

SEGGER Embedded Studio – New linker significantly shrinks RISC-V applications

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SEGGER's Embedded Studio for RISC-V now comes with the SEGGER Linker in addition to the GNU linker. The SEGGER Linker has been developed from the ground up to create executables for Embedded Systems.

For RISC-V, it shrinks the size of the resulting programs by up to 15%, shortens link time, delivers a detailed map file and provides more flexibility.

Based on the same code as the SEGGER Linker for ARM, which is well-proven in SEGGER's leading integrated development environment "Embedded Studio for ARM", it inherited a lot of noteworthy features, such as integrated integrity check generation with a number of algorithms (CRCs and hashes), the ability to automatically place code and data in non-contiguous regions, and prioritize data into fast memories.

To achieve this improvement in code density, the new RISC-V linker uses a combination of various optimization strategies. Such techniques include ordering code and data in the most

efficient way to use short addressing modes, as well as replacing code sequences with more efficient ones, along with the use of springboarding technologies.

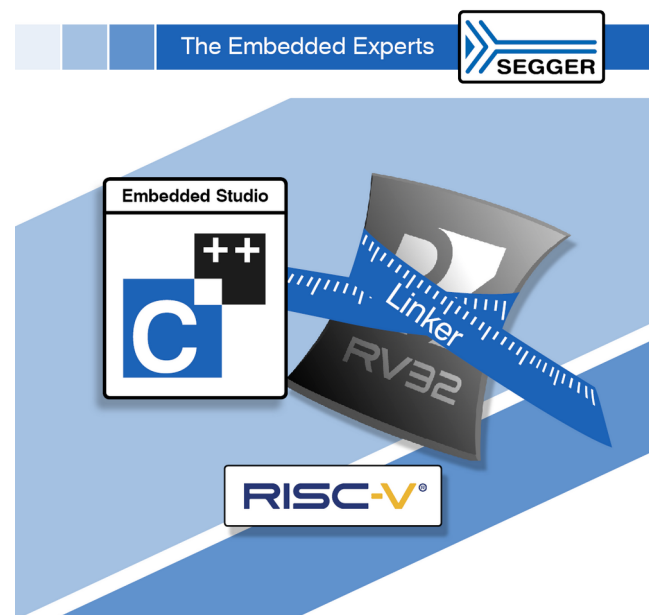
"This new version of Embedded Studio for RISC-V sets a new standard. The code size reduction achieved by the new linker is astonishing," says Rolf Segger, Founder of SEGGER. "In combination with the included startup code, runtime library and floating-point library emFloat, which are all highly optimized for RISC-V, it is amazing how small and efficient the resulting RISC-V programs can be. Simply re-linking your application with the SEGGER Linker can reduce code size."

For more information on SEGGER's linker, please visit:

<https://www.segger.com/products/development-tools/embedded-studio/technology/tools/segger-linker/>

To obtain more information about SEGGER Embedded Studio, please visit:

<https://www.segger.com/products/development-tools/embedded-studio/>



About Embedded Studio for RISC-V

Embedded Studio is a leading Integrated Development Environment (IDE) made by and for embedded software developers. Unlike a lot of other IDEs, it is very fast, intuitive, easy to use and not Eclipse based.

It is a complete solution for any RISC-V based processor, and comes with a runtime library that is optimized for embedded systems. Embedded Studio includes its own tool-chain with the SEGGER Linker and the SEGGER Compiler as well as the GCC and LLVM/Clang tool-chains. Embedded Studio is platform independent and can be used on Windows, macOS and Linux hosts.

The software can be downloaded and installed in just a few minutes. It comes with SEGGER's Friendly Licensing model that allows unlimited evaluation with no code size limit and free of charge use for non-commercial purposes.

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About SEGGER

SEGGER Microcontroller has over twenty-five years of experience in Embedded Computer Systems, producing state-of-the-art software libraries, and offering a full set of hardware tools (for development and production) and software tools.

SEGGER provides an RTOS plus a complete spectrum of software libraries including communication, security, data compression and storage, user interface software and more. Using SEGGER software libraries gives developers a head start, benefiting from decades of experience in the industry.

SEGGER's professional software libraries 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 and the UK, plus distributors on most continents, making SEGGER's full product range available worldwide.



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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