Keynote

Approaches to Automation and Interoperability in Systems Engineering

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Creating large and complex systems typically involves a number of potentially geographically separated development teams and a number of various different tools. These two aspects are two important dimensions of complexity, which should be considered when planning large system engineering efforts. The importance of these aspects has become increasingly eminent and recent approaches try to handle these issues. Among them are OSLC (Open Services for Lifecycle Collaboration) and ModelBus®. Those approaches address the platform aspect of system engineering on complementary level of abstraction and are a step forward with respect to integration and interoperability challenges. These approaches set de facto standards, which is important to increase efficiency in systems engineering. Based on these considerations big European initiatives like the ARTMIS Joint Undertaking projects CRYSTAL and VARIES started to work on a Reference Technology Platform with the goal to improve interoperability. The talk will present challenges and solutions in large-scale system engineering efforts and focuses on the aspect of collaboration and standardisation.

Dr. Tom Ritter *graduated with a Masters degree in Computer Science from the Technical University of Berlin and did his PhD in 2011 at Humboldt University Berlin in modeling quality of service of component oriented systems. Since 1998 he worked at Fraunhofer Institute FOKUS in the area of tool development and distributed systems. Since 2006 he was heading the Model-Driven Engineering group at FOKUS and from 2010 he was the Deputy Head of the competence center SQC (formerly MOTION). As of December 2013 he is Head of the Competence Center "System Quality Center" (SQC). His major interest is the model-driven software engineering, the development of software tools, software development processes, tool integration infrastructure and the consideration of non-functional properties and QoS at design and execution time. Tom is one of the Co-Authors of a CORBA Component based Middleware Platform (Qedo). Since 2004 Tom participated to the design of the tool integration infrastructure ModelBus and he is heading the ModelBus development team. Tom is involved in different standardization activities at the Object Management Group, he is co-author on books about components and services and contributes continuously to workshops and conferences.*