













Automotive SolutionsSafe & Secure Embedded Software





ISO 26262 up to ASIL D



Common Criteria EAL 5+

Software-Defined Vehicles

Connected, Protected, Certifiable

In the rapidly evolving Automotive industry, the demand for **reliable**, **safe**, and **secure software solutions** is paramount. SYSGO offers cutting-edge real-time operating systems (RTOS) and hypervisor technologies tailored for the embedded market. Since 1991, SYSGO has grown to become Europe's premier provider of certifiable RTOS, with a strong focus on **Safety & Security** in Automotive applications.



PikeOS, our certified flagship product, ensures safe and secure operations in critical applications.

Use Cases

- Autonomous Vehicle Platforms: PikeOS
 provides the reliability and Safety required for
 autonomous vehicle operations, supporting
 complex functionalities while ensuring mission critical performance
- Digital Cockpits: Enables the integration of advanced graphics and connectivity features in modern digital cockpits, enhancing driver interfaces and situational awareness
- Vehicle-to-Everything (V2X) Communication:
 Supports the emerging market of connected vehicles by providing a certifiable platform for secure and real-time communication between vehicles and infrastructure

Certifications and Standards

Ensuring Safety, Security, and compliance is at the core of our development process. Our solutions are rigorously designed to meet and exceed the demands of global standards in critical domains. Key certifications and standards we adhere to include:

- **ISO 26262:** Our solutions ensure functional Safety for Automotive electronic systems and mitigating risk in safety-critical applications
- ASIL Certification: PikeOS is certifiable up to ASIL D, the highest Safety integrity level in Automotive, supporting fail-safe and failoperational system designs
- AUTOSAR Adaptive: Supports seamless integration into modern vehicle architectures, enabling safe and efficient software updates and function expansion
- ISO/SAE 21434: Cybersecurity standard for road vehicles, addressing risks in connectivity and autonomous driving
- UNECE WP.29 Compliance: Ensures
 Cybersecurity readiness for connected and autonomous vehicles, addressing regulatory demands for secure Automotive software
- ASPICE (Automotive SPICE): Process assessment model for software development in Automotive applications

→ www.sysgo.com/safety

→ www.sysgo.com/automotive



Safe & Secure Operations

The Future of Intelligent Systems

PikeOS offers a robust foundation for next-gen Automotive systems, including Advanced Driver Assistance Systems (ADAS), autonomous driving, and In-Vehicle Infotainment (IVI). Its microkernel architecture ensures high performance, Safety, and Security, making it the ideal solution for applications from ADAS sensors to vehicle control systems.

Key Features

- Hardware Compatibility: Support for a wide range of processors, including x86, ARM, SPARC, PowerPC, and RISC-V, ensuring seamless integration with critical systems such as ADAS and ECU management
- Mixed-Criticality: Strict partitioning enables critical functions (e.g., autonomous driving, emergency braking) to run alongside non-critical applications (e.g., infotainment, navigation) on the same hardware
- Guest OS: Can host various guest operating systems, such as ELinOS, Linux, Android, POSIX, etc., facilitating diverse application deployments
- Certifiability: Designed to meet rigorous certification standard such as ISO 26262, ensuring compliance with international Safety and reliability requirementss
- ITAR-free: As European company, our products have no export restrictions enabling unrestricted global deployment

→ www.sysgo.com/pikeos

Why choose SYSGO?

- Engineering Excellence: Combining expertise
 with cutting-edge technology to meet the
 evolving demands of modern embedded,
 performant, and connected systems
- Cutting-Edge Solutions: Driving advancements in autonomous driving, ADAS, EV technologies, next-generation gateway connectivity, V2X communication, and secure OTA updates. We're also enhancing vehicle Cybersecurity and sensor fusion to support smarter, safer, and more connected vehicles
- Long-Term Support: Ensuring stability with extended product life cycles, continuous updates, and dedicated technical assistance

Our Commitment to Excellence

At SYSGO, we deliver more than just software: We provide the confidence and dependability that Automotive manufacturers and developers need. Enable Automotive applications to reach new levels of Safety, Security, and performance, we transform how vehicles interact with the world.

NXP: "SYSGO's PikeOS expands capability of NXPs popular i.MX8X family of applications processors for the high demands of critical embedded system infrastructure. Automotive systems can leverage the hardware separation capability and safe OS to achieve reliable systems that are critical for the user safety."





For a Safe & Secure Operation

In today's modern Automotive industry, Safety, Security, and reliability are essential. SYSGO's certifiable real-time solutions provide the strong foundation for mission-critical applications, ensuring seamless operation in ADAS (Advanced Driver Assistance Systems), autonomous driving, electric vehicles (EVs), infotainment, and beyond.

With decades of expertise and a commitment to innovation, we help you meet the highest industry standards while enabling next-generation technologies. Partner with SYSGO to build systems that are not only powerful but also safe, secure, and future-ready.



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