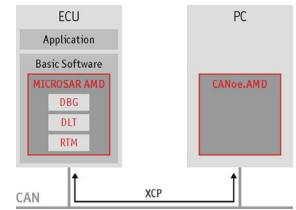


## Extensive testing and debugging of embedded software

Stuttgart, GERMANY, 2014-05-08 – The completely revised AUTOSAR basic software package MICROSAR AMD (AUTOSAR Monitoring and Debugging) from Vector now provides extensive testing and debugging functions for AUTOSAR ECUs. The package contains the "Diagnostic Log and Trace" and "Debugging" modules as defined in AUTOSAR 4.x, and also the useful extra "Runtime Measurement Module". Together with the CANoe.AMD test tool, MICROSAR AMD gives ECU developers convenient access to valuable information on runtimes and statuses of the application and basic software. In test environments it is now easier to compare internal ECU parameters to external parameters and bus communication.



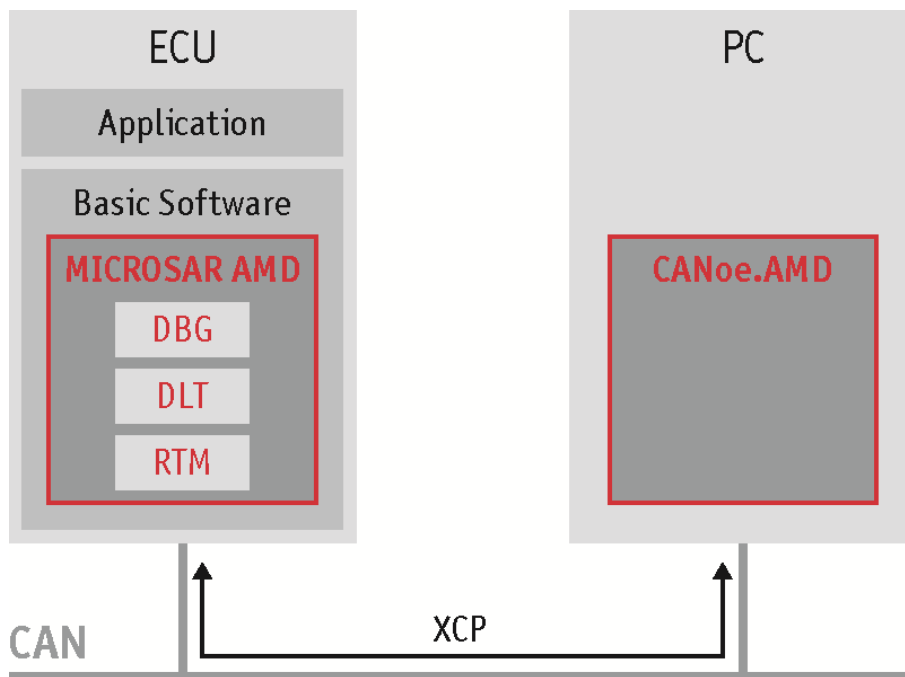
MICROSAR AMD consists of the three modules RTM, DLT and DBG. The Runtime Measurement Module (RTM) is an extension of the AUTOSAR standard and permits the measurement of runtimes at any points in the application and the basic software (BSW). Typical applications include the determination of interrupt or task runtimes. CANoe.AMD controls the measurement and generates an HTML report with the measurement results including statistical information (CPU Load, Min, Max, average runtime).

The Diagnostic Log and Trace Module (DLT) derived from AUTOSAR has been optimized for use in slim embedded systems. It informs the developer about freely definable events and statuses in an ECU which are transmitted to CANoe.AMD as text output. Events from the Development Error Tracer (DET) and the fault memory (DEM) can also be transmitted via the DLT module to CANoe.AMD.

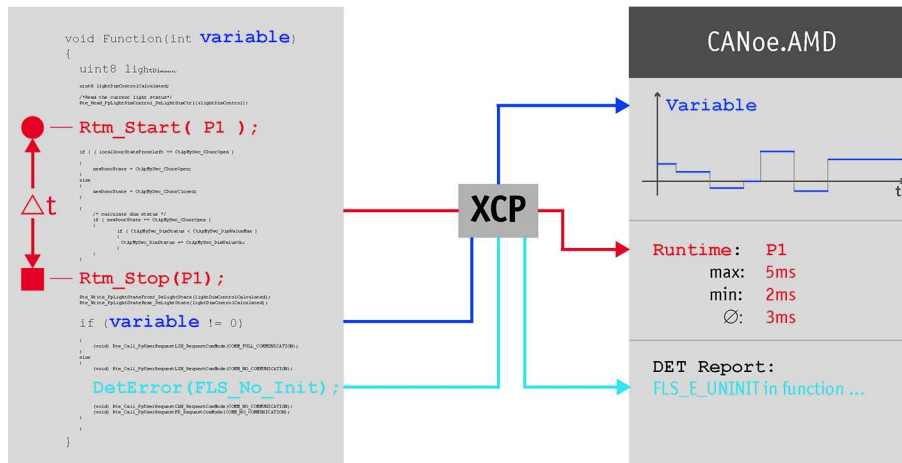
The debug (DBG) interface permits live access to the BSW statuses. Rather than having to perform a test to ascertain these statuses, they are now read directly out of the ECU memory via the bus system and presented in CANoe.AMD.

Communication between a Test PC with CANoe.AMD and the ECU takes place by way of the standardized measurement and calibration protocol XCP. An XCP implementation is available from Vector for all standard network protocols (CAN, Ethernet, FlexRay or LIN).

More product related information: [www.vector.com/microsar](http://www.vector.com/microsar)



[Figure 1a: MICROSAR AMD provides easy access to internal ECU information]



[Optional Figure 1b: MICROSAR AMD provides easy access to internal ECU information]

Revised: 5/2014

Word count: 316

Character count: 2,069

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**About Vector Group** (Revised: 2014-05-01):

Vector is the leading manufacturer of software tools and software components for the development of electronic systems and their networking based on CAN, LIN, FlexRay, Ethernet and MOST as well as multiple CAN based protocols.

The Vector know-how is reflected in a wide range of tools as well as in integrated consulting services with software and systems engineering. Workshops and seminars complete the manifold training program. Customers from the automotive engineering, the commercial vehicle, aerospace, transportation and control technologies around the world trust in the solutions and products from the independently-owned Vector Group.

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