



Caption: Percepio is supporting the launch of the PX5 real-time operating system (RTOS) with its Tracealyzer tool.

High-res image available: <https://percepio.com/press/photos/IndustryLeaders3.png>

Percepio to support new PX5 RTOS with Tracealyzer tool

Västerås, Sweden, 25th January 2023 * * * [Percepio AB](#), the leading provider of observability for critical edge software, has teamed up with PX5 to support the launch of a new real-time operating system (RTOS). PX5 has been set up by Bill Lamie, the former chief technology officer of Express Logic and architect of the Nucleus and ThreadX (Azure RTOS) real-time operating systems.

The industrial-grade PX5 RTOS, launched today, is an advanced, fifth generation RTOS designed for the most demanding embedded applications. The PX5 RTOS features a native implementation of the industry standard POSIX pThreads API as well as best-of-class size, performance, safety, and security. In addition to the native POSIX pThread support with semaphores and message queues, the PX5 RTOS also offers real-time extensions such as event flags, fast queues, tick timers, memory management, and more.

PX5 enables a wide range of software stacks, both open source and commercial, to run on real-time embedded IoT platforms. All of this results in reduced time-to-market, improved firmware quality, and portability across platforms that help enhance device maker's firmware development investment.

PX5 will integrate the Percepio® Tracealyzer® trace recorder, and Percepio will support the new PX5 RTOS with a commercially available version.

“PX5 RTOS is purpose built to deliver benefits across all IoT sectors including commercial and safety critical applications,” said Bill Lamie, President, PX5. “We are excited to partner with Percepio, a leader in embedded run-time system visualization. It’s hard to correct an issue if you can’t see it. With Tracealyzer, developers can see exactly what is taking place before a system crash. Developers can also leverage this visualization to better understand the firmware, which makes it easier to enhance and optimize its operation. Once you use Tracealyzer, you won’t want to develop without it!”

“Being part of the launch of PX5 is exciting for Percepio,” says Johan Kraft, founder and CTO of Percepio. “pThreads is a valuable tool to embedded real-time engineers and combined with the other features in PX5 will supercharge the ability of Tracealyzer to monitor the performance of software running on all kinds of embedded systems across the IoT.”

The trace recorder in Tracealyzer 4.6 is designed to be easy to port to platforms such as PX5 to provide efficient monitoring of deployed IoT systems and tracing of multi-core systems. It allows developers to capture long software traces, spanning hours or even days, for example for burn-in testing or profiling, or when looking for rare errors.

A trace snapshot feature also works with DevAlert®, Percepio’s cloud service for monitoring deployed IoT devices. DevAlert customers can see their device issues in the field and download traces of the issues into Tracealyzer for easier debugging.

About PX5

Headquartered in San Diego, CA, PX5 offers the industry’s most advanced runtime solutions for deeply embedded applications. PX5 products include full source code and are available free of runtime royalties. For more information, please visit www.px5rtos.com, or e-mail info@px5rtos.com.

About Percepio

Percepio offers observability for critical edge software throughout the product lifecycle, enabling OEMs and operators to deploy intelligent systems with confidence. During application development, [Percepio® Tracealyzer®](#) offers real-time observability by software tracing and advanced visualization, reducing time-to-market and improving software quality at launch. During testing and in deployed operation, [Percepio® DevAlert®](#) provides secure observability for continuous improvement of product reliability, security and performance. The technology

scales to large device fleets and can be integrated on any edge processor, from small IoT nodes to powerful multicore SoCs. Percepio collaborates with leading vendors of processors and operating systems within embedded system and IoT such as Infineon, NXP Semiconductors, STMicroelectronics, Renesas Electronics, Wind River Systems and Amazon Web Services. For more information, visit percepio.com.

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