```cpp
 1: // $Id: teapot.cpp,v 1.2 2019-02-22 15:37:19-08 - - $
 2:
 3: #include <iostream>
 4: using namespace std;
 5:
 6: #include <GL/freeglut.h>
 7: #include <libgen.h>
 8:
 9: bool wantsolid = true;
10:
11: void display() {
12:
13:     /* clear window */
14:     glClear (GL_COLOR_BUFFER_BIT);
15:
16:     /* draw scene */
17:     if (wantsolid) glutSolidTeapot (.5);
18:             else glutWireTeapot (.5);
19:
20:     /* flush drawing routines to the window */
21:     glFlush();
22:
23: }
24:
25: void mouse (int button, int state, int x, int y) {
26:     if (state == GLUT_DOWN) wantsolid = not wantsolid;
27:     cout << boolalpha;
28:     cout << "button=" << button << ", state=" << state
29:         << ", x=" << x << ", y=" << y
30:         << ", wantsolid=" << wantsolid << endl;
31:     glutPostRedisplay();
32: }
33:
34: int main (int argc, char** argv) {
35:
36:     // Initialize GLUT, using any commandline parameters passed.
37:     glutInit (&argc, argv);
38:
39:     // Setup the size, position, and display mode for new windows.
40:     glutInitWindowSize (500, 500);
41:     glutInitWindowPosition (0, 0);
42:     glutInitDisplayMode (GLUT_RGB);
43:
44:     // Create and set up a window.
45:     glutCreateWindow (basename (argv[0]));
46:     glutDisplayFunc (display);
47:     glutMouseFunc (mouse);
48:
49:     // Tell GLUT to wait for events.
50:     glutMainLoop();
51: }
52:
53: //TEST// mkpspdf teapot.ps teapot.cpp*
54:
```

```
     1: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: starting teapot.cpp
     2: checksource teapot.cpp
     3: ident teapot.cpp
     4: teapot.cpp:
     5:       $Id: teapot.cpp,v 1.2 2019-02-22 15:37:19-08 - - $
     6: cpplint.py.perl teapot.cpp
     7: Done processing teapot.cpp
     8: g++ -g -O0 -Wall -Wextra -Wpedantic -Wshadow -fdiagnostics-color=never -
std=gnu++17 -Wold-style-cast teapot.cpp -o teapot -lm -lglut -lGLU -lGL -lX11 -
ldrm -lm
     9: rm -f teapot.o
    10: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@ mkc: finished teapot.cpp
```