

FILE SELECTION MECHANISM SCENARIO: IMPLEMENTING A MECHANISM



Scenario Description

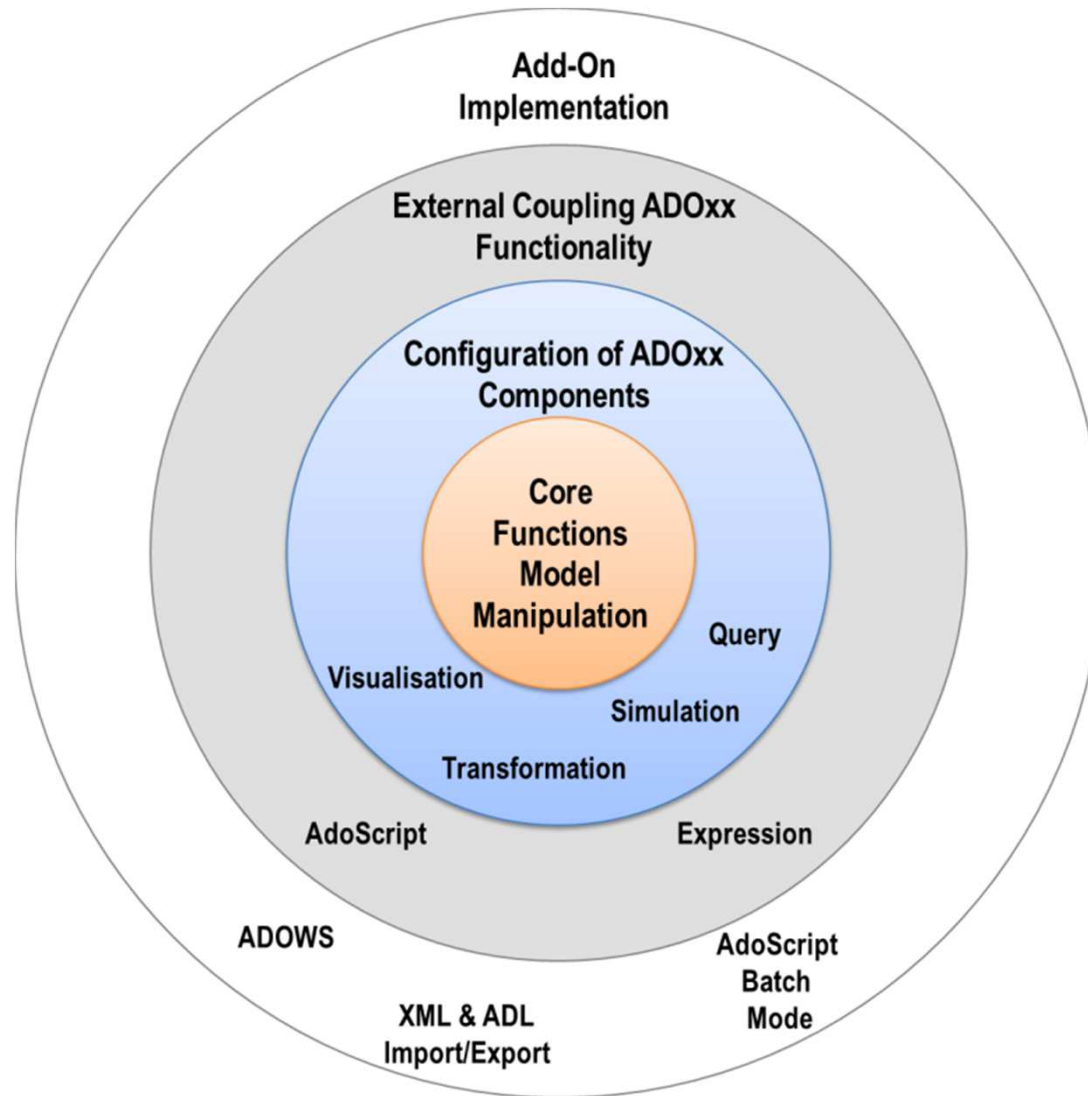
Case:

Implementation of a mechanism (triggered via *Programcall* attribute) which opens a file dialog for selecting a folder on the file system. All files contained in this folder or any subfolder are added to a *Table (Record)* attribute.

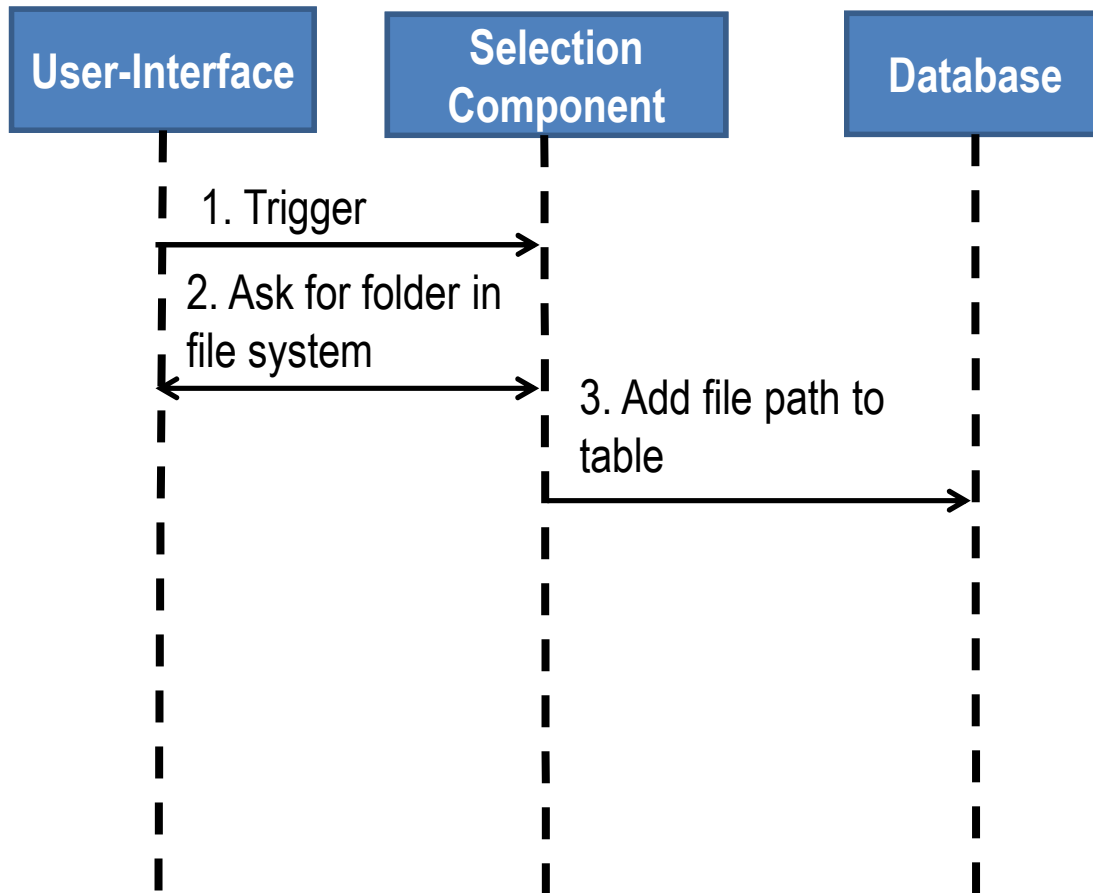
GOAL:

How to implement a procedure which iteratively runs through all subfolders of a selected folder and adds the file path of each file contained in the subfolder to a *Record* attribute.

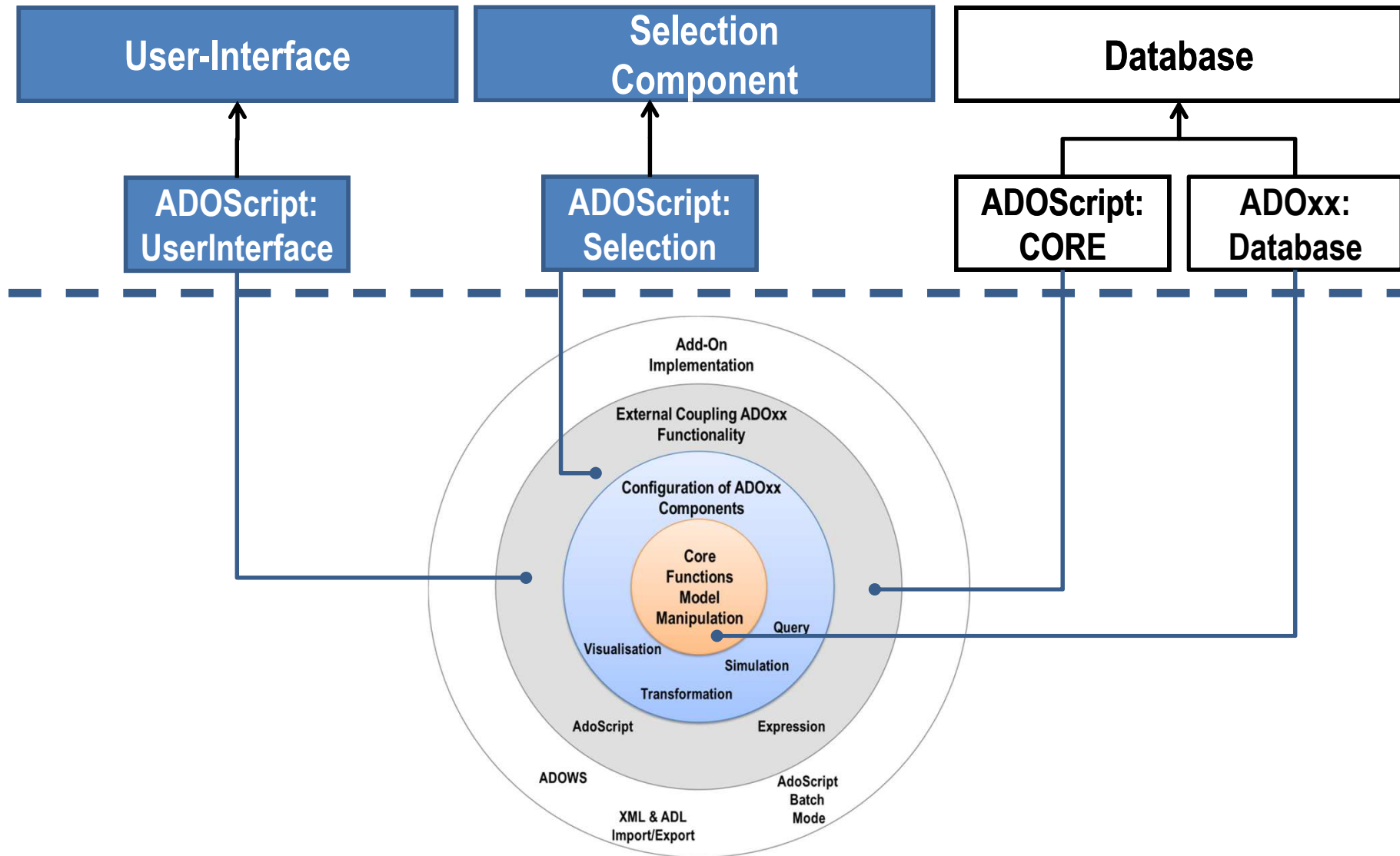
ADOxx Functionality on Meta Level



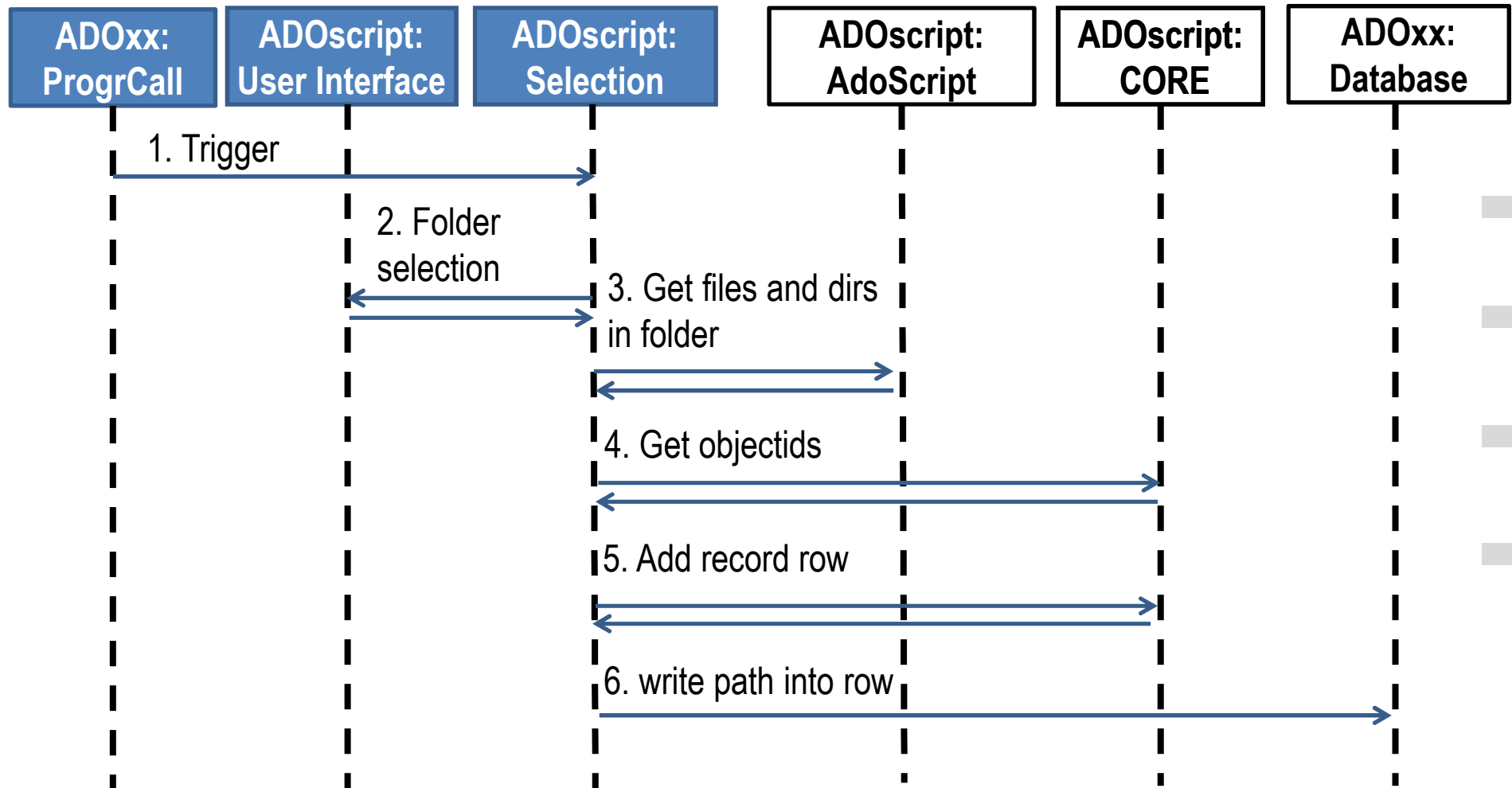
Description of Algorithm



Mapping ADOxx Functionality



ADOxx Realisation Approach



ADOxx Realisation Hands-On



Selection Mechanism:

- Get objectids (Core Message Port)
- Get list of directories (AdoScript Message Port)
- Add record row (Core Message Port)
- Write into row (Core Message Port)

Modelling Language to demonstrate *Selection Mechanism:*

- New model type: *File Selection Sample*.
- New classes: *A*, *List of files* (Record class).
- New Attributes: *Import files*, *List of files*.

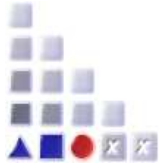
Used ADOxx Functionality: Selection Mechanism



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Modelling Language Implementation
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GRAPHREP
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Model Types

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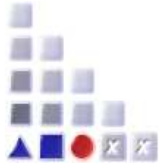




HANDS-ON

FILE SELECTION

SCENARIO: IMPLEMENTING A MECHANISM

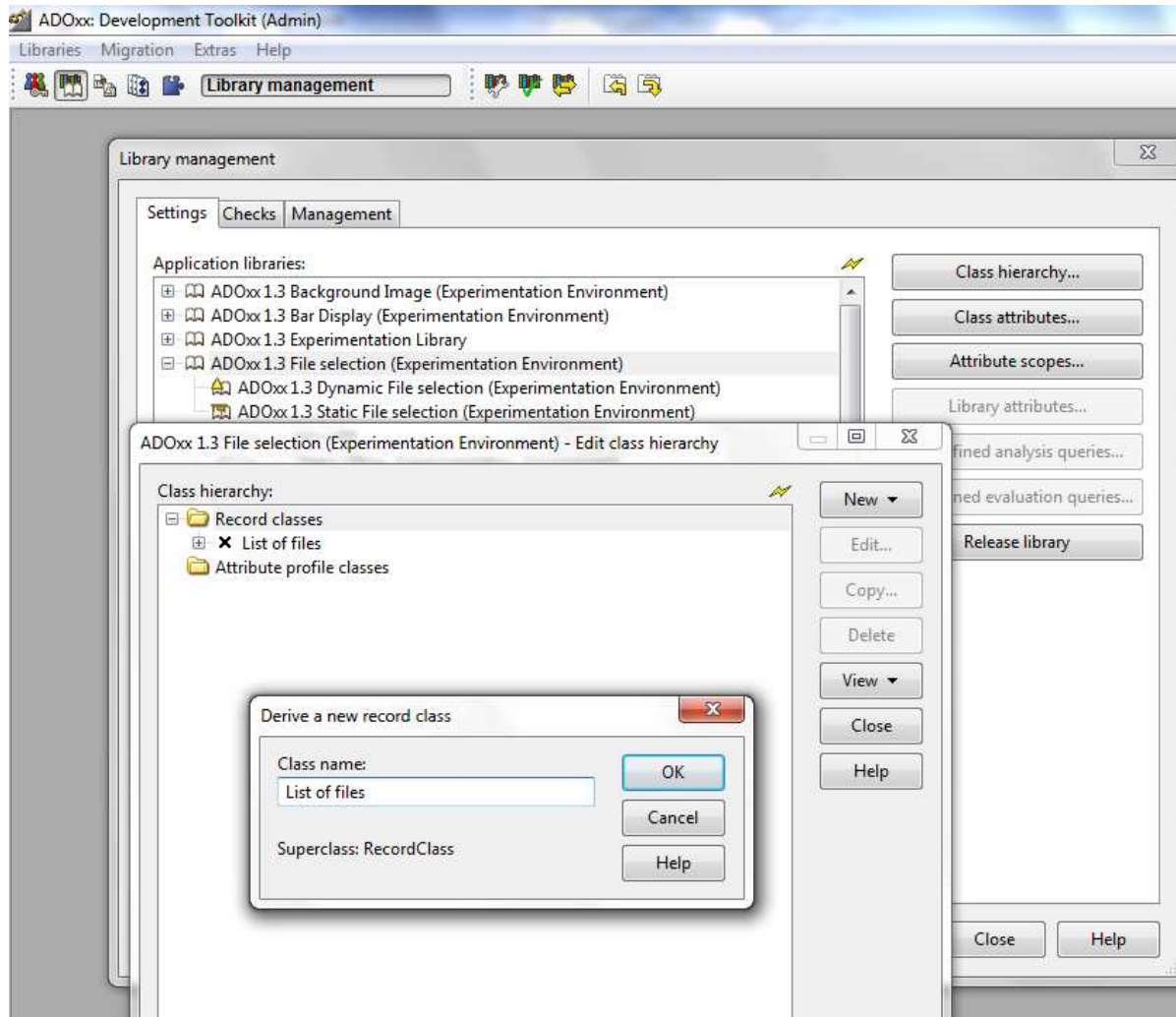


HANDS-ON

1. PREPARATION

Defining several classes & attributes for the sake of a minimal working example. This step can be skipped – import the Library File `selection.abl` instead.

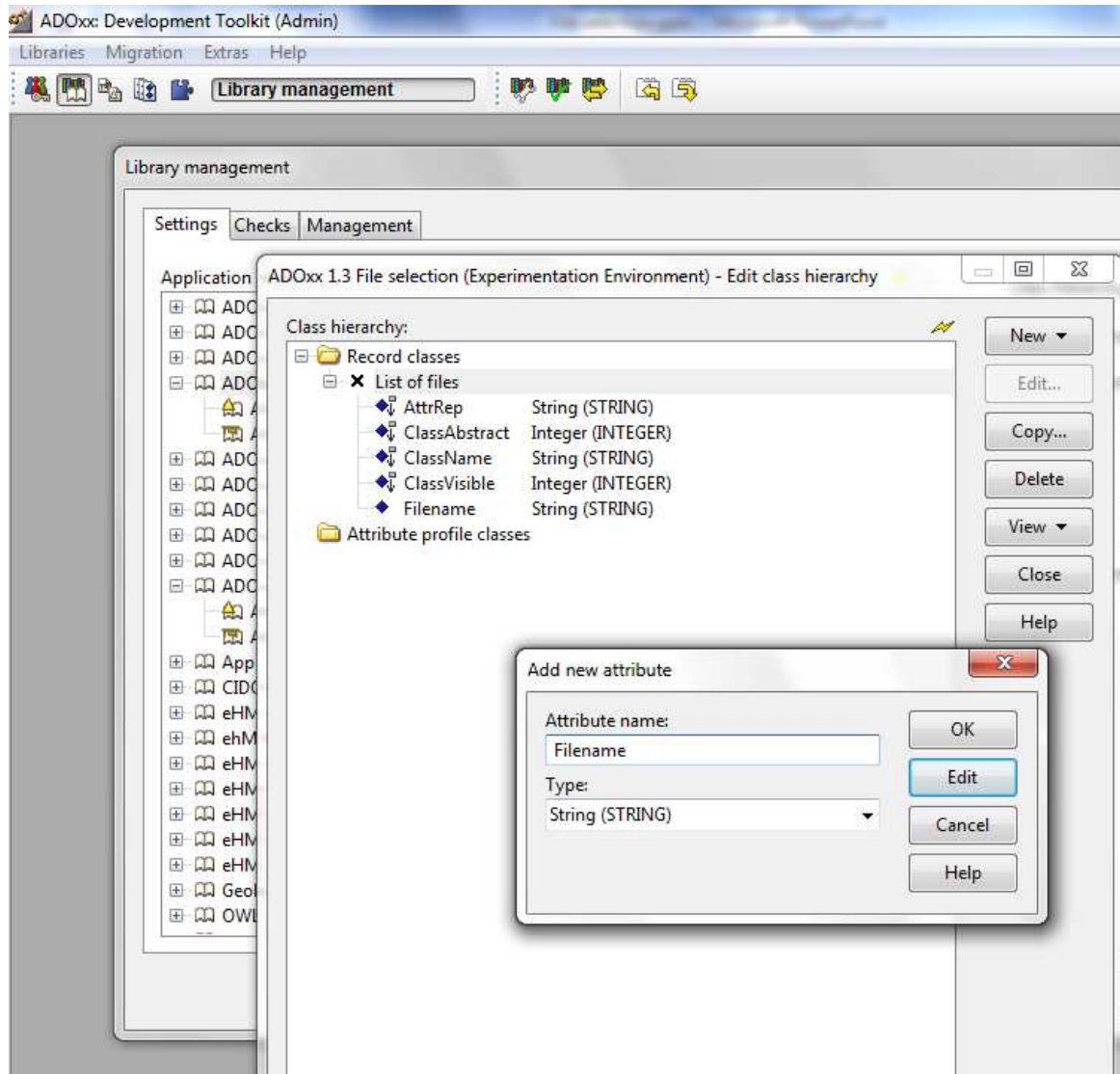
Create new record class *List of files*



New record class:

- Go to the *Library management*, select an Application library and click *Class hierarchy*.
- Unfold *Record classes*, select *Record classes* and click *New* → *New record class*...
- Name new record class *List of files*.

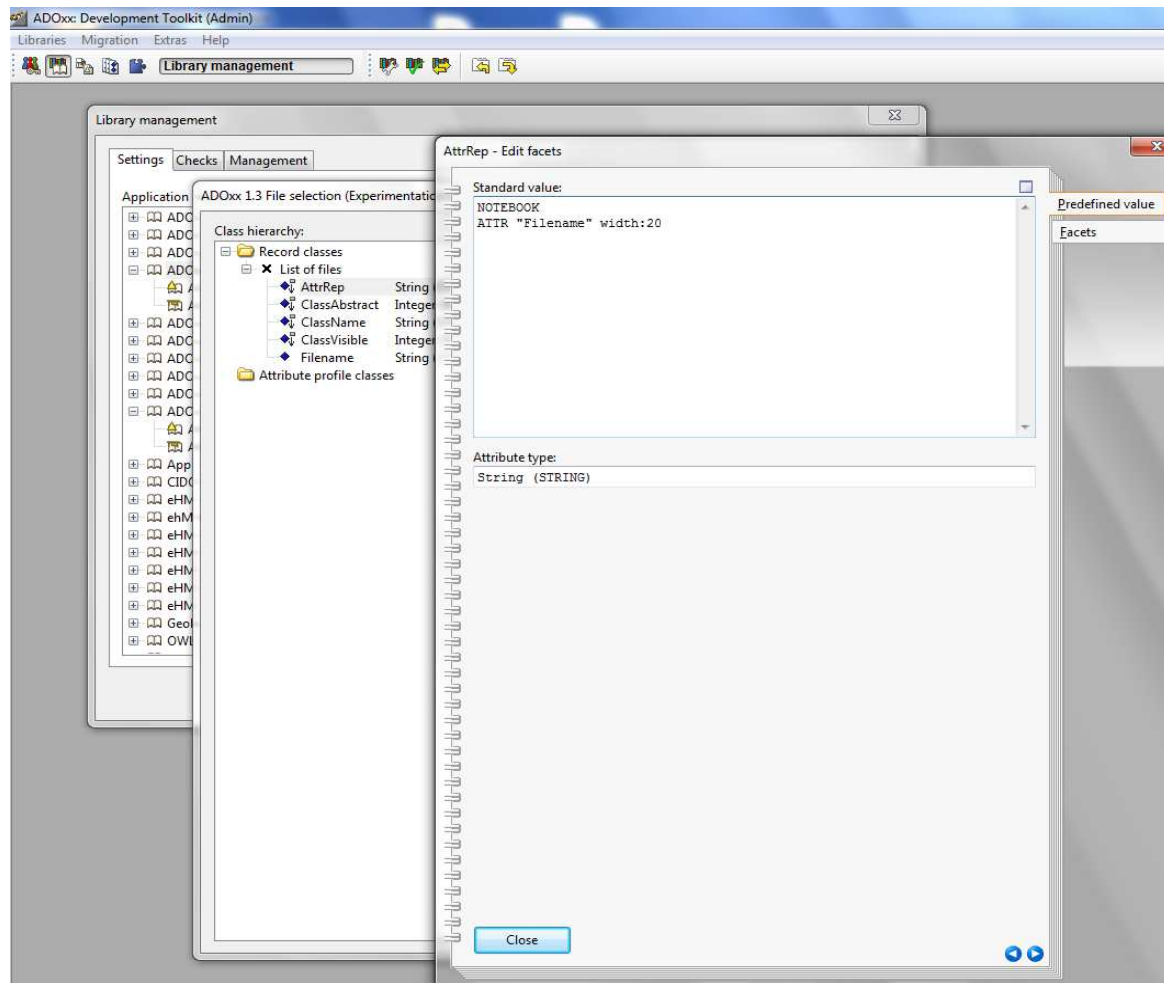
Add new attribute to record class *List of files*



Add attribute:

- Select record class *List of files*
- Click *New* → *New attribute...*
- Name new attributes and select type according figure on the left side:
 - Name: *Filename*
 - Type: *String*

Configure AttrRep attribute of *List of files* record class



Configure *Interref* attribute:

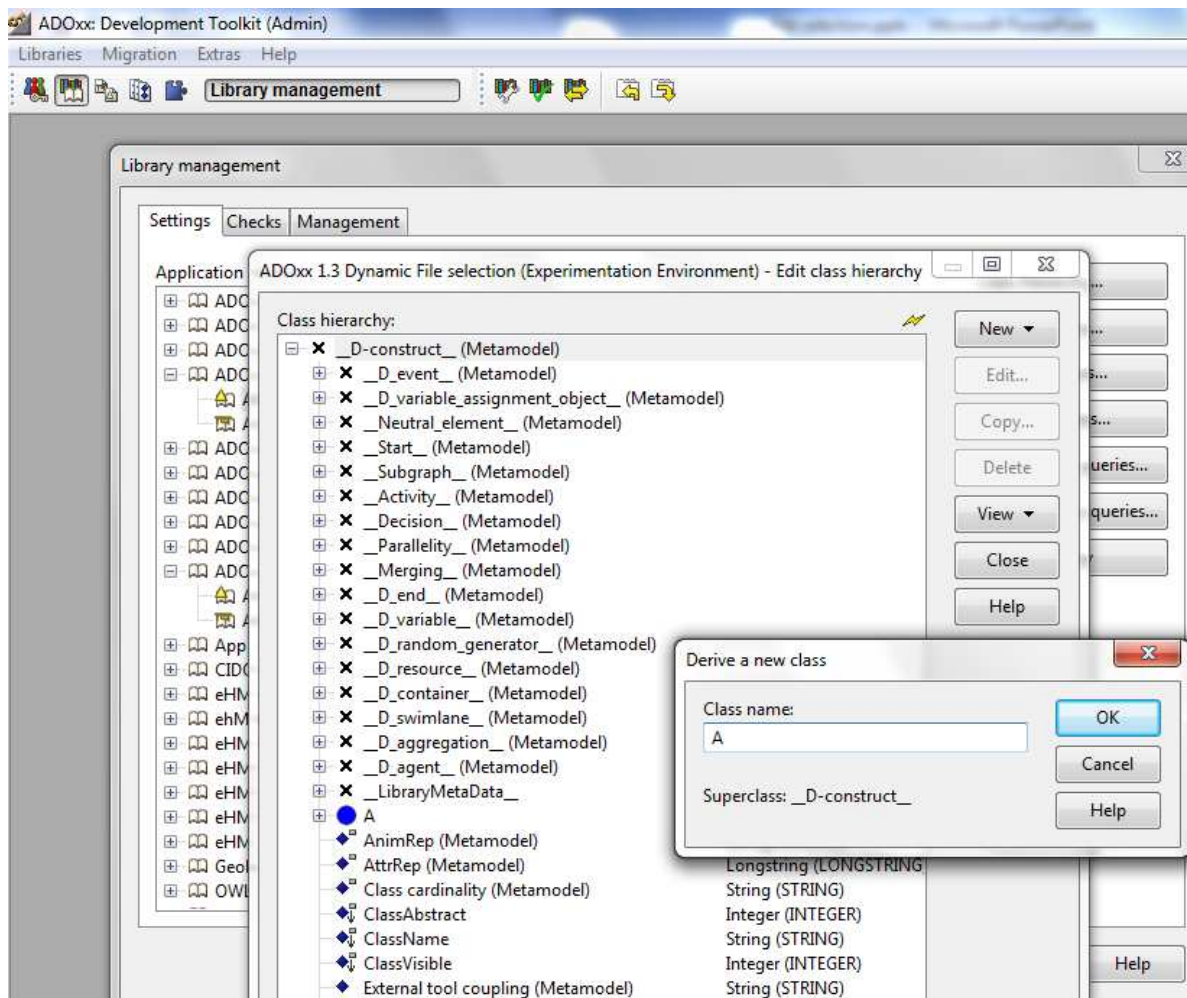
- Double click on attribute *AttrRep*

- Set *Standard value* to

NOTEBOOK

ATTR "Filename" width:20

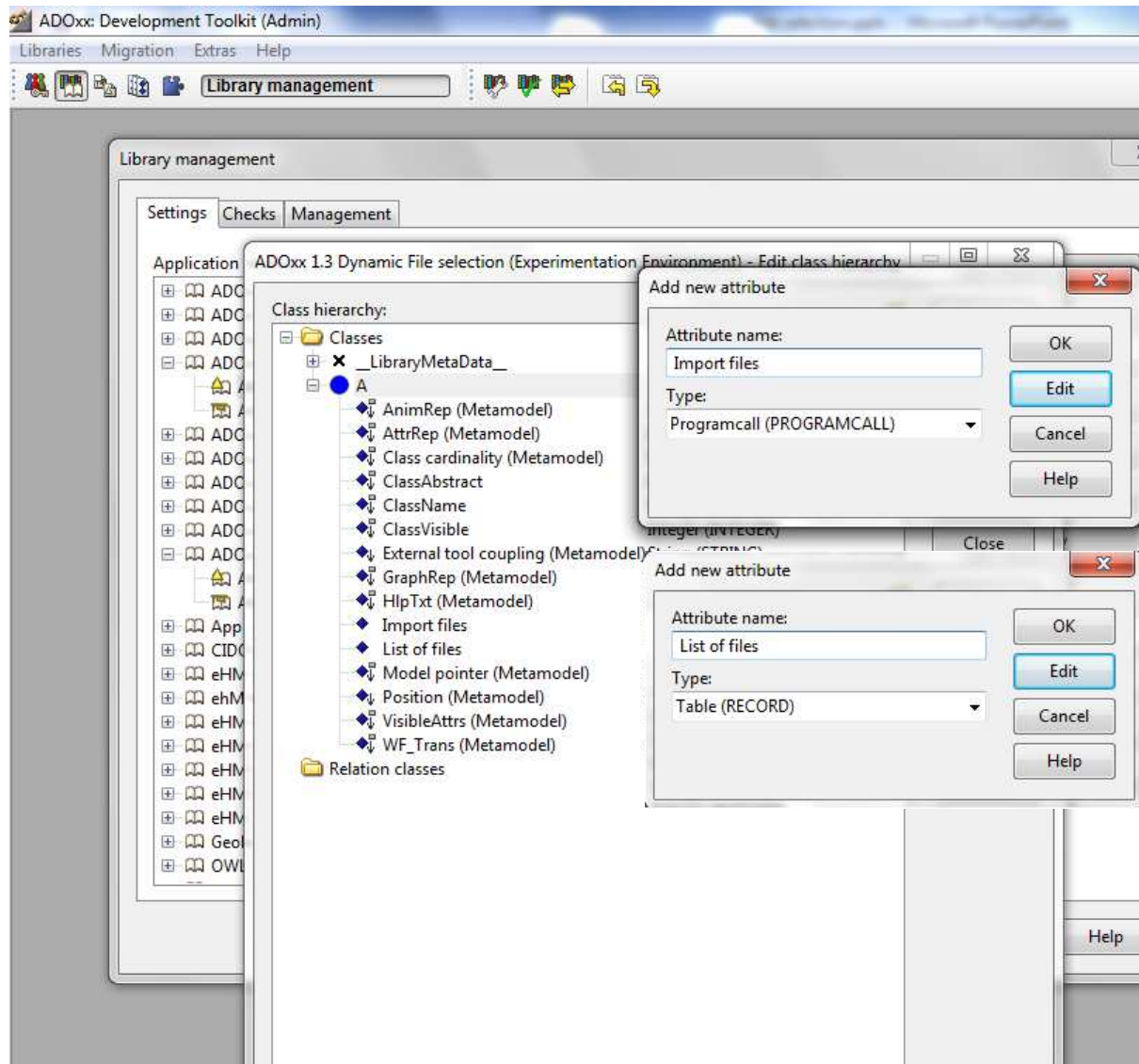
Create new class A



New record class:

- Go to the *dynamic library* and click *Class hierarchy*.
- Click *View* and select *Metamodel*.
- Select *__D-construct__ (Metamodel)*
- Click *New* → *New class*; name it *A*

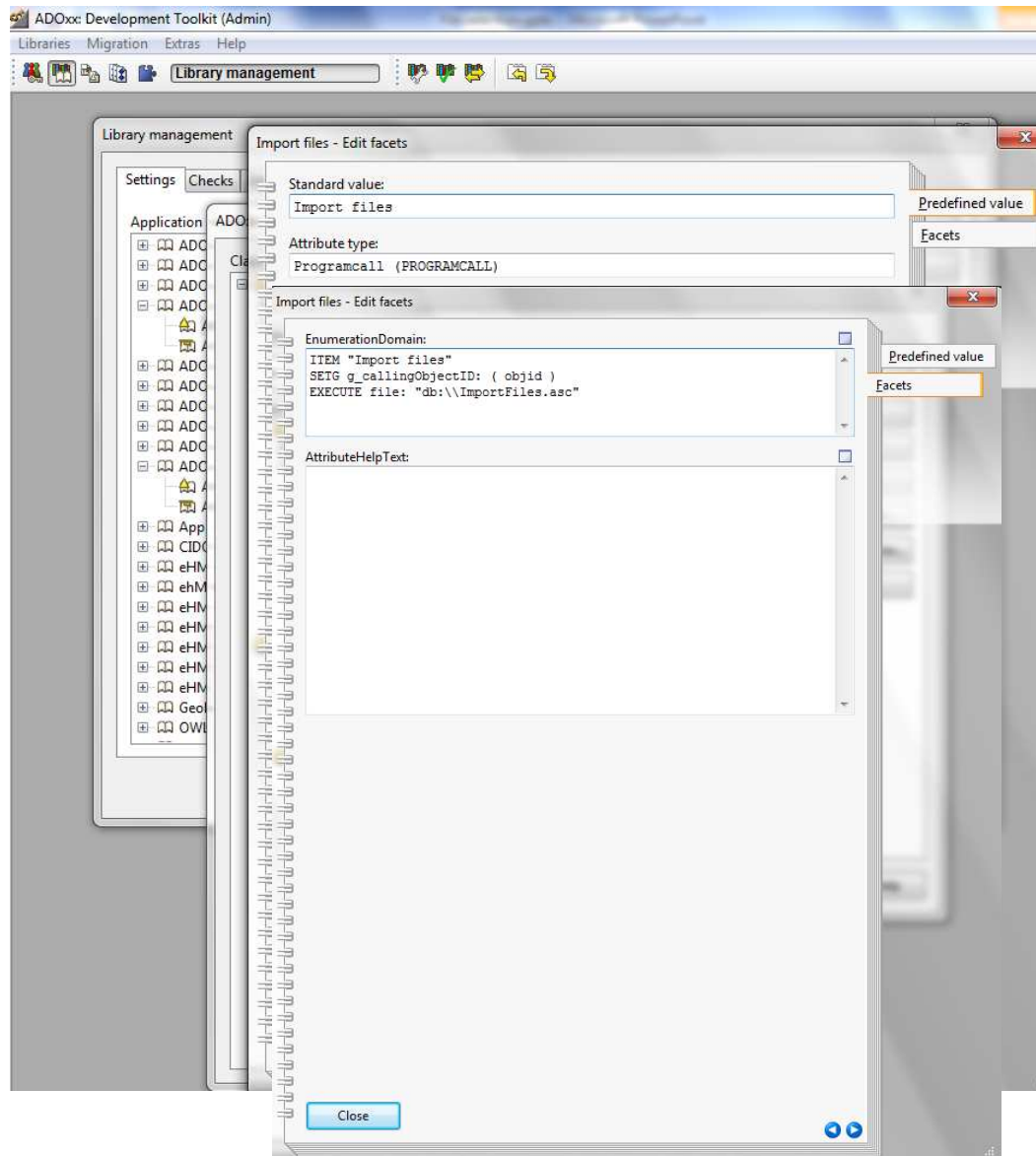
Add new attributes to class A



Add attributes:

- Select class A
- Click *New* → *New attribute...*
- Name new attributes and select type according figure on the left side:
 - Name: *Import files*
 - Type: *Programcall*
 - Name: *List of Files*
 - Type: *Record*→ select *List of files* as referenced record class after clicking *OK*.

Configure *Import files* attribute



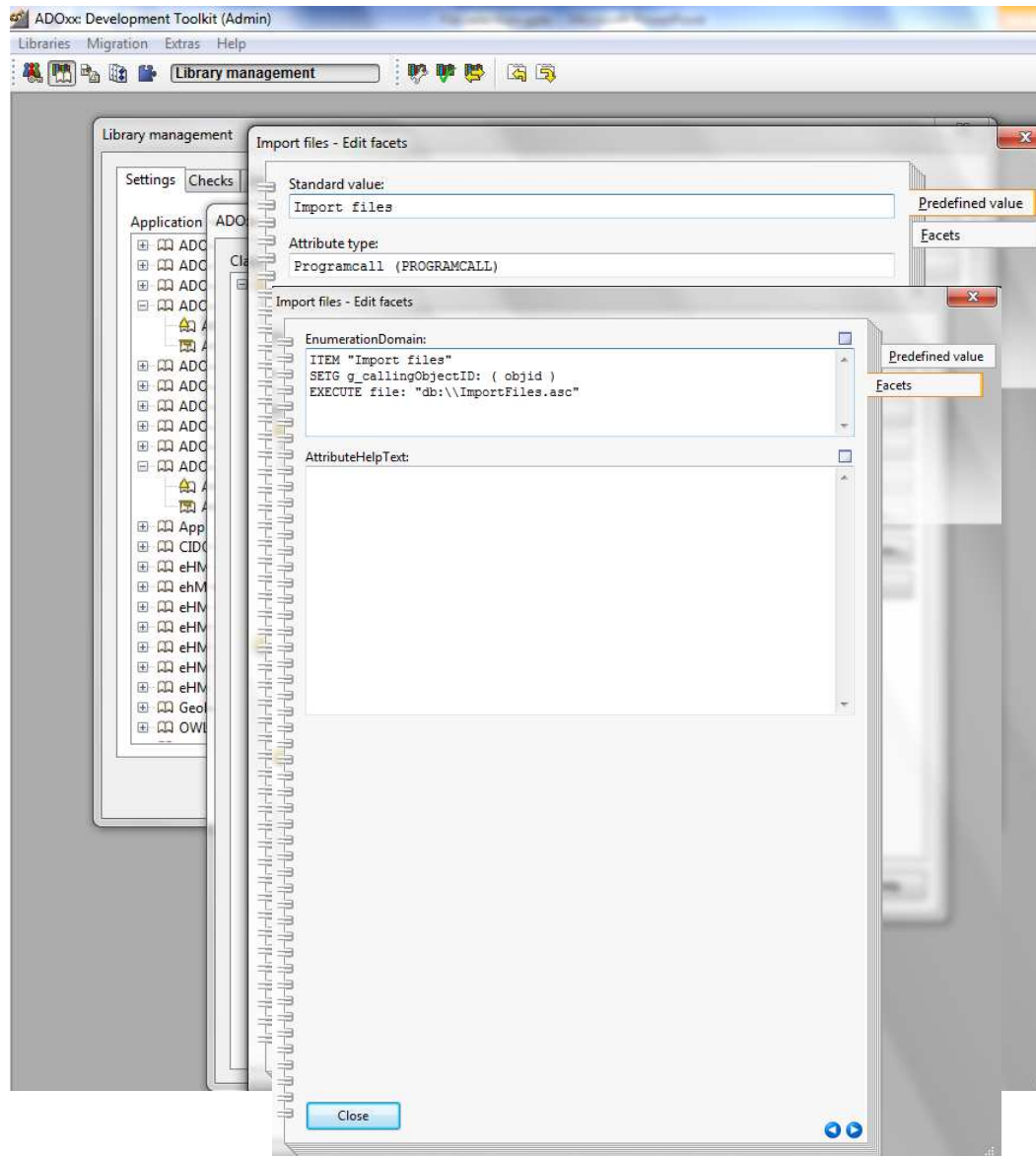
Configure *attribute*:

- Double click on *Import files* attribute
- Set *Standard value* to Import files
- Click *Facets* and set *EnumerationDomain* to

ITEM "Import files"
SETG g_callingObjectID: (objid)
EXECUTE file: "db:\\ImportFiles.asc"

- Make sure that the file ImportFiles.asc is contained in the ADOxx database.

Configure *AttrRep* attribute



Configure *attribute*:

- Double click on *AttrRep* attribute
- Set *Standard value* to

NOTEBOOK

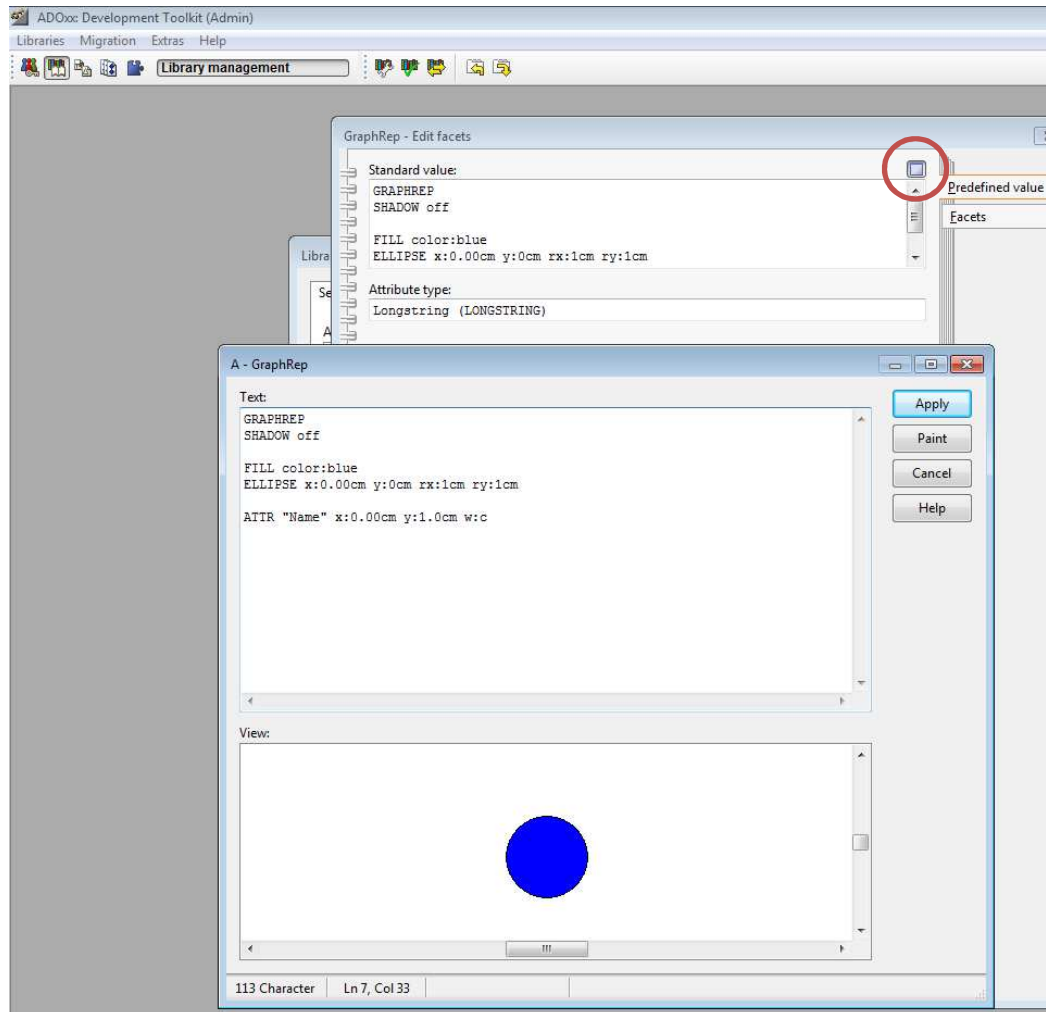
CHAPTER "Description"

ATTR "Name"

ATTR "Import files" push-button no-param

ATTR "List of files"

Configure GraphRep attribute



Configure Graphrep

- Go to class *A*.
- Double click *GraphRep (Metamodel)*.
- Click the *Dialog* button.
- Enter:

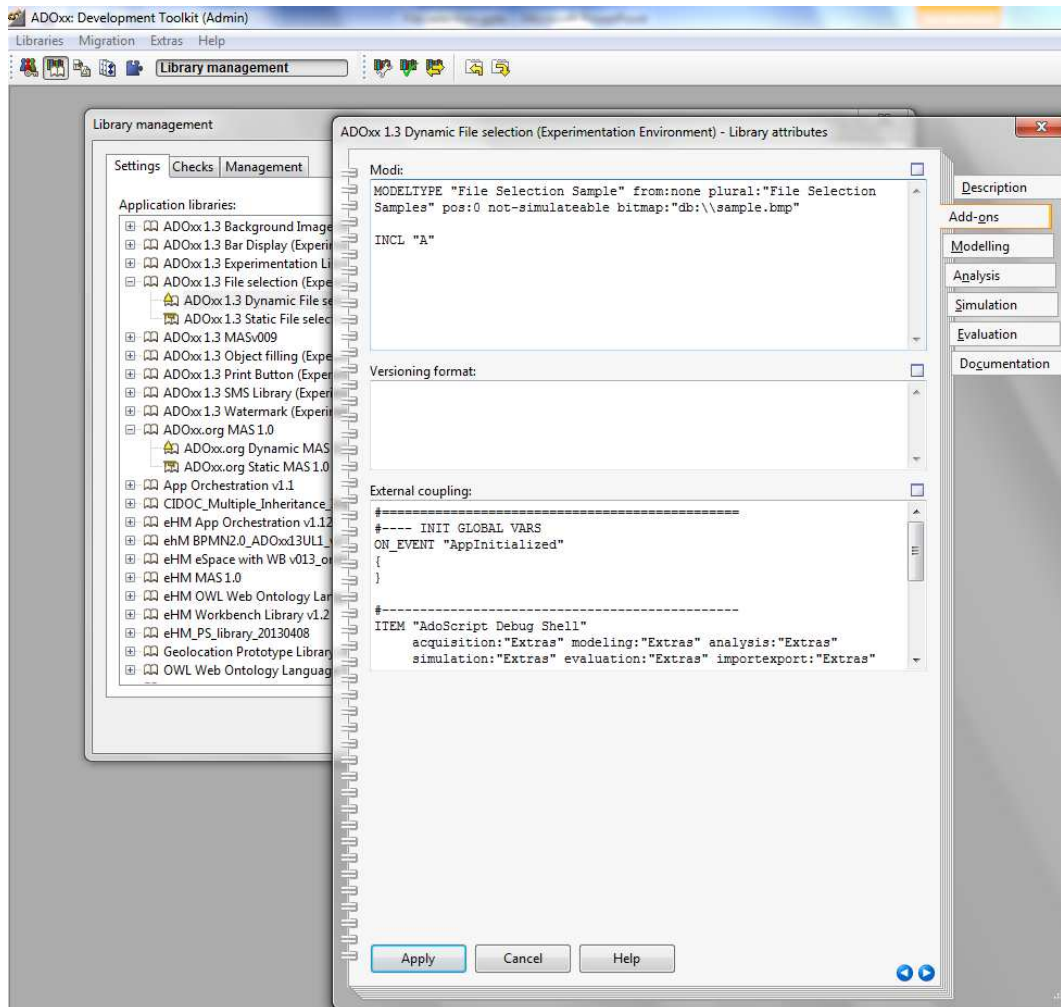
GRAPHREP
SHADOW off

FILL color:blue
ELLIPSE x:0.00cm y:0cm rx:1cm ry:1cm

ATTR "Name" x:0.00cm y:1.0cm w:c

- Click *Apply*, then *close*.

Definine Modeltypes



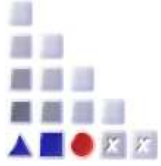
Modeltypes:

- Go back to the *Library management* and select your current *Dynamic Library*.
- Click *Library attributes...* → *Add-ons* and define the following model type according the figure on the left-hand-side:

```
MODELTYPE "File Selection Sample" from:none plural:"File Selection Samples" pos:0 not-simulateable bitmap:"db:\\sample.bmp"
```

```
INCL "A"
```

- Click *Apply*.



HANDS-ON

2. SELECTION MECHANISM

AdoScript code contained in file Import files.asc



```
# get objid (see "Import files" attribute)
SET id_crtObjID: ( g_callingObjectID )

#open dialog
CC "AdoScript" DIRECTORY_DIALOG
SETL s_selectedPath: ( path )

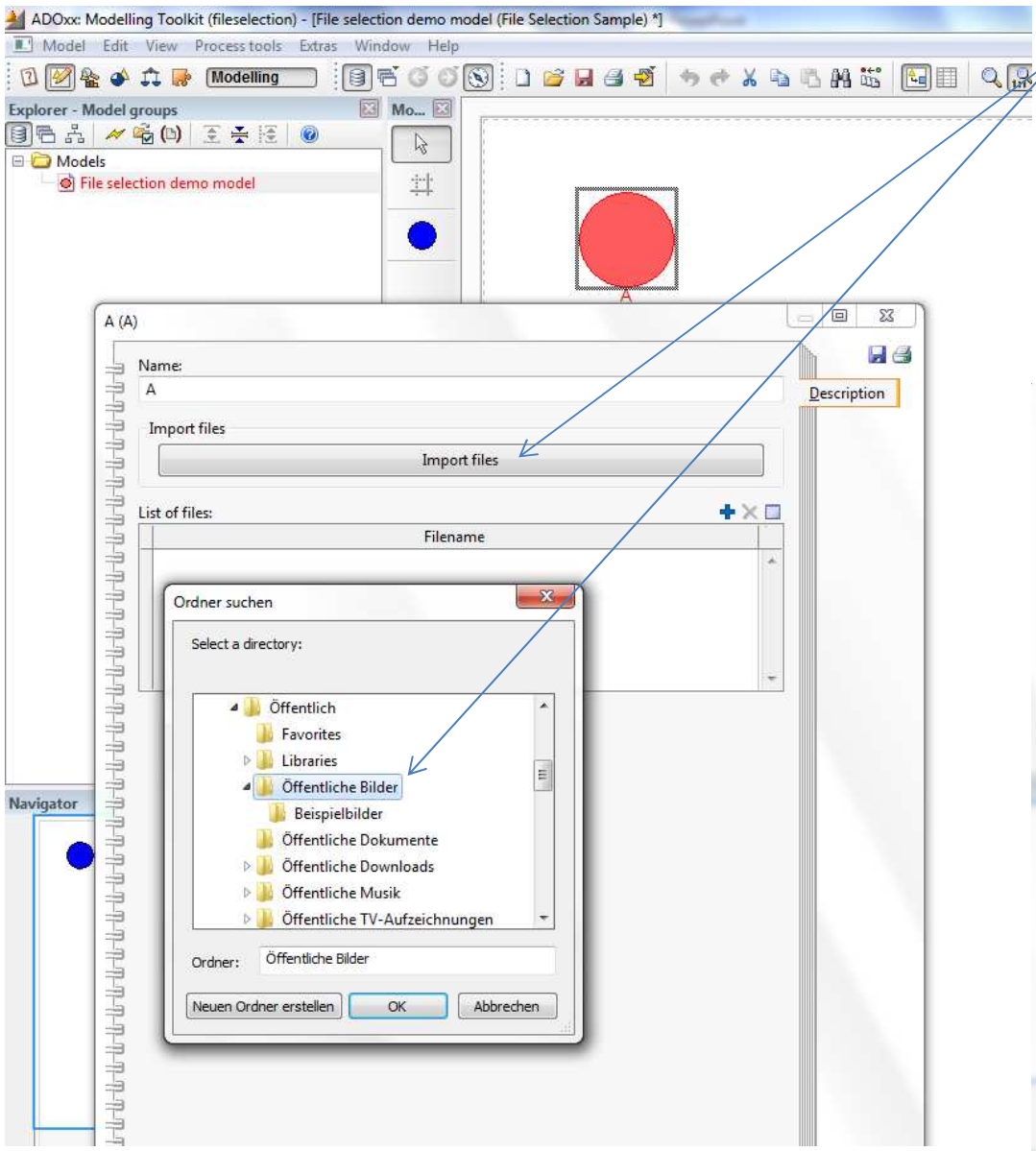
# add file path of files contained in selected folder to the record
IF ( endbutton = "ok" ) {
  IMPORT_FROM_FOLDER ( s_selectedPath )
}

PROCEDURE IMPORT_FROM_FOLDER string: folderpath {
  CC "AdoScript" DIR_LIST path: ( folderpath )

  SETL s_filesInPath: ( files )
  SETL s_foldersInPath: ( dirs )
  FOR sFileName in: (s_filesInPath) sep: ("*") {
    CC "Core" GET_CLASS_ID objid: (id_crtObjID)
    SETL id_crtClassID: ( classid )

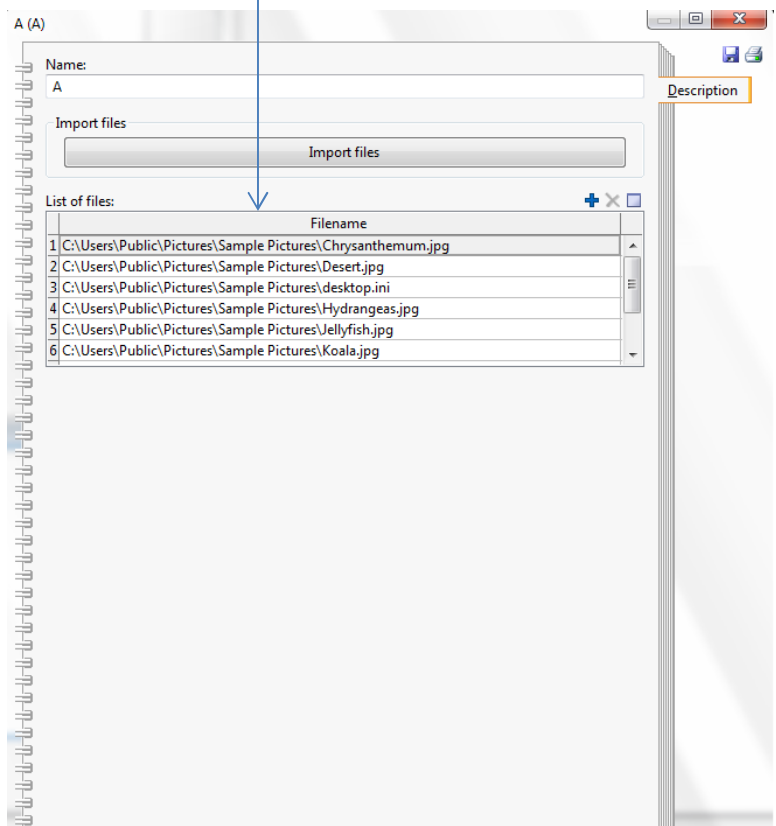
    CC "Core" GET_ATTR_ID classid: (id_crtClassID) attrname: ("List of files")
    SETL id_loadedFilesAttrID: ( attrid )
    # add new row to record
    CC "Core" ADD_REC_ROW objid: (id_crtObjID) attrid: (id_loadedFilesAttrID)
    SETL id_newRowID: ( rowid )
    # write file path into new row
    CC "Core" SET_ATTR_VAL objid: (id_newRowID) attrname: ("Filename") val: ( folderpath + sFileName) as-string
  }
  # apply procedure on subfolders:
  FOR sFolderName in: (s_foldersInPath) sep: ("*") {
    IMPORT_FROM_FOLDER (folderpath + sFolderName + "\\")
  }
}
```

Result

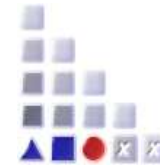


Click Import files button in the notebook, select folder.

Contained files are added to List of files record attribute.



Further Questions?



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