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Project: Final Project: 3d Rendering

Abstract:

How to use: The following list contains directions on the function of all input involved with this 3d rendering program.

- **Object Color RGB input:** Gives the user the ability to change the current object's color.
- **Ambient Light Color slider:** Gives the user the ability to change the ambient light intensity.
- **Diffuse Light Color RGB input:** Gives the user the ability to change the diffuse light color.
- **Specular Light Color RGB input:** Gives the user the ability to change the specular light color.
- **Ambient Material Color RGB input:** Gives the user the ability to change the ambient material color.
- **Diffuse Material Color RGB input:** Gives the user the ability to change the diffuse material color.
- **Specular Material Color RGB input:** Gives the user the ability to change the specular material color.
- **Material Shininess slider:** Gives the user the ability to change the shininess of the material.
- **Light Position sliders(x,y,z):** Changes the position at which light is pointed onto the object.
- **Eye Position sliders(x,y,z):** Changes the position in which the camera is located.
- **At Direction sliders(x,y,z):** Changes the position in which the camera is pointing.
- **Up Direction sliders(x,y,z):** changes the tilt of the camera.
- **Projection Bounds sliders(Left, Right, Top, Bottom):** Changes the viewing window. This will stretch the shape to the bounds of the window.
- **Shading Selection Dropdown(Wireframe, gouraud, phong):** Allows user to select the type of shading for their shape.
- **Transformation Selection Dropdown:**
 - Once a transformation is selected, the user can use the mouse, with trackball movement, to transform the shape.
- **Shape Selection Dropdown(Teapot, sphere):** Allows user to select a different shape
 - Other metrics are saved when shapes are changed
- **Help button:** This button displays this pdf file.