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#### Thread: Drawing a cube

```
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                                                                                                                                               #1
   04-26-2004, 10:12 AM
Silver o
                                        Drawing a cube
Junior Member
                                        Hi!
Newbie
Join Date:
             Apr 2004
Posts:
              9
                                        When i want to draw a cube why is this code correct
                                             Code:
                                                         glBegin(GL_QUADS);
                                                         // top
                                                         glColor3f(1.0f, 0.0f, 0.0f);
glNormal3f(0.0f, 1.0f, 0.0f);
                                                         glVertex3f(-0.5f, 0.5f, 0.5f);
                                                         glVertex3f(0.5f, 0.5f, 0.5f);
glVertex3f(0.5f, 0.5f, -0.5f);
                                                         glVertex3f(-0.5f, 0.5f, -0.5f);
                                                         glEnd();
                                                         glBegin(GL_QUADS);
                                                         // front
                                                         glColor3f(0.0f, 1.0f, 0.0f);
                                                         glNormal3f(0.0f, 0.0f, 1.0f);
glVertex3f(0.5f, -0.5f, 0.5f);
                                                        glVertex3f(0.5f, 0.5f, 0.5f);
glVertex3f(-0.5f, 0.5f, 0.5f);
glVertex3f(-0.5f, -0.5f, 0.5f);
                                                         glEnd();
                                        and this for e.g. not
                                             Code:
```

```
glBegin(GL_QUADS);
    // top
    glColor3f(1.0f, 0.0f, 0.0f);
    glNormal3f(0.0f, 1.0f, 0.0f);
    glVertex3f(-0.5f, 0.5f, 0.5f);
    glVertex3f(0.5f, 0.5f, 0.5f);
    glVertex3f(0.5f, 0.5f, -0.5f);
    glVertex3f(-0.5f, 0.5f, -0.5f);
    glEnd();

    glBegin(GL_QUADS);
    // front
    glColor3f(0.0f, 1.0f, 0.0f);
    glNormal3f(0.0f, 0.0f, 1.0f);
    glVertex3f(-0.5f, -0.5f, 0.5f);
    glVertex3f(0.5f, -0.5f, 0.5f);
    glVertex3f(0.5f, 0.5f, 0.5f);
    glVertex3f(-0.5f, 0.5f, 0.5f);
    glEnd();
```

glFrontFace(GL\_CCW) and glEnable(GL\_CULL\_FACE) are set! I don't unterstand why the second example has mistakes, because there are also all Quads counterclockwise drawn! Please help me! I don't understand why example 1 works and example 2 not!!!

Thanks in advange! Mat!!!

04-26-2004, 11:56 AM

## Re: Drawing a cube

q3inu °

Junior Member Newbie

Join Date: Dec 2003 Location: "Austria Posts: 4 As I don't want to go trough so many vertex coordinates: What exactly is the error that the code produces?

04-26-2004, 12:22 PM

## Re: Drawing a cube

Newbie Join Date: Apr 2004

Posts: 9

Silver o

Junior Member

When i am rotating the cube about the x, y and z-axis some quads aren't drawn, and some quads are overlapped together!



04-26-2004, 01:50 PM

#3

#4

#### ZbuffeR o

Super Moderator OpenGL Lord

Join Date: Dec 2003 Location: Grenoble - France

Posts: 5,58

#### Re: Drawing a cube

Not directly related, but you can do that with better performance : Code :

```
glBegin(GL_QUADS);
// top
glColor3f(1.0f, 0.0f, 0.0f);
glNormal3f(0.0f, 1.0f, 0.0f);
glVertex3f(-0.5f, 0.5f, 0.5f);
glVertex3f(0.5f, 0.5f, 0.5f);
glVertex3f(0.5f, 0.5f, -0.5f);
glVertex3f(-0.5f, 0.5f, -0.5f);
// front
glColor3f(0.0f, 1.0f, 0.0f);
glNormal3f(0.0f, 0.0f, 1.0f);
glVertex3f(0.5f, -0.5f, 0.5f);
glVertex3f(0.5f, 0.5f, 0.5f);
glVertex3f(-0.5f, 0.5f, 0.5f);
glVertex3f(-0.5f, -0.5f, 0.5f);
// right
glColor3f(0.0f, 0.0f, 1.0f);
glNormal3f(1.0f, 0.0f, 0.0f);
glVertex3f(0.5f, 0.5f, -0.5f);
411/00+073E/U EE
                  U Et
```

Maybe plot the coordinates on a paper ? It is late here and coordinates are hard to read...

#5 04-27-2004, 03:21 AM q3inu o

Junior Member Newbie

loin Date: Dec 2003 Location: "Austria Posts:

### Re: Drawing a cube

Do you use the z-buffer? I once encountered a problem similiar to yours when using the Z-buffer incorrectly.

04-27-2004, 10:10 AM

#### BeginOpenGL o

Junior Member Newbie

loin Date: Apr 2004 Posts: 15

#### Re: Drawing a cube

Silver

Don't know if you have depth testing set?.

glEnable(GL\_DEPTH\_TEST);

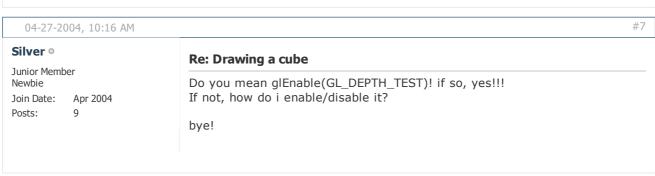
Also, have you set up Frustrum or Perspective and set it to the projection matrix? To use the code below, declare the following variable where all the other variables are declared in the drawing section; int initGIProjection = 0;

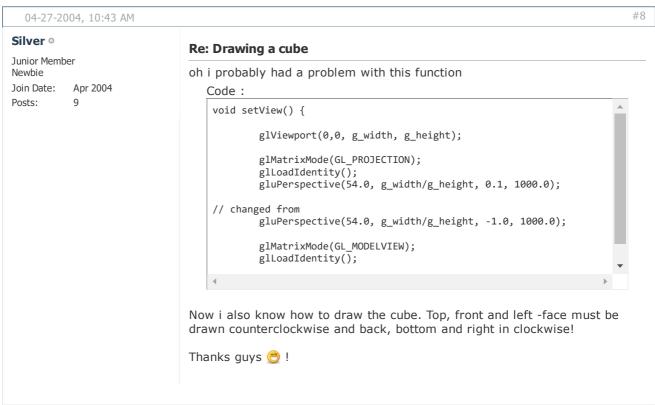
Then, use something like this:

```
if (initGlProjection == 0)
glEnable(GL_DEPTH_TEST);
/*Put the projection in the projection Matrix*/
glMatrixMode (GL_PROJECTION);
glLoadIdentity ();
glFrustum (-0.1333, 0.1333, -0.1, 0.1, 0.5, 25.0);
/* Get back into modelview matrix to draw objects*/
glMatrixMode (GL_MODELVIEW);*/
/*Don't execute section again*/
initGlProjection = 1;
```

For a simple example like drawing a cube, the above will work. I've done it like that. Instead of frustrum, you can use the perspective projection. Just an idea...I'm just starting out too.

BeginOpenGL





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