

BASIC OPERATION

Contents

1.3 Basic Operation

Input- Information and programs are entered into the computer through Input devices such as the keyboard, disks, or through other computers via network connections or modems connected to the Internet. The input device also retrieves information off disks. The below given are some examples of input devices:

A **keyboard** is a human interface device which is represented as a layout of buttons. Each button, or key, can be used to either input a linguistic character to a computer, or to call upon a particular function of the computer. Traditional keyboards use spring-based buttons, though newer variations employ virtual keys, or even projected keyboards.

Pointing device is any human interface device that allows a user to input spatial data to a computer. In the case of mice and touch screens, this is usually achieved by detecting movement across a physical surface. The line which blinks is called **cursor**. Analog devices, such as 3D mice, joysticks, or pointing sticks, function by reporting their angle of deflection. Movements of the pointing device are echoed on the screen by movements of the cursor, creating a simple, intuitive way to navigate a computer's GUI (Graphical User Interface).

The **Scanner** is a device that captures pictures so that they can be seen and used on the computer, similar to a colour photocopier.

Output - Output Devices displays information on the screen (monitor) or the printer and sends information to other computers. They also display messages about what errors may have occurred and brings up message or dialog box asking for more information to be input. The output device also saves information on the disk for future use. Examples of output devices are Monitor, Speakers, Printers, and Projectors.

Monitors - The monitor shows information on the screen when typed. This is called outputting information. When the computer needs more information it will display a message on the screen, usually through a dialog box. Monitors come in many types and sizes. The resolution of the monitor determines the sharpness of the screen. The resolution can be adjusted to control the screen's display.

Printers - The printer takes the information on the screen and transfers it to paper or a hard copy. There are many different types of printers with various levels of quality. The three basic types of printer are: **dot matrix**, **inkjet**, and **laser**.

Dot matrix printers work like a typewriter transferring ink from a ribbon to paper with a series or 'matrix' of tiny pins. Ink jet printers work like dot matrix printers but fire a stream of ink from a cartridge directly onto the paper. Laser printers use the same technology as a photocopier using heat to transfer toner onto paper.

Processing- The **CPU or central processing** unit is sometimes called the **Control Unit** and directs the operation of the input and output devices. The **Coprocessor** or the **Arithmetic-Logic Unit** does arithmetic and comparisons. The **memory** or **RAM** temporarily stores information (files and programs) while using or working on them. The **BIOS** or **basic input/output system** controls the dialogue between the various devices.
