

RTEMS Open Class

November 7-10,
2006

OAR Corporation
Located in Cummings
Research Park

Huntsville, AL
USA

Registration Deadline:
October 17, 2006

A minimum of 3 total attendees
is required to hold the class.

*Excellence in Real-Time
Embedded Systems*

RTEMS Open Class—Three Courses in One

The Real-Time Introduction is a comprehensive investigation of the requirements of real-time systems including explanations of various related topics. Embedded systems, real-time system characteristics, hard versus soft real-time, criticality are all examined in this section. It also compares the differences between a real-time operating system and a real-time executive by demonstrating the capabilities and benefits of each. This introduction discusses the tremendous benefits of portable code and explains the different levels of portability. Cross development is another important aspect of embedded systems dealt with in this class. This explanation includes discussions of host versus target platforms as well as cross development tool-sets like GNU. The Real-Time Introduction concludes with a section illustrating the concepts behind real-time tasking design, which defines a real-time task and its attributes such as priority and concurrency.

The Classic and POSIX API class is a thorough introduction to the standards-based APIs available to the RTEMS application programmer. The full spectrum of RTEMS concepts are presented, from basic terminology and general requirements to focused issues like processes and threads, synchronization, memory management, message passing, and device specific functions. A series of RTEMS examples are presented to help the user in understanding how the APIs may be used to solve specific problems. The POSIX portion class specifically covers the functionality and capability of the POSIX1 and 1b programming library as that functionality is implemented in RTEMS. This curriculum also addresses the means by which RTEMS services interact with the RTEMS SuperCore. Lastly, a section is covered concerning common debugging and performance issues of real-time systems. Upon completion of API portion, the students understanding relative to the makeup and execution of RTEMS applications will have increased substantially.

The Board Support Package (BSP) and Device Driver Class thoroughly detail the semantics associated with building and maintaining board support packages and device drivers. Upon its completion, software professionals will have added a vast amount of knowledge, and should be comfortable with the idea of incorporating RTEMS into their platform. RTEMS components covered include: Clock, Timer, Real-Time Clock, Console, Initialize, Linker, Makefiles, Networking, Shared Memory, Support Routines, Target Dependencies, Debugging, and Performance Monitoring.

Please complete the form below and fax to +1-256-722-0985. Payment must be received prior to class attendance.

OAR CORPORATION

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RTEMS Class Registration	
Sign up for:	Attendees Price each
<input type="checkbox"/> RTEMS Class—Huntsville	\$2,500 each
Additional Attendees	Total: _____
Name _____	
Name _____	
Name _____	
Name _____	
Credit Card # _____	Exp. date _____
Signature _____	

Name _____
Address _____

Phone _____

Method of Payment Visa
 Bill Me MasterCard
 Check payable to OAR Corporation