NAMIE - SUBHAMI UNITUERSITY ROLL NO- 1121147 SUBJECT - COMPUTER GRAPHICS SUBJECT CODE- PBC-602

Awi Buesenham's line Algorithm

Assume a pixed pr(x1,y1) than sedect subsequent pixels as we work our may to the night, one pixed position at a time in the horizontal direction towards P2 (X2, Y2).

Once a pixed in choose at any step

The next pixel is 1. Either the one to its night (lower - bound for the

2. Our top its night and up (upper-bound fortille line)

Algori Hum.

stept. Stant Algorithm

steps. Declare variable x1, x2, y, y2, dis, iz, dx, dy

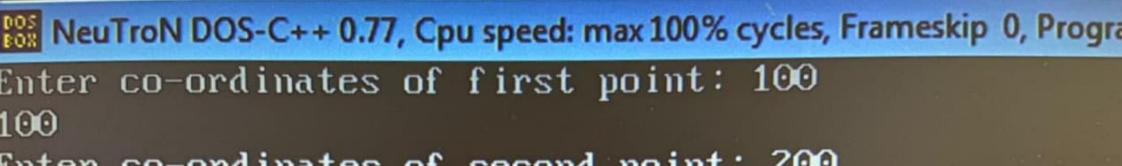
Step3. Enten value of X1. y11 x2, y2 where x1, y, an coordinates of starting point And X2, y2 aue coordinates of Ending point

stepy. calculate du = 212-191 calculate dy = y2-41 Calculate ij = 2 + dy colculate i2 = 2 * (dy-dx) calculate d=iz-dx

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step 5. (onsiden (x,y) as stanting point and Xend as maximum
    . possible value of x.
       Ifdx Lo
      Then x = X2
       4=42
       Xend = X_1
     If dx>0
      Then X=X,
      4=91
        Xend = X2
 Step 6. Generale point at (x, y) coordinates
 Stept. Check if who de dine is generated.
          If x >= xend
 step8. calculate co-ordinates of the next pixed
         1740
          Thun d = d + in
           11 9%0
          Thun d=d+12
          incomment y=y+1
  step 9. Inchement x=x+1
  Step 10. Draw a point of least (x,y) coordinates
  step11. Go to step7
  stop 12. End totalgosiflur.
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```
#include (stdio.h)
Hinclude ¿quaplics.h)
void drawline (int xo, int yo, int x1, int yL)
 int doc, dy i Pix, y;
    dn = 11-10;
    dy = y1 - y0 ;
    X =XO;
    4=40;
   P = 2 * dy -dx;
   while (x < x 1)
    it (b>=0)
    putpixed (214,7);
    y=y+1;
     p= p+ 2 + dy -2 + dx;
   else
      putpixed (x,y,7);
       p=p+2*dy;4
       x=x+1;
   jut noin()
```

int g daiver = DETECT, g mode, every, xo, yo, x1, y1; int inity aph (& gdwiver, & g mode, ''c: 1/two boc 3/16gi"); pwint ("Enten (o-ordinates of first point:"); scant ("%d %d", & xo, & go); pwint ("Enten (o-ordinates of second point:"); scant ("%d %d", &xl, & y1); drawline (xo yo, x1, y1); netword;



Enter co-ordinates of second point: 200