



# Developing Embedded Solutions for Windows XP Embedded

**Duration: 3 days**

## **Introduction**

The goal of this course is to provide developers and system integrators the solid foundation they need to develop high-quality embedded solutions using Microsoft XP Embedded.

This course is intended for system integrators and embedded-systems developers. The courseware does not cover development of drivers or applications at the software level for the Windows XP Embedded platform.

## **At Course Completion**

After completing the course, students will be able to:

- Describe Windows XP Embedded and its architecture.
- Install and use the Windows XP Embedded tool set.
- Build custom components and import these into the component repository.
- Build and deploy Windows XP Embedded images to reference hardware.

## **Course Outline**

### **Module 1: Introduction to Microsoft Windows XP Embedded**

The following topics are covered in this module:

- Windows XP Embedded: Design Goals
- Windows XP Embedded Vs. Windows CE
- Windows XP Embedded: System Requirements

After completing this module, you will be able to:

- Identify the design goals of Windows XP Embedded.
- Compare Windows XP Embedded and Windows CE
- Identify the system requirements for installing Windows XP Embedded on the target devices as well as development machines.

### **Module 2: Windows XP Embedded: The Build Process**

The following topics are covered in this module:



- The Windows XP Embedded Build Process
- Installing and Configuring Windows XP Embedded Tools

After completing this module, you will be able to:

- List the tools required to build a Windows XP Embedded image
- List the typical build and deployment cycle for Windows XP Embedded
- Install and configure the Windows XP Embedded tools.

### **Module 3: Target Designer and Target Analyzer**

The following topics are covered in this module:

- Target Designer: User Interface
- Target Designer: Configuration
- Target Designer: The Options Feature
- Target Analyzer: Introduction

After completing this module, you will be able to:

- Identify the interface parts of Target Designer.
- Identify how to create and update a configuration using Target Designer.
- Identify the use of the Dependency Check and Advanced options in the Target Designer.
- Identify the use and differences between TA.exe and TAP.exe.

### **Module 4: Building and Deploying an Operating System Image**

The following topics are covered in this module:

- Windows XP Embedded Build Options
- Preparing for the Deployment Process
- Preparing Target Media
- Deploying an Operating System Image

After completing this module, you will be able to:

- Explain the Windows XP Embedded build options.
- Identify the steps involved in preparing for deploying Windows XP embedded system on a device.



- Identify how to prepare Target Media to boot Windows XP Embedded.
- Deploy an XP Embedded operating system image.

## **Module 5: Windows XP Embedded Enabling Features**

The following topics are covered in this module:

- Headless Operation
- System Message Interception
- Enhanced Write Filter
- Bootable CD-ROM
- Flash Media
- Remote Management
- Shell Customization

After completing this module, you will be able to:

- Describe what is required to build a Windows XP Embedded system that supports headless operation.
- Explain the purpose of System Message Interception.
- Describe the Enhanced Write Filter.
- Describe the process and tools involved to create a bootable CD-ROM.
- Identify the different flash media on which you can build a Windows XP Embedded system.
- Describe the remote management capabilities of Windows XP Embedded
- Explain the process of customizing a Windows XP Embedded systems shell.

## **Module 6: Building XP Embedded Components Using Component Designer**

The following topics are covered in this module:

- What is Component Designer?
- Understanding Components
- Component Resources
- Understanding Repositories
- Role of a Repository Set
- Role of a Package

After completing this module, you will be able to:



- Identify the role of Component Designer.
- Identify the contents of a component, and the process of creating components.
- Describe component resources.
- Describe the role of repositories.
- Identify the role of a repository set.
- Identify the role of a package.

## **Module 7: Advanced Components and Techniques**

The following topics are covered in this module:

- Converting Components
- Creating Custom Shell Components
- Component Building Tools

After completing this module, you will be able to:

- Explain the different ways in which existing files can be converted into Windows XP Embedded components.
- Creating custom shell components.
- Explain the various tools which can assist in building and debugging components, and Windows XP Embedded operating systems.

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