Summary of the LOTAR International Workshop
28 November – 1 December 2022, Online

The Q4 2022 LOTAR workshop was well attended by more than 40 participants. Below are the highlights of the meeting.

Project Management:

- Opening Plenary: Meeting expectations and a quick outlook (single slide) presented by each WG leader on plans for the week.

- Year-end report: New approach from prostep ivip (team input will be consolidated by technical writer to have a common wording for all prostep ivip projects). Input collected during the meeting.

- Each WG shall create a 2-page presentation about their scope and activities that will become part of the "LOTAR 101" presentation:
    - The goal is to have "marketing materials" to gain new users as well as vendors
    - Creation of dedicated working group to complete the presentation before the March 2023 meeting

- Meeting dates 2023:
    - 1st Qtr. Workshop: 20-24 March 2023; Toulouse, France
      In conjunction with MBx-IF Workshop (CAx Round 51J Review; EWIS Round 5E Review)
    - 2nd Qtr. Workshop: 26-29 June 2023; Online Meeting
      In conjunction with MBx-IF Workshop
    - 3rd Qtr. Workshop: September 2023; exact date and U.S. location to be defined
      In conjunction with MBx-IF Workshop (CAx Round 52J Review; EWIS Round 6E Review) and GPDIS
    - 4th Qtr. Workshop: 27-30 November 2023; Online Meeting
      In conjunction with MBx-IF Workshop

- Budget and membership
    - Reviewed budget allocations across the sponsoring organizations and the overall statement of work.
    - Need succession planning to bring new leadership in as retirements occur.
    - Challenge on how to manage additional resources for dedicated working groups

- Roadmap: 5-year LOTAR roadmap was updated.

- LOTAR Charter and Way of Working: The LOTAR standards development cycle ("V-Model") was discussed and necessary updates to the project charter have been identified.

General Sessions:

- ISO 10303 Status
    - AP239: preparing DIS release in Q4/2022. Moved contents to new ISO infrastructure and successfully published SMRL v9. FDIS expected middle of next year.
    - AP242: two Change Requests being prepared by ISO right now, for AP242 Ed.4 content - working on smaller packages, more frequent updates.
    - Overview about ISO TC 184/SC4 Hamamatsu workshop.

- MBx-IF status
    - 2022 accomplishments: MBx-IF now fully operationalized with harmonization of infrastructure, cross-interoperability forums topics identified and launched. Successful involvement of PDM-IF in the MBx-IF user/vendor roundtable.
    - 2023 preparation: the MBx-IF coordination team to be coordinated by prostep ivip after a first year coordinated by AFNeT. MBx-IF activities to be pursued in continuation and completion of 2022 achievements.

WG "LOTAR Mechanical and PMI" (Parts 1xx)

- EN/NAS 9300 Part 100 ready for LOTAR internal ballot,
- The pilot for Assembly PMI in domain model provided first results,
- Multiple clipping planes and other technical discussions between the CAx IF users and Implementors,
- Mirrored parts discussion between the CAx-IF users and PDM WG.

WG "LOTAR Product Data Management" (Parts 2xx)

- Creation of Part 210 in appropriate template for external ballot (both prEN and NAS)
- Review of the PDM functional requirement for the MBx-IF "Viewer requirement"
- Discussion with CAx-IF user group for coordination of Use Cases across domains
- Update of the PDM part release date in the 5-Year Roadmap

WG "LOTAR of Electrical Wiring Harness" (Parts 4xx)

- Completed first pass of Essential information of part 400.
- Mapped Essential Information to AP242 for part 410.
- Reviewed "Production Model One" Use Cases for the next Test Rounds
- Reviewed progress of the ECAD/MCAD pilot for external element references
- Reviewed the progress of the XML Quality Checks pilot

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

- New MBSE AIP Package Architecture defined for Part 510 (Requirements), Part 520 (Behavior), and Part 550 (Links).
- Reviewed SysML version of the MBSE Archive and Retrieval workflow
- New detail Requirements and Behavior models for the MBE Demonstrator use case in https://git.pdes-ch.org/MBE-Demonstrator-RM/MBD-Demonstrator-RM
- Use Case 3: Archive prototype (Part 510, Part 550): reviewed progress on new archive tool prototype
- Use Case 3: Archiving & Retrieval prototype (Part 520): reviewed progress on demonstrated workflow

Summary of the CAx-IF meetings

The CAx-IF Implementor Group held their Round 51J kick-off meeting during the week.

The scope for this round of testing comprises:

- Product and Manufacturing Information (PMI)
- AP242 XML Kinematic Mechanism, in collaboration with the JT-IF
- AP242 XML Edition 3 migration, including joint tests with the PDM-IF
- Persistent IDs for geometry
- User defined attributes
- Alternative representations (exact B-Rep geometry and tessellated shape) for part shapes with PMI

Updates have been made to the following Recommended Practices Documents:

- PMI Unicode String Specification
- AP242 Domain Model XML Product & Assembly Structure
- AP242 Domain model XML Kinematics
- STEP File Compression
- Work has started on Recommended Practices for representing PMI in AP242 Domain Model XML.

Joint meeting with the CAx-IF User Group to discuss User Stories and Requirements.