



IAR Systems' Functional Safety Certified Development Tools for RISC-V support latest SiFive Automotive Solutions

IAR Embedded Workbench for RISC-V provides full core support for the recently introduced SiFive Automotive E6-A and S7-A products

Uppsala, Sweden – October 17, 2022 – IAR Systems®, the world leader in software and services for embedded development, continues their support for SiFive's RISC-V Automotive CPU IP: The IAR Embedded Workbench™ for RISC-V aims at the latest SiFive Automotive E6-A and S7-A product series which address the needs of automotive applications like infotainment, connectivity, and ADAS. IAR's complete development solution helps embedded software developers at OEMs and suppliers to maximize the energy efficiency, simplicity, security, and flexibility upsides that RISC-V offers.

RISC-V uses a single instruction set architecture (ISA) across all product offerings, increases code portability, and can greatly reduce cost and time-to-market also for automotive applications. The SiFive Automotive processor Family offers a high level of flexibility, with options that enable both area and performance optimization for different integrity levels like ASIL B, ASIL D, or mixed criticalities with split-lock, in line with ISO26262. The recently announced E6-A series is aimed at a variety of real-time, 32-bit applications, from system control to hardware security modules (HSMs) and safety islands, and of course standalone in microcontrollers. The new S7-A is a 64-bit, high-performance real-time core perfectly suited to the needs of modern SoC with performant safety islands, requiring both low latency interrupt support and the same 64b memory space visibility as the main application CPUs.

IAR Embedded Workbench for RISC-V is a complete development toolchain including the powerful IAR C/C++ Compiler™ and a comprehensive debugger. Customers can generate compact-sized code with best-in-class performance and safety for automotive applications, as the tools come with a comprehensive safety offering. The functional safety edition of IAR Embedded Workbench for RISC-V is certified by TÜV SÜD according to the requirements of several functional safety standards, including ISO 26262 and IEC 61508. To ensure code quality for automotive applications, the seamlessly integrated C-STAT® tool for static code analysis proves code alignment with industry standards like MISRA C:2012, MISRA C++:2008 and MISRA C:2004.

“RISC-V is a modern ISA with a fast-growing ecosystem and brings many power and performance benefits

– more –

to automotive manufacturers and suppliers. SiFive is combining the best of these in the only end-to-end long-term RISC-V roadmap designed to meet automotive needs today and well into the future”, said Phil Dworsky, Global Head of Strategic Alliances, SiFive. “With IAR Systems, we have a strong ecosystem partner to further advance the success of SiFive’s RISC-V technology in the automotive industry.”

“IAR Systems is a proactive member of the RISC-V community. Our close relationship with SiFive enables us to provide support for their latest CPU IP”, said Anders Holmberg, CTO of IAR Systems. “Accordingly, customers in the automotive industry can take full advantage of developing with our professional tools and accelerate their development processes to achieve faster time to market.”

Customers using IAR Embedded Workbench for RISC-V benefit from IAR Systems’ guaranteed support for the sold version for the duration of the support contract, validated service packs, and regular reports of known deviations and problems. For more information on IAR Systems’ solutions for RISC-V, please visit www.iar.com/riscv; for more details on IAR Systems’ offering for functional safety, please visit www.iar.com/safety.

Ends

Editor's Note: IAR Systems, IAR Embedded Workbench, Embedded Trust, C-Trust, C-SPY, C-RUN, C-STAT, IAR Visual State, I-jet, I-jet Trace, 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.

IAR Systems Contacts

Rafael Taubinger, Senior Product Marketing Manager, IAR Systems

Tel: +46 18 16 78 00 Email: rafael.taubinger@iar.com

About IAR Systems

IAR Systems provides world-leading software and services that drive developer productivity in embedded development and embedded security, enabling companies worldwide to create and secure the products of today and the innovations of tomorrow. Since 1983, IAR Systems has been producing over 5 million lines of code; more than 3 million of those reside in the solutions IAR Embedded Workbench for Arm and RISC-V. IAR Systems’ tools support more than 14,000 devices from over 200 semiconductor partners worldwide, serving some 100,000 developers, who are working for a mix of Forbes 2000 companies, SMEs, and startups. IAR Systems is headquartered in Uppsala, Sweden, and has more than 220 employees in 14 offices distributed across APAC, EMEA, and North America. IAR Systems is owned by I.A.R. Systems Group AB, listed on NASDAQ OMX Stockholm, Mid Cap (ticker symbol: IAR B). Learn more at www.iar.com.