Computer Graphics HW2 Report Lighting

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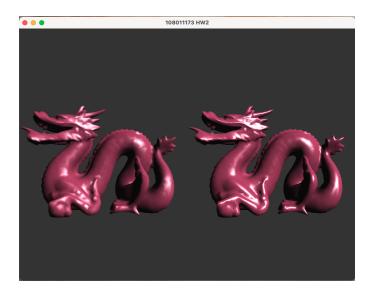
Control Instructions

- 1. **Z** / **X** : switch to the previous or the next image
 - Description :

Press " X " to the next image and " Z " to the previous one.

Screenshot:



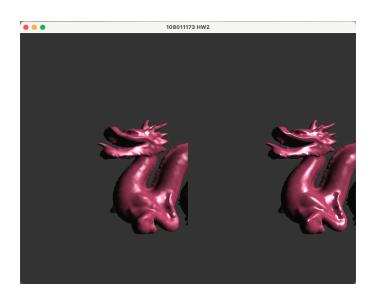


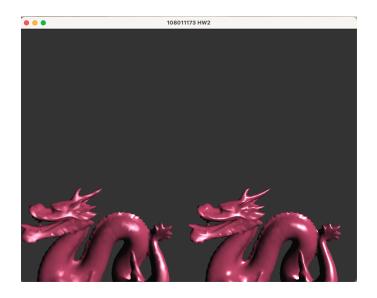
2. T: switch to translation mode

• Description :

Press "T" to switch to translation mode.

- Press the left bottom of the mouse and drag it, and we can do the translation along x & y axis respectively.
- Scroll the mouse wheel, and we can do the translation along the z-axis.
- Screenshot:







3. S: switch to scale mode

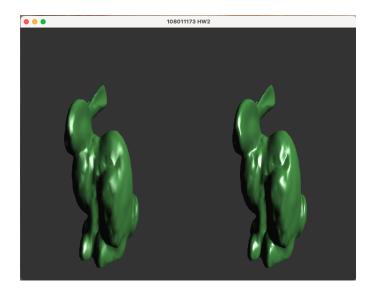
• Description :

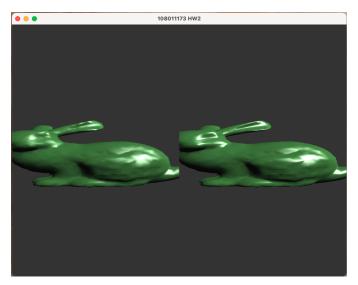
Press "S" to switch to scale mode

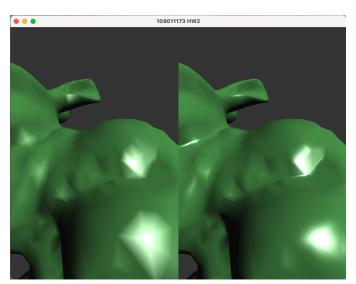
 \circ Press the left bottom of the mouse and drag it, and we can do the scaling along the x & y axis respectively.

(For x: left drag \rightarrow Shrink along x; For y: down drag \rightarrow Shrink along y)

- Scroll the mouse wheel, and we can do the scaling along the z-axis.
- Screenshot:







4. **R**: switch to rotation mode

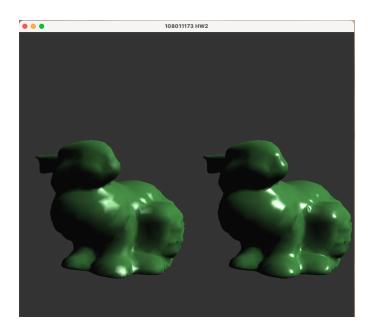
• Description :

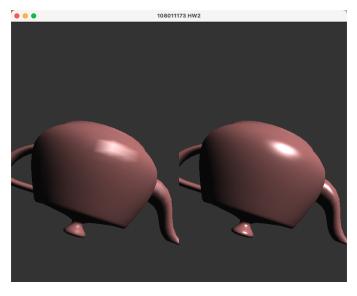
Press "R" to switch to rotation mode

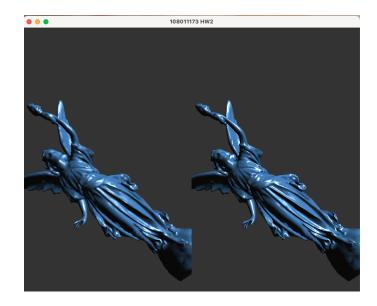
• Press the left bottom of the mouse and drag it, and we can do the rotation along the x & y axis respectively.

(For x: left drag \rightarrow Rotate along x; For y: down drag \rightarrow Rotate along y)

- Scroll the mouse wheel, and we can do the rotation along the z-axis.
- Screenshot:





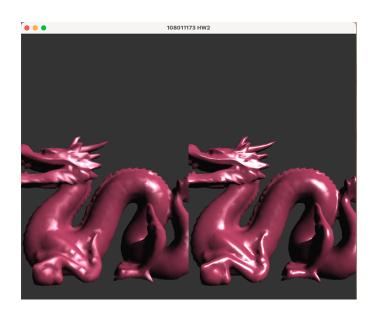


- 5. $\ensuremath{\textbf{L}}$: switch between directional light, point light, and spotlight
 - Description :

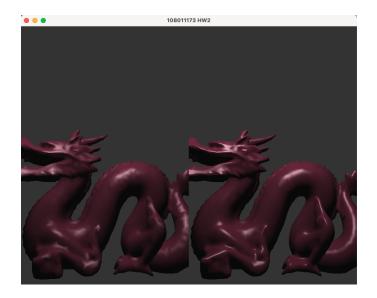
Press "L" to switch between different light sources

• Screenshots:

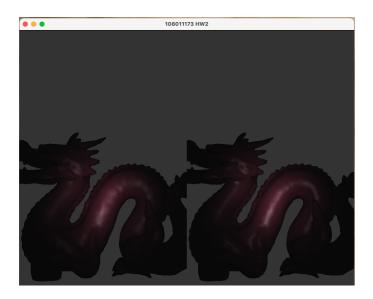
Directional light



Point light



Spotlight



6. **K**: switch to light editing mode

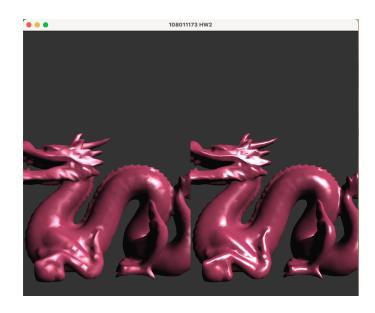
• Description:

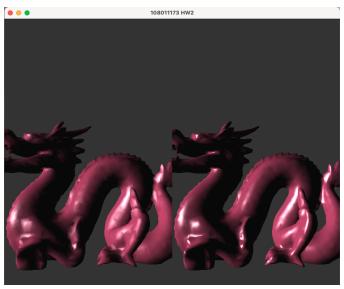
Press "K" to do the light editing, and press the left bottom of the mouse and drag it, we can change the position of the light sources.

 For directional & point light: Scroll the mouse wheel, and we can change the brightness of the light sources respectively. • For spotlight: Scroll the mouse wheel, and we can change the range to be illuminated of the object.

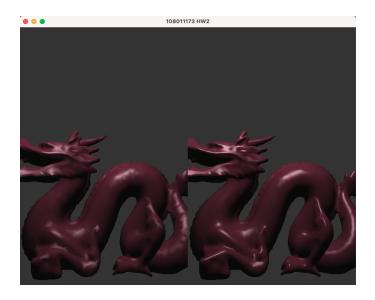
• Screenshots:

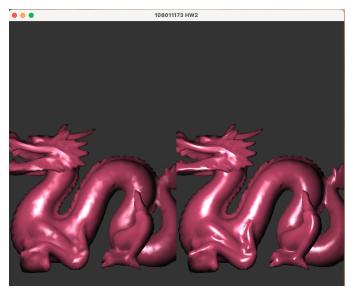
Directional light



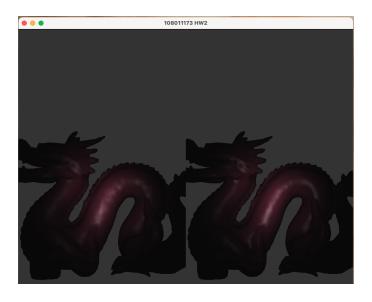


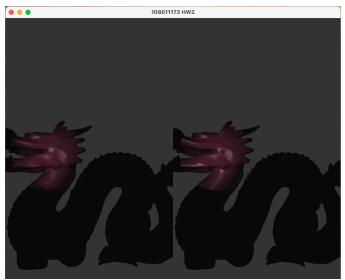
Point light





Spotlight





7. **J**: switch to shininess editing mode

• Description :

After pressing "J" button, we can do the shininess editing by scrolling the wheel of the mouse.

• Screenshot:

