

# Development Software

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## **eRTOS** multi-tasking library and TCP/IP toolkit

- *Designed to support embedded applications using Intel or compatible processors.*
- *Compatible with popular compilers and debuggers (Borland C and Debugger, SoftIce)*
- *Small memory footprint*
- *Inter-thread messaging, semaphores, etc.*
- *High speed, interrupt driven serial port routines*
- *TCP/IP stack*
- *Server functions: FTP, HTTP, SMTP, TELNET, TFTP, SNMP*
- *Client functions: SMTP, SYSLOG, NetworkTime, HTTP, TFTP, SNMP Traps*
- *Supports pre-emptive and co-operative threading*
- *Fast, general purpose mathematics library called eMath*

The *eRTOS* software package by Erick Engelke provides multi-tasking support for JK microsystems embedded single board computer products as well as many other DOS based computers.

*eRTOS* includes powerful networking functions and libraries that are included in programs to allow thread creation, thread priorities, thread delays, inter-thread messaging (messages, queues), critical sections, and interrupt-time services. Server support for FTP, HTTP (web) and SMTP (e-mail) as well as client support for SMTP, SYSLOG, and Network Time along with extensive example code help to eliminate the learning curve frequently associated with networking applications. Functions for creating simple graphics ideal for web display of data round out this comprehensive package that can greatly reduce software development cycles.

The *eMath* library adds mathematical capabilities to embedded systems, including rudimentary arithmetic, trigonometric and power (exponents/logarithmic) functions. *eMath* functions are faster than generic floating point libraries, fully re-entrant and supported in the multi-threaded environment.

*eRTOS* is open source software, but the compiled libraries, complete source code, extensive example code (including e-mail controls, web servers with CGI and real-time graphics, and serial to IP conversion) and programming manual in digital format is available on CD (98-0003) from JK microsystems.

Also bundled with *eRTOS* is the Borland C/C++ v4.52 compiler, providing a complete software development package.

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## **JK microsystems, Inc.**

1403 5th St. Suite D, Davis, CA 95616  
<http://www.jkmicro.com>

Phone (530)297-6073  
Fax (530)297-6074