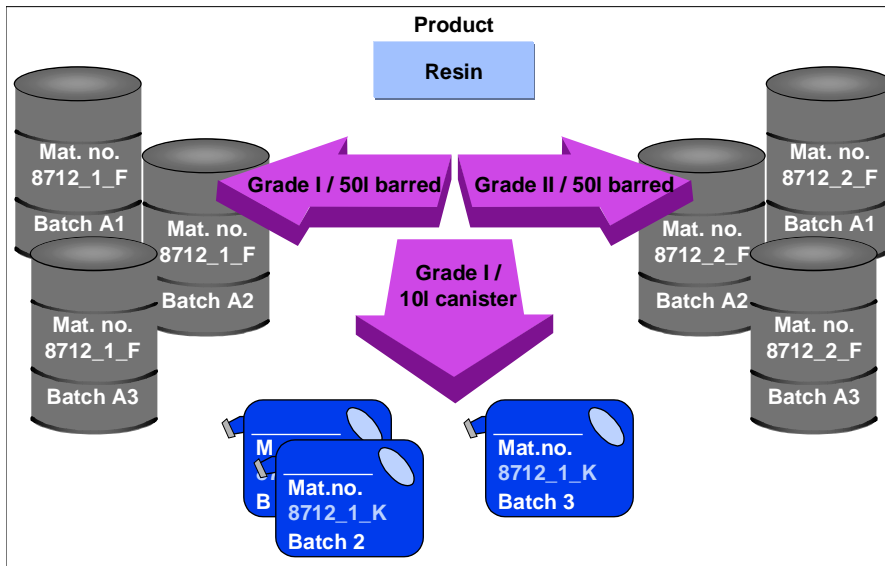
In order for these requirements to be reflected in the SAP Logistics system, you set up the following material master records for the product *Resin*:

Material Number	Material Description:
Bulk goods:	
8712_1	Resin, grade I, viscosity 10 - 20
8712_2	Resin, grade II, viscosity 21 - 40
Packaging:	
5040	Empty barrel, 50 liters

Batch Specifications for the Product Resin - Example

5050	Empty canister, 10 liters
Packaged goods:	
8712_1_F	Resin, grade I, filled in 50 liter barrel
8712_1_K	Resin, grade I, filled in 10 liter canister
8712_2_F	Resin, grade II, filled in 50 liter barrel

The following graphic shows how the packaged goods are organized:



The table below shows a BOM for the product *Resin*, grade I, filled in 10-liter canisters.

Material Number:	Component:	Quantity:
8712_1_K Resin, grade I, filled in 10 liter canister		
	8712_1 Resin, grade I, viscosity 10 - 20	10 kg
	5050 Empty canister, 10 liters	1 pieces

Batch Specifications for the Product Resin - Example

Usage Decision

Use

This function from Quality Management determines whether or not a batch may be used.

Features

This decision as to whether or not a batch may be used is reached using target values defined for a material, and the actual values determined for a batch in Quality Management. If the values match, the batch is accepted.

However, it is also possible that one or more characteristic values of a batch do not meet target value specifications of the material to which you want to post the batch. In this case, this batch is not accepted and you have the following options:

- Renewed inspection in QM
- Rework
- Scrap
- Post batch to another material with appropriate specifications
- Create a new material with appropriate specifications

For further information, see section *Inspection Lot Completion* in the *QM - Quality Management* documentation.

Integrity Check for Batch Classification

Integrity Check for Batch Classification

Use

The field *CUOBJ_BM* in the batch master record table contains the internal number that is used to store classification data for an object (batch). This number can be used to determine the class that is assigned to the batch and the characteristic value assignment.

You use this function to:

- Fill the field *CUOBJ_BM*
- Check the integrity of the batch classification
- Repair a batch classification that does not have integrity

Integration

The redundant storage of internal numbers in the batch master record table increases performance in the Batch Determination function.

Features

Selection Criteria

You can select batches for an integrity check according to the following criteria:

- Material
- Plant

You can select batches by plant only if the batch level has been set to plant level in your system.

- Batch

Test Run

To find out in advance about the check status of the batches selected, you can carry out a test run of the integrity check. During the test run, the system does not make changes to data. It does not fill the field *CUOBJ_BM* in the batch master record table and cannot repair the batch classification.

Check Status

Classification consistent - CUOBJ copied

The classification table *INOB* contains one table record for the object (batch), the key of which can be copied to the field *CUOBJ_BM* (test run) / has been copied to the field *CUOBJ_BM* (update run).

Non-Classified Batches

The classification table does not contain an *INOB* record. The field *CUOBJ_BM* is blank in the batch master record table.

Integrity Check for Batch Classification***Consistent Batch Classification***

The classification table contains one record. The field *CUOBJ_BM* is already filled.

Batch Has CUOBJ_BM – INOB Is Missing

The classification table *INOB* does not contain a record for the batch. But the table *KSSK* does contain a record. The missing *INOB* entry is created when the batch classification is being repaired.

Batch Has CUOBJ_BM – INOB and KSSK Are Missing

The field *CUOBJ_BM* is filled in the batch master record table. There are no entries in the tables *INOB* and *KSSK*. But there are *AUSP* entries. When the batch classification is being repaired, the entries are created for the tables *INOB* and *KSSK*.

Batch Has Incorrect CUOBJ_BM

The system found one *INOB* record, the key of which is different from the contents of the field *CUOBJ_BM*. The entry in the batch master record table is updated in accordance with the entry in the classification table.

Non-Classified Batch with CUOBJ_BM

There are no *INOB*, *KSSK*, or *AUSP* entries. The *CUOBJ_BM* entry is deleted when the batch classification is repaired.

Several INOB Entries Exist

The system found several *INOB* records for the batch. It tries to delete the incorrect records. If the *INOB* record does not contain *KSSK* or *AUSP* entries, the system deletes it. If only one *INOB* record remains, the system copies the key for this record to the field *CUOBJ_BM*. If there is more than one *INOB* record, the system cannot complete the repair successfully.

Error Corrected Successfully

The repair was carried out successfully.

Errors that Cannot Be Corrected

The errors that occurred cannot be corrected with this function.

Error During DB Update

The error cannot be corrected because the batch is blocked; that is, it is currently being processed.




Dummy Batch with MCHA - Entry

When materials are valued separately at plant level, the system creates an entry in the batch master record table *MCHA*. In this case, the field *CUOBJ_BM* is not filled.

Dummy Batch with CUOBJ_BM

The field *CUOBJ_BM* is filled although the entry in the batch master record table is based on split material valuation. The *CUOBJ_BM* entry is deleted when the batch classification is repaired.

Integrity Check for Batch Classification**Activities**

1. Choose *Logistics* → *Central Functions* → *Batch Management* → *Tools* → *Integrity Check for Batch Classification*.
2. Enter values for the selection criteria.
3. Choose .
4. The system displays a list of the batches, including their status.
If a repair is required, the system displays the  pushbutton.
5. Choose  to carry out the repair.

Creating a Batch Master Record

Use

You use this function to enter batch data into a separate master record.

Prerequisites


You can only create batches and batch master records for a material if the material is to be handled in batches. To do this, you must set the *Batch management* indicator in the material master record.

Features

Creating a Batch Master Record Manually

To create a batch master record manually, choose *Logistics* → *Central Functions* → *Batch Management* → *Batch* → *Create*.



In the functions *Display Batch* (*Batch* → *Display*) and [Change Batch \[Page 37\]](#) (*Batch* → *Change*), you can create batches by choosing the  pushbutton.

If the material is not yet classified, you can choose a class when creating the batch master record.

Creating a Batch Master Record in the Background

The system creates a batch master record in the background in the following procedures:

- The first time goods are received for a batch
- During creation of a process or production order
- When a usage decision is made in quality management
- During a recurring inspection
- For transfer postings (when you want to split a batch, for example)
- When creating a purchase order

You can make the setting for creating batch master records in the background in Customizing for *Batch Management* under *Initial Batch Creation* and *Batch Valuation* → *Valuation for Creation of New Batches Using Function Module*.



You can use a customer exit to create batch master records in the background. You use the customer exit to fill fields in the batch master record in the background that are neither filled by the system nor the user during the goods movement.

All goods movement data is available in the interface. The data is controlled according to the movement type. You make the necessary settings in Customizing for *Batch Management*, under *Customer Exit for Maintaining Batch Master Data of New Batches*.

Creating a Batch Master Record

For example, if you want batches to be available 10 days after goods receipt, you can use the customer exit interface to ensure that the system fills the *Available from* field with a date that is 10 days after the date of goods receipt.

Changing a Batch Master Record

Use


This function is used to change batch data.

Features

You can change batch data using the functions below:

- Change batch (*Logistics →Central Functions →Batch Management →Batch →Change*).



To go to the change mode, choose *Logistics →Central Functions →Batch Management →Batch →Create / Display* and then .

- [Batch Information Cockpit \[Page 130\]](#) (*Logistics →Central Functions →Batch Management →Tools →Batch Information Cockpit*)
- [Mass Processing of Batches \[Page 39\]](#) (*Logistics →Central Functions →Batch Management →Batch →Mass Processing*)
- [Batch Worklist \[Page 127\]](#) (*Logistics →Central Functions →Batch Management →Batch →Worklist*)

When you make the following changes, the system creates a material document and an accounting document:

- [Changes to Batch Status \[Page 51\]](#)
- [Changing the Valuation Type \[Page 42\]](#)
- [Changing a Material with Active Ingredient Value Assignment \[Page 110\]](#)


Displaying Changes

Displaying Changes

You can display the following changes:

- Changes to the batch master record
- Changes to classification data of a batch

Changes to the Batch Master Record

1. Choose *Logistics* → *Central Functions* → *Batch Management* → *Batch* → *Display Changes*.
2. Enter the material, the batch, and, if your batches are defined at plant level, the plant. Choose .


The system displays a list that details the date and time of all changes as well as the user. To display the changes, double-click on the relevant lines.



You can also display changes on the initial screen of batch master record maintenance.

1. Enter the material, the batch, and, if necessary, the plant.
2. Choose the *Changes* tab page.

Changes to Classification Data

1. In the Change or Display mode of the batch master record, choose the *Classification* tab page.
2. To go to the change documents for the classification data, choose .

See also:

[Changing a Batch Master Record \[Page 37\]](#)

Mass Processing of Batches


Use

Using this function, you can select batches for all materials and plants, and display and change their data.

Integration

You can also show the batch worklist and use its functions, as described in [Batch Worklist \[Page 127\]](#).



If you set the *Worklist* indicator on the selection screen, the batch worklist is empty when it is displayed after you carry out the selection. You can also expand and collapse the worklist by choosing  in the selection result.

To copy batches from the selection result to the worklist folders, use the Drag&Drop function.

Features

Selection Criteria

To go to the selection screen containing the following selection criteria, choose *Logistics* → *Central Functions* → *Batch Management* → *Batch* → *Mass Processing*:



- Material
- Plant

You can select batches by plant only if batches have been defined at plant level in your system.

- Batch

The **selection result** displays the batches by material and plant (if the plant level has been set as the batch definition level).

Changing Batch Data Conveniently

When you click on a batch in the selection result or worklist, the system displays the batch data on the right-hand side of the screen. You can also navigate between the batches in the respective lists by choosing  and .



When you go from one batch to the next, the tab page configuration stays the same.

You can switch between display mode and change mode by choosing .

See also:

[Changing a Batch Master Record \[Page 37\]](#)

Mass Processing of Batches

Deleting a Batch Master Record

Use

You have to flag a batch master record for deletion so that the archiving and deletion program can delete it. To do this, you call up the batch master record in the change mode. You can set a deletion flag at plant level or storage location level, provided that a deletion flag has not yet been set at a higher level. The system then deletes the batch master record at this level and at all levels below it in the hierarchy.

Integration

When a batch master record is created, the deletion flag is hidden if the material master record is not flagged for deletion at plant level or storage location level. If the material master record is flagged for deletion, the system issues a warning on the initial screen. The *Deletion flag* field is then displayed, but the deletion flag cannot be set.

When you flag a batch master record for deletion, the system does not check whether the batch master record can actually be deleted. The archiving and deletion program checks this.

In most companies, the system administrator runs the archiving and deletion program at regular intervals. For more information on the archiving and deletion of batch master records, refer to [Archiving Special Stock Records \(LO-MD-MM\) \[Ext.\]](#).

Activities

If a **material** is flagged for deletion at **plant level**, a deletion flag appears at plant level and at storage location when you maintain the batch.

If a **material** is flagged for deletion at **storage location level**, you can flag batches for deletion at plant level, but not at storage location level.

Split Valuation with Batches

Split Valuation with Batches

Use

You use split valuation for batches if – within value-based inventory management – you want to separate costs for externally processed batches from costs for internally processed batches, and you want to store the prices and values for groups of batches.

Integration

Split valuation for batches works on the same principle as the differentiation of partial stocks according to their origin, for example. In the split valuation procedure, you choose one valuation type for a batch.

Features

Changing the Valuation Type

If you change the valuation type in the batch master record, the system does not change the valuation type in the movement data (for example, purchase order, delivery, order, and so forth). Also refer to [Changing the Batch Master \[Page 37\]](#).

When changing the valuation type, you must check whether the batch is contained in the movement data of business processes that are still open. Otherwise, the business process affected cannot be closed.

Upon **goods receipt** and **goods issue** of a batch, the system checks whether the valuation type from the respective document is identical to that of the stock to which the batch is to be posted.

If the valuation types are different:

- The goods receipt is rejected
 - For the purchase order
 - For the shipping notification
 - For the production order
- The goods issue is rejected
 - For the delivery
 - For the sales order

The reversal movement types cannot be carried out either.

There are two ways of closing these business processes:

- You cancel the change you made to the valuation type, close the business process, and change the valuation type again.
- You post the materials to a batch that has the same valuation type as the document, and then change the valuation type.

During **invoice verification** (purchase-order-based and goods-receipt-based) and **order settlement** (for a production order) the system copies the original valuation type.



Split Valuation with Batches

You cannot change the valuation type if the batch is valued on the basis of batch-specific units of measure and a price already exists for a characteristic that is relevant to valuation.

Valuation for a Single Batch

Valuation for a Single Batch

Use

You use valuation for a single batch if you want to separate costs for externally processed batches from costs for internally processed batches, and if you want to keep the price and value of each individual batch in inventory management on a value basis.

Integration

Valuation for a single batch is carried out using separate values, just as partial stocks for a material are distinguished according to origin, for example. In valuation for a single batch, a separate characteristic category is created for each batch (batch number = characteristic category).

Valuation for a single batch is a special kind of valuation type for batches.

See also:

LO - Managing Material Master Data.

Prerequisites

To work with valuation for a single batch, you must choose valuation for a single batch (indicator **X in the standard system**) as substance characteristic type in the material master record.

Assigning Authorizations

Use

You use this function to control the scope in which a user can edit or display data relevant to batches.



The MRP controller is to create and change material master records for a particular material group, except for the QM view and classification.

In the batch master record he or she may change the characteristics of the MRP view, but not the batch status.

The laboratory senior may only edit the QM view and classification in the material master records and everything in the batch master records including batch status.

Features

Function	Authorization Object
Create, change, display batch master record; display changes to batches	M_MATE_CHG
Change batch status	M_MATE_ZST
Batch record	M_MATE_CHP
Changing the valuation type for a batch	M_MATE_BWT
Display, change characteristics of particular views	C_TCLS_BER C_TCLS_MNT

Other authorization objects:

Transactions	S_TCODE
Class types	C_TCLA_BKA
Classification	C_KLAH_BKL
Create, change, display material master record	M_MATE_MAT M_MATE_WRK M_MATE_NEU

Activities

You carry out the following activities from the menu *Tools → Administration*.

Activity	Menu Path	Documentation
1. You use the Profile Generator to generate an authorization profile according to your requirements	<i>User maintenance</i> → <i>Roles</i>	Maintaining Roles [Ext.]

Assigning Authorizations

Activity	Menu Path	Documentation
2. You add missing authorizations. To do this, you copy the generated profile and include the authorizations required. If necessary, you generate new authorizations.	<i>User maintenance</i> → <i>Authorizations;</i> → <i>Profiles</i>	Create/Process Authorizations/Profiles Manually [Ext.]
3. You activate the profile.	<i>User maintenance</i> → <i>Profiles</i>	Activating Profiles [Ext.]
4. You assign the profile to the user.	<i>User maintenance</i> → <i>Users</i>	Displaying, Creating, and Maintaining User Master Records [Ext.]

Authorization Profile for Batches - Example

Task Profile	Authorization Object	Field Values
Changing, displaying batch master records of authorization group 011, displaying change documents: Transaction msc2, msc3, msc4	M_MATE_CHG	Activity 02, 03, 08 Authorization group 011
	S_TCODE	Transaction code msc2, msc3, msc4
	C_TCLA_BKA	Class type
Not changing batch status	M_MATE_ZST	Dummy <no entry>
Displaying all characteristics	C_TCLS_BER	Class type * View indicator *
Changing the characteristic in the MRP view only	C_TCLS_MNT	Activity 23 Class type * View indicator D

Batch Status Management

Batch Status Management

Purpose

You use this component to indicate whether a batch is usable or not. This allows you to prevent goods movements for batches that are not usable, as well as their delivery to customers and their use in Production. You can use other characteristics that you have adapted to meet your requirements to display in detail the differences between the two statuses. You can thereby specify for what type of usage a batch is released or for what type it has not been released.

Implementation Considerations

You activate batch status management in Customizing for *Batch Management* under *Specify Batch Level and Activate Status Management*.

Integration

The level at which you define the batches to be handled determines the plants in which status management is used for a material to be handled in batches.

Batch Level	Status Management
Material or client level	Automatically in all plants
Plant level	Can be chosen for individual plants



Status management automatically applies for **all** materials to be handled in batches. There are no exceptions.

Features

- Batch Status

The system uses an indicator in the batch master record to show batch status.

- Status *unrestricted* = the batch can be used
- Status *restricted* = the batch cannot be used

The status is entered as a batch characteristic in Classification, which is then responsible for the selection of the batch during batch determination (reference characteristic LOBM_ZUSTD).

In addition, for each status, you can specify details as to where the batch can be used or why the batch is restricted, for example, blocking reasons such as faulty or spoilt. You store these comments as user-defined characteristics within the classification of the batch.

- Stock Types

For a material that is subject to batch management, two stock types directly depend on the batch status within Inventory Management.

- Unrestricted stock
- Restricted stock

Batch Status Management

All other stocks that are managed at batch level do not give any indication of the batch status. These are posted independently of the status indicator in the batch master record:

- Inspection stock
- Blocked stock
- Stock in transfer
- Blocked stock returns

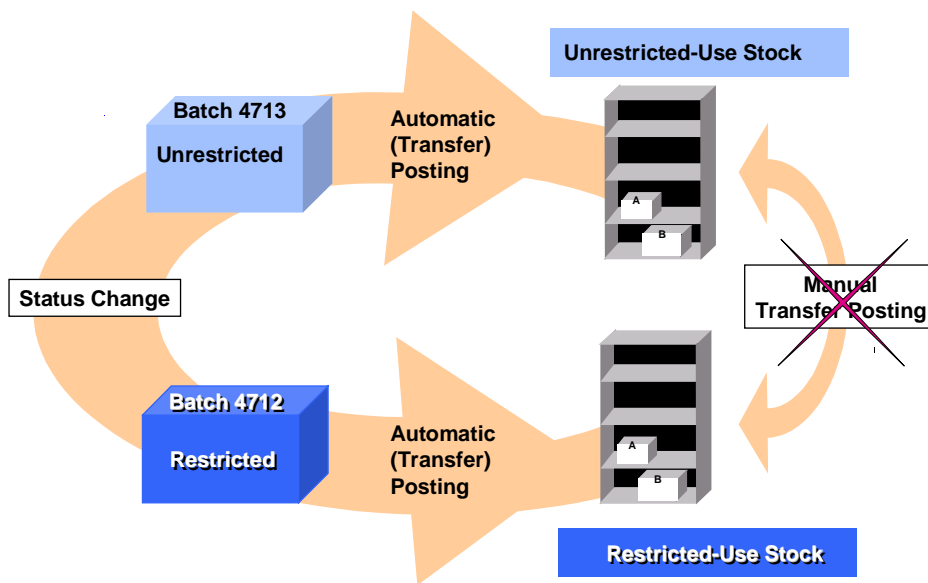


There is a partial quantity of batch 4711 in unrestricted stock and a partial quantity in blocked stock.

- Stock Update

The unrestricted stocks of a batch are updated with regard to their usage status.

Depending on the status, the system automatically posts the batch to a stock when a goods movement occurs:



- Transfer Postings

Transfer postings from unrestricted to restricted use stock and vice versa can only be carried out using status change. You change the status

- in the batch master record
- in the usage decision in Quality Management

- Initial Status

You can define which status a newly created batch is to be given for each material type.

You can make the settings for the initial status of a new batch in Customizing for *Batch Management* under *Specify Batch Level and Activate Batch Status Management*.

Batch Status Management

- Quality Inspection and Release or Partial Release

You post a batch after quality inspection from the inspection stock to unrestricted-use or restricted-use stock, depending on the batch status. Batches can also be partially released.

- Batch Status and Availability Check

The batch status determines whether a batch is available or not: a batch is available as soon as it enters a stock type that is included in the availability check.

You use a combination of availability check group (CH) and checking rules to control whether or not restricted batches are to be considered during the availability check.

See also *Controlling Availability Check* in Customizing for the individual applications (PP, PP-PI, SD, LES, MM-IM).

Changes to Batch Status

Use

Quality Inspection and Release

During goods receipts, for a purchase order, for example, the goods are posted to inspection stock. The batch has the status *unrestricted*. However, the batch is not available as it is in inspection stock.

Using the inspection results, you decide whether to accept the batch or not.

Once you have accepted the batch, you can use movement type 321 to make a transfer posting from inspection stock to unrestricted-use stock.

If the batch is not accepted, you can change the status to *restricted* and use movement type 321 to make a transfer posting from quality inspection stock. As the status is *restricted* the system automatically posts the batch to restricted-use stock.

Quality Inspection and Partial Release

You may want to check the quality of a particular amount of goods (100 liters, for example) in partial quantities (10 x 10 liters). In these cases, you might want to accept some partial lots, but also need to reject others, as you are not dealing with one batch as you had expected, but with several batches.

You handle these partial quantities as different batches and assign different batch numbers. Depending on the inspection results, you assign the status *restricted* or *unrestricted* to each batch.

Stock Types

The status of the following stock types is directly linked to the status of the respective batch:

- Unrestricted stock
- Restricted stock

The status of the following stock types is independent of the status of the respective batch:

- Inspection stock
- Blocked stock
- Stock in transfer
- Blocked stock returns

Features

A change to the batch status starts a transfer posting from restricted to unrestricted stock, and vice versa. All other stock types are not affected. They are status independent, and you can always post batches to them. This makes it possible to use a partial release for quality inspection stock.

The 'restricted' stock and the blocked stock are treated identically as far as planning is concerned.

Changes to Batch Status

If you change the status of a batch in the batch master record, the system automatically changes the status of all subsets of this batch in all storage locations, and triggers an internal transfer posting of the respective stock.

You cannot manually start a transfer posting of a batch from restricted to unrestricted stock, or vice versa. A transfer posting of this type can only be triggered by changing the status indicator in the batch master record.

Activities

1. In the batch master record (*Logistics → Central Functions → Batch Management → Batch → Change*), set the *Batch unrestricted* or *Batch restricted* indicator.
2. The system:
 - posts the batch stock from unrestricted-use stock to restricted-use stock, or vice versa
 - creates a change document for the change in master data
 - creates a material document for the transfer posting

See also:

[Changing a Batch Master Record \[Page 37\]](#)

Batch Determination

Purpose

In the logistics process, that is from procurement to sales, you are required time and again to specify batches for individual business transactions. You can use batch determination for all types of goods movements **from** the warehouse to find batches that meet defined specifications.

- In **Inventory Management (IM)**, you can use batch determination in goods movements when you are dealing with a goods issue posting (for instance, a consumption posting to a cost center), with a stock transfer or with a transfer posting. For further information, see section [Batch Determination in Inventory Management \[Page 66\]](#).
- In **Production (PP/PP-PI)** you can use batch determination in production and process orders and run schedule headers to find suitable material components for the product to be produced, and to pick these from stock. For further information, see section [Batch Determination in Production/Manufacturing \[Page 71\]](#).
- In **Sales and Distribution (SD)**, it is possible to determine batches that match customer specifications. Batch determination can be triggered at two points in the process, either when the sales order is entered, or when the delivery is created. For further information, see section [Batch Determination in Sales and Distribution \[Page 79\]](#).
- In the **Warehouse Management System (WM)**, batch determination is used to optimize warehousing, for example, in view of stock removal strategies and replenishment from stores. For further information, see section [Batch Determination in Warehouse Management System \[Page 87\]](#).

Features

- User-defined search strategies
You choose the key fields from the business transaction for which you want to search for batches. For example, you choose the combination customer and material, and specify the criteria for batch selection.
- Strategy types
These strategies are linked to the individual business transactions. In this way, you can, for example, make batch determination dependent on the movement type and/or the plant when carrying out a goods movement.
- Batch search procedures
You can prioritize and group several strategy types into one search procedure. For example, you can define a general strategy that is canceled under certain circumstances by a special strategy.

You will find further information on the condition technique, strategy types and so on, in the R/3 library under [SD - Conditions and Price Determination \[Ext.\]](#).

Batch Determination Process

Batch Determination Process

Purpose

This process describes how you find suitable batches for a business transaction.

Here are some examples of business transactions in different applications:

Business Transaction	Application
Material withdrawal for production/process order Internal material provision Return delivery to supplier Scrap/sample Transfer posting	Inventory Management
Production/process order Repetitive manufacturing with/without partial orders	Production
Quotations Quantity order Sales order/scheduling agreement Delivery	Sales & Distribution
Transport order	Warehouse Management

Prerequisites

- You must have assigned a search procedure to the business transaction. The search procedure contains different strategy types that are relevant for the business transaction.
- There must be a batch search strategy for one of the strategy types. See also [Creating a Batch Search Strategy \[Page 60\]](#).
- The selection class must contain at least one of the characteristics with which the batch was classified. See also [Definition of a Batch Search Strategy \[Page 56\]](#).

Process Flow

1. You start batch determination manually, or the system starts automatic batch determination.
2. The system then carries out the following steps in succession:
 - it looks for a search procedure for the business transaction
 - it searches through the strategy types listed in the search procedure for a search strategy. The first valid search strategy is adopted and all other search strategies are ignored.
 - it then uses the characteristics from the selection class of the search strategy to look for batches with suitable specifications
 - it checks whether the batches are available

Batch Determination Process

- it sorts the batches that were found and are available according to the sort rule from the search strategy
- the system selects a proposed quantity in accordance with the proposed quantity from the search strategy.
- the system proposes that batch determination is to run online, providing that the search strategy contains the information

See also:

Batch Determination and Batch Check in Customizing for Batch Management

Definition of a Batch Search Strategy

Definition of a Batch Search Strategy

Definition of a Batch Search Strategy

Use

You use this function to define rules for batch determination in particular business transactions. You specify:

- The conditions under which batch determination is to be triggered
- The search criteria that are to be used



Batch determination is to be triggered if customer A orders material B, as this customer only accepts batches with particular specifications. You use your batch search strategy to look for these particular specifications.

Integration

Each individual batch search strategy is based on a strategy type. Several strategy types can be grouped together in a search procedure. Each search procedure is assigned to a business transaction.

Prerequisites

The following must be defined in Customizing for Batch Management:

- Condition tables
- Access sequences
- Strategy types
- Search strategies
- Assignment of batch search procedure to business transactions
- Selection classes
- Sort rules

You can either use the predefined objects or define your own objects. See the Implementation Guide (IMG) for *Batch Management*, under *Batch Determination and Batch Check*.

Features

You specify the following information:

- Key combinations

You are given different key combinations to choose from, depending on the strategy type. For example, customer/material/plant and customer/material.
- Selection Criteria

You store the selection criteria as characteristics in a selection class. They must be characteristics or [Standard Characteristics \[Page 20\]](#) that you have used for the classification of the batch. Exceptions: You can use only LOBM_RLZ, LOBM_RLZ_PROZ, LOBM_LFDAT, LOBM_KRT, and LOBM_MBDAT for selection.

Definition of a Batch Search Strategy

A selection class does not have to include all the characteristics that you used to classify your batch, only those you want to use for selection.

Characteristic	Description
LOBM_RLZ	<p>Remaining shelf life</p> <p>You use this characteristic to enter the required remaining shelf life in days that a batch must be usable after delivery to your customer, for example. You use the characteristic during batch determination to select batches dynamically using the expiration date.</p>
LOBM_RLZ_PROZ	<p>Percentage remaining shelf life</p> <p>You use this characteristic to specify the remaining shelf life as a percentage of the total shelf life. Using the percentage remaining shelf life, you can select batches dynamically by their shelf life expiration date.</p>
LOBM_LFDAT	<p>Delivery date</p> <p>This characteristic refers to the required delivery date of the calling function. Characteristic value assignment for this characteristic is carried out automatically during batch determination. However, the value is not displayed. The delivery date can only be transferred to this standard characteristic and not to user-defined characteristics.</p>
LOBM_KRT	<p>Waiting period</p> <p>You use this characteristic to enter the period of time a batch must mature or be stored before it can be processed any further or sold. When using the batch determination function, you can use this characteristic to determine the availability date dynamically.</p>

Definition of a Batch Search Strategy

Characteristic	Description
LOBM_MBDAT	Materials staging date This characteristic refers to the required materials staging date of the calling function. Characteristic value assignment for this characteristic is carried out automatically during batch determination. However, the value is not displayed. The materials staging date can only be transferred to this standard characteristic and not to user-defined characteristics.



You cannot change the default value for the selection class. If you want to choose a different selection class in the search strategy, you must use a strategy type with no default value.

You will find further information under *Define selection classes* in the Implementation Guide (IMG) for *Batch Management*.

- Sort sequence

In sort rules, you specify the characteristics according to which the system sorts the batches it finds. You can specify an ascending or descending sort sequence for each field.

The sort rule characteristics must be characteristics or [Standard Characteristics \[Page 20\]](#) that you have used for the classification of the batch. Exceptions: You can only use LOBM_LGORT and LOBM_MENGE for sorting. The characteristics LOBM_MENGE and LOBM_LGORT must not be contained in the batch class, otherwise sorting will not work with these characteristics.

Characteristic	Description
LOBM_LGORT	Storage location
LOBM_MENGE	Available quantity of the batch

You can change the default value for the sort rule.

You will find further information under *Define sort rules* in the Implementation Guide (IMG) for *Batch Management*.

- Number of batch splits

If you allow batch splits, the system puts together the required quantity using several batches.

Definition of a Batch Search Strategy

- Proposed quantity
You use the proposed quantity to control how the required quantity is put together from the batches the system finds when carrying out a batch split.
- Unit of measure
You can display the batches that the system finds either in stockkeeping units, or in units of measure from the document, for example, in units of active ingredient.
- Batch determination online
You can run batch determination either online or in the background. If you run batch determination online, you can [Edit Results \[Page 70\]](#).

Activities

1. You choose a strategy type and a key combination.
2. The system automatically transfers the default values from the strategy type to your search strategy.
3. You change or transfer the default values. If you do not specify the selection class and the sort rule when you create the strategy type, you must choose the selection class and sort rule in your search strategy.

 Creating a Batch Search Strategy

Creating a Batch Search Strategy

Prerequisites

You must have made the settings for *Batch Determination* and *Batch Check* in Customizing for *Batch Management*.

Procedure

1. On the initial screen of your application choose *Batch search strategy* → *Create*.

Initial Screen	Menu
<i>Inventory management</i>	<i>Environment</i>
<i>Production control</i>	<i>Environment</i>
<i>Process orders</i>	<i>Environment</i>
<i>Sales master data</i>	<i>Products</i>
<i>Warehouse Management</i>	<i>Master data</i>

2. Choose the strategy type.
If you want to see a list of the strategy records available, choose *Strategy info*.
3. Choose the key combination.
4. If you want to specify a particular time frame for the search strategy and therefore the selection criteria, enter the desired validity period.
5. Enter the required data.
6. Choose *Selection criteria*.
7. If no values have been entered, enter the selection class and the characteristic values.
8. Go back to the screen on which you create a batch search strategy.
9. Choose *Sort*.
10. Choose a sort sequence.

Changing and Deleting a Batch Search Strategy

Changing a Batch Search Strategy



When you change a search strategy, an additional one is created. The validity of the new strategy starts with the validity start date you enter. The validity of the original search strategy ends on that date.

1. On the initial screen of your application, choose *Batch search strategy* → *Change*.

Initial Screen	Menu
<i>Inventory management</i>	<i>Environment</i>
<i>Production control</i>	<i>Environment</i>
<i>Process orders</i>	<i>Environment</i>
<i>Sales master data</i>	<i>Products</i>
<i>Warehouse Management</i>	<i>Master data</i>

2. Choose the strategy type.
3. Choose the key combination.
4. Enter the required data, and choose *Execute*.

The screen appears on which you record search strategies. It displays all strategies of the chosen strategy type that are valid on the chosen date.

5. Make the changes and save them.

Deleting a Batch Search Strategy

It is not possible to delete a batch search strategy.

If you no longer want to consider a particular batch search strategy in batch determination, you must set a deletion indicator in the search strategy.

1. Carry out the procedure as described in *Changing a Batch Search Strategy*.
2. On the screen for recording search strategies, set the indicator for the desired search strategy.

Classification and Batch Determination - Example

Classification and Batch Determination - Example

The following example shows which characteristics you can use to classify the material *Epoxy resin*. It also demonstrates which characteristics you can use to select and sort batches of this material.

Scenario

Specifications for epoxy resin	Classification characteristics	Selection characteristics	Sort characteristics
Refraction index	Refraction index		
Viscosity	Viscosity		
Color value	Color value		
Hydrolizable chloric content	Hydrolizable chloric content		
Epoxy count	Epoxy count		
Volatile proportion	Volatile proportion		
Customer's requirements			
Viscosity 45 - 47		Viscosity	
Epoxy count 24		Epoxy count	
Highest possible color value			Color value 2nd sort descending
Minimum remaining shelf life		LOBM_RLZ, LOBM_LFDAT	
Own requirements			
Only batches that are not marked for deletion	LOBM_LVORM	LOBM_LVORM	
Only batches with status <i>unrestricted</i>	LOBM_ZUSTD	LOBM_ZUSTD	
Remove batches that are sorted according to expiration date from stock	LOBM_VFDAT	LOBM_VFDAT	LOBM_VFDAT 1st sort ascending
Lowest possible number of batch splits			LOBM_MENGE 3rd sort descending

Classification and Batch Determination - Example**Classification Characteristics**

You use the following user-defined characteristics to specify the material and the batches:

- Refraction index
- Viscosity
- Color value
- Hydrolizable chloric content
- Epoxy count
- Volatile proportion

As you want to make your selection according to deletion flag, expiration date or remaining shelf life and status, you must also include the following standard characteristics in classification.

- LOBM_LVORM
- LOBM_ZUSTD
- LOBM_VFDAT

You enter further standard characteristics that you require for the calculation of the expiration date or the remaining shelf life in the selection - see below.

Selection Characteristics

The customer will only accept batches with a particular viscosity and epoxy count. You therefore do not need all the characteristics in the specification. You only require

- Viscosity
- Epoxy count

For selection according to deletion flag and status, you require the following standard characteristics:

- LOBM_LVORM
- LOBM_ZUSTD

For selection according to expiration date or remaining shelf life, you require the following standard characteristics for calculation:

- LOBM_VFDAT
- LOBM_RLZ
- LOBM_LFDAT

Sort Characteristics

From the batches found, you first want to use the batches that were first placed into stock and thus have the nearest expiration date. At the same time, these batches are to have a high color

Classification and Batch Determination - Example

value and, if possible, are to be used for the delivery without batch split. You therefore sort in the following order

- LOBM_VFDAT - ascending
- Color value - descending
- LOBM_MENGE - descending

If the system finds several batches with the same expiration date and the same color value, they are also sorted additionally using the quantity.

Checking Manually Specified Batches

Use

This function checks whether manually specified batches meet the required specifications. To carry out this check, the system uses the selection criteria specified for batch determination.

Prerequisites

To be able to use the check, the following conditions must be met:

- You must have activated batch checking in Customizing.
- You must have assigned a search procedure to the respective order or movement type.

For further information, see section *Batch Search Procedure Allocation and Check Activation* in the Implementation Guide (IMG).



You can use this check function in all R/3 applications that provide the batch determination functionality, with the exception of the Warehouse Management System.

If batch checking is not activated in Sales and Distribution, batches that have been entered manually are checked with regard to availability date and shelf life expiration date (SLED).

Batch Determination in Inventory Management

Use

A posting is required for all goods movements in Inventory Management in order to record changes to the quantity and value of stock. You can only use batch determination for goods issues. Below, you will find some business transactions during which a goods issue takes place:

- Withdrawal for production/process order
- Internal material provision
- Return delivery to supplier
- Scrapping/sampling
- Transfer posting

Triggering Batch Determination for Goods Issues

To trigger batch determination for goods issues, proceed as follows:

1. In the screen *Inventory Management* call up *Goods movement* → *Goods issue*: Now enter the following
 - a) the movement type
 - b) the plant
 - c) the storage locationNow choose *ENTER*. The system branches to the screen *Enter Goods Issue: New Items*

2. In this screen enter the following data:
 - a) the material
 - b) the quantity required
 - c) an asterisk (*) in field *Batch*
 - d) other data depending on the movement type

3. Now choose *ENTER*. Here, the system carries out either
 - a) an unspecified batch determination or
 - b) a specific batch determination

Unspecified Batch Determination

All batches found for a material are displayed after an unspecified batch determination.

The system carries out an unspecified batch determination, if no search procedure is allocated to the movement type. In the standard R/3 System, no search procedure is allocated to any movement type.



When you post a goods issue, the system checks whether the stock is physically available. The actual availability of the stock is determined by the availability check, if it is activated.

Specific Batch Determination

The system carries out a specific batch determination, when a search procedure is allocated to the movement type. The system tries to find a suitable search strategy in the search procedure, in order to determine appropriate batches.



If a search procedure is allocated to a movement type, you **cannot** carry out an unspecified batch determination.

See also:

Triggering Batch Determination for Goods Issues

[Changing the Results of Batch Determination \[Page 70\]](#)

[Displaying Information on Batch Determination \[Page 69\]](#)

Displaying Information on Batch Determination

If you have specified that batch determination is to run in dialog mode, a screen is displayed after batch determination has been completed, that lists all batches found. Apart from the information contained in this screen (batch, split quantity, available quantity, storage location, characteristic sort sequence), you can also obtain further information using the following functions:

Classification

Using the *Classification* function, you can display the characteristics and characteristic values of an individual batch, as well as the selection criteria used to determine the batch. Double-click on a batch to obtain this information.

Strategy Analysis

Using the *Strategy analysis* function, you can find out whether the system found a batch search strategy. Furthermore, you can obtain information as to why certain search strategies were not found.

Log

Using the *Log* function, you can obtain a display on the process flow of the batch determination. If you require more detailed information, choose *More*, for instance, to display the stock of a batch located by the dynamic availability check.

Displaying Availability

If you have used the dynamic availability check for a business transaction, choose *Environment* → *Display availability* to display the ATP quantities for each batch.

For more information, choose *Environment* → *Display material*, *Display batch*, *Batch usage*, *Display availability*, *Display inspection lots*.

See also:

[Changing the Results of Batch Determination \[Page 70\]](#)

Changing the Results of Batch Determination

Changing the Results of Batch Determination

Original Situation

Using *Batch determination* → *Original situation*, you can reverse all changes you have made since the first dialog of the current batch determination.

Batch Determination Without Selection Criteria

By choosing *Batch determination* → *W/o class selection* you can search for all available batches of a material where stock >0 without employing selection criteria.

Selection Criteria

When you have carried out a batch determination you can display the selection criteria and make changes if necessary. Choose *Selection criteria*. In the subsequent dialog box, you can choose between *Create* and *Change*.

If you want to carry out a new batch determination using the same characteristics, but different characteristic values, choose *Change*, and enter new values.

If you want to run a new batch determination using other characteristics, choose *Create*. The system displays the characteristics that classify the batch. You can now enter characteristic values that you want to be used during batch determination. However, you can only use characteristics of the batch class.

If you have used a batch search strategy that contains no selection criteria for batch determination, but want to use selection criteria, choose *Selection criteria*. In the dialog box that the system now displays, choose *Create*.

The title of the dialog box informs you on the origin of the selection criteria.

Strategy Information

Choose *Strategy info* to display and change data contained in the search strategy.

Distribute Quantities/Reset Quantities

Choose *Edit* → *Reset quantities* to reset all distributed quantities.

Choose *Edit* → *Distribute quantities* to have the system distribute all quantities that have not yet been distributed. You can use this function, for instance, if the total quantity of the batches found suffices to cover the required quantity, but the number of allowed batch splits is too low or there is no proposed quantity available.

Copy

To copy the batches found by the system into the process order, delivery, etc., choose *Copy*.

Batch Determination in Production

Use

You can use batch determination in the following areas of production:

- In production orders (PP)
- In process orders (PI)
- For repetitive manufacturing with partial orders
- For repetitive manufacturing without partial orders

Batch Determination for Process and Production Orders

Batch Determination for Process and Production Orders

You can use batch determination in process and production orders to

- Find batches of components that are to be handled in batches, required for the production of a material
- Conduct an availability check
- Reserve the batches found at the earliest possible point in time for an order

If you do not want to reserve at batch level in the production/process order, but consider reservation at material level adequate, you can also run batch determination when you process a consumption posting for an order (see section [Triggering Batch Determination for Goods Issues \[Page 67\]](#)).

You can use the following methods to allocate the selection criteria:

- The component in the production/process order is classified manually
- The component is classified in the bill of material for make-to-order production
- A batch selection is manually specified in the sales order or a customer/material strategy exists
- The component is classified in the bill of material (see section [Classifying Material List Items and BOM Items \[Page 74\]](#))
- A strategy is available for the material number of the component
- Using the characteristics of the variant configuration in the sales order

The above list is identical to the sequence the system follows when it attempts to find a selection class.



You use a certain raw material to manufacture 9 materials. You require batches with identical specifications for the production of eight of these materials, to produce the ninth material you require more detailed specifications. In this case, you create a search strategy for the raw material. For the ninth material, you classify the corresponding BOM item. As the system chooses selection classes using the sequence described above, the batches required for the eight materials are found using the search strategy, for the ninth material, the raw material is found using the selection class with which you classified the BOM item.

Even if the system does not use a search strategy to determine the selection criteria but one of the above methods, it nevertheless uses the batch determination rules (number of batch splits, sort rule etc.) specified in the search strategy. This means, you always have to maintain a search strategy.

See also:

[Batch Handling in the WM/PP Interface \[Page 89\]](#)

Batch Determination for Process and Production Orders

Classifying Material List Items and BOM Items


Classifying Material List Items and BOM Items

To classify material list items of a master recipe (*PI*) or BOM items of a material list (*PP*), proceed as follows:

1. In the screen *Material Item Overview*, select the item you want to classify.
2. Choose *Extras* → *Classification*.
3. Allocate a selection class to the material list item and choose *Value assignment*.
4. Enter the values required and choose *Back*.

Triggering Batch Determination for Production Orders

To trigger batch determination for production orders, proceed as follows:

- On the *Component Overview* screen, select the components for which you want to find batches and choose .


See also:

[Changing the Results of Batch Determination \[Page 70\]](#)

[Displaying Information on Batch Determination \[Page 69\]](#)

Triggering Batch Determination for Process Orders

Triggering Batch Determination for Process Orders

To trigger batch determination for process orders, on the *Material List* screen, choose the components for which you want to find batches and choose .

See also:

[Changing the Results of Batch Determination \[Page 70\]](#)

[Displaying Information on Batch Determination \[Page 69\]](#)

Batch Determination in Repetitive Manufacturing

Batch determination in repetitive manufacturing **with** partial orders is identical to batch determination for process and production orders.

You use batch determination for repetitive manufacturing **without** partial orders to find batches for the withdrawal posting of the run schedule header. In this case, batch determination is identical to batch determination in Inventory Management.

Triggering Batch Determination for Repetitive Manufacturing

Triggering Batch Determination for Repetitive Manufacturing

Repetitive Manufacturing with Partial Orders

Proceed as described in sections [Triggering Batch Determination for Process Orders \[Page 76\]](#) or [Triggering Batch Determination for Production Orders \[Page 75\]](#).

Repetitive Manufacturing Without Partial Orders

To trigger batch determination during repetitive manufacturing without partial orders, proceed as follows:

1. On the *Repetitive Manufacturing* screen, choose *Backflush* → *Final backflush*.
2. Enter either the material number and/or the number of the run schedule header. Choose *ENTER*.
3. On the *Final backflush* screen, enter the receiving storage location, the batch, and the quantity to be confirmed (the quantity produced), and choose *Execute*.

The system conducts a batch determination for all components that are subject to handling in batches.

See also:

[Displaying Information on Batch Determination \[Page 69\]](#)

[Changing the Results of Batch Determination \[Page 70\]](#)

Batch Determination in Sales and Distribution

Use

There are four points at which you should use batch determination in Sales & Distribution. These are:

- Quotations
- Quantity contracts
- Sales orders (or scheduling agreement)
- Delivery

Batch Determination in Quotations and Quantity Contracts

Batch determination in quotations or quantity contracts allows you to reserve batches for a customer at a very early stage. This is because requirements are transmitted in a quotation or a quantity contract ensuring that the corresponding batches can be reserved. However, you must first make sure you have chosen the type of quotation or quantity contract to be used for transmitting requirements (this is controlled using the schedule line category). You make the settings required for this in *Basic Functions Customizing*. When you create the sales order, the system makes a cross-reference between the quotation or quantity contract, and the quotation requirements or quantity contract requirements are calculated according to the order requirements.

Determining batches at an early stage ensures that the material is available when the customer requires it. However it can entail capital lockup over a relatively long period.

You can define whether batches that you have already determined in quotation or quantity contract should be fixed or unmodifiable. You use the message system to control this. If you choose the setting *Error message (E)*, the batches are fixed. If you choose either *No message ()* or *Warning message (W)*, you can still change the batches in the order. You make these settings in Customizing for *Sales and Distribution*.

Batch Determination in Sales Orders

You should choose batch determination in sales orders when customer requirements take precedence over all other factors (such as stock removal strategies, for example). Use batch determination here, if a customer, for instance, requires a material with certain set specifications.

Contrary to deliveries, batch splits are **not** possible for sales orders (as opposed to delivery). Even if you have defined a certain number of batch splits in the batch search strategy, the system overrides this default setting.

You use batch determination for the sales order to find batches for set specifications. You can also reserve batches, as requirements are transmitted via the sales order in the same way as they are via the quotation.

Determining Batches in Sales Orders

Determining Batches in Sales Orders

Depending on the settings you have chosen in Customizing, there are two ways you can run batch determination in sales orders:

- Automatically, during creation of the sales order (see section *Activating Automatic Batch Determination in S&D* in the Implementation Guide) or
- You can trigger it manually during order processing; see section [Triggering Manual Batch Determination in Sales Orders \[Page 84\]](#)

You still have the option of triggering manual batch determination, if you have already used automatic batch determination previously, but want to use other batches than those the system selected using the sort rules.



Specify *descending quantity* for the sort sequence, so that the system always finds the batch with the largest available quantity first.

There are three possible scenarios when you use automatic batch determination.

- The system finds a batch of the desired quantity
- The system finds an insufficient quantity
- The system does not find a suitable batch

Scenario 1: The System Finds a Batch of The Desired Quantity

The desired quantity of a batch with the appropriate specifications is found, and returned to the order. No dialog takes place, as the Customizing setting *Dialog yes* is overridden during automatic batch determination.

Scenario 2: The System Finds an Insufficient Quantity

The system only finds an insufficient quantity of a batch with the appropriate specifications. As no batch split is possible during batch determination in the sales order, this might also be the case, where the required quantity could be obtained from several batches (see also section [Batch Determination for Deliveries \[Page 85\]](#)). The first batch found using the sort rule is returned to the sales order. You have the option of intervening via manual batch determination. First, call batch determination again in order to obtain an overview of available batches. You then have the following options:

- You can select a different batch
- You can enter a new item in the sales order of which you know that batches with sufficient quantities are available
- You can search for a batch with similar specifications by changing the selection criteria

See also:

[Changing Sales Orders \[Ext.\]](#) in the *SD - Sales and Distribution Processing* documentation.

Determining Batches in Sales Orders**Scenario 3: The System does not Find a Suitable Batch**

The system does not find a batch with the appropriate specifications. In this case, you can either use manual batch determination to run a new search with different selection criteria, and/or trigger make-to-order production. You need to enter the latter in the sales order. (See also section [Make-To-Order Production \[Ext.\]](#) in the *SD - Sales and Distribution Processing* documentation. The production order uses the specifications stored in the sales order to find suitable batches of the materials required for production.

The three scenarios described above are also possible during manual batch determination. In this case, however, you can intervene directly.

Triggering Manual Batch Determination in Sales Orders

Triggering Manual Batch Determination in Sales Orders

You can trigger manual batch determination using the following procedures:

- Flag the item for which you want to run a batch determination on one of the sales order overview screens, and choose *Edit →Batch determtn item*.
- On the detail screen *Business Data*, choose *Edit →New batch determin* for the respective material.

By using this function, you branch from the sales order to batch determination.

The system proposes the first batch found according to the sort rule, but it also displays all other batches that are found. You can now select a batch other than the one proposed by the system.

See also:

[Changing the Results of Batch Determination \[Page 70\]](#)

[Displaying Information on Batch Determination \[Page 69\]](#)

Batch Determination for Deliveries

Use

You should choose batch determination in deliveries, if

- You are dealing with materials that are constantly available (mass production)
- You want to minimize capital lockup
- The specifications are not very detailed (e.g. if you require batches that may not be sold in the USA but in Asia, or batches that are suitable for whole customer groups), see also section [Batch Determination in the Transfer Order \[Page 88\]](#).
- The expiration date, or the remaining shelf life are the most important criteria
- Batch splits are necessary



If batches have already been specified in the sales order, they are copied to the delivery, and cannot be changed there.

Features

Depending on the settings you have chosen in Customizing, there are two ways in which you can run batch determination when taking deliveries:

- Automatically, during the background transfer of the order data for all relevant items of the delivery, or
- You can trigger it manually when you process the delivery; see section [Triggering Manual Batch Determination for Deliveries \[Page 86\]](#).

You still have the option of triggering manual batch determination, if you have already used automatic batch determination previously, but want to use other batches than those the system selected using the sort rules. If you want to use automatic batch determination, you need to make the appropriate settings in Customizing; see section *Activating Automatic Batch Determination in S&D* in the Implementation Guide.

As batch splits are possible for deliveries (see also [Working with Batches in Deliveries \[Ext.\]](#) in the *SD - Sales and Distribution Processing* documentation), you can run batch determination at this point, if a batch determination in the sales order only located an insufficient quantity, but you have noticed that several batches with the appropriate specifications are available, that when combined would provide the desired quantity.

Triggering Manual Batch Determination for Deliveries

Triggering Manual Batch Determination for Deliveries

To trigger manual batch determination in a delivery, flag the appropriate item in one of the overview screens. Now choose *Item →Batch split*. The system branches to the batch split screen. Here you have the three following options that enable you to trigger batch determination:

- **You can select new batches**

To trigger a new batch determination, choose *Edit →Batch determination →New batch determin..* If a batch determination has already run previously, all selected batches are discarded, and the new batches are selected using the sort rule. The discarded batches continue to be displayed, but the system resets the quantities to '0'.

- **You can change the batches**

Choose *Edit →Batch determination →Corr. batch determin..* Using this function, you cannot change the selected batches, but you can add new ones. This function can prove useful if the delivery item has already been picked, but the complete delivery quantity has not yet been allocated.

- **You can display the batches**

To display the batches, choose *Edit →Batch determination →Displ. batch determ..* You can use this function to display all selected as well as all discarded batches.



All items for which a batch split has been used, are denoted by an asterisk to the right of the material description on the delivery overview screen. Double-click on the asterisk to display the batches found for the respective item in the delivery.

See also:

[Changing the Results of Batch Determination \[Page 70\]](#)

[Displaying Information on Batch Determination \[Page 69\]](#)

Batch Determination in the Warehouse Management System

Use

If you have the Warehouse Management System (LE-WM) in use, you can first determine the batches in the transfer order, and confirm the determined batches in the delivery or production order/process order. However, before you use the WM/PP interface, you must be using direct picking to ensure a unique link exists between the transfer order and production/process order. Batch determination is used in the Warehouse Management System in the following cases:

- If optimum stock removal strategy takes precedence over other factors such as customer specifications
- If the criteria for determining batches are relatively general (a certain shelf life expiration date or status 'restricted', for example)

If batch determination has already been carried out in Sales & Distribution or in Production, you cannot run batch determination again in the Warehouse Management System. The system only searches for stock for batches determined in the sales order or delivery, and removes them from storage using WM stock removal strategies such as FIFO or LIFO.

See also:

[Batch Determination in the Transfer Order \[Page 88\]](#)



You should use either batch determination **always** in the Warehouse Management System or **always** in previously stored systems, that is Sales & Distribution, or in Production.

Batch Determination in the Transfer Order

Batch Determination in the Transfer Order

In this section, the two common cases for which batch determination is used in the Warehouse Management System are described. In the transfer order, batch determination is always carried out automatically and in the background.

Batch Determination Without Reference Documents

Batch determination without reference documents, for instance, is used for such cases as replenishment from stores, that is the replenishment of fixed storage bins, or during stock transfers within a storage location due to an ABC analysis.

The batch search procedure is linked with one of the following influencing factors or a combination of them:

- Movement type (WM)
- Warehouse number

Batch Determination with Reference Documents

Reference documents can be linked with:

- Delivery
- Production Order/Process Order

Delivery

During batch determination with reference documents in delivery, batches are determined in the Warehouse Management System, and updated in the delivery. Compared to batch determination in deliveries, this method allows you not only to consider the specifications as demanded by the customer, but also the optimum stock removal strategy from the point of view of Warehouse Management System. If the batch is already determined in the delivery, or the order, or in a sales document in the advance sales phase (request for quotation or quotation), the determined batches for the Warehouse Management System are fixed. In this case, the Warehouse Management System must simply make the batches available that were determined in Sales and Distribution in the picking zone.

Production Order/Process Order

If the reference document is either a production order or a process order, the R/3 System then specially controls the point in time at which batches must be determined. For further information, see section [Batch Handling in the WM/PP Interface \[Page 89\]](#).

Batch Handling in the WM/PP Interface

Use

For components to be handled in batches, you can specify the point in time at which batches must be determined within sales order processing.

Features

As batch determination must be very flexible in the order, the R/3 System has four methods of controlling it. The control is linked to the material and is defined in the material master record in the view *MRP 2*, in the *Batch entry* field. The control indicator determines the following scenarios:

Control Indicator	Short Description
<Space>	The batches can be determined in goods issue posting.
<1>	The batches must be explicitly determined in the order before the order is released.
<2>	<p>The batches must be entered in the order before posting the goods issue, but not necessarily before releasing. If you are working with pick parts, batches will be determined in the transfer order and the determined batches are then confirmed in the production order/process order via the transfer order confirmation. However, you must post the goods issue manually.</p> <p>If there is no direct reference between the transfer order and the production order/process order (for example, with release order parts and crate parts) you must enter the batches in the production order/process order manually.</p>
<3>	Batches are automatically determined when orders are released.

Batch Where-Used List

Batch Where-Used List

Purpose

This component determines how a batch is created and used in Production Planning *PP* through various stages of production and displays the result in a list.

You can use this to find out:

- In which other batches a batch was used
- From which other batches a batch was created

This is important in the case of complaints and questions about product safety if the composition of semi-finished and finished products has to be documented across all production levels. The material type is not important.

As well as batches, the system also displays production orders, manufacturing orders, subcontract orders, and vendor batches. This enables you to trace a batch's progress through each stage of production.

The list is used for all plants, but can also be restricted to certain plants.

For batches in other areas, for example Sales and Distribution (*SD*) or Warehouse Management (*LE-WM*), the [Pick-Up List \[Page 96\]](#) shows where batches are used.

Integration

Batch where-used records form the basis of the batch where-used list. Batch where-used records are formed from the data from inventory postings and reversal postings in Materials Management (*MM*).

The function includes transfer postings between various batches, but not transfer postings from plant to plant or transfer postings from storage location to storage location.

The various batches in Production Planning are linked via:

- Production orders
- Process orders
- Subcontract orders

The function only displays batches for which a receipt posting or issue posting has been carried out. Batches that were chosen when an order was released are not displayed.

As well as Batch Management (*LO-BM*), you need the following components:

Scope of batch where-used list	Required component
Transfer Postings	Materials Management (<i>MM</i>)
Production orders, process orders	Production Planning (<i>PP</i> , <i>PP-PI</i>)

Prerequisites

- Batch management requirement

All materials that are part of the batch where-used list must be subject to management in batches.

Batch Where-Used List

- Batch where-used file

You can only create a batch where-used list if the receipt records and issue records are stored in the batch where-used file.

You will find further information in the section *Make settings for batch where-used list* in Customizing for *Batch Management*.

Features

Composition of a Batch

The top-down analysis determines all batches that were used in the production of the specified batch.

Batch Usage

The bottom-up analysis determines all batches in which the specified batch was used as a component.

After you have found out, using the top-down analysis, which component is defective, you can perform a bottom-up analysis to determine for which products this component was used during production and to which customers these products were delivered.

Vendor Batch

The list also displays vendor batches. For vendor batches, you can display the batches in which the vendor batch was used. You can also determine the usage or composition for these batches.

Quantity Display

The list displays the totals of all partial quantities that have been posted for a batch.

For these totals, you can call up an overview of the posted partial quantities and the corresponding documents.

Display Options

List format	Use
Tree structure	Hierarchical display
ALV list	<p>You have to enhance the list with additional modifications (for example, if you want to re-sort the columns, calculate totals, or add fields with batch master data).</p> <p>You can find further information under <i>Configure customer exit for batch where-used list</i> in Customizing for <i>Batch Management</i>.</p>

There are various ways of changing the scope of the display. For example, you can choose whether you want to display the current status of a batch or whether you want to cancel the analysis if all the postings for a batch have been reversed and there is therefore no quantity flow.

You can change the display options from the list and adopt them immediately by refreshing the list.

Batch Where-Used List**Inspection Lot Assignment**

You can check the inspection lot assignment for each batch. From the list, you can then go to the inspection lot overview or inspection lot display.

Constraints

You cannot use the batch where-used list function for purchase orders or production orders with account assignment because goods receipts are entered without specifying a batch number.

When several output batches are produced in a process order or a production order, the system forms a total for the input and output batches in the batch where-used list. With regard to the order number of the process order or production order, the batch where-used list cannot distinguish between various inputs/outputs (charges).

Top-Down Analysis

Use

This function determines all batches that were used in one or more stages of production for the specified batch.

Activities

After you have started the top-down analysis, the system determines:

- All orders and subcontract orders used in the manufacture of the specified batch
 - Subcontract orders are regarded as being produced externally using a company's own batches.
- For each order, the quantity with which the batch was posted as an outward movement to the warehouse.
- The batches that were posted as components for each order
 - Orders that do not have a component batch are not displayed.
- For each of these batches, the cumulative quantity posted from the warehouse for the order

In the top-down analysis, the check whether inspection lots exist cannot be carried out with reference to production orders. When the batch is being processed, the orders that are used to manufacture the batch are not yet known.

Bottom-Up Analysis

Bottom-Up Analysis

Use

This function determines all batches for which the specified batch was used in one or more stages of production.

Activities

After you have started the bottom-up analysis, the system determines:

- All orders and subcontract orders in which the specified batch was used.
 - Subcontract orders are regarded as being produced externally using a company's own batches.
- For each order, the quantity with which the batch was posted from the warehouse as an outward movement.
- The batches that were produced for each order
 - Orders for which no batches were produced are not displayed.
- For each of these batches, the cumulative quantity posted to the warehouse as a receipt

Building Up a Batch Where-Used File

Use

To carry out the batch where-used list function, you need the batch where-used file. You must start the program for building up the file in the following cases:

- If you do **not** use synchronic posting of the batch where-used file.
- If you introduce the batch where-used list function at a later stage and want to work with synchronous posting. In this case, you have to start the program once to build up batch where-used records for existing material documents.

You will find further information in the section *Make settings for batch where-used list* in Customizing for *Batch Management*.

Procedure

1. In Inventory Management, select *Environment* → *Batch wh.-used list* → *Build up*.
2. Enter an interval for the material document numbers.
3. Run the program.

Result

The program creates:

- Either a receipt record or an issue record for every relevant material document item, depending on the movement type.
- A log of the new batch where-used records
- A log of the records that are already available

It takes into account only those material document items whose plant permits the building up of the batch where-used file.

Pick-Up Lists

Pick-Up Lists

Use

This function generates a list of sales documents which contain a specific batch of a material. If you know the sales document, you can enter it directly.

From this list, you can carry out the batch where-used list function.

Prerequisites

To be able to create the batch where-used list from within the list of sales documents, the batch where-used list function must be active and the batch where-used file built up.

Features

The list contains the following data:

- Plant
- Sales document and item
- Material number and batch

From this list, you can carry out the following functions:

- To display the sales document, material, or batch, place the cursor accordingly and select *Choose*
- To create the where-used list of the batch, choose *Top-down* or *Bottom-up*.

Archiving Batch Where-Used Records

Use

Batch where-used records are data records from the database table CHVW, which logs goods movements of materials handled in batches according to how Customizing is configured.

The archiving of batch where-used records:

- Ensures the availability of archived data for the batch where-used list to meet legal requirements
- Prevents memory space and run time problems due to increasing movement data

Prerequisites

The system only archives batch where-used records whose batch master records have already been archived. This ensures that no other batch where-used records are created for a batch and thereby allows the batch where-used records to be organized in objects.

Features

Selection criteria:

You can select batch where-used records for an archiving run by the following criteria:

- Material number
- Plant
(Selection by plant is available for the batch level = plant).
- Last posting date, referring to a batch

Archiving mode:

The archiving and deletion of data can be carried out in the test mode, which allows you to check the run time, the data volume, and the selected batches before they are actually archived.

Activities

All these activities are controlled by the central SAP archiving transaction.

- Call up archive management (*Tools* → *Administration* → *Administration* → *Data archiving*). Enter *LO_CHVW* as the object name and choose *Continue*.
- Archiving
You call up the archiving transaction by choosing the *Archiving* pushbutton.
The system searches for all batch where-used records for which batch master records have already been archived. It then checks for each batch whether the last posting was carried out before the date entered. If this is the case, the system writes the batch where-used records in the archive file, grouped by material number, batch, and plant.
- Deletion

Archiving Batch Where-Used Records

The archive files that have already been created are used as a basis for the deletion of data from the database. You can choose the following deletion options in Customizing by choosing the *Customizing* pushbutton under *Technical Settings*:

- Automatic
 - If you actively set the *Start automatically* indicator, the system automatically deletes the data in the database once the archiving run has been successfully completed.
- Manual
 - If you do not actively set the *Start automatically* indicator, you have to start the deletion program via the *Delete* pushbutton.
- Reloading
 - This activity reloads archive files into the database. You can only reload entire archiving runs.
- Evaluation
 - Evaluation provides the archived data in the form of an ABAP List Viewer list. In this process, you can select data by material number, batch, and plant.
- Index
 - Compile index
 - The index facilitates access to the archived batch where-used records. For this purpose, the system compiles three indices with the following search criteria:
 - Plant / material / batch
 - Order number
 - Purchasing document number
 - In Customizing, you can determine how indices are compiled by choosing the *Customizing* pushbutton under *Technical Settings*:
 - Automatically
 - If you actively set the *Compile index* indicator, the system automatically compiles the index once the deletion run has started.
 - Manually
 - If you do not actively set the *Compile index* indicator in Customizing, you have to start index compilation manually via the *Compile index* pushbutton.
 - Remove index
 - You can remove indices for archive files still available in Archive Management by choosing the *Remove index* pushbutton. The system automatically removes the respective indices when the archive files are reloaded.
- Administration
 - To go to the overview of all archiving runs for the archiving object *LO_CHVW*, choose the Administration function.

Batch-Specific Units of Measure

Batch-Specific Units of Measure

Purpose

In some industry sectors (for example, the pharmaceutical, chemical, steel, or paper industry sectors), the composition or attributes of products vary to some degree. Therefore, you cannot use a fixed conversion factor to convert quantities of these products into various units of measure. Instead, each batch has to be given an individual conversion factor.

This component allows you to handle materials like these throughout the entire logistics chain.

Pharmaceuticals/Chemicals/Foods, etc. (Active Ingredient Management)

These materials consist of one or more active ingredients, concentrates, carrier materials, or impurities, and so on. The potency of the active ingredients varies from batch to batch.

The total mass of the active ingredients and the carrier materials, and so on, is the physical quantity or weighted quantity.

Goods movements and stock movements for these materials are carried out in physical quantities. Valuation, costing, availability checks, and planning, however, are carried out on the basis of the active ingredient quantity.

The active ingredient proportion (ratio of active ingredient quantity to total or physical quantity) remains constant for each batch. The active ingredient quantity can therefore be calculated from the physical quantity and vice versa. This means that you only ever need to specify one unit, as the other can be calculated automatically.



You buy a medicine in kilograms. The price of the quantity purchased is based on the quantity of the active ingredient it contains. The active ingredient potency fluctuates from batch to batch.

Steel/Paper/Wood/Textiles etc.

These materials are handled in batches. Among other things, these batches convey the product's grade. There is a fixed relationship between the number of pieces and the weight of each batch; the weight per piece. The quantity in the purchase order is listed in pieces, but billed in kilograms.

The dimensions of the individual parts in each of the batches are different, but they still belong to the same material.



V2A pipes with a length of between 2 meters and 2.10 meters are managed in a batch. Batch 1 contains pipes with an average weight per piece of 100kg; batch 2 contains pipes of the same quality with an average weight of 110kg per piece. Both batches belong to the same material: V2A pipe with an average weight per piece of between 100 kg and 120 kg.

Integration

The component works with [Batch-Specific Material Units of Measure \[Page 103\]](#).

Batch-Specific Units of Measure

For conversion of total quantities to batch-specific quantities, such as proportion quantities or product quantities, generally:

- the planned conversion factor is stored as a characteristic in the material master record
- the actual conversion factor is stored in the batch master record.

Until the batch or actual conversion factor is known, the system uses the planned conversion factor from the material master record to calculate the batch-specific quantities.

Once the batch or actual conversion factor is known, the system uses the actual conversion factor from the batch master record to calculate the batch-specific quantities.

The planned interval for the conversion factor is stored in the material master record. At goods receipt or when a new batch is created, the system checks whether the conversion factor entered lies within the material's planned interval.

Features

The component allows you to use both batch-specific quantities and physical quantities for the following functions:

- Entering purchase orders
- Entering sales orders and deliveries
- Batch determination
- Production orders
- Bills of material/material lists
- Reservations
- Goods movements and physical inventory, with dynamic conversion upon goods movements
 - At goods receipt, you can enter the total quantity in kilograms or the active ingredient quantity only.
- Valuation of batch stock
- Billing and price determination
 - In pricing, you include only one particular active ingredient proportion of the product, for example. This means that you can include different active ingredient proportions in pricing.

For [Proportion Units \[Page 103\]](#):

- inventory correction factor to take into account the actual available proportion stocks at plant level and storage location level for materials planning and the availability check
 - For more information, see [Calculating the Inventory Correction Factor \[Page 112\]](#).

For [Product Units \[Page 103\]](#):

- Automatic calculation of the conversion factor
 - By entering two units of measure in documents, for example, for reservations or goods receipts
 - Using object dependencies from batch specifications

Batch-Specific Units of Measure

For more information, see [Conversion Factor from Two Units of Measure \[Page 115\]](#) and [Conversion Factor from Object Dependencies \[Page 117\]](#).

- Quantity conversion for all product units of a material, with rounding adjustment and check for errors after the decimal point. Among other things, this ensures that only quantities with whole numbers are moved.

Constraints

- It is not possible to define a moving average price (MAP) for an active ingredient. You can only use a standard price.
- Application Link Enabling (ALE) does not support the distribution of batch-specific units.
- In sales (SD), you cannot use batch-specific quantities for:
 - scheduling agreements for the automobile tier 1 market
 - discounts in kind
 - material determination
- You cannot link the material specification with substances and substance compositions in the substance database of R/3 *Product Safety* component.
- Materials planning and the availability check are carried out in base units of measure. The inventory correction factor is taken into account in the case of proportion units.
- Inventory management is carried out in base units of measure. Parallel inventory management, with update of two or more quantities in the stock segments, is not supported.

Batch-Specific Material Units of Measure

Definition

Alternative units of a material for which the conversion ratio to the base unit of measure can be defined on a batch-specific basis.

Batch-specific material units of measure are:

- Proportion units

Units of measure in which you can enter proportions of the base unit of a material. The total quantity or physical quantity may be made up of several proportions.

For example, 100 milliliters of a particular batch of fruit juice contain 30.0 milligrams of vitamin C and 10.5 grams of sugar, as well as the fruit juice proportion.

- Product units

Unit of measure that describes the total quantity of a material as an alternative to the base unit of measure.

For example, a piece in a particular batch weighs 10 kilograms in total or a pipe is 1250 millimeters long.

Use

You use batch-specific units of measure when the conversion ratio for the unit of measure to the base unit of measure varies for different batches of a material.

Structure

Proportion units and product units are defined for a material.

While the conversion ratio for alternative units of measure to base units of measure is predetermined in the material, for proportion units and product units you have to define:

- the planned conversion ratio in the material
- the actual conversion ratio in the batch

Integration

Proportion and product units for materials that are managed in batches can be used in all processes throughout the Logistics chain.

If the batch is not yet known, the system uses the planned conversion ratio from the material to convert to the base unit of measure. Once the batch is known, the system uses the actual conversion factor from the batch.

Batch-Specific Units of Measure in Logistics

Batch-Specific Units of Measure in Logistics

Production

- In bills of material or material lists, you can enter base quantities and component quantities either in batch-specific units of measure or in base units of measure.
- Production orders or process orders are processed in physical quantities as before. When the system generates a production order or process order, it converts batch-specific quantities into physical quantities in the BOM explosion. This applies to base quantities and component quantities.
- The lot size is stored as a physical quantity. When exploding the next stage, the alternative BOM is determined using the physical quantity of the components.
- When entering batch numbers manually in production orders and process orders, you have to beware of the following: for batch items that do not have a batch split, you first have to enter a batch split and then manually enter the batch number on the batch split item. If you do not do so, the original requirements will be lost, because the planned conversion factor is replaced by the batch's actual conversion factor.
- If the unit of entry is a product unit, the system can determine for the order material a conversion factor that is different from the planned conversion factor. The system calculates the conversion factor from the base quantity and the production quantity. When goods are received for an order, this conversion factor is assigned to the batch. Refer to [Conversion Factor from Two Units of Measure \[Page 115\]](#).

Planned Order

- In planned orders, batch-specific quantities are converted during the BOM explosion into physical quantities in accordance with the planned conversion factor.
- If base quantities and component quantities are maintained in batch-specific units, the physical quantities are stored and displayed in base units of measure in the planned order. The batch-specific quantity is also stored and displayed in alternative units of measure.

Purchasing

- You can store the purchase order either in physical quantities (base units of measure) or in batch-specific quantities. You therefore enter batch-specific quantities and the corresponding units of measure as purchase order quantities and order units.
- If purchase orders are made in batch-specific quantities, the purchase order quantity and physical quantity are updated in the purchase order history. In this way, the degree of purchase order fulfillment may be determined at any time in batch-specific quantities. All fulfillments are checked against the purchase order quantity.
- In the purchase requisition (BANF), you can enter both the batch and the requested quantity in physical quantities.
- If the actual conversion factor of the batch is not known at the time of goods receipt, the goods receipt is carried out according to the planned conversion factor. If the actual conversion factor is taken from the usage decision in QM, the purchase order can be subsequently debited.

Inventory Management

- All goods are moved, and inventories are posted in physical quantities.

Batch-Specific Units of Measure in Logistics

- You can also display values in batch-specific units of measure. You can find this function by choosing *Goto* → *Additional functions* → *Quantity conversion*.

Valuation

- In addition to the types of value assignment that are already available, you can assign characteristic values based on the batch-specific quantity and price. You can thus determine the valuation price of a batch using its batch-specific quantity.

Sales/Shipping/Billing

- The system stores the batch-specific quantity as the quantity sold in the sales and distribution documents.
- You can enter requests for quotations, quotations, sales orders and deliveries in both batch-specific quantities and physical quantities. You cannot change sales units to batch-specific units of measure:
 - if preceding documents exist (for example, within an order-related delivery)
 - if follow-on documents exist (for example, within an order as soon as a delivery exists for it).
- If the sales unit is a batch-specific unit, the billing document is also created in batch-specific units. The billing quantity is derived from the cumulated batch quantity using the actual conversion factors of the batches.
- The document flow is always updated in batch-specific quantities and in physical quantities. If the planned conversion factor is changed, the existing sales and distribution documents are **not** adjusted.
- For scheduling agreements, the target quantity can only be entered in physical quantities.
- In the delivery, batch-specific quantities and batch-specific units are transferred from the order, and displayed as quantity sold and sales unit. For partial deliveries, the physical quantity is calculated using the actual conversion factor (batch is known at this point).
- In pricing, you can calculate prices, discounts, and surcharges based on batch-specific quantities and batch-specific units. When you do this, you may only use **one** quantity as a basis for calculation for each condition record, even when several batch-specific units (for example, active ingredients) are allocated to the material.
- You can bill either batch-split items, or the main item.
- Requirements are listed in physical quantities. If the order is entered in batch-specific quantities, the system calculates the physical quantity from batch-specific quantities and the planned conversion factor, if the batch is not known. If the batch is known, the system uses the actual conversion factor from the batch.

Materials Planning/Availability Check

- Planning, materials planning, and availability checks are carried out in physical quantities.
- For [Proportion Units \[Page 103\]](#), you can use an inventory correction factor to take into consideration the batch-specific quantities actually available in stock
 - in the ATP availability check
 - in requirements planning

Batch-Specific Units of Measure in Logistics

To go to the function for calculating the inventory correction factor, choose *Logistics* → *Central Functions* → *Batch Management* → *Batch-specific Units of Measure* → *Determine Inventory Correction Factors* (report RVBWSCOR).

A correction factor is useful if the following scenarios arise:

- The material only contains one batch-specific quantity (for example, one active ingredient).
- The material contains several batch-specific quantities, but only one batch-specific quantity is relevant for the availability check

For more information, see [Calculating the Inventory Correction Factor \[Page 112\]](#).

Batch Determination

- Batch determination is carried out using batch-specific quantities. First make sure that:
 - The underlying transaction has been entered in batch-specific quantities
 - You have set the indicator *Display UoM* as unit of entry in the strategy record (see also [Batch Determination \[Page 53\]](#))

Costing

- The costing lot size is stored in base units of measure.
- If the BOM is maintained in batch-specific quantities, the system converts the batch-specific quantities to physical quantities using the planned conversion factor.
- The prices of components are calculated according to the valuation variant and the strategy sequence for costing.

Product Costing

- When the planned calculation is released, the future planned price is set.
- On activating the planned calculation, the new standard price is set and the new price for the batch-specific quantities is determined from it. The new price is valid for all batches that are created after activation. Retroactive revaluations can only be done manually.

Job-Order Costing

- When determining the cost, the system calculates the batch-specific quantity using the planned conversion factor, as long as no batches are known by this stage.
- When the batch is known, the system calculates the actual batch-specific quantity using the actual conversion factor.
- Physical quantities are used for actual costing because the goods movements are carried out in physical quantities.

Goods Movement/Inventory Management

- In the case of returns, quantities are converted in the same way they are converted during order entry.

Maintaining Data for Batch-Specific Units of Measure

Purpose

With this process, you edit the master data for using batch-specific units of measure.

Prerequisites

To work with batch-specific units of measure, you must make the following settings in Customizing:

1. You have to specify the units of measurement globally for the conversion factors and the batch-specific units of measure, see *General Settings → Check Units of Measurement*
If the material contains several active ingredients, you must define a unique batch-specific unit for each active ingredient. For example *KA1* (kilogram silver) and *KA2* (kilogram gold).
2. You have to specify the batch-specific units of measure for Batch Management. Choose *Batch-Specific Material Units of Measure → Edit Batch-Specific Material Units of Measure* in Customizing for *Batch Management*.
3. You have to edit the units of measurement for the conversion factors. Choose *Batch-Specific Material Units of Measure → Calculation of Proportion or Product Quantity Conversion* in Customizing for *Batch Management*

You will find further information under *Batch-Specific Material Units of Measure* in Customizing for *Batch Management*.

Process Flow

You must include the characteristics that you are to use in the corresponding batch classes and mark them with the view *S*. This view is delivered with the standard system.

1. In the classification system, you create the characteristics in which you want to store the conversion factors, for example, *active ingredient potency*. The characteristics must have the following attributes:
 - Numeric
 - Single value
 - Negative values are **not** allowed
 - Must be allocated to a class type of the category *Batch*
Choose a unit of measurement for a conversion factor, for example *kai/kg* (kilogram of active ingredient/kilogram).
2. You create the class in the classification system with the following settings:
 - Class type *Batch*
 - *Organizational view S* for the class (*Basic data* screen)
 - *Organizational view S* for the characteristics (*Characteristics* screen)



Maintaining Data for Batch-Specific Units of Measure

You can only mark characteristics with organizational view S within the class. If you want to use a characteristic in several classes, you must enter organizational view S for this characteristic in each individual class.

3. You create the material in the material master record with the following settings:
 - In the *Classification* view, you enter a class type of the batch category.
 - In the *Purchasing* view or *Warehouse Management* view, you set the *Batch Management* indicator.
 - Under *Additional data, Proportion/ProductUn* view, you:
 - enter the type of batch-specific units of measure used in the *Use Un* field
 - enter the planned value of the conversion factor for the characteristic in the *Planned value* field
 - enter the batch-specific unit of measure that is used in the conversion factor, for example, *KGAI* for the characteristic *active ingredient potency* in the *Un* field,
 - set the *LUn* indicator (leading batch-specific unit of measure)
 - set the *VUn* indicator (valuation based on batch-specific unit of measure)



The system only displays the characteristics that are flagged with the S view in the class.

See also:

[Batch Specifications \[Page 16\]](#)

[The Classification System \[Ext.\]](#) in the *CA - Classification Guide* documentation.

Price Determination

Use

This function calculates the price of a specified physical quantity using the [proportion quantity \[Page 103\]](#) or [product quantity \[Page 103\]](#) it contains.

Integration

You can use this function if you choose a batch-specific unit as a unit of measure in the condition record in *Sales and Distribution* (SD). The process can be carried out in base units of measure or batch-specific units of measure.

You can carry out delivery-related billing as follows:

- For the main item
 - If you have assigned the condition formula 50 to the condition type, the system cumulates the quantities from the batch-split items.
 - The total of all batch-specific quantities from the batch-split items is used as a base quantity for the condition record.
- For the batch split items
 - Prices are determined according to the condition records, regardless of whether the process was carried out in batch-specific units of measure or not.

If the quantities of the batch split items do not exist in batch-specific units of measure, the system converts them to batch-specific quantities. The system uses the batch-specific unit from the condition record and the actual conversion factor from the batch.

Prerequisites

- You must choose condition formula 50 in the calculation procedure for the condition types for which you work with batch-specific units of measure in the *AltCBV* (condition formula for the condition basis) field.
 - You do this in Customizing for *Sales and Distribution* under *Basic Functions* → *Pricing* → *Pricing Control* → *Define and Assign Pricing Procedures*.
- In the condition record, you must choose batch-specific units of measure in the *UoM* field.

See also:

[SD - Pricing and Conditions \[Ext.\]](#)

Valuation

Valuation

Use

You can value a batch on the basis of batch-specific units of measure, for example, using a particular active ingredient proportion.

Prerequisites

You must use [Valuation for a Single Batch \[Page 44\]](#).



If you want to value the batch with the standard price of the batch-specific quantity, you must note the following:

1. In Customizing for *Controlling*, choose *Product Cost Controlling* → *Product Cost Planning* → *Material Cost Estimate with Quantity Structure* → *Settings for Quantity Structure Control* → *Material Data* → *Check Attributes of Material Types*. Choose the standard price in the group *Price control*.
2. In the Accounting view of the material master record you have to choose:
 - *Valuation category X* (Autom (batch))

Under *Valuation category X* in the standard system, the valuation type is automatically set for postings of goods receipts. This characteristic has to be set for this valuation category in Customizing.
 - *Price control V* (Moving average price)

Features

If a characteristic of a batch-specific unit of measure is flagged as relevant for characteristic values, the system calculates the value using the quantity and price. This value divided by the physical quantity of the batch gives you the batch price. If several characteristics with proportion units are flagged, the system cumulates the values.



Batch C0001

Physical quantity: 100 kg

Actual conversion factor: 80%

Proportion price: \$10/kai (kai = proportion unit kg of active ingredient)

These are used to calculate:

Proportion quantity: 80 kai

Proportion value: \$800 (80 kgai x \$10/kgai)

Value of batch: \$800 (proportion value)

Price of batch: \$8/kg physical quantity (\$800/100kg)

Activities

1. In the material master record, set the indicator *VUn* (valuation based on batch-specific quantity) for the characteristics relevant for characteristic value assignment: Additional data, *Proportion/prod. Un* view.
2. You enter a standard price for the batch-specific quantity: *Logistics* → *Central Functions* → *Batch Management* → *Batch-specific Units of Measure* → *Standard Price* → *Create*.

If you have maintained a price for a valuation-relevant characteristic in the respective plant, the system sets the *Valuated UoM* indicator in the *Accounting 1* view of the material master record.

Calculating the Inventory Correction Factor

Calculating the Inventory Correction Factor

Use

Requirements planning and ATP inspection make calculations using physical quantities (base quantities). When taking proportion units into account, the system uses the planned proportions of the materials.

The actual proportions in the batches are usually different from the planned proportions.

Requirements planning or ATP inspection can use the inventory correction factor to consider the actual proportion stocks available at plant and storage location level.

The system takes into account the following stock types belonging to material stock and vendor consignment stock when it calculates the inventory correction factor:

- Unrestricted stock
- Stock in quality inspection (only in the case of materials without QM data)
 - For materials with QM inspection data, the ATP inspection and requirements calculation count the stock in quality inspection as a planned receipt and not as stock. For this reason, the quality inspection stock for materials that are subject to quality inspection is not included in the calculation of the inventory correction factor.
- Blocked stock
- Restricted stock

Prerequisites

- The material is handled in batches.
- You must have specified a leading proportion for the material (*LUn* indicator (leading proportion) in the material master record).

Features

Selection

On the selection screen, you can choose from the following:

- You can exclude certain batches from the calculation, for example, batches with stocks of zero or batches with the *restricted* status.
 - If you have exempted batches that have the status *Restricted*, the system does not include the stocks; stock in quality inspection and blocked stock for restricted batches and restricted stock.
- Listing of all batches of a material
- Displaying batches whose actual proportion varies from the planned proportion by a certain percentage (outlying batches)
 - For example, you want to see all batches whose actual proportion varies from the planned proportion by 5% or more. In this case, enter 5 in the *Range for outlying batches* field.

Calculating the Inventory Correction Factor

- Displaying batches whose actual proportion has not yet been defined (non-valuated characteristic for the leading proportion)
 - Updating the inventory correction factor on the database or resetting it to 1, with or without a list
 - Excluding certain inventory correction factors from the updating function:
 - For storage locations with outlying batches.

You must enter a value in the *Range for outlying batches* field.

Example: the planned proportion of the material is 100g active ingredient/kg. If the storage location contains batches with an actual proportion of more than 105g active ingredient/kg, you want to check these batches before updating the inventory correction factor. Choose this function, and enter 5 in the *Range for outlying batches* field.
 - For storage location stocks whose variance from the planned proportion is greater than a certain limit value.

You enter the limit value as a percentage rate in the *Planned/actual variance* field.

Example: you allow a variance of 20% for the storage location stock. The new inventory correction factor is 1.245, the variance therefore 24.5%. The inventory correction factor for this stock is not updated.
- The inventory correction factors calculated for these storage locations are not updated.

List

The list contains, for example:

- Materials, listed according to plant, storage location and batch
- Inventory correction factors, old and new
- Stocks in base units of measure and proportion units

Batches with the *restricted* status are flagged.

Editing Functions

You can use the menu bar to choose different editing functions, for example:

- To display additional details for each line you select: *Edit* → *Details*
- Error log: *Goto* → *Error log*

Activities

The system calculates the inventory correction factor using the report RVBWSCOR. To start the report, choose *Logistics* → *Central Functions* → *Batch Management* → *Batch-specific Units of Measure* → *Determine Inventory Correction Factor*.



You should calculate and update the inventory correction factor before running requirements planning.

Calculating the Inventory Correction Factor

If you want to calculate and update the inventory correction factor for a larger number of materials, you should schedule the report RVBWSCOR for background processing. See also *Scheduling and Managing Background Jobs* in the R/3 library, under *BC - Computing Center Management System*.

Conversion Factor from Two Units of Measure

Use

You use this function to facilitate data entry when calculating the conversion factor from base units of measure and product units. The conversion factor is saved:

- as a characteristic value in the batch classification
- internally as a fraction with a five-figure numerator and denominator

This function is available for

- reservations and production orders, if the batch numbers were not entered



At the time the production order is entered, the batch number is still not known. But the user already knows the weight per piece, which is different from that of the planned conversion factor for the material.

Production unit: PC, unit of entry, PC (PC is for the material product unit)

Planned conversion factor: 4 pcs = 400kg

Production order 1: 4 pcs = 420 kg

Production order 2: 4 pcs = 440 kg

- Receipt posting for a batch that has not yet been posted, for example, for goods receipt with creation of a new batch

You can enter the batch in any unit of measure. If you enter it in product units, you can enter it in this unit as well as base units of measure.

If you enter the batch in a different unit of measure, the system replaces this unit of measure with the leading product unit (*LUn* indicator in the material master record). You then enter the batch in leading product units and in base units of measure.



At goods receipt, 24 pieces are counted, with a weight of 2040 kg. Both quantities are entered in the document. The system calculates a weight per piece of 85 kg and assigns a characteristic value with this conversion factor for the unit of measure *piece*.

Prerequisites

- The material is planned for processing with product units.
- The material is handled in batches in this plant.
- The quantities you entered in base units of measure and the units of entry lie within the value range specified in the classification for the material.
- The quantities entered do not generate a rounding error in the document.

Conversion Factor from Two Units of Measure



The conversion factor of 1 pc = 100.889 kg cannot be converted to a fraction without rounding errors.

- The conversion factor has to lie within the value range for the characteristic.

Reservations and Production Orders

- The unit of entry has to be a product unit.
- In reservations, the unit of issue has to be product unit.

Receipt Postings with Creation of New Batch

- One of the product units has to be flagged as the leading unit of measure (*LUn* indicator) in the material master record.



The material's product units are PC and PAL; the base unit is KG. The PAL unit of measure is flagged as the leading unit of measure. At goods receipt, the conversion factor between PC and KG can be calculated by entering quantities in PC and KG. Alternatively, goods receipts can be entered in PAL and KG. In this case, the conversion factor between PAL and KG is calculated.

Conversion Factors from Object Dependencies

Use

You use this function if you want to calculate conversion factors from the batch specifications.

This function is available for receipt postings to batches that have never been posted, for example, when a new batch is created at goods receipt.



You post a goods receipt to a new batch C1. In the batch classification, you enter the dimensions of the batch as follows:

Length 2000 mm

Width 1200 mm

Thickness 12 mm

Density 7.85

From this, the system calculates the weight per piece using object dependencies:

Weight = length x width x thickness x density = 226.08 kg/pc

Prerequisites

You have to create object dependencies.



Procedure PLATE_CALC_WEIGHT_PC_B

`$SELF.Kilogram per PC (help field) = $SELF.batch length* $SELF.batch width *`

`$SELF.Thickness of steel batch * $SELF.density/1000000`

Activities

1. You enter the receipt in any unit of measure. The system automatically goes to the batch classification.
2. You assign characteristics values to the batch in the classification, for example, length, width, thickness, density. The system determines all conversion factors.

In the object dependencies, you have to ensure that the conversion factor found has a maximum of 3 places after the decimal point and can be expressed as a 5-figure numerator/denominator ratio.

The system does this by using the object dependency described to calculate an intermediate result from the batch characteristics entered. The intermediate result can then be rounded by another procedure.

3. The system checks whether the conversion factors exceed the permitted number of decimal places in the product units.

Conversion Factors from Object Dependencies

4. If the permitted number of decimal places is exceeded, you can correct this manually or the system can round off the number until all the product units have the correct number of decimal places.



25,000 kg are ordered. The price is set per KG. In this case, the price in the purchase order should be entered in KV (actual weight) to balance the differences between the theoretical weight in inventory management and the actual weight.

The quantity specified in the shipping documents is 24,000 KG. This quantity is entered. The dimensions are then specified in the batch. This results in a conversion factor of 2,342.641 KG/PC. This amounts to a quantity with decimal places (10.245), which is not allowed. The quantity is therefore manually reset to 10.0. This results in a quantity of 23,426.41 KG in stockkeeping units. So that differences do not arise in Invoice Verification, you can manually change the purchase order price quantity to 24,000.

Transfer Postings of Batches

Use

You use this procedure to transfer batches when the conversion factors for the issuing plant and the receiving plant are different.

This enables you to transfer offcuts that were posted to the batch during production, for example.

Procedure

1. Create a stock overview for the batch: Screen *Inventory Management, Environment* → *Stock* → *Stock overview*.
2. Make a note of the stocks of the batch you want to transfer.
3. Check whether other stocks are affected, for example, stocks belonging to the same batch in other storage locations or sales order stocks.
4. Create a stock transfer item for the partial quantity that is to be transferred.
5. Create a stock transfer item for the remaining quantity of the batch. For the remaining quantity, choose a receiving batch which has an identical conversion factor.
6. Post the document.

When posting the document, the system checks for errors after the decimal point in the stocks concerned.



Transfer Postings of Remaining Quantities

	Quantity	Weight	Weight/piece	Receiving batch (weight per piece)
Stock of issuing batch A before stock transfer	2 pieces	100 kg	50kg/piece	
Qty to be transferred	1 piece	40 kg	40kg/piece	E (40kg/piece)
Remaining qty of batch A after stock transfer	1 piece	60 kg	60kg/piece	F (60kg/piece)

Checking and Calculating the Shelf Life Expiration Date

Checking and Calculating the Shelf Life Expiration Date

Use

Batches of materials that may no longer be used or sold after a certain time period are normally assigned a shelf life expiration date (SLED). This function calculates the SLED from the total shelf life and the production date during the following procedures:

- At goods receipt (GR)
- Upon automatic goods movements

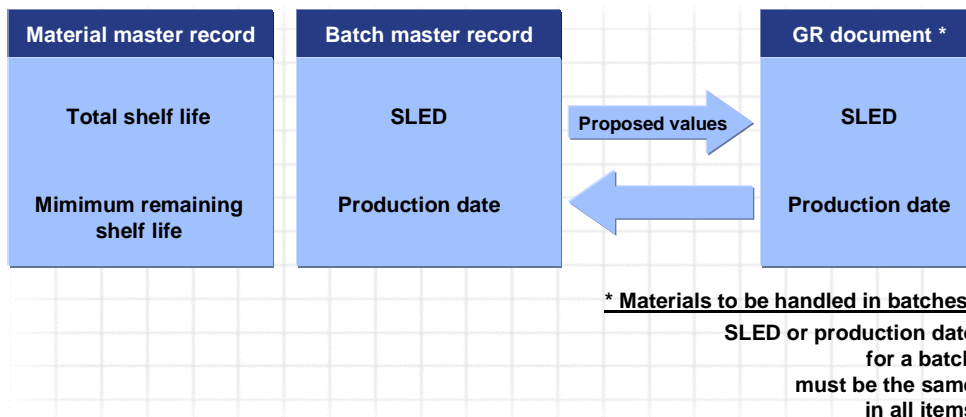
If a total shelf life is not specified, you must manually enter the SLED in the goods receipt document.



The term shelf life expiration date (SLED) is predominantly used in the pharmaceutical industry and food industry. In the chemical industry, the term expiration date is used as a synonym.

Integration

The graphic below shows where the SLED, total shelf life and production date are entered and



saved.

Prerequisites

You must activate the automatic calculation of the shelf life expiration date or the shelf life expiration date check in Customizing for *Batch Management*. For more information, see section *Set expiration date check* in the Implementation Guide (IMG).

Features

- Automatic calculation and check of the SLED of a batch

Checking and Calculating the Shelf Life Expiration Date

If the total shelf life is specified in the material master record, the system calculates the SLED as follows: $SLED = \text{total shelf life} + \text{production date from GR document}$.

If a total shelf life is not specified, you must manually enter the SLED in the goods receipt document.

- Rounding off the SLED that has been calculated automatically

You use the rounding indicator in the material master record to specify whether and how the system rounds off the SLED that has been calculated automatically. You can decide:

- not to round off the SLED
- to round off to the first day of the time period specified
- to round off to the last day of the time period specified

SLEDs that are specified manually are not rounded off.

- Checking the remaining shelf life, for batches that were processed externally, for example

If the minimum remaining shelf life is specified in the material master record, the system calculates the remaining shelf life from the day of goods receipt to the SLED. The remaining shelf life must be greater than the minimum remaining shelf life for the batch to be accepted.

If the calculated remaining shelf life is less than the minimum remaining shelf life, a warning or error message is issued depending on the system settings.

Checking and Calculating the Shelf Life Expiration Date

Checking and Calculating the Shelf Life Expiration Date

The delicatessen company *Plentyland* has specified that quiches received from its suppliers must have a minimum remaining shelf life of 40 days. The total shelf life of the quiches is 50 days.

Gourmet, a quiche manufacturer, produces quiches on 01.07. The total shelf life of 50 days means the SLED would be 20.08.

On 10.07, *Gourmet* delivers a batch of quiches produced on 01.07 with 20.08 as SLED. The system thus accepts the batch, as it leaves a minimum remaining shelf life of 40 days.

Due to internal problems *Gourmet* do not deliver the second batch of quiches produced on 02.07 (SLED = 21.08) until 25.07. The system does not accept this second batch, since it only leaves them with a remaining shelf life of 27 days, instead of the stipulated 40 days.

Dynamic Date Determination

Use

In batch determination, you can use object dependencies to dynamically determine a date to be used as criteria for batch determination.

- The shelf life expiration date (SLED)
- The availability date
- Any other date (user-defined characteristics with date character)

You use this option if you do not want to specify a certain date as selection criteria, but want the system to dynamically determine the date.



A customer specifies that the sherry trifle he obtains from a supplier must feature a remaining shelf life of 14 days on the date of delivery. In this case, the supplier uses the dynamic determination of the SLED during batch determination so that he does not have to enter the selection criteria manually for each delivery.

It is not possible to supply all object dependencies in the standard system. Therefore you must create the dependencies between the required characteristics yourself by creating a function and an object dependency, and then changing or updating the affected characteristics.



If you want to work to a date for which there are standard characteristics, you must use these standard characteristics.

Features

Dynamic Determination of SLED

If the SLED is greater than (or equal to), less than (or equal to), or equal to the delivery date including a certain remaining shelf life (either in total days or in a percentage of the total shelf life), choose *Batch Valuation* → *Update Standard Characteristics* in Customizing for *Batch Management*. The system automatically creates the required variant functions and dependencies, and assigns the object dependency to the standard characteristics.

Dynamic Determination of Availability Date

If you do not want the system to dynamically determine the SLED, but you do want it to determine the availability date, choose *Batch Valuation* → *Update Standard Characteristics* in Customizing for *Batch Management*.

Dynamic Determination of a Different Date

The dynamic determination of a date can be used for both standard characteristics and user-defined characteristics. For example, you could use a user-defined characteristic to describe the remaining shelf life in months. The section [Creating a Function to Dynamically Determine the](#)

Dynamic Date Determination

[Date \[Page 125\]](#) describes which steps are required to work with dynamic date determination with a user-defined characteristic.

To create the function for dynamic determination, you must carry out the following steps:

- Create a function
- Create a dependency
- Link the object dependencies with the (standard) characteristic



You must include the respective characteristics in your batch search strategy in order to work with the functions for dynamic date determination within batch determination. Otherwise, the characteristics cannot be used for selection purposes.

Creating a Function to Dynamically Determine the Date

Use

You use this procedure if you want to determine a date in batch determination using a user-defined characteristic with date character.



The text contains placeholders. Replace the placeholder with the respective name:
Replace <CHARACTERISTIC> with the name of the characteristic
Replace <FUNCTION> with the name of the function
Replace <DEPENDENCY> with the name of the dependency

Procedure

A. Creating the Characteristic

1. Create the characteristic <CHARACTERISTIC>.

B. Creating the Function

1. On the *Variant Configuration* screen choose *Tools* → *Function* → *Create*.
2. On the *Basic data* screen enter function name <FUNCTION> and select *Basic data*. Enter a description for this function.
3. Choose *Characteristics*, and enter the characteristic <CHARACTERISTIC> as well as other characteristics required for determination. Now choose *ENTER*.
4. Select all characteristics required for determination as input parameters and choose *ENTER*.
5. Choose *Basic data*. Set the status to '1', and save the function.

C. Creating the Object Dependency

1. On the *Variant Configuration* screen choose *Dependency* → *Single dependency* → *Create*.
2. Enter <DEPENDENCY> as the name of the dependency and choose *Basic data*. Enter a description. Choose dependency type *Action*.
3. Choose *Dependency editor*, and enter the following data.



In the following, <CHARACTERISTIC>, LOBM_LFDAT and LOBM_VFDAT are used as placeholders for the characteristics that you require when you carry out determination. <FUNCTION> is used as placeholder for the function that you defined.

```
FUNCTION <FUNCTION>
  (LOBM_LFDAT = LOBM_LFDAT,
  <CHARACTERISTIC> = $SELF.<CHARACTERISTIC>,
```

Creating a Function to Dynamically Determine the Date

```
LOBM_VFDAT = $SELF.LOBM_VFDAT)
```

```
IF LOBM_ LFDAT SPECIFIED
```

4. Choose *Save* and then *Back*.
5. Change the status to *Released* and save the dependency.

D. D. Linking the Object Dependencies with Characteristic <CHARACTERISTIC>

1. On the *Classification System* screen, select *Characteristic* →*Change*, and enter the characteristic <CHARACTERISTIC>.
2. Choose *Basic data*, and then on the *Basic data* screen, choose *Extras* →*Object Dependencies* →*Allocations*.
3. Enter a dependency that you have created, and choose *Save*.

Batch Worklist

Use

In a batch worklist, you can group batches together and display and change their data.

Features

Structure of Worklist

You can fill a worklist (*Logistics → Central Functions → Batch Management → Batch → Worklist*) with as many batches as you wish. To obtain a better overview of your worklist, you can structure it using worklist folders.

You define worklist folders in Customizing for *Batch Management* by choosing *Tools → Worklist → Define Worklist Folder*.

There are two types of worklist folders: public (🌐) and private (🔒). You can assign folders to as many users as you wish. The contents of a folder marked as public can be displayed and processed by all users assigned to it. A private folder can only be processed by the user assigned to it.




If several users are assigned to a private folder, each of these users has their own separate worklist folder with the same name. Each folder can only be viewed and processed by the respective user.

The system also automatically provides a private “standard folder” for each user.


In Customizing for *Batch Management*, you define worklist folders for all users by choosing *Tools → Worklist → Assign Worklist Folder to Users*.

Each user also has the option of arranging the layout of the worklist folders in his or her worklist by choosing *Logistics → Central Functions → Batch Management → Tools → Assign Worklist Folder to Users*.

For further information, refer to the section [Assigning Worklist Folders \[Page 129\]](#).

In the batch worklist, you can choose which worklist folders you want to display by choosing  *Folder*.

You can copy and move batches from one folder to another using the Drag&Drop function (and simultaneously pressing the control button).

You can delete batches from the worklist by choosing .


Compiling a Batch Worklist

To assign batches to a worklist, you can use the following functions:



- The [Batch Information Cockpit \[Page 130\]](#) (*Logistics → Central Functions → Batch Management → Tools → Batch Information Cockpit*)
- [Mass Processing of Batches \[Page 39\]](#) (*Logistics → Central Functions → Batch Management → Batch → Mass Processing*)


Batch Worklist

- The batch master record (*Logistics* → *Central Functions* → *Batch Management* → *Batch* → [Create \[Page 35\]](#)/[Change \[Page 37\]](#)/[Display](#))

If you choose  when you create, change, or display a batch, the system assigns the batch to the "standard folder" in the worklist.

Convenient Processing of Batch Data

When you click on a batch in the worklist, the system displays the batch data on the right-hand side of the screen. You can also navigate between batches by choosing  and . When you switch between batches, the tab page configuration stays the same.

You can switch between display mode and change mode by choosing .

Assigning Worklist Folders

Use

You can use worklist folders to structure your [Batch Worklist \[Page 127\]](#). With this activity, you maintain the assignment of the worklist folders to your worklist.



In Customizing for *Batch Management*, you can assign worklist folders to users by choosing *Tools* → *Worklist* → *Assign Worklist to Users*.

Prerequisites

To enable you to include worklist folders in your worklist, you must have created these worklist folders in Customizing for *Batch Management* via *Tools* → *Work List* → *Define Worklist Folders*.

Procedure

1. Choose *Logistics* → *Central Functions* → *Batch Management* → *Tools* → *Assign Worklist Folder*.
2. To go to the *New Entries: Overview* screen, choose *New entries*.
3. Enter your user ID and, in the *Folder* field, choose the required worklist folder via input help.
4. Save your entries.

Result

The worklist folders you assigned appear in your batch worklist.

If you delete the assignment to a private folder, the system also deletes the contents of this folder.

Batch Information Cockpit

Batch Information Cockpit

Use

You use the Batch Information Cockpit to:

- Select batches
- Display information relevant to batches
- Call up detail functions (batch master, batch where-used list)

Integration

The [Batch Worklist \[Page 127\]](#) function is fully integrated in the Batch Information Cockpit; that is, you can fill and process the batch worklist from here.

The Batch Information Cockpit is intended for use with the WebGUI.

Features

Screen Sections




In the standard system, the Batch Information Cockpit is split into the following areas:





Selection



When you enter the Batch Information Cockpit function via *Logistics* → *Central Functions* → *Batch Management* → *Tools* → *Batch Information Cockpit*, the [Selection \[Page 133\]](#) area with selection tab titles and selection fields is displayed on the right-hand side of the screen.



Navigation Area

The navigation area consists of:

- [Batch Selection Result \[Page 135\]](#) 
- [Stock Selection Result \[Page 137\]](#) 
- [Batch Worklist \[Page 127\]](#) 

You can open the individual sections using the relevant pushbuttons ( ,  , ), and close them by choosing  .

In the navigation area, you can click on the batch or use the context menu to call up detail functions. Within the detail functions, you can also switch from one batch to the next (in the respective section) by choosing  and  .



You can maximize or minimize the navigation area by choosing () or ().

Detail Area



When you click on a batch in the navigation area or in the context menu, the system displays the detail area on the right-hand side of the screen. In the detail area, you can:


- Display and [change \[Page 37\]](#) batch data in the batch master
- Call up the [batch where-used list \[Page 90\]](#)

The selection screen is hidden.


If you want to carry out a selection again, choose  *Selection* to show the selection screen, and enter your new selection criteria. To carry out a selection again (refresh) without changing the selection criteria, choose *Execute* via the drop-down menu of the  *Selection* pushbutton.

Batch Worklist


Using the drop-down menu for the  *Result in folder* pushbutton, you can determine the worklist folders to which the selected batches are to be copied before you carry out the selection ( *Selection*).

In the batch / stock selection result, you can copy the selected entries to the worklist via  *Selection in folder* or via Drag&Drop.

Legend

To obtain a key to the symbols used in the navigation area, choose .

Restart

To restart the Batch Information Cockpit with the chosen user group, choose .




The system resets all entries you have made up until now.

User Settings

To adjust the settings in the Batch Information Cockpit to meet your requirements and save them, choose *Utilities->User settings*.



When you save the settings, the system stores them in the relevant parameters in your user master.

To enable you to work with these settings after you save them, you have to choose  *Restart*.

Selection

You can choose the selection configuration you want to work with.

In Customizing for *Batch Management*, you define user-specific selection settings by choosing *Tools →Batch Information Cockpit →Define User-Specific Selection*.

Navigation Area

In the navigation area, you can:

- Deactivate individual subareas
- Define the sequence of the subareas
- Determine which subareas should initially be open
- Configure whether the selection result for batches or stock should initially be displayed as a list

Batch Information Cockpit



You can determine the width of the navigation area.

You can define in which form the material (material number, material short text) is displayed in the navigation area.

Detail Area

To configure whether the batch master or the batch where-used list is called up after you click on a batch, choose *Standard detail function*.

The pushbutton at the top right-hand side of the screen shows you which detail function is initially configured.

- Batch master ( *Detail*)
- Batch where-used list ( *Detail*)

Selection

Definition

Screen area in the [Batch Information Cockpit \[Page 130\]](#) in which you can select batches according to various criteria via selection tab titles.

Structure

Default Setting:

You can use the following selection criteria:

- Material data
- Batch data
- Classification data
- Stock data
- Shelf life expiration dates

You can also enter information on the batch where-used list via the *Use* selection tab title.

Configuration Options

Customizing

In Customizing for *Batch Management*, you can adapt the selection screen to your specific requirements by changing the titles of selection title tabs, deactivating selection title tabs, and/or defining your own selection fields by choosing *Tools* → *Batch Information Cockpit* → *Define User-Group-Specific Selection*.




For detailed information on the technical organization of the default setting, choose *Tools* → *Batch Information Cockpit* → *Display SAP Standard Selection* in Customizing for *Batch Management*.

User Settings

In the Batch Information Cockpit, you can choose which selection settings you want to work with by choosing *Utilities* → *User Settings*.

Integration

The [Batch Selection Result \[Page 135\]](#) and [Stock Selection Result \[Page 137\]](#) show only the selection fields that exist in the selection tab titles. The display fields in the data area of the selection result are oriented mainly to the sequence of the selection tab titles and their selection fields. You can also change the constellation and sequence of the display fields in the batch / stock selection result and save them as display variants ().



Selection

The fields of the key block in the batch / stock selection result (material, plant, batch, and so forth) are generally displayed, irrespective of whether these fields are defined as selection fields.

Batch Selection Result

Definition

Part of the navigation area in the [Batch Information Cockpit \[Page 130\]](#) that focuses on the batch definition of the selected batches.


Structure

The batch selection result consists of the key block and the data area.


Key Block

The batches in the key block are sorted according to material, plant, and batch number. If the batch level is defined at plant level, the plant is missing from the key block.


Data Area

Depending on the selection fields and the display variants (if applicable), the data area displays batch-specific information (shelf life expiration dates, classification data) and material master data. For information on the symbols used (for example, in connection with shelf life expiration dates), choose .

Authorization Check

The selection always checks whether you have authorization for the fields contained in the selection tab titles. For those entries for which you do not have the required authorization, the system displays the symbol  in the *Authorization* column once you have carried out the selection. If you do not have authorization, the system does not display the corresponding data.

Classifying Attributes

If you want to look at characteristics for a batch, or select batches according to characteristics, you enter a selection class in the selection tab title *Classification* and create characteristic values by choosing .






A selection class within the Batch Information Cockpit should not contain reference characteristics.

Status of Shelf Life Expiration Date (SLED)

In the *SLED* selection tab title, you determine the format of the SLED status in the data area via the *Remaining shelf life* field.






In the *Remaining shelf life* field, enter **10** days.



The batches that will reach their SLED within the next 10 days are flagged with the indicator . The batches that have reached their SLED today are flagged with the indicator . The batches that will not reach their SLED within the next 10 days are flagged with the indicator .



Batch Selection Result

The system interprets no entry as **0** days.

Therefore, batches that have reached their shelf life expiration date today are flagged with the indicator . Batches that have already reached their SLED are flagged with the indicator  and batches that will reach their SLED in the future are flagged with the indicator .

Format

You can choose whether you want to display the batch selection result as a hierarchy () *Hierarchy*) or as a list ( *List*). Within each of these formats, you can use the functions below:

- To change the display of the data fields to meet your requirements and save them as the layout, choose .
- To copy selected entries to the [Batch Worklist \[Page 127\]](#), choose  *Selection in folder* or use the Drag&Drop function.

Stock Selection Result

Definition

Part of the navigation area in the [Batch Information Cockpit \[Page 130\]](#) that focuses on the stock situation of the selected batches.

Structure


The stock selection result is split into the key block and the data area.

Key Block

Independent of the batch level, the stocks in the key block are sorted by:



- Material
- Plant
- Stock type
- Storage location
- Batch
- Special stock indicator
- Special stock number



Data Area

The data area first displays the stock fields that are aggregated at stock type level. Depending on the selection fields and the display variants (if applicable) the data area then displays batch-specific information (shelf life expiration dates, classification data) and material master data. For information on the symbols used (for example, in connection with the shelf life expiration date), choose .

For more information on the authorization check and on displaying classification characteristics and shelf life expiration dates, refer to the section [Batch Selection Result \[Page 135\]](#).

Format

You can choose whether you want to display the stock selection result as a hierarchy () *Hierarchy*) or as a list ( *List*). Within each of these formats, you can use the functions below:

- To change the display of the data fields to meet your requirements and save them as the layout, choose .
- To copy selected entries to the [Batch Worklist \[Page 127\]](#), choose  *Selection in folder* or use the Drag&Drop function.