# Using the Master Data Management Generic Extractor (MDMGX) for Initial Load in MDG-F

## Applies to

Master Data Governance for Financials (MDG-F) with release versions 7.0 and newer. For more information, visit the Master Data Management homepage (https://go.sap.com/community/topic/master-data-governance.html).

## Summary

SAP Master Data Governance provides out-of-the box solutions for the central management of master data objects. Domain-specific solutions include business partner (MDG-BP), customer (MDG-C), supplier (MDG-S) governance, material governance (MDG-M), and financials governance (MDG-F).

This guide provides you with the foundation knowledge you need to perform an initial load of master data into the financial governance (MDG-F) data model.

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# Introduction

SAP Master Data Governance (MDG) is used for embedded Master Data Management (MDM), that is, centralized, out-of-the-box, domain-specific creation, modification, and distribution of master data with a focus on SAP Business Suite and SAP S/4 HANA.

Domain-specific content (data models, user interfaces, workflows) is provided as part of the standard for several application areas. It is a common requirement from customers to adapt the MDG data models to their specific needs.

This document explains how-to perform an initial load of master data from SAP ECC or SAP S/4 HANA systems into the MDG hub. It covers the setup and execution of the extraction of master and/or customizing data in from SAP ECC or SAP S/4 HANA client systems as well as the import of the extracted data into the MDG hub. It explains the key concepts and implementation details in general and includes some real-life examples of the MDG-F data model `0G`.

We recommend that you study the following how-to guide before working with the current guide:

[Extensibility Options for SAP Master Data Governance for Financial Data](#) ➔ Overview about MDG-F

## MDG for Financials

MDG offers a domain specific solution for financial governance (MDG-F). The current MDG-F data model is called `0G`. It covers entity types of the accounting, controlling and consolidation components of financial master data as indicated by the examples below:

- Accounting: G/L Account `(ACCOUNT & ACCCCDET)`, Company `(COMPANY)`
- Controlling: Cost Center `(CCTR)`, Cost Element `(CELEM)`, Profit Center `(PCTR),` and Internal Order `(IORDER)`
- Consolidation: Consolidation Unit `(CONSUNIT)`, Item `(FSI)`

## Scenario

Accounting and controlling objects exist in SAP ECC or SAP S/4 HANA client systems, too. Before you start with the governance processes in the MDG Hub, you want to load existing data from your SAP ECC or SAP S/4 HANA client system into your MDG Hub. The tools "Generic MDM Extractor `(MDMGX)`"for the SAP ECC or SAP S/4 HANA client system and "Data Import Framework `(DIF)`" for the MDG Hub can be used to fulfill this task.

## SAP ERP Audit Information

SAP Notes [2134044](#) and [2140352](#) extend MDG-F data model 0G with a storage option for SAP ERP or SAP S/4 HANA Audit Information (attributes Created By and Created On). This allows saving audit relevant data

from SAP ERP or SAP S/4 HANA systems in the central MDG system. It is recommended to apply the notes and use the functionality.

# Generic MDM Extractor (MDMGX)

MDMGX is an executable transaction within a SAP client system. It is available in various SAP systems such as R/3 4.6C, newer SAP ECC, SAP S/4 HANA systems, SAP CRM and SAP SRM systems. It can extract master data as well as customizing data. The output format is an XML file. The file can either be downloaded to the local PC or stored within the application server that the transaction is running on or sent via the FTP protocol to any FTP-based receiver. Its original intended usage is for SAP NetWeaver Master Data Management (SAP NW MDM). This explains why some names still refer to SAP NW MDM. Nevertheless; the functionality is completely usable for MDG-F.

## Technical Requirements

MDMGX is delivered within the PI Basis and PI or SAP_APPL or S4CORE software components. The list below shows the minimum release versions of the mentioned layers.

- PI

   2004.1_46C SP14

   2004.1_470 SP14

   2004.1_500 SP14

- PI_BASIS

   2005.1_620 SP10

   2005.1_640 SP10

   2005.1_700 SP10

   All newer releases starting with SP0

- SAP_APPL

   600 SP06

   All newer releases starting with SP0

- S4CORE

   All releases

Ensure that the SAP client systems used for the extraction include the required SPs.

Furthermore, the following SAP Notes are mandatory in the SAP client systems:

- [1783851](#) **–** MDMGX: Adaptions for MDG initial load
- [2547815](#) **–** MDMGX: New Extraction Content for MDG-F
- [2134044](#) **–** MDG-F: Extract SAP ERP Audit Information with MDMGX

## Transaction MDMGX – Main Menu

Start the transaction MDMGX. The figure below shows the MDMGX main menu.
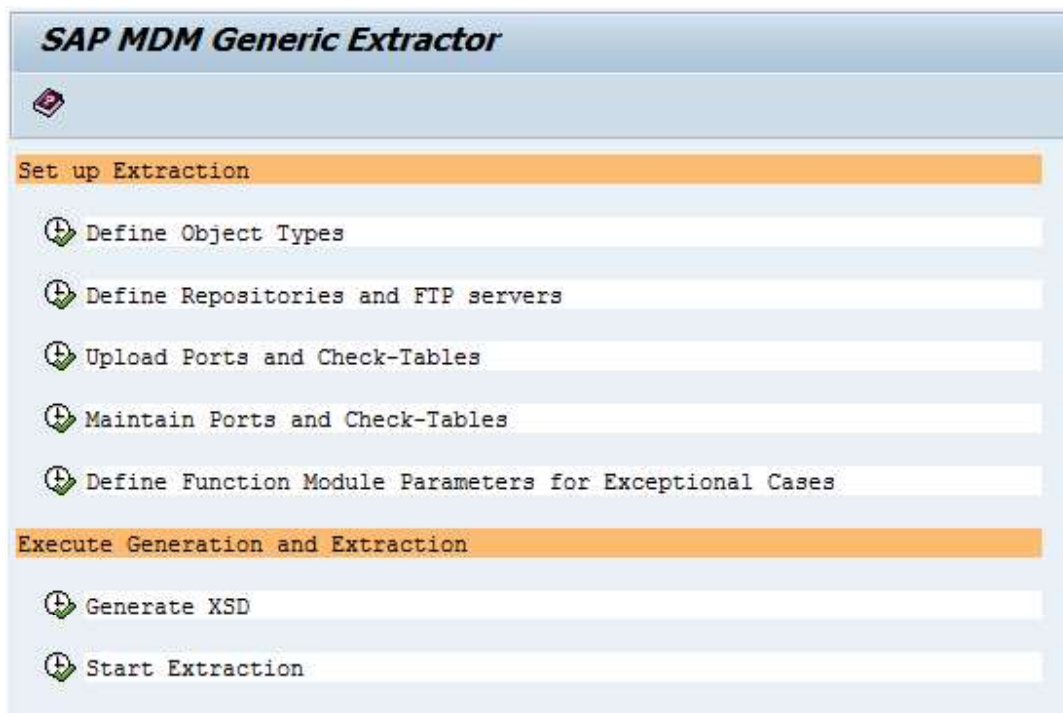


`Set up Extraction` consists of several actions that are required to configure the required customizing for the generic data extraction.

`Execute Generation and Extraction` is used for data extraction. In MDG, only `Start Extraction` is relevant. `Generate XSD` is not required.

### Define Object Types

In MDMGX, you can group several tables for a single object type. This is comparable with the MDG data model which consists of several entity types. The general recommendation is the creation of a single object type for each MDG data model. The object type consists of a technical name and a description.
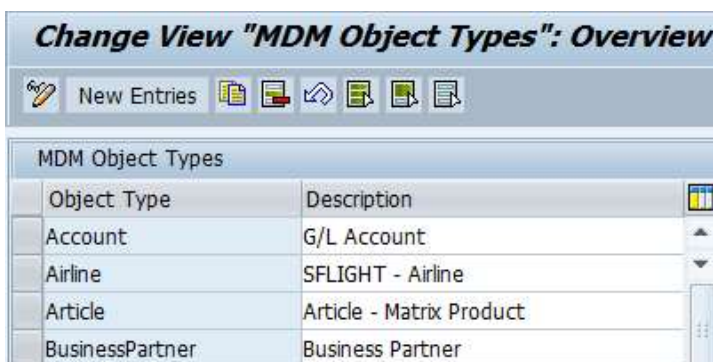
## Define Repositories and FTP servers

The repository is the receiver of the MDMGX output. In NW MDM, several repositories can receive the same data. In MDG, the MDMGX output is represented using an entity type with SU Type 1 for a single data model. The general recommendation is the creation of a single repository for each entity type with SU Type 1 of the target MDG data model.

An FTP server configuration is only needed when the MDMGX output is transferred directly to the MDG Hub via FTP. A local download is supported, too.

The figure below shows the required information for the definition of repositories and FTP servers using a template entry.



Fields that are not mentioned below are not relevant for MDG.

`Log. Repos Name`

The logical repository name is the repository key used within MDMGX. We recommend that you replace the `<TEMPLATE>` with the name of the target entity type with SU Type 1. **It is mandatory to use the MDG_ prefix in the name.** Reuse the same value for field `Reposit. Name (Code)`, too.

`Object Type`

The object type links the repository with its object. Select one of the defined object types from the F4 help.

`Reposit. Name (Code)`

Maintain the same value as in `Log. Repos Name`.

`FTP Server`

Maintain the URL of the FTP server if the MDMGX output is transferred to the MDG hub via FTP.

```
Clnt Code
```

Maintain the logical name of the system used for data extraction. We recommend the following naming convention: `<System_Name>_<Client_Number>`.

```
Remote System Type
```

Maintain the type of the system used for data extraction.

## Upload Ports and Check-Tables

You use upload ports and check-tables to upload MDMGX configuration from a text file. This applies for SAP MDG-F objects. It provides a pre-defined configuration file usable for the common SAP entity types (refer to [the MDG-F step-by-step example](#) for details).

## Maintain Ports and Check-Tables

This item is used to define the actual data extraction. The term "port" originates from SAP NW MDM. It describes how the extracted data is imported into MDM. This feature is used by MDG in a similar way. In MDG the port creates the link between the MDG entity type with SU Type 1 and its related database table in the SAP system.

Maintenance is done in the SAP data browser. It is possible to define a pre-selection. For example, you can define that specific record is used as a template for new records. If no template is used, new records are created from the list. Choose the `Create` button to define a new one.

The following fields are mandatory for MDG scenarios.

```
System Type
```

The system type defines to which SAP system the current definition belongs.

```
Object Type
```

The object type defines to which object the current definition belongs. Examples for MDG-F object types are `"Account"` or `"Cost Element"`.

```
MDM Port Code
```

In MDG scenarios, the MDM port code always refers to the name of the MDG entity type with SU Type 1 linked to the SAP database table of the current definition. The port code is reflected in the extracted data. The port code is the re-occurring XML node that encapsulates a single record. Examples of MDG-F port names are `ACCOUNTS_COA` for the A segment of an account or `COST_ELEMENTS_DESCR` for the texts of cost elements.

```
Table Name
```

The table name is the database table to be used for data extraction.

## Non Language Fields

Non-language fields define the single fields that are extracted. Maintenance of multiple fields is possible by entering a comma separated list. The input is used to create a dynamic SQL statement for data extraction. Additionally, the input defines the name of the XML element in the output of the extraction. We recommend using the related attribute name in the MDG data model. Therefore, the required syntax is `<Field_Name_in_Table>=<Attribute_Name_in_MDG_Model>`. Refer to the step-by-step examples for details.

## Where Clause

The where-clause defines the condition for the data selection. It has to be written in the correct SQL syntax, otherwise the extraction might fail. The general syntax is `<TableName>~<FieldName> = '<FieldValue>'`. A combination of several selection criteria using the SQL `AND` or `OR` operators is supported, too.

The following example shows a selection of cost centers of the controlling area 0001: `CSKS~KOKRS = '0001'`. Further examples are available in the step-by-step examples.

## Link Info

The link info defines a joined selection for the maintained database table. The information is mapped to an SQL INNER JOIN. This feature allows the selection of master data from different tables for a single port. The required syntax is: `<Field in current Table>(<Join Table>:<Field in Join Table>)`. Refer to the step-by-step examples for details.

## Function Module for XML

Function modules for XML allow the creation of custom extraction logic. You can use function modules if a complex selection is required that cannot be configured using the `Link Info` feature. Function module-based extraction is used by the MDG-F object Cost Element (refer to the step-by-step example for more details) and Internal Order.

## Define Function Module Parameters for Exceptional Cases

This customizing allows defining input parameters for function module-based extraction. This feature is used by the MDG-F object Cost Element. The screenshot below shows the input screen.



### Object Type

The object type defines to which object the current definition belongs. Examples for MDG-F object types are *Account* or *Cost Element*.

### Function Module

The function module defines the name of the function module that is used by the object for data extraction. An example of an MDG-F function module is `MDM_ERP_CELEM_EXTR`.

### Input Parameter

The input parameter defines a string that is given to the function module as input parameter. The content of the string must be handled by the function module. Refer to the related chapter for the [cost element function modules](#) as example.

## Start Extraction

Start extraction triggers the actual data extraction from the current MDG client system into an XML file. The screenshot below shows the selection screen.



**Reposit. Name (Code)**

This required field defines the data to be extracted. Select a repository from the F4 help.

**Port Name (Code)**

If the data to be extracted consist of several tables, the port name allows the selection of a specific table. Usually, the field can be left blank to indicate an extraction of all ports that are defined for the current repository.

**Data Transfer Options**

MDMGX supports various options for transferring the data.

- Local Download stores the resulting XML directly on the PC of the current user. The file directory must be defined.
- Download to Appl. Server stores the resulting XML directly on the file system of the current application server. The file directory must be defined.
- Upload via FTP transfers the file via FTP to the destination that is defined for the repository. If the FTP is not anonymous, user and password are required.

# MDG Data Import Framework

## Technical Requirements

The data import framework (DIF) is delivered as part of the MDG solution. Some components are available within the common software layer SAP_BS_FND. The development of the new MDG content required some enhancements in the common layer, too. Ensure that the MDG system is at least on the release level of SAP_BS_FND 7.31 SP07 or newer.

## System Setup

DIF requires at least two types of file directories on the application server:

- One directory for each object type to store the files to be imported
- One directory for all object types to store the archived files that have been imported

SAP recommends the creation of application specific file directories. Those shall be bound to unique folders of the application server.

Examples:

- MDGF_TRANSFER_ACCOUNT with folder /usr/sap/Q7B/SYS/MDG/financial/account/
    - This folder is used by all MDMGX XML files related to the account, its texts and the account in company code.
- MDGF_TRANSFER_CCTR with folder /usr/sap/Q7B/SYS/MDG/financial/cctr/
    - This folder is used by all MDMGX XML files related to the cost center and its texts.
- MDGBP_TRANSFER_IN01 with folder /usr/sap/Q7B/SYS/MDG/bp/in01/
    - This folder is used for the MDG Business Partner / Customer / Supplier application.
- MDG_ARCHIVE with folder /usr/sap/Q7B/SYS/MDG/archive/
    - This folder is used as archive folder for all kinds of processed files.

Create the physical directories on the application server and map them to logical directories using transaction `FILE`.

Configure the directories in Customizing for *Master Data Governance* (transaction `MDGIMG`) under *General Settings → Data Transfer → Define File Source and Archive Directories for Data Transfer*.

- The *Data Transfer Directories* are used for the source files to be imported. The directories are not object specific.
- The *Archive Path for Object Types* must be maintained for each object that shall be imported.

**General Information**

General information about DIF is part of the common MDG documentation:

- [SAP MDG Documentation for DIF on Service Market Place](#)

The step-by-step examples provide further information how DIF is used for MDG-F.

## Step-by-Step Example: MDMGX – MDG-F Extraction

This example describes the extraction of all entity types for the MDG-F data model. This data can be imported into the SAP MDG data model `0G`. The import into MDG always requires a change request. An import of active data is not supported. This fact is especially reflected by the selection criteria for ports and check tables.

Accounts consist of two entity types in MDG-F. The "A segment" `ACCOUNT` refers to the chart of account dependent data stored in database table `SKA1`. Related texts are stored in database table `SKAT`. The "B segment" `ACCCCDET` refers to the company code dependent data stored in database table `SKB1`.

Companies reflect the MDG-F entity type `COMPANY`. Relevant data is stored in database table `T880`.

Cost Centers reflect the MDG-F entity type `CCTR`. Relevant data is stored in database table `CSKS`. Related texts are stored in database table `CSKT`.

Cost elements combine the ERP client data in a single MDG-F entity type `CELEM`. Relevant data is stored in database tables `CSKA` and `CSKB`. Related texts are stored in database table `CSKU`.

Group Accounts reflect the special handling of Group Accounts in MDG-F. Instead of storing Group Accounts in entity type Account (`ACCOUNT`), MDG-F stores this information in entity type Item (`FSI`). MDMGX based extraction supports transferring SAP ERP Group Accounts (tables `SKA1` and `SKAT`) to MDG-F Items. The functionality is introduced in SAP MDG-F 7.0 with SAP Note [2082479](#).

Profit Centers reflect the MDG-F entity type `PCTR` including its entity type with SU Type 4 `PCCCASS` that is the assignment of a profit center to the company codes of its controlling area. The profit center database table is `CEPC`; assignments are stored in `CEPC_BUKRS`; and relevant texts are stored in `CEPCT`.

Internal Order reflects the MDG-F entity type `IORDER`. Relevant data is stored in database table `AUFK`.

The following steps require that transaction MDMGX is running in the MDG client system that shall be used for data extraction.
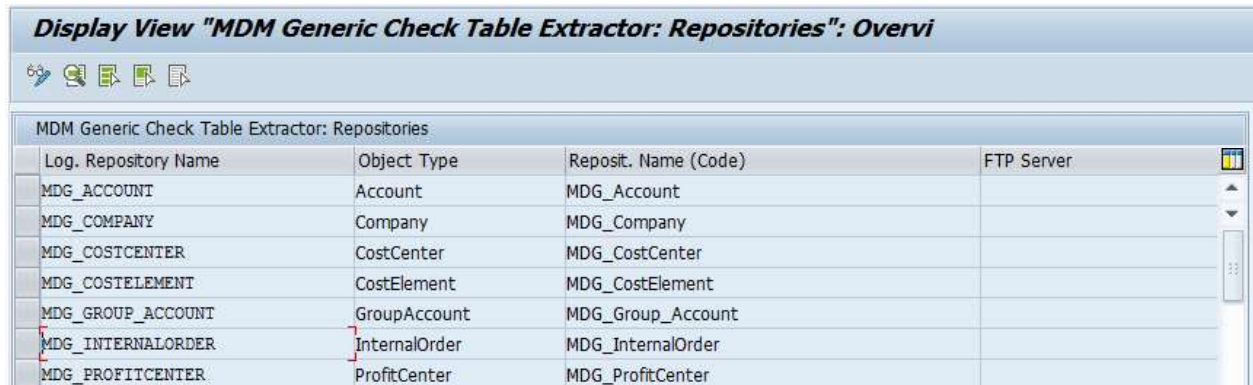
### 1. Check Object Types in MDMGX

MDG-F object types are pre-defined by SAP. Check that the following object types exist: `Account,` `Company, CostCenter, CostElement, Group Account,` `ProfitCenter, and InternalOrder.`

## 2.   Define Repositories and FTP servers

The screenshot below shows all repositories that must be defined for the extraction of all MDG-F objects. **It is strictly recommended to create them accordingly using the same names.**



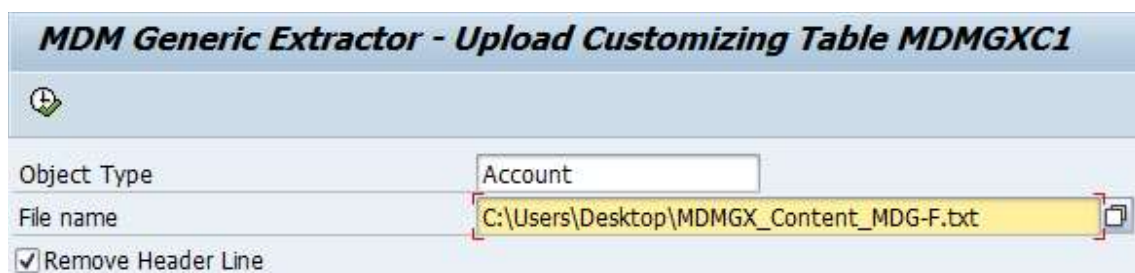## 3.   Maintain Ports and Check-Tables

MDG-F provides a pre-configuration of ports and check tables. The configuration depends on the current MDG release.  Related text files are attached to the following SAP Notes:

- MDG-F 7.0: 1882127
- MDG-F 8.0 to MDG9.1: 2151430
- MDG 9.2 or MDG-F 1809: 2707723

This text file can be uploaded into MDMGX.

1. Go to the SAP note and download the attached text file.
2. In transaction MDMGX ensure that none of the MDG-F related entity types is maintained yet in `"Maintain Ports and Check-Tables"`. Otherwise the upload will not work.
3. Start `"Upload Ports and Check-Tables"`.
4. Enter `Object Type` `"Account"` and select the locally stored text file. Ensure that checkbox `Remove Header Line` is set.



5. Execute the upload. It should result in a success message.
6. Go back to the main menu.
7. Start `"Maintain Ports and Check-Tables"` to check the ports. Choose system type R3 and display the records. The system displays the list as shown in the screenshot.

**Data Browser: Table MDMGXC1 Select Entries      18**

Table:        MDMGXC1
Displayed Fields:   5 of  12        Fixed Columns:      5   List Width 0250

| CLIENT | SYSTEM_TYPE | OBJECT_TYPE | MDM_PORTCODE | TABLE_NAME |
|--------|-------------|-------------|--------------|------------|
| 421 | R3 | Account | ACCOUNTS_CC | SKB1 |
| 421 | R3 | Account | ACCOUNTS_CC | T001 |
| 421 | R3 | Account | ACCOUNTS_COA | SKA1 |
| 421 | R3 | Account | ACCOUNTS_DESCR | SKAT |
| 421 | R3 | Company | COMPANIES | T880 |
| 421 | R3 | CostCenter | COST_CENTERS | CSKS |
| 421 | R3 | CostCenter | COST_CENTERS_DESCR | CSKS |
| 421 | R3 | CostCenter | COST_CENTERS_DESCR | CSKT |
| 421 | R3 | CostElement | COST_ELEMENTS | CSKB |
| 421 | R3 | CostElement | COST_ELEMENTS_DESCR | CSKB |
| 421 | R3 | GroupAccount | FSI_ACCOUNTS | SKA1 |
| 421 | R3 | GroupAccount | FSI_ACCOUNTS_DESCR | SKAT |
| 421 | R3 | InternalOrder | INTERNAL_ORDERS | AUFK |
| 421 | R3 | ProfitCenter | PROFIT_CENTERS | CEPC |
| 421 | R3 | ProfitCenter | PROFIT_CENTERS_CC | CEPC |
| 421 | R3 | ProfitCenter | PROFIT_CENTERS_CC | CEPC_BUKRS |
| 421 | R3 | ProfitCenter | PROFIT_CENTERS_DESCR | CEPC |
| 421 | R3 | ProfitCenter | PROFIT_CENTERS_DESCR | CEPCT |

The pre-defined ports and check tables are not yet usable for an immediate extraction. The Customizing contains only the extraction settings for the tables and fields. The actual selection criteria must be defined according to the existing data as described in the following chapters.

## Account

Account data is not time dependent. The key for an account consists of three parts: the general A-Segment (entity type `ACCOUNT` stored in table `SKA1`), the text (stored in table `SKAT`), and the company code specific B-Segment (entity type `ACCCCDET` stored in table `SKB1`). The extraction consists of three ports to separate the master data extraction from its assignments to the company codes and the text extraction:

- Port `ACCOUNTS_COA` extracts only the master data for the A-Segment.
- Port `ACCOUNTS_DESCR` extracts the texts.
- Port `ACCOUNTS_CC` extracts the B-Segment including its company code specific data.

The text extraction is a join: the selection itself is made on the account (A-Segment) master data table but the data in the resulting XML is extracted from the text table.

The B-Segment extraction is a join: the selection itself is made on the account in the master data table for the company code (B-Segment). The data in the resulting XML is enriched with the related chart of accounts, as defined in table `T001`. This enriched data is required for the later import into the MDG-F data model.

The general recommendation is to limit the extraction in the following ways:

1. Use the chart of accounts (`KTOPL`) for the extraction of A-Segments and relevant texts. This limits the number of objects to be extracted and thus ensures that the change request used for the import in the MDG hub does not get too big.

2. Use the company code (`BUKRS`) for the extraction of B-Segments. This limits the number of objects that to be extracted and thus ensures that the change request used for the import in the MDG hub does not get too big. Additionally, it is easier to select valid B-Segments according to the extracted A-Segments:

   a. The chart of accounts of the A-Segment defines the valid company codes.
   b. The A-Segment must exist in MDG before B-Segments can be imported.

The general `WHERE CLAUSE` delivered by SAP for ports `ACCOUNTS_COA` respectively `ACCOUNTS_DESCR` is **SKA1~KTOPL = 'INT'** respectively **SKAT~KTOPL = 'INT'**. Adding further criteria for field `SAKNR` limits the selection for specific accounts.

The general `WHERE CLAUSE` delivered by SAP for port `ACCOUNTS_CC is` **SKB1~BUKRS = '0001'**. Adding further criteria for field `SAKNR` limits the selection for specific accounts.

The following examples show possible adjustments.

1. **SKA1~KTOPL = 'INT' AND SKA1~SAKNR > '0000120000'** limits the selection to all accounts with the ID greater than 120000 for chart of accounts INT.
2. **SKB1~BUKRS = '0001' AND SKA1~SAKNR = '0000120000'** limits the selection to the single account 120000 in company code 0001.

You must adjust the selection criteria for all ports of the account. The selection criteria must always be synchronized.

## Company

Company data is not time dependent. Its key consists only of one component. The general recommendation is that an extraction of all companies in one run is possible. If a selection of a specific company is required an example for the `WHERE CLAUSE is` **T880~RCOMP = 'COMPID'**. This clause extracts the company with the ID `COMPID`.

## Cost Center

Cost Center data is time dependent. Its key consists of multiple components. The extraction consists of two ports to separate the master data extraction from the text extraction:

- Port `COST_CENTERS` extracts only the master data.
- Port `COST_CENTERS_DESCR` extracts the texts.

The text extraction is a join: the selection itself is made on the cost center master data table but the data in the resulting XML is extracted from the text table.

The general recommendation is to limit the extraction in the following ways:

1. Use a time slice consisting of the valid from (`DATAB`) and valid to (`DATBI`) dates as selection criteria. In MDG the entity is stored within an edition having a time slice (valid from date and infinite valid to

date), too. It is not possible to import multiple time slices at once in MDG. At least the valid from date extracted from the client system should match the one of the target edition in the MDG hub.

2. Use the controlling area (`KOKRS`) as selection criteria. This limits the number of objects to be extracted and thus ensures that the change request used for the import in the MDG hub does not get too big.

The general `WHERE CLAUSE` delivered by SAP for both ports is **CSKS~KOKRS = '0001' AND CSKS~DATAB = 'YYYYMMDD' AND CSKS~DATBI = 'YYYYMMDD'**.

The following examples show possible adjustments.

1. **CSKS~KOKRS = '0001' AND CSKS~DATAB = '20130101' AND CSKS~DATBI = '20131231'** limits the selection to all cost centers of controlling area 0001 that are valid from the 1st of January to the 31st of December 2013.

2. **CSKS~KOKRS = '0001' AND CSKS~DATAB >= '20130101' AND CSKS~DATAB <= '20130201'** limits the selection to all cost centers of controlling area 0001 that are valid starting from the range 1st until 31st of January.

The adjustment of the selection criteria must be done for both ports of the cost center. The selection criteria must always be synchronized.

## Cost Element

Cost Elements use function modules for data extraction. Specific settings for the ports and check tables are not required. Refer to the next chapter for details about the selection.

## Group Account

Group Accounts are a special version of common accounts. In the SAP ERP customizing for Chart of Accounts, it is possible to define a "Consolidation Chart of Accounts" for a common chart of accounts. This definition allows maintaining a "Group Account" for a common account in the master data maintenance transactions.

Group Account data is not time dependent. It does not include company code specific B-Segments. The key for a group account consists of two: the general A-Segment (entity type `ACCOUNT` stored in table `SKA1`), and its text (stored in table `SKAT`). The extraction consists of two ports to separate the master data extraction from its text extraction:

- Port `FSI_ACCOUNTS` extracts only the master data for the A-Segment.
- Port `FSI_ACCOUNTS_DESCR` extracts the texts.

The text extraction is a join: the selection itself is made on the account (A-Segment) master data table but the data in the resulting XML is extracted from the text table.

The general recommendation is to limit the extraction by using the chart of accounts (`KTOPL`) for the extraction of A-Segments and relevant texts. This limits the number of objects to be extracted and thus ensures that the change request used for the import in the MDG hub does not get too big.

The general `WHERE CLAUSE` delivered by SAP for ports `FSI_ACCOUNTS` respectively `FSI_ACCOUNTS_DESCR` is `SKA1~KTOPL = 'INT'` respectively `SKAT~KTOPL = 'INT'`. You can add further criteria for the field `SAKNR` to limit the selection for specific accounts.

The following example shows possible adjustments.

`SKA1~KTOPL = 'INT' AND SKA1~SAKNR > '0000120000'` limits the selection to all accounts with the ID greater than `120000` for chart of accounts `INT`.

You must adjust the selection criteria for all ports of the account. The selection criteria must always be synchronized.

## Profit Center

Profit Center data is time dependent. Its key consists of multiple components. Additionally, it has a single entity type with SU Type 4 `PCCCASS`. The extraction consists of three ports to separate the extraction of master data, of assignments to company codes, and of text. The ports are as follows:

- Port `PROFIT_CENTERS` extracts only the master data.
- Port `PROFIT_CENTERS_CC` extracts the assignments to company codes.
- Port `PROFIT_CENTERS_DESCR` extracts the texts.

Both the extraction of assignments to company codes and the extraction of text are achieved using a join. The selection itself is made on the master data table for the profit center. However, the data in the resulting XML is extracted from the assignments to company codes table and the text table.

We recommend that you limit the extraction in the following ways:

1. Use a time slice consisting of the valid from (`DATAB`) and valid to (`DATBI`) dates as selection criteria. In MDG, the entity type is within an edition that also has its own time slice (valid from date and infinite valid to date). It is not possible to import multiple time slices at once in MDG. At least the valid from date extracted from the client system should match the one of the target edition in the MDG hub.
2. It is recommended to use the controlling area (`KOKRS`) as selection criteria. This limits the number of objects that will be extracted and thus ensures that the change request used for the import in the MDG hub won't get too big.

The general `WHERE CLAUSE` delivered by SAP for ports is `PROFIT_CENTERS` and **PROFIT_CENTERS_DESCR is CEPC~KOKRS = '0001' AND CEPC~DATAB = 'YYYYMMDD' AND CEPC~DATBI = 'YYYYMMDD'.**

The following example shows a possible adjustment.

**CEPC~KOKRS = '0001' AND CEPC~DATAB = '20130101' AND CECP~DATBI = '20131231' AND CEPC~PRCTR = '0020014360'** limits the selection to the profit center 20014360 of controlling area 0001 that is valid from the 1st of January to the 31st of December 2013.

The adjustment of the selection criteria must be done for all ports of the profit center. The selection criteria should always be synchronized.

### Internal Order

Internal Order uses function modules for data extraction. Specific settings for the ports and check tables are not required. Refer to the next chapter for details about the selection.

## 4. Define Function Module Parameters for Exceptional Cases

Cost Elements require function modules for the master data extraction. This is needed to overcome the different data models of MDG-F compared to the SAP ERP backend. In the ERP backend its data is separated in three different tables: `CSKA` storing the chart of account dependent data; `CSKB` storing the time and controlling area dependent data; and `CSKU` storing the texts. The MDG-F data model uses only one entity type `CELEM` that groups the data together. Its data is time dependent. Its key consists of multiple components. The extraction has to select the data from the different table in the correct way. Unfortunately the generic functionality of MDMGX using INNER JOINS is not sufficient for this.

The extraction consists of two ports to separate the master data extraction from the text extraction:

- Port `COST_ELEMENTS` extracts only the master data from tables `CSKB` and `CSKA`. It is linked to the function module `MDM_ERP_CELEM_EXTR`.
- Port `COST_ELEMENTS_DESCR` extracts the texts from tables `CSKB` and `CSKU`. It is linked to the function module `MDM_ERP_CELEM_DESCR_EXTR`.

There is no general configuration defined for input parameters by SAP. It is mandatory to adjust the parameter according to the desired extraction. The parameter must be use the common format of an SQL Where clause.

The general recommendation is to limit the extraction in the following ways:

1. It is recommended to use a time slice consisting of the valid from (`DATAB`) and valid to (`DATBI`) dates as selection criteria. In MDG the entity type will be stored within an edition having a time slice (valid from date and infinite valid to date), too. At least the valid from date extracted from the client system should fit to the one of the target edition in the MDG hub.
2. It is recommended to use the controlling area (`KOKRS`) as selection criteria. This limits the number of objects that will be extracted and thus ensures that the change request used for the import in the MDG hub does not get too big.

The following example shows a possible adjustment. You do not have to mention the table name.

**KOKRS = '0001' AND DATAB = '20130101' AND KSTAR = '0000400000'** limits the selection to the cost element 400000 of controlling area 0001 that is valid from the 1st of January 2013.

The adjustment of the selection criteria must be done for all ports of the cost element. The selection criteria must always be synchronized.

Similar to Cost Element, Internal Order uses function module MDM_ERP_IORDER_EXTR to extract data, and it refers to the AUFK table. You can use fields in this table to restrict the data selection.

### 5. Extract the Data

Having checked and maintained the ports and check tables the actual data extraction can be started. The process describes how-to download the files to a local PC.

1. In the MDMGX main menu, click item `Start Extraction`. This loads the input screen of the data extraction.

2. Select a repository (e.g. `MDG_ProfitCenter`) using the F4 help on field `Reposit. Name (Code)`.

3. The input fields of `Port Name (Code)` can be blank. In that case the system tries to extract data for all ports being maintained. Maintaining a port will only extract its specific data (e.g. `PROFIT_CENTERS_DESCR` extracts only the texts).

4. Select the `Local download` checkbox and use the F4 help on field `File directory` to specify the destination folder for the extracted files.

5. The screenshot shows a possible result. `Push the Execute (F8)` button to trigger the extraction.



6. MDMGX display a result for the last extraction run.

## Step-by-Step Example: DIF- Import MDG-F Master Data

The example describes the required steps to import profit center master data. The requirement is that some XML files are already available on the application server in one of its folders used for financial master data upload.

### 1. Upload extracted Files to the Application Server

There are various ways of uploading files to the application server. It is required that the files extracted with MDMGX are stored within one of the source file directories for DIF.

1. Enter MDG Hub with SAP GUI and call transaction `CG3Z`.
2. Search for the source files stored locally.
3. Enter a path on the application server as storage location in field `Target file on application server`. Including the filename, too (for example, /usr/sap/Q7B/SYS/MDG/financial/in01/upload.xml)
4. Click the `Upload` button to start the upload.

Ensure that all files are stored on the application server's file system before starting the import.

### 2. Starting the Data Import Framework Application

There are various ways to start DIF. The recommendation is using the link within the MDG-F work center.

1. Logon to the MDG Hub.
2. Run transaction `NWBC`.
3. Select the appropriate role to navigate to your work center. The example uses role `SAP_MDGF_CTR_MENU_05` (the financial controlling work center) since profit center data shall be imported.
4. In the tree menu on the left hand side select `Data Exchange` → `Data Transfer` → `Import Master Data`.

In the main screen the DIF application is now running.

### 3. Prepare the Import of Financial Master Data

DIF itself is a cross entity type application. It supports importing various entity types for various data models. Entity types are reflected in DIF `Object Types`. The MDG-F specific ones are:

- `Company – COMP`: related to the entity type `COMPANY`
- `Cost Center – CCTR`: related to the entity type `CCTR`
- `Cost Element – CELM`: related to the entity type `CELEM`
- `General Ledger Account Master – ACCA`: related to the entity types `ACCOUNT` and `ACCCCDET`
- `Profit Center – PCTR`: related to the entity type `PCTR`

- Internal Order – IORD: related to the entity type IORDER

The following steps are required to prepare the upload of profit centers.

1. Select `Object Type Profit Center – PCTR`.

2. Maintain a meaningful `Description` for the import of master data.

3. On the list for `Data Sources` click the `Add` button.

4. Select the `Object Type Profit Center` in the pop-up and confirm with `OK`.

5. Use the F4 help for `Source Directory` to select the one that contains the data to be imported.

6. It is possible to optionally check the content of the directory by clicking on `button Show Directory Content`.

7. Define a `Change Request Type` and an `Edition` for the import.

### 4. Optional: Run a Simulation of the Import

DIF offers the possibility to simulate the master data import. This is supported by MDG-F. The simulation processes the files and maps them into the target format but does not create a change request. The simulation is triggered with button `Simulate Import`. Once the simulation has been started button `Display Monitoring` can be used to navigate into the log of the simulation run.

### 5. Run the Import

The import of MDG-F master data always creates a change request. A direct import of the data into the active are is currently not supported.

1. Use button `Import` to trigger the master data import. The import runs asynchronously. The UI only displays the related import run number. It is not updated with any status information.

2. Choose the `Display Monitoring` button to navigate to the import log. The `Result List` displays the status of the import run.

3. Click the linked ID in column `Run Number` to navigate to its details.

4. Expand the `Data Transfer Logs`. Scrolling down to its end, the message "`Change request <ID> has been created`" displays if the import run has been successful. If the import fails, you must import the complete file(s) again.

The master data is now part of the change request. Checks have not yet been performed. The change request might contain inconsistent data. It must be processed according to its workflow definition to ensure the creation of the master data in the active area.

## Additional Information

**Links**

[MDG Guides on Service Market Place](#)

**How-to Guides**

[Extensibility Options for SAP Master Data Governance for Financial Data](#)

**SAP Notes**

- MDMGX Setup in SAP ERP Client Systems
    - MDG-F 7.0: [1882127](#)
    - MDG-F 8.0: [2134044](#)
- MDMGX Corrections in SAP ERP Client Systems
    - [1783851](#)
    - [1880169](#)
    - [2134044](#)
    - [2547815](#)
- SAP ERP Audit Information for MDG 7.0
    - [2134044](#)
    - [2140352](#)
- SAP ERP Group Accounts for MDG 7.0
    - [2082479](#)

**Important**

The SAP MDG Data Models for Business Partners, Customers, Suppliers and Materials do not use this procedure for the initial load. Refer to the related documentation how the initial load is done for these models.

**Version History**

- 1.5 – Updated Internal Order which is supported in MDGF1809 / 9.2
- 1.4 – Updated new SAP Community Links
- 1.3 – Added SAP ERP Audit Information & SAP ERP Group Account
- 1.2 – Added examples for the recommended file / folder structure on the app. server
- 1.1 – Refined naming conventions for MDMGX Repositories
- 1.0 – Initial release of the Documents

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