

SAP
How-To Guide
Master Data Governance
for Material



How To...

**Master Data Governance for
Material:**

**How to create material master sub-
screens in ECC Backend for Industry
extensions like DIMP/DFPS**

Applicable Releases:

ECC 6.0 / all MDG Releases

Version 1.0

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Document History

Document Version	Description
1.00	First official release of this guide

Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation
Example text	Emphasized words or phrases in body text, graphic titles, and table titles
Example text	File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Icons





Icon	Description
	Caution
	Note or Important
	Example
	Recommendation or Tip

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1. Business Scenario

SAP Master Data Governance, material data (MDGM) provides business processes to find, create, change, and delete material master data. It supports the governance of material master data in a central hub and the distribution to connected operational and business intelligence systems.

The processes are workflow-driven and can include several approval and revision phases, and the collaboration of all users participating in the master data maintenance.

Besides the governance aspect, MDG has introduced some improvements in the area of material master maintenance that may require changes in the backend system. This includes making fields read-only or bringing fields onto other views.

This How-To Guide describes how to bring fields onto another screen for the MM0x transactions.

If you want to change in addition some fields to read-only, then please follow the corresponding steps in the guide:

2. Background Information

For industry solutions like DIMP or DFPS fields may be maintained on MARA level that are not part of the Basic Data views. For example, the field *Batch Management* is by default not on the Basic Data views, but instead, usually in the general data section of the Sales and Plant screen.

If MDG activates a material where only general data fields have been maintained, only the maintenance status 'K' is set for this material on the ECC tables. Therefore, only the Basic Data views are available during display or change in the backend (MM01 / MM02).

It is not recommended to change anything in the maintenance status handling, but instead you should copy the basic data fields from the respective screens onto one of the first two basic data screens.

3. Step-by-Step Procedure

In the customizing activity, there is an exact description of how to proceed. Also, there is a full Quick *“Guide Using an Example”* on the top of the section on how to maintain a complete new layout for material master backend screens.

Path: IMG ► *Logistics – General* ► *Material Master* ► *Configuring the Material Master* ► *Create Program for Customized Subscreens*

This guide uses the description from the customizing activity, enhances it where required, and adds screenshots.

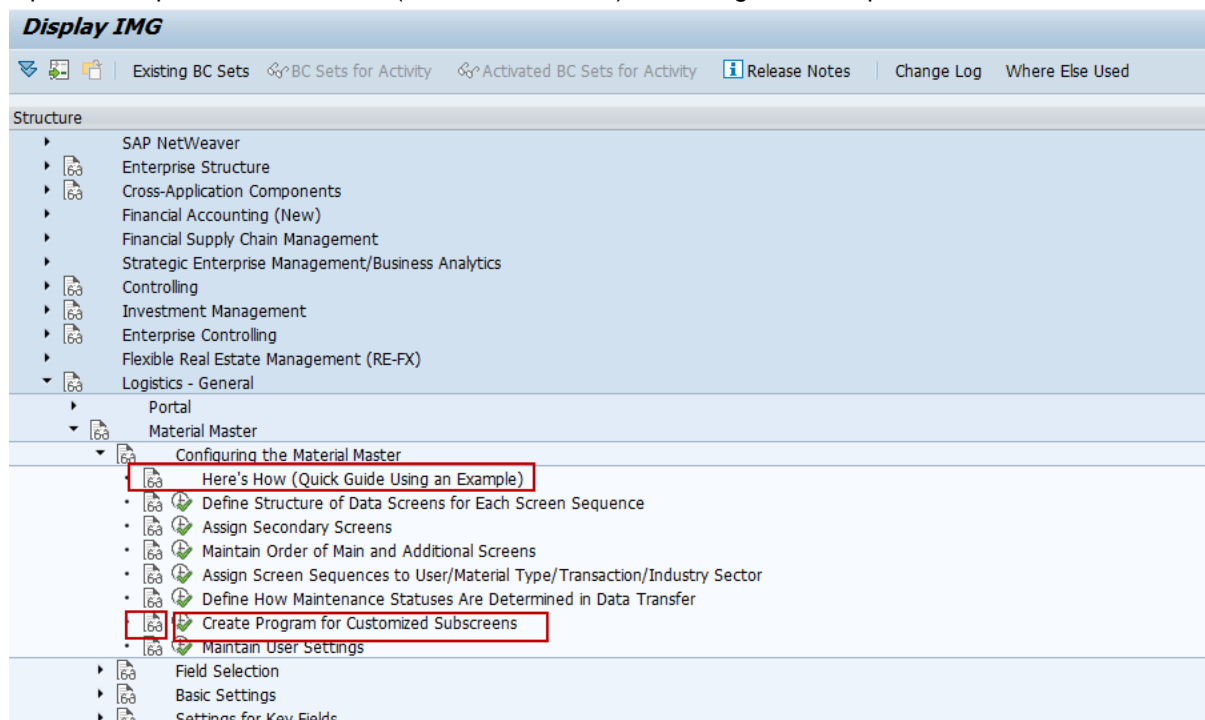
This example uses the following two fields and integrates them into the first sub-screen of *Basic Data 1*:

- 1) Batch indicator on material master level = MARA-XCHPF
- 2) Condition management (DFPS specific field) = MARA-MCOND

The example uses the industry *DFPS*.

3.1 Preparation

Open the Implementation Guide (transaction SPRO) and navigate to the path of the Material Master.



Follow the description below. A detailed breakdown with screenshots are contained in the following chapters.

3.1.1 Description from the Customizing Activity

Create Program for Customized Subscreens

In this **IMG activity**, you can create a **function group** of your own by copying function group MGD1 (for industry) or function group MGD2 (for retail). The subscreens are not copied, except for two subscreens which are copied for technical reasons. You can use this copy to create subscreens of your own which you can assign to a data screen in the activity **Define Structure of Data Screens for Each Screen Sequence**.

Requirements

Be sure to read the [program documentation](#) first.

Activities

1. Create a function group of your own by choosing *Execute*.
2. Enter a name containing up to 25 characters, beginning with the letter *Y* or *Z*, and choose *Save*.
3. Access the Object Navigator.
You do this from the SAP standard menu by choosing *Tools -> ABAP Workbench*, and then *Object Navigator*.
4. Display either program SAPLMGD1 (industry) or SAPLMGD2 (retail) as required.
5. Copy the subscreens as required, ensuring that they already contain as many as possible of the field names you want to use in your function group. You do this as follows:
 - a) Choose *Screens*, position the cursor on the corresponding subscreen, and choose *Copy* in the **context menu**.
 - b) Enter the program to which you want to copy the subscreen, prefixing it with *SAPL*, and enter a screen number. Use the screen number of the original subscreen where possible. If the F1 help is specific to a particular subscreen, this ensures that this context-specific help continues to be displayed.

Example

You have called your function group *YENTERPRISE*, to which you want to copy subscreen *SAPLMGD1 2301*. Enter **SAPLYENTERPRISE** as the program to which the subscreen is to be copied, and enter (preferably) **2301** as the screen number.

6. Return to the initial screen of the Object Navigator and display your program. In the example above, you would enter **SAPLYENTERPRISE**.
7. Choose *Update object list*.
8. Select the subscreen you have copied and activate it by choosing *Activate* in the context menu.
Using the **Screen Painter**, you can remove fields you do not require on the subscreen or include additional fields from other subscreens (see the **ABAP Dictionary**). For information on the Screen Painter, see the SAP library documentation *BC ABAP Workbench Tools*.

Points to consider when removing or adding fields

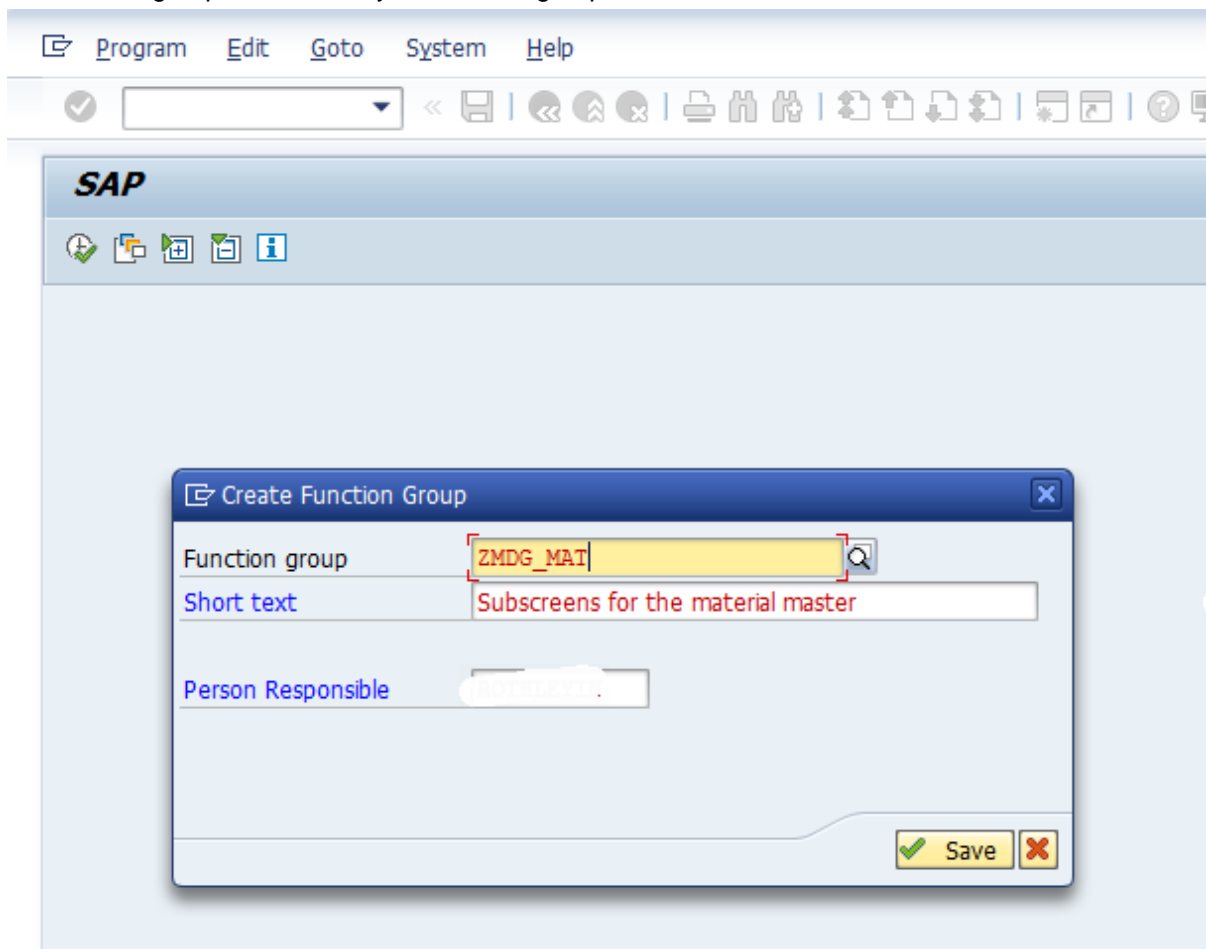
- Make sure that a field statement exists for each field on the subscreen since data may not otherwise be transported correctly. You can use subscreen *SAPLMGD1 2002* as an example.
 - For the fields you have added, include any check modules and modules for self-programmed F4 help that are called up for these fields on the original subscreen. You can do this by displaying the flow logic for the original subscreen and searching for such modules. They normally have the same names as the fields themselves. When you find a module, copy the corresponding module call to your subscreen.
 - If you change the order in which fields are transported that are checked together in the **flow logic** (such as the safety stock and minimum safety stock), you must deactivate the check module for the first field and activate it for the second. The system would otherwise transport the first field, and carry out the check before the second field is transported.
 - Any error messages that fields are unknown when activating the subscreen are due to the fields still being included in checks, even though you have removed the fields from the subscreen. Search for the fields in the source code and make the lines in which they appear comment lines. Then reactivate the screen.
9. Assign the subscreen to a data screen as required.

3.1.2 Create Program for Customized Subscreens

Follow the first two steps in the Customizing Activity:

1. Create a function group of your own by choosing *Execute*.
2. Enter a name containing up to 25 characters, beginning with the letter *Y* or *Z*, and choose *Save*.

When you execute the customizing activity the system displays the following window where you create the function group, in this case your function group is called *ZMDG_MAT*.

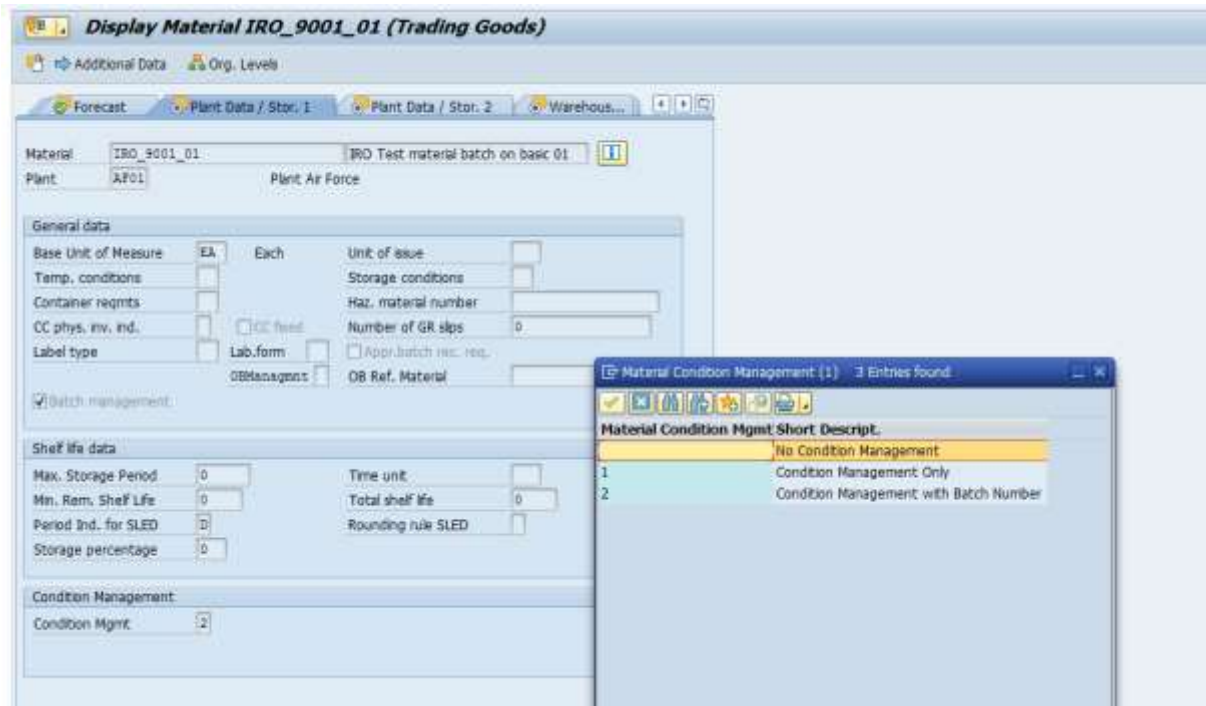


If you browse to this function group (using SE80 for example), you can find the corresponding main program name. The main program name is similar to the function group name with the prefix “SAPL”. Note this name down for a later step. In our example, the main program **SAPLZMDG_MAT** was created.

3.1.3 Analyze the Screens of the Missing Fields

The two fields are both from the screen for Plant/Storage location data (maintenance status L = storage).

Comment: by default MDG only sets the maintenance status K = basic data if only basic data is maintained.



Use the F1 Help function and the technical details feature to identify the subscreen and field name. Make sure you do this for the correct industry because this field is linked to the screen sequence. In this example they are as follows:

- 1) Batch management = MARA-XCHPF on SAPLMGD1 screen 2701
- 2) Condition management = MARA-MCOND on /ISDFPS/SAPLMCCODE1

Change Material IRO_9001_01 (Trading Goods)

Additional Data Org. Levels Check Screen Data

Forecast Plant Data / Stor. 1 Plant Data / Stor. 2 Warehouse Mgmt 1

Material: IRO_9001_01 IRO Test material batch on basic 01

General data

Base Unit of Measure: EA Each

Temp. conditions:

Container reqmts:

Label type: Lab.form

Batch management

Shelf life data

Min. Rem. Shelf Life:

Period Ind. for SLED: D

Storage percentage:

Condition Management

Condition Mgmt: 2

Technical Information

Screen Data

Program Name: SAPIMGD1

Screen Number: 2701

GUI Data

Program Name: SAPIMGMM

Status: DATE00

Field Data

Table Name: MARA

Table category: Transparent table

Field Name: XCHPF

Data Element: XCHPF

Field Description for Batch Input

Screen Field: MARA-XCHPF

Program Name: SAPIMGMM

Screen Number: 4000

The screenshot shows the SAP S/4HANA 'Plant Data / Stor. 1' screen for material IRO_9001_01 at plant AF01. A 'Technical Information' dialog box is open, displaying the following data:

Screen Data	
Program Name	/ISDFPS/SAPLMCCODE1
Screen Number	6001

GUI Data	
Program Name	SAPLMGMM
Status	DATE00

Field Data	
Table Name	MARA
Table category	Transparent table
Field Name	MCOND
Data Element	DFPS_MCOND

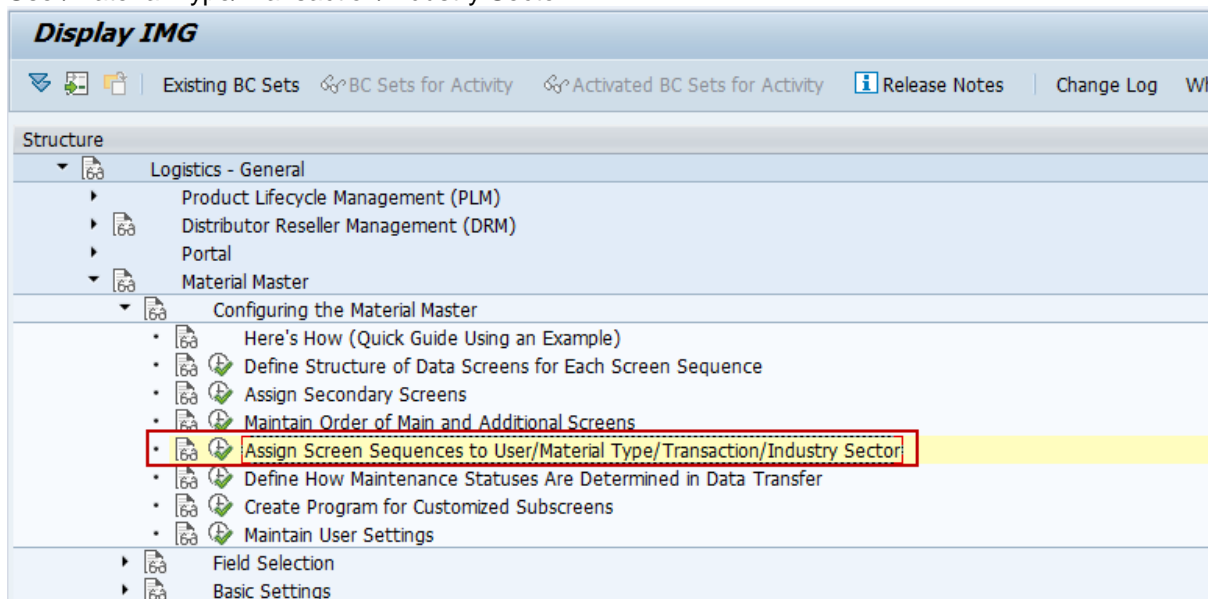
Field Description for Batch Input	
Screen Field	MARA-MCOND
Program Name	SAPLMGMM
Screen Number	4000

3.1.4 Identify the target subscreen

We want to include the two fields on the first Basic Data screen in the first data block
This is SAPLMGD1 screen 2001.

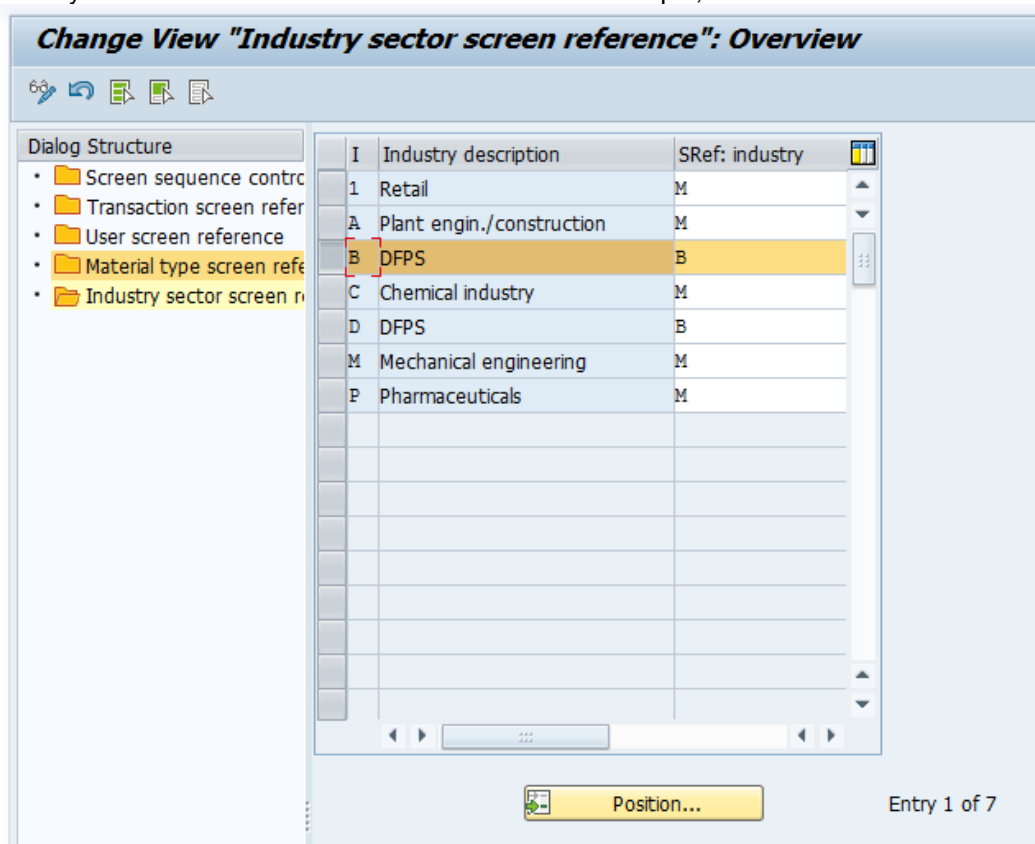
3.1.5 Analyze the screen access sequence

In Implementation Guide start the following configuration activity: Assign screen sequences to User/Material Type/Transaction/Industry Sector.



Check the settings ideally from bottom to the top:

- A) Industry sector – B and D are both for DFPS in this example, both refer to “B”.



B) Transaction – in our example MM01, MM02, and MM03 all reference to “01”.

Change View "Transaction screen reference": Overview

TC...	Transaction Text	SRef: trans.
MAL1	Create material via ALE	01
MAL2	Change material via ALE	01
MM01	Create Material &	01
MM02	Change Material &	01
MM03	Display Material &	01
MM11	Schedule Creation of Material &	01
MM12	Schedule Changing of Material &	01
MM18	Activate Planned Changes	01
MM19	Display Material & at Key Date	01
MM41	Create Material &	03
MM42	Change Material &	03
MM43	Display Material &	03
MMB1	Create Semifinished Product &	01
MMF1	Create Finished Product &	01
MMG1	Create Returnable Packaging &	01
MMH1	Create Trading Goods &	01

C) Assignment to the screen sequence control – in our example the combinations all result in V1.

Change View "Screen sequence control": Overview

SRef: trans.	SRef: user	SRef: matl type	SRef: industry	SSq	Screen seq. description
01	*	*	*	DI	Discrete Industries
01	*	FFFC	*	14	FFF class
01	*	HERB	*	15	Interchangeable parts
01	*	HERS	*	12	Manufacturer Parts
01	*	LEER	*	BE	Std Ind Tabs for Empties
01	*	MCCA	*	MC	MillCa Cable
01	*	MCRE	*	MR	MillCa Reel
01	*	MCRW	*	MW	MillCa Reel Without t.Dat
01	*	ROH	*	V1	DFPS
01	*	ROH	B	V1	DFPS
03	*	*	*	23	Std retail: tab pages
03	*	COUP	*	R1	Retail Coupons
03	*	PLAN	*	R2	Retail Articles (Planned)

This means we have to change the subscreen assignment for this screen sequence later. In your system there may be different settings which may result in multiple places where you need to apply the change.

3.2 Copy the fields onto a new sub-screen

Follow the steps 3-8 of the customizing activity description:

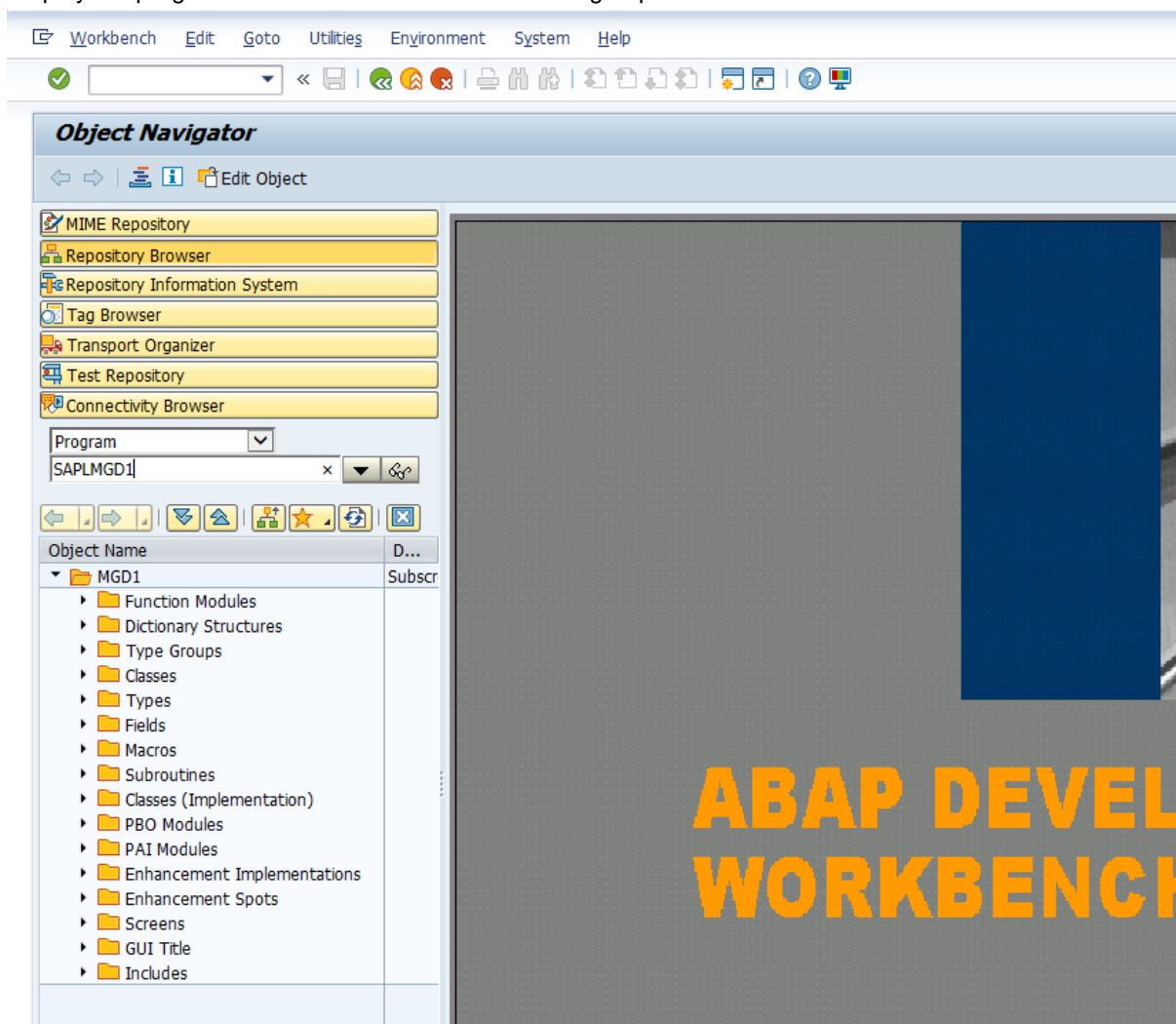
3. Access the Object Navigator.

You do this from the SAP standard menu by choosing *Tools -> ABAP Workbench*, and then *Object Navigator*.

Use transaction SE80.

4. Display either program SAPLMGD1 (industry) or SAPLMGD2 (retail) as required.

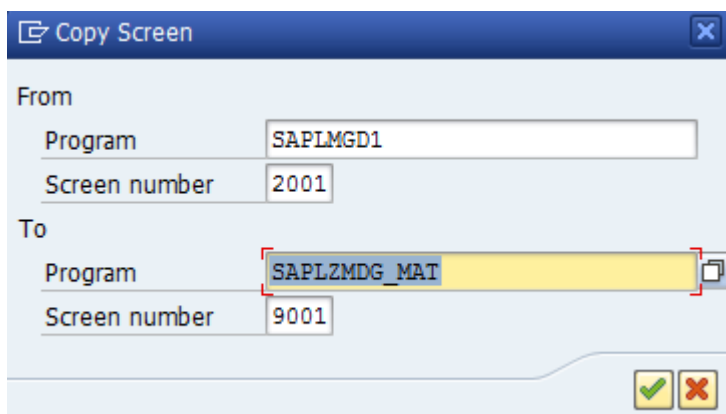
Display the program SAPLMGD1 or related Function group MGD1.



5. Copy the subscreens as required, ensuring that they already contain as many as possible of the field names you want to use in your function group. You do this as follows:

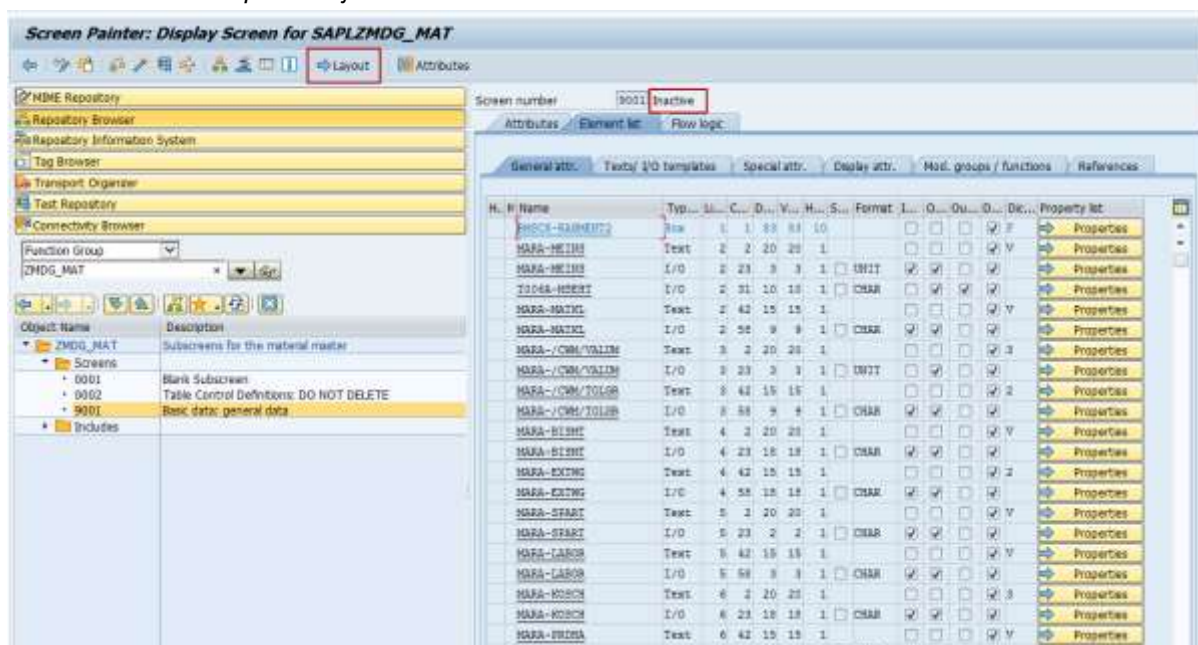
- a) Choose *Screens*, position the cursor on the corresponding subscreen, and choose *Copy* in the **context menu**.
- b) Enter the program to which you want to copy the subscreen, prefixing it with *SAPL*, and enter a screen number. Use the screen number of the original subscreen where possible. If the F1 help is specific to a particular subscreen, this ensures that this context-specific help continues to be displayed.

In our case, we copy from *SAPLMGD1 / 2001* to *SAPLZMDG_MAT / 9001*:



The creation is confirmed.

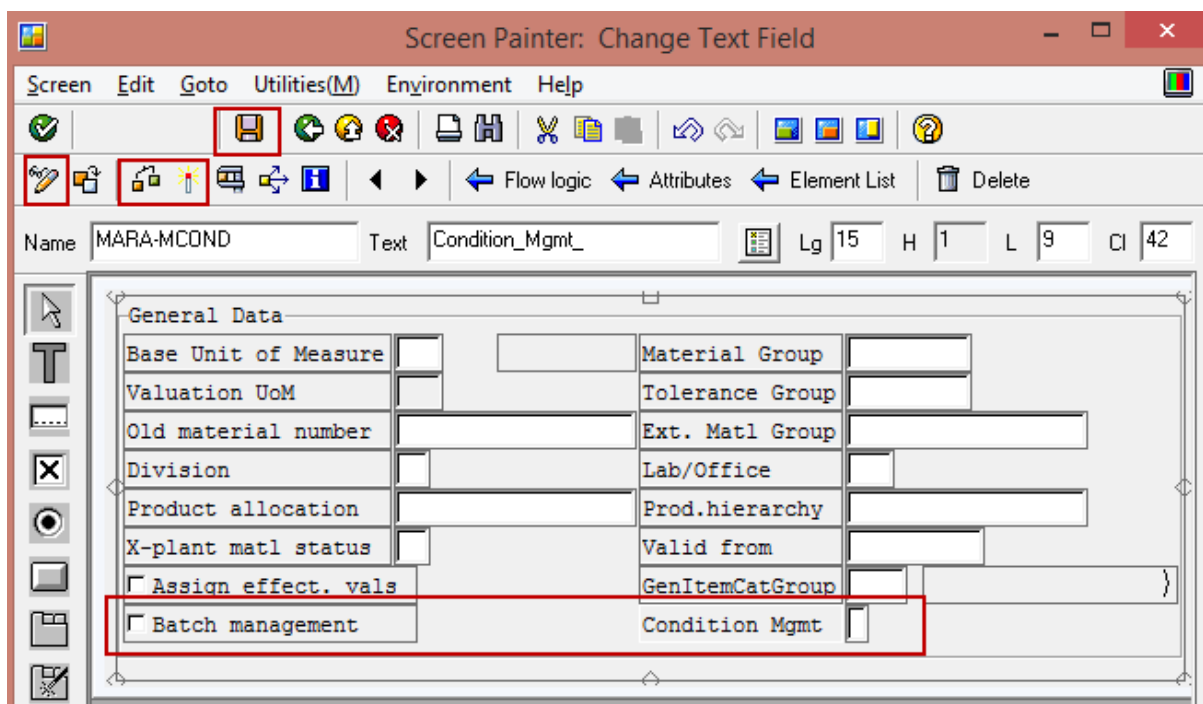
6. Return to the initial screen of the Object Navigator and display your program.
7. Choose *Update object list*.



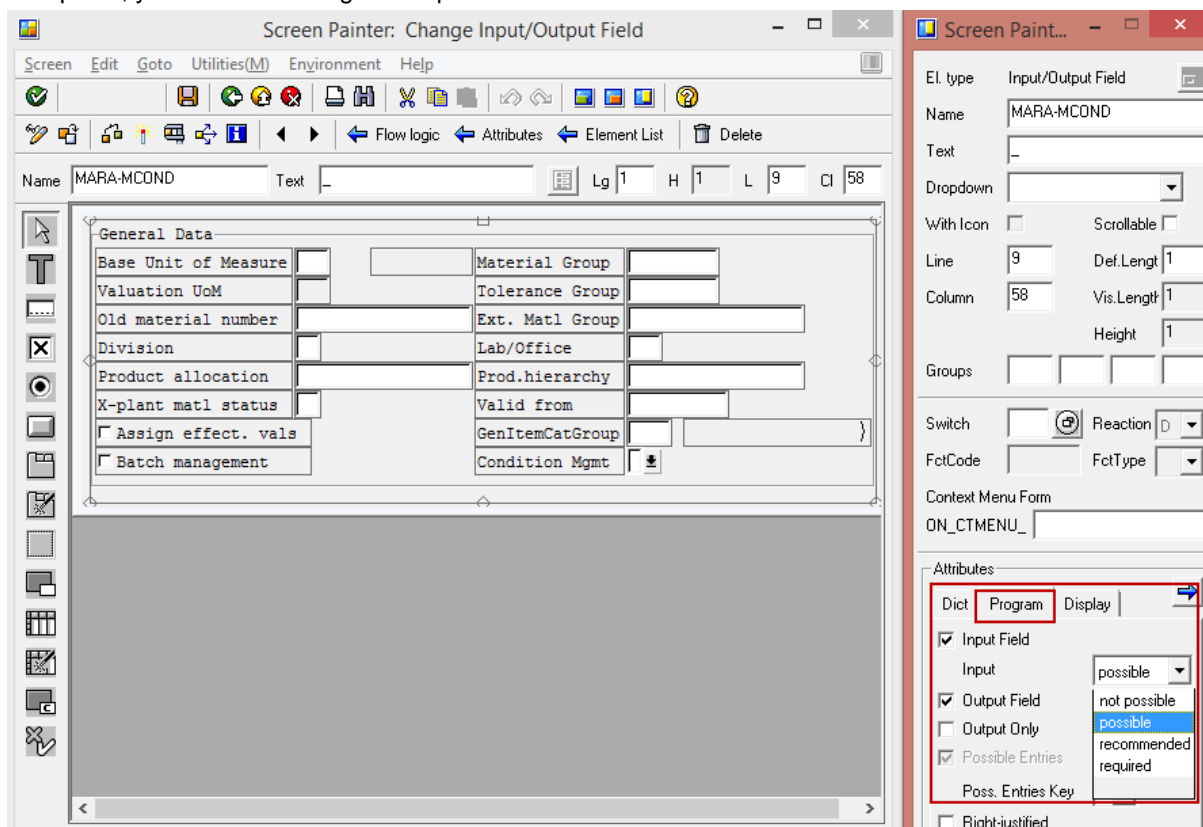
8. Select the subscreen you have copied and activate it by choosing *Activate* in the context menu.

Using the **Screen Painter**, you can remove fields you do not require on the subscreen or include additional fields from other subscreens (see the **ABAP Dictionary**). For information on the Screen Painter, see the SAP library documentation *BC ABAP Workbench Tools*.

1. Start the Screen Painter using the Layout button.
2. If required, enhance the line numbers by extending the frame of the subscreen.
Make sure you choose the correct field category (radio button, check-box, I/O field, text field, etc.).
In our example the batch management is a *check field* and the conditions management is an *input field* of length 1.
3. Click on the left side on the icon for the element, click on the place where you want to put the field.
Enter the field name in the "Field" field; because they are bound to text fields using the SAP Data Dictionary the corresponding text/description field is automatically proposed.
4. You may need to some manual adjustment for the condition management description field. If this is the case, add a custom text field and correct to the entries when you are back on the field list in SE80.



If required, you can also change the input behavior of the field in the attributes:



5. Check, save, activate in Screen Painter.

Back on the element list should look like this:

H..	M	Name	Typ...	Li...	C...	D...	V...	H...	S...	Format	Input	Output	Ou...	D...	Dic...	Property list
		TPTMT BEZEI MARA	I/O	8	64	20	19	1	<input checked="" type="checkbox"/>	CHAR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Properties
		MARA-XCHPF	Check	9	2	1	1	1		CHAR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Properties
		MARA-XCHPF	Check	9	4	20	20	1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	Properties
		MARA-MCOND	Text	9	42	15	15	1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2	Properties
		MARA-MCOND	I/O	9	58	1	1	1	<input type="checkbox"/>	CHAR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Properties
		OK	OK	0	0	20	20	1	<input type="checkbox"/>	OK				<input type="checkbox"/>		

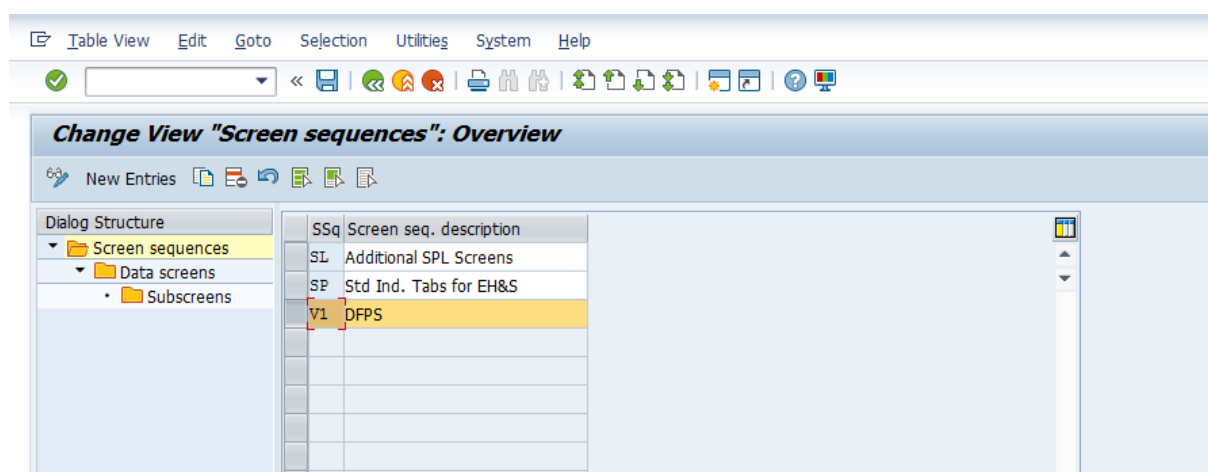
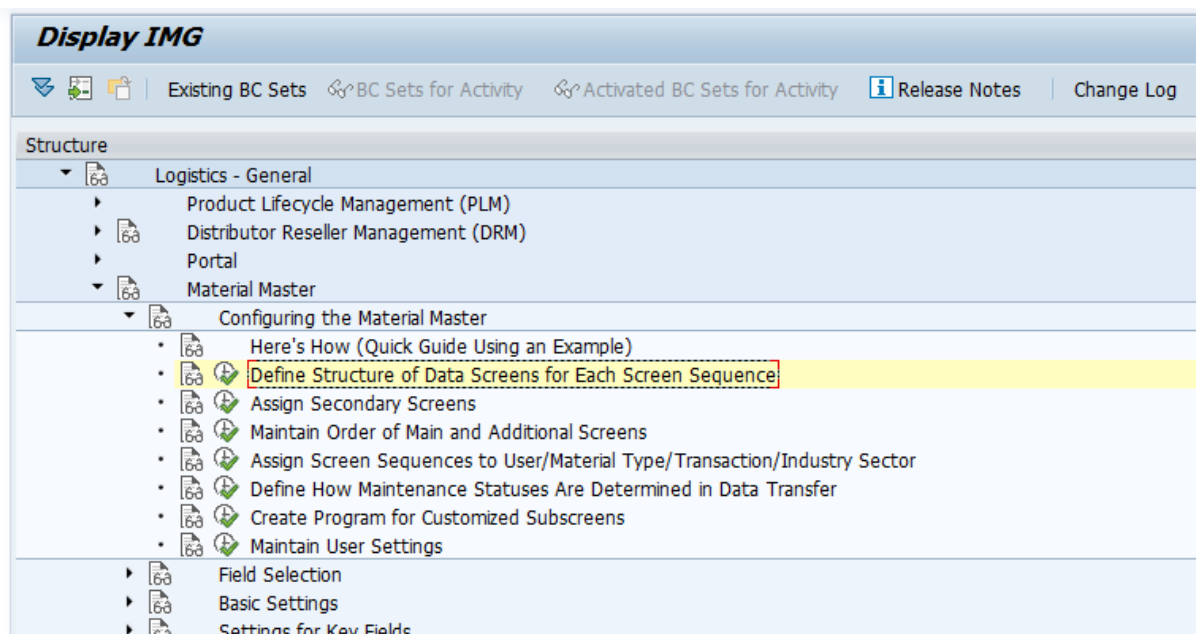
You also have the option to make fields e.g. read-only by removing the flag from column "Inout".

6. If you ran into issues, correct the text field for the condition management to match the line in red above (except the position coordinates).

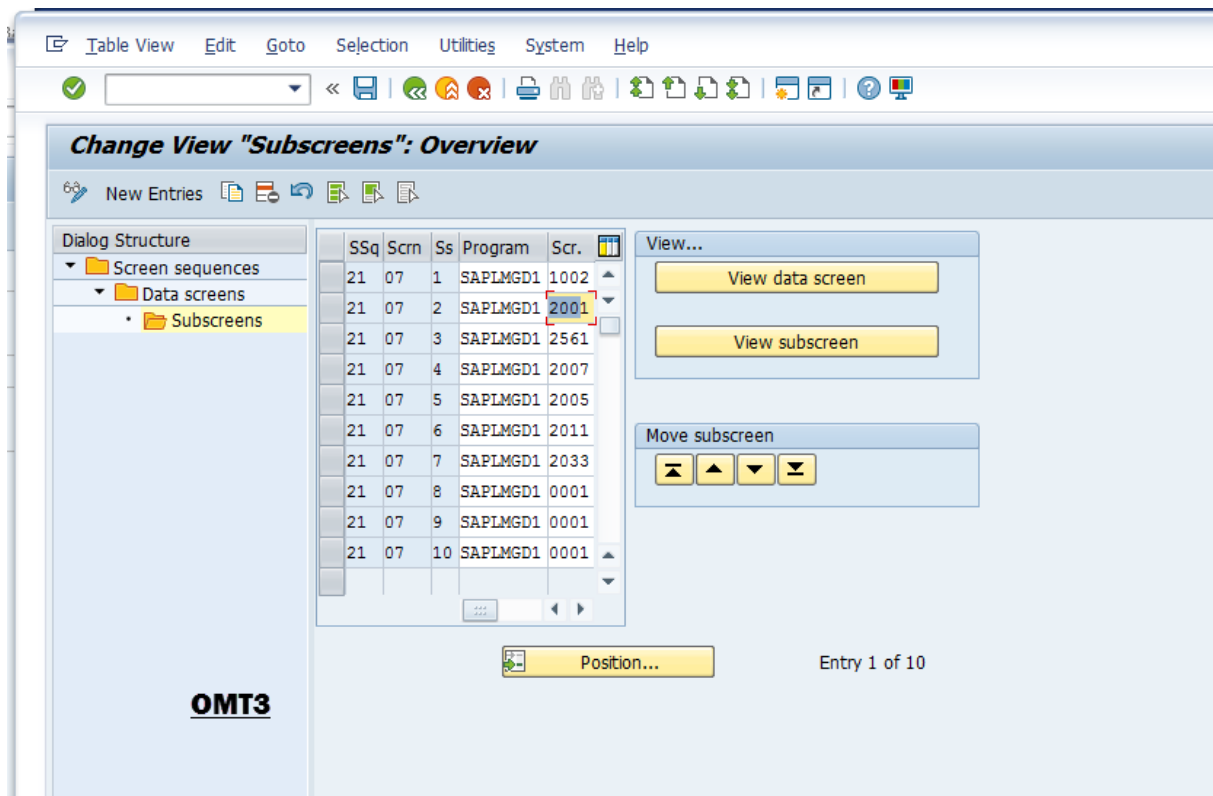
If you changed anything, activate here as well.

3.3 Replace the Original Sub-Screen

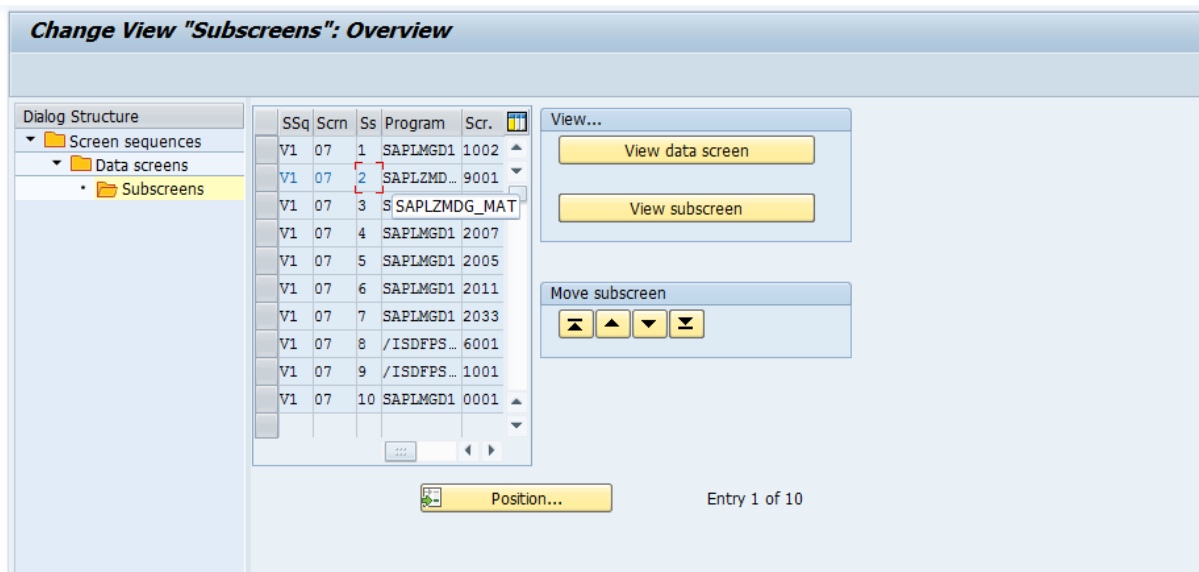
We replace the original sub-screen using the following customizing path and activity *Define Structure of Data Screens for Each Screen Sequence* or directly using transaction OMT3:



During preparation in earlier step we found out that for this example, we only need to adjust the V1 screen sequence.



We now replace the corresponding entry for SAPLMGD1/2001 with our new SAPLZMDG_MAT/9001 subscreen.



3.4 Test the results

Start any of the transactions MM01, MM02, or MM03 to verify the results.

Material Edit Goto Environment System Help

Display Material IRO_9001_01 (Trading Goods)

Additional Data Org. Levels

Basic Data 1 Basic Data 2 Classification Sales: Sales Org. 1

Material IRO_9001_01 Test material batch on basic 01

General Data

Base Unit of Measure	EA	Each	Material Group	1650
Old material number			Ext. Matl Group	
Division			Lab/Office	
Product allocation			Prod.hierarchy	
X-plant matl status			Valid from	
<input type="checkbox"/> Assign effect. vals			GenItemCatGroup	NORM Standard item
<input checked="" type="checkbox"/> Batch management			Condition Mgmt	2

Material authorization group

4. Additional Information

Online help: Configuring the Material Master:

https://help.sap.com/saphelp_46c/helpdata/en/28/03d33e7a16d311ae620060b03c9bbe/frameset.htm

More details for the screen sequence analysis is available here: <http://scn.sap.com/docs/DOC-52909> .

For more information on how MDG-M handles the “Maintenance Status” please refer to the guide “Best Practice for Maintenance Status“: <http://scn.sap.com/docs/DOC-53567>.

In general, SAP recommends the following for the Backend Fields that are under MDG Governance (see also the final paragraph of Chapter 3.0 of the Configuration Guide for MDG-Material 8.0

https://service.sap.com/~sapidb/012002523100008897072015E/MDG_Config_Mat_80_SP00.pdf.

Setting Backend Fields to Read-Only

If you operate a MDG hub, and if you make changes to fields under governance in the material master using a backend transaction ERP, these changes will be overwritten by the next change request created for that material. To prevent this, SAP recommends that you set fields under governance to ready-only in your non-hub systems. The recommended approach for this process in SAP systems is to define new material master backend data screens and screen sequences in the configuration activity “Configuring the Material Master”.

For those aspects you can find further hints and details via the SAP note 1557967 “Restricting Material Maintenance on operative target ERP systems for MDG-M governed data”

(<https://css.wdf.sap.corp/sap/support/notes/1557967>)

www.sdn.sap.com/irj/sdn/howtoguides