

## **Batch Management – MM**

- This functionality is activated in SAP based on the business requirement that products produced and procured need to be identified separately for tracking purposes. Food industries, chemical industries and pharmaceuticals are a good example where Batch Management needs to be maintained.
- Batch is a partial quantity of a material, which is managed separately from other partial quantities of the same material.
- Main characteristics of a batch are homogeneity and non-reproducibility

Need for Batch Management:

- ✓ Legal requirements
- ✓ Defect tracing, callback activities, and regression requirement
- ✓ The need for differentiated quantity-and value-based Inventory Management
- ✓ Production or procedural requirements

### **Configuration of Batch Management**

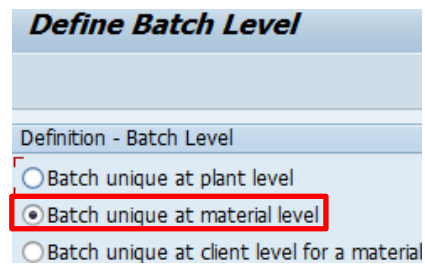
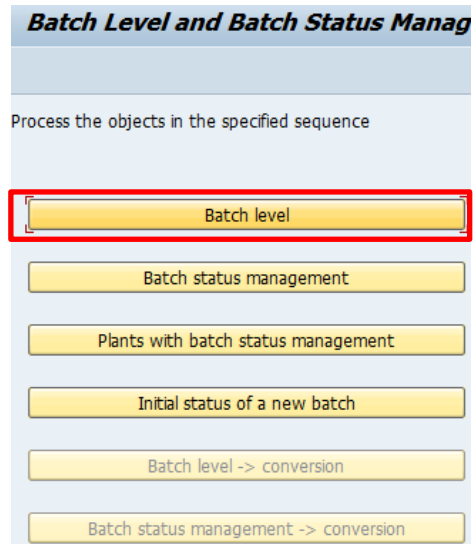
#### **1. Define Batch Level**

Here we can set the batch level for batch management. Three unique options for a material are available

- At plant level
- At material level
- At client level

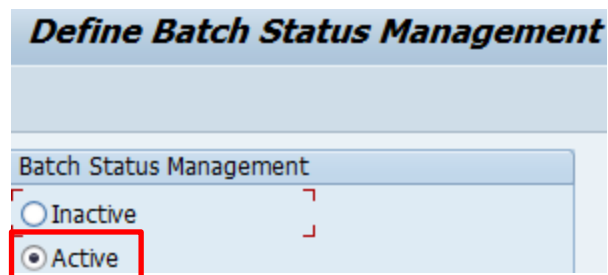
If you choose plant level, the batch number is unique in conjunction with the respective material and the plant. If you choose material level, the batch number is unique together with the material. At client level, the batch number is unique in the whole client.

**Path:** *Logistics General → Batch Management → Specify Batch Level & Activate Status Management*



## 2. Activate Batch Status Management

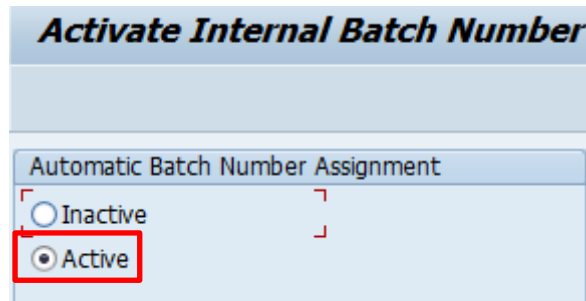
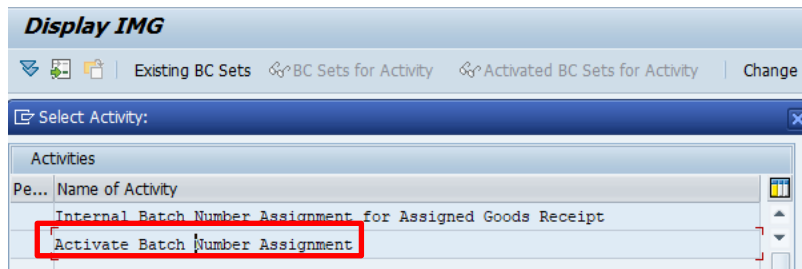
The batch level should be set before the batch management is set to active. We can see Batch Status in MSC3N screen if we activate Batch Status Management.



## 3. Activate Internal Batch Number Assignment

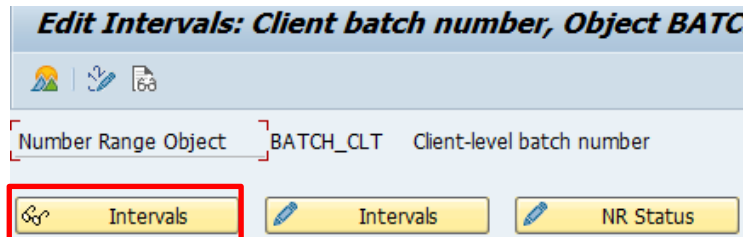
In this configuration step, we setup the internal number assignment of batches to automatically active.

**Path:** *Logistics General* → *Batch Management* → *Batch Number Assignment* → *Activate Internal Batch Number Assignment*



#### 4. Maintain Internal Batch Number Assignment Range

In the standard delivery, you maintain external and internal number ranges for the number range object **BATCH\_CLT** in Customizing under **Path: Logistics General → Batch Management → Batch Number Assignment → Maintain Internal Batch Number Assignment Range / Maintain Number Range for External Batch Number Assignment**.



**Edit Intervals: Client batch number, Object BATCH\_CLT**

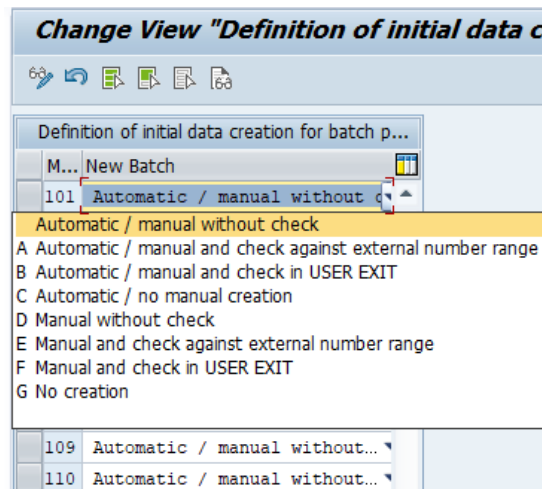
N..	From No.	To Number	NR Status	Ext
01	0000000001	9999999999	144	<input type="checkbox"/>
02 A	Z	0	0	<input checked="" type="checkbox"/>

The number ranges assigned to a number range object cannot overlap. If you want to work with overlapping number ranges, then you must create additional number range objects. In the customer enhancements for batch number assignment, you define which number range object and number range are used to determine the batch number.

## 5. Creation of New Batches

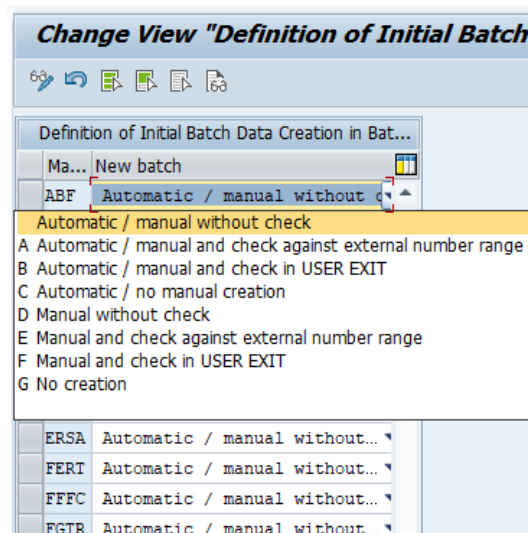
In this configuration step, we can decide the batch creation is either manual or automatic or as per user exit etc. This can be defining for each movement type.

**Path:** *Logistics General → Batch Management → Creation of New Batches → Define Batch Creation for Goods Movements*



## Define Initial Creation of Data for Batch Master Transactions

**Path:** *Logistics - General → Batch Management → Creation of New Batches → Define Initial Creation of Data for Batch Master Transactions*



## 6. Batch Valuation

In this step, we specify for each movement type whether batch classification is possible during goods movements and how it is to be carried out. If classification is activated, the object characteristics contained in the batch class are assigned values automatically.

**Path:** *Logistics - General → Batch Management → Batch Valuation → Valuation for Goods Movement in Inventory Management → Activate Batch Classification for Goods Movements in IM*

**Change View "Classify Batches Within Goods Movement": Overview**

M...	Mvt Type ...	CB	Classify batches	Ext.class.	Copy Chars
101	GR stock in ...	2	Classific. Only in Foreground for Ma...	<input type="checkbox"/>	Do not co...
102	GR for PO ...	4	Classification Invoked in Foreground..	<input type="checkbox"/>	Do not co...
103	GR into bloc...	1	Classification Carried Out in Backgro...	<input type="checkbox"/>	Do not co...
104	GR to block...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
105	GR from blo...	4	Classification Invoked in Foreground..	<input type="checkbox"/>	Do not co...
106	GR from blo...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
107	GR to Val. Bl.		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
108	GR to Val. Bl.		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
109	GR fr. Val. Bl.		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
110	GR fr. Val. Bl.		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
121	GR subseq. ...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
122	RE return to...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
123	RE rtn ven...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
124	GR rtn bloc...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
125	GR rtn blkd ...		No Branching to Batch Classification	<input type="checkbox"/>	Do not co...
131	Goods recei...	4	Classification Invoked in Foreground..	<input type="checkbox"/>	Do not co...

## 7. Batch Determination and Batch Check

### 7.1 • Define Condition Tables

**Path:** *SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Condition Tables → Define Inventory Management Condition Tables*

**Create Condition Table (Batch Determination I.**

Table Number  Table Number (1) 7 Entries found

Copy from Condition Table

Table Number

Restrictions

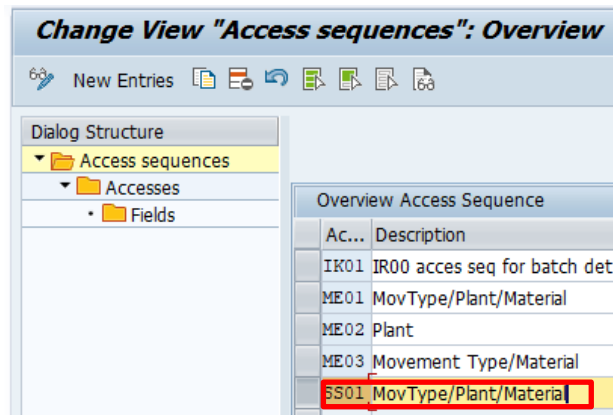
Tab Short Description

- 020 Movement Type
- 021 Movement Type/Plant
- 022 Movement Type/Material
- 023 Plant/Material
- 024 Movement Type/Plant/Material
- 025 Plant
- 508 Movmt type/Plant/Material/Vendor

## 7.2 Define Access Sequences

**Path:** SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Access Sequences → Define Inventory Management Access Sequences

- Created by copying from standard **ME01**



## 7.3 Define Strategy Types

**Path:** SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Strategy Types → Define Inventory Management Strategy Types

- Created by copying from standard **ME01**
- Here we will assign the class later after creating it.

**Change View "Strategy Types": Details**

New Entries

Application: ME Inventory Management

Condit. type: SS01 | SSMovType/Plnt/MatNl | Access seq.: SS01 | MovType/Plant/Materia

**Selection**

Class Type: 023 Batch

Class: [ ] Maint.

Selection type: [ ]

**Sorting**

Sort sequence: [ ] Maint.

**Batch split**

No. of splits: 5 ☒ Changes allowed ☐ OverDel allowed

**Quantity proposal**

Display UoM: B ☒ Dialog batch determin. Qty proposal: 1 Maint.

**Presentation**

Screen number: 2000 Status: CUA\_ME

## 7.4 Define Inventory Management Search Procedure

**Path:** *SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Batch Search Procedure Definition → Define Inventory Management Search Procedure*

- Copied from Standard Search Procedure **ME0001**

The screenshot shows the SAP SPRO 'Change View "Control data": Overview' screen. The 'Dialog Structure' pane on the left shows 'Procedures' expanded, with 'Control data' selected. The main area has a 'Procedure' field set to 'SB0001 SS Batch Search Procedure', which is highlighted with a red box. Below this is a 'Reference Step Overview' table.

Step	Co...	CType	Description
10	0	SS01	SSMovType/Plnt/MatIN

## 7.5 Batch Search Procedure Allocation and Check Activation

**Path:** *SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Batch Search Procedure Allocation and Check Activation → Allocate IM search Procedure/Activate Check*

- Here we will assign the search procedure **SB0001** to the required movement types

The screenshot shows the SAP SPRO 'Change View "Search Procedure: Batch Determ. MM"' screen. It displays a table with movement types and their associated search procedures. The 'Search' column shows 'SB0001' for movement types 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 122, 123, 124, 132, 141, 142, 161, and 201. The 'Check Batch' column has checkboxes, with the checkbox for movement type 103 highlighted by a red box.

M...	Movement Type Text	S	Special stock descr.	Search	Check Batch
101	GR stock in transit			SB0001	<input type="checkbox"/>
102	GR for PO reversal				<input type="checkbox"/>
103	GR into blocked stck			SB0001	<input type="checkbox"/>
104	GR to blocked rev.				<input type="checkbox"/>
105	GR from blocked stck				<input type="checkbox"/>
106	GR from blocked rev.				<input type="checkbox"/>
107	GR to Val. Bl. Stock				<input type="checkbox"/>
108	GR to Val. Bl. Rev.				<input type="checkbox"/>
109	GR fr. Val. Bl. St.				<input type="checkbox"/>
110	GR fr. Val. Bl. Rev.				<input type="checkbox"/>
122	RE return to vendor				<input type="checkbox"/>
123	RE rtn vendor rev.				<input type="checkbox"/>
124	GR rtn blocked stck				<input type="checkbox"/>
132	Goods receipt				<input type="checkbox"/>
141	GR G subseq. adjustm				<input type="checkbox"/>
142	GR G subseq. adjustm				<input type="checkbox"/>
161	GR returns				<input type="checkbox"/>
201	GI for cost center			SB0001	<input checked="" type="checkbox"/>

- After Configuring all these steps, next we have to create **Characteristics** and **Class** for Batch.
- Before creating characteristics, we have to first go to ABAP Dictionary (T-Code – **SE11**) to view the table **MCH1**

Go to **SE11**

The screenshot shows the 'ABAP Dictionary: Initial Screen' with the 'Database table' radio button selected and 'MCH1' entered in the text field. Other options like 'View', 'Data type', 'Type Group', 'Domain', 'Search help', and 'Lock object' are also visible but not selected. At the bottom, there are buttons for 'Display', 'Change', and 'Create'.

Here in this table, we can see the various fields and their technical names which will be useful while creating characteristics.

Dictionary: Display Table								
Transparent Table <b>MCH1</b> Active								
Short Description: Batches (if Batch Management Cross-Plant)								
Attributes   Delivery and Maintenance   <b>Fields</b>   Input Help/Check   Currency/Quantity Fields   Indexes								
Search Built-In Type 1 /								
Field	Key	Ini...	Data element	Data Type	Length	Deci...	Coordinate	Short Description
MANDT	✓	✓	MANDT	CLNT	3	0		0 Client
MAINR	✓	✓	MAINR	CHAR	40	0		0 Material Number
CHARG	✓	✓	CHARG_D	CHAR	10	0		0 Batch Number
LVORM			LVOC1	CHAR	1	0		0 Deletion Flag for All Data in a Batch
.INCLUDE		✓	MCHI1	STRU	0	0		0 Data Fields for MCHA, MCH1 and MCH2: D
ERSDA		✓	ERSDA	DATS	8	0		0 Created On
ERNAM		✓	ERNAM	CHAR	12	0		0 Name of Person who Created the Object
AENAM		✓	AENAM	CHAR	12	0		0 Name of person who changed object
LAEDA		✓	LAEDA	DATS	8	0		0 Date of Last Change
VERAB		✓	VERAB	DATS	8	0		0 Availability date
VFDAT		✓	VFDAT	DATS	8	0		0 Shelf Life Expiration or Best-Before Date
ZUSCH		✓	DZUSCH	CHAR	1	0		0 Batch status key
ZUSTD		✓	DZUSTD	CHAR	1	0		0 Batch in Restricted-Use Stock
ZAEDT		✓	DZAEDT	DATS	8	0		0 Date of last status change
LIFNR		✓	ELIFN	CHAR	10	0		0 Vendor's account number



## Create Characteristics – CT04

### ➤ Characteristic on Shelf Life Expiration Date (SLED)

**Create Characteristic**

Characteristic: SSBATCH\_SLED  
Change Number:   
Valid From: 12.09.2023 Validity

**Basic data** | Descriptions | Values | Addnl data | Restrictions

**Basic data**

Description: Shelf Life Expiration or Best-  
Char. Group:   
Status: 1 Released  
Auth.Group:   
Format: Data Type: DATE Date Format   
Value assignment:   
☒ Single-value  
☐ Multiple Values  
☐ Interval values  
☐ Restrictable  
☐ Entry required

**Create Characteristic**

Characteristic: SSBATCH\_SLED  
Change Number:   
Valid From: 12.09.2023 Validity

**Basic data** | Descriptions | Values | Addnl data | Restrictions

**Reference to Table Field**

Table Name: MCH1   
Field Name: VF DAT

**Document**

Document:   
Document Type:   
Document Part:   
Doc. Version:   
Procedure for Value Assignment:   
☒ Not Ready for Input  
☐ No Display  
☐ Display Allowed Values  
User Entry Handling:   
☐ Unformatted Entry  
☐ Propose Template  
Maintain Relevance: Relevance  
Characteristic Value Conversion: Conversion

### ➤ Characteristic on Date of Manufacture

**Create Characteristic**

Characteristic: SSBATCH\_MFD  
Change Number:   
Valid From: 12.09.2023 Validity

**Basic data** | Descriptions | Values | Addnl data | Restrictions

**Basic data**

Description: Date of Manufacture  
Char. Group:   
Status: 1 Released  
Auth.Group:   
Format: Data Type: DATE Date Format   
Value assignment:   
☒ Single-value  
☐ Multiple Values  
☐ Interval values  
☐ Restrictable  
☐ Entry required

**Create Characteristic**

Characteristic: SSBATCH\_MFD  
Change Number:   
Valid From: 12.09.2023 Validity

**Basic data** | Descriptions | Values | Addnl data | Restrictions

**Reference to Table Field**

Table Name: MCH1   
Field Name: HSDAT

**Document**

Document:   
Document Type:   
Document Part:   
Doc. Version:   
Procedure for Value Assignment:   
☒ Not Ready for Input  
☐ No Display  
☐ Display Allowed Values  
User Entry Handling:   
☐ Unformatted Entry  
☐ Propose Template  
Maintain Relevance: Relevance  
Characteristic Value Conversion: Conversion

➤ Characteristic on Date of Last Goods Receipt

The screenshot shows the 'Create Characteristic' screen for the characteristic 'SSBATCH\_LASTGR'. The 'Valid From' date is 12.09.2023. The 'Basic data' tab is active, showing the description 'Date of last goods receipt', 'Char. Group' as a dropdown, 'Status' as '1 Released', and 'Auth. Group' as an empty field. The 'Format' section shows 'Data Type' as 'DATE Date Format'. The 'Value assignment' section has 'Single-value' selected, with options for 'Multiple Values', 'Interval values', 'Restrictable', and 'Entry required'.

This screenshot shows the same 'Create Characteristic' screen for 'SSBATCH\_LASTGR', but with additional configuration. The 'Reference to Table Field' section shows 'Table Name' as 'MCH1' and 'Field Name' as 'LWEDI'. The 'Document' section shows 'Document' as an empty field, 'Document Type' as a dropdown, 'Document Part' as a dropdown, and 'Doc. Version' as a dropdown. The 'Procedure for Value Assignment' section has 'Not Ready for Input' checked, with options for 'No Display' and 'Display Allowed Values'. The 'User Entry Handling' section has 'Unformatted Entry' and 'Propose Template' as options. The 'Maintain Relevance' section has a 'Relevance' button, and the 'Characteristic Value Conversion' section has a 'Conversion' button.

➤ Characteristic on Status of Batch

The characteristic **SSBATCH\_BBSTATUS** can be copied from standard characteristic **LOBM\_ZUSTD** by using the option (create with template) as highlighted below.

The screenshot shows the 'Characteristics' screen for 'SSBATCH\_BBSTATUS'. The 'Valid From' date is 15.09.2023. A 'Create Characteristic: Select Template' dialog box is open, showing 'LOBM\_ZUSTD' as the selected template. The dialog also shows 'Change Number' and 'Valid from' fields.

The screenshot shows the 'Change Characteristic' screen for 'SSBATCH\_BBSTATUS'. The 'Valid From' date is 13.09.2023. The 'Basic data' tab is active, showing the description 'SS Status of Batch', 'Char. Group' as a dropdown, 'Status' as '1 Released', and 'Auth. Group' as an empty field. The 'Format' section shows 'Data Type' as 'CHAR Character Format', 'Number of Chars' as '1', and 'Case Sensitive' as an option. The 'Value Assignment' section has 'Single Value' selected, with options for 'Multiple Values', 'Restrictable', and 'Entry Required'.

➤ Characteristic on Remaining Shelf Life

**Change Characteristic**

Characteristic: SSBATCH\_REMSHELFLIFE

Change Number:

Valid From: 12.09.2023

Validity:

Basic data | Descriptions | Values | Addnl data | Restrictions

Basic data

Description: SS Remaining Shelf Life

Char. Group:

Status: 1 Released

Auth. Group:

Format

Data Type: NUM Numeric Format

Number of Chars:

Decimal Places:

Unit of Measure: Days

Template:

Exp. display: 0 No exponent

Value assignment

Single-value

Multiple Values

Interval vals allowed

Negative Vals Allowed

Restrictable

Entry Required

## 8. Define Selection Classes (T Code – CL01)

**Path:** SPRO – Logistics General – Batch Management – Define Selection Classes

In this step, we create **class** for the batch with class type **023** and assign the characteristics created earlier.

**Change Class:**

Change Language

Class: SS\_BATCHCLASS

Class type: 023 Batch

Change Number:

Valid from: 12.09.2023

Validity:

Basic data | Keywords | Char. | Texts

Basic data

Description: SS Batch Class

Status: 1 Released

Class group:

Organizational area:

Valid From: 12.09.2023

Local class:

Valid to: 31.12.9999

Same classification

Do not check

Warning message

Check with error

Administrative data

Assignments:

Created by: SSUDHEESH

Created on: 12.09.2023

**Change Class:**

Change Language

Class: SS\_BATCHCLASS

Class type: 023 Batch

Change Number:

Valid from: 13.09.2023

Validity:

Basic data | Keywords | Char. | Texts

Char.	Description	Dat...	N...	D...	Unit
SSBATCH_SLED	Shelf Life Expiration or B...	DATE	10	0	
SSBATCH_MFD	Date of Manufacture	DATE	10	0	
SSBATCH_LASTGR	Date of last goods receipt	DATE	10	0	
SSBATCH_REMSHELFLIFE	SS Remaining Shelf Life	NUM	5	0	Days
SSBATCH_BSTATUS	SS Status of Batch	CHAR	1	0	

## Assign Class to Strategy Type

Assign Class **SS\_BATCHCLASS** to Strategy Type **SS01** which was created earlier.

**Path:** *SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Strategy Types → Define Inventory Management Strategy Types*

**Change View "Strategy Types": Details**

Application: ME Inventory Management  
Condit. type: SS01 **SSMovType/Plnt/MatN** Access seq.: SS01 MovType/Plant/Materia

**Selection**

Class Type: 023 Batch  
**Class: SS\_BATCHCLASS SS Batch Class** (highlighted with a red box) Maint.  
Selection type:

**Sorting**

Sort sequence: Maint.

**Batch split**

No. of splits: 5 ☒ Changes allowed ☐ OverDel allowed

**Quantity proposal**

Display UoM: B ☒ Dialog batch determin. Qty proposal: 1 Maint.

**Presentation**

Screen number: 2000 Status: CUA\_ME

## 9. Define Sort Rules

In this step, we create Sort rule and assign respective Characteristic to the Sort rule. This sort rule will be assigned to Batch Condition Record (T Code **MBC1**). As per the sort rule, system will determine the order of Batch Numbers during Goods Movements

**Path:** *SPRO → Logistics General → Batch Management → Batch Determination and Batch Check → Define Sort Rules*

**Display IMG**

Existing BC Sets

Select Activity:

Activities

Pe... Name of Activity

**✓ Create sort sequence** (highlighted with a red box)

Change sort rules

Display sort rules

- Create Sort sequence for FIFO Method & assign the necessary characteristic

**Change Sort Sequence: Basic Data**

Characteristics Administrative Data...

Sort sequence SSBATCH\_FIFO SSBATCH\_FIFO

Basic data

Status 1 Released

Group

Valid from

Authorizations

Maintain sort seq. ☐

**Change Sort Sequence: Characteristics**

Characteristic

Sort sequence SSBATCH\_FIFO SSBATCH\_FIFO

Characteristic	Description	Ascending	Descen.
SSBATCH_LASTGR	Date of last goods receipt	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- Create Sort sequence for FEFO Method & assign the necessary characteristics

**Change Sort Sequence: Basic Data**

Characteristics Administrative Data...

Sort sequence SSBATCH\_FEFO SSBATCH\_FEFO

Basic data

Status 1 Released

Group

Valid from

Authorizations

Maintain sort seq. ☐

**Change Sort Sequence: Characteristics**

Characteristic

Sort sequence SSBATCH\_FEFO SSBATCH\_FEFO

Characteristic	Description	Ascending	Descen.
SSBATCH_SLED	Shelf Life Expiration or Best-	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SSBATCH_REMSHELFLIFE	Remaining Shelf Life	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 10. Configure Batch Where Used List:

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:

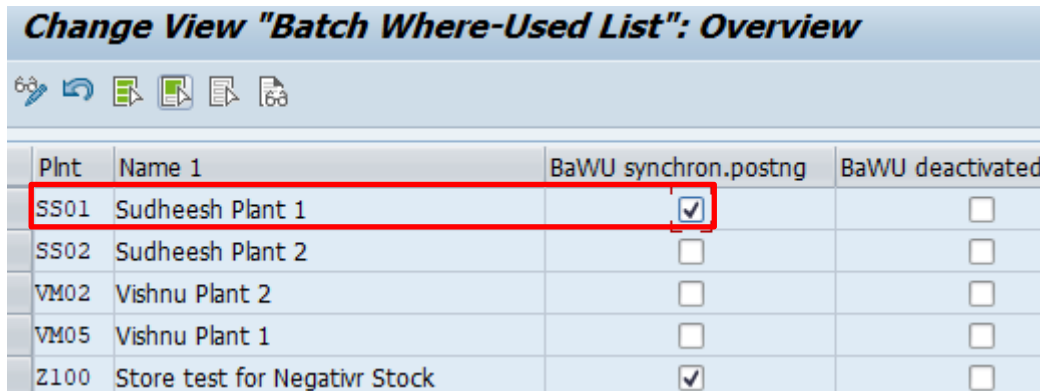
- In which other batches a batch was used
- From which other batches a batch was created

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.

**Path:** *SPRO → Logistics General → Batch Management → Batch Where Used-List → Make Settings for Batch Where Used-List*

**Change View "Batch Where-Used List": Overview**

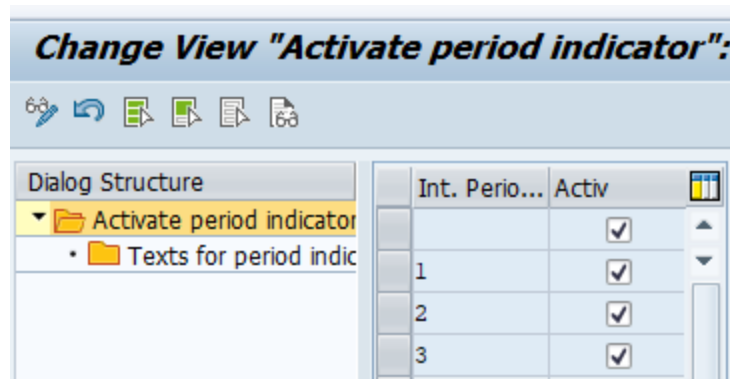


Plnt	Name 1	BaWU synchron.postng	BaWU deactivated
SS01	Sudheesh Plant 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SS02	Sudheesh Plant 2	<input type="checkbox"/>	<input type="checkbox"/>
VM02	Vishnu Plant 2	<input type="checkbox"/>	<input type="checkbox"/>
VM05	Vishnu Plant 1	<input type="checkbox"/>	<input type="checkbox"/>
Z100	Store test for Negativr Stock	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 11. Shelf Life Expiration Date (SLED):

**Path:** *SPRO → Logistics General → Batch Management → Shelf Life Expiration Date → Maintain Period Indicator*

**Change View "Activate period indicator":**



Int. Perio...	Activ
	<input checked="" type="checkbox"/>
1	<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>
3	<input checked="" type="checkbox"/>

Expiration date check will be activated at Plant Level. And we can keep specific settings for each movement type.

**Path:** *SPRO → Logistics General → Batch Management → Shelf Life Expiration Date → Set Expiration Date Check*

**Activate/Deactivate Expiration**

Process the objects in the specified sequence

**Plant**

**Movement Type**

**Change View "Activate Exp. Date View per**

Plnt	Name 1	BBD/ProdD
SS01	Sudheesh Plant 1	<input checked="" type="checkbox"/>
SS02	Sudheesh Plant 2	<input type="checkbox"/>
VM02	Vishnu Plant 2	<input type="checkbox"/>
VM05	Vishnu Plant 1	<input type="checkbox"/>
Z100	Store test for Negative Stock	<input checked="" type="checkbox"/>

- If the shelf life check expiration date check is active, you must enter the shelf life expiration date or the production date of the material at the time of a goods receipt.

**Change View "Expiration Date per Movement Ty**

M...	Check SLExpDate	Check SLExp.date	Short Descript.
101	1		No check
102			
105	1		Enter and check
106			Enter only
			No check at goods issue

- At the time of goods receipt, the system checks whether the remaining shelf life is sufficient. If this is not the case, a warning or error message is issued, depending on the system settings.

## Batch Creation through Goods Receipt

- Create a material with batch management activated

**Change Material 799 (Raw material for Train)**

Ext. SPP Basic Data | **Purchasing** | Intl Trade: Import | Purchase order te

Material: 799  
 Descr.: **Test FIFO Batch Material**  
 Plant: SS01 Sudheesh Plant 1

**General Data**

Base Unit of Measure	KG kg	Order Unit	
Purchasing Group	SSG	Material Group	1013
Plant-Sp.Matl Status		Valid From	
Tax ind. f. material		Qual.f.FreeGoodsDis.	
Material freight grp		Autom. PO	
<b>Batch management</b>	<input checked="" type="checkbox"/>		
<b>Batch management(Plant)</b>	<input checked="" type="checkbox"/>		

**Purchasing values**

Purchasing value key		Shipping Instr.	
1st Reminder/Exped.	0 days	Underdel. Tolerance	0.0 percent
2nd Reminder/Exped.	0 days	Overdelv. Tolerance	0.0 percent
3rd Reminder/Exped.	0 days	Min. Del. Qty in %	0.0 percent
StdValueDelivDateVar	0 days		

- Create a Purchase Order with the material (799) created

**Standard PO 4500002215 Created by Sudheesh S**

Document: Overview On | Messages | Personal Setting | Save As Template | Load from Template | Base Values

NB Standard PO 4500002215 Vendor 1000411 Supplier Vend Doc. Date 13.09.2023

Header

S...	Itm	A	I	Material	Short Text	PO Quantity	O...	C Delv. Date	Net Price	Curr...	Per	O...	Matl Group	Plnt
	10			799	TestFIFOBatchMaterial	1,000	KG	D 13.09.2023	40.00	USD	1	KG	SUPPLEMENTS	Sudheesh Plant 1
										USD				
										USD				
										USD				
										USD				

Item 1 [ 10 ] 799, TestFIFOBatchMaterial

Material Data | Quantities/Weights | Delivery Schedule | Delivery | Invoice | Conditions | Purchase Order History | Texts | Delivery Address | Confirmations

Material group 1013 | Supplier Mat. No. | Supplier Subrange | Batch | Supplier Batch | InfoUpdate

- After creating PO, we will do a Goods Receipt. Here when checking the document, system automatically creates a batch with batch number as shown below. In the batch tab we can enter details like Date of Manufacture & SLED/BBD. If we go into the classification option we can see the characteristics created earlier. Here we can fill the other details if required.

**Goods Receipt Purchase Order 4500002215 - Sudheesh S**

Show Overview | Hold | Check | Post | Help

Document Date 13.09.2023 | Posting Date 13.09.2023 | 1 Individual Slip

Delivery Note | Vendor Supplier Vend | Bill of Lading | HeaderText

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	S Loc	Stock Segment	Se...	Se...	C...	Th...	Batch
1		TestFIFOBatchMaterial		400	KG	Raw Material						0000000149

Material | Quantity | Where | Purchase Order Data | Partner | Batch

Batch 0000000149 | Classification | Supplier Batch | SU Batch

Date of Manufacture 01.08.2023 | SLED/BBD 01.08.2024

Item OK | Line 1

**Classification**

Object

Material 799

Batch 0000000149

Class Type 023 Batch

Values for Class SS\_BATCHCLASS - Object 799

General

Characteristic Description	Value
Shelf Life Expiration or B...	01.08.2024
Date of Manufacture	01.08.2023
Date of last goods receipt	13.09.2023
SS Remaining Shelf Life	330 Days
SS Status of Batch	Released



- If we want to display the batch created, go to t.Code-**MSC3N**

The screenshot shows the 'Display Batch' (MSC3N) transaction in SAP. The header bar includes icons for file operations. The main data area shows: Material: 799, Test FIFO Batch Material; Batch: 0000000149; Plant: SS01. Below this are tabs for 'Basic Data 1', 'Basic Data 2', 'Classification', and 'Material Data'. The 'Basic Data 1' tab is active, showing 'Shelf Life Expiration/Best Before Date' with fields for Date of Manufacture (01.08.2023), SLED/BBD (01.08.2024), Available From, and Period Indicator (D). The 'Batch Status' section shows 'Batch Status' as 'Unrestricted' (selected) and 'Restricted' (unselected), with a 'Last Status Change' field.

- If we want to create a Batch manually, Go to t-Code **MSC1N** & give the necessary details

The screenshot shows the 'Create Batch' (MSC1N) transaction in SAP. The header bar includes icons for file operations. The main data area shows: Material: 799, Test FIFO Batch Material; Batch: 0000000158 (highlighted with a red box); Plant: SS01, Sudheesh Plant 1. Below this are tabs for 'Basic Data 1', 'Basic Data 2', 'Classification', and 'Material Data'. The 'Basic Data 1' tab is active, showing 'Shelf Life Expiration/Best Before Date' with fields for Date of Manufacture (07.07.2023, highlighted with a yellow box), SLED/BBD (27.09.2025), Available From, and Period Indicator (D). The 'Batch Status' section shows 'Batch Status' as 'Unrestricted' (selected) and 'Restricted' (unselected).

## Impact of Total Shelf life & Remaining Shelf life in Material Master

### Case1

- Create Material **799** (Both Min.Remaining Shelf Life & Total Shelf Life are not maintained)
- While doing Goods Receipt (GR) system won't ask to enter Manufacturing Date or SLED

**Change Material 799 (Raw material for Train)**

Additional Data | Org. Levels | Check Screen Data

Purchase order text | Plant data / stor. 1 | Plant data / stor. 2

Material: 799  
Descr.: Test FIFO Batch Material  
Plant: SS01 Sudheesh Plant 1  
Stor. Loc.: RM11 Raw Material

**General data**

Base Unit of Measure: KG kg Unit of issue: ☐  
Storage Bin:  Picking area: ☐  
Temp. conditions: ☐ Storage conditions: ☐  
Container reqmts: ☐ Haz. material number: ☐  
CC Phys. Inv. Ind.: ☐ CC fixed: ☐ Number of GR slips:   
Label type: ☐ Lab.form: ☐ Appr.Batch Recd Req.: ☐  
☒ Batch management  
☒ Batch management(Plant)

**Shelf life data**

Max. Storage Period:  Time unit:   
**Min. Rem. Shelf Life:  Total shelf life:**   
Period Ind. for SLED: D Rounding rule SLED:   
Storage percentage:  Expiration Date: B

### Case 2

- Create Material **800** (Min.Remaining Shelf Life is only maintained)
- While doing Goods Receipt (GR) System asks for SLED

**Remaining Shelf Life = SLED – Today's Date**

**Change Material 800 (Raw material for Train)**

Additional Data | Org. Levels | Check Screen Data

Purchase order text | Plant data / stor. 1 | Plant data / stor. 2

Material: 800  
Descr.: Test FEFO Batch Material  
Plant: SS01 Sudheesh Plant 1  
Stor. Loc.: RM11 Raw Material

**General data**

Base Unit of Measure: KG kg Unit of issue: ☐  
Storage Bin:  Picking area: ☐  
Temp. conditions: ☐ Storage conditions: ☐  
Container reqmts: ☐ Haz. material number: ☐  
CC Phys. Inv. Ind.: ☐ CC fixed: ☐ Number of GR slips:   
Label type: ☐ Lab.form: ☐ Appr.Batch Recd Req.: ☐  
☒ Batch management  
☒ Batch management(Plant)

**Shelf life data**

Max. Storage Period:  Time unit:   
**Min. Rem. Shelf Life: 50 Total shelf life:**   
Period Ind. for SLED: D Rounding rule SLED:   
Storage percentage:  Expiration Date: B

**Goods Receipt Other - Sudheesh S**

Show Overview | Hold | Check | Post | Help

A01 Goods Receipt | R10 Other | Receipt w/o PO | 501

General

Document Date: 28.09.2023 Material Slip:   
Posting Date: 28.09.2023 Doc.Header Text:   
☐ 1 Individual Slip

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	S...	Sloc	G/L Account	Stock S
1		Test FEFO Batch Material	<input checked="" type="checkbox"/>	100	KG		Raw Material		

Display logs

Typ	Item	Message text
	1	Enter SLED/BBD

Material | Quantity | Where | Partner | Batch | Account Assignment

Batch:  Classification:

Date of Manufacture:   
SLED/BBD:

### Case 3

- Create Material **801** (Both Min.Remaining Shelf Life & Total Shelf Life are maintained)
- While doing Goods Receipt (GR), system asks Date of Production (MFD) and calculates the SLED as per below formulae.

$$\text{SLED} = \text{Manufacturing date} + \text{Total Shelf Life}$$

**Change Material 801 (Raw material for Train)**

Purchase order text | Plant data / stor. 1 | Plant data / stor. 2 | Acc...

Material: 801  
Descr.: Test Batch Material  
Plant: SS01 Sudheesh Plant 1  
Stor. Loc.: RM11 Raw Material

**General data**

Base Unit of Measure: KG kg Unit of issue: ☐  
Storage Bin: ☐ Picking area: ☐  
Temp. conditions: ☐ Storage conditions: ☐  
Container reqmts: ☐ Haz. material number: ☐  
CC Phys. Inv. Ind.: ☐ CC fixed: ☐ Number of GR slips: ☐  
Label type: ☐ Lab.form: ☐ Appr.Batch Recd Req.: ☐  
☒ Batch management  
☒ Batch management(Plant)

**Shelf life data**

Max. Storage Period: ☐ Time unit: ☐  
**Min. Rem. Shelf Life: 50 Total shelf life: 365**  
Period Ind. for SLED: D Rounding rule SLED: ☐  
Storage percentage: ☐ Expiration Date: B

**Goods Receipt Other - Sudheesh S**

Show Overview | Hold | Check | Post | Help

1 Goods Receipt | R10 Other | Receipt w/o PO: 501

**General**

Document Date: 28.09.2023 Material Slip:   
Posting Date: 28.09.2023 Doc.Header Text:   
☐ 1 Individual Slip

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	Sloc	G/L Account	Stock Se
1		Test Batch Material	<input checked="" type="checkbox"/>	100		KG Raw Material		

**Batch**  **Classification**   
☐ SU Batch

Date of Manufacture:   
SLED/BBD: 01.10.2024

**Display logs**

Typ	Item	Message text
	1	Creating batch 0000000175
	1	Enter the date of production

### Use of Minimum Remaining Shelf Life

- It will avoid you to receive the materials which are expiring very soon.

**Goods Receipt Other - Sudheesh S**

Show Overview | Hold | Check | Post | Help

Document Date: 29.09.2023 Material Slip:   
Posting Date: 29.09.2023 Doc.Header Text:   
☐ 1 Individual Slip

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	Sloc	G/L Account	Stock Segment	Se...
1		Test Batch Material	<input checked="" type="checkbox"/>	100		KG Raw Material			

**Batch** 0000000181 **Classification**

Date of Manufacture: 01.09.2022  
SLED/BBD: 01.09.2023

**Display logs**

Typ	Item	Message text
	1	Shortfall of 28 Days against SLED in current item (01.09.2023)

## Batch Determination

- Maintain Condition Records for Batch Strategy Type with Transaction code **MBC1**.
- In **MBC1**, we give strategies and Sort rule. Sort rule mainly plays the role to give the order of Batches for the goods movement.

First, we will create search strategy for FIFO (First-In First-Out) Material

- Enter the Strategy Type **SS01** we have already created & then select the key combination

**Create Batch Search Strategy: Initial Screen**

Strategy info | Key combination | &P

Strategy type: SS01

Key Combination:

- ☒ Movement Type/Plant/Material
- ☐ Plant/Material
- ☐ Movement Type/Material
- ☐ Movement Type/Plant
- ☐ Movement Type

- Enter the fields with movement type, plant & material combination

**Create SSMovType/Plnt/MatIN (SS01) : Fast Entry**

Selection criteria | Sort

Movement type: 201 | GI for cost center

Plant: SS01 | Sudheesh Plant 1

Valid From: 13.09.2023

Valid To: 31.12.9999

Movement Type/Plant/Material	Description	N...	Ch...	Dl...	D...	Q...	OV...	S...	S...	D...
Material										
799	Test FIFO Batch Material	\$	✓	✓	B	1				

- Select the selection Criteria and fill the necessary characteristics as required.

**Create SSMovType/Plnt/MatIN (SS01) :**

Object

Movmt type Plant Material

201 SS01 799

Class Type 023 Batch

Values for Class SS\_BATCHCLASS - Object \$00000001

General

Characteristic Description	Value
Shelf Life Expiration or B...	
Date of Manufacture	
Date of last goods receipt	
SS Remaining Shelf Life	> 100 Days
SS Status of Batch	Released

- Now select the sort tab as shown below

**Create SSMovType/Plnt/MatIN (SS01) : Fast Entry**

Selection criteria **Sort**

Movement type 201 GI for cost center  
Plant SS01 Sudheesh Plant 1  
Valid From 13.09.2023  
Valid To 31.12.9999

Material	Description	N...	Ch...	Dia...	D...	Q...	Ov...	S...	S...	S...	D...
799	Test FIFO Batch Material	5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	B	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Enter the sorting rule as **SSBATCH\_FIFO** as we are using FIFO method and then save it.

**Create SSMovType/Plnt/MatIN (SS01) : Sort Rule**

Key

Movmt type	Plant	Material	Description
201	SS01	799	Test FIFO Batch Material

Validity

Validity period 13.09.2023 ☐ Deletion Indicator  
To 31.12.9999

Sort rule **SSBATCH\_FIFO** ☒ SSBATCH\_FIFO

Sort sequence

Characteristic	Description	Asc	De
SSBATCH_LASTGR	Date of last goods receipt	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Similarly, we will create search strategy for FEFO (First-Expiry First-Out) Material

- Enter the Sorting rule as **SSBATCH\_FEFO** as we are using FEFO Method

**Create SSMovType/Plnt/MatIN (SS01) : Sort Rule**

Key

Movmt type	Plant	Material	Description
201	SS01	800	Test FEFO Batch Material

Validity

Validity period 29.09.2023 ☐ Deletion Indicator  
To 31.12.9999

Sort rule **SSBATCH\_FEFO** ☒ SSBATCH\_FEFO

Sort sequence

Characteristic	Description	Asc	De
SSBATCH_SLED	Shelf Life Expiration or Best-	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SSBATCH_REMSHELFLIFE	SS Remaining Shelf Life	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- After creating the search strategy, next we have to check whether the FIFO & FEFO strategies are getting picked upon Issuing/consumption of goods in our system.

First we will check batch determination for FIFO material

- While issuing goods, system will ask to enter batch. So to determine the batch, select the option highlighted below (stock determination for all)

**Goods Issue Other - Sudheesh S**

Show Overview | Hold | Check | Post | Help

A07 Goods Issue | R10 Other | GI for cost center 201

**General**

Document Date: 14.09.2023 | Material Slip: |  
 Posting Date: 14.09.2023 | Doc.Header Text: |  
☐ 1 Individual Slip

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	S...	SLoc	Cost Center	G/L Account	Stock Segment	Se...	Se...	C...	Th...
1		Test FIFO Batch Material	<input checked="" type="checkbox"/>	200	KG		Raw Material	1010640						

**Batch**

Batch: | Classification: |

☐ SU Batch

- Here we can see that the material batch list has been sorted as per date of last goods receipt which is the characteristics for strategy **FIFO**.
- Click on Copy & the batch will be adopted

**Batch Determination MM: Select Batches**

☒ Copy | Classification... | Strategy analysis | Log...

Movement type: 201 | GI for cost center

Material: 799 | Test FIFO Batch Material

Plant: SS01 | Sudheesh Plant 1

Requirements Date: 18.09.2023 | Strategy info... | Selection criteria...

Requirement Quantity: 200 | KG |  
 Open Quantity: 0 | KG

Origin.	Batch	Split Quantity	Available Quantity	Storage Location	Special Stock	Split Quantity	Characteristic Sorting
	0000000149	200	200	RM11	<input type="checkbox"/>		13.09.2023
	0000000150		600	RM11	<input type="checkbox"/>		13.09.2023
	0000000174		500	RM11	<input type="checkbox"/>		18.09.2023
Total		200	1,300	KG			

**Strategy Info**

Selection control: ☒ Selection defined | ☒ Sort seq. defined | Selection type: |  
 Batch split: No. of Batch Splits: | ☒ Change Permitted | ☒ Overdelivery Allowed |  
 Quantity proposal: Quantity Proposal: 1 | ☒ Dialog Batch Determin. | Display Unit of Meas.: B |  
 Sorting: Sort rule: SSBATCH\_FIFO | SSBATCH\_FIFO |  
 Characteristic: SSBATCH\_LASTGR | Description: Date of last goods receipt | To: ☒ | From: ☐

Similarly, we will check batch determination for FEFO material

- For FEFO material, while issuing goods we can see that the system is asking for batch number. This can be fetched via the option *stock determination for all* as shown below

**Goods Issue Other - Sudheesh S**

Show Overview | Hold | Check | Post | Help

A07 Goods Issue | R10 Other | GI for cost center 201

**General**

Document Date: 14.09.2023 | Material Slip: | Posting Date: 14.09.2023 | Doc.Header Text: | 1 Individual Slip

Line	St...	Mat. Short Text	V OK	Qty in UnE	E...	S...	Sloc	Cost Center	G/L Account	Stock Segment	Se...	Se...	C...	Th...
1		Test FEFO Batch Material	<input checked="" type="checkbox"/>	100	KG		Raw Material	1010640						

Batch: | Classification: | SU Batch: ☐

- Here we can see that the material batch list has been sorted as per SLED & Remaining shelf life which is the characteristics for strategy **FEFO**.
- The recommended batch will be adopted while clicking on copy.

**Batch Determination MM: Select Batches**

Copy | Classification... | Strategy analysis | Log...

Movement type: 201 | GI for cost center

Material: 800 | Test FEFO Batch Material

Plant: SS01 | Sudheesh Plant 1

Requirements Date: 14.09.2023 | Strategy info...

Requirement Quantity: 100 | KG | Selection criteria...

Open Quantity: 0 | KG

Origin.	Batch	Split Quantity	Available Quantity	Storage Location	Special Stock	Split Quantity	Characteristic Sorting
	0000000163	100	800	RM11	<input type="checkbox"/>		01.02.2024   250 DAYS
	0000000168		2,000	RM11	<input type="checkbox"/>		01.09.2024   330 DAYS
	0000000167		1,000	RM11	<input type="checkbox"/>		01.10.2024   330 DAYS
Total		100	3,800	KG			

**Strategy Info**

Selection control: ☒ Selection defined, ☒ Sort seq. defined, Selection type: ☐

Batch split: No. of Batch Splits: 5, ☒ Change Permitted, ☒ Overdelivery Allowed

Quantity proposal: Quantity Proposal: 1, ☒ Dialog Batch Determin., Display Unit of Meas.: B

Sorting: Sort rule: SSBATCH\_FEFO, SSBATCH\_FEFO

Characteristic	Description	To	From
SSBATCH_SLED	Shelf Life Expiration or Best-	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SSBATCH_REMSHELFLIFE	SS Remaining Shelf Life	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Display Stock with batch number – MB52

**Display Warehouse Stocks of Material**

Database Selections

Material: 799 to 801

Plant: SS01 to

Storage Location: to

Batch: to

Scope of List

Material Type: to

Material Group: to

Purchasing Group: to

Selection: Special Stocks

☒ Also Select Special Stocks

Special Stock Indicator: to

Settings

☐ Display Negative Stocks Only

☒ Display Batch Stocks

☒ No zero stock lines

☐ Do Not Display Values

Display Options

☒ Hierarchical Representation

☐ Non-Hierarchical Representation

Display Warehouse Stocks of Material											
Material	Material description				Plant Name 1						
SLoc	S	V	Special stock number	Batch	SL	Unrestricted Unit	Transit/Transf.	Quality Inspection	Restricted-Use	Blocked	Returns Stock Segment
						Total Value	Total Value	Total Value	Total Value	Total Value	Total Value
799	Test FIFO Batch Material				SS01 Sudheesh Plant 1						
RM11			0000000149		100 KG	0	0	0	0	0	0
					4,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000150		500 KG	0	0	0	0	0	0
					20,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000151		300 KG	0	0	0	0	0	0
					12,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000159		500 KG	0	0	0	0	0	0
					20,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000172		500 KG	0	0	0	0	0	0
					20,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000173		500 KG	0	0	0	0	0	0
					20,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000174		500 KG	0	0	0	0	0	0
					20,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000182		100 KG	0	0	0	0	0	0
					4,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
800	Test FEFO Batch Material				SS01 Sudheesh Plant 1						
RM11			0000000161		100 KG	0	0	0	0	0	0
					5,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000162		1,000 KG	0	0	0	0	0	0
					50,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000163		700 KG	0	0	0	0	0	0
					35,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00
RM11			0000000166		1,000 KG	0	0	0	0	0	0
					50,000.00 USD	0.00	0.00	0.00	0.00	0.00	0.00



## Batch where used List – MB56

**Display Batch Where-Used List**

Start Analysis

Starting Point of Expansion

Material Number: 799

Plant: SS01

Batch: 0000000149

Type of Expansion

☒ Top-Down Analysis

☐ Bottom-Up Analysis

Settings

Expansion Level:  to

Valid Plants:  to

☒ Expand Transfer Postings

☐ Expand CO Order

☐ Check Assignment of Insp. Lot

☒ Expand Even If Quantity = 0

☐ Display Current Batch Status

☐ Display Vendor Batch

Settings for Extended Display

☐ Read Archive Data

**Display Batch Where-Used List**

Batch Where-Used List  
Top-Down Analysis

Material: 799  
Plant: SS01  
Batch: 0000000149

Expand Transfer Postings  
Expand Even If Quantity = 0

Top-Down Analysis | T | Material Short Text | Plant | Batch | Qua... | Unit | ... | Rec. Mat. | Rec. plant | Rec. Ba...

0000000149	Test FIFO Batch Material	SS01	0000000149	400	KG				
4500002215	Test FIFO Batch Material	SS01	0000000149	400	KG				

## Material Document List – MB51

**Material Document List**

Item Data

Material: 799

Plant: SS01

Storage location:

Batch: 0000000149

Vendor:

Customer:

Movement type:

Special Stock:

Sales order:

Sales order item:

Header Data

Posting Date:  to

User Name:  to

Trans./Event Type:  to

Reference:  to

Display Options

☒ Hierarchy List

☐ Flat List

Layout:

**Material Document List**

Material: 799

Material description: Test FIFO Batch Material

Plant Name: SS01 Sudheesh Plant 1

Material	Material description	Plant Name
799	Test FIFO Batch Material	SS01 Sudheesh Plant 1
RM11 201	4900001532 1 18.09.2023	100- KG
RM11 201	4900001523 1 14.09.2023	200- KG
RM11 101	5000001270 1 13.09.2023	400 KG