



IAR empowers AI and ML Development with Full Tool Support for Renesas RA8 Series

IAR Embedded Workbench for Arm is geared up to support early adopters of the Renesas RA8 Series MCUs, the first to feature the Arm® Cortex®-M85 processor with Arm's Helium technology.

Uppsala Sweden, November 1, 2023 – IAR, the world leader in software and services for embedded development, announces seamless integration of support for Renesas RA8 MCUs in the latest release of IAR Embedded Workbench for Arm, version 9.40.2. This update provides extensive support for the cutting-edge Arm® Cortex®-M85-based RA8 devices.

Key Highlights:

Cutting-edge support: IAR's Embedded Workbench now empowers developers to harness the capabilities of the Renesas RA8 MCUs, powered by the Arm® Cortex®-M85 processor featuring Arm's Helium technology.

Enhanced Security: The Pointer Authentication and Branch Target Identification (PACBTI) extension ensures code and system integrity, enhancing security for developers.

AI and ML ready: With Arm's Helium technology and IAR Embedded Workbench's optimization, developers can immediately start building powerful applications in Artificial Intelligence (AI), Machine Learning (ML), and Digital Signal Processing (DSP).

Strong partnership: IAR's rapid integration of support for the RA8 MCUs can be attributed to the longstanding partnership with Renesas, spanning diverse systems, including IoT, consumer, and industrial applications.

The Renesas RA8 Series MCUs are the first to feature Arm Cortex-M85 processor and Arm's Helium technology for enhanced DSP and AI/ML capabilities, with the first devices, the RA8M1 Group, now having begun volume shipments. The RA8 MCUs offer extensive support for low voltage and include various low-power modes. They boast remarkable efficiency, with current consumption dropping as low as 0.5µA in RTC mode with battery backup functionality. With an impressive performance rating of 6.39 Coremark/MHz, these MCUs are the most potent available today, expanding potential use cases into applications that previously required microprocessors (MPUs). The RA8 Series incorporates top-tier hardware and software-based security features, including Advanced Cryptographic Acceleration, TrustZone, and Tamper Protection.

The IAR Embedded Workbench for Arm is a comprehensive development toolchain renowned for accelerating embedded development while fortifying security. It compasses the highly optimizing IAR C/C++ Compiler and advanced debugging functionalities, facilitated by the code analysis tools IAR C-STAT and IAR C-RUN. The latest release of the tool suite introduces a PACBTI extension, providing a robust defense against Return-Oriented Programming (ROP) and Jump-Oriented Programming (JOP), thereby eliminating exploitable software vulnerabilities.

"Developers aiming to harness the high performance and reliable security features of the Renesas RA8 require an equally powerful development tool suite, such as the IAR Embedded Workbench for Arm," said Andy Beeson, Product Manager Renesas Electronics. "IAR stands as a trusted partner within the Renesas tools ecosystem, enabling our customers to commence RA8 MCU-based designs promptly."



“We are excited to be the industry’s first to offer complete tools support for the new Renesas RA8 series,” said Anders Holmberg, CTO at IAR. “With the RA8 MCUs delivering remarkable performance and security, our tools ensure that embedded developers can fully leverage these capabilities for their AI and ML applications.”

More information on the IAR Embedded Workbench for Arm, which extends its support beyond the Renesas RA8 to encompass more than 8,700 Arm devices, please visit is available at <https://www.iar.com/ewarm>.

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About IAR

IAR provides world-leading software and services for embedded development, enabling companies worldwide to create secure and innovative products for today and tomorrow. Since 1983, IAR’s solutions have ensured quality, security, reliability, and efficiency in developing over one million embedded applications for companies across industries such as industrial automation, IoT, automotive and medical. IAR supports 15,000 devices from over 70 semiconductor partners. The company is headquartered in Uppsala, Sweden, and has sales and support offices worldwide. IAR is owned by I.A.R. Systems Group AB, listed on NASDAQ OMX Stockholm, Mid Cap (ticker symbol: IAR B). To learn more, visit www.iar.com.

***Editor's Note:** IAR, IAR Embedded Workbench, Embedded Trust, Embedded Secure IP, C-Trust, C-SPY, C-RUN, C-STAT, IAR Visual State, I-jet, I-jet Trace, IAR Academy, IAR, and the logotype of IAR 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

At IAR, we provide world-leading software and services for embedded development, empowering companies globally to bring secure products that shape the future. Since its founding in 1983, our solutions have been instrumental in ensuring quality, security, reliability, and efficiency in the development of over one million embedded applications for a wide range of industries, including Automotive, Industrial Automation, IoT, MedTech, Military, and Public Safety sectors. With support for 15,000 devices from over 70 semiconductor partners, we are dedicated to fostering innovation and enabling our customers' success.

The company is headquartered in Uppsala, Sweden, with a global presence of sales and support offices strategically located across the world. IAR is an I.A.R. Systems Group AB subsidiary, listed on NASDAQ OMX Stockholm, Mid Cap (ticker symbol: IAR B). To learn more, visit us at www.iar.com.



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Image Attachments

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