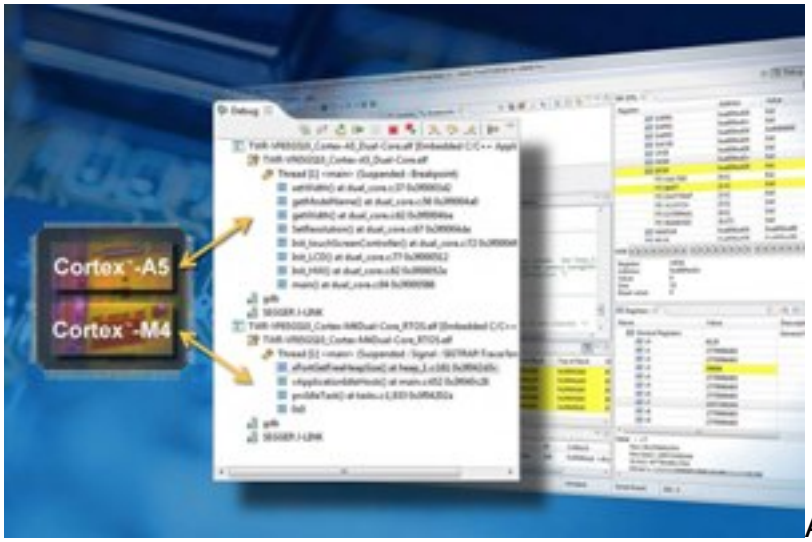
Controller Solutions Gain True Dual-Core Debug Support



Atollic® today announced they have incorporated dual-core development and debug support for Freescale Semiconductor's new Vybrid™ controller solutions within the latest release of Atollic TrueSTUDIO®. Incorporating both an ARM® Cortex™-M4 core and an ARM Cortex-A5 core within a single Vybrid controller solutions device, Atollic TrueSTUDIO v3.2 can debug both cores at the same time using a single IDE GUI instance, greatly simplifying the task of debugging a multicore application for embedded developers using this new device. With its heterogeneous architecture, one of the key strengths of the Vybrid controller solutions device is its ability to partition tasks based on their characteristics. For tasks that need predictable interrupt management, for example, a typical need for realtime applications, the Vybrid platform has the ARM Cortex-M4 core with a Nested Vector Interrupt Controller (NVIC) while allowing graphical applications and connectivity stacks to be run on the ARM Cortex-A5 applications processor.

"We are pleased Atollic TrueSTUDIO now supports our new family of Vybrid dual-core devices," says Geoff Lees, vice president and general manager of Freescale's Industrial & Multi-Market MCU business. "Not only is this an outstanding C/C++ IDE for professional embedded development, but now our customers can now get a highly productive dual-core debugging environment which is increasingly critical to the development of advanced embedded systems."

"We are pleased to announce support for the new Freescale Vybrid dual-core devices, which we believe will be a significant entry to the high-end embedded systems market", says Magnus Unemyr, Vice President of Sales and Marketing at Atollic. "With the new Freescale Vybrid controller solutions support in Atollic TrueSTUDIO, we address the high-end market of dual-core Cortex-A class systems by providing a powerful tool solution with integrated features for multicore debugging, improving code quality, promoting team collaboration and increasing developer efficiency. This enables our customers to develop Freescale Vybrid

controller solution-based systems of higher quality, faster, and at lower cost."

The recent release of Atollic TrueSTUDIO v3.2 has also introduced native RTOS-aware debugging for leading RTOSes such as FreeRTOS, OpenRTOS, ThreadX and embOS. Atollic TrueSTUDIO v3.2 also provides an integrated interface to the Micrium uC/Probe tool that provides RTOS-aware debugging for the uC/OS-III RTOS. RTOS-aware debugging greatly eases the task of debugging an RTOS-based embedded development. It achieves this by presenting the software engineer with an insight to the RTOS status, message queues and tasks along with other information that will help them to have a better understanding of how their application is being handled within the RTOS.

Atollic TrueSTUDIO is a world-class development and debugging tool that offers a state-of-the-art editor, an optimizing C/C++ compiler and a multiprocessor-aware debugger with real-time tracing. The tool suite delivers a leap in software development team collaboration and developer productivity, and offers advanced features including ARM build and debug tools and Serial Wire Viewer (SWV) tracing. Also available to ARM developers are Atollic’s professional code-quality analysis and test-automation toolbox.

Complementing Atollic TrueSTUDIO v3.2 is a family of code analysis and validation tools. Atollic TrueINSPECTOR® provides static source code analysis with MISRA®-C compliance checking and code metrics including code complexity measurements. Atollic TrueANALYZER® facilitates in-target test quality measurement using MC/DC-level coverage using dynamic execution flow analysis. Finally, Atollic TrueVERIFIER® provides an embedded test automation function using auto-generated and auto-executed unit test suites on the target board.

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