

# MBSE2021 – TeePee4Space

## Q&A

### **Question: Any difficulty to scale up to more than 2 tools?**

During the MOISE project, the usage of TeePee has been demonstrated on a case study involving 5 stakeholders (one final customer, 3 tier-1 suppliers and one tier-2 supplier), each of them using a different tool and/or methodology : Cameo (with two different modelling methodologies), Capella, Modelio, Excel,...

In principle, there is no technical difficulty to scale up to more tools and stakeholders. However, it requires that a common agreement is reached on the pivot meta-model for each viewpoint, and that the connectors are developed accordingly by each stakeholder. Also, the response-time for a request increases with the complexity of the extended enterprise structure (which probably could be improved using cache mechanisms).

### **Question: Does TeePee only integrate tools with web-based APIs (i.e. REST)?**

The internal architecture of TeePee is based on REST APIs, but the connectors can be developed either for web-based API (ex : the Cameo connector actually uses the Teamwork Cloud API) or file-based models (ex : the Capella connector explores directly the .capella file, using the Capella JAVA API).

### **Question: How about other tools like CAD, Matlab, etc..?**

In principle, any modelling tool can be used as long as there is a way to access the information contained in the model, either exploring directly the file containing the model or through an API. Of course, interfacing with a new tool requires the mapping of the modelling objects and concepts with the appropriate TeePee viewpoint meta-model, and then develop or adapt the connector accordingly. We have also developed connectors for the functional flow viewpoint for SimfiaNeo, an MBSA tool for safety analyses from Apsys, and for OpenModelica.

### **Question: were you able to benefit from the 10-25 sdks or did you develop your own? following on, are good SDK's mandatory for this kind of work?**

Yes, some of the COMET SDKs available on the RHEAGROUP's GitHub have been used. It definitely makes things easier to have libraries and SDKs when trying to address modelling tools that use complex meta-models, in order to limit the software development burden and limit errors. We have also a SDK to ease development of new TeePee connectors. The goal is to limit the development to specific code (mapping between the method&tool and the pivot datamodel) and not to generic one (serialization, configuration, HTTP server...).

### **Question: are the teepee software and connectors made available under open source license?**

Not at the time, because TeePee is still at the stage of « Proof-Of-Concept » and not ready for an industrial use. However, usage licence can be granted upon request for research use and the SDK for developing other connectors could be shared.