

You're logged in as: Meranda Powers Edit your Profile | Log-out



TEST/QA	SOA	EBIZQ	JAVA	.NET	AJAX	ALM EVENT
---------	-----	-------	------	------	------	-----------

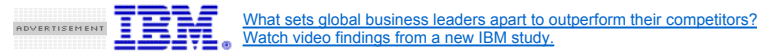
[SearchSoftwareQuality.com](#)
 Helping you develop, deploy and manage quality software.

[NEWS](#) [WHITE PAPERS](#) [MULTIMEDIA](#) [TIPS](#)
[BLOGS](#) [DOWNLOADS](#) [EXPERTS](#) [RSS](#)

[MODELS/METHODOLOGIES](#) [REQUIREMENTS](#) [TESTING AND QA](#) [PROJECT MANAGEMENT](#) [MAINTENANCE](#)

Powered by [Google](#)

[Site Index](#)



[Home](#) > [Software Quality News](#) > Static analysis tool helps software engineers find bugs during builds

Software Quality News:

[EMAIL THIS](#)

Static analysis tool helps software engineers find bugs during builds

By Jennette Mullaney, Associate Editor
03 Sep 2008 | [SearchSoftwareQuality.com](#)



When Mentor Graphics Inc. decided to switch to an agile methodology, the company needed a [source code analysis](#) tool that fit its development methodology and its complex code base. Klocwork Insight, a [static analysis](#) tool, provided the right services and conformed to agile principles.

Klocwork [Insight's] static analysis takes the runtime burden away from engineering and QA. It identifies potential software quality issues before [the code] gets built and propagated.

Kevin Pendleton
Director of quality and support systems, Mentor Graphics Inc.

The tool handles Mentor Graphic's extensive amount of source code, including older legacy code and newer acquired code, said Kevin Pendleton, director of quality and support systems for Mentor Graphics. Integrating Klocwork at the engineering desktop level prevents bugs from getting into builds or the QA environment, he explained.

"Klocwork [Insight's] static analysis takes the runtime burden away from engineering and QA," Pendleton said. "It identifies potential software quality issues before [the code] gets built and propagated."

Engineers discover and correct bugs themselves
Mentor Graphics uses the database that Insight creates at each build "to refactor legacy code and to analyze acquired technology details of code, relationships, third-party components, and forward architecture," Pendleton said. Engineers are able to view their own code and correct mistakes on the spot, while the information is still fresh in their minds. According to Klocwork, this process "empowers" engineers.

Pendleton agrees with that claim. "Let's just say our first step was to integrate Klocwork builds at our mainline system build level -- that is after engineering makes their changes and we build a system or set of products," he said.

In that scenario, Klocwork captures the impact of changes, particularly how many of a certain class of defect was introduced.

"We can correct those," Pendleton said, "but it's already a little late." However, if engineers are able to see and fix their own code, they are able to preclude that defect from ever being seen by QA or customers.

Before choosing Insight, Mentor Graphics had been using [dynamic analysis](#) "sporadically," Pendleton said. He found dynamic analysis "more intensive" to complete.

"Typically, it requires a different caliber of an engineer who can run through all aspects of a design flow exercising code to get all the bugs," Pendleton said. "With static analysis, you don't have to do it at the runtime -- you do it at the build level. It's easier to adopt."

Transitioning to agile

Easy adoption was crucial in light of the fact that Mentor Graphics was switching to an agile methodology. Pendleton is impressed with Klocwork Insight's integration into an agile environment.



"From my perspective, it fits very well with an agile model," he said. "Part of an agile approach is to find errors early, thereby reducing downstream costs."

More information on the benefits of static analysis







[How static analysis can improve software security](#)

[Static Analysis as Part of the Code Review Process -- Chapter 3, Secure Programming with Static Analysis](#)

[Web application security testing basics](#)

Because Life Runs on Code

-  [Download Visual Studio 2010 Now!](#)
-  [Downloading and Installing the Visual Studio 2010 Release Candidate](#)
-  [Visual Studio 2010 and .NET Framework 4 Training Kit](#)
-  [MSDN Video: Code Visualization and Architecture with Visual Studio 2010 \(Level 200\)](#)
-  [Podcast: Web Deployment Solutions with Visual Studio 2010 and the Web Deployment Tool \(Level 300\)](#)
-  [MSDN Webcast: Lighting Up the New Visual Studio 2010 Editor with Rich Extensions \(Level 200\)](#)
-  [MSDN Webcast: An Introduction to Visual Studio 2010 Extensibility \(Level 200\)](#)

Because it's everybody's  business

Software Development Methods - [Extreme Programming](#), [Agile Programming](#), [Scrum](#)

Mentor Graphics decided to employ the [Scrum](#) model, Pendleton said. "We don't just flip a switch," he said of the transition. "We have a mixed environment as we look to deploy Scrum across our enterprise."

Pendleton has "high hopes" for standardizing Klocwork Insight as part of an agile implementation. "I think it makes sense based on results we've seen -- it's absolutely in line with agile principles," he said.

The tool is easy to use and has increased the productivity of Mentor Graphic's engineers and the quality of their code, according to Pendleton.

"As we move forward with our agile implementation, I'm looking forward to seeing Klocwork be a required element of that process," he said.

Tags: [Software security testing tools](#), [Agile software development](#), [Scrum software development](#), [Source code analysis](#), [Web application security tools and services](#), [Testing tools](#), [VIEW ALL TAGS](#)



SOFTWARE QUALITY RELATED LINKS

Ads by Google

[Ottawa Agile Training](#)

Maximize the return on your IT investments. Get Agile training now
www.WestboroSystems.com

[QA Software Testing Trg](#)

Quality Assurance Software Testing Best in Toronto Mississauga GTA
www.iibs.ca

[Free SOA Testing Book](#)

40 page, step-by-step guide to improving SOA testing and quality
web.progress.com/actional

[Agile Software Tools](#)

Agile Development Software Supports multiple methodologies.
www.acceptsoftware.com

RELATED CONTENT

■ [Software security testing tools](#)

Are cross-site request forgery (CSRF) really as dangerous as vendor hype suggests?

Beefing up SSL to ensure your applications are locked down

Network security: Analyze your hosts and ports with nmap, Nessus, and netcat

Security best practices for today's Web 2.0 applications

Why you don't need to buy a testing tool, except when you do

Old problems persist in Web 2.0 security practices

Beating software's cross-site scripting, authentication problems

Application security checklist: Finding, eliminating SQL injection flaws

Free tools for Agile testers

Put a stop to software espionage by watermarking source code

■ [Agile software development](#)

ALM vendors aggregate at Colorado-based Agile conference

Podcast: Seasoned tester describes first year in an Agile environment

Podcast: Mark Levinson on Agile certification, methodology conflicts and team relationships

Transitioning to Agile development: One size doesn't necessarily fit all

How enhanced Agile skills can make your resume stand out

Scott Duncan on Agile: Values and principles

Podcast: Lisa Crispin speaks on Agile development for software teams

Software test expert: Why Agile teams' unit tests often fail

Agilists share product owner stories on Scrum and Agile

New fuel to the Agile ALM solution fire from Version One

■ [Scrum software development](#)

Scott Duncan on Agile: Values and principles

Scrum Master or Scrum project management, is there a difference?

Best practices for Scrum and when to apply them

Test-driven testing face-off: Waterfall vs. Agile

Agile by the numbers: Survey finds more adoption, but age-old problems remain

Boston SPIN: A small group's big ideas about agile development

Accelerate your agile software testing

Danube's Dan Rawsthorne: Scrum teams and metrics

Agile development growing, but problems remain

Turning agile skeptics to believers at Blueprint Systems

RELATED GLOSSARY TERMS

Terms from [Vhatis.com](#) - the technology online dictionary

■ [penetration testing](#) (SearchSoftwareQuality.com)

RELATED RESOURCES

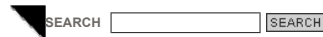
■ [2020software.com](#), trial software downloads for [accounting software](#), [ERP software](#),

[CRM software and business software systems](#)

■ Search [Bitpipe.com](#) for the latest [white papers](#) and [business webcasts](#)

■ [Whatis.com](#), the online [computer dictionary](#)

[About Us](#) | [Contact Us](#) | [For Advertisers](#) | [For Business Partners](#) | [Site Index](#) | [RSS](#)



TechTarget provides technology professionals with the information they need to perform their jobs - from developing strategy, to making cost-effective purchase decisions and managing their organizations' technology projects - with its network of [technology-specific websites, events and online magazines](#).

[TechTarget Corporate Web Site](#) | [Media Kits](#) | [Reprints](#) | [Site Map](#)

All Rights Reserved. [Copyright 2006 - 2010](#), TechTarget | [Read our Privacy Policy](#)

