CSI 4130 Winter 2017

Computer Science University of Ottawa

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Assignment 4

Purpose

The goal of this assignment was to make use of a number of methods learned in class, namely animation, lighting and texturing. Unfortunately, there was not enough time to finish the texturing, but it is hoped that this can be easily done.

Brief description

The object seen in the screenshot is a Möbius strip, a non-orientable 2D surface. When animated, the green sphere rotates around the figure. There is a diffuse white light in the upper right corner of the viewing volume. The surface was created by scratch, as well as the calculation of the normals, the calculation of the lighting, and the path of the sphere (although the sphere is using a one-line call to a GLUT method). There is a screenshot in `description/screenshot.png`.

Issues

The zebra texture of the Möbius strip is actually unintentional and is due to some problems with calculating the normals. Commenting out the code for the normals buffer seems to restore the proper lighting, although it is not clear why exactly at the moment.

Due to time constraints, texturing is not complete. If texturing the strip does not take long, it will be done.