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#include<stdio.h>
#include<graphics.h>

int abs (int n)
{
    return ( (n>0) ? n : ( n * (-1) ));
}

void DDA(int X0, int Y0, int X1, int Y1)
{
    int dx = X1 - X0;
    int dy = Y1 - Y0;

    int steps = abs(dx) > abs(dy) ? abs(dx) : abs(dy);

    float Xinc = dx / (float) steps;
    float Yinc = dy / (float) steps;

    float X = X0;
    float Y = Y0;
    for (int i = 0; i <= steps; i++)
    {
        putpixel (X,Y,RED); // put pixel at (X,Y)
        X += Xinc;          // increment in x at each step
        Y += Yinc;          // increment in y at each step
        delay(100);         // for visualization of line-
                            // generation step by step
    }
}

int main()
{
    int gd = DETECT, gm;

    // Initialize graphics function
    initgraph (&gd, &gm, "");

    int X0 = 2, Y0 = 2, X1 = 14, Y1 = 16;
    DDA(2, 2, 14, 16);
    return 0;
}
```