Reservoir Labs

Reservoir R-Check® SCA

Fast, Accurate, Repeatable SCA Compliance Testing

What is it?
R-Check SCA is a powerful structure- and context-aware tool for static source code analysis tailored to the SCA.

How does it work?
R-Check SCA performs well-founded static analysis directed at certifying compliance with requirements derived from the SCA 2.2 and 2.2.2 specifications.

What will it accomplish?
R-Check SCA accelerates SCA compliance testing by providing an automated solution that is capable of delivering 100% code coverage at any point in the development process.

Combined with R-Check SCA's deep, compiler-motivated code analysis and integrated knowledge of the SCA, this means errors are found and reported at the earliest possible point in the development process.

Available Now
R-Check SCA is available direct from Reservoir Labs for both Microsoft Windows® and Linux® platforms.

R-Check SCA is also available as an integrated plug-in to NordiaSoft's SCA Architect. To learn more, contact NordiaSoft or visit their webpage.
www.nordiasoft.com

Contact
Reservoir Labs, Inc.
632 Broadway, Suite 803
New York, New York
sales@reservoir.com
212 780 0527
www.reservoir.com

Reservoir Labs' R-Check® SCA is a powerful static source code analysis tool tailored for Software Communications Architecture (SCA) compliance testing. R-Check SCA parses the full ANSI C and C++ languages (including preprocessor emulation), CORBA® middleware IDL, and SCA XML descriptor files, enabling total code analysis for SCA 2.2 and 2.2.2 projects. For all files, compliance checking is performed with complete awareness of the code structure and context.

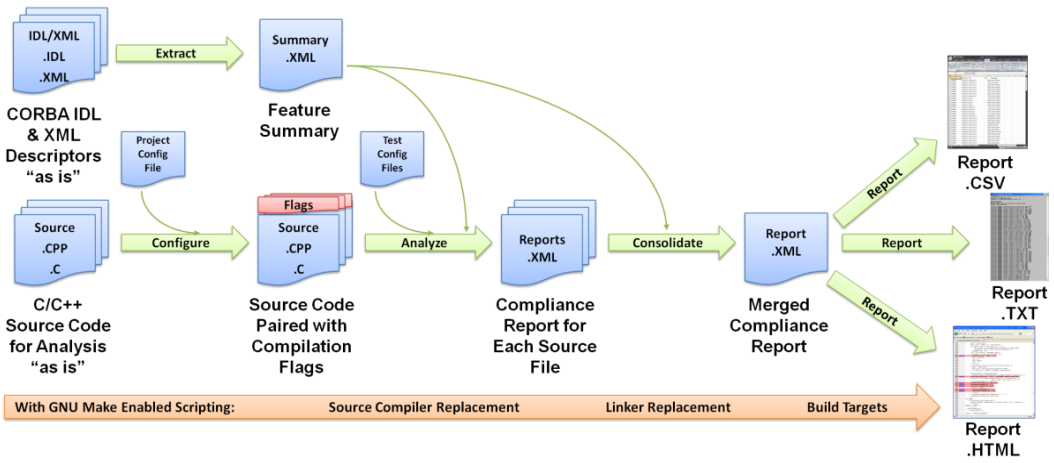
> ***"R-Check SCA has been verified by the JTRS Test and Evaluation Laboratory (JTEL) to correctly test SCA 2.2 and 2.2.2 requirements [AP0]603, [AP0]604, [AP0]607, and [OE0]620. JTEL anticipates utilizing R-Check SCA to verify these requirements as a part of the process of record (currently manual MASTD/MOESTD testing) for requirements [AP0]603, [AP0]604, [AP0]607, and [OE0]620 as of 1 Dec 2011.***
>
> ***JTEL has found that utilizing R-Check SCA has provided up to a 90% reduction in the time required to test [AP0]603, [AP0]604, [AP0]607, and [OE0]620."*** [i]

In additional to core POSIX (AEP) and minimum CORBA requirements, R-Check SCA currently provides support for more than a dozen other SCA requirements.

Tailored for the SDR Development Community. R-Check SCA understands components and modules and uses a patent-pending method to test consistency across SCA XML, CORBA IDL, and C/C++ source files. SDR developers will see equivalent testing results to those produced at the certifying agency and can address non-compliance prior to submission for certification.

- ***Fast analysis, few false positives*** so less time in manual post-inspection of code
- ***100% code coverage*** includes all header files and even preprocessor excluded code
- ***Flexible reporting, consolidated views*** in XML, HTML, CSV and text formats
- ***User ready, fully supported*** with integrated SCA reference & help material

Easy to Integrate into Existing Workflows. R-Check SCA's configuration, test, and report-generation tools support command-driven execution and can be scripted for easy integration into almost any development environment, including Eclipse™-based development tools such as NordiaSoft's SCA Architect™. R-Check SCA also includes an open, end-to-end command-line interface that recognizes SCA project files. Just point it at a source-file directory and start testing.



Learn More. Visit https://www.reservoir.com/product/r-check-sca.

Reservoir Labs

Reservoir R-Check® SCA

Fast, Accurate, Repeatable SCA Compliance Testing

R-Check SCA[ii] Key Feature	Advantage
Built-in SCA 2.2 and 2.2.2 support • POSIX (AEP) and CORBA-aware C/C++ source code analysis • Deep inspection of SCA XML descriptor files • Consistency testing across SCA XML, CORBA IDL, and C/C++ source code • Inspection of heap memory allocations	• *Push-button* compliance testing • Direct *linking* from violations to SCA source reference material • Match heap memory allocations with deallocations to help *prevent memory leaks*
Static analysis • Unified analysis of source code, CORBA IDL, and SCA XML descriptor files	• Find violations that span file types – including code issues that only manifest on some platforms • Find violations *before* system integration
Partial Code Mode (PCM) • Automates checking of incomplete code	• *Test early* – 100% code coverage throughout the development cycle • *Test anywhere* – test on machines without platform-specific OE or middleware installations
Commercial compiler front end • Allows full and deep context-aware analysis of C and C++ code	• Test C and C++ code *as is* • Full preprocessor emulation • *Fewer false positives*
Automatic configuration • Project, module, and file-level configuration	• Automatic configuration based on source-tree structure • Allows for *exceptions* at the file, module, or project level
Modular components • Mirrors traditional build structure	• *Integrates* easily with common development environments such as Eclipse • Code developed can be checked for compliance as part of the normal *edit-recompile-run* cycle
Flexible reporting formats • Open XML format can be recast into HTML, CSV, or text with included tools	• Reports are *automatically generated* as individual or consolidated reports • Viewable with open-source and commercial tools

[i] Statement Approved for Public Release by: Office of Corporate Communications and Public Affairs JPEO JTRS, 27 October 2011. Statement refers to R-Check SCA 1.15.1, using JTEL configuration.

[ii] R-Check SCA 1.17.5.3, available for purchase now for Microsoft Windows and Linux platforms.