

159.360 Programming for Computer Graphics

Assignment 1

Overview

If you load `globe.html` then you will hopefully see pictures of the earth and moon sitting next to each other and rotating.

I've stolen a few things from later in the course to make the assignment look a bit more interesting, by pasting textures of the earth and moon onto a couple of spheres. It's basically a load of boilerplate code to paste textures on things. The code for it is in `initTextures()` and `bindTextures()`, and can safely be ignored. The texture images come from <http://maps.jpl.nasa.gov>.

The code uses a proper maths library, which is `glMatrix--0.9.5.min.js` - functionality provided is similar to that of `MV.js`, but it has an object-oriented style.

Your Tasks

Most of the work will be in `drawScene()`.

1. In addition to having the earth rotate around itself, make it orbit around an imaginary sun at the origin (where the camera is located). It should be leaving and re-entering the field of view.
2. Make the moon rotate around the earth, in addition to rotating around itself.
3. Add a button to enable the user to change the view from the centre point at the origin to an external view so that you can see all of the action.

Submit your modified files (`globe.html` and `globe.js`) via Stream. Please comment your code.