

## **Building Windows CE 6.0 Platforms**

### **Day 1**

#### **Customizing the Operating System Design**

Creating and Customizing the Operating System Design

Operating System Design Overview

Creating an OS Design

OS Design Customization with Catalog Components

Build Configuration Management

OS Design Property Pages

Advanced OS Design Configurations

#### **Configuring Windows Embedded CE Subprojects**

Windows Embedded Subprojects Overview

Creating and Adding Subprojects to an OS Design

Configuring a Subproject

#### **Cloning Components**

Public Tree Modification and Component Cloning

Cloning Public Code

#### **Managing Catalog Items**

Catalog Files Overview

Creating and Modifying Catalog Entries

Catalog Component Dependencies

#### **Generating a Software Development Kit**

Software Development Kit Overview

SDK Generation

Installing an SDK

#### **Lab : Creating, Configuring, and Building an OS Design**

### **Day 2**

#### **Building and Deploying a Run-Time Image**

Building a Run-Time Image

Build Process Overview

Building Run-Time Images in Visual Studio

Building Run-Time Images from the Command Line

Windows Embedded CE Run-Time Image Content

#### **Editing Build Configuration Files**

Dirs Files

Sources Files

Makefile Files

#### **Analyzing Build Results**

Understanding Build Reports

Troubleshooting Build Issues

#### **Deploying a Run-Time Image on a Target Platform**

Choosing a Deployment Method

Attaching to a Device

#### **Lab : Building and Deploying a Run-Time Image**

Build a Run-Time Image for an OS Design

Configure Connectivity Options

Change the Emulator Configuration

Test a Run-Time Image on the Device Emulator

### **Day 3**

#### **Customizing a Board Support Package**

Adapting and Configuring a Board Support Package

Board Support Package Overview

Adapting a Board Support Package

Cloning a Reference BSP

Implementing a Boot Loader from Existing Libraries

Adapting an OAL

Integrating New Device Drivers

Modifying Configuration Files

**Configuring Memory Mapping of a BSP**

System Memory Mapping

Memory Mapping and the BSP

Enabling Resource Sharing between Drivers and the OAL

**Adding Power Management Support to an OAL**

Power State Transitions

Reducing Power Consumption in Idle Mode

Powering Off and Suspending the System

Supporting the Critical Off State

**Lab : Adapting a Board Support Package**

**Day 4 and 5**

**Developing Device Drivers**

Understanding Device Driver Basics

Native and Stream Drivers

Monolithic vs. Layered Driver Architecture

**Implementing a Stream Interface Driver**

Device Manager

Driver Naming Conventions

Stream Interface API

Device Driver Context

Building a Device Driver

Opening and Closing a Stream Driver by Using the File API

Dynamically Loading a Driver

**Configuring and Loading a Driver**

Device Driver Load Procedure

Kernel-Mode and User-Mode Drivers

**Implementing an Interrupt Mechanism in a Device Driver**

Interrupt Handling Architecture

Interrupt Identifiers (IRQ and SYSINTR)

Communication between an ISR and an IST

Installable ISRs

**Implementing Power Management for a Device Driver**

Power Manager Device Drivers Interface

**Marshaling Data across Boundaries**

Understanding Memory Access

Allocating Physical Memory