Further Development of OpenSCENARIO

Results[*] of pre-standardization meetings with industry-experts:

Features

F001: Maneuver Model
F002: Driver Model
F003: Traffic Model
F004: Weather Model
F005: Environmental Event Model
F006: Vehicle Dynamics
F007: Parameter Stochastics
F008: High-Level Maneuver Descriptions
F009: Replay of Recorded Scenarios
F010: Automatic Parameter Calculation

Other Topics

- Checker Tool
- Parser
- Data Access API
- Test Specifications
- Tool Qualification
- Traffic Simulation Driver Reference Models and Implementations

Requirements

R001: Avoid multiple ways of defining the same maneuver
R002: Define elements as 'mandatory' only when absolutely needed
R003: Maintain independence of standards and open linking between standards
R004: Define three levels of control for ego vehicles
R005: Allow tool-vendor specific extensions
R006: Allow definition of feature subsets
R007: Define simulation results reproducibility
R008: Maneuver descriptions shall be suitable for open-loop and closed-loop simulation.
R009: Define parameter boundaries
R010: Synchronize maneuvers
R011: Allow the definition of success criteria for maneuvers
R012: The description format shall be suitable for manual scenario creation in text editors

[*] tentative, as meetings are on-going

ASAM

ASAM OpenSCENARIO Roadmap

Standard Transfer Project
- Transfer of Wiki to formal standard
- Clarifications on semantics and syntax
- Formal data model (e.g. UML, XSD code gen.)

Standard Further Development
- Concept for new features
- Implementation of concept into standard

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- Implementation of concept into standard

OpenSCENARIO Wiki

OpenSCENARIO 1.0

OpenSCENARIO 1.1

OpenSCENARIO 2.0

Concept Development
- New feature concepts

OpenSCENARIO 2.0 Concept

Tool Development Project
- Requirements
- Rules specification
- SW implementation
- Beta testing
- Release

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"Tool" 1.1

"Tool" 2.0

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