



Klocwork Insight: Comprehensive Source Code Analysis

Enterprise-class source code analysis for mission-critical software.

Klocwork Insight is the only source code analysis solution to combine the speed and productivity benefits of desktop source code analysis with the power and accuracy of a system-wide analysis. With Klocwork Insight, developers can quickly and accurately identify critical security vulnerabilities, quality defects and architectural issues right at their desktop.

Built on the patented Klocwork source code analysis engine for examining C, C++ and Java software, Klocwork Insight sets the standard for serious source code analysis.

“The use of Klocwork has been an excellent addition to our development process and is only going to further enhance BMC’s reputation for delivering solid, reliable software products for the enterprise.”

– Samuel Dillion, Lead Developer, BMC Software



// LOOK WHO USES KLOCWORK INSIGHT

Software Developers

Klocwork Insight was designed by developers for developers. Using Klocwork Insight, software engineers can check-in bug free code right from their desktops – freeing them from the traditional “rinse and repeat” cycle of check-in, find bugs, debug and rework. Operating within a developer’s IDE, text editor or command line environment of choice, Klocwork Insight lets developers spend less time fixing reported bugs and more time innovating.

Software Development Managers

Klocwork Insight provides development managers with deep visibility into the security and reliability of their code bases and software architectures. Connecting developer source code analysis to the overall system context, Klocwork Insight prevents critical software issues from ever entering the code stream.

Security Managers and Auditors

With Klocwork Insight, security managers and auditors receive the tools they need to identify, assess, remediate and measure security vulnerabilities as an integral part of the software development lifecycle. Klocwork Insight helps security organizations to establish secure coding best practices across the development team through consistent, policy-based deployment and proactive education capabilities.

Software Architects

Klocwork Insight generates a visual model of a project’s source code from the highest level down to its lowest entities. Connecting developer source code analysis to the overall system context, Klocwork Insight provides visibility into the security and reliability of the software architecture. Its policy assistance features let software architects communicate architectural goals to developers and help to prevent critical software issues from ever entering the code stream.

Technical Specifications

- » Supported programming languages: C, C++ and Java.
- » Supported IDEs: Eclipse 3.0, 3.1, 3.2, 3.3, Microsoft Visual Studio 6, 2002, 2003, 2005, IBM Rational Application Developer 6.0 and 7.0 (Ready for Rational certified), IntelliJ IDEA, Wind River Workbench 2.3, 2.4, 2.5, 2.6, and QNX Momentics 6.3 (SP2).
- » Command line and other integrations: Users can also run Klocwork Insight from a command line environment, text editor or other IDEs such as: Gvim, Emacs, Visual SlickEdit, Platform Builder, KDevelop, Freescale CodeWarrior.

// SERIOUS SOURCE CODE ANALYSIS

Now offering the most comprehensive source code analysis available, Klocwork Insight automatically identifies critical bugs and security vulnerabilities and automates the analysis of software architecture. With Klocwork Insight:

- » Developers can combine the productivity benefits of desktop source code analysis with the power and accuracy of system-wide analysis since all local analysis is connected to a full system view
- » Security vulnerability and defect analysis is integrated with a unique architecture and code visualization tool so architects can reduce system complexity and improve maintainability
- » Analysis capabilities are extendable through a powerful framework that enables developers to write their own style or path analysis checkers to meet specific coding or organizational requirements

// COMPREHENSIVE REPORTING

Klocwork Insight provides software development managers with empirical, actionable data generated directly from their software. For the first time, development teams can track defect fix rate at the developer desktop, along with reporting on more than 100 software quality metrics. Development organizations can then use this information to quickly identify, isolate and address poor-quality or high-risk areas within the software, the development team, and the development process.



// FIND CRITICAL BUGS

Klocwork Insight can detect a wide range of critical bugs and security vulnerabilities for C, C++ and Java.

C & C++ Examples:

- » NULL pointer dereferences
- » Memory leaks
- » Usage of released memory
- » Buffer overflows and code injection vulnerabilities
- » Deadlocks
- » Resource leaks
- » DNS spoofing
- » Tainted data propagation and usage

Java Examples:

- » NULL reference exceptions
- » Code injection vulnerabilities
- » SQL injection vulnerabilities
- » Deadlocks and race conditions
- » Cross site scripting flaws
- » LDAP spoofing
- » Resource leaks
- » Denial of service vulnerabilities

// CLEANER, BETTER CODE

Klocwork Insight is a groundbreaking approach to source code analysis that has been proven in some of the most demanding software development environments in the world. With Klocwork Insight, organizations can address both software quality and security by:

- » Moving critical bug detection to the earliest point in your development process
- » Delivering a consistent critical bug removal capability to all developers
- » Empowering developers to fix bugs and vulnerabilities before they check-in their code
- » Enabling security specialists to push security and architectural policies out to each developer's desktop

By eliminating code defects early in the development process, Klocwork Insight helps organizations to accelerate development, reduce costs, create a better implementation process and deliver cleaner, better code.