

Altium announces TASKING C compiler for the next generation BOSCH GTM-IP MCS

New compiler will complement TASKING tool suites for AURIX, RH850 and Power Architecture

San Diego, Calif. – February 25, 2015 - Altium Limited, a global leader in Electronic Design Automation, Native 3D PCB design systems ([Altium Designer](#)[®], [CircuitStudio](#)[®], [PCBWorks](#)[®], [CircuitMaker](#)[®]), ECAD design data management ([Altium Vault](#)[®]), and embedded software development toolkits ([TASKING](#)[®]), announces the availability of a new C compiler for the Generic Timer Module (GTM-IP MCS) from the Robert Bosch GmbH.

The GTM IP module forms a generic timer platform for complex applications in the automotive industry like power train, power steering, chassis and transmission control. To serve these different application domains, the GTM provides a wide range of timer functions like counters, multi-action capture/compare, PWM functions, duty-cycle measurement and many more. The GTM also features internal RISC-like programmable cores for data processing and complex output sequence generation. The IP is designed to run with minimal CPU interaction and to unload the CPU from handling interrupt service requests as much as possible.

Generic interfaces and the hierarchical system architecture make the GTM an ideal solution as IP core for various microcontroller architectures. The GTM has been licensed to semiconductor manufacturers for incorporation of the core on automotive microcontrollers like the AURIX (Infineon Technologies), RH850 (Renesas) and Power Architecture (Freescale and STMicroelectronics).

While first generation GTM silicon is currently available through semiconductor vendors, Bosch developed already the third generation, that will deliver significant functional enhancements. These improvements not only enabled the development of the TASKING C compiler, but will also allow for the GTM's features set to be exploited more efficiently and considerably easier by programming it at C language level. Bosch has supported Altium on the development of a dedicated C compiler, based on the robust and highly efficient TASKING Viper compiler technology "VX".

TASKING's Viper technology ensures compatibility to other popular TASKING compilers and eases migration of applications developed for other architectures. TASKING compilers have built up a proven reputation with highly efficient and robust code for automotive applications like power train, body control, chassis control and safety critical applications. Similar to TASKING's other compiler solutions, the new compiler for the GTM will be integrated into Eclipse-based IDEs, but it will also be accessible from the command line. A simulator debugger for the GTM will complement the compiler, allowing developers to test GTM code without hardware being available.

The first stable release of the C compiler for the GTM/MCS will be available in March. In the course of the year the new C compiler will be included in and fully integrated into new releases of TASKING's automotive tool suites for Infineon's TriCore/AURIX, Freescale's Power Architecture Qorriva, STMicroelectronics' Power Architecture SPC5xx and Renesas' RH850. These TASKING tool suites take again another step forward ahead of alternative solutions, excelling on code optimizations, robustness, feature-richness and unparalleled completeness through dedicated compilers and debuggers supporting the main microcontroller and integrated additional cores.

"As first vendor Altium recognized the opportunity to provide development tools through the TASKING compiler technology for the third generation GTM from Bosch." says Harm-André Verhoef, responsible for TASKING Product Management. "Contrary to many general compiler technologies, Altium's Viper compiler technology is perfectly suited for the development of compilers for specialized cores like the GTM, as this modern technology was developed from the ground up for embedded systems with memory constraints and performance challenges. Our Viper compilers have proven to be efficient for everything from 8-bit controllers to multi-core 32-bit controllers and co-processor alike cores, including the new GTM."

Through this industry-unique TASKING C compiler for the GTM, Altium reconfirms its position as leading compiler vendor for the development of automotive applications. No other vendor brings such a comprehensive portfolio of compilers for these market-leading automotive microcontrollers and their respective add-on cores.

TASKING's existing ISO 26262 Support Program will cover the new GTM compiler through the dedicated toolset offerings for the various main microcontrollers, enabling customers to achieve certification for functional safety standards such as ISO 26262 and others.

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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](https://www.asx.com.au/altium)) is an Australian multinational software corporation that focuses on electronics design systems for 3D PCB design and embedded system development. Altium

products are found everywhere from world leading electronic design teams to the grassroots electronic design community.

With a unique range of technologies Altium helps organisations and design communities to innovate, collaborate and create connected products while remaining on-time and on-budget. Products provided are Altium Designer®, Altium Vault®, CircuitStudio®, PCBWorks®, CircuitMaker® and the TASKING® range of embedded software compilers.

Founded in 1985, Altium has offices worldwide, with US locations in San Diego and Boston, European locations in Karlsruhe, Amersfoort, Kiev 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](#).