CMSI 370
INTERACTION DESIGN
Fall 2007

Assignment 1206

Sorry to pile on this one more task, but I think we need to get over this hump so that we don't have to deal with it anymore next semester. Should be fairly simple though: type, tweak, run, and commit. 1 hour tops.

For Submission

Get your hands dirty with OpenGL — take the *spinningsquare.cpp* program and make the following changes to it:

1. Change the object being drawn. Go on, be creative, knock yourself out.

2. Change the way spinning is toggled: instead of a mouse click, use the keyboard. Hint: you'll need to use *glutKeyboardFunc()* instead of *glutMouseFunc()*, and the function you pass should have signature *void func(unsigned char key, int x, int y)*.

3. Change the title, initial size, and initial location of the window.

Commit this, your OpenGL program, under */homework/cmsi370/spinningshape*.

Extra Credit

Just in case you're a little inspired (and to give you one more opportunity to pad your homework grade), a little advanced reading in OpenGL will allow you to make the following additional changes to the program. Do them *all* to get extra credit:

1. Change the axis of the object's rotation (the sample version rotates around the z axis).

2. Implement the following keyboard controls (and their corresponding functions):

   a. + and − increase and decrease the rate of rotation, respectively.

   b. [and] decrease and increase the frame rate of the animation.

   c. The *C* key changes the object's color (or color scheme, in case you figured out how to draw objects with multiple colors).

   d. The *S* key changes the object being drawn (i.e., rotate among 2 or more different objects as the user hits the *S* key).

Just include these features in */homework/cmsi370/spinningshape*; I'll look for them when I go through your code.