

When There's No Margin for Error



Mission, life and business critical applications must work right the first and every time or lives and fortunes could be lost.

If you are not actively analyzing your code for complexity and thoroughly scrutinizing your testing activities, **trouble is going to find you.**

The world's top organizations trust the McCabe IQ quality management suite to analyze the quality and test coverage of their critical applications.

Using McCabe IQ, you will identify, objectively measure, and report on the complexity and quality of your code at the application and enterprise level. McCabe IQ's robust and easy to understand test coverage solution shows you what's been tested, how thoroughly, and if the code has been tested after changes have been made.

If there is trouble within your critical application, **McCabe IQ will find it.**

McCabe IQ Enables

- **Advanced Quality Measurement Using Advanced Software Metrics**
- **Comprehensive Test Coverage Analysis and Reporting**
- **Dynamic Reporting on Quality Across the Enterprise**



Trouble?



**Find it,
before it
finds you.**



We've analyzed over
100 billion lines of code.
If there is trouble within your
critical application...

McCabe IQ will find it.



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The McCabe IQ suite of software quality solutions is comprised of three core products and optional add-ons which provide the necessary components to help you improve your ability to deliver better, more reliable software to your end-users. Each are powerful in their own right and combined are effective tools for the analysis, comprehension, testing, and reengineering of new software and legacy systems.

McCabe QA uses advanced software metrics to identify, objectively measure, and report on the complexity and quality of your code at the application and enterprise level. **McCabe Test** is a comprehensive and easy to understand coverage tool that shows you what's been tested, how thoroughly, and if the code has been tested once changes have been made. **McCabe EQ** provides comprehensive reporting and visualization of your testing and code analysis, enterprise-wide.

▶ McCabeQA

Measure the Quality of Your Software

McCabe QA is an interactive, visual environment for managing software quality, providing a comprehensive solution to the challenges that face quality assurance and development teams. Built on McCabe's groundbreaking research in software quality measurement, McCabe QA delivers lower error rates, shorter testing cycles and reduced software maintenance efforts. McCabe QA builds stability, accountability and quality into software development initiatives.

With its interactive, visual environment, you can quickly and objectively gauge the quality of your code and focus resources where they will have the greatest impact on your projects.

Objective Quality Assessment - Software Metrics

McCabe QA mitigates software risk by calculating insightful software metrics and thereby identifying complex and error-prone code. These metrics include: McCabe Cyclomatic Complexity, McCabe Essential Complexity, Module Design Complexity, Integration Complexity, Lines of Code, Halstead, and many more.

A Picture is Worth a Thousand Words

While not all complex code is a negative thing, McCabe QA will show you exactly where the complexity lies in your application. Detailed, color-coded structure battlemaps, scatter plot diagrams, and flow graphs (below) provide key points of visual communication

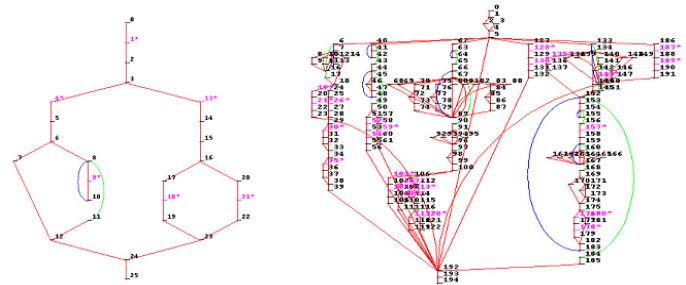
between QA managers and developers to quickly determine the complexity of code modules.

Visualized Quality Improvement

McCabe QA's Metric Trend reports track a system's metric values over time to document the progress made in improving the overall stability and quality of the project.

Customized Reporting

McCabe QA's reporting features are designed to make metrics information understandable and easily accessible. The graphical, system-level reports can also be custom designed to fit specific documentation requirements.



Simple Code vs. Complex Code

McCabe QA shows you exactly where the complexity lies in your application, allowing for precise targeting of your development and testing resources.

▶ Highlights

Provides insight into software quality via module-by-module metric calculations to identify where a program is likely to contain errors.

Provides graphical displays that represent code structure and metrics rankings for easy and valuable assessment of even large systems.

Creates a database of software characteristics including metrics and flowgraphs, used as a valuable reference for future changes and upgrades.

▶ McCabeTest

Analyze the Effectiveness of Your Testing

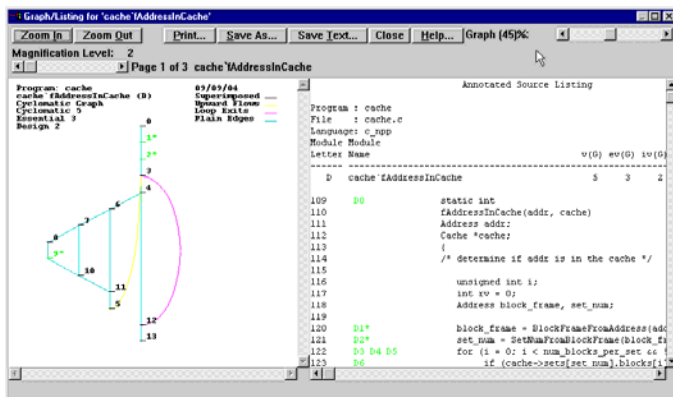
McCabe Test provides comprehensive test coverage to focus, monitor, and document software testing processes. Using industry-standard testing methods and advanced analysis techniques, the McCabe Test accurately assess the thoroughness of your testing and aids in gauging the time and resources needed to ensure a well-tested application.

Implement Testing Standards

The key to successful software testing is the adoption of effective testing procedures. McCabe Test automates the structured testing approach into your everyday test procedures to bring a new level of standards and confidence to your development projects.

Plan the Resources

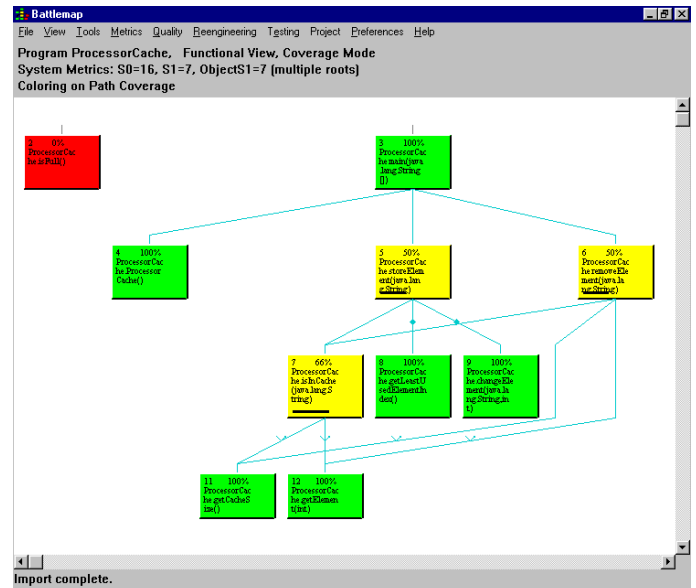
In order to get the most out of testing efforts, developers, test teams, and management must have a firm understanding of the application, their testing goals, and the resources that are needed to meet those goals. McCabe Test graphically displays the application architecture and all possible test paths through the system. Knowing the test paths in advance, enables the proper planning and accurate estimations of time and costs needed to execute a proper test plan.



McCabe Test's visual environment allows you to plan software testing resources in advance, identifying test paths and the number of tests required.

Know Exactly What Has Been Tested

The most common question asked during software testing is: "When have I tested enough?" McCabe Test answers this question with detailed status reports of testing efforts and recommendations on where to focus additional testing.



The McCabe Test battlemap shows precisely which modules in your application have been fully tested (green), partially tested (yellow), or are untested (red).

Optimize Testing Efforts

Software testing is the final barrier to the release of an application into production. The thoroughness of the testing effort directly affects the quality and stability of the program. McCabe Test focuses, documents, and automates the analysis of testing efforts and provides specific recommendations to improve the effectiveness of your testing.

▶ Highlights

McCabe Test visually identifies the most complex areas to help plan resources, estimate time and cost, and target testing efforts

Comprehensive software testing reports are provided to easily identify tested and untested paths and instantly pinpoint problematic areas.

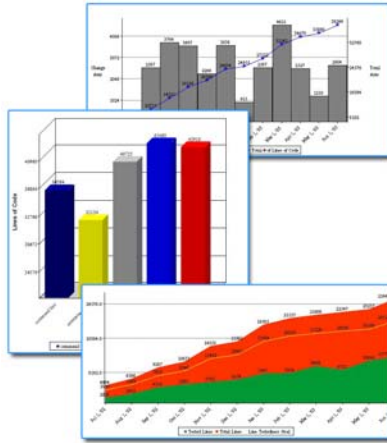
Multiple levels of code coverage include: Unit Level, Integration Level, Path Coverage, Branch Coverage, and Boolean Coverage

McCabeEQ

Report on Quality Enterprise-Wide

Due to the growing complexity of code and the increased pace of business, software managers must use quantitative methods to gain insight into the code they manage.

Whether it's the VP of R&D tracking the state of all development efforts or an individual developer or QA analyst measuring a single application or component, McCabe EQ (Enterprise Quality) provides the capability to assess the quality at every level.



McCabe EQ provides the insight, at every level, to identify the areas that are the highest risk of failure.

Composite Measures Across the Entire Enterprise

McCabe EQ has predefined reports on Size, Quality and Testedness for the latest revisions as well as trends across revisions and timeframes.

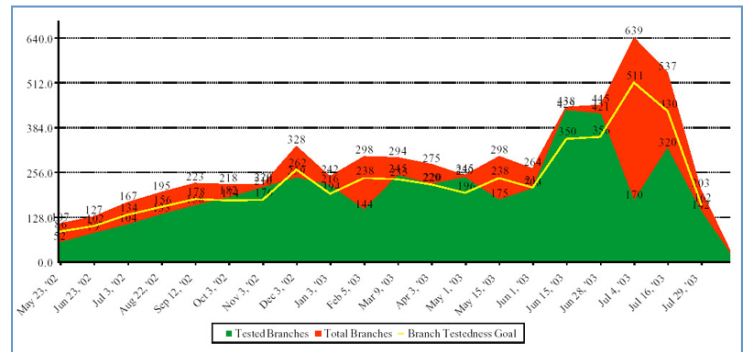
New composite measures for Size and Quality (including Modularity, Readability and Structuredness) are used for executive-level enterprise summaries to quickly illustrate areas of importance.

Maintain Quality Over Time

The delicate nature of software quality demands constant vigilance to achieve and maintain quality goals. McCabe EQ reports on trending values over time to document the progress made in improving the overall stability and quality of the project. Any decline in the caliber of the code can be quickly detected before further degradation occurs.

Combined Reporting with McCabe Test

McCabe EQ's relational database also leverages testing information from McCabe Test. Enterprise Quality Testedness reports provide system-wide reporting on the current coverage of all products and also will provide trending reports on testing levels achieved on each revision versus the defined testing goals.



McCabe EQ provides reports and graphical displays help testers quickly assess the need for more testing.

Highlights

Provides a wide range of graphical reports and views to visualize the quality, architecture and changes to your software systems.

Reports on the differences between software versions, the quality of the changes, and the level of testing performed on changed code.

Allows customization of standard reports according to your requirements, new reports including graphical views and data representations.

About McCabe & Associates, Inc.

McCabe & Associates is the leading provider of Software Quality Management and Configuration Management solutions worldwide to top commercial software, finance, defense, healthcare, and telecommunication providers. McCabe's IQ suite of tools has been used to analyze the quality and test coverage of over 100 billion lines of code, utilizing a comprehensive set of advanced software metrics including the McCabe-authored Cyclomatic Complexity metric. McCabe's IQ tools are the standard upon which mission, life and business critical applications are measured. McCabe has offices in the United States, Great Britain and Australia, and distributes its solutions worldwide.

IQ Supported Platforms/OS/Languages

Platform	Operating System	Languages
PC	Windows (XP, 98, NT, 2000)	Ada, C, C#, C++, .NET,
IBM	AIX 4.3 +	C++, COBOL,
HP	HP-UX 11.0 +	FORTRAN,
SGI	SGI IRIX 6.5 +	JAVA, JSP, Perl,
Sun UNIX	Sun Solaris 2.51 +	VB, VB.NET