

CSCI 2408, Computer Graphics

Assignment 2 (22.06.2019)

This assignment contains a single task, giving you 100 percent of the total. Submit your complete project, and also put a screenshot (or several of them) showing how the program executes on your machine. Also make sure, that your code is neat, clean and thoroughly commented. Try to use meaningful variable names. All your deliverables should be packed into a single ZIP archive, with its name being a combination of your name and assignment number. Example: **FaridAhmadov_HW2.zip**.

Deadline: 27.06.2019

Virtual Trackball

In this task you are required to add more interaction to the user interface by means of both keyboard and mouse. Your application should display an object, which should be possible to manipulate using mouse actions. Keyboard interactions include switching between types of objects to display, switching between projections and scaling the object. Mouse interaction should simulate a virtual trackball, using which you will be able to view the object from different angles by rotating it.

Keys to use are:

- 'C' : switches the object to a **cube**;
- 'S' : switches the object to a **sphere**;
- 'P' : switches the object to a **pyramid**;
- 'O' : switches the projection to **parallel** (use);
- 'F' : switches the projection to **perspective** (use or).
- '-' : scales the object down to a smaller size;
- '+' : scales the object up to a larger size;

Moving the mouse while holding its left button, should rotate the 3D object accordingly on the screen.

Feel free to contact the instructor for any questions you may have: frahmadv@ada.edu.az.