SEGGER releases new Embedded Studio for RISC-V with hard real-time C++ support

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SEGGER's [Embedded Studio for RISC-V](#), Version 6, now uses real-time memory management which improves efficiency and response time when allocating and freeing up memory, satisfying requirements for hard real-time in applications written in C++. The new version supports all common RISC-V 32-bit and 64-bit cores, including but not limited to RV64I, RV64E, RV64GC, RV32I, RV32IMA, RV32IMAC, RV32IMAF, RV32IMAFC, RV32G, RV32GC, RV32E, RV32EMA, RV32EMAC.

"C++ applications require a lot of memory allocation and deallocation behind the scenes, often without the programmer being aware of it", says Rolf Segger, founder of SEGGER. "C++ applications especially see an enormous benefit from our new real-time heap manager. [Embedded Studio](#) is the first toolchain that I know of that guarantees fast, constant-time heap operations. These responses are extremely fast, bringing true real-time to embedded systems programmed in C++."

In addition, Embedded Studio now provides embedded developers with a C++17 Compiler and C++17 Standard Library, combining the efficiency and compact code of SEGGER's [emRun](#) runtime and [emFloat](#) floating-point libraries.

The package includes generic container templates (such as sets, vectors, lists, queues, stacks, maps), standard algorithms (sorting, searching, transformations), function objects, iterators, localization, strings and streams, and utility functions for everyday use cases.

To support common embedded use cases even on resource-constrained targets, the C++ library is available in a "no-throw" configuration, avoiding overhead associated with exceptions.

Embedded Studio also comes with the [SEGGER Linker](#), which is optimized to keep C++ applications small by removing the code duplication frequently encountered with template libraries.

About Embedded Studio

Embedded Studio is a multi-platform IDE (Integrated Development Environment) from SEGGER Microcontroller. Characterized by its flexibility of use, it includes all the tools

& features a developer needs for professional embedded C and C++ programming & development.

It comes with a powerful project manager and source code editor. The editor is quick to start up and the build process is blazingly fast, saving precious working hours. It also includes SEGGER's highly optimized emRun runtime and emFloat floating point libraries, as well as SEGGER's smart Linker, all of which have been developed from the ground up specifically for resource-constrained embedded systems.

In combination with the Clang-based, highly optimizing C/C++ SEGGER Compiler, extremely small yet efficient programs can be generated, putting every byte to work.

The built-in debugger leaves nothing to be desired. Fully integrated with J-Link, it delivers great performance and stability.

It is available for unlimited evaluation, and for educational and non-commercial purposes, free of charge, with no restrictions in terms of code size, features or duration of use.

Embedded Studio is used extensively at SEGGER internally and is continuously updated and enhanced.

More information on Embedded Studio is available at: https://www.segger.com/products/development-tools/embedded-studio/

About SEGGER

SEGGER Microcontroller has nearly thirty years of experience in Embedded Systems, producing cutting-edge embedded-system software and hardware. SEGGER's professional software and tools for Embedded System development are designed for simple usage and are optimized for the requirements imposed by resource-constrained embedded systems. The company also supports the entire development process with affordable, high-quality, flexible, easy-to-use tools.

The company was founded by Rolf Segger in 1992, is privately held, and is growing steadily. SEGGER also has a U.S. office in the Boston area and branch operations in Silicon Valley, Shanghai and the UK, plus distributors on most continents, making SEGGER's full product range available worldwide.

For more information on SEGGER, please visit www.segger.com.

Why SEGGER?

In short, SEGGER has a full set of tools for embedded systems, offers support through the entire development process, and has decades of experience as the Embedded Experts.

In addition, SEGGER software is not covered by an open-source or required-attribution license and can be integrated in any commercial or proprietary product, without the obligation to disclose the combined source.

Finally, SEGGER offers stability in an often volatile industry making SEGGER a very reliable partner for long-term relationships.

For additional information please visit: www.segger.com

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