

How-To Guide: Extend MDG-uMSRPTS in the U1 Data Model

Applies to

MDG EAM Solutions by Utopia

For more information, visit the SAP Master Data Governance homepage.

(<http://scn.sap.com/community/mdm/master-data-governance>)

Summary

SAP Master Data Governance provides an out-of-the box solution for the central management of various master data objects such as financial objects, supplier and material. In addition, SAP Master Data Governance also provides the flexibility to customize the solution, in cases where the pre-delivered content does not fully match customer requirements. You can use this guide to extend the MDG-U1 Data Model by a new entity type. The attribute values of the new entity type will be copied to the corresponding ERP tables (reuse option) after activation of the Change Request.

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Scenario

High Level Requirements

Purpose: To display Catalog based on the Measuring point category.

Data Model Extension: You want to extend MDG Data Model for U1 by adding additional attribute ZZKATALOG to the entity MSPOINT.

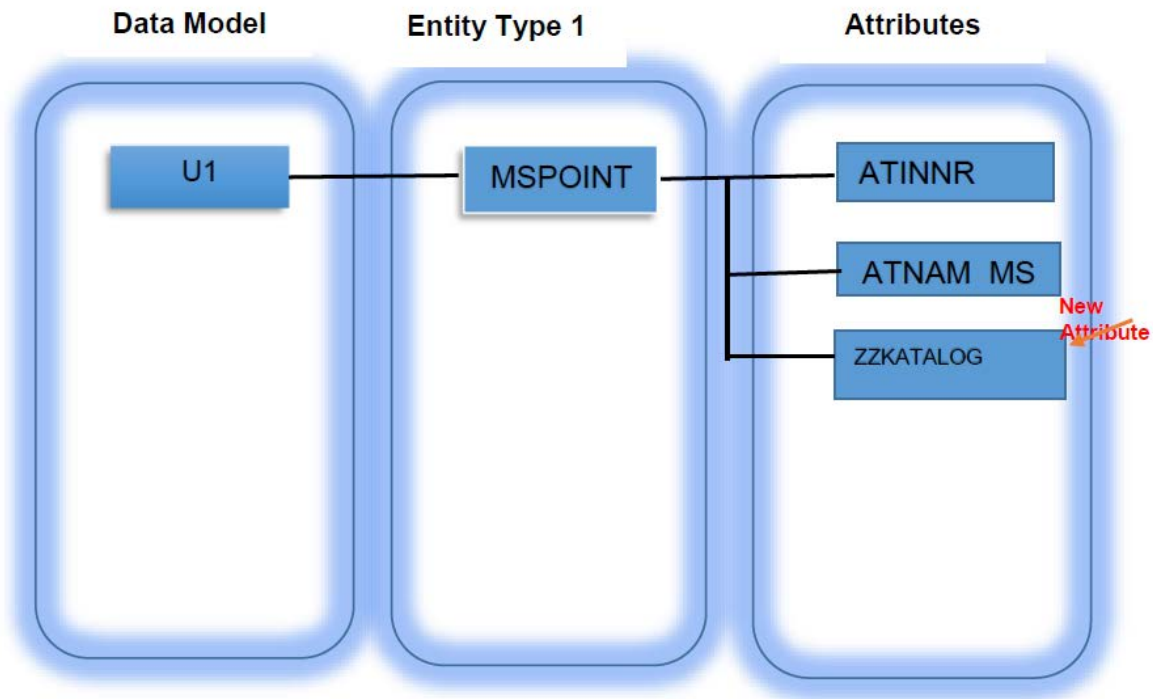


Figure: Data Model – **MSPOINT** with custom attribute “**ZZKATALOG**”

Governance Process

The default governance process delivered with MDG will be used. No changes to the governance process are necessary as part of this scenario.

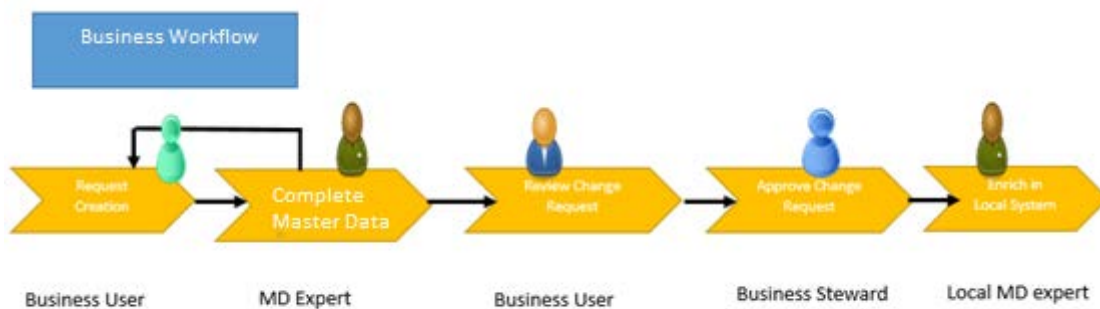


Figure: Measuring Point processing in Master Data Governance

Implementation

Two major building blocks make up the implementation of the entity type extension. In the first phase, you extend the MDG Data Model. In the second phase, you extend the User Interface to include the new entity type.

The following flow diagram displays the detailed implementation steps. It is recommended to use it as an orientation.

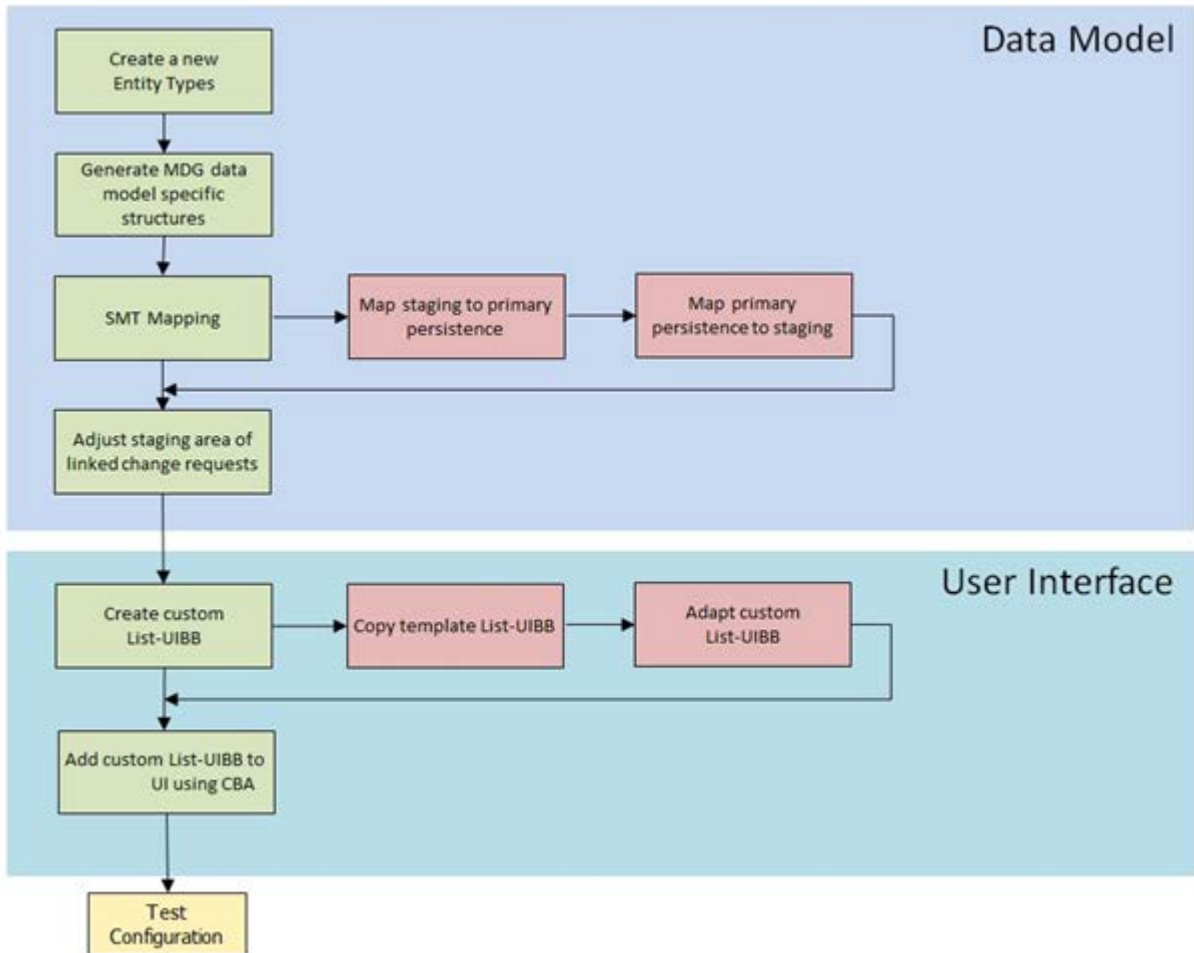


Figure: Implementation steps for re-use Entity-Type extension

Data Model Extension

You want to extend the MDG Data Model (U1) for MSPPOINT by the additional attribute “Catalog” (ZZKATALOG). The following field from IMPTT should be modeled as attributes of the Entity in MDG.

Dictionary: Display Table

Transparent Table: IMPTT Active
 Short Description: Measuring Point (Table)

Attributes | Delivery and Maintenance | Fields | Input Help/Check | Currency/Quantity Fields

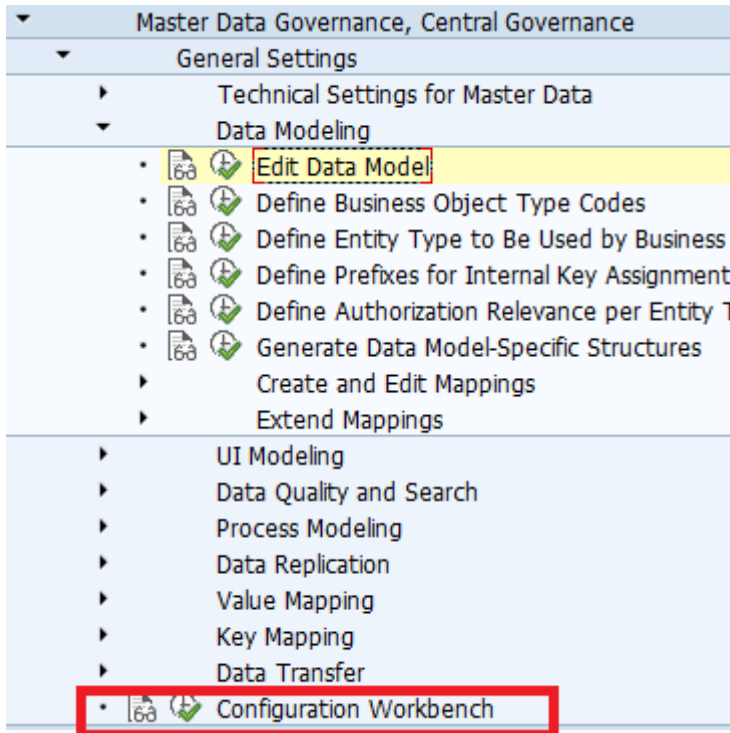
Field	Key	Ini...	Data element	Data Type	Length	Decl...	Short Description	Group
PYEAR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC_PYEAR	FLTP	16		16 Annual Estimate in SI Unit	
PYEAR1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IVALU	CHAR	1		0 Indicator: Associated Number Field Contains a Value	
CODCI	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC_CODCI	CHAR	1		0 Catalog Type - Measurement Reading Valuation Code	
CODGR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC_CODGR	CHAR	8		0 Code Group - Measurement Reading Valuation Code	
CODGR1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC1CODGR	CHAR	1		0 Indicator: Code Group Comes From Reference Measuring Point	
CDSUF	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC_CDSUF	CHAR	1		0 Indicator: Valuation Code Sufficient for Measurmt. Document	
MODTR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC_MODTR	CHAR	1		0 Mode of Counter Reading Transfer	
INCLUDE	<input type="checkbox"/>	<input type="checkbox"/>	CI_IMPTT	STRU	0		0 Additional fields for Measuring point	
ZZKATALOGARI	<input type="checkbox"/>	<input type="checkbox"/>	QCATARI	CHAR	1		0 Catalog	
INDTR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	IMRC1INDTR	CHAR	1		0 Indicator: Measurement Transfer Comes from Ref. Meas. Point	
.APPEND	<input type="checkbox"/>	<input type="checkbox"/>	/ISDFPS/IMPTT	STRU	0		0 /ISDFPS/Enhancements	
LOGSYS	<input type="checkbox"/>	<input type="checkbox"/>	/ISDFPS/LOGSYS	CHAR	10		0 Logical System	
LOGSYS_CHG	<input type="checkbox"/>	<input type="checkbox"/>	ZTNTSTMP3	DEC	15		0 UTC Time Stamp in Short Form (YYYYMMDDhhmmss)	

You first create the attribute ZZKATALOG in entity type IMPTT.

Add attributes to existing Entity Type

Use the following steps to add attributes to existing Entity Type.

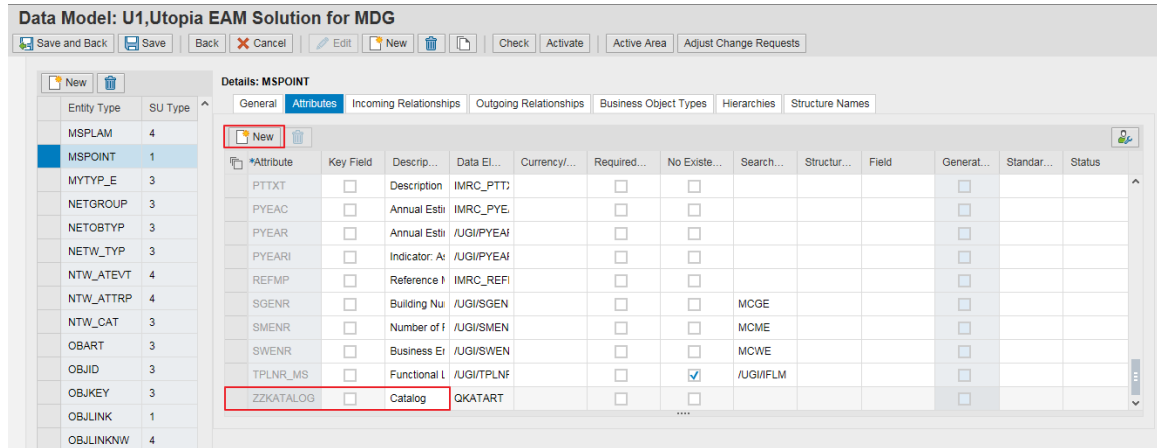
1. Log into system for cross client maintenance.
2. Start Customizing for Master Data Governance (transaction MDGIMG).
 Go to > General Settings > Configuration Workbench > Select Data Model U1 > Click the “Edit” button > In the left-hand table with the list of Entity Types click the “New” button.



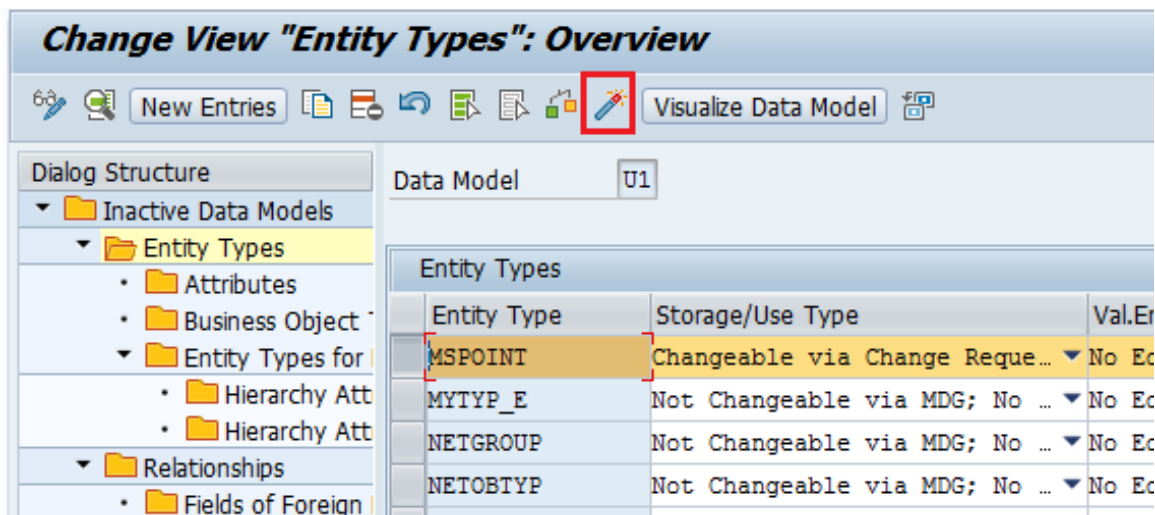
3. Add the attributes of Entity Type MSPPOINT as displayed in the following screenshot.
4. Save your settings.

It is recommended to assign a Search Help to a Data Element in exceptional circumstances. If you do this, the input help executes the search help instead of reading the data in the check table or the fixed values of data element's domain.

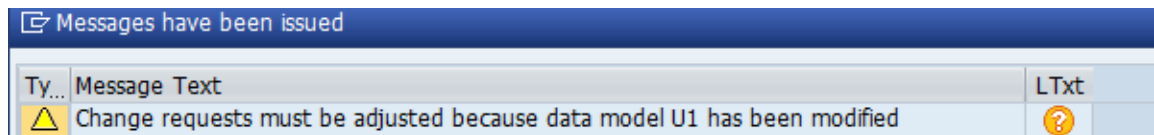
In the following steps, you define new entity types that are needed to define the key fields using relationships.



5. Activate the extended Data Model.



After activation the following information message is displayed.



6. Make Change Request adjustments after creating the SMT mapping.

Generate MDG Data Model-Specific Structures

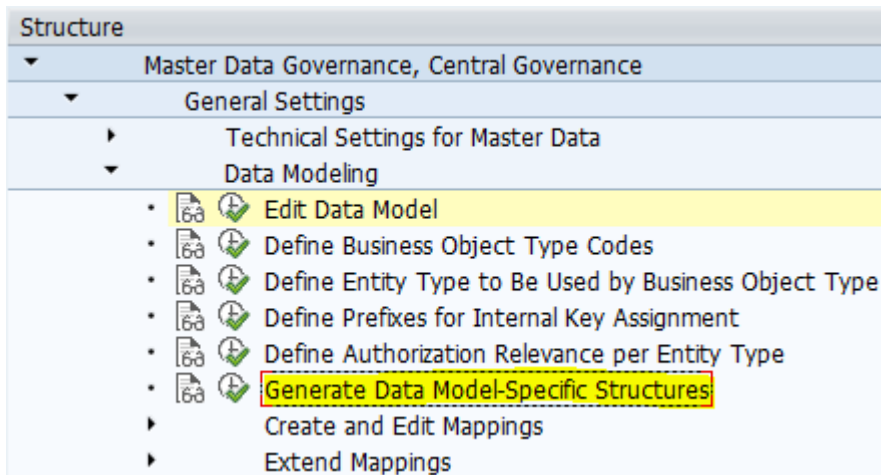
In general, if you change a Data Model (for example, if you change attributes of entity types or relationships) you need to regenerate the structures. You can assign a prefix and a package directly in the Data Model. Then the structures will be generated automatically with activation of the Data Model.

Older releases: 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.

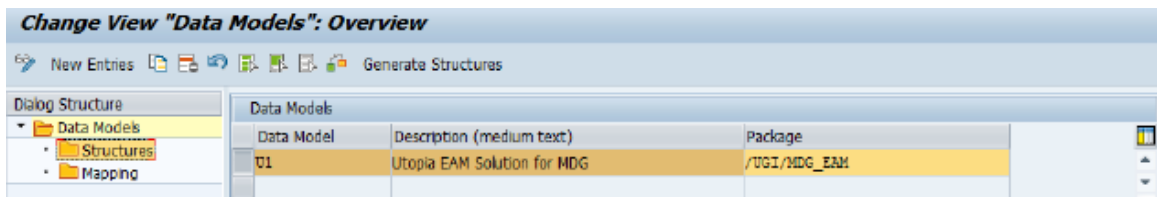
Note: In general, if you change a Data Model (for example, if you change attributes of entity types or relationships); you need to regenerate the structures.

Use the following steps to generate Data Model Specific Structures.

1. Start Customizing for Master Data Governance (transaction MDGIMG).
Go to > General Settings > Data Modeling > Generate Data Model-Specific Structures.



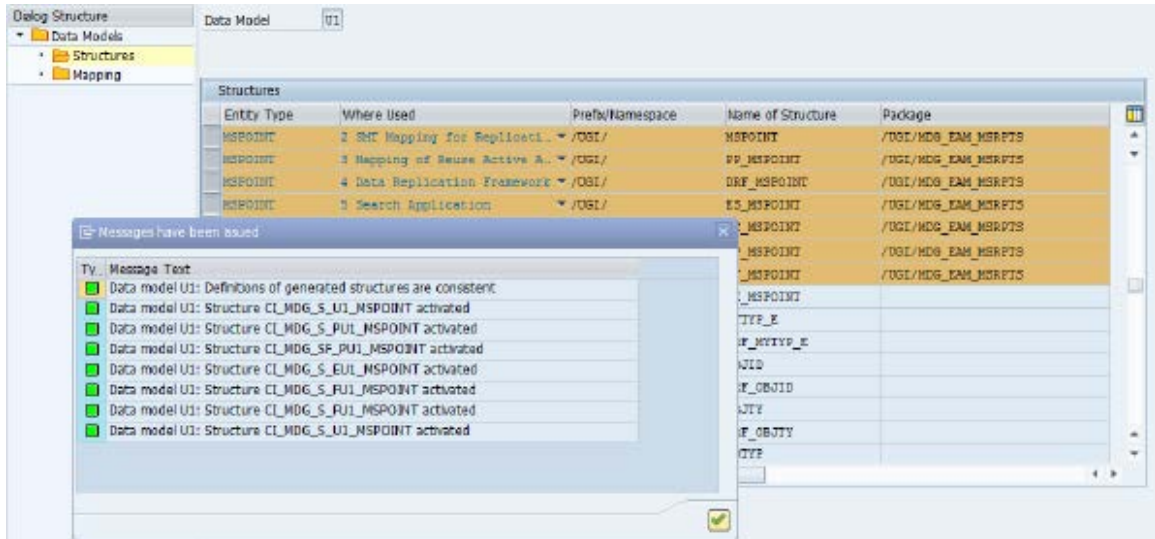
2. Select the row with Data Model U1 > Double-Click.



3. Select the structure of entity – “MSPOINT” and click on “Generate Selected Structures” button.



All structures should be generated and should be in active status and save changes.



SMT Mapping

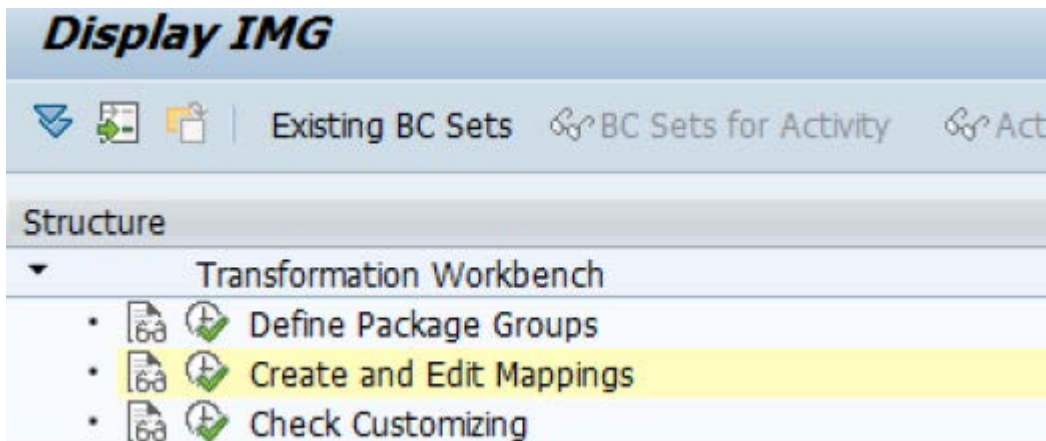
You extend mappings by creating new transformations (complex transformations, field mappings) and field checks for them or by editing them.

Important: When the mappings are saved, the system generates the corresponding coding. Make sure that all relevant structures are ready before you start.

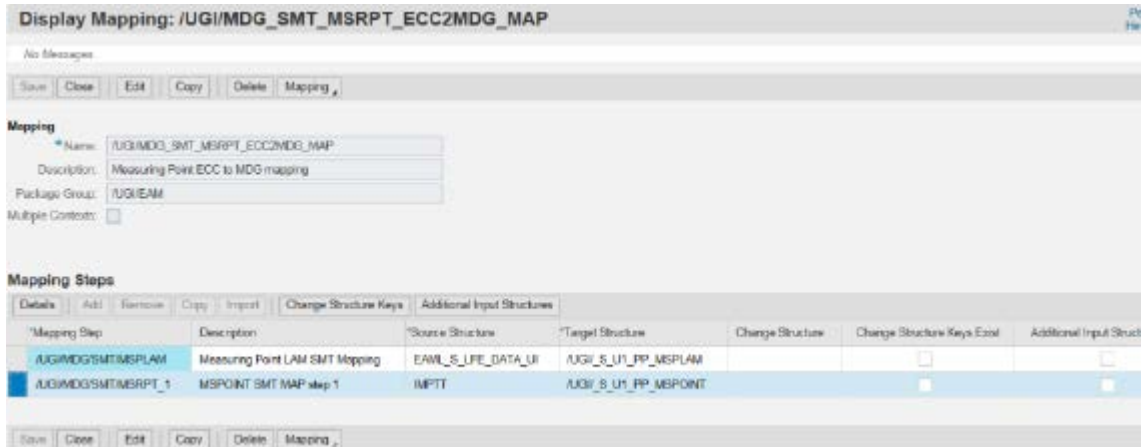
SMT Mapping - Primary Persistence to Staging

Use the following steps to get the mapping names:

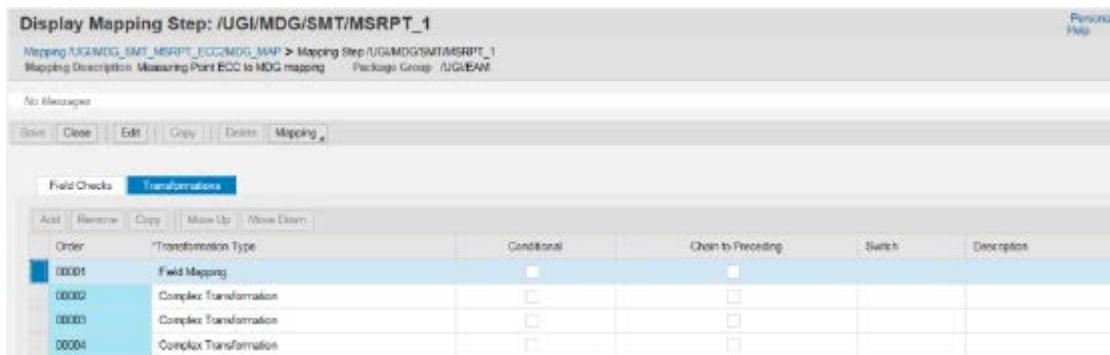
1. Log into system for cross-client maintenance. Start Customizing for Master Data Governance (transaction MDGIMG).
Go to > General Settings > Data Modelling > Generate Data Model Specific Structures > Select Data Model U1 > Double-Click on Mapping.



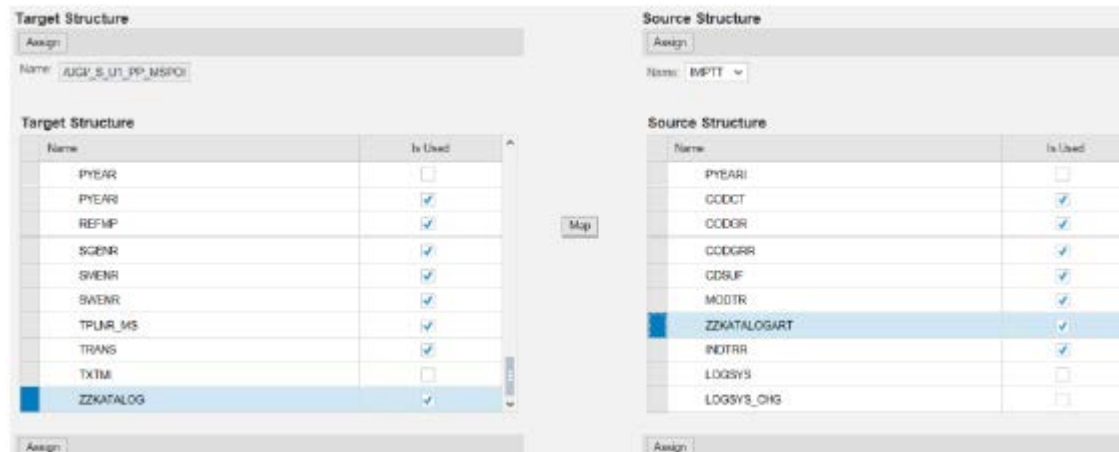
The SMT mapping /UGI/MDG_SMT_MSPRT_ECC2MDG_MAP and select mapping step /UGI/MDG/SMT/MSPRT_1 and click on “Details” button.



2. Select Field mapping under Transformation Type.



3. Select the fields from source structure and target structure and click on “Map” button.

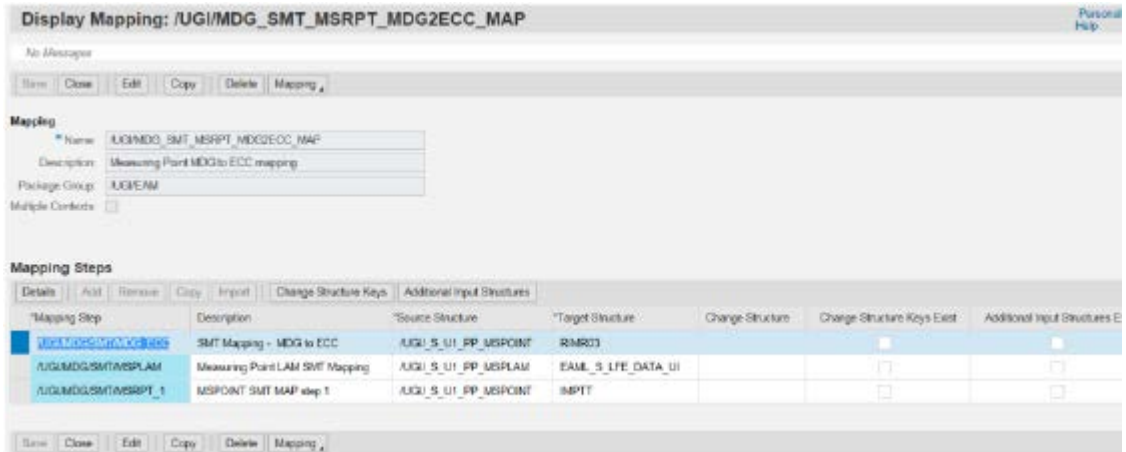


4. Save your changes.

SMT Mapping - Staging to Primary Persistence

Use the following steps for SMT Mapping from Staging area to Primary Persistence.

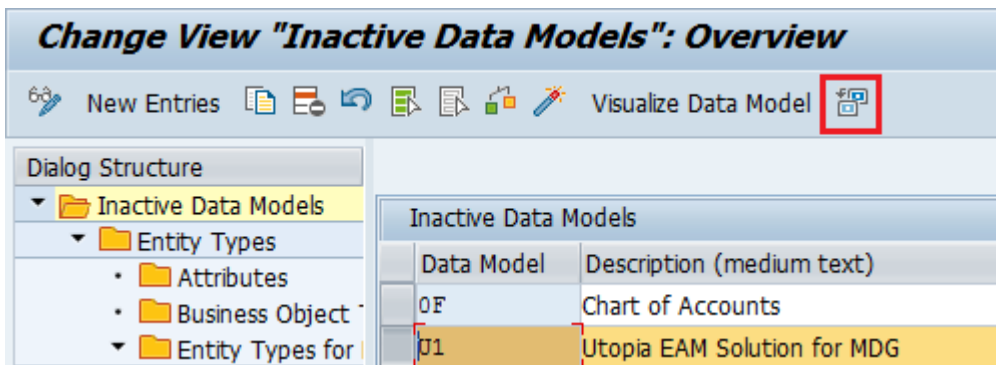
- Repeat the same step for SMT Mapping for ECC to MDG. Open SMT mapping /UGI/MDG_SMT_MSRPT_MDG2ECC_MAP and select the mapping step /UGI/MDG/SMT/MDG_ECC.



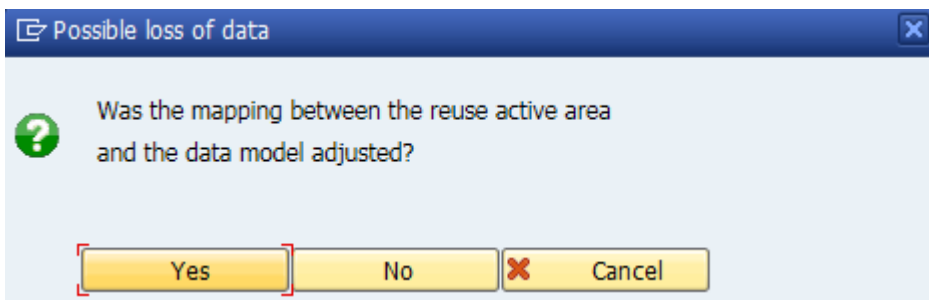
Adjust Staging Area of Linked Change Requests

Note: 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). Go to > General Settings > Data Modeling > Edit Data Model > Select Data Model U1 > Double click on Entity Types > Choose the “Adjust staging area of linked Change Requests” button.

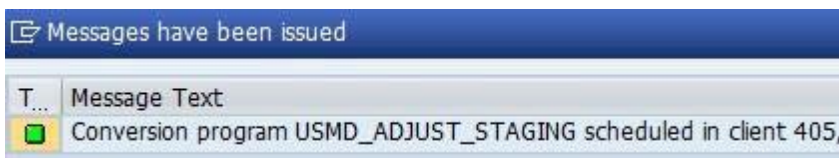


2. Choose the “Yes” button.



The following message appears.

Note: Make sure that user DDIC exist in all relevant clients.



Extending the UI Configuration

Use the following steps to add customization to UI:

1. Start t-code SE80 > In the drop down select Package > In the input field enter /UGI/MDG_EAM_MSPRTS > Navigate to Web Dynpro > FPM Application Configurations > UGI/USMD_U1_OVP_MSPOINT.

Assign Web Dynpro Component			
Assign Configuration Name			
Component Usage	Component	Implementation	Configuration Name
USMD_OVP_GEN	FPM_ADAPTABLE_OVP	FPM_ADAPTABLE_OVP	/UGI/USMD_OVP_CBA
OVP	FPM_OVP_COMPONENT	FPM_OVP_COMPONENT	/UGI/USMD_U1_MSPOINT_OVP

2. Click on the configuration UGI/USM_U1_OVP_MSPOINT click on “Additional Functions” menu button and click on create customizing.

3. Enter description and click on “OK” button.

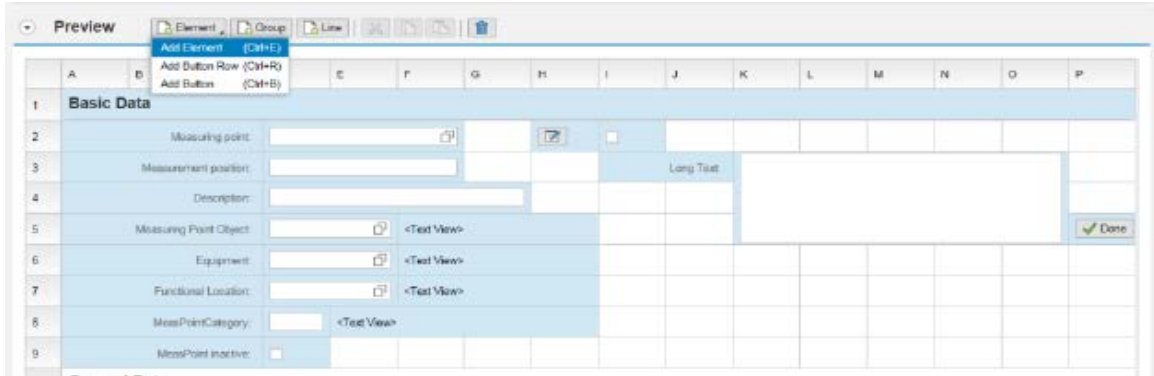
4. Create TR for customization.

New Transport Request

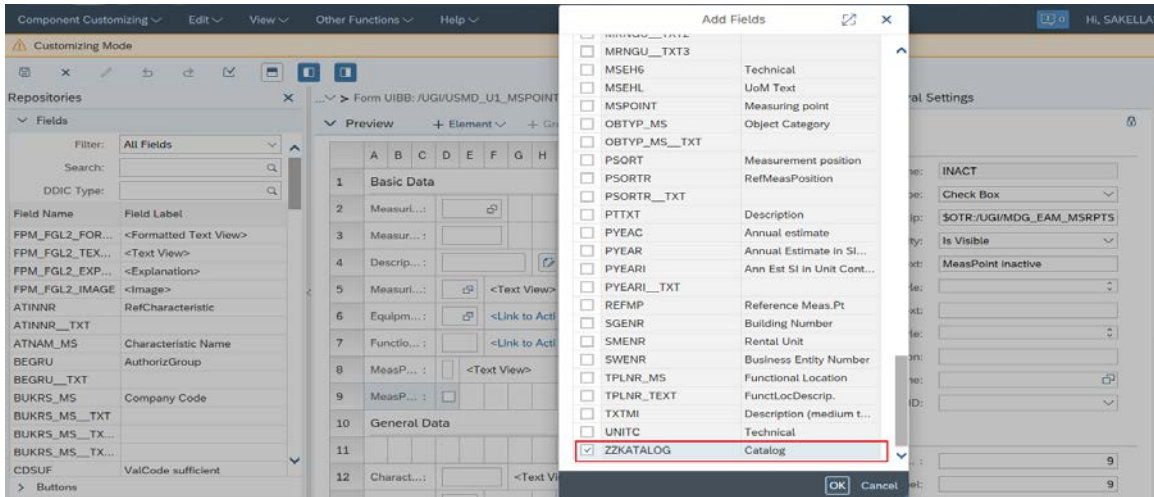
Description:

No Transport Request

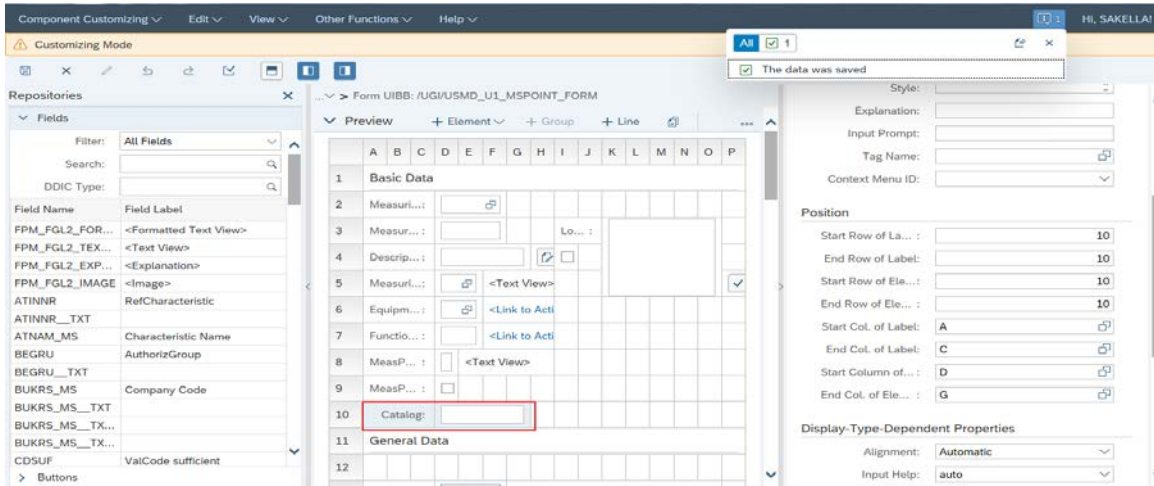
5. Click on “Element” button > Add element.



6. Select the attribute or field which is to be added in UI.



7. Catalog field is added in UI as displayed in the following screen.



Testing the Configuration

Result: Measuring Point 421 with Change Request 4511.

Data in ECC – IMPTT Table: Measuring Point 421

Table IMPTT Display	
Check Table...	
MANDT	100
POINT	421
MPOBJ	IE000000000010001394
PSORT	
PSORTR	
PTTXT	test extension
MLANG	EN
KZLTX	
MPTYP	M
IRFMP	
ERDAT	20.09.2018
ERNAM	SAP_WFRT
AEDAT	
AENAM	
BEGRU	
INACT	
LVORM	
LOCAS	
REFMP	
ATINN	CBTA-FUEL
ATINN1	
EXPON	0
DECIM	0
DESIRI	

Custom Validations/Derivations for lean classification

As part of SAP OSS Note [2479869](#) customers can implement the CROSS_ENTITY_BADI for adding customized error handling/derivations for their scenarios.

BADI definition provided by SAP is USMD_RULE_SERVICE_CROSS_ET