



Solid Sands and BUGSENG developed a CI-ready solution for excellence and efficiency in development and qualification

Automated translation toolchain validation

Amsterdam and Parma – 9 March 2023 – Solid Sands, the world-leading provider of testing and qualification technology for compilers and libraries, has boosted development efficiency by working with BUGSENG, a leading provider of solutions and services for software verification, to develop the CerTran extension to ECLAIR which integrates seamlessly with Solid Sands' SuperTest compiler test and validation suite.

ECLAIR is a powerful platform for the verification of C and C++ programs. Applications include coding rule validation as well as computation of software metrics, checking interference among software components, and automatically checking for the absence of run-time errors.

Solid Sands has long supported C++ compiler qualification with SuperTest, which enables users to acquire a test-suite containing thousands of validated tests, configure it for their particular use cases, run its test automation machinery, and then identify which tests have failed and what to do about them.

The CerTran extension uses ECLAIR's functionalities to automate the configuration of SuperTest for compiler qualification by scanning the application build process and creating the exact test configuration files needed to cover all use cases. This can be completely incorporated into a Continuous Integration system. Not only does this save a considerable amount of time, but it also avoids configuration errors that can easily occur when scanning the build process manually.

Abramo Bagnara, CTO of BUGSENG, says: "We are delighted to be offering users these two powerful tools which together will increase efficiency many times over when developing safety-critical applications in C/C++. By making SuperTest's integration with ECLAIR's CerTran genuinely seamless, we have ensured continuous C/C++ compiler qualification for safety-critical development has become substantially easier."

Marcel Beemster, CTO of Solid Sands, says: "The most difficult element in any configuration is identifying the use cases that need to be qualified. CerTran automatically produces one SuperTest configuration for each detected use case and uses the test and validation suite to qualify the compiler for all of them. Having the correct set of compiler options – as well as their defaults – significantly reduces the chance of making costly errors which could undermine the whole qualification exercise."



About BUGSENG:

BUGSENG is a leading provider of solutions and services for software verification. BUGSENG's ECLAIR Software Verification Platform has been designed to help engineers develop higher-quality software, effectively, by changing the traditional rules of the game. BUGSENG consulting services help industry leaders improving their development processes and complying with functional-safety standards. BUGSENG is also a renowned resource for advanced professional training. For more, visit <http://bugseng.com>. You can follow BUGSENG on [LinkedIn](#) and [YouTube](#).

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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 [YouTube](#).

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