

Reference Data Management 2204

for SAP Master Data Governance

Configuration



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1 Introduction

Reference Data Management (RDM) for SAP MDG provides the governance of reference data using pre-delivered reference data objects, user interfaces, workflows and the replication of the data to a local staging area in receiving SAP systems. If you encounter any problems with this guide do not hesitate to get in contact with us. Please use support@itego.de (subject: "Configuration Guide RDM: <topic>").

2 Prerequisites

RDM is built as an Add-On to SAP Master Data Governance (MDG) which means that it needs to be installed based on SAP MDG. See the RDM Installation Guide for more details.

SAP MDG for Custom Objects (MDG-CO) needs to be activated and certain configuration steps need to be performed. See section 3.1 "Activate Business Functions".

3 Configuration

3.1 Activate Business Functions

Before you activate 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 to create a copy of this role and to assign the relevant authorizations. For authorization object USMD_DM Data Model you need to assign the value for field "USMD_MODEL": "I1" and the values for "ACTVT" (e.g. 01: Create or generate and 02: Change).

In transaction SFW5 "Activate Business Functions" activate the following business functions for


- MDG-CO:
 - MDG_FOUNDATION
 - MDG_FOUNDATION_2
 - MDG_FOUNDATION_3
 - MDG_FOUNDATION_4
 - MDG_FOUNDATION_5
 - MDG_FOUNDATION_6

- RDM
 - /ITR/FOUNDATION_01

Also activate the Web Dynpro Applications for MDG-CO (see Configuration Guide for SAP MDG Custom Objects 8.0 -> "Services to be activated for MDG Web Dynpro Applications").

Note: this document can be found here <http://help.sap.com/mdg> (MDG based on SAP ERP -> Application Help -> Version 8.0 -> Configuration of SAP MDG -> Config. of SAP MDG Central Governance -> Configuration of MDG for Custom Objects -> "Services to be activated for MDG Web Dynpro Applications").

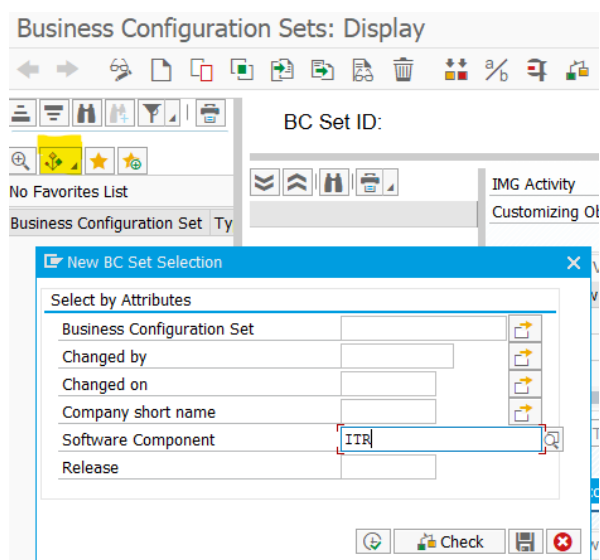
3.2 Activate Data Model I1

Check whether the data model I1 has been activated in transaction MDGIMG: General Settings -> Data Modeling -> Edit Data Model. If it has not been activated, select Data Model "I1" and click on  "Activate".

3.3 Activate Business Configuration Sets

The following Business Configuration Sets (BC Sets) might have to be imported on the SAP MDG system. Use transaction SCPR20 "Activate Business Sets" to activate them shown in the sequence below. Please be aware that, as with any BC Set, you should check for conflicts before activating them. If there are conflicts please investigate if you would like to activate anyways, partially or not at all as entries in your SAP MDG implementation might be affected. In doubt please save the entries of the affected configuration tables in a transport which can be used to restore your settings.

You can also use transaction SCPR3 "Display and maintain BC Sets" to investigate the content of the BC Sets. Please use "Select by Attributes":



And search for Software Component "ITR" (on the MDG Sender) or "ITO" (on a SAP Business System which acts as an Receiver or as the source of the Reference Data for the Initial Load).

3.3.1 SAP MDG Sender: BC Sets

The following BC Sets need to be activated on the MDG system:

- /ITR/MDG_RDM_BASIC_FRMWRK_<n> MDG RDM Framework Basic Settings
- /ITR/MDG_RDM_BUSACT_<n> MDG RDM Business Activities

Please activate all versions of these BC Sets that are available starting with <n>=01.

Besides the mandatory BC Sets listed above, the following BC Sets deliver configuration examples which can be activated on the SAP MDG system. If the configuration of the Change

Request Types should be done completely project specific do not import these, otherwise it is recommended to import the BC sets as templates for the project specific implementation.

- /ITR/MDG_RDM_CREQUEST_<n> MDG RDM Change Request Types
- /ITR/MDG_RDM_WORKFLOW_<n> MDG RDM Workflow

In order to get some predefined File Upload Variants please also consider to activate the following BC Set (please be aware that not all possible use cases are covered):

- /ITR/MDG_RDM_UPLOAD_VAR_<n> Upload Variants for RDM Objects

Note: In earlier versions of RDM the BC Set /ITR/MDG_RDM_BRF_DRF_<n> has been used to deliver templates for the configuration of the Data Replication. Do not activate these but review chapter 3.9 Set Up Data Replication for additional information.

3.3.2 SAP Receiver: BC Sets

The following BC Sets should be imported to the SAP Receiver system which is used for the extraction of reference data (used for the initial load of the RDM system)

- /ITR/RDM_MDMGX_<n> MDG RDM Staging MDMGX Settings

The following BC Sets have to be imported to the SAP Receivers:

- /ITR/RDM_STAGING_<n> MDG RDM Staging Settings

3.4 Configure User Roles and Authorizations

The following roles are delivered for RDG (Governance):

- /ITR/ITEGO_MDG_RDM_MENU_<n> Menu
- /ITR/ITEGO_MDG_RDM_DISP_<n> Display Role
- /ITR/ITEGO_MDG_RDM_REQ_<n> Requester
- /ITR/ITEGO_MDG_RDM_SPEC_<n> Data Specialist
- /ITR/ITEGO_MDG_RDM_STEW_<n> Data Steward

These roles are reused in the BRF Workflow definitions for the Change Requests described in section 3.8 "Configure Rule Based Workflow". It is recommended to copy the roles to your own namespace and replace the roles in the Workflow definitions.

The following roles are delivered for RDH (Harmonization) on the sender system:

- /ITR/ITEGO_MDG_RDH_DISP_<n>S Reference Data Harmonization Display
- /ITR/ITEGO_MDH_RDH_SENDER_<n>S Reference Data Harmonization Sender
- /ITR/ITEGO_MDG_RDH_EXPERT_<n>S Reference Data Harmonization Expert

The following role is delivered for the Master Data Framework and enables the user to maintain Business Rule configurations:

- /ITU/MDF_RF_MNT_<n> MDF Rule Framework Maintenance

The following roles are delivered for users on the SAP client systems:

- /ITR/MDG_STAGING_<n> Local Staging Area
- /ITR/MDG_LSA_ADMIN_<n> Local Staging Area Administration
- /ITR/MDG_LSA_SNAPSHOT_MNG_<n> Snapshot Management
- /ITR/ITEGO_MDG_RDH_DISP_<n>E Reference Data Harmonization Display
- /ITR/ITEGO_MDG_RDH_EXPERT_<n>E Reference Data Harmonization Expert

Make sure to adjust the authorization objects of your roles to define which role can access and work with which reference data object types. The delivered roles should be excluded from the authorization profiles.

After the adjustment of the roles, assign your users to the roles and make sure that data model "11" is assigned to the user profile parameter R_FMDM_MODEL "SAP Master Data Governance"

3.5 Copy Rule Based Workflows from Client 000

Rule based workflows delivered by RDM are delivered in client 000. In order to transfer these workflows from to your MDG Client, you need to execute the following steps:

1. Log into client 000 and create a customizing transport.
2. In the Data Browser (transaction SE16), enter the table name "FDT_ADMN_0000". In the table-selection screen, search for the name(s) "DT_SINGLE_VAL_I*" and press execute. Then copy all APPLICATION_IDs and close the transaction. Hint: you can use System->List->Save->Save and save the table as a "Text with Tabs" and import this file into a spreadsheet format (like e.g. Excel). Then copy all APPLICATION_IDs.
3. Execute transaction SE38 and execute the report "FDT_TRANS". In the Workbench/Customizing field enter the transport, you created in step 1. For the Object ID field, press on multiple selection and paste the copied APPLICATION_IDs from step 3 into the "Single value" table (Hint: you can also save your list of APPLICATION_IDs into a text file and import it by clicking "Import from Text File" in the "multiple selection" dialog box). Then select the "Transport Whole Application(s)" checkbox and execute the transaction. Close the program once it's done.
4. Execute transaction SE10 and release the transport, you created in step 1.
5. Log on to your MDG client and copy the transport (using transaction SCC1, including the tasks of the request) you just released in step 4 (Source Client: 000). Then check the same table as in step 2 for the copied data.

3.6 Adjust Governance Scope

Adjusting the Governance Scope on SAP MDG leads to a reduced set of attributes which are maintained for a specific object type. As the set of attributes might also differ from a local point of view also the local scope on SAP Receivers can be adjusted.

3.6.1 SAP MDG Sender: Adjust Global Scope

You can determine a set of governed attributes for each reference data object type. Fields which will be defined as "out-of-scope" are shown as read-only in change requests, unless they are removed from the user interface.

Prerequisite: You are aware of the consequences of changing the governance scope. See the help document in transaction MDGIMG "Customizing for Master Data Governance": General Settings -> Process Modeling -> Define Governance Scope before you execute this activity.

Most fields defined in this customizing activity will not be replicated but will be replaced by a "no data" sign which will allow to keep the local field values in the receiving system. Certain limitations apply, so please make sure to test the data replication after the definition of the Governance Scope.

3.6.2 SAP Receiver: Adjust Local Scope

Based on the attributes which can be maintained globally on the SAP MDG Sender you can define specific scope adjustments on each SAP Receiver system. For this please maintain the individual scope in view /ITR/LSA_TABS_FV via transaction SM30. Every attribute which is not within this scope definition will not be overwritten when data is activated on the receiving system.

3.7 Adjust User Interfaces

User Interfaces should be adjusted based on the Governance Scope and the user requirements.

The Master Data Framework (MDF) provides capabilities for the definition of

- Field properties
- Search configurations
- Default Values
- Validations and
- Derivations

Please check the document "Technical Documentation of the MDF Configuration Management" to learn more this.

On top of these functionalities provided by the SAP Floorplan Manager (FPM) can be leveraged for additional adjustments.

3.8 Configure Rule Based Workflow

Prerequisite: You have configured the general settings for SAP Business Workflow in Customizing for SAP NetWeaver under Application Server -> Business Management -> SAP Business Workflow.

The configuration of the rule-based workflow is done in transaction MDGIMG: General Settings -> Process Modeling -> Workflow -> Rule-based Workflow -> Configure Rule-Based Workflow.

Consider the following BC Sets from section 3.3 "Activate Business Configuration Sets" as templates for your configuration:

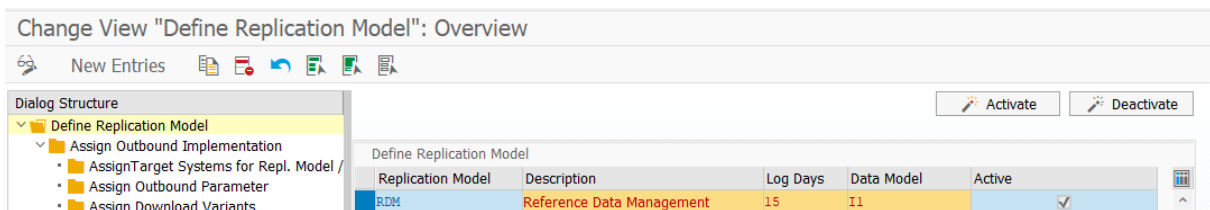
- /ITR/MDG_RDM_CREQUEST_<n> MDG RDM Change Request Types
- /ITR/MDG_RDM_WORKFLOW_<n> MDG RDM Workflow

3.9 Set Up Data Replication

In order to configure the Data Replication for RDM the "Data Replication Framework" (DRF) needs to be configured as well as the technical settings for ALE or Webservices.

3.9.1 Data Replication Framework settings

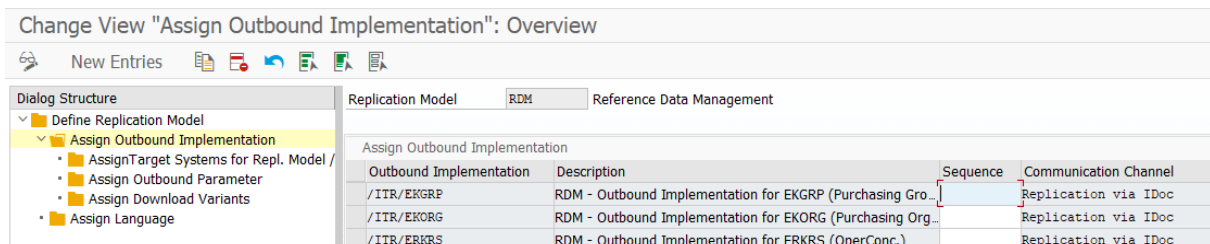
Use transaction DRFIMG to maintain Business Systems and the Data Replication Model.



The screenshot shows the SAP Change View "Define Replication Model": Overview. The left pane shows the Dialog Structure with "Define Replication Model" expanded to "Assign Outbound Implementation". The main table lists the following data:

Replication Model	Description	Log Days	Data Model	Active
RDM	Reference Data Management	15	I1	<input checked="" type="checkbox"/>

Configure Outbound Implementations for your model based on the scope of your RDM implementation and define a communication channel.



The screenshot shows the SAP Change View "Assign Outbound Implementation": Overview. The left pane shows the Dialog Structure with "Assign Outbound Implementation" expanded. The main table lists the following data:

Outbound Implementation	Description	Sequence	Communication Channel
/ITR/EKGRP	RDM - Outbound Implementation for EKGRP (Purchasing Gro...		Replication via IDoc
/ITR/EKORG	RDM - Outbound Implementation for EKORG (Purchasing Org...		Replication via IDoc
/ITR/ERKRS	RDM - Outbound Implementation for ERKRS (OperConc.)		Replication via IDoc

3.9.2 Data Replication using Application Link Enabling (ALE)

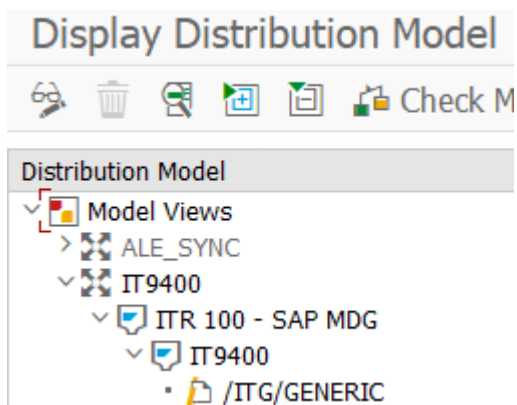
If the Data Replication for reference data objects shall be implemented using ALE the communication needs to be setup between the RDM system and the receiving systems. RDM uses the generic message type /ITG/GENERIC which is applicable for all RDM objects and needs to be set up.

The configuration can be done by following these steps:


1. Check the logical systems of your MDG client and your ERP/3rd party system client.
2. Start on your MDG client, execute Transaction BD64 and press on "Maintain Distribution Model and Distribute Views" to create a new model of the message type /ITG/GENERIC. Sender and receiver need to be the two systems between which you are setting up the connection. Use the following parameters for the model:
 - Model View: "RDM-[System Name]"
 - Ty.: "US"

- ID: [Name of the responsible user]
 - Version: "3"
 - Pack. Size: "100"
 - Output Mode: Pass IDoc immediately
 - Processing: Trigger immediately
3. Execute Transaction WE20 and check if the model has been created properly, implementing the attributes which have defined in step 2.
 4. Execute Transaction BD64 and send the model from your MDG client to the receiving system client.
 5. Switch to your receiving client and check again if the model has been received correctly.
 6. Execute Transaction WE20 and locate the partner profile. Open it up and change the Process Code to "/ITG/GENERIC_IN_BUNDLE"

BD64 (example)



WE20 (example from receiving system)

Inbound parmtrs.						
Partner R...	Message Type	Message v...	MessageFu...	Test	P..	Process code
	/ITG/GENERIC			<input type="checkbox"/>		/ITG/GENERIC_IN_BUNDLE

3.9.3 Data Replication using WebServices

RDM implements SOAP as a network protocol, which uses XML to transfer the reference data. With this it enables an exchange of data between heterogeneous applications on different systems. The web services are described in WSDL files (Web Service Description Language) which are provided by the server. Using this information, the client application obtains information about the offered web services.

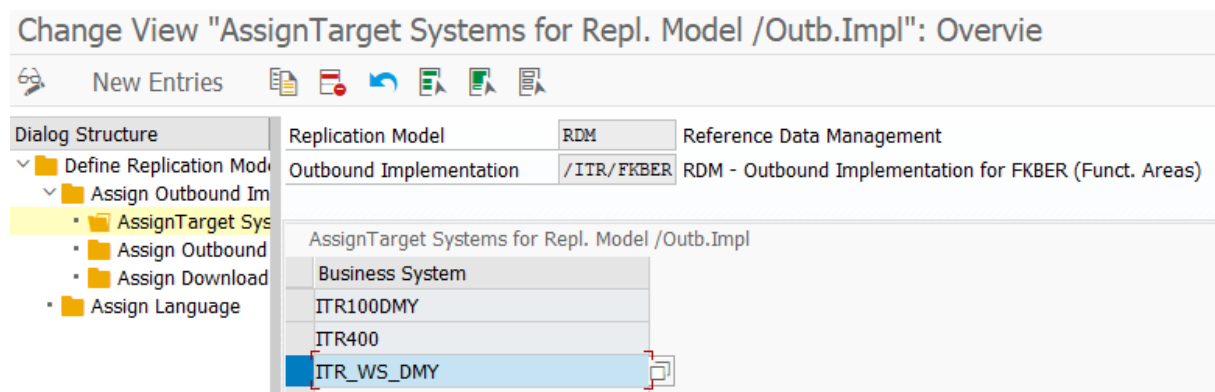
The web services offer two functionalities:

- Push (Send from RDM)
- Pull (Call from outside)

Examples:

- Push (generic): /ITR/RDM_WS_SEND_OBJECT
- Pull (generic): /ITR/RDM_WS_GET_OBJECT
- Pull (object-specific): /ITR/RDM_WS_GET_PLANT

For a Push scenario define a logical system RDM_WEBSER and assign it to a business system which is used in the data replication model (example below: ITR_WS_DMY):



Using outbound parameter /ITR/WEBSERVICEPORT you can define which logical port will be used. If you define Value "ALL" all ports defined will be used.

For more information, please contact support@itego.de (subject: "Configuration Guide RDM: Webservices")

3.10 Set Up Data Transfer

Data Transfer needs to be configured for initial load and consist of the configuration of MDMGX (on a SAP business application) and Data Import (on the MDG RDM system).

The configuration of MDMGX is done through the activation of BC Set /ITR/RDM_MDMGX_<n> (see: 3.3 "Activate Business Configuration Sets") on the SAP business application system. This enables users to extract reference data objects from this system using transaction MDMGX.

Data Import is configured through transaction MDGIMG: Data Transfer -> Define File Source and Archive Directories for Data Transfer. For details (configuration of logical names for directories) see the IMG documentation for this activity.

Using MDMGX and Data Import all reference data object types which do not belong to a hierarchy can be extracted. See "Reference Data Management for SAP MDG - Functional Documentation" for details about the usage of these components.

In order for the import process to work, the data import folders might have to be created. See below for a configuration example:

Transaction FILE:

Dialog Structure

- Logical File Path Definition
 - Assignment of Physical Paths to Logical Path
 - Logical File Name Definition, Cross-Client
 - Definition of Variables
 - Syntax Group Definition
 - Assignment of Operating System to Syntax Group

Create a logical file path

Logical File Path	Name
MDG_DATA_ARCHIVE	Master Data Archive
MDG_DATA_IMPORT	Master Data Import

Dialog Structure

- Logical File Path Definition
 - Assignment of Physical Paths to Logical Path
 - Logical File Name Definition, Cross-Client
 - Definition of Variables
 - Syntax Group Definition
 - Assignment of Operating System to Syntax Group

Logical path: MDG_DATA_IMPORT

Name: ITR MDG Data Import File Path

Syntax group: UNIX (Unix compatible)

Physical path: /usr/sap/IH1/MDG_DATA_IMPORT/<FILENAME>

/usr/sap/<systemID>/MDG_DATA_IMPORT/<FILENAME>

Dialog Structure

- Logical File Path Definition
 - Assignment of Physical Paths to Logical Path
 - Logical File Name Definition, Cross-Client
 - Definition of Variables
 - Syntax Group Definition
 - Assignment of Operating System to Syntax Group

Logical path: MDG_DATA_ARCHIVE

Name:

Syntax group: UNIX (Unix compatible)

Physical path: /usr/sap/IH1/MDG_DATA_ARCHIVE/<FILENAME>

/usr/sap/<systemID>/MDG_DATA_ARCHIVE/<FILENAME>

Dialog Structure

- Logical File Path Definition
 - Assignment of Physical Paths to Logical Path
 - Logical File Name Definition, Cross-Client
 - Definition of Variables
 - Syntax Group Definition

Logical file	Name
MDG_DATA_ARCHIVE	Master Data Archive
MDG_DATA_IMPORT	Master Data Import

Dialog Structure													
<ul style="list-style-type: none"> ▼ Logical File Path Definition <ul style="list-style-type: none"> ▪ Assignment of Physical Paths to Logical Path ▪ Logical File Name Definition, Cross-Client ▪ Definition of Variables ▪ Syntax Group Definition ▪ Assignment of Operating System to Syntax Group 	<table border="1"> <tr><td>Log. File</td><td>MDG_DATA_ARCHIVE</td></tr> <tr><td>Name</td><td>Master Data Archive</td></tr> <tr><td>Physical file</td><td></td></tr> <tr><td>Data format</td><td>BIN</td></tr> <tr><td>Applicat.area</td><td></td></tr> <tr><td>Logical path</td><td>MDG_DATA_ARCHIVE</td></tr> </table>	Log. File	MDG_DATA_ARCHIVE	Name	Master Data Archive	Physical file		Data format	BIN	Applicat.area		Logical path	MDG_DATA_ARCHIVE
Log. File	MDG_DATA_ARCHIVE												
Name	Master Data Archive												
Physical file													
Data format	BIN												
Applicat.area													
Logical path	MDG_DATA_ARCHIVE												

Dialog Structure													
<ul style="list-style-type: none"> ▼ Logical File Path Definition <ul style="list-style-type: none"> ▪ Assignment of Physical Paths to Logical Path ▪ Logical File Name Definition, Cross-Client ▪ Definition of Variables ▪ Syntax Group Definition ▪ Assignment of Operating System to Syntax Group 	<table border="1"> <tr><td>Log. File</td><td>MDG_DATA_IMPORT</td></tr> <tr><td>Name</td><td>Master Data Import</td></tr> <tr><td>Physical file</td><td></td></tr> <tr><td>Data format</td><td>BIN</td></tr> <tr><td>Applicat.area</td><td></td></tr> <tr><td>Logical path</td><td>MDG_DATA_IMPORT</td></tr> </table>	Log. File	MDG_DATA_IMPORT	Name	Master Data Import	Physical file		Data format	BIN	Applicat.area		Logical path	MDG_DATA_IMPORT
Log. File	MDG_DATA_IMPORT												
Name	Master Data Import												
Physical file													
Data format	BIN												
Applicat.area													
Logical path	MDG_DATA_IMPORT												

In transaction MDGIMG configure the usage of these directories:

- ▼ Master Data Governance, Central Governance
 - ▼ General Settings
 - > Technical Settings for Master Data
 - > Data Modeling
 - > UI Modeling
 - > Data Quality and Search
 - > Process Modeling
 - > Data Replication
 - > Value Mapping
 - > Key Mapping
 - ▼ Data Transfer
 - Define Object Types for Data Transfer
 - Define File Source and Archive Directories for Data Transfer

Dialog Structure		Data Transfer Directories	
<ul style="list-style-type: none"> ▪ Data Transfer Directories ▪ Archive Path for Object types 		Logical File Path	Descript.
		MDG_DATA_IMPORT	Master Data Import

Dialog Structure		Archive Path for Object types	
<ul style="list-style-type: none"> ▪ Data Transfer Directories ▪ Archive Path for Object types 		Obj. Type	Archive Directory
		IBTL	MDG_DATA_ARCHIVE
		ICAG	MDG_DATA_ARCHIVE
		ICAR	MDG_DATA_ARCHIVE

3.11 Configure Product Hierarchy

If the product hierarchy is within the scope of maintained reference data object types additional steps need to be performed on the MDG RDM system as well as on the SAP business application system.

On the MDG RDM System the following activities need to be performed:




- Verify the product hierarchy usage in your business applications
- Check Interlocking
- Define Edition
- Creation of a Product Hierarchy Name
- Definition of Product Hierarchy Levels (e.g. "Branch" or "Division")
- Maintenance of number ranges

Verify the product hierarchy usage: The RDM standard delivery assumes an SAP standard configuration of three levels and number ranges have to be maintained according to the Product Hierarchy Set Up in the receiving business applications. The Set Up of the Product Hierarchy in a SAP business application is done through the definition of structure PRODHS. In order to obtain more information about the configuration of a Product Hierarchy contact: support@itego.de - Subject: "RDM Product Hierarchy".

Check Interlocking: Execute transaction MDGIMG: Process Modelling -> Hierarchies -> Define Scope for Changes -> Data Model I1 -> Scope for Changes -> Hierarchy Type: Product Hierarchy: PRODH -> Interlocking. This needs to be defined as "Strict" and shall not be changed as inconsistencies in the Product Hierarchy might occur.

For the Edition definition start the NetWeaver Business Client and select Analysis of Editions -> Create. Use Edition Type "Product Hierarchy (I1_PRODH)" and define the Data Replication Timing "On Final Approval of Change Request" (Immediately Distribute Change Requests).

Example:

* Edition:	PRDH2021 
Description:	Product Hierarchy 2021
* Type:	Product Hierarchy 
* Valid-From Date:	01.01.2021 
Immediately Distribute Change Requests:	<input checked="" type="checkbox"/>
Comment:	Product Hierarchy 2021

Note: parallel editions are currently not supported

The creation of the Product Hierarchy Name is done through a change request process. Start the NetWeaver Business Client and select Change Requests -> Sales -> Product Hierarchy Name -> New -> Change Request Type: IPN01 (Create Product Hierarchy Name). Select your edition and continue.

The RDM system on default uses the Product Hierarchy Name ID "ProdHrchy". Submit and verify that the change request is finalized automatically.

Define Levels for the Product Hierarchy using transaction SM30: Select /ITR/PRODH_LVL and define the levels according to your usage scenario. E.g.:

- 1 Branch
- 2 Division

In the standard delivery the first two levels are represented by Product Hierarchy Nodes and supplemented by Level 3 represented by Product Hierarchy Sub Nodes which do not have to be configured in customizing view /ITR/PRODH_LVL.

The maintenance of number ranges starts with definition of the "From No." and the "To Number" for each level of the Product Hierarchy Nodes and the Product Hierarchy Sub Nodes. After the initial load of the Product Hierarchy also the Number Range Status needs to be maintained before new Nodes or Sub Nodes can be created. Use transaction SNRO (Object: /ITR/PRODH) and choose "Interval Editing" for the maintenance process.

Example (internal numbering):

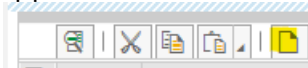
- No: 01; From No: 000000000000000001; To No: 000000000000049999
- No: 02; From No: 000000000000050000; To No: 000000000000099999
- No: 03; From No: 00000000000100000; To No: 000000000000999999

The number ranges have to be maintained on the MDG and on the SAP business application system.

On the SAP business application system report /ITR/MDG_PROD_H_EXPORT needs to be executed to extract the product hierarchy using the defined number ranges which have been configured for MDG RDM. Choose the following parameters:

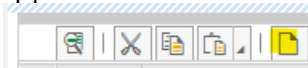
- Product Hierarchy Name: "ProdHrchy"
- Delimiter: ";"
- Output Folder on local desktop: <directory> (any directory which can be accessed by the user executing the report)

- Append Row



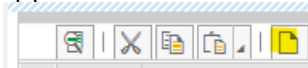
- o Level: 1; <StartFrom> (any number which fits to the number range defined above for range number 01; e.g. 00001 for the initial load)

- Append Row



- o Level: 2; <StartFrom> (any number which fits to the number range defined above for range number 02; e.g. 50000 for the initial load)

- Append Row



- o Level: 3; <StartFrom> (any number which fits to the number range defined above for range number 03; e.g. 00100000 for the initial load)

Level No	StartFrom
1	1
2	50000
3	100000

For a standard three level hierarchy e.g. also the following entries might be a good example:

- 1: 00000000000000000001
- 2: 000000000000100000
- 3: 000000010000000000

For a five level hierarchy e.g. also the following entries might be a good example:

- 1: 00000000000000000001
- 2: 0000000000000000100
- 3: 000000000000100000
- 4: 000000001000000000
- 5: 000010000000000000

Note: The number of characters which can be used for <StartFrom> for Level 1-n is defined by structure PRODHS in your local SAP business system. In the standard delivery this is defined as a character field with length 18, divided into 5, 5 and 8 characters for level 1-3. This is why in the example above the levels to be configured are defined by 5, 5 and 8 characters (unlike the number ranges in the MDG RDM system, which represent the same numbers but do have 18 characters for each level).


After the extraction the files have to be loaded to the MDG RDM system using File Upload. This should be done in the following sequence for a standard product hierarchy:

- Node Level 1 attributes and texts
- Node Level 2 attributes and texts
- Sub Node attributes and texts
- Level 1 hierarchy assignments of level 1 nodes to the product hierarchy name
- Level 2 hierarchy assignments of level 2 nodes to level 1 nodes
- Level 3 hierarchy assignments of sub nodes to level 2 nodes

Please verify that all numbers have been generated according to the number ranges defined.

For this, the following upload variants have to be defined:


- Node Level 1 attributes and texts (PH_NO_ATT and PH_NO_TXT)
 - o Entity Type: Product Hierarchy Node
 - o Attributes Data Row: Product Hierarchy Node, External Number, Prod.Hier.Level

* Variant: 

Name:

<input type="checkbox"/>	Header
<input type="checkbox"/>	Data Row
<input type="checkbox"/>	Product Hierarchy Node
<input type="checkbox"/>	External Number
<input type="checkbox"/>	Prod.Hier. Level

- o Texts Data Row: Product Hierarchy Node, Language Key, Description (long text)


* Variant: 

Name:

<input type="checkbox"/>	Entity Type / Attribute
<input type="checkbox"/>	Header
<input type="checkbox"/>	Data Row
<input type="checkbox"/>	Product Hierarchy Node
<input type="checkbox"/>	Language Key
<input type="checkbox"/>	Description (long text)

- Node Level 2 attributes and texts
 - o Same Entity Type and variants as for Level 1 Nodes
- Sub Node attributes and texts (PH_SN_ATT and PH_SN_TXT)
 - o Entity Type: Product Hierarchy Sub Node


- Attributes: Product Hierarchy Sub Node, External Number

* Variant: 

Name:

<input type="checkbox"/>	Entity Type / Attribute
<input type="checkbox"/>	▼ Header
<input type="checkbox"/>	▼ Data Row
<input type="checkbox"/>	Product Hierarchy Sub Node
<input type="checkbox"/>	External Number

- Texts: Product Hierarchy Sub Node, Language Key, Description (long text)


* Variant: 

Name:

<input type="checkbox"/>	Entity Type / Attribute
<input type="checkbox"/>	▼ Header
<input type="checkbox"/>	▼ Data Row
<input type="checkbox"/>	Product Hierarchy Sub Node
<input checked="" type="checkbox"/>	Language Key
<input type="checkbox"/>	Description (long text)

- Hierarchy assignments
 - Entity Type: Product Hierarchy Node
 - Higher-level Node: Product Hierarchy Name, Product Hierarchy Node
 - Lower-level Node: Product Hierarchy Node, Product Hierarchy Sub Node

- For an "all-in-one upload" you can use this variant definition:

* Variant: 

Name:

<input type="checkbox"/>	Entity Type / Attribute
<input type="checkbox"/>	▼ Header
<input type="checkbox"/>	▼ Data Row
<input type="checkbox"/>	▼ Higher-level Node
<input type="checkbox"/>	Product Hierarchy Name
<input type="checkbox"/>	Product Hierarchy Node
<input type="checkbox"/>	▼ Lower-level Node
<input type="checkbox"/>	Product Hierarchy Node
<input type="checkbox"/>	Product Hierarchy Sub Node

- Level 1 hierarchy assignments of level 1 nodes to the product hierarchy name
 - o Entity Type: Product Hierarchy Node
 - o Higher-level Node: Product Hierarchy Name
 - o Lower-level Node: Product Hierarchy Node
- Level 2 hierarchy assignments of level 2 nodes to level 1 nodes
 - o Entity Type: Product Hierarchy Node
 - o Higher-level Node: Product Hierarchy Name, Product Hierarchy Node
 - o Lower-level Node: Product Hierarchy Node
- Level 3 hierarchy assignments of sub nodes to level 2 nodes
 - o Entity Type: Product Hierarchy Node
 - o Higher-level Node: Product Hierarchy Name, Product Hierarchy Node
 - o Lower-level Node: Product Hierarchy Node, Product Hierarchy Sub Node

Use the variants above to load the data with

- Upload Mode: "Overwrite or Add"
- Conversion: "Execute Conversion"
- File System / File Name: <upload directory>
- Separator: "Semicolon"
- Comment Row: "*"
- Change Request Type: "Load Prod. Hier. And activate"
- Description: <any>

Load the following files:

- Node Level 1 attributes and texts
 - o Attributes: PRODH_EXTRACT_1_*
 - o Texts: PRODH_EXTRACT_1_T*
- Node Level 2 attributes and texts
 - o Attributes: PRODH_EXTRACT_2_*
 - o Texts: PRODH_EXTRACT_2_T*
- Sub Node attributes and texts
 - o Attributes: PRODH_EXTRACT_3_*
 - o Texts: PRODH_EXTRACT_3_T*
- Level 1 hierarchy assignments of level 1 nodes to the product hierarchy name)
 - o Assignments: PRODH_EXTRACT_1_H*
- Level 2 hierarchy assignments of level 2 nodes to level 1 nodes
 - o Assignments: PRODH_EXTRACT_2_H*

- Level 3 hierarchy assignments of sub nodes to level 2 nodes
 - o Assignments: PRODH_EXTRACT_3_H*

After each File Upload check the objects using the search application for the object: Change Requests -> Processing -> Sales -> Product Hierarchy (Sub) Node.

In a last step the number range status for each number range has to be defined. Use transaction SNRO (Object: /ITR/PRODH) and choose "Interval Editing" for the maintenance process:

Example:

- No: 01; NR Status: 2; assuming 2 loaded level 1 nodes (1-2)
- No: 02; NR Status: 50004; assuming 5 loaded level 2 nodes (50000 – 50004)
- No: 03; NR Status: 100010; assuming 11 loaded sub nodes (100000 – 100010)

After this last step the maintenance of the product hierarchy can start and the next node and sub nodes create will get the next defined MDG number from the number range and the next external number defined by the external numbers based on the external numbers loaded from the SAP business system and the hierarchy assignments selected.

3.12 Set Up Local Staging Areas

The configuration of the Local Staging Areas in the SAP receivers can be done by importing BC Set /ITR/RDM_STAGING_<n> "MDG RDM Staging Settings" (see: 3.3 "Activate Business Configuration Sets"). Make sure that you have to do this for each SAP receiver.

Also make sure that you define users with role /ITR/MDG_STAGING_<n> "User for Local Staging Area". See section 3.4 "Configure User Roles and Authorizations".

Note: any user, who wants to run the transaction /ITR/STAGING needs write-access to the transport directory of the corresponding ERP system. In most cases, the directory usually is "/usr/sap/trans", but could also be called differently. It might therefore be necessary to check the folder path with SAP basis and provide access for the user.

3.13 Project Specific Enhancements

MDG RDM offers functionalities which are not activated and not supported in the standard delivery but can be activated based on project specific requirements. Examples are:

- Status Net (Controlled maintenance of an object status)
- Object Deletion (Governed deletion of objects)

In order to obtain more information about these and other project specific enhancements contact: support@itego.de - Subject: "RDM Project Specific Enhancements".