#include <stdio.h>

#include <math.h>

#include <GL/glut.h>

void init(void)

{

glClearColor(1.0,1.0,1.0,0.0);

glMatrixMode(GL\_PROJECTION);

gluOrtho2D(0.0,200.0,0.0,200.0);

}

void setPixel(GLint x,GLint y)

{

glBegin(GL\_POINTS);

glVertex2i(x,y);

glEnd();

}

void Circle()

{

int xCenter=100,yCenter=100,r=50;

int x=0,y=r;

int d=3/2-r;

glClear(GL\_COLOR\_BUFFER\_BIT);

glColor3f(1,0,0);

while(x<=y)

{

setPixel(xCenter+x,yCenter+y);

setPixel(xCenter+y,yCenter+x);

setPixel(xCenter-x,yCenter+y);

setPixel(xCenter+y,yCenter-x);

setPixel(xCenter-x,yCenter-y);

setPixel(xCenter-y,yCenter-x);

setPixel(xCenter+x,yCenter-y);

setPixel(xCenter-y,yCenter+x);

if(d<0)

d+=(2\*x)+3;

else{

d+=(2\*(x-y))+5;

y-=1;

}

x++;

}

glFlush();

}

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

{

glutInit(&argc,argv);

glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);

glutInitWindowPosition(0,0);

glutInitWindowSize(500,500);

glutCreateWindow("Bresenham circle");

init();

glutDisplayFunc(Circle);

glutMainLoop();

return 0;

}

