

CODAx

Simple and Fully Automated Static Linting Solution for SoC Security Verification



What is CODAx?

CODAx is a security-aware static auditing solution that analyzes early (RTL) code of IP/SoC designs to detect coding styles that can introduce security vulnerabilities. Over 150 insecure coding practices are recognized and suggested corrections are provided.

Thanks to Caspia's GenAI technology, security trained LLMs help add checks to CODAx that target new vulnerabilities. Public databases such as CWE, CVE, and Trust-Hub, which contain over 1,000 security weaknesses are utilized.

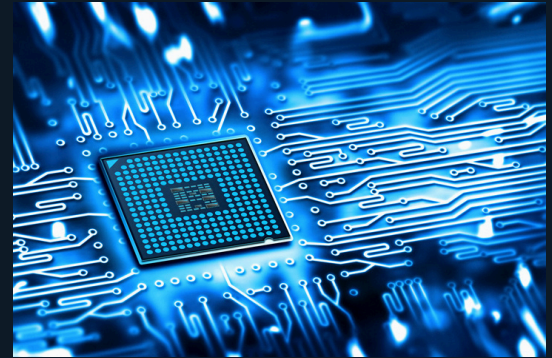
CODAx finds potential confidentiality, integrity, and availability issues early in the design process. Remove security flaws before they occur with CODAx.

Why CODAx?



Security flaws start in the pre-silicon phase of design. As the design matures, finding and fixing these issues becomes exponentially more difficult and more expensive.

CODAx finds security flaws in early RTL design code and provides guidance for fixing them.



CODAx has successfully analyzed large, popular designs such as an OpenRISC CPU core and OpenTitan root-of-trust (RoT). In both cases many potential security flaws were found in minutes. Flaws that were missed by conventional industry standard tools.

Inside CODAx

01 Ease of Use

CODAx is easy to run, delivering a fully automated static analysis. Large designs can be checked in seconds to minutes. These same vulnerabilities can take days to weeks to find later in the design cycle.

02 Expert Assistance

Security-critical bugs and potential impacts are presented in an easy-to-understand format for non-security experts. Including suggested fixes to enable informed decisions on correcting issues.

03 Traceability

CODAx provides expert messaging and reporting to track security issues in provided code. These auditing results help for compliance and work for both control path or datapath security analysis.

04 Adaptability

CODAx rules are constantly updated with security trained LLMs to stay current on the rapidly changing threat landscape. CODAx makes all designers security experts. No need for a security team to get the job done.

Try CODAx for Free!

See how easy CODAx is to use. Become a security expert in minutes. You can try CODAx on several popular designs including RISC-V core and open-source hardware root-of-trust for free.

Visit online at apps.caspia.ai and start your journey to more robust and secure designs.