



MBSE with XLDyn: Linking Product Requirements with Performance

February 27, 2018

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5:00 PM – 8:00 PM EST
Moosehead Hoof and Ladder
7989 Columbia Rd
Olmsted Falls, OH 44138

Abstract:

Product Development Engineers are tasked with developing and meeting product requirements. Throughout the process they must determine whether the requirement can be met using simulation, test, or engineering judgment. The relationships between requirements and verification methods must be documented and tracked. Many other tasks may be involved in this development process such as DFMEA, DoE, Use Cases, State diagrams/machines, Reliability analysis, Schematic diagrams, ibd, and activity diagrams. Model Based System Engineering (MBSE) is a methodology that helps engineers manage this process. XLDyn is a MBSE software that use Microsoft Excel as the graphical user interface to author OMG SysML compliant system models. If required, data can be imported to XLDyn from other requirements management systems. SysML requirement diagrams can be automatically created with XLDyn's one click model creation, then simulation and test verification can be easily added. The simulation and test verifications can be executed directly from the system diagrams; the diagrams and project summary table are automatically updated. 1D multi-physics simulation tools are integrated including XLDyn's own XL1D. System Level DoE can be performed to help balance designs. Weight and cost can also be managed. This easy to use tool allows engineers to perform many product design/development tasks from within one systems engineering software tool. Documentation now becomes a byproduct of the development process.

Presenter Bio: Tom Tecco – COO, XLDyn, LLC

Tom has over 30 years of engineering and management experience in the areas of CAE, Test, Electrical/Controls, PLM, and Systems Engineering related to the vehicle and heavy equipment industries. He has held the following positions:

- IT Director CAE/CAT/ECS and Systems Engineering, General Motors
- Vice President of Automotive Group, MSC Software
- Vice President and Partner, Automated Analysis Corp
- Product Development Engineer, Navistar

Tom has a BSME, Trine University and MSME, The Ohio State University

Food and drink are available for purchase at the venue.