

*Höhenkirchen-Siegertsbrunn
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TRACE32[®] provides accurate run-time measurements for Renesas' Automotive RH850

Lauterbach, the leading manufacturer of microprocessor development tools, has announced support for the Benchmark Counting Registers of the RH850 Family of microcontrollers (MCUs) for automotive from Renesas Electronics. These registers are present in all MCUs of the family and provide an ideal method for accurately, and non-intrusively, measuring the execution times of areas of target code.

The TRACE32 tools now provide an easy to use way of very accurately and non-intrusively determining run-time execution times of code running on all MCUs of the RH850 Family, using the onchip benchmark counting registers. The start and end points are marked, the target is allowed to run and the results are displayed in a simple to understand chart which shows minimum, maximum and mean run times as well as number of times the code was executed and the total run-time for the marked code. All measurements are accurate to a CPU clock tick.

Marked areas may be a single function (or contiguous region of code), multiple functions or a task or thread running in a Real-time Operating System (RTOS). The measuring system also provides the capability to break or trigger if a region over-runs a user specified time limit. Naturally, the implementation works equally well with single core, multi-core Asymmetric Multi-processing (AMP) and Symmetric Multi-Processing (SMP) systems.

Says Barry Lock, UK General Manager for Lauterbach: "With more and more of our lives affected by deeply embedded software, especially the rise of autonomous vehicles, and the risk of injury if the software fails to meet deadlines, I see this tool as being an important part of the arsenal of each embedded developer who is struggling to produce quality code to harsh deadlines."

Additional Data

An application note explaining these features in more detail can be found [here](#).
For full details of TRACE32 support for RH850 click [here](#).

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 www.lauterbach.com

About RENESAS

Renesas Electronics Corporation (TSE: 6723) delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live—securely and safely. A global leader in microcontrollers, analogue & power and SoC products, Renesas provides the expertise, quality, and comprehensive solutions for a broad range of Automotive, Industrial, Home Electronics, Office Automation and Information Communication Technology applications to help shape a limitless future. Learn more at www.renesas.com

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