



2019

Annual **INCOSE**
international workshop

Torrance, CA, USA

January 26 - 29, 2019

Tool Integration and Model Lifecycle Management

www.incose.org/iw2019

Tool Integration and Model Lifecycle Management

CHAIR

John Nallon (jfnallon@outlook.com)



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MEMBERS

125

CO-CHAIR

Lonnie VanZandt (lonniev@gmail.com)

INCOSE CONNECT ADDRESS



<https://connect.incose.org/WorkingGroups/TIMLM/Pages/Home.aspx>

INCOSE WEB PAGE



<https://www.incose.org/incose-member-resources/working-groups/transformational/tools-integration-interoperability>

Charter Summary



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WG PURPOSE/MISSION

The Tool Integration and Model Lifecycle Management Working Group provides a forum for discussion and information dissemination on best practices, methods and processes that promote the development, validation and deployment of standards to advance data exchange capability of standard document based or digital data created during the product development lifecycle.

WG GOAL(S)

- To characterize systems engineering tool integration and interoperability requirements.
- To specify requirements and assess solutions for model life cycle management and data exchange.
- To provide forums for discussion and information dissemination regarding tool integration, process implementation and effectiveness of data exchange standards.
- To promote the development, validation and deployment of standards that advance the interoperability of systems engineering tool sets.
- To address model lifecycle management concerns and to establish scenarios and best practices that address the needs of the community.
- To determine efficient modeling structures to use including the repository, the models, and data within the models.

WG SCOPE

Our scope is focused on the integration and interoperability of tools, data exchange, and model lifecycle management of models as they relate to Systems Engineering processes and methods throughout a product or system lifecycle.

- The TIMLM WG collaborates with PDES Inc. to discuss, research, validate and promote the development of data exchange standards to incorporate digital artifacts and data exchange standards modernization. Standards include data exchange standards such as ISO10303-AP233, AP239, AP242, AP243, LOTAR, and various OMG and OSLC standards.
- The TIMLM WG also collaborating with Product Performance International and all INCOSE Working Groups to develop, support and maintain a Systems Engineering Tools Database for the systems engineering community. The SETDB will be available from the INCOSE Website to all members.

IW Outcomes



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IW Outcomes

- Systems Engineering Tools Database Operational Concept Document reviewed, comments and recommendations to be incorporated for formal release by February 15, 2019.
- SETDB System Model reviewed and areas for expansion were identified and several members offered to help with the model and metadata.
- SETDB Capability System Requirements Specification initial review conducted. Several stakeholders committed to doing markups and returning the comments for inclusion. Considerable notes with new capabilities and input to refine capabilities were taken for resolution into the final draft. SETDB development team is incorporating suggestions and comments into the specification for formal release by March 1, 2019
- Joint RM WG Collaboration meeting conducted to discuss SETDB Tool Survey Development for vendor supplier data. RM WG took an action to develop the questions and research their existing products for topics and categories.
- Mr. Gregory Pollari (Collins Aerospace), Co-chair of the MoSSEC Standards team, conducted a briefing of the ISO 10303-Ap233 MoSSEC standard for MBSE data exchange. Significant interest and discussion on this important data exchange standard for MBSE.
- The INCOSE/PDES project team led by Mark Williams (Boeing) presented for discussion the analysis results of studies focused on data exchange standards, industry and other organization testing results and the impact of MBSE on Long Range Archival and Retrieval of digital artifacts. Attendees were very active with questions, participation and were asked to determine who in their companies they could work with to provide industry input to OMG, ISO, OSLC (Oasis) and other standards organizations.

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- The SETDB Team held a project planning meeting with the INCOSE CIO regarding the IT support that can be provided, budgeting, time frame, prototyping and testing were discussed and resolved. The program plan and TPP update will be completed as soon as possible.
- The SETDB Team wrapped up the IW with a Operations and Maintenance and a System Test Planning session on Tuesday morning January 29, 2019.
- Updates for meeting results will be forthcoming in newsletters, on the TIMLM and SETDB Connect Sites and INCOSE communications publications.

Planned Work past IW



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PLANNED ACTIVITIES

- Cross collaboration formally initiated with the DEIX WG. Standards information will be shared and identification of digital artifacts will assist the MBSE for LOTAR standards development.
- Continue the collaboration with the RM Working Group on the SETDB requirements tool survey.
- Bi-weekly meeting with PDES Inc. to provide direction and discuss standards updates, LOTAR and MoSSEC standards development will continue in 2019.
- Weekly SETDB meetings for the development team and working groups engaged in the development and use of the SETDB will continue in 2019.
- Continue discussion and development with the Architecture and Configuration Management Working groups on survey development.

PLANNED WORK PRODUCTS

- SETDB OCD Release in February 2019
- SETDB CapSyRS Release in March 2019
- SETDB Architecture modeling and prototype development in April 2019
- SETDB Tool Vendor Surveys for RM WG and Architecture WG to be developed by IS 2019
- SETDB Categories and Taxonomy completed and released at IS2019
- Use Case development for the LOTAR and ISO standards updates and development
- Working Group articles for the INCOSE electronic publications
- Increased use of social media to communicate tools database progress and information on standards