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**I.T. – 5**

**Q. Implement Bresenham line drawing algorithm.**

#include<stdio.h>

#include<graphics.h>

#include<math.h>

void main()

{

float x,y,x1,y1,x2,y2,dx,dy,e;

int i,gd,gm;

/\* Read two end points of line

---------------------------------- \*/

printf("Enter the value of x1 :\t");

scanf("%f",&x1);

printf("Enter the value of y1 :\t");

scanf("%f",&y1);

printf("Enter the value of x2 :\t");

scanf("%f",&x2);

printf("Enter the value of y2 :\t");

scanf("%f",&y2);

/\* Initialise graphics mode

---------------------------------- \*/

detectgraph(&gd,&gm);

//Replace NULL with "c:\\tc\\bgi" on Windows OS

initgraph(&gd,&gm,NULL);

dx=abs(x2-x1);

dy=abs(y2-y1);

/\* Initialise starting point

-----------------------------\*/

x = x1;

y = y1;

putpixel (x, y, 15) ;

/\* Initialise decision variable

-------------------------------- \*/

e = 2 \* dy-dx;

i = 1; /\* Initialise loop counter \*/

do

{

while(e >= 0)

{

y = y + 1;

e = e - 2 \* dx;

}

x = x + 1;

e = e + 2 \* dy;

i = i + 1;

putpixel (x, y, 15);

}

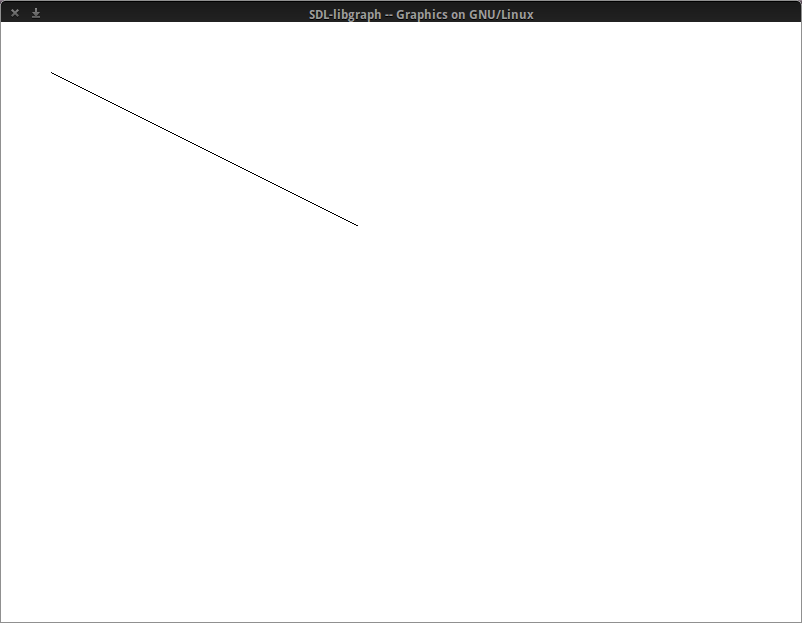
while( i <= dx);

sleep(200);

getch();

closegraph();

}

****