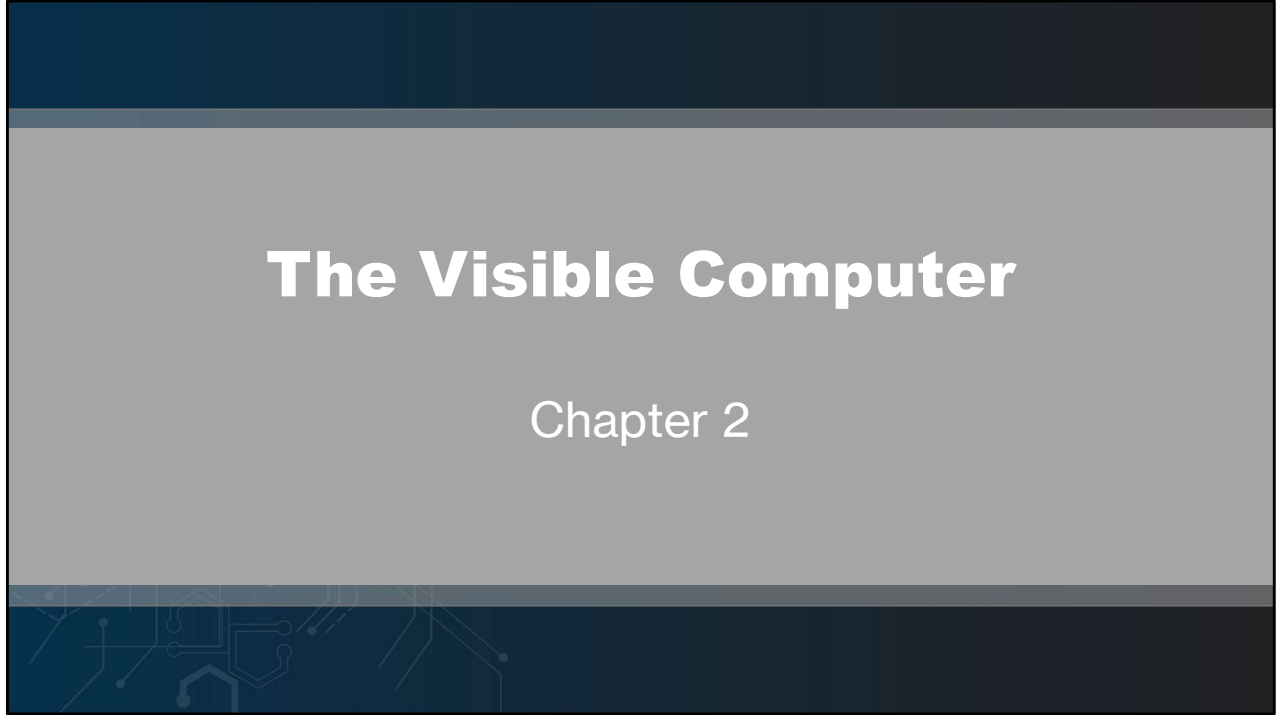


The Visible Computer

Chapter 2



Episode: **Common Safety Procedures**

Objective(s): Core 2: 4.4 Given a scenario, use common safety procedures.



Episode Description

A+

Before we get hands-on with any component, we always want to make sure we follow a few simple safety procedures. Let's take a moment to talk about some common hardware concerns and operational procedures that will be critical to ensuring your success as a PC technician.

CompTIA



Key Terms

A+

- 0:33 - Objective term - Electrostatic discharge (ESD) mat
- 1:08 - Objective term - Disconnect power before repairing to practice proper power handling
- 2:28 - Objective term - Compliance with government regulations
- 2:34 - Objective term - Safety goggles
- 2:34 - Objective term - Air filtration mask
- 3:01 - Objective term - Properly unbox a device
- 3:01 - Objective term - Proper component handling and storage
- 3:22 - Objective term - Antistatic bag

CompTIA



Quick Review

- Remember to practice proper power handling and disconnect the PC prior to working on it
- Use antistatic bags to help protect against electrostatic discharge (ESD)
- When dealing with electronic components, make sure to follow the common safety procedures



Episode: **What Is an Operating System?**

Core 2: 1.7 Given a scenario, apply application installation and configuration concepts.

Objective(s): Core 2: 1.8 Explain common OS types and their purposes.

Core 2: 1.9 Given a scenario, perform OS installations and upgrades in a diverse OS environment.



Episode Description

A+

We use computers to get work done via programs called applications. Another program, called the operating system, supports the applications, hardware, and storage devices inside our computers.

CompTIA



Key Terms

A+

- 0:58 - Kernel
- 2:10 - Process ID
- 3:54 - Objective term: 32bit vs. 64bit OS
- 5:04 - Objective term: Application to OS compatibility
- 5:27 - Hardware
- 6:58 - Objective term: Use appropriate drivers for a given OS
- 7:17 - Storage
- 8:06 - Networking

CompTIA



Quick Review

- An operating system controls all the programs on a computer
- The core of an operating system is the kernel
- Running programs are called processes
- Operating systems use device drivers to talk to hardware



Episode: **Users and Super Users**

Objective(s):

Core 2: 1.3 Given a scenario, use features and tools of the Microsoft Windows 10 operating system (OS).

Core 2: 2.5 Given a scenario, manage and configure basic security settings in the Microsoft Windows OS.



Episode Description

A+

All operating systems provide security through user accounts. User accounts define what a person can or cannot do on a system. Every operating system also has some form of Superuser that has complete control over all other users on that system.

CompTIA



Key Terms

A+

- 0:30 - Objective Term: User account
- 0:46 - Username and password
- 2:07 - Super user account or administrator account

CompTIA



Quick Review

- All operating systems have user accounts with encoded passwords
- All operating systems have super user accounts that have complete access to everything
- The Windows super user is called the Administrator
- The Linux and macOS super user is called Root



Episode: **Why Windows?**

Objective(s):

Core 2: 2.1 Summarize various security measures and their purposes.

Core 2: 2.5 Given a scenario, manage and configure basic security settings in the Microsoft Windows OS.



Episode Description

A+

Why is Microsoft Windows so dominant on desktop systems? Features such as domains and active directory are so popular that even macOS and Linux systems have built-in tools to access Microsoft Windows networks.

CompTIA



Key Terms

A+

- 0:48 - Per Processor Agreement
- 2:51 - Domain
- 4:13 - Objective Term: Active Directory
- 4:21 - Objective Term: Single sign-on (SSO)
- 5:08 - File Sharing and Print Sharing - macOS
- 5:14 - Samba - Linux
- 5:53 - Objective Term: Domain access vs. workgroup

CompTIA



Quick Review

- Microsoft invented the concept of per-processor agreements
- Every Windows system has its own local usernames and passwords
- Windows Active Directory domains store domain usernames and passwords
- Single sign-on enables users to log in using their domain accounts anywhere on the network
- Both OS X and Linux use Windows networking for single sign-on



Episode: **Touring Windows 10 and 11**

Objective(s):

Core 2: 1.1 Identify basic features of Microsoft Windows editions.

Core 2: 1.8 Explain common OS types and their purposes.



Episode Description

A+

While you can expect to see Linux and macOS questions on the test, the large majority of the CompTIA A+ exam covers the Microsoft Windows operating system. The modern Windows OS comes in two primary versions, Windows 10 and Windows 11. Let's pull them up side-by-side and look at the similarities and differences between each.

CompTIA



Key Terms

A+

- 0:45 - Windows 11 no longer supports local accounts (must use a connected Microsoft services login)
- 1:34 - The Widgets are back!
- 2:26 - Microsoft Store upgrade
- 3:22 - Windows 11 requires double the amount of RAM and TPM 2.0 (more on that later)
- 3:40 - Auto high dynamic range (HDR)
- 4:11 - Windows 10 allows local accounts
- 4:33 - Live Tiles in Windows 10
- 4:46 - Microsoft Store in Windows 10

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Windows 10 vs. 11

A+

- [Compare Windows 11 Home vs Pro Versions | Microsoft](#)

CompTIA



Quick Review

- The hardware requirements have increased greatly with Windows 11
- Windows 11 features a more refined and sleeker look
- The new Microsoft Store now enables installation of Android apps
- Features such as AutoHDR brought over from the Xbox console increase the visual and gaming experience



Episode: **Touring the macOS**

Objective(s): Core 2: 1.10 Identify common features and tools of the macOS/desktop OS.



Episode Description

A+

- macOS is the equivalent of Windows on Apple computers. Although it's a completely different operating system, macOS and Windows actually have a lot in common.

CompTIA



Key Terms

A+

- 0:44 - Objective term - macOS
- 1:11 - Objective term - Dock
- 1:48 - Apple menu
- 2:06 - Application menu
- 2:09 - Objective term - Finder
- 4:20 - Objective term - iPad running iPadOS
- 4:24 - Universal Control
- 4:51 - Objective term - Mission Control

CompTIA



Key Terms

A+

- 5:19 - Objective term - Gestures
- 5:46 - Objective term - macOS can run multiple desktop spaces
- 5:58 - Objective term - Apple ID and corporate restrictions

CompTIA



Quick Review

- macOS is the operating system for Macs, iPadOS is the operating system for iPads
- macOS has pinned and currently opened apps on the Dock
- Mission Control gives a high-level overview of all windows, desktop spaces, and open apps
- Finder is the equivalent of File Explorer in Windows



Episode: **Touring Linux**

Objective(s):

Core 2: 1.11 Identify common features and tools of the Linux client/desktop OS.

Core 2: 1.8 Explain common OS types and their purposes.



Episode Description

A+

The free and popular Linux OS is taking over the world, though it's still rare on desktops. Linux's customization via distributions is perfect for IoT devices, routers, servers and even desktops.

CompTIA



Key Terms

A+

- 0:56 - Most versions are free
- 1:30 - GNU's Not Unix
- 2:40 - Ubuntu
- 3:37 - Fedora Linux distro
- 3:45 - KDE desktop environment
- 3:55 - GNOME
- 4:34 - Cinnamon environment
- 4:50 - Linux Mint distro
- 6:55 - Objective term - Terminal

CompTIA



Quick Review

- Linux is freeware available under the GNU license
- Linux is commonly packaged in distributions (distros)
- Fedora, Mint, and Ubuntu are three popular distros

