

## Summary of the LOTAR International Workshop December 5<sup>th</sup> to 7<sup>th</sup>, 2017 – Darmstadt, Germany

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

### Project Management

- Finalization of the 2017 LOTAR annual report, published in the LOTAR web site.
- Preparation of launch by AIA and ASD Stan of three joined ballots in January 2018:
  - part 007 Ed.3 “Terms and References”
  - part 020 “Governance and Preservation Planning”
  - part 120 Ed.2 “LT Archiving of CAD 3D Explicit Geometry with graphic Presentation of Product and Manufacturing Information (PMI)”
  - part 121 “LT Archiving of Semantic representation of CAD 3D Explicit Geometry with Product and Manufacturing Information”,
  - part 125 “LT Archiving of Explicit CAD assembly structure with graphic presentation of Product and Manufacturing Information”.
- Consolidation of the 2018 LOTAR International project and budget plan, and formal approval by the present LOTAR members.
- Status of [STEP AP239 Ed3 project](#). Summary of the 26 Nov. AP239 ed3 steering committee and of the working session of the 1 Dec.; preparation of the 2018 project plan: scenario 1: minimum scenario focused on the finalization of the AP242 ed2 – AP239 ed3 harmonization, scenario 2: extension to include harmonization with AIA – ASD ILS specs. Next AP239 e3 steering committee on the 16 Jan. 2018.
- Status of the [STEP AP 242 ed2 project](#). Summary of the 19 Oct. AP242 ed2 steering committee; intensive work to prepare the DIS technical documentation for end of Dec. 2017. Preparation of the FDIS for end of June 2018. Request of preparation of LOTAR requirements for the AP242 e3 “Preliminary Work Item” planned for ISO /TC 184 /SC 4 ballot in May 2018.
- Presentation of the activities of the A&D PLM Action Group “3D MBD and BoM” activities, more specially the preparation of the minimum requirements for certification based on MBD. Preparation of a formal coordination between the “3D MBD” WG and the LOTAR international project.
- Preparation of a joined conference call in Q1 2018 for the purpose of LOTAR project status report with the American and European sponsoring associations (AIA and PDES, Inc., ASD, and ProSTEP iViP),
- Summary of the [CAx Implementer Forum](#): review of the “in progress” recommended practices; summary of the upcoming test round (next 4 months); presentation of the draft recommended practices for Holes and Fasteners” planned to be tested in 2018. Publication of the AFNeT webpage “[CAE-IF on a page](#)”, with reference to the CAx-IF website; Completion of the CAE-IF R1S Test round; derived the definition of validation properties for FEA inputs from the statistics; discussion on the functional scope for CAE-IF R2S and of the CAE-IF roadmap.
- [Status of PDM Implementer Forum](#). Presentation of the 2017 achievements and planned objectives for 2018. Overview of the STEP AP242 XML Recommended Practices published or in development. Continuation of the preparation of exchange of explicit configured product structures, and generic method to exchange parametrised / customized PDM information, such as PDM properties / user defined attributes.
- [Status of LOTAR standards consistency](#): update of the list of interdependancies with ISO information models, implementer forums and resulting actions of coordination. Identification of the need to prepare the LOTAR project strategic plan (business requirements, 5 years roadmap, resource plan, risks, etc.)
- [Next LOTAR workshop: 12 – 15 March 2018](#), Asheville, NC., USA, hosted by PDES Inc.

## **WG “LOTAR of 3D CAD Mechanical and PMI” (Parts 1XX):**

- Finalization of the drafts of part 121 ed1 and Part 125 ed1, ready to be sent for external ballot.
- Joint LOTAR 3D Mechanical / PMI & CAx-IF session to review the 3D Mechanical PMI requirements and the CAx-IF status for on-going support.
- Progress review of the “Holes and Fastener” WG and of the draft Recommended Practice this WG has develop. Review of the status of progress on “Equivalent Validation” standard ISO 10303-62.
- Work on the gap analysis for AP242 ed3. Presentation from individual companies of their summaries of gaps and analysis of various capabilities. Identification of the remaining PMI Entities in the 3D Mechanical / PMI WG spreadsheet and will be evaluating the creation of new bugs in Bugzilla. The team included gaps to be part of LOTAR 2018 work plan.
- Discussion on the future LOTAR Mechanical / PMI requirements that the WG plans to work starting next year and the following years. The team built a spreadsheet containing new requirements and their applicable domain with action for each member company to provide input by the March 2018 LOTAR offsite.

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

- No meeting; waiting for the results of the PDM harmonization between AP242 ed2 and AP239 Ed3, to be finished end of March 2018. Planned restart of the PDM WG during the March 2018 session with the confirmation of nomination of the new American and European co-leaders.

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

- No composite session during this meeting.
- Main achievements of the past 3 months: Work on the composite ISO “Change Request” for the preparation of the AP242 ed2 Draft International Standard; enhancements requested by the LOTAR composite WG. The team worked also on the LOTAR part 310 “advanced composite structure”; target to send for ballot part 300 and 310 in 2018.

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

- Joined meeting with the AP242 ed2 electrical harness team. Review of the AP242 ed2 pre DIS technical documentation. Preparation of comments sent to the AP242 ed2 project team.
- Enhancement of the tutorial documentation for Electrical harness based on AP242 ed2 pre DIS, to be used as input for the future CAx-IF “Electrical harness” recommended practices.
- Discussion on the types of AP242 ed2 formats to be used for LOTAR use cases for electrical Harness.
- Review of the status of progress of the LOTAR electrical harness pilots developed by CT CoreTechnologie (CATIA V5 - AP242 ed2 interface) and Datakit (NX - AP242 ed2 interface). Discussions on questions raised and related subset of the associated tutorial.
- Preparation of the next actions for Q1 2018, including the continuation of LOTAR electrical pilots and the coordination with the launch of the CAx IF “Electrical Harness” activities in Q2 2018.

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

- Intensive review and almost finalization of the extended MoU with NAFEMS, with an interaction diagram.
- Continuation to define the tasks for the following documents:
  - Volume 2 of the AP209 ed2 Handbook: Loads, boundary conditions, results,
  - AP209 Recommended practices updates: Release in coordination with AP209 ed3,
  - AP209 Validation Properties for FEA (preliminary draft for March workshop).
- Initialization of the Pilot Study #2: provided test models, ran bi-weekly follow-up conference calls, discussed statistics for FEA results, shared initial results.
- The LOTAR EAS first newsletter was published in NAFEMS Benchmark magazine (Oct. 2017).
- Discussion of the content for the next “newsletter” to submit to NAFEMS for publication in Benchmark magazine: presented to NAFEMS SDPM - Paris (Nov. 23rd), NAFEMS Nordic Conf. – Oslo (Dec. 5th).