CMSI 371-01

COMPUTER GRAPHICS

Spring 2013

Assignment 0326 Feedback

For this assignment, outcomes *2a*, *2b*, *3d*, and *3e* max out at **|** because the requested functionality in this assignment do not yet reach the culmination of what these outcomes represent overall.

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2a — You've taken a few more concrete steps toward full 3D transform proficiency—now on to using these functions in your scene! (**|**)

2b — The mechanics of your ortho and frustum functions were mostly there, but for a small typo in the ortho matrix. You now need to finish your unit tests on these. Meanwhile, I saw that you tried to set up a projection matrix in your scene code. There were a few glitches there, which I have fixed (I did not include these glitches in the assessment of this proficiency—the drags here were solely your typo and unfinished unit tests). (**/**)

3d — Your matrix library is certainly moving in the right direction. Actual "field testing" in your 3D scene code is up next. (**|**)

3e — Your matrices represent additional progress toward 3D scene rendering, but as mentioned will not top out this outcome yet because we haven't covered the full range of shader functionality yet. (**|**)

4a — The code would have worked "out of the box" had it not been for a bunch of avoidable typos. Be more careful next time with things like function and variable names or capitalization. There are some inline comments here and there to mark the issues that I spotted. Outside of that, the technical correctness of your code was mostly quite solid. (**|**)

4b — Your separation of concerns is largely good. The one at-risk section that I found is in your unfinished "transform-in-place" functions. Read the inline note I have there to ensure that your eventual implementation does not have unnecessary code repetition. (**|**)

4c — Your matrix code is quite readable, but in some parts requires quite a wide window! I would say that, for such code, line-break a little more aggressively. I know that you were hoping to preserve the 4×4 matrix formatting, but for the ones with really long expressions, requiring such a wide line overrides the fidelity to strict 4×4. (**|**)

4d — Your work shows fine resource use, including leveraging the projection matrices that are already in the handouts (just make sure to transcribe them correctly!). (**+**)

4e — Your commit phasing and messages show a decent pace, particularly with the separation of some work into distinct groups of functions. Make sure to establish this as a work habit: write the test; write the implementation; commit when the test succeeds. That gives your commit log a very logical, trackable evolutionary trajectory. (**+**)

4f — Mostly submitted on time; projection matrices came a little later, and tests for those are still unfinished even in the latest commit. (**|**)

Updated feedback based on commits up to 2013-04-07; only reevaluated outcomes are included:

2b — Your projection functions and their unit tests look complete and correct now (just in time for the next assignment!). (**|**)

4a — Code looks cleaner with no more committed typos. (**+**)

4b — Duplicated code has been eliminated; transform matrices are now much cleaner. (**+**)

4c — A little more format cleanup can be done. Especially those projection matrices! (**|**)