

Capella SysML Bridge

User Guide

Table of content

[1 Installation 4](#_Toc8055502)

[1.1 Prerequisite 4](#_Toc8055503)

[1.2 Delivrable 4](#_Toc8055504)

[1.3 Install CapellaMapping\_VP\_1\_2\_1-1.0.4 viewpoint 4](#_Toc8055505)

[2 SysML to Capella import 6](#_Toc8055506)

[2.1 Supported input data 6](#_Toc8055507)

[2.2 Configuration 7](#_Toc8055508)

[2.3 Execution 8](#_Toc8055509)

[2.3.1 Set the default XML configuration file. 8](#_Toc8055510)

[2.3.2 Launch the SysML to Capella Import. 9](#_Toc8055511)

[3 Capella to SysML export 12](#_Toc8055512)

[3.1 Supported output 12](#_Toc8055513)

[3.2 Configuration 12](#_Toc8055514)

[3.3 Execution 12](#_Toc8055515)

# Installation

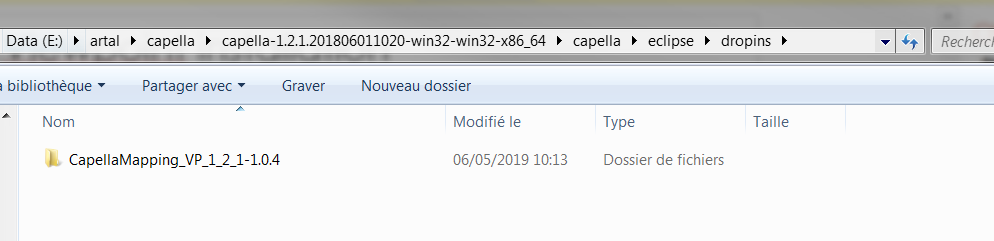
## Prerequisite

**Capella 1.2.x** is needed to execute Capella SysML Bridge.

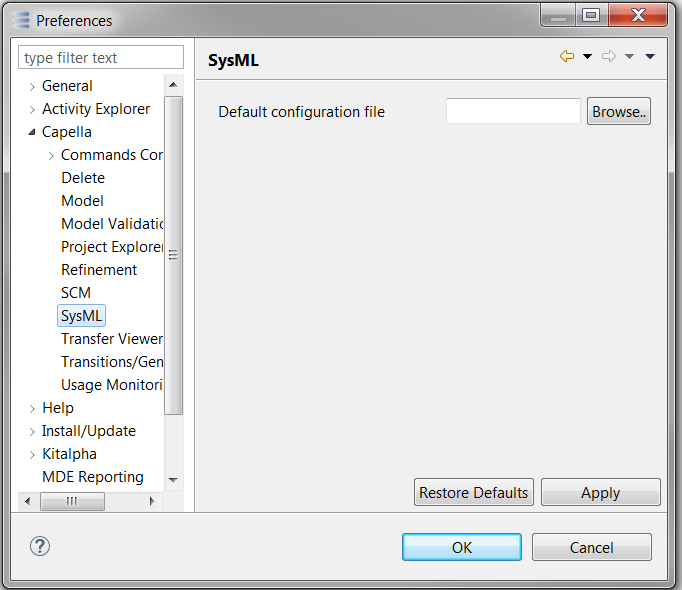
*Rem*: the tool has been developed and validated with Capella 1.2.1 but should be compliant with other patch releases of the 1.2 version.

## Install CapellaMapping\_VP\_1\_2\_1-1.0.4 viewpoint

* Unzip the “*CapellaMapping\_VP\_1\_2\_1-<version>-dropin.zip”* and copy the “*CapellaMapping\_VP\_1\_2\_1-<version>”* viewpoint root directory in the Capella 1.2.1 **dropins** folder.



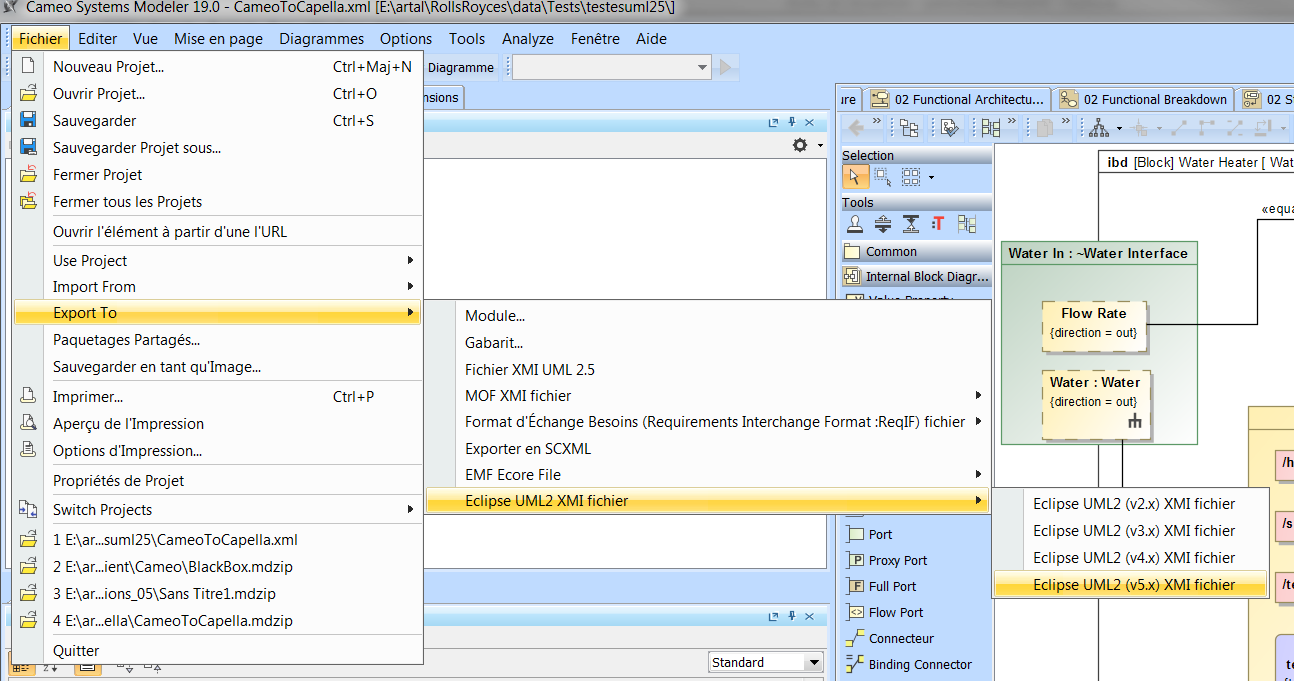
* Launch Capella 1.2.1.
  + Open the “Window -> Preferences -> Capella -> SysML” wizard to check the Capella Bridge is correctly installed.



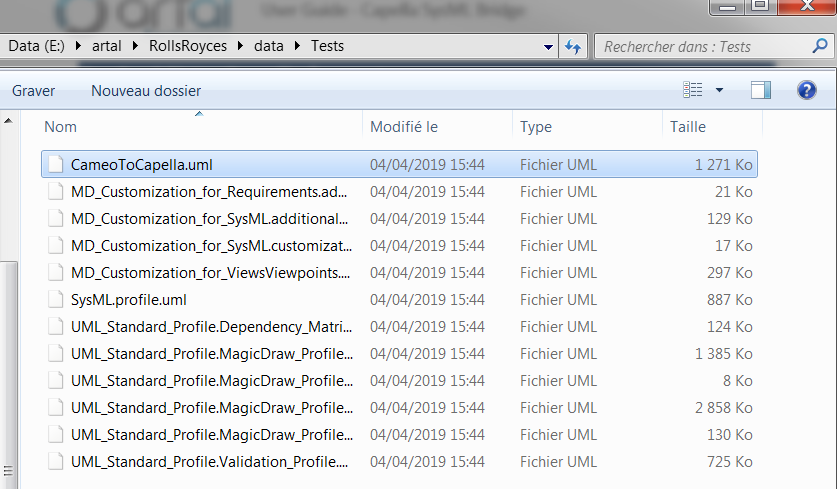
# SysML to Capella import

## Supported input data

* The SysML model shall be exported from Cameo Systems Modeler in the *Eclipse UML2 (v5.x) XMI file* format.

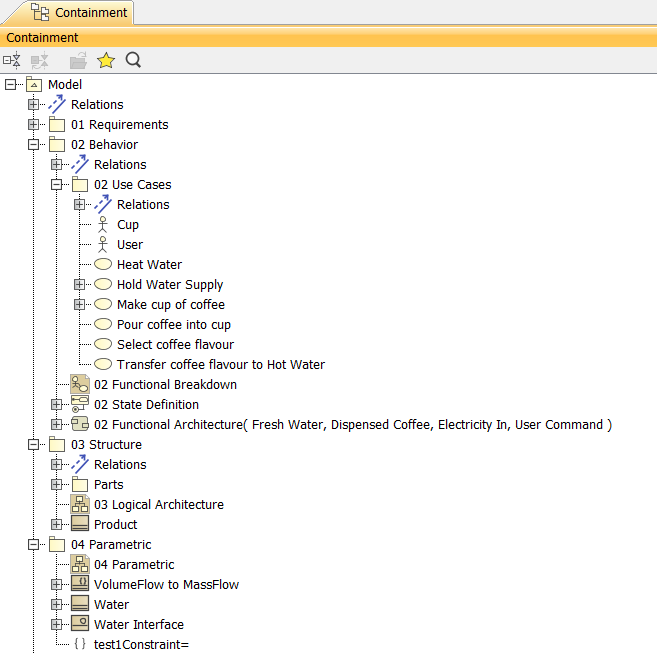


* Among the different exported files, the one used for the import into Capella is the *<Project Name>.uml* file.



## Configuration

* The SysML model in Cameo System Modeler can follow a specific organization of packages. An example is presented here below:



* Capella Bridge requires a configuration file to read this specific structure.

This configuration file is an XML file with the following structure:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<configurations>

<useCasesPath path=*"02 Behavior/02 Use Cases"* />

<activitiesPath path=*"02 Behavior/02 Functional Architecture"* />

<partPath path=*"03 Structure/Parts"* />

<productPath path=*"03 Structure/Product"* />

<parametricPath path=*"04 Parametric"* />

</configurations>

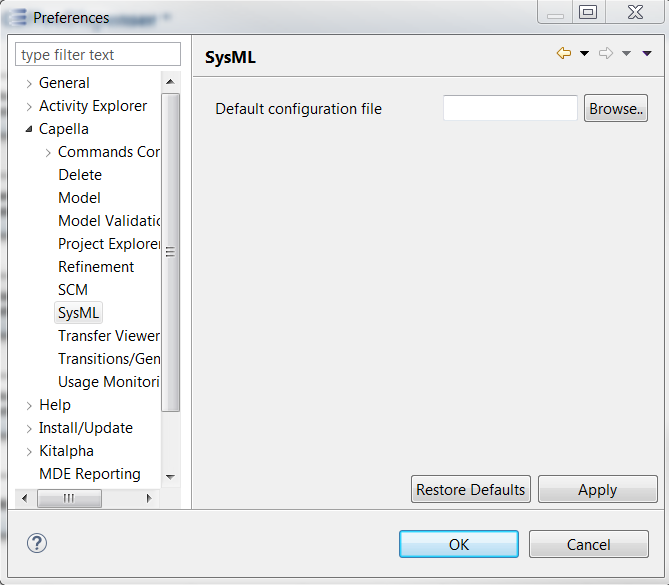
1. **Use cases path** defines the Cameo packages containing the Actors, Capabilities and Associations (between Actors and Capabilities) to be transposed into Capella LogicalActor and CapabilityRealization elements.
2. **Activities path** defines the Cameo packages containing the Activities to be transposed into a Capella LogicalFunction breakdown structure.
3. **Part path** defines the Cameo package containing the Blocks to be transposed into Capella LogicalComponent elements.
4. **Product path** defines the Cameo package containing the root block (i.e. the Logical System)
5. **Parametric path** defines the Cameo package containing the Blocks to be transposed into ExchangeItem and Class Capella elements.

## Execution

**Prerequisite:** Before to launch the mapping, the Capella user shall create the Capella project where the SysML elements shall be imported.

### Set the default XML configuration file.

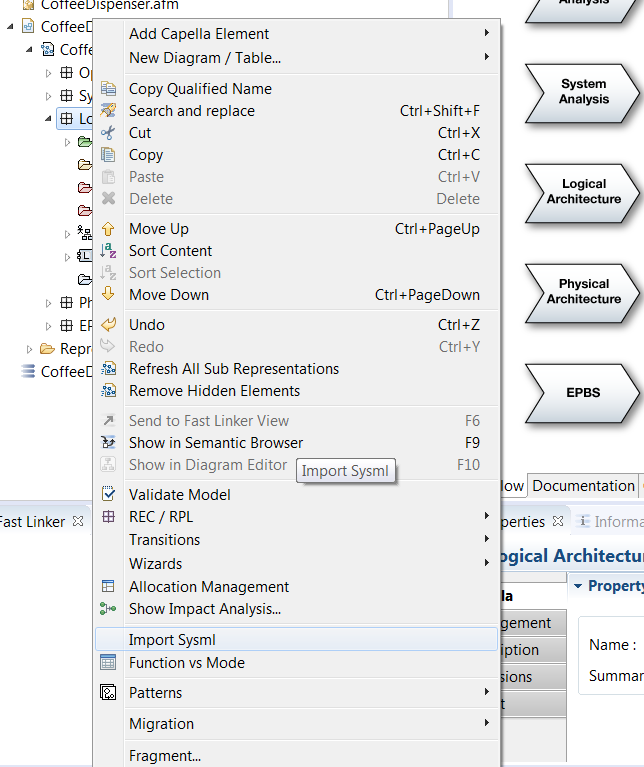
* Select the “Window -> Preferences -> Capella -> SysML” preference to display the following wizard.



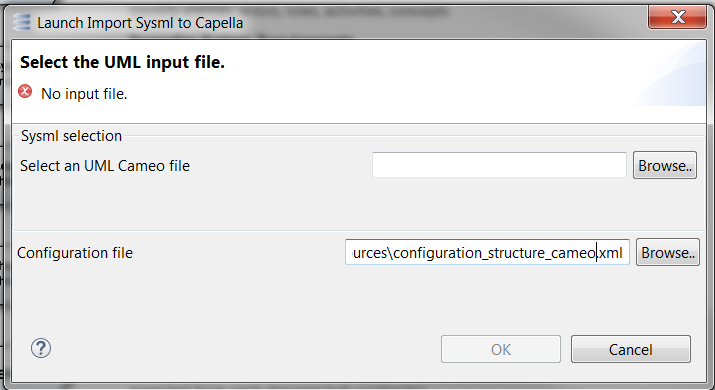
* Set the XML configuration file in the “Default configuration file” field, and click on “OK” button. In this way, this configuration file is automatically set in the import SysML launcher.

### Launch the SysML to Capella Import.

* Right-click on the Logical Architecture node in the Capella Project Explorer and the following menu displayed.

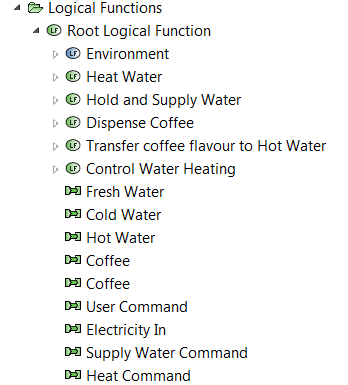


* To launch the SysML to Capella import, click on the “Import Sysml” action. The following wizard is displayed:

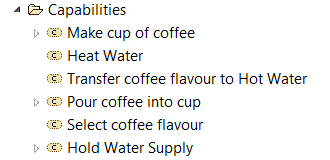


* Select, in the “Select an UML Cameo file” field, the UML input file and click on the “OK” button.
* In the Capella Package Explorer, under the Logical Architecture node, the following datas are imported:

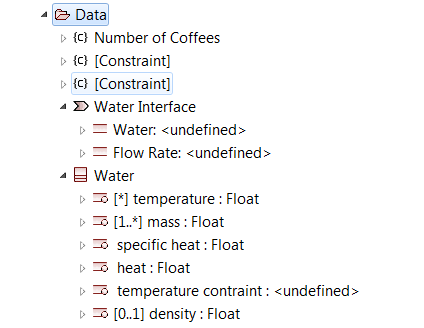
The Logical Functions breakdown structure.



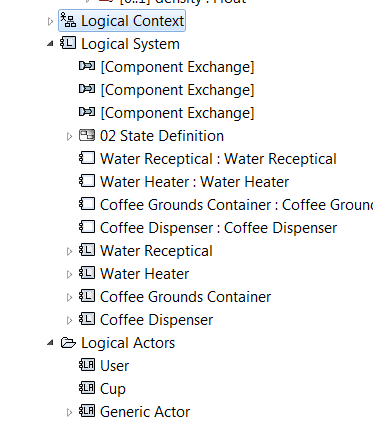
The Capabilities



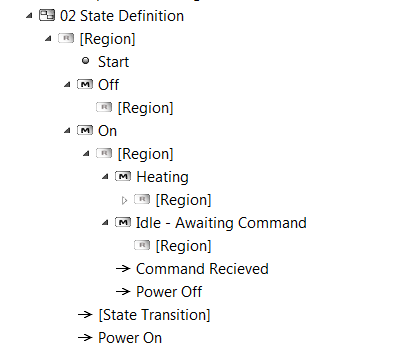
The exchange Items, the classes and the constraints



The Logical Sytem breakdown structure.



The State Definition structure



# Capella to SysML export

## Supported output

## Configuration

## Execution

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