

Status of the STEP AP242 e2 project Preparation of AP242 edition 3 project

AIA – ASD Interop. Coordination confcal 25th of November 2019

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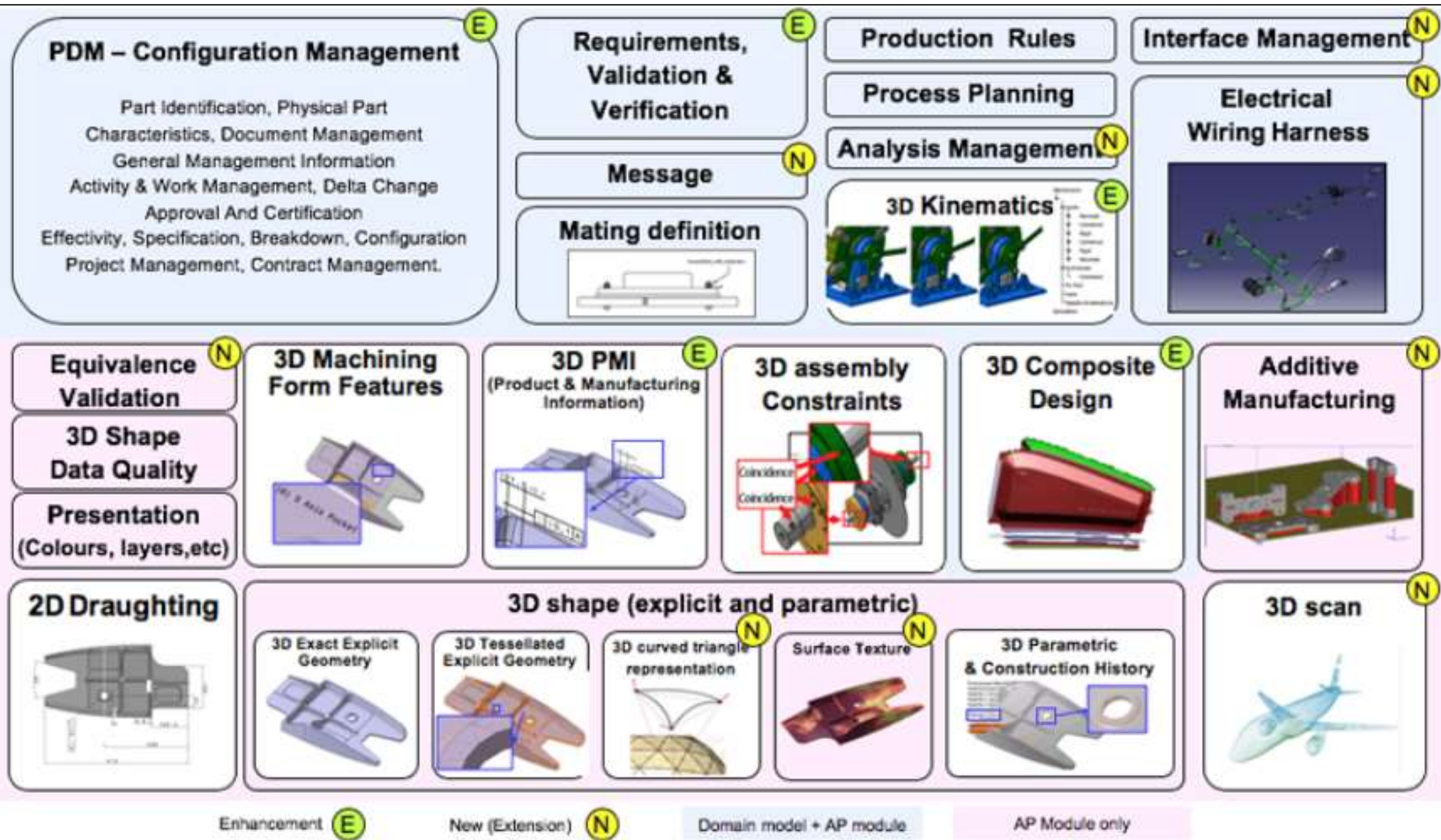


Successful ballot of ISO 10303 STEP AP242 edition 2

- Approval at the unanimity by 10 countries, without technical comments
- Expected publication of AP242 ed2 beginning of 2020 by ISO



Overview of STEP AP242 edition 2



**Managed
Model Based
3D
Engineering**

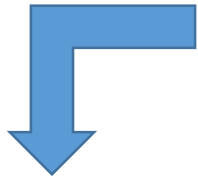
*AP242 ed2
project
supported by
- AFNeT
- PDES Inc*



AP242 ed1
AP242 ed2

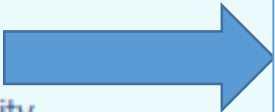
Access to the overview of the main enhancements of AP242 ed2 on the public web site

<http://www.ap242.org/edition-2>



[AP242 Standard](#) » [AP242 Ed2](#)

- [Electrical Harness](#)
- [3D CAD Interoperability](#)
- [3D PMI interoperability](#)
- [Additive Manufacturing](#)
- [3D Composite Design interoperability](#)



AP 242 Edition 2 has enhanced functionalities for Electrical Harness interoperability

The objective of this page is to provide an overview of the enhanced functionalities of AP242 edition 2 in development for Electrical Harness interoperability. It is summed up according to the following paragraphs:

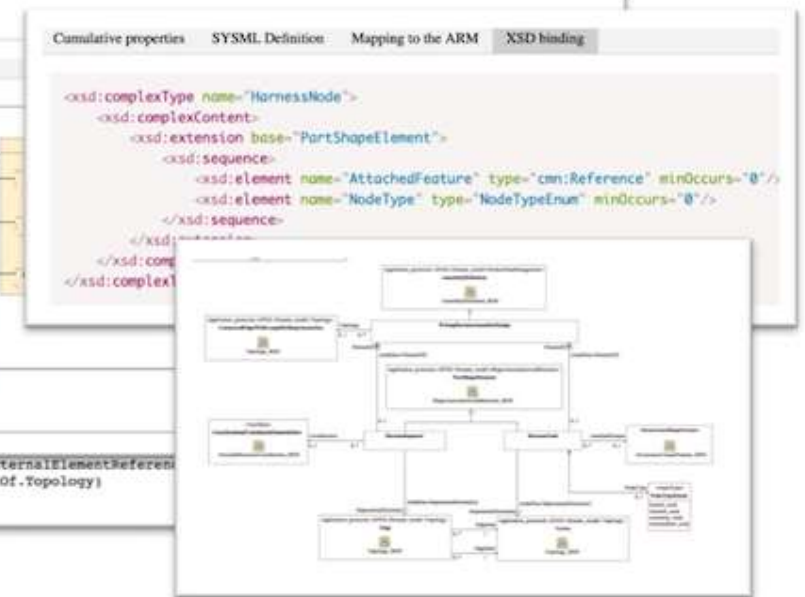
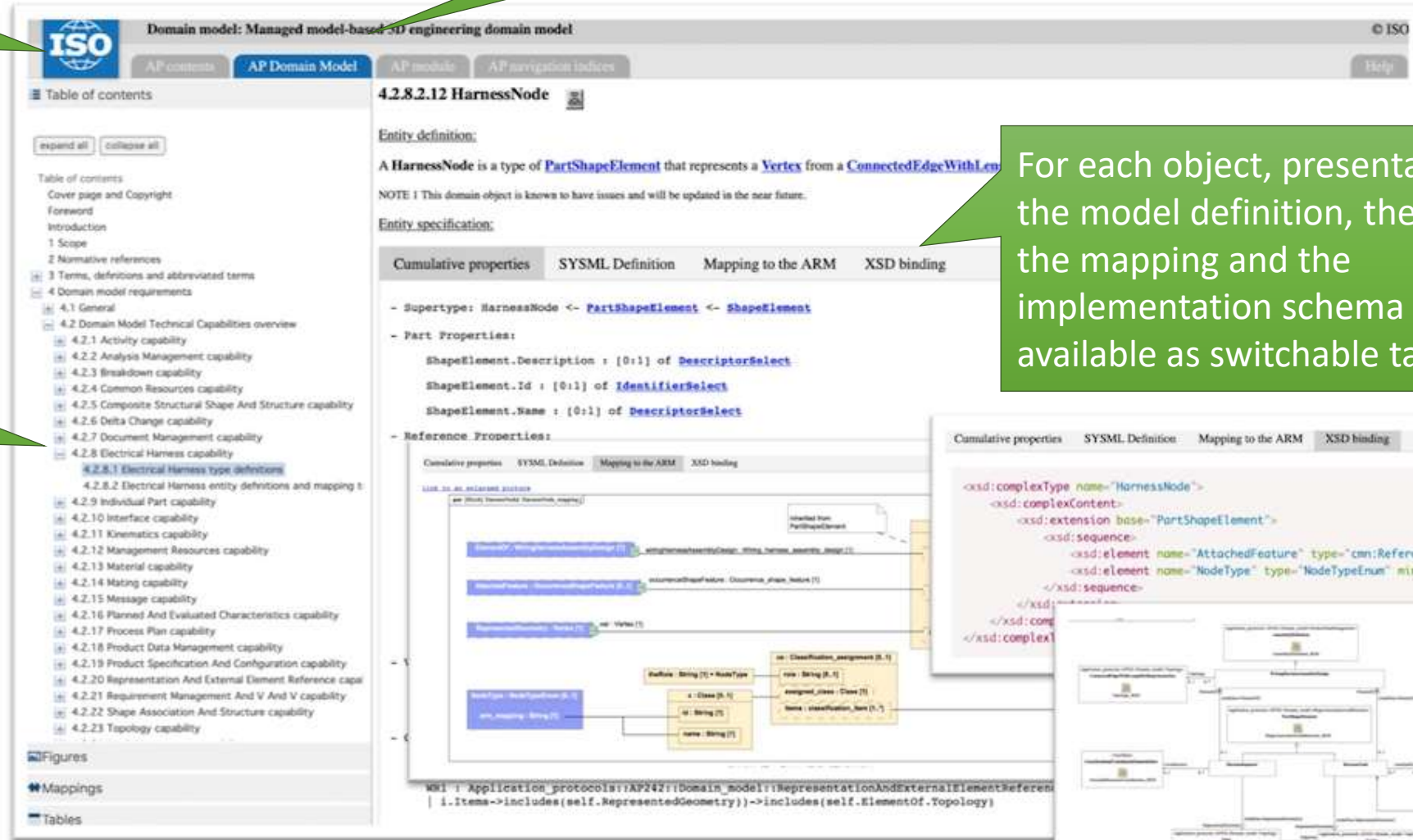
- Overview and illustration of capabilities
- Examples of associated use cases
- Dependencies / related standards
- Status of development
- Status of prototyping in COTS solutions
- Planning of recommended practices / implementers forums
- Planned extensions of Electrical domain in AP242 Edition 3

Overview and illustration of capabilities



Tabs for the main components of the standard: The AP with Activity model, Domai model with XD implementation , AP Module with EXPRES implementation

For each object, presentation of the model definition, the diagrams, the mapping and the implementation schema extract all available as switchable tabs



Planning of preparation of STEP AP242 ed3 project

- Preliminary Work Item (PWI) for Feb. 2020
- New Work Item (NWI) for May 2020
 - (before next ISO /TC 184 /SC 4 meeting in Norway)
- Planned start in S2 2020
- Development in 24 months, based on the Agile principles presented during the last ISO /TC 184 /SC 4 meetings in 2019



Associated communication for STEP AP242

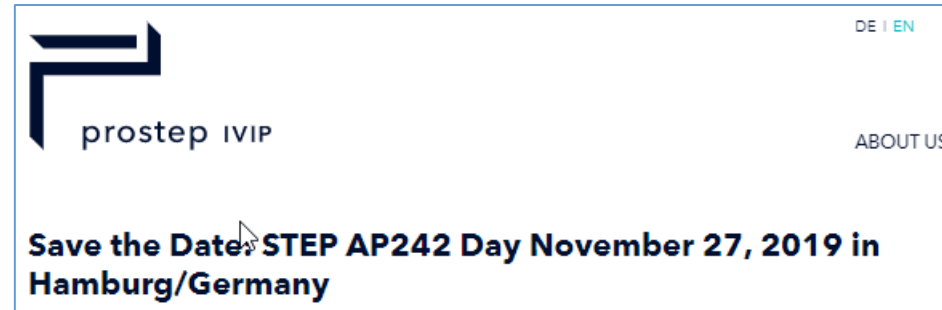
GPDIS 2019

- Use of ISO 10303 STEP AP242 edition 1 for configured MBD interoperability
- Enhancements of AP242 ed2;
- Related Interoperability Forums.

Jean-Yves DELAUNAY
Airbus Operations



AFNeT – prostep ivip AP242 day 27 Nov. 2019, Hamburg



Back up slides



Governance :

- **Stakeholders** : AFNeT, PDES Inc, Prostep , AIA, ASD, A&D PLM AG, JAMA, SC4, some NBs
- White paper draft for PWI
- General MoU for overall standardization / IF /

- communication activities (specifies the project charters)
- Charter per project referencing the above MOU, identifying the stakeholders , project plan, resources, commitments
- 5 years vision
- programme management

- relationships & VEN Diagram
- resources,

Managed Industry requirements

- Roadmap workshops
- Industry presentation and buy-in
 - *Issue with ISO NWI process (action Kenny) , need to rely on PDES for US , AFNeT + Prostep for EU,*
- 242 White Paper
- AP242 ed3 PWI (May 2018) w/ draft White Paper
- AP242 ed3 NWI (November 2018) w/ validated White Paper
- Defines scope
 - *Scope extensions needs an updated activity Model*
- Use case prioritisation for implementor Forums

Library

- SMRL v9 for 242 FDIS
- SMRL v10 for 239 ed3
- produce 2 SMRL per year ?
- Need to suppress the patch step
- Need to clean the stepmod source files
- Define the library management using Agile method
- Recommended practice for stepmod
- Complete build automation (continuous integration)

Implementor Forums , Pilots & Recommended practices

- All IF implementing AP242, eg: CAX-IF, xDM-IF, DMDII ... ?
- Integrated schedule for all Ifs
- Test proposals during development
- Test new capabilities after DIS
- Prequalification of COTS solutions
- Visibility on pilots in flight
- Provide bugs to Standards
- Engage with DMDII
- Set of tools for self assessment of STEP compliance (eg: NIST STEP File Analyser)

AP *(including Implementations and conformance)*

- AP242 ed2 submission sept 12 208 *(action with Kenny to get some flexibility)*
- AP dependencies cartography
- Activity Model + Conceptual Model
 - AP242 ed2 is not covering the scope of the standard -> need to be updated for AP242 ed3 with a draft in the NWI
- Conformance clauses + UoFs -> to be defined for AP242 ed3 DIS
- AP242 ed3 kick off TBD (January 2019 ?)
 - Stakeholders,
- AP242 ed3 completed in 18 Months (July 2020 ?)
- Define conformance for 242 : normative implementations forms

Communication *(including education [also for not cad vendors])*

- Cartography of AP242 communication material / information
- Joint conference plan
- Define a communication plan
- STEP AP242 web site update
- SC4 online revival
- Wiki page update
- AFNeT standardisation days , AFNeT Prostep AP242 days, NIST ? GPDIS ? DMDII ? AP238 demonstrations ?

Infrastructure and architecture *(incl. Implementation methods ,incl. OpenSource software) Maintenance for tools (shtolo updates)*

- Move from step mod to ISO
 - With a clean data set
- Move Bugzilla to Jira
- Definition of Domain
- Guidance for UoF, conformance and implementation forms
- Maintain infrastructure
- Extended Architecture validation and deployment