#include <stdio.h>

#include <iostream>

#define round(a)((int)(a+0.5))

#include <graphics.h>

using namespace std;

void lineDDA(int xa, int ya, int xb, int yb)

{

int dx=xb-xa, dy=yb-ya, steps, k;

float xincrement, yincrement, x=xa, y=ya;

if(abs(dx)>abs(dy))

steps = abs(dx);

else

steps = abs(dy);

xincrement=float(dx)/float(steps);

yincrement=float(dy)/float(steps);

putpixel(round(x),round(y),WHITE);

for(k=0;k<steps;k++)

{

x+=xincrement;

y+=yincrement;

putpixel(round(x),round(y),WHITE);

}

}

void boundary(int x,int y, int fillcolor, int bordercolor)

{

getpixel(x,y,color);

if((color!=bordrcolor)&&(color!=fillcolor))

{

setpixel(x,y);

boundaryfill(x+1,y,fillcolor,bordercolor);

boundaryfill(x-1,y,fillcolor,bordercolor);

boundaryfill(x,y+1,fillcolor,bordercolor);

boundaryfill(x,y-1,fillcolor,bordercolor);

}

}

int main( )

{

initwindow( 640 , 480 , "WinBGIm" );

int xa,xb,ya,yb;

rectangle( 0, 0, 20, 20 );

setfillstyle( SOLID\_FILL , BLUE);

floodfill( 5, 5, WHITE );

//lineDDA(10,20,100,200);

while(1)

{

if(ismouseclick(WM\_LBUTTONDOWN))

{

getmouseclick(WM\_LBUTTONDOWN,xa,ya);

while(1)

{

if(ismouseclick(WM\_LBUTTONDOWN))

{

getmouseclick(WM\_LBUTTONDOWN,xb,yb);

printf("%d,%d,%d,%d\n",xa,ya,xb,yb);

lineDDA(xa,ya,xb,yb);

break;

}

}

}

}

while( !kbhit() );

closegraph( );

return( 0 );

}