

Product News

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IAR Systems earns best-ever CoreMark scores on STMicroelectronics' STM32 ARM Cortex-M4

IAR Embedded Workbench and the STM32 F4 Series deliver highest performance on the embedded industry's standard benchmark

Uppsala, Sweden—July 31, 2012—IAR Systems® announces that its development tool suite for ARM®, IAR Embedded Workbench®, delivers the best CoreMark scores ever for an ARM Cortex™-M4 microcontroller. The new version of IAR Embedded Workbench for ARM includes major speed optimizations now proven on hardware. Targeting the CoreMark suite to the STMicroelectronics STM32F417IGT6 processor, with an operating frequency of 168MHz, the benchmark reaches the highest score on Cortex-M-based products running from embedded Flash memory: 2.98 CoreMark/MHz and a total CoreMark score of 501. Running from RAM with zero wait states, the benchmark cruises to a CoreMark/MHz in excess of 3.

This achievement confirms that IAR Systems provides the industry-standard tool suite that best enables developers to generate the most compact code. These CoreMark results demonstrate that, with IAR Embedded Workbench, developers now have the opportunity to generate code that executes faster than before. With the recent launch of version 6.40, IAR Embedded Workbench for ARM generates code that is 50 percent faster than the GCC open-source compiler for ARM.

The STM32F417 product is part of STMicroelectronics' high-performance STM32 F4 series, targeted for demanding applications such as consumer audio accessories, industrial motor control, power management, medical equipment and security. The series is based on the ARM Cortex-M4 core with Floating Point Unit (FPU) and, in addition to low-power consumption, features advanced design and high-performance DSP capabilities. The compact code generated by IAR Embedded Workbench takes advantage of the power-saving capabilities of the controller and keeps application overhead to a minimum.

"End customers demand more and more functionality from today's embedded device," noted Daniel Colonna, Marketing Director for 8- and 32-bit Microcontrollers at STMicroelectronics. "Our STM32 F4 series includes the highest performing ARM Cortex-M-based microcontrollers available on the market today, and the performance and powerful optimizations that IAR Embedded Workbench brings to the

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table ensure that the developer can make the most of its capabilities.”

More information about IAR Embedded Workbench for ARM is available at www.iar.com/ewarm.

CoreMark was developed by EEMBC, a non-profit industry association for embedded microprocessor benchmarks. CoreMark is a simple, yet sophisticated, benchmark that is designed specifically to test the functionality of a processor core. Running CoreMark produces a single-number score allowing users to make quick comparisons between processors. Scores are published at www.coremark.org.

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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