

PRESS RELEASE

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Improved streaming capabilities for μ Trace[®]



Lauterbach, the world's leading supplier of debug tools announces a significant performance improvement to the streaming capabilities of their μ Trace tool. The μ Trace is a low-cost debug and trace system designed for Cortex-M devices. The Cortex-M family has the option of a 4-bit wide off-chip ETM trace. This provides program flow trace, allowing developers to follow the path taken at runtime through the code without instrumentation and with no impact on the real-time performance of the application.

Using in-house tools, the engineers at Lauterbach were able to optimize the FPGA design in the μ Trace to achieve an increase in trace streaming throughput of almost 85%! When combined with a USB3 interface to the

host computer this gives a sustained bandwidth of 150MByte/s. The trace data is collected into the 512 MByte trace buffer in the μ Trace and this collected data can be used to provide very accurate measurements of the frequency and run-time of various pieces of the application and to generate code coverage reports that meet industry recognized safety standards. Sometimes a trace recording that is longer than the trace buffer can store is required and, in these cases, Lauterbach trace tools support a streaming mode. Trace data is streamed from the trace port to a file on the host computer's filesystem, using the trace buffer in the μ Trace as a large FIFO to smooth out the peaky nature of trace traffic. This allows for trace recordings of very long periods: minutes or hours of data may be captured.

This increase in streaming capacity is essential for the new generation of faster Cortex-M devices. Stephan Lauterbach, General Manager, says "The ability to move large volumes of data off the chip for developers to analyze in detail is contributing to the quality of embedded systems. With many Cortex-M systems going into IoT devices, it is gratifying to know that developers have access to leading edge tools to make these safer, more secure, and more robust against malicious attacks."

The software upgrade for the μ Trace will form part of the upcoming September 2019 release of TRACE32.

About LAUTERBACH

Lauterbach is the leading manufacturer of complete, modular and upgradeable microprocessor development tools worldwide with experience in the field of embedded designs since 1979. It is an international, well-established company with blue chip customers in every corner of the globe and has a close working relationship with all semiconductor manufacturers. At the headquarters in Höhenkirchen, near Munich, the engineering team develops and produces highly proficient and specialized Development Tools, which are utilized all over the world under the brand TRACE32®. Our branch offices exist in the United Kingdom, Italy, France, Tunisia, on the east and west coasts of the United States, Japan and China. Highly qualified sales and support engineers are also available in many other countries. For more information visit <http://www.lauterbach.com>.

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