

2.3 Output devices (VDU/Monitors).

With modern software, the screen display can be the most important interface with the user. Nearly all commands are issued using a keyboard and/or mouse (including a trackerball/touchpad etc).

Displaying data on-screen requires a graphics card (such as an **AGP** supported card described earlier) and a **Visual Display Unit (VDU)**.



AGP Card

VDU (also known as a **Monitor**): The screen/monitor/visual display unit is the part of the computer that displays the current process or application (i.e., what's going on and what you are doing).

There are several types of VDU such as the **CRT (Cathode Ray Tube)** and **Flat Screen/LCD** style. **CRT's** are cheaper but take up more desktop space whereas **Flat Screen/LCD** styles take up less room, often display a much sharper screen but are generally much more expensive.

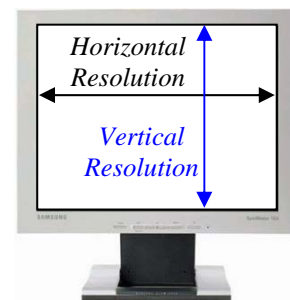


CRT



Flat Screen

Monitors often vary in size from 14" to 21" (30 – 60 cm). A larger screen can display images at a higher **resolution**. The screen image is made up of **pixels** (a 'dot' or 'point' on the screen display). The **screen resolution** is defined by the maximum number of pixels displayed horizontally and vertically. Most monitors can support a number of screen resolutions such as 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024 etc where the size $n \times n$ denotes the number of pixels in width x height respectively.



The higher the screen resolution, the more graphical information you will be able to fit on the screen (and objects will look smaller and sharper). Very high resolutions (1024 x 768 and above) are often used for CAD (Computer Aided Design) tasks to ensure an accurate representation of drawing objects.

A monitor should also have a sufficient **refresh rate** at the selected resolutions. The refresh rate is the frequency with which an image is redrawn. If the refresh rate is set too low, the image will appear to flicker and may cause eye strain and headaches.