

New high-performance TASKING C166/ST10 toolset



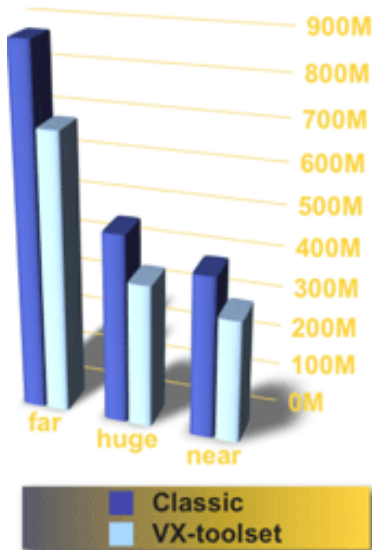
Article Altium's latest embedded software development tools for the C166/ST10 microcontroller family offers substantial performance gains over previous development tools. Based on Altium's sophisticated Viper compiler technology, the new TASKING VX-toolset for C166/ST10 follows Altium's successful introduction of the VX-toolset for ARM® and the TriCore™ VX-toolset.

The new VX-toolset C166/ST10 makes a major step forward by offering a totally new debugger, which is ready for the latest industry trends such as multi-core application development, plus toolset integration into the popular Eclipse™ platform as an Integrated Development Environment (IDE).

Eclipse integrates the compiler, assembler and linker seamlessly into a single IDE and comes with wizard functionality to set up the developer's application and configuration for target debugging. The new debugger replaces the original standalone TASKING CrossView Pro debugger and is integrated into Eclipse through a plug-in. In this way the user has all development tools available within one state-of-the-art and industry-standard IDE, with the option to plug-in additional modules from third parties.

Smaller, Faster Code

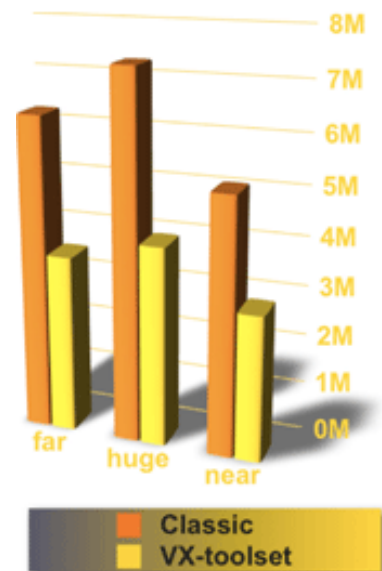
Applications short on memory or run-time performance will highly benefit from the advanced new Viper based compiler. Internal and external benchmarking on a variety of applications as well as dedicated benchmark suites indicate a code compression increase of around 45% on average, when compared to traditional C166 compilers such as Altium's original TASKING C166 compiler.



Code cycles comparison - smaller is better

Similarly impressive results are evident when applications are optimized for speed, where the average gain is around 24%. As both improvement figures are the result of compiling large collections of code, developers can expect even higher performance gains in real-world situations. For example, a representative automotive benchmark performed at one of Altium's partners showed a code speed improvement of 46% on actual hardware.

The new TASKING toolset supports all popular Infineon Technologies C166/XC166 and STMicroelectronics ST10/Super10 derivatives as before, but it is also ready for new family members that will be announced later this year. Devices with an on-board MAC-unit will also benefit from the new compiler through code-generation from C source level – a unique feature for this class of compiler.



Code size comparison - smaller is better

The new VX-toolset will be available in three targeted bundles – Standard, Professional and Premium – allowing you to choose the best fit for your application development activities.

Along with the standard Eclipse, C compiler toolset and simulator modules, additional functionality includes options such as a C++ compiler, on-hardware debugging through ROM monitor or OCDS solution, USB-to-JTAG wiggler, flash memory programming support, plus code profiling tools. In the future the bundles will be extended with RTOS and communication protocols.

The ROM monitor and OCDS debuggers support a wide range of standard evaluation boards from various manufacturers, while third-party debug support is guaranteed by leading tool vendors, such as Hitex and PLS.

The original and popular TASKING C166/ST10 compiler will remain available next to the new Viper based VX-toolset for C166/ST10 for existing projects and legacy code. The new VX-toolset is a great choice for new projects and any existing project that needs its functionality extended, or any project that needs to be optimization for either speed or size – or indeed, both at the same time.

For more information about the world-leading TASKING tools for embedded software development, visit www.altium.com/tasking.