Product News

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IAR Systems integrates powerful code analysis with functional safety tools for ARM

Extends features and device support in functional safety edition of IAR Embedded Workbench for ARM certified according to IEC 61508, EN 50128, and ISO 26262

Uppsala, Sweden—October 29, 2015—Today, IAR Systems® releases a new version of the functional safety edition of the complete embedded development toolchain IAR Embedded Workbench® for ARM®. The build chain of IAR Embedded Workbench for ARM is certified by TÜV SÜD as a qualified tool for development of safety-related applications. The new version integrates IAR Systems' add-on tools C-STAT® and C-RUN® for powerful static and runtime code analysis. In addition, extensive new functionality has been added. Support for the new ARM Cortex®-M7 core is now available, as well as new ARM-based devices from major semiconductor vendors including Atmel, Cypress, Freescale, Infineon, NXP, STMicroelectronics, Renesas, Toshiba and Texas Instruments.

IAR Embedded Workbench for ARM has been tested and approved according to the requirements on support tools put forth in IEC 61508, the international umbrella standard for functional safety, as well as ISO 26262, which is used for automotive safety-related systems and EN 50128, the European railway standard. IEC 61508, and standards derived from it, is used within all kinds of industries with requirements on reliability and safety, for example process industries, the oil and gas industry, nuclear power plants, machinery, and railway control systems.

The add-on tool C-STAT for static analysis is now supported. C-STAT features innovative static analysis that can detect defects, bugs, and security vulnerabilities as defined by CERT and the Common Weakness Enumeration, as well as help keeping code compliant to standards like MISRA C:2012/2004 and MISRA C++:2008. Also supported is the add-on tool C-RUN for runtime analysis. C-RUN performs arithmetic checks, advanced bounds checking, heap checking, etc. By using runtime analysis, developers can find potential and real errors at an early stage and minimize the impact on project budgets and deadlines. C-STAT and C-RUN are complete integrated in IAR Embedded Workbench, no integration work is needed, you get started quickly and you get instant feedback on the quality of your code.

In the C-SPY® Debugger, support for IAR Systems' I-scope power measurement probe is now

available. Also introduced is multicore debugging support for symmetric multicore processing (SMP) and asymmetric multicore processing (AMP).

Developers working with applications based on ARM Cortex-A processors can now make use of NEON vectorization in IAR Embedded Workbench. With the possibility to automatically vectorize the code, developers are able to achieve faster application response time, improve application battery lifetime and further meet the market demands for low cost and low power.

IAR Embedded Workbench for ARM is a complete development toolchain for creating embedded applications. It includes high-performance compiler and debugger tools incorporated in an easy-to-use integrated development environment. Learn more about IAR Systems' functional safety offering at www.iar.com/safety.

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Editor's Note: *IAR Systems, IAR Embedded Workbench, IAR Connect, C-SPY, C-RUN, C-STAT, visualSTATE, IAR KickStart Kit, IAR Experiment!, I-jet, I-jet Trace, I-scope, IAR Academy, IAR, and the logotype of IAR Systems are trademarks or registered trademarks owned by IAR Systems AB. All other products names are trademarks of their respective owners.*

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About IAR Systems

IAR Systems provides developers of embedded systems with world-leading software tools for developing competitive products based on 8-, 16-, and 32-bit processors. Established in Sweden in 1983, the company has over 46,000 customers globally, mainly in the areas of industrial automation, medical devices, consumer electronics, telecommunication, and automotive products. IAR Systems has an extensive network of partners and cooperates with the world's leading semiconductor vendors. IAR Systems Group AB is listed on NASDAQ OMX Stockholm. For more information, please visit www.iar.com.