



The meta-semantics of model execution

Friday, June 2nd, 11.00 – 12.30, Seminarraum Argentinierstrasse (EAEG06)

Abstract:

The recently completed second version of the System Modeling Language (SysML) is underpinned by a new Kernel Modeling Language (KerML). Most of the formal semantics of KerML are "meta-circularly" written in KerML itself. However, these semantics are fundamentally ontological and declarative, not operational. Nevertheless, it is often still important to be able to operationally "execute" a KerML model, generating a time-ordered "execution trace" (which can also be represented in KerML), consistent with the declarative semantics of the model. This talk will contrast the conception of execution in KerML with the more familiar approach taken for specifying the execution semantics of Foundational UML (fUML), which is also meta-circular, but essentially operational. It will highlight both the challenges and opportunities offered by the new paradigm of execution in KerML.

Bio:

Ed Seidewitz is Chief Technology Officer at Model Driven Solutions, Inc., a long-time provider of enterprise and systems architecture services using model-based methods. Mr. Seidewitz has over 30 years of professional experience with the modeling, architecture and development of systems spanning diverse domains including aerospace, finance, acquisition and health care. He has been active with the Object Management Group (OMG) for over 20 years, including work on the Unified Modeling Language (UML) and System Engineering Modeling Language (SysML), and as primary author of the Foundational Subset for Executable UML Models (fUML) and Action Language for Foundational UML (Alf) specifications. He is also co-leader of the SysML v2 Submission Team, which recently made its final submission to OMG.



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