

# Chapter Two

## Computer Types

## **2-1 Microcomputers - Personal Computers**

Microcomputers sit on, beside or under a desk. They process data quickly and are designed for one user. The cost is relatively low, depending on the type, model and features. These computers are found in small businesses, schools and homes. The size of the components that can be used in or with a computer have decreased significantly as well as becoming more cost effective. There are many different types of programs that can be used with a microcomputer, there are generally two types of microcomputers: the PC (personal computer) based on the original IBM machine, or the Macintosh designed by Apple.



Microsoft Office is available for both the PC and Apple machines. The software works exactly the same on either machine. The majority of companies use PCs to handle their work requirements. This may primarily be due to the wide variety of software programs available to the PC machine and the relative lower cost of a PC as compared to an Apple machine.

## **2-2 supercomputer**

A supercomputer is considered to be the fastest type of computer available. It is very expensive due to the amount of information that needs to be processed on a daily basis. The first supercomputer was created in 1958 with tremendous advancement in technology over the past years. Supercomputers generally have specialized software programs installed and are typically used for scientific and engineering tasks such as forecasting weather, nuclear energy research, resource exploration, or animation. Supercomputers put all its power into running and performing calculations on a few programs as quickly as it can. Typically, it can handle very large databases and perform a huge number of calculations very quickly.

## **2-3 Mainframe**

Mainframe computers are large enough to fill an entire room and require a large capital investment. They can simultaneously handle hundreds of different programs and users without sacrificing performance. They process large volumes of data at an incredible speed. Mainframes are commonly found in government agencies or large organizations, e.g., telephone companies, credit card companies, airlines, or universities. For instance, you access a mainframe computer whenever you use your bankcard at an Automated Teller Machine (ATM). Mainframe computers can sometimes be called centralized systems as they control the flow of data to and from computers or terminals.

## **2-4 Minicomputers**

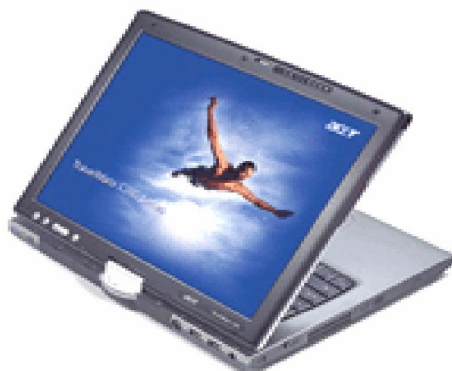
Minicomputers can fill part of a room, and often cost tens of thousands of dollars. They process data at a slower rate and in smaller volumes than the mainframe computers. Several people can use a minicomputer simultaneously; but as the number of users increases, each user would notice a reduction in speed. Minicomputers are commonly found in medium-sized manufacturing companies, legal or accounting firms, and department store where the scanners in a grocery store would link to a minicomputer.

## **2-5 Notebooks or Laptop Computers**

Notebook/Laptop computers are portable microcomputers, and are similar to the desktop models in speed, performance and usage. Laptops got their name from the fact that you could rest the computer on top of your lap and work. The advent of technology greatly enhanced the ability to have smaller and lighter components and reduce the size of the laptop to that of the size of a paper notebook, hence the name “notebook”.

Notebooks tend to cost the same or slightly more than a desktop computer, but provide a great advantage to the users who want portability. Notebooks are popular with sales people, real estate agents, students and others whose work requires them to be on the move constantly. Having a portable computer allows them to add, search, and even print information from their computer whenever they need, wherever they may be. The cost of notebooks is now relatively low in comparison to when they were first introduced; hence the increase in the number of users who now have a notebook as their only computer. Notebooks work in a similar manner to desktop computers with software needing to be installed on the notebook before you can perform any tasks. Tablets These computers appear similar to a notebook but usually the screen can be swiveled or folded over to allow the user to write or select items using a special pen

designed for the tablet. All tablets have the touch screen ability installed for easy data entry where you need only to touch the pen to the selected item on the screen to have the entry recognized by the software.



tablets can be used is for electronic/interactive books where you subscribe to the company who has the book in electronic form, order the “book” and download it to the tablet. Then using the software that allows you to read the book, you can then move from page to page with the stylo using the appropriate buttons on the screen, or even write notes on specific pages of the book for reference.

## **2-6 Personal Digital Assistants and Pocket PC**

Small palm-sized computers that are used as personal organizers are referred to as Personal Digital Assistants (PDAs). These types of computers have software installed with features for making appointments, contact lists and writing notes — similar to manual organizer systems like Day-Timer, Franklin Covey, or Day Runner. In recent years, the PDA has become so popular for its portability that you can purchase PDAs with a microprocessor chip that turns the PDA into a Pocket PC.

With a Pocket PC, you have software installed that allows you to create documents in addition to having the organizer program that comes with all PDAs (e.g., Microsoft Office Small Business). Some PDAs also have digital cameras, video/audio, or Internet capabilities in addition to the office system and personal organizer software provided.



PDA'S

## **2-7 Cellular Phones**

cellular phones also include computer technology so you can access the Internet as well as use the built-in software to create documents, listen to music, take pictures or video, send text messages (similar to using an instant messaging program such as MSN ), and send e-mail (similar to using a Microsoft Outlook, Outlook Express, Eudora).

The cost varies with the number of features and capabilities for each cellular phone, Pocket PC, or PDA. Whether you purchase a Pocket PC with PDA and cellular phone services depends on your needs and requirements. Additional services such as connection to the Internet, e-mail capability and extra software would be a separate expense over and above the purchase price of the item.

## **2-8 Workstations**

A workstation is essentially any computer. It generally has been considered a computer that requires a lot of power for processing files, such as drafting, desktop publishing, graphics design, video editing and programming. Because of the high amount of resources needed, these workstations may not have a disk drive and could be connected to a centralized system that has enough space and power to handle the software and storage requirements. In general, the operating system used for these computers will either be Unix or Windows NT.

## **2-9 Other Types of Computers**

You can find computer technology in a variety of devices, For instance, many of the newer automobiles have computer technology built into the engine to help diagnose problems (or potential problems) . Automated Teller Machines (ATMs) within a banking institution use a specialized software that allows what you enter at the ATM to interact with the bank's database or network to verify and complete your transactions.

Computers can be found in many other industries such as manufacturing, not just for robotic technology but the systems that control or run the production

equipment. Many of the equipment in the health industry are computerized or have customized software to help analyze the information received into the machine. Computers exist in devices used on a regular basis such as calculators.