Configuring Master Data Governance for Utopia EAM Solutions for MDG™

CUSTOMER
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Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help → General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

For the puposes of simplification, the Utopia EAM Solution for MDG™ will also be referred to as Master Data Governance for EAM or MDG for EAM at points throughout this configuration guide.

Typographic Conventions

Type Style	Description
Example text	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example text`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example text`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example text>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE TEXT`	Keys on the keyboard, for example, `F2` or `ENTER`.

Configuring Master Data Governance for Utopia EAM Solutions for MDG™

To use SAP Master Data Governance (MDG) for Utopia EAM Solutions for MDG™, you need to carry out the steps described below.

Prerequisites

Business Function

You have activated the following business functions:

- Master Data Governance, Generic Functions (MDG_FOUNDATION)
- Master Data Governance, Generic Functions 2 (MDG_FOUNDATION_2)
- Master Data Governance, Generic Functions 3 (MDG_FOUNDATION_3)
- Master Data Governance, Generic Functions 7.0 (MDG_FOUNDATION_4)
- Master Data Governance, Generic Functions 7.0 Feature Set (MDG_FOUNDATION_5)

Before you activate the business functions, ensure that you have the administration authorization for MDG. The required authorization objects are delivered with the authorization role SAP_MDG_ADMIN. In transaction PFCG, we recommend creating a copy of this role and assigning the relevant authorization values. For the authorization object USMD_DM *Data Model* you need to assign the values for the authorization field USMD_MODEL *Data Model* (for example U1) and the values for the authorization activity ACTVT *Activity* (for example 01: Create or generate, or 02: Change).

Functional Location Alternative Labeling

Verify that Functional Location Alternative Labeling is in the status that you require.

1. Inactive (status 1).

Transaction code is OIPU. If it is active, it can be set back to inactive, if so desired. The necessary steps are described in SAP Note 359186.

2. Active (status 2) see Activate Alternative Labeling [Page 36]

Set Up Workflow

To use the workflow processes of MDG for Utopia EAM Solutions for MDG™, you have defined general settings for SAP Business Workflow [Extern] in Customizing for SAP NetWeaver under *Application Server* > *Business Management* > *SAP Business Workflow*.

To activate the workflow features, use the semi-automated configuration in transaction `SWU3`. You can also access these settings in Customizing under *SAP NetWeaver* > *Application Server* > *Business Management* > *SAP Business Workflow* > *Maintain Standard Settings*

For further information see the documentation for the Configuration activity. Note the following when maintaining the settings:

- When configuring the RFC destination you need superuser authorization to create the default WF-BATCH user.
- Regenerate the authorization profile for SAP_ALL or include the USMD* authorization objects into the authorizations of the user WF-Batch.
- For the *Check Entries from HR Control Tables* section you may need to execute report `RHSOBJCH` in transaction `SE38` and keep the default settings.
- Maintain the prefix numbers for the standard objects.
- You do not need to maintain the Web Server node and Guided Procedures section.

Set Up Search

This release of Utopia EAM Solutions for MDG™ uses the standard MDG database search. The database search is already enabled within the MDG System. No further set up action is required.

Adjust Profile Parameters

Ensure that the profile parameter size for the *Shared Objects Memory* is correct. To check this setting run transaction `RZ11` and verify that the value for parameter `abap/shared_objects_size_MB` is at least 300 megabytes.

If you want to use the *SAP NetWeaver Business Client* with single sign on (SSO), ensure that the parameters `login/create_sso2_ticket` (2) and `login/accept_sso2_ticket` (1) are set correctly.

Use transaction RZ11 to check that the host name is fully qualified for parameter `icm/host_name_full`.

User Roles

In order to successfully conduct the next steps in the configuration process, you must have the following user roles assigned in the *PFCG* transaction:

- SAP_MDGA_MENU – Master Data Governance: Analytics
- SAP_MDG_ADMIN – Master Data Governance: Administrator

  This role contains authorizations for basic tasks relevant to the configuration and administration of SAP Master Data Governance (MDG) for all domains. Some authorizations allow critical activities. If you have multiple users involved in the configuration and administration of MDG content, we recommend you split this role into several new roles and give each new role a subset of the authorizations for this role. Such an approach ensures users only complete tasks they are responsible for and reduces the risk of critical errors. Authorizations for the MDG transactions are not included in this role.

- /UGI/_MDGEAM_ALLUSR – Master Data Governance for EAM: Basic Access
- /UGI/_MDGEAM_ECC_PM – Authorizations required for maintenance of Technical Objects in ECC Backend System
- /UGI/_MDGEAM_REQ – Master Data Governance for EAM: Requester
- /UGI/_MDGEAM_SPEC – Master Data Governance for EAM: Specialist

- /UGI/_MDGEAM_STEW – Master Data Governance for EAM: Data Steward

Web Dynpro Applications

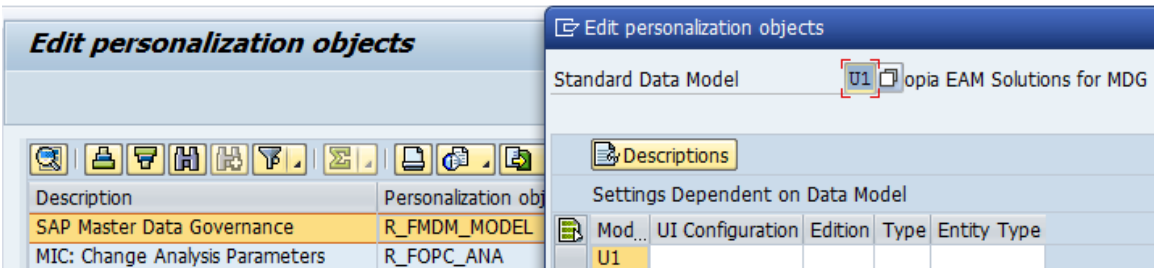
For security reasons the services delivered for Web Dynpro applications are delivered in an inactive state. You must activate the services you want to use. Use transaction `SICF` to activate the services. For a detailed list of the relevant services, see Services to be Activated for Web Dynpro Applications [Extern].

Number Ranges

Review the number range of the object EQUIP_NR. Key mapping is not supported in this version, only harmonized keys, therefore we recommend to mark the number ranges in the receiving systems as "external" if you are sending your equipment data via IDOC/ALE.

GenIL (Generic Interaction Layer) Component Adjustments

A New GenIL Component is added for the uEquip, uFLOC and uMBOM objects.
Check for the Component /UGI/1 in the tcode GENIL_MODEL_BROWSER in display mode, to make sure the Component is present and shows no errors.
Ensure that the Data Model U1 is the Standard Data Model for the Personalization parameters R_FMDM_MODEL. Use T-code SPERS_MAINT or personalization for UserID (T-Code SU01) to check the parameter. If it is not the default, enter U1 as the default and Save.



In case you use the Shared Memory for genIL actively, implement the following SAP Notes:

- 2045072 MDG: New MDG UIs cause short dumps if Shared Memory is active
  - specifically follow the manual instructions for the following Message Types:
    - Create Text Messages
    - Create Error Messages
- 2062895 MDG: New MDG UIs cause short dumps if Shared Memory is active (2)
  - Reset the shared memory area for genIL using transaction SHMM following note application
- 2096979 MDG: New MDG UIs cause short dumps if Shared Memory is active (3)
  - Reset the shared memory area for genIL using transaction SHMM following note application

Prerequisite SAP Notes

In order to ensure that Data Replication Framework works as expected, below SAP Notes is mandatory.

- 2156730 - Replication of custom objects trigger by CR activation: Mapping MDG key to DRF key

Prerequisite BC Set activation

In order to ensure that IDocs triggered by Data Replication Framework for Functional Location objects are posted successfully in target system in either MDG HUB or CoDeploy scenarios, Activation of below mentioned BC set in target system is mandatory provided UGI3 software component version is installed. For UGI3 dependency details please refer to installation guide.

- Go to SCPR20 , enter /UGI3/EAM_IDOC_INB_PROCESSCODE for BC set input field
- choose *Activate* ()

Process

This process describes the minimal set of customizing steps and recommended check activities required to do the following:

uEquip™ for MDG – Utopia Equipment Master for Master Data Governance

- Create Equipment
- Change Equipment
- Mark Equipment for Deletion
- Process multiple Equipment
- Multiple-record processing

uFLOC™ for MDG – Utopia Functional Location Master for Master Data Governance

- Create Functional Location
- Change Functional Location
- Mark Functional Location for Deletion
- Process multiple Functional Locations
- Multiple-record processing

uMROBOM™ for MDG – Utopia MRO Bill of Material Master for Master Data Governance

- Create MRO Bill of Material
- Change MRO Bill of Material
- Mark MRO Bill of Material for Deletion
- Process multiple MRO Bill of Materials
- Multiple-record processing

You run the settings for this process in Customizing under *Cross-Application Components* *Processes and Tools for Enterprise Applications* *Master Data Governance*. or enter ECC transaction code MDGIMG.

1. Activate the Data Model U1 [Page 10]
2. Activate Change Request Types (BC-Set) [Page 10]
3. Link Log. Actions with UI Application and Bus. Act.: Standard Definition [Page 10]
4. Verify Remaining Process Modeling Settings [Page 15]
5. Verify UI Modeling (Optional) [Page 19]
6. Set Up Search [Page 19]
7. Configure Process Quality Metrics (Optional) [Page 20]
8. Data Model U1 BRF+ objects [Page 22]
9. Configure Workflow Tasks [Page 22]
10. Set Up Data Replication [Page 24]
11. Customizing for ALE Audit (Optional) [Page 29]
12. Choose where you want to run SAP Master Data Governance [Page 32]
13. Final Steps [Page 33]
14. Workflow Templates for Utopia EAM Solutions for MDG™ [Page 34]
15. Activate Alternative Labeling [Page 35]

Result

The system is configured for MDG for EAM. In addition, if data load has been done, mass changes and distribution to other systems can also be executed.

More Information

- For information on functional restrictions, see SAP Notes 2077179, 2145353
- Master Data Governance Security Guide [Extern]
- Master and Master Update Guide [Extern]

Impact of PM/ EAM Customizing

Some standard customizing activities in the area of Plant Maintenance / Enterprise Asset Management are relevant for Master Data Governance for EAM under the *Define Field Selection* nodes, all activities that change the field properties affect the field properties in Master Data Governance for EAM. The field properties hidden, displayed, mandatory, and optional impact the Master Data Governance for EAM fields.

- Under the *Basic Settings* node, all activities impact Master Data Governance for EAM. Example settings include Number Ranges for Measuring Points or Warranty Types, and Measuring Point Categories
- Under the *Technical Objects* node, all activities impact Master Data Governance for EAM Example settings include the definition of Types of Technical Objects, Planner Groups, and Plant Sections.

1 Activate the Data Model U1

1. Check whether you can use the data model delivered by SAP and Utopia for managing your EAM data with MDG for EAM.

   Activate the delivered data model *U1* in Customizing for *Master Data Governance* under *General Settings* > *Data Modeling* > *Edit Data Model*.

   When upgrading to *MDG 7.0* check that the active and inactive versions of your data models are the same. Changes to the data models, not dependent on business function switches, may occur due to corrections made by SAP. You should check and activate all models after the upgrade to *MDG7.0* is complete. To do this navigate to *Master Data Governance* > *General Settings* > *Data Modeling* > *Edit Data Model* and activate any data models that have the entry `Different` in the column *Active Version*.

   After activation or if the status is `"Same"` in the column *Active Version*, you have to trigger the job to adjust the data model. Mark the line with U1 data model and press the corresponding icon to trigger the job.

2. Assign an internal key.

   To support internal key assignment, run the activity in Customizing for *Master Data Governance* under *General Settings* > *Data Modeling* > *Define Prefixes for Internal Key Assignment*.

   In MDG for EAM, authorizations cannot be defined here. Instead, the existing back-end authorizations are reused.

   For more information, see Customizing under *Plant Maintenance and Customer Service* > *Basic Settings* > *Maintain Authorizations for Master Data*.

3. Check or Generate Data Model-Specific Structures

   Following the activation of the U1 Data Model you will also need to activate the EAM Data Model-Specific structures. To check this run the activity in customizing for Master Data Governance under *General Settings* > *Data Modeling* > *Generate Data Model-Specific Structures*. Select the U1 data model and double-click on Data Models > Structures

   The structures are delivered with the software. If they do not exist or after changes to the data model you have to (re-)generate them

If you are prompted for a package ID, choose a package in the customer name space (beginning with Y or Z).

If you receive a dialog box with a message that “Customer object TABL CI* cannot be assigned to package /UGI/MDG_EAM_GLOBAL,” select the check mark () and enter your chosen package ID in place of the /UGI/MDG_EAM_GLOBAL value in the dev class field.

Other customizing activities in data modeling are only relevant for the EAM domain if your data model needs to be enhanced. For more information, see Enhancement of Master Data Governance Content

2. Activate Change Request Types (BC-Set)

For create, change, and mark for deletion and process EAM Objects, there are example change request types available.

Run the BC-Set activation process (transaction code SCPR20), for the BC-Sets

- **/UGI/MDG_EAM_CREQUEST_01** – Utopia EAM Solutions for MDG Change Request Types – Equipment and Functional Location
- **/UGI/MDG_EAM_CR_STATUS** – Utopia EAM Solution for MDG Change Request Status

To start, choose *Activate (* *)* for each BC-Set.

At the end of the generation you can ignore the warnings on missing workflow processor. Choose the option “Save Changes (Despite Warnings)”

Similarly activate the below BC-Sets for MRO BOM

- **/UGI/MDG_EAM_CREQUEST_02** - Utopia EAM Solutions for MDG Change request Types - MRO BOM
- **/UGI/MDG_EAM_PQM_02** - Utopia EAM Solutions for MDG Process Quality Metrics-MRO BOM

3 Link Log. Actions with UI Application and Bus. Act.: Standard Definition

The Logical Actions shown in Table 1 are delivered with the Utopia EAM Solutions for MDG™ Suite.

Table 1 EAM Objects Logical Actions UI Application and Bus Act. Linkage - Delivered

BO Type	Log.Action	Current UI Application Name	Current UI Configuration	Target UI Application Name	Target UI Configuration	Bus.Acty
183	CHANGE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ2
183	CHANGE	USMD_SEARCH	/UGI/USMD_SEARCH_EQUI	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ2
183	CREATE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ1
183	CREATE	USMD_SEARCH	/UGI/USMD_SEARCH_EQUI	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ1
183	DELETE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ6
183	MASS	USMD_CREQUEST_CREATE	/UGI/USMD_CREQUEST_CREATE_EQUI	USMD_CREQUEST_CREATE	/UGI/USMD_CREQUEST_CREATE_EQUI	UEQA
185	CHANGE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2
185	CHANGE	USMD_SEARCH	/UGI/USMD_SEARCH_FUNCLOC	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2
185	CREATE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	CREATE	USMD_SEARCH	/UGI/USMD_SEARCH_FUNCLOC	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	DELETE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL6
237	CHANGE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB2
237	CHANGE	USMD_SEARCH	/UGI/USMD_SEARCH_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB2
237	CREATE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB1
237	CREATE	USMD_SEARCH	/UGI/USMD_SEARCH_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB1
237	DELETE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB6
237	DELETE	USMD_SEARCH	/UGI/USMD_SEARCH_PMBOMHDR	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB6

The logical actions shown in Table 2 need to be added manually.

For more information, see Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Business Activities* > *Link Log. Actions with UI Application and Bus. Act. Standard Definition*.

Table 2 EAM Objects Logical Actions UI Application and Bus Act. Linkage – Manual Entry Required

BO Type	Log.Action	Current UI Application Name	Current UI Configuration	Target UI Application Name	Target UI Configuration	Bus.Acty
183	*	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	
183	CHANGE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ2
183	CHANGE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ2
183	CREATE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ1
183	CREATE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ1
183	CREATE	USMD_WF_NAVIGATION	USMD_WF_NAVIGATION	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ1
183	DELETE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ6
183	DELETE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ6
183	DISPLAY	*	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQ3
183	LOAD	USMD_CREQUEST_PROCESS	USMD_CREQUEST_PROCESS	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQB
183	MASS	*	*	USMD_MASS_CHANGE	USMD_MASS_CHANGE	UEQA
183	MASS	MDGF_OVP_GEN	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQA
183	MASS	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQA
183	MASS	USMD_EDITION_CREQUEST	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQA
183	MASS	USMD_SEARCH	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	UEQA
185	*	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	
185	CHANGE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2
185	CHANGE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2
185	CHANGE	USMD_MASS_CHANGE	USMD_MASS_CHANGE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2

BO Type	Log.Action	Current UI Application Name	Current UI Configuration	Target UI Application Name	Target UI Configuration	Bus.Acty
185	CHANGE	USMD_WF_NAVIGATION	USMD_WF_NAVIGATION	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL2
185	CREATE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	CREATE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	CREATE	USMD_MASS_CHANGE	USMD_MASS_CHANGE	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	CREATE	USMD_WF_NAVIGATION	USMD_WF_NAVIGATION	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL1
185	DELETE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL6
185	DELETE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL6
185	DISPLAY	*	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFL3
185	MASS	*	*	USMD_MASS_CHANGE	USMD_MASS_CHANGE	UFLA
185	MASS	MDGF_OVP_GEN	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFLA
185	MASS	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFLA
185	MASS	USMD_EDITION_CREQUEST	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFLA
185	MASS	USMD_MASS_CHANGE	USMD_MASS_CHANGE	USMD_MASS_CHANGE	USMD_MASS_CHANGE	UFLA
185	MASS	USMD_SEARCH	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UFLA
237	*	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	
237	CHANGE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB2
237	CHANGE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB2
237	CREATE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB1
237	CREATE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB1
237	CREATE	USMD_WF_NAVIGATION	USMD_WF_NAVIGATION	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB1
237	DELETE	USMD_CHANGE_DOCUMENT	USMD_CHANGE_DOCUMENT	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB6
237	DELETE	USMD_EDITION_CREQUEST	USMD_EDITION_CREQUEST	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB6
237	DISPLAY	*	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMB3
237	MASS	*	*	USMD_MASS_CHANGE	USMD_MASS_CHANGE	UMBA
237	MASS	MDGF_OVP_GEN	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMBA
237	MASS	USMD_CREQUEST_PROCESS	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMBA

BO Type	Log.Action	Current UI Application Name	Current UI Configuration	Target UI Application Name	Target UI Configuration	Bus.Acty
237	MASS	USMD_EDITION_CREQUEST	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	UMBA
237	MASS	USMD_MASS_CHANGE	USMD_MASS_CHANGE	USMD_MASS_CHANGE	/UGI/USMD_U1_OVP_PMBOMHDR	UMBA
237	MASS	USMD_SEARCH	*	USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	UMBA

4 Verify Remaining Process Modeling Settings

Depending on your company's requirements you might want to adjust and enhance the default change request values loaded in step 2 above.

The following information describes the minimal settings for a basic governance process. For more information about each customizing activity, see the relevant documentation for that customizing activity.

1. Review and/or define which statuses the change requests can have, and which processing options are enabled for those statuses. Optionally, you can add new statuses to be used in the change request types.

   For more information, see Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Change Requests* > *Edit Statuses of Change Requests*.

   The following statuses are required for the SAP standard process, you should maintain any the missing ones manually:

Status Value	Description	Permitted Processing
00	To Be Evaluated	Change of Object List
01	To Be Considered and Approved	Change of Object List
02	Changes to Be Executed	Execution of Changes
03	To Be Revised	Change of Object List
04	Final Check to Be Performed	No Processing
05	Final Check Approved	No Processing
06	Final Check Rejected	No Processing
07	Activation Failed	No Processing
08	Approved; to Be Replicated	No Processing
09	Dependent Data to Be Processed/Approved	Execution of Changes
10	To Revise: Perform Changes	Execution of Changes
11	Process Errors After Activation	Execution of Changes
12	Approved, Contact Person to be Processed	No Processing
30	To Be Revised with Changes	Execution of Changes
99	No Status Set	No Processing

2. Check that the following business activities are in your system and that they are assigned to the default data model U1.

   Equipment Master

   - UEQ1 Create Equipment Master
   - UEQ2 Change Equipment Master
   - UEQ3 Display Equipment Master
   - UEQ6 Mark Equipment Master for Deletion
   - UEQA Mass Update Equipment Master
   - UEQB Import Equipment Master

Functional Location

- UFL1 Create Functional Location
- UFL2 Change Functional Location
- UFL3 Display Functional Location
- UFL6 Mark Functional Location for Deletion
- UFLA Mass Change Functional Locations
- UFLB Import Functional Locations

MRO Bill of Material

- UMB1 Create MRO BOM
- UMB2 Process MRO BOM
- UMB3 Display MRO BOM
- UMB6 Mark MRO BOM for Deletion
- UMBA Mass Update MRO BOM
- UMBB Import MRO BOM

For more information, see Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Business Activities* > *Create Business Activity*.

3. Create new change request types for data model U1, or validate after import using business configuration sets (BC-Sets).

   For more information, see Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Change Requests* > *Create Change Request Type*.

   The following table shows the proposed change request types for data model U1. Only the relevant columns are included.

Change Request Type	Data Model	Description	Single Object	Main Entity Type	Workflow
EQMAST01	U1	Create Equipment	Yes	EQUI	WS75700040
EQMAST02	U1	Change Equipment	Yes	EQUI	WS75700040
EQMAST06	U1	Mark Equipment for Deletion	Yes	EQUI	WS75700040
EQMAST0A	U1	Process Multiple Equipment Masters	No	EQUI	WS75700040
EQMAST0B	U1	Import Equipment Master	No	EQUI	WS75700040
FUNCLO01	U1	Create Functional Location	Yes	FUNC_LOC	WS75700040
FUNCLO02	U1	Change Functional Location	Yes	FUNC_LOC	WS75700040
FUNCLO06	U1	Delete Functional Location	Yes	FUNC_LOC	WS75700040
FUNCLO0A	U1	Process Multiple Functional Locations	No	FUNC_LOC	WS75700040
FUNCLO0B	U1	Import Functional Location	No	FUNC_LOC	WS75700040
MATBOM01	U1	Create MRO Bill of Material	Yes	PMBOMHDR	WS75700040

Change Request Type	Data Model	Description	Single Object	Main Entity Type	Workflow
MATBOM02	U1	Change MRO Bill of Material	Yes	PMBOMHDR	WS75700040
MATBOM06	U1	Delete MRO Bill of Material	Yes	PMBOMHDR	WS75700040
MATBOM0A	U1	Process Multiple MRO Bill of Material	No	PMBOMHDR	WS75700040
MATBOM0B	U1	Import MRO Bill of Material	No	PMBOMHDR	WS75700040

The standard workflow template used by Utopia EAM Solutions for MDG™ is `WS75700040`. This template is a simple workflow which does not use *BRF+* decision tables. Please see the workflow template in section14.1 Workflow Template WS75700040The following settings should exist in the substructures of the change request types:

Equipment Master

- *EQMAST01*
  - Entity type: EQUI
  - UI Config <leave empty>
  - Msg. Output: *Standard*
  - Business Activity: Create Equipment Master (UEQ1)
  - Service Level Agreement for Change Request Types: <leave empty>
- *EQMAST02*
  - Same as for EQMAST01
  - Business Activity: Change Equipment Master (UEQ2)
- *EQMAST06*
  - Same as for EQMAST01
  - Business Activity: Mark Equipment Master for Deletion (UEQ6)
- *EQMAST0A*
  - Same as for EQMAST01
  - Business Activity: Process Multiple Equipment Masters (UEQA)
- EQMAST0B
  - Same as for EQMAST01
  - Business Activity:Import Equipment Master (UEQB)

Functional Location

- *FUNCLO01*
  - Entity type: FUNC_LOC
  - UI Config <leave empty>
  - Msg. Output: *Standard*
  - Business Activity: Create Functional Location (UFL1)
  - Service Level Agreement for Change Request Types: <leave empty>
- *FUNCLO02*
  - Same as for FUNCLO01

        - Business Activity: Change Functional Location (UFL2)

    - *FUNCLO06*
        - Same as for FUNCLO01
        - Business Activity: Mark Functional Location for Deletion (UFL6)

    - *FUNCLO0A*
        - Same as for FUNCLO01
        - Business Activity: Process Multiple Functional Locations (UFLA)

    - FUNCLO0B
        - Same as for FUNCLO01
        - Business Activity:Import Functional Location (UFLB)

MRO Bill of Material

    - *MATBOM01*
        - Entity type: PMBOMHDR
        - UI Config <leave empty>
        - Msg. Output: *Standard*
        - Business Activity: Create MRO BOM (UMB1)
        - Service Level Agreement for Change Request Types: <leave empty>

    - *MATBOM02*
        - Same as for MATBOM01
        - Business Activity: Change MRO BOM (UMB2)

    - *MATBOM06*
        - Same as for MATBOM01
        - Business Activity: Mark MRO BOM for Deletion (UMB6)

    - *MATBOM0A*
        - Same as for MATBOM01
        - Business Activity: Mass Update MRO BOM (UMBA)

    - MATBOM0B
        - Same as for MATBOM01
        - Business Activity: Import MRO BOM (UMBB)

4. You can configure the properties of the change request steps. This is optional except for the Multiple-Record Processing change request types. For more information see Customizing for Master Data Governance under *General Settings* > *Process Modeling* > *Change Requests* > *Configure Properties of Change Request Step*.

5. Optionally, you can define print forms for change requests. By default, the form *USMD_EDITION_CREQUEST* is used. This is relevant only if your own or multiple print forms are required.

   For more information, see Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Change Requests* > *Define Print Form for Change Requests*.

5 Verify UI Modeling (Optional)

UI configuration activities are only relevant if you want to change the UI or if the U1 data model has been enhanced.

In this Customizing activity, you can specify if and where the system hides the entity types for the data model U1.

Verify the pre-delivered field properties for the data model `U1` in Customizing under *General Settings* > *UI Modeling* > *Define Field Properties for UI*.

The Web Dynpro application and the application configuration in the PFCG role combine with settings made in Customizing to determine the UI displayed.

You need to verify the UI modeling for the data model U1 and the following Web Dynpro applications and related configurations:

Application	Application Configuration	UI Configuration
USMD_OVP_GEN	/UGI/USMD_U1_OVP_EQUI	/UGI/USMD_U1_EQUI_OVP
USMD_OVP_GEN	/UGI/USMD_U1_OVP_FUNCLOC	/UGI/USMD_U1_FUNCLOC_OVP
USMD_OVP_GEN	/UGI/USMD_U1_OVP_PMBOMHDR	/UGI/USMD_U1_OVP_PMBOMHDR
USMD_SEARCH	/UGI/USMD_SEARCH_EQUI	/UGI/USMD_SEARCH_OVP_EQUI
USMD_SEARCH	/UGI/USMD_SEARCH_FUNCLOC	/UGI/USMD_SEARCH_OVP_FUNCLOC
USMD_SEARCH	/UGI/USMD_SEARCH_PMBOMHDR	/UGI/USMD_SEARCH_OVP_PMBOMHDR

6 Set Up Search

MDG offers several options to search for the data in change requests including the active and inactive data. The search options are distinguished by their capabilities and their landscape requirements. The main difference is in their capability to include classification data in the search. These are the following options:

- SAP search engine-based search (*TREX* search) offers full search capabilities.
- Database Search using the generic search provider interface must be configured manually and does not offer classification search.
- SAP HANA-based search (side-by-side) connects MDG from any database to an SAP HANA-based system for search, but does not include classification search.

In Release 7.1 of the Utopia EAM Solutions for MDG™ Suite, the Database Search is available as delivered. Additional search options are planned for future releases.

7 Configure Process Quality Metrics (Optional)

For the priorities, reasons, or rejection reasons for change requests, there are example values available.

Run the BC-Set activation process (transaction code SCPR20), enter **/UGI/MDG_EAM_PQM_01**.

To start, choose *Activate* and keep the default settings.

These codes can be used later for change request analytics (process quality analysis). They also can be used to influence the workflow-driven processes. For example, depending on the priority of a change request, you can mark it for special processing.

To update any of the Process Quality Metrics (PQM) , perform the following activity in Customizing for *Master Data Governance* under *General Settings* > *Process Modeling* > *Change Requests* > *Define Priorities / Reasons / Rejection Reasons for Change Requests*.

The values for these PQM values delivered in the BC-Set are as follows:

Change Request Priorities

Priority	Description
1	High
2	Medium
3	Low

Change Request Reason

CR Type	Reason	Description
EQMAST01	01	New Equipment Master
EQMAST02	01	Change Equipment Master (Core)
EQMAST02	02	Change Equip Master (Text)
EQMAST02	03	Change Equip Master (Classification)
EQMAST06	01	Delete-Mark Equipment Master (Core)
EQMAST0A	01	Process Multiple Equipment Masters
EQMAST0B	01	Import Equipment Masters
FUNCLO01	01	New Functional Location
FUNCLO02	02	Change Functional Location
FUNCLO06	01	Delete Functional Location
FUNCLO0A	01	Process Multiple Functional Locations
FUNCLO0B	01	Import Functional Location
MATBOM01	01	New Material BOM
MATBOM02	01	Change Material BOM
MATBOM06	01	Delete-Mark Material BOM (Core)
MATBOM0A	01	Process Multiple Material BOMs
MATBOM0B	01	Import Material BOMs

Reason for Rejection

CR Type	Rejection Reason	Description
EQMAST01	01	Incomplete Information
EQMAST01	02	Does not suit business requirements
EQMAST01	03	No proper justification
EQMAST02	05	Revision of field information
EQMAST02	06	Workcenter has to be changed
EQMAST02	07	Maintenance Plant has to be revised
EQMAST06	08	No business justification
EQMAST06	09	Requirement withdrawn
EQMAST06	10	Similar Equipment already exists
FUNCLO01	01	Incomplete Information
FUNCLO01	02	Does not suit business requirements
FUNCLO01	03	No proper justification
FUNCLO02	05	Revision of field information
FUNCLO02	06	Workcenter has to be changed
FUNCLO02	07	Maintenance Plant has to be revised
FUNCLO06	08	No business justification
FUNCLO06	09	Requirement withdrawn
FUNCLO06	10	Similar Func. Loc. already exists
MATBOM01	01	Incomplete information
MATBOM01	02	Does not suit business requirements
MATBOM01	03	No proper Justification
MATBOM02	05	Revision of several fields Information
MATBOM02	06	Workcenter has to be changed
MATBOM02	07	Maintenance Plant has to be revised
MATBOM06	08	No business Justification
MATBOM06	09	Requirement withdrawn
MATBOM06	10	Already similar Service exists

8 Activate Data Model U1 BRF+ Objects

The OOTB (Out of the Box) core validations and derivations for Equipment Master have been migrated from BRF+ to the Access Class for 710-SP02.

If you are doing a fresh installation, you need not do anything related to BRF+.

If you are upgrading from 710-SP01, there are several options available depending on your situation:

1. There are no custom business rules that have been added for Equipment Master, Functional Location, or MRO BOM. In this case, you can do the following:
   1.1. Using t-code BRF+ or BRFPUS:
      1.1.1. Delete Catalog FMDM_MODEL_U1
      1.1.2. Delete Application FMDM_MODEL_U1
   1.2. Create a Customizing Transport Request
   1.3. Using t-code USMD_RULE:
      1.3.1. Select Data Model U1 when prompted
      1.3.2. Select Transport Request created in step 1.2. This will recreate a new clean Application FMDM_MODEL_U1 for any client-specific business rules.

2. There are custom business rules that have been added for Equipment Master, Functional Location, or MRO BOM. In this case, you can either disable the OOTB rulesets or delete the rulesets and associated objects (rules, db lookups, etc.).

9 Configure Workflow Tasks

As a prerequisite you have made the necessary general settings for workflows and defined the organizational plan in Customizing for SAP NetWeaver under *Application Server* › *Business Management* › *SAP Business Workflow*. Ensure that the active type linkages for Change Request (BUS2250) are set correctly. Follow the instructions in Customizing for MDG under *General Settings* › *Process Modeling* › *Workflow* › *Activate Type Linkage*. For object type `BUS2250` check that the *Type Linkage Active* indicator is active for the events `CREATED`, `ACTIVATED`, and `ROLLED_BACK`. In addition, check that the *Enable Event Queue* indicator is active for the events `ACTIVATED`, and `ROLLED_BACK`, but not for the event `CREATED`.

The standard workflow template used by Master Data Governance for EAM is *WS75700040*

In order to ensure the general assignment of processors using the rule-based workflow, run the following activity in Customizing for *Master Data Governance* under *General Settings* › *Process Modeling* › *Workflow* › *Configure Workflow Tasks*.

1. Go to application component *CA-MDG-AF* and choose *Assign Agents*.
2. Set the *Dialog Processing* (`TS 60807954`) task as a *General Task*, if it not already set. To do so, select the task, choose *Attributes* and change it to *General Task*.

The Utopia EAM Solution for MDG provides a set of Agent Determination entries for the standard workflow template WS75700040. You can assign one User ID (type “US”) to each task in the workflow which requires agent determination.

Both SAP and Utopia recommend using the Organizational Management functionality which offers more flexibility and simplifies maintenance if allowed in the productive system. Therefore Depending upon the Org Structure or Single User, manually assign any type of Organizational Unit, e.g. Positions (“S”) to the CR Type and Step.

Master Data Governance under *General Settings* *Process Modeling* *Workflow* *Other MDG Workflows* *Assign Processor to Change Request Step Number (Simple Workflow)* .

Example: You make the entries listed below to determine that change request type 01 has the following properties: (a) evaluation is done by organizational units GROUPACC, GLACC, and GROUPMD; (b) approval is done by user X; (c) changes are executed by organizational unit GROUPMD; and (d) the final approval is done by user Y:

Step	Description	Object Type	Processor ID
1	Evaluation	O	GROUPACC
1	Evaluation	O	GLACC
1	Evaluation	O	GROUPMD
2	Consider and Approve	US	X
3	Edit	O	GROUPMD
4	Approval	US	Y

Hint: Usage of MDG-EAM by Utopia together with Extended ECM by OpenText™

If you want to use MDG-EAM by Utopia together with Extended ECM by OpenText™, please use the workflow template WS54300020 instead of the default template WS75700040.

Reason: The workflow template WS75700040 that is defaulted and described in this guide uses task TS75707953 for the activation step. This task does not trigger the necessary change pointers for Extended ECM, because it is using method ACTIVATE for the business object BUS2250. A new method ACTIVATE_2 has therefore been created that does trigger the necessary change pointers for Extended ECM e.g. used in task TS60808002 which itself is used in the workflow template WS54300020.

If you defined you own workflow templates, please ensure that for the activation step the improved task TS60808002 is used as well.

10 Set Up Data Replication

In the forthcoming sections there will be multiple references to Business Object Types (BO Types), Object ID Types, Messages, etc. which correspond with the various EAM Objects included within the Utopia EAM Solutions for MDG™ domain. For ease of reference, each of the main entities within the domain is listed.

Table 3 EAM Business Object Types and Messages

Element	Equipment: ID (Description)	Functional Location: ID (Description)	MRO Bill of Material: ID (Description)
Object Type	183 (Equipment)	185 (Installation Point)	237 Bill of Material
Object ID Type	451 Individual Material ID (ERP)	450 Installation Point ID (ERP)	964 Bill of Material Internal ID (ERP)
Messages	EQUIPMENT_CREATE, EQUIPMENT_CHANGE	/UGI3/EAM_FUNC_LOC ~~FUNC_LOC_CREATE, FUNC_LOC_CHANGE~~	BOMMAT (message type)
Filter Object	/UGI/EQUI (Equipment)	/UGI/FLOC (Functional Location)	/UGI/MBOM (MRO Bill of Material)
Outbound Implementation	/UGI/I_EM (Equipment via iDoc (MDG))	/UGI/I_FL (Functional Location via iDoc (MDG))	/UGI/MBOM (Outbound Implementation for MRO Bill Of Material)
Outbound Implementation Class	/UGI/CL_MDG_EAM_IDOC_DRF_EM	/UGI/CL_MDG_EAM_IDOC_DRF_FL	/UGI/CL_MDG_BOM_IDOC_DRF
Key Structure	COMES_S_DRF_EQU_KEY	MDG_BS_FUNCLOC_KEY_TPLNR	MDG_BS_BOM_KEY_STNUM

For Utopia EAM Solutions for MDG™ you have two options for replicating data from the MDG hub to the connected systems and clients:

- Data replication using Application Link Enabling (ALE)
- Data replication using Application Link Enabling (ALE) with the Data Replication Framework

For more information, see in Customizing under *Application Server* > *IDoc Interface / Application Link Enabling (ALE)* > *SAP Business Workflow*.

Set Up Data Replication Using ALE

The following process briefly describes the minimal settings required for the main message types of the EAM Object (seeTable 3)

Verify logical systems

Run transaction *SALE* and choose *Basic Settings* > *Logical Systems*. Both clients (source and target) need to be defined as logical systems and need to be assigned to the relevant clients.

1. Check communication

   Run transaction *SALE* and choose *Communication* > *Created RFC Connections*. The target partner system has to be defined here as an ABAP connection with a connection type of 3 and with same name as the target logical system. Perform a connection test.

   Define an ALE tRFC port using transaction WE21. Created port will use the RFC connection created in the earlier step.

2. Maintain distribution model

   a. Run transaction *SALE* (Display ALE Customizing) and choose *Modeling and Implementing Business Processes* > *Maintain Distribution Model and Distribute Views*. Alternatively, run transaction *BD64* (Maintenance of Distribution Model)
   .
   b. In change mode, create a new model.

      Choose the *Create Model View* pushbutton. Enter a short text and a technical name.

   c. Choose the *Add BAPI* pushbutton for the newly created model.

   d. Enter names for the logical source and destination systems and choose the appropriate BAPI and method

Interface	Method
PieceOfEquipment	Create
PieceOfEquipment	Change

   e. Choose the *Add Message Type* pushbutton for the newly created model.

   f. Enter names for the logica source and destinations systems and choosed the message type **/UGI3/EAM_FUNC_LOC.** This message type should be available if the **/UGI3/** package is installed and BC set **/UGI3/EAM_IDOC_INB_PROCESSCODE'** should be available.
   g.
   h. Choose the *Add Message Type* pushbutton for the newly created model.

   i. Enter the names for the logical source and destination systems and choose the message type **"BOMMAT"**.

3. Create partner profile.

   a. Run transaction *SALE* and choose *Partner Profiles* > *Generate Partner Profiles*. Alternatively, run transaction *BD82* (Generate Partner Profiles).

b. Select the newly created model and in the *Partner System* field, enter the logical destination system.

c. Enter the ALE-User (the default value is `ALEREMOTE`) and the following values, and execute.

Field	Value
Version	3
PackSize	100
Output Mode	Transfer IDoc immediately
Inb. Parameters: Processing	Trigger Immediately

d. To verify your settings, run transaction *WE20* and from the *Partner Profiles* menu, choose *Partner Type LS*. Verify that *Partner type LS* is the logical destination system.

e. In the detail screen, the chosen message types should appear.

4. Distribute model view to receiving system.

a. Run transaction *SALE* and choose *Modeling and Implementing Business Processes* > *Maintain Distribution Model and Distribute Views*. Alternatively, run transaction *BD64*.

b. Select the new model and choose *Edit* > *Model view* > *Distribute*.

c. Verify that the correct receiving system is marked and choose `Enter`.

d. Verify within the receiving system that the model view was created.

5. Create partner profile (in receiving client).

a. Run transaction *SALE* and choose *Modeling and Implementing Business Processes* > *Partner Profiles* > *Generate Partner Profiles*. Alternatively, run transaction *BD82*.

b. Select the distributed model.

c. Enter the ALE-User, and the following values, and execute.

Field	Value
Version	3
PackSize	100
Output Mode	Transfer IDoc immediately
Inb. Parameters: Processing	Trigger Immediately

d. If the protocol contains the error *Port could not be created* this can be ignored. If you get warning “Inb. Parameters Process code created with BAPP”, check that the correct process code is being used. To do this, either click on the message or run transaction WE20 on the target system and choose LS Partner Type (which corresponds to the MDG Hub system) > Inbound Parameters > select

<Message Type> DetailScreenInboundParamter ( ) Check that the parameter *Process Code* is as follows for the associated message type:

Message	Process Code
EQUIPMENT_CREATE	*BAPI*
EQUIPMENT_CHANGE	*BAPI*
/UGI3/EAM_FUNC_LOC	*/UGI3/EAM_FUNC_LOC*
BOMMAT	*BOM2*

In the Configuration activity *Define Technical Settings for Business Systems* SAP recommends that you select the checkbox *Status System Filter* for the *corresponding* business object. This ensures that if an object instance was previously sent to a target system, it continues to be sent in the future, independent of filter settings.

Set Up Data Replication Using ALE with DRF

In Master Data Governance for the EAM Objects, the replication of master data from MDG Hub to connected client systems can be scheduled, triggered, and monitored using the Data Replication Framework (DRF) in concert with the ALE.

If you are using ALE and DRF together to replicate EAM Objects you can improve performance by deselecting the change pointers for the corresponding message type.

You can do this in the *Activate Change Pointers for Message Types* configuration activity. You should only do this if all your MDG systems are integrated using ALE and DRF together. If you use ALE without DRF in one or more connected systems do *not* disable the change pointers.

The following customizing is relevant for data replication:

- ALE (See *Set Up Data Replication Using ALE* above)
- Key Mapping (See *Key Mapping* below)
- ALE Audit (See *Customizing for ALE Audit* below)
- Data Replication Framework (DRF)

The following process outlines the steps required to perform the customizing for the last three points above.

Customizing for Data Replication Framework (DRF)

1. Use transaction DRFIMG to check if the filter objects below have been defined. Select *Enhance Default Settings for Outbound Implementation* > *Define Filter Objects* to

view the filter object definitions. Check that the main filter object is available for each EAM object. See table below:

Business Object Type	Main Filter Object	Outbound Implementation	Table Name	Data Model / Entity Type
183	/UGI/EQUI	/UGI/I_EM	EQUI	U1 / EQUI
185	/UGI/FLOC	/UGI/I_FL	IFLOT	U1 / FUNCLOC
237	/UGI/MBOM	/UGI/MBOM	MAST	U1 / PMBOMHDR

If not available, add the explicit complex filter for the object /UGI/MBOM with the following parameters:

a. Filter Parameter: /UGI/_S_U1_DRF_PMBOMHDR
b. Filter Class: /UGI/CL_MES_DRF_BOM_EXPL_FILT

Navigate to the *Assign Filters* and ensure that at least one suitable filter is assigned. The *Assign Filter Type* should have the values listed above.

2. Optionally you can check the correct assignment of Object ID Type, BO Types and Object Node Types and via *Enhance Default Settings for Outbound Implementation* > *Define Business Objects and Object Identifiers* > *Define Object Identifiers*. Compare the entries with the values of Table 1 at the beginning of this chapter.

3. Check that the Key Structure Assigment for all entity types exist. See alsoTable 1 at the beginning of this chapter.
   If not, create the entry. via *Enhance Default Settings for Outbound Implementation* > *Define Business Objects and Object Identifiers* > *Assign Key Structures to Object Identifiers*
   a. Assign the Key Structure /UGI/_S_U1_DRF_FUNCLOC to Object Type 450
   b. Assign the Key Structure /UGI/_S_U1_DRF_PMBOMHDR to OT 964

4. Define the technical settings for the business system.

   a. Enter transaction `DRFIMG` and navigate to *Define Custom Settings for Data Replication* > Define Technical Settings→ *Define Technical Settings for Business Systems*.
   b. In the *Business System* field specify the receiver system. In the *Logical System* field enter the Logical System used for IDoc communication. In the *RFC Destination* field enter the RFC destination to be used for RFC communication with the receiver system.
   c. Select the entry and click on *Define Bus. Systems, BOs*.
   d. In the *BO Type* field enter the business object types from above table
   e. Select each of the entries and double-click on *Define Bus. Systems, BOs, Communication Channel*. In the *Communication Channel* field enter the means you want to use to transmit data to the applications. In the *Key Harm.* field specify if you want your keys harmonized between the hub and the client systems.
   The following are the default settings:

C. Channel	Key Harm.	Upd. KM	Storage Repl. Data	Sup. Time Dep.
Replication via Idoc	Not defined / harmonized IDs	unchecked	Active Area	Not defined / Does not support

Note that key mapping is not currently supported by the EAM 7.10 implementation.

5. Create the replication model and assign it to the outbound implementation as follows:

   a. Enter transaction `DRFIMG`.
   b. Navigate to *Data Replication* > *Define Custom Settings for Data Replication* > *Define Replication Models*.
   c. Select *Define Replication Model* and then select *New Entries*.
   d. Enter a replication model and a description. In the *Log Days* field, you may enter the number of days after which you want an Application Log to expire. In the *Data Model* field, enter **`U1`**.
   e. Select the newly defined replication model and choose *Assign Outbound Implementation*.
   f. Choose *New Entries*.
   g. Assign the appropriate outbound implementation.

Outbound Implementation	Communication Channel	Filter Time (Recommended)
/UGI/I_EM (for EQUI)	Replication via IDoc	Filter after Change Analysis
/UGI/I_FL (For FuncLoc)	Replication via IDoc	Filter after Change Analysis
/UGI/MBOM (For MRO BOM)	Replication via IDoc	Filter after Change Analysis

   h. Assign a target system to each of the outbound implementations.
   i. Assign the outbound parameter `PACK_SIZE_BULK` to the outbound implementation with the *Outbound Parameter Value* 5.

6. Save and activate the replication model.

If you are running into the error message “For object ID type 450 no object ID structure is configured” then click on the link in that message to navigate to “Assign Key Structures to Object Identifiers” and create an entry with the setting from Table 3 (assign the key structure /UGI/_S_U1_DRF_FUNCLOC). You might also need to assign the object ID type to the business object type.

11 Customizing for ALE Audit (Optional)

You can configure your client and hub systems so that your client systems send confirmation of replicated materials back to the MDG hub. Use the following steps to set up this confirmation process.

In the client system make the following settings:

1. Select Distribution Model
   a. Run transaction `BD64` and choose *Change/Display*.

b. Select the distribution model you created above and choose *Add Message Type*.
c. In the *Add Message Type* screen enter the following:
   - In the *Sender* field, enter the logical system from which the acknowledgement is sent (The client system).
   - In the *Receiver* field, enter the logical system to which the acknowledgement is sent (The hub system).
   - In the *Message Type* field, enter `ALEAUD`.
d. Choose *Ok*.

2. Select Partner Profile

a. Run transaction `SALE` and choose *Partner Profiles* > *Generate Partner Profiles*. Alternatively, run transaction `BD82` (Generate Partner Profiles).
b. Select the distribution model and in the *Partner System* field, enter the hub logical system name.
c. Enter the *ALE-User* (the default value is `ALEREMOTE`) and the following values.

Field	Value
Version	3
PackSize	100
Output Mode	Transfer IDoc Immediately
Inb. Parameters: Processing	Trigger Immediately

d. Click on the *Execute* button. The log for partner profile generation appears showing the new sender and receiver systems
e. To verify your settings, run transaction `WE20` and from the *Partner Profiles* menu, choose *Partner Type LS*. Verify that *Partner type LS* is the logical destination system.
f. In the detail screen, the message type, `ALEAUD` must appear.
g. In the *Inbound Options* tab, in the *Process Code* field enter `AUD2`.
h. Select the *Cancel Processing After Syntax Error* checkbox.
i. In the *Processing by Function Module* section, select the *Trigger Immediately* radio button.
j. Choose *Save*.
k. Run transaction `BD64`. Select the model view and select *Edit* > *Model View* > *Distribute*. Select the Hub system and click *OK*.

In the hub system make the following settings:

1. Distribution Model

Run transaction `BD64` and check that the same *Distribution Model View* with partner profile was created.

2. Partner Profile

a. Run transaction `WE20` and check that the partner profile with logical name of the receiver system (Hub system) exists below the *Partner Type LS* folder.
b. Select *Receiver Logical System* (Hub system) and choose *Change*.
c. Choose *Create Outbound Parameter*.
d. In the *Message Type* field enter `ALEAUD`.
e. In the *Outbound Options* tab, in *Receiver Port* field, enter the logical system name for the client from which the status information is to be received.

f. In the *Output Mode* list, select *Transfer IDoc Immediately*.
g. In the *Basic Type* field enter `ALEAUD01`.
h. Select the *Cancel Processing After Syntax Error* checkbox.
i. Choose *Save*.

3. Configure DRF Customizing
   a. Run transaction `DRFIMG`.
   b. Navigate to *Data Replication* > *Define Custom Settings for Data Replication* > *Define Technical Settings for Business Systems*.
   c. Select the receiver system (Hub system) and double-click on *Define Bus. Systems, BOs, Communication Channel*.
   d. Enter the business object type 183 for Equipment and 185 for Functional location and choose *OK*.
   e. Select the checkbox *Upd.KM*.
   f. Choose *Save*.

12 Choose where you want to run SAP Master Data Governance

You can run SAP Master Data Governance in either of the following environments:

- SAP NetWeaver Portal
- SAP NetWeaver Business Client

SAP NetWeaver Portal

The SAP NetWeaver Portal content for Utopia EAM Solutions for MDG™ is derived directly from the system PFCG roles. To create SAP NetWeaver Portal roles for your users you must log on to your portal and upload the content information from your back-end system PFCG roles.

To upload your portal content to the portal do the following:

1. Set up your SAP NetWeaver Portal for MDG.
2. In the *Content Administration* work center choose *Portal Content Management* > *Portal Content* and select a portal content folder to upload the portal content to.
3. Right-click on the folder and choose *New* > *Role* > *Role from Back End*
4. Select the system and client (or the connected system alias) you want to upload the role information from. This should be your MDG system.
5. From the list displayed select the PFCG roles you want to upload the content from and begin the upload.

Once uploaded you must assign and personalize the MDG portal roles as follows:

1. Log on to the portal.
2. Choose *Delegated User Administration*.
3. Enter your User ID and choose *Go*.
4. Mark the line of your user and choose *Modify*.
5. Select the *Assigned Roles* tab.
6. Enter `MDG` as the search criteria.
7. Select the portal role you want to add.
8. Choose *Add* and save.

After assigning the user role you need to log off and log on again to the portal. For more information on uploading role information see SAP Note 1685257.

SAP NetWeaver Business Client

If you are running SAP Master Data Governance on the SAP NetWeaver Business Client (and not on the SAP NetWeaver Portal), you need to create, define, and configure the roles for the Business Client in the SAP ERP system. There are three roles containing authorization and navigation information and one role (/UGI/_MDGEAM_ALLUSR) containing basic access

To assign and personalize the role Master Data Governance for EAM (/UGI/_MDGEAM_ALLUSR) proceed as follows:

1. On the SAP Easy Access screen, choose *Tools* ▸ *Administration* ▸ *User Maintenance* ▸ *Role Administration* ▸ *Roles* or alternatively, run transaction `PFCG` (Role Maintenance). Choose role /UGI/_MDGEAM_ALLUSR.

   This role ensures that the necessary steps can be started without using the SAP NetWeaver Portal. This can be used for testing or if the portal is inactive.

2. Assign and personalize the role /UGI/_MDGEAM_ALLUSR to your users. In the role /UGI/_MDGEAM_ALLUSR on the *Personalization* tab, edit the *Personalization Key* SAP Master Data Governance (`R_FMDM_MODEL`): Define the default model U1 and the related UI configuration.
3. Verify the setting of the authorization objects within the roles and restrict them if required.
4. On the SAP Easy Access screen, choose *Tools* ▸ *Administration* ▸ *User Maintenance* ▸ *Users*. Run transaction `SU01` (User Maintenance) and assign the Master Data Governance for EAM: All Users (/UGI/_MDGEAM_ALLUSR) for application to the MDG user.

Repeat these steps to assign additional authorization roles to your users.

13 Final Steps

SAP and Utopia recommend regenerating the data model again at the end of these setup steps to ensure clear code generation.

Before you can run all Master Data Governance processes like *Create Equipment*, you need to assign the data model U1 to your user. Alternatively, the user administrator can maintain the following *Personalization Parameter* for your user profile: *SAP Master Data Governance R_FMDM_MODEL*.

If there are other data models active in your system, such as Financials (0G), Material Master (MM), or Business Partner/Customer/Supplier (BP) additional entries may appear in this list.

14 Workflow Templates for Utopia EAM Solutions for MDG™

The following workflow template is available for Utopia EAM Solutions for MDG™.

14.1 Workflow Template WS75700040

Utopia delivers the SAP standard workflow template `WS75700040` for the approval process. This enables you to forward the change request as a work item to the appropriate processors. The status of the change request is automatically updated in the background.

This workflow template consists of the following steps:

1. *Start workflow*

   The workflow is started when a change request is created by the user, for example, a Plant Maintenance Technician.

   .

2. *Execute changes*

   The master data specialist receives a work item to execute the changes:

   - If they do not want to execute the changes, they can send the change request back to the maintenance technician. In this case, a work item with the change request is sent to the maintenance technician for revision (--> Step 3)

   .

   - If they want to execute the changes, the changes made to the master data are then checked (--> Step 4).

3. *Revision after rejection*

   The person responsible for processing the change request when it is rejected, such as the plant maintenance technician, decides whether to revise the change request:

   - If (s)he revises the change request, a work item with the change request is again sent to the master data specialist for processing (→ Step 2).

   - If s(he) withdraws the change request, the status of the change request is set to Final Check Rejected. If changes have already been made to the master data, these are reset and the workflow ends (→ Step 6).

4. *Perform final check*

   The system checks the change request, using validation rules for Consistency, and saves the check results in a log. The master data steward receives a work item to do a final check of the change request. They check the validation results in the log and either approve or reject the final check:

   - If they reject the change request, a work item with the change request is sent back for revision to the maintenance technician (→ Step 3).

- If they approve the change request, the system activates the changes (→ Step 5).

5. *Activate changes*

The system activates the master data in the database tables of the modified objects according to the changes entered in step 4.

The changes are then activated in the central system. When the workflow has been completed, if DRF is enabled in concert with ALE, the system will then send the changes to the target system(s). Manual replication is also available if desired.

6. *End workflow*

The system ends the workflow.

15 Activate Alternate Labeling

Activate Alternative Labeling using again transaction OIPU.

A conversion program is started. If not all Functional Locations are converted, you can manually start the report RI_IFLOT2IFLOS.

If all Functional Locations (IFLOT) can be converted, indicator ALCNV can be set to 'X' in table ITOBCUST.

```
*&---------------------------------------------------------------------*
*
*& Report  RI_IFLOT2IFLOS
*
*&
*
*&---------------------------------------------------------------------*
*
*& Umsetzung der Iflot-Sätze in die Iflos-
Tabelle                        *
*& Wenn alle Iflot-
Sätze umgesetzt werden konnten, so muß das          *
*& Kennzeichen ALCNV inder Tabelle ITOBCUST auf c_yes gesetzt werden.
*
*& Dies bedeutet für die alternative Kennzeichnung technischer Plätze
*
*& einen deutlichen Performancegewinn, da nur noch auf der IFLOS-
*
*& Tabelle selektiert werden muß.
*
*&---------------------------------------------------------------------*
*
```

You should also check SAP Note 213332.

Please run the report "RBONRRP1" and schedule in background for every 60 seconds.