Forest Camp Scene

Ross Chapman
40209091@napier.ac.uk
Edinburgh Napier University - Module Title (SET08116)

Abstract

The goal of this project is too create a decent looking forest camping scene. Some features that are implemented are a free camera, texturing on different geometry shapes and transforming those in order to get them in the right location and orientation. Some features that will be implemented are spot lights, more cameras, shadows and some normal mapping. This will be an interesting project as i am trying to recreate nature in 3d.

Keywords – Graphics, Napier

1 Plan

The motivation for this project is the forest and trying to emulate that with a camping scene. This was based somewhat on [1]. The main plan is to improve upon The Culling map.

1.1 Inspiration

The biggest inspiration for this project is the video game the Culling [2]. Its map is a massive arena like area covered in forest with some buildings mixed in. The goal of this project is to try and emulate this map but also to try and improve on it by using procedural textures to give it a more natural feel.

2 Related Work

The culling is a game that would be interesting to implement the map of as it looks really good. The fact that some of the textures look the same across the map makesfor an interesting challenge to try and improve upon that by using procedural texturing.

3 Current and Future Features

The project itself uses a plane as the ground which will later be changed into terrain. There is a torus and a pyramid simulating a camp-fire. There is a point light simulating the firelight. There are no shadows at the moment but the plan is to implement those at a later date. There is some transforms but no transform hierarchy and the plan is to implement the transforms in a hierarchy. The plan is to try and do some of my textures procedurally [3]

Figure 1: **Culling Map**This is the centre of the map

4 Goals Achieved

Unfortunately did not manage to get all of my planned features working. However did manage to get grey scale and mask post processes working where you can toggle them on and off.

5 Final Product Differences to the plan

The final product differs greatly from the original plan as did not add any extra objects or any extra textures. However there is post processing effects.

6 Conclusion

To conclude this project is going to use procedural textures as well as getting some hierarchy transforms, shadows and some normal mapping aswell. This project is heavily based on the game The Culling. To summarise i am trying to implement a forest scene similar to the culling map but also i am going to try and improve upon it by using procedural generated textures.

References

[1] ChromeFXFilms, "Forest example," *SIGCOMM Comput. Commun. Rev.*, Mar. 2017.

[2] Xavient, "The culling,"

[3] M. Kaufmann, "Texturing and modeling a procedural approach,"