

## J-Link keeps important functions alive while debugging Cortex-M devices

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SEGGER has introduced a major new feature for its J-Link debug probe, which enables an embedded system based on a Cortex-M3, M4 or M7 core to maintain essential functionality while being debugged. This is particularly important when hardware such as a motor has to keep running, or to keep communication links connected.

In standard stop mode debugging, the CPU is halted, meaning that all parts of the application are stopped and connected peripherals are no longer serviced. With the new monitor mode for J-Link, the CPU continues to run a program during debugging.

This offers the possibility to maintain real-time, user-defined functions in selected interrupt services which have a higher priority than the debug monitor - such as motor control, data acquisition, radio communication or any application that needs some level of continuous operation.

“Monitor mode sets a new standard for debugging. Keeping critical services alive and responsive is essential when debugging many of today’s embedded systems,” says Alex Gruener, Chief Technology Officer at SEGGER.

The user experience for monitor mode debugging is identical to standard stop mode debugging. However, in monitor mode the CPU actively communicates with the J-Link to provide debug services whilst also servicing higher-priority active subsystems.

Monitor mode is a new standard feature of the J-Link Software for high-end J-Link models. Users of current high-end models will receive the new feature with the latest update. For J-Link BASE, monitor mode is available for evaluation purposes only.

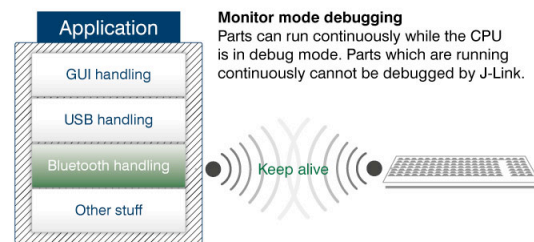
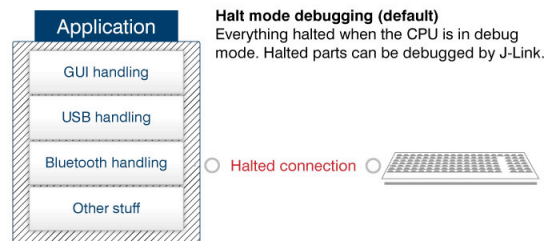
A CPU core-specific monitor code is necessary to perform monitor mode debugging with J-Link. Codes for different cores are available from SEGGER.

More information on the new feature can be found here:  
<https://www.segger.com/monitor-mode-debugging.html>

### About J-Link

The SEGGER J-Link is the most popular family of debug probes on the market. It is tool chain independent and works with free GDB-based tool chains as well as commercial IDEs. With the J-Link family, investments in the debug probe are preserved when changing compiler or even CPU architecture.

J-Link supports multiple CPU families; there is no need to buy a new J-Link or new license when switching to a different yet supported CPU family or tool-chain. SEGGER is also continuously adding support for additional cores, which in most cases, only requires a software/firmware update. Unlimited free updates are





included with even the baseline model of the J-Link family. SEGGER is excited to continue advanced development of its cutting edge embedded tool solutions to be utilized with pretty much any development environment you choose. All J-Links are fully compatible to each other, so an upgrade from a lower-end model to a higher-end model is a matter of a simple plug-and-play.

Full product specifications are available at: <http://segger.com/jlink.html>

The J-Link-Software is available at: [www.segger.com/download\\_jlink.html](http://www.segger.com/download_jlink.html)

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## About SEGGER

**SEGGER Microcontroller** develops and distributes hardware and software development tools as well as software components for embedded systems. An "embedded system" is one in which a microprocessor and associated components are incorporated into a device helping to accomplish difficult and complex tasks in products such as cell phones, medical instruments, instrument clusters, measurement instruments, satellite radios, digital cameras etc.

SEGGER was founded in 1997, is privately held, and is growing steadily. Based in Hilden with distributors in all continents and a local office in Massachusetts, SEGGER offers its full product range worldwide.

SEGGER software products include: embOS (RTOS), emWin (GUI), emFile (File System), emUSB (USB host and device stack) and embOS/IP (TCP/IP stack). With emSecure, a unique software to generate and verify digital signatures, and the TLS-solution emSSL, SEGGER is also offering software for the growing field of data and product security.

With the experience in programming efficiently on embedded systems, SEGGER created highly integrated, cost-effective programming and development tools, such as the Flasher (stand-alone flash programmer) and the industry leading J-Link/J-Trace emulator.

SEGGER cuts software development time for embedded applications by offering affordable, high quality, flexible and easy-to-use tools and software components allowing developers to focus on their applications. Find out more at [www.segger.com](http://www.segger.com).

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