



Compiler and Library Testing

PikeOS, SuperTest and SuperGuard

Together we address new or critical certification use cases with multi-level criticality by joining PikeOS’s mixed criticality and Solid Sands as leading provider of compiler and library testing and qualification technology. We offer compiler validation, code qualification and high Safety certification requirements for the PikeOS development environment.
www.sysgo.com/pikeos

- Solid Sands products include:
- SuperTest compiler test and validation suite
 - SuperGuard C library Safety qualification suite
 - PikeOS C and C++ code capabilities and the compiler testing, validation and Safety services

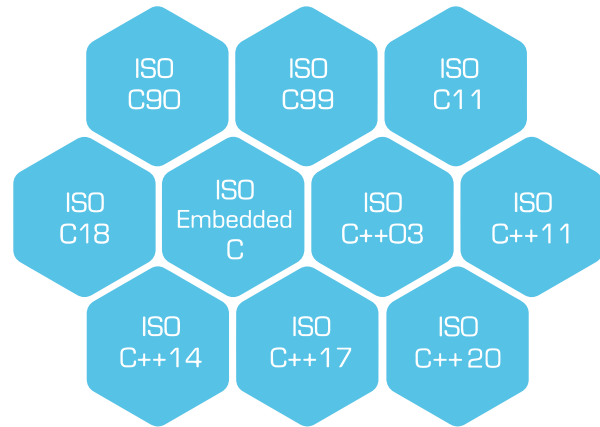
JOINT TECHNOLOGY OPERATION

SuperTest: Compiler Test and Validation Suite for C/C++

- Huge collection of hand-written tests
- Large body of generated tests
- Framework to easily set up and run compiler validations
- Report generator that provides comprehensive overviews of validation results in multiple formats, including HTML, to immediately identify regressions of the latest compiler build compared to a designated reference.

SuperGuard: Library Safety Qualification Suite

- Detailed breakdown of the ISO C and C++ library specification into the requirements
 - Test specifications that describe how the requirements are verified
 - Test cases in accordance with ISO 26262
 - High structural coverage of the library implementation
 - A software tool that reports the requirements that are met, and those which are not met
- Example: ISO 26262 certification process in Automotive



CUSTOMER BENEFITS

- In-house expertise to ease the integration of Solid Sands tools and SYSGO operating systems
- SYSGO’s extended capabilities on its supported and qualified GCC compiler for Safety-critical projects in combination with C/C++ standard libraries
- Helping customers of Safety-critical systems to achieve the highest certification in Automotive ISO 26262 ASIL B, Railway EN 50128 or EN 50657 SIL 2, and the generic functional Safety IEC 61508 norm
- Reduced effort in the qualification and certification process for Safety and Security expertise

About Solid Sands - Founded in 2014, Solid Sands is the one-stop shop for C and C++ compiler and library testing, validation and safety services. Solid Sands offers extensive test and validation suites with a unique level of compiler and library test coverage, enabling customers to achieve the software tool quality level demanded by ISO standards. The company’s name combines sand – the world’s most abundant source of silicon – with the solidity and security expected of sector – leading testing and validation technologies.

About SYSGO - Founded in 1991, SYSGO became a trusted advisor for Embedded Operating Systems and is the European leader in hypervisor-based OS technology offering worldwide product life cycle support. We are well positioned to meet customer needs in all industries and offer tailor-made solutions with highest expectations in Safety & Security.