Workbench for VxWorks 6.x

Wind River Education Services enables clients to unleash the power of Wind River’s tools by creating developers skilled in Wind River technology. We provide the knowledge you need to meet your commitments and exceed your company’s expectations. With Wind River Education Services, you will develop, run, and manage your application software faster, better, at lower cost, and more reliably.

Course Description
The Workbench for VxWorks 6.x course provides engineers with a fast, cost-effective way to acquire the knowledge necessary to configure and utilize various components of Wind River Workbench.

After this course, students will be able to do the following:
• Debug, build, and test real-time applications in a target-host development environment with Workbench and VxWorks
• Efficiently use the tools and functionality of Workbench
• Utilize the run-time analysis tools to validate and optimize system performance

Products Supported
• Wind River Workbench 3.0
• VxWorks 6.6

Who Should Attend
• Developers who work with Workbench and General Purpose Platform, VxWorks Edition
• New project members on teams already using Wind River products
• Managers who want a quick understanding of Workbench components
• Senior engineers who want to evaluate VxWorks technology

Prerequisite Skills
• One year of C programming
• Basic understanding of operating systems and debugging techniques
• Functional knowledge of UNIX/Linux

Prerequisite Courses
• Real-Time Programming for Embedded Systems

Course Title: Workbench for VxWorks 6.x
Duration: Two days
Format: Instructor-led lectures and hands-on lab sessions; live instructor-led virtual classroom delivery available
Price: Contact your local sales representative

Related Courses
• VxWorks 6.x and Workbench Fundamentals
• VxWorks 5.x to 6.x Migration
• Workbench On-Chip Debugging Fundamentals for VxWorks
• VxWorks 6.x Board Support Package
• Platform for Network Equipment, VxWorks Edition

Course Format
• Our two-day instructor-led courses consist of lectures and lab sessions that allow hands-on application of course concepts.
• Students receive personal guidance from expert Wind River instructors.
• Students examine details of the Workbench environment, focusing on the most commonly used areas.
• Specific questions are addressed.

Global Reach of Wind River Education Services
• 4,000 students per year
• 400 classes delivered per year
• 36 instructors worldwide
• Access to 200 subject-matter experts
• 24 training centers worldwide
• More than 20 years of device software experience

Courses are conducted virtually or at your location and may include the use of simulation or preconfigured laptops and target boards. Courses can be tailored to your specific needs by adding or removing topics from one or multiple courses. Visit education.windriver.com for registration and schedule information.
Skills and Topics

- Using Workbench to Build and Configure a VxWorks Real-Time System
  - Wind River Workbench Overview
  - Working with Workbench Perspectives
  - Setting Up a Cross-Development Environment
  - Managing Projects
  - Performing Analysis of Project Source Code
  - Building Applications

- Debugging and Analyzing Real-Time Applications with Wind River Workbench
  - Using Host Shell Interpreters for Interacting with the Target
  - Debugging Applications Using the Embedded Debug Perspective
  - Logging Kernel Activity with Wind River System Viewer
  - Using Workbench Analysis Tools to Monitor Data, Memory, CPU Utilization, Function Tracing, and Code Coverage

Day 2

Source Analysis
- Source Analysis Views
- Navigating Workspace Resources
- Editor Features
- Source Analysis Lab

Wind River System Viewer
- System Viewer
- System Viewer Configuration and Log Explanation
- Triggering
- User Events
- System Viewer Lab

Workbench Analysis Tools
- Data Monitor
- Performance Profiler
- Memory Analyzer
- Coverage Analyzer
- Function Tracer
- Analysis Tools Lab

Syllabus

Day 1

Workbench Overview and Managing Targets
- Workbench Perspectives
- Help Resources
- Cross-Development Setup
- Target Manager Configuration
- Getting Started Lab

Project Management
- Introduction to VxWorks Projects
- Project Explorer Overview
- Application Projects
- Build Specifications
- Project Management Lab

Debugging
- Debugger
- Feature Overview
- Configuration
- GUI and Usage Overview (setting breakpoints, etc.)
- Kernel-Space and Application-Space Debugging
- Debugging Lab

Using VxWorks Shells
- Introduction to VxWorks Shells
- Host Shell and Shell Interpreters
- Kernel Shell
- VxWorks Shell Lab