**/\* Program No. :**

**Aim : WAP for drawing a raster graphic display of circle using mid- point algorithm.**

**\*/**

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

#include<graphics.h>

void circle(int x0,int y0,int radius,int value)

{

int x=0,y=radius;

double d=(5.0/4.0)-radius;

putpixel(x0,y0+radius,value);

putpixel(x0,y0-radius,value);

putpixel(x0+radius,y0,value);

putpixel(x0-radius,y0,value);

while(y>x)

{

if(d<0)

d+=(2.0\*x)+3.0;

else

{

d+=(2.0\*(x-y))+5.0;

y--;

}

x++;

putpixel(x0+x,y0+y,value);

putpixel(x0-x,y0+y,value);

putpixel(x0+x,y0-y,value);

putpixel(x0-x,y0-y,value);

putpixel(x0+y,y0+x,value);

putpixel(x0-y,y0+x,value);

putpixel(x0+y,y0-x,value);

putpixel(x0-y,y0-x,value);

}

}

void main()

{

int x,y,radius;

int gdriver = DETECT, gmode, errorcode;

initgraph(&gdriver, &gmode, "C:\\TC3.0\\BGI");

errorcode = graphresult();

clrscr();

if (errorcode != grOk)

{

printf("Graphics error: %s\n", grapherrormsg(errorcode));

printf("Press any key to exit.");

getch();

exit(1);

}

printf("\nEnter the center of circle, x : ");

scanf("%d",&x);

printf("\nEnter the center of circle, y : ");

scanf("%d",&y);

printf("\nEnter the radius of the circle : ");

scanf("%d",&radius);

clrscr();

circle(x,y,radius,50);

getch();

closegraph();

}

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