**/\* Program No. :**

**Aim : WAP for 2D line drawing as raster graphics display using Bresenhem line drawing algorithm.**

**\*/**

#include <graphics.h>

#include <stdlib.h>

#include <stdio.h>

#include <conio.h>

void line(int x0,int y0,int x1,int y1,int value)

{

int dy=y1-y0,dx=x1-x0,d=(2\*dy)-dx,incre=2\*dy,incrne=2\*(dy-dx);

int x=x0,y=y0;

putpixel(x,y,value);

while(x<x1)

{

if(d<=0)

{

d+=incre;

x++;

}

else

{

d+=incrne;

x++;

y++;

}

putpixel(x,y,value);

}

}

void main()

{

clrscr();

int x0,x1,y0,y1;

int gdriver = DETECT, gmode, errorcode;

initgraph(&gdriver, &gmode, "C:\\TC\\BGI");

errorcode = graphresult();

if (errorcode != grOk)

{

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

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

getch();

exit(1);

}

printf("\nEnter the starting point, x : ");

scanf("%d",&x0);

printf("\nEnter the starting point, y : ");

scanf("%d",&y0);

printf("\nEnter the ending point, x : ");

scanf("%d",&x1);

printf("\nEnter the ending point, y : ");

scanf("%d",&y1);

clrscr();

line(x0,y0,x1,y1,100);

getch();

closegraph();

}

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