



IAR enables agile automotive development on Renesas RH850/U2A MCU with MCAL support

September 4, 2025 – Uppsala, Sweden. IAR announces that Renesas has released its new RH850/U2A MCAL (Microcontroller Abstraction Layer) package qualified for mass production, with support for the IAR toolchain for RH850 (v2.21.2 FS). The Renesas RH850/U2A microcontroller family is designed for automotive applications that demand high performance, functional safety, and low power consumption. The RH850/U2A is well-suited for systems such as ADAS, body control, and electric vehicle platforms.

The MCAL package for RH850/U2A ASIL D MP is now available through Renesas. It includes configuration and sample drivers based on AUTOSAR R22-11 and supports IAR's compiler as a qualified toolchain for production projects.

Supporting RH850/U2A development

As the automotive industry transitions toward Software-Defined Vehicles (SDVs), the demand for embedded MCAL solutions continues to grow. SDVs rely heavily on embedded systems to deliver core functions, from vehicle control to over-the-air updates and driver assistance. In this environment, the MCAL layer plays a crucial role by providing a consistent abstraction between software and hardware. This simplifies integration, promotes reusability across vehicle models and platforms, and supports the level of safety, security, and flexibility required in modern automotive software development.

The latest RH850/U2A MCAL package enables developers to use IAR's toolchain in production environments where code quality, compliance, and tool stability are essential. It helps reduce development time and simplifies integration across different application domains.

"IAR has been a trusted toolchain partner across RA, RX, RL78, and RH850 architectures for many years," said Sandra Stehr, Senior Manager at Renesas Electronics. "With this release, RH850/U2A users gain access to a qualified toolchain and a well-established development workflow."

The IAR toolchain for RH850 (v2.21.2 FS) integrates into modern development workflows. It supports CI/CD tools, including GitHub, GitLab, and Jenkins. With functional safety and ISO 26262 certification support, the IAR platform helps teams reduce risk and streamline compliance across automotive software development.

"With the Renesas RH850/U2A MCAL qualified for mass production and supporting IAR's RH850 toolchain, developers have a solid path to deploy AUTOSAR-based applications at scale on a proven high-performance device. IAR is the modern choice for automotive embedded teams, combining TÜV SÜD-certified compilers, first-party VS Code extensions, CI/CD integrations, and integrated static analysis," said Thomas Andersson, Chief Product Officer at IAR.



IAR and Renesas have collaborated since the 1980s. IAR's embedded platform currently supports over 4,000 Renesas devices across various product families, including RA, RX, RL78, RH850, RZ, and RISC-V. This long-standing relationship continues to support developers with stable, well-integrated toolchains optimized for Renesas platforms.

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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, and 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.

Image Attachments

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Attachments

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