

PUBLIC 2019-12-12

Configuration of Comprehensive Functions



Content

1	Configuration of Comprehensive Functions	3
1.1	Measures	3
	Maintaining Measure IDs	3
	Measure Object Maintenance	8
1.2	Comments	9
	Translating Column Headings for Additional Comments	10
1.3	Individual Material Groups	. 12
	Maintain Keys of Individual Material Groups	. 13
1.4	Stock/Requirements List	13
	Data Processor	. 14
2	Configuration of Material Master Update	. 15
2.1	Configuring the Flexible Material Master Update	. 15
2.2	Configuration of Rule-Based Material Master Update	. 17
	Configuring Rule Set Maintenance	17
	Configuration of Change Reasons	. 18
3	Enhanced Material Master View	. 19
3.1	Prerequisites	. 19
3.2	SAP Standard Customizing	. 19
	Initial Setup	. 20
	Upgrade to New Release	39
	Transporting the Screen Sequence	. 50
3.3	Enhanced Customizing	. 53
	Displaying Fields	. 54
	Exception Indicators	. 56
3.4	Help	. 64
4	Configuration of the Material Document Aggregation	. 65
4.1	Maintain Customer-Specific Settings (Expert Tool)	. 65

1 Configuration of Comprehensive Functions

You can use various settings to adjust how the **comprehensive functions** work.

1.1 Measures

You can make settings for the measures function here.

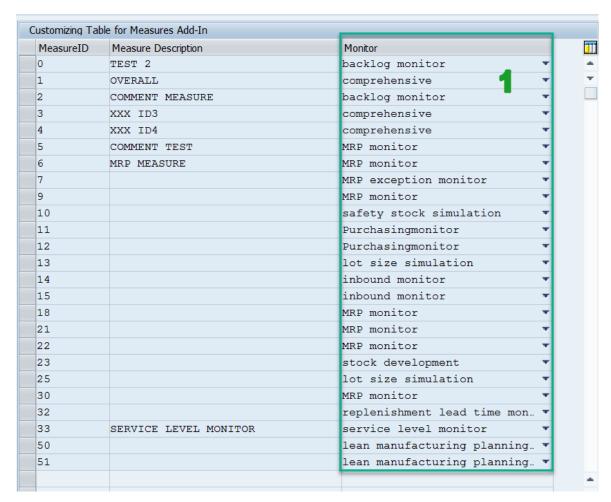
1.1.1 Maintaining Measure IDs

Context

You maintain the measure key table /SAPLOM/X_MEAS_C as follows:

Procedure

1. Use transaction /n/SAPLOM/X_MEAS_C to open the maintenance dialog.



Customizing Table for Measures Add-In

2. Create a measure key.

You need to specify the corresponding SCM Consulting Solution for resubmission measures only.

1.1.1.1 Translating Measure IDs

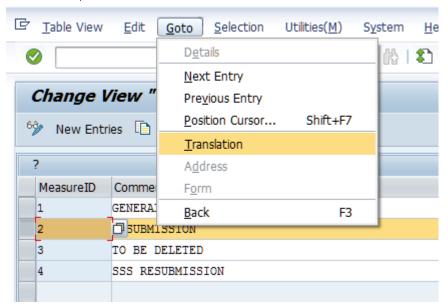
Context

You can maintain the descriptions of the measure IDs in different languages. Depending on the logon language, the corresponding translation is then displayed in the **SCM Consulting Solutions**.

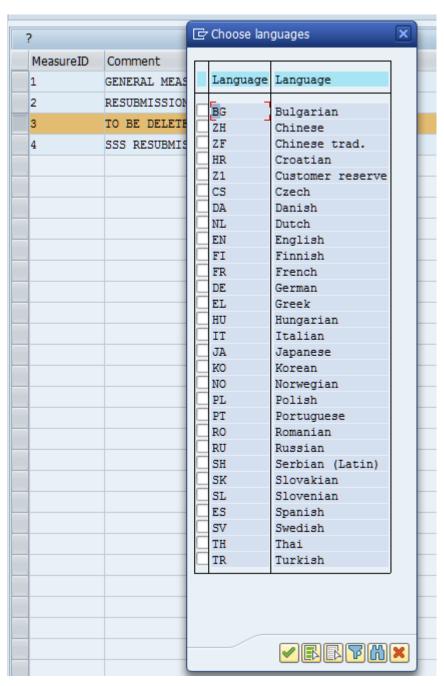
To do this, proceed as follows:

Procedure

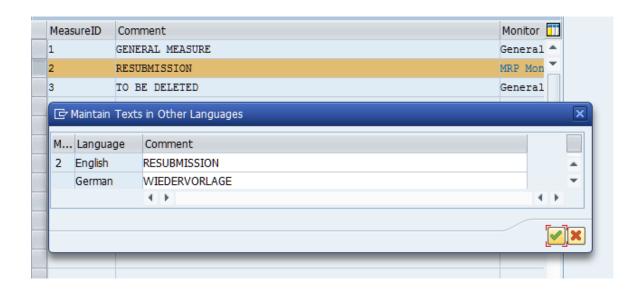
1. Select the required rows and choose Goto -> Translation.



2. Select the desired language and confirm.



3. Enter the desired translation and confirm.



1.1.1.2 Saving Measure IDs

Context

The introduction of the language-dependent maintenance (translation) of measure IDs has resulted in changes to the database table for the measure IDs.

You therefore need to save the Comment column before importing the core transport.

Procedure

- 1. Call the maintenance transaction /SAPLOM/X_MEAS_C.
- 2. Select the comments/names from top to bottom.

→ Tip

Choose "Ctrl" and "Y" at the same time to access selection mode.

3. Copy all selected columns to the clipboard.

→ Tip

The easiest way to do this is to choose "Ctrl" and "C" at the same time.

- $4. \ \ Insert the copied rows into an empty text editor file (for example, Microsoft Word) and save the file.$
 - You have now saved your data for importing the new transport.
- 5. You can now import the transport.
- 6. To reimport, copy the data from the text editor back to the clipboard.
- 7. In the column, choose the *Comment* of the first row and enter the content there.

→ Tip

The easiest way to do this is to choose "Ctrl" and "V" at the same time.

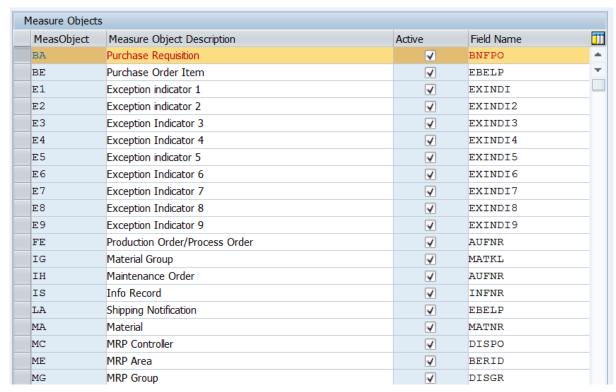
8. Save the maintenance view.

Results

All comments are now assigned to the respective measure IDs again.

1.1.2 Measure Object Maintenance

The Measures objects can be managed using Transaction code /SAPLOM/MEA_OBJ_C. This transaction code is used to maintain values via maintenance view /SAPLOM/MEA_LEV and is used to activate measure objects and to set the field name value used to calculate the object id by the measure, resubmission and comment creation function. If an object is inactive, it will not be available in measure, resubmission and comment creation screen. You can activate or deactivate a measure object via 'Active' flag field.



Measure Object Maintenance

The field *Field Name* contains the field name what is used by measure, resubmission, comment creation function to set the value for Object ID field in measure, resubmission and comment tables.

→ Recommendation

Please do not change any values in column Field Name

Example

For Measure Object **BA** we have **BNFPO** value in the field *Field Name* this means that the measure creation function will create a measure with Object Id = concatenation between values of *BANFN* and *BANFPO* fields from records of import table.

1.2 Comments

You can make settings for the comment function here.

1.2.1 Translating Column Headings for Additional Comments

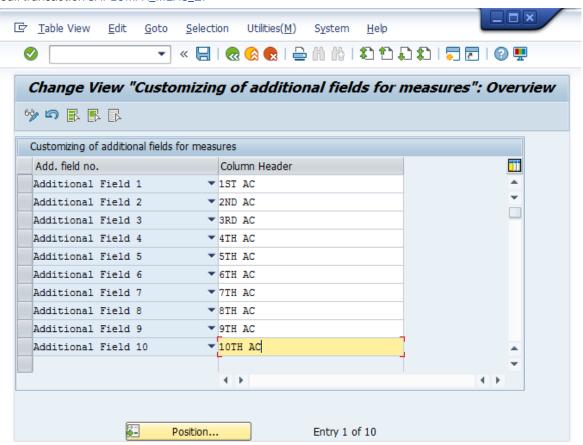
You can add up to ten additional comment columns for measures.

Context

To maintain additional comments, you need to maintain the column headings for the additional fields. To do this, perform the following steps:

Procedure

1. Call transaction SAPLOM/X MEAS Z.



Customizing Transaction for Additional Comment Fields

2. Enter your headings.

! Restriction

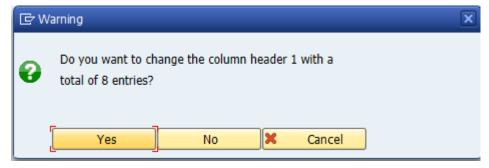
Column headings for additional comments may have a maximum length of 30 characters.

3. Save your data.

A dialog box appears asking whether you really want to change the heading.

⚠ Caution

Changes can lead to inconsistencies between the column heading and column content.



Warning Message

Results

The column headings are usually stored in the language in which you logged on to the system. To maintain them in other languages, follow the steps in section Translating Column Headings for Additional Comment Fields [page 11].

1.2.1.1 Translating Column Headings for Additional Comment Fields

You can maintain the column headings for the additional comments in various languages.

Prerequisites

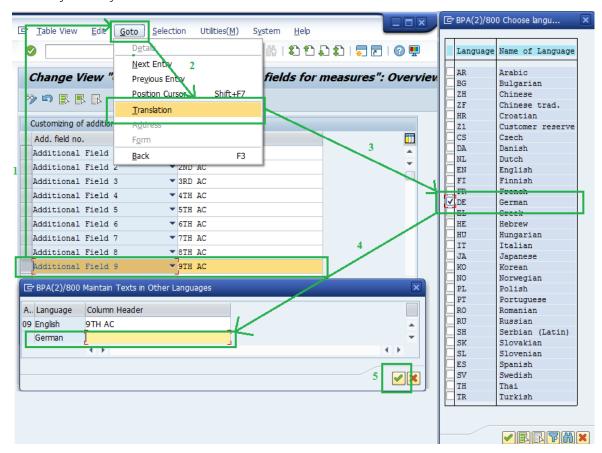
The column headings must already be created (see section Translating Column Headings for Additional Comments [page 10]).

Context

Open transaction *SAPLOM/X_MEAS_Z* and perform the following steps:

Procedure

- 1. Select an additional field.
- 2. Choose Goto -> Translation.
- 3. Select the language.
- 4. Enter the translation.
- 5. Confirm your entry.



Step Sequence for Translating Column Headings

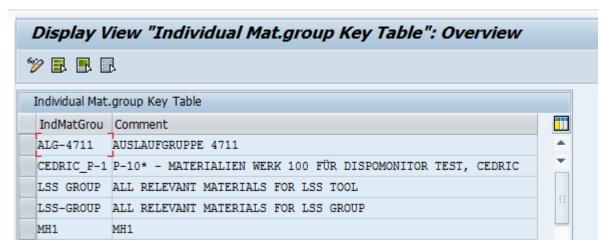
1.3 Individual Material Groups

You can make settings for individual material groups here.

1.3.1 Maintain Keys of Individual Material Groups

You access the transaction for maintaining keys for individual material groups by:

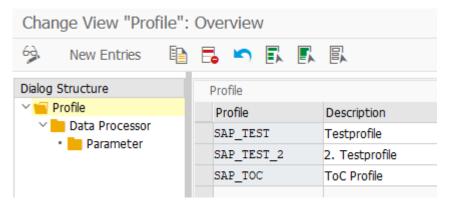
- Calling transaction /n/SAPLOM/X_MGP_C
- Choosing the *Overview of Material Groups* pushbutton in the maintenance program /n/SAPLOM/ X IND MGROUP



Transaction for Viewing and Maintaining Keys for Individual Material Groups

1.4 Stock/Requirements List

When you save the stock/requirements list, you can (for example, for your own key figures) integrate your own calculations. To do so, go to XMD Customizing using transaction /SAPLOM/XMD CUST.

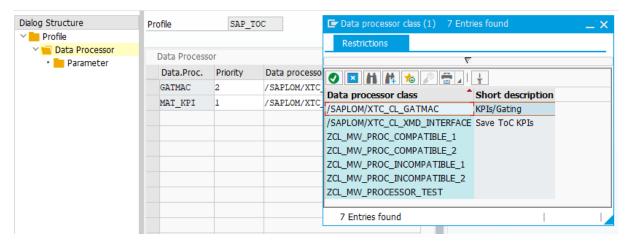


Change Profile

Here you can create and manage different profiles. Per execution, you can select a profile, which is included. A profile contains the settings for the available data processors.

1.4.1 Data Processor

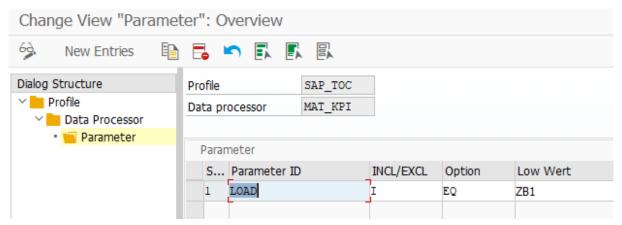
To provide additional information for the stock/requirements list, you can create various data processors. This requires the implementation of the interface "/SAPLOM/IF_XMD_DATA_PROCESSOR". As soon as a class implements this interface, it is available for selection in Customizing.



Data Processor

A data processor can also be assigned a priority. The processors are executed in the program run according to this priority.

A data processor can also use custom parameters that can be defined in Customizing.



Change parameters

2 Configuration of Material Master Update

The SCM Consulting Solutions have their own functions for updating the material master. This enables both standard fields and fields in the **enhanced material master view** to be updated. The configuration is described in the following sections.

2.1 Configuring the Flexible Material Master Update

Using the *Flexible* radio button in your **SCM Consulting Solution**, you can call up the dialog box for the flexible material master update. This gives you the option of updating or initializing selected fields by entering values manually. The configuration of this dialog box is described below.

Context

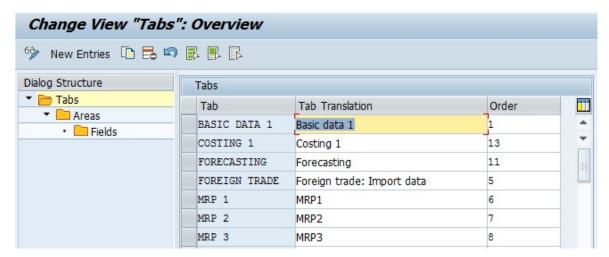
You use transaction /SAPLOM/XMM_POPUP to change the entire layout (tabs, areas, and fields) of the dialog box.

Procedure

1. Call transaction /SAPLOM/XMM_POPUP.

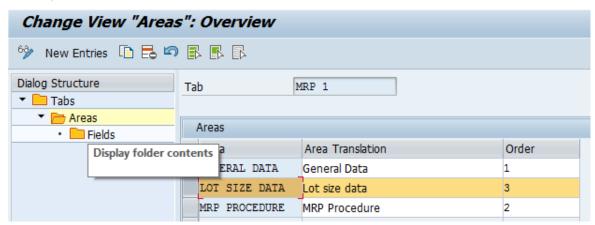
Alternatively, you can also access this transaction via transaction SE54 and the following steps:

- a. In transaction SE54, choose the Edit View Cluster button.
- b. Enter the name of the view cluster: /SAPLOM/XMM_TAFC
- c. Choose the Test button.
- 2. Add the missing names to the existing tabs. Specify the sequence of the tabs by means of a sequence number.



Change "Tab" View

- 3. If necessary, add new entries by choosing New Entries.
- 4. Select the tab you want, and double-click Blocks in the dialog structure.
- 5. Maintain the corresponding blocks within a particular tab (description and, where applicable, sequence number).



Change "Blocks"

- 6. Select the block you want, and double-click *Fields* in the dialog structure.
- 7. Maintain the fields that are to be offered to the user for input.



Change "Fields"

8. Save your changes.

Next Steps

You can also configure the flexible material master update specifically for an **SCM Consulting Solution**. To do so, use transaction .

2.2 Configuration of Rule-Based Material Master Update

You call the rule-based material master update by selecting the *Rule-Based* and *2-step*, *Rule-Based* radio buttons in your **SCM Consulting Solution**. This allows you to update selected materials based on defined rules. As a prerequisite, the following steps must be performed.

The rule-based material master update uses internal RFC queues to control the processing of a large quantity of materials to be updated.

- Call transaction SMOR.
- Choose the Registration pushbutton.
- In the dialog box for queue registration, enter the queue name /SAPLOM/XMM* (the asterisk at the end is important).
- Choose Continue.
- Check that there is an entry for /SAPLOM/XMM* in the list of registered queues.

If you are updating a large quantity of materials using the rule-based material master update, you can monitor processing using transaction *SMQ2*.

2.2.1 Configuring Rule Set Maintenance

You can configure the transaction for maintaining rule sets yourself.

There are two Customizing transactions for customer-specific adjustments to rule set maintenance (/ SAPLOM/XMM_RULE).

Maintaining the fields for the conditions

Using transaction SAPLOM/XMM_COND, define the fields that are to be available as conditions. You define the table name and field name. Tables MARA, MARC, MPOP, MDMA, DPOP, MARD, MVKE, MPGD, MBEW, and / SAPLOM/MEH_MM01 are available.

Maintain the fields for the update values

Using transaction /SAPLOM/XMM_CONS, define the fields that are to be available as update values. You define the table name and field name. The same tables are available as were listed in the section on conditions.

2.2.2 Configuration of Change Reasons

You can specify change reasons for the rule-based material master update and configure these reasons.

Using transaction /SAPLOM/XMM_REAS_C, you can modify change reasons and translate them into the languages you require.



Customizing Table for Change Reasons

3 Enhanced Material Master View

Within the portfolio of **SCM Consulting Solutions**, the **enhanced material master view** represents the central instance for saving key figures such as the ABC/XYZ classification or other results from different Consulting Solutions. This increases transparency, and the information is arranged in a clear manner. The **enhanced material master view** also serves as the basis for exchanging data between the individual **SCM Consulting Solutions**.

The additional tab is unchanged and fully integrated into the standard SAP material master and has a separate database table in which all of the values are saved. This encapsulation ensures that the application runs smoothly, without impacting the standard SAP code. The integration is performed using standard Customizing and offers the following advantages:

- Central instance for saving key figures such as the ABC/XYZ classification or other results of the SCM Consulting Solutions
- Full integration into the SAP standard material master

The component for messages is XX-PROJ-CON-MEH.

3.1 Prerequisites

To ensure that the **enhanced material master view** can be incorporated into the SAP target system without any problems, the system must have a release level of at least ECC 6.0. In addition, the core package with the development packages /SAPLOM/MEH and /SAPLOM/X must be imported into the system beforehand.

3.2 SAP Standard Customizing

The **enhanced material master view** is incorporated into the existing material master using SAP standard Customizing. Settings within the tab are provided in the extended Customizing that is delivered with the SCM Consulting Solutions. Please follow the individual steps in the subsections.

Related Information

Enhanced Customizing [page 53]

3.2.1 Initial Setup

If this is the initial setup and the **enhanced material master view** has not been configured previously, you need to perform the following steps.

3.2.1.1 Step 1: Create a Screen Sequence (Optional)

A screen sequence is a sequential ordering of different tabs in the material master. Two options are available for the enhancement:

Option 1: Use an Existing Z-Screen Sequence

Depending on the configuration, you may need to incorporate the new **enhanced material master view** into an existing Z-screen sequence. In this case, you do not need to create a new screen sequence. Thus, the first step is not required, and you may proceed to step 2.

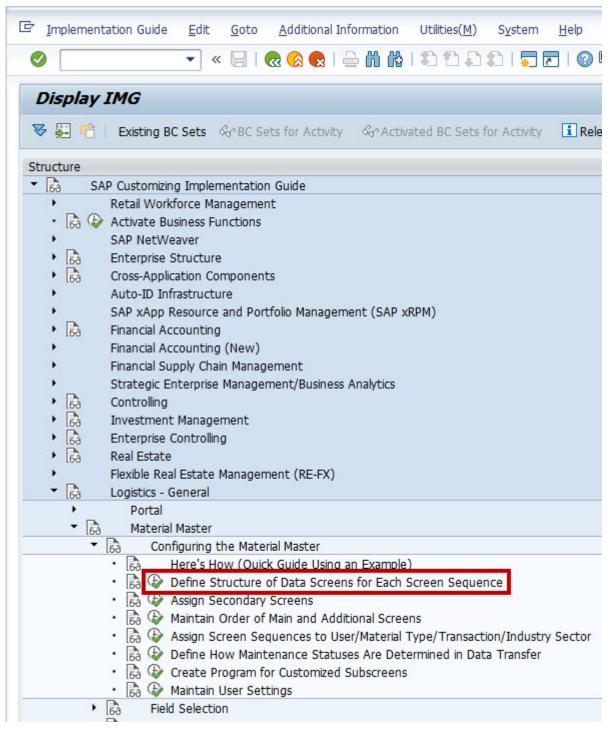
Option 2: Copy a Screen Sequence

If you have previously accessed standard SAP screen sequences such as 21 or 23, or if you do not want to change an existing Z-screen sequence, you need to create a copy of the sequence in question.

Standard SAP entries must not be changed.

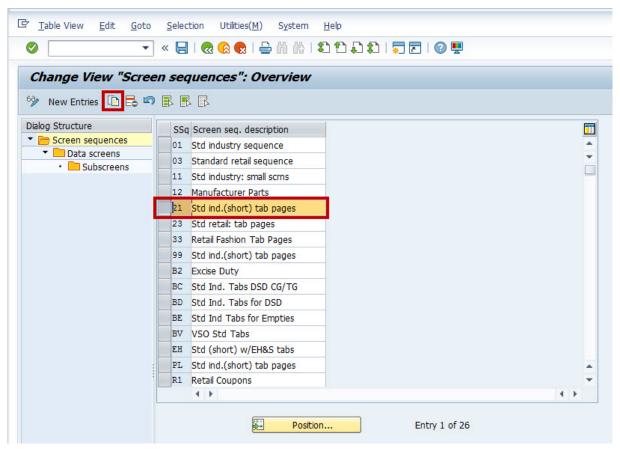
First, go to the Customizing settings by calling transaction *SPRO*. Under the path SAP Customizing Implementation Guide Logistics - General Material Master Configuring the Material Master Define

Structure of Data Screens for Each Screen Sequence , you can create a new screen sequence or copy an existing one:



Path in Customizing

Using the Copy button, you can copy an existing screen sequence and name it accordingly. Note that the abbreviation entered for the new sequence must begin with a "Z".



Copy Screen Sequence

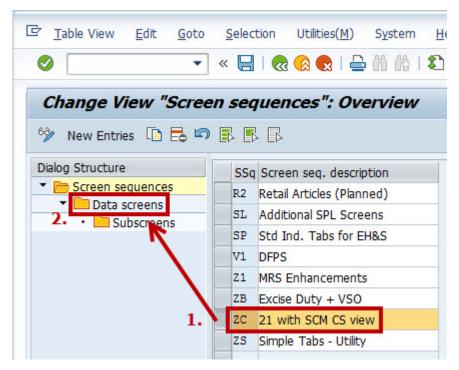
When you copy a screen sequence, the system may output an error message regarding the user settings for the organizational levels. For each user and screen sequence, certain fields such as the plant or storage location can be prefilled in transactions *MM02* or *MM03*. The advantage of this is, for example, that you do not constantly have to enter "1000" when this is the only level at which you work. You can control this yourself in the relevant transaction using the "Default Setting" pushbutton. When you copy an existing screen sequence, these default settings are also copied for the new sequence.

The error message indicates an inconsistency in the default settings. It can happen, for example, that a storage location that is no longer managed in a plant is still defined as such in the default settings, because you have not logged on to the system for a long time or changed your default settings.

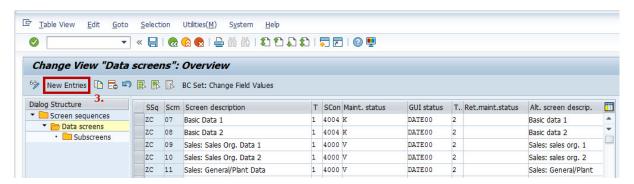
You can skip this error message by choosing the relevant pushbutton in the toolbar. Alternatively, you can cancel the copy operation, remove the inconsistency using transaction *OMT3U*, and copy the screen sequence again.

3.2.1.2 Step 2a: Create a Data Screen

You assign various data screens (tabs) to each screen sequence. After you have selected the sequence you require, create a new data screen with the values in the table below.



Selecting a Screen Sequence



Creating a New Data Screen

New Data Screen

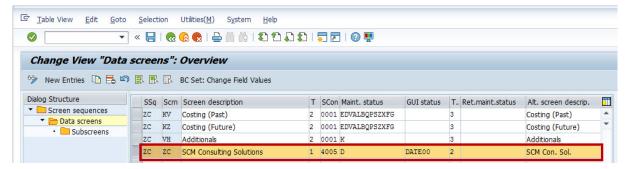
Column	Value	Value (Retail System)	
Ssq	ZC*	ZC*	
Scrn	ZC*	ZC*	
Screen description	SCM Consulting Solutions	SCM Consulting Solutions	
Т	1	1	
SCon	4005	4008	
Maint. status	D	D	

Column	Value	Value (Retail System)	
Status	DATE00	DATE00	
тт	2	2	
Ret.maint.status		6	
Atl. Screen descrip.	SCM Consulting Sol.	SCM Consulting Sol.	

→ Remember

* May vary, depending on the screen sequence or data screen selected.

Note that the data screen ID specified must start with "Z".

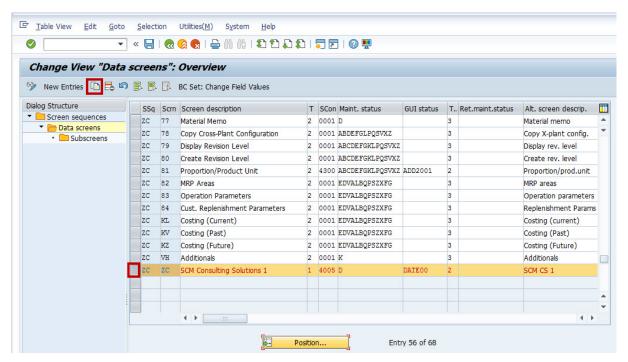


Newly Created Data Screen

3.2.1.3 Step 2b: Create an Additional Data Screen (Optional)

It may be necessary to add another data screen because the space within a tab is limited. For an initial setup, therefore, first check Step 3: Assign Subscreen [page 26] to determine whether an additional data view is required. If an additional data view is required after a release upgrade, continue directly with the following steps.

First, go to the Customizing settings by calling transaction *SPRO*. You can find the screen sequence you defined already using the path SAP Customizing Implementation Guide Logistics - General Master Configuring the Material Master Define Structure of Data Screens for Each Screen Sequence. First select this screen sequence and display the corresponding data screens. The tab already created for the SCM Consulting Solutions should now appear at the end of the list. Select the relevant entry and copy it using the pushbutton.



Copying a Data Screen

Once you have copied the data screen, you need to rename the data screen ID and the labels for the second tab accordingly. Confirm your changes by pressing Enter.

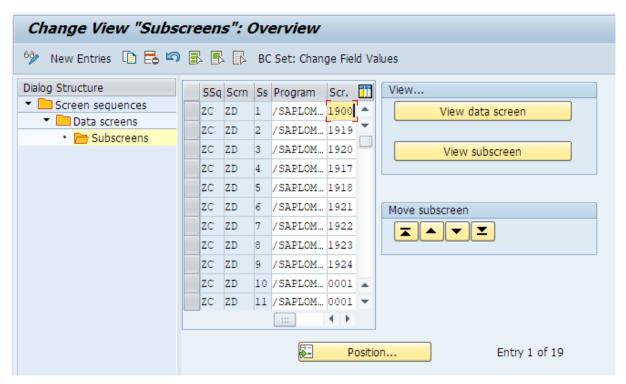
The system confirms the copy operation with a corresponding message. Now display the subscreens for the newly created data screen.

Depending on how you distribute the subscreens between the two tabs, the remaining subscreens must now be assigned to the second data screen.

i Note

The first entry with subscreen *00 must always be at the top in both tabs. It contains the plant information as well as the material description and so on.

Possible "gaps" within the 19 subscreens can be filled with screen "0001".

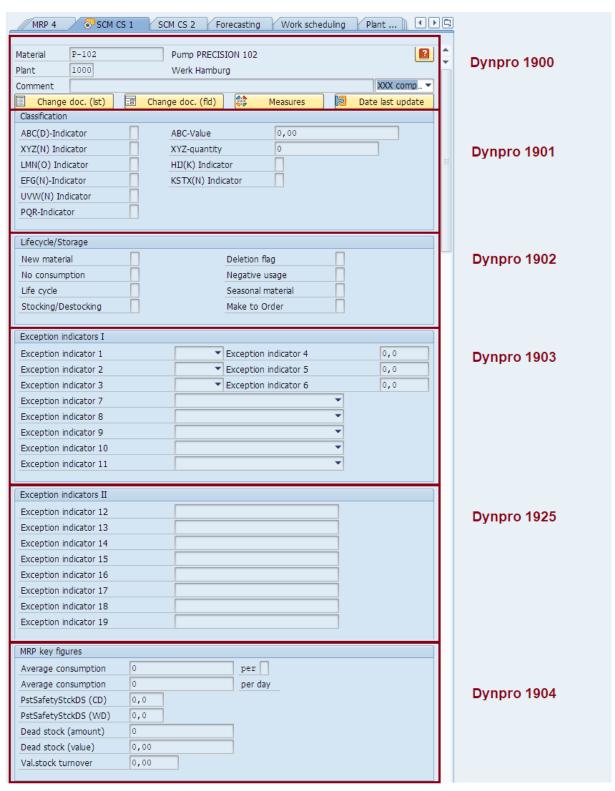


Fully Configured Second Data Screen

3.2.1.4 Step 3: Assign Subscreen

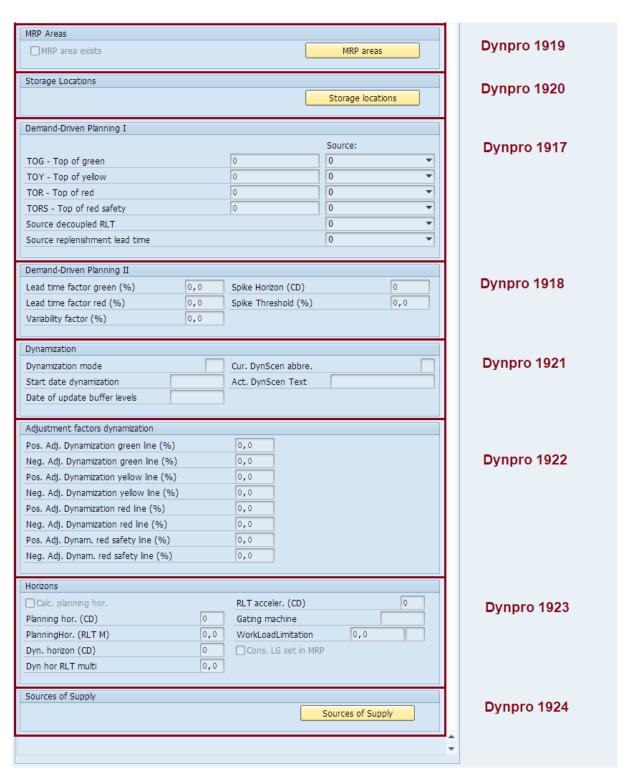
If you have created the new data screen, you need to assign the individual screens in the next step. For this, you need to decide which shipped content is to be displayed in the **enhanced material master view**. We recommend that you select content according to the installed SCM Consulting Solutions. If, during configuration, you do not yet know which screens are used, you can also first start with the maximum value and then restrict this accordingly after the test phase.

Altogether, a maximum of 19 screens can be assigned to a data screen. If the maximum value is specified, however, this threshold is exceeded. This means that an additional data screen (for example, "ZD") is required, which must be created in the same way as the first (see section Step 2b: Create an Additional Data Screen (Optional) [page 24]). If you can reduce the screen selection from a technical point of view to 19, an additional data screen is not required.



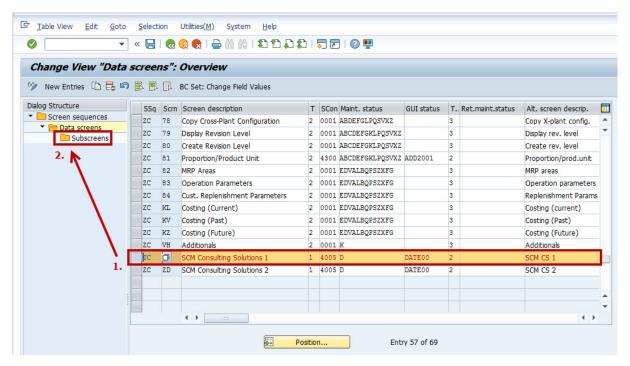
Enhanced Material Master View with Maximum Value (Part 1)

Safety Stock				
Min safety stock		Risk fact RLT	0,0	
Max safety stock		Risc fact MAD RLT	0,0	Dynpro 1905
SingleLev.RLT (CalD)		SL Safety Time	0,0	
SingleLev.RLT(WorkD)	Ħ	Coverage prof.		
Decoup.RLT (CalDays)				
Ord./Prod. Interval 0	Use O/P Inte	rval		
Lot Size				1
Ø Lot size		SSS relevant		Dynpro 1906
Ø Order. int. (days)				2,
2				
Target corridor				1
Min. TargetCoverage (CD)	0,0 Max. Targ	jet Dead Stock (amount)	0,0	
Max. TargetCoverage (CD)	0,0 Max. Targ	jet Dead Stock (value)	0,0	Dynpro 1907
Min. Target Coverage-/RLT-Re	lation	0,0		
Max. Target Coverage-/RLT-Re	elation	0,0		
Max. Target Dead Stock-/SS-R		0,0		
Tiaki Target Beau Stock / 50 Ti		-7-		
Error measures				
MAD RLT	,000	MAPE RLT	0,000	Dynpro 1908
	,000	MAPE Forecast	0,000	Dynipro 1906
			,	
BOM analysis				1
Number of BOMs 0		BOM Usage No	0	Dynpro 1909
Transcriot Botts		DOTT GOOGG THO		
Cross plant planning				1
Last movement		Ind. strategic mat.	П	Dynpro 1910
Release for stck, tr		ST. type		Dynpro is is
Noticed to the seeks of		311 () pc		
Cross-Plant/Multi-Level-Link				1
Exclude link]			Dynpro 1911
	J			
Sales and Distribution				1
Order Notice 0				Dynpro 1912
Stocking level				1
Ac. M. Deliv. Time	0 Max.	total RLT (BOM levels) CD	0	Dunnes 1012
Provisioning-Flag	Cons	sider in analysis additionally	П	Dynpro 1913
Prod/Purch Principle		uirements Visibility Horizon	(CalDav)	
		,		
Shelf Life Data				
Min. Remain. ShLf	D	Expir. Period	0 D	Dynpro 1914
Total Shelf Life 0		Max. Storage Per.	0 D	
Forecast Data				1
Forecast this mat.]			Dynpro 1915
	J			
SLC key figures				1
		1		Dynpro 1916
Key figure Delivery reliability target (%)		Purchase orders Stock tra		2,
Delivery reliability as-is (%)	0	0 0	0	
Delivery service target (%)	0	0 0	0	
Delivery service as-is (%)	0	0 0	0	
Ability to deliver 1 target (%	0	0 0	0 📤	
Ability to deliver 1 as-is (%)	0	0 0	0	
	4 1		()	Configuration of Comprehensive Function
8 PUBLIC				Enhanced Material Master View



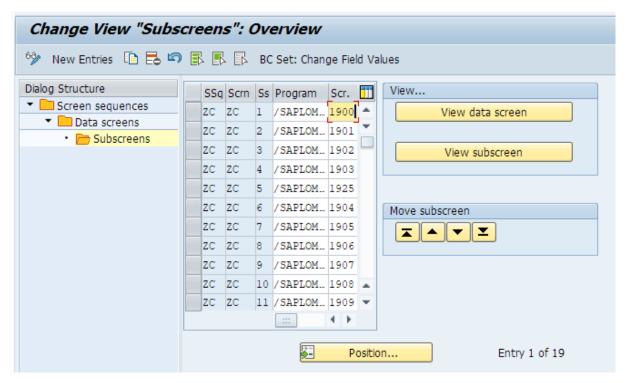
Enhanced Material Master View with Maximum Value (Part 3)

To be able to assign the screens, you first need to select the data screen and then click on Subscreens:



Selecting a Data Screen

The screen for entering the program with the corresponding screen opens.



Assigning Subscreens

The subscreen container 4005 has 19 individual subscreens and can be filled individually. The following table shows the maximum specification of the **enhanced material master view** for data screen 1, whereby the first and last entries must not be changed, even for individual adjustments:

Subscreens für die maximale Ausprägung der Enhanced Material Master View (Datenbild 1)

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	1	/SAPLOM/SAPL- MEH_FUGR	1900	X
ZC*	ZC*	2	/SAPLOM/SAPL- MEH_FUGR	1901	
ZC*	ZC*	3	/SAPLOM/SAPL- MEH_FUGR	1902	
ZC*	ZC*	4	/SAPLOM/SAPL- MEH_FUGR	1903	
ZC*	ZC*	5	/SAPLOM/SAPL- MEH_FUGR	1925	
ZC*	ZC*	6	/SAPLOM/SAPL- MEH_FUGR	1904	
ZC*	ZC*	7	/SAPLOM/SAPL- MEH_FUGR	1905	
ZC*	ZC*	8	/SAPLOM/SAPL- MEH_FUGR	1906	
ZC*	ZC*	9	/SAPLOM/SAPL- MEH_FUGR	1907	
ZC*	ZC*	10	/SAPLOM/SAPL- MEH_FUGR	1908	
ZC*	ZC*	11	/SAPLOM/SAPL- MEH_FUGR	1909	
ZC*	ZC*	12	/SAPLOM/SAPL- MEH_FUGR	1910	
ZC*	ZC*	13	/SAPLOM/SAPL- MEH_FUGR	1911	
ZC*	ZC*	14	/SAPLOM/SAPL- MEH_FUGR	1912	
ZC*	ZC*	15	/SAPLOM/SAPL- MEH_FUGR	1913	

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	16	/SAPLOM/SAPL- MEH_FUGR	1914	
ZC*	ZC*	17	/SAPLOM/SAPL- MEH_FUGR	1915	
ZC*	ZC*	18	/SAPLOM/SAPL- MEH_FUGR	1916	
ZC*	ZC*	19	/SAPLOM/SAPL- MEH_FUGR	0001	

→ Remember

* Kann je nach gewählter Bildsequenz/Datenbild variieren.

If you have decided to create a second data screen, or this is necessary due to the number of screens, the table for this is as follows:

Subscreens für die maximale Ausprägung der Enhanced Material Master View (Datenbild 2)

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	1	/SAPLOM/SAPL- MEH_FUGR	1900	X
ZC*	ZC*	2	/SAPLOM/SAPL- MEH_FUGR	1919	
ZC*	ZC*	3	/SAPLOM/SAPL- MEH_FUGR	1920	
ZC*	ZC*	4	/SAPLOM/SAPL- MEH_FUGR	1917	
ZC*	ZC+	5	/SAPLOM/SAPL- MEH_FUGR	1918	
ZC*	ZC*	6	/SAPLOM/SAPL- MEH_FUGR	1921	
ZC*	ZC*	7	/SAPLOM/SAPL- MEH_FUGR	1922	
ZC*	ZC*	8	/SAPLOM/SAPL- MEH_FUGR	1923	
ZC*	ZC*	9	/SAPLOM/SAPL- MEH_FUGR	1924	

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	10	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	11	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	12	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	13	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	14	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	15	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	16	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	17	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	18	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	19	/SAPLOM/SAPL- MEH_FUGR	0001	

→ Remember

→ Tip

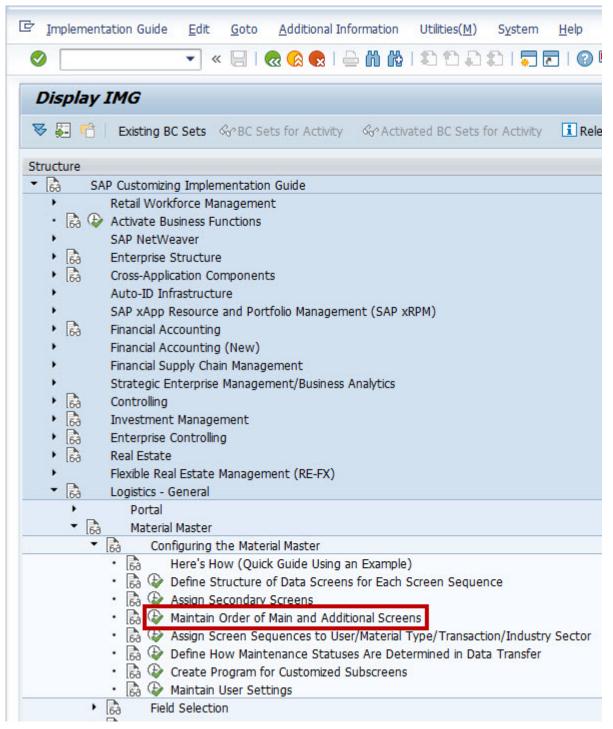
In standard SAP Customizing, you can only show or hide complete screens/blocks. With the enhanced Customizing, however, you also have the option to decide at field level whether a field is to be visible. For this fine-tuning, however, you first have to specify the rough structure of the screens as described previously.

3.2.1.5 Step 4: Specify Sequence (Optional)

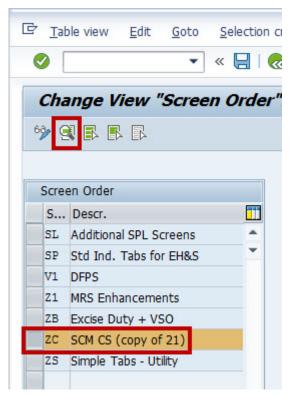
A new data screen (tab) that has been created is automatically placed at the end of the screen sequence. If you want to change the sequence, call transaction *SPRO* and then choose *SAP Customizing Implementation*

^{*} Kann je nach gewählter Bildsequenz/Datenbild variieren.

Guide > Logistics - General > Material Master > Configuring the Material Master > Maintain Order of Main and Additional Screens >:

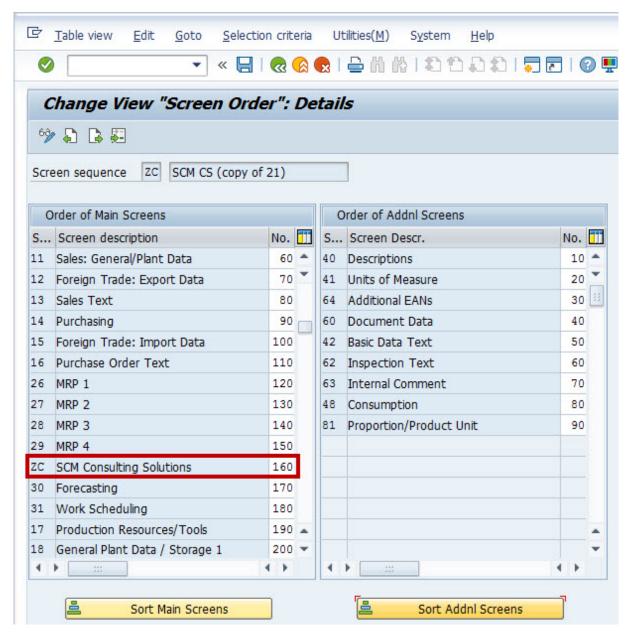


Path in Customizing



Screen Sequence for Specifying the Order

If you select the relevant screen sequence and then choose the *Detail* button, you see a table with a sequence number. Set the number so that the **enhanced material master view** is placed at the desired position. Then save your changes.



Set Position of enhanced material master view

3.2.1.6 Step 5: Specify Assignment (Optional)

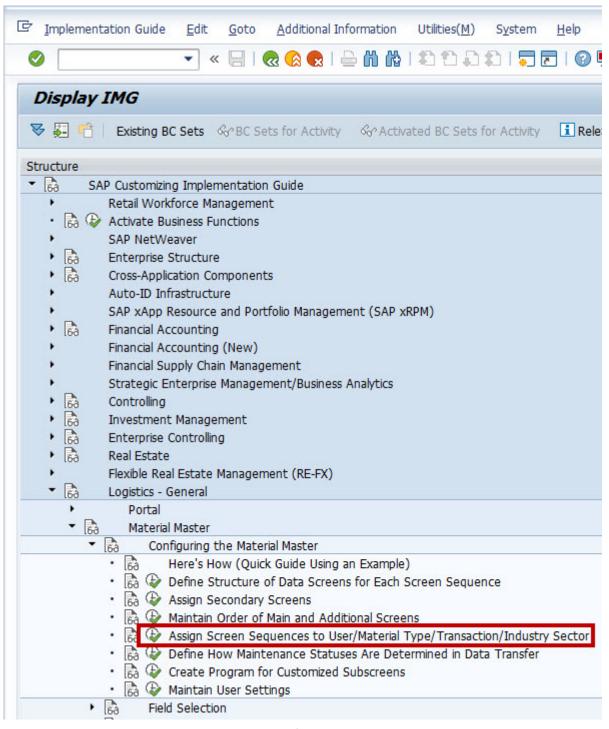
Option 1: Existing Screen Sequence Is Used

If you use an existing screen sequence, a new assignment is not required.

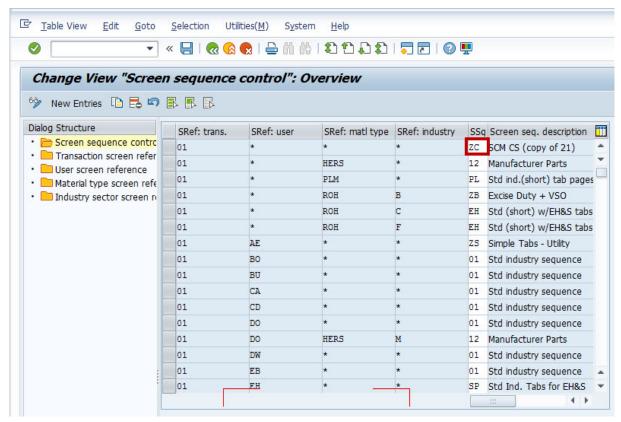
Option 2: New Screen Sequence Created

If you created a new screen sequence in step 1, you need to assign this sequence to certain users, material types, transactions, or industries. To do this, call transaction *SPRO* and choose *SAP Customizing*

Implementation Guide Logistics - General Material Master Assign Screen Sequences to User/Material Type/Transaction/Industry Sector :



Path in Customizing



Assign Screen Sequence

How the assignment is to take place must be decided on an individual basis and is the responsibility of the employee configuring the material master. If you have performed all of the previously described steps successfully, the **enhanced material master view** is now displayed in the material master.

3.2.1.7 Step 6: Authorization

The authorization for displaying the **enhanced material master view** can be configured to individual needs. You normally assign the new tab to the MRP tabs using the maintenance status. This makes the **enhanced material master view** automatically visible as soon as the MRP tabs are created. In step 2a/2b, you assign the maintenance status, which you can customize as required.

To assign the **enhanced material master view** to only a specific person group, you can use a separate screen sequence. You then need to assign this to the relevant group, as described in step 5.

Related Information

Step 2a: Create a Data Screen [page 22]

Step 2b: Create an Additional Data Screen (Optional) [page 24]

Step 5: Specify Assignment (Optional) [page 36]

3.2.2 Upgrade to New Release

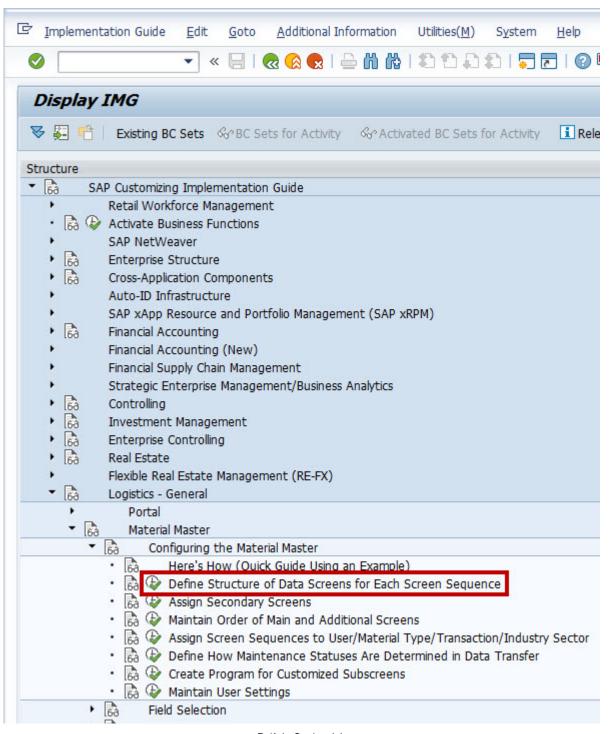
If you have already configured the **enhanced material master view** with an older release, you simply need to replace the assigned screens and, if necessary, delete entries from Customizing tables.

→ Tip

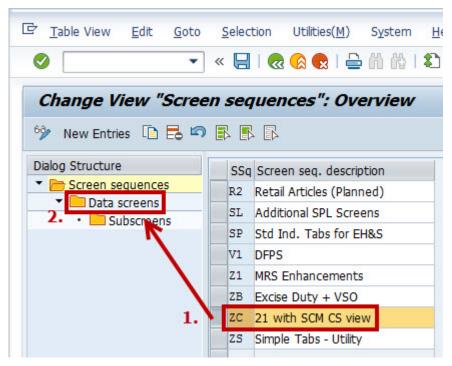
If you have chosen customer-specific descriptors for the Exception Indicator fields in earlier releases, you need to repeat this renaming process after the new transports have been imported. For details on this, see section Rename Field Label [page 58].

3.2.2.1 Step 1: Replace Subscreens

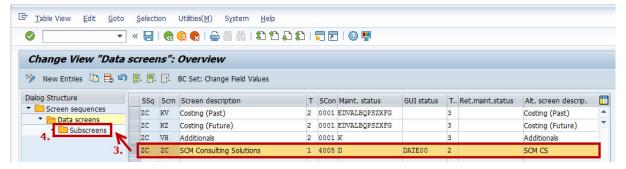
First, go to the Customizing settings by calling transaction *SPRO*. Under the path SAP Customizing Implementation Guide Logistics - General Master Configuring the Material Master Define Structure of Data Screens for Each Screen Sequence, select the relevant screen sequence. The previous configuration determines what is selected here.



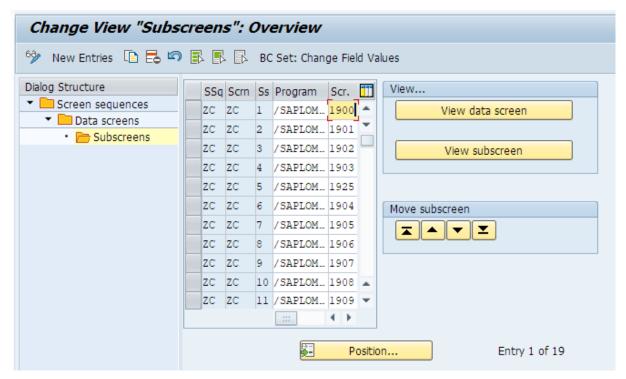
Path in Customizing



Selecting a Screen Sequence



Selecting a Data Screen



Assigning Subscreens

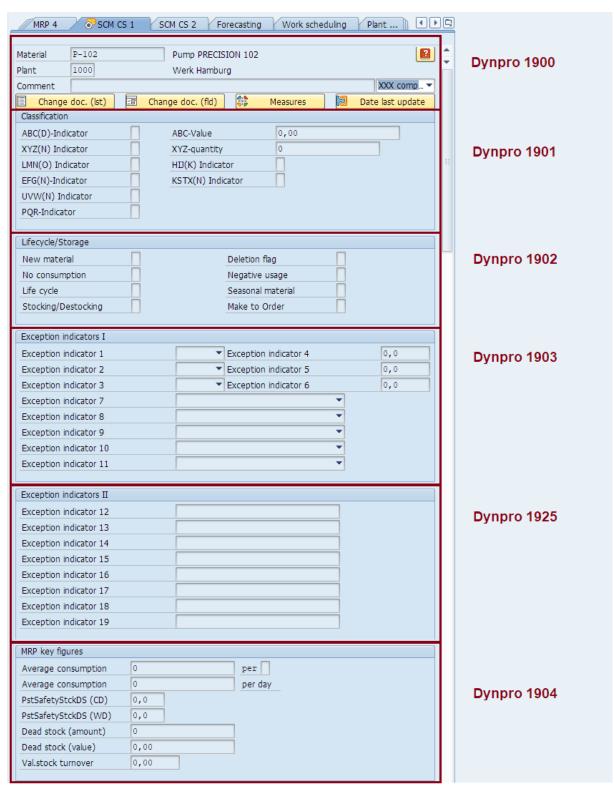
Please note that a different screen sequence can exist, depending on the configuration in the last release. You now replace the screens with the up-to-date screens. First, specify which shipped content is to be displayed in the **enhanced material master view**.

→ Tip

We recommend that you specify content according to the installed SCM Consulting Solutions.

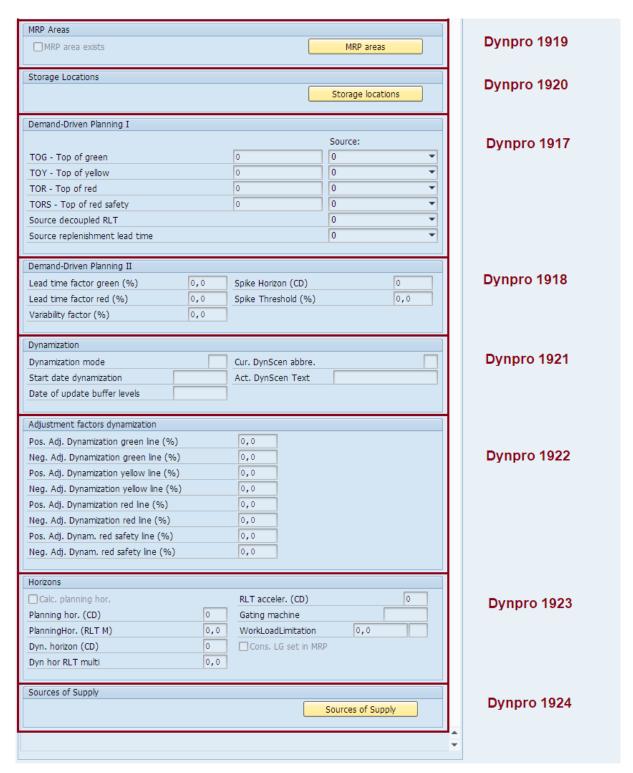
If, during configuration, you do not yet know which screens are used, you can first start with the maximum value and restrict this accordingly after the test phase. As of Release 2018, more screens are available than can fit on a single tab page. The maximum number of individual screens that can fit on a tab page is 19. However, you can create an additional tab page or additional data screen to which the remaining screens can be assigned. Instructions for creating an additional data screen can be found in section Step 2b: Create an Additional Data Screen (Optional) [page 24]. If you can limit the number of screens to 19 from a technical point of view, you do not need to create an additional data screen. In this case, you simply need to replace the screens in the existing data screen.

The following figures show the **enhanced material master view** with maximum specification and two data screens.



Enhanced Material Master View with Maximum Value (Part 1)

Safety Stock				
Min safety stock		Risk fact RLT	0,0	
Max safety stock		Risc fact MAD RLT	0,0	Dynpro 1905
SingleLev.RLT (CalD)		SL Safety Time	0,0	
SingleLev.RLT(WorkD)	ī i	Coverage prof.		
Decoup.RLT (CalDays)	ī i			
Ord./Prod. Interval 0	Use O/P Inte	rval		
Lot Size				1
Ø Lot size		SSS relevant		Dynpro 1906
Ø Order. int. (days)	7	, _		2,
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	_			
Target corridor				1
Min. TargetCoverage (CD)	0,0 Max. Targ	jet Dead Stock (amount)	0,0	
Max. TargetCoverage (CD)		jet Dead Stock (value)	0,0	Dynpro 1907
Min. Target Coverage-/RLT-Re	lation	0,0		
Max. Target Coverage-/RLT-Re		0,0		
Max. Target Dead Stock-/SS-R		0,0		
Than Target Bead Stock / 55 K	Cidcion	.,,		
Error measures				1
	,000	MAPE RLT	0,000	Dynpro 1908
	,000	MAPE Forecast	0,000	Dylipio 1908
THIS TOTOCCUSC 17		THE POLICESC	1777	
BOM analysis				1
Number of BOMs 0		BOM Usage No	0	Dynpro 1909
Number of Borns		DOM Osage NO	, o	
Cross plant planning				1
Last movement		Ind. strategic mat.	П	Dynpro 1910
Release for stck, tr				Dynpro 1910
ivelease for seek. ci		ST. type		
Cross-Plant/Multi-Level-Link				1
Exclude link				Dynpro 1911
Exclude into				
Sales and Distribution				1
Order Notice 0				Dynpro 1912
Stocking level				1
Ac. M. Deliv. Time	0 Max.	total RLT (BOM levels) CD	0	B 4040
Provisioning-Flag		sider in analysis additionally	П	Dynpro 1913
Prod/Purch Principle		uirements Visibility Horizon	(CalDay)	
1100/1 dreit 1 titlepid	, , , ,	and the vision of the leaves	(CODO))	
Shelf Life Data				1
Min. Remain. ShLf	D	Expir. Period	0 D	Dynpro 1914
Total Shelf Life 0		Max. Storage Per.	0 D	
Total Shell Elle		Max. Scolage Fell		
Forecast Data				1
Forecast this mat.				Dynpro 1915
Torcease this mate				
SLC key figures				1
				Dynpro 1916
Key figure Delivery reliability target (%)		Purchase orders Stock tra		Dynpio 1910
Delivery reliability as-is (%)	0	0 0	0	
Delivery service target (%)	0	0 0	0	
Delivery service as-is (%)	0	0 0	0	
Ability to deliver 1 target (%) 0	0 0	0 ^	
Ability to deliver 1 as-is (%)	0	0 0	0 ~	
	1 1		()	Configuration of Comprehensive Function
4 PUBLIC				Enhanced Material Master View



Enhanced Material Master View with Maximum Value (Part 3)

The following table shows the configuration of the current release with maximum specification for data screens 1 and 2.

Subscreens für die maximale Ausprägung der Enhanced Material Master View (Datenbild 1)

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	1	/SAPLOM/SAPL- MEH_FUGR	1900	X
ZC*	ZC*	2	/SAPLOM/SAPL- MEH_FUGR	1901	
ZC*	ZC*	3	/SAPLOM/SAPL- MEH_FUGR	1902	
ZC*	ZC*	4	/SAPLOM/SAPL- MEH_FUGR	1903	
ZC*	ZC*	5	/SAPLOM/SAPL- MEH_FUGR	1925	
ZC*	ZC*	6	/SAPLOM/SAPL- MEH_FUGR	1904	
ZC*	ZC*	7	/SAPLOM/SAPL- MEH_FUGR	1905	
ZC*	ZC*	8	/SAPLOM/SAPL- MEH_FUGR	1906	
ZC*	ZC*	9	/SAPLOM/SAPL- MEH_FUGR	1907	
ZC*	ZC*	10	/SAPLOM/SAPL- MEH_FUGR	1908	
ZC*	ZC*	11	/SAPLOM/SAPL- MEH_FUGR	1909	
ZC*	ZC*	12	/SAPLOM/SAPL- MEH_FUGR	1910	
ZC*	ZC*	13	/SAPLOM/SAPL- MEH_FUGR	1911	
ZC*	ZC*	14	/SAPLOM/SAPL- MEH_FUGR	1912	
ZC*	ZC*	15	/SAPLOM/SAPL- MEH_FUGR	1913	
ZC*	ZC*	16	/SAPLOM/SAPL- MEH_FUGR	1914	-

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	17	/SAPLOM/SAPL- MEH_FUGR	1915	
ZC*	ZC*	18	/SAPLOM/SAPL- MEH_FUGR	1916	
ZC*	ZC*	19	/SAPLOM/SAPL- MEH_FUGR	0001	

→ Remember

Subscreens für die maximale Ausprägung der Enhanced Material Master View (Datenbild 2)

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	1	/SAPLOM/SAPL- MEH_FUGR	1900	X
ZC*	ZC*	2	/SAPLOM/SAPL- MEH_FUGR	1919	
ZC*	ZC*	3	/SAPLOM/SAPL- MEH_FUGR	1920	
ZC*	ZC*	4	/SAPLOM/SAPL- MEH_FUGR	1917	
ZC*	ZC+	5	/SAPLOM/SAPL- MEH_FUGR	1918	
ZC*	ZC*	6	/SAPLOM/SAPL- MEH_FUGR	1921	
ZC*	ZC*	7	/SAPLOM/SAPL- MEH_FUGR	1922	
ZC*	ZC*	8	/SAPLOM/SAPL- MEH_FUGR	1923	
ZC*	ZC*	9	/SAPLOM/SAPL- MEH_FUGR	1924	
ZC*	ZC*	10	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	11	/SAPLOM/SAPL- MEH_FUGR	0001	

^{*} Kann je nach gewählter Bildsequenz/Datenbild variieren.

Bsq	Bild	BS	Programm	Dynp	Pflicht
ZC*	ZC*	12	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	13	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	14	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	15	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	16	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	17	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	18	/SAPLOM/SAPL- MEH_FUGR	0001	
ZC*	ZC*	19	/SAPLOM/SAPL- MEH_FUGR	0001	

→ Remember

* Kann je nach gewählter Bildsequenz/Datenbild variieren.

As of Release 2018, it is no longer necessary to use screen "9999" as the last entry in the table. This must be replaced using any screen or filled with an empty placeholder screen "0001".

3.2.2.2 Step 2: Customizing Tables (Optional)

In older configurations of the **enhanced material master view**, the following or at least some of the following entries were made in the corresponding Customizing tables. They are no longer required with the current version and can be deleted. To do this, call the table maintenance transaction *SM30* and delete the corresponding entries.

i Note

If you already deleted the entries when configuring the last release, you can skip this step. If you are unsure, check whether the entries exist and delete them if necessary.

Table/View V_T133E

Ssq	Code	Spec
ZC*	/SAPLOM/FIELD	X
ZC*	/SAPLOM/LIST	X
ZC*	/SAPLOM/DATE	X
ZC*	/SAPLOM/MONITOR	X
ZC*	/SAPLOM/MEASURE	X

→ Remember

* May vary, depending on the screen sequence used

Table/View V_T133D

Ssq	Scrn	Code	SScrn	F code	Proc- essing rou- tine	Туре	Col- umn	Line	Win- dow to col- umn	Win- dow to line	Calli.	P	R
ZC*	ZC*	/ SA- PLOM /FIELD	ZC*										
ZC*	ZC*	/ SA- PLOM /LIST	ZC*										
ZC*	ZC*	/ SA- PLOM /DATE	ZC*										
ZC*	ZC*	/ SA- PLOM / MONI- TOR	ZC*										

Ssq	Scrn	Code	SScrn	F code	Processing routine	Туре	Col- umn	Line	Win- dow to col- umn	Win- dow to line	Calli.	Р	R
ZC*	ZC*	/ SA- PLOM / MEAS- URE	ZC*										

→ Remember

* May vary, depending on the screen sequence used

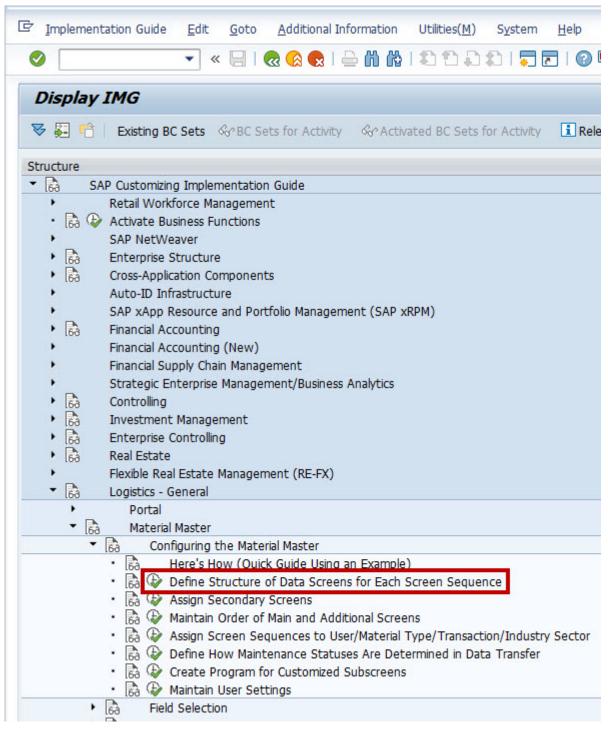
If you have performed all of the previously described steps successfully, the **enhanced material master view** is now displayed in its updated form in the material master.

3.2.3 Transporting the Screen Sequence

When transporting the newly created or updated **enhanced material master view** to downstream quality assurance or production systems, note the following: Whenever you change a screen sequence, you need to transport the entire sequence again. This applies to changes to the screen sequence as well as enhancements to the data screen, and other processing steps. It is not sufficient if you only transport the changes or the delta.

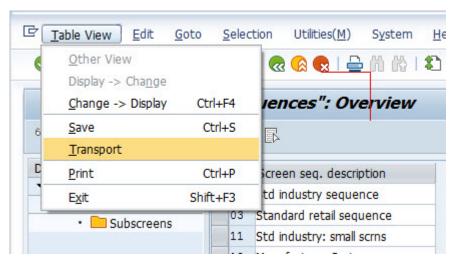
To pack the entire screen sequence into a transport request, you need to perform the following steps. First, go to the Customizing settings by calling transaction *SPRO*. Then choose *SAP Customizing Implementation*

Guide Logistics - General Material Master Configuring the Material Master Define Structure of Data Screens for Each Screen Sequence :



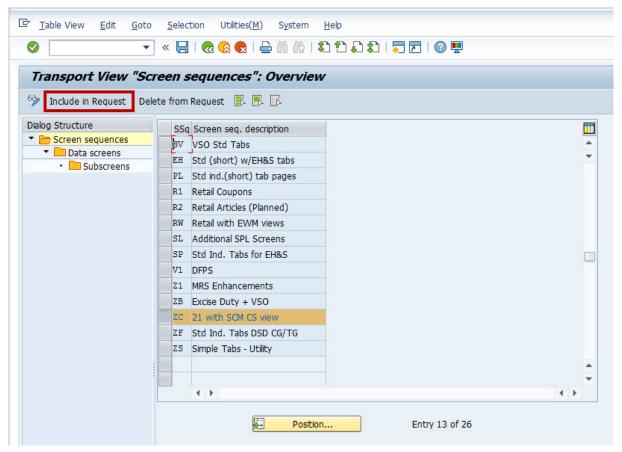
Path in Customizing

Using the menu bar, you can then create a new transport request:



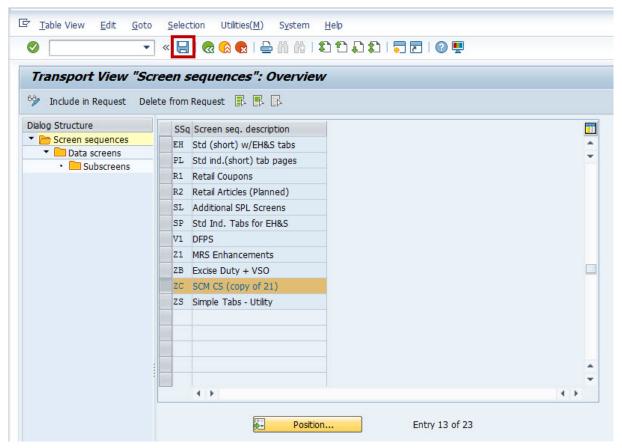
Menu Bar for Transport

Then select the relevant screen sequence (varies depending on the customer scenario) and add them to the transport request:



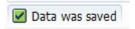
Add Screen Sequence to Transport Request

Choose Save to ensure that the sequence is added to the request:



Save Activity Elements

After the sequence has been successfully added to the transport request, you see a message to this effect in the status bar. You can then release and transport the request:



Status Message

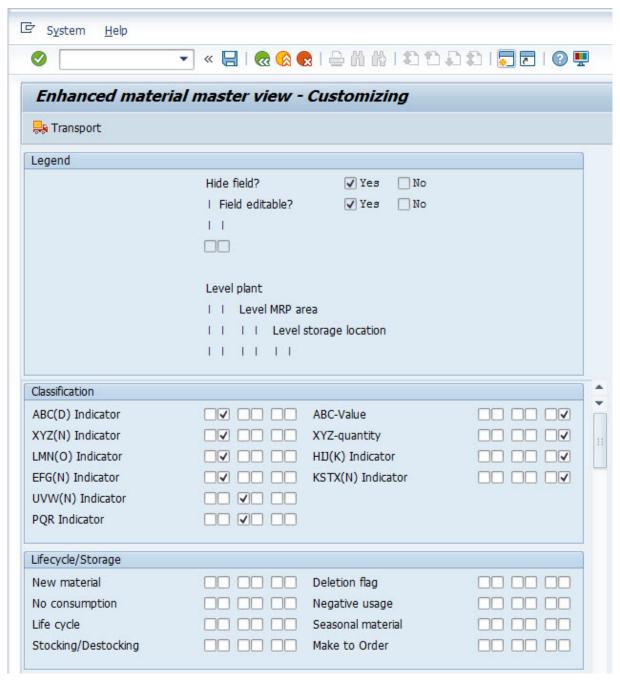
3.3 Enhanced Customizing

Settings in the **enhanced material master view** are covered by the enhanced Customizing that is delivered with the SCM Consulting Solutions. Details are described in the following subsections.

3.3.1 Displaying Fields

Customizing

After standard SAP Customizing has been completed, you can now adjust the appearance of the **enhanced material master view** in detail. This means that each individual field within the screens (blocks) can be shown or hidden. You can also specify whether a field is to be ready for user input. To do this, call transaction / SAPLOM/MEH_C.



Customizing the Appearance in Detail

The legend is displayed in the upper part of the screen. You can define visibility and editability separately at three levels: plant, MRP area, and storage location. On delivery, all fields are visible and not editable by default. The example shown above has the following effect in the material master display:

"Classification" block

- Plant level: Fields ABC(D) and XYZ(N) are hidden, LMN(O) and EFG(N) are editable, and the remaining fields are visible but not editable.
- MRP area level: Fields UVW(N) and PQR are hidden, while the remaining fields are visible but not editable.

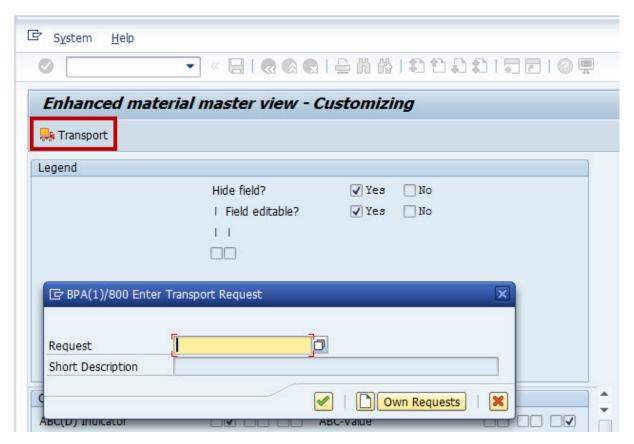
• Storage location level: Fields ABC-Value, XYZ quantity, HIJ(K), and KSTX(N) are editable, while the remaining fields are visible but not editable.

"Lifecycle/Storage" block

• All fields are visible and not editable, at all levels.

Transport

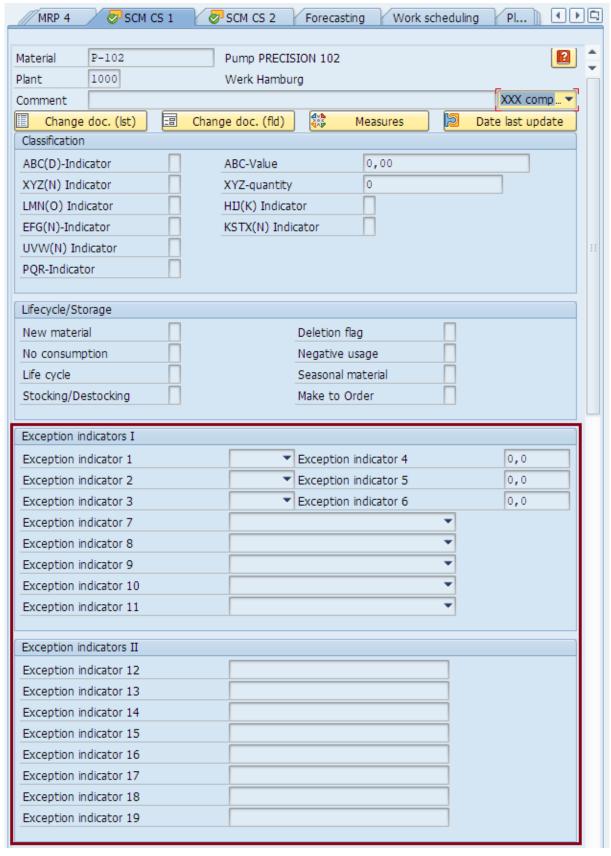
The adjustments at field level are made in the development system and then transported to the follow-on systems. To transport the settings, you need to choose the corresponding pushbutton with the truck icon on the toolbar. A dialog box with the transport request input option appears.



Transporting the Settings

3.3.2 Exception Indicators

The exception indicators are technically predefined fields in the **enhanced material master view** that you can easily use and customize. This means that you can, if necessary, customize the field names and the selection options in the input help to meet your requirements. You can configure different settings at plant, MRP area, and storage location levels.



Overview of Exception Indicators

The following technical properties cannot be changed.

Technical Properties of Exception Indicators

	Туре	Length	Decimal places	Input help	Dropdown with foreign key check
Exception indicator 1-3	Alphanumeric	6	-	Available	Available
Exception indicator 4-6	Numeric	5	1	-	-
Exception indicator 7-11	Alphanumeric	30	-	Available	Available
Exception indicator 12-19	Alphanumeric	30	-	Available	-

Besides appearing in the **enhanced material master view**, the exception indicators are also included in many Consulting Solutions, among other things, as a selection criterion.

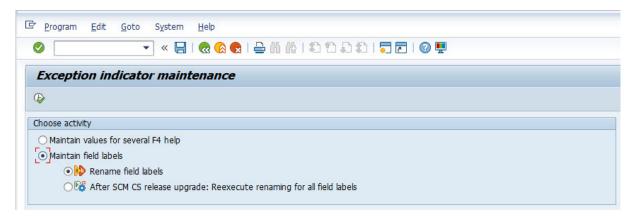
The special case indicator 9 is used for a custom classification in the **MRP monitor**. If this function is not required there, the special case indicator 9 can also be used for other purposes.

→ Tip

The central transaction for maintaining exception indicators is /SAPLOM/X_EXINDI. For details, see the relevant subsections.

3.3.2.1 Rename Field Label

The field labels *Exception Indicator* [1-19] are included in your scope. However, you can adjust these field labels to your own requirements. To do this, call transaction /SAPLOM/X_EXINDI.



Selection Screen

The following two options are available to you here:

• Option 1: Rename the field labels

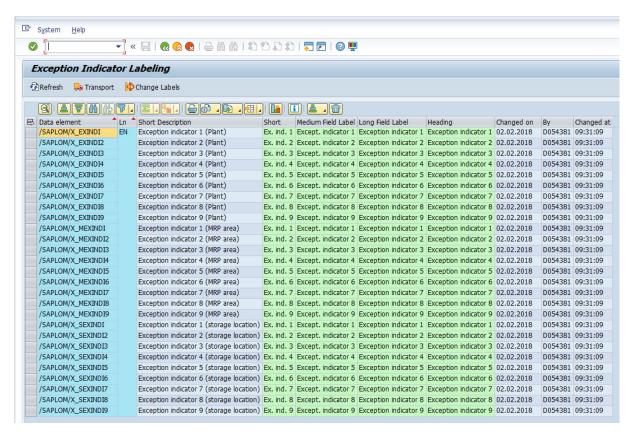
With this first option, you can change the field labels in the system directly. You can do this initially or retroactively.

• Option 2: After SCM CS release upgrade: Rename the field labels again

You can use the second option to update the field labels. You must do this after a release upgrade of SCM Consulting Solutions is delivered because your customer-specific descriptors are overwritten with *Exception Indicator 1-19* when the new transport requests are imported. The changes already made still exist in the system; you only need to update the reset field labels again with your own specific content.

Option 1

When option 1 is selected, the following screen appears:



Reference Table

In the reference table displayed, the individual exception indicators are displayed in the logon language for the first call. Both the exception indicators at plant level and those of the and are listed. These texts form the basis for renaming and translation into other languages. If you want to change a label, select a single row and choose *Rename Field Label*. You can also edit the texts by double-clicking on the relevant row. A dialog box containing the different values for the field labels and the heading is then displayed.



Dialog Box for Changing Field Labels

You can adjust the field labels here according to your own requirements. If you want to create a field label in a different language, select the required language using the input help. You can then make changes also for this language.

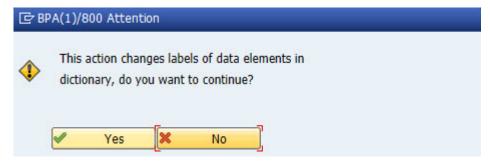
When you save (diskette icon), the field labels are changed directly in the system and an entry is added to the reference table. In this way, you always have an overview of the changes made. You can make further changes at any time.

Furthermore, if necessary, you can delete individual entries from the reference table. To do this, select the relevant row and choose the delete button in the toolbar (right side). By doing this, you delete the entry from the reference table and the field label in the system itself.

A further function in the toolbar is sorting (right side). In addition to the standard sorting by data element, you can also sort by language, which can be useful when multiple languages are used.

Option 2

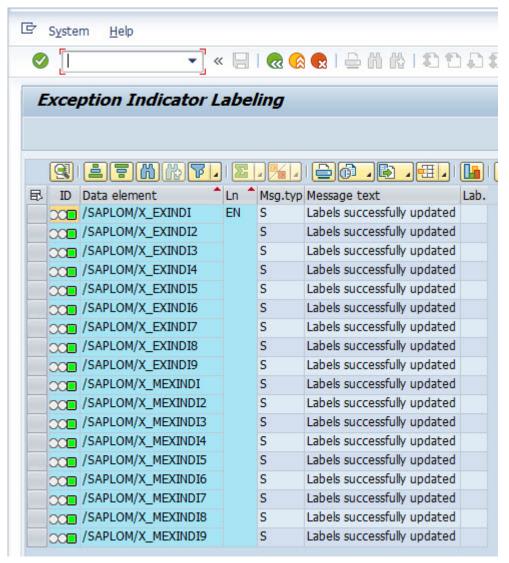
When option 2 is selected, the following dialog box is displayed:



Confirmation Prompt

Use this option only if your customer-specific adjustments have been overwritten by a release upgrade or a correction transport. If you answer the question with Yes, all of the entries from the reference table described

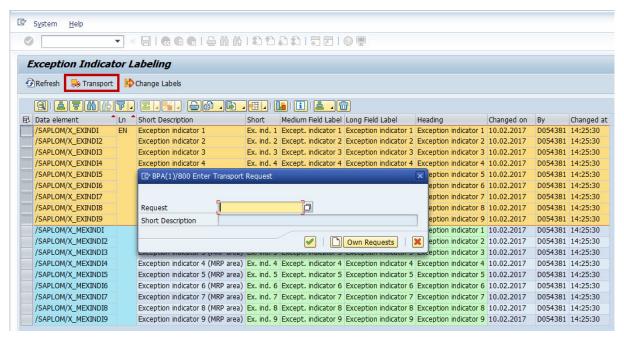
previously are used to update the field labels in the system with your customer-specific content. The log subsequently displayed gives you information about whether the update was successful.



Update Log

Transport

Regardless of the option you have selected, we recommend that you transport the changes to the follow-on systems. To do this, select the relevant entries from the reference table and then choose *Transport*. You are prompted to enter a valid transport request.



Transporting Changes

During the transport, the entries from the reference table are not transported but rather the data elements themselves. This means that the reference table remains empty in the follow-on systems, and you simply need to run the transaction /SAPLOM/X_EXINDI in the development system. It is important that you first import the initial delivery/correction/upgrade transport into the follow-on systems before you import the transport of data elements with the changed field labels.

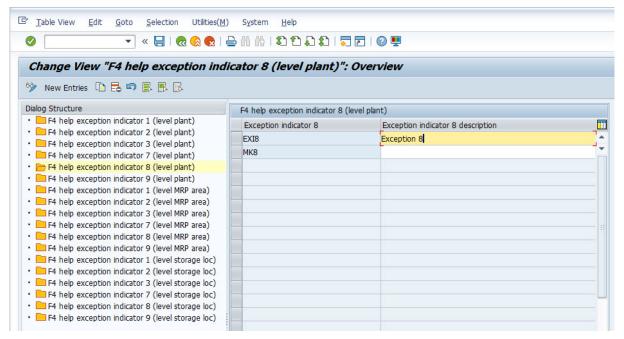
3.3.2.2 Define Input Help

You can define the input help (F4) freely for the alphanumeric exception indicators 1-3 and 7-19. A distinction is made between the levels of plant, MRP area, and storage location. Processing is carried out with transaction / SAPLOM/X_EXINDI:



Initial Screen for Transaction /SAPLOM/X EXINDI

The "Maintain values for several F4 help" option allows you to maintain individual input help selections centrally. The list of all exception indicators can be found on the left. By double-clicking, you can navigate to the corresponding maintenance screen on the right.



Centralized Maintenance of All Input Help

For a key, you can create individual descriptions in different languages. You have two options to maintain the language-dependent descriptions. You can either log on to the system in the language you require and maintain the labels directly in transaction /SAPLOM/X_EXINDI, or you can use the standard translation function. To do this, choose Goto Translation and select the language you require.

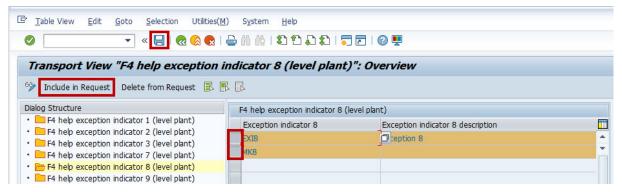


As of Release 2017, the input help for exception indicators is language dependent. This means that non-language-dependent values maintained before Release 2017 can no longer be used. If you would like to reuse values from earlier release versions in the current release, use the following tables in transaction *SE16/SE16N* as a guide:

- Exception indicator 1: /SAPLOM/X_EXIN_T
- Exception indicator 2: /SAPLOM/X_EXI2_T
- Exception indicator 3: /SAPLOM/X_EXI3_T

If this transaction is not available to you in the development system, use transaction *SM30* to look in one of the follow-on systems (test or production system) with an older release version.

You only need to maintain the adjusted values once in the development system. You can then transport them to the follow-on systems. Start the transport by choosing Table View Transport. Enter a corresponding transport request, then select the desired entries and choose "Include in request". Save your entries to ensure that the entries are saved in the transport request.



Transporting Input Help

As of Release 2018, the selection of input help values for the special case indicators 1-3 and 7-11 is restricted to previously maintained values. It is therefore no longer possible to assign the field freely. This has the advantage of increasing data quality and preventing incorrect entries. For the special case indicators 12-19, optional values can be maintained for the input help, however, other values can also be stored in the fields.

3.4 Help

If you have further questions regarding the **enhanced material master view** of the **SCM Consulting Solutions** or require help with configuration, create a customer message on SAP Service Marketplace under the component XX-PROJ-CON-MEH.

4 Configuration of the Material Document Aggregation

4.1 Maintain Customer-Specific Settings (Expert Tool)

In addition to the user transaction for material document aggregation, the expert tool /SAPLOM/MDA_C is provided. This enables advanced settings such as the presetting of fields and customer-specific showing and hiding of fields on the selection screen and the result screen.

Due to the complex system logic, changes are not intended for the user. Contact us if you feel that adjustments are required for your use case.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information. About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
 - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
 - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any
 damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon 🚁: You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.

The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Gender-Related Language

We try not to use gender-specific word forms and formulations. As appropriate for context and readability, SAP may use masculine word forms to refer to all genders.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

www.sap.com/contactsap

© 2019 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see https://www.sap.com/about/legal/trademark.html for additional trademark information and notices.

