

EE/CprE/SE 492 WEEKLY REPORT 9

2/2 – 3/1

Group number: 19

Project title: Take a Virtual Hike

Client &/Advisor: Mat Wymore

Team Members/Role: Trevor Nemes (Team Leader), Tyler Hassfield, Opeyemi Abass, Aashu Mallik, Akhilesh Ratnakumar, & Zian Li

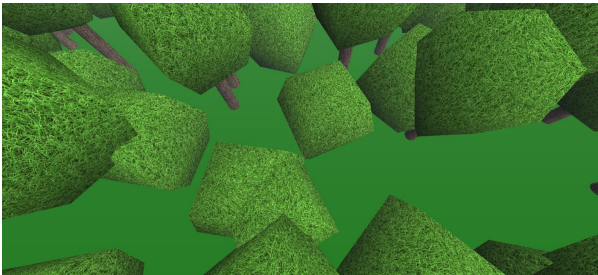
THIS REPORT IS ONLY OVER A ONE WEEK PERIOD

One Week Summary

In the past week, we have all been working on our designated coding parts of our project, and have made a lot of progress in each of our parts. This includes basic first-person movement of walking and flying mode, water textures, tree generation, bushes generation, and perlin noise generation. We are a lot closer to being able to bring all of our parts together into one project.

Past week accomplishments

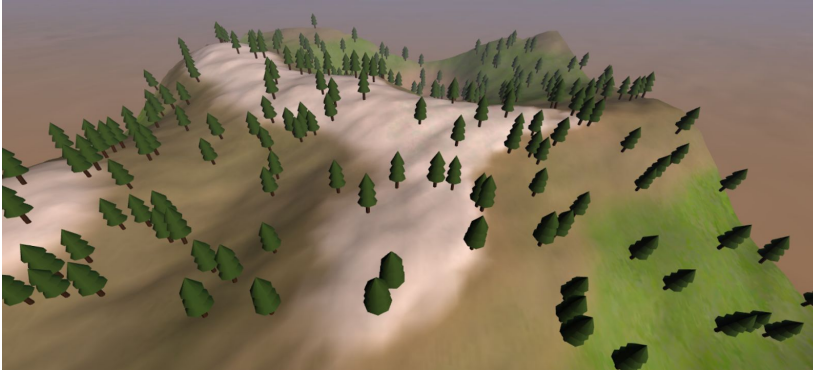
- Trevor Nemes: Over the last week, I have made a lot more progress in my procedural generation algorithm to generate trees. Everything that I plan on having within this procedural generation algorithm will all be within one function. Within this period, I got the textures on the trees working, including the leaves and trunks, as well as altered the algorithm so no trees could possibly generate inside of each other.



- Tyler Hassfield: Within the past week I worked on debugging the collision detection as well as accounting for the Y coordinates while in flying mode. This allows the user to now fly over objects without colliding with them. The collision detection had many issues when the user was turning while colliding with an object. Through debugging I was able to smooth out the collisions and adjust velocities to improve user experience.
- Opeyemi Abass: Continued working on my algorithm to randomly generate things like rocks and bushes.
- Aashutosh Mallik: I made some changes to the water feature so now the water feature

is smaller and the integration is not going to be an issue.

- Akhilesh Ratnakumar: Over the past week I further tweaked and worked on the generation of terrain heights that I worked on the week before. Also, I played around the placement of simple geometry objects on the said surface and added different plain textures such as the color green, brown and snow, that represent grass, dirt and snow respectively, that is then randomly dispersed on terrain.



- Zian Li: I spent my past week working more on flying mode, and how to generate a basic terrain to test my flying mode.

Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours last week</u>	<u>HOURS cumulative</u>
Trevor Nemes	Made progress on my tree generation algorithm	6	25
Tyler Hassfield	Worked on collision detection	8	23
Opeyemi Abass	Made progress on my rocks setup	4	11
Aashu Mallik	Made more progress on water features	4	21
Akhilesh Ratnakumar	Made progress on terrain height generation and texture randomization	3	8.5
Zian Li	Worked more on flying mode	3.5	10

Plans for the upcoming two weeks

- Trevor Nemes: Over the next two weeks I plan on continuing to work on my tree procedural generation algorithm which includes creating another type of tree so

that my algorithm generates more than one type of tree.

- Tyler Hassfield: In the coming two weeks I will work on further debugging the physics in the game as well as look into how we can integrate our terrain with the movement/camera that I developed.
- Opeyemi Abass: I plan to dig more into my setup, to optimize it .
- Aashutosh Mallik: I plan on making my code more readable and optimize my solution so that it is easy to integrate into the whole system.
- Akhilesh Ratnakumar: My plan for the following weeks is to try to understand and work on the placement of objects on the terrain and how to integrate our terrain with the movement controls.
- Zian Li: Continue working on the flying mode and try to perfect it as much as possible.

Summary of weekly advisor meetings

Over the last week, we have had one meeting. In this meeting we each shared the progress we have made in each of our parts of the project. After that, we then talked about what we each plan on doing the following week, leading up to our next meeting. We also talked to our client at each meeting to make sure he is happy with what we have so far and where we are so far in terms of the project. Our client has been happy with our progress thus far this semester.