

```
1: // $Id: triangle.cpp,v 1.9 2014-05-08 19:42:13-07 - - $
2:
3: #include <GL/freeglut.h>
4: #include <libgen.h>
5:
6: bool flipflop = true;
7:
8: void draw_rgb_triangle() {
9:     glBegin(GL_TRIANGLES);
10:    glColor3ub (0xFF, 0x00, 0x00);
11:    glVertex2f (0, 1);
12:    glColor3ub (0x00, 0xFF, 0x00);
13:    glVertex2f (-1, -1);
14:    glColor3ub (0x00, 0x00, 0xFF);
15:    glVertex2f (1, -1);
16:    glEnd();
17: }
18:
19: void draw_cmy_triangle() {
20:    glBegin(GL_TRIANGLES);
21:    glColor3ub (0x00, 0xFF, 0xFF);
22:    glVertex2f (0, -1);
23:    glColor3ub (0xFF, 0x00, 0xFF);
24:    glVertex2f (-1, 1);
25:    glColor3ub (0xFF, 0xFF, 0x00);
26:    glVertex2f (1, 1);
27:    glEnd();
28: }
29:
30: void display() {
31:    glClearColor (0.2, 0.2, 0.2, 0.0);
32:    glClear (GL_COLOR_BUFFER_BIT);
33:    if (flipflop) draw_rgb_triangle();
34:    else draw_cmy_triangle();
35:    glFlush();
36: }
37:
38: void mouse (int, int state, int, int) {
39:    if (state == GLUT_DOWN) flipflop = not flipflop;
40:    glutPostRedisplay();
41: }
42:
43: int main (int argc, char** argv) {
44:    glutInit (&argc, argv);
45:    glutInitWindowSize (640, 480);
46:    glutCreateWindow (basename (argv[0]));
47:    glutDisplayFunc (display);
48:    glutMouseFunc (mouse);
49:    glutMainLoop();
50:    return 0;
51: }
```

[illegible]