

## Webinar: ASAM OpenSCENARIO

Date: 18.03.2020

Time: 14:00 – 17:00 CET

Presenters:

Dr. Ludwig Friedmann BMW AG Project Lead for V1.0.0

Gil Amid Foretellix Project lead for 2.0 Concept

Ben Engel ASAM e.V. Technology Manager for OpenSCENARIO

## **Webinar Agenda**

14:00 – 14:30	Introduction	Ben Engel
14:30 – 15:30	OpenSCENARIO V1.0.0	Ludwig Friedmann
15:30 – 15:40	Coffee Break	
15:40 – 16:40	OpenSCENARIO 2.0 Concepts	Gil Amid
16:40 – 17:55	Q&A Session	Ben Engel
16:55 – 17:00	Wrap up & how to get involved	Ben Engel



# **ASAM OpenSCENARIO Webinar**

Looking Forward...

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## **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 → Document detailing the concepts to be added to the standard



## **The Big Questions**

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

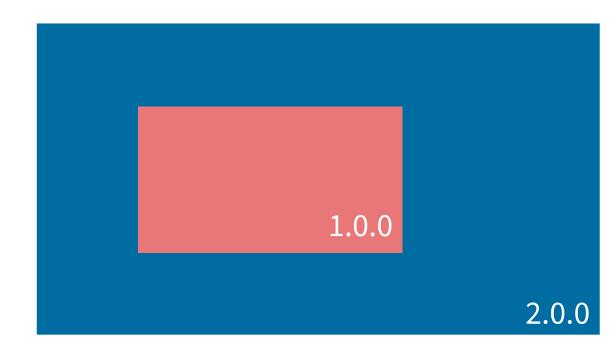
Featureset & availability



## **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" → 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

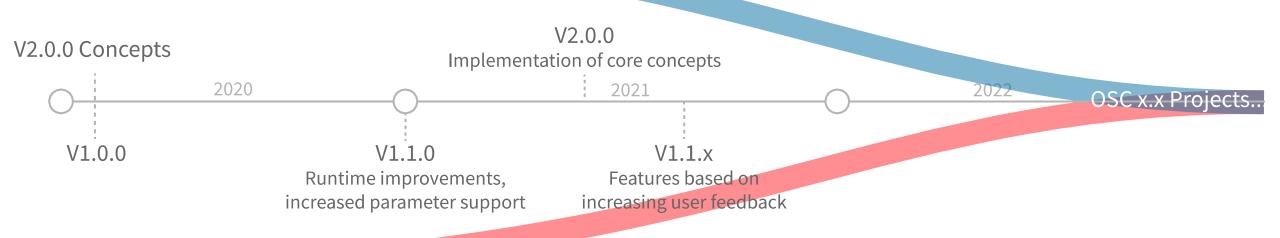
#### 2.0

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



## **Roadmap OpenSCENARIO**

#### OSC 2.x Projects



OSC 1.x Projects

A convergence of the two versions will require further releases of 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.
  - 2. 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
  - → 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



# **ASAM OpenSCENARIO Webinar** Wrap Up

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## **Closing Notes**

Mit Headline, Subheadline und Aufzählung

- View the releases:
  - 1. OpenSCENARIO 1.0.0
    - <u>User Guide</u>
    - <u>Model Documentation</u>
    - Download the full standard (including examples & migration) <u>here</u>
  - 2. OpenSCENARIO 2.0 Concept
    - <u>Concept Paper</u>



## **Participate in the Next Development Activities!**



Joining in the activities allows you to contribute your use cases and make sure future versions of ASAM OpenSCENARIO cover your requirements.

#### V1.x

Virtual Proposal Workshop on 25.03.2020 (<u>register here</u>) / <u>Download the current draft of the proposal</u>

#### V2.0.0

Virtual Proposal Workshop on 26.03.2020 (<u>register here</u>) / <u>Download the current draft of the proposal</u>





# Thank you for your attention!

Dr. Ludwig Friedmann BMW Project Lead for V1.0.0

Gil Amid Foretellix Project Lead for 2.0 Concept

Ben Engel ASAM Technology Manager for OpenSCENARIO

All material will be shared on LinkedIn and sent to Webinar participants by email

For questions:

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## **ASAM Open Tooling**

Mit Headline, Subheadline und Aufzählung

- Many tools (e.g. checkers, visualizers, etc.) directly support the adoption and training of ASAM standards
- In future, ASAM will provide a platform for hosting complimentary, **non-normative**, open-source tools
  - ASAM will support the development of a community around this platform
  - ASAM will not become a software maintainer
  - ASAM will provide gatekeeping/moderation of the platform
  - Tool submission to the platform via "tool proposal" subject to approval of ASAM
  - Any tools can be used as the basis for further development projects, as defined in the general ASAM project processes.



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