



Solid Sands & CEA List, together for quality code

Amsterdam and Paris – December 8, 2020 - [Solid Sands](#), supplier of the industry-leading and most comprehensive test and validation suite for C and C++ compilers and libraries, and CEA List, a key player in technological research, today announced their research collaboration to reinforce software trust.

Why C?

The C programming language powers the backbone of the IT industry, from critical infrastructures to embedded devices (including cars, industrial robots, health equipment). The main reason is that the C language is efficient, sits close to the operating system and offers a transparent view of the hardware; something that is lost in most modern languages.

Along with this power comes responsibility and this is why CEA List and Solid Sands are proud to announce this partnership.

Solid Sand's SuperTest™ focuses on the rock solid implementation of a compiler. It is used by developers around the globe to ensure that their compiler is compliant to the C and C++ standards. It is also used by software programmers that develop safety critical applications in automotive, rail and industrial domains. They require confidence that the compiler can be trusted. An alternative is manually verifying the generated assembly code. That is common practice, even today, but extremely labour intensive.

For now twenty years, CEA List has been developing a wide range of C program analysis tools. Among them, Frama-C is a static analysis tool, one of the few to satisfy the Ockham criteria for sound analysis tools.

By joining their expertise, the two partners will empower their offers: Solid Sands will be able to use Frama-C to obtain a closer look of the inside of the compiler and library implementations, while CEA List will use SuperTest to enhance the compliance of its analysis tools. In the long run, Solid Sands and CEA List look forward to benefitting from each other's expertise on all matters C.

“CEA List has been dedicating its research to providing trusted software for twenty years. Together with Solid Sands, we can enhance software trust, while pushing the boundaries of our software analysis capabilities,” said Florent Kirchner, Head of Department at CEA List.

“On the one side you have this pragmatic, engineering oriented programming language C. On the other side is the desire to give a mathematical underpinning to our programs. These are hard to match, but they come together in Frama-C. SuperTest is the best test suite for black box testing of the C implementation, and with Frama-C we can also look inside the box,” said Marcel Beemster, founder and CTO of Solid Sands.



About CEA List

CEA List is a technological research institute that helps its industrial partners enhance their competitiveness through innovation and technology transfer. Dedicated to smart digital systems, its R&D programs focus on artificial intelligence, advanced manufacturing, cyber-physical systems and digital health. CEA List is a member of Carnot Institutes network. More info: www-list.cea.fr/en | [@CEA_List](#) | [LinkedIn](#) | [YouTube](#).

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 quality level required by ISO standards. More information on Solid Sands' products and services is available at www.solidsands.nl and you can follow us on [LinkedIn](#) and [Twitter](#).

Media Contact:

Solid Sands B.V.

Marianne Damstra

marianne@solidsands.nl

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