



## Product News

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# IAR Systems leads the way for secure IoT development based on Arm TrustZone and Arm Cortex-M

**The leading independent Arm tools provider enables companies to go to market early with robust, secure IoT products**

Arm TechCon, San Jose, CA—October 16, 2018—IAR Systems®, the future-proof supplier of software tools and services for embedded development, enables companies worldwide to create high-performance embedded applications based on the latest security technology.

Arm® TrustZone® technology provides system-wide hardware isolation for trusted software. The technology creates an isolated secure world to provide confidentiality and integrity to the system. TrustZone for Arm Cortex®-M is used to protect firmware, security keys, crypto property, peripheral and I/O operations, as well as to provide isolation for secure boot, trusted update and root of trust implementations without compromising the deterministic real-time response expected for embedded solutions.

Back in 2016, IAR Systems was the first independent development tools provider to enable early software development for devices based on the next generation Arm Cortex-M architectures. By making use of virtual prototyping in Arm Fast Models, support in IAR Embedded Workbench® was available already before silicon availability. IAR Embedded Workbench now supports all TrustZone-enabled microcontrollers that have so far been released based on the Arm Cortex-M23 and -M33 architectures. This includes the Arm Cortex-M23-based SAM L11 microcontroller family from Microchip Technology Inc., as well as Nuvoton's NuMicro M2351 microcontroller series, also based on Arm Cortex-M23. Also supported is the new NXP's LPC5500 Arm Cortex-M33-based microcontroller series. In addition, IAR Systems has announced support for the coming Arm Cortex-M33-based STM32L5 microcontroller series from STMicroelectronics.

IAR Embedded Workbench is a leading development toolchain for Arm Cortex-M microcontrollers. Thanks to significant speed optimizations, the included IAR C/C++ Compiler™ generates very fast and efficient code. With the shortest possible execution times, it is the ultimate choice for development of high-

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performance, low-power applications. The compiler and linker follow the Arm ACLE security extensions for Arm Cortex-M23 and Cortex-M33, and the linker will automatically generate the jump table for the Non-Secure Callable region. The powerful C-SPY® Debugger includes comprehensive debugging functionality such as full instruction trace enabled by Embedded Trace Macrocell (ETM). It also offers RTOS plugins and wide support for communication stacks and middleware. To ensure code quality, integrated and easy-to-use static and runtime analysis tools are available. The toolchain is also available with build chain certification according to IEC 61508, ISO 26262, EN 50128 and IEC 62304.

“Our customers, ranging from some of the world’s largest corporations to tens of thousands of small and mid-sized companies, trust us to provide the tools they need when they need them,” comments Anders Holmberg, Chief Strategy Officer, IAR Systems. “We will continue to leverage our strong relationships and long-standing knowledge sharing with partners to guarantee we always deliver superior technology as well as early device support.“

In cooperation with its sister company Secure Thingz, IAR Systems provides extended possibilities for implementing security in IoT applications. Secure Thingz, a global domain expert in device security, embedded systems and lifecycle management, is focused on delivering advanced security solutions to solve the major security issues challenging the IoT. The solutions ensure a cost-efficient root of trust in low-cost microcontrollers to deliver a core set of critical services through the product lifecycle, alongside secure deployment, secure manufacturing and secure update infrastructure.

- Learn more about IAR Embedded Workbench at [www.iar.com/iar-embedded-workbench/](http://www.iar.com/iar-embedded-workbench/)
- Learn more about Secure Thingz’ security solutions at [www.securethingz.com](http://www.securethingz.com)

### Ends

**Editor's Note:** IAR Systems, IAR Embedded Workbench, Embedded Trust, IAR Connect, C-SPY, C-RUN, C-STAT, IAR Visual State, IAR KickStart Kit, 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 product names are trademarks of their respective owners.

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### **About IAR Systems**

IAR Systems supplies future-proof software tools and services for embedded development, enabling companies worldwide to create the products of today and the innovations of tomorrow. Since 1983, IAR Systems' solutions have ensured quality, reliability and efficiency in the development of over one million embedded applications. The company is headquartered in Uppsala, Sweden and has sales and support offices all over the world. Since 2018, Secure Thingz, a provider of advanced security solutions for embedded systems in the IoT, is part of IAR Systems. IAR Systems Group AB is listed on NASDAQ OMX Stockholm, Mid Cap. Learn more at [www.iar.com](http://www.iar.com).