

Procedural Modelling of Cities implemented as a Blender Plug-In

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1 Previous Short Term Objectives

1.1 Expansion of Project Outline

A simple thesis outline has been drawn up and further expansion on that outline will be required. Specifically each heading and subheading will need to be explained as well as their relevance to the project as a whole

1.2 Visual Results

As progress with the project has been made in the abstract representation of a virtual city the visual component has slipped behind and thus it has become tedious to verify the results of any changes made to the abstract representation. Thus an objective for this week was to update the visual representation phase of the project to allow for confirmation of the improvements made to the abstract representation.

1.3 Road Generation

A subdivision algorithm was to be decided upon and implemented which allowed for the division of suburb regions into city blocks and the creation of simple road objects.

2 Progress

2.1 Expansion of Outline

The outline of the project thesis was expanded to include the work already completed for the literature review. Simple clarificatory statements were also added to each heading and sub-heading to better explain what content will fall under each section. An attempt was made to include all of the relevant sections of the progress reports from the year under each section, however this appeared to add very little content of any real substance to the sections

2.2 Visual Results

Progress was made on visualising the results of the procedural city generation, however not enough progress to produce any actual images. This is mainly due to some bug fixing effort which uncovered some major flaws in the underlying system. Thus there was not sufficient time to finalise the visualization element of the project

2.3 Road Generation

Due to the same delay caused by the uncovering of major flaws within the system, no headway was made on the process of road generation.

3 Problems

A major problem was uncovered this week with the underlying system which was resulting in the road and highway networks that were generated not being properly aligned to the regions which bounded them. This resulted in both the generation of illegal road segments as well as the lack of road generation in required areas on the landscape.

This along with various other bugs and flaws conspired to take up most of the coding time allocated to this project in the past week, as such very little progress was made towards the final system. This will have to be rectified through a better allocation of time towards finishing the system and less towards the write-up at present. Whilst this will create further pressure on the write-up phase in the coming month, it will be far easier to write-up a system which is capable of producing the required results than to write-up about methodologies which have not as yet been implemented.

4 Objectives for next week

4.1 Visual Results

Any further progress on this project will require the visual verification of the methodologies being implemented, thus the single highest priority objective for the coming week is to complete the visual representation part of the project and thus to confirm the methodologies applied in the underlying abstract representation.