Cloud Simulation

My idea of how a cloud simulation would be implemented would be similar to point sprite maps. Similar to the point sprites of snowflakes from class, texture would be a fogged blur to represent each puff of cloud. A cloud sprite could look like something in **Figure** 1. This texture would be multiplied to form a collection of clouds. In order to make them move, possibly using Perlin noise and noise displacement to morph the texture. Using sin functions would allow the cloud to grow and shrink small again. The effect would be almost like “fog” in **Figure 3**.

Figure 1:

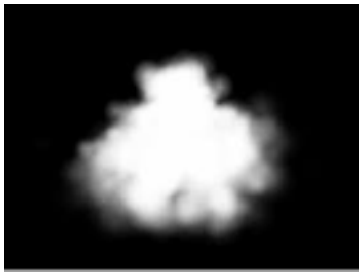
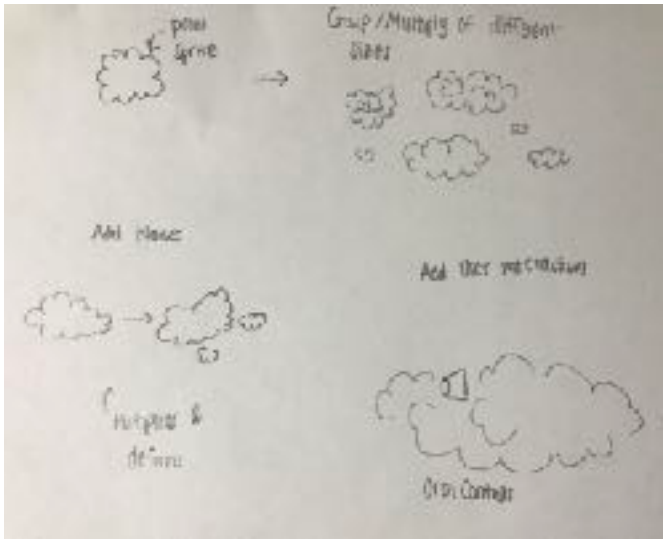


Figure 2:



Here is how we can possibly create a cloud simulation. We would first load a cloud texture as a point sprite. We would then vary these sprites to be different sizes as different collection of clouds of different sizes. Some could be grouped together or left alone. Not sure how to implement the “shadows” of the clouds but possibly the more layered clouds, they more “white”, and the less layered, the more transparent and they background sky would peak through. In order to simulate the scene, we would add noise so that the texture would morph in and out using sine and cosine functions. It would also be cool to use orbit controls so that the use can navigate through the cloud scene.

Figure 3