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This is a joint webinar with SAE International

When
Wednesday 20 July 2022 from 11:00am-12:00pm EDT
(3:00pm-4:00pm UTC)

Topic
Digital Standards with MBSE

Speaker
Aleczander Jackson, Enola Technologies
Abstract

Part two of the three-part series on the benefits of the digitization of standards. In this segment, we begin with a quick recap of the highlights from The Value of Digital Standards in Product Design and Development delivered by SAE in June to frame the discussion. On that foundation, we transition into a brief introduction to MBSE to orient our viewers that may be unfamiliar.

After the introductory discussions, we transition briefly into process of the digitization of standards within MBSE. First, capturing standards as a reusable requirements database so that at least there is no needed re-work to recapture said standards as requirements elements to verify the system architecture against for each version of the system to be developed. Second, digitization into compliant system architectures by manually parsing each requirement to extract the nouns from the text and aggregate like-nouns to structural representations within MBSE, providing a compliant-foundaion for users to inherit from. Third, manually parse requirements in a functional manner to capture the behavioral aspects of said systems, ensuring a functionally compliant foundation for users to base system architectures on. And finally, parsing requirements into parametric constraints to be leveraged to verify that system architectures are compliant with the standards prior to moving into detailed design.

The process covers the bulk of the discussion, which is followed by a brief discussion around the benefits of the use of MBSE (with SysML) to digitize standards. The benefits are followed by a demo within the Catia System of Systems Architect tool which is followed by a brief foreshadowing on the use of digital standards throughout the remainder of the engineering design process within the CAD/PLM space.

Biography

With a decade of experience in leading digital transformations for organizations across multiple sectors, Aleczander Jackson brings unique insight into the optimization of the adoption of Digital Engineering, and its subsets, into an organization. With No Magic for over seven years, Alec started his career as a software engineer supporting the development of macros, plugins, and custom report templates for customer in both the commercial and defense industry. From there he was promoted to solution architect adding the responsibilities of language and tool training and mentorship working with clients like Boeing, Ford, GE Transportation, and Army PEO M&S to assist with their early digital transformations.

In 2019, Alec left Dassault Systemes to become the Chief Engineer of Digital Engineering for MTSI in which he performed a digital transformation on the company itself including development of an On Demand training platform, coaching/mentoring MTSI's resources leading projects like Army and Navy Hypersonics, Navy PMS 320, and NASA Advanced Air Mobility. It was in this role where Alec started the research into the reusable digitization of regulations, starting with the Federal Aviation Regulations, as well as standards with MBSE with the objective of reducing rework and potential errors in misrepresenting a given regulation/standard with the goal of benefitting the field of Systems Engineering as a whole.
Now, as the founder and CEO of Enola Technologies LLC, Alec brings this unique capability to the market. Enola is in the market to train and mentor your staff to become independently successful in the digital engineering realm within a rapid timeframe.

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