How To - Extend MDG-M content by new attributes for customer Z-fields in standard tables

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## Document History

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1. BUSINESS SCENARIO

SAP Master Data Governance for Material (MDG-M) provides business processes to find, create, change, and mark material master data for deletion. It supports the governance of material master data on a central hub and the distribution of material master data to connected operational and business intelligence systems. The processes are workflow-driven and can include several approval and revision phases, including collaboration between all users participating in master data maintenance.

Preconfigured data models, UI configurations, and workflows enable you to set up a governance process involving several users.

The model MM is preconfigured with one reuse area called MATERIAL. This reuse area points to the access class CL_MDG_BS_MAT_ACCESS, which can handle most fields of the pre-delivered Material Master in ERP or S/4HANA.

This guide describes how to extend the preconfigured content of Master Data Governance for Material (using the data model MM) with customer z-fields from the existing backend tables. The attribute values of the new fields will be copied to the corresponding standard ERP tables or S/4HANA tables (reuse option) after activation of the change request.
2. BACKGROUND INFORMATION
MDG 7.0 help: http://help.sap.com/mdg70
MDG 8.0 help: http://help.sap.com/mdg80

3. MORE INFORMATION

MDG Extensibility Guides on SDN:
http://scn.sap.com/docs/DOC-7858

Helpful SAP Notes:

1641867 Values for extension field missing after CR activation
44410 Integrating customer-specific fields in the material master
1517867 Functional restrictions in MDG-M in EhP5
1571467 Functional restrictions in MDG-M in EhP6
1701437 Functional restrictions in MDG-M in MDG6.1
1806108 Functional restrictions in MDG-M in MDG7
2129261 Functional restrictions in MDG-M in MDG8
2284745 9 Functional Restrictions in MDG for Material with SAP Master Data Governance 9.0
4. SCENARIO

High Level Requirements

The business requires additional fields called ZZBASETYP, ZZBRAND and ZZPROAREA. These fields should be under governance but also available in the ERP backend system or S/4HANA backend system.

Therefore, you want to extend the backend table MARA and the entity type MARASALES.
5. **STEP-BY-STEP EXPLANATION FOR THE SCENARIO**

Table MARA should be extended with the customer specific fields ZZBASETYP, ZZBRAND and ZZPROAREA. The Data Model MM, Entity MARASALES should be extended with these attributes. The attributes should also display in the UI.

5.1. **Data Model Requirements (Active Area)**

You have to extend the table MARA with the new fields, include the new fields in the customizing table T130F and extend the backend structures.

5.1.1. **Table Extensions**

Append MARA by using append structure to add fields to the table MARA, here field ZZBASETYP, ZZBRAND and ZZPROAREA.

SAP strongly recommends using the customer namespace YY/ZZ for the append fields.

5.1.2. **Customizing: Maintain Field Selection for Data Screens (T130F)**

You must include the Z-field into table T130F, see SAP Note 44410.

**Important**

The definition has to exist for all attributes used in the data model. Otherwise, the attribute is hidden in the UI by default. Enhance central field table T130F. If you want these fields to be subject to standard field selection, you must add new entries for them to the central field table for material master maintenance.
Run this activity in Customizing under Logistics – General – Material Master – Field Selection – Maintain Field Selection for Data Screens

In this section, you define if a field is hidden or displayed, and if an entry is mandatory or optional in material master maintenance by assigning the field to a field selection group.

5.1.3. Structure Extensions

The Service Mapping Tool (SMT) is a program used in ABAP to fill a target structure with a set of source structures. The relevant structures for the target structure of the primary persistence (MARA, MARM, MEAN, MARC…) are:

- MDG_BS_MAT_S_Tablename
- MDG_BS_MAT_S_Tablename_UI
- MDG_BS_MAT_S_Tablename_X

For the described scenario, the relevant structures of the primary persistence for the MARA table are:

- MDG_BS_MAT_S_MARA
- MDG_BS_MAT_S_MARA_UI
- MDG_BS_MAT_S_MARA_X
From MDG9.0 also the following structures exist:

- CMD_BS_MAT_S_MARA
- CMD_BS_MAT_S_MARA_UI
- CMD_BS_MAT_S_MARA_X

The new fields are automatically included in structures MDG_BS_MAT_S_MARA, but all other structures must be appended.

Append the fields to be added to the following structures:

- MDG_BS_MAT_S_MARA_UI and CMD_BS_MAT_S_MARA_UI (MDG9)
• MDG_BS_MAT_S_MARA_X and CMD_BS_MAT_S_MARA_X (MDG9)

Note
If the X-field-structure (MDG_BS_MAT_S_MARA_X and CMD_BS_MAT_S_MARA_X (MDG9)) of the MDGM-API is extended after the creation of an SMT mapping, the SMT mapping needs to be regenerated. Therefore, enter the SMT maintenance and save.

5.2. Data Model Requirements (Staging)

You have to extend the data model MM with the new fields, extend the structures and maintain customer includes.

5.2.1. Data Model Extensions

In this Customizing activity, you define and activate a data model to map master data in the system, along with its properties and relationships. The system uses this data model to generate database tables in which the master data can be stored. Enhance the delivered data model MM in Customizing for Master Data Governance under General Settings -> Data modeling -> Edit Data model.

The maintenance of the Data Model is cross client. Select the MM data model and add the new attributes. The details of the MARASALES Entity Type are shown in the screenshot below.
Ensure that the customer extension fields consider the customer namespace for DDIC fields. The customer namespace for fields is YY and ZZ.

Ensure that the customer extensions entities consider the customer namespace for DDIC structures. The customer namespace for structures is Y and Z.

With MDG8 you can assign a prefix and a package directly in the data model. Then the structures will be generated automatically with activation of the data model.

Activate the extended data model.

### 5.2.2. Optional: Adjust staging area of linked change requests

This step is necessary to adjust any open change requests after you have changed the data model.
1. Start Customizing for Master Data Governance (transaction MDGIMG).
2. Go to General Settings -> Data modeling -> Edit Data model.
3. Select data model MM.
4. Double click on Entity types.
5. Choose button Adjust staging area of linked change requests.

### 5.2.3. Check Generated Tables

Check the generated tables using report USMD_DATA_MODEL for data model MM.

Double-click on MARASALES for more details.

After the activation the new fields are added to the generated table, as shown in the screenshot below.
5.2.4. Assign Package for Customizing Include

Valid until MDG8: Assign a package in customizing for Master Data Governance under General Settings -> Data modeling -> Assign Package for Customizing Include.

5.2.5. Maintain Customer Includes for Structures in the /MDG* Namespace

Note
In general, if you change a data model (for example, if you change attributes of entity types or relationships) you need to regenerate the structures. With MDG8 you can assign a prefix and a package directly in the data model. Then the structures will be generated automatically with activation of the data model.

Since the MDG data model was changed you need to regenerate the tables (until MDG8). In this Customizing activity, for each data model and entity type you generate technical structures and tables in the ABAP Dictionary. The system uses these structures internally for implementing the staging area. To generate these Data Model-Specific structures follow the steps below.

1. Start Customizing for Master Data Governance (transaction MDGIMG).
2. Go to General Settings -> Data modeling -> Generate Data model-specific
3. Click the Generate Structures button.

Mandatory
- Structures for mapping between active area and staging area
- Structures for Field Properties

Optional
- Structures for PDF-based Forms
- Structures for Enterprise Search

Obsolete
- Structures for Field Control

4. Save your changes.

The system uses these structures internally for implementing the reuse active area.

Call transaction SE11 and check the customer includes for the following structures:
- /MDGMM/_S_MM_ES_MARASALES Structure for Search Application
- /MDGMM/_S_MM_FP_MARASALES Structure for Field Properties (Including Keys)
- /MDGMM/_S_MM_PP_MARASALES Source Structure for PP Mapping
The names of the customer includes for MARASALES are as follows:

- /MDGMM/_S_MM_ES_MARASALES → CI_MDG_S_EMM_MARASALES
- /MDGMM/_S_MM_FP_MARASALES → CI_MDG_S_FMM_MARASALES
- /MDGMM/_S_MM_PP_MARASALES → CI_MDG_S_PMM_MARASALES

Example /MDGMM/_S_MM_FP_MARASALES:

Example /MDGMM/_S_MM_PP_MARASALES:

5.3. SMT Mapping

You extend mappings by creating new transformations (complex transformations, field mappings) and field checks for them or by editing them. Here you work cross-client.

Important
When the mappings are saved, the system generates the corresponding coding. Make sure that all relevant structures are ready before you start.
In the next sections, you extend the mappings to and from the active area. You can look up the names of the mappings in Customizing for Master Data Governance (transaction MDGIMG) under General Settings -> Data modeling -> Generate Data Model Specific Structures.

![Display View "Mapping": Overview](image)

Extend the Mapping step MDG_BS_MAT_MARASALES for the following Mappings:

- MDG_BS_MAT_MAP_2PP
- MDG_BS_MAT_MAP_2STA

Start Customizing for Master Data Governance (transaction MDGIMG).
1. Go to General Settings -> Data modeling -> Extend Mappings. Select Mapping -> Open
2. Open the mapping: MDG_BS_MAT_MAP_2PP / MDG_BS_MAT_MAP_2STA
3. In the table Mapping Steps select MDG_BS_MAT_MARASALES and choose the Details button.
4. Select the Transformation tab.
5. Choose the Edit button.
6. Choose the Add button to add a new field mapping.
7. Enter the Field Mapping for your custom Z-fields.

After you have created the mapping in SMT you should return to the IMG and perform the IMG activity Check Customizing to ensure consistency of the changes.

5.4. UI Model

The new attributes should also be considered in the UI. UI configurations can be adapted using the FPM-enhancement option.

For details see other Extensibility Guides:
- [http://scn.sap.com/docs/DOC-29042](http://scn.sap.com/docs/DOC-29042) (Chapter User Interface Configuration and Extending the UI configuration)
- [http://scn.sap.com/docs/DOC-27859](http://scn.sap.com/docs/DOC-27859) (Chapter User Interface Configuration and Extending the UI configuration)

5.5. Search

If a new field is relevant for selection in the download application or in the search, you must add this field to the template for the MDG-M enterprise search. Doing this prevents a performance bottleneck.

For more information, see How to- Enhance the Material Search ([http://scn.sap.com/docs/DOC-29002](http://scn.sap.com/docs/DOC-29002)).

The templates you must enhance are the enterprise search template for a search of the staging is MDG_MATERIAL and for the active area the MATERIAL template, if the field is not already contained within that template.
5.6. Related Content

If you extend the data model according to the guidelines shown below, but the fields are not populated when you activate the data model, see SAP Note 1641867 - Values for extension field missing after CR activation.

For more information, visit the SAP Master Data Governance homepage.
(http://scn.sap.com/community/mdm/master-data-governance)

Configuration and Enhancement of SAP Master Data Governance homepage
(http://scn.sap.com/docs/DOC-7858)