

Riseclipse Guide – Installation and OCL (25 may 2021)

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GitHub address : <https://github.com/riseclipse/riseclipse-ocl-constraints-scl2003>

Download and install Eclipse Modelling

Install Eclipse Modelling 2019-06 : [2019-06 R | Eclipse Packages](#)

Install the necessary plug-ins

To install a plugin in Eclipse, go to: Help -> Install New Software

click on “What is already installed”, and check if the following points are installed,

otherwise, install them :

In “Work with” put : 2019-06 - <http://download.eclipse.org/releases/2019-06>

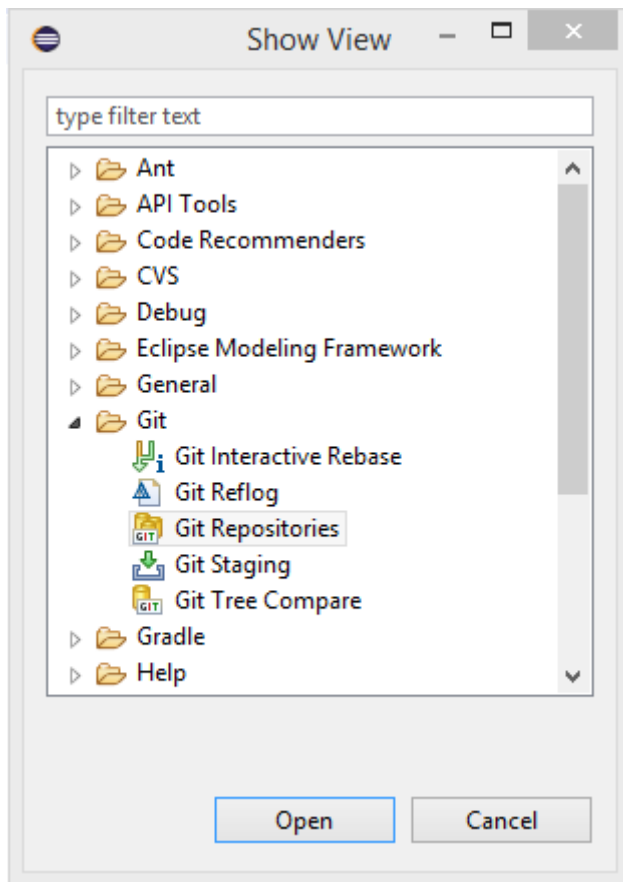
select the plugins to install :

- Eclipse SDK
- Eclipse Project SDK
- EMF – Eclipse Modeling Framework SDK
- OCL Examples and Editors SDK
- OCL Examples and Editors SDK developer resources
- EMF Validation Framework SDK
- UML2 Extender SDK

Import data from GitHub

After all the initial requirements are met, it is possible to import the GitHub projects into Eclipse.

In Eclipse, first go to Window -> Show View -> Other... -> Git -> Git Repositories

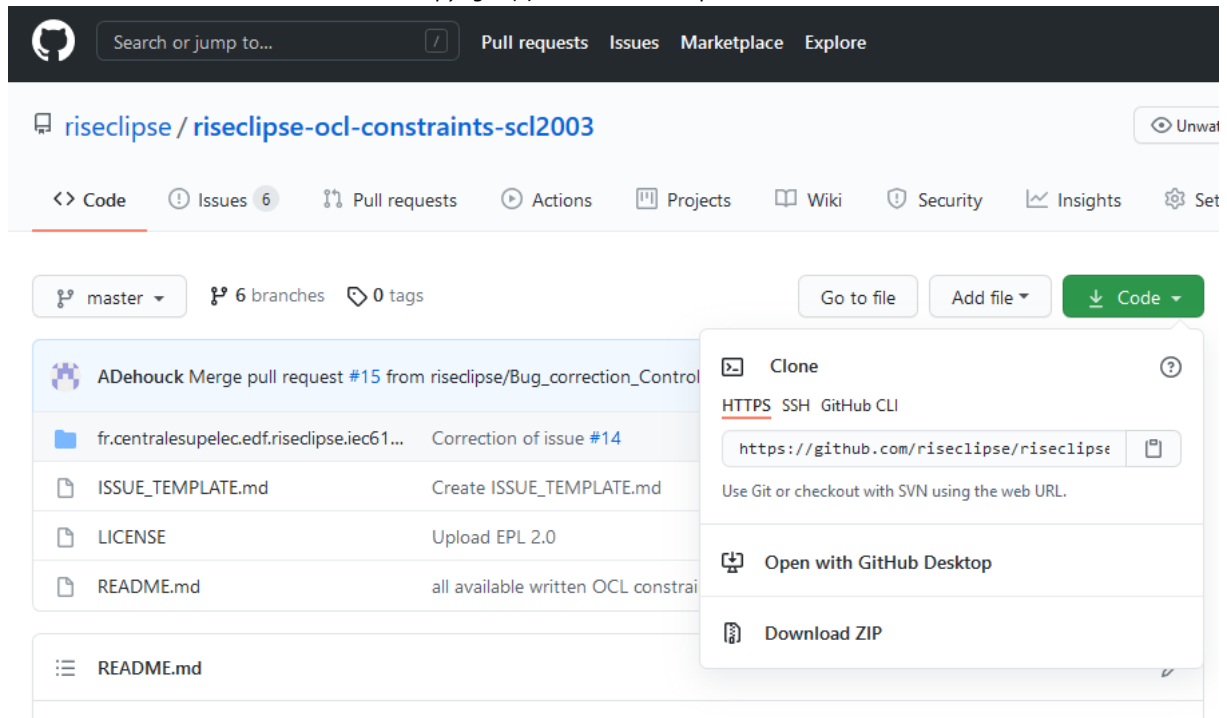


A tab for the Git repositories will then be present in the layout of the Eclipse.

You must then import the following projects from GitHub :

- riseclipse-ocl-constraints-scl2003
- riseclipse-metamodel-scl2003
- riseclipse-main
- riseclipse-editor
- riseclipse-metamodel-nsd2016

In Eclipse, choose the option “Clone a Git Repository” and put the HTTPS link from the Github into the “URI” box. The “Host” and “Repository path” should complete themselves automatically. Set the Connection Protocol to https and fill the GitHub User and Password in the Authentication.



riseclipse / riseclipse-ocl-constraints-scl2003

Code Issues 6 Pull requests Actions Projects Wiki Security Insights Settings

master 6 branches 0 tags

Go to file Add file Code

Clone

HTTPS SSH GitHub CLI

https://github.com/riseclipse/riseclipse

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

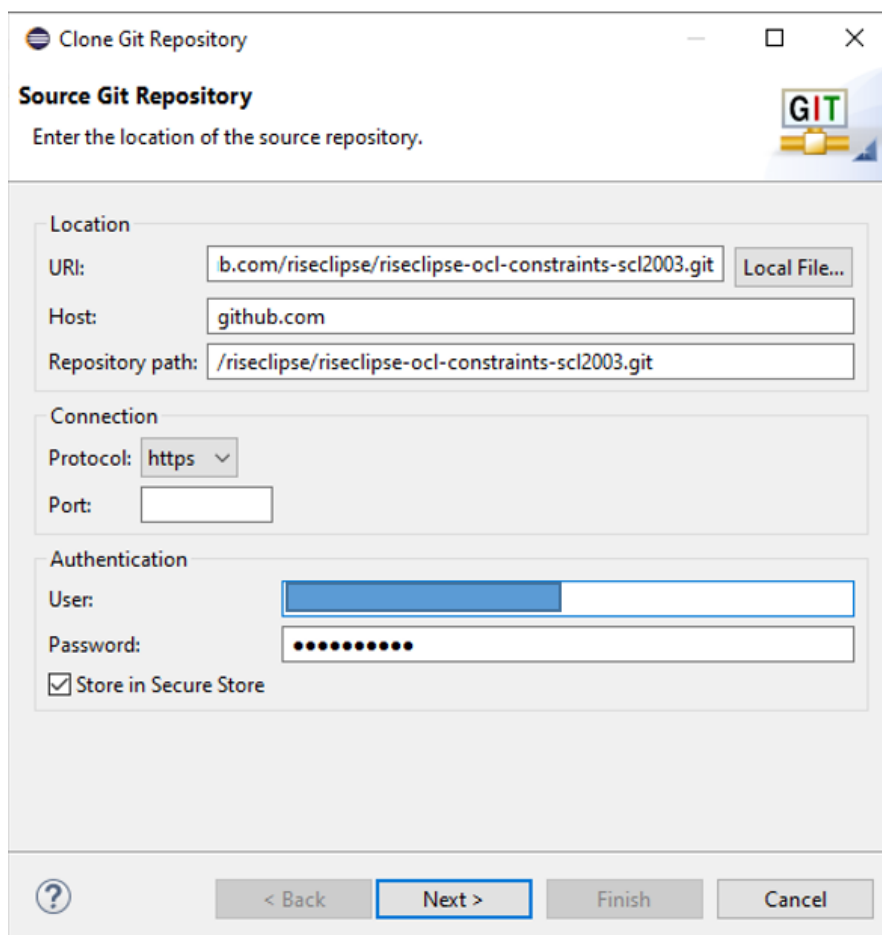
fr.centralesupelec.edf.riseclipse.iec61... Correction of issue #14

ISSUE_TEMPLATE.md Create ISSUE_TEMPLATE.md

LICENSE Upload EPL 2.0

README.md all available written OCL constrain

README.md



Clone Git Repository

Source Git Repository

Enter the location of the source repository.

Location

URI: b.com/riseclipse/riseclipse-ocl-constraints-scl2003.git Local File...

Host: github.com

Repository path: /riseclipse/riseclipse-ocl-constraints-scl2003.git

Connection

Protocol: https

Port:

Authentication

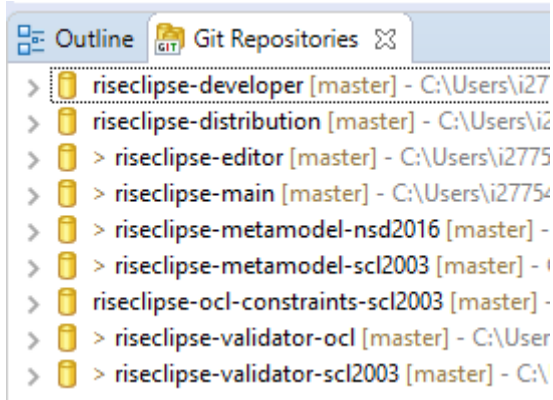
User:

Password:

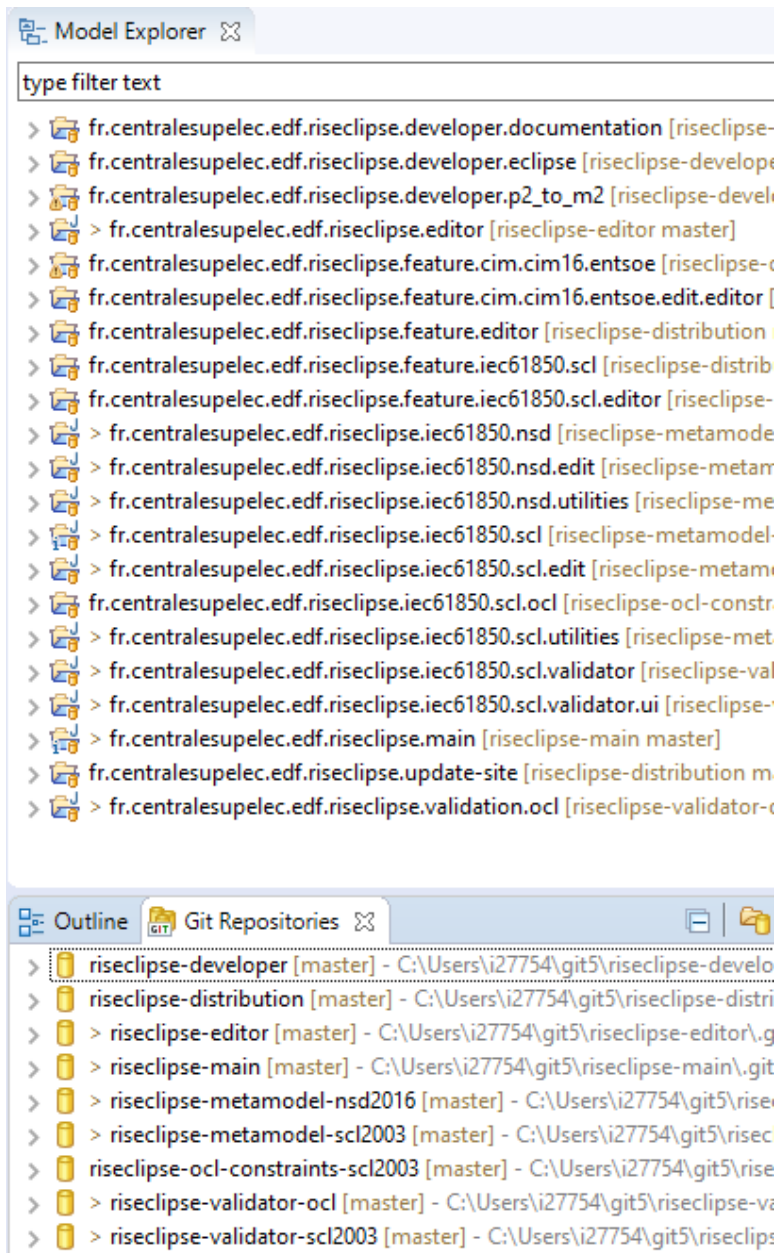
☒ Store in Secure Store

< Back Next > Finish Cancel

After cloning all the mentioned repositories, the Git Repositories tab should end up like bellow :



To import the projects, right click on every repository and “Import Projects...”.

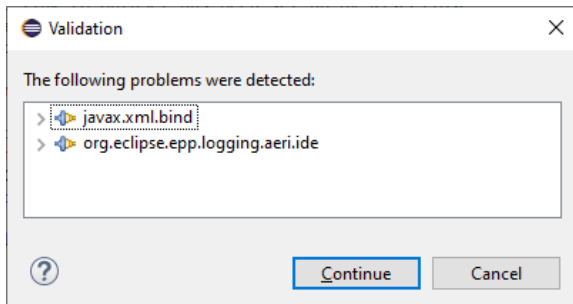


Launch RiseClipse editor as an Eclipse Plugin

Select fr.centralesupelec.edf.riseclipse.editor in the Model Explorer,

Go to Run menu, and select “Run configuration”, then select Eclipse Application, and click on “Run”

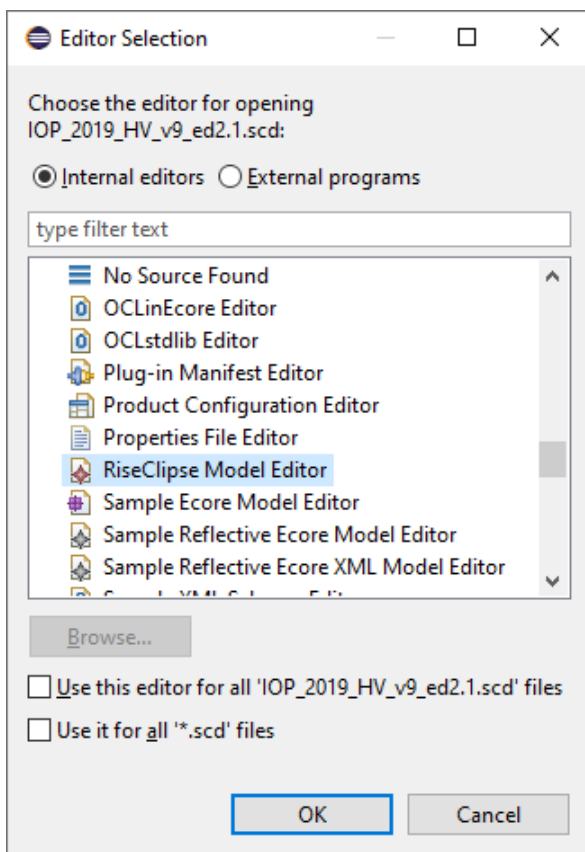
This error can be ignored (click on “continue”)



In the new Eclipse instance, create a project / empty OCL project

You can drag&drop your SCL files and OCL files in the Project Explorer.

Then, to open the SCL file, right click on it, “Open with” / “other”, and select “RiseClipse Model Editor”



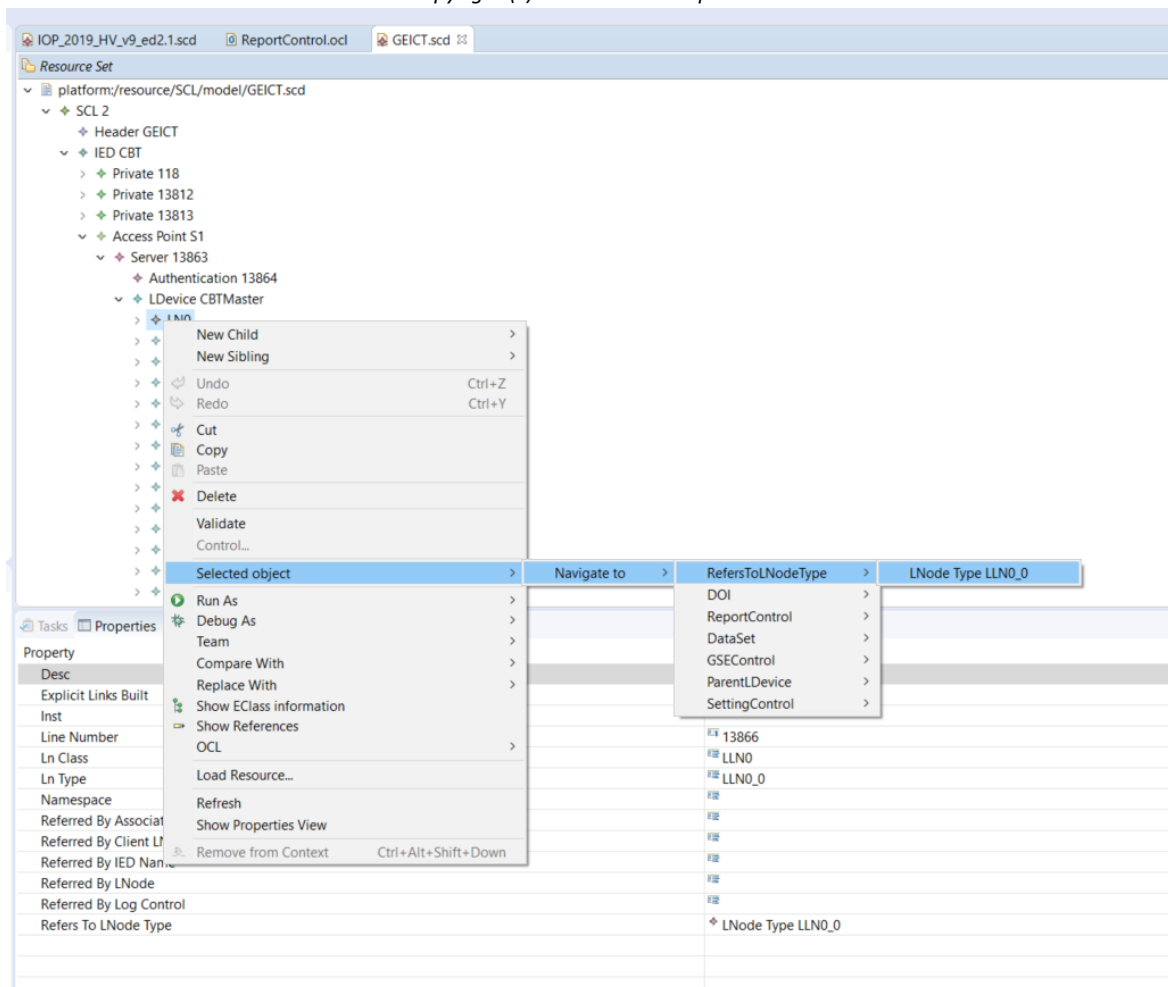
This opens the file, and you can visualize every element, and the properties of each element, and with the links that are built by RiseClipse.

The screenshot shows the RiseCLIPSE application interface. At the top, a tab displays the file path: `IOP_2019_HV_v9_ed2.1.scd`. Below the tab, a tree view under 'Resource Set' shows the project structure. The selected node is `LN0 IEC 61850-7-4:2007`, which is expanded to show its sub-nodes: `DOI Beh`, `DAI stVal`, and `Val 2196`.

Below the tree view, there are tabs for 'Tasks', 'Properties', 'References', and 'Console'. The 'Properties' tab is active, displaying a table of properties for the selected object.

Property	Value
Desc	General
Explicit Links Built	true
Inst	
Line Number	1819
Ln Class	LLN0
Ln Type	SF_CSD_V2.01_LLN0
Namespace	IEC 61850-7-4:2007
Referred By Association	
Referred By Client LN	
Referred By IED Name	
Referred By LNode	
Referred By Log Control	Log Control LcbLogA, Log Control LcbLogB
Refers To LNode Type	LNode Type SF_CSD_V2.01_LLN0

You can navigate inside the file, using the links and references built by RiseCLIPSE, by selecting an object / right click / Selected object / Navigate to...



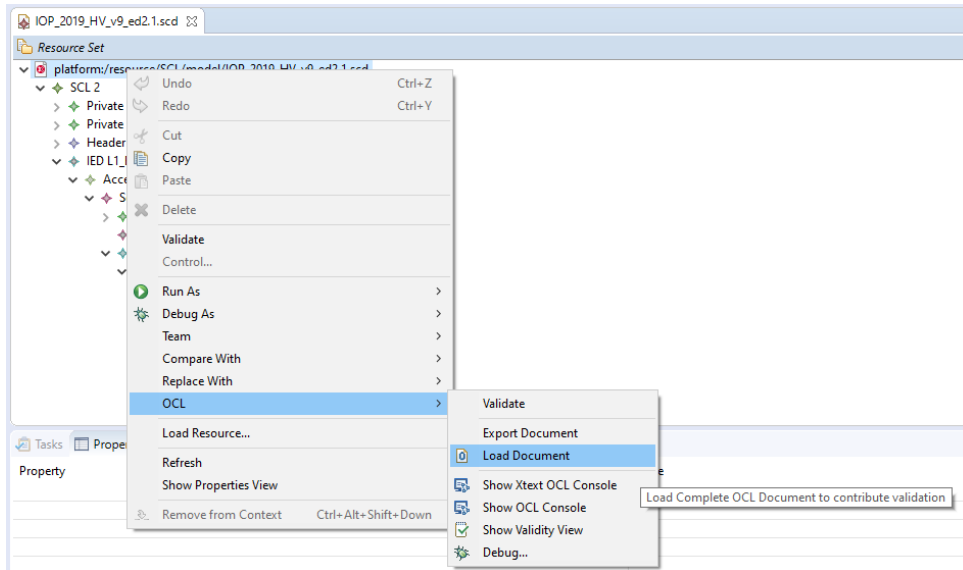
In order to access the existing RiseCLIPSE OCL files, it is possible to import the git project `riseclipse-ocl-constraints-scl2003` into this second Eclipse instance.

In Eclipse, go to Window -> Show View -> Other... -> Git -> Git Repositories

Click on the first icon : "Add an existing local Git repository to this view"

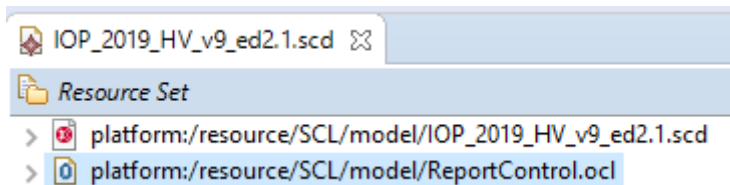
Validate a SCL file with an OCL file

To validate a file with an OCL file, right click on the root element, and click on OCL / Load document.

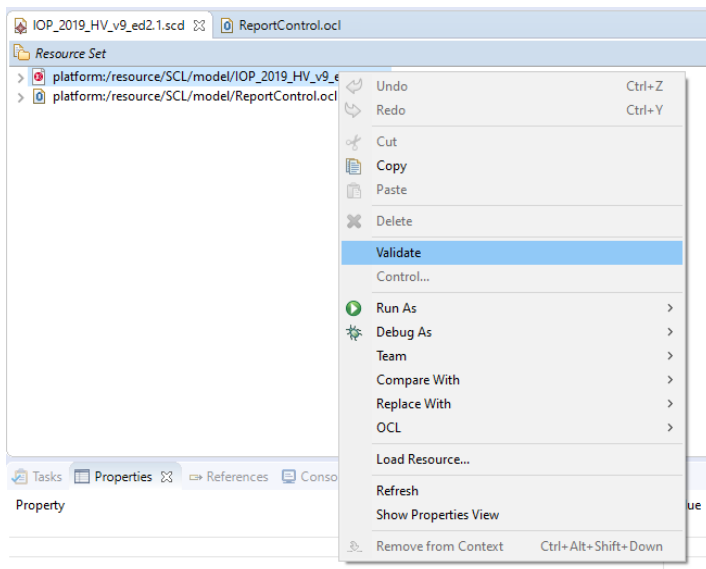


Select the OCL file in the workspace, or in the file system,

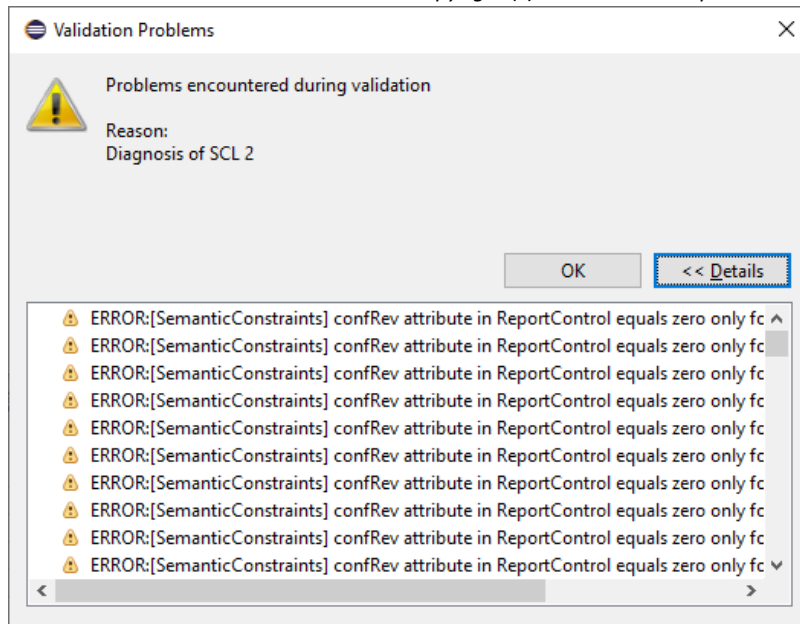
The OCL file is loaded below the SCL file :



Select the SCL root, right click / Validate



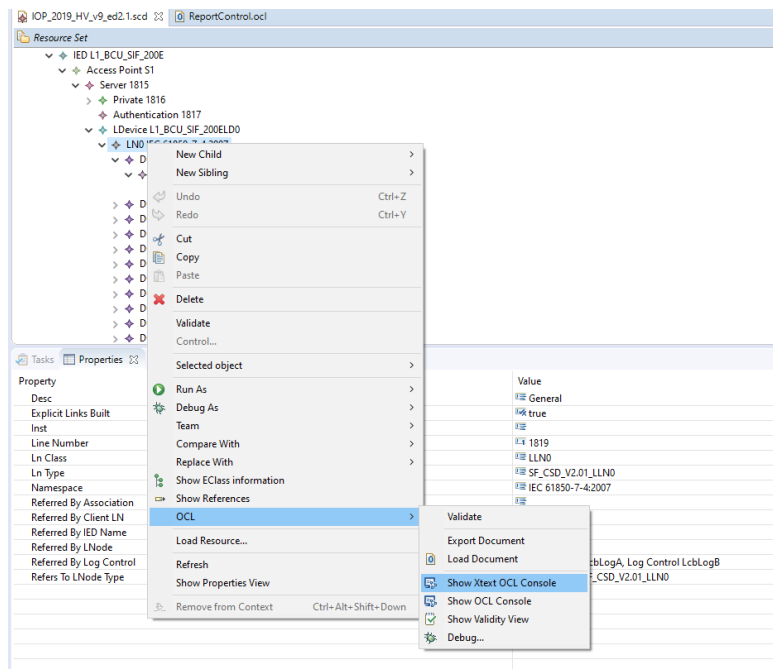
If the file does not respect the constraints defined in the OCL file, the errors will appear:



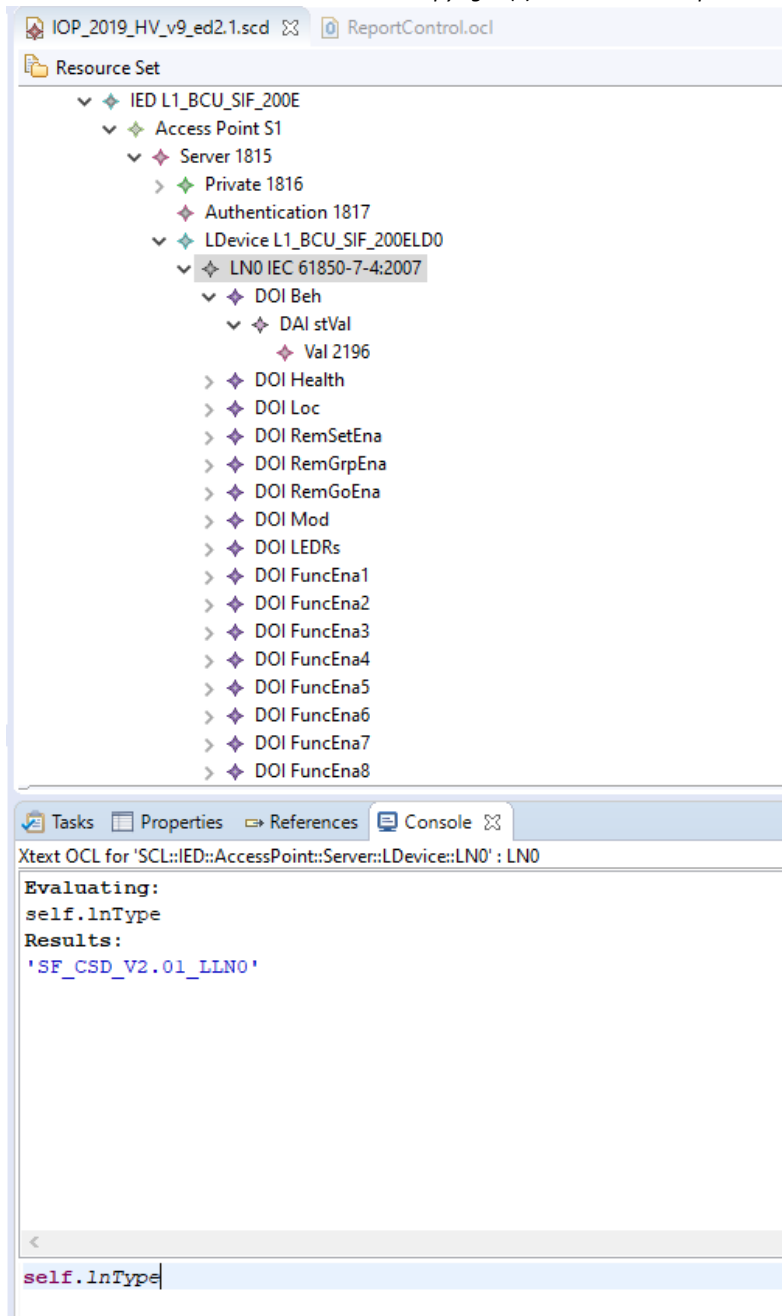
Using the OCL console

An easy way to help building new OCL constraints, is to use the OCL console :

Select an element in the SCL, right click / OCL / Show XText OCL Console



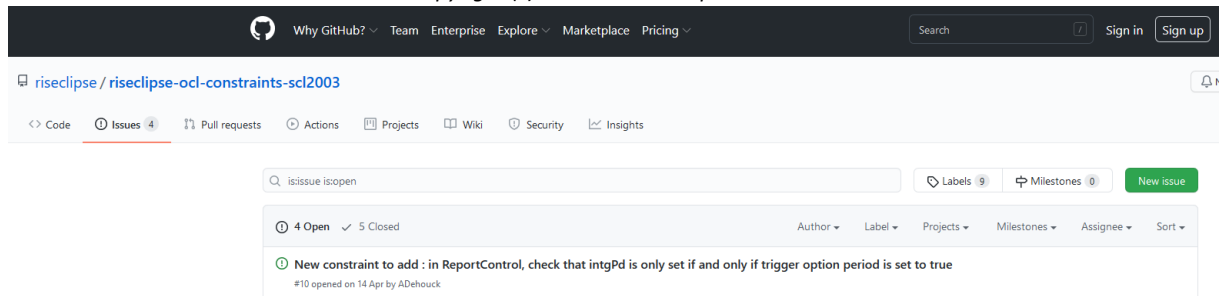
You can type OCL code in the console, and the result will be displayed (note that the context – the selected element in the SCL – is important)



Modify or add an OCL constraint in GitHub, from Eclipse

First, you should create an Issue in GitHub, describing what you want to add or correct

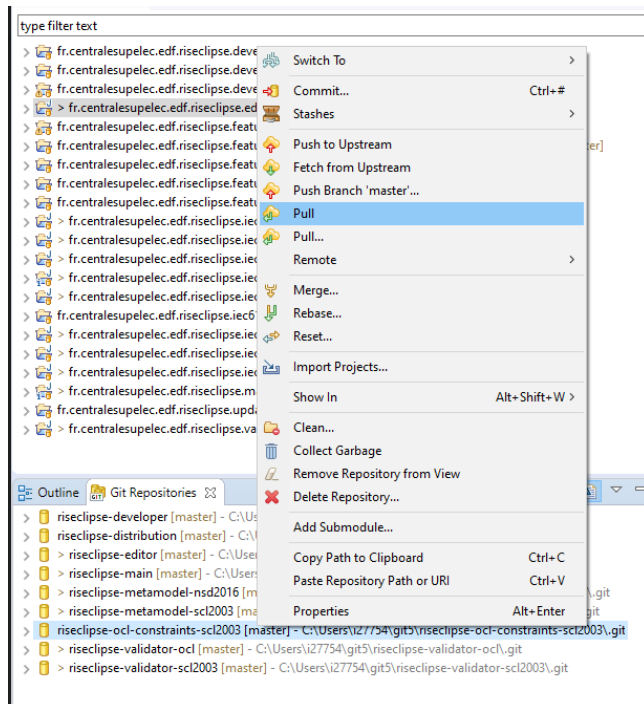
Click on “New Issue” and describe the change as precisely as possible, and refer to the corresponding document (standard, TISSUE...)



Then, in Eclipse, you need to get the latest version of the code that is on Github (It might have been modified by other people).

In Git Repository tab, select : riseclipse-ocl-constraints-scl2003

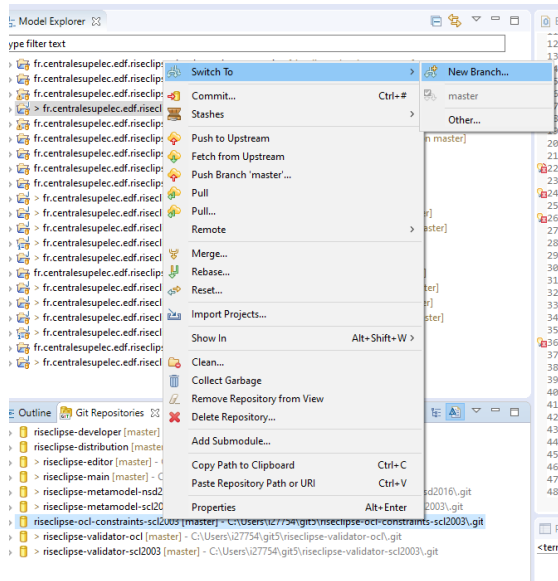
Right click / Pull



(for members of the project only – else do a Fork and pull model

<https://docs.github.com/en/github/collaborating-with-issues-and-pull-requests/getting-started/about-collaborative-development-models>)

Create a new branch, and switch into it : right click / Switch to / New branch



Implement the new constraint or correct an existing one.

Then, you need to commit the change: right click / Commit.

The list of your changes will be shown in the “Unstaged Changes” tab,

Use the green cross “+” to add you changes into the “Staged changes”

You should then write a “Commit message” that references the issue number that you implement

Then, click on “Commit and Push”

Go to the GitHub webpage, and create a “Pull request”

Your code will be reviewed, accepted, and the issue closed