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/**      Program to Draw a Line using Bresenham's Algorithm      ***/

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

void lineBres(int, int, int, int);

void main()
{
    int x1, y1, xn, yn;

    int gd = DETECT, gm;
    initgraph(&gd, &gm, "");

    printf("Enter starting coordinates of line: ");
    scanf("%d %d", &x1, &y1);
    printf("Enter ending coordinates of line: ");
    scanf("%d %d", &xn, &yn);

    lineBres(x1, y1, xn, yn);

    getch();
}

void lineBres(int x1, int y1, int xn, int yn)
{
    int dx = xn - x1, dy = yn - y1;
    int di = 2 * dy - dx;
    int ds = 2 * dy, dt = 2 * (dy - dx);

    putpixel(x1, y1, RED);
```

```
while (x1 < xn)
{
    x1++;
    if (di < 0)
        di = di + ds;
    else
    {
        y1++;
        di = di + dt;
    }

    putpixel(x1, y1, RED);
    delay(20);
}
}
```