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WIND RIVER VXWORKS MILS PLATFORM 3.0, MULTI-CORE EDITION ESSENTIALS

COURSE DESCRIPTION

The Wind River® VxWorks® MILS Platform 3.0, Multi-core Edition Essentials training workshop provides engineers with a fast, cost-effective way to acquire the skills necessary to deliver the security foundation that meets real-time operating system (RTOS) requirements for High Robustness (EAL6+), multilevel secure (MLS) systems.

After this course, participants will be able to perform the following:

- Explain how VxWorks MILS Platform and high assurance security standards form the basis of a security-certified partitioned system, including networking support, XML configuration, and debugging
- Accelerate the configuration, development, and deployment of MILS systems using the built-in XML development tools and Wind River Workbench
- Configure, debug, build, and test secure MILS applications with VxWorks MILS Platform
- Migrate a VxWorks MILS unicore platform to a VxWorks MILS multi-core platform

PRODUCTS SUPPORTED

- Wind River VxWorks MILS Platform 3.0, Multi-core Edition

COURSE FORMAT

- This one-day expert-led course consists of lectures.
- Attendees use VxWorks MILS Platform 3.0, Multi-core Edition to gain experience with the topics presented.
- Participants receive individual guidance from an expert engineer who has extensive experience with Wind River technologies

AUDIENCE

- Application developers utilizing the MILS architecture to create secure applications
- System integrators utilizing VxWorks MILS Platform to create MILS systems

Course title:	**Wind River VxWorks MILS Platform 3.0, Multi-core Edition Essentials**
Duration:	One day
Format:	Instructor-led lectures
Content:	Introduction to VxWorks MILS Multicore; VxWorks MILS Unicore and Multi-core Differences; Migrating from VxWorks MILS Unicore to VxWorks MILS Multi-core; Configuring and Building VxWorks MILS Multi-core

PREREQUISITE SKILLS

- User-level familiarity with the host operating system on which VxWorks MILS Platform 3.0, Multi-core Edition will be installed
- One year of C or C++ programming
- Basic understanding of operating systems and debugging techniques

PREREQUISITE COURSES

- VxWorks MILS Platform 3.0 Essentials (mandatory)
- Real-Time Programming for Embedded Systems
- VxWorks 6.x and Workbench Essentials

RELATED COURSES

- Workbench On-Chip Debugging Essentials for VxWorks and Linux

SYLLABUS

Day 1

INTRODUCTION TO VXWORKS MILS MULTI-CORE

- VxWorks MILS multi-core overview
- VxWorks MILS multi-core architecture
- VxWorks MILS multi-core features

AGENTS OF CHANGE™

- Hardware and board support package (BSP) support
- Supported guest operating systems
- Carryover VxWorks MILS unicore features
- Unsupported VxWorks MILS unicore features

VXWORKS MILS UNICORE AND MULTI-CORE DIFFERENCES

- Processor and BSP
- Multi-core boot loader
- 36-bit address mode
- AMIO server
- Global shared memory
- Cross-core SIPC
- Cross-core HANS
- Workbench differences
- Debugging
- API differences

MIGRATING FROM VXWORKS MILS UNICORE TO VXWORKS MILS MULTI-CORE

- Processor and BSP
- Memory windows
- 36-bit address mode
- SIPC
- Shared memory
- High Assurance Network Stack
- Guest operating systems
- Configuring and building
- Debugging a VxWorks MILS multi-core system

CONFIGURING AND BUILDING VXWORKS MILS MULTI-CORE

- Configuration and build overview
- Wind River Workbench workflow
- Creating VxWorks MILS projects
- System configuration with XML
- Build process

GLOBAL REACH OF WIND RIVER EDUCATION SERVICES

With more than 30 years of device software experience, Wind River provides education services in every region of the world. Our private classes can be tailored to your needs by adding or removing topics from multiple courses. If you have more specific project challenges, Wind River Mentoring provides coaching by experienced engineers to help you integrate Wind River solutions into your environment. And when you're too busy to attend a whole class, our On-Demand Learning options provide around-the-clock access to advanced and specialized topics. All of our education services are led by expert engineers who are closely connected to the Wind River technical community for access to specific expertise.

CONTACT US

For more information about Wind River Education Services, visit www.windriver.com/education/.

Wind River World Headquarters

500 Wind River Way
Alameda, CA 94501
USA
Toll-free: 800-545-9463
Tel.: 510-748-4100
Fax: 510-749-2454

training@windriver.com

Wind River EMEA

Steinheilstrasse 10
85737 Ismaning
Germany
Tel.: +49 89 962 445 0
Fax: +49 89 962 445 999

emea-training@windriver.com