#include<GL/glut.h>

#include<stdio.h>

void init()

{

glClearColor(1.0,1.0,1.0,0.0);

glMatrixMode(GL\_PROJECTION);

gluOrtho2D(0.0,400.0,0,400.0);

}

void setpixel(GLint x,GLint y)

{

glBegin(GL\_POINTS);

glVertex2i(x,y);

glEnd();

}

void line()

{

int xa=50, ya=50,xn=300,yn=150,x,y;

int dx,dy,pk,k;

glClear(GL\_COLOR\_BUFFER\_BIT);

glColor3f(1.0,0.0,0.0);

setpixel(xa,ya);

dx=xn-xa;

dy=yn-ya;

pk=2\*dy-dx;

x=xa,y=ya;

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

{

if(pk<0)

{

pk=pk+2\*dy;

}

else

{

pk=pk+2\*dy-2\*dx;

++y;

}

++x;

setpixel(x,y);

}

glFlush();

}

int main(int argc,char \*\*argv)

{

glutInit(&argc, argv);

glutInitDisplayMode(GLUT\_SINGLE |GLUT\_RGB);

glutInitWindowPosition(0,0);

glutInitWindowSize(500,500);

glutCreateWindow("Bresenham Line");

init();

glutDisplayFunc(line);

glutMainLoop();

return 0;

}

