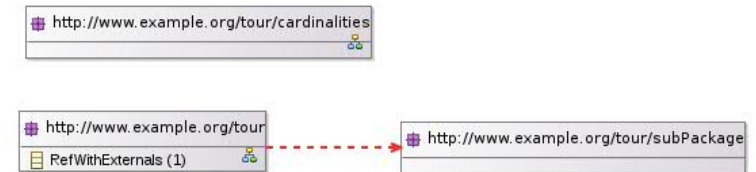


# Ecore Tools

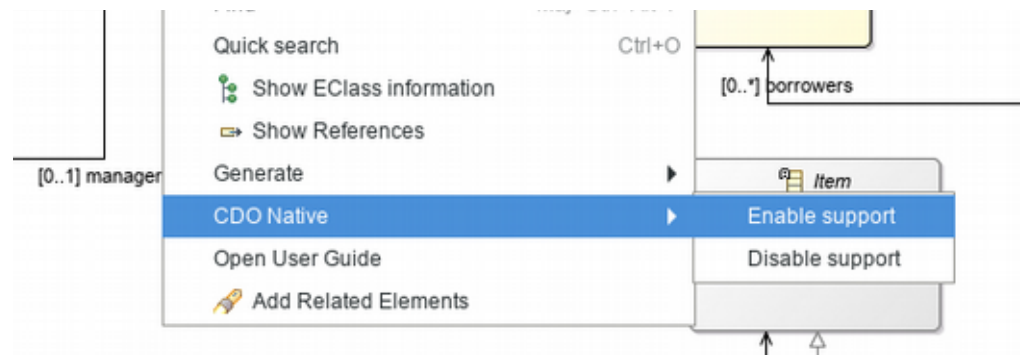
*Your utility belt for Ecore Modeling*

# Productivity tools

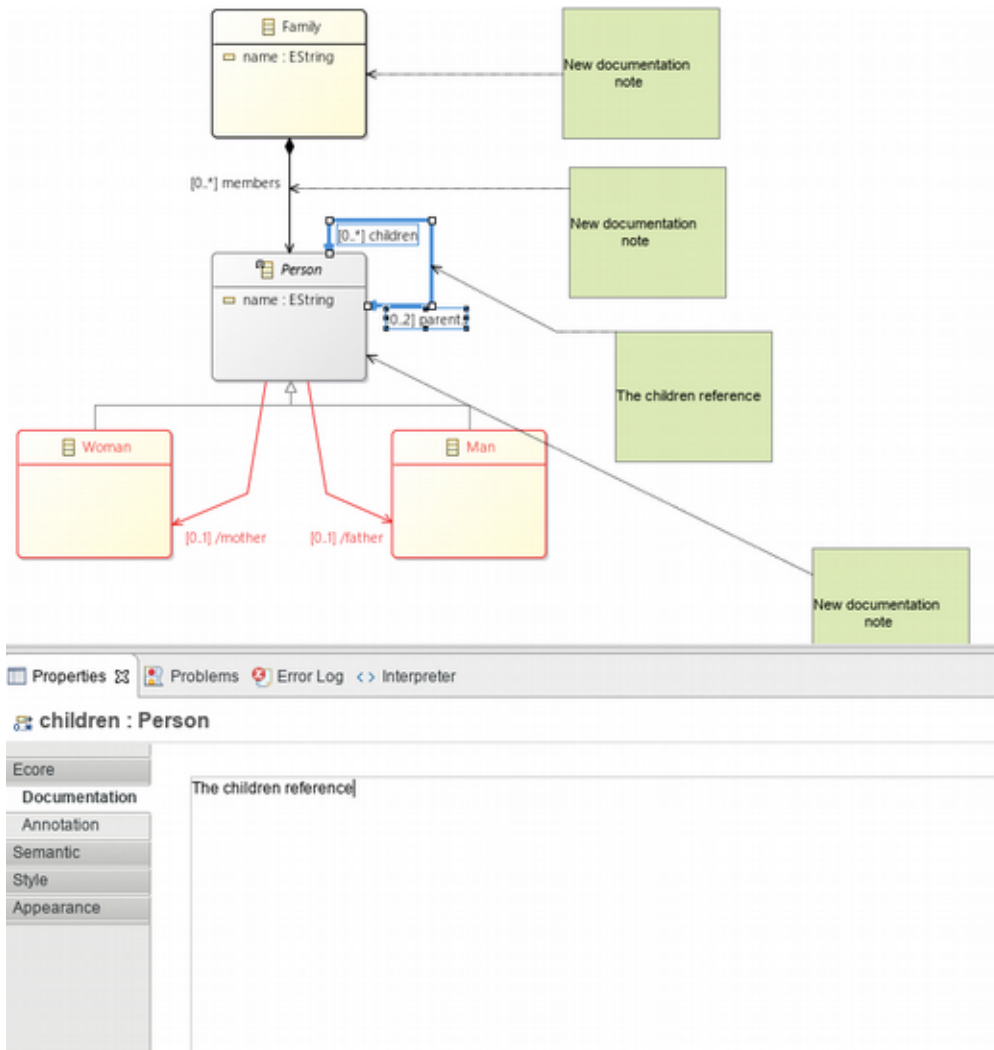
- Ecore Design Checklist :  
<http://cedric.brun.io/eclipse/ecore-design-checklist-part1/>
- Automatic reload of genmodel
- Better default in .genmodel generated by the wizard
- Package Dependencies



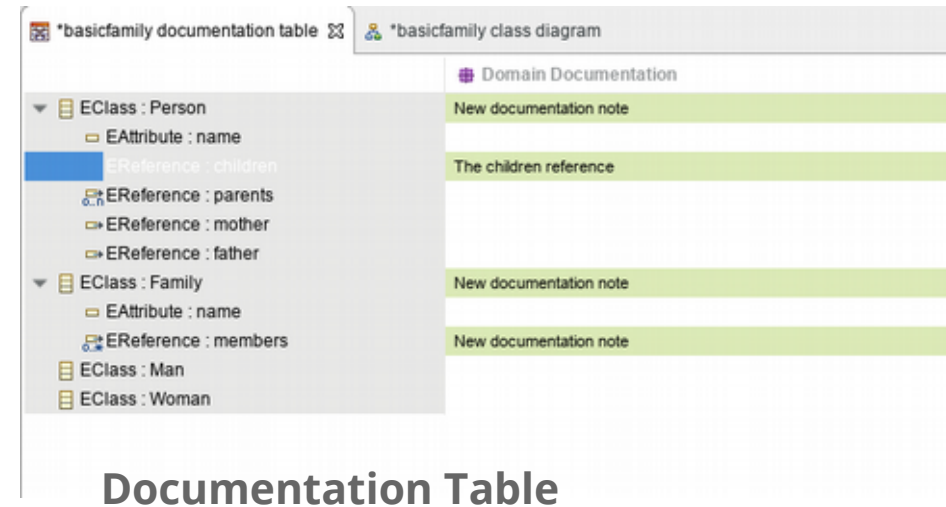
- CDO Configuration



# Documentation annotations



Documentation layer in Entities Diagram



# a few Shortcuts

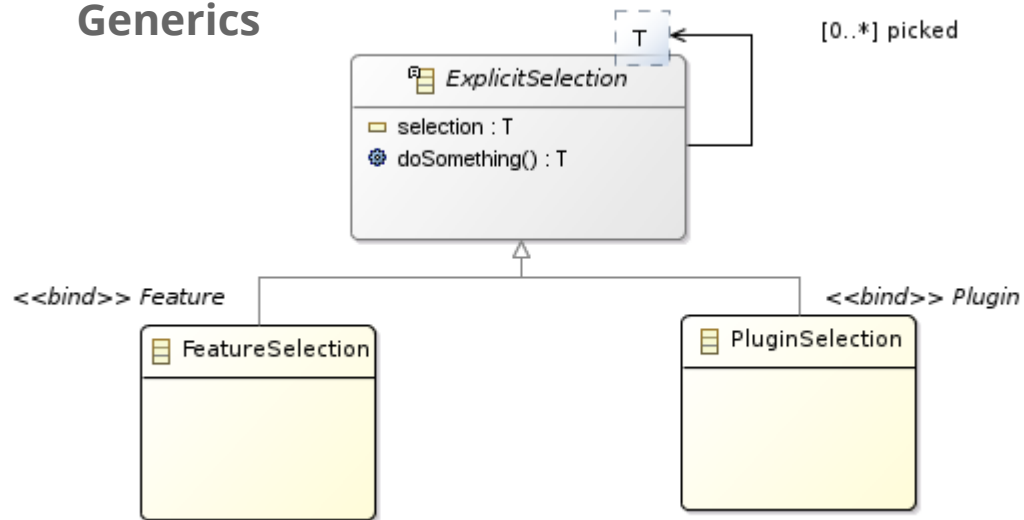
- **Direct-Edit Syntax**
  - « Something » => change name of feature
  - «:SomeType » => only change the eType
  - «1» => only set cardinality to 1..x
  - « \* » => only set cardinality to x..\*
  - « /Something » => make the feature derived
  - « = something » => set the default value literal
  - [...]
- **CTRL+H** to **H**ide a shape
- **CTRL+O** to navigate within the diagram
- **MAJ+DEL** delete from diagram (vs **DEL** delete from model)



# Modeling

## EAnnotation

### Generics



**Person**

EAnnotation <http://www.eclipse.org/emf/2002/GenModel>

Source: <http://www.eclipse.org/emf/2002/GenModel>

References:

Add Entry

Key: documentation Value: New documentation note

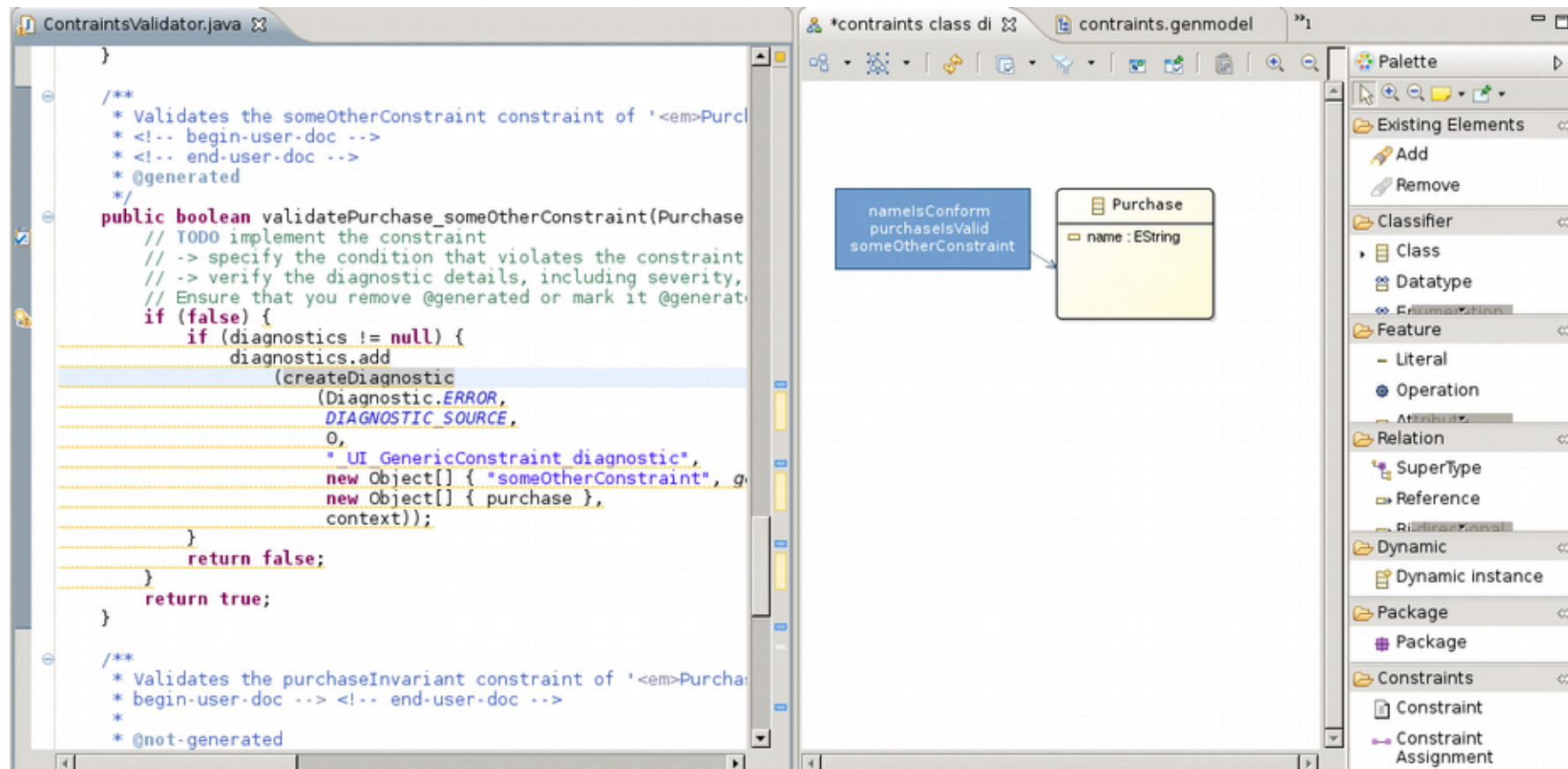
### newOperation1(EString, EInt)

**Parameters**

Name:	param1	EType:	EString	...	∅	↑	↓	×
Name:	param2	EType:	EInt	...	∅	↑	↓	×

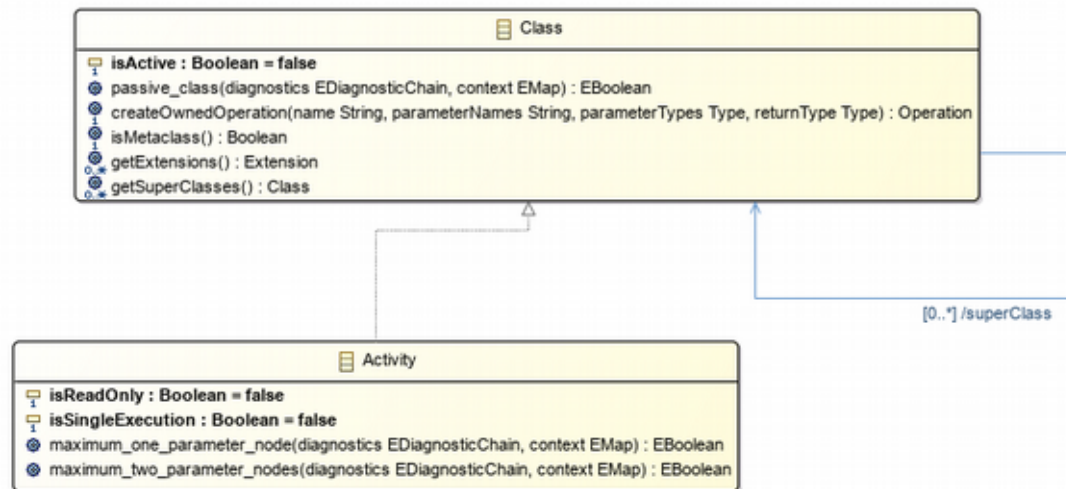
### Parameters

# Constraints

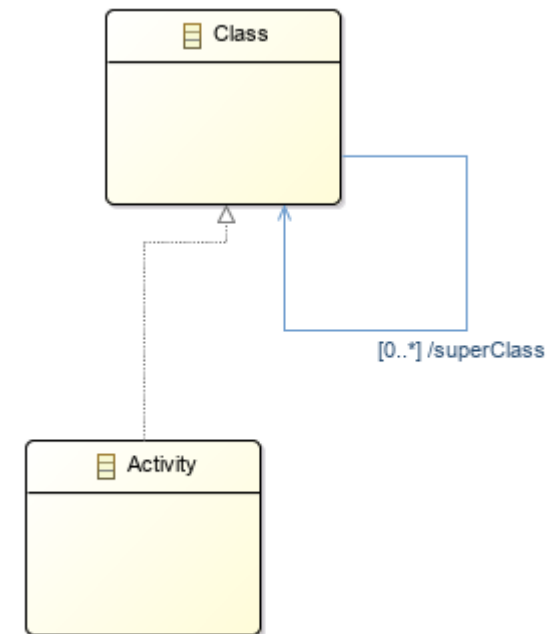


(\*) would be nice to have tool support for AQL constraints, it just did not happen yet

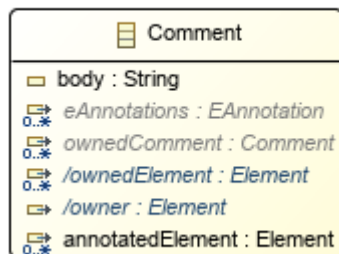
# Focused diagrams



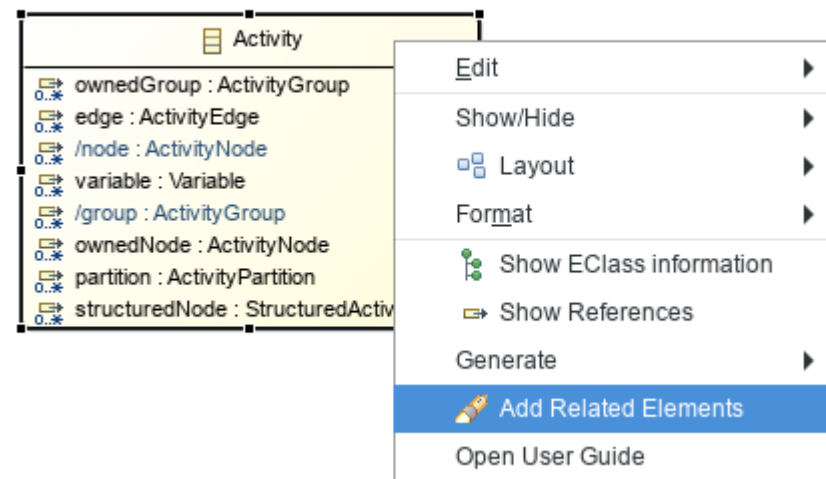
With Class Content



Indirect Generalization



With inherited features



Add Related Elements in Diagram

# Generation settings & launch



Properties Problems Error Log <> Interpreter

**basicfamily**

**Ecore**

Documentation

Annotation

**Generation**

Semantic

Behaviors

Documentation

Rulers & Grid

Appearance

**Directories**

Model: /org.eclipse.sirius.sample.basicfamily/src

Edit: /org.eclipse.sirius.sample.basicfamily.edit/src

Editor: /org.eclipse.sirius.sample.basicfamily.editor/src

**GenPackage**

Prefix: Basicfamily

Base Package: org.eclipse.sirius.sample

Resource Type: ☒ None ☐ Basic ☐ XMI ☐ XML

☒ Disposable Provider Factory

☒ Adapter Factory

☐ Initialize by Loading

Interface:

Metadata:

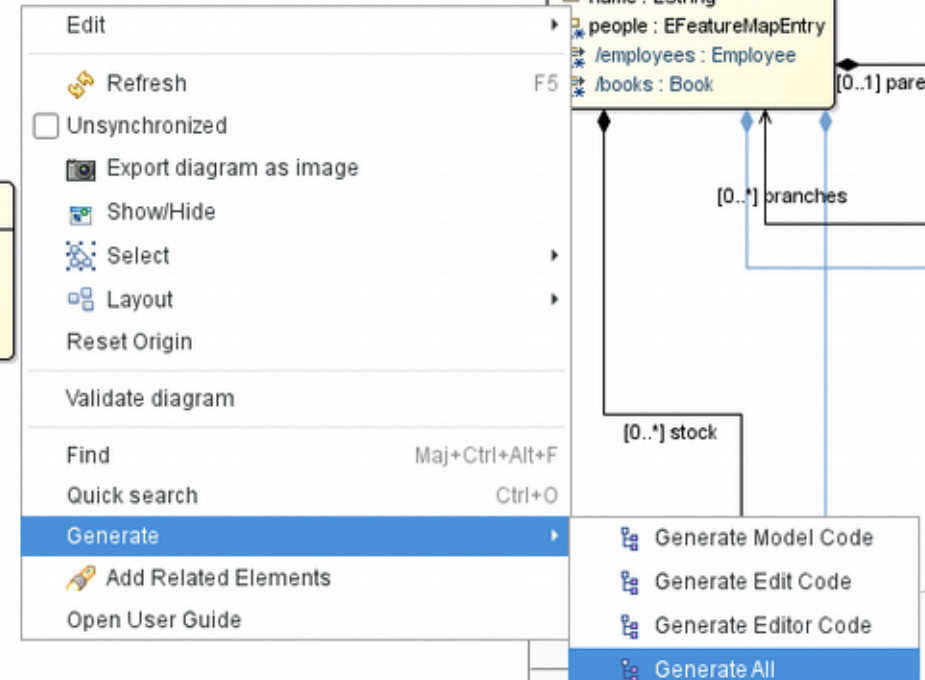
Implementation: impl

Utility: util

Provider: provider

Presentation: presentation

Tests: tests





# Navigate to Java

The screenshot displays the Obeo IDE interface. The top part shows a UML class diagram with the following elements:

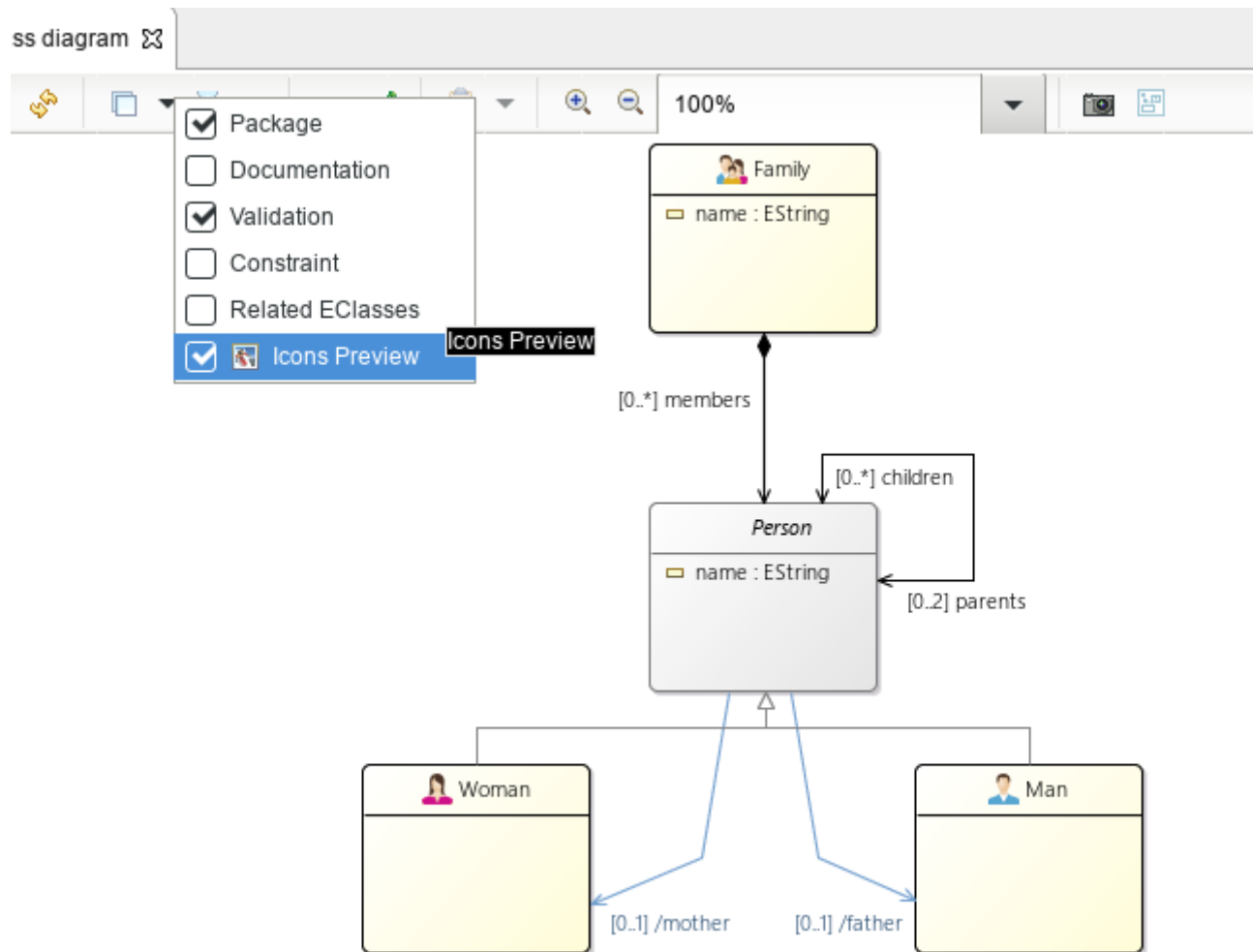
- Classes:** `Writer` (attributes: `name : EString`), `CirculatingItem`, `Periodical` (attributes: `title : EString`, `issuesPerYear : EInt`), `Book` (attributes: `title : EString`, `pages : EInt = 100`, `category : BookCategory = Mystery`), `AudioVisualItem` (attributes: `title : EString`, `minutesLength : EInt`, `damaged : EBoolean = false`), and `BookOnTape`.
- Associations:** `Writer` to `Book` (role: `author`, multiplicity: `[1..1]`); `Writer` to `Library` (multiplicity: `[0..*]`); `Library` to `Book` (multiplicity: `[0..*]`); `Book` to `AudioVisualItem` (multiplicity: `[0..1]`); `Book` to `BookOnTape` (multiplicity: `[0..*]`).
- Generalization:** `CirculatingItem` and `Periodical` are subclasses of `Book`.

The bottom part of the screenshot shows the **Book -> CirculatingItem** configuration panel. It includes a **GenClass** section with the following settings:

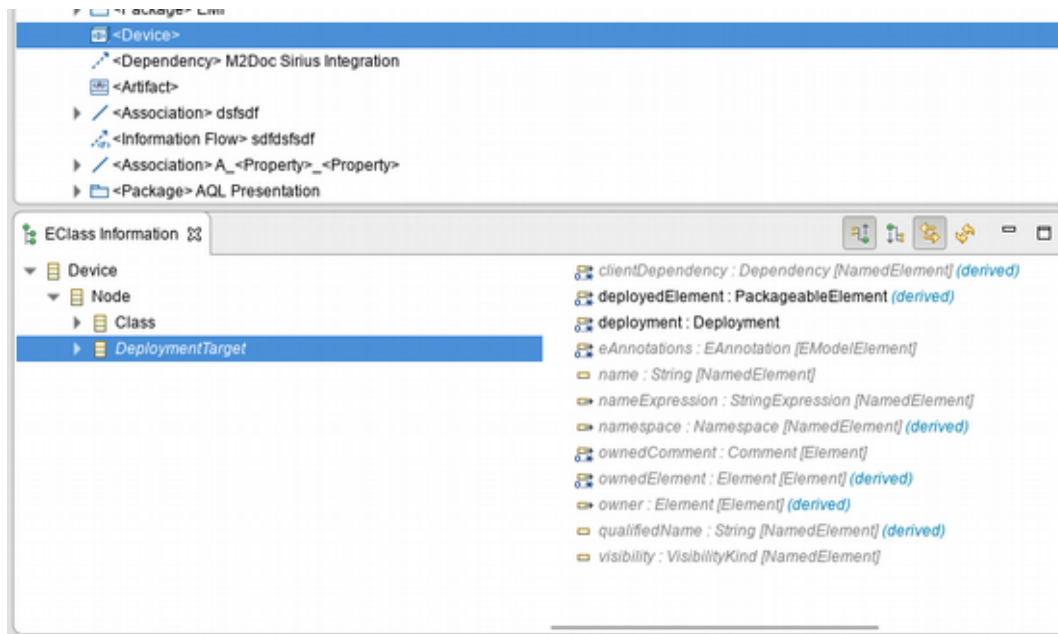
- Provider Type:** ☒ Singleton, ☐ Stateful, ☐ None
- Image:** ☒
- Dynamic:** ☐
- Label Feature:** ☒ `title : EString`

A red arrow points from the handwritten text "Click here to open the Java Code" to the [Open Java Implementation](#) link at the bottom of the configuration panel.

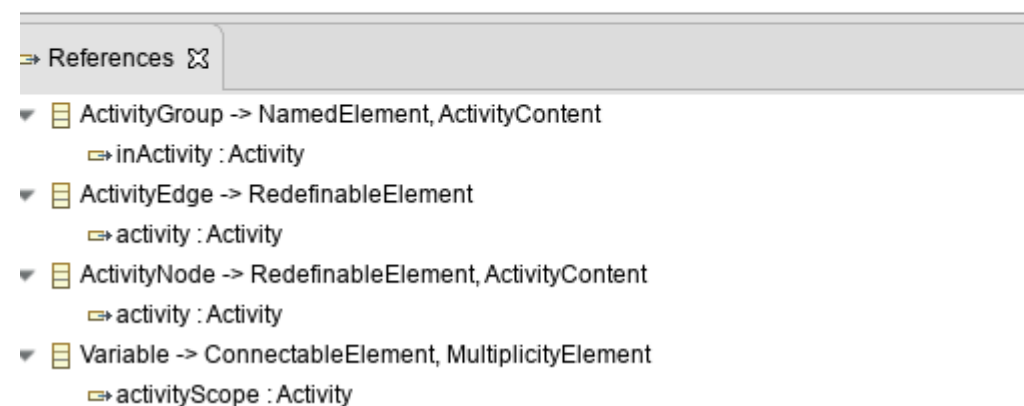
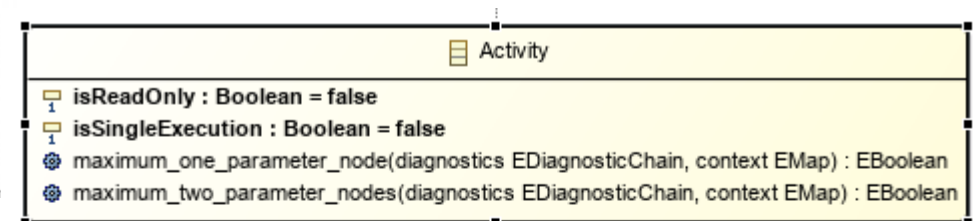
# Icons preview



# Eclipse Views



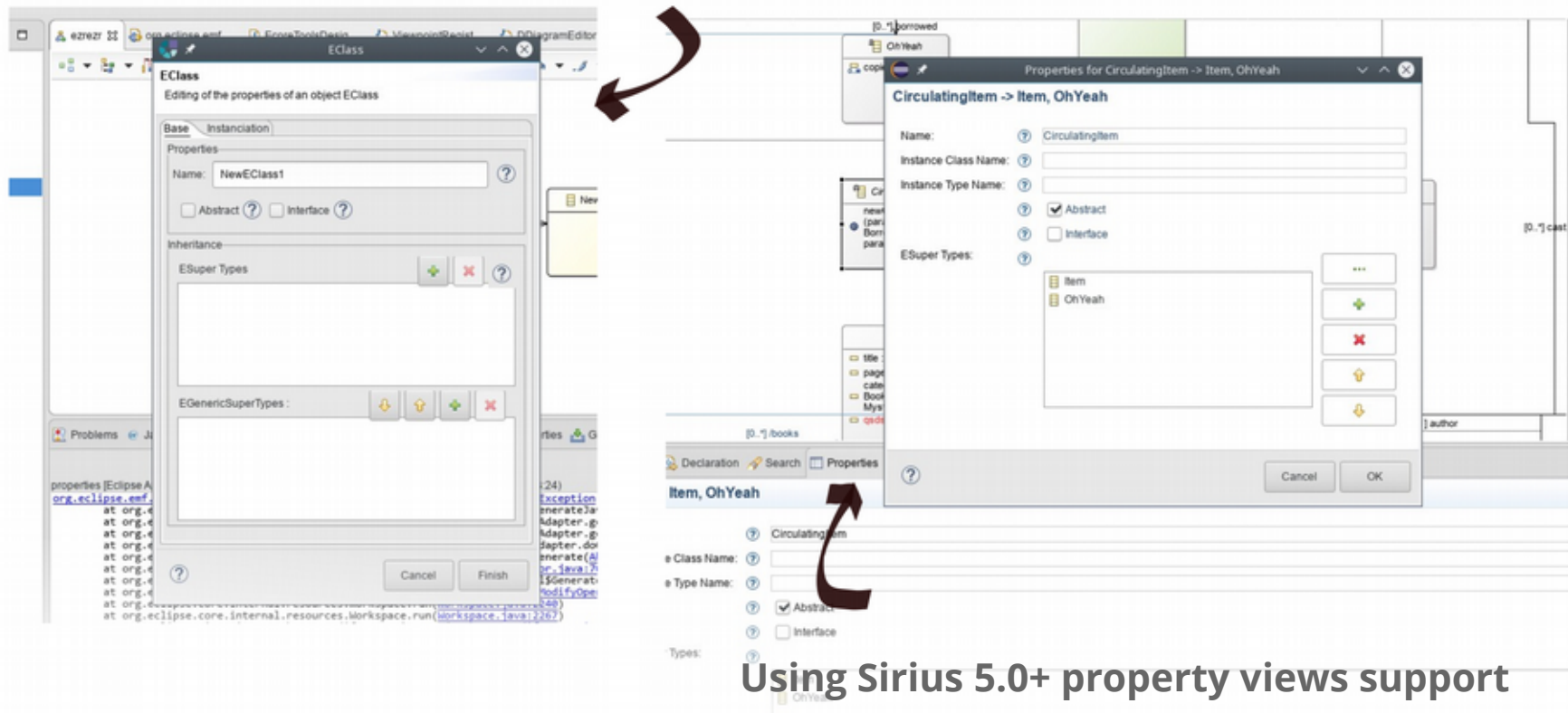
**EClass Information** to inspect types of selection



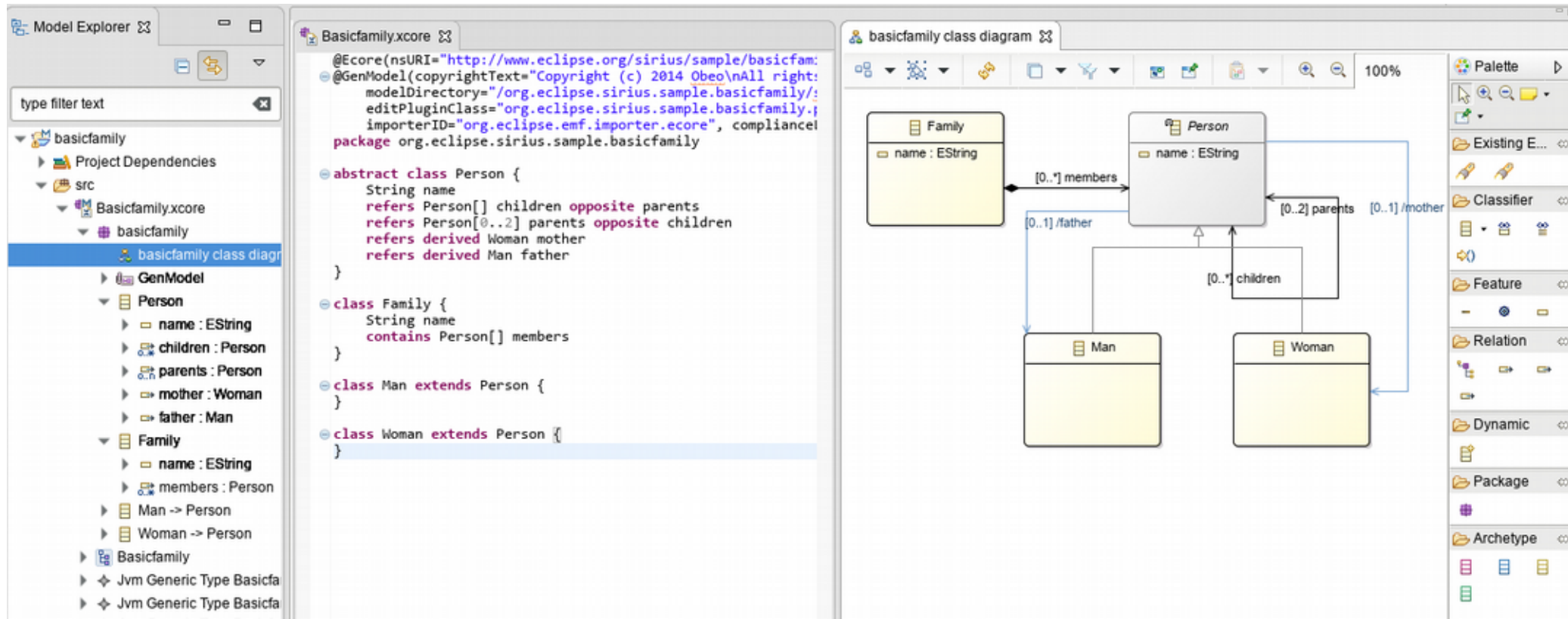
**References** to inspect type relationships

# Reworked Dialogs

Generated with Extended Editing Framework 1.x



# visualizing Xcore models

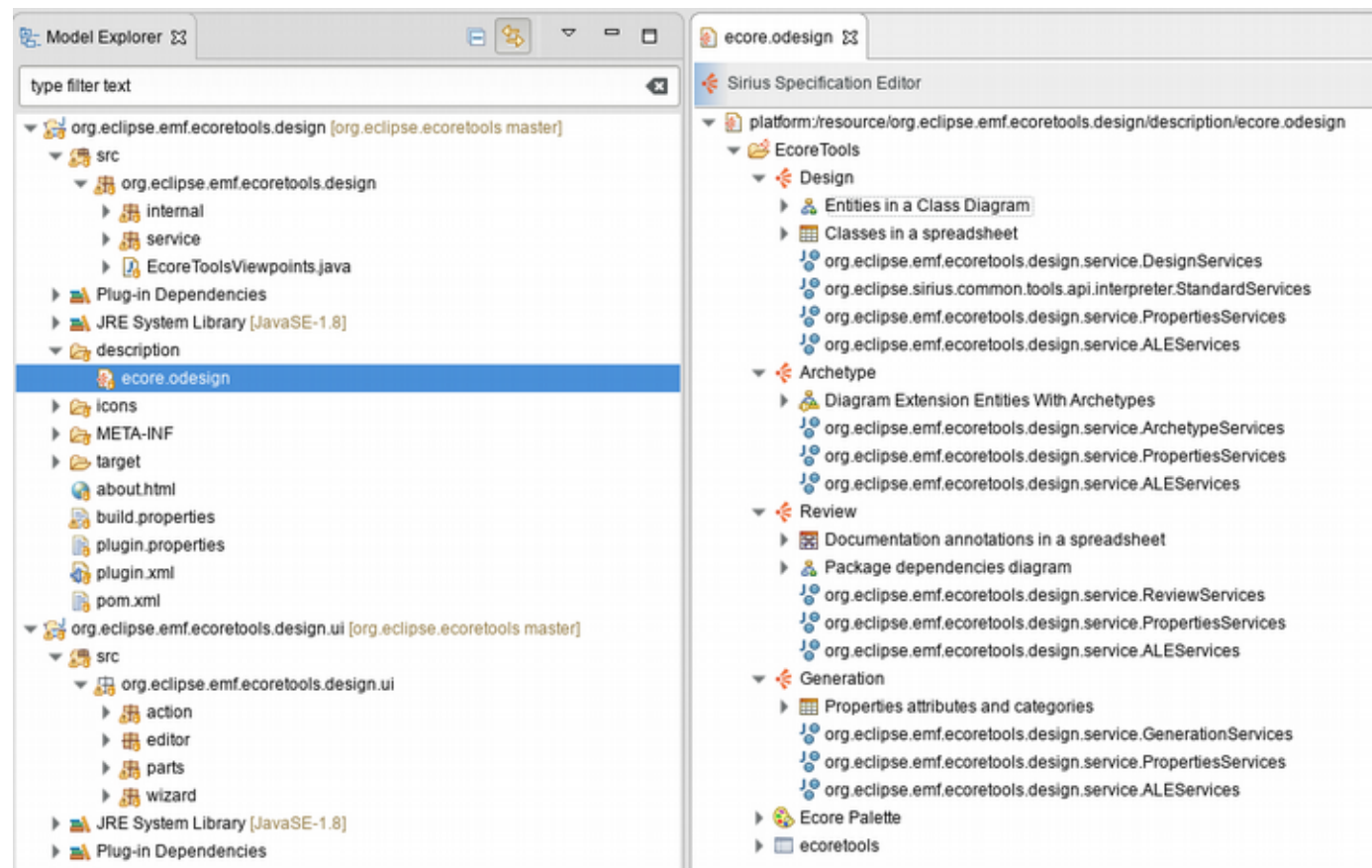




# powered by Eclipse Sirius

Language	files	blank	comment	code
Java	21	441	534	2659
XML	5	9	22	197
Maven	1	8	4	31
HTML	2	5	0	25
SUM:	29	463	560	2912

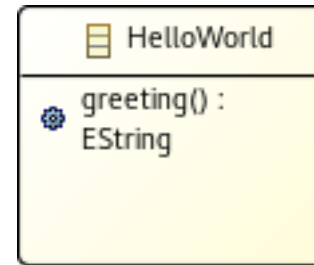
- Sirius **Best Practices**
- Inspectable
- Extensible



# envisionned Roadmap

- Versionning, deprecation annotations
- ALE (Action Language for EMF)
  - Contribution in EcoreTools (INRIA)
  - Provides
    - Assignements
    - More control flow
    - Multi-inheritance
    - Runtime data
    - Type inference

## Ecore



## Open Class

```
open class HelloWorld {  
  
    String msg := "Hi!";  
  
    override EString greeting () {  
        result := self.msg;  
    }  
}
```

# Download

- the Eclipse Modeling Package, through the Marketplace
- Packaged in Obeo Designer Community Edition (EPL)
  - <https://www.obeodesigner.com/en/download>



## A Free Eclipse Package

Start using Sirius with **Obeo Designer Community** edition, a ready-to-use package including only Open Source technologies.

Download Obeo Designer Community 10.0   
For Linux 64 Bit

Required configuration 

Download Obeo Designer for another platform 

Note for installation on Mac OS 

 What's new in Obeo Designer 10.0?

 Download previous versions

