IAR Systems' complete Renesas offering extended with tools for new RH850 core for automotive applications

Uppsala, Sweden—September 18, 2012—IAR Systems announces the on-going development of a complete set of powerful development tools for Renesas Electronics Corporation's next-generation RH850 microcontrollers. The tool suite, IAR Embedded Workbench for RH850, is based on IAR Systems' well-proven tools for Renesas V850, but includes adaptions and new optimizations that enable developers to fully benefit from the high performance offered by the new RH850 core.

Thanks to its longstanding collaboration with Renesas, IAR Systems is the only tool vendor able to deliver high-performing development tools for the entire lineup of Renesas microcontrollers. This enables IAR Systems' customers to move freely between different targets, choosing the one best suited for a specific application, while using the same development tools. It also simplifies migration and re-use of code.

The RH850 microcontrollers are targeted for automotive applications and are the industry's first with embedded 40nm flash technology. The series combines high performance and low power consumption and addresses functional safety and security requirements. Specifically addressing the needs of the automotive industry, the RH850 microcontrollers offer features such as ultra low power, high temperature tolerance, multi-core technology, and compliance with AUTOSAR. These features are available within a range of specialized microcontroller series, covering different needs for different types of automotive applications.

The IAR C/C++ Compiler for RH850 contains several levels of optimizations, generic as well as low-level processor-specific, generating very compact, fast performing code. For the new tool chain, the arithmetic libraries have been rewritten, gaining a major increase in performance. Other enhancements include a new and improved source browser and text editor, with user-friendly features such as auto-completion, code and comment folding, parameter hints, block selection and indentation, bracket matching, and zooming.

IAR Embedded Workbench for RH850 uses the industry-standard ELF/DWARF object format, and is compliant with Renesas ABI (Application Binary Interface), which ensures link compatibility between tool chains. This makes it possible for IAR Embedded Workbench users to utilize libraries created with other Renesas ABI-compliant software tools. Renesas E1/E20 emulators are supported, as well as kernel-

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aware debugging with built-in plug-ins for a large number of real-time operating systems (RTOSes). IAR Systems' tools comply with industry standards and are well tested. During development, integrated automatic checking of MISRA-C rules helps ensure the safety and reliability of the applications designed.

"Our new RH850 microcontrollers give new possibilities for our automotive customers, "says Hisashi Takahashi, General Manager, MCU Software Division, MCU Business Unit, Renesas Electronics. "We have a strong relationship with IAR Systems, and I am excited our customers will yet again be able to benefit from this close cooperation. IAR Systems has the habit of consistently delivering reliable tools that are highly optimized for our new architectures, and its tools will enable users to leverage the full possibilities of the RH850 devices."

"The collaboration between IAR Systems and Renesas has a long history, and our relationship is stronger than ever," comments Stefan Skarin, CEO, IAR Systems. "I am confident that the technology and strength of Renesas together with our commitment to offer world-leading tools will position our joint solution well in the automotive market."

IAR Embedded Workbench for RH850 will be made available during 2012.

More information
Special interview with Renesas Electronics and IAR Systems, published in *Renesas Edge Magazine*:
http://www.renesas.com/edge_ol/partner/09/

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About IAR Systems

IAR Systems is the world's leading supplier of software tools for developing embedded systems applications. The software enables over 14,000 large and small companies to develop premium products based on 8-, 16-, and 32-bit microcontrollers, 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.