

VXWORKS BUILD AND CONFIGURATION USE CASES

COURSE DESCRIPTION

The VxWorks® Build and Configuration Use Cases course covers Wind River® Workbench project management with a particular focus on application deployment. With an eye toward deployment, the course covers the configuration options and their impact on product security.

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

- Manage build targets to provide flexibility in creating applications statically linked to VxWorks
- Configure and build a VxWorks boot loader
- Configure and build an example deployed VxWorks application
- Include the shell and shell security components into a VxWorks image and demonstrate their features

PRODUCTS SUPPORTED

- Wind River VxWorks 6.9
- Wind River Workbench 3.3
- Wind River Simics 4.6

COURSE FORMAT

- One-day set of hands-on use cases covering four topics, with technical assistance and individual guidance available from an expert instructor
- Use of VxWorks 6.9, Workbench 3.3, and Simics 4.6 to gain experience with the topics presented

AUDIENCE

- Engineers and programmers who prefer executing a ROM-based image during development
- Engineers who need to deploy a VxWorks application
- Engineers and programmers who need to manage more than one build target in a Workbench-created application or in a command-line application build

Course title:	VxWorks Build and Configuration Use Cases
Duration:	One day
Format:	Hands-on use-case sessions with support from an instructor
Content:	Day 1: Managing Build Targets in Workbench; Managing VxWorks Boot Loaders in Workbench; Configuring and Booting a ROM-based Image; Kernel Shell Security and Remote Access

- Engineers who need to manage and customize boot loaders in Workbench
- Engineers and programmers who need to provide login security for a deployed application

PREREQUISITE SKILLS

- Two to three years of C programming experience
- Solid working knowledge of Workbench projects, specifically those dealing with VxWorks
- Workbench project configuration, including build variables
- An understanding of boot loaders in general
- Functional knowledge of UNIX/Linux

PREREQUISITE COURSES

- VxWorks 6.x and Workbench Essentials

RELATED COURSES

- VxWorks Intermediate Application Development Use Cases
- VxWorks Application Debugging Use Cases

SYLLABUS

Day 1

USE CASES

MANAGING BUILD TARGETS IN WORKBENCH

- Create downloadable kernel modules
- Add alternate build targets to the downloadable kernel module projects
- Build the added downloadable kernel module targets
- Build a downloadable kernel module project from the command line

MANAGING VXWORKS BOOT LOADERS IN WORKBENCH

- Create and customize a VxWorks boot loader/BSP project
- Using the customized boot loader project, build and boot a VxWorks boot ROM
- Create, build, and boot a VxWorks image project based on the PROFILE_BOOTAPP and compare the resulting build project with that derived from the boot loader/BSP project

CONFIGURING AND BOOTING A ROM-BASED IMAGE

- Configure and build a VxWorks image project to produce a ROM-based VxWorks image
- Configure, build, and boot an image to make it suitable for tools capable of writing it to ROM
- Confirm proper image configuration and build using the Simics simulator

KERNEL SHELL SECURITY AND REMOTE ACCESS

- Configure, build, and boot a VxWorks image project to demonstrate login security
- Configure telnet, rlogin server, and security into a VxWorks image
- Learn to modify, add, and test alternate, secure login identifiers with the VxWorks image
- Identify dependencies between shell, remote login, and security components

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

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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

