|  |
| --- |
| #include<GL/glut.h> |
|  | #define one 1.0 |
|  | #define zero 0.0 |
|  |  |
|  | void plot\_point(int x, int y) { |
|  | glBegin(GL\_POINTS); |
|  | glVertex2i((int)x, (int)y); |
|  | glEnd(); |
|  | } |
|  |  |
|  | void bresenhamcircle(int x0, int y0, int radius) { |
|  | int x = 0; |
|  | int y = radius; |
|  | int d = 3 - 2 \* radius; |
|  | plot\_point(x0, y0 + radius); |
|  | plot\_point(x0, y0 - radius); |
|  | plot\_point(x0 + radius, y0); |
|  | plot\_point(x0 - radius, y0); |
|  |  |
|  | while (x <= y) { |
|  | if (d < 0) { |
|  | d = d + 4 \* x + 6; |
|  | } else { |
|  | d = d + 4 \* (x - y) + 10; |
|  | y--; |
|  | } |
|  | x++; |
|  | plot\_point(x0 + x, y0 + y); |
|  | plot\_point(x0 - x, y0 + y); |
|  | plot\_point(x0 + x, y0 - y); |
|  | plot\_point(x0 - x, y0 - y); |
|  | plot\_point(x0 + y, y0 + x); |
|  | plot\_point(x0 - y, y0 + x); |
|  | plot\_point(x0 + y, y0 - x); |
|  | plot\_point(x0 - y, y0 - x); |
|  | } |
|  | } |
|  |  |
|  | void display(){ |
|  | glClear(GL\_COLOR\_BUFFER\_BIT); |
|  | glColor3f(one,one,one); |
|  | for(int i=0;i<300;i++){ |
|  | if(i%25==0){ |
|  | bresenhamcircle(300,300,i); |
|  | } |
|  | } |
|  | glFlush(); |
|  | } |
|  |  |
|  | void init(){ |
|  | glClearColor(zero,zero,zero,zero); |
|  | gluOrtho2D(0,700,0,700); |
|  | } |
|  |  |
|  | int main(int argc,char \*\*argv){ |
|  | glutInit(&argc,argv); |
|  | glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB); |
|  | glutInitWindowSize(700,700); |
|  | glutInitWindowPosition(50,50); |
|  | glutCreateWindow("whatever the fk exist\n"); |
|  | init(); |
|  | glutDisplayFunc(display); |
|  | glutMainLoop(); |
|  | return 0; |
|  | } |