SEGGER integrates its Toolchain with CMake and VS Code

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SEGGER has integrated its embedded-development Toolchain into the widely used CMake build-configuration tool. This means that SEGGER tools are easy to use for application development in the Visual Studio Code (VS Code) code editor.

Increasingly, modern embedded-software projects are designed around developer flexibility. The result is a division of labor in project management, source-code editing, firmware compilation, testing, and debugging. This enables software engineers to ideally match components with projects, as well as to individually select their favorite tools to bundle with a (meta) build system.

The SEGGER Toolchain is ideally suited for such projects, and it is included with the Embedded Studio integrated development environment (IDE) — where it has proven to be particularly effective. The Toolchain consists of the SEGGER Compiler for generating optimized code for Arm and RISC-V microcontrollers; the SEGGER Linker for combining objects into an executable program with ultra-fast speed and flexible section placement; and the SEGGER Runtime Library, which has been written from the ground up for use with embedded devices. Integration of the SEGGER Toolchain with CMake means projects can be developed with VS Code.

CMake is a free, cross-platform, open-source software development tool for building applications via compiler-independent instructions. Existing CMake projects that use GCC or other toolchains can be ported to work with the SEGGER Toolchain with minimal effort. Furthermore, existing Embedded Studio projects can be moved to CMake to enable the use of VS Code, if required.

“It’s extremely easy for CMake users to deploy the SEGGER Toolchain as an alternative to GCC, Clang, or other commercial options,” says Dirk Akemann, Head of Technical Marketing, SEGGER. “Our internal tests show that with the SEGGER Toolchain, programs are significantly smaller than average, typically 5–20%, especially when using linker deduplication and link-time optimization. They also have high execution speeds and show significantly reduced power consumption. For debugging, use of our J-Link probe with Ozone results in a combination that can’t be beaten. Another bonus is that first-class professional support is always available.”

To use the SEGGER Toolchain with CMake, Embedded Studio V8.24 or later is required. A tutorial on using the SEGGER Toolchain with CMake and VS Code, along with guides and examples for setting up new projects, are available here.

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About SEGGER

Founded in 1992, SEGGER Microcontroller GmbH has over three decades of experience in embedded systems, producing cutting-edge RTOS and software libraries, J-Link and J-Trace debug and trace probes, a line of Flasher in-system programmers, and software development tools.

SEGGER's all-in-one solution emPower OS provides an RTOS and a complete spectrum of software libraries for, among other things, communication, security, data compression and storage, user-interface software, and more. emPower OS gives developers a head start, allowing them to benefit from decades of experience in the embedded industry.

SEGGER's professional embedded-development software and tools are simple in design, optimized for embedded systems, and support the entire embedded-system development process with their affordability, high quality, flexibility, and ease of use.

SEGGER, with headquarters in Monheim am Rhein, Germany, also has an office in Boston, Massachusetts, United States, and branch operations in Silicon Valley, California, United States; Shanghai, China; and the United Kingdom. With distributors on most continents, SEGGER's full product range is 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 throughout the entire development process, and has decades of experience. We are The Embedded Experts.

Furthermore, SEGGER software is not covered by an open-source or attribution license, and it can be integrated into any commercial or proprietary product — with no obligation to disclose the combined source. SEGGER offers stability in an often-volatile industry, making it a highly reliable partner for long-term relationships.

For additional information, please visit www.segger.com.

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