



Press Release

EB developing multicore platform for Infineon's TriCore™ and integrating MCAL for Infineon's TriCore and XC2000 architecture

TriCore-based reference implementation shows the feasibility of software partitioning in multicore systems

Erlangen, Germany, 14 July 2010 –EB (Elektrobit), a leading developer of cutting-edge embedded technology solutions for automotive and wireless industries, has developed a multicore reference implementation in collaboration with Infineon Technologies AG. The implementation is based on Infineon's TriCore technology. The partners have also integrated an AUTOSAR 3.1-compliant Microcontroller Abstraction Layer (MCAL) for Infineon's microcontrollers in the TriCore and XC2000 series into the EB tresos AutoCore basic software core. This means that a basic software core is now available that enables scalable software solutions according to the recommendations of the German manufacturer software initiative (Hersteller Initiative Software, HIS) and can thus reduce hardware costs.

Close development collaboration between EB and Infineon has resulted in a multicore platform that is particularly well-suited for safety-critical applications. It permits significant increases in performance, for example when used as a domain controller. The multicore platform offers two application options, developers can choose from. In the first mode, two processor cores can work in parallel at a lower clock rate, permitting lower power consumption than two individual processor cores. The second mode is used for redundant safety applications. In this so-called "lockstep mode", the plausibility of results from different software routines on other cores can be verified and approved.

The multicore platform features two TC1797 microcontrollers from the TriCore family. Using relevant parts of the new AUTOSAR 4.0 specification helped creating a basis for distributing software components flexibly on multicore units and to ensure their synchronization. "EB tresos AutoCore, the AUTOSAR-compliant basic software from EB, already integrates all the mechanisms required, and can therefore implement AUTOSAR-compliant partitioning right now." says Thomas Hafner, Software Marketing Manager, Microcontrollers, Infineon Technologies. Infineon's new components in the XC2000 family and the TriCore family, like the TC1782, have thus already been included in integration, to make the tool concept future-proof. "The tool concept can already be used on future quad-core systems, for example." Hafner adds.

As parts of the EB tresos ECU development software, all functions described above are immediately available at EB.



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EB, Elektrobit Corporation

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EB's Automotive Software Business

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