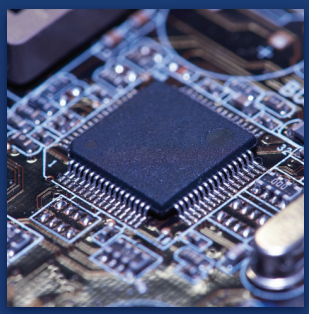
Verifysoft TECHNOLOGY

Software Testing Solutions for your Productivity and Quality



- Dynamic Code Analysis
- Software Complexity Measurement
- Code Coverage

www.verifysoft.com

Imagix 4D – For visualization and verification of programs written in C, C++ and Java

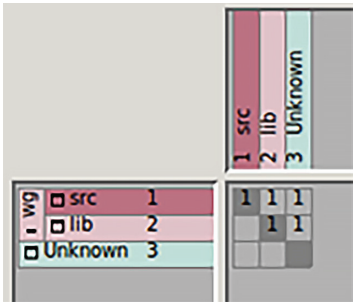
Imagix 4D is a tool to understand, document and improve complex, third party or legacy source code written in C, C++ and Java. Imagix 4D automates the analysis of control flow and dependencies. It detects problems in data usage and task interactions. With Imagix 4D you increase productivity, improve quality, and reduce risk.

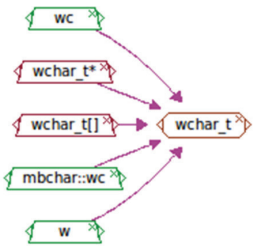
Improve quality by uncovering bugs and vulnerabilities

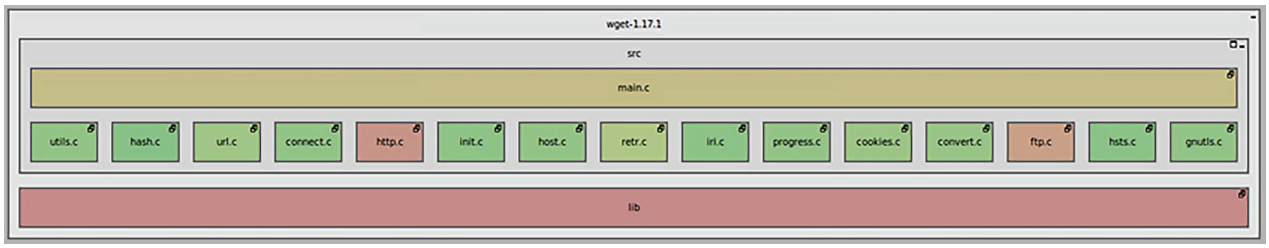
- Automated checkers find anomalies in the sourcecode
- Over 100 metrics (including McCabe Cyclomatic and Essential Complexity, Halstead Complexity, Maintainability Index etc.) to identify critical modules in a matter of seconds
- Semi-automated reviews assist in performing efficient qualitative analyses compliant to CWE or to your own requirements

Keep control even for large projects

- meaningful diagrams provide views from a global perspective up to granular characteristics of a single data type
- Δ-Analyses enable a detailed change tracking of revisions
- checks of the existing architecture are compliant to structural requirements based on comprehensive architecture diagrams







Like a swiss army knife

Imagix 4D combines a variety of useful tools and capabilities in order to assesssource code: Architecture diagrams, reports, delta analysis, profiler integration, visualization of Code Coverage measured by Testwell CTC++, function call diagrams, include hierarchy diagrams, bug finding, inheritance diagrams, control flow graphs, file call graphs, UML class diagrams, CWE compliance checks, metrics (variable, function, class, file, directory, architecture), design- and structure matrices, file editor, dependencies calculation tree, assignment calculation tree, diagram export, static source code analysis, symbol lists, grep based file search, concurrency analysis, include analysis.

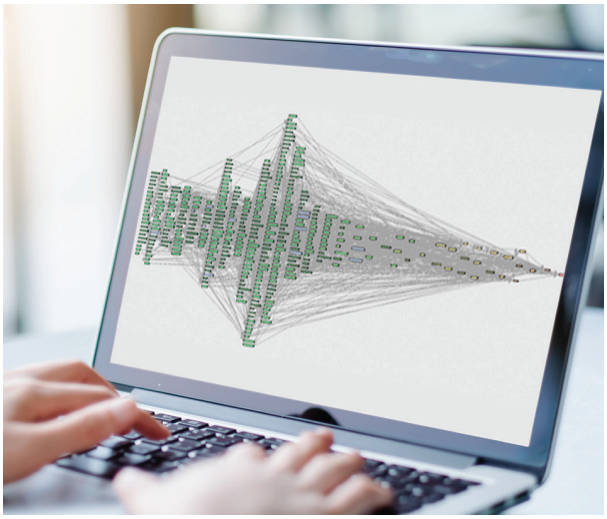
Improve your software development cycle

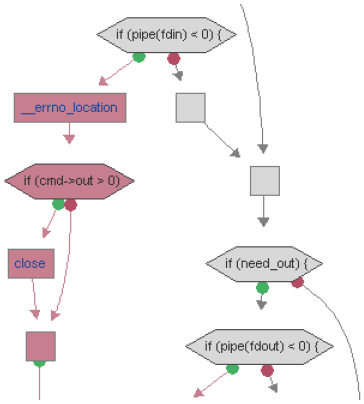
Speed up looking up information for specific symbols by efficient database queries

- easily understand and evaluate unknown source code with Imagix 4D
- automatically generated documents based on the present source code representing the recent state of the project.

Benefit from the integration of Testwell CTC++

- visualization of Code Coverage in control flow diagrams
- Understand the correlations between Tests and Test Coverage for a faster development of suitable test cases
- function- and call-coverage reports complete the portfolio of Testwell CTC++





Improve your productivity and evaluate Imagix 4D now!

Testwell CTC++ Test Coverage

Code coverage for all coverage levels, all compilers, all embedded targets

Testwell CTC++ is a powerful and easy to use code/test coverage tool that indicates all parts of your code that have been executed (tested). The tool supports all coverage levels and is ready to be used in safety-critical projects.

Easy Usage

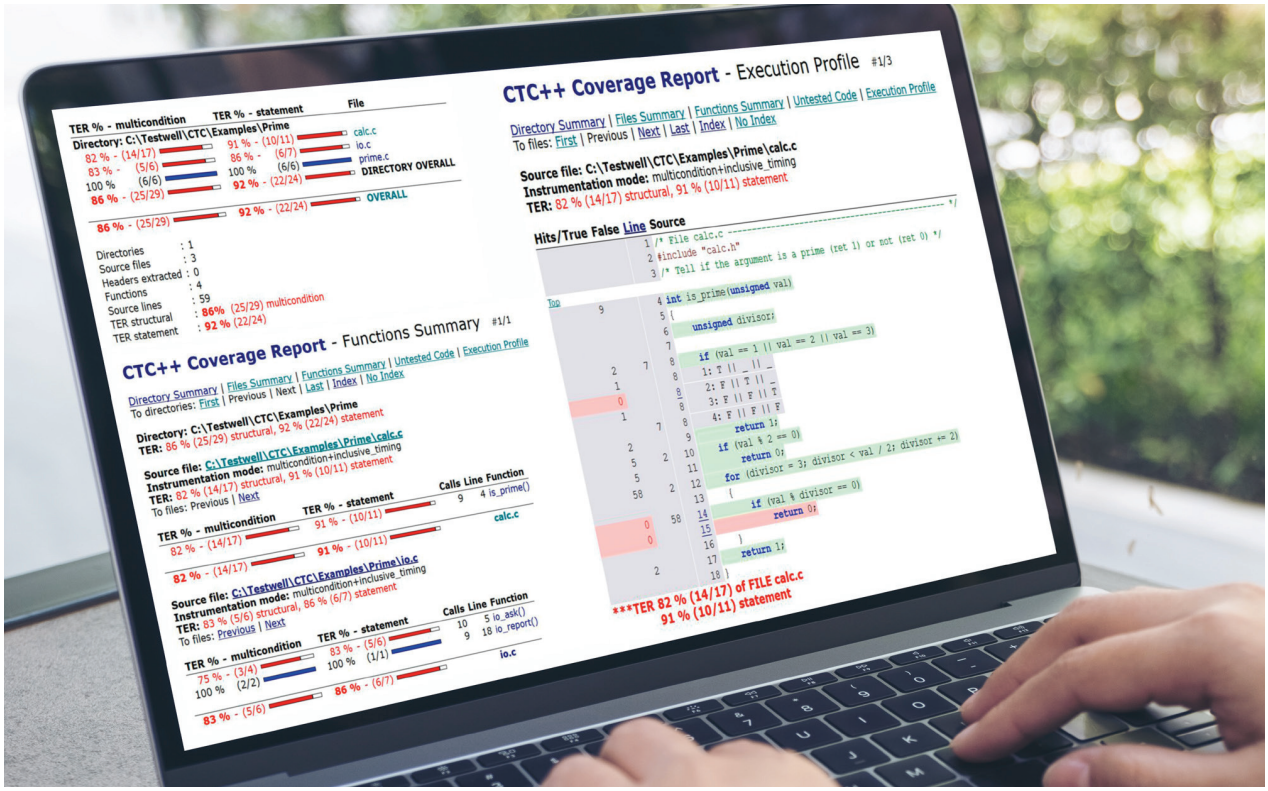
- No modifications for existing code required
- Support of existing make files
- Excellent performance
- Seamless integration into common IDEs
- Support for C and C++

Add-ons for Testwell CTC++

- Support for Java/Android
- Support for C

Code Coverage shown in meaningful, comprehensive reports

- HTML-reports generated for the end user
- Various additional formats available for further automated processing (XML, JSON etc.)



Testwell CTC ++
Test Coverage Analyser

Code Coverage for all Coverage Levels

- Statement Coverage
- Function Coverage
- Decision Coverage/Branch Coverage
- Condition Coverage
- Modified Condition/Decision Coverage (MC/DC)
- Multicondition Coverage (MCC)

Testwell CTC++ is the ideal tool for analysing the code coverage on your embedded targets and microcontrollers. It can be used on hosts as well as on small targets.

- Very small instrumentation overhead
- Analyses code coverage on all targets
- Applicable on even the smallest targets
- Works with any compiler/cross compiler

Code Coverage with Testwell CTC++

- Meet requirements of a variety of standards
- Improve your test cases
- Avoid redundant test cases
- Uncover unreachable code (dead code)
- Document evidence of conformity regarding code coverage on customer's demand
- Demand proof of code coverage from your suppliers
- Uncover performance bottlenecks by examining runtime behavior

Qualification-Kit

Simplify all certification processes of your projects by using the Qualification Kit for Testwell CTC++. The following standards are supported by the Testwell CTC++ Qualification Kit:

- **DO-178C / ED-12C**
  Software Considerations in Airborne Systems and Equipment Certification
- **IEC 61508**
  Functional Safety of Electrical/Electronic Programmable Electronic Safety-related Systems
- **EN 50128**
  Railway applications - Communication, signaling and processing systems
- **ISO 26262**
  Road vehicles - Functional safety
- **IEC 60880**
  Nuclear Power

All Testwell tools are available for
Windows, Linux, Solaris and HP-UX.

Qualification Kit for Standards:
DO-178C - IEC 61508 - EN 50128 - ISO 26262-IEC 60880

Testwell CMT++ and Testwell CMTJava

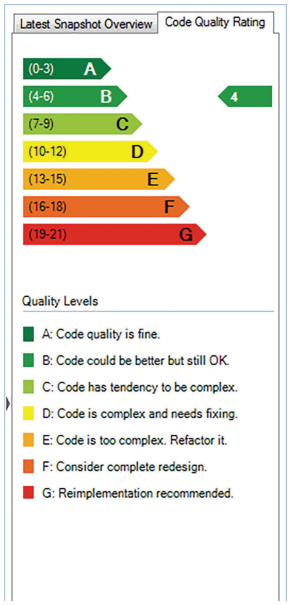
Software complexity analysis for languages C, C++, C# and Java

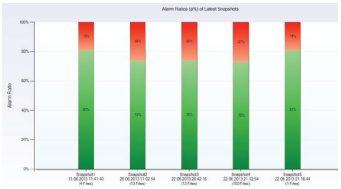
Testwell CMT++ and Testwell CMTJava are tools for analysing complexity of C, C++, C# and Java source code. Both tools analyse source code and inform you immediately about the current internal quality of your software product, even those with large project sizes. Avoid software erosion by achieving a good internal code quality and see how maintainability and testability will be significantly improved.

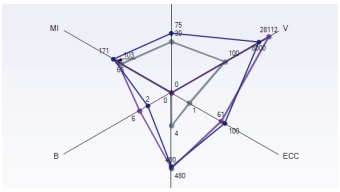
Complexity Analysis

- McCabe Cyclomatic Complexity
- All Lines-of-Code Metrics
- All Maintainability Indexes
- All Halstead Metrics

The complexity of your source code has great impact on robustness and error-proneness of your software products. Complex code is hard to test, is expensive and challenging to maintain. Reduce these costs by examining the complexity of your source code.







Graphical Add-on for Testwell CMT++

Verybench for CMT++ is a graphical front end for Testwell CMT++. It enables you to examine, evaluate and document your source code's quality graphically in a standardised user interface.

- **Alerts for Metric Outliers**
  Verybench displays all alarms which have been defined for metric outliers within Testwell CMT++.
- **Snapshots**
  Verybench creates a snapshot for every performed complexity analysis, therefore capturing your entire source code's quality over time.
- **Quality-Baseline**
  All snapshots created over time from a single Quality Baseline in order to assist you in understanding your software's complexity in-/decrease.
- **Code-Quality-Rating**
  Verybench evaluates your source code after each complexity analysis, giving you an accurate representation of the current code complexity instantly.
- **Reports**
  Verybench helps you to document your quality examinations by providing easy to read reports in formats such as PDF-, HTML-, XML-, CSV- and text.

Our references

More than 600 customers all over the world

Hundreds of global corporations, medium-sized and small companies all over the world are using our tools to increase their productivity and quality of their software.

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AIRBUS HELICOPTERS
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BARCO
BMW
BOMBARDIER
Bundesamt für Sicherheit in der Informationstechnik
BOSCH
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DGA
dSPACE
EATON
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GE
Giesecke & Devrient
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Verifysoft TECHNOLOGY

Verifysoft Technology GmbH is a vendor and value-added reseller of software testing and analysis tools. We provide global corporations, medium-sized and small companies with software testing tools, expert advice, support and customisation services.

Verifysoft Technology GmbH was founded in 2003. The company is located in Offenburg, south west of Germany, close to the French border.

Our international team of experts provides advice and assistance to customers all over the world. Our engineers have extensive experience in software testing.

Find software defects and problems before your customers do. Enhance your software quality with tools from Verifysoft Technology.

In addition we organize seminars regarding software testing and software quality.

More information and more about our tools at www.verifysoft.com
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