Systems Engineering DSIG

- **Tuesday, March 22, 2022**

Highlights from this Meeting:

SysML v2 Update and Demo– S Friedenthal, E Seidewitz, M Bajaj, Y Bernard, T Wielkiens

  - ➤ SysML v1 to v2 transformation mapping and pilot implementation
  - ➤ SysML v2 language
    - ➤ Time semantics and change/time triggers
    - ➤ Spatial semantics and geometry
    - ➤ Language extension, model interchange, execution semantics in process
  - ➤ SysML v2 API & Services update
    - ➤ Initiated library of ecipes / higher level calls

Enterprise Architecture Guide for UAF – James Martin

  - ➤ Provides guidance for modeling an enterprise
  - ➤ UAF includes 230 stereotypes and over 100 views
  - ➤ Grid that specifies key artifacts for each viewpoint and views

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Highlights from this Meeting (cont.):

Digital Pipelines – Manas Bajaj

➢ Phase 2 SBIRS project about 20% complete

➢ Digital thread can represent data and relationships impacted by an engineering change request

➢ Pipeline enables automated workflow and capture of digital thread

➢ Syneia is an example tool that supports digital pipeline

➢ **Open MBEE MMS Architecture – Jason Han, Blake Regalia**

➢ Open MBEE Provides an open-source integration environment for model-based engineering

➢ Rearchitecting the environment to v5 to better enable application integration

➢ Leveraging semantic web technologies (RDF triple store, SPARQL,)

➢ Tilting at Windmills – Matthew Hause

➢ Analysis of complex root cause of Texas grid failure

➢ Used UAF to perform the analysis and establish potential miitigations