Computer Software

What is software?

Software is the general name given to all programs that can run on a computer. It is a set of instructions used by the computer. Two main categories of software are system software and application software. System software is need for the computer to function. Application software is need of users to perform their tasks.

System software

System software is a set of programs that are need for the computer to perform its functions. It controls the operations of the computer and all hardware devices. It includes operation systems, utility programs and translation programs.

Operating systems

An operating system is a set of programs that control the hardware. Operating Systems contain instructions that coordinate all the activities among the hardware resources and perform the following task.

* They provide a way for application software to communicate with the hardware. For example, if you click on the printer icon in your word processing package (application software), the operating system gives an instruction to start printing.
* They manage the system resources such as memory and also allocate CPU time to the task being run.
* They manage the transfer of data to and from peripherals (keyboard, mouse, scanner, printer, etc.);
* They manage system security. Many operating system allocate certain rights to users. A user can only do this, on entering a password.

Examples of operating systems are Windows XP, Windows Me, Windows 2000 Professional, Windows NT, etc.

The operating system provides an interface between the use and the computer hardware. Without an operating system, a Computer would be useless. The first thing a computer look for when switched on is the BIOS (Basic Input Output System) that is stored in ROM. The BIOS then performs the POST (Power on Self-Test) to check for the hub component such as the keyboard, mouse, video card, etc. The result from the POST is compared with information in CMOS (Complementary Metal Oxide Semi-Conductor). If the information is correct BIOS checks the operating system in Drive A then Drive C. When found it is loaded. Loading the operating system is known as booting.

The kernel, the core of the operating system. Is loaded and saved in RAM from the time the computer starts up until it is turned off.