ASAM OpenSCENARIO Looking Forward...

Ben Engel ASAM e.V. 26.03.2020 Virtual





Association for Standardization of Automation and Measuring Systems

Goal Recap

OpenX Standards to enable and support the collaborative development of safe and regulated autonomous functionality

OpenSCENARIO

Fully describe the content of a driving situation (in part by interfacing with other standards or models)



OpenSCENARIO Project Overview

Transfer project

- Move the content of existing documentation to ASAM
- Remove ambiguities
- Extend documentation
- Expected output → New standard version 1.0.0

2.0 Concept project

- Address current and upcoming requirements on OpenSCENARIO
- Expected output \rightarrow Document detailing the concepts to be added to the standard



The Big Questions

What is the difference between 1.x and 2.x?

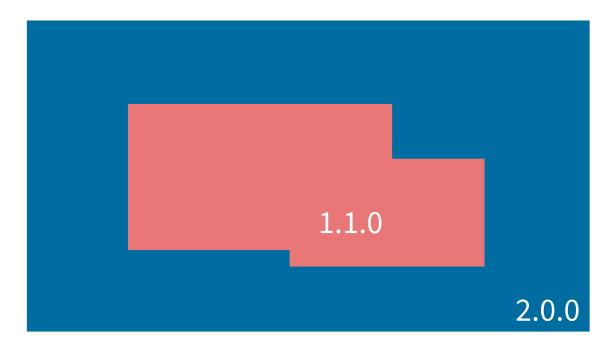
Featureset & availability



Featureset of OpenSCENARIO

Featureset -> "What can it describe and how?"

- What: The use cases covered by the format, i.e. the domain coverage
- How: What mechanics can I use to describe the what?
- The OSC 1.x featureset is a subset of 2.x
- 2.x provides:
 - 1. more "how" \rightarrow DSL
 - 2. more domain coverage \rightarrow more use cases





The Big Questions

What is the difference between 1.x and 2.x?

Featureset & availability

1.x

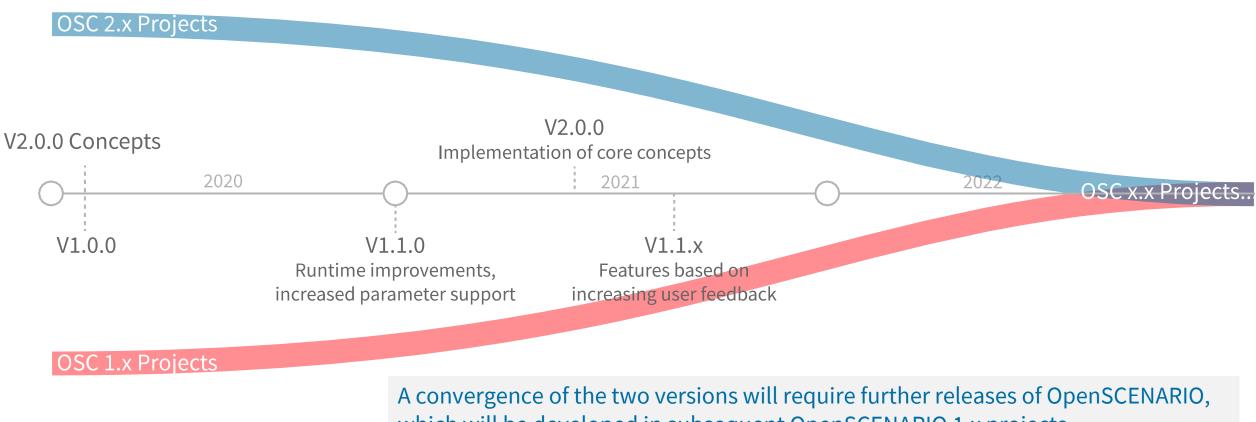
- Support concrete descriptions of scenarios
- XML format based on a UML model
- Provides large number of actions to describe dynamic content
- A solution that is usable now

2.0

- Support multiple abstraction levels for describing scenarios
- Domain Specific Language (DSL)
- Increased functionality (domain model, library concepts, etc..)
- Not yet in development



Roadmap OpenSCENARIO



which will be developed in subsequent OpenSCENARIO 1.x projects.



The Big Questions

Why not wait with 2.0 and rather have a linear development process?

Very high member demand for both...

BUT

ASAM will ensure that both project tracks converge to one version



OpenSCENARIO: Alignment & Achieving Convergence...

- Seamless transition between both versions:
 - 1. The run time behavior of any scenario converted between the latest 1.x and 2.0 OSC languages shall be the same.
 - Both projects shall ensure an up-to-date ruleset for a migration path from 1.x to 2.0.
 → The first release of such a ruleset shall be with the first release of 2.0.0
- Ensure 1.x remains a subset of 2.0

 \rightarrow New concepts introduced in 1.x must be sychronised with developments in the 2.0 project.

Clear convergence roadmap needs to be established
 → Target for roadmap: Q1 2021



Status Updates and Interacting with the Projects

- In contrast to the previous projects, ASAM will provide regular updates on the projects:
 - A high-level overview of the project status
 - Technical information on features, document snippets, etc. to provide insight into the technical development of the standards. These will not be full specification documents or drafts.
- Anyone will be able to open issues via the ASAM repositories to provide feedback or start a discussion
 → More information to follow closer to project start



Benjamin Engel Global Technology Manager, ASAM e.V.

Phone: +49 1516 1645 936 Email: benjamin.engel@asam.net

