



SuperTest Vermeer Update #2 adds enhanced C++ library coverage, C library code coverage and compiler error checking

- *More than 2200 new tests*
- *Enhanced function coverage for the C++ standard library supports the use of C++ in safety-critical applications*
- *Near 100% code coverage for the C standard library sets a new standard*
- *Precision of compiler error checking increased to line number for improved diagnostics*

Amsterdam, the Netherlands – 4 November 2020 – Solid Sands, the world leader in compiler and library testing and validation, today announced Update #2 to the SuperTest™ Vermeer Release. Library qualification is an important part of conformance to international functional safety standards. This new Update significantly increases SuperTest’s code coverage of the C standard library implementation to greater than 90% for the overall library and close to 100% for its math components. For safety-critical applications programmed in C++, this Update greatly improves function coverage in the standard C++ library. Other enhancements include line-number precise verification of the compiler’s error reporting capabilities to aid diagnostics, and an example SuperTest configuration for the Arduino Uno development board to demonstrate SuperTest’s ability to run on resource limited bare-metal systems.

“Many programmers working on safety-critical applications, are incorporating C++ as well as C in their projects, so it is vitally important that we support them in every way possible,” said Marcel Beemster, Chief Technology Officer at Solid Sands. “Today’s Update, with its comprehensive function coverage of the C++ library and a unique level of code coverage for the C library, is an important step in that direction.”

Whichever library users adopt, functional safety standards recognize that library components become as much a part of the ultimate application as hand-written code and must therefore be verified to the same high level of confidence. The verification rules for these run-time components are even more stringent than those for development tools such as the compiler itself, which makes library testing critically important.

SuperTest’s enhanced statement level code coverage of the C standard library ensures that all corners of a C implementation are verified. Even though some libraries may be supplied ‘pre-qualified’, most safety standards place the onus on the user to verify that the library behaves the way it should. SuperTest now allows users to apply these enhanced code coverage tests to the library they are using. With close to 100% code coverage, SuperTest advances the state of the art to a level that no other test suite can match.

A significant improvement for C users in general is the more precise compiler error checking. Instead of verifying compiler error messages at the test file level, SuperTest now verifies the line number at which the compiler error was generated – a new feature that significantly enhances



SuperTest's ability to offer programmers greater confidence in a compiler's diagnostic capabilities.

Additional enhancements in Update #2 to the SuperTest Vermeer Release include an improved Windows™ installer, new configurations to speed up test execution, and an example SuperTest configuration for the Arduino Uno, demonstrating that SuperTest can run effectively on small footprint bare-metal targets with very little RAM.

SuperTest Vermeer Update #2 is available now.

About Solid Sands

Solid Sands is the one-stop shop for C and C++ compiler and library testing, validation and safety services. With SuperTest, Solid Sands offers the largest test and validation suite with a unique level of compiler and library test coverage. SuperTest starts where other suites end. SuperTest enables its customers to achieve the compiler and library quality level required by ISO standards. More information on Solid Sands' products and services is available at www.solidsands.com and you can follow us on [LinkedIn](#) and [Twitter](#).

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