

Support Technology for the next-generation of model-based development tools - Part 1: MSC Editor

CONTRACTOR: VIKING SOFTWARE

De-Risk Activity – 200 kEUR

1 ABSTRACT

The activity relates to the development of a central component of the TASTE Software Engineering platform from ESA (<https://taste.tools>): the main user front-end for operational scenario specifications of Onboard Software using the standard MSC notation (Message Sequence Charts). The scope of the activity was to set up a development environment using the state-of-the-art technologies for graphical model-based editors, and apply it to the refactoring of the MSC Editor of TASTE as a proof of concept. This editor is a critical – yet small – component of TASTE as it drives the way some properties of the systems are later verified. The MSC editor allows to make advanced designs using a hierarchical structuring of scenarios, and a streaming mode allows to control it remotely while running simulations of a TASTE system. Code generators have been developed to translate the MSC created from the editor to scripts for conducting regression test campaigns on automatically-generated code.

