



**CTREC  
HILTON**  
IT ACADEMY

BUILDING TRAINING SOLUTIONS  
FOR THE IT WORLD

## **Intensive Planning, Configuring, Managing, Windows 7 Desktop Deployments and Environment**

<b>Days:</b>	<b>5</b>
<b>Format:</b>	<b>Instructor-Led</b>
<b>Class Code</b>	<b>12586</b>
<b>Certification Exams:</b>	<b>70-680</b> <b>70-686</b>
<b>Certification Track:</b>	<b>MCTS</b> <b>MCITP</b>

### **Recommended Course Sequence**

Knowledge of prerequisites  
noted below.

*Course content is subject to change  
without notice.*

### **Course Description:**

This five-day instructor-led course is intended for IT Professionals who want to specialize in desktop deployment, configuration, and management. In this course, students will learn how to plan, install, upgrade deploy Windows 7 desktops in large organizations, and migrate to Windows 7 client. They will also learn how to design, configure, and manage the Windows 7 client environment, along with configuring Windows 7 client for network connectivity, security, maintenance, and mobile computing. This course helps students prepare for the exams 70-680 TS: Windows 7 Configuring and 70-686 Pro Windows 7 Enterprise Desktop Administrator.

### **Target Student:**

This course is intended for IT professionals who are interested in:

- Desktop and application deployments and managing the desktop environments for large organizations
- Expanding their knowledge base and technical skills about Windows 7 Client.
- Acquiring deep technical knowledge of Windows 7.
- Learning the details of Windows 7 technologies.
- Focusing on the "how to" associated with Windows 7 technologies.

### **Prerequisites:**

Before attending this course, students must have:

- A solid understanding of TCP/IP and networking concepts.
- A solid Windows and Active Directory background. For example, domain user accounts, domain vs. local user accounts, user profiles, and group membership.
- A good understanding of scripts and batch files.
- A solid understanding of security concepts such as authentication and authorization.
- Experience configuring settings to enable network connectivity.
- Experience configuring and troubleshooting a wireless network connection.
- Configure mobile computers and devices.
- Familiarity with deployment, packaging, and imaging tools.
- The ability to work in a team/virtual team

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## At Course Completion:

Upon successful completion of this course, students will be able to:

- Prepare to deploy Windows 7 business desktops.
- Assess and resolve application compatibility issues with Windows 7.
- Determine the most appropriate method to deploy Windows 7 based upon specific business requirements.
- Design a standard Windows 7 image by assessing and evaluating the business requirements.
- Deploy Windows 7 by using WAIK.
- Deploy Windows 7 by using WDS.
- Deploy Windows 7 by using Lite Touch Installation.
- Migrate user state by using Windows Easy Transfer and User State Migration Tool 4.0.
- Design, configure, and manage the Windows 7 client environment.
- Configure disks, partitions, volumes, and device drivers to enable a Windows 7 client computer.
- Configure file access and printers on a Windows 7 client computer.
- Configure network connectivity on a Windows 7 client computer.
- Configure wireless network connectivity on a Windows 7 client computer.
- Secure Windows 7 client desktop computers.
- Optimize and maintain the performance and reliability of a Windows 7 client computer.

## Course Outline

### Module 1: Preparing to Deploy Windows 7 Business Desktops

This module helps you plan and perform effective preparation tasks for deploying Windows 7 clients. It begins by discussing client, hardware, and deployment lifecycles. It also discusses how to assess existing computing environments and licensing.

Lessons
<ul style="list-style-type: none"><li>■ Overview of the Desktop Lifecycle</li><li>■ Desktop Deployment: Challenges and Considerations</li><li>■ Tools and Technologies Used in the Desktop Deployment Lifecycle</li><li>■ Assessing the Current Computing Environment for Deploying Windows 7</li><li>■ Designing Windows Activation</li></ul>
Lab : Assessing the Computing Environment by Using the Microsoft Assessment and Planning Toolkit
<ul style="list-style-type: none"><li>■ Assessing the Computing Environment by Using Microsoft Assessment and Planning Toolkit</li></ul>

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## Module 2: Assessing Application Compatibility in Windows 7

This module describes the process for addressing common application compatibility issues experienced during a typical operating system deployment. It also explains how to use the Microsoft Application Compatibility Toolkit (ACT) to help inventory, analyze, and mitigate application compatibility issues.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Application Compatibility</li><li>■ Assessing and Resolving Application Compatibility Issues by Using ACT 5.5</li></ul>
Lab : Evaluating Application Compatibility Using the Microsoft Application Compatibility Toolkit
<ul style="list-style-type: none"><li>■ Installing and Configuring ACT</li><li>■ Collecting Application Inventory</li><li>■ Organizing the Application Inventory</li><li>■ Analyzing Application Inventory Results</li></ul>
Lab : Creating Application Compatibility Fixes
<ul style="list-style-type: none"><li>■ Identifying Application Compatibility Issues</li><li>■ Mitigating Application Issues</li></ul>

## Reading Assignment

### Module 3: Evaluating Windows 7 Deployment Methods

This module discusses different deployment scenarios and methods that are available when deploying Windows 7. It also discusses various tools and technologies to use in the different scenarios, and considerations for selecting a deployment scenario and method.

Lessons
<ul style="list-style-type: none"><li>■ Evaluating In-Place Deployment</li><li>■ Evaluating Side-by-Side Deployment</li><li>■ Evaluating Lite Touch Deployment Method</li><li>■ Evaluating Zero Touch Deployment Method</li></ul>

### Module 4: Designing Standard Windows 7 Images

This module, explains the underlying architecture of the computer imaging system that can be used to create and deploy a custom image of a Windows 7 desktop. It also discusses the different phases of the imaging process, and how to determine imaging strategy and image servicing opportunities in Windows 7.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Windows 7 Installation Architecture</li><li>■ Overview of the Imaging Process</li><li>■ Determining the Image Strategy</li><li>■ Selecting the Image Servicing Methods</li></ul>
Lab : Determining the Windows 7 Imaging Strategy
<ul style="list-style-type: none"><li>■ Determining the Windows 7 Image Strategy</li></ul>

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## Module 5: Deploying Windows 7 by Using WAIK

This module explains the underlying computer imaging architecture of Windows AIK 2.0, which can be used to create and deploy a custom Windows 7 desktop image.

Lessons
<ul style="list-style-type: none"><li>■ Overview of WAIK 2.0</li><li>■ Building a Reference Windows 7 Image by Using Windows SIM and Sysprep</li><li>■ Managing the Windows Preinstallation Environment</li><li>■ Capturing, Applying, and Servicing a Windows 7 Image</li></ul>
Lab : Installing WAIK
<ul style="list-style-type: none"><li>■ Install the Windows Automated Installation Kit</li><li>■ Identify Resources and Tools included with the Windows Automated Installation Kit</li></ul>
Lab : Building a Reference Image Using Windows SIM and Sysprep
<ul style="list-style-type: none"><li>■ Building a Custom Answer File by Using Windows SIM</li><li>■ Installing a Reference Computer using a Custom Answer File</li><li>■ Generalizing a Reference Computer by Using Sysprep</li></ul>
Lab : Creating Windows PE Boot Media
<ul style="list-style-type: none"><li>■ Adding Packages and Drivers to Windows PE</li><li>■ Creating a Bootable Windows PE ISO Image</li><li>■ Starting the Windows PE Operating System Environment</li></ul>
Lab : Capturing and Applying a Windows 7 Image Using ImageX
<ul style="list-style-type: none"><li>■ Capturing an Image Using ImageX</li><li>■ Apply an Image Using ImageX</li></ul>
Lab : Servicing Images by Using DISM
<ul style="list-style-type: none"><li>■ Servicing a Reference image using DISM</li></ul>

## Module 6: Deploying Windows 7 by Using Windows Deployment Services

This module describes how WDS can be used to deploy custom system images to client computers located within the network infrastructure.

Lessons
<ul style="list-style-type: none"><li>■ Overview of WDS</li><li>■ Designing and Configuring WDS for Windows 7 Deployment</li></ul>
Lab : Deploying Windows 7 by Using Windows Deployment Services
<ul style="list-style-type: none"><li>■ Designing the WDS Environment</li><li>■ Installing and Configuring the WDS Server Role</li><li>■ Adding Boot and Install Images to WDS</li><li>■ Provisioning Drivers by Using WDS</li><li>■ Deploying a Desktop Operating System Using WDS</li></ul>

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## Module 7: Deploying Windows 7 by Using Lite Touch Installation

This module describes how to design the Lite Touch Installation (LTI) environment, and provides you with an overview of the techniques that you can use to build and deploy Windows 7 using the MDT and the LTI scenario.

Lessons
<ul style="list-style-type: none"><li>■ Designing the Lite Touch Installation Environment</li><li>■ Implementing MDT 2010 for Deploying Windows 7</li></ul>
Lab : Planning and Configuring MDT 2010
<ul style="list-style-type: none"><li>■ Planning the MDT Lite Touch Environment</li><li>■ Installing MDT 2010 and Additional Component Files</li><li>■ Configuring the Deployment Share</li><li>■ Creating a Task Sequence</li></ul>
Lab : Deploying Windows 7 by Using Lite Touch Installation
<ul style="list-style-type: none"><li>■ Updating the Deployment Share to Generate Windows PE Media</li><li>■ Installing Windows 7 Using Lite Touch Installation</li></ul>

## Module 8: Migrating User State by Using WET and USMT 4.0

This module explains user state migration, and how to use tools, such as Windows Easy Transfer and the Microsoft Windows User State Migration Tool (USMT), in various migration scenarios.

Lessons
<ul style="list-style-type: none"><li>■ Overview of User State Migration</li><li>■ Overview of USMT 4.0</li><li>■ Planning User State Migration (USMT 4.0)</li><li>■ Migrating User State by Using USMT 4.0</li></ul>
Lab : Migrating User State by Using Windows Easy Transfer
<ul style="list-style-type: none"><li>■ Preparing the Window Easy Transfer Source Files</li><li>■ Capturing User State Information from a Source Computer</li><li>■ Loading User State Information to a Target Computer</li></ul>
Lab : Migrating User State by Using the User State Migration Tool 4.0
<ul style="list-style-type: none"><li>■ Planning for the User State Migration</li><li>■ Creating USMT Migration Scripts</li><li>■ Capturing and Restoring User State by Using USMT</li><li>■ Performing a Hard-Link Migration</li></ul>
Lab : Migrating User State by Using State using Hard Link Migration
<ul style="list-style-type: none"><li>■ Performing a Hard-Link Migration</li></ul>

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## Module 9: Designing, Configuring, and Managing the Client Environment

This module examines how to design, configure, and manage Windows 7 client configurations. Specifically, it discusses Group Policy, Internet Explorer, and system security settings.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Planning Client Configuration</li><li>■ Designing and Configuring Standard System Settings</li><li>■ Designing and Configuring Internet Explorer Settings</li><li>■ Designing and Configuring Security Settings</li><li>■ Designing and Implementing Group Policy</li><li>■ Troubleshooting Group Policy</li></ul>
Lab : Designing and Configuring the Client Environment
<ul style="list-style-type: none"><li>■ Designing a Client Environment</li><li>■ Implementing a Client Configuration</li></ul>
Lab : Troubleshooting GPO Issues
<ul style="list-style-type: none"><li>■ Resolving a GPO Application Problem</li></ul>

## Module 10: Configuring Disks and Device Drivers

This module examines how to configure disks, partitions, volumes, and device drivers to enable Windows 7 to function as desired.

Lessons
<ul style="list-style-type: none"><li>■ Partitioning Disks in Windows 7</li><li>■ Managing Disk Volumes</li><li>■ Maintaining Disks in Windows 7</li><li>■ Installing and Configuring Device Drivers</li></ul>
Lab : Configuring Disks and Device Drivers
<ul style="list-style-type: none"><li>■ Configuring Disks</li><li>■ Configuring Disk Quotas (Optional)</li><li>■ Updating a Device Driver</li></ul>

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## Module 11: Configuring File Access and Printers on Windows 7 Client Computers

This module explains how to manage access to shared folders and printers on a computer running Windows 7. Specifically, it describes how to share and secure folders, configure folder compression, and how to install, configure, and administer printing.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Authentication and Authorization</li><li>■ Managing File Access in Windows 7</li><li>■ Managing Shared Folders</li><li>■ Configuring File Compression</li><li>■ Managing Printing</li></ul>
Lab : Configuring File Access and Printers on Windows 7 Client Computers
<ul style="list-style-type: none"><li>■ Create and Configure a Public Shared Folder for all Users</li><li>■ Configuring Shared Access to Files for Specific Users</li><li>■ Creating and Sharing a Printer</li></ul>

## Module 12: Configuring Network Connectivity

This module explains both IPv4 and IPv6 network connectivity. It also describes how to implement automatic IP Address Allocation and troubleshoot network connectivity.

Lessons
<ul style="list-style-type: none"><li>■ Configuring IPv4 Network Connectivity</li><li>■ Configuring IPv6 Network Connectivity</li><li>■ Implementing Automatic IP Address Allocation</li><li>■ Overview of Name Resolution</li><li>■ Troubleshooting Network Issues</li></ul>
Lab : Configuring Network Connectivity
<ul style="list-style-type: none"><li>■ Configuring IPv4 Addressing</li><li>■ Configuring IPv6 Addressing</li><li>■ Troubleshooting Network Connectivity</li></ul>

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## Module 13: Configuring Wireless Network Connections

This module describes key wireless network technologies and how to configure wireless network components and the Windows 7 elements that are necessary to access wireless networks.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Wireless Networks</li><li>■ Configuring a Wireless Network• Troubleshooting Network Issues</li></ul>
Lab : Configuring Wireless Network Connections
<ul style="list-style-type: none"><li>■ Determining the appropriate configuration for a wireless network</li><li>■ Troubleshooting Wireless Connectivity</li></ul>

## Module 14: Securing Windows 7 Desktops

This module describes how to make a Windows 7 computer more secure while ensuring usability is not sacrificed in the process. Specifically, it describes Windows Firewall, User Account Control, Windows Defender, and Security in Internet Explorer 8.

Lessons
<ul style="list-style-type: none"><li>■ Overview of Security Management in Windows 7</li><li>■ Securing a Windows 7 Client Computer by Using Local Security Policy Settings</li><li>■ Securing Data by Using EFS and BitLocker</li><li>■ Configuring Application Restrictions</li><li>■ Configuring User Account Control</li><li>■ Configuring Windows Firewall</li><li>■ Configuring Security Settings in Internet Explorer 8</li><li>■ Configuring Windows Defender</li></ul>
Lab : Configuring UAC, Local Security Policies, EFS, and AppLocker
<ul style="list-style-type: none"><li>■ Using Action Center</li><li>■ Configuring Local Security Policies</li><li>■ Encrypting Data</li><li>■ Configuring AppLocker</li></ul>
Lab : Configuring Windows Firewall, Internet Explorer 8 Security Settings, and Windows Defender
<ul style="list-style-type: none"><li>■ Configuring Windows Firewall</li><li>■ Configuring Internet Explorer 8 Security</li><li>■ Configuring Windows Defender</li></ul>

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## Module 15: Optimizing and Maintaining Windows 7 Client Computers

This module describes how to use the monitoring and configuration tools to obtain information about Windows 7 performance and how to troubleshoot performance and reliability problems.

Lessons
<ul style="list-style-type: none"><li>■ Maintaining Performance by Using the Windows 7 Performance Tools</li><li>■ Maintaining Reliability by Using the Windows 7 Diagnostic Tools</li><li>■ Backing Up and Restoring Data by Using Windows Backup</li><li>■ Restoring a Windows 7 System by Using System Restore Points</li><li>■ Configuring Windows Update</li></ul>
Lab : Optimizing and Maintaining Windows 7 Client Computers
<ul style="list-style-type: none"><li>■ Monitoring System Performance</li><li>■ Backing Up and Restoring Data</li><li>■ Configuring System Restore Points</li><li>■ Configuring Windows Update</li></ul>

## Module 16: Configuring Mobile Computing and Remote Access in Windows 7

This module explains how to configure mobile devices and remote access. It also discusses DirectAccess and BranchCache which are new for Windows 7.

Lessons
<ul style="list-style-type: none"><li>■ Configuring Mobile Computer and Device Settings</li><li>■ Configuring Remote Desktop and Remote Assistance for Remote Access</li><li>■ Configuring DirectAccess for Remote Access</li><li>■ Configuring BranchCache for Remote Access</li></ul>

## Optional Lab

Lab : Configuring Mobile Computing and Remote Access in Windows 7
<ul style="list-style-type: none"><li>■ Creating a Sync Partnership</li><li>■ Configuring Power Options</li><li>■ Enabling Remote Desktop</li><li>■ Enabling BranchCache</li></ul>







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## Additional Reading











### Deploying Windows 7 by Using Zero Touch Installation

This module describes the necessary prerequisites and procedures for deploying the Windows 7 operating system using Zero Touch Installation methodology.

Lessons	
	Designing the Zero Touch Installation Environment
	Performing Zero-touch Installation of Windows 7 by using MDT 2010 and Configuration Manager 2007
Lab : Deploying Windows 7 by Using Zero Touch Installation	
	Planning the Zero Touch Installation Environment
	Preparing the Zero Touch Installation Environment
	Configuring Deployment Packages and System Images
	Configuring and Advertising a Client Task Sequence

### Planning and Deploying Applications and Updates to Windows 7 Clients

This module discusses the implications of deploying applications to Windows 7 clients including Microsoft Office 2007. It also discusses the use of Windows Server Update Services (WSUS).

Lessons	
	Determining the Application Deployment Method
	Deploying the 2007 Microsoft Office System
	Planning and Configuring Desktop Updates by Using WSUS
Lab : Determining the Application Deployment Method	
	Determining the Application Deployment Method
Lab : Customizing the Microsoft Office Professional Plus 2007 Installation	
	Configuring the Setup Category
	Configuring the Features Category
	Installing Microsoft Office Professional Plus By Using the Setup Customization File
Lab : Planning and Managing Updates by Using WSUS	
	Planning Automatic Updates Settings
	Configuring Automatic Updates Settings by Using Group Policy
	Approving and Deploying an Update by Using WSUS

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## Planning and Deploying Windows 7 by Using LTI

This module is a comprehensive lab that gives the students an opportunity to perform an end-to-end deployment of Windows 7 by using the LTI.

Lessons
<ul style="list-style-type: none"><li>■ Determining the Application Deployment Method</li><li>■ Deploying the 2007 Microsoft Office System</li><li>■ Planning and Configuring Desktop Updates by Using WSUS</li></ul>
Lab : Planning an End-to-End Windows 7 LTI Deployment
<ul style="list-style-type: none"><li>■ Planning the MDT Lite Touch Environment</li></ul>
Lab : Deploying Windows 7 using the LTI Deployment Plan
<ul style="list-style-type: none"><li>■ Performing a Network Assessment</li><li>■ Configuring MDT 2010 for an LTI Deployment</li><li>■ Configuring WDS for a PXE and Multicast Deployment</li><li>■ Configuring an MDT 2010 Deployment Share</li><li>■ Creating the Reference Computer</li><li>■ Preparing the Deployment Task Sequences</li><li>■ Performing an Upgrade on Target Computers</li></ul>