VECTOR >

Solutions for AUTOSAR

Tools, Basic Software and Services

What is the AUTOSAR Solution?

Since Vector is one of the first premium members of the AUTOSAR Consortium, we can offer you a complete solution for your projects: **tools, basic software, engineering services, on-site support, training classes**, ... Additionally numerous other tools for ECU testing as well as measurement and calibration are available.

The **AUTOSAR Adaptive Platform** is the standard for new use cases. Vector is involved in the development of this standard and offers individual consulting and an extensive product portfolio.

Overview of Advantages

> Seamless tool chain: from system design to functional software development and integration of the software in your ECU
> A comprehensive package of basic software for the AUTOSAR Classic Platform 4.x, 3.x plus **AUTOSAR Adaptive Platform** from a single source
> Basic software available for many hardware platforms and automotive OEMs
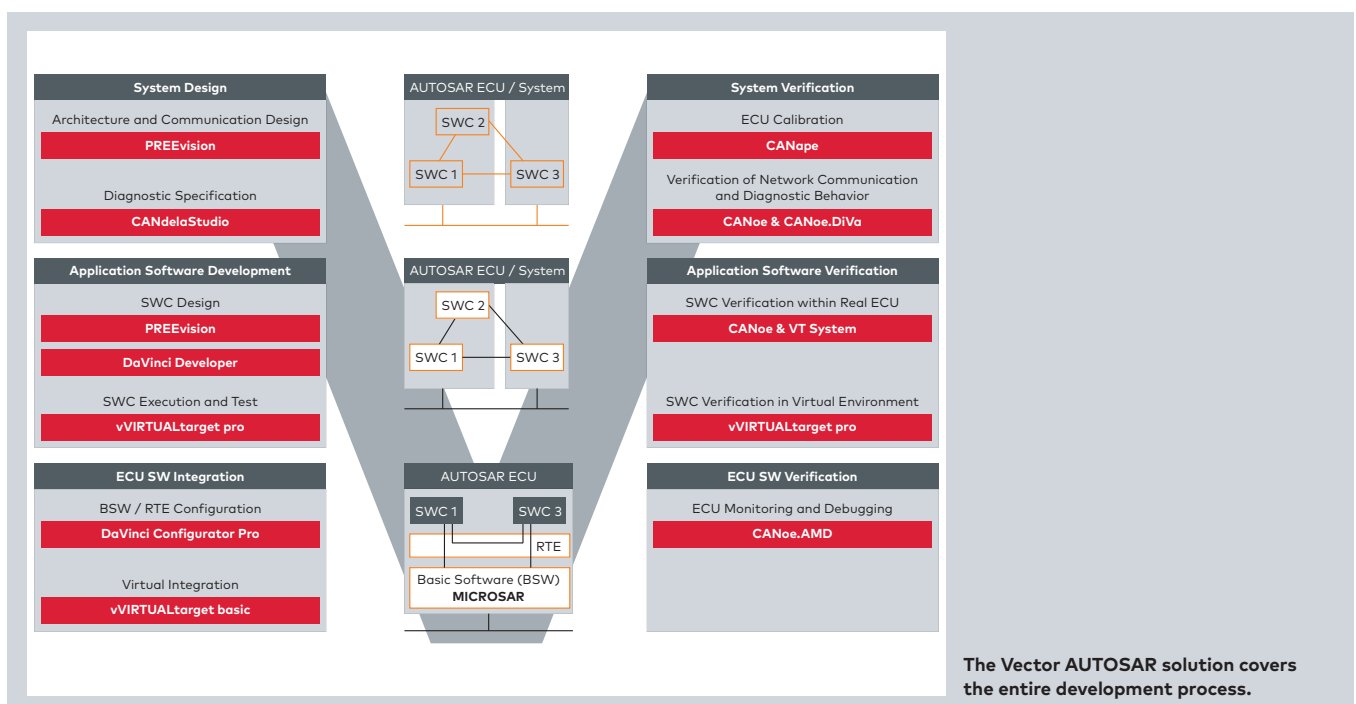> A reliable solution certified by exida up to ASIL D for safety-relevant ECUs per ISO 26262

> In production use at leading OEMs and TIER1 suppliers in numerous projects
> Stepwise migration without loss of quality is possible
> A future-oriented solution with a reliable partner

Adaptive MICROSAR: New Generation ECUs

Adaptive MICROSAR is the ideal solution for computing intensive and dynamic ECU functions. It complements the proven MICROSAR with basic software for the AUTOSAR Adaptive Platform, which is optimized for highly automated driving, multimedia applications and networking services. The architecture is based on an operating system with POSIX interface and allows functions to be integrated and updated at runtime.

MICROSAR: Perfect for the AUTOSAR Classic Platform

MICROSAR lets you efficiently develop production-mature ECUs. MICROSAR consists of the MICROSAR RTE (runtime environment) and the MICROSAR basic software modules (BSW), which cover all aspects of the AUTOSAR standard and include numerous practical extensions. The modules are **available for AUTOSAR 4.x and AUTOSAR 3.x**.

System Design	AUTOSAR ECU / System	System Verification
Architecture and Communication Design	SWC 2 / SWC 1 / SWC 3	ECU Calibration
PREEvision		**CANape**
Diagnostic Specification		Verification of Network Communication and Diagnostic Behavior
CANdelaStudio		**CANoe & CANoe.DiVa**
Application Software Development	AUTOSAR ECU / System	**Application Software Verification**
SWC Design	SWC 2 / SWC 1 / SWC 3	SWC Verification within Real ECU
PREEvision		**CANoe & VT System**
DaVinci Developer		
SWC Execution and Test		SWC Verification in Virtual Environment
vVIRTUALtarget pro		**vVIRTUALtarget pro**
ECU SW Integration	AUTOSAR ECU	**ECU SW Verification**
BSW / RTE Configuration	SWC 1 SWC 3 RTE	ECU Monitoring and Debugging
DaVinci Configurator Pro		**CANoe.AMD**
Virtual Integration	Basic Software (BSW) **MICROSAR**	
vVIRTUALtarget basic		

The Vector AUTOSAR solution covers the entire development process.

Functional Safety / ISO 26262

MICROSAR Safe permits the mapping of safety requirements to the AUTOSAR basic software. Different components provide mechanisms to ensure **freedom from interference** and further monitoring functions. This lets you develop AUTOSAR-based applications for ECUs **up to ASIL D**.

MICROSAR Safe is available for both AUTOSAR 4.x and AUTOSAR 3.x.

DaVinci: AUTOSAR Tools

> **DaVinci Developer**: Graphic-based definition of AUTOSAR software components
> **DaVinci Configurator Pro**: Configuration of the MICROSAR basic software and RTE, the basic software from third-party suppliers and for in-house developed modules (e.g. complex drivers)

Additional Tools

> **PREEvision**: Specification and management of in-vehicle electronic systems; e.g. definition of requirements, design of distributed functions, definition of components and data communication
> **CANdelaStudio**: Specification of the diagnostic functionality
> **vVIRTUALtarget pro**: Verification of the Implementation of AUTOSAR SWCs in a virtual environment on a PC. Please contact Vector regarding the availability.
> **vVIRTUALtarget basic**: Virtual ECU to execute the integrated AUTOSAR code on a PC
> **CANape**: Measurement and Calibration of ECU-internal data
> **CANoe**: Development, test and analysis of entire ECU networks and individual ECUs
> **CANoe. AMD**: Access to ECU-internal parameters and extensive test options for shortening debug times substantially

All about the Vector AUTOSAR Solution:
www.vector.com/autosar