

TwinCAT and Industrial PCs support Core™ Duo processors

TwinCAT, the dynamic automation software from Beckhoff, can now handle demanding control tasks even more efficiently. By supporting the multi-core architecture of the new Intel® Core™ Duo processors, TwinCAT economically enables fast and powerful automation solutions with optimized operating conditions.

Intel® Core™ Duo processors feature two computation kernels in one processor case. This technology enables multitasking and improves the throughput in multi-thread applications. Intel® Core™ Duo processors offer up to 40 % higher performance compared with conventional desktop processors. At the same time they benefit from lower power consumption and heat generation, making Core™ Duo processors ideal for demanding PC-based control applications.



TwinCAT, the real-time control software for machine and building automation, supports the multi-core architecture of the current Core™ Duo and Core™2 Duo processors. The TwinCAT automation software was programmed to utilize one of the computation kernels of the Core™ Duo processor as a "real-time kernel". This kernel handles all control tasks, while TwinCAT makes any unused kernel CPU time available for general Windows tasks in order to optimize PC performance. The second computation kernel, which is not used by TwinCAT, is fully available for Windows and therefore offers sufficient reserve capacity even for performance-hungry user interfaces in large automation applications. Consistent utilization of multi-core technology results in a control architecture that enables automation tasks to be executed with even higher speed and reliability, independent of the processor load from other Windows programs.

The range of Industrial PCs from Beckhoff already includes a number of computers with Core™ Duo and Core™2 Duo processors. CB1051 motherboards developed by Beckhoff are used in standard computers such as the C6140 or C5102 types with ATX motherboard. During 2007 Beckhoff will expand Core™ Duo technology to its whole IPC range, so that compact PCs with slot card motherboard or 3.5" motherboard, panel PCs and DIN rail mountable Embedded PCs from the new CX1030 range will be available with state-of-the-art processor performance.

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