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CS557 - Computer Graphics Shaders

Project #1: Step- and Blended-edged Elliptical Dots

Description:

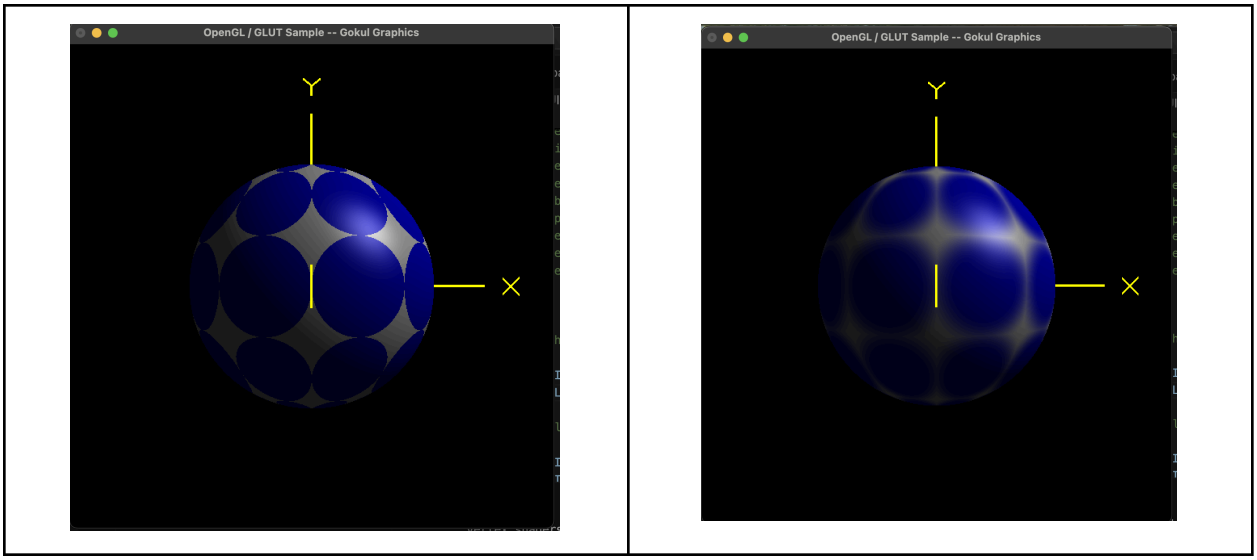
This project employed keyframe animation to dynamically adjust the values of Ad, Bd, and Tol. At any given time, only one of these parameters is modified using keyframes, controlled by the global variable "toggle".

- **toggle = 0:** Animates Ad.
- **toggle = 1:** Animates Bd.
- **toggle = 2:** Animates Tol.
- **toggle = 3:** Disables animation, rendering the graphic statically with default values for Ad, Bd, and Tol.

All the following project requirements have been fulfilled:

- **Hard-edged elliptical dots:** Successfully rendered in the static view (toggle = 3).
- **Smooth-edged elliptical dots:** Achieved by animating uTol from 0 to 1 (toggle = 2).
- **Correct elongation:** Implemented by animating both Ad and Bd using keyframes (toggle = 0 and toggle = 1). Default values for Ad and Bd are applied in the static view.
- **Correct per-fragment lighting:** Integrated and visually verified through shader scripts (screenshots/video provided).

Screenshot:



Video Link: https://media.oregonstate.edu/media/t/1_ats7qdfl