Lab 1.1.2 PC Hardware – Instructor Version

Objective

- Become familiar with the basic peripheral components of a PC computer system.
- Identify PC connections including network attachment.
- Examine the internal PC configuration and identify major components.
- Observe the boot process for the Windows operating system.
- Use the Control Panel to find out information about the PC.

Background

Knowing the components of a PC is valuable when troubleshooting. This knowledge is also important to success in the networking field.

Before beginning, the instructor or lab assistant should have a typical desktop PC available with all peripherals. Peripherals include the keyboard, monitor, mouse, speakers or headphones, a network interface card (NIC), and a network cable. The system unit cover should be removed. If the cover is not removed, the tools should be provided to remove it. Work individually or in teams. In addition, the instructor needs to identify the location of the A+ or PC hardware training materials.

Step 1 Examine the computer and peripheral components

Examine the computer and peripheral components both front and back.

Note: The components and configuration of the PC may vary.

What are the manufacturer and model number of this computer?

Manufacturer:	Answer will vary.
Model Number:	Answer will vary.

What are the major external components of the PC including the peripherals?

Component Name	Manufacturer / Description / Characteristics
1. System Unit	Answers will vary, examples are Compaq, Dell, and so on.
2. Monitor	Answers will vary, an example is ViewSonic/17 inch.
3. Keyboard	Answers will vary, an example is DellQuietKey/101 key enhanced.
4. Mouse	Answers will vary, an example is Belkin/3-button.
5. Printer	Answers will vary, an example is HP DeskJet.

Step 2 Remove the PC system unit cover and examine internal components

List at least eight major internal components inside the system unit. Use the procedure in step 5 to find the CPU and amount of RAM.

Component Name	Manufacturer / Description / Characteristics
1. Power Supply	For example, 200 watt
2. Motherboard	Answers will vary, an example is Intel D875PBZ.
3. CPU	Answers will vary, an example is Pentium II 100, see Step 4 below.
4. RAM	Answers will vary, an example is 128MB, see Step 4 below.
5. Hard Drive	Answers will vary, an example is IDE 2GB.
6. CD ROM Drive	Answers will vary, an example is 24x.
7. Floppy Drive	1.44 MB
8. Parallel Port	25-pin EPP
9. Serial Port	9-pin
10. Video Card	Answers will vary, an example is ATI Radeon 9800.
11. Sound Card	Answers will vary, an example is Creative SoundBlaster.

Step 3 Assemble the PC components observe the boot process

Assemble the PC components, attach all peripherals, and boot the PC. Observe the boot process. The computer should boot to the Windows operating system. If the computer does not boot, contact the lab assistant. Observe the boot process.

Did the Windows operating system boot correctly? Yes

Did the screen show how much memory there was as the system was booting? Yes, 128 MB (Megabytes)

Step 4 Gather basic information about the computer CPU and RAM

Gather basic information about the computer CPU and memory. The instruction to complete this step may vary slightly depending on the version of Windows. Consult with the instructor if lab assistance if required.

Click the **Start** button. Select **Settings** then **Control Panel**. Click on the **System** icon and then the **General** tab. View the information about the computer using the operating system.

What is the Central Processing Unit? Answers will vary, an example is Pentium.

What is the speed in MHz of the CPU? The speed of the processor can most accurately be found by opening the case and looking at the CPU. The speed may not be displayed using the method above on all operating systems. Another method would be to display the system information of the PC.

How much RAM is installed? 128 MB

This concludes the lab. All equipment should be returned to the original state or as directed by the instructor.

