



RAMA UNIVERSITY

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FACULTY OF ENGINEERING & TECHNOLOGY

BCS -504 Computer Graphics & Multimedia

Lecture-07

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OUTLINE

➤ **LIGHT PEN**

➤ **USES**

➤ **DIGITIZERS**

➤ **ADVANTAGES & DISADVANTAGES**

➤ **PLOTTERS**

➤ **ADVANTAGE**



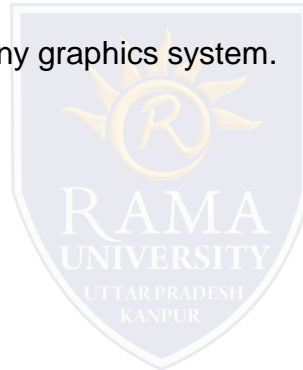
Light Pen

Light Pen (similar to the pen) is a pointing device which is used to select a displayed menu item or draw pictures on the monitor screen. It consists of a photocell and an optical system placed in a small tube. When its tip is moved over the monitor screen, and pen button is pressed, its photocell sensing element detects the screen location and sends the corresponding signals to the CPU.



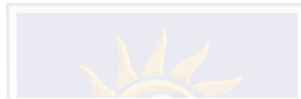
Uses

1. Light Pens can be used as input coordinate positions by providing necessary arrangements.
2. If background color or intensity, a light pen can be used as a locator.
3. It is used as a standard pick device with many graphics system.
4. It can be used as stroke input devices.
5. It can be used as valuator



Digitizers

The digitizer is an operator input device, which contains a large, smooth board (the appearance is similar to the mechanical drawing board) & an electronic tracking device, which can be changed over the surface to follow existing lines. The electronic tracking device contains a switch for the user to record the desire x & y coordinate positions. The coordinates can be entered into the computer memory or stored on an off-line storage medium such as magnetic tape.



Digitizer

Advantages & Disadvantages

Advantages:

1. Drawing can easily be changed.
2. It provides the capability of interactive graphics.

Disadvantages:

1. Costly
2. Suitable only for applications which required high-resolution graphics.



Plotters

Plotters are a special type of output device. It is suitable for applications:

1. Architectural plan of the building.
2. CAD applications like the design of mechanical components of aircraft.
3. Many engineering applications.

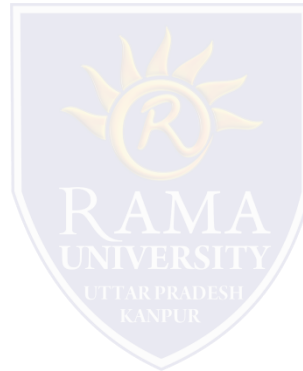


Plotter



Advantage

1. It can produce high-quality output on large sheets.
2. It is used to provide the high precision drawing.
3. It can produce graphics of various sizes.
4. The speed of producing output is high.



Multiple Choice Question

MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	When beam is reach at the bottom of the screen. It is made OFF and rapidly retraced back to the top left to start again and process of moving back to top is known as	Vertical Retrace.	Horizontalally Retrace	Retrace	Horizontal Retrace
2	Frame buffer holds set of intensity values for all the	pixel	screen points	Pivot	dots
3	In raster scan displays a special area of memory is dedicated to graphics only this memory is called	buffer	frame	FRAME buffer	none
4	Frame buffer holds set of..... for all the screen points.	intersection values	common values	intensity values	integrity values
5	Intensity is retrieved from frame buffer and display on screen row at a time	1	2	3	4

REFERENCES

- <http://www.engppt.com/search/label/Computer%20Graphics>

