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

Applies to

MDG EAM Objects by Prometheus Group

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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Company: Prometheus Group

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Scenario

High Level Requirements

The business requires the new attributes as part of the MDG Functional Location Data Model.

You want to extend the (Type1) entity type **FUNCLOC** to include attributes: ZZNAME, ZZID.

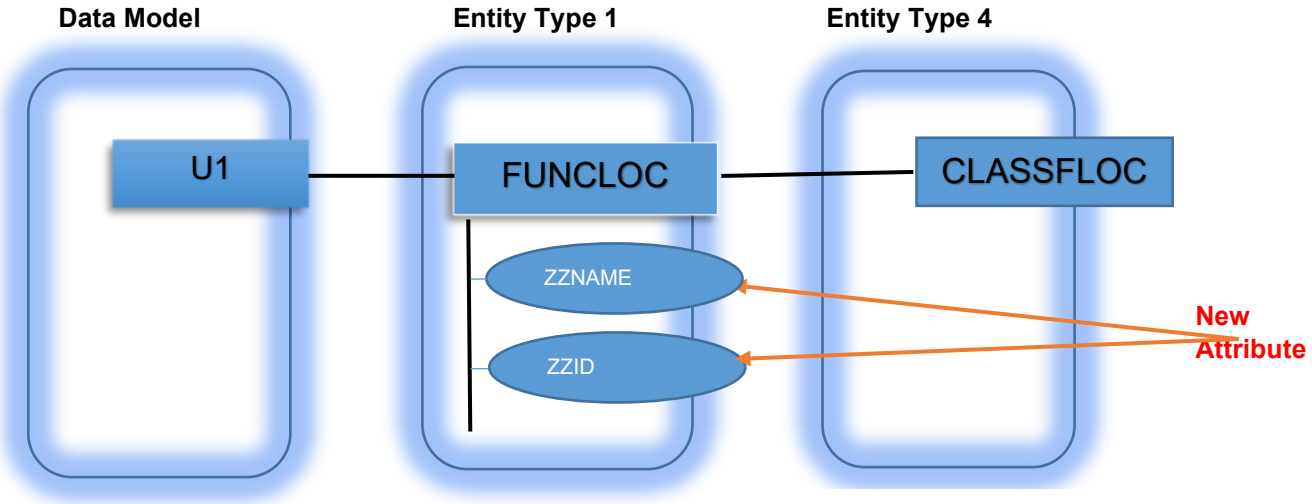


Figure: Data Model – Functional Location (Scope of 2017 Delivery) with custom Entity 'ZZNAME' and "ZZID".

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.

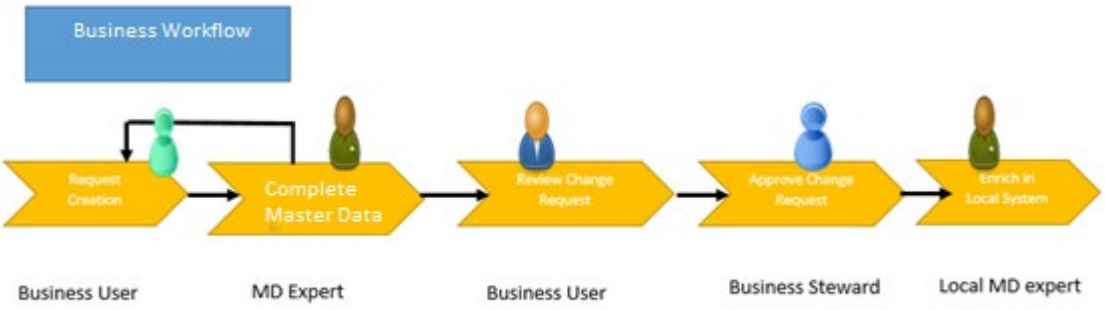


Figure: Functional Location processing in Master Data Governance

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 shows the detailed implementation steps. It is recommended that you use it as an orientation.

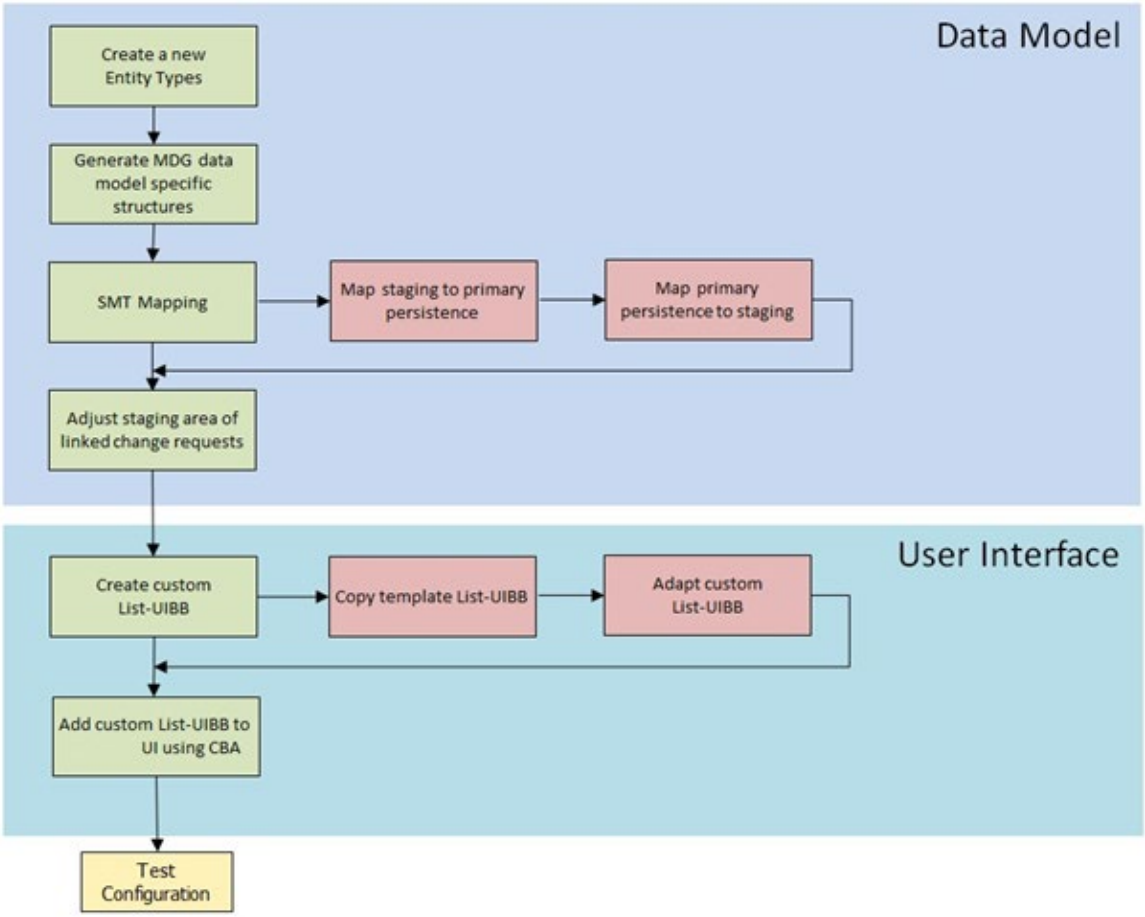
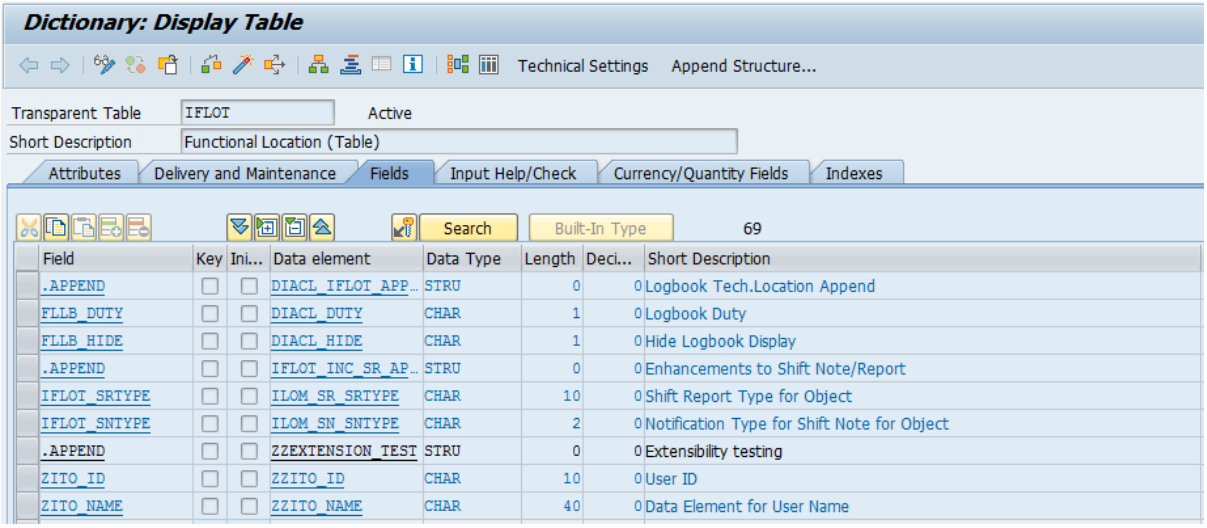


Figure: Implementation steps for re-use Entity-Type extension

Data Model Extension

You want to extend the MDG Data Model for Functional Location (U1) by the additional new Entity ZITO_NAME and ZITO_ID. The following fields from IFLOT table should be modelled as attribute of entity type in MDG.



Dictionary: Display Table

Technical Settings | Append Structure...

Transparent Table: IFLOT — Active

Short Description: Functional Location (Table)

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

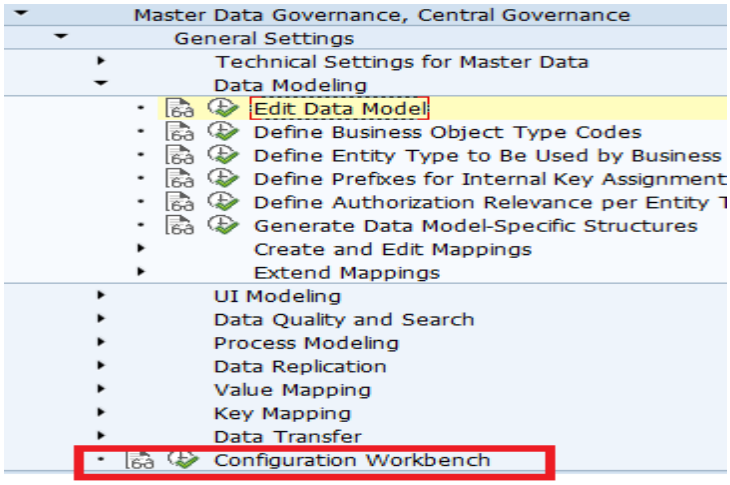
Search | Built-In Type | 69

Field	Key	Ini...	Data element	Data Type	Length	Deci...	Short Description
.APPEND			DIACL_IFLOT_APP...	STRU	0	0	Logbook Tech.Location Append
FLLB_DUTY			DIACL_DUTY	CHAR	1	0	Logbook Duty
FLLB_HIDE			DIACL_HIDE	CHAR	1	0	Hide Logbook Display
.APPEND			IFLOT_INC_SR_AP...	STRU	0	0	Enhancements to Shift Note/Report
IFLOT_SRTYPE			ILOM_SR_SRTYPE	CHAR	10	0	Shift Report Type for Object
IFLOT_SNTYPE			ILOM_SN_SNTYPE	CHAR	2	0	Notification Type for Shift Note for Object
.APPEND			ZZEXTENSION_TEST	STRU	0	0	Extensibility testing
ZITO_ID			ZZITO_ID	CHAR	10	0	User ID
ZITO_NAME			ZZITO_NAME	CHAR	40	0	Data Element for User Name

Add Custom Entity Type to existing Data Model U1

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

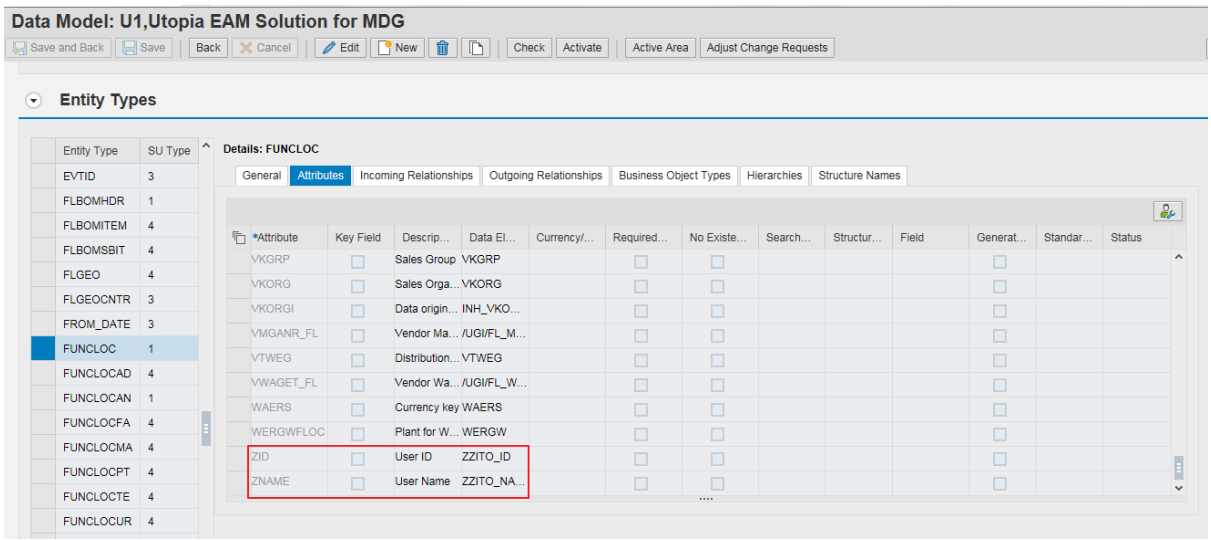
1. Log into system for cross client maintenance.
2. Start Customizing for Master Data Governance (transaction MDGIMG). Go to > General Settings > Configuration Workbench > Select Data Model U1 > Click the “Edit” button > In the left-hand table with the list of Entity Types click the “New” button.



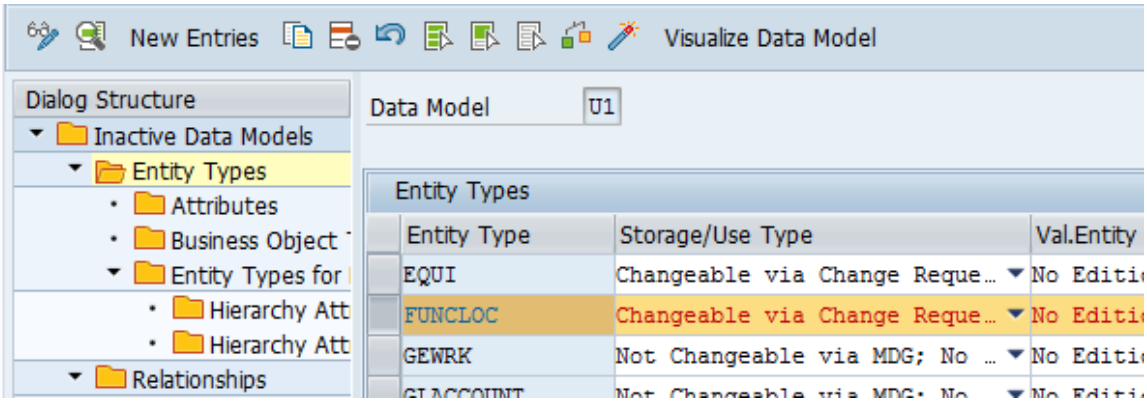
3. Add the attributes of Entity Type FUNCLOC as shown in the following screen.
4. Save your settings.

   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.

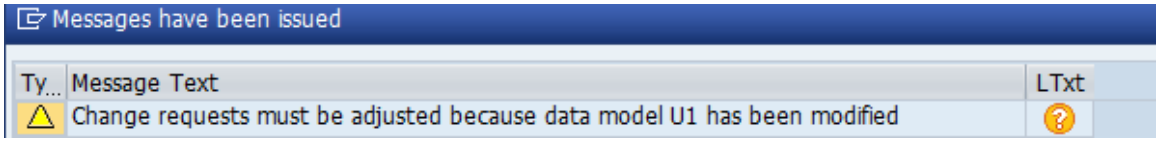
   In the following steps, you define new entity types that are needed to define the key fields using relationships.



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

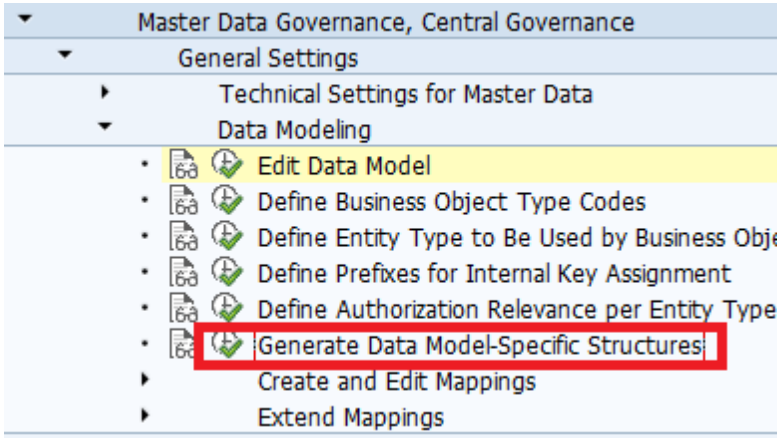
In general, if you change a Data Model (for example, if you change attributes of entity types or relationships) you need to regenerate the structures. You can assign a prefix and a package directly in the Data Model. Then the structures will be generated automatically with activation of the Data Model.

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.

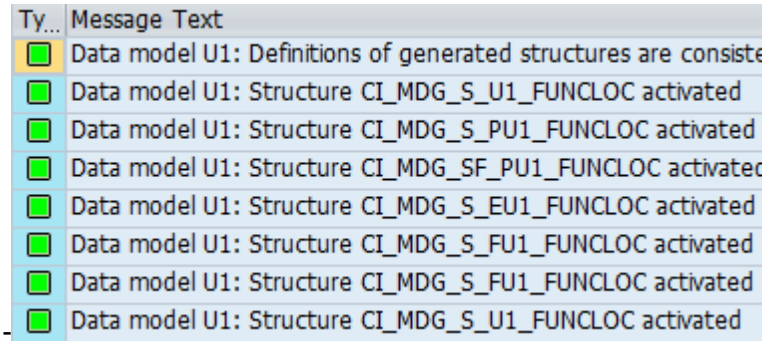
The system uses these structures internally for implementing the staging area. To generate these Data Model-Specific structures follow the steps below.

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.

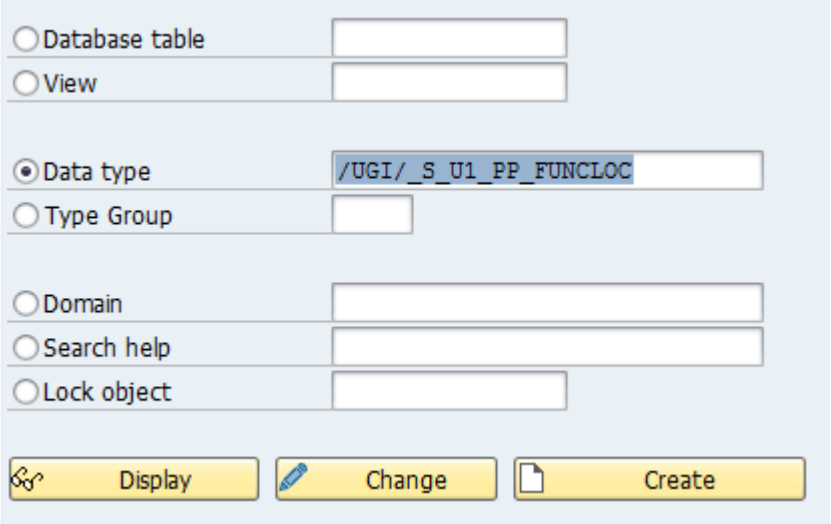
1. Start Customizing for Master Data Governance (transaction MDGIMG).
   Go to > General Settings > Data Modeling > Generate Data Model-specific Structures.



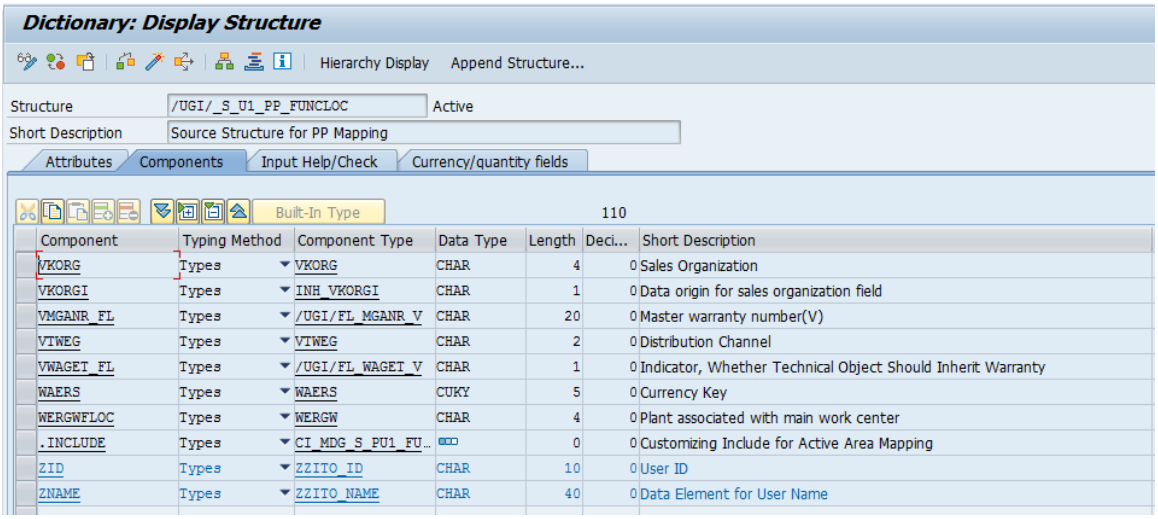
2. Select the row with Data Model U1 > Double-Click Structures in the left-hand panel > Choose the “Generate Selected Structures” button.
3. Verify that your structures were successfully generated.



4. In the following steps, you verify that one of the active area mapping structures was successfully generated with new fields.
   Start t-code SE11 > Display structure /UGI/_S_U1_PP_FUNCLOC.



You have now verified that the structure /UGI/_S_U1_PP_FUNCLOC has been generated.



SMT Mapping

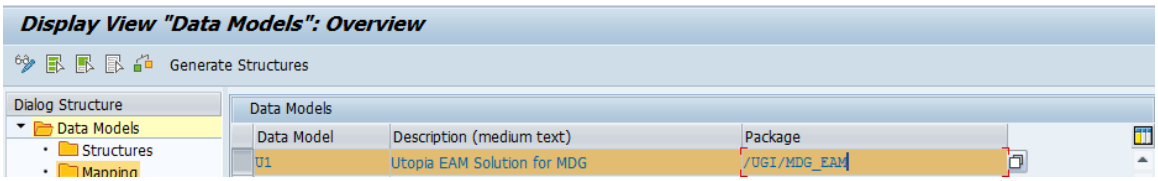
You extend mappings by creating new transformations (complex transformations, field mappings) and field checks for them or by editing them.

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

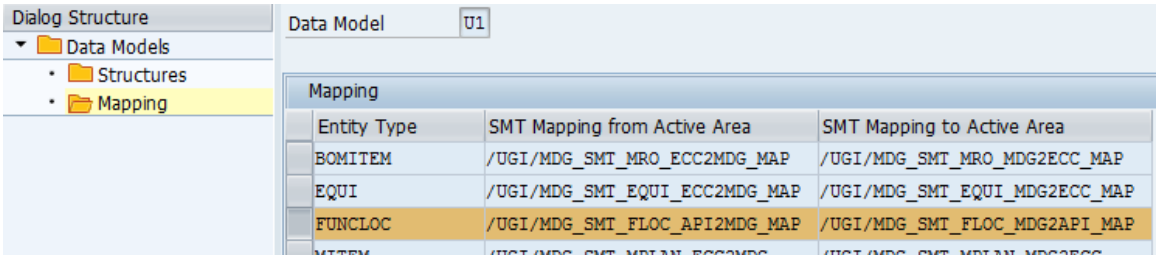
SMT Mapping - Get Mapping names from Data Model U1

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 mappings for Entity Type FUNCLOC as displayed.

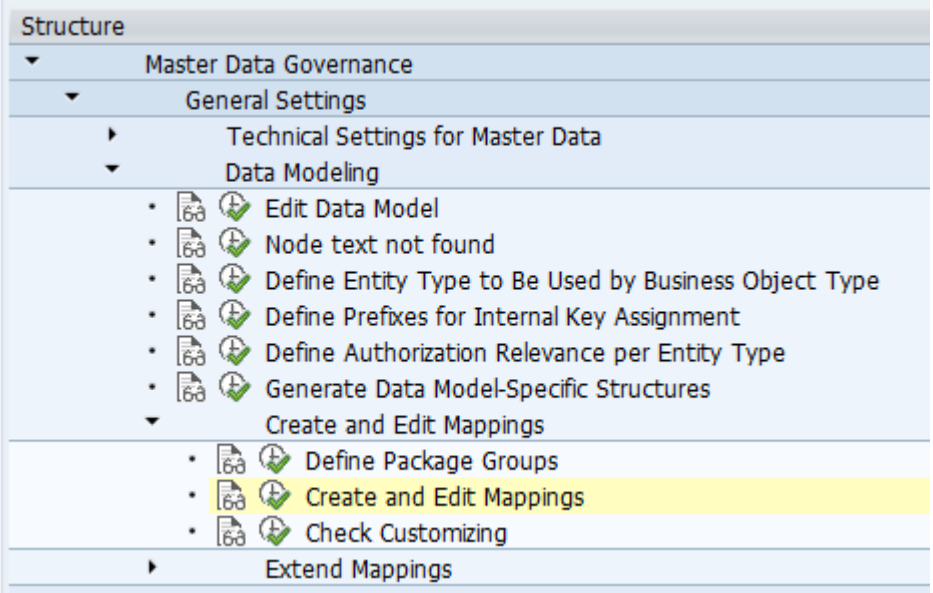


SMT Mapping - Primary Persistence to Staging

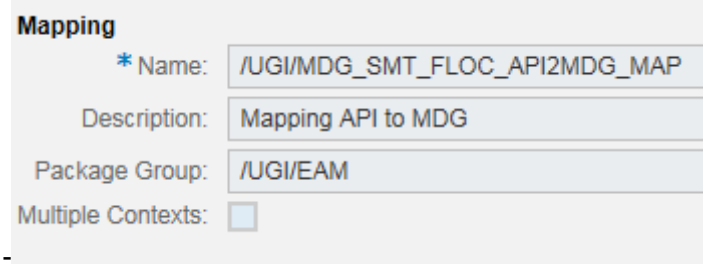
Use the following steps for SMT Mapping from Primary Persistence to Staging area.

1. Log into system for cross-client maintenance. Start Customizing for Master Data Governance (transaction MDGIMG).
   Go to > General Settings > Data Modeling > Create and Edit Mappings > Create and Edit Mappings.

   Note: For new Entity Types, it is recommended to create a new mapping. When extending existing Entity Types, it is recommended to extend the existing mapping.



2. Extend mapping /UGI/MDG_SMT_FLOC_API2MDG_MAP.



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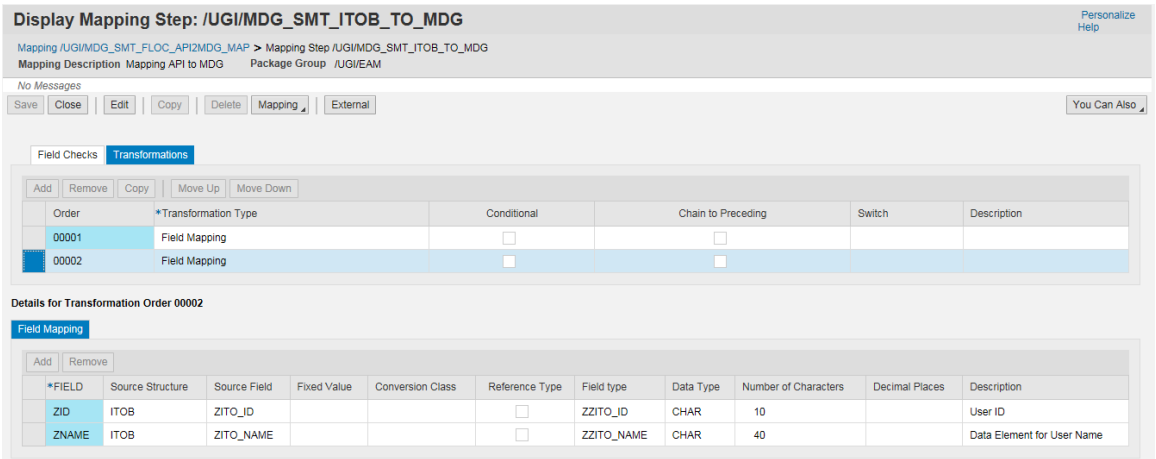
3. Select mapping step and choose the “Details” button.
4. Map the fields as shown in the following screen.

   Add a mapping step -Assign Source Structure FUNCLOC, Assign Target Structure /UGI/_S_U1_PP_FUNCLOC.

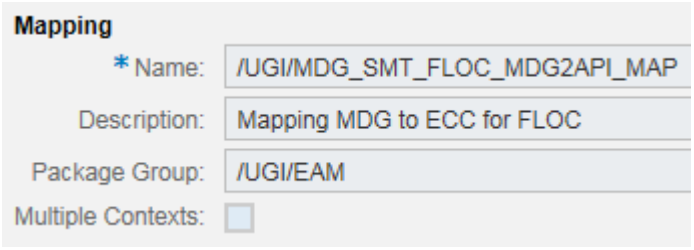


5. Save your changes.

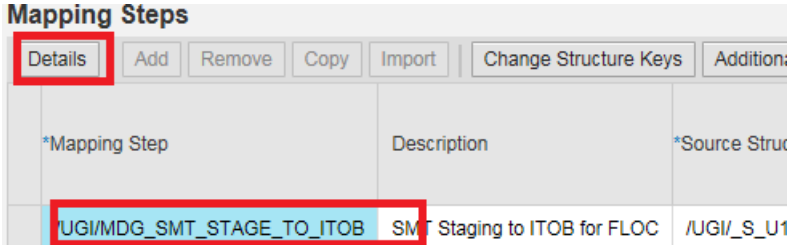
SMT Mapping - Staging to Primary Persistence

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

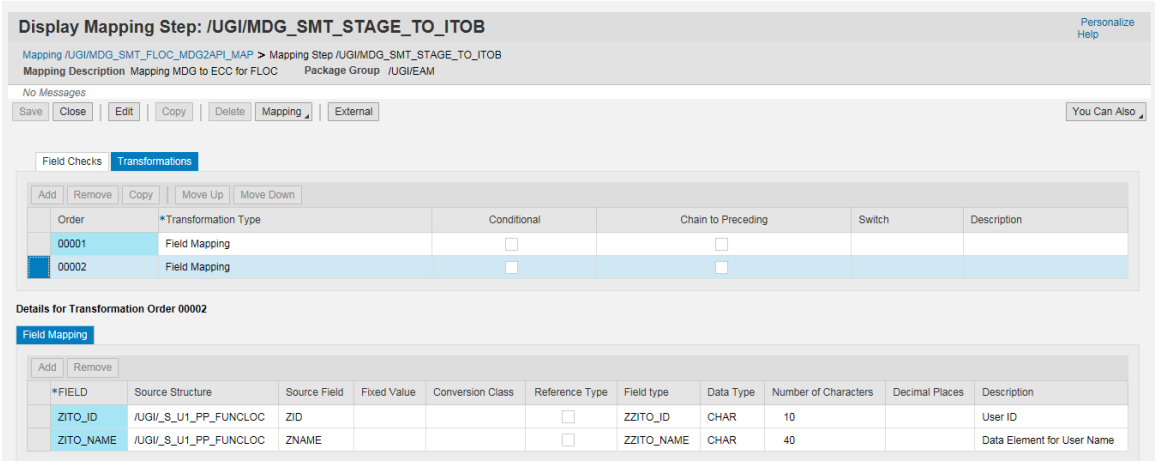
1. Extend mapping /UGI/MDG_SMT_FLOC_MDG2API_MAP.



2. Select mapping step and choose the “Details” button. Map the fields as shown in the following screen.



3. Add a mapping step - Assign Target Structure **`ITOB`** and Assign Source Structure /UGI/_S_U1_PP_FUNCLOC.

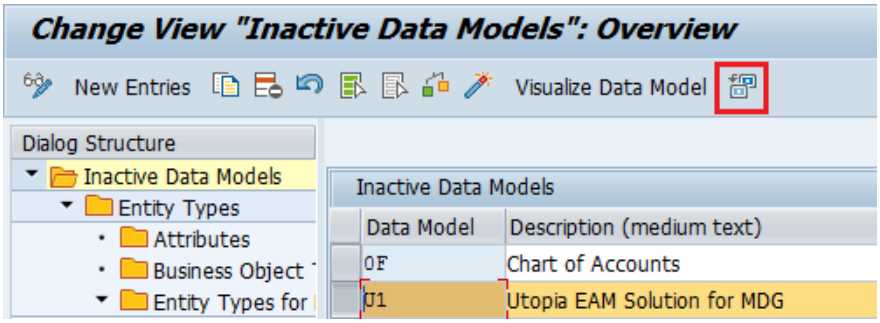


4. Save your changes

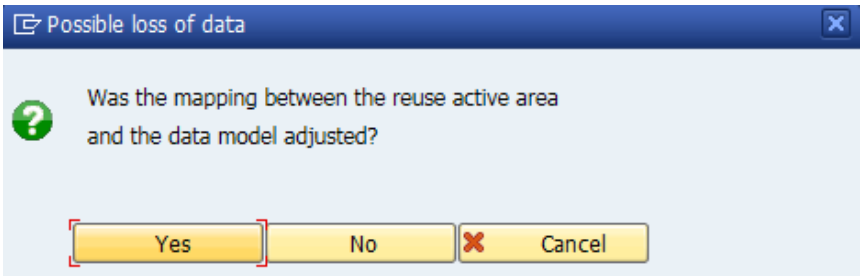
Adjust Staging Area of Linked Change Requests

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.



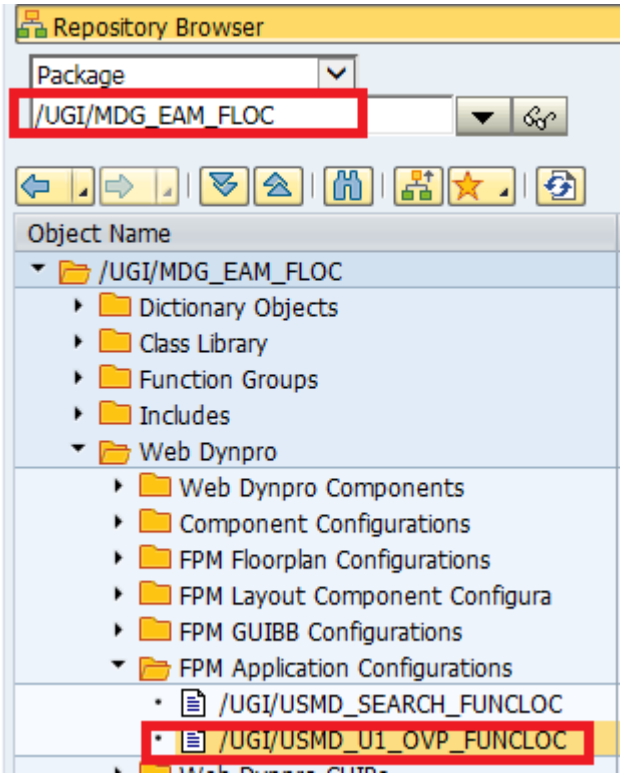
The following message appears.

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

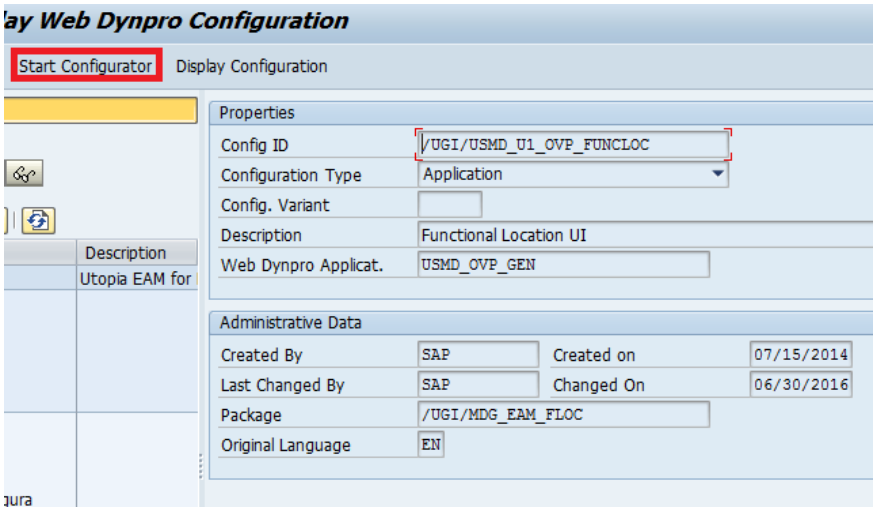
Extending the UI Configuration

Use the following steps to add customization to UI.

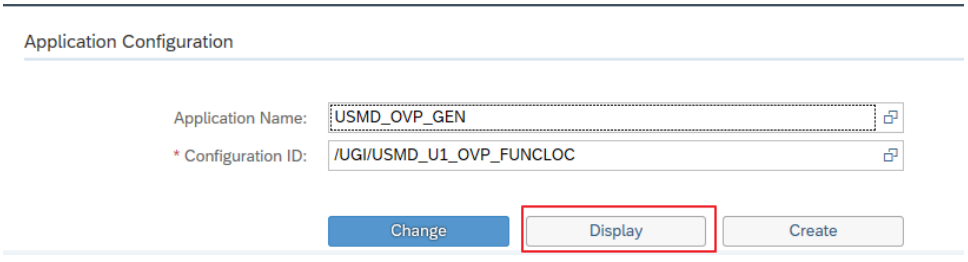
1. Start t-code SE80 > In the drop down select Package > In the input field enter /UGI/MDG_EAM_FLOC > Navigate to Web Dynpro > FPM Application Configurations > /UGI/USMD_U1_OVP_FUNCLOC.



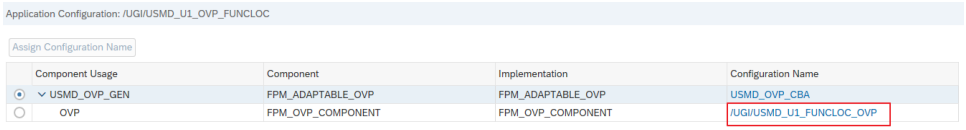
2. Click the “Start Configurator” button.



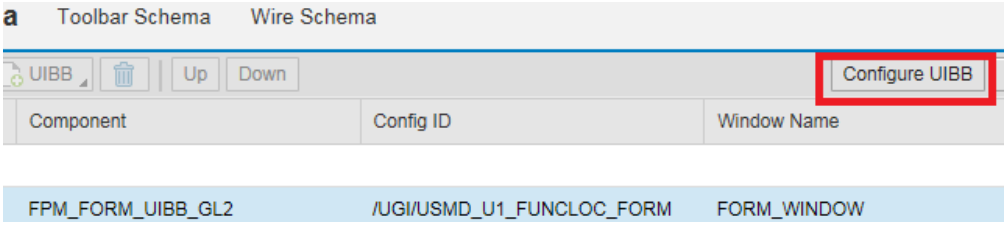
3. In the web browser, click on “Continue in Display Mode”.



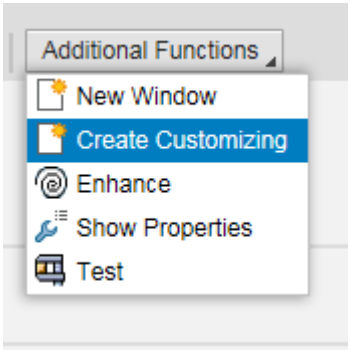
4. Click on the configuration /UGI/USMD_U1_FUNCLOC_OVP.



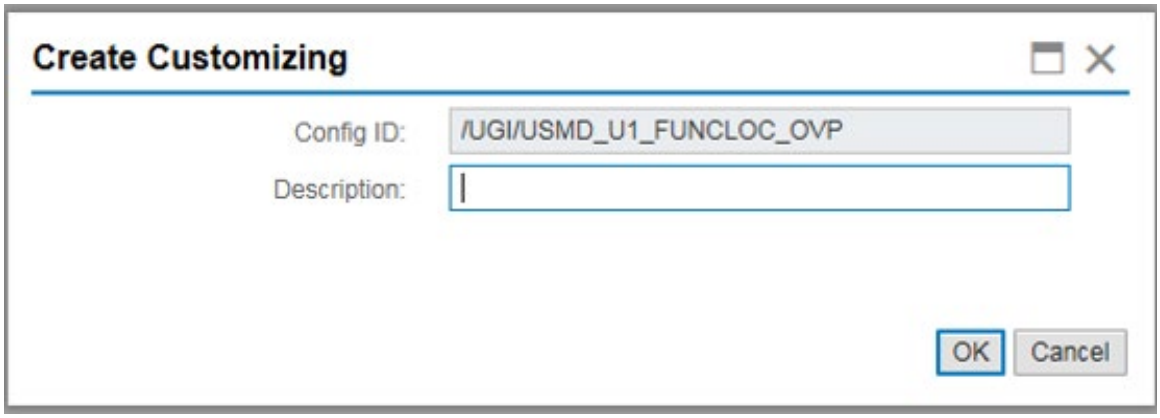
5. Select the UIBB where you want to add new attributes and click on “Configure UIBB”



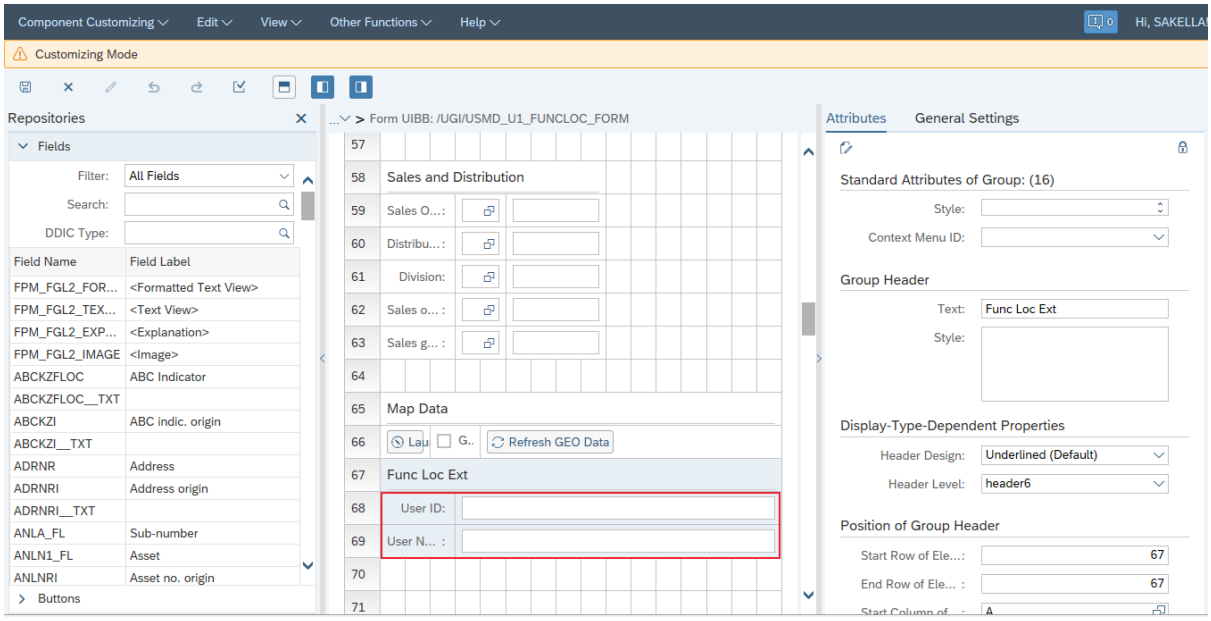
6. Click on Additional Functions > Create Customizing.



7. Click on OK.



8. Change your UI. Add new fields that is added in entity FUNCLOC.



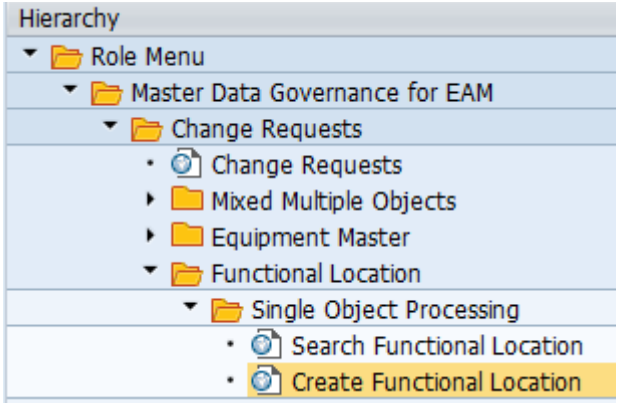
Testing the Configuration

Note: 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.

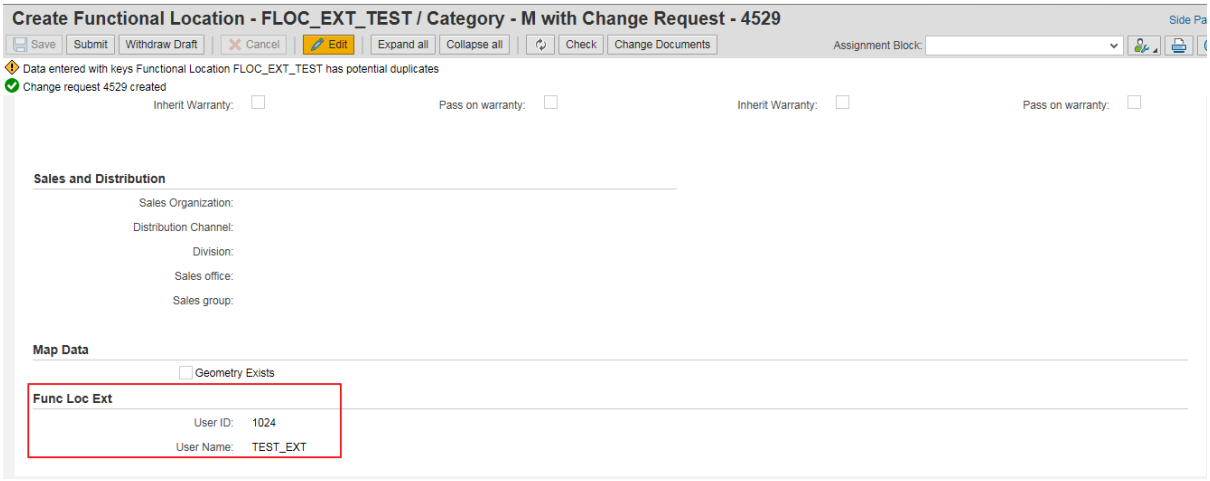
To test your configuration, start the MDG Functional Location UI using the following URL (replace the parameters host, port and client-id to match your landscape):

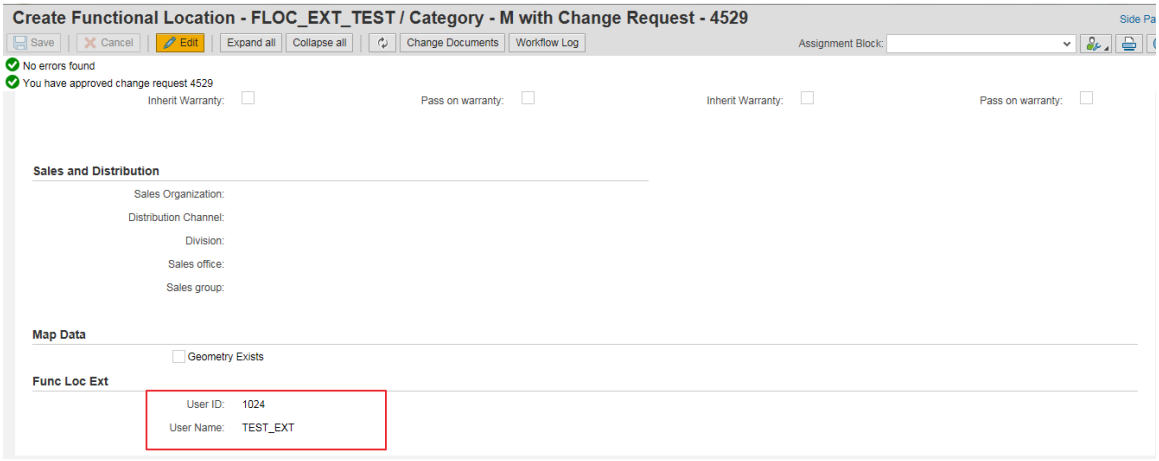
https://<host>:<port>/sap/bc/webdynpro/sap/ usmd_ovp_gen?ACTION=CREATE&FPM_EDIT_MODE=E&saplanguage=EN&WDCONFIGURATIONID=Z_USMD_U1_OVP_FUNCLOC#

1. Go to t-code PFCG > enter role name /UGI/_MDGEAM_REQ and click the “Display” button - Select the Menu – Tab > In the hierarchy window navigate to Role Menu > Master Data Governance for EAM > Change Request > Functional Location Master > Single Object Processing > Right-Click on Create Functional Location and select Execute from the drop-down.



After populating custom fields in the new functional location and submitting CR.
Save and Submit the CR. Finalize processing and Approve.





2. After activation use t-code SE16 and open table IFLOT. Verify attributes have been transferred correctly.

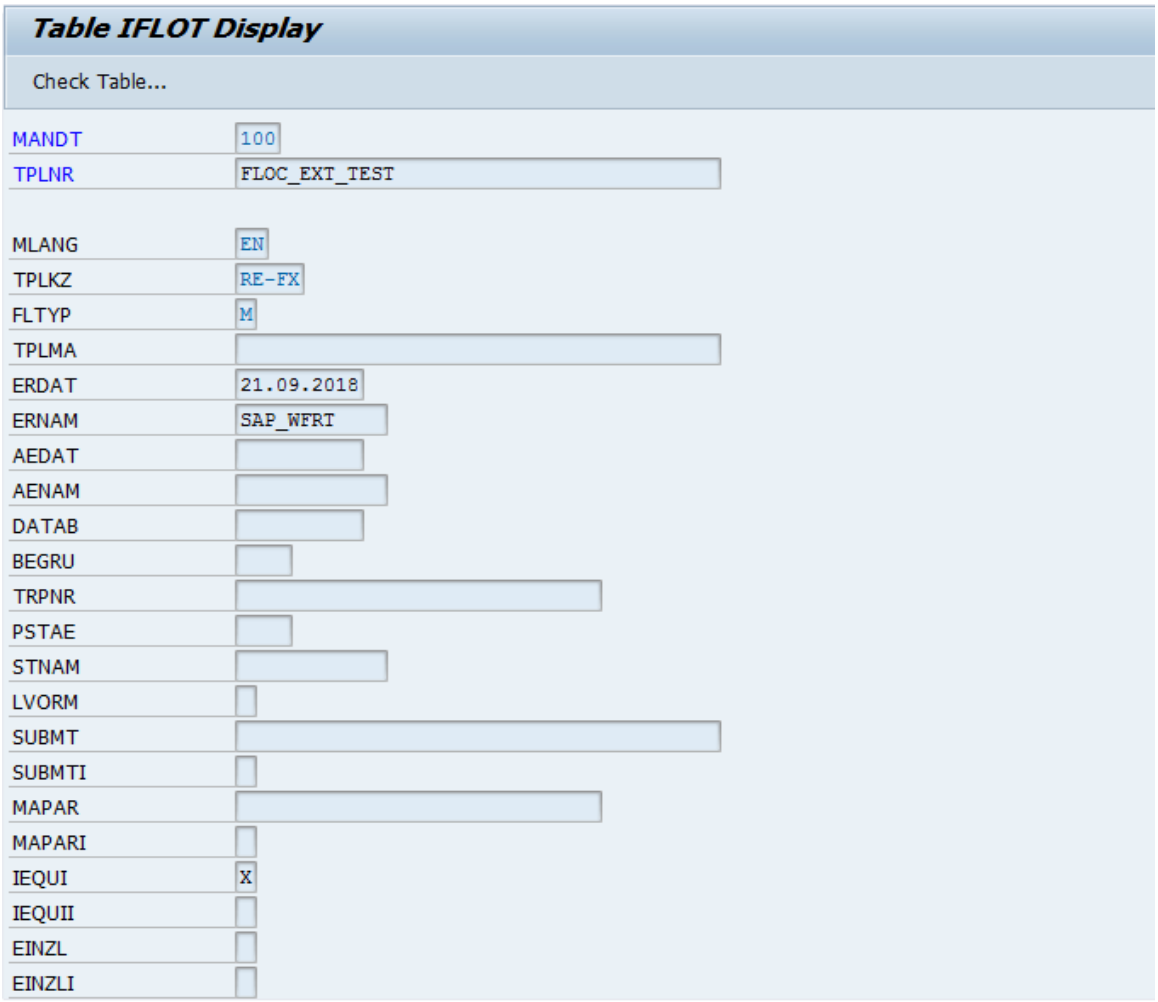


Table IFLOT Display

Check Table...

MANDT	100
TPLNR	FLOC_EXT_TEST
MLANG	EN
TPLKZ	RE-FX
FLTYP	M
TPLMA	
ERDAT	21.09.2018
ERNAM	SAP_WFRT
AEDAT	
AENAM	
DATAB	
BEGRU	
TRPNR	
PSTAE	
STNAM	
LVORM	
SUBMT	
SUBMTI	
MAPAR	
MAPARI	
IEQUI	X
IEQUII	
EINZL	
EINZLI	

Table IFLOT Display

Check Table...

ANSWT	0,00
WAERS	
ANSDT	
HERST	
HERLD	
BAUJJ	
BAUMM	
TYPBZ	
EMATN	
SERGE	
HANDLE	
TSEGTP	
CHANGEDDATETIME	20.180.921.072.359
ZZNAME	
ZZID	
FLLB DUTY	
FLLB HIDE	
IFLOT SRTYPE	
IFLOT SNTYPE	
ZITO ID	1024
ZITO NAME	TEST_EXT
PLTXT	Func loc test
KZLTX	
KZMLA	X
PLTXU	FUNC LOC TEST