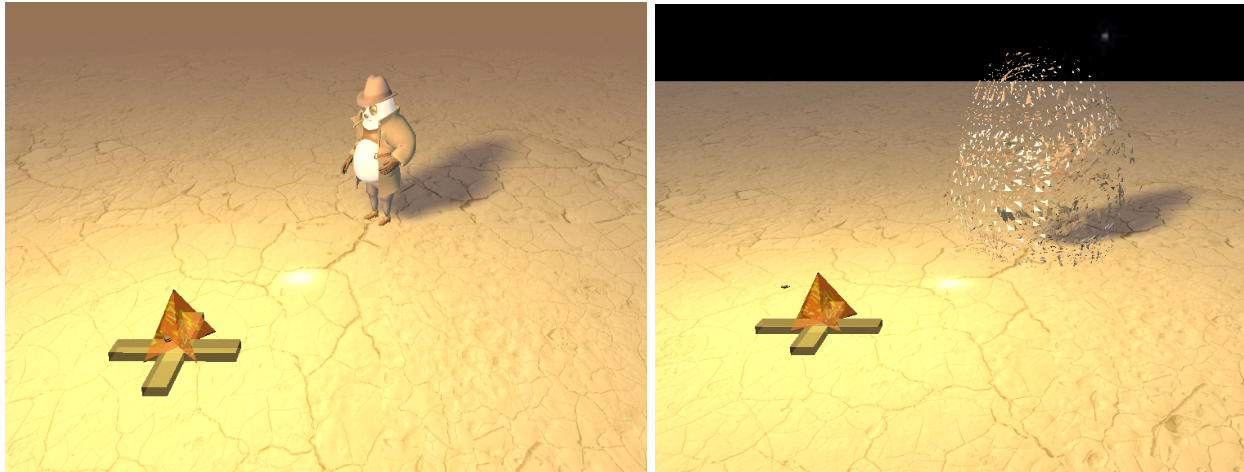


Graphics and Shaders Lab 4 Report

Paul Arnett, assignment 4, CSc-155-01, Spring 2025

1.



2. This is a scene of a detective panda in the desert standing by his campfire. Sadly in his last investigation he ended up accidentally swallowing a bomb and may explode at any second!
3. a list of which objects participate in shadow-mapping
 - a. The panda
 - b. The ground
 - c. The moth circling the campfire
4. a list of the four features you chose to implement, clearly describing how to recognize them.
 - a. Fog (can be toggled) and blending of the campfire to make it appear partly transparent.
 - b. Primitive modification using a geometry shader. The panda will “explode” when the 4 key is pressed.
5. a list of user controls (such as for moving the camera or light(s))

Camera:

WASD - moves camera forward/backward/left/right

UP/Down/Left/Right - turns camera (yaw and pitch)

Q/E - Moves camera up and down

Light (campfire):

SPACE - turns on/off light mode

WASD - (In light mode) moves light along X and Z axis

Other Controls:

- 1- toggle axis lines
- 2 - turns light on and off
- 3 - toggle fog (so you can see the skybox)
- 4 - toggle explosion of the bomb that the panda swallowed

6. a list of which requirements you were NOT able to get fully working

Was not able to get 4 advanced features implemented. (Currently only the two above are working)

7. a list of any features you implemented that went beyond the assignment requirements

When you move the campfire, it cannot get within a certain distance of the panda...Don't want him to catch on fire!

8. a list of assets you used (i.e., models, textures, normal maps, height maps, etc.), with citation and permission/licensing information about those sources

Panda.obj & pandatx.jpg -

<https://www.fab.com/listings/99b300f0-cc5d-4b34-9382-216078a73843>

Terms: <https://creativecommons.org/licenses/by/4.0/>

Ground.jpg - https://texturelabs.org/textures/soil_145/

Terms: <https://texturelabs.org/terms/>

Night_Sky.png - https://texturelabs.org/textures/sky_170/

Terms: <https://texturelabs.org/terms/>

Fly.obj & Fly.jpg - created using paint and blender

9. indicate on which RVR-5029 machine you tested your program
- ECS-XCOM and it worked