



Architecture-driven, Multi-concern and Seamless Assurance and Certification of Cyber-Physical Systems

Second AMASS Platform Prototype: An Overview

Second EAB Workshop Västerås, Sept 17, 2018 Huáscar Espinoza EAB Coordinator

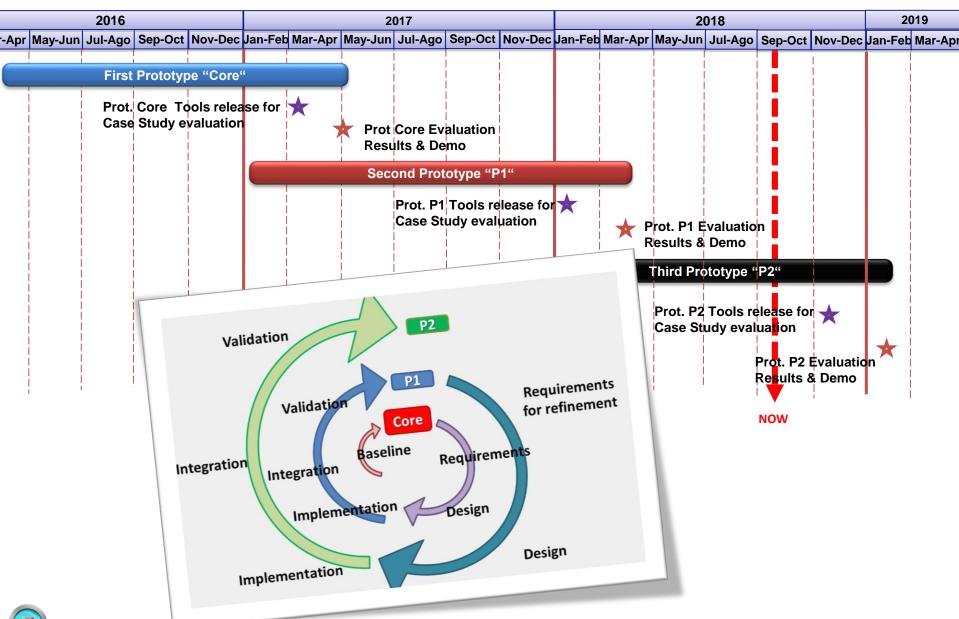


Prototype Roadmap

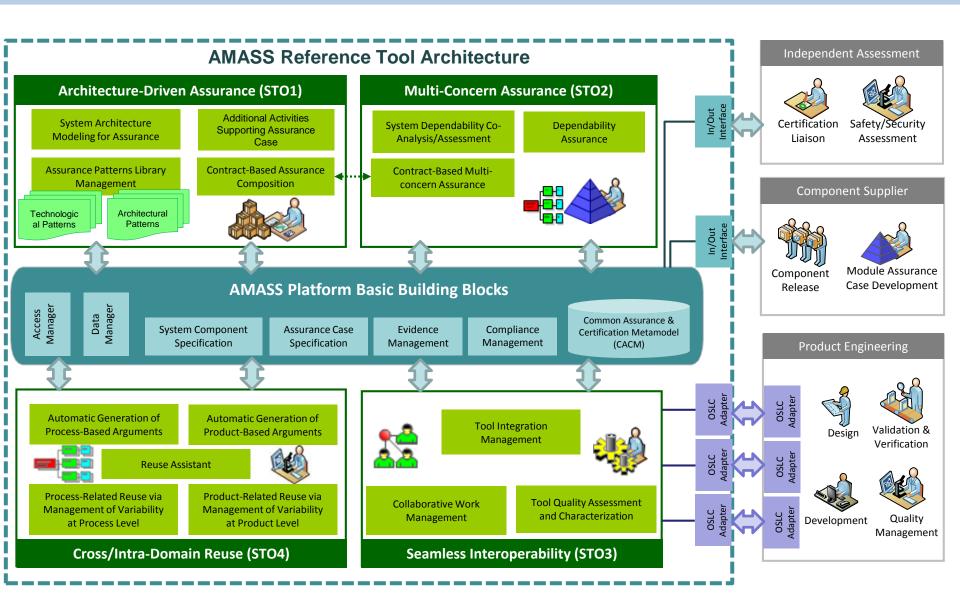




Prototypes Schedule



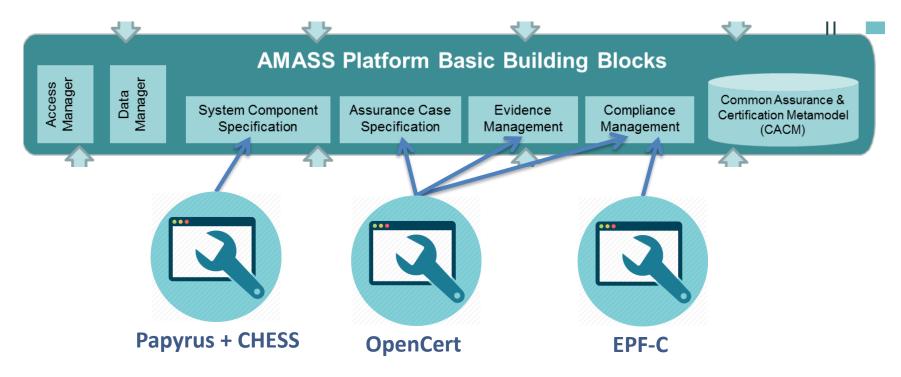
Prototypes Roadmap





First Prototype "Core"

- Functional description in D2.2: AMASS Reference Architecture (a)
- Prototype Core has been built upon 3 pre-existing toolsets:
 - Tools from Papyrus and CHESS projects (Eclipse/PolarSys)
 - Tools from pre-existing OpenCert project (Eclipse /PolarSys)
 - 3. Tools from EPF (Eclipse Process Framework) project (Eclipse)

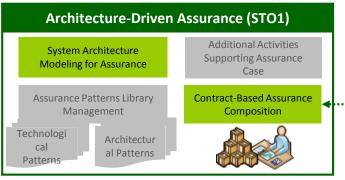


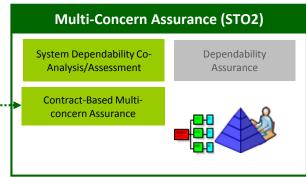


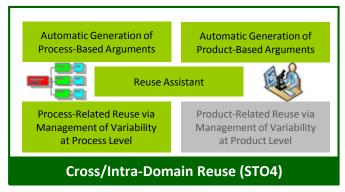
Second Prototype "P1"

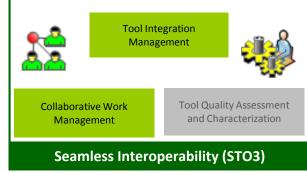
- Partial development of modules linked to AMASS objectives (STO), on top of basic building blocks
- Adoption of new tools as part of the AMASS platform: BVR (variability), CAPRA (traceability),...
- ❖ Ad-hoc Integration with external tools







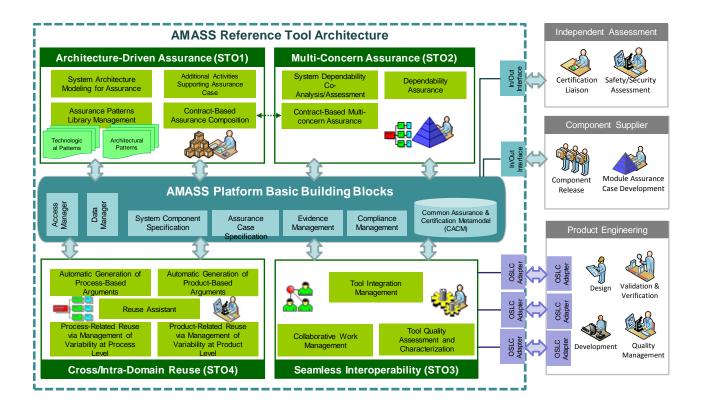






(In-progress) Third Prototype "P2"

- Complete development of modules linked to AMASS objectives (STO), on top of basic building blocks
- Systematic integration (e.g. OSLC) with relevant external tools
- Dashboard as embedded guide for AMASS platform users





Conceptual Dashboard





AMASS User Guidance

Deliverable D2.5

Comprehensive view of the AMASS methodological framework including the steps of the proposed AMASS process and the interfaces between the steps

The intended readers are:

- AMASS Tool Platform Usage Guidance for Users
- Global Methodological Guidance for Users
- AMASS Tool Platform Guidance for Developers

Built upon Methodological Guidelines (Dx.7,Dx.8)



General AMASS Workflow

Assurance Project Definition

System Design, Analysis and V&V

Assurance Case Management

Evidence Management

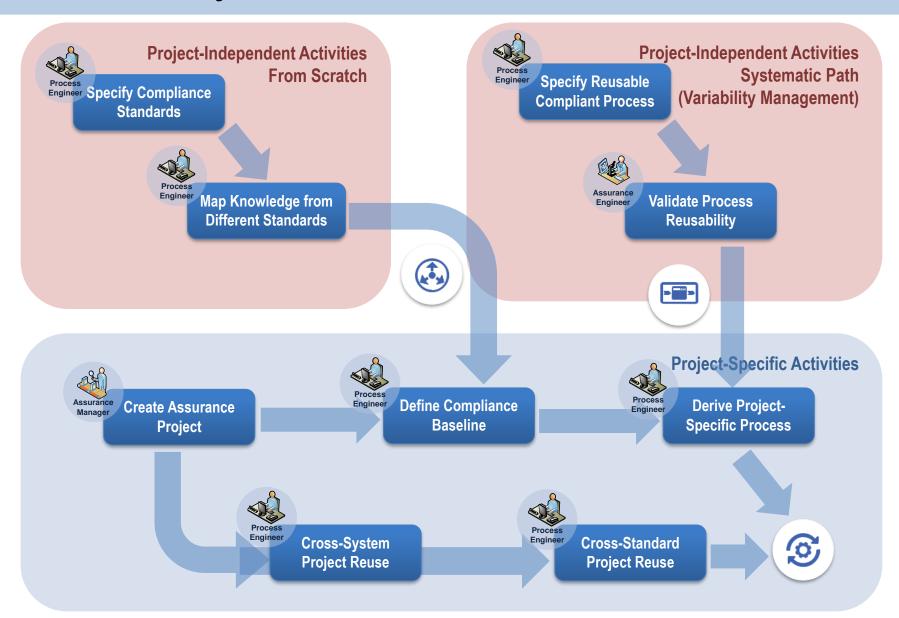
- Project Lifecycle
- Process Definition
- Compliance Definition
- Project Baseline

- System Architecture
- System Requirements
- Component Contracts
- Safety/Security Analyses
 - Compliance Arguments
 - Product Arguments
 - Safety/Security Conflicts
 - Link to Architecture

- Project Artefacts
- Artefact Traceability
- Process Execution

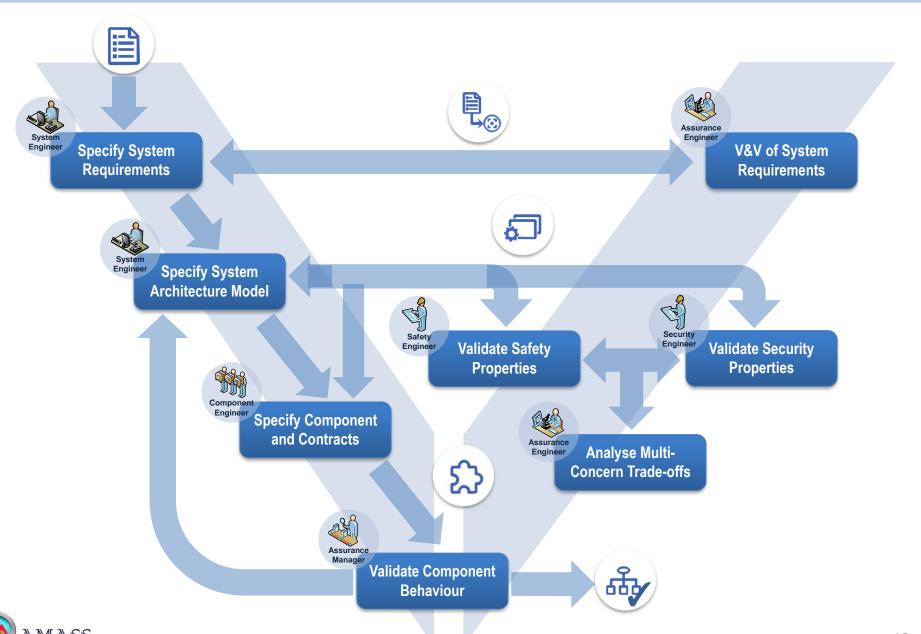


Assurance Project Definition

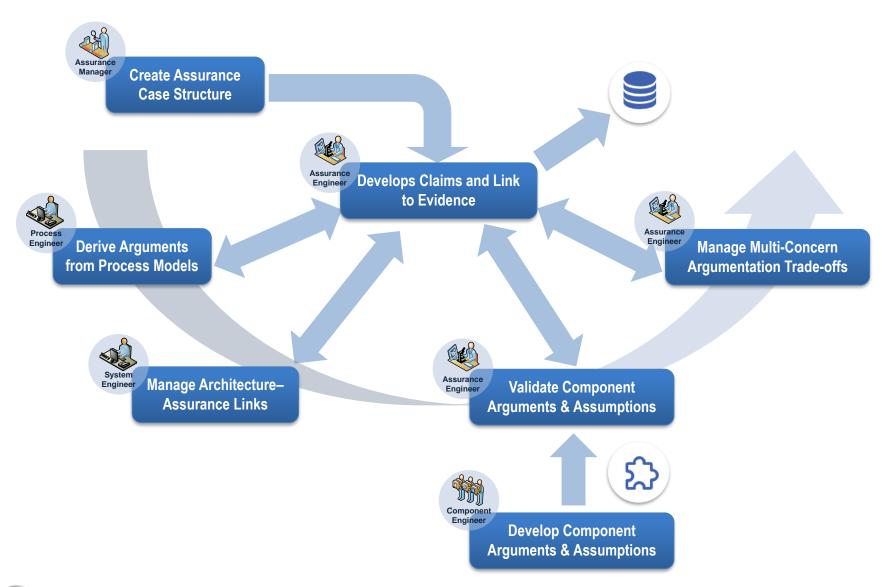




System Design Analysis and V&V

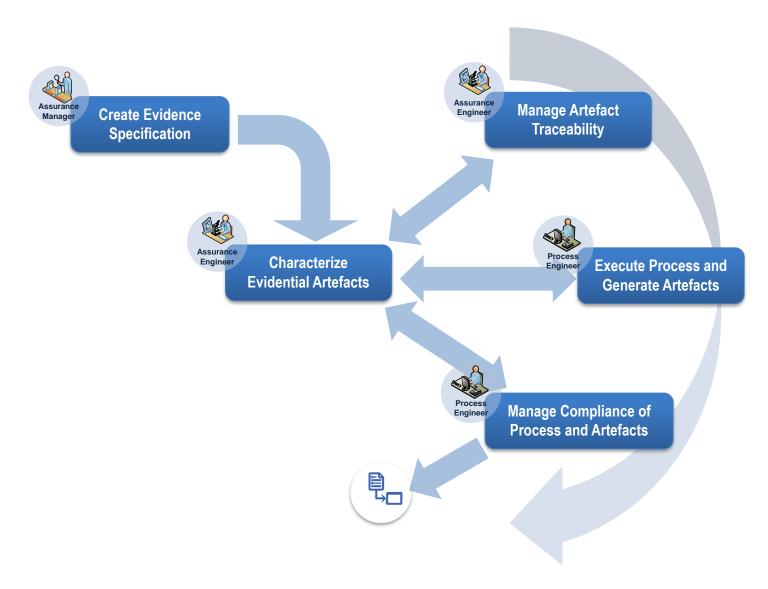


Assurance Case Management





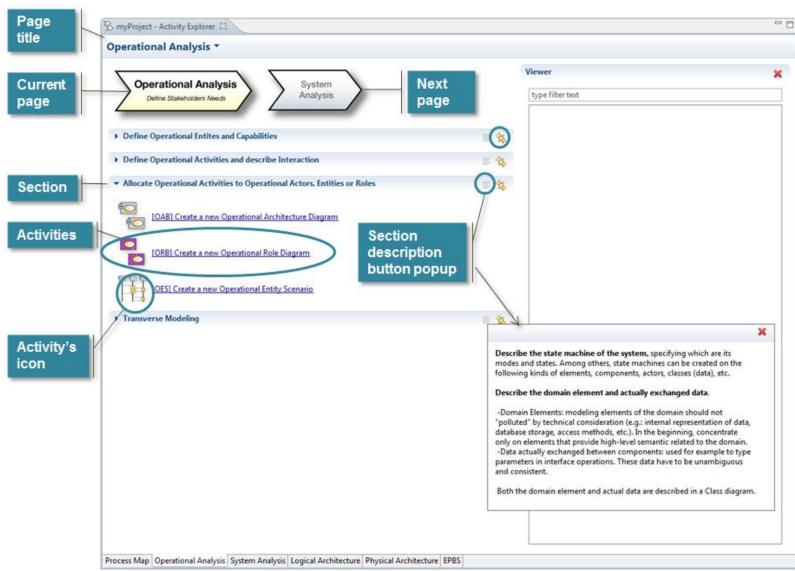
Evidence Management





AMASS Dashboard Implementation (In-progress Work)

On-going discussions; Example of technology: Eclipse Amalgam





Thank you for your attention!



Any questions (?)





