Prototyping report

A brief discussion of the present prototypes and their place in the process and in the final game.

Group 4:

Thomas de Boer
Rense Wisse
Jesper Spillenaar
Boyd Verdoorn
Luuk de Niet

So far we have made nine major prototypes. In this report they will be briefly discussed.

Rigging

The rigging didn't work the way we anticipated. It therefore took more time to make it work. The rigging prototype is still not functional and has to be improved before we can use it. We are now in the process of remaking the characters mesh. We are currently experimenting with easy ways to do this.

3D models

Our group hadn't much experience with blender, so all the modelling took some time. But we now can create almost anything we want to. We are satisfied with the current 3D models. Every day we make some more to enhance the game. We will definitely use them in the final game. All models could be better, but it is a tradeoff between quality and quantity.

Blender procedural house

The prototype does what it is expected to do. With a click on the button it randomly creates a building with a random size and all windows and doors on the right places. Because none of us knew how to work with blender it took a lot of time to create this model, however it was also a good training to now work faster with blender and know more of its options. Just this model took me more about 15 hours to make. We are satisfied with the result. It does exactly what it is supposed to do.This model was originally made to procedurally generate a city in unity. Because this was not what the assignment meant with procedurally generating a city, the model is now only used to create a hotel, police station and a hospital. These buildings will be the same in all generated cities, because they are important for the gameplay. To create the hotel, police station and hospital, the bear procedural house needs to be textured in different ways and it will have different signs.

Textures and bump mapping

We now know how to add textures using UV maps. We also created normal maps with CrazyBump and added this extra layer to create a more realistic texture. It did take more time than expected, because it is hard to work with UV maps on objects with a complicated geometry. Most tutorials also work with a different version of Blender that has a different node system. Because of this it took a while to figure out how it worked. We also had problems with importing textured models into Unity. Now it is working I am satisfied with the results. The textures look realistic. We will definitely use the textures in our final game and might improve the secularity a bit if we have the time.

Procedurally generated House/world

The prototype does what it needs to do. It took quite a long time to make this, because some typo's were hard to find. But finding out on the internet how to do it took the most time. We are not satisfied with the prototype yet because it takes a lot of time to process and create it procedurally. This means we are not sure yet if we will implement it in the final game because of the long processing time. That is why we will try to improve it to make it generate the city faster.

Player controller

The player can be moved with aswd and the arrowkeys. The player also automatically rotates to the walking direction. The player walks relative to camera. This means camera rotation does not influence movement. Making the player walk relaticly to the camera took more time than expected, but the result is nice. It will therefore defenitly be used in our final game. For now it works good, maybe when the walking animations are added, some finetuning is recuired.

Camera shaker

It works as expected, the camera oscillates around its axis in the wanted directions independent from the camera rotation. The prototype is quite nice. The method is static and can be used for different cameras. We are not sure if it will be implemented in the final game. The game actions are not yet clear, so the value of the shaker has to be determined. Further improvements are therefore dependent of the gameplay.

Environment fader

This works as expected. The buildings fade if they are between the player and the camera. It didn't take supprisingly long to develop. We are certainly satisfied with the result and will use it in our final game. This is critical because our camera has a fixed rotation, so the player can walk behind buildings. We are still fine-tuning the parameters: how fast should a building fade away for instance.

NPC movement with A*

At this moment a NPC can walk from one point to another. This took more time than expected because we discovered scrips wouldn't work. So we had to start over in a different way. We are not yet satisfied with the prototype. We want not one, but multiple NPC's to walk around our city. This will be possible with this prototype, but is certainly needs some improvement.