SYNOPSYS®

Fuzz Testing Software Development Kit
(Defensics SDK)

Future-proof your software to prevent exploitations

The ever-changing software development landscape adds new technology stacks and increases attack surfaces, requiring new approaches to application security. Our Fuzz Testing Software Development Kit (Defensics SDK) future-proofs the security of your software by uncovering dangerous unknown vulnerabilities that are exploitable through uncommon, custom, or proprietary protocols.

Uncover unknown vulnerabilities in your software

Fuzz Testing SDK is a fuzzing framework that enables organizations to develop their own test suites for uncommon, custom, or proprietary protocols and file format parsers.

1. Get the breadth of protocol fuzz testing coverage you need

Fuzz Testing SDK extends and deepens the capabilities of Synopsys Fuzz Testing (Defensics). Complement our 250+ pre-built test suites with custom test suites you've developed, transforming Synopsys Fuzz Testing from a special-purpose fuzzing tool to a general-purpose fuzzing solution. Your custom test suites and our off-the-shelf test suites work seamlessly within the same framework, whether you're operating our fuzzer from the GUI or integrating it into a CI environment.

2. Rely on our Fuzz Testing's powerful engine

Fuzz Testing SDK draws on the capabilities of Synopsys Fuzz Testing (Defensics), which contains deep knowledge on network protocols, file formats, and interfaces, to not only generate test cases for you but also define how you'll deliver them. All you need to do is define your protocol structure and state machine, and the SDK will determine the best misuse cases for your protocol, how to deliver the test cases, and the feedback to monitor for.

3. Get granular control of test suite configuration

We provide ease of use without limiting usability. The SDK allows advanced programmers to reconfigure or redefine test cases, delivery formats, and monitoring techniques, so you can tailor your custom test suites to fit your specific needs.

4. Experience easy adoption and quick time to fuzz

Develop custom test suites in your favorite IDE to enjoy benefits such as code autocompletion and convenient access to Javadocs. The SDK also supports standard programming languages, such as Java and Python, instead of custom XML notation for easy adoption and quick time to fuzz.

5. Enhance your agile environment

Use the SDK Developer Mode Test Runner to quickly verify the validity of test case configurations from the command line, allowing for tight feedback loops between test suite developers (programmers versed in the protocol under test) and test suite users (security professionals fluent in operating Synopsys Fuzz Testing).

The power of Fuzz Testing SDK lies in its ability to narrow the infinite number of misuse cases to the critical few that leave your software vulnerable to attacks.

We have the expertise, tools, and services you need

Synopsys offers the most comprehensive fuzzing solution for building security and quality into your SDLC and supply chain.

- **Fuzz Testing:** Gain access to pre-built test suites for common protocols, file formats, and interfaces.
- **Fuzz Testing SDK:** Enjoy our feature-rich SDK, which includes access to our fuzzing and modeling engine, protocol model generation with PCAP import, built-in injectors for TCP/IP, HTTP, TLS, UDP, WebSocket, and files, and much more.

The Synopsys difference

Synopsys offers the most comprehensive solution for building integrity—security and quality—into your SDLC and supply chain. We've united leading testing technologies, automated analysis, and experts to create a robust portfolio of products and services. This portfolio enables companies to develop customized programs for detecting and remediating defects and vulnerabilities early in the development process, minimizing risk and maximizing productivity. Synopsys, a recognized leader in application security testing, is uniquely positioned to adapt and apply best practices to new technologies and trends such as IoT, DevOps, CI/CD, and the Cloud. We don't stop when the test is over. We offer onboarding and deployment assistance, targeted remediation guidance, and a variety of training solutions that empower you to optimize your investment. Whether you're just starting your journey or well on your way, our platform will help ensure the integrity of the applications that power your business.

For more information go to www.synopsys.com/software.

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