The Qt Graphic Solutions for VxWorks® training course gives engineers the knowledge they need to configure Qt with VxWorks and integrate Qt applications into a VxWorks development environment for embedded devices. This course teaches how to integrate VxWorks with Qt, the powerful cross-platform framework for graphics development offered by Finland based Digia Plc, and how to use Qt to create graphical user interfaces (GUIs) for VxWorks-based applications. Participants explore each element of the VxWorks stack, including hardware support, graphic drivers, Qt library integration, and accelerators.

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

- Build a VxWorks development environment that is fully integrated with Qt library
- Troubleshoot, debug, and profile the OS/Qt interface for an embedded device
- Use QtWidget, QtNetwork, QtWebKit, and QtQuick applications in practical use cases
- Manage Qt applications on VxWorks with Wind River® Workbench

The related course Qt on VxWorks teaches specific techniques to use Qt to develop effective GUIs. Digia delivers this related course. After the Digia course, participants will be able to do the following:

- Use Qt design and development tools to efficiently develop detailed GUIs for your application
- Write lean Qt middleware programs and UI applications running on VxWorks
- Create QML-based user interfaces

For more information about the Qt on VxWorks course, visit qt.digia.com/Services/training.

PRODUCTS SUPPORTED
- VxWorks 6.9.2.2 with VxWorks 6.9.2.2 Feature Pack 4 and later
- Wind River Workbench 3.3.3
- Qt 4.8.x

COURSE FORMAT
- This two-day expert-led course consists of lectures and lab sessions.
- Attendees use Digia Qt, VxWorks 6.9, and Wind River Workbench 3.3 to gain experience with the topics presented.
- Participants receive individual guidance from expert engineers who have extensive experience with Wind River and Digia technologies.
SYLLABUS

Day 1

QT SUPPORT ON VXWORKS
• VxWorks Graphic Solutions
• Qt overview
• Qt graphical configurations for VxWorks
• Target support
• Required installation
• Development cycle for Qt applications in a VxWorks environment

GETTING STARTED WITH WIND RIVER MEDIA LIBRARY
• Media Library overview
• Media Library application types
• Media Library projects
• Configuring VxWorks with graphic support
• Running a graphic application with Media Library
• LAB: Getting started with Media Library

GETTING STARTED WITH QT FOR VXWORKS
• Qt application types for VxWorks
• Integrating the Qt library with VxWorks
• Running a Qt application on VxWorks
• LAB: Getting started with Qt for VxWorks
• LAB: Using QtNetwork, QtWebKit, and QtQuick

Day 2

DEBUGGING AND PROFILING A QT APPLICATION
• Running Qt applications with Workbench
• Debugging Qt applications with Workbench
• Using run-time analysis tools with Qt applications
• LAB: Managing Qt applications on Workbench
• LAB: Debugging Qt applications
• LAB: Error detection and reporting with Qt applications
• LAB: Using System Viewer with Qt applications
• LAB: Using Wind River Memory Analyzer with Qt applications
• LAB: Using Wind River Performance Profiler with Qt applications
• LAB: Using Wind River Data Monitor with Qt applications

OPTIONAL MODULES (AVAILABLE FOR TAILORED COURSES)
• Media Library device driver overview
• LAB: Running Qt OpenGL applications

AUDIENCE
• Software developers who will implement graphical interfaces in an application
• Engineers who must understand how Qt integrates with VxWorks
• Senior engineers who want to evaluate VxWorks technology

PREREQUISITE SKILLS
• One year of C programming
• Solid understanding of VxWorks 6.x, both the kernel and real-time process programming environments
• Proficiency in the use of the Workbench tool suite, especially Workbench projects and target servers
• Functional knowledge of UNIX/Linux

PREREQUISITE COURSES
• VxWorks 6.x and Workbench Essentials
• VxWorks Intermediate Application Development Use Cases

RELATED COURSES
• Qt on VxWorks (delivered by Digia)
• VxWorks 6.x Board Support Package
• VxWorks 6.x Device Drivers

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/.

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