Batch Management

HOT NEWS

It's now available the landing page for Batch Management. You can find all documentation for this topic.

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Batch Management

Batch Management can be used in all industries. It is mainly used in the following -

- Chemicals
- Pharmaceuticals
- Cosmetics
- Health Care
- Foodstuffs
- Retail
- Aerospace
- Mill Products
- Mining

Batch Management incorporates the entire logistics process, from procurement to sales. The new functionality works with all existing batch records. It is closely linked with classification, but can also be used without classification. You can only search for batches via the batch determination function if the batches are classified. In a process manufacturing environment, production is usually executed in batches. In addition, many materials entering the process are managed separately in batch stocks with different specifications.

Batch - A batch is a quantity of the material produced during a given production run. A batch represents a homogeneous unit with unique specifications. A Batch is a subset of the total quantity of a material held in stock. The subset is managed from all other subsets of the same material.

Depending on the plant, material and operational levels we can choose the level at which you want the batch number to be unique. The material number is unique at the client level. However, the uniqueness of the batch number can be defined at the following levels -

- In combination with the material and plant
- In combination with a material number
- At the client level

If the Batch level is set to Plant/Material in your system, the following applies:

- The batch number can be reassigned for a material with a different specification in each plant.
- However, you can transfer a stock from one plant to another between batches with the same number, even though the batches do not necessarily have the same specification. In such cases, the batch quantity transferred assumes the specification of the destination batch.
- If you want the batch specification to be unique across all plants, you can only achieve this through organizational measures. The system does not support this. In this case, you are recommended to switch to a higher batch level.

If the Batch level is set to Material in your system, the following applies:

- A batch has the same specification for all plants at which a material is stored.
- The same batch number can be reassigned with a different specification for each material.

If the Batch level is set to Client in the system:

- The same batch number can only be assigned once within the entire client.
- It is uniquely assigned to one material number.
A production lot can be manufactured in several production runs. The same technical requirements apply to the entire production lot. The result of each production run is a batch. Example - In the chemical industry, you would use the term "production lot" if a material is manufactured in several charges in a reactor according to the same process order. The result of each charge is a batch.

The definition of the term batch also influences the definition of the term material. The following structure is recommended:

- All criteria making a batch reproducible are criteria of the batch material, and not of the batch itself.
- The batch record should contain only data that is unique to precisely this batch. This specification identifies the batch as a non-reproducible unit.
- The advantage of organizing master data in this way is that it enables you to plan the different models of a product individually. In the SAP R/3 System, materials are planned at material level and not at batch level.

In the SAP R/3 System, batch master records always depend on material master records. We post batches FOR a material. You must first create a material master record, stipulating in it that the material is to be handled in batches. This means that you have to enter a batch number every time there is a goods movement. The indicator for batch requirement is contained in the following views of the material master record: Sales and distribution, General plant data, Purchasing, Work scheduling, Storage 1, and Warehouse management. Even if the indicator appears in several views, it is the same indicator. If it is set in one of the views, it is displayed as being set in all the other views. If a material changes from a material that is not subject to batch requirement to one that is subject to batch requirement, you have to post out all the stocks from the previous fiscal year, the current period, and the previous period. You can then set the indicator for batch requirement and post the stock back into the system in batches.

The same applies when you cancel the batch requirement. In this case you also have to reorganize the batch master records. You can then reset the indicator for batch requirement to blank and post the stock back into the system.

You can create a batch master record directly when maintaining master data. Alternatively, you can specify the batch number upon the first goods movement for a batch. The system then creates the batch master record in the background. Batch numbers can be assigned internally or externally. You can define alternative number ranges.

**Define Creation upon goods movements or in Batch master** -

You can define for each movement type whether a new batch is created upon a goods receipt and how it is created. The following variations are possible:
• Automatic/manual without check (= delivery status as before)
• Automatic/manual with check against external number range
• Automatic/manual with check in customer exit
• Automatic/no manual creation
• Manual without check
• Manual with check against external number range
• Manual with check in customer exit
• No new creation

**Define Creation for Production / Process Order**

You can make the following settings:

• Automatic creation of batch upon order creation or release
• Automatic classification upon batch creation
• Valuation of free characteristics of a batch to be specified

**Batch Classification**

You can use the classification system in conjunction with batch management. The classification system and batch management are closely linked. The classification system and batch management are closely linked.

- The specification for a batch master record is based on a batch's classification.
- The attributes (that is, the specifications) are stored as characteristic values.
- For batch management to function correctly, you must prepare the classification data to include the corresponding batch specifications.
- You have to classify batches in order to use the batch determination function.
- The characteristics for materials managed in batches provide information for any kind of evaluations on particular attributes of batches, whether in connection with quality issues, production issues, or complaints.
- Often batches are quite different in their characteristics and only via the classification it can be decided for which purpose they fit. For example in forest products, in the batch characteristics the dimensions such as length and diameter and quality parameters are stored for the harvested trees.

All classes used for batch classification are assigned to class type 022/023. They are required for batch determination. The material and its batches must be classified via the same class. This ensures that the same characteristics are used for the material and the batch. Characteristics can pass on their values by inheritance.

**Reason for implementing batch management**

- Traceability in case of complaint and recall issue
- Search via expiration date
- ISO certification
- Usage of batch characteristics to manage which batch fits to a specific requirement

One of the most interesting term that comes into picture with batch management is SLED.

**Shelf Life Expiration Date**

The system calculates the shelf life expiration date the first time a batch is received: It is calculated from the date of production plus the total shelf life. You specify the date of production when making the goods receipt posting. If the total shelf life has not been stored in the material master record, you must enter the shelf life expiration date at this point. The difference between the shelf life expiration date and the posting date is the remaining shelf life of the goods received. It must not be less than the minimum remaining shelf life from the material master record. If it were less, the system would respond with a warning or an error message, depending on the setting in Customizing.

**Batch Specific Unit of Measure**

The batch-specific material unit is an alternative unit of measure of a material, for which you can define the conversion ratio into the base unit of measure on a batch-specific basis.

While the conversion ratio for the other alternative units of measure is fixed in the material master, for batch-specific material units, you have to define:

- The planned conversion ratio in the material master
- The actual conversion ratio into the base unit of measure in the batch master

You use batch-specific units of measure when the ratio for conversion from the unit of measure into the base unit of measure can differ from batch to batch.

These alternative units of measure include:

- Proportion unit - this is the unit of measure in which you can enter proportions of the base unit of a material. The total or physical quantity can consist of several proportions.
- Product unit - this unit of measure describes the total quantity of a material as an alternative to the base unit of measure. For example, one piece of a particular batch weighs 10 kilograms in total or is a pipe of 1250 millimeters in length.

**Batch Valuation**

The system can be set up to valuate each batch individually in accounting. Each batch will have a specific price, stored in a valuation type.

Possibilities to automatically determine a batch specific price are:
- Active ingredient management: The contents of a specific ingredient or the sum of ingredients determine the batch value. Examples: You manage solutions of different concentrations of a valuable substance in a more or less worthless carrier such as silver nitrate in water, or copper ore in raw ore out of a mine.

Useful Articles

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Some important sapnotes....

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