CMSI 371

COMPUTER GRAPHICS

Spring 2007

Assignment 0125

With your repositories set up, it's time to get your hands dirty (and your feet wet!) with OpenGL.

Not for Submission

1. Get OpenGL and C/C++ installed and working on whatever system you plan to use. Type in any or all of the sample code given out in class just to get the hang of entering code, building it, then running it.
2. Visit Nate Robins's OpenGL tutorial site (linked from the course Web site) and download his tutorial source code. Build it and run it, as another exercise toward building OpenGL programs and getting some good hands-on training on the API.

   Don't cheat by downloading the pre-built versions — make yourself build it from source.

For Submission

What to Do

Write a "spinning shape" program similar to the *spinningsquare* and *icosahedron* samples, with the following differences:

- Use *glutKeyboardFunc()* to allow the user to choose among **five** (5) different shapes by typing keys "1" to "5."
- Use *glutSpecialFunc()* to allow the user to modify the rotation rate by hitting the left and right arrow keys.
- Maintain the ability to start/stop spinning the displayed shape with a mouse click.

Be creative with your shape choices; use this assignment to explore the different drawing possibilities facilitated by the OpenGL API.

How to Turn it In

1. Commit your program to CVS, under */homework/cmsi371/fiveshapes*.
2. Tag the submission as *hw-0125*.

Extra Credit

You will get extra credit if your *fiveshapes* program includes *both* of these enhancements:

- Genuine 3D shapes *that do not use* the GLUT convenience functions.
- Lighting and shading — these do not need to be interactive; just "turn the lights on."