

Summary of the LOTAR International Workshop 8th – 12th Sept, 2019 – Atlanta, GA

Summary: There were approximately 30 persons in attendance. We would like to welcome those who attended this Workshop for the first time.

Project management:

- The Leadership team reviewed and discussed the 2020 LOTAR Project plan. Each Work Group Leader is to have their respective 2020 Statement of Work completed by Wednesday 11 Sept 2019.
- The 2019 US and EU Budget status were presented and discussed. The team also reviewed and discussed the 2020 budget plans.
- A presentation was given describing the common template for the [MBx Interoperability Forum](#), which includes associated User Groups and Implementor Groups.
 - The MBx IF is currently made up of the [CAx-IF](#), [EWIS-IF](#), and [CAE-IF](#). There will be additional IFs set up in the future.
 - A MOU between AFNeT, PDES, Inc. and prostep ivip for the MBx-IF is planned to be signed parallel to the LOTAR Q4 Winter meeting in Darmstadt, DE in December 2019.
- The team reviewed and discussed a new LOTAR Offsite meeting schedule which will be in effect March 2020. In 2020, Europe will host the Q1 Spring and Q3 Fall Offsites and the US will host the Q2 Summer and Q4 Winter Offsites. We will be working with the appropriate associations focal points to support the logistics, (Hotels contracts, locations etc.). The reason for making the change to the schedule was to better support the participation and coordination with the activities of the MBx Interoperability Forum.
- The team prepared a draft agenda for a meeting with the LOTAR sponsoring associations which includes AIA, ASD, PDES, Inc., prostep ivip, and AFNeT. There will be a doodle survey sent out the week of 7 October 2019 for a November or December meeting date.

WG LOTAR “Basic and Common Parts” (Parts 001 - 030)

- The team reviewed and discussed EN/NAS Part 9300-001 “LOTAR Structure”, Part 9300-003 “LTA Fundamentals & Concepts” and Part 9300-004 “LTA Description Methods”.
- The team spent the majority of the breakout session updating Part 9300-005 “Authentication and Verification”. The team will be working with SMEs in the US and EU to collect new information on policies and procedures regarding Electronic and Digital signatures.
- The Working Group (WG) plans to send for ballot Parts 9300-001 and 9300-003 by December 2019.
- There was continued discussion with LOTAR PDM team regarding new parts for functional architecture and metadata based on the OAIS standards.
- The WG completed their 2020 Work Plan.

WG “LOTAR Mechanical and PMI” (Parts 1XX)

- The WG reviewed and discussed 3D Mechanical / PMI requirements and their status with the CAx-IF in a joint session.
- There was a discussion regarding the way of working for the new “CAx Interoperability Forum and associated Implementor Group and User Group” and how this specifically relates to the Mechanical / PMI WG.
- The WG reviewed and updated part 132 “Explicit and implicit representation of holes on detailed part”.
- The team discussed the presentation of status for the Part 132 pilot activity.
- There was discussion and revision of the AP242 recommended practices for “Representation of Hole and Fastener Information”.
- The WG completed their 2020 Work Plan.

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

- There was coordination with the “Basic Parts” WG on Functional Architecture and Meta Data requirements.
- The team discussed the way of working with the PDM-IF “User Group” & “Implementer Group”
- The WG established and progressed on a new work task for the development of test case and test data for handoff to PDM-IF UG for development of recommended practices. This test case is intended to be expanded to future test data packages such as Stratoliner data and future complexities such as non-conformance data.

- There was a proposal to publish a validation property Technical Specification (TS) as a full part (205, etc.) which can be referenced by other 2XX parts.
- The WG completed their 2020 Work Plan.

WG “LOTAR Composite design” (Parts 3XX)

- The WG reviewed and discussed bug 7915 “multiple rosettes in a ply group”.
 - Actions were assigned to work the above with a test case model. The Recommended Practice will be updated as well.
 - A Special Attention Meeting (SAM) was set up Wed., the 18th September 2019 to discuss this issue.
- There was a review with discussion of the composite pilot Validation Properties.
- The team reviewed and updated Part 300 “Fundamentals & Concepts of LTA of Composite Parts”.
- The WG completed their 2020 Work Plan.

WG “LOTAR of Electrical Harness” (Parts 4XX)

- The WG reviewed and discussed Bug 7505 “Solution for Geometry-Topology modeling discrepancies”.
- A kick-off meeting of the EWIS¹ implementor forum “User Group” was launched and discussed:
 - Title and logo decision
 - Use cases discussion,
 - Definition of the scope for the 1st test round of the Implementer Group (planned to start in Sept. 2019)
 - Preparation of the 2019 Semester 2 and 2020 project plans
- There was a presentation of Datakit pilot progress, which provided STEP files in Sept. 2019.
- The WG started the discussion on validation properties for electrical harnesses.
- There was a discussion on future LOTAR electrical pilots for 2020.
- The WG completed their 2020 Work Plan.

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

- The WG reviewed existing LOTAR common parts to develop Part 500. The team will use Part 100 and the domain specific template to add specific MBSE archiving use cases. The goal is to have a complete draft ready for the Q4 December workshop.
- The team has started reviewing Part 620 to compliment and integrate with Part 520. They expect to have an outline for industry engagement by end of 2019.
- There is an active development work plan for Part 520 use cases. The initial plan is to attach a manifest of meta data information, (based on AP243), to FMI/FMU/SSP models. The WG is working with Modelica Association, FMI WG and Modelon to influence existing standards in preparation for future updates.
- The team started to develop ideas for an MBSE Interoperability Forum. Initial discussions have taken place with Georgia Tech about using student projects to test/develop interoperable activities. They have included them in their regular LOTAR MBSE and PDES MBSE meetings. The team planned a discussion and a MBSE presentation with industry leaders at the Fall GPDIS conference.
- The WG completed their 2020 Work Plan.

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

- The WG developed plans to encourage new CAE vendors and service providers to join the [CAE-IF](#).
- The team finalized the internal draft of LOTAR Part 620 “Structural FEA” and worked on Part 600 “Fundamentals and Concepts”.
- They reviewed and finalized the video of the demonstration of STEP AP209 based data exchange, as presented live during the last NAFEMS World Congress, June 2019.
- There was a discussion on the collaboration with the VMAP project.
- The team developed the outline of a NAFEMS brochure “What is STEP for EAS?”.
- There was a review of the content of the www.ap209.org website and suggested updates.
- The WG completed their 2020 Work Plan.

Next LOTAR workshop: 9th – 12th of December 2019, Darmstadt, Germany hosted by prostep ivip.

¹ EWIS: Electrical Wiring Interconnection System