

Windows Embedded CE 6.0 Course Outline

Day1

Class Preliminaries

Module 1: Operating System Features

- 1-1 Microsoft Embedded Operating System Choices
- 1-2 Characteristics of Windows Embedded CE 6.0
- 1-3 Features of CE 6.0

Module 2: Tools for Platform Development Overview

- 2-1 Visual Studio 2005 & CE 6.0 Overview
- 2-2 Windows Embedded CE 6.0 Terminology
- 2-3 Introduction to the Build Process
 - Lab 2-1 Clone a BSP*
- 2-4 Testing and Debugging the OS Design
 - Lab 2-2 Develop and Test an Application Subproject*
 - Lab 2-3 Using Remote Tools*
- 2-5 CE 6.0 Directory Structure

Day2

Module 3: Operating System Internals

- 3-1 System Architecture
 - Lab 3-1 Using Remote Process Viewer*
- 3-2 Memory Architecture
 - Lab 3-2 Exploring the Heap*
 - Lab 3-3 Scenario: Fixing a Memory Leak*
- 3-3 Threads and Scheduling
 - Lab 3-4 Exploring Threads using Kernel Tracker*
- 3-4 Synchronization
 - Lab 3-5 Thread Synchronization*
 - Lab 3-6 Exploring Synchronization Objects*
- 3-5 Interrupt Model

Module 4: Operating System Components

- 4-1 The File System
- 4-2 The Registry
 - Lab 4-1 Using the Remote Registry Editor*
- 4-3 Power Management
 - Lab 4-2 Power Management*
- 4-4 Internationalization

Day3

Module 5: The Build System

- 5-1 Directory Structure
- 5-2 Build Process
- 5-3 The Build Tool
 - 5-1 Static and Dynamic Libraries*
- 5-4 The Command Line
 - 5-2 Command Line Build*

- 5-5 Troubleshooting the Build System
 - 5-3 *Troubleshooting Link Errors*

Module 6: The Board Support Package

- 6-1 BSP Overview
- 6-2 BSP Components
 - Lab 6-1 *Registry Initialization*
- 6-3 Creating a New BSP
 - Lab 6-2 *Adding a New IOCTL to the OAL*

Day4

Module 7: Developing Device Drivers

- 7-1 Device Driver Overview
- 7-2 Stream Driver Architecture
- 7-3 User Mode Driver Framework
- 7-4 Handling Caller Buffers
- 7-5 Interrupts
- 7-6 Loading Stream Drivers
 - Lab 7-1 *Integrating a Device Driver*
- 7-7 Debugging
 - Lab 7-2 *Debugging the Scanner Device Driver*

Day5

Module 8: Customizing the OS Design Catalog

- 8-1 Catalog Overview
 - Lab 8-1 *Adding a Catalog Item*
- 8-2 The CE 6.0 Shell
 - Lab 8-2 *Replace the Standard Shell with IE Shell*
- 8-3 The SDK
 - Lab 8-3 *Exporting an SDK*

Module 9: Application Development

- 9-1 Applications Development
 - Lab 9-1 *Developing with Managed Code# Application*
 - Lab 9-2 *Integrating a Managed Application*

Module 10: CE 6.0 Testing

- 10-1 CE 6.0 Testing
 - 10-1 *Using the CETK*

Appendix: Licensing and Developer Resources

- 11-1 Licensing
- 11-2 Developer Resources