

Summary of the LOTAR International Workshop March 12th to 15th, 2018 – Asheville, NC, USA

25 on-site participants plus 5 persons via teleconference. Parallel meeting with the CAx Implementer Forum.

Project Management

- Review of the status of payment of LOTAR 2018 fees by the European and American members; review of the 2018 LOTAR budget plan and start of preparation of 2018 statements of work.
- Status of ballot of LOTAR parts: parts NAS / EN 9300 P007Ed.3, P020Ed.1, P120 Ed.2, P121Ed1, P125 Ed1 ready for ballot. There will be a one month delay to take into account a change of standardization procedure in ASD Stan – CEN. The new planned start of ballot is the end of April 2018. Preparation of 4 new parts for ballot end of 2018:
 - P300 “fundamental and concepts for LT archiving and retrieval of advanced manufacturing” and P310 “LT archiving and retrieval of CAD 3D composite design information”,
 - P600 “fundamental & concepts for LT archiving and retrieval of Eng. Analysis & Simulation information” and 620 “LT archiving and retrieval of Structural Analysis information”
- Preparation of a joint conference call in Q2 2018 to present the LOTAR project status report to the American and European sponsoring associations (AIA and PDES, Inc.; ASD, and prostep ivip),
- **New Work Item to create the LOTAR MBSE WG.** Presentation of the NWI with the scope, proposed list of parts P5xx and targeted information model standards. LOTAR ballot for creation of this new WG to be launched April 1st for a 2 months duration: each LOTAR A&D active member to confirm its interest.
- **Status of STEP AP239 Ed3 – AP242 ed2 harmonization project.** Presentation of the status of Harmonization Batch 1, mainly funded via AFNeT. Batch 2 still depending of the confirmation of budget of the AP239 ed3 project. The AP239 ed3 Steering committee meeting was held on March 13th: availability of US 2018 resources will be confirmed during the PDES, Inc. board on May 9th.
- **Status of the [STEP AP 242 ed2 project](#).** Summary of the AP242 ed2 steering committee on Jan 18th. Sending of AP242 ed2 documentation to ISO Central Secretariat to launch the Draft International Standard (DIS) ballot mid of April 2018. Preparation of the Final DIS (FDIS) for mid of July 2018.
- **Preparation of the 5-years roadmap of AP242 and of the AP242 ed3 project.** Summary of the March 9th meeting in Asheville; targeted development duration of the next AP242 editions reduced to 18 months. Planned AP242 five years roadmap white paper V1 for Oct. 2018. Planning for AP242 ed3:
 - sending to ballot of the Preliminary Work Item (PWI) mid of July 2018, - New Work Item (NWI) for end of Oct. 2018, - project kick off: Feb. 2019. It will require the update of the MoU between PDES Inc, AFNeT and prostep ivip to include common principles for the development of the next editions of AP242.
 - ➔ Request of preparation of LOTAR requirements for AP242 e3 in Q2 2018.
- **Update of the activities of the A&D PLM Action Group “3D MBD and BoM” WG.** Summary of the activities of the different WGs. The “3D MBD” WG will prepare a list of minimum MBD content for certification, to be presented to the FAA and EASA. This activity is closely related with the objectives of the LOTAR International project. Start of 2 sub working groups (S-WG) in relationship with LOTAR P1XX: 1 Sub-WG to gather business requirements for interoperability of installation with holes and fasteners information, 1 Sub-WG focused on business requirements for data exchange of machining parts information.
- **3D PDF and STEP:** presentation by the 3D PDF consortium on the planned development of the ISO PDF standards, including ISO 32000; planned addition of STEP AP242 as a new 3D stream in PDF, in addition of U3D and PRC. This capability will be tested during the DoD MIL-STD 31000 B test round 5.
- **Coordination with the [CAx Implementer Forum](#):** review of the “in progress” recommended practices; summary of the upcoming test round R42J (next 6 months). Presentation of the activities of the CAE-IF: results of test round R1S and preparation of R2S. Presentation by the main CAD software providers and integrators of the status of their STEP AP242 and AP209 interfaces for CAD – CAE interoperability.
- **Status of [PDM Implementer Forum](#).** Overview of 2018 activities of the “User Group” and “Implementer Group”, with 2 physical meetings. Continuation of preparation of public PDM test cases. Continuation of interoperability Test Round for explicit configured product structures and generic method to exchange parameterized PDM information, such as PDM properties. Overview of TR 6 of the Implementer Group.
- **Next LOTAR meeting: June 19th – 21st, 2018**, Toulouse, France, parallel to the AFNeT PLM TF offsite.

WG “LOTAR of CAD mechanical and PMI” (Parts 1XX):

- Review of the gap analysis for 3D PMI semantic identified by Dassault Systèmes in AP242 ed1 data model and in the current AP242 Rec. practices. Review of the list of “3D PMI semantic” bugs to be resolved in AP242 ed2 FDIS. Review and update of the draft AP242 Rec. Practices for holes & fasteners.
- 1-day workshop on the STEP Manufacturing modules; proposal to convert AIC 522 “Machining features” to the 11x Application Integrated Resources, to be implemented under the AP242 ed2 FDIS (May 2018)
- Joint LOTAR 3D Mechanical / PMI & CAX-IF session to review the 3D Mechanical PMI requirements and the CAX-IF status for on-going support.
- Work on the gap analysis for the 5 years AP242 roadmap, including the preparation of AP242 ed3.

WG “LOTAR of PDM information” (Part 2XX):

- Restart of the LOTAR PDM working group. Presentation of the PDM WG history, including the scope of the group, what has been realized previously (Part 200, TS210 and TS 230) and the objectives for 2018 (review and update of the published documents). Meetings with the others LOTAR working groups to identify common area of interest.
- Proposal to start a review of the high level concepts for “as designed” and “as built” and to realize a mapping with the STEP AP242 ed2 and the STEP AP239 ed3 standards.
- Identification of the role of the LOTAR PDM WG as provider of use cases and test cases for the PDM-IF.

WG “LOTAR of Composite design” (Part 3XX):

- No specific meeting; weekly confcal of the Composite WG held each Friday.
- The team is working on the development of the LOTAR part 300 “fundamental and concepts” and part 310 “advanced composite structure”; target to send for ballot part 300 and 310 end of 2018.
- Reviewed composite requirements to the CAX-IF. Need to update the Recommended Practices for Validation Properties (Flattened body and core samples).

WG “LOTAR of Electrical Wiring Harness” (Part 4XX)

- With the finalization of AP242 ed2 DIS documentation, restart of the LOTAR “wiring harness” WG. Brainstorming to prepare the draft content of the part 400 and 410. Review of the 5 years roadmap of the WG: identification of LOTAR requirements and priorities as input for the 5 years roadmap of AP242.
- Start of discussion of the LOTAR Elec Harness WG requirements with the LOTAR PDM WG. Several use cases are related to LT Archiving and retrieval of meta data: wire list.
- Preparation of the launch of the Electrical Implementer Forum, part of the CAX-IF, with a planned extension part of the future xDM-IF. Start of identification of the Electrical harness software providers to be contacted. Preparation of a webex with the electrical software providers in Q3 2018.
- Review of the LOTAR electrical Harness WG web page; identification of paragraphs to be updated.
- Preparation of the LOTAR EWH SoWs for the 2018 pilots, to be based on AP242 ed2 DIS.

WG “LOTAR of Engineering Analysis and Simulation” (Part 6XX)

- PDES, Inc. legal staff reviewed the draft MOU between LOTAR, AFNeT, PDES, Inc., prostep ivip and NAFEMS. In response, EAS WG will examine changes to preserve intellectual property rights.
- Developed a strategy to increase participation in the CAE Implementor Forum by major software providers (especially ones with FEA products in their portfolio).
- Reviewed the draft of the Pilot Study Handbook Volume 2 (loads, boundary conditions and results), reviewed results of Pilot Study #2 and the launch of R2S with the CAE-IF
- Completed the test matrix to move from the LOTAR EAS pilot study example to a vehicle level internal loads model similar to the ones used in our member companies.
- Drafted content for NAS/EN-9300-620 “Part 620: Structural Analysis information” Sections 1-9.