# IAR Systems adds static code analysis to leading development tools for ARM

Latest add-on C-STAT brings easy-to-use, completely integrated, static code analysis to users of IAR Embedded Workbench for ARM

Uppsala, Sweden / Embedded World, Nuremberg, Germany—February 23, 2015—IAR Systems®, the leading vendor of embedded development tools, proudly present its latest product innovation C-STAT®. The new tool provides powerful static analysis fully integrated with the high-performance development toolchain IAR Embedded Workbench® for ARM®.

Static analysis finds potential issues in code by doing an analysis on the source code level. The analysis helps prevents application failure by detecting potential code errors including for example memory leaks, access violations, arithmetic errors and array and string overruns. Because such errors can affect the quality of products as well as cause security issues, it is crucial to find them early in the development cycle and minimize the impact on the finished product as well as on the project timeline. In addition to raising the code quality, the analysis also aids alignment with industry coding standards.
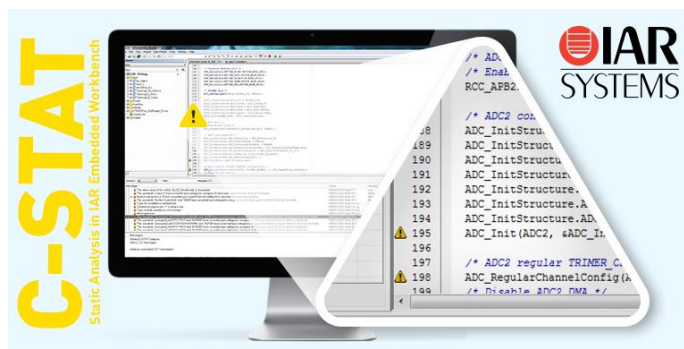
C-STAT is a powerful static analysis tool that executes fast and provides analysis results directly in the IAR Embedded Workbench IDE. It checks compliance with rules as defined by coding standards including MISRA C:2004, MISRA C++:2008 and MISRA C:2012, as well as hundreds of rules based on for example CWE (the Common Weakness Enumeration) and CERT C/C++. Users can easily select which rule-set and which individual rules to check the code against. To take full control of their code, developers can utilize C-STAT complemented by IAR Systems' tool C-RUN® that checks for actual heap and bounds issues at runtime.

"Companies have a lot to gain by including code quality checks in the daily work of each developer,"

– more –

says Anders Holmberg, Analysis Tools Product Manager, IAR Systems. "This way, they can tighten and simplify their development processes, improve code quality during development and accelerate production times by finding errors quickly. C-STAT is fast and user-friendly and can easily be used by entire development teams. We are dedicated to support developers in taking full control of their development and deliver dependable products."

C-STAT is now available as an add-on product for IAR Embedded Workbench for ARM, version 7.40 or later. The powerful compiler and debugger toolchain supports more than 3,000 ARM-based devices and is also available in a functional safety version with the build chain certified for development according to IEC 61508, ISO 26262 and EN 50128. All products are sold with access to IAR Systems' renowned technical support available in multiple time zones. Read more about C-STAT at www.iar.com/cstat and about IAR Embedded Workbench for ARM at www.iar.com/ewarm.

About MISRA C

MISRA, The Motor Industry Software Reliability Association, is a collaboration between vehicle manufacturers, component suppliers and engineering consultancies which seeks to promote best practice in developing safety-related electronic systems in road vehicles and other embedded systems. MISRA C is a software development standard for the C programming language developed by MISRA. More information is available at www.misra.org.uk

About CERT C/C++

The CERT C/C++ Secure Coding Standards are standards published by the Computer Emergency Response Team (CERT) providing rules and recommendations for secure coding in the C/C++ programming languages. More information is available at www.cert.org

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Editor's Note: IAR Systems, IAR Embedded Workbench, C-SPY, C-RUN, C-STAT, visualSTATE, Focus on Your Code, IAR KickStart Kit, IAR Experiment!, I-jet, I-jet Trace, I-scope, IAR Academy, IAR, and the logotype of IAR Systems are trademarks or registered trademarks owned by IAR Systems AB. All other products names are trademarks of their respective owners.

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About IAR Systems

IAR Systems provides developers of embedded systems with world-leading software tools for developing competitive products based on 8-, 16-, and 32-bit processors. Established in Sweden in 1983, the company has over 46,000 customers globally, mainly in the areas of industrial automation, medical devices, consumer electronics, telecommunication, and automotive products. IAR Systems has an extensive network of partners and cooperates with the world's leading semiconductor vendors. IAR Systems Group AB is listed on NASDAQ OMX Stockholm. For more information, please visit www.iar.com.