

Chapter Meeting – July 2021



CHICAGOLAND



Topic: Reaching MBSE Adoption Maturity with System Modeling and Simulation

Presenter: Dr. Saulius (Saul) Pavalkis

MBSE Transformation Leader and Senior Consultant at Dassault Systems

Presentation Site: Remote. Online attendance only due to COVID-19.

Date: Thursday, July 15, 2021

Agenda: 6:30 - 7:00 PM CT – Announcements & Introductions
7:00 - 8:45 PM CT – Feature Presentation and Q&A

Abstract

Decreasing time-to-market phases and the increasing complexity of future systems make it difficult for engineers to test the proper performance of the systems, implement changes, and optimize system architecture. With help of system models in SysML simulation and integration with multidisciplinary engineering tools, we can reach a high-level maturity of Model-Based System Engineering (MBSE) / digital engineering adoption. In this session, we will go through MBSE adoption maturity levels from descriptive models to simulation and optimization. We will explain how to simulate a system model early in the development process. We will demonstrate how to integrate the system simulation with analysis and detailed design models to close the gap between engineering disciplines. Specifically, we will explore workflow from requirements to system model, its simulation, simulation integration and analysis using OMG SysML. We will demonstrate integrations with 3DEXPERIENCE Dymola, Matlab & Simulink. We will explore one of the most popular Modelica standards, Functional Mockup Interface (FMI) for integration with +140 tools through FMU import. We will demonstrate integration with 3D CAD design, engine simulation models using simulation orchestration software, 3DEXPERIENCE Process Composer, which connects to all analysis and design tools in 3DEXPERIENCE platform and many external tools for optimization, trade studies, etc.

About Our Speaker

- Dr. Saulius Pavalkis has 18 years at Dassault Systems (No Magic) in model-based solutions with the core R&D team. He is currently working as the MBSE Transformation Leader and is an expert in systems modeling, simulation, MBSE ecosystem, interfaces and integrations, traceability and queries.
- Dr. Pavalkis is an INCOSE CSEP and an OMG OCSMP. He has received the No Magic lifetime modeling and simulation excellence award and is the community author for the largest SysML simulation channel ([youtube.com/c/MBSE Execution](https://www.youtube.com/c/MBSEExecution)) and MBSE success cases blog (blog.nomagic.com).
- Dr Pavalkis is the author of multiple papers on MBSE at INCOSE and NDIA. In 2020 he received the NAVAIR \$20M budget for V&V paper implementation. He is a Representative at INCOSE CAB and is supporting MBSE adoption in A&D, T&M and other domains. Major clients include P&W, Boeing, NASA, BAE Systems, Raytheon Technologies, NGC, FORD.
- Dr. Pavalkis has a BS and MS in Telecommunication and Electronics and a PhD in Computer Science from (Kaunas University of Technology)

Questions? For more information, go to <http://www.incose.org/Chicagoland/>.

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INCOSE Chicagoland Sites



Aerotek / EASi offices
1501 E. Woodfield Rd. Suite 300N
Schaumburg, IL 60173
3rd Floor Conference Room



BB7, 5407 Fen Oak Dr.
Madison, WI 53718
Mendota Conference Room



Oshkosh Corp (*Limited to Oshkosh Employees*)
370 W. Waukau Ave
Oshkosh, WI 54902

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Attend live, on-line! Meeting begins at 6:30 PM CT.

RSVP & More Information:

<https://incosechicagoland-2021-07.eventbrite.com>

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