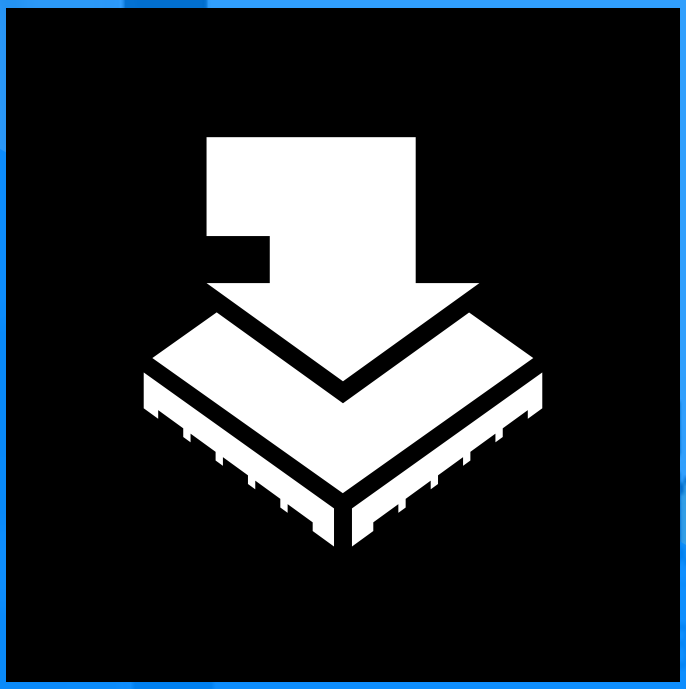
SEGGER

The Embedded Experts



Debug & Trace Probes

J-Link

The market leader

Real-Time Transfer (RTT)

Real-Time Transfer (RTT) is SEGGER's technology for interactive user I/O in embedded applications. It combines the advantages of SWO and semihosting at very high performance, with data transfer speed reaching up to 2 MBytes per second while maintaining the real-time behavior of the target system.

Key features

- Download speed up to 4MB/s
- Multiple debug interface options
- Large number of devices supported
- All major IDEs supported
- Multi-platform: Linux, macOS & Windows

Monitor-mode debugging

Monitor mode debugging enables an embedded system to maintain essential functionality while being debugged. This is especially handy for safety-critical systems where a hard stop of the firmware could be hazardous. With monitor-mode debugging, it is possible to keep security systems alive while debugging or simply maintain other relevant states within the system.

Unlimited flash breakpoints

The Unlimited Flash Breakpoints feature allows the user to set an unlimited number of breakpoints when debugging in flash memory. This feature enables setting breakpoints in flash memory beyond the number of hardware breakpoints supported by the debug unit of the CPU. This feature works in internal and external flash, and even external flash with memory-mapped flashes.

Debug Probes

www.segger.com/jlink

J-Link

Built-in web server

Offering remote device configuration and status checks, J-Link is designed to present important device and operation data overviews.

High Speed Sampling (HSS)

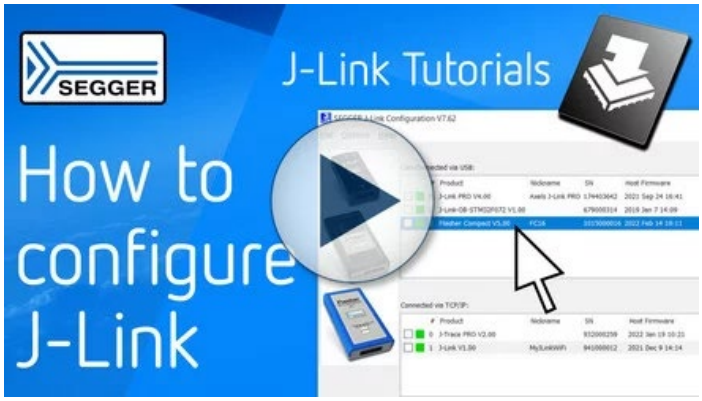
HSS makes it possible to continuously sample variables at extremely high speeds without affecting the real-time nature of the embedded device. Using the standard debug interface, it does not require any extra resources on the target such as memory, CPU time or extra pins.

Remote debugging

The Remote Server software makes any J-Link accessible from anywhere in the world.

Versatile ecosystem

J-Link supports SEGGER's software tools, such as Embedded Studio, SystemView, Ozone and more, which are available, free of charge, for non-commercial use or for evaluation. For commercial-use a license is required, which is easily available at www.segger.com. J-Link also offers support for a host of 3rd-party embedded system development options, such as GDB, LLDB and OpenOCD, making professional tools available for these debuggers.



J-Trace PRO

The leading trace solution

Streaming trace

J-Trace PRO captures complete instruction traces over long periods of time as a stream, continuing beyond the buffer size of traditional trace probes. Streaming trace helps capture infrequent, hard-to-reproduce bugs. This is particularly helpful when the program flow 'runs off the rails' and stops in a fault state.

Real-time profiling

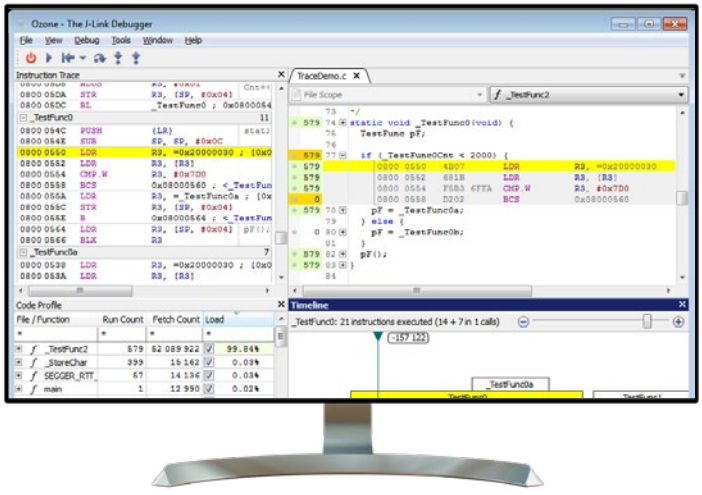
With the J-Trace PRO streaming trace capabilities, trace data is analyzed in real-time, while the data is transferred from the target system to the host computer. The analyzed data contains information about which instructions have been executed on the target, whether conditional instructions have taken both paths, and how often each instruction has been executed. With the captured trace data, a debugger can analyze an application to construct a code profile and identify "hot spots" for potential optimization.

Real-time code coverage

The J-Trace PRO streaming trace capability provides completely accurate information about the instruction execution on a target system. This enables a full code coverage analysis of the system which can be updated while the target is running. Code coverage is often used to analyze test depth. But code coverage usually runs in simulation and systems with hard-to-predict external input, such as networking devices, are tough to simulate. This makes real-time code coverage a welcome feature.

Key features

- Real-time streaming trace at full System Clock
- Live code profiling & coverage
- Instruction-level code coverage
- Unlimited trace
- Multi-platform: Linux, macOS & Windows



Streaming trace, real-time profiling & code coverage with SEGGER Ozone

www.segger.com/jtrace