



Master and Upgrade Guide for EAM Solutions by Utopia

Release EAM 9.1

Document History

The following tables provide an overview of the most important document changes and approvals.

Version	Date	Description	Name
1.0	08-10-2017	Final version	Manik Choudhary

Approval History

Version	Date	Description	Name
1.0	31-10-2017	Approved version	Lyle Snyder/Michael Clements

Table of Contents

Getting Started	4
About this Document	4
Related Documents	4
Important SAP Notes	4
EAM 9.1 Solutions by Utopia Installation and Upgrade Overview	4
Master Data Governance for Equipment (uEQUIP™)	5
Master Data Governance for Functional Location (uFLOC™)	6
Master Data Governance for MRO Bill of Material (uMROBOM™)	6
Master Data Governance for Work Center (uWRKCTR™)	7
Master Data Governance for Maintenance Plan / Item (uMNTPLN™)	7
Master Data Governance for Measuring Point (uMSRPTS™)	8
Master Data Governance for Task List (uTSKLST™)	8
Master Data Governance for Object Links (uOBJLNK™)	8
Master Data Governance for Object Networks (uOBJNTW™)	9
Master Data Governance for Service Master (uSRVMSTR™)	9
Upgrade Paths	10
Upgrading EAM Solutions for MDG to EAM 9.1 by Utopia	10
Upgrade of Software Components	10
Security Roles for Menu Structure and Authorization	10
Installation Options and Upgrade Sequence	11
Prerequisites	11
Installation Sequence	11
Post-Installation Steps - MDG HUB Deployment Model Only	11
Post-Installation Steps - Linear Asset Management Functionality (Optional)	12
Language Support and Installation Information	12

Getting Started

This Master Guide is used for technical implementation of business processes on EAM 9.1 Solutions by Utopia.

About this Document

This Master Guide is the central starting point for the technical implementation of business processes for the EAM 9.1 Solutions by Utopia.

Related Documents

Refer to the Configuration guides for EAM 9.1 by Utopia for EAM objects and Service Master Solutions.

Content	Location on Utopia Help Portal
Configuration Guide for EAM 9.1	Utopia EAM Help Portal -> Downloads -> PDF Files

Important SAP Notes

You must read the SAP Notes before you start the installation or upgrade. The SAP Notes contain the most up-to-date information on the upgrade, as well as corrections for the upgrade documentation.

Make sure that you have the up-to-date version of each SAP Note, which can be found on SAP Service Marketplace at service.sap.com/notes.

SAP Note Number	Title	Category
2078099	Release Strategy for SAP Master Data Governance, enterprise asset management extension by Utopia	Release Planning Information
2568332	Functional Restrictions in SAP MDG-EAM by Utopia 9.1 for S/4HANA	Functional Restriction Note for S/4H
2568323	SAP Master Data Governance, enterprise asset management extension by Utopia 9.1 for S/4HANA Release Information Note	Release Information Note for S/4H
2568263	SAP Master Data Governance, enterprise asset management extension by Utopia 9.1 Release Information Note	Release Information Note for ECC
2568290	Functional Restrictions in SAP MDG-EAM by Utopia 9.1	Functional Restriction Note for ECC

EAM 9.1 Solutions by Utopia Installation and Upgrade Overview

Before you activate the EAM 9.1 Solutions by Utopia, ensure you have the administration authorization for MDG. The required authorization objects are delivered with the authorization role SAP_MDG_ADMIN. In transaction PFCG, SAP recommends 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 of U1 (or U2 for Service Master), and the values for the authorization activity ACTVT Activity (for example 01: Create or generate or 02: Change).

The following MDG Business functions must be activated before installing or upgrading the EAM Solutions for MDG by Utopia.

- Master Data Governance, Generic Functions (MDG_FOUNDATION)

This business function provides the basic features for data modeling, process enhancement and configuration, analytics, and data replication framework and transfer.
- Master Data Governance, Generic Functions 2 (MDG_FOUNDATION_2)

This business function provides the enhanced basic features for data modeling, process enhancement and configuration, analytics, and data replication framework and transfer.
- Master Data Governance, Generic Functions 3 (MDG_FOUNDATION_3)

This business function provides features for governance scope, block list, and data quality remediation.
- Master Data Governance, Generic Functions 7.0 (MDG_FOUNDATION_4)

This business function provides features for parallel Change Requests, flexible edition management, multiple-record processing, enhanced usability in single-object processing and searching, and SAP HANA based search.
- Master Data Governance, Generic Functions 7.0 Feature Set (MDG_FOUNDATION_5)

This business function provides the features for highlighting changes, undo changes, hierarchy processing, using editions, accessing UI configurations, and SAP HANA-based search.
- Master Data Governance, Generic Functions 8.0 (MDG_FOUNDATION_6)

This business function provides the features for enhanced and simplified hierarchy management, faster approval of hierarchy changes, enhanced processing of multiple Change Requests, integrated creation of Change Requests for file upload and mass change and generic data sources for analytical scenarios.
- Master Data Governance, Generic Functions 9.0 (MDG_FOUNDATION_7)

This business function offers enhanced configuration for Change Request actions, enhanced Change Request based navigation, improved usability of collective/hierarchy processing, and the enablement of pooled or direct replication for all business objects.
- Master Data Governance, Generic Functions 9.1 (MDG_FOUNDATION_8)

This business function is relevant for S/4H 1709 only.
- Business Function for MDG EAM LAM Model (/UGI/MDG_EAM_LAM_01)

This business function is relevant for customers who would like to make use of the enhancement for Linear Asset Management (LAM) in the EAM 9.1 Solutions by Utopia for S/4HANA.

Master Data Governance for Equipment (uEQUIP™)

With Master Data Governance for Equipment, you can control the governance of Equipment Master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of an Equipment record. While the equipment data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new equipment master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following actions:

- Govern Equipment data and replicate the equipment master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UG13 component,

which provides IDoc types, message types, and process codes for replication, which customer can leverage.

- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which can be saved locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Functional Location (uFLOC™)

With Master Data Governance for Functional Location you can control the governance of Functional Location master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of a Functional Location record. While the Functional Location data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new functional location master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern Functional Location data and replicate the functional location master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UG13 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for MRO Bill of Material (uMROBOM™)

With Master Data Governance for MRO Bill of Materials you can control the governance of MRO Bill of Materials master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of an MRO Bill of Material record. While the MRO Bill of Materials data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new MRO Bill of Materials master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern MRO Bill of Materials data and replicate the MRO Bill of Materials master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UG13 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Work Center (uWRKCTR™)

With Master Data Governance for work center you can control the governance of work center master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of Work Center record. While the Work Center data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Work Center master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern Work Center data and replicate the Work Center master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UG13 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Maintenance Plan / Item (uMNTPLN™)

With Master Data Governance for Maintenance Plan you can control the governance of Maintenance Plan master data on a central hub. Within the governance process Change Requests are used to control the creation and change of a Maintenance Plan record. While the Maintenance Plan data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Maintenance Plan master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern Maintenance Plan data and replicate the Maintenance Plan master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UG13 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Measuring Point (uMSRPTS™)

With Master Data Governance for Measuring Point you can control the governance of Measuring Point master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of a Measuring Point record. While the measuring point data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Measuring Point master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern measuring point data and replicate the measuring point master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UGI3 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During the import step, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Task List (uTSKLST™)

With Master Data Governance for Task List (General Task List, Equipment Task List and Functional Task List) you can control the governance of Task List master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of a Task List record. While the Task List data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Task List master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following functions:

- Govern task list data and replicate the task list master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UGI3 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Object Links (uOBJLNK™)

With Master Data Governance for Object Links you can control the governance of Object Links master data on a central hub. Within the governance process Change Requests are used to control the creation and change of an Object Links record. While the object links data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any

revisions. As soon as the Change Request is approved the new object links master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following actions:

- Govern object links data and replicate the object links master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UGI3 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Object Networks (uOBJNTW™)

With Master Data Governance for Object Network you can control the governance of Object Networks master data on a central hub. Within the governance process Change Requests are used to control the creation and change of an Object Network record. While the Object Networks data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Object Networks master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following actions:

- Govern Object Networks data and replicate the object network master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UGI3 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.
- Use Data Import Framework (DIF) function to upload data into the master data hub.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Master Data Governance for Service Master (uSRVMSTR™)

With Master Data Governance for Service Master you can control the governance of Service Master data on a central hub. Within the governance process, Change Requests are used to control the creation and change of a Service Master record. While the Service Master data is stored temporarily in the staging area, the Change Requests are forwarded automatically to a master data specialist for any revisions. As soon as the Change Request is approved the new Service Master data is stored in the existing ERP master data tables.

On the Central Hub, you can perform the following function:

Govern Service Master data and replicate the Service Master data to different client systems such as ERP, or non-SAP systems. Out of the Box solution provides the UGI1 component, which provides IDoc types, message types, and process codes for replication, which customer can leverage.

Data Transfer allows you to move master data between systems. These systems can be clients or your main Master Data Governance (MDG) system. The first step of a data transfer is the export of the master data to an IDoc-XML file, which you can save locally or on your application server. In the second step, you import the data into your central MDG system. During import, you can decide if you want the new master data to appear directly in the active area, or if you want to pass the data through governance via Change Requests and import the data to the staging area.

Upgrade Paths

Upgrading EAM Solutions for MDG to EAM 9.1 by Utopia

Upgrade of EAM Software Components Add-ons can be performed via transaction SAINT or SUM tool on the supported ERP or S/4HANA release. It's not possible to directly perform both upgrade and migration of EAM in one step. The minimum requirement for EAM prior to migration from ECC to S/4HANA 1610 is 730 SP01 and for S/4HANA 1709, EAM 9.1. (For Service Master, minimum requirement is release EAM 9.1 prior to migration to S4H). Refer to the respective Installation Guide for further details.

Hint: If upgrading and leveraging parallel processing, please check the setting under transaction SWU3 and ensure that "Schedule background job for work item with errors" is active after the upgrade.

Caution

Because of corrections from Utopia, it is possible that the active version and the inactive version of the same data model may differ.

- Therefore, activate the U1 (or U2 for Service Master) data model after upgrading to EAM 9.1 Solutions for MDG through the customizing activity Edit Data Model under: Master Data Governance -> General Settings-> Data Modeling
- Check if the generated data model-specific structures are complete regarding the attributes of the entities in the Customizing Activity Generate Data Model-Specific Structures under: Master Data Governance ->General -> Settings-> Data Modeling

After you have activated the data model.

- If you made your own extensions of the data model, you need to check if these structures comprise your own entities and attributes.

Upgrade of Software Components

None.

Security Roles for Menu Structure and Authorization

With EAM 9.1 Solutions by Utopia, Utopia delivers roles for the menu structure and for authorizations.

The following role for MDG user authorization is available for Master Data Governance of the EAM Objects:

- /UGI/_MDGEAM_MENU: Master Data Governance for EAM: Menu
This role should be assigned to users, who use one of the UGI MDG EAM roles in SAP NetWeaver Business Client:
- /UGI/_MDGEAM_ALLUSR. You need the role /UGI/_MDGEAM_ALLUSR to use the EAM 9.1 Solutions by Utopia.

The following roles for authorizations of users are available for the EAM 9.1 Solutions by Utopia:

- /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

For MDG-EAM-LAM, following roles for authorizations of users are available for the EAM 9.1 Solutions by Utopia:

- /UGI/_MDGEAM_MENU_LAM - Master Data Governance for EAM with LAM: Menu
- /UGI/_MDGEAM_REQ_LAM, Master Data Governance for EAM-LAM: Requester
- /UGI/_MDGEAM_SPEC_LAM, Master Data Governance for EAM-LAM: Specialist
- /UGI/_MDGEAM_STEW_LAM, Master Data Governance for EAM-LAM: Data Steward

The following role is an optional front end to the ECC transaction for Task List component allocation. This is a merely a front end, and is not MDG governed.

- /UGI/_NONMDG_TSKLST - Master Data Governance for EAM: Change Task List (Non-MDG)

The following roles for authorizations of users are available for the EAM 9.1 Solutions by Utopia for Service Master:

- /UGI1/_MDGPROC_ALLUSR, Standard User Authorizations
- /UGI1/_MDGPROC_MENU, Master Data Governance for Procurement Menu
- /UGI1/_MDGPROC_REQ, Master Data Governance for Procurement Solution: Requester
- /UGI1/_MDGPROC_SPEC, Master Data Governance for Procurement Solution: Specialist
- /UGI1/_MDGPROC_STEW, Master Data Governance for Procurement Solution: Data Steward

Installation Options and Upgrade Sequence

Prerequisites

EAM 9.1 Solutions by Utopia requires a minimum of MDG 9.0 SP02. Refer EAM 9.1 Installation Guide for Installation and Upgrade specific instructions and prerequisites.

Installation Sequence

The following table describes the installation requirements for EAM 9.1 Solutions by Utopia.

Component	Action	Mandatory/Optional	Remarks
SAP ECC / NetWeaver, etc.			Refer to: Master and Upgrade Master Guide for SAP MDG 9.1

Post-Installation Steps - MDG HUB Deployment Model Only

In the scenario where MDG is deployed in a Hub model, synchronization of the customization between the MDG Hub and the governed ECC System is a critical process. Refer to the SCN document on this topic for important information regarding this process: [Customizing Synchronization between MDG and ERP \(Guide\)](#)




Before using MDG-EAM for the MROBOM object (uMROBOM™), ensure that you follow the steps:

- Synchronize MRO and component item Material Master records
- Synchronize Documents
- Institute a process for maintenance of the above whether by manual change management, MDG governance in the case of Material Master records, or automatic replication through change pointers.

Note: Sequence of Configuration, OSS notes and manual activities needs to be performed during deployment of process. The configuration guide needs to be followed accurately.

Post-Installation Steps - Linear Asset Management Functionality (Optional)

For customers to leverage Linear Asset Management (LAM) data governance is available EAM 9.1 Solutions by Utopia starting from release 7.20, the following steps need to be performed.

- Prerequisite business functions that needs to be active before activating MDG EAM LAM solution by Utopia are the following functions:
 1. LOG_EAM_LINEAR_1
 2. LOG_EAM_LINEAR_2
- Ensure that the mentioned business functions are active.
- Go to transaction SFW5 and activate  Activate Changes business function /UGI/MDG_EAM_LAM_01.
- Go to SCPR20 and activate BC sets /UGI/MDG_EAM_LAM_USMD001 and /UGI/MDG_EAM_LAM_USMD004 by clicking activate button ()
- Activate data model 'U1' (or 'U2' for Service Master) in customizing under ► Cross-Application Components ► Processes and Tools for Enterprise Applications ► Master Data Governance ► Edit Data Model , or enter ECC transaction code MDGIMG.

Language Support and Installation Information

As of release EAM 9.1 release by Utopia, the following languages are supported:

- English
- German
- Korean
- Simplified Chinese
- Portuguese
- Spanish
- French
- Dutch
- Italian

The EAM 9.1 Solutions suite is delivered with English as the default language. The above language packages can be imported via the [SMLT](#) transaction.

Contact Utopia Global, Inc. for any other language support requirements.