

What is graphics ?

Ans.: -Graphics in c used to for developing games, in making projects, for animation etc. graphics programming used to drawing various geometrical shapes (rectangle, circle, eclipse, line, etc.).

In c graphics programming you have to use standard library function to get your task done. Just you pass the arguments to the function and it's done. Point plotting technique are based on Cartesian coordinate system.

What is Pixel ?

Ans.: - point means pixel it is the small dot or picture element.

What is modes in c graphics ?

Ans.: - there are two modes in c graphics :- 1. Text mode 2. Graphics mode.

- 1) **Text Mode** :- in a text mode only text can be displayed. The images and one graphics object cannot be displayed.
- 2) **Graphics Mode** :- In c graphic mode, the screen divided into small dots. The screen is divided into 480 rows and 640 columns. The number of dots per inch is called as screen resolution.

C graphic functions :-

1. **initgraph() Function** :- initgraph function which is used to initialize the graphic mode. To initialize graphic mode, we use initgraph function in our program.
Syntax :- void initgraph(int *graphicDriver, int *graphicMode, char *driverDirectoryPath);
It initialize the graphics system by loading the passed graphics driver then changing the system into graphics mode. It is also initialize the all graphics settings like colour, palette, current position etc.
2. **putpixel() function** :- putpixel function plots a pixel at ,location (x,y) of specified colour.
Syntax :- void putpixel (int x, int y, int color);
3. **closegraph() Function** :- the closegraph() function which is closes the graphics mode, deallocates all memory allocated by graphics system and restore the screen to the mode it was in before you called initgraph().
Syntax :- void closegraph();
4. **outtextxy() Function** :- outtextxy function display the text or string at a specified point (x,y) on the screen.
Syntax :- void (int x, int y, char "string");
5. **setcolor Function** :- setcolor function which is used to set a drawing color.
Syntax :- void setcolor(int color);

C Drawing Functions :-

1. **line() function** :- line function used to draw a line.
Syntax :- void line (int x1, int y1, int x2, int y2);
2. **circle() Function** :- which is used to draw a circle.
Syntax :- void circle (int x, int y, int radius);
3. **rectangle() function** :- which is used to draw a rectangle.
Syntax :- void rectangle (int left, int top, int right, int bottom);
4. **ellipse() Function** :- which is used to draw a ellipse.
Syntax :- void ellipse (int x, int y, int stangle, int endangle, int xradius, int yradius);

5. **arc() Function** :- which is used to draw a arc.
Syntax :- void arc (int x, int y, int stangle, int endangle, int radius);
6. **bar() Function** :- which is uysed to draw a bar.
Syntax :- void bar(int left, int top, int right, int bottom);

Example Program to draw a various shapes using c graphics function :-

```
#include<graphics.h>
#include<conio.h>

int main()
{
    clrscr();
    int gd=DETECT;
    int gm;
    initgraph(&gd, &gm, "C:\\TURBOC3\\BGI");
    rectangle(100,100,200,200);
    circle(300,150,50);
    bar(400,100,500,200);
    line(90,250,510,250);
    ellipse(300,350,0,360,100,50);
    outtextxy(200,425,"C graphics functions");
    getch();
    closegraph();
}
```