

Solid Sands to showcase world's first requirements-based test suite for the C standard library at Automotive Testing Expo

SuperGuard ensures compliance with stringent ISO26262 qualification standards

Amsterdam, The Netherlands – 9 June 2022 – Solid Sands will showcase the capabilities of SuperGuard, the world's first specialist requirements-based test suite for the C standard library, during the Automotive Testing Expo Europe event in Stuttgart from 21-23 June at booth #8625.

The company's CTO, Marcel Beemster, will also be giving a presentation entitled 'SuperGuard: a solution for using C standard libraries in safety-critical applications', on Tuesday 21 June at 2pm. During this session, he will discuss the principles and practice of C standard library qualification, with particular reference to the ISO26262 automotive functional safety standard.

Launched last year, SuperGuard offers complete traceability from individual test results back to requirements derived from the ISO C language specification. It also offers high structural code and branch coverage out of the box. This ensures the safe use of the standard library in safety-critical applications in both the automotive and other sectors.

SuperGuard maintains the documentation required to deliver information and transparency as specified by international certification authorities. It can be used to qualify both unmodified third-party C library implementations and self-developed or self-maintained implementations.

SuperGuard was developed by Solid Sands in response to a lack of professional library qualification tools for customers developing safety-critical applications. It ideally complements Solid Sands' acclaimed SuperTest – a complete test and validation suite for C and C++ compilers and libraries which has tracked ISO language specifications for more than three decades.

Marcel Beemster explained: "A key characteristic of C is that it has a widely recognised ISO specification, which contains all the information needed but does not provide a list of requirements. We used the ISO specification to create a list of requirements and test specifications, matching those with our existing test suite.

"Finally, we created tools to drive the test suite and report results so they are fully traceable to the requirements and specifications.

"The ISO26262 standard clearly specifies that qualification must be done for the application developer's use-case and that this applies to both reused and open source software. SuperGuard makes this possible."



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. More information on the company's products and services is available at www.solidsands.nl. You can follow Solid Sands on LinkedIn, Twitter and <a href="https://www.solidsands.nl. You can follow Solid Sands on LinkedIn, Twitter and <a href="https://www.solidsands.nl. You can follow Solid Sands on LinkedIn, Twitter and YouTube.

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