# SEGGER adds scope-like data visualization to SystemView

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SEGGER introduces the new [DataPlot window](#) for advanced data visualization in [SystemView](#). The DataPlot window enables users to record and visualize custom data samples over time.

When analyzing system behavior, inspecting variable data is a handy tool for verifying how the embedded system is functioning. SystemView's new data recording feature enables developers to record such variable data alongside runtime information events. The new DataPlot window presents a visualization of the recorded data in scope-like graphs, which are synchronized with SystemView's Timeline and CPU Load windows. This provides information about the variable value and behavior in each context of the system, ultimately helping to verify system behavior or find root causes of unwanted behavior.
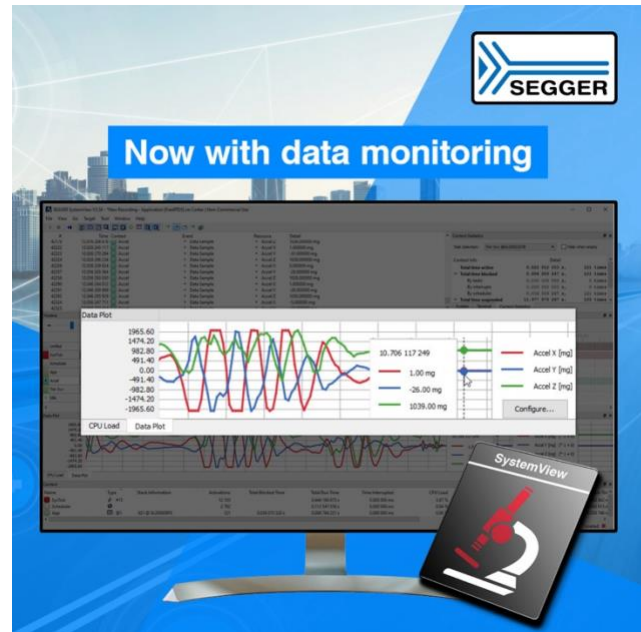
"The ability to send and show data in SystemView had been on my SEGGER wishlist", says Erich Styger, Lecturer, Professor & Researcher. "I have found it very helpful for use with multiple sensor values. Uses include monitoring the use of dynamic memory over time, the power profile of executing code, and the inputs and outputs of control algorithms. Thank you SEGGER!"

 "SystemView is a unique tool for understanding exactly what is happening in an embedded system, tracing interrupts, task switches, API calls and other user events with cycle accuracy, typically better than 5 **ns**," says Johannes Lask, Product Manager of SystemView at SEGGER. "SystemView is free for evaluation and non-commercial use under SEGGER's Friendly License. No additional hardware is required. Just download and give it a try!"

As an example, a system which monitors its power consumption can record the measured samples with SystemView. With the visualization in the DataPlot window and the instant synchronization with runtime information, developers can easily identify spikes in current and increases in power usage, synchronized to the task or event that triggered it.

About SystemView

SystemView is a real-time recording and visualization tool for embedded systems. It reveals the true runtime behavior of an application, going far deeper than the system insights provided by debuggers. This is particularly effective when developing and working with complex embedded systems comprised of multiple threads and

interrupts. SystemView can ensure a system performs as designed, track down inefficiencies, and find unintended interactions and resource conflicts.

SystemView's optimized target instrumentation enables recording data with cycle-accurate timestamps and supports sampling rates of 250 kHz or more in streaming setups using SEGGER's J-Link and its Real-Time Transfer (RTT) feature. There is no limit for buffered setups. The number of sample sources for graphing is not limited and is entirely configured on the target. Data samples are – like all SystemView events – recorded, analyzed, and visualized while the target system is running, and can be saved for documentation and later analysis.

The DataPlot window provides a flexible user interface and configuration options to enable detailed analysis of data. Data can be sent in fixed point or floating-point formats. Multiple variables can be recorded, each easily identifiable by a descriptive name and shown in different colors. Graphs can be scaled and shifted for the best visualization of data with different ranges.

For more information, please visit the SystemView page at www.segger.com.

About SEGGER

SEGGER Microcontroller GmbH, founded in 1992, 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 plus a complete spectrum of software libraries including communication, security, data compression and storage, user interface software and more. Using emPower OS gives developers a head start, benefiting from decades of experience in the 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 through affordable, high-quality, flexible and easy-to-use tools.

SEGGER, with headquarters in Germany, also has a U.S. office in the Boston area and branch operations in Silicon Valley, Shanghai, and the UK, plus distributors on most continents, making SEGGER's full product range 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 through the entire development process, and has decades of experience as the Embedded Experts.

In addition, SEGGER software is not covered by an open-source or required-attribution license and can be integrated in any commercial or proprietary product, without the obligation to disclose the combined source.

Finally, SEGGER offers stability in an often volatile industry, making SEGGER a very reliable partner for long-term relationships.

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

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