

View Switch

SCENARIO:
**Realize View Switch utilizing Dynamic GraphRep
and AdoScript**

Scenario Description



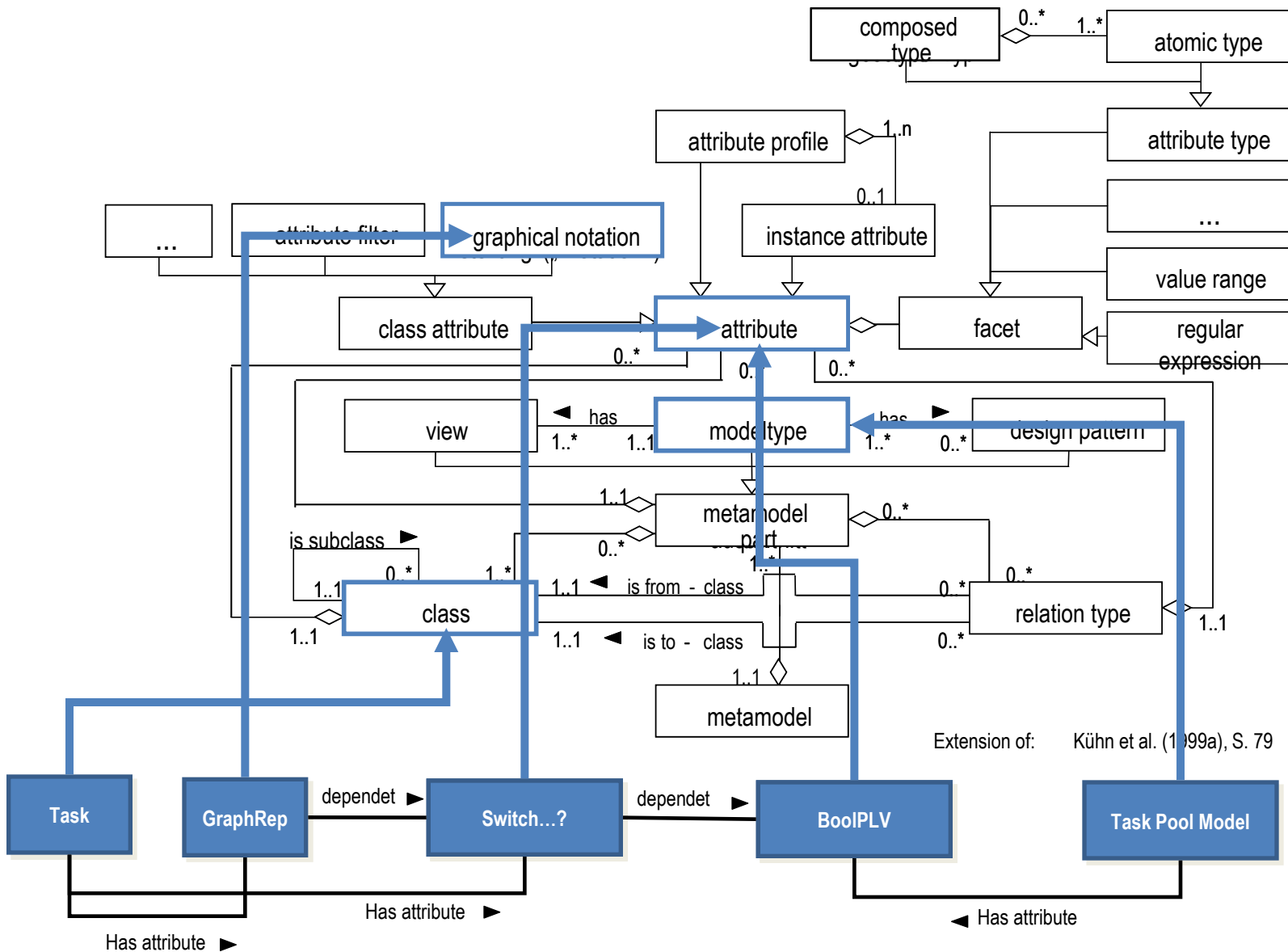
Case:

Realization of view switch between technical view and people-like view. Technical view is the view, which contains technical notations as defined in modelling language and the people-like view is the view which is more detailed and more basic-user friendly. This view switch realized with using dynamic graphical representation and mechanism executes switching.

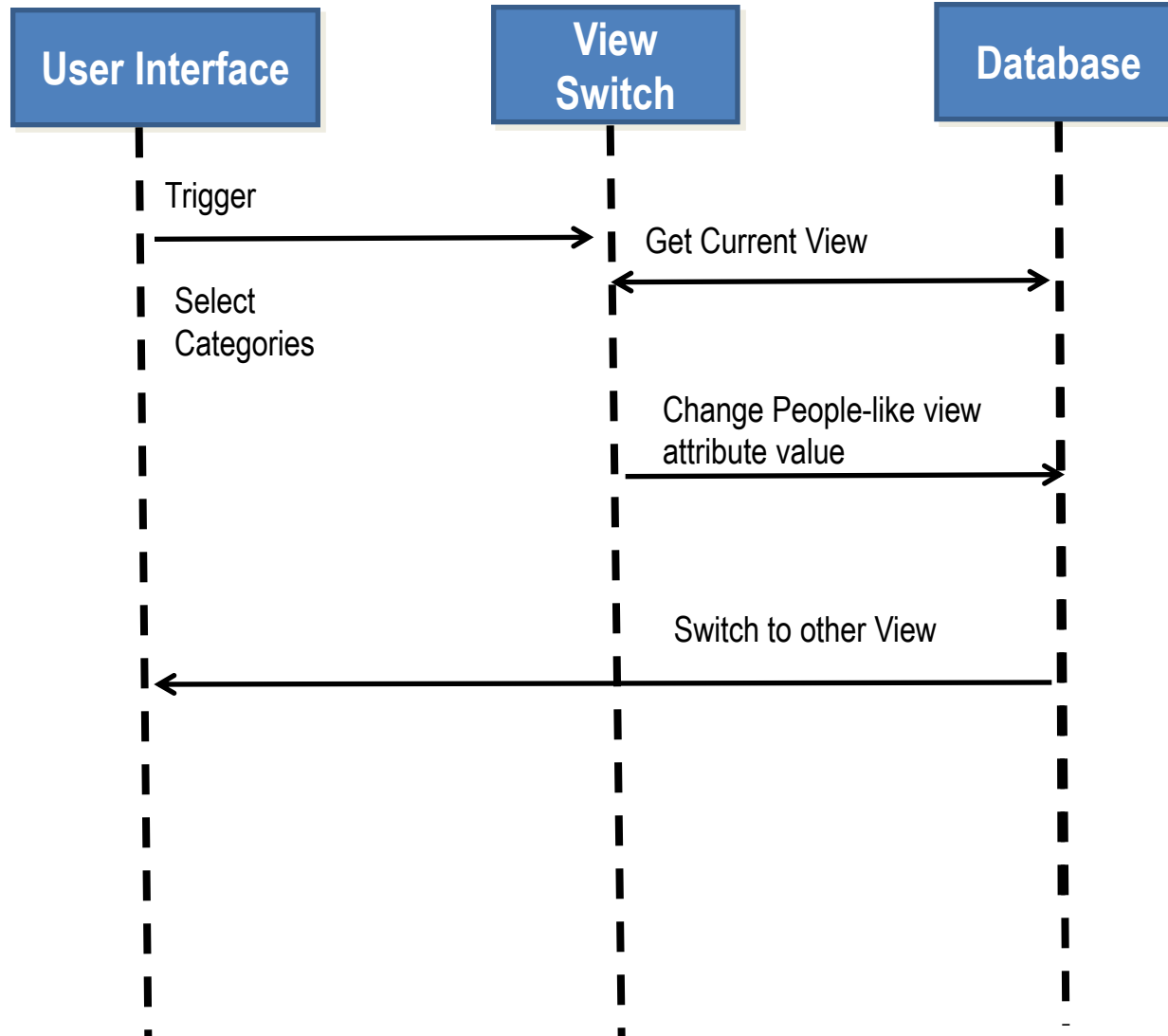
GOAL:

Demonstrate how a switch between views via utilizing dynamic GraphRep and AdoScript.

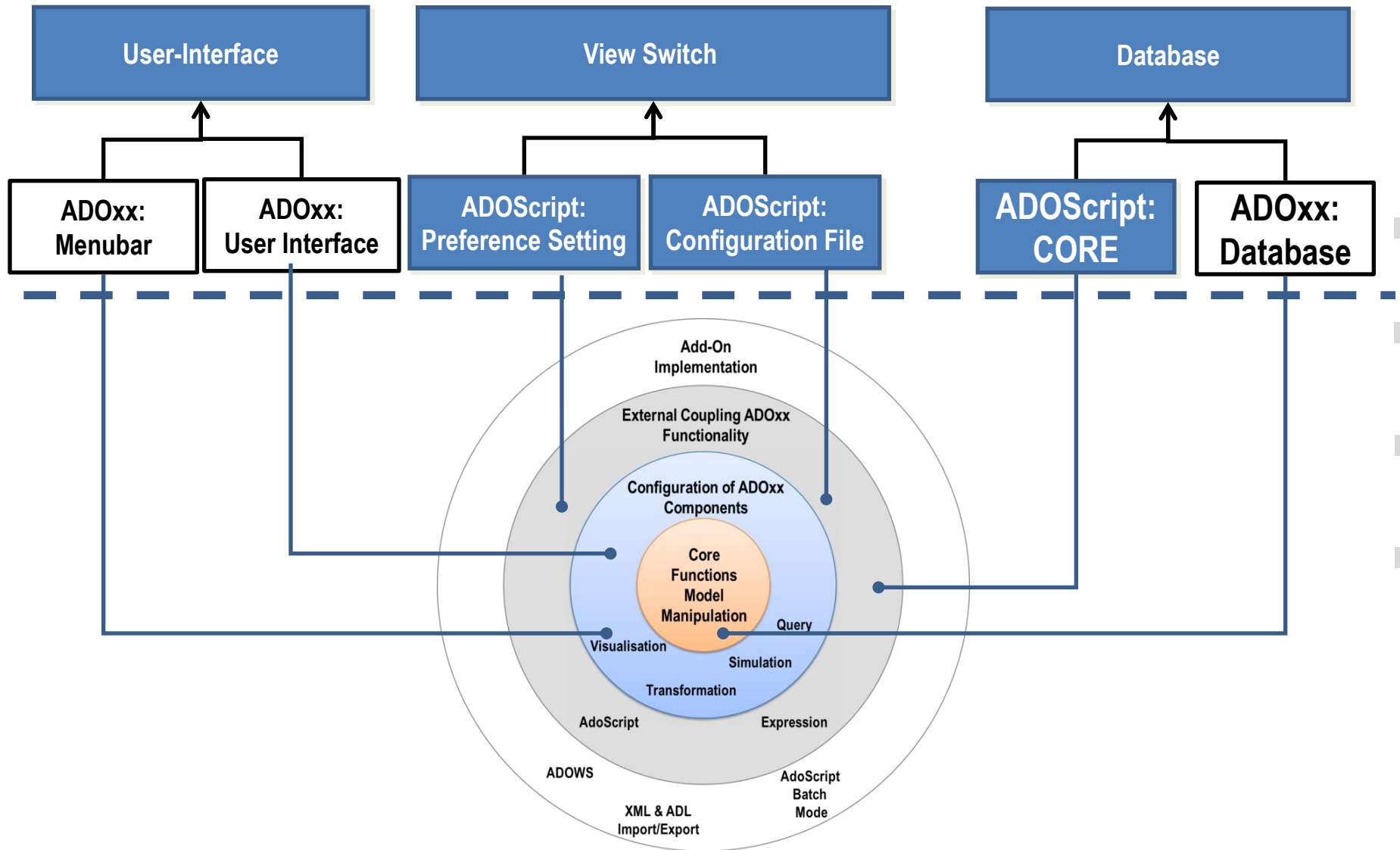
Meta Model of Meta Modelling Language



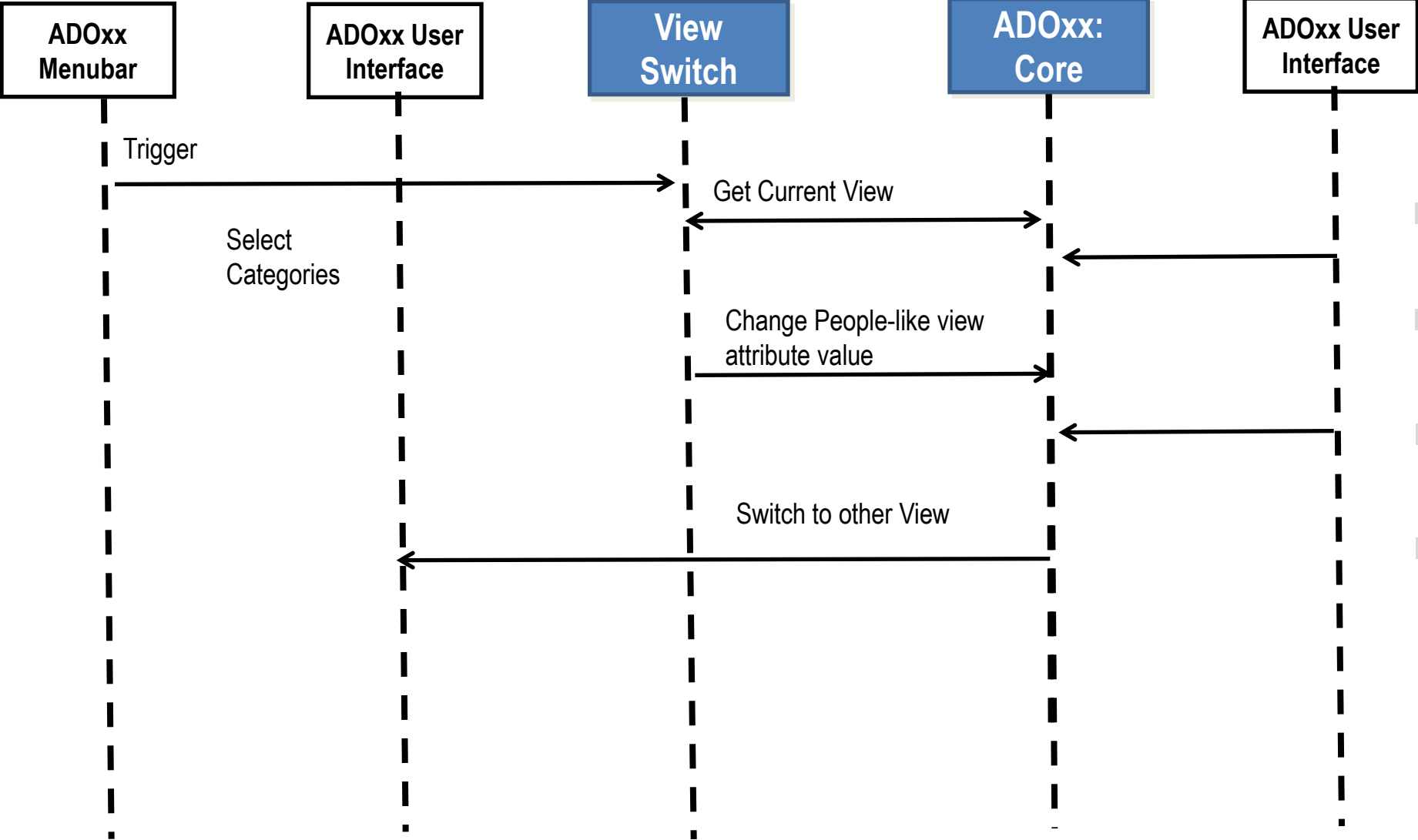
Description of Algorithm



Mapping ADOxx Functionality



Description of Algorithm



Added Value of Metamodelling Platform



Used meta-modelling functionality for realisation of the scenario:

- **ADOScript:** ADOscript can retrieve model information and establish interaction between ADOxx and XSLT Processor.
- **ADOxx Visualisation Component:** is provided by the platform and enables configuration of the user interface of model editor
- **GraphRep:** is a class attribute defined in Meta-meta model of the platform, **which enables definition of graphical notation of concepts.**
- **AttrRep (NOTEBOOK):** is a class attribute defined in Meta-meta model of the platform, **which enables definition of notebooks of concepts**



1. Realisation of Modelling Language

1. Define Model Type “Task Pool Model”
2. New class “Task”, “__ModelTypeMetaData__”
3. Add Attributes
4. Implement and Configure GraphRep









2. Implement Algorithm with ADOscript


1. View Switch

Used ADOxx Functionality: Implementing an Algorithm



Introduction
Setup of Implementation Environment

Modelling Language Implementation
Classes 
Relations
Class Attributes and Attributes 
GRAPHREP 
ATTRREP 
CLASS Cardinality 
CONVERSION
Model Pointer 
Attribute Facets 
Model Types 

Mechanisms & Algorithms Implementation
Core Functions for Model Manipulation
Database
Visualisation
Query
Transformation
Configuration of ADOxx Components
Visualisation
Query 
External Coupling ADOxx Functionality
ADOscript Triggers
ADOscript Language Constructs
Visualisation ADOscript
Visualisation Expression
Query ADOscript
Transformation ADOscript
ADD-ON Implementation
ADOxx Web-Service
XML / ADL Import – Export
ADOscriptBatch Mode



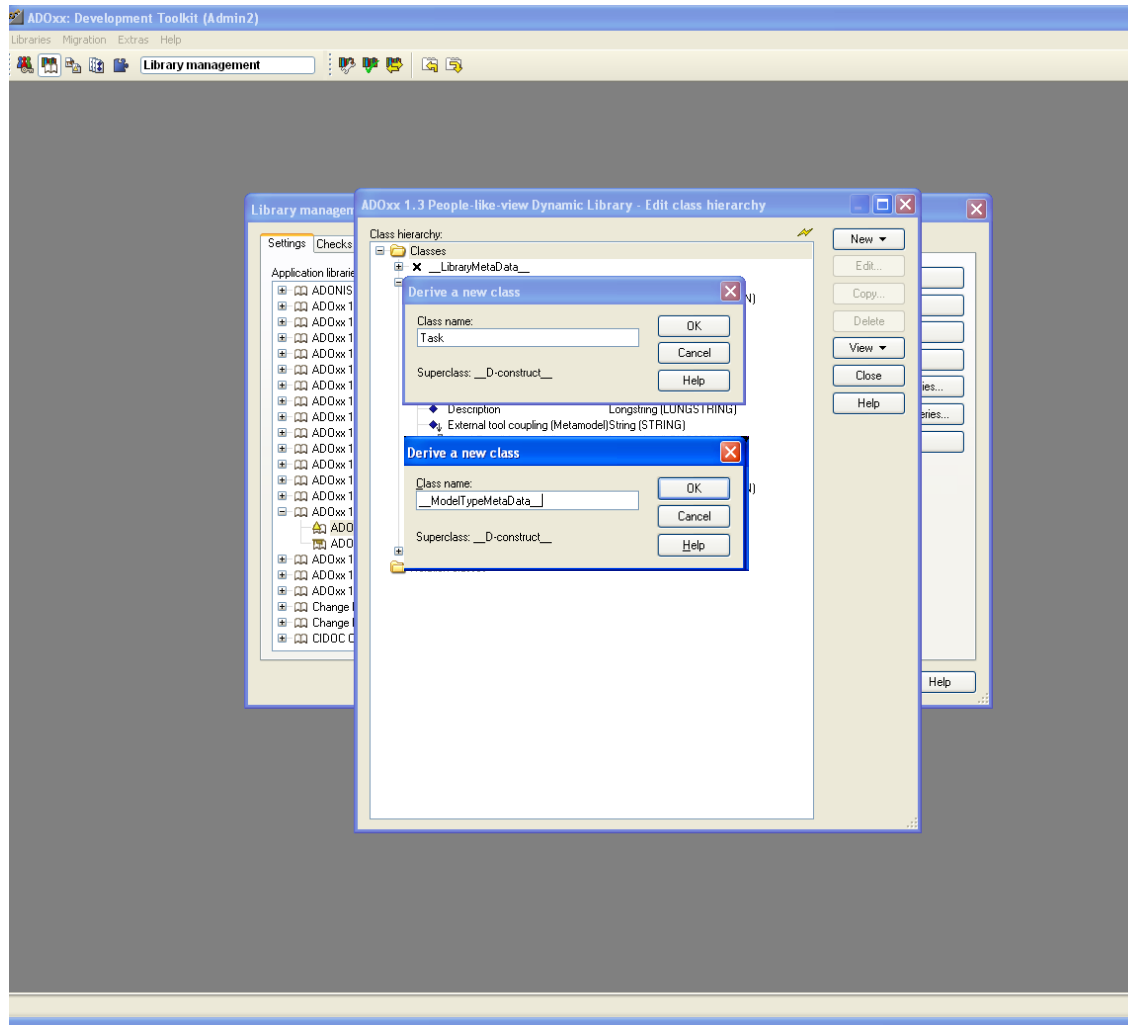
HANDS-ON

People-like View

SCENARIO:

Realize View Switch utilizing Dynamic GraphRep and AdoScript

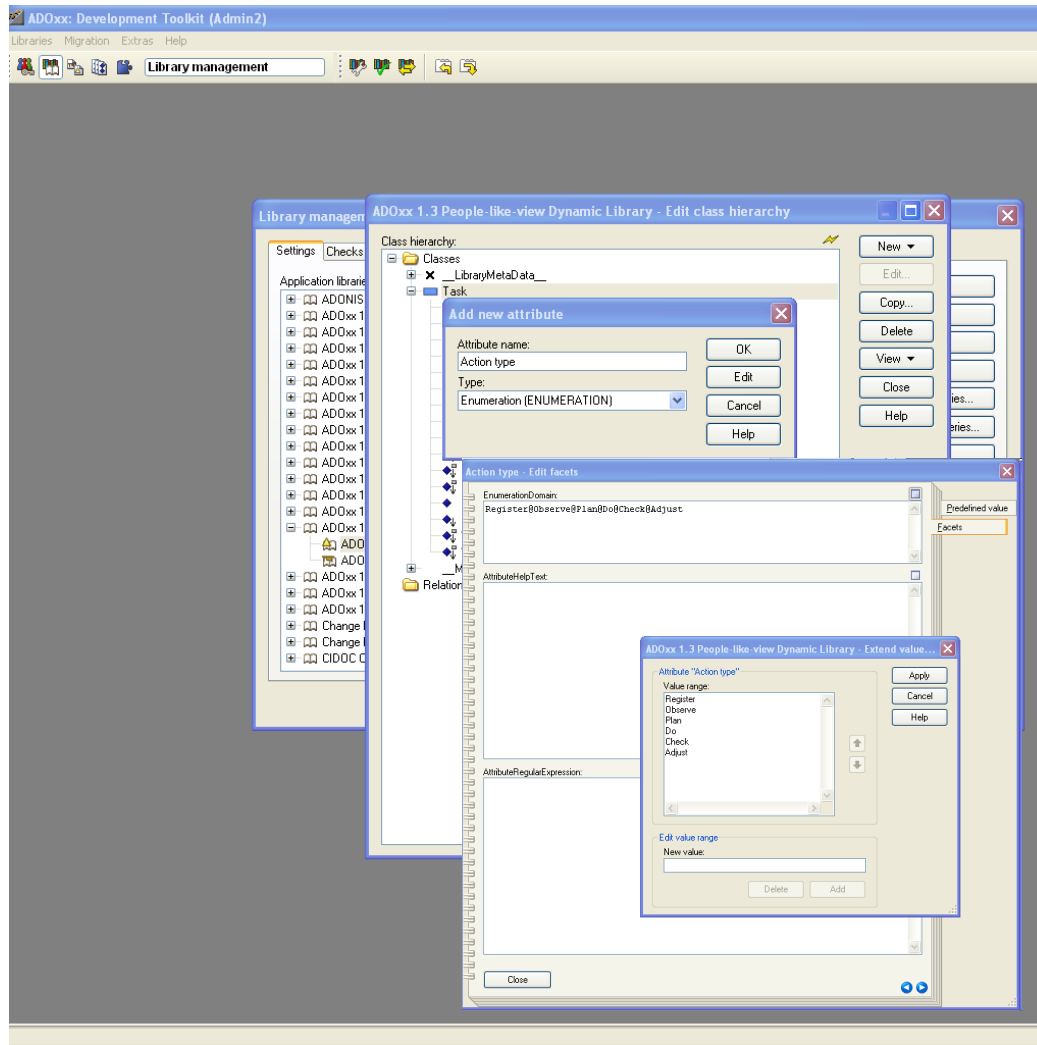
Create New Classes



Create New Classes

- Select “People-like view Dynamic Library” and open Library attributes.
- Open Class hierarchy, view “Metamodel” and “Class hierarchy” in the View button, select ___D-construct__ and click new class.
- Name new classes: “Task”, “Sub-process”, “___ModelTypeMetaData___”,
- They are now sub-classes of ___D-construct__

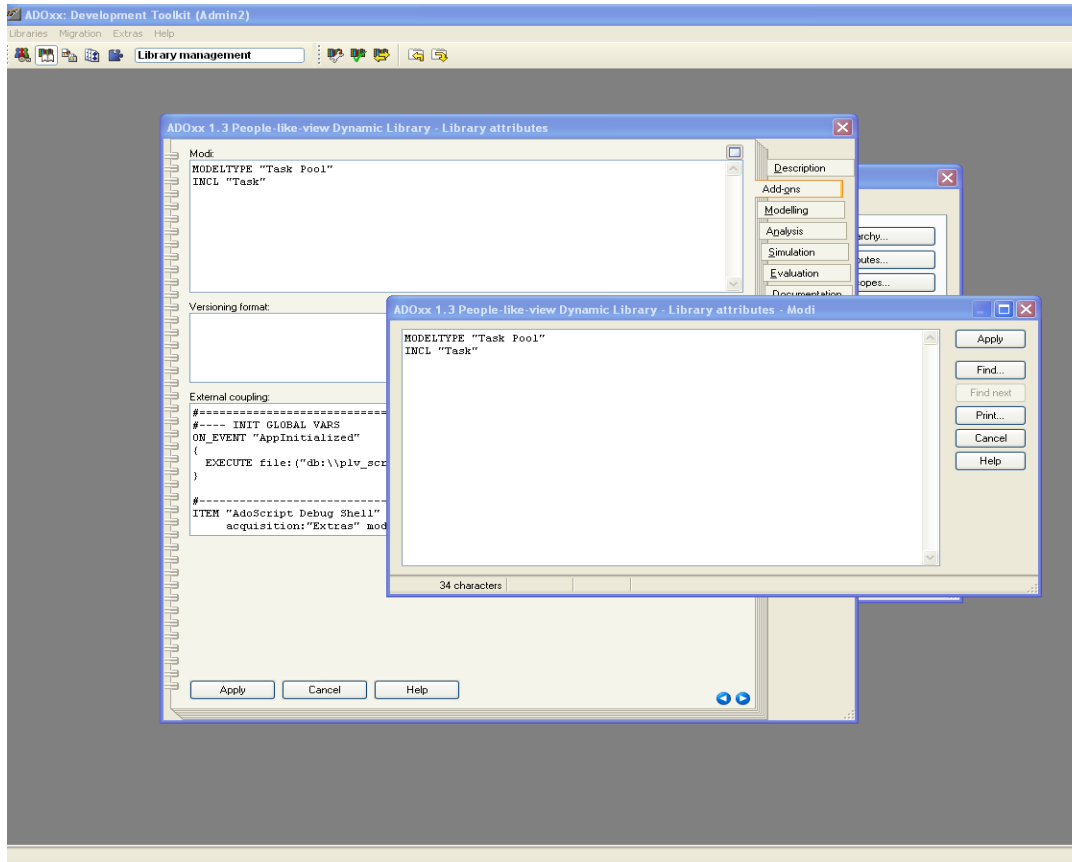
Add Attributes



Add Attributes

- Select “Task” and click Newattribute.
 - Add “Task type” as type ENUMERATION and set EnumerationDomain attributes {Not specified@Service@Send@Receive@User@Manual@Business rule@Script@Call activity}.
 - Add “People-like_view_Expression” and set Standard value
EXPR type:string expr:(maval("People-like view"))
- Select “__ModelTypeMetaData__” and click New attribute”
 - Add “People-like view” as type ENUMERATION and set EnumerationDomain attribute {No@Yes}
 - Add “BPMN20 Model Attributes” and set Standard value:
CHAPTER "Description"
ATTR "Name"
CHAPTER "People-like view"
ATTR "People-like view"
- Select “Sub-Process”
 - Add “People-like_view_Expression” and set Standard value
EXPR type:string expr:(maval("People-like view"))

Define Model Types “Task Pool Model”



New Modeltypes:

- Select “People-like view Dynamic Library” and open Library attributes.
- Go to Add Ons
- Enter:

MODELTYPE "Business process diagram (BPMN 2.0)" plural:"Business process diagrams (BPMN 2.0)" attrrep:"BPMN20 Model Attributes"

INCL "Task"
INCL "Sub-Process"

Implement and Configure “Task” GraphRep



GRAPHREP sizing:symmetrical smart-symbol-size
SHADOW off

AVAL set-default:"No" splikeview:"People-like_view_Expression"

```
IF (splikeview="No")
FILL r:102 g:153 b:255
RECTANGLE x:-1.4cm y:-.7cm w:2.8cm h:1.4cm
ATTR "Name" y:.9cm w:c:2.8cm h:t
ELSE
  AVAL actionType:"Task type"
  SET filename: ("db:\plan.jpg")
  IF (actionType = "Not specified")
    {SET filename:"db:\comic_fill in.jpg"}
  IF (actionType = "Service")
    {SET filename:"db:\comic_pay-purchase.jpg"}
  IF (actionType = "User")
    {SET filename:"db:\comic_computer work.jpg"}
  IF (actionType = "Receive")
    {SET filename:"db:\comic_request.jpg"}
  IF (actionType = "Send")
    {SET filename:"db:\comic_send.jpg"}
  IF (actionType = "Manual")
    {SET filename:"db:\comic_calculate.jpg"}
  IF (actionType = "Business rule")
    {SET filename:"db:\comic_checklist.jpg"}
  IF (actionType = "Script")
    {SET filename:"db:\comic_search.jpg"}
  IF (actionType = "Call activity")
    {SET filename:"db:\comic_contact.jpg"}
```

Implement and Configure “Task” GraphRep



SET we:5.6cm

SET he:2.8cm

PEN w:0.07cm color:black

FILL style:null

SET bigRectangle: (CM (5.6))

BITMAPINFO (filename)

RECTANGLE x:(-1)*(we/2) y:(-1)*(he/2) w:(bigRectangle) h:(CM 3) # a border marking the object's size

TABLE x:(-1)*(we/2) y:(-1)*(he/2) w:(bigRectangle) h:(CM 3) rows:2 cols:2 w1:50% w2:50% h1:50% h2:50% STRETCH off

SET w: ((tabh1 + tabh2) * 2 * (bmpwidth / bmpheight))

BITMAP (filename) x:(tabx0+0.1cm) y:(taby0 + 0.1cm)

w:(tabw1-0.2cm) h:(tabh1 + tabh2 - 0.2cm)

FONT bold

ATTR "Name" x:(tabx1 + 0.1cm) y:(taby0) w:(tabw2 - 0.2cm) h:(tabh1 + tabh2 - 0.2cm)

line-break:rigorous

ENDIF

Implement and Configure “Sub-Process” GraphRep



```
GRAPHREP
AVAL set-default:"No" splikeview:"People-like_view_Expression"
IF (splikeview="No")
FILL r:102 g:153 b:255
RECTANGLE x:-1.4cm y:-.7cm w:2.8cm h:1.4cm
ATTR "Name" y:1.2cm w:c:2.8cm h:t
ELSE
SET filename: ("db:\\comic_process.jpg")
SET we:5.6cm
SET he:2.8cm
PEN w:0.07cm color:black FILL style:null
SET bigRectangle: (CM (5.6))
BITMAPINFO (filename)
RECTANGLE x:((-1)*(we/2)) y:((-1)*(he/2)) w:(bigRectangle) h:(CM 3)
TABLE x:((-1)*(we/2)) y:((-1)*(he/2)) w:(bigRectangle) h:(CM 3) rows:2 cols:2 w1:50% w2:50% h1:50% h2:50%
STRETCH off
    SET w: ((tabh1 + tabh2) * 2 * (bmpwidth / bmpheight))
    BITMAP (filename) x:(tabx0 + 0.1cm) y:(taby0 + 0.1cm)
    w:(tabw1-0.2cm) h:(tabh1 + tabh2 - 0.2cm)
    FONT bold
ATTR "Name" x:(tabx1+0.1cm) y:(taby0) w:(tabw2-0.2cm) h:(tabh1+tabh2-0.2cm)
line-break:rigorous
    FONT
ENDIF
```


Create Menu Item and Implement People-like view Functionality



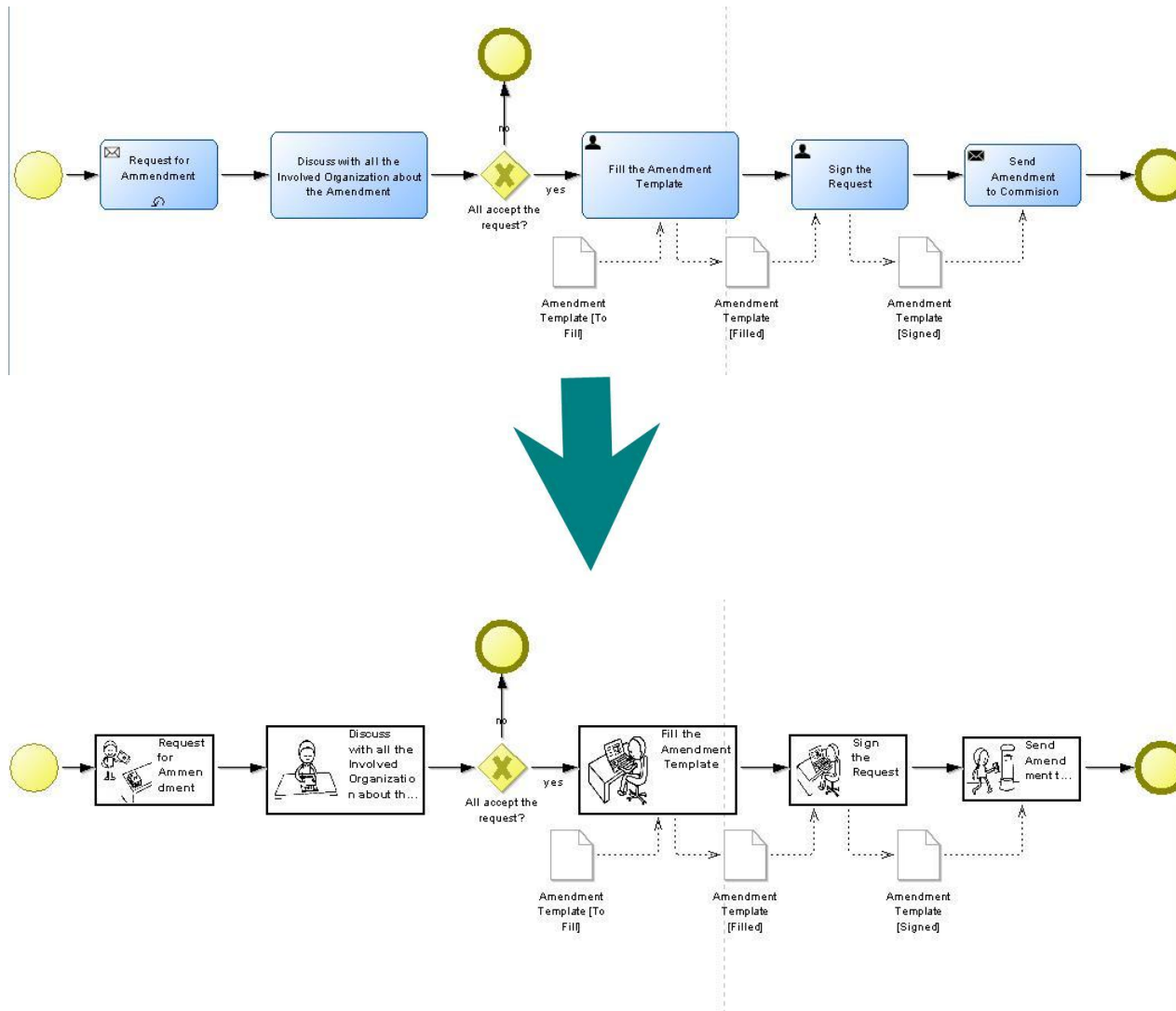
```
ITEM "Switch 'People-like view' on/off"  
modeling
```

```
CC "Modeling" GET_ACT_MODEL
```

```
SET nModelID:(modelid)
```

```
IF (nModelID = -1) {  
  CC "AdoScript" ERRORBOX "Error: [lee-01]:\n\nThe animation can not be performed,  
  since no model is open."  
  EXIT  
}  
CC "Core" GET_ATTR_VAL objid:(nModelID) attrname:"People-like view"  
SET sPeopleLikeViewVal:(val)  
IF (sPeopleLikeViewVal="No") {  
  CC "Core" SET_ATTR_VAL objid:(nModelID) attrname:"People-like view" val:"Yes"  
}  
ELSE {  
  CC "Core" SET_ATTR_VAL objid:(nModelID) attrname:"People-like view" val:"No"  
}
```

Result





Further Questions?



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