Asymmetric Multiprocessing

Quadros announces its distributed, asymmetric multiprocessing RTXC/mp RTOS for the TI OMAP5912 dual-core processor. The RTXC/mp RTOS presents the two cores that comprise the OMAP5912 as a single logical processor that lets the developer distribute the application's code and kernel objects to the processor most suited to the needs of the application or for greatest efficiency. Since developers can use common tools for both cores, system development time is improved. The configuration tool, RTXCgen&#153, included with the RTXC/mp RTOS, gives the developer high-level control over kernel and application resources. The integrated compiler and debugger environment of TI's CodeComposer Studio&#153, used for both the RISC and DSP cores, offers additional time savings by simplifying development. The RTXC/mp operating system has inherent scheduling support for both asynchronous control and synchronous, constant-rate data flow processes. Data flow operations, such as those used in DSP, are handled by lightweight tasks called threads in a cooperative scheduling model, resulting in very fast performance and context switching. Control operations are supported by a preemptive scheduler in a multitasking, event-driven model. Multiple task/thread priority levels allow the developer to set scheduling priorities for optimum performance and processor efficiency.

Quadros Systems, Inc.