

**CMSI 371-01**  
**COMPUTER GRAPHICS**  
Spring 2013

## Assignment 0404 Feedback

The “cuffs” are off outcomes *2a*, *2b*, and *3d* with this assignment, so I have started giving +’s for those outcomes if the submitted work calls for it. *1c* and *3a* await full scene interaction before they can max out. *2c* (not evaluated here) and *3e* need proficiency in lighting and fragment shaders in order to go +.

### Andrew Kowalczyk

*1c* — Your instance transform functionality has given you a new level of flexibility in composing and arranging objects in your scene. (+)

*2a* — Instance transforms === full transform application proficiency. (+)

*2b* — Both your projections work great (you should try the frustum one—looks good on those spheres, especially with the instance transform allowing for different distances from the viewer). (+)

*3a* — Not a lot of progress here yet in terms of actual animation, but the successful instance transformation implementation certainly makes for a good foundation for it. (|)

*3d* — Your library is pretty much complete, with the exception of unit tests for your more recent additions. They do look right though. Unit tests and actual usage will seal the deal. (|)

*3e* — You have successfully extended your vertex shader to use instance transforms. Keep it going and you will cruise nicely to a + when all is said and done. (|)

*4a* — Everything looks correct and functional. Some gaps—you’ve implemented those powerful `getLookAtMatrix` and `getTransformMatrix` functions but have not provided any unit tests for it. You should. (I had an excuse—I was doing it in class, haha) (|)

*4b* — Your code looks clean and properly structured. (+)

*4c* — Your code is generally readable and easy to understand. Your primary pitfall is the occasional overly long line. I stuck one suggestion in your code for how to break such beasts up. (|)

*4d* — Your work certainly shows good information and resource use. (+)

*4e* — Your commit frequency and messages provide an excellent record of how your code has evolved. (+)

*4f* — Instance transforms were done within a few days of the due date. (|)