



Company Overview

- Reasoning provides companies with a fast and cost-effective means to:
- objectively measure the reliability and security risk in their software;
 - benchmark key application metrics compared to thousands of commercial software assessments;
 - pinpoint and prioritize code defects and security vulnerabilities for efficient remediation.

Top development organizations use Reasoning results to manage the otherwise unknown risk in their software and dramatically reduce the time, effort, and cost to produce secure, high quality Java, C, and C++ code.

“We established four criteria for success in this project – two relating to target numbers of defects that needed to be found, one relating to the likelihood of the defects becoming apparent in the field, and one relating to return on investment. Reasoning’s automated inspection service met or exceeded our expectations in all four areas.”

Bob Ellis
Engineering Director
Passenger Division
Rockwell Collins

Over a Billion Lines of Source Examined • Reasoning is a pioneer in the field of software static analysis technology and the leading provider of automated software inspection services worldwide. Since 1996, Reasoning has focused on software quality needs for hundreds of customers and examined over a billion lines of source code.

Uncover Risks and Build In Quality • Reasoning’s proprietary Discovery Mapping Analytics is a “whole-body scan” for your code. Software executives and managers use the DMA service to inform and guide quality initiatives and evaluate trends in development activity. Reasoning Reliability Inspection Services analyze Java, C, and C++ source code to pinpoint defects which have not yet been discerned, plus the conditions under which they occur. Developers call on Reasoning Security Inspection Services to find application-level security vulnerabilities -- issues which can’t be found with scanning and dynamic testing tools or walled-out with perimeter controls.

Benchmarks Make Metrics Meaningful • Our inspection database, developed over thousands of commercial projects, gives us a unique ability to benchmark and track software quality across releases, companies, and industries. Our customer list includes some of the most capable and respected companies in the software world. They make Reasoning services an essential part of the software development process to realize significant cost savings, shorter time-to-market, and higher quality code.



Company History

From Stanford University and Kestrel Labs •

Reasoning was formed at Stanford University and Kestrel Labs, then incorporated in 1984 as a software research firm. The early company developed a proprietary software analysis technology, Refine, which has been a widely used framework for creating language analysis solutions.

Pioneers in Advanced Static Analysis • In 1995, Reasoning won a three-year grant from the National Institute for Standards and Technology (NIST) under the Advanced Technology Program for Component-Based Software. The outcome of Reasoning's research and development under this grant was a system for program slicing, an advanced dataflow analysis capability that allowed Reasoning to track how variables are computed and used in a program. This was done exclusively by analyzing source code, and without the need for runtime testing.

R&D in the Lab to "Software as a Service" • Reasoning program slicing technology was first applied to solving the Y2K date problem in C, COBOL, PL/I, Ada, Natural, and other languages. In 1996 a global services business was launched and grew to serve many of the Fortune 500 over the following 4 years.

The Path to Code Quality • In April 2000, Reasoning introduced a comprehensive Reliability Inspection Service which pinpoints a range of crash-causing defects in Java, C, and C++ source code. By establishing the first database of commercial software inspection results, Reasoning began to deliver metrics measuring quality trends for software developers worldwide.

Application Security from the Inside Out • In February 2004, Reasoning introduced an innovative Security Inspection Service. Root-cause identification of application-level security vulnerabilities exposes risks and provides the roadmap for remediation.

Measure, then Manage • Late in 2005, the breakthrough offering of Discovery Mapping Analytics was launched, providing software quality analytics, risk management metrics and dashboard information to software executives and managers.

Reaching Out • Reasoning serves customers around the world from headquarters in Menlo Park, California. The company is privately held.

"Even after years of rigorous inspection by individuals around the world and application of available testing tools to find security defects, Reasoning discovered new issues."

Eric Allman
CTO
[Sendmail](#)



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