

PUBLIC

How-To: Extend Master Data Governance for Material by a New Entity Type (Flex Option)

Applicable Releases:

From EHP6 for SAP ERP 6.0 and from S/4HANA 1511

Version 3.0 May 2024





Document History

Document Version	Description	
1.0	First official release of this guide	
2.00	Small updates (June 2016)	
3.00	Layout update (May 2024)	





1 INT	FRODUCTION	4
2 BU	SINESS SCENARIO	5
	EP-BY-STEP EXPLANATION FOR THE SCENARIO	
3.1 D	ata Elements	6
3.2 D	ata Model	6
3.2.1	Optional: Adjust staging area of linked change requests	
3.2.2	Check Data Model	
3.2.3	Check Generated Tables	8
3.3 Li	ink from FlexTable to main Entity Key	9
3.4 S	MT Mapping	10
3.5 G	Senerate Data Model-Specific Structures	10
3.6 C	heck generated metadata in SPI	11
3.7 E	nhance the User Interface	12
3.8 To	est new UI Configuration using a Web Dynpro Application Favorite	14
4 AD	DITIONAL INFORMATION	16
4.1 F	urther Reading	16
4.1.1	Information on SAP MDG on SAP S/4HANA	16
4.1.2	SAP Roadmap Explorer	
4.1.3	Related Information	16
42 S	AP Notes	16

1 Introduction

SAP Master Data Governance (MDG) provides business processes to find, create, change, and mark master data for deletion. It supports the governance of 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.

MDG offers change request (CR)-based processing of master data with integrated workflow, staging, approval, activation, and distribution.

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 SAP ERP Material Master.

This guide describes how to extend the preconfigured content of Master Data Governance for Material (using the data model MM) with a new entity type, where records stay in the generated tables (flex option). Here the active area and the staging area are identical and generated by MDG.



2 Business Scenario

The business requires additional fields. These fields should be under governance, but don't need to be available in the ERP backend system.

The distribution of these additional fields is not required. The data resides locally only.

Examples:

- Custom Organization Hierarchy
- Custom Material Hierarchy
- Fields for calculating material description



3 STEP-BY-STEP EXPLANATION FOR THE SCENARIO

Business: In this scenario, you want to add some asset/equipment data to the material master. You want to add more than one equipment to the material.

Note: This is just a technical example and not a best practice for putting EAM/PM data under governance!

Technical: You want to have a new *Entity Type* **YEQUIP** for additional data for equipment with 3 attributes. It is directly depending on the material number using a 1:n relationship.

3.1 Data Elements

SE11 - Create 4 New Data Elements

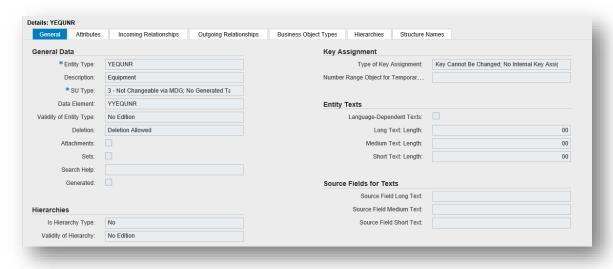
Data Element	Domain	Description	Data Type & Length	Check
YYEQUNR	EQUNR	MDG Equipment Number	CHAR 18	EQUI-EQUNR
YYBAUJJ	CJAHR	MDG Year of construction	CHAR 4	
YYBAUMM	BAUMM	MDG Month of construction	CHAR 2	00-09; 10-12
YYHERLD	LAND1	MDG Country of manufacture	CHAR 3	Table T005

3.2 Data Model

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.

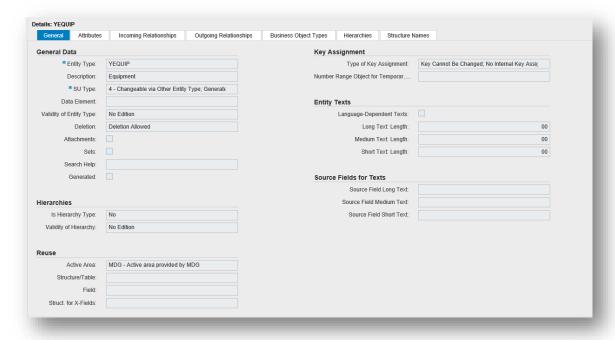
The following screenshots are using the alternative FPM-base configuration tool: Customizing for *Master Data Governance* under *General Settings -> Configuration Workbench*. The maintenance of the Data Model is cross client. Select the **MM** data model and add the new attributes. The details of *Entity Type* YEQUIP are shown in the screenshot below.

Create new Entity Type 3: YEQUNR for the key - linked to Key Data Element

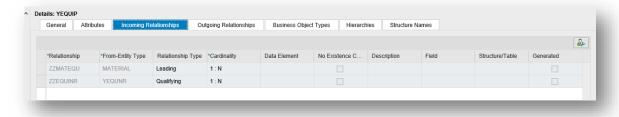




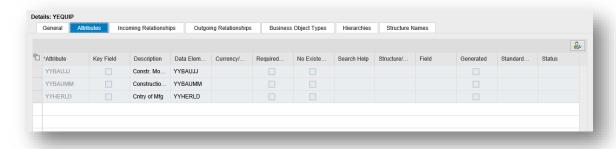
Create new Entity Type 4 – Active Area MDG = Flex



Maintain Relationships



Add Attributes



Save & Activate.

3.2.1 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*.

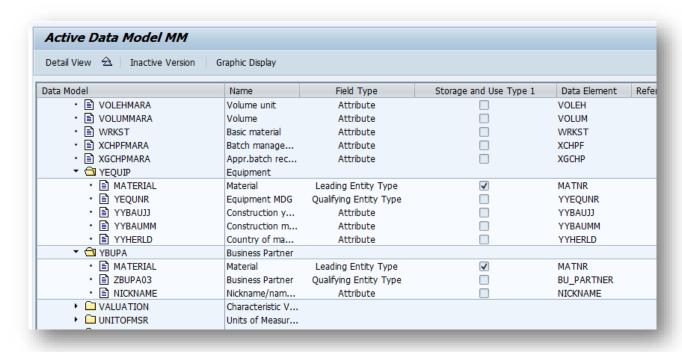
- 1. Start Customizing for Master Data Governance (transaction MDGIMG).
- 2. Go to General Settings -> Data Modeling -> Edit Data Model.
- 3. Select data model MM.
- 4. Double click on Entity Types.



5. Choose button Adjust Staging Area of Linked Change Requests.

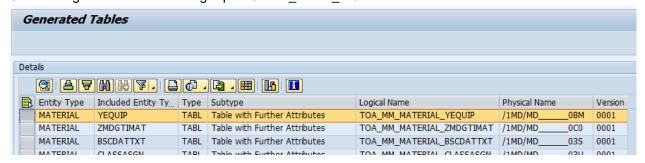
3.2.2 Check Data Model

Run USMD_DISPLAY_DATA_MODEL and navigate to new entity. It shall have the following structure:



3.2.3 Check Generated Tables

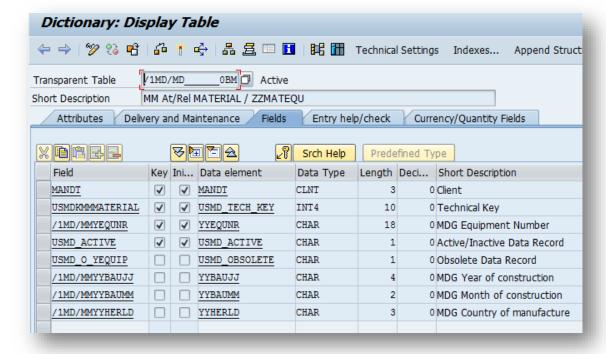
Check the generated tables using report USMD_DATA_MODEL for data model MM.



Double-click on YEQUIP for more details.

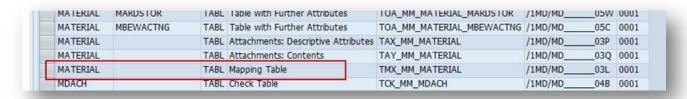


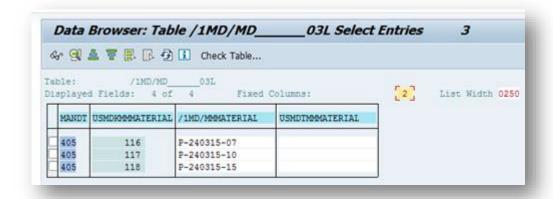
After the activation the new fields are added to the generated table, as shown in the screenshot below.



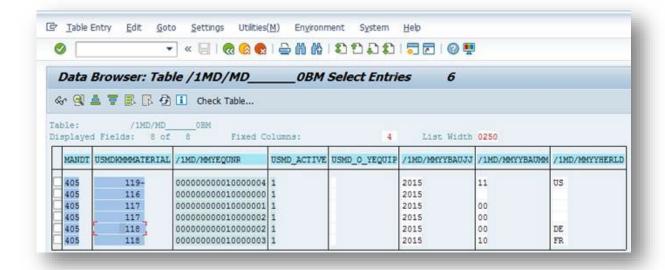
3.3 Link from FlexTable to main Entity Key

The link between final material number and the MDG technical key can be found in the so called Mapping Table:









3.4 SMT Mapping

SMT Mapping is not required for Flex Entities. Since the flex option is used for the new entity type, records stay in the generated tables and the creation of SMT mapping is not needed.

3.5 Generate Data Model-Specific Structures

Since the MDG data model was changed you need to regenerate the tables. 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 Structures
- 3. Insert new lines for entity type YEQUIP and the relevant where used.

Mandatory

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

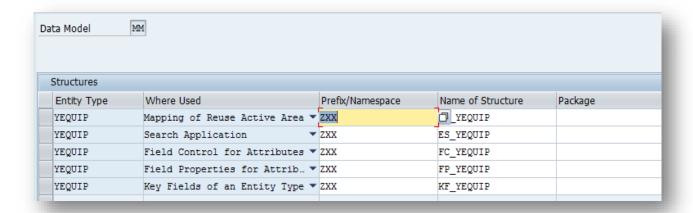
Optional

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

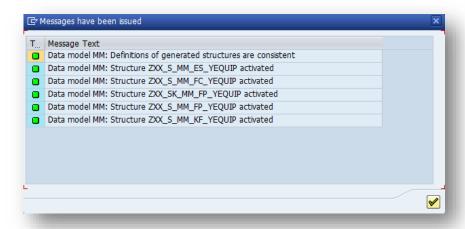
Obsolete

Structures for Field Control





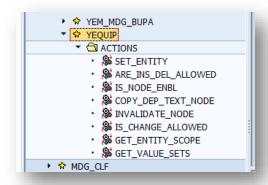
- 3. Mark the lines and click the Generate Structures button.
- 4. Save your changes.



3.6 Check Generated Metadata in SPI

Use transaction MDB to check that the nodes have been created properly.

ABBID = MDG MAT





Note:

If the metadata is not shown correctly, run the customizing activity MDGIMG-> Master Data Governance for Material-> Clear UI Metadata Buffers.

This report clears the following buffers in this sequence:

- Text Buffer
- Search Help Buffer
- SMT-Mapping Data Buffer
- · SPI Metadata Buffer

You should use this report after extending the data model to make sure that the metadata is consistent with the MDG customizing and UI configuration.

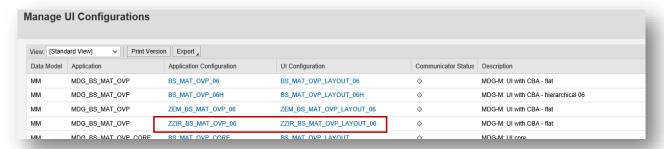
3.7 Enhance the User Interface

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

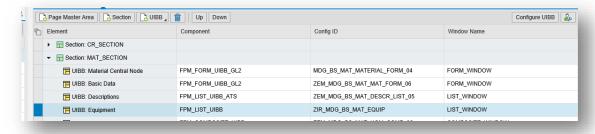
For details see also other Extensibility Guide Extend Master Data Governance Material User Interface.

The following steps can be used as a starting point:

• Deep copy the Application Configuration from BS_MAT_OVP_06 and the related UI Configuration.



• Add a new UIBB of component FPM LIST UIBB

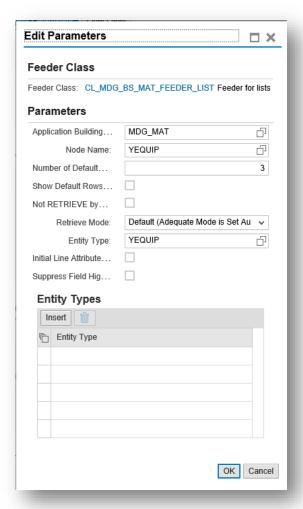


• Create & configure the new UIBB

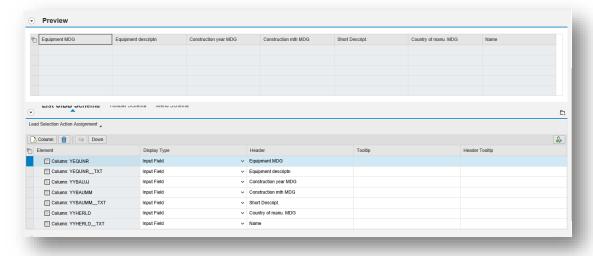




• Maintain the Feeder Class and Parameters. Feeder Class: CL MDG BS MAT FEEDER LIST

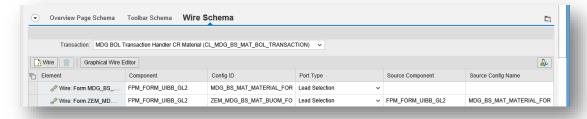


• Drag & Drop from the field list to the table / list preview:

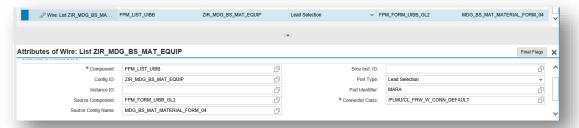




• Added Wiring for the MDG BOL Transaction Handler CR Material

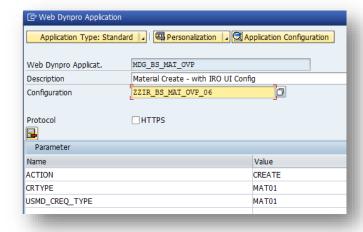


• Add the connector class: /PLMU/CL_FRW_W_CONN_DEFAULT

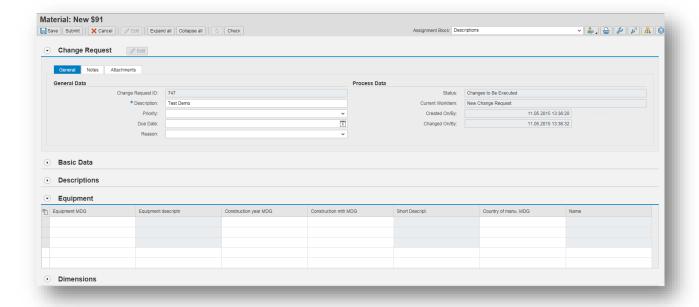


· Add buttons to the toolbar

3.8 Test New UI Configuration Using a Web Dynpro Application Favorite







4 Additional Information

4.1 Further Reading

4.1.1 Information on SAP MDG on SAP S/4HANA

- Exchange knowledge: SAP Community | Q&A | Blog
- Try SAP Master Data Governance on S/4HANA for free: Trial Version
- Try SAP Master Data Governance on S/4HANA on the SAP Cloud Appliance Library: <u>S/4HANA 2022</u> FPS1
- Learn more: Latest Release | Help Portal | How-to Information | Key Presentations

4.1.2 SAP Roadmap Explorer

• Please see the roadmap for SAP Master Data Governance

4.1.3 Related Information

Learn more: Floorplan Manager for Web Dynpro ABAP | How to Adapt FPM | FPM Blog | How-to Information | Service Mapping Tool | SAP S/4HANA Cookbook CVI

4.2 SAP Notes

In addition to the detailed explanations written in this document, please see the following SAP Notes for further important information.

Note	Description
3043582	MDG Customer Connection 2020
3194967	MDG Customer Connection 2021 for S/4HANA 2022
3311039	MDG Customer Connection 2023
3134600	MDG-M: Supported fields in Data Model MM
<u>1806108</u>	Functional restrictions in MDG-M in MDG7 (incl. SP02)
2129261	Functional restrictions in MDG-M in MDG8
2284745	Functional Restrictions in MDG for Material with SAP Master Data Governance 9.0
2461516	Functional Restrictions in MDG for Material with SAP Master Data Governance 9.1
<u>2656693</u>	Functional Restrictions in MDG for Material in SAP Master Data Governance 9.2 and on SAP S/4HANA 1809
2816571	Functional Restrictions in MDG for Material on SAP S/4HANA 1909
2948873	Functional Restrictions in MDG for Material on SAP S/4HANA 2020
3070012	Functional Restrictions in MDG for Material on SAP S/4HANA 2021



3219945	Functional Restrictions in MDG for Material on SAP S/4HANA 2022
3374998	Functional Restrictions in MDG for Material on SAP S/4HANA 2023
2479869	Usage of Lean Classification with SAP Master Data Governance
<u>1619534</u>	How to Create, Enhance and Adapt FPM Applications
1637249	MDG: Information for efficient message processing
2105467	MDG Performance
2561461	Scope of support for SAP Master Data Governance (MDG)
1637249	MDG: Information for efficient message processing