Altium broadens ARM Cortex-M device support to its TASKING C compiler for ARM

Software Platform and Pin Mapper increase productivity for ARM development

Sydney, Australia – 1 October 2014 - Altium Limited, a global leader in Smart System Design Automation, 3D PCB design (Altium Designer) and embedded software development (TASKING) announces a new release of its TASKING compiler suite for ARM, delivering support for many additional Cortex-M based microcontrollers including STMicroelectronics, Freescale, Atmel, Texas Instruments and many others. The enhanced version brings pin assignment functionality to the toolset, which is another step forward in helping engineers to speed up application development.

Altium supports the ARM Cortex-M development community through its TASKING VX-toolset for ARM, consisting of an Eclipse based IDE, C and C++ compiler, multi-core ready linker, simulator, in-circuit debugger, and TASKING's award winning Software Platform, which enables the developer to complete the application in a fast and cost-efficient way with RTOS and a wide range of middleware components.

Release v5.1 of the toolset adds support for many new microcontroller variants, such as the full Kinetis range from Freescale, the Tiva C series from Texas Instruments and the Cortex-M based variants from Atmel's SMART series. Also, the support for existing vendors' devices has been extended, such as the STMicroelectronics STM32 L0, Spansion's FM0 and FM4, and Silicon Labs EFM32. The broadened device toolset support for the industry's most popular Cortex-M microcontrollers enables developers to easily change semiconductor manufacturer and switch controller type, not being locked-in by vendor specific development tools..

Currently, many microcontrollers are equipped with a large number of on-chip peripheral modules, but the limited number of pins on the chip usually does not allow all modules to be used simultaneously. TASKING's new Pin Mapper functionality removes the developer's complex challenge of configuring the chip's hardware registers that are used for assigning the peripheral module signals to the physical pins. The Pin Mapper provides a visual representation of the pin layout within the toolset IDE, through which the developer can configure and review properties of the pins, like its Power Domain, Reset State and Pad Status. The Pin Mapper also visually reports errors or warnings for possible connection conflicts, saving the developer from the tedious task of maintaining an overview of the pin assignments in Excel tables.

The visually oriented Pin Mapper is a natural extension to the toolset's award winning Software Platform technology, and both are seamlessly integrated into the Eclipse based IDE. The TASKING Software Platform contains a wide collection of frequently used middleware components, such as TCP/IP, USB, CAN, web server, graphical user-interface, and an RTOS. At the cost of a traditional development toolset the developer gets everything to build an application much faster than is possible with other compiler suites and additional third party middleware \components.

"Our focus is to bring ease-of-use as well as rapid application development to the ARM development community through our Software Platform, enabling the developer to glue services like TCP/IP, a web server, and Human-Machine-Interfaces to the application at minimal effort and

time." says Harm-Andre Verhoef, TASKING Product Manager at Altium. "Now with the Pin Mapper extension the developer can configure and maintain the microcontroller's pin assignments from within the same environment, significantly reducing the risk of human assignment errors and giving another boost to the development process speed."

The TASKING VX-toolset is the industry's first compiler supporting ARM that has incorporated support for the latest MISRA C:2012 guidelines for C programming, as well as the CERT C secure coding standard. TASKING's code analysis support integrated into the compiler enables developers to easily select and configure the coding guidelines in accordance with the company's prescribed rules, in order to increase code safety, reliability and maintainability. By providing support for the new MISRA C:2012 standard, developers now can benefit from the latest guidelines improvements that can reduce the cost and complexity of compliance, while aiding consistent, safe use of C in embedded systems.

Features of the TASKING VX-toolset for ARM Cortex-M include:
- Eclipse IDE with integrated C/C++ compiler and debugger
- Fast and easy application development through TASKING's award winning Software Platform technology, bringing:
    - an industry standard RTOS
    - a wide range of ready to use middleware components, such as support for CAN, USB, I2C, TCP/IP, HTTP(S), Bluetooth, file systems, graphical user interface, and touch panel control
- Eclipse integrated Pin Mapper for assigning signals to microcontroller pins
- MISRA C (C:1998, C:2004 and C:2012 guidelines) and CERT C code analysis functionality built into the compiler
- Support for Cortex-M based microcontrollers from STMicroelectronics, Freescale, Atmel, Infineon, Silicon Labs, Spansion and Texas Instruments
- In-circuit debug and programming facilities through integrated hardware debugger, supporting a range of popular debug probes and evaluation kits

The TASKING VX-toolset for ARM Cortex-M release v5.1 is available now on Windows, OS X and Linux, with 30 day trial versions available on request. Pricing starts at $ 1,995 (€ 1,595) for the TASKING VX-toolset Standard Edition and $ 2,995 (€ 2,395) for the Premium Edition. Existing customers with a maintenance contract can upgrade to the new release for free. Free evaluations can be requested here.

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ABOUT TASKING

TASKING is an Altium brand. TASKING development tools are used by carmakers and the world's largest automotive Tier-1 suppliers to program microcontroller based power train, body control and safety related applications around the globe. More than ten thousand users rely on the TASKING compilers and debuggers to create richer next-generation applications while achieving optimum reliability, security, and performance. TASKING compilers are also part of Altium Designer and installed on hundreds thousands of developer's desktops around the globe. In 2012 the TASKING brand celebrated its 35-years anniversary of technology leadership, quality tools and customer support excellence.

ABOUT ALTIUM

Altium Limited (ASX: ALU) is an Australian multinational software corporation that focuses on 3D PCB design, electronics design and embedded system development software.

Altium Designer, a unified electronics design environment links all aspects of smart systems design in a single application that is priced as affordable as possible. With this unique range of technologies Altium enables electronics designers to innovate, harness the latest devices and technologies, manage their projects across broad design 'ecosystems', and create connected, intelligent products.

Founded in 1985, Altium has offices worldwide, with US locations in San Diego and Boston, European locations in Karlsruhe, Amersfoort, Kiev, Moscow and Zug and Asia-Pacific locations in Shanghai, Tokyo and Sydney. For more information, visit www.altium.com. You can also follow and engage with Altium via Facebook, Twitter and YouTube.