



PX5 Announces Functional Safety Certification of the PX5 RTOS, Offering Developers a Faster Path to Certification, Reducing Product Liability, Improving Quality and Time to Market

PX5 RTOS is the first RTOS presenting a native POSIX pthread API to be certified by SGS-TÜV Saar to the highest levels of the IEC 61508, IEC 62304, ISO 26262, and EN 50128 functional safety standards.

SAN DIEGO, CA—April 4, 2024—PX5, a global leader in high-performance real-time operating systems and middleware, today announced off-the-shelf functional safety certification of the PX5 RTOS. Developers can leverage this certification in conjunction with their application software certification to build a safety-certified device for the automotive, industrial, and medical industries. For developers of both safety-critical and non-safety-critical devices, the certified RTOS offers a stable, reliable foundation built to industry best practices to support improved product reliability, security, quality, and time to market.

The PX5 RTOS certifications were performed by SGS-TÜV Saar, the leading accredited, independent company for testing, auditing, verifying, and certifying embedded software for safety-related systems. The PX5 RTOS has achieved functional safety certification to the highest levels of the IEC 61508, IEC 62304, ISO 26262, and EN 50128 functional safety standards, specifically IEC 61508 SIL 4, IEC 62304 Class C, ISO 26262 ASIL D, and EN 50128 SW-SIL 4. Developers using the PX5 RTOS can leverage the RTOS certification artifacts to save time and money during application certification.

Only Certified RTOS with Native POSIX pthread API

As the first RTOS with a native POSIX pthread API, a standards-based API for multithreaded applications developed in C, the PX5 RTOS offers a familiar programming interface for embedded developers. The PX5 RTOS native pthreads implementation supports code portability and re-use, while offering a small memory footprint, full multithreading and hard real-time functionality. The PX5 RTOS includes full development tool support, source code and royalty-free licensing.

“Functional safety is top of mind for developers of safety-critical devices, and also impacts security, since a device with functional safety vulnerabilities is also easier to compromise,” said William Lamie, CEO of PX5. “Our functional safety certification gives all embedded developers confidence in the safety, security and certifiability of their application code. And all this is available without any compromise of core RTOS benefits – the PX5 RTOS is the smallest, fastest, safest, and most secure in the industry.”

Immediate Availability

The complete suite of functional safety certifications for the PX5 RTOS is available today directly from PX5. For more information, please visit www.px5rtos.com or e-mail info@px5rtos.com.



About PX5:

PX5 creates the industry's most advanced runtime solutions for deeply embedded applications. With decades of domain expertise, including creating the ThreadX real-time operating system, PX5 is pushing the boundaries of how industry standards improve the safety, security, and portability of applications running on microprocessor-based systems. The industrial-grade PX5 RTOS is an advanced, fifth-generation RTOS designed for the most demanding embedded applications, featuring a native implementation of the POSIX pthreads API and best-of-class size and performance.

Headquartered in San Diego, California, all PX5 products include complete source code and are free of run-time royalties.

Press contact:

Kelly Wanlass
HCI Marketing and Communications
(801) 602-4723
kelly@hcimarketing.com