Wind River Tilcon Graphics Suite Fundamentals

Wind River Education Services enables clients to unleash the power of Wind River’s tools by creating developers skilled in our technology. For developers, Education Services provides 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 Wind River Tilcon Graphics Suite Fundamentals training workshop provides engineers with a fast, cost-effective way to acquire the knowledge necessary to develop real-time user interface applications with Wind River Tilcon Graphics Suite.

After this course, students will be able to do the following:
- Understand the concepts and architecture of Wind River Tilcon Interface Development Tool (formerly Tilcon Interface Development Suite) and Wind River Tilcon GUI Engine (formerly Tilcon Embedded Vector Engine).
- Use Tilcon Interface Development Tool to design, prototype, simulate, and test embedded graphical user interfaces (GUIs) on a host machine.
- Write applications using Tilcon APIs.

Products Supported
- Wind River Tilcon Graphics Suite 5.5 and later

Who Should Attend
- Everyone who will receive Wind River Tilcon Graphics Suite products within 60 days
- Everyone who will be using Wind River Tilcon Graphics Suite to design and deploy embedded GUIs

Prerequisite Skills
- Basic C programming experience (only required for application development sections)

Prerequisite Courses
- None

Related Courses
- VxWorks 6.6 and Workbench Fundamentals
- Wind River Linux 2.0 and Workbench Fundamentals

Course Format
- Our three-day instructor-led courses consist of lectures and lab sessions.
- Students gain hands-on experience and receive personal guidance from expert Wind River instructors.
- Students examine details of Wind River Tilcon Graphics Suite, focusing on the most commonly used features.
- 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

Private Courses
Private courses are conducted at your location and include the use of a preconfigured laboratory environment that may consist of a remote connection to a lab server through your browser or equipment that we bring to your facility. Private 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 public course schedule information.

Rapid Integration and Mentoring Bundles
To complement training, Wind River Education Services offers Rapid Integration and Mentoring (RIM) bundles to help accelerate tools and technology integration in your custom environment. While the goal of training is to increase the skill set of a few engineers on your team, RIM bundles ensure successful adoption, customization, and integration into your existing environment of people, systems, and processes.
This is an onsite engagement where a subject-matter expert from Wind River analyzes your environment and helps formulate process adoption plans such as tools integration, technology deployment, and development workflow, taking into consideration best practices, trade-offs, and future maintenance costs. This consultant provides customization and mentoring and guidance to your entire team, as applied to your projects and development process. A wide variety of RIM bundles is available for all Wind River technologies to ensure maximum return on your investment.

Skills and Topics

Wind River Tilcon Graphics Suite
- Tilcon Graphics Suite Overview
- Tilcon Interface Development Tool
- Use of Tilcon Graphics Suite GUI Objects
- Object Links, Notifications, and Triggers
- Tilcon Graphics Suite Advanced Drawing Techniques
- Tilcon Common API Calls
- Tilcon GUI Engine and Channels
- Application Development Introduction
- Photoshop Integration
- Fonts and UI Internationalization

Syllabus

Day 1

Wind River Tilcon Graphics Suite Overview
- GUI vs. CLI
- Graphics User Interface (GUI) Challenges
- Categories of GUI Solution
- Wind River Tilcon Graphics Suite Product Components
- Wind River Tilcon Graphics Suite Architecture

Wind River Tilcon Interface Development Tool—Introduction
- Tilcon Interface Development Tool
- Components of Tilcon Interface Development Tool
- Wind River Tilcon Graphics Suite—Object Types
- Tilcon Interface Development Tool Version
- Tilcon Interface Development Tool—Product Documentation

Tilcon Graphics Suite Standard GUI Objects
- Introduction
- Standard GUI Objects Overview
- Selection Objects
- List Objects
- Data Input Objects
- Decoration Objects
- Creating Standard GUI Button Object Lab

Tilcon Graphics Suite Text Objects
- Introduction
- Text Objects Overview
- Noninteractive Text Objects
- Interactive Text Objects
- Text Object Components
- Creating a Feedback Form Using Text Objects Lab

Tilcon Graphics Suite Advanced GUI Objects
- Introduction
- Advanced GUI Objects
- Meter Objects
- State Objects
- Data Display Objects
- Creating Advanced GUI Object Lab

Day 2

Tilcon Graphics Suite Object Linking
- What Object Linking Is
- Why Object Linking
- Link Object Data Types
- How to Link Objects
- Linking of Tilcon Objects Lab

Tilcon Graphics Suite Object Triggers
- What Trigger Is
- Why Use Trigger
- Trigger Types in Tilcon Interface Development Tool
- How to Create Triggers
- Creating Triggers on Tilcon Objects Lab

Tilcon Graphics Suite Object Redraw Options
- Why Redraw an Object
- Object Redraw Options
- Tilcon Graphics Suite Redraw Options
- How the Components of an Object Are Redrawn
- Redraw Options from Tilcon Interface Development Tool and Application
- Understanding Redraw Options in Tilcon Interface Development Tool Lab

Application Development in Tilcon Graphics Suite I
- Tilcon Graphics Suite Application Development
- Sample Program Structure
- Tilcon API Library
- Starting Tilcon GUI Engine
- Loading and Displaying (.twd) Window
- How to Process Notification
- How to Set and Get Object Attributes
- Terminating Tilcon GUI Engine
- Creating MP3 Player Demo Application Lab
- Creating Window Transition Application Lab
Day 3

Application Development in Tilcon Graphics Suite II
• What Tilcon Timer Hint Is
• Why Use Timer Hint
• How to Use TimerHint
• What Tilcon Callback Is
• Why Use Tilcon Callback
• How Tilcon Callback Works
• Updating Needle Values Using Time Hint Lab
• Creating an Application Using Callbacks Lab

Photoshop Export, Import, and Merge in Tilcon Interface Development Tool
• What Photoshop Integration Is
• Why Use Photoshop Integration
• Benefits of Photoshop Integration
• Photoshop Features in Tilcon Interface Development Tool
• Photoshop Export, Merge, and Import in Tilcon Interface Development Tool Lab

Fonts and User Interface Internationalization
• Tilcon Font Support
• How to Add Fonts in Tilcon Interface Development Tool
• Why Add Fonts in Tilcon Interface Development Tool
• How to Register Fonts with Tilcon GUI Engine
• Internationalization—Introduction
• Internationalization—Step by Step
• Internationalization Using Tilcon Interface Development Tool Lab

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