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
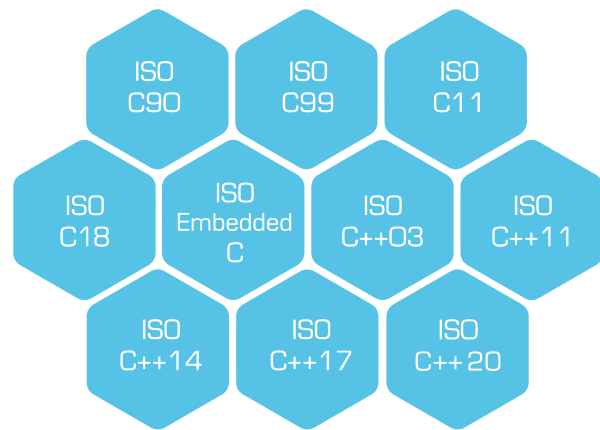

JOINT TECHNOLOGY OPERATION

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

ISO C90   ISO C99   ISO C11
ISO C18   ISO Embedded C   ISO C++03   ISO C++11
ISO C++14   ISO C++17   ISO C++20

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 - Solid Sands is the world-leading provider of verification and qualification technology for C and C++ compilers and libraries. Our mission is to make the world a safer place. Our products support companies to achieve both the highest quality objectives and the most up-to-date functional safety standard requirements. By creating the best possible test suites for C and C++ compilers, libraries, and analysis tools, we are at the forefront of software testing and qualification. Our flagship products include SuperTest, the most comprehensive compiler test and validation suite, and SuperGuard, a library safety qualification suite. With industry partners worldwide, we serve leading and innovative semiconductor, IP and security companies, as well as safety-critical software companies in the automotive, robotics, railway and medical industries. .

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.

www.solidsands.nl   www.sysgo.com