

DEVICE MANAGEMENT

- 1) Device Management control peripheral devices by sending their command in their own proprietary language (अपने रूप भाषा में)
- 2) Device Management manages all the devices such as input device, output device and other processing device installed with the system.

CONTROL OF VARIOUS DEVICES

- 1) Computer perform two main function:
I/O and processing data.
 - 2) Input unit - By input (some kind of data) such as numeric or character are inserted into the computer system through a program in order to being processed for specific result.
 - 3) Output unit - This process of inputting data is then produced outside known as output.
 - 4) Various devices such as I/O device, processing device are controlled and managed by two aspects:
 - a) I/O subsystem
 - b) Device Driver
- a) I/O subsystem ⇒ I/O subsystem is a part of operating system that control and manages all types of input-output operation performed by I/O devices. Controlling I/O command and devices is the main aspect of operating system i.e. done by I/O subsystem
- b) Device Driver ⇒ The software routine that knows how to deal with the device is called a device driver.

The operating system contains all the communication for the peripherals attached to the computer for device driver is installed into them. When a new peripheral is added, the

NEED OF HARDWARE (H/W) AND SOFTWARE (S/W) RULE

Any Operating System is made up of linker, loader, locator (address definition), file manager, debugger, translator which gets hardware requirement such as keyboard controllers, Bus controllers, serial controllers, PS/2, USB controllers, DMA controllers, Network (N/w) controllers, Interrupt controller, Display controller (VGA), multimedia controller. It is the important issue for any device management which gets certain need of hardware (H/W) and software (S/W) rules such as

I/O subsystem -

- 1) It is a part of operating system.
- 2) It control all types of input-output operation performed by device.
- 3) It is an essential part of operating system which control I/O i.e hardware.

Interrupt Driven -

- 1) Processor transfer the I/O operation generated by a program to I/O subsystem, processor continues with processing of program. When I/O subsystem completes the execution of I/O operation, it interrupts. This is called interrupt driven or pull down data transfer.

Interrupt are the most important rules of an Operating system. Interrupt stop the execution of a program to perform other task such as numerical computation. This is done when a process need to perform an I/O operation. If an interrupt occur, the CPU stores the current status of the process in the program register (pr) and stops the execution time.

DEVICE DRIVER

- 11) The software that the system user communicate with device such as printer, mouse, keyboard etc... is called a device driver.
- 12) A program that allow a hardware peripheral known as a device to communicate with a computer.
- 13) The system software acts as an interface between an application and hardware devices.
- 14) A program that interface between windows and a device like printer, scanner etc.
- 15) Hardware devices such as sound card, printer, CD-ROM drive must be installed proper driver to run.
- 16) Each device from each manufacturer will have its own device driver otherwise each device is difficult to run.
- 17) The driver, a program that determine how an operating system will communicate with a peripheral device.
- 18) It is a software that is essential requirement for each hardware or devices attached in the system.
- 19) Device Driver such as visual display driver, sound driver, hardware driver, basic driver (keyboard, mouse, disk, I/O.)