

C EXECUTIVE* Real-Time, Multitasking, ROMable



- Real-Time, Multitasking, Kernel Optimized For C Language Embedded Applications on the i960® Processor Family
- Fast System Call Mechanism For C Programs
- ROMable, Reentrant Portable C Library Included
- Fully Prioritized, Preemptive, Event-Driven Scheduler
- Multiple Methods of Intertask Communication, Including Events, Semaphores, and Public Data Queues
- Built-in Queuing For Variable Length Messages, With Optional Special Character Alert and/or Time-Out
- 57 System Calls For Task Scheduling, Time Control, Task Coordination, and C Style I/O
- Any Development System – DOS, UNIX, etc., Can Be Used
- Optional DOS-Compatible File System
- Optional System Level Debugger-CE-VIEW

C EXECUTIVE* for the Intel i960 processor family is a real-time multi-tasking kernel specifically designed for embedded microprocessor applications using C language. C EXECUTIVE is already in wide use in both military and FAA radar systems, PBX, laboratory data acquisition, cardiac monitors, military avionics, process control, laser printer controllers, and factory automation. The i960 processor family version of C EXECUTIVE provides a field-proven, portable operation system adapted to the high performance i960 architecture. C EXECUTIVE can be used on any i960 processor board. Device drivers and configuration modules are included.

C EXECUTIVE is optimized using JMI's exclusive method of task switching invented for the i960 architecture. This method saves 13 instructions and 33 memory references over the standard method.

C EXECUTIVE is unique among real-time operating system kernels because of the software technology used in its implementation. These same software methods, including C language, optional UNIX host development, data flow design, and device independent standard I/O with redirection, have now become popular for the development of real-time applications software. C EXECUTIVE brings these advantages of modern software engineering, long available with UNIX on mini-computers, down to a board level kernel.

C EXECUTIVE was designed for C language multi-tasking embedded systems. A system call is simply a direct C function call. 57 native system calls, including "open," "close," "read," "write," etc., provide a subset of UNIX calls. Other kernels make their systems callable from C programs by providing run-time "hooks," and interface libraries, thereby adding permanent additional execution overhead.

HOST SYSTEMS SUPPORTED:
Any host (DOS, UNIX, etc.) with i960 processor cross-compiler, assembler, and linker.

PROCESSORS SUPPORTED:
i960 Processor Family

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