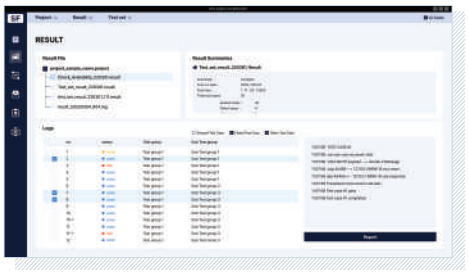
AutoCrypt Security Fuzzer

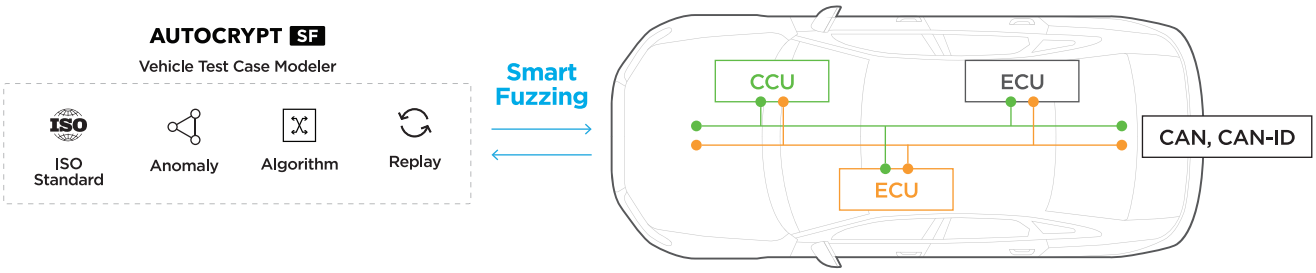
Smart fuzz testing for automotive software

AUTOCRYPT's automated smart fuzzing tool uses AI-generated, randomized test cases to search for hidden coding errors and implementation flaws in automotive software.

As mandated by WP.29 and standardized by ISO/SAE 21434, software testing has become a pivotal process of vehicle manufacturing. Among various testing methods, fuzzing is a powerful software testing technique that explores and identifies undiscovered coding errors and implementation flaws by repeatedly injecting invalid and unexpected inputs into the selected program until it crashes. The crashed cases are then flagged for review, allowing for quick identification of vulnerabilities.

AutoCrypt® Security Fuzzer is a one-of-a-kind smart fuzzing tool optimized for the automotive ecosystem. Its input generator utilizes machine learning to generate semi-random test cases that are adjusted based on learning the characteristics of the selected program, greatly reducing testing time and increasing crash detection probability.





Instead of generating fully randomized packets, **AutoCrypt® Security Fuzzer** analyzes the architecture and sequence of the communication protocols of the in-vehicle software, then generates test cases by randomly modifying only parts of a message that could potentially be defaced, leaving the remaining parts untouched.

1. Target Selection
2. Test Case Generation
3. Test Case Delivery
4. Results and Feedback

Real-Time Monitoring

Allows users to access the internal systems throughout the CAN buses during fuzzing, making it clearly visible which ECUs reacted to a test case

Crash Replication

Provides a replication of flagged cases, allowing users to review ambiguous cases in detail, avoiding unnecessary searches

Automated Fuzzing

Automatically restarts testing after a crash, allowing for continuous fuzzing without interruption

AUTOCRYPT
Confidence in Mobility

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