

MDGF Data Modelling for Funds Management Part 1

Guide to model Funds Management entities in SAP Master
Data Governance Financials

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INTRODUCTION

SAP Master Data Governance (MDG) is used for embedded MDM, that is, out-of-the-box, domain specific master data governance to centrally create, change and distribute master data with a focus on SAP Business Suite.

Domain specific content (data models, user interfaces, workflows) is provided as part of the standard for several application areas. SAP Master Data Governance for Financials at present does not include support for governing master data objects for the Funds Management module.

This document gives an overview of modelling 2 standard objects in Funds Management using SAP Master Data Governance. The master data objects that are covered in this guide are :

- Fund
- Funds Center [with Hierarchy]

The remaining 3 standard objects in Funds Management will be covered in the next part of the series:

- Functional Area
- Commitment Item [with Hierarchy]
- Funded Program

SAP MDG-F includes standard delivered data model 0G which can be extended using two different approaches. How to and the pros and cons of each of these two approaches are covered in detail in the SCN document [MDG-F Extensibility: Ways of Extending the 0G Data Model](#)

The data modelling covered in this document can be used with either of the two approaches used to extend the 0G data model.

OVERVIEW MDG DATA MODELLING

Data Modelling in MDG on a high level involves following steps:

1. Create or Copy data model
2. Model entities
3. Model entity specific attributes
4. Model relationships between entities

This document assumes expertise of the user to do each of the above steps. The entities, attributes and the relationships that are required to be modelled to support master data governance of the 2 standard entities is covered next.

FUND

Quick facts

ECC table: FMFINCODE

ECC text table: FMFINT

Data element: BP_GEBER

The data modelling of the Fund entity is based on the following ER diagram.

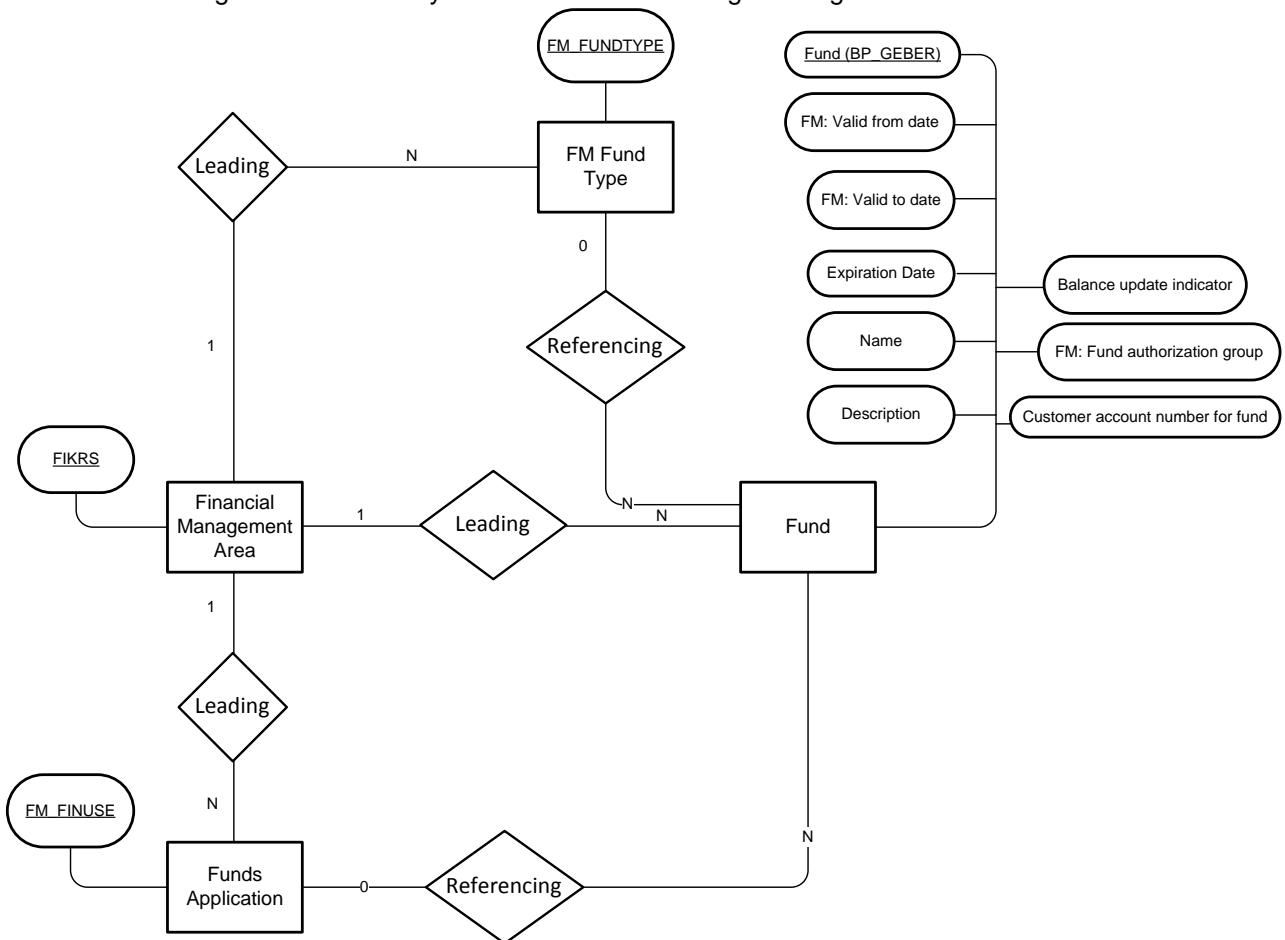


Figure 1: ER Diagram of Fund

The ER diagram above is designed to capture the following information for Fund master data:

Table 1.1: Fund master data

| Name of the Field | Type | Length | Entity SU type |
|---------------------------------------|-------------|---------------|-----------------------|
| Financial Management Area | CHAR | 4 | Type 3 |
| Fund Name | CHAR | 10 | Type 1 – Main entity |
| Description | CHAR | 20 | Text table attribute |
| | CHAR | 40 | Text table attribute |
| Customer account number for Fund | CHAR | 10 | Attribute |
| Application of Secondary Source Funds | CHAR | 16 | Type 3 |
| Balance update indicator | CHAR | 1 | Attribute |
| Expiration Date | DATS | 8 | Attribute |
| FM: Fund authorization group | CHAR | 10 | Attribute |
| FM: Valid from date | DATS | 8 | Attribute |
| FM: Valid to date | DATS | 8 | Attribute |
| FM Fund Type | CHAR | 6 | Type 3 |

The attributes of the Fund entity are tabulated below.

Table 1.2: Fund attributes

| Attribute | Data Element | Required Field | Description |
|------------------|---------------------|-----------------------|----------------------------------|
| ZZCUSTFND | FM_SPONSOR | No | Customer account number for Fund |
| ZZBALUPDT | FM_KZBST | No | Balance update indicator |
| ZZDATEEXP | FM_DATE_EXP | No | Expiration Date |
| ZZAUTHGR | FM_AUTHGRF | No | FM: Fund authorization group |
| ZZVALIDFR | FM_DATAB | Yes | FM: Valid from date |
| ZZVALIDTO | FM_DATBIS | Yes | FM: Valid to date |

The attributes of the Fund entity tabulated below are *language dependent*.

Table 1.3: Fund attributes (language dependent)

| Field Name | Type | Length | Required Field | Description |
|-------------------|-------------|---------------|-----------------------|--------------------|
| TXTSH | CHAR | 20 | | Name |
| TXTMI | CHAR | 40 | | Description |

The Fund entity has the below related entities which need to be modelled in MDG-F.

Table 1.4: Related entities for Fund

| Entity | Z_FUND | Z_FMAREA | Z_FUNDAPP | Z_FUNDTYP |
|---------------------------------|--|---|---|---|
| Description | Fund | Financial Management Area | Funds Application | FM Fund Type |
| Storage/Use Type | 1 - Changeable via Change Request; Generated Database Tables | 3 - Not Changeable via MDG; No Generated tables | 3 - Not Changeable via MDG; No Generated tables | 3 - Not Changeable via MDG; No Generated tables |
| Validity of entity | Edition | No edition | No edition | No edition |
| Data element | BP_GEBER | FIKRS | FM_FINUSE | FM_FUNDTYPE |
| Hierarchies | No Hierarchy | No Hierarchy | No Hierarchy | No Hierarchy |
| Key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment |
| Language Dependent Texts | yes | not relevant | not relevant | not relevant |
| Long text: Length | not relevant | not relevant | not relevant | not relevant |
| Medium text: Length | 40 | not relevant | not relevant | not relevant |
| Short Text: Length | 20 | not relevant | not relevant | not relevant |
| Deletion Allowed | yes | Yes | yes | yes |

The Fund entity has the following relationship types that need to be maintained in MDG-F.

Table 1.5: Fund relationships

| Field Name | Field Type | Relationship type | From entity type | To-entity | Cardinality | No Existence Check |
|------------|--------------|-------------------|------------------|-----------|-------------|--------------------|
| Z_FMAFAPP | Relationship | leading | Z_FMAREA | Z_FUNDAPP | 1: N | |
| Z_FMAFTYP | Relationship | leading | Z_FMAREA | Z_FUNDTYP | 1: N | |
| Z_FMAFUND | Relationship | leading | Z_FMAREA | Z_FUND | 1: N | |
| Z_FAPPFND | Relationship | referencing | Z_FUNDAPP | Z_FUND | 0: N | X |
| Z_FTYPFND | Relationship | referencing | Z_FUNDTYP | Z_FUND | 0: N | X |

FUNDS CENTER

Quick facts

ECC table: FMFCTR

ECC text table: FMFCTR

ECC hierarchy table: FMHISV

Data element: FISTL

The data modelling of the Funds Center entity is based on the following ER diagram.

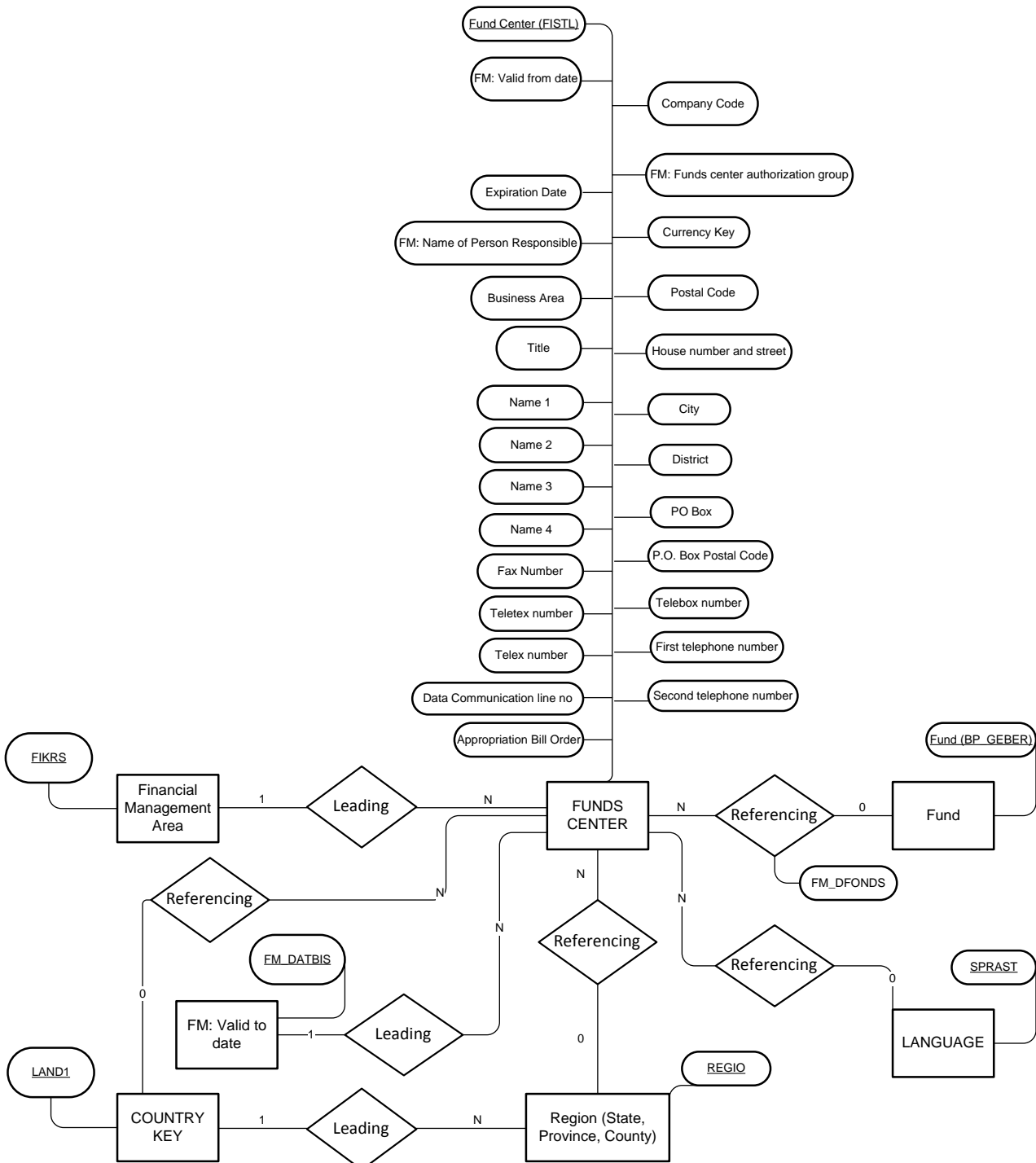


Figure 2: ER Diagram of Funds Center

The data modelling of the Funds Center Hierarchy entity is based on the following ER diagram.

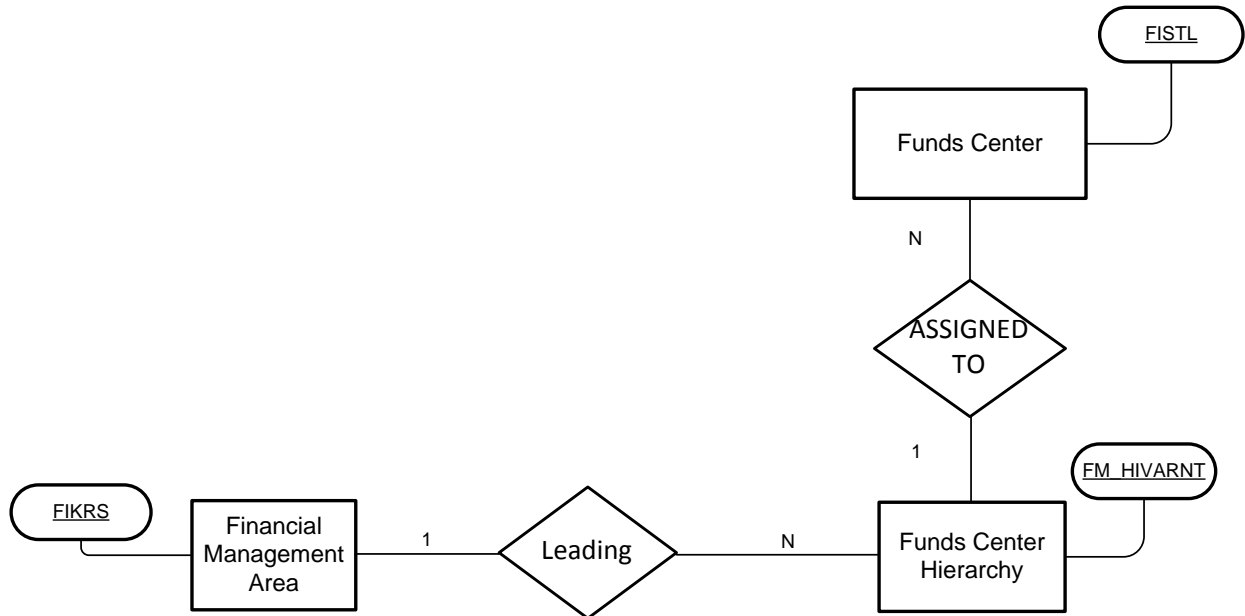


Figure 3: ER Diagram of Funds Center Hierarchy

The ER diagram above is designed to capture the following information for Funds Center master data:

Table 2.1: Funds Center master data

| Name of the Field | Type | Length | Entity SU type |
|--------------------------------------|------|--------|----------------------|
| Financial Management Area | CHAR | 4 | Type 3 |
| Funds Center | CHAR | 16 | Type 1 – Main entity |
| FM: Valid to date | DATS | 8 | Attribute |
| FM: Valid from date | DATS | 8 | Attribute |
| FM: Name of Person Responsible | CHAR | 20 | Attribute |
| FM: Funds centre authorization group | CHAR | 10 | Attribute |
| Company Code | CHAR | 4 | Attribute |
| Expiration Date | DATS | 8 | Attribute |
| Medium Text | CHAR | 40 | Text table attribute |
| Long Text | CHAR | 60 | Text table attribute |
| Fund | CHAR | 10 | Type 1 |
| Currency Key | CUKY | 5 | Attribute |
| Business Area | CHAR | 4 | Attribute |
| Title | CHAR | 15 | Attribute |
| Name 1 | CHAR | 35 | Attribute |
| Name 2 | CHAR | 35 | Attribute |
| Name 3 | CHAR | 35 | Attribute |
| Name 4 | CHAR | 35 | Attribute |
| House number and street | CHAR | 35 | Attribute |
| Postal Code | CHAR | 10 | Attribute |
| City | CHAR | 35 | Attribute |
| District | CHAR | 35 | Attribute |
| PO Box | CHAR | 10 | Attribute |
| P.O. Box Postal Code | CHAR | 10 | Attribute |
| Country Key | CHAR | 3 | Type 3 |

| | | | |
|----------------------------------|------|----|-----------|
| Region (State, Province, County) | CHAR | 3 | Type 3 |
| Language Key | LANG | 1 | Type 3 |
| Telebox number | CHAR | 15 | Attribute |
| First telephone number | CHAR | 16 | Attribute |
| Second telephone number | CHAR | 16 | Attribute |
| Fax Number | CHAR | 31 | Attribute |
| Teletex number | CHAR | 30 | Attribute |
| Telex number | CHAR | 30 | Attribute |
| Data Communication line no | CHAR | 14 | Attribute |
| Appropriation Bill Order | CHAR | 3 | Attribute |

The following information for Funds Center Hierarchy master data is captured in the data modelling:

Table 2.2: Funds Center Hierarchy master data

| Name of the Field | Type | Length | Entity type |
|-------------------------------|------|--------|-------------|
| Financial Management Area | CHAR | 4 | Type 3 |
| Fund Center | CHAR | 16 | Type 1 |
| Fund Center Hierarchy Variant | CHAR | 4 | Type 3 |

The attributes of the Funds Center entity are tabulated below.

Table 2.3: Funds Center attributes

| Attribute | Data Element | Required Field | Description |
|-----------|--------------|----------------|--|
| ZZFCVLDTO | FM_DATBIS | Yes | FM: Valid to date |
| ZZFCVLDFR | FM_DATAB | Yes | FM: Valid from date |
| ZZPERRESP | FM_BOSSNAM | No | FM: Name of Person Responsible |
| ZZUSRNAME | FM_BOSSID | Yes | Funds Center Manager in Organization Model |
| ZZAUTHGRP | FM_AUTHGRC | No | FM: Funds center authorization group |
| ZZCOMPCD | BUKRS | No | Company Code |
| ZZDATEEXP | FM_DATE_EXP | No | Expiration Date |
| ZZCURRKEY | WAERS | No | Currency Key |
| ZZBUSAREA | GSBER | No | Business Area |
| ZZTITLE | ANRED | No | Title |
| ZZNAME1 | NAME1_GP | No | Name 1 |
| ZZNAME2 | NAME2_GP | No | Name 2 |
| ZZNAME3 | NAME3_GP | No | Name 3 |
| ZZNAME4 | NAME4_GP | No | Name 4 |
| ZZHOSTNO | STRAS_GP | No | House number and street |
| ZZPOSTCD | PSTLZ | No | Postal Code |
| ZZCITY | ORT01_GP | No | City |

| | | | |
|-----------|-----------|----|----------------------------|
| ZZDISTRCT | ORT02_GP | No | District |
| ZZPOBOX | PFACH | No | PO Box |
| ZZPBPSTCD | PSTL2 | No | P.O. Box Postal Code |
| ZZTELBX | TELBX | No | Telebox number |
| ZZTELF1 | TELF1 | No | First telephone number |
| ZZTELF2 | TELF2 | No | Second telephone number |
| ZZTELFX | TELFX | No | Fax Number |
| ZZTELTX | TELTX | No | Teletex number |
| ZZTELX1 | TELX1 | No | Telex number |
| ZZDATLT | DATLT | No | Data Communication line no |
| ZZAPPORDR | ZAPPORDER | No | Appropriation Bill Order |

The attributes of the Funds Center entity tabulated below are *language dependent*.

Table 2.4: Funds Center attributes (language dependent)

| Field Name | Type | Length | Required Field | Description |
|------------|------|--------|----------------|-------------|
| TXTSH | CHAR | 20 | | Name |
| TXTMI | CHAR | 40 | | Description |
| TXTLG | CHAR | 60 | | Long Text |

The Funds Center entity has the below given related entities which need to be modelled in MDG-F.

Table 2.5: Related entities for Funds Center

| Entity | Z_FUND | Z_FMAREA | Z_COUNTRY | Z_REGION | LANGUAGE |
|---------------------------|--|---|---|---|---|
| Description | Fund | Financial Management Area | Country Key | Region (State, Province, County) | Language Key (Technical) |
| Storage/Use Type | 1 - Changeable via Change Request; Generated Database Tables | 3 - Not Changeable via MDG; No Generated tables | 3 - Not Changeable via MDG; No Generated tables | 3 - Not Changeable via MDG; No Generated tables | 3 - Not Changeable via MDG; No Generated tables |
| Validity of entity | Edition | No edition | No edition | No edition | No edition |
| Data element | BP_GEBER | FIKRS | LAND1 | REGIO | SPRAST |
| Hierarchies | No Hierarchy | No Hierarchy | No Hierarchy | No Hierarchy | No Hierarchy |

| | | | | | |
|---|--|--|--|--|--|
| Key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment | Key cannot be changed; No internal key assignment |
| Language Dependent Texts | Yes | not relevant | not relevant | not relevant | not relevant |
| Long text: Length | 60 | not relevant | not relevant | not relevant | not relevant |
| Medium text: Length | 40 | not relevant | not relevant | not relevant | not relevant |
| Short Text: Length | 20 | not relevant | not relevant | not relevant | not relevant |
| Deletion Allowed | yes | yes | yes | yes | Yes |
| Search help (unless there are data elements available) | not relevant | not relevant | not relevant | not relevant | not relevant |

The Funds Center Hierarchy entity has the below related entities which need to be modelled in MDG-F.

Table 2.6: Related entities for Funds Center Hierarchy

| Entity Type | Z_FMAREA | Z_FUNDCTR | Z_FCHV |
|---------------------------|---|--|---|
| Description | Financial Management Area | Fund Center | Fund Center Hierarchy Variant |
| Definition | Financial Management Area | Fund Center | Fund Center Hierarchy Variant |
| Storage/Use Type | 3 - Cannot be changed by MDG; no generated tables | 1 - Changeable via Change Request; Generated Database Tables | 3 - Cannot be changed by MDG; no generated tables |
| Validity of Entity | No Edition | Edition | No Edition |
| Data Element | FIKRS | FISTL | FM_HIVARNT |
| Hierarchy | No Hierarchy | Not Version-Dependent/Not Cross-Name | No Hierarchy |

| | | | |
|---------------------------------|---|---|---|
| Validity / Hierarchy | not relevant | Hierarchy is Edition Dependent | not relevant |
| Key Assignment | Key Cannot Be Changed; No Internal Key Assignment | Key Cannot Be Changed; No Internal Key Assignment | Key Cannot Be Changed; No Internal Key Assignment |
| Language-Dependent Texts | not relevant | yes | not relevant |
| Long Text: Length | not relevant | 60 | not relevant |
| Medium Text: Length | not relevant | 40 | not relevant |
| Short Text: Length | not relevant | 20 | not relevant |
| Attachments | not relevant | yes | not relevant |

Additional Entity Types in Hierarchies

The following table illustrates the entity types used in Funds Center entity type for hierarchy modelling:

Table 2.7: Additional Entity Types for Funds Center

| Entity Type of Node | Use |
|---------------------|----------------|
| Z_FCHV | Hierarchy Name |

The Funds Center Hierarchy entity has the following relationship types maintained in MDG-F.

Table 2.8: Funds Center Hierarchy relationships

| Field Name | Field Type | Relationship type | From entity type | To-entity | Cardinality | Data element |
|------------|--------------|-------------------|------------------|-----------|-------------|--------------|
| Z_FMAFCHV | Relationship | Leading | Z_FMAREA | Z_FCHV | 1:N | |

The Funds Center entity has the following relationship types maintained in MDG-F.

Table 2.9: Funds Center relationships

| Field Name | Field Type | Relationship type | From entity type | To-entity | Cardinality | Data element |
|------------|--------------|-------------------|------------------|-----------|-------------|--------------|
| Z_CTRYREG | Relationship | leading | Z_COUNTRY | Z_REGION | 1: N | |
| Z_FMAFCTR | Relationship | leading | Z_FMAREA | Z_FUNDCTR | 1: N | |
| Z_CTRFCTR | Relationship | referencing | Z_COUNTRY | Z_FUNDCTR | 0: N | |
| Z_REGFCTR | Relationship | referencing | Z_REGION | Z_FUNDCTR | 0: N | |
| Z_FNDFCTR | Relationship | referencing | Z_FUND | Z_FUNDCTR | 0: N | FM_DFONDS |
| Z_LANFCTR | Relationship | referencing | LANGUAGE | Z_FUNDCTR | 0: N | |

SUMMARY

In this part 1 of the article, the following MDG-Financials master data objects have been covered from the data modeling perspective:

- Fund
- Funds Center [with Hierarchy]

In the next part, we will be looking at data modeling of the following MDG-Financials master data objects:

- Functional Area
- Commitment Item [with Hierarchy]
- Funded Program

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