



## **PX5 Announces Functional Safety Certification of the PX5 FILE Embedded FAT File System**

*PX5 FILE is the first deeply embedded file presenting a native Linux file system 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; offers developers a faster path to certification, reduces product liability with improved quality and time to market*

**SAN DIEGO, CA—June 17, 2025**—PX5, a global leader in high-performance real-time operating systems and middleware, today announced off-the-shelf functional safety certification of the PX5 FILE. Developers can now leverage the SGS-TÜV Saar certification of this embedded file allocation table (FAT) file system in conjunction with their application software certification to more quickly and cost effectively build a reliable safety-certified device for the automotive, industrial and medical industries.

For developers of both safety-critical and non-safety-critical devices, the ultra-small certified file system offers a stable, reliable foundation built to industry best practices to support improved product reliability, security, quality and time to market.

“Not only is functional safety top of mind for developers of safety-critical devices, but it impacts security since a device with functional safety vulnerabilities is easier to compromise,” said William Lamie, CEO of PX5. “This functional safety certification gives all embedded developers confidence in the safety, security and certifiability of their application code. It’s also available without any compromise of core benefits, making PX5 RTOS and PX5 FILE the smallest, fastest, safest and most secure in the industry.”

The PX5 FILE 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 FILE is now the only deeply embedded file presenting a native Linux file system API that 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 FILE can leverage the RTOS certification artifacts to save time and money during application certification.

### **Only Certified RTOS and file system with industry standard APIs**

As the first RTOS with a native POSIX pthread API, which is 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 providing a small memory footprint, full multithreading and hard real-time functionality. Similarly, PX5 FILE provides developers with the industry standard Linux file system API and with



complete FAT 12/16/32/exFAT file system support, including fault-tolerant operation. Both PX5 RTOS and PX5 FILE include full development tool support, source code and royalty-free licensing.

### **Immediate Availability**

The complete suite of functional safety certifications for the PX5 RTOS is available today directly from PX5. For more information, developers can visit [px5rtos.com](http://px5rtos.com) or e-mail [info@px5rtos.com](mailto: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.

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