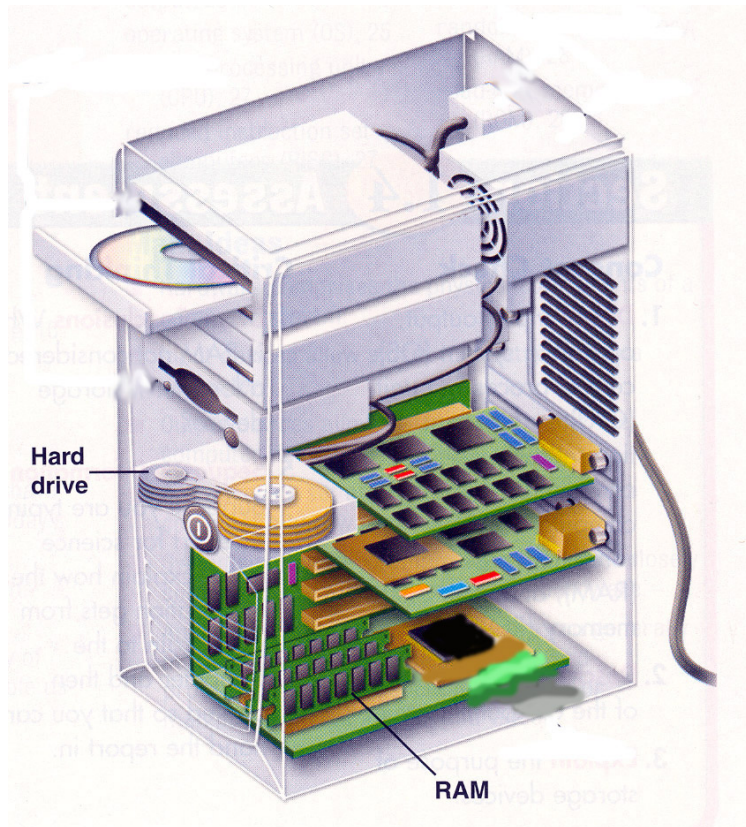


Lab 1.3.2 Determining Data Storage Capacity



Objectives

- Determine the amount of RAM (in MB) installed in a PC.
- Determine the size of the hard disk drive (in GB) installed in a PC.
- Determine the used and available space on the hard disk drive (in GB).
- Check other types of storage devices (floppy, CD-ROM, DVD).

Background / Preparation

The storage capacity of many PC components is measured in megabytes (MB) and gigabytes (GB). These components include RAM, hard disk drives, and optical media, such as CDs and DVDs. In this lab, you will determine the capacity and space available for various computer components.

The following resources are required:

- Computer with Windows XP installed

Step 1: Identify the RAM in a computer

- a. With Windows XP, there are two ways to view control panels: **Classic View** and **Category View**. The options available depend on which one of these two views you are using. If you see the **Switch to Category View** option on the left, you are currently in the classic view mode. If **Switch to Classic View** is displayed, you are currently in **Category View** mode. For this step, you want to use **Classic View** mode.
- b. From the **Start** menu, select **Control Panel**. In the **Control Panel**, choose **System** to open the **System Properties** dialog box. Alternatively, you can get this information by clicking the **Start** button and right clicking the **My Computer** icon. Next, choose **Properties** from the drop-down menu.

The computer operating system and service pack information are listed in the upper part of the dialog box. The computer processor type, speed, and memory are listed in the lower portion.



Computer
operating system
and service pack
information

Computer
processor type,
speed, and
memory

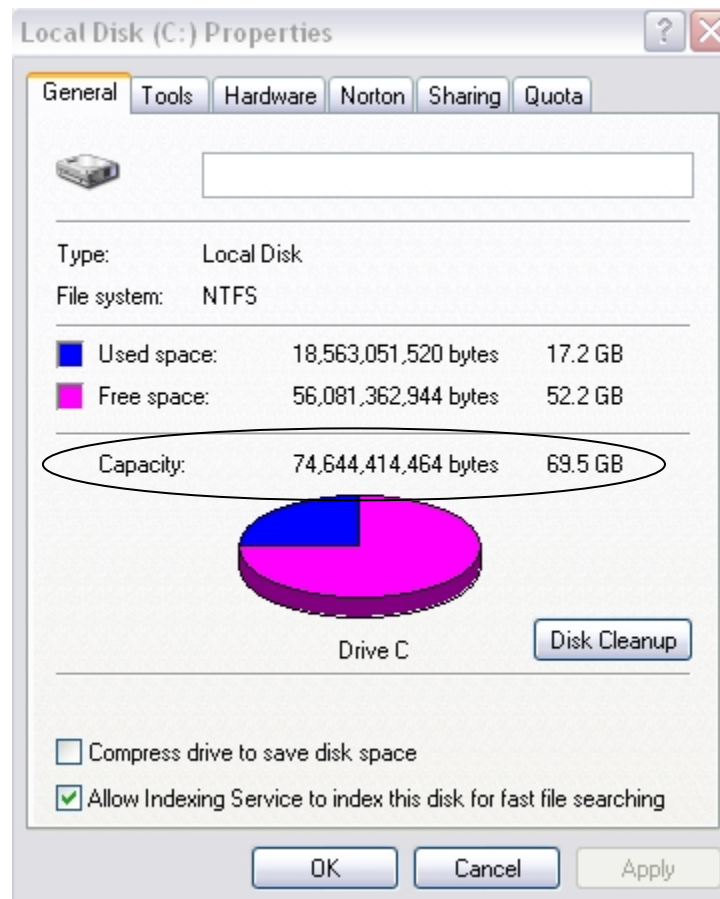
- c. In this example, the computer processor is a Pentium 4 processor with a clock speed of 3.20 gigahertz (GHz). Clock speed is a measurement of the number of cycles per second that a processor is capable of doing. The number of cycles impacts the number of instructions per second that the CPU can process. A higher clock speed generally means that a processor is capable of executing more instructions per second.

The computer has 448 MB of RAM available for the CPU.

- d. Check your computer and determine the amount of RAM available to the CPU. How much RAM is in your computer? _____

Step 2: Determine the size of the hard disk drive

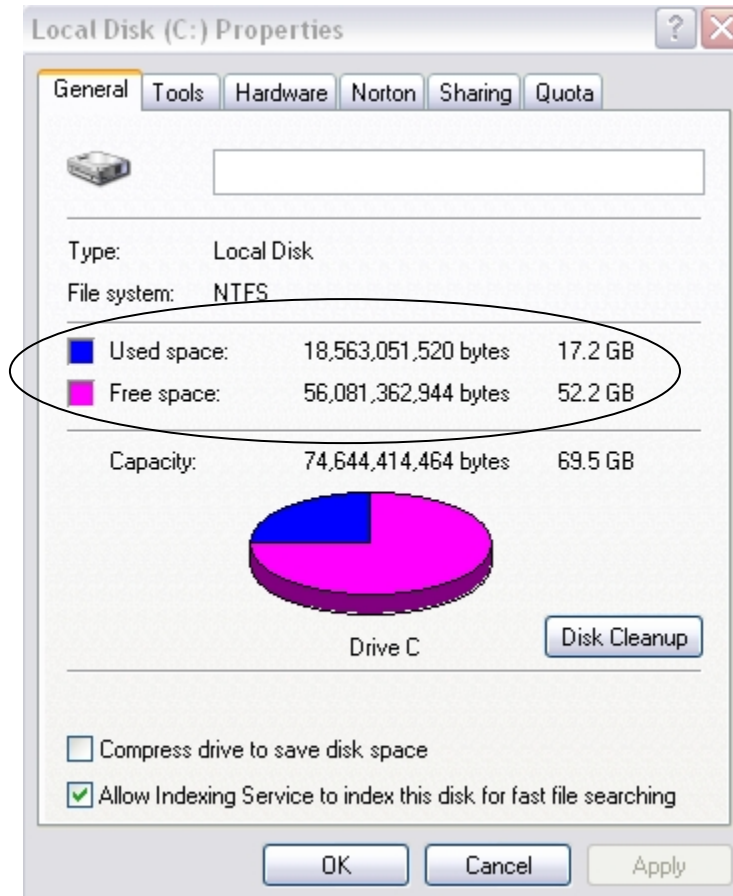
- Double-click the **My Computer** icon on your computer desktop. If you do not have a **My Computer** icon, click **Start** and choose **My Computer**.
- Right-click the local disk drive under the Hard Disk Drives Section (which is usually the C drive), and select **Properties**. This opens the **Local Disk Properties** dialog box. The total capacity of the hard drive is shown above the Drive C icon.



- Determine the size of the hard drive on your computer. What is the total size of the hard drive in GB?
- Keep the **Local Disk Properties** dialog box open for the next step.

Step 3: Determine the free space and used space on the hard drive

- a. In the **Local Disk Properties** dialog box, the used and free space is shown in both bytes and GB above the Capacity.

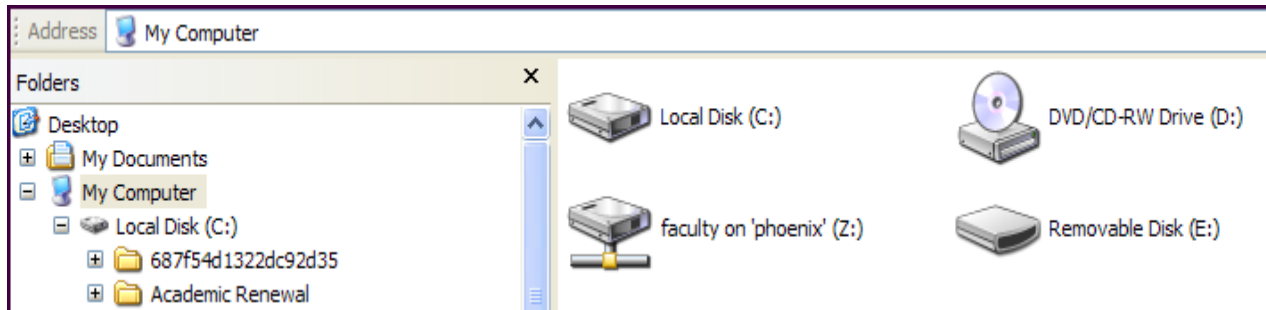


- b. What is the used space of your hard drive in GB? _____

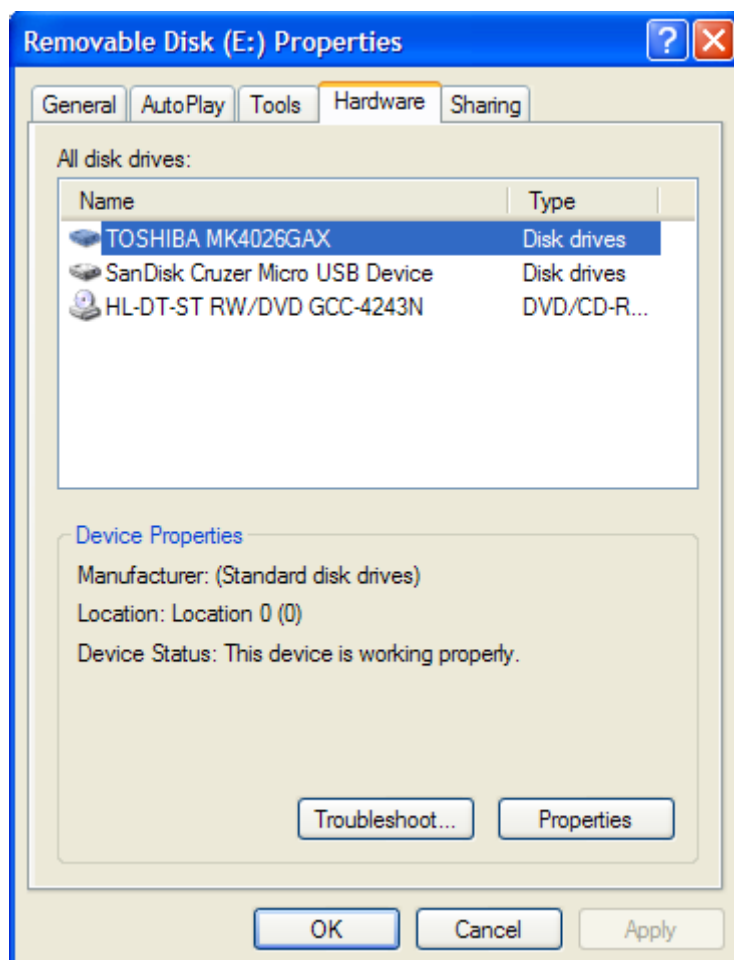
- c. What is the free space of your hard drive in GB? _____

Step 4: Check for other storage devices

- a. Right-click the **Start** button and select **Explore**. Select **My Computer** in the left pane.



- b. How many drive letters are shown in the window that appears? _____
- c. Right-click on a drive icon other than C: and select **Properties**. The **Removable Disk Properties** window appears.
- d. Select the **Hardware** tab, which provides information on each device and whether it is working properly.



Step 5: Reflection

- a. Why is it important to know the amount of RAM in your computer?

- b. Why is the size of a hard drive as well as the space being used important?
