

Keynote by Prof. Henderik A. Proper

On Views, Diagrams, Programs, Animations, and Other Models

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In the context of model-driven systems engineering, we come across notions, such as views, aspects, perspectives, diagrams, etc. Next to that, the question if a programme is a model, or if an animation is a model, also regularly surfaces. The aim of this keynote is to take a fundamental look at these notions, while essentially positioning these notions as being specific kinds of models, albeit for fundamentally different purposes.

We start by zooming in on the notions of model and modeling language. In doing so, we will also visit the importance of a model's purpose and its potential Return on Modeling Effort (RoME) in particular, as well as the role of the conceptualisation — in the mind of the modeler(s) — of the domain of interest that is (to be) captured by the model. This will then also take us to the notion of conceptual model, which is a class of models that has grown to play an important role in the field of information systems engineering. Identifying conceptual models as a distinct class of models, does automatically suggests there to be a class of models that are not conceptual. These “non-conceptual” models have an important role to play as well in the sense that by allowing for “conceptual compromises”, these models may gain other experiential and/or computational benefits (RoME), such as being executable, animatable, tangible, etc. . Based on this discussion, we then position notions such as views (based on different perspectives or aspects), diagrams, programs, and animations, as essentially being specific kinds of models, covering different purposes, different audiences, while also spanning between conceptual and non-conceptual models.

Topics: Model-Driven Engineering, Software Engineering