



AVL MAESTRA[®].SIGNAL

AVL MAESTRA[®].SIGNAL – Scalable Architecture for Smarter Mobility

AVL MAESTRA[®].SIGNAL is a cloud-based software architecture tool within the AVL MAESTRA[®] toolchain, designed for the development and verification of automotive control software.

It enables efficient, standard-compliant, and agile development of complex software systems across various domains such as ADAS and battery management.

THE CHALLENGE

Automotive software development is becoming increasingly complex, with teams navigating diverse middleware environments, strict safety standards, and tight delivery schedules. Traditional tools often rely on fragmented workflows and manual validation, resulting in inefficiencies, integration issues, and delayed testing.

THE SOLUTION

AVL MAESTRA[®].SIGNAL offers a cloud-native, model-driven platform that streamlines software architecture design. It enables unified architecture management, continuous validation, agile development, and global collaboration — all while ensuring compliance with ASPICE and ISO 26262. This empowers your team to build safer, faster, and future-ready automotive software.



AREAS OF APPLICATION

AVL MAESTRA®.SIGNAL is a flexible tool for automotive development and validation, supporting signal processing, EV battery monitoring, and data analysis for ADAS and autonomous driving empowering smarter, more efficient mobility.

Advantages of AVL MAESTRA®.SIGNAL

- **Standardized Communication**
 - AUTOSAR and ROS ensures smooth component interaction.
 - Easy integration through standard interfaces.
- **Cost Saving**
 - Automatically ensures compliance — no manual tracking needed.
 - Spots issues early via ongoing architecture checks.
 - Improves efficiency via cloud updates and rollouts.
 - Speeds development by cutting rework and fast-tracking validation.
- **Efficient Architecture Development**
 - Model-based design simplifies complex system.
 - Modular design enables reuse and scalability.
- **Compliance & Safety**
 - Built to meet ASPICE and ISO 26262 standards.
 - Virtual verification allows early testing and reduces risk.
- **Accelerated Development Cycles**
 - Integrated toolchain enables ongoing development and fast iteration.
 - Auto-generating virtual ECUs saves time and cost.
- **Quality Enhancement**
 - Quality metrics and automated tests ensure traceable development.
 - Detects errors early through simulation and communication structure analysis.

**Discover the difference!
Contact us to learn more.**

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