CMSI 371-01
COMPUTER GRAPHICS
Spring 2012

Assignment 0410 Feedback

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Prior note: Catch-up on prior work, esp. Assignment 0315, was noted—some tweaks and comments were committed, and will re-evaluate more fully when all tasks are done (particularly the sphere implementation plus use of your translate and scale transformations). **Update:** Work completed on 4/11/2014 with re-evaluation performed on 4/19/2014.

Final feedback based on commits up to 4/11/2014:

2b — Your additional shapes, final scene, and interaction code generally fit into appropriate places within the overall graphics pipeline, but the vector library remains unused due to missing pieces in your matrix library. But it is really the utilization of this code that would have spoken for your understanding of the overall system, because that was the only portion that was not derived from the sample code. (**/**)

2c — Your interaction code interacts appropriately with the computer graphics pipeline, but a lot of that was bootstrapped by me, and the limited interaction also limits the demonstration of your own understanding here. The other major expected addition to the pipeline, which is the use of a camera matrix, is left undone. Thus, this proficiency really can't be justified to be any higher than a **/**. (**/**)

2d — As mentioned in *2c*, no further matrix work was done after HW 0315: no camera, no further transformations. Particularly glaring is how, in your interaction code, you resort to low-level addition of the x coordinate to "transform" your added objects, when you would have gotten much more flexibility if you found a way to use matrices for that. (**–**)

2e — You successfully use orthographic projection in your scene, thus giving it a basic "building block" look, and unfortunately this is as far as your code will let you go: because you don't take full advantage of the modelview matrix nor have a camera matrix implementation, it's impractical to use frustum projection. It is true that what you have is "as good as it gets," but the reasons for that are due to missing work and not a higher difficulty level. (**/**)

3c — The vector library is taken from the sample code but left unused due to the lack of a camera matrix implementation (addressed in *3d*). This, plus the overall scattered structure and underutilization of your matrix functions, necessarily limits the proficiency with this outcome. (**/**)

3d — The camera is the major gap for this outcome, and with it the lost opportunity to use the frustum projection. Already mentioned are the lost opportunities for using your matrix functions. Again, these all severely limit your proficiency. (**/**)

3e — Your shader development remains stunted here due to the lack of new matrix functionality. (**–**)

4a — The major additions to your functionality in this assignment are your shapes and scene plus the interactivity. These are generally functional but suboptimal in design (e.g., underutilization of matrices; very limited interaction; missing cylinder and sphere). And as already mentioned, no camera was implemented. (**/**)

4b — You have some comments in the new code, but not much. Fortunately, not much was needed either, so that makes this sort of a wash. (**|**)

4c — Your additional shape implementations show some uncharacteristically incorrect indentation choices, and thus are the spoilers for this outcome. (**/**)

4d — The full potential of some big resources like the pre-written vector library was not reached in this assignment. (**/**)

4e — Commit frequency and messages appear to be commensurate for the work done. (**+**)

4f — Not submitted on time. (**–**)