MDE Collaboration: Temporality and Ergonomy in the Cloud, the GenMyModel Solution

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Abstract

Collaboration in MDE is a large subject and gathers two main concerns: collaboration with MDE and for MDE. The first one refers to collaboration using MDE tools whereas the second one focuses on creating collaborative MDE tools, i.e. being able to propose a collaborative experience in an MDE tool. When it comes to collaboration for MDE and to modeling tools, we assume that collaboration could be viewed as a time-related problematic where past, present, and future are all important.

This talk discusses that last assumption and binds these notions to a concurrency problematic for modeling activities. Either the modifications are concurrent or they are not. In both cases, the theoretical point of view is developed as well as more general questions around ergonomy. Using these concepts of concurrency, the talk explains how collaborative modeling is a matter of conducting the present while always keeping track of the past and, somehow, dealing with the future.

In order to illustrate as well as possible the different points of view and concepts, the talk will evolve around the GenMyModel collaborative modeling tool. After a brief overview of the platform, we will show how collaboration can mean managing model modifications over time and the effort we put in place in order to offer efficient solutions for concurrent and non-concurrent modifications over a single resource (model). Beside the temporal aspect of collaborative modeling, the presentation will also discuss the performance and the infrastructure choices for the GenMyModel platform, as well as the advantages and drawbacks of using a cloud-based solution. Finally, I will present work in progress and future work about collaboration on different levels (code against model).