

Deliverable D3.5 Open Source Software

1. Refactoring of TESTAR tool into modular architecture increasing evolvability

- Web pages: <https://testar.org/>
- GitHub: https://github.com/TESTARtool/TESTAR_dev

TESTAR is an open source tool for automated scriptless testing through graphical user interface (GUI). TESTAR tool is being extended and enhanced in TESTOMAT project and the improvements will be published as open source during the project.

TESTAR is an academic tool, originally started in FITTEST project around 2011. Over the years, many have participated in the development, including students, and the original architecture has been lost to the technical debt.

One of the improvements being done in TESTAR tool is refactoring the code and making the architecture more modular to allow easier tool integrations and further development.

2. Dextool Mutate - A new tool for mutation testing of C/C++

- GitHub: <https://github.com/joakim-brannstrom/dextool/tree/master/plugin/mutate>

In the Testomat project, a new open-source tool for mutation testing of C/C++ projects has been developed. It can help you design new tests and evaluate the quality of existing tests by measuring their ability to detect artificially injected faults.

The tool is developed as a plugin for the existing “Dextool” project and is currently being improved after feedback from avionic software developers at Saab Aeronautics.

The tool has so far been used by 20 avionic software developers to analyze 30 flight safety-critical applications.