

S/4 HANA Material Ledger & Actual Costing configuration



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INTRODUCTION

Material Ledger/Actual costing is one of the complex tools provided by SAP to manage inflows and outflows of core manufacturing related materials in multiple currency and valuations.

Material Ledger is a tool that collects transaction data for materials whose master data is stored in the material master. It uses this data to calculate prices to value these materials.

Thus Actual costing/ML main characteristics are :-

- 1) Production cost analysis – We can get the relevant information in any required level of detail
- 2) Support of several currencies & valuation - Company, Group and Profit center view.
- 3) Actual costing - A functionality provided by SAP to calculate actual prices, for example a periodic unit price of inventories or valued material, including Raw Materials, Semi- Finished Goods, and Finished Goods. It includes all the actual prices for a material in the particular period.

Actual costing helps in determining actual costs for externally procured materials (raw materials) and materials manufactured internally.

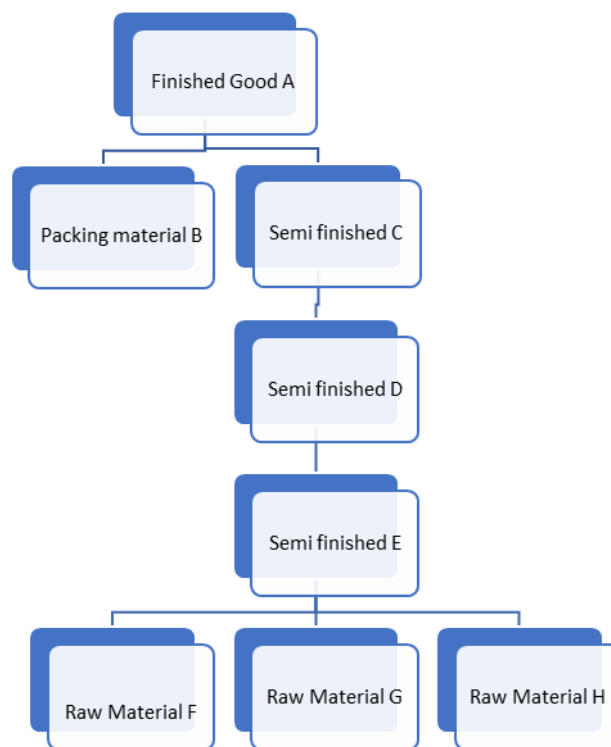
In actual costing, all good movements (including raw material and packaging material) are valued preliminarily with the standard price. **(Recommended by SAP)** At the same time, all price and exchange rate differences for the material are collected in the material ledger. At the end of the period, an actual price is calculated for each material based on all of the actual costs of the particular period. The actual price that is calculated is called the periodic unit price and can then be used to revalue the material stock for the period to be closed. In addition, we can use this actual price as the standard price for the next period. Actual costing determines what portion of the variance is to be debited to the next-highest level using material consumption. With the actual BOM, variances can be rolled-up over multiple production levels all the way to the finished product. Further you can even take into account variances from cost centers into the products.

The following 2 options are available for price determination indicator in the material master (accounting view):-

- 1) **2 – Transaction based price determination** – If you select this option in the material master you can only keep the price control indicator V (moving average). But by selecting this option you cannot roll up price differences to the next highest level of finished good.
- 2) **3 - Multi level price determination** – If you select this option in the material master you can only keep the price control indicator S (Standard price). Here you can roll up price differences to the next level in a multi level Bill of Material.

Multi Level Bill of Material:-

Finished Goods A is manufactured using Semi finished goods C and Packing material B. SFG C is manufactured using SFG D. SFG D is manufactured using SFG E . SFG E is manufactured using RM F, RM G and RM H



BOM	Std price	Price diff
Finished Goods A	100	11
Packing material B	5	1
Semi finished Goods C	90	10
Semi finished Goods D	80	10
Semi finished Goods E	70	10
Raw Material F	30	2
Raw Material G	20	5
Raw Material H	10	3

The diagram illustrates the roll-up of price differences from raw materials to finished goods. Arrows indicate the flow of price differences from lower-level materials to higher-level assemblies. For example, Raw Material F (2) and Raw Material G (5) roll up to Semi finished Goods E (10). Semi finished Goods E (10) and Packing material B (1) roll up to Finished Goods A (11). Raw Material H (3) rolls up to Semi finished Goods D (10), which then rolls up to Finished Goods A (11). The final price difference for Finished Goods A is 11.


In our current scenario Universal Ltd. (co. code 6600) has a plant 6603 and CM02.

Universal Ltd. wants actual costing of Raw material, packaging material Traded, Semi- finished and Finished goods,. Further it also wants to carry prices for materials in 2 different currencies. Hence we need to activate actual costing.

The raw material, packaging materials, Semi Finished and Finished goods are kept at Standard price (price control indicator S and price determination indicator 3). All purchase price difference occurring for raw material can be rolled to next levels. Production variances occurring for semi-finished goods can be rolled up to Finished goods.

For doing the configuration we use the following path on the SAP application screen: -

SAP Menu → Tools → Customizing → IMG → SPRO - Execute Project →

 SAP Reference IMG

Configuration for all the modules will be done here. The above path will not be referred henceforth; we will directly refer to the IMG node.

 SAP Reference IMG

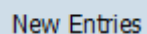
Click on

1. Material Ledger

1.1 Assign Currency Types and Define Material Ledger Types

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Assign Currency Types and Define Material Ledger Types

Here we create material ledger types and assign currency types to them

 New Entries

Click on

Update the following:-

We update currency type 10 and 30

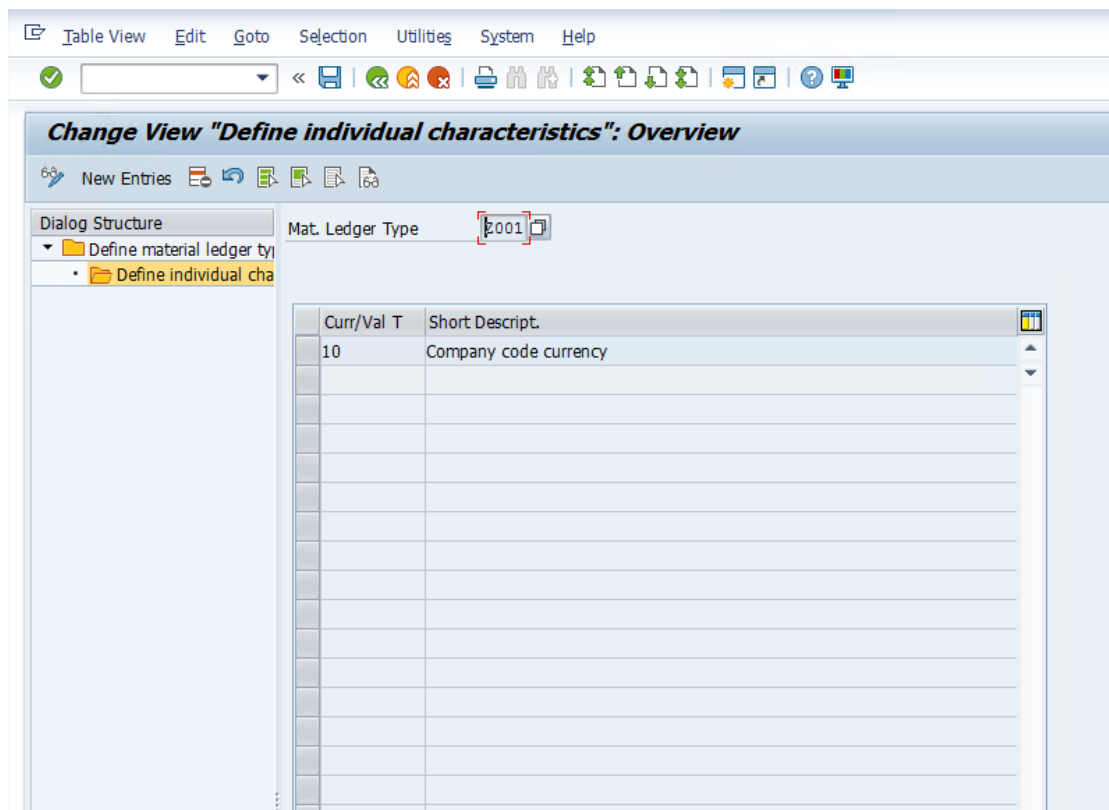
[illegible]

Click on 

Select

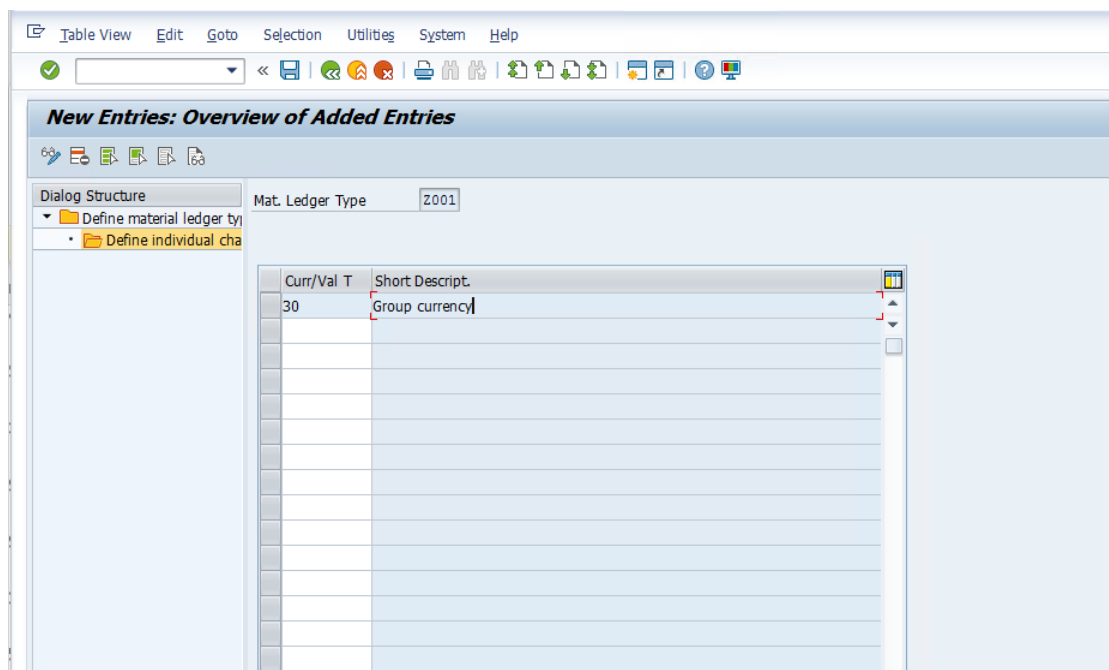
[illegible]

Double click  Define individual cha



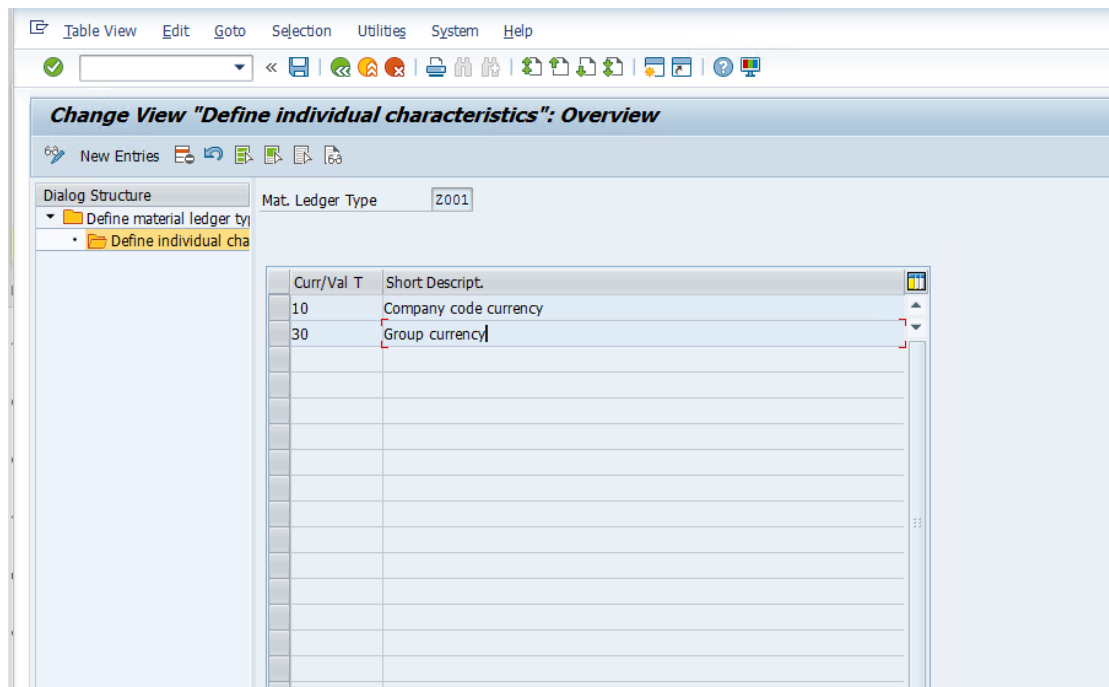
Click on [New Entries](#)

Update the following:-



Click on 

Click 



1.2 Assign Material Ledger Types to Valuation Area

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Assign Material Ledger Types to Valuation Area

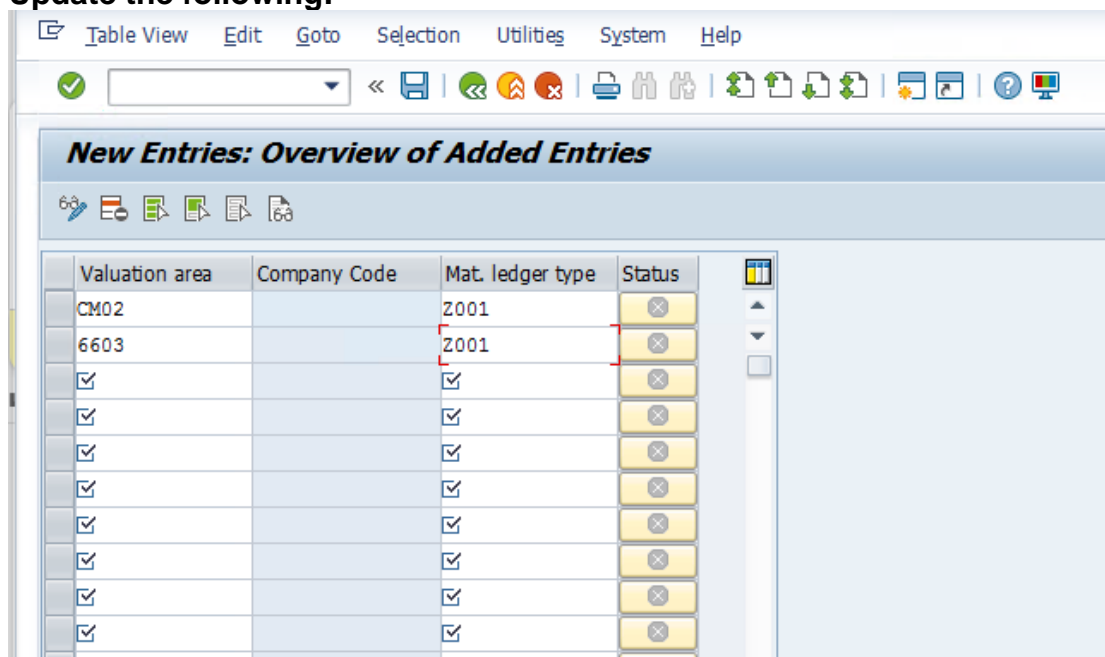
Here we assign material ledger type to valuation areas.

We can only assign one material ledger type to each valuation area.

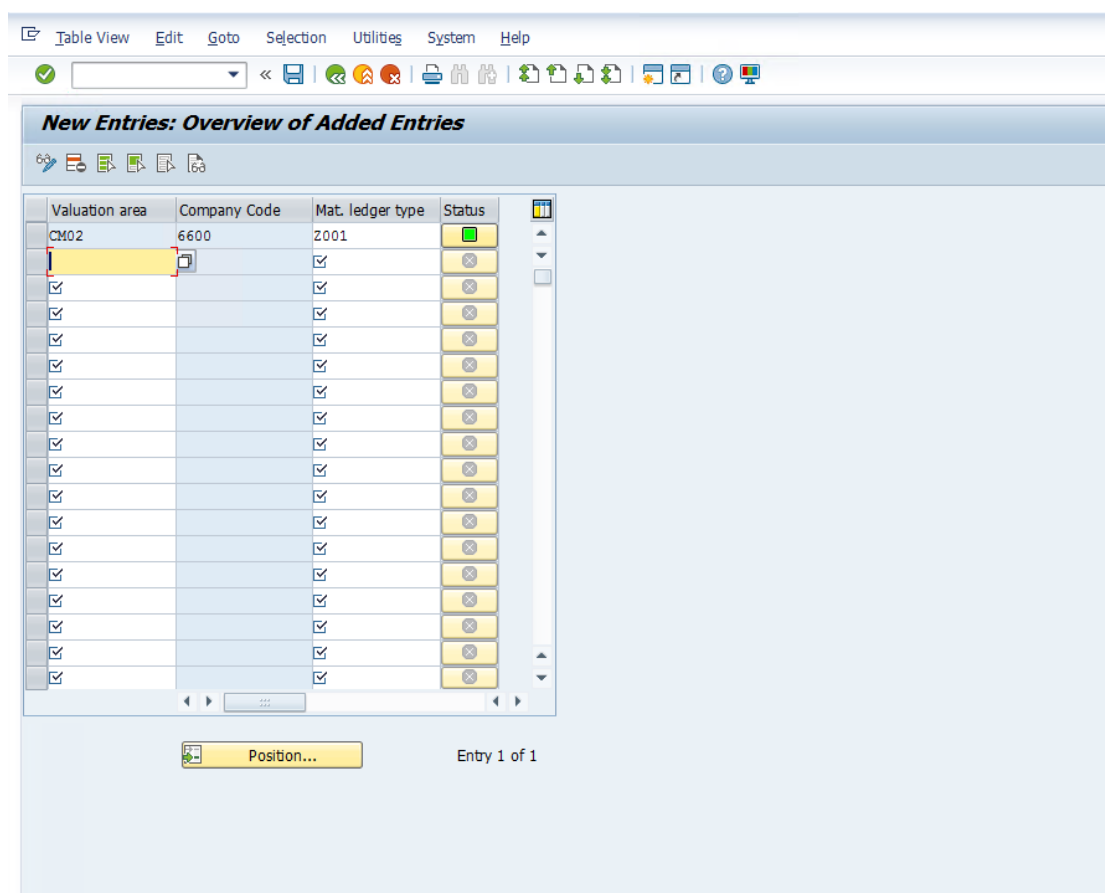
We can assign same material ledger type to several valuation areas.

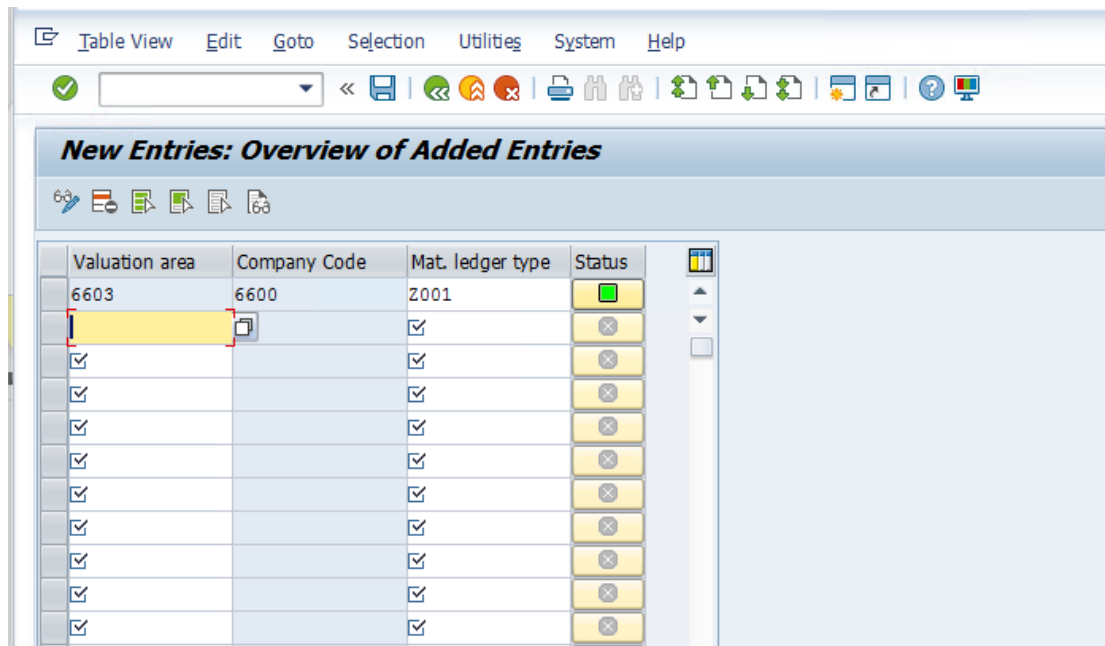
Click on **New Entries**

Update the following:-



Press enter





Valuation area	Company Code	Mat. ledger type	Status
6603	6600	Z001	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

Click on 

1.3 Activate Material Ledger for Valuation Areas

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Activate Material Ledger for Valuation Areas

Here we activate the material ledger for one or more valuation areas.

Note : We can only deactivate the material ledger for a valuation area if no material movement data exists in that valuation area.



We can check the material ledger settings

Double click **Activate Material Ledger**

Change View "Activation of Material Ledger": Overview

Valuation Area	Company Code	Ma...	Status	ML Act.	Price Deter.	Price Det. Binding
CM02	6600	Z001		<input type="checkbox"/>		<input type="checkbox"/>
DBE	DBE1			<input type="checkbox"/>		<input type="checkbox"/>
DDIN	DDIN	BMM		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
DLP	STL			<input type="checkbox"/>		<input type="checkbox"/>
DLFH	POJA	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
DLIN	786			<input type="checkbox"/>		<input type="checkbox"/>
ERTY	PR10	PR10		<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>
FAB	FAB	FAB		<input checked="" type="checkbox"/>	3	<input type="checkbox"/>
FBD	LAXM			<input type="checkbox"/>		<input type="checkbox"/>
FBDD	0001	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FBDH	POJA	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FG01	2012			<input type="checkbox"/>		<input type="checkbox"/>
FG02	2012			<input type="checkbox"/>		<input type="checkbox"/>
FRA1	2020	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FS00	FS00	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FSHD	FSHD			<input type="checkbox"/>		<input type="checkbox"/>
G001	1100			<input type="checkbox"/>		<input type="checkbox"/>

Assign Price determination indicator 3 (Single/Multi level) and activate ML Act

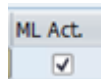
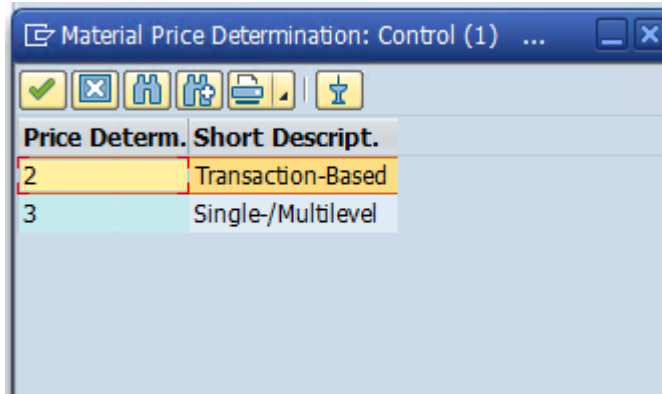


Table View Edit Goto Selection Utilities System Help

Change View "Activation of Material Ledger": Overview

Valuation Area	Company Code	Ma...	Status	ML Act.	Price Deter.	Price Det. Binding i
CM02	6600	Z001		<input checked="" type="checkbox"/>	3	<input type="checkbox"/>
DBE	DBE1			<input type="checkbox"/>		<input type="checkbox"/>
DDIN	DDIN	BMWM		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
DLF	STL			<input type="checkbox"/>		<input type="checkbox"/>
DLFH	POJA	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
DLIN	786			<input type="checkbox"/>		<input type="checkbox"/>
ERTY	PR10	PR10		<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>
FAB	FAB	FAB		<input checked="" type="checkbox"/>	3	<input type="checkbox"/>
FBD	LAXM			<input type="checkbox"/>		<input type="checkbox"/>
FBDD	0001	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FBDH	POJA	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FG01	2012			<input type="checkbox"/>		<input type="checkbox"/>
FG02	2012			<input type="checkbox"/>		<input type="checkbox"/>
FRA1	2020	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>
FS00	FS00	9000		<input checked="" type="checkbox"/>	2	<input type="checkbox"/>



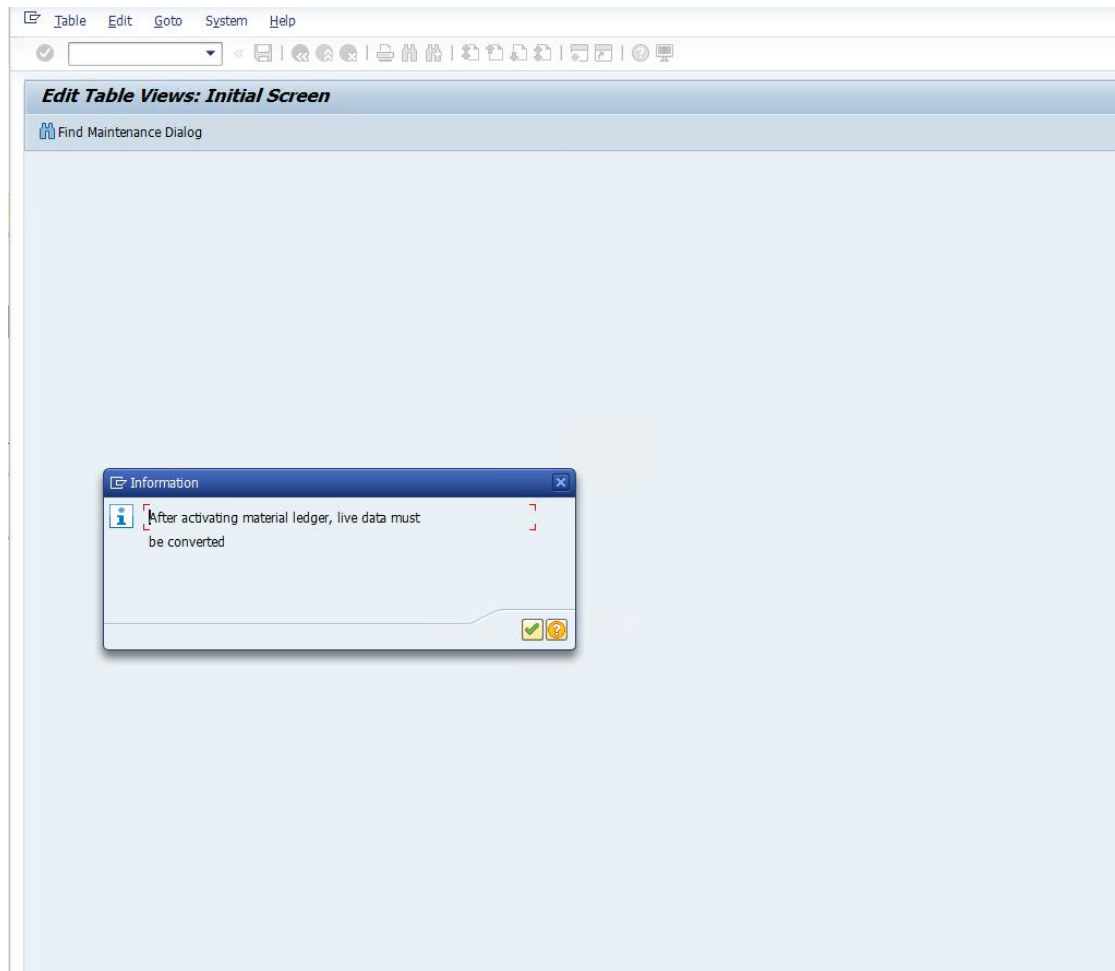
Similarly Assign Price determination indicator 3 (Single/Multi level) and activate ML Act to valuation area 6603

Table View Edit Goto Selection Utilities System Help

Change View "Activation of Material Ledger": Overview

Valuation Area	Company Code	Ma...	Status	ML Act.	Price Deter.	Price Det. Binding i
6603	6600	Z001		<input checked="" type="checkbox"/>	3	<input type="checkbox"/>
6666	6666			<input type="checkbox"/>		<input type="checkbox"/>
6789	6789			<input type="checkbox"/>		<input type="checkbox"/>

Click on 



1.4 Maintain Number Ranges for Material Ledger Documents

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Maintain Number Ranges for Material Ledger Documents

A material ledger document must be clearly identified in the system. This is achieved by saving each transaction in the material ledger under a unique number.

Groups exist for material ledger documents per transaction type in the standard setup.

Material ledger update (Group 01)

Material ledger closing (Group 02)

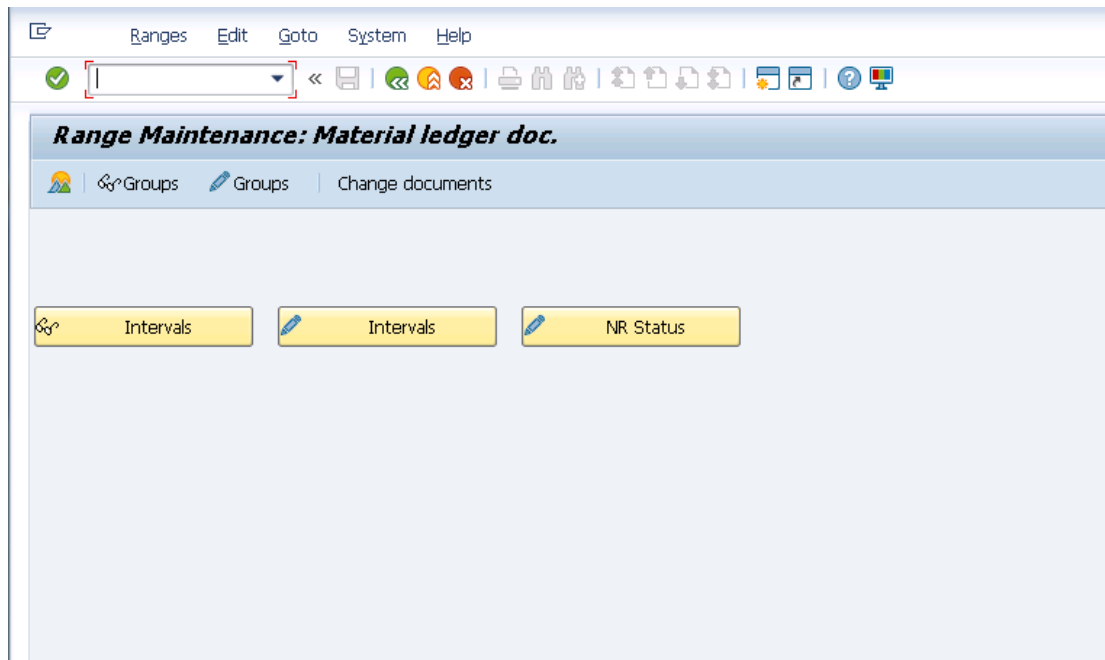
Material ledger price changes (Group 03)

Single-level material ledger settlement (Group 04)
Multi-level material ledger settlement (Group 05)
Material ledger repair (Group 06)

Each group is assigned to a number range
It is normally not necessary to create new groups.



Double Click **Number Ranges for Material Ledger Documents**


















Click on 

Range Maintenance: Material ledger doc.	
Group text	
Element	Element text
Non-Assigned Elements	
MY	Element Without Text
ML update 1.....	
UP	Element Without Text
ML closing 2.....	
AL	Element Without Text
CL	Element Without Text
ML price change 3.....	
MA	Element Without Text
PC	Element Without Text
ML Pricing (One-Step), DUV 4.....	
RC	Element Without Text
ST	Element Without Text
ML Pricing (Multi-Step/ WIP) 5.....	
MS	Element Without Text
WP	Element Without Text
WQ	Element Without Text
ML repair 6.....	
RE	Element Without Text
ML Closing Cum 70000.....	
CC	Element Without Text

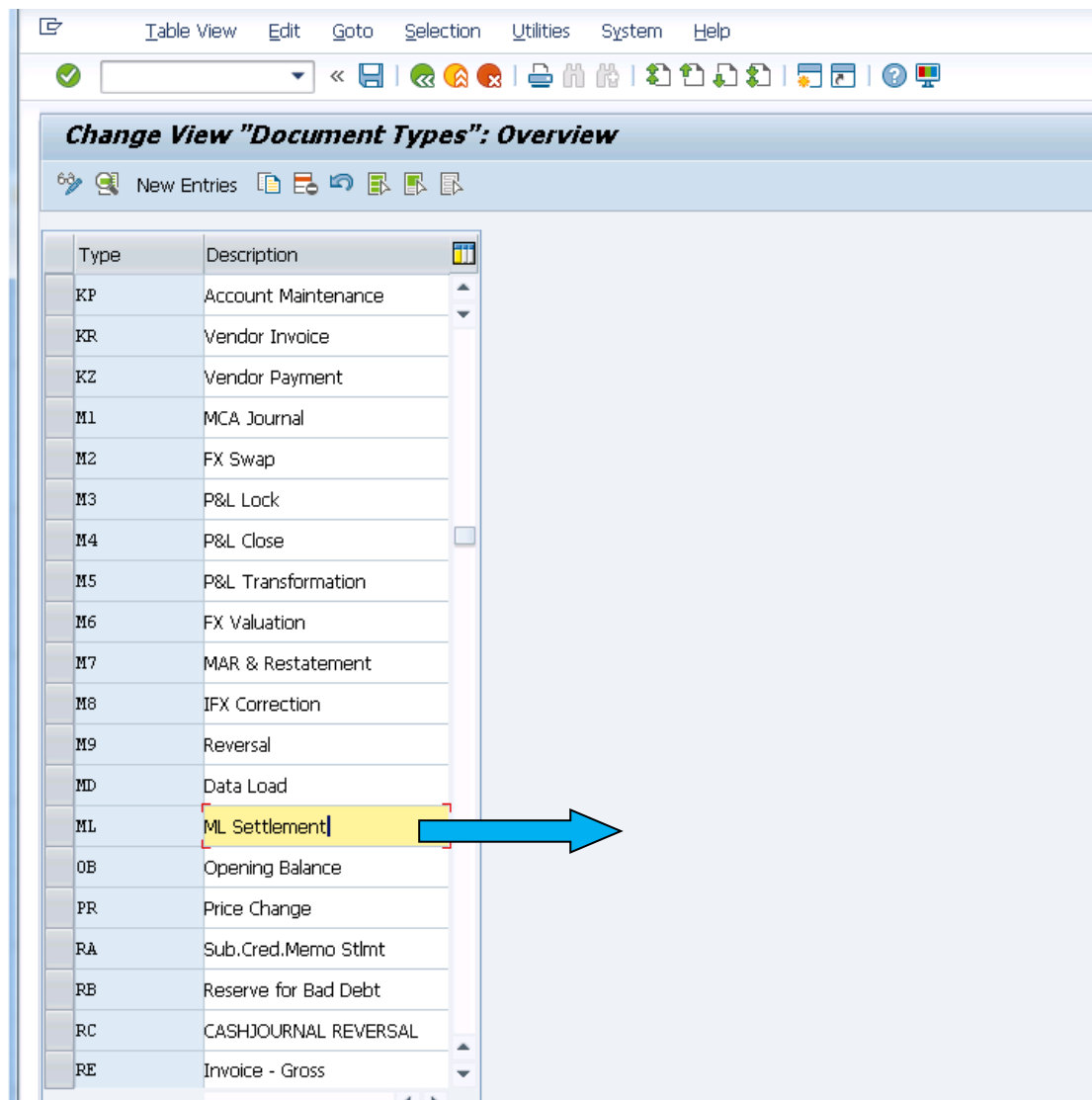
Click 

Click on  Intervals

Interval Edit Goto System Help						
              						
Maintain Intervals: Material ledger doc.						
No	Year	From No.	To Number	NR Status	Ext	
01	9999	1000000000	1999999999	0	<input type="checkbox"/>	
02	9999	2000000000	2999999999	0	<input type="checkbox"/>	
03	9999	3000000000	3999999999	3000000079	<input type="checkbox"/>	
04	9999	4000000000	4999999999	0	<input type="checkbox"/>	
05	9999	5000000000	5999999999	0	<input type="checkbox"/>	
06	9999	6000000000	6999999999	0	<input type="checkbox"/>	
07	9999	7000000000	7999999999	0	<input type="checkbox"/>	

Click  twice

Double Click **Maintain Financial Accounting Document Types**









Document type **ML** is reserved for material ledger documents in the standard system. Ensure that it is maintained. Further the number range that begins with 47 is reserved for material ledger documents in the standard system.

Double Click

ML	ML Settlement
----	---------------

Change View "Document Types": Details

New Entries      

Document Type

Properties

Number range

Reverse DocumentType

Authorization Group

Account types allowed

☐ Assets
☐ Customer
☐ Vendor
☒ Material
☒ G/L account

Special usage

☐ Btch input only

Control data

☐ Net document type
☐ Cust/vend check
☐ Negative Postings Permitted
☐ Inter-company postgs
☐ Enter trading partner

Default values

Ex.rate type for forgn crncy docs

Required during document entry

☐ Reference number
☐ Document header text

Joint venture

Debit Rec.Indic
Rec.Ind. Credit

No reversal document type is assigned.

Click  twice


Double click

Range Maintenance: Accounting document

Change documents

Company Code 6600

Intervals Intervals NR Status

Click  Intervals

Check that **number range 47** is maintained in **Accounting**.

Edit Intervals: Accounting document, Object RF_BELEG, Subobject 6600

Number Range No.	Year	From No.	To Number	NR Status	External
18	2021	1800000000	1899999999	0	<input type="checkbox"/>
18	2022	1800000000	1899999999	0	<input type="checkbox"/>
19	2021	1900000000	1999999999	0	<input type="checkbox"/>
19	2022	1900000000	1999999999	0	<input type="checkbox"/>
20	2021	2000000000	2099999999	0	<input type="checkbox"/>
20	2022	2000000000	2099999999	0	<input type="checkbox"/>
47	2021	4700000000	4799999999	0	<input type="checkbox"/>
47	2022	4700000000	4799999999	0	<input type="checkbox"/>
48	2021	4800000000	4899999999	0	<input type="checkbox"/>
48	2022	4800000000	4899999999	0	<input type="checkbox"/>
49	2021	4900000000	4999999999	0	<input type="checkbox"/>
49	2022	4900000000	4999999999	0	<input type="checkbox"/>
50	2021	5000000000	5099999999	0	<input type="checkbox"/>
50	2022	5000000000	5099999999	0	<input type="checkbox"/>
51	2021	5100000000	5199999999	0	<input type="checkbox"/>
51	2022	5100000000	5199999999	0	<input type="checkbox"/>

1.5 Configure Dynamic Price Changes

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Configure Dynamic Price Changes

Here we can specify in each valuation area that a planned price is activated as the valuation price upon the first goods movement in a new posting period as long as the validity date of the planned price has been reached.

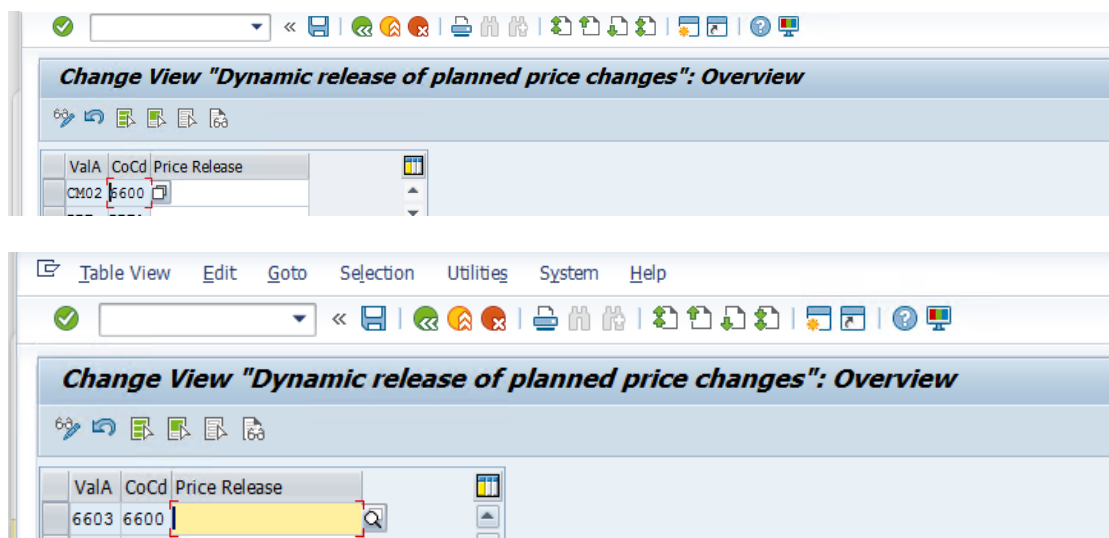
The planned prices are handled by the system with the following priority:









Marked standard cost estimates
Future valuation prices

In the standard system, dynamic price release is not active.

We will not activate it

Please note that this transport to be done in the Production system only after the cutover is over in production to avoid the undesired valuation effects. Store this customizing in a separate transport request.



Price Release (1) 2 Entries found	
       	
Price Release	Short Descript.
	Dynamic price release is not active
1	Dynamic price release is active

2. Material Update

2.1 Define Movement Type Groups of Material Ledger

SAP Customizing Implementation Guide → Controlling → Product Cost Controlling → Actual Costing/Material Ledger → Material Update → Define Movement Type Groups of Material Ledger

Here we can define movement type groups for the Material Ledger so that we can then assign selected material movements to different categories. The standard setup contains no movement type groups for the material ledger.

We will create a new movement type group as ZL

Click on **New Entries**

Update the following:-

We will select 2 revaluation of GL account and CO account assignment

