Wind River Education enables you to unleash the power of Wind River’s technology. Our training and mentoring empower developers with the knowledge and proficiency required to program and manage device software faster and more reliably. Reduce your project risks and shorten your development timelines by equipping your engineers with the right training from our experts.

Course Description
The VxBus Device Drivers for Existing VxWorks 6.x Driver Developers course provides engineers with a fast, cost-effective way to acquire the skills necessary to start developing device drivers using the VxBus device driver model.

After this course, participants will be able to:
- Optimize the development of a new device driver from scratch.
- Distinguish between legacy VxWorks and VxBus drivers and determine which driver model is appropriate for a particular application.
- Design and integrate custom VxBus drivers.
- Migrate proprietary and legacy drivers to VxBus.

Products Supported
- VxWorks 6.6
- Wind River Workbench 3.0

Who Should Attend
Device driver developers who will use VxBus device driver models

Prerequisite Skills
- Three to five years OS/programming experience
- One year embedded device programming experience
- Familiarity with legacy VxWorks device drivers
- Basic understanding of reading and writing device registers

Prerequisite Courses
- VxWorks 6.x and Workbench Essentials
- VxWorks 5 to 6.x Migration

Related Courses
- VxWorks 6.x Device Drivers

Course Title: VxBus Device Drivers for Existing VxWorks 6.x Driver Developers
Duration: Two days
Format: Instructor-led lectures and hands-on lab sessions
Price: Contact your local sales representative

- VxWorks 6.x Board Support Package
- Workbench On-Chip Debugging for VxWorks and Linux
- VxWorks 6.x Symmetric Multiprocessing

Global Reach of Wind River Education Services
With more than 30 years of device software experience, we provide education services in every region of the world. You can rely on our expertise—acquired delivering hundreds of classes each year to thousands of students—to provide a highly effective learning experience, wherever your developers are located.

Private Classes
Private classes are conducted at your location, scheduled for your convenience. Private classes include the use of a preconfigured laboratory environment that may consist of a connection to a remote lab environment or equipment that we bring to your facility. Private classes can be tailored to your specific needs by adding or removing topics from multiple courses, maximizing the benefit of your time in class.
Mentoring

Our Mentoring programs are provided by experienced engineers whose coaching can increase your team’s productivity while reducing your project’s risk.

Whether you need assistance with product installation and configuration, advice on development workflow, or optimization best practices, mentoring can shorten your trial-and-error cycle, document recommended procedures, and ensure your developers are using tools and technology efficiently. If you have limited time to resolve a particular issue, a Wind River expert can evaluate your system and development environment, and assist you in building a debug framework, instrumenting code, verifying software updates, and general hands-on debugging.

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.

Syllabus

Day 1

VxWorks Device Drivers, Getting Started
- Overview
- Driver Models
- Driver Resources
- Device Design Considerations
- Sample Drivers
- Getting Started: Booting, Shells

Introduction to the VxBus Model
- Introduction to VxBus
- Terminology
- Driver Organization
- VxBus Methods
- Introduction to the VxBus Lab

VxBus Configuration and Initialization
- Services Available to VxBus Drivers
- BSP Configuration
- Show Routines
- Driver Initialization Sequence
- Integrating a VxBus Driver Lab

Day 2

VxBus Class-Specific Drivers
- Interrupt Handling
- Interrupt Controllers
- PLB and PCI Busses
- VxBus-Compliant Serial Drivers
- VxBus-Compliant Network Drivers
- VxBus-Compliant Timer Drivers
- Migrating a Timer Driver Lab

Migration to VxBus
- Generic Migration Strategy
- Porting OS Agnostic Drivers to VxBus
- Migrating a Legacy LED Driver to VxBus Lab

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