

Microsoft Office 2007

Essential Introduction to Computers

and How to Purchase a
Personal Computer



Objectives

- Define the term computer and discuss the four basic computer operations: input, processing, output, and storage
- Define data and information
- Explain the principal components of the computer and their use
- Describe the use of magnetic disks, USB flash drives, and other storage media
- Discuss computer software and explain the difference between system software and application software

Objectives

- Identify several types of personal computer application software
- Discuss computer communications channels and equipment and the Internet and World Wide Web
- Define e-commerce
- Explain how to purchase a personal computer

What is a Computer?

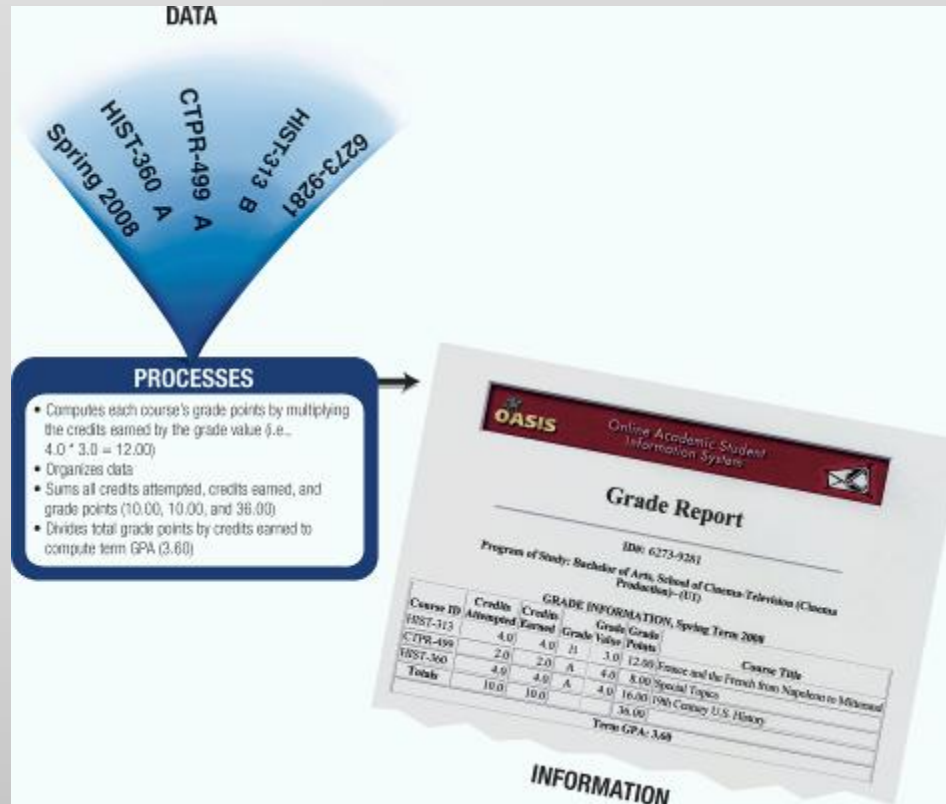
- An electronic device, operating under the control of instructions stored in its own memory, that can:
 - Accept data (input)
 - Process the data according to specified rules (process)
 - Produce results (output)
 - Store the results for future use (storage)

What is a Computer?



What Does a Computer Do?

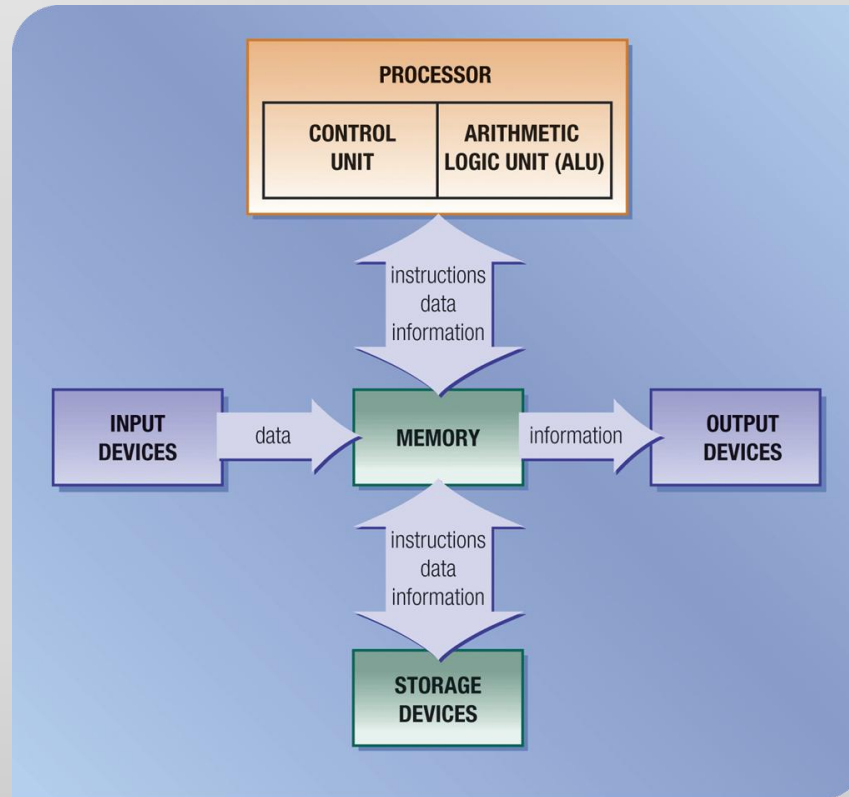
- Four basic operations compromise the information processing cycle



What are the Components of a Computer?

- The six primary components of a computer are input devices, the processor (control unit and arithmetic/logic unit), memory, output devices, storage devices, and communications devices
- The processor, memory, and storage devices are housed in a box-like case called the system unit

What are the Components of a Computer?



Input Devices

- An input device is any hardware component that allows you to enter data, programs, commands, and user responses into a computer
 - A keyboard is an input device that contains keys you press to enter data into the computer
 - A stylus is a small metal or plastic device that looks like a ballpoint pen, but uses pressure instead of ink to write, draw, or make selections
 - Smart phones often include a digital camera so users can send pictures and videos to others

Input Devices



Input Devices

- A mouse is a pointing device that fits comfortably under the palm of your hand
 - Pointer or mouse pointer
 - Most notebook computers come with a touchpad



System Unit

- The system unit is a case that contains electronic components of the computer used to process data
 - The processor (CPU) interprets and carries out the basic instructions that operate a computer
 - Arithmetic/logic unit
 - Memory (RAM) consists of electronic components that temporarily stores instructions waiting to be executed by the processor, data needed by those instructions, and the results of processed data

System Unit



Output Devices

- Output devices make the information resulting from processing available for use
 - An impact printer prints by striking an inked ribbon against the paper
 - Nonimpact printers form characters by means other than striking a ribbon against paper
 - Inkjet
 - Photo printers
 - Laser

Output Devices



Display Devices

- A display device is an output device that visually conveys text, graphics, and video information
 - Monitor
 - Flat panel monitor
 - LCD
 - CRT

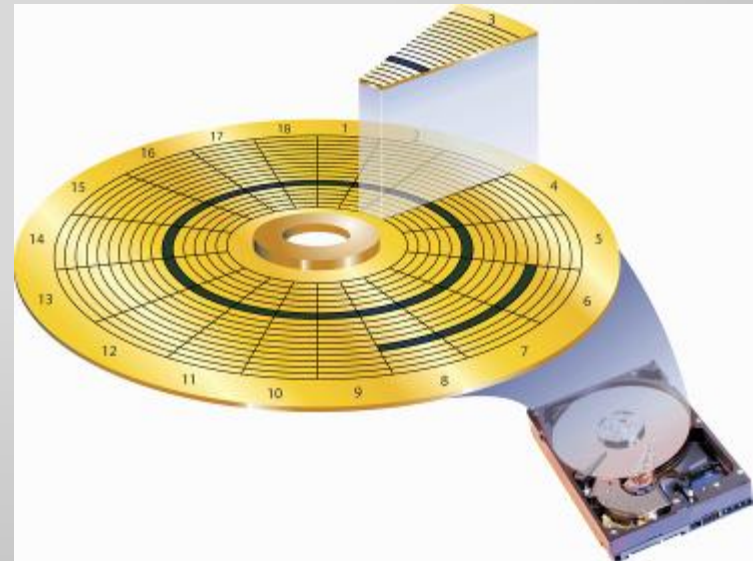


Display Devices



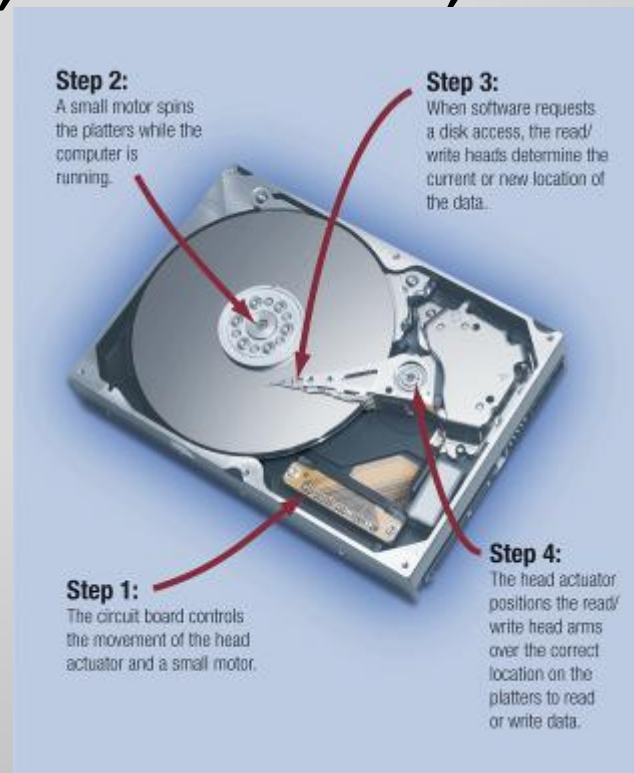
Storage Devices

- A storage device is used to store instructions, data, and information when they are not being used in memory
 - Magnetic disks use magnetic particles to store items on a disk's surface
 - Formatting
 - Track
 - Sectors
 - Portable storage medium



Storage Devices

- A hard disk is a storage device that contains one or more inflexible, circular platters that magnetically store data, instructions, and information
 - Head crash
 - Backup



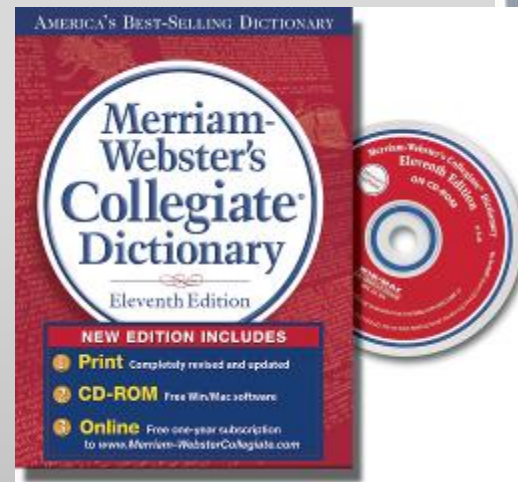
Storage Devices

- A floppy disk is an inexpensive portable storage medium



Storage Devices

- An optical disc is a portable storage medium that consists of a flat, round, portable disc made of metal, plastic, and lacquer that is written and read by a laser



Storage Devices

- Tape is a magnetically coated ribbon of plastic housed in a tape cartridge
 - Tape drive



Storage Devices

- Miniature mobile storage media are rewriteable media usually in the form of a flash memory card, USB flash drive, or a smart card

Storage Devices



Storage Devices

- A smart card stores data in a thin microprocessor embedded in the card



Communications Devices

- A communications device is a hardware component that enables a computer to send and receive data, instructions, and information to and from one or more computers
 - Transmission media

Computer Software

- System software consists of programs to control the operations of computer equipment
 - Operating system
 - Microsoft Windows Vista
 - Microsoft Windows XP
 - Apple Mac OS X
 - Linux
 - Booting
 - Graphical user interface (GUI)
 - Icon



Computer Software

- Application software consists of programs designed to make users more productive and/or assist them with personal tasks
 - Word processing
 - Spreadsheet
 - Database
 - Presentation graphics

Computer Software

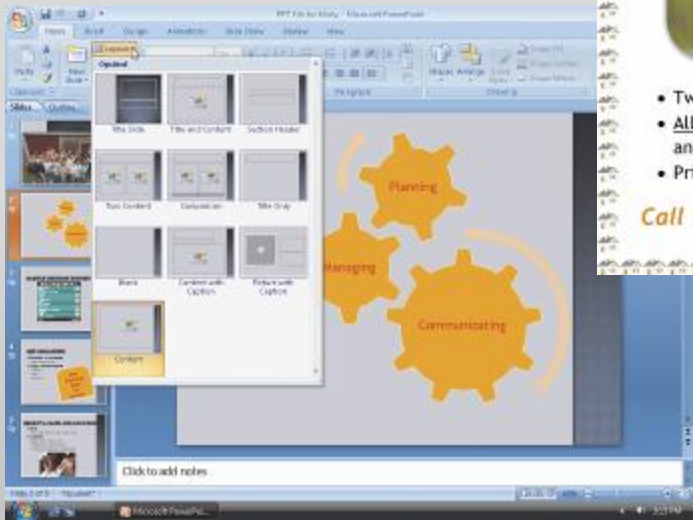


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Washon's IT Hardware & Services
 Projected Annual Revenue and Expenditures

	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
Revenue					
Sales	\$77,230,192	\$82,827,610	\$79,461,634	\$73,616,364	\$312,463,540
Licensing	67,823,910	82,912,613	89,771,819	82,613,480	323,718,240
Total Revenue	\$144,264,102	\$146,734,823	\$169,172,853	\$136,629,802	\$605,161,780
Expenditures					
Marketing	\$19,113,889	\$19,309,758	\$21,222,993	\$17,890,258	\$77,536,588
Payroll	34,116,095	34,498,666	37,880,880	31,932,420	138,395,491
Equipment	31,375,267	31,697,150	34,337,596	26,367,826	127,277,037
Leases			360,000		360,000
Production	9,376,517	6,472,711	10,411,235	6,778,352	38,898,816
Administrative	19,474,384	19,674,893	21,623,335	18,327,868	79,999,540
Total Expenditures	\$113,455,851	\$114,619,869	\$128,275,949	\$106,193,861	\$468,545,470
Operating Income	\$30,768,251	\$31,114,214	\$40,896,904	\$30,435,941	\$124,836,910

Inventory

Item Number	Description	On Hand	Cost	Selling Price	Supplier Code	Add'l New Field
3600	Ball Cap	39	\$13.15	\$18.95	LG	
3650	Emergency Blanket	38	\$8.90	\$11.90	989	
4000	Backpack	18	\$4.50	\$7.80	LG	
4000	Foam Finger	25	\$2.95	\$5.80	LG	
5920	Jersey	12	\$23.40	\$24.75	AC	
8388	Knives	19	\$3.96	\$4.80	989	
8340	Knit Cap	7	\$9.25	\$9.80	989	
7818	Tea Shirt	32	\$9.50	\$24.95	AC	
7918	Wipe	3	\$23.90	\$27.80	LG	

Supplier Code	Supplier Name	Telephone Number	Add'l New Field
AC	Acme Clothes	618-555-9235	
LG	Lego Goods	527-988-1888	
989	Mary's Novelties	317-555-4347	

Networks and the Internet

- A network is a collection of computers and devices connected together, often wirelessly, via communications devices and transmission media
 - Local area network
 - Wide area network



Networks and the Internet

- The world's largest network is the Internet, which is a worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals
 - Internet service provider (ISP)
 - Online service provider (OSP)
 - Wireless Internet service provider (WISP)

Networks and the Internet

- The World Wide Web contains billions of documents called Web pages
 - Web page
 - Web site
 - Web browser
 - Uniform Resource Locator (URL)
 - Hypertext transfer protocol



Networks and the Internet

- When you conduct business activities online, you are participating in electronic commerce, also known as e-commerce
 - Business to consumer (B2C)
 - Consumer to consumer (C2C)
 - Business to business (B2B)

How to Purchase a Personal Computer

- Do you want a desktop computer or mobile computer?
- For what purposes will you use the computer?
- Should the computer be compatible with the computers at school or work?

How to Purchase a Desktop Computer

- Determine the specific software you want to use on your computer
- Know the System Requirements of the Operating System
- Look for bundled software
- Avoid buying the least powerful computer available
- Consider upgrades to the mouse, keyboard, monitor, printer, microphone, and speakers

How to Purchase a Desktop Computer

- Determine whether you want to use telephone lines or broadband (cable or DSL) to access the Internet
- If you are using a dial-up or wireless connection to connect to the Internet, then select an ISP or OSP
- Use a worksheet to compare computers, services, and other considerations
- If you are buying a new computer, you have several purchasing options: buying from your school bookstore, a local computer dealer, a local large retail store, or ordering by mail via telephone or the Web
- If you are buying a used computer, stay with name brands such as Dell, Gateway, Hewlett-Packard, and Apple

How to Purchase a Desktop Computer

- If you have a computer and are upgrading to a new one, then consider selling or trading in the old one
- Be aware of hidden costs
- Consider more than just price
- Avoid restocking fees
- Use a credit card to purchase your new computer
- Consider purchasing an extended warranty or service plan

How to Purchase a Notebook Computer

- Purchase a notebook computer with a sufficiently large active-matrix screen
- Experiment with different keyboards and pointing devices
- Make sure the notebook computer you purchase has a CD and/or DVD drive
- If necessary, upgrade the processor, memory, and disk storage at the time of purchase

How to Purchase a Notebook Computer

- The availability of built-in ports and a port extender on a notebook computer is important
- If you plan to use your notebook computer for note-taking at school or in meetings, consider a notebook computer that converts to a Tablet PC
- Purchase a notebook computer with a built-in wireless network connection
- If you are going to use your notebook computer for long periods without access to an electrical outlet, purchase a second battery

How to Purchase a Notebook Computer

- Purchase a well-padded and well-designed carrying case
- If you travel overseas, obtain a set of electrical and telephone adapters
- If you plan to connect your notebook computer to a video projector, make sure the notebook computer is compatible with the video projector
- For improved security, consider a fingerprint scanner

How to Purchase a Tablet PC

- Make sure the Tablet PC fits your mobile computing needs
- Decide whether you want a convertible or pure Tablet PC
- Be sure the weight and dimensions are conducive to portability
- Port availability, battery life, and durability are even more important with a Tablet PC than they are with a notebook computer

How to Purchase a Tablet PC

- Experiment with different models of the Tablet PC to find the digital pen that works best for you
- Check out the comfort level of handwriting in different positions
- Make sure the LCD display device has a resolution high enough to take advantage of Microsoft's ClearType technologies
- Test the built-in Tablet PC microphone and speakers

How to Purchase a Tablet PC

- Consider a Tablet PC with a built-in PC video camera
- Review the docking capabilities of the Tablet PC
- Wireless access to the Internet and your e-mail is essential with a Tablet PC
- Review available accessories to purchase with your Tablet PC

How to Purchase a Personal Mobile Device

- Determine the programs you plan to run on your device
- Consider how much you want to pay
- Determine whether you need wireless access to the Internet and e-mail or mobile telephone capabilities with your device
- For wireless devices, determine how and where you will use the service

How to Purchase a Personal Mobile Device

- Make sure your device has enough memory and storage
- Practice with the touch screen, handwriting recognition, and built-in keyboard before deciding on a model
- Decide whether you want a color display
- Compare battery life

How to Purchase a Personal Mobile Device

- Seriously consider the importance of ergonomics
- Check out the accessories
- Decide whether you want additional functionality
- Determine whether synchronization of data with other devices or personal computers is important

Summary

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Complete

