

Kofax Customer Communications Manager

5.0

Report Guide

CCM Repository 5.0



Contents

Introduction.....	4
Copyrights and trademarks	4
Reports in the CCM Repository	6
Structure.....	6
Context	7
Authorization	7
Step by step	9
One: select information	9
Two: arrange the information	9
Three: adding explanatory texts	9
Four: Lay out the report.....	9
Intermezzo: Short explanation of Style Documents	10
Five: making the model document.....	10
Six: using data from the database: REPDID	11
Examples	11
Seven: create and run your report	13
REPDID description	14
General	14
Functions.....	14
ITPMDKRepositoryVersion	14
Exists.....	14
FolderOf	15
ModelNeedsCreate	15
ProjectOf.....	15
RevisionWithLabel.....	15
Entries.....	16
ActionRun	16
ActionRuns	17
Assignment	18
AssignmentList.....	18
Characteristic	19
CharacteristicGroup	20
ContWzrd.....	20
ContWzrdFolder	21
ContWzrdRevision	22
CreateModelPackage.....	22
DID.....	23
DIDEntry	23
DIDRevision	24
Document.....	24
DocumentRevision.....	25
Field	26
FieldAssignment	26
Fieldset	27
FieldsetFolder	28
FieldsetRevision	28
Folder.....	29

Form.....	29
FormFolder	30
FormRevision	31
Label.....	32
Language.....	32
Model.....	33
ModelRevision.....	34
Project	34
Projects	35
RepositoryInstance	36
RepositoryInstanceOf	37
RepositoryInstances.....	38
Role	39
Textblock.....	39
TextblockFolder.....	40
TextblockRevision.....	41
User	42
Users	43
View	43
ViewFolder.....	44
ViewRevision.....	45

Introduction

The CCM Repository allows report generation from the information stored within it, giving a convenient overview of its contents for managerial, development, or documentation purposes. Some reports are shipped with the CCM Repository itself, and readily available for each user. As the reports are ITP Models running on a DID describing the CCM Repository data, it is also possible for customers and users to add reports, or modify predefined reports. This manual gives information on how to do that.

This manual is for users who want to retrieve information from their CCM Repository projects by adapting existing reports or creating new reports. It requires model development skills to do so.

Chapter Reports in the CCM Repository (see "Reports in the CCM Repository" page 6) presents information on how reporting is integrated into the CCM Repository. This chapter explains where reports are defined, and how they are invoked.

Chapter Step by step (see "Step by step" page 9) provides, as the title might suggest, a step by step overview of developing a report by hand.

Chapter REPDID description (see "REPDID description" page 14) provides the DID description of the CCM Repository contents.

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Reports in the CCM Repository

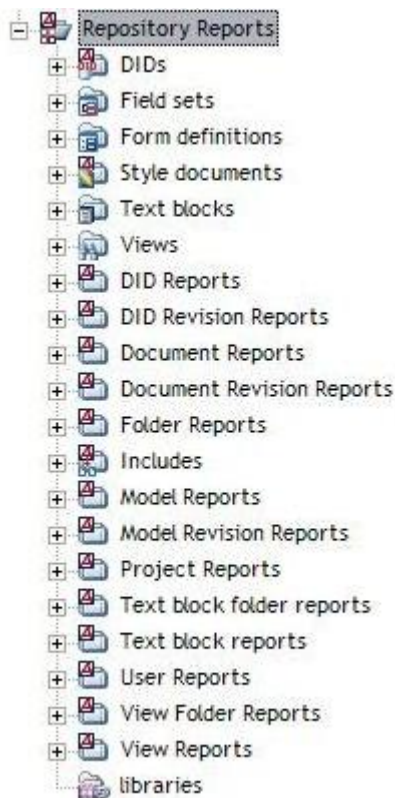
CCM Repository reports are ITP Models, developed and run against a DID describing the content of the CCM Repository. Through this DID, the models have access to almost all information that is present on models, document, revisions folders and so on, that are stored in the CCM Repository.

All reports are shown in the Reports menu. If one of these reports is selected from the menu, the CCM Repository will run the report model, and present the result in a Microsoft Word window. The running model will receive the object (document, folder, ...) that is currently selected in the user interface as a parameter (as KEY and EXTRA), allowing for reporting on specific objects. Hence it is possible to define reports on documents, reports on folders, and so on. The reports menu will disable the reports that are not applicable to the object currently selected.

Structure

The CCM Repository must know which models are reports, and which are just models developed for other purposes. For this purpose there is a special, predefined project called Repository Reports. This project holds all models that are reports, in folders that indicate for which type of object they are intended.

Below, this project is shown in a screen shot of an CCM Repository. Notice the small red 'A' characters on the various object icons. These indicate that the objects are provided by Aia Software as predefined objects.



As said, reports will be passed a currently selected object to report on, and only reports that

operate on, the type of object currently selected will be enabled in the menu. Therefore, the CCM Repository must have a way to know which type of object a report expects. The project Repository Reports contains a number of (sub-)folders, which each denote a particular type of object. Reports defined in such a folder are expected to operate on the associated object type, and will only be enabled when such an object is selected. Apart from the fact that the currently selected object is used to determine which reports are applicable, this shows that the folder structure is also used to organize the Reports menu in blocks.

The name of each folder indicates the object type for which it can hold report models. For instance, models contained in the folder DID Revision Reports are understood to be reports on DID Revisions. The following folders merit some special explanation:

- **Document Reports** may contain reports on any document.
- **Include Document Reports** is a subfolder of the folder Document Reports. It contains reports only applicable for include documents.
- **Model Document Reports** is a subfolder of the folder Document Reports. It is used for reports only applicable for model documents.

Of these three there are also revision variants.

- **User Reports** contains reports on individual users, which are available for ITP Admin and users with administrative rights.
- **All Users Reports** contains reports on all users, which are available for ITP Admin and users with administrative rights.

The folder Includes does not contain reports, but include documents to be used in Reports.

Context

The Reports menu will only offer the reports as selectable, for which the appropriate object has been selected in the user interface. For instance, if a user first selects a document in the tree view, and then invokes the Reports menu, only reports that are defined in the Document Reports folder will be enabled. Likewise, if the user selects a project and then opens the Reports menu, only project reports (those defined in the Project Reports folder) will be available.

Reports that are defined directly in the CCM Repository Reports project (i.e., at top level) are considered to be run without context. These will be available regardless of the selected object. The reports will however be passed the selected object, if there is one. The selected object is given to the model as both KEY and EXTRA. It is in the form of an object reference, as explained in the chapter on the DID.

Authorization

There is no specific authorization for reports. In order to run a report, one only needs to be able to select the object on which the report is to be run. So, one can run reports on projects and documents to which one is authorized, and not on those to which one is not authorized. However, reports in the User Reports or All User Reports folder are only available for ITP Admin or users with administrative rights. The other reports are not available to ITP Admin. To develop reports, one needs Model Developer rights on the CCM Repository Reports project.

Step by step

Reports are ITP models incorporated in the CCM Repository. These ITP models are designed to generate reports about the objects contained by the CCM Repository. Several of these reports are predefined. These reports are installed with the CCM Repository Server. Access to these reports is through the Reports menu. You can select an object, say a Document, and choose the report you want on that object from the Report menu.

The Reports provided -on a document, a document revision, a model, a model revision and a label listing for a project- are what we think are useful reports. However since the Reports are implemented as ITP models there is no reason why you shouldn't write your own models. In fact if you add a Report of your own it will become a menu item in the Report menu after a client restart. In other words: add your very own functionality to the CCM Repository.

Developing a report is just like developing any ITP model. You need a clear understanding of what you want to show and how you want to show it. The easiest way to reach such an understanding is to make the first report by hand. In doing so you will know which information you want and where to find is in the structure of the CCM Repository.

Note

It is not possible to create interactive reports i.e., you cannot use the keywords INTERACT and FORM, because the report is run on the CCM Repository Server.

One: select information

The first step is to determine what your reports should contain. What do you want to know? Search for the information you want in the CCM Repository windows. Note while you do the structure you are searching through: project - model document or model - revision.

Two: arrange the information

Review the information gathered. Most of the time there is a logical order to it. Some information, for instance what the report is about, must be higher on the page than other information ('Created by A. Smitee'). Rearrange the information on the page to reflect this order.

Three: adding explanatory texts

Now read what you have. Does it make sense or do you need an explanation here and there? If you do add the explanations you need. Do not forget to tell the user what the report is about - Title, introduction, etcetera. It is also a good idea to add a date that will tell the user when the report is generated.

Four: Lay out the report

Design your report. At this point we are only talking in terms of designating text to styles without actually determining those styles. The reason for this is that when you create a new model

document in a folder of the Repository Reports project it will automatically contain the Style Document, and thus the styles defined in it, set for that folder. So at this point you only have to determine roughly what style sections of your text should get.

Intermezzo: Short explanation of Style Documents

A project or a folder can be configured to use a Style Document (revision). If a Style Document is configured the styles it contains are available in every document created within the folder or project. They cannot be changed from within such a document, they can only be applied. Refer to the CCM Repository Manual for a way to include style elements such as headers or logo's from a Style Document in your report.

At this point you need to make a decision. If you want to use the styles as used in the predefined projects you can just select most appropriate folder and create a new model document. If, on the other hand, you want to use your own styles you will have to create a new Style Document, select a folder, configure that folder to use the new Style Document and create a new model document in it.

Note

This new Style Document only takes effect on the already present models in the folder when they are re-created.

Five: making the model document

At this point the CCM Repository comes into view. The next step is to select the folder in which the report will be created. This is not a free choice. The report will only become active in the Reports menu when an object associated with one of the predefined folders in the Reports project is selected and the report, the model you created, might fail when a wrong object is used as input. In other words, if you want to create a report on folders place it in the Folders folder, if you want to create a document report, place it in the document folder, etcetera.

So, select the folder in the Reports Project in which you want to create your report, and choose New document in the File menu. The MDK will open with your new model document. Give it a descriptive name, a name users will understand. You can now start with the development of the model document proper. Note that by default the ITP language is set to English. If you want to develop in another language you can re-configure the Repository Projects to Dutch (NLD) or German (Deu).

Note

This will not affect the models already created only new model documents are assumed to use the newly set language in its ITP instructions.

Note

When run the currently, in the tree view selected, object is passed as key to the model. It is also passed as EXTRA.

After you have created a model from your model document your report is ready for use but before you sent the message explaining your brand new report, make sure you test it thoroughly.

Six: using data from the database: REPDID

Access to the CCM Repository database is provided with the REPDID DID. This DID is made to provide access to all relevant information in the CCM Repository database. Refer to REPDID description (see "REPDID description" page 14) for technical information you might need to use this DID.

Examples

Listing of labels

This report lists all labels in a project and should be placed in the folder Project Reports.

```
#
BEGIN
WITH Project IN REP.Project
DO
#
```

Where are my labels?

This table lists all labels in the @(Project.Name) project and for each label all document revisions that carry it.

Label	Document	Revision
#		
FORALL Label IN Project.Labels		
DO		
TEXT label := Label.Name		
FORALL Doc IN Label.Documents		
DO		
TEXT rev := RevisionWithLabel (Doc.Self; Label.Self)		
IF Exists (rev) = 1		
THEN		
WITH Rev PATH REP.DocumentRevision		
WHERE PAR(1) = rev		
DO		
#		
@(label)	@(Doc.Name)	@(Rev.Revision)
#		
	OD	
	FI	
	ASSIGN label := ""	
	OD	
	OD	
OD		
END		
#		

Impact analysis

This report collects all models that will need to be re-created when an include document is changed. It must be placed in the Include Documents Reports folder inside the Document Report folder.

```

#
BEGIN

ARRAY TEXT docs [100]
NUMBER ndocs := 0

PROC add (CONST TEXT doc)
DO
    ASSIGN ndocs := ndocs + 1
    ASSIGN docs[ndocs] := doc
OD

PROC cond_add (CONST TEXT doc)
DO
    NUMBER find
    BOOL found := FALSE
    FOR find FROM 1 UPTO ndocs
    DO

        IF docs[find] = doc
        THEN ASSIGN found := TRUE
        FI

    OD
    IF NOT found
    THEN APROC add (doc)
    FI
OD

PROC expand (CONST TEXT doc)
DO
    NUMBER current := 0
    APROC add (doc)

    WHILE current < ndocs
    DO
        ASSIGN current := current + 1

        WITH Doc PATH REP.Document
        WHERE PAR(1) = docs[current]
        DO
            FORALL Rev IN Doc.IncludedBy
            DO
                IF Rev.IsCurrent = 1
                THEN APROC cond_add (Rev.DocumentRef)
                FI
            OD
        OD
    OD
OD

WITH Doc IN REP.Document DO
    APROC expand (Doc.Self)
END

#

```

Models that will be recreated when the document @(Doc.Name) is changed:

```

#
NUMBER d

```

```
FOR d FROM 1 UPTO ndocs
DO
  WITH Doc PATH REP.Document
  WHERE PAR(1) = docs[d]
  DO
    IF compare_characters (Doc.DocType; "MODELDOC") = 0
    THEN
#
@ (Doc.Name)
#
      FI
    OD
  OD
OD
END
#
```

Seven: create and run your report

When the model document is ready the (final) model can be created and run. The easiest way to test it is to start a new browser window from the View menu. Your new report will be part of the Reports menu in this new browser. Select an object you made report for in the tree view and your report should become enabled. If it doesn't, your report probably resides in the wrong folder within the Reports project.

REPDID description

The DID is identified with the 3 letter code REP.

General

All textual data (including some data that is rendered in a textual form) is Unicode. A common text length, used for most names and representations, is 255 characters. Descriptions take 2000 characters. Actually, the maximum length of text is one less, due to the terminating 0-character that the CCM Repository stores.

Objects (entries) in the CCM Repository DID are identified with a unique reference, mostly called a "Ref" in the DID source. This is a Unicode text string of 50 characters. It is an internal identification, not intended to be shown in a result document. Every entry refers to itself with a 'Self' field, which contains such a reference. It may refer to other entries by reference fields (whose name commonly ends in "...Ref"), but these are for internal use: related objects are given by subentries.

Most entries, except the revision objects, have a Name field.

"Boolean" fields and return values are represented by a number: 1 is 'TRUE' and 0 is 'FALSE'.

With the exception of Characteristic and CharacteristicGroup, most objects have a Boolean (0 or 1) 'Limbo' field that indicates that the object has been marked for deletion.

Functions

The following general functions are offered.

ITPMDKRepositoryVersion

Parameters: none.

This function returns a string that identifies the current version of the CCM Repository. It looks something like

"CCM Repository 2.2.0".

Exists

Parameters:

- Ref - an object reference.

Returns:

- 0 if the reference is not valid, or does not refer to an existing object; 1 if the reference points to a valid object.

This function tests a reference for validity, and whether the object is designated actually exists. To be used, for example, to test the result of RevisionWithLabel() for existence before executing a

WITH ... PATH on it.

FolderOf

Parameters:

- Ref - an object reference.

Return:

- The folder (reference) in which the object resides.

This function can be applied to folders, documents, DIDs, models and revisions thereof. It will determine the folder of a model as the folder in which its model document resides.

Caveat: the folder of a folder is considered to be the folder itself (use the Parent subentry to go a level up).

ModelNeedsCreate

Parameters:

- ModelRef - a reference to a model.

Return

- 1 if the model needs to be created (again), 0 otherwise.

A model needs to be created when one of its constituents (Document Revisions, Style Documents, DIDs, etcetera) has changed.

ProjectOf

Parameters:

- Ref - an object reference.

Return

- The project to which the object belongs.

This function can be applied to folders, documents, DIDs, models and revisions thereof.

RevisionWithLabel

Parameters:

- BaseRef - an object reference of a base object (i.e., an object having revisions, for example a Document, Model, DID, Text Block, ...).
- Label - a reference to a label, or a name of a label.

Returns:

- The reference of the revision carrying the label.

Use RevisionWithLabel() to determine the revision object of a base object that carries a specific label (the model code to determine this from the entries would be quite elaborate). If no revision carries the label, an invalid reference will be returned, which can be tested with Exists().

The label can be given both by reference and by name.

Entries

ActionRun

Represents an action that has been run, and lists the objects involved. Currently only for import and export actions.

WITH-entry

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- ActionId - the numerical id of the action run; currently only 149 for Export and 150 for Import.
- ActionName - the name of the action run.
- UserRef - reference value referring to the user who ran the action.
- StartDate - text representation of the date the action started.
- StartTime - text representation of the time the action started.
- StopDate - text representation of the date the action ended.
- StopTime - text representation of the time the action ended.

WITH-subentries:

- User - the user who ran the action.

FORALL-subentries:

- Characteristics - the characteristics attached to this object.
- CharacteristicGroups - the characteristics attached to this group.
- ContWzrds.
- ContWzrdFolders.
- ContWzrdRevisions.
- DIDs
- DIDRevisions
- Documents.
- DocRevisions.
- Fields.
- Fieldsets.
- FieldsetRevisions.
- FieldsetFolders.
- FieldAssignments.
- Folders.
- Forms.
- FormFolders.
- FormRevisions.
- Labels.
- Languages.
- Models.
- ModelRevisions.

- Textblocks.
- TextblockFolders.
- TextblockRevisions.
- Views.
- ViewFolders.
- ViewRevisions

Gives the objects that were involved in this action run.

ActionRuns

Represents all actions that have been run, and lists the objects involved. Currently only for import and export actions.

FORALL-entry

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- ActionId - the numerical id of the action run; currently only 149 for Export and 150 for Import.
- ActionName - the name of the action run.
- UserRef - reference value referring to the user who ran the action.
- StartDate - text representation of the date the action started.
- StartTime - text representation of the time the action started.
- StopDate - text representation of the date the action ended.
- StopTime - text representation of the time the action ended.

WITH-subentries:

- User - the user who ran the action.

FORALL-subentries:

- Characteristics - the characteristics attached to this object.
- CharacteristicGroups - the characteristics attached to this group.
- ContWzrds.
- ContWzrdFolders.
- ContWzrdRevisions.
- DIDs
- DIDRevisions
- Documents.
- DocRevisions.
- Fields.
- Fieldsets.
- FieldsetRevisions.
- FieldsetFolders.
- FieldAssignments.
- Folders.
- Forms.
- FormFolders.

- FormRevisions.
- Labels.
- Languages.
- Models.
- ModelRevisions.
- Textblocks.
- TextblockFolders.
- TextblockRevisions.
- Views.
- ViewFolders.

ViewRevisions Gives the objects that were involved in this action run.

Assignment

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- AssignmentListRef - refers to the assignment list that this assignment belongs to.
- UserRef - The user who is assigned a role.
- RoleRef - The role that is assigned to a user.

WITH-Subentries:

- AssignmentListRef - refers to the assignment list that this assignment belongs to.
- UserRef - The user who is assigned a role.
- RoleRef - The role that is assigned to a use.r

AssignmentList

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.

FORALL-Subentries:

Each of the following subentries lists the objects of which the authorization is defined by this AssignmentList.

- Assignments.
- Documents.
- ContWzrds.
- ContWzrdFolders.
- Fieldsets.
- FieldsetFolders.

- Folders.
- Forms.
- FormFolders.
- Textblocks.
- TextblockFolders.
- Views.
- ViewFolders.

Characteristic

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- ProjectRef - refers to the project defining the object; refer to the Project subentry for more information.
- GroupRef - refers to the group to which this characteristic belongs; refer to the CharacteristicGroup subentry for more information.

WITH-Subentries:

- Project - the project containing the object.
- CharacteristicGroup - the group to which this characteristic belongs. A characteristic does not necessarily belong to a group - test with Exists().

FORALL-Subentries:

- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

The following all represent the objects having this characteristic:

- ContWzrds
- ContWzrdFolders
- ContWzrdRevisions
- Documents
- DocRevisions
- Models
- ModelRevisions
- DIDs
- DIDRevisions
- Folders
- Fieldsets
- FieldsetRevisions
- FieldsetFolders
- Forms
- FormRevisions
- FormFolders
- Textblocks

- TextblockRevisions
- TextblockFolders
- Views
- ViewRevisions
- ViewFolders

CharacteristicGroup

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- ProjectRef - refers to the project defining the object; refer to the Project subentry for more information.
- Multiselect - 1 if an object may have more than one characteristic of this group, 0 when at most one characteristic of this group may be attached to an object.

WITH-Subentries:

- Project - the project containing the object.

FORALL-Subentries:

- Characteristics - The characteristics belonging to this group.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

ContWzrd

WITH-entry.

This entry represents a Content Wizard. The entry name has been abbreviated because in compositions, "ContentWizard" would generate names that are too long for older versions of ITP.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- ContWzrdFolderRef - a reference value referring to the folder this object resides in.
- LockedByRef - a reference value referring to the user locking this object.
- Description - the description of the object.
- LastRevisionNr - a text value indicating the most recently dispensed revision number in this object.
- CurrentRevisionRef - refers to the current revision.
- AcceptedRevisionRef - refers to the accepted revision.
- PublishedRevisionRef - refers to the published revision.
- EditRevisionRef - refers to the in-development revision.

- AssignmentListRef - refers to the assignment list that defines the authorization for this object.
- DoesNotInheritRights - whether this object refuses to accept authorization changes from its parent. A '0' indicates false, a '1' indicates true.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-subentries:

- ContWzrdFolder - the folder this object resides in.
- CurrentContWzrdRevision - the current revision of the object.
- InDevelopmentContWzrdRevision - the in-development revision of the object.
- AcceptedContWzrdRevision - the accepted revision of the object.
- PublishedContWzrdRevision - the published revision of the object.
- LockedBy - the user locking this object.
- AssignmentList - the assignment list holding the authorization for this object.

FORALL-subentries:

- ContWzrdRevisions - the revisions of the object.
- Labels - the labels held by this object.
- Characteristics - the characteristics of this object.
- ExportedBy - the ActionRuns that represent actions that exported this object.
- ImportedBy - the ActionRuns that represent actions that imported this object.

ContWzrdFolder

WITH-entry.

This entry represents a Content Wizard folder. The entry name has been abbreviated because in compositions, "ContentWizard" would generate names that are too long for older versions of ITP.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- Description - the description of the object.
- ParentContWzrdFolderRef - a reference value indicating the parent folder of this object.
- ProjectRef - a reference value indicating the project of this object.
- AssignmentListRef - refers to the AssignmentList containing the authorization for this object.
- DoesNotInheritRights - if '1', this object does not allow authorization changes to its parent to be propagated into it. '0' otherwise.
- Limbo - '1' if the object is marked for deletion, '0' otherwise.

WITH-subentries:

- AssignmentList - contains the authorization for this object.
- ParentContWzrdFolder - the parent folder of this object.
- Project - the project of this object.

FORALL-subentries:

- Characteristics - the characteristics held by this object.
- ExportedBy - the ActionRuns representing the actions that exported this object.

- ImportedBy - the ActionRuns representing the actions that imported this object.
- ContWzrdFolders - Content Wizard folders that are a direct child of this object.
- ContWzrds - Content Wizards residing in this folder.

ContWzrdRevision

WITH-entry.

This entry represents a Content Wizard revision. The entry name has been abbreviated because in compositions, "ContentWizard" would generate names that are too long for older versions of ITP.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- ContWzrdRef - a reference value referring to the Content Wizard.
- Revision - the revision number.
- CreationDate - the date this revision has last been changed.
- CreatedByRef - a reference value indicating the user who created this revision.
- Description - the description of the object.
- Errors - if saving the revision failed, this field contains error information.
- IsCurrent - '1' if this revision is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this revision is the in-development revision, '0' otherwise.
- IsAccepted - '1' if this revision is the accepted revision, '0' otherwise.
- IsPublished - '1' if this revision is the published revision, '0' otherwise.
- Limbo - '1' if this object is marked for deletion, '0' otherwise.

WITH-subentries:

- CreatedBy - the user who created this object.
- ContWzrd - the Content Wizard of which this object is a revision.

FORALL-subentries:

- Labels - the labels this object holds.
- Characteristics - the characteristics held by this object.
- ExportedBy - the ActionRuns representing actions that exported this object.
- ImportedBy - the ActionRuns representing actions that imported this object.
- UsedForms - Forms used by this object.
- UsedTextblocks - Text Blocks used by this object.

CreateModelPackage

WITH-entry.

Parameters:

- **Ref** - a reference value identifying the object.

Fields:

- **Self** - a reference value referring to the object itself.

- **Name** - the name of the object.
- **Limbo** - a 0 indicates an available object, a 1 indicates that the object is marked for deletion.

FORALL-Subentries:

- **CompiledIn** - the model revisions that were created with this CCM Create Model Package.

DID

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- FolderRef - refers to the folder containing the object; refer to the Folder subentry for more information.
- LockedByRef - refers to the user who holds a lock on the object; refer to the LockedBy subentry for more information.
- LastRevisionNr - a text value indicating the most recently dispensed revision number.
- CurrentRevisionRef - refers to the current revision; refer to the CurrentDIDRevision subentry for more information.
- EditRevisionRef - refers to the in-development revision; refer to the InDevelopmentDIDRevision subentry for more information.
- Description - the description of the object.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- Folder - the folder containing the object.
- LockedBy - the user holding a lock on the object.
- CurrentDIDRevision - the current revision of the object.
- InDevelopmentDIDRevision - the revision currently being developed.

FORALL-Subentries:

- DIDRevisions - the revisions of this object.
- Labels - the labels that this object holds - i.e., that are assigned to one of its revisions.
- Characteristics - the characteristics attached to this object.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

DIDEntry

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.

- DIDRevisionRef - refers to the base object of this object.

WITH-Subentries:

- DIDRevision - the base object of this object.

DIDRevision

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Revision - the revision number (as Unicode text) of the revision.
- CreationDate - the date the revision was created or last changed.
- CreatedByRef - the user who last created or changed this revision; refer to the sub entry CreatedBy for more information.
- DIDRef - refers to the base object of this revision.
- Description - the description of the object.
- IsCurrent - 1 if this is the current revision, otherwise 0.
- IsInDevelopment - 1 if this is the in-development revision, otherwise 0.
- Limbo - a 0 indicates an available object, a 1 indicates that the object is marked for deletion.

WITH-Subentries:

- CreatedBy - the user who last created or changed this revision.
- DID - the base object of this revision.

FORALL-Subentries:

- ConfiguredIn - the project that have this DID revision configured as active DID.
- CompiledIn - the model revisions that were created with this DID.
- Characteristics - the characteristics attached to this object.
- DIDEntries - the DID entries of this object.
- Labels - the labels that are carried by this revision.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Document

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- FolderRef - refers to the folder containing the object; refer to the Folder subentry for more information.
- LockedByRef - refers to the user who holds a lock on the object; refer to the LockedBy subentry for more information.

- DocType - a Unicode text string of the value 'MODELDOC', 'INCLUDEDDOC' or 'STYLEDDOC'.
- HasModel - '1' if there is a model for this document, '0' otherwise.
- ModelRef - refers to the associated model; refer to the Model subentry for more information.
- FileExt - text with this file extension for the document (commonly ".doc").
- LastRevisionNr - a text value indicating the most recently dispensed revision number.
- CurrentRevisionRef - refers to the current revision; refer to the CurrentDocRevision subentry for more information.
- EditRevisionRef - refers to the in-development revision; refer to the InDevelopmentDocRevision subentry for more information.
- Description - the description of the object.
- AssignmentListRef - the assignment list defining the authorization for this document.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- Folder - the folder containing the object.
- LockedBy - the user holding a lock on the object.
- CurrentDocRevision - the current revision of the object.
- InDevelopmentDocRevision - the revision currently being developed.
- Model - the model of this (model-) document.
- AssignmentList - the assignment list defining the authorization for this document.

FORALL-Subentries:

- DocRevisions - the revisions of this object.
- Labels - the labels that this object holds - i.e., that are assigned to one of its revisions.
- Characteristics - the characteristics attached to this object.
- IncludedBy - the document revisions that include this document.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

DocumentRevision

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Revision - the revision number (as Unicode text) of the revision.
- CreationDate - the date the revision was created or last changed.
- CreatedByRef - the user who last created or changed this revision; refer to the CreatedBy subentry for more information.
- DocumentRef - refers to the base object of this revision.
- DerivedFromRef - refers to the document revision this one was derived from.
- Description - the description of the object.
- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- DAStatusOK - '1' if dependency (include) information of this object is up-to-date, '0' if it cannot be trusted.

- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- CreatedBy - the user who last created or changed this revision.
- Document - the base object of this revision.

FORALL-Subentries:

- CompiledIn - the model revisions that were created with this document revision.
- Includes - the documents that are included by this document revision.
- Characteristics - the characteristics attached to this object.
- Labels - the labels that are carried by this revision.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Field

WITH-entry.

A Field object only contains name and description and is defined in a Field Set. It is connected to a Field Set Revision by a FieldAssignment, which also holds an optional default value.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- Description - the description of the object (currently not used)
- DefinedInFieldsetRef - a reference value indicating the Field Set this field belongs to.
- Limbo - '0' if the object is available, '1' if it is marked for deletion.

WITH-subentries:

- DefinedInFieldset - the Field Set to which this field belongs.

FORALL-subentries:

- ExportedBy - the ActionRuns representing the actions that exported this object.
- ImportedBy - the ActionRuns representing the actions that imported this object.
- FieldAssignments - link a Field to a Field Set revision and assign an default value.
- UsingFormRevisions - Form revisions using this field.
- UsingModelRevisions - Model revisions using this field.
- UsingTextblockRevisions - Text Block revisions using this field.

FieldAssignment

WITH-entry.

Connects Fields to Field Set revisions and optionally assigns a default value.

Parameters:

- Ref - a reference value identifying this object.

Fields:

- Self - a reference value referring to this object itself.
- FieldRef - reference value indicating the field.
- HasDefaultValue - '0' if there is no default value; '1' if there is one in DefaultValue.
- DefaultValue - contains the default value, if one is present.

WITH-subentries:

- Field - the Field assigned to the Field Set revisions.

FORALL-subentries:

- FieldsetRevisions - the Field Set revisions in which the Field is present.

Fieldset**WITH-entry.****Parameters:**

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value indicating the object itself.
- Name - the name of the object.
- FieldsetFolderRef - a reference value referring to the Field Set folder this object resides in.
- LockedByRef - refers to the user locking this object.
- Description - the description of the object.
- LastRevisionNr - the revision number last dispensed for this object.
- CurrentRevisionRef - refers to the current revision.
- AcceptedRevisionRef - refers to the accepted revision.
- PublishedRevisionRef - refers to the published revision.
- EditRevisionRef - refers to the in-development revision.
- AssignmentListRef - refers to the AssignmentList holding the authorization for this object.
- DoesNotInheritRights - if set to '1', this object does not allow propagation of changes in its parent's authorization settings.
- Limbo - '0' if the object is available, '1' if it is marked for deletion.

WITH-subentries:

- FieldsetFolder - the folder this object resides in.
- CurrentFieldsetRevision - the current revision.
- InDevelopmentFieldsetRevision - the in-development revision.
- AcceptedFieldsetRevision - the accepted revision.
- PublishedFieldsetRevision - the published revision.
- LockedBy - the user locking this object.
- AssignmentList - contains the authorization for this object.

FORALL-subentries:

- Fields - the Fields defined in this object.
- FieldsetRevisions - the revisions of this object.
- Labels - the labels assigned to this object.
- Characteristics - the characteristics held by this object.

- ExportedBy - the ActionRuns representing actions that exported this object.
- ImportedBy - the ActionRuns representing actions that imported this object.
- UsingFormRevisions - Form revisions using this Field Set.
- UsingModelRevisions - Model revisions using this Field Set.
- UsingTextblockRevisions - Text Block revisions using this Field Set.

FieldsetFolder

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference to the object itself.
- Name - the name of the object.
- Description - the description of the object.
- ParentFieldsetFolderRef - reference to the parent folder.
- ProjectRef - refers to the project of the object.
- AssignmentListRef - a reference to the object containing authorisation.
- DoesNotInheritRights - is set to '1' if the object does not allow propagation of parent's authorisation changes.
- Limbo - '0' if the object is available, '1' if it is marked for deletion.

WITH-entries:

- AssignmentList - the AssignmentList holding the authorisation for this object.
- ParentFieldsetFolder - the parent folder of this object.
- Project - the project of this object.

FORALL-entries:

- Characteristics - the characteristics of this object.
- FieldsetFolders - the subfolders of this object.
- Fieldsets - the Field Sets residing in this folder.
- ExportedBy - the ActionRun objects representing the actions that exported this object.
- ImportedBy - the ActionRun objects representing the actions that imported this object.

FieldsetRevision

WITH-entry.

Parameters:

- Ref - a reference value identifying this object.

Fields:

- Self - reference value indicating this object itself.
- FieldsetRef - reference to the Field Set object.
- Revision - the revision number.
- CreationDate - the date the object was last changed.
- CreatedByRef - reference to the user who created this object.
- Description - the description of this object.

- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- IsAccepted - '1' if this is the accepted revision, '0' otherwise.
- IsPublished - '1' if this is the published revision, '0' otherwise.
- Limbo - '0' if this object is available, '1' if it is marked for deletion.

WITH-subentries:

- CreatedBy - the user who created this object.
- Fieldset - the Field Set of which this object is a revision.

FORALL-subentries:

- FieldAssignments - contain the Fields in this revision together with their default values.
- Labels - the labels held by this object.
- Characteristics - the characteristics of this object.
- ExportedBy - the ActionRuns representing the actions that exported this object.
- ImportedBy - the ActionRuns representing the actions that imported this object.

Folder

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of this folder.
- Description - the description of this folder.
- ParentRef - refers to parent folder.
- AssignmentListRef - the assignment list defining the authorization for this document.
- Limbo - '0' if this object is available, '1' if it is marked for deletion.

WITH-Subentries:

- Parent - the parent folder.
- AssignmentList - the assignment list defining the authorization for this document.

FORALL-Subentries:

- Subfolders - all subfolders of this folder - direct children only.
- ContainedDocuments - all documents that reside in this folder (not recursive: documents in folders beneath this folder are not returned).
- Characteristics - all characteristics carried by this folder.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Form

WITH-entry.

Parameters:

- Ref - a reference value identifying this object.

Fields:

- Self - reference value indicating this object itself.
- Name - the name of this object.
- Description - the description of this object.
- FormFolderRef - reference to the folder containing this object.
- LockedByRef - reference to the user locking this object.
- LastRevisionNr - last revision number dispensed for this object.
- CurrentRevisionRef - reference to the current revision.
- AcceptedRevisionRef - reference to the accepted revision.
- PublishedRevisionRef - reference to the published revision.
- EditRevisionRef - reference to the in-development revision.
- AssignmentListRef - refers to the AssignmentList holding the authorization for this object.
- DoesNotInheritRights - if '1', indicates that the object does not allow authorization changes from its parent propagated into it.
- IsQForm - set to '1' if this is a QForm, '0' for a normal form.
- Limbo - '0' if this object is available, '1' if it is marked for deletion.

WITH-subentries:

- FormFolder - the folder containing this object.
- CurrentFormRevision - the current revision.
- InDevelopmentRevision - the in-development revision.
- AcceptedFormRevision - the accepted revision.
- PublishedFormRevision - the published revision.
- LockedBy - the user locking this object.
- AssignmentList - the AssignmentList holding the authorization for this object.

FORALL-subentries:

- FormRevisions - the revisions of this object.
- Labels - the labels held by this object.
- Characteristics - the characteristics of this object.
- ExportedBy - the ActionRuns representing the actions that exported this object.
- ImportedBy - the ActionRuns representing the actions that imported this object.
- UsingContWzrdRevisions - the Content Wizard revisions using this object.
- UsingModelRevisions - the Model revisions using this object.

FormFolder

WITH-entry.

Parameters:

- Ref - a reference value identifying this object.

Fields:

- Self - reference value indicating this object itself.
- Name - the name of this object.
- Description - the description of this object.
- ParentFormFolderRef - refers to the parent folder.
- ProjectRef - refers to the project of the object.
- AssignmentListRef - refers to the AssignmentList object holding the authorization.

- DoesNotInheritRights - if '1' this object does not allow propagation of parent's authorization changes.
- LimitFieldsetsAndViews - if '0' the Forms in this folder can use all Field Sets and Views; if '1' the Field Sets and Views that can be used are limited to a subset.
- Limbo - if '0' this object is available, if '1' it is marked for deletion.

WITH-subentries:

- AssignmentList - holds the authorization for this object.
- ParentFormFolder - the parent folder of this object.
- Project - the project of this object.

FORALL-subentries:

- AvailableFieldsets - the limited set of Field Sets that the Forms in this folder can use. These sub entries only can be used if LimitFieldsetsAndViews is set to '1'.
- AvailableViews - the limited set of Views that the Forms in this folder can use. These sub entries only can be used if LimitFieldsetsAndViews is set to '1'.
- Characteristics - the characteristics of this object.
- ExportedBy - the ActionRuns representing actions that exported this object.
- ImportedBy - the ActionRuns representing actions that imported this object.
- FormFolders - folders contained in this object.
- Forms - the Forms residing in this object.

FormRevision

WITH-entry.

Fields:

- Ref - a reference value identifying this object.

Fields:

- Self - a reference indicating this object itself.
- FormRef - refers to the Form this revision belongs to.
- Revision - the revision number.
- CreationDate - the date this object was last changed.
- CreatedByRef - refers to the user who created this object.
- Description - the description of this object.
- Errors - contains an error message if saving this object failed.
- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsAccepted - '1' if this is the accepted revision, '0' otherwise.
- IsPublished - '1' if this is the published revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- Limbo - '0' if this object is available, '1' if it is marked for deletion.

WITH-subentries:

- CreatedBy - the user who created this object.
- Form - the form this object is a revision of.

FORALL-subentries:

- Labels - labels held by this object.
- Characteristics - the characteristics of this object.

- ExportedBy - the ActionRuns representing the actions that exported this object.
- ImportedBy - the ActionRuns representing the actions that imported this object.
- UsedFields - the Fields used by this object.
- UsedFieldsets - the Field Sets used by this object.
- UsedViews - the Views used by this object.

Label

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of this label.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

FORALL-Subentries:

- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

The following list all base objects that hold this label, i.e. of which one of its revisions carries the label.

- ContWzrds
- Documents
- DIDs
- Fieldsets
- Forms
- Textblocks
- Views
- Models

The following list all revisions that carry the label:

- ContWzrdRevisions
- DocRevisions
- DIDRevisions
- FieldsetRevisions
- FormRevisions
- TextblockRevisions
- ViewRevisions
- ModelRevisions

Language

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name.
- ForeignName.

FORALL-Subentries:

- ConfiguredIn - the projects that have this language configured.

Model

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- ProjectRef - refers to the project containing the object; refer to the Project subentry for more information.
- LockedByRef - refers to the user who holds a lock on the object; refer to the LockedBy subentry for more information.
- DocumentRef - refers to the associated model document; refer to the Document subentry for more information.
- LastRevisionNr - a text value indicating the most recently dispensed revision number.
- CurrentRevisionRef - refers to the current revision; refer to the CurrentModelRevision subentry for more information.
- EditRevisionRef - refers to the in-development revision; refer to the InDevelopmentModelRevision subentry for more information.
- AcceptedRevisionRef - refers to the revision that is marked as accepted; refer to the AcceptedModelRevision subentry for more information.
- PublishedRevisionRef - refers to the revision that is marked as published; refer to the subentry PublishedModelRevision for more information.
- Description - the description of the object.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- Project - the project containing the object.
- LockedBy - the user holding a lock on the object.
- CurrentModelRevision - the current revision of the object.
- InDevelopmentModelRevision - the revision currently being developed.
- AcceptedModelRevision - the revision that has been marked as accepted.
- PublishedModelRevision - the revision that has been marked as published.
- Document - the model document of this model.

FORALL-Subentries:

- ModelRevisions - the revisions of this object.
- Characteristics - the characteristics attached to this object.
- Labels - the labels that this object holds - i.e., that are assigned to one of its revisions.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

ModelRevision

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Revision - the revision number (as Unicode text) of the revision.
- CreationDate - the date the revision was created or last changed.
- CreatedByRef - the user who last created or changed this revision; refer to the CreatedBy subentry for more information.
- CreateModelPackageRef - refers to the Create Model Package object.
- ModelRef - refers to the base object of this revision.
- Description - the description of the object.
- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- IsAccepted - '1' if this is the accepted revision, '0' otherwise.
- IsPublished - '1' if this is the published revision, '0' otherwise.
- Limbo - a 0 indicates an available object, a 1 indicates that the object is marked for deletion.

WITH-Subentries:

- CreatedBy - the user who last created or changed this revision.
- CreatedWithModelPackage - the CCM Create Model Package used with this revision.
- Model - the base object of this revision.

FORALL-Subentries:

- CreatedWith - the document revisions that were used in creating this model revision.
- Characteristics - the characteristics attached to this object.
- Labels - the labels that are carried by this revision.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.
- UsedDIDEntries - DIDEntries used by this model revision.
- UsedFields - Fields used by this model revision.
- UsedFieldsets - Field Sets used by this model revision.
- UsedForms - Forms used by this model revision.
- UsedTextblocks - Text Blocks used by this model revision.
- UsedViews - Views used by this model revision.

Project

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of this project.

- Description - the description of this project.
- AssignmentListRef - the assignment list defining the authorization for this project.
- DIDFolderRef - refers to the top-level DID folder.
- StyleFolderRef - refers to the top-level Style folder.
- ContWzrdFolderRef - refers to the top-level Content Wizard folder.
- FieldsetFolderRef - refers to the top-level Field Set folder.
- FormFolderRef - refers to the top-level Form folder.
- TextblockFolderRef - refers to the top-level Text Block folder.
- ViewFolderRef - refers to the top-level View folder.
- Limbo - '0' if the object is available, '1' if it is marked for deletion.

WITH-Subentries:

- AssignmentList - the assignment list defining the authorization for this project.
- DIDFolder - the top-level DID folder.
- StyleFolder - the top-level Style folder.
- ContWzrdFolder - the top-level Content Wizard folder.
- FieldsetFolder - the top-level Field Set folder.
- FormFolder - the top-level Form folder.
- TextblockFolder - the top-level Text Block folder.
- ViewFolder - the top-level View folder.

FORALL-Subentries:

- Folders - all folders of this project - direct children only.
- ContainedDocuments - all documents that reside at the top-level in this project (not recursive: documents in folders beneath this folder are not returned).
- Characteristics - the characteristics defined by the project.
- CharacteristicGroups - the characteristic groups defined by the project.
- ContWzrdFolders - the Content Wizard folders of this project - direct children only.
- FieldsetFolders - the Field Set folders of this project - direct children only.
- FormFolders - the Form folders of this project - direct children only.
- TextblockFolders - the Text Block folders of this project - direct children only.
- ViewFolders - the View folders of this project - direct children only.
- Labels - all labels that are known within this project.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Projects

FORALL-entry.

Returns all projects in the CCM Repository.

Parameters: none.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of this project.
- Description - the description of this project.
- AssignmentListRef - the assignment list defining the authorization for this document.
- DIDFolderRef - refers to the top-level DID folder.

- StyleFolderRef - refers to the top-level Style folder.
- ContWzrdFolderRef - refers to the top-level Content Wizard folder.
- FieldsetFolderRef - refers to the top-level Field Set folder.
- FormFolderRef - refers to the top-level Form folder.
- TextblockFolderRef - refers to the top-level Text Block folder.
- ViewFolderRef - refers to the top-level View folder.
- Limbo - '0' if the object is available, '1' if it is marked for deletion.

WITH-subentries:

- AssignmentList - the assignment list defining the authorization for this project.
- DIDFolder - the top-level DID folder.
- StyleFolder - the top-level Style folder.
- ContWzrdFolder - the top-level Content Wizard folder.
- FieldsetFolder - the top-level Field Set folder.
- FormFolder - the top-level Form folder.
- TextblockFolder - the top-level Text Block folder.
- ViewFolder - the top-level View folder.

FORALL-Subentries:

- Folders - all folders of this project - direct children only.
- ContainedDocuments - all documents that reside at the top-level in this project (not recursive: documents in folders beneath this folder are not returned).
- Characteristics - the characteristics defined by the project.
- CharacteristicGroups - the characteristic groups defined by the project.
- Labels - all labels that are known within this project.
- ContWzrdFolders - the Content Wizard folders of this project - direct children only.
- FieldsetFolders - the Field Set folders of this project - direct children only.
- FormFolders - the Form folders of this project - direct children only.
- TextblockFolders - the Text Block folders of this project - direct children only.
- ViewFolders - the View folders of this project - direct children only.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

RepositoryInstance

WITH-entry.

Parameters:

- Ref - a reference value identifying the repository instance object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- GlobalId - global identification (GUID).
- Postfix - the configured revision number postfix for this CCM Repository.
- IsThisRepository - 1 if this object represents the CCM Repository running, 0 if it represents another CCM Repository.

FORALL-Subentries:

The following all represent objects that are imported from this CCM Repository instance. They are all empty for the current CCM Repository.

- ContWzrds.
- ContWzrdFolders.
- ContWzrdRevisions.
- Documents.
- DocRevisions.
- Models.
- ModelRevisions.
- DIDs.
- DIDRevisions.
- Fieldsets.
- FieldsetRevisions.
- FieldsetFolders.
- FieldAssignments.
- Forms.
- FormFolders.
- FormRevisions.
- Folders.
- Labels- the labels that this object holds.
- Characteristics - the characteristics attached to this object.
- CharacteristicGroups - the characteristics attached to this group.
- Textblocks.
- TextblockFolders.
- TextblockRevisions.
- Views.
- ViewFolders.
- ViewRevisions.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

RepositoryInstanceOf

WITH-entry.

Parameters:

- Ref - a reference value identifying an object, of which the originating CCM Repository is to be visited.

Fields:

- Self - a reference value referring to the CCM Repository instance object itself.
- Name - the name of the object.
- GlobalId - global identification (GUID).
- Postfix - the configured revision number postfix for this CCM Repository.
- IsThisRepository - 1 if this object represents the CCM Repository running, 0 if it represents another CCM Repository.

FORALL-Subentries:

The following all represent objects that are imported from this repository instance. They are all empty for the current CCM Repository.

- ContWzrds.
- ContWzrdFolders.
- ContWzrdRevisions.
- Documents.
- DocRevisions.
- Models.
- ModelRevisions.
- DIDs.
- DIDRevisions.
- Fieldsets.
- FieldsetRevisions.
- FieldsetFolders.
- FieldAssignments.
- Forms.
- FormFolders.
- FormRevisions.
- Folders.
- Labels- the labels that this object holds.
- Characteristics - the characteristics attached to this object.
- CharacteristicGroups - the characteristics attached to this group.
- Textblocks.
- TextblockFolders.
- TextblockRevisions.
- Views.
- ViewFolders.
- ViewRevisions.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

RepositoryInstances

FORALL-entry.

Parameters: None.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- GlobalId - global identification (GUID).
- Postfix - the configured revision number postfix for this CCM Repository.
- IsThisRepository - 1 if this object represents the CCM Repository running, 0 if it represents another CCM Repository.

FORALL-Subentries:

The following all represent objects that are imported from this repository instance. They are all

empty for the current CCM Repository.

- ContWzrds.
- ContWzrdFolders.
- ContWzrdRevisions.
- Documents.
- DocRevisions.
- Models.
- ModelRevisions.
- DIDs.
- DIDRevisions.
- Fieldsets.
- FieldsetRevisions.
- FieldsetFolders.
- FieldAssignments.
- Forms.
- FormFolders.
- FormRevisions.
- Folders.
- Labels- the labels that this object holds.
- Characteristics - the characteristics attached to this object.
- CharacteristicGroups - the characteristics attached to this group.
- Textblocks.
- TextblockFolders.
- TextblockRevisions.
- Views.
- ViewFolders.
- ViewRevisions.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Role

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name.

FORALL-Subentries:

- Assignments - the assignments that belong to this assignment list.

Textblock

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- TextblockFolderRef.
- LockedByRef - refers to the user that holds a lock on the object; refer to the LockedBy subentry for more information.
- Description - the description of the object.
- LastRevisionNr - a text value indicating the most recently dispensed revision number.
- CurrentRevisionRef - refers to the current revision.
- AcceptedRevisionRef - refers to the accepted revision.
- PublishedRevisionRef - refers to the published revision.
- EditRevisionRef - refers tot the in-development revision.
- AssignmentListRef - refers to the assignment list that this assignment belongs to.
- LanguageRef - refers to the language; refer to the Language subentry for more information.
- SortOrder.
- DoesNotInheritRights - a '0' indicates false, a '1' indicates true.
- IsRich - if '1', this is a rich (word-processor based) Text Block. A '0' indicates a classic Text Block.
- FileExt - the file extension (doc or docx) of a Rich Text Block. Only relevant if IsRich is '1'
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- TextblockFolder - the folder this Text Block resides in.
- LockedBy - the user holding a lock on the object.
- CurrentTextblockRevision - the current revision of the object.
- InDevelopmentTextblockRevision - the in-development revision of the object.
- AcceptedTextblockRevision - the accepted revision of the object.
- PublishedTextblockRevision - the published revision of the object.
- Language - A Unicode text, one for 'ENG' or 'NLD', indicating the language configured for the user.
- AssignmentList - the assignment list defining the authorization for this document.

FORALL-Subentries:

- TextblockRevisions - the revisions of this object.
- IncludedBy - the document revisions that include this document.
- Labels - the labels that this object holds - i.e., that are assigned to one of its revisions.
- Characteristics - the characteristics attached to this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ViewRevisions - the revisions of that contain this object.
- UsingModelRevisions - Model Revisions using this Text Block.
- UsingContWzrdRevisions - Content Wizard revisions using this Text Block.

TextblockFolder

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.
- AssignmentListRef - refers to the assignment list that this assignment belongs to.
- Description - the description of the object.
- DoesNotInheritRights - a '0' indicates false, a '1' indicates true.
- LimitFieldsets - if '0' the Text Blocks in this folder can use all Field Sets; if '1' the Field Sets that can be used are limited to a subset.
- LanguageRef - refers to the language; refer to the Language sub entry for more information.
- ParentTextblockFolderRef - refers to the parent Text Block folder; refer to the ParentTextblockFolder sub entry for more information.
- ProjectRef - refers to the project defining the object; refer to the Project sub entry for more information.

WITH-Subentries:

- ParentTextblockFolder - the parent Text Block folder.
- Language - A Unicode text, one for 'ENG' or 'NLD', indicating the language configured for the user.
- AssignmentList - the assignment list defining the authorization for this document.
- Project - the project containing the object.

FORALL-Subentries:

- AvailableFieldsets - the limited set of Field Sets that can be used by the Text Blocks in this folder. These sub entries only make sense if LimitFieldsets is '1'.
- Characteristics - the characteristics attached to this object.
- ExportedBy - the ActionRuns that represent actions that exported this object.
- ImportedBy - the ActionRuns that represent actions that imported this object.
- TextblockFolders - the Text Block folders that reside in this folder.
- Textblocks - the Text Blocks that reside in this folder.

TextblockRevision**WITH-entry.****Parameters:**

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- TextblockRef - a reference to the Text Block; refer to the Textblock subentry for more information.
- Revision - the revision number (as Unicode text) of the revision.
- CreationDate - the date the revision was created or last changed.
- CreatedByRef - the user who last created or changed this revision.
- Description - the description of the object.

- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- IsAccepted - '1' if this is the accepted revision, '0' otherwise.
- IsPublished - '1' if this is the published revision, '0' otherwise.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- CreatedBy - the user who created this object.
- Textblock - the Text Block that has this revision.

FORALL-Subentries:

- Labels - the labels that this revision holds.
- Characteristics - the characteristics attached to this object.
- UsedFields - Fields used by this object.
- UsedFieldsets - the Field Sets used by this object.
- ExportedBy - the ActionRuns that represent actions that exported this object.
- ImportedBy - the ActionRuns that represent actions that imported this object.

User

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the (login-) name of this project.
- FullName - the full name of the user.
- ShowDetailsSetting - '1' if the user setting indicates that details should be shown, '0' otherwise.
- ShowDeletedSetting - '1' if the user setting indicates that deleted objects should be shown, '0' otherwise.
- Language - A Unicode text, one for 'ENG' or 'NLD', indicating the language configured for the user.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

FORALL-Subentries:

- LockedContWzrds - all Content Wizards that the user has locked.
- LockedDocument - all documents that the user holds a lock on.
- LockedModels - all models that the user holds a lock on.
- LockedDIDs - all DIDs that the user holds a lock on.
- LockedFieldsets - all Field Sets that the user has locked.
- LockedForms - all Forms locked by this user.
- LockedTextblocks - all Text Blocks that the user holds a lock on.
- LockedViews - all views that the user holds a lock on.
- Assignments - the assignments that belong to this assignment list.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

Users

FORALL-entry.

Returns all users known in the CCM Repository.

Parameters: none.

Fields:

- Self - a reference value referring to the object itself.
- Name - the (login-) name of this project.
- FullName - the full name of the user.
- ShowDetailsSetting - '1' if the user setting indicates that details should be shown, '0' otherwise.
- ShowDeletedSetting - '1' if the user setting indicates that deleted objects should be shown, '0' otherwise.
- Language - A Unicode text, one for 'ENG' or 'NLD', indicating the language configured for the user.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

FORALL-Subentries:

- LockedContWzrds - all Content Wizards that the user has locked.
- LockedDocument - all documents that the user holds a lock on.
- LockedModels - all models that the user holds a lock on.
- LockedDIDs - all DIDs that the user holds a lock on.
- LockedFieldsets - all Field Sets that the user has locked.
- LockedForms - all Forms locked by this user.
- LockedTextblocks - all Text Blocks that the user holds a lock on.
- LockedViews - all views that the user holds a lock on.
- Assignments - the assignments that belong to this assignment list.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.

View

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- ViewFolderRef - refers to the folder the object resides in; refer to the ViewFolder subentry for more information.
- LockedByRef - refers to the user who holds a lock on the object; refer to the LockedBy subentry for more information.
- Description - the description of the object.
- LastRevisionNr - a text value indicating the most recently dispensed revision number.

- CurrentRevisionRef - refers to the current revision.
- AcceptedRevisionRef - refers to the accepted revision.
- PublishedRevisionRef - refers to the published revision.
- EditRevisionRef - refers to the in-development revision.
- AssignmentListRef - refers to the assignment list that defines the authorization for this object.
- DoesNotInheritRights - a '0' indicates false, a '1' indicates true.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- ViewFolder - the folder where this object resides.
- LockedBy - the user holding a lock on the object.
- CurrentViewRevision - the current revision of the object.
- InDevelopmentViewRevision - the in-development revision of the object.
- AcceptedViewRevision - the accepted revision of the object.
- PublishedViewRevision - the published revision of the object.
- AssignmentList - the assignment list defining the authorization for this object.

FORALL-Subentries:

- Labels - the labels that this object holds - i.e., that are assigned to one of its revisions.
- Characteristics - the characteristics attached to this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- ViewRevisions - the revisions of this object.
- UsingModelRevisions - Model Revisions using this View

ViewFolder

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- Name - the name of the object.
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.
- AssignmentListRef - refers to the assignment list that this assignment belongs to.
- Description - the description of the object.
- DoesNotInheritRights - a '0' indicates false, a '1' indicates true.
- ParentViewFolderRef - refers to the parent View folder; refer to the ParentViewFolder for more information.
- ProjectRef - refers to the project defining the object; refer to the Project sub entry for more information.

WITH-Sub entries:

- ParentViewFolder - the parent View folder.
- AssignmentList - the assignment list defining the authorization for this document.
- Project - the project containing the object.

FORALL-Sub entries:

- Characteristics - the characteristics attached to this object.
- ExportedBy - the ActionRuns that represent actions that exported this object.
- ImportedBy - the ActionRuns that represent actions that imported this object.
- ViewFolders - the View folders that reside in this folder.
- Views - the views that reside in this folder.

ViewRevision

WITH-entry.

Parameters:

- Ref - a reference value identifying the object.

Fields:

- Self - a reference value referring to the object itself.
- ViewRef - refers to the view.
- Revision - the revision number (as Unicode text) of the revision.
- CreationDate - the date the revision was created or last changed.
- CreatedByRef - the user who last created or changed this revision.
- Description - the description of the object.
- IsCurrent - '1' if this is the current revision, '0' otherwise.
- IsInDevelopment - '1' if this is the in-development revision, '0' otherwise.
- IsAccepted - '1' if this is the accepted revision, '0' otherwise.
- IsPublished - '1' if this is the published revision, '0' otherwise.
- TextblockFolderTextblockFolderRef - refers to a Text Block folder; refer to the TextblockFolder subentry for more information..
- Limbo - a '0' indicates an available object, a '1' indicates that the object is marked for deletion.

WITH-Subentries:

- CreatedBy - the user who created this object.
- View - the view that has this revision.
- TextblockFolder - the Text Block folder for which this view is an alias; it is empty when the view is a set of Text Blocks.

FORALL-Subentries:

- Labels - the labels that this revision holds.
- Characteristics - the characteristics attached to this object.
- ExportedBy - The ActionRuns that represent actions that exported this object.
- ImportedBy - The ActionRuns that represent actions that imported this object.
- Textblocks.- the Text Blocks that are part of this object.