

Systems Engineering DSIG

Tuesday, December 08, 2021

Highlights from this Meeting:

SysML v2 Update and Demo– S Friedenthal, E Seidewitz, M Bajaj

- Walkthrough of Vehicle model from Annex B of the SysML v2 specification to illustrate how to model with SysML v2 (continuation from September meeting)
- API & Services Overview

Using SysML4Sec for Model-Based Security Engineering in the Development of Complex Aircraft Cabin Systems – Hartmut Hintze

- Integrates security process with model-based systems engineering process
- Extends use cases with misuse cases, perform risk assessment, define security measures/mitigations, and flow down of security requirements

Highlights from this Meeting (cont.):

Risk Analysis and Assessment Modeling Language (RAAML) 1.0 update – Andrius Armonas, Kyle Post

- Integrates safety and reliability with model-based systems engineering process
- Supports multiple safety standards and analysis (e.g., FTA, FMEA, Functional safety, System theoretic process analysis, and goal structure notation (GSN))
- In finalization with multiple tool implementations

MBSE-Driven Digital Threading in Electronics – Mark Malinoski

- Modeling approach to deal with complexity of electronics requirements, architecture, and verification from LRU to chip level
- Utilizes Arcadia/Capella with generation of SysML v2 views, integrated with simulation
- Emphasis on automating workflow

Scalable server-side SysML Execution Service - Nerijus Jankevicius

- Goal is to make simulation available to masses
- Move execution from client to sever, and provide web access view Rest API