


AVL SCENIUS™

Safe in every sense

Homologating vehicles with assisted driving (ADAS) or automated driving (AD) functions requires safe operation in all conditions and constraints. Consequently, a vast number of test scenarios need to be executed in simulation, at the test track, and on the road. To handle the huge number and complexity of test scenarios, validation, and testing, engineers require an efficient toolchain for easy scenario management, intelligent test planning, and safety, risk, and coverage evaluation.

EASILY MANAGING ADAS/AD SAFETY TESTING

The AVL SCENIUS™ suite is a groundbreaking solution for scenario-based ADAS/AD verification and validation, which supports the complete process from scenario design, management, test generation, allocation, and reporting. Including AVL's multi-domain knowledge leads to increased test performance to release safer products in less time. The smart scenario designer tool is based on the latest standard formats and supports developers during the creation, parametrization, and verification of complex scenarios.

A scalable scenario database and extensive data management ensure traceability and conformity to the latest safety regulations. Unique intelligent test planning methods enable various options for identifying relevant scenario parameters and optimizing them. Open interfaces and modular design allow a seamless integration into different workflows. Advanced reporting dashboards lead to faster analysis and deeper insights into the safety results.



AVL SCENARIO DESIGNER

Easy traffic scenario design, editing, parametrization and verification

- Immediate scenario verification with fast playback
- Provision of optimal routes with editing functions
- Open to different data sources (simulation, test data, ...)
- Executable in virtual and real environments
- Based on OpenSCENARIO standard
- Open to user-defined extensions

AVL SCENARIO DATA MANAGER

Efficient and high-quality scenario handling guided by a standardized workflow

- Central storage and administration of relevant scenario content, including digitized roads, traffic and environment parts
- Assists with functional and logical description of scenarios
- Import and export of scenario content packages
- Supports OpenSCENARIO, OpenDRIVE and OpenScenGraph standards

AVL TEST CASE GENERATOR

Optimized test planning with increased test performance and maximized test coverage

- Support of both manual and smart test planning approaches (combinatorial, A DoE, statistics)
- Test result dashboard with powerful filter and visualization options
- Generation of executable OpenSCENARIO files for virtual and real test environments
- Automatic test execution with AVL's Model.CONNECT™

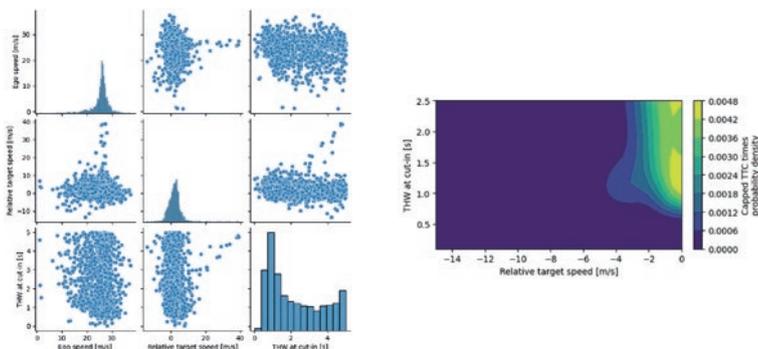
RISK QUANTIFICATION

REAL-WORLD STATISTICS

Offers parameterized real-world scenarios and statistics for developing and assessing ADAS/AD systems. Using statistics, the test plan can be adjusted according to the occurrence probabilities of the scenarios.

SOTIF RISK ASSESSMENT

Our ISO26262 compatible risk quantification method connects real-world data capture with safety validation and risk assessment. The result? A meticulously crafted, type-approval-compliant risk report that ensures the highest standards of safety and reliability.



YOUR VALUE

- **Time and cost saving:** Guided scenario-based workflow and optimized effort through smart algorithms
- **Efficient:** Increased test performance through a smart variety of reliable testing approaches
- **Conformity:** Support of latest test standards and regulations
- **Traceability:** Test progress, coverage and residual risk dashboarding

AVL List GmbH
Hans-List-Platz 1
8020 Graz
Austria

E-mail: scenius@avl.com
www.avl.com/scenius

