

Static Analysis and Static Application Security Testing

CodeSonar empowers teams to quickly analyze and validate the code – source and/or binary – identifying serious defects or bugs that cause cyber vulnerabilities, system failures, poor reliability, or unsafe conditions.

GrammaTech's Software Assurance Services provide the benefits of CodeSonar to your team in an accelerated timeline and ensures that you make the best use of static analysis.

Enjoy the Benefits of the Deepest Static Analysis

Employ Sophisticated Algorithms

CodeSonar performs a unified dataflow and symbolic execution analysis that examines the computation of the entire program. The approach does not rely on pattern matching or similar approximations. CodeSonar's deeper analysis naturally finds defects with new or unusual patterns.

Comply with Coding Standards

CodeSonar supports compliance with standards like *MISRA C:2012*, *ISO-26262*, *DO-178B*, US-CERT's *Build Security In*, and MITRE'S *CWE*.

Analyze Millions of Lines of Code

CodeSonar can perform a whole-program analysis on 10M+ lines of code. Once an initial baseline analysis has been performed, CodeSonar's incremental analysis capability makes it fast to analyze daily changes to your codebase. The analysis can run in parallel to take best advantage of multi-core environments.

Analyze Third-Party Code

CodeSonar's **Integrated Binary Analysis** finds security vulnerabilities from libraries or other third-party code without access to source code.

Improve Your Efficiency

Collaborate with Teams

Automation features enable large teams to work together in a coordinated way. For example, it's easy to manage warnings across different project versions or development branches. A Python API supports customization & integration with other tools.

View Quality Trends

Graphs display data to help you manage development and testing efforts.

Software Architecture Visualization

Visualizing your code makes it easy to uncover and understand relationships between different elements in the code. Visual Taint Analysis allows you to quickly spot the source of potentially dangerous information flows.

Reduce the Cost of Development

Identifying and eliminating defects throughout the development cycle will help you ship on-time without business risks and liabilities.

Customize Your Analysis

Custom Checks

New checks can be created easily with the included C API. Many built-in checks can be configured according to local requirements.

Custom Metrics

Out of the box, CodeSonar can compute N different code metrics. You can also use the API to define custom metrics.

Software Assurance Services

Delivered by a senior software engineer, the software assurance services focus on automating reporting on your software quality, creating an improvement plan and measuring your progress against that plan. This provides your teams with reliable, fast, actionable data. GrammaTech will manage the static analysis engine on your premises for you, such that your resources can focus on developing software. The following activities are covered:

- Integration in your release process
- Integration in check-in process
- Automatic assignment of defects
- Reduction of parse errors
- Review of warnings
- Optimization of configuration
- Improvement plan and tracking

The service can be delivered on-site or remotely.

Customer Testimonials

"CodeSonar does a better job of finding the more serious problems, which are often buried deep in the code and sometimes hidden by unusual programming constructs that are hard for other static-analysis tools to parse."

– GE Aviation

"We tried the leading static-analysis tools. CodeSonar performed the deepest analysis and provided the most useful information."

– Adaptive Digital Systems



