

# Wilson, Chapter 1: Introduction to Computers

- Remember to read and memorize the terminology on pages 1-3.
- Also, do the written assignment on iCollege

Changes to terminology on pages 1-3:

- Throw out card on page 1 – poor definition
- Change scanner to barcode scanner on page 3.

# Types of Computers

- 1) Early Computers:
  - a) Mainframe computers – huge, stored in temperature controlled room
  - b) minicomputer – evolved in to the PC
- 2) PC – Personal Computer
  - a) two brands: IBM (or compatible) and Apple
  - b) two kinds: desktop or laptop
- 3) Servers - store and disseminate data to PCs

# Types of Computers (pg. 2)

- 4) Network computer – similar to PC; gets most info to run from a server
- 5) Supercomputer – large; used by research and scientific organizations

Which type(s) will we see in libraries?

PCs and possibly servers and network computers

# Computer = Hardware + Software

## Hardware:

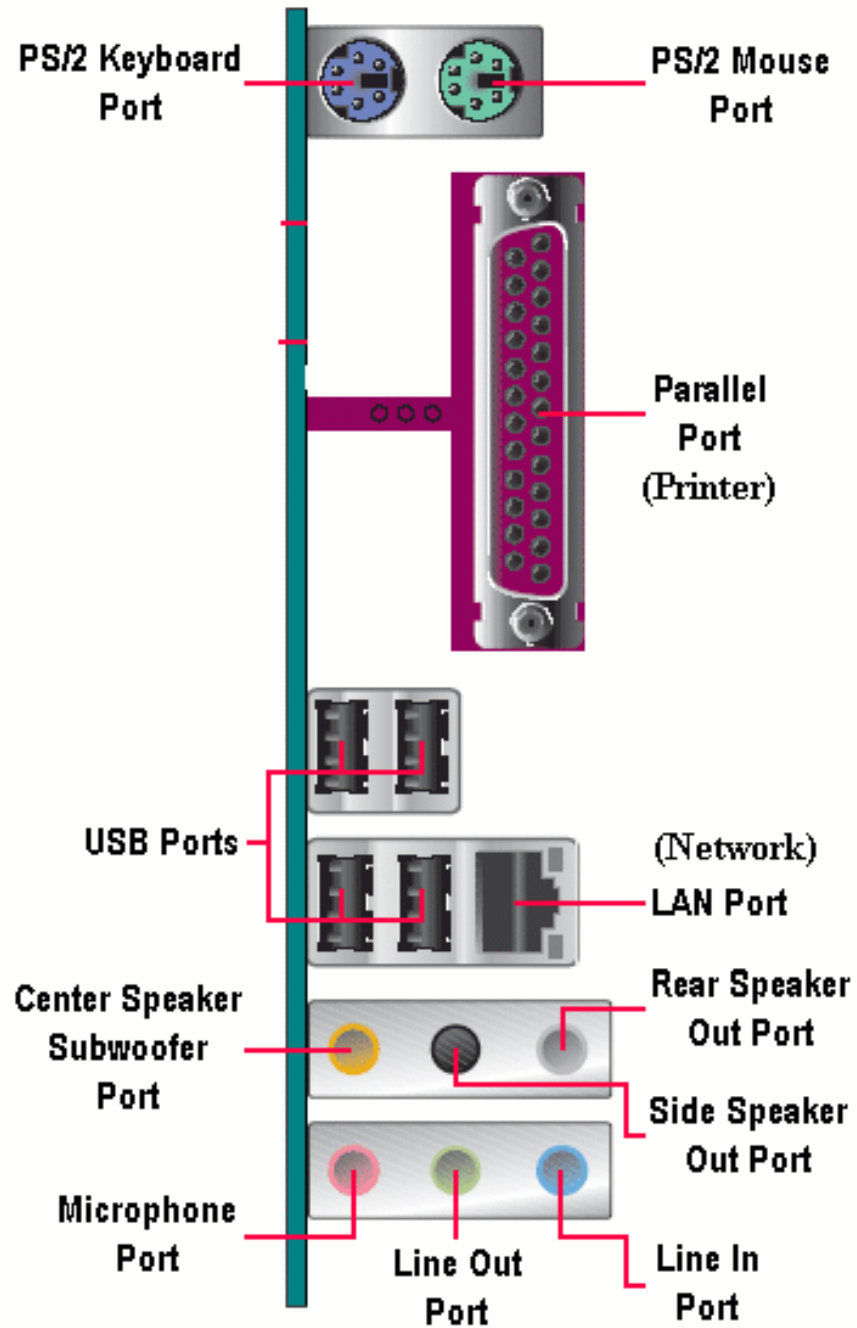
- Monitor, keyboard, mouse, casing (or tower), speakers, printer, memory, hard drive, etc.
- CPU = central processing unit = processor
  - interprets and carries out instructions
  - common processors: Intel Pentium, Intel Celeron, AMD Sempron, AMD Athlon



# Hardware : Ports

## Ports:

- Openings (plugs) to attach devices (hardware) to a computer
- Some are color coded or have pictures to help. For example, green connector goes into green port.
- USB = Universal Serial Bus – most common port because it is very fast
- Common Communication ports:
  - a) Ethernet – looks like a telephone plug but bigger
  - b) Telephone – for dial-up internet connections



# Hardware: Storage Devices

Storage Devices – to store data and programs

## 1) Hard drive

a) internal hard drive - stores your operating system, programs, data; usually for long-term storage

b) external hard drive – used for backup if internal hard drive gets damaged (e.g. from a virus)



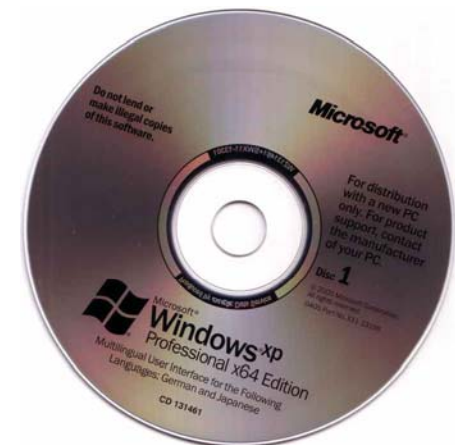
# Hardware: Storage Devices (pg. 2)

## 2) External and Portable Storage

a) CD-ROM – Read only memory; can not write (or burn) new info on this disc

b) CD-R – read and write one time only; once you fill a CD-R you can not add or erase data

c) CD-RW – read, write, erase and rewrite data; like a floppy disc but more durable



# Hardware: Storage Devices

## (pg. 3)

- d) DVD(-ROM) – Read only
- e) DVD-R – First format for writing DVDs; write one time only
- f) DVD+R – Released after – (dash) format; write one time only
- g) DVD-RW – read, write, erase, rewrite
- h) DVD+RW – read write, erase, rewrite

Most new DVD burners are capable of reading and writing both formats: DVD±RW

# Hardware: Storage Devices (pg. 4)

- i) Floppy disc – 3.5 inch disc; small storage capacity (capable of holding only 1.44 MB of data); becoming obsolete; are unreliable; discs break or get corrupted.
- j) USB/Jump/Flash drive – uses a USB port to connect to a computer



# Hardware: Monitors

- 1) CRT = Cathode Ray Tube – older monitors, very large but inexpensive



- 2) LCD = Liquid Crystal Display – newer monitors, flat, less weight



# Hardware: Monitors (pg. 2)

Screen Resolution: measurement of the number of pixels (picture elements) or dots that display an image on a screen; the higher the resolution, the sharper the image.

Resolution vs. scale – the larger the resolution, the smaller the scale. So, if your resolution is large, the images look small.

# Hardware: Monitors (pg. 3)

Common Problem with Resolution:

The image resolution does not match your monitor resolution

- a) receive error message to set resolution to expected resolution
- b) output is shrunk or expanded to fit

To set or change your monitor's resolution:

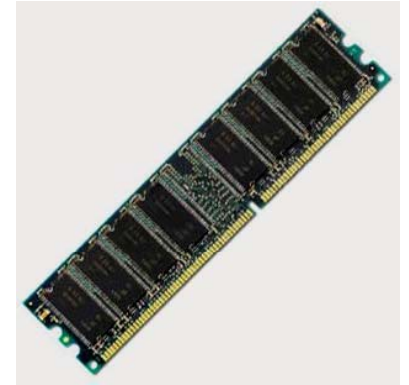
Go to the Control Panels, select Display, then select Settings, and choose the correct resolution.

# Hardware: Monitors (pg. 4)

## Common Screen Resolutions:

- 640 x 480 – older; usually can not be chosen on newer monitors
- 800 x 600 – smallest resolution (but largest scale) on most modern monitors
- 1024 x 768 – common, default resolution

# Hardware: Memory



RAM = Random Access Memory

- Temporary storage of data
- Allows computer fast access to data while performing a task
- Measured in megabytes (MB) or gigabytes (GB)  
[Floppy disc ~ 1 MB; 1 GB ~ 1000 MB]
- The more RAM, the more tasks the computer can perform at one time
- Upgrading or increasing the amount of RAM is very common

# Software: Operating System

## Operating System or OS

- Must have an OS to run any program
- Controls hardware and software

## Common Operating Systems:

- 1) Microsoft's Windows (XP)
- 2) Apple's MAC OS (X)

# Software: Applications

Application Software – to perform special applications or tasks.

Some of the applications we will use in this class:

- Web Browser: Microsoft Internet Explorer
- Library Management System: Pines' Evergreen
- Text Editor to Create Webpages: Notepad

# Networks

- Need hardware: cables, servers, workstations (or clients), network cards
- Need software: communication software on the server and on the clients

LAN = Local Area Network – connected computers in a small geographic area

WAN = Wide Area Network – collection of LANs

# Adaptive Technology

Hardware and Software for those with difficulties using a standard computer

Hardware: Keyboards with large keys  
Larger Mice

Software: Magnifier: enlarges onscreen text  
Voice Recognition  
Voice Narration