

# Computer Graphics

## Computer Graphics

1.What is computer graphics? Types of computer graphic.

Ans:- Graphics are picture or visual presentation on some surface, such as wall, Canvas, computer screen, paper etc. Computer Graphics is an art of Drawing pictures,graph ,charts, etc using computer with the help of programming is called computer graphics.

Example:- photographs, drawings, graphs, diagram etc.

“ a fixture is worth a Thousand Words”

Computer Graphics is the creation of picture with the help of computer. Computer Graphics is an art of drawing picture using computer. computer graphics use computer to create an manipulate Picture on display device in graphical or pictorial form.

Application of Graphics:-

1. CAD
2. Presentation graphics
3. Computer Art
4. graphical user interface
5. Entertainment
- 6.Education & training
7. Visualization
8. Image Processing

Types of Computer Graphics

there are two types of Computer Graphics first

- 1.Raster (Bitmap) Graphics
2. Vector Graphics

1.Raster (Bitmap) graphics

:- In Raster graphics pixels are used for an image to be draw. it is also known as a bitmap Image in which a sequence of image is into smaller pixels. Basically a bitmap indicates a large number of pixels together.

2. Vector Graphics

:- In vector graphics, mathematical formulae are used to draw different types of shapes , lines , objects and so on.

Elements of picture created in computer graphics

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- a. Display processor.
- B. Cathode ray tube ( CRT )
- C. Random scan vs raster scan.
- D. direct view Storage tubes and flat panel display.

## 2. What is Random Scan and Raster Scan Display:

**Ans: Random scan Display:-** Random scan system used an electron beam which operators like a pencil to create a line image on the CRT screen. the picture is constructed out of a sequence of straight-line segments. Each line segment is drawn on the screen by directing the beam to move from one point on the screen to the next, where its x & y coordinate define each point. After drawing the picture. The System cycles back to the first line and redraws all the lines of the image 30 to 60 times each second.

Advantages:

- 1. SCRT has the electron beams directed only to the parts of the screen where an image is to be drawn.
- 2. Produces smooth line drawing and high resolution.

Advantage

- 1. random- scan monitors cannot display realistic shaded scenes.

## Random scan Display:-

In random scan display, an electron beam is directed to only those parts of the screen where a picture is to be drawn. After drawing the picture, this system cycles back to the first line and redraws all the lines of the picture 30 to 60 times each second.

advantage

A raster scan display is best on intensity control of pixels in the form of a rectangular box called raster on the screen. Information of on and off pixels is stored in Refresh buffer or frame buffer. Television in our house are based on Raster Scan Method.