
Summary of the LOTAR Workshop 11-14 March 2024 in Darmstadt, Germany

The Q1 2023 LOTAR workshop was well attended by over 30 participants as well as numerous remote participants. Below are the highlights of the meeting.

Plenary Sessions

- Reviewed budget plan 2024, including discussion how to make LOTAR more attractive to other industries, incl. Asia/Japan/South Korea.
- Discussed consistent approaches across LOTAR WGs and integration of requirements.
 - Using same document template for comments and proposals.
 - Created status overview table with access for ASD & AIA.
- Gathered input on STEP AP242 Ed. 5 content & scope.
- Each workgroup tasked with reviewing and updating its section on the LOTAR Web Page.

WG “LOTAR 3D Mechanical CAD and PMI” (Parts 1xx)

- Continued Part 110 “Archiving of 3D geometry” review.
 - Updated Reference to SASIG PDQ.
- Bosch joined CAx IF User Group as a new member.
- Discussed how to trace STEP user requirements to operational capabilities.
- Reviewed results of 2nd Assembly PMI pilot as presented by the participating vendors
 - CT CoreTechnologie
 - Datakit
- Held joint meeting with CAx-IF to update status on requirements and determine scope for next test round.

WG “LOTAR Product Data Management” (Parts 2xx)

- Reviewed ASD comments on Part 210 and detailed feedback on STEP mapping. New version of document submitted to AIA and ASD.
- Reviewed comments from PDM-IF Recommended Practices to Part 205. Preparation of a new revision.
- Continued working on Part 230: Review of the “as built” section.
- Discussed proposal to remove Parts 220 and 250.
- Started review of Part 200 to prepare next edition (ed2).
- Started review of Part 5 (ex: Digital Signature vs Electronic Signature).

WG “LOTAR Composites and Advanced Manufacturing” (Parts 3xx)

- Discussed Composite Recommended Practices update and AP242 Edition 5 work items.
- Reviewed Part 300 document: Scope, normative reference inclusion of manufacturing data.

WG “LOTAR of Electrical Wiring Harness” (Parts 4xx)

- Started adding list of AP242 Issues to Redmine.
- Created Part 400 outline, defining reference to Part 200.
- Reviewed list of issues for potential inclusion in AP242 Edition 5.
- Provided presentation to the External Element References session.

WG “LOTAR of Model Based Systems Engineering” (Parts 5xx)

- Sent Part 500 for review to AIA/ASD, INCOSE, and NAFEMS.
- Reviewed MBSE-IF kick-off at INCOSE IW (Jan 2024), with PDES – LOTAR + collaborators:
 - INCOSE GfSE (SpecIF), prostep ivip Digital Data Package -> OMG RFP
 - AFNeT SE-IF presentation covering design requirements
 - A&D PLM MBSE presentation covering interoperability options
 - US Navy
- Met with PDM-IF, who provided an overview of their process and Use Cases.
- Defined 2 Statements of Work for prototypes from Modelon and University Charles III. in Madrid.
- Reviewed [Modelica 2023 white paper](#) on LOTAR MBSE.
- Discussed division of responsibility between Part 500 and Part 600 for different domains of simulation.

Summary of the CAx-IF meetings

The CAx-IF meetings were highly successful with the following highlights:

- Round 53J results were discussed along with various technical issues.
- Joint meetings were held with the CAx-IF UG & LOTAR 3D Mechanical to discuss current and future requirements.
- For Round 54J, the CAx-IF will test the following:
 - Product & Manufacturing Information – continue improvements
 - Composite Materials – new scope based on user requirements
 - Persistent Identifiers – for design exchange and downstream collaboration
 - Kinematic Mechanism – extend scope using Unit Test Cases
 - Possible new topics: material properties, sheet metal design, advanced views
- The MBx-IF User/Vendor roundtable was very well attended with 24 people physically there and another 26 on-line. The following topics were covered:
 - CAx-IF Implementor Group
 - CAx-IF User Group
 - EWIS-IF IG & UG
 - PDM-IF IG & U
 - STEP File Analyzer & NIST Update
 - MBx-IF Joint Topics
 - STEP Viewer
 - External Element References
 - Vendor Support of STEP and LOTAR

Joint Workshop on External Element References (EER)

A Joint meeting of the STEP and JT communities (CAx-IF, LOTAR, JT-IF, PDM-IF, EWIS-IF) to discuss AP 242 EER was held on 12 March 2024:

- 50 participants (34 in Darmstadt + 16 online)
- 8 user companies (Aerospace and Automotive)
- 15 solution providers (CAD, STEP/JT translators, validation tools)
- Discussed joint uses cases for combining AP242 XML with STEP/JT geometry

- Assembly PMI
- Kinematics
- Electrical Harness
- PDM
- Presented technical approaches for STEP AP242 XML, STEP Part 21, and JT
- Conclusions: No remaining roadblocks!
- Smaller remaining issues will be dealt with by the respective working groups

2024 Meeting Dates

- 17-20 June 2024; On-line (PDES, Inc.)
- 16-20 September 2024; Phoenix, AZ, USA (PDES, Inc.)
- 2-6 December 2024; On-line (prostep ivip)
- All meetings will be in conjunction with MBx-IF Workshop

Proposed 2025 Meeting Dates

- 10-15 / **17-22** / 24-28 March 2025 in Hamburg or Darmstadt, Germany (prostep ivip)
- 23-26 June 2025, On-line (PDES, Inc.)
- Mid-September 2025, Location TBD, USA (PDES, Inc.)
- 1-4 December 2025, On-line (prostep ivip)

For related dates, also see <https://lotar-international.org/dates-communication/>