How to configure MDM Reference Data Extraction

SAP

Applies to:

SAP MDM and SAP R/3 system For more information, visit the [Master Data Management homepage](#).

Summary

The article gives a step by step process to configure a connection between SAP MDM server and ERP system for the extraction of Reference data from R/3 to MDM.

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Introduction

The generic extractor can be used to retrieve look up data (data for tables like Countries etc or Customizing data) needed for consolidating SAP master data objects from SAP remote systems such as SAP ERP, SRM or CRM . The output files can be saved at any desired location and this data is then imported to MDM either automatically using Import server or manually using Import manager.

The generic extractor can generate two types of files:
- XSD files containing the XML schemas of customizing tables that can be used to prepare tables and ports in MDM.
- Extract XML files containing the entries of customizing tables that can be used to fill the data in look up tables in your repository.

The generic extractor can generate XSDs and extract XML using one of the following Methods:
- Use the straight-forward generation or extraction.

    The extractor can create XSDs and XMLs with a flat structure from flat customizing tables from the remote systems. In this article, we will discuss about this method only.
- Create your own function module.

    The extractor can call any function module for special cases of reference data. You use this option for complex XML structures like hierarchies, taxonomies etc.

1. Prerequisites

For the FTP connection to work properly, you need to apply patch 1076963 to your R/3 system and you need to Upload Patch 0014 of Package:

Support Package SAPKIPYJ6E

**PI_BASIS 2005_1_640: patch 0014**

For your reference, the link at which you will find this note is mentioned at the end of this article. Just enter the note number to search.
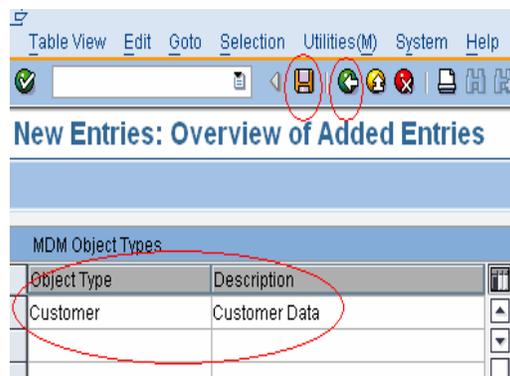
2. Configuration for the extraction

Go to transaction MDMGX.

2.1. Defining the Object Types

Here you define the object types whose customizing data you want to extract by clicking on "Define Object Types" -> "New Entries".
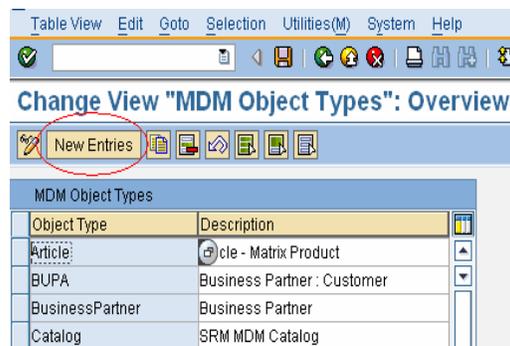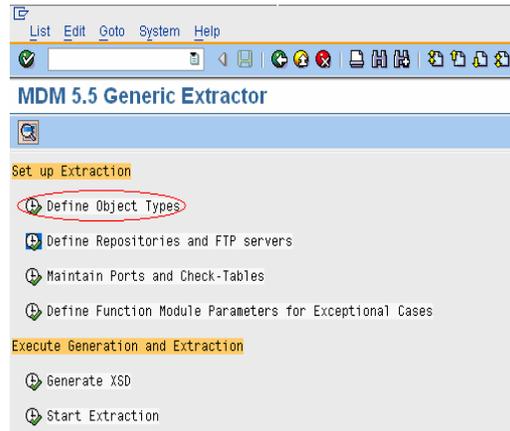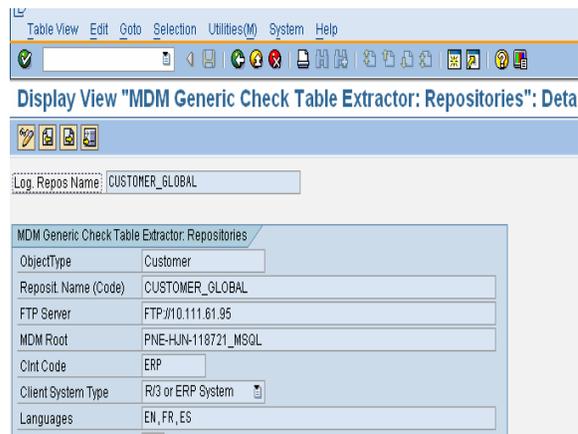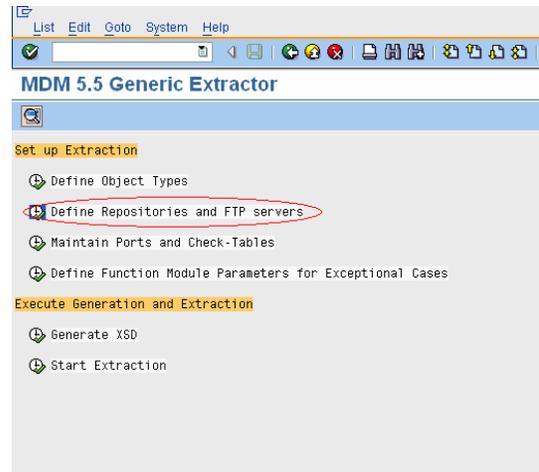

You can give any relevant name and description. Save it and go back.

2.2. Define Repositories and FTP Servers

Here you specify a target repository and a valid FTP connection to which the extracted reference data is transferred.

Click on "Define Repositories and FTP Servers" -> "New Entries".


The fields you need to specify are:

Field	Meaning
Logical Repository Name	Any logical name for the repository.
Object Type	Object type for which you want to extract reference data. Select the object type you created earlier.
Repository Name (Code)	**Name** of the repository in MDM Ensure that the name is exactly the same as in the MDM system.
FTP Server	Connection to the FTP server (Machine on which the MDM server is installed).
MDM Root	Root folder of the local MDM port folder structure The folder is named **<ServerName>_<DataBaseType>.** The MDM Console creates the folder structures for the specific repositories and ports below this folder. The name of the MDM root depends on how you defined the FTP server root. If the FTP server root already points to the server folder, you do not need to enter an MDM root.

|	
Client Code	**Code** of the remote system and client The client code must exactly match the remote system **code** that is defined in the MDM Console.
Remote System Type	Type of the remote system in which the generic extractor is used
Languages	Languages you want to extract Define the languages by entering language codes separated by commas. Only specify languages that are also defined in the repository.

"FTP Server" and "MDM Root" needs to be specified only if you are working on one machine and you have MDM server installed on some other machine. This FTP will directly save the output file in the ready folder of the required port. If you are working on the same machine on which MDM server is installed, then you do not have maintain FTP server and MDM root. In this case you can directly specify the required folder's path while saving the file.

2.3. Maintain Ports and Customizing Tables

Here you define in detail which reference data is extracted to which destination folder.

Click on "Maintain Ports and Check Tables".
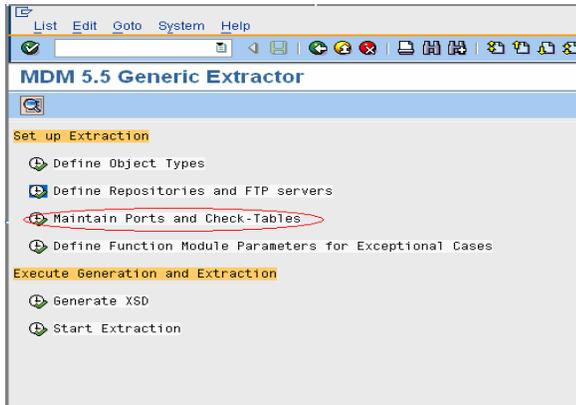
ust enter the system type and object type and press the execute button. It will present you with the available ports for that system-object combination.
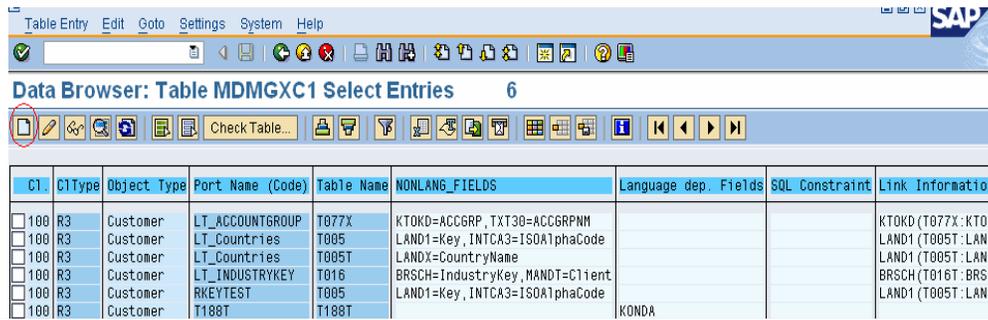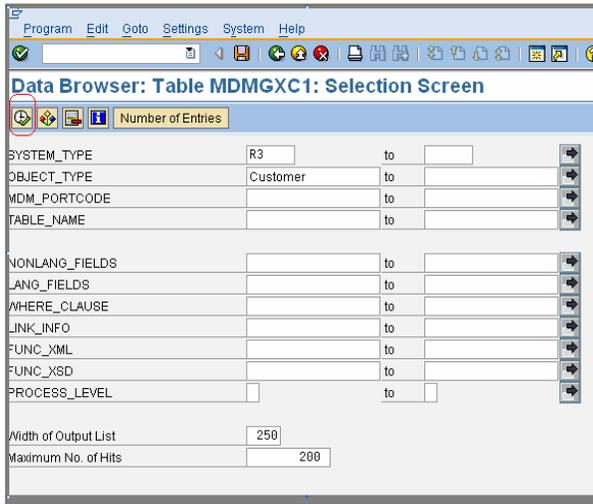
If you wish to create a new port then just press the create button on the screen where you have got the list of available ports (highlighted in screen above) and you will be able to create a new port.

Provide the following information:

Field	Meaning
System Type	Remote system type in which the generic extractor is used
Object Type	Object type for which you want to extract reference data.
MDM PORTCODE	**Code** of the target MDM port Ensure that the name is exactly the same as the **code** in the MDM repository The extractor uses this code to store the reference data in the right port folder.
Table Name	Name of a table or View from where the data is extracted:
NonLang Fields	Field names of language-independent fields to be extracted.
	You can use the following syntax:
	<FIELD>[=<NodeName>],[<FIELD>[=<NodeName>]]
	<FIELD> is the name of the field of the table or view to be extracted. <NodeName> is the name of the XML node to be used instead of the field name (optional). You can use * to select all fields of a table or view.
Lang Fields	Field names of language-dependent fields to be extracted. You can use the following syntax:
	<LANGFIELD>=langkey,<FIELD>[=<NodeName>],
	[<FIELD>[=<NodeName>]]. <LANGFIELD> is the name of the field that contains the language code for the language-dependent fields.
	<FIELD> is the name of the language-dependent field of the table/view to be extracted. The language will be read from field <LANGFIELD>.
Where Clause	SQL constraint or selection criteria for selecting data from the table. You specify a WHERE condition for the selection in a valid ABAP syntax. For example OBJAP = 'BUPA' will select only those records from the current table for which the condition is fulfilled. Apply this syntax if multiple tables are joined: T006~KZKEH EQ 'X' AND T006~ISOCODE NE ''
	In this case the table name must be followed by ~.
Link Info	Information to link extraction settings of two or more tables to populate one port. You can use the following syntax:
	<FIELD>(<TABLE2>:<FIELD2>)[,<FIELD>(<TABLE2>:<FIELD2>)] You can concatenate link information using a comma as the separator. For example for the XML extraction of countries the extractor needs to select tables T005

and T005T. The common key field to link these tables is LAND1. Therefore the link information must be specified for one entry of the port:

Port LT_Countries, Table T005T Port LT_Countries, Table T005, Link Info LAND1 (T005T:LAND1)

Process Level | Defines a port dependency to ensure that data will be loaded in the required order. The extractor processes all ports of the same level, sends the files to the FTP and proceeds with the next level. Ports with process level 0 have no dependencies; ports with level 1 are dependent on the import of data for ports with process level 0 and so on denoting sequential dependencies of the ports.

Only when you are done with the import of ports with level N can you proceed with the import of ports with level N+1. For example the port for the unit of measure table has process level 1 because it is dependent on measurement types table which has process level 0. Set up the MDM import in a way that the process level is also considered.

2.4. Generate XSD

Here you select from your set of extractor configurations and generate an XML schema (XSD) of a customizing table or extract XML files of the customizing entries. Click on "Generate XSD".
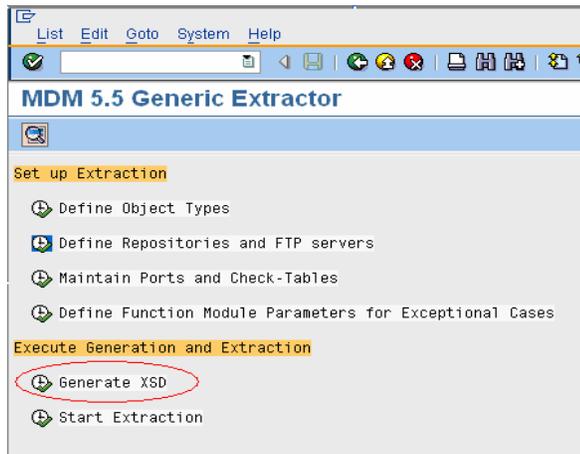
Select the object type and the name of the target MDM repository (Maintained by you in first step). If you have maintained FTP settings in second step, then it automatically populates that configuration in respective fields on selection of object type, You can browse the location on your system to save the file at.
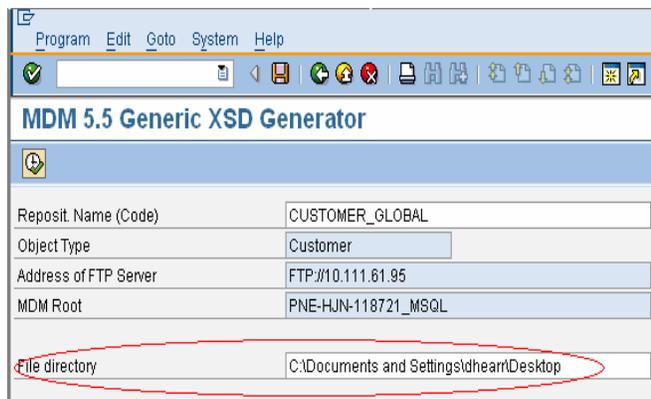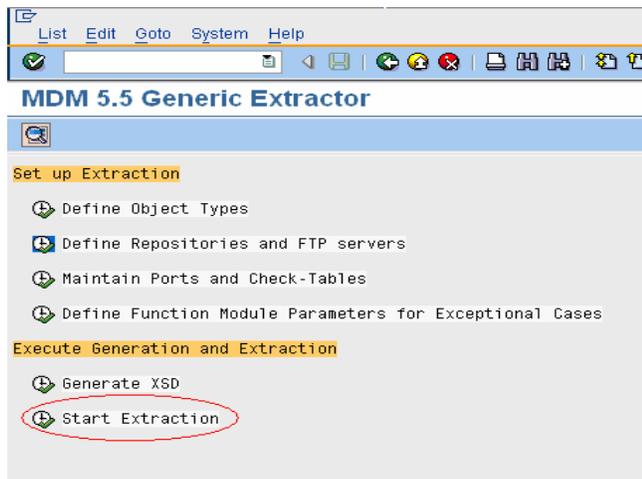

On pressing the "Execute" button, you will be getting a success message for the successful Schema extraction.
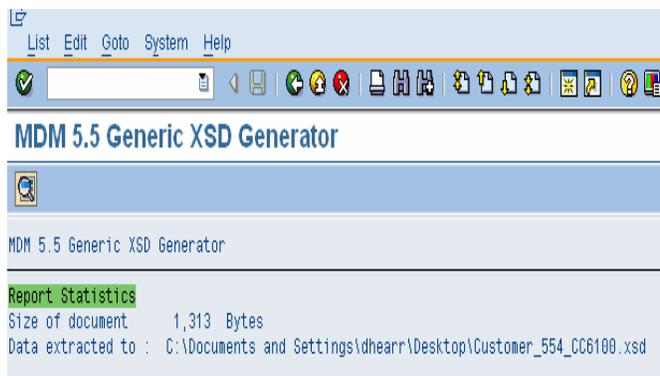
2.5. Start Extraction

Here you can start the extraction of look up data or in other words the entries of customizing tables. You can also run the extraction in batch mode. Click on "Start Extraction".


Select the name of the target MDM repository (Maintained by you in first step). If you have maintained FTP settings in second step, then it automatically populates that configuration in respective fields on selection of object type.

You can choose between the following places to store the output file:

- An FTP server and its MDM root folder. FTP configuration is taken from the extractor settings for the repository. You need to provide the FTP user name and password for writing the file at your server.

  The remote system stores one XML file for each customizing table in the *Ready* folder of each port. If you set the ports for your repositories in MDM to automatic processing, you can load the reference data in an automated way using the MDM Import Server.
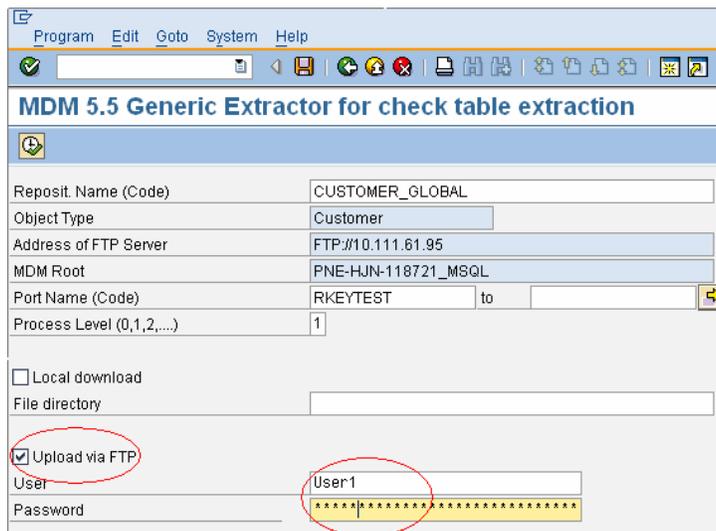
- Any file directory

  The remote system stores one XML file for each customizing table in the selected directory. You can copy the files to any other file storage, import them file manually using the MDM Import Manager, or copy the files manually to the port structure of the repository.

On pressing the "Execute" button, you will be getting a success message for the successful data extraction.

You can load the generated file into MDM server by importing it through import manager.

3. Summary

Here we have maintained different objects types for a repository object. Each object type will be used to extract data from a different check table in R/3 and generate the XML file in the port specified or location specified. If we are writing the files directly to repository ports, these files can be automatically imported into MDM through MDM Import Server. In this way we can load the reference data to MDM repositories from time to time by just running the report for specific object type.

Related Content

https://www.sdn.sap.com/irj/sdn/thread?threadID=435903

https://websmp201.sap-ag.de/~sapidb/011000358700001119492007E [Generic Extractor Guide]

https://websmp206.sap-ag.de/notes [SAP note]

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