

Progress Report

1 Full Name:

Bruce Alcock

2 Title of Project:

A Procedural, Minimal Input, Natural Terrain Plug-in for Blender

3 Supervisor(s):

Kevin Glass and Shaun Bangay

4 Date:

8 March 2007

5 Previous Short Term Objectives:

The project proposal had to be completed. Various research papers had to be read to formulate an algorithm for terrain geometry generation. An attempt at learning the Python scripting language had to be made so as to make a start on creating Blender plug-ins. LyX had to be explored as an editor to create papers.

6 Progress:

The project proposal was completed and submitted. The research papers were read, and preliminary ideas on geometry generation formed. A second pass of reading the papers and trying to become completely at ease with them is necessary. The approach mentioned in [?] of creating a basic flat 2D model and then basing the terrain geometry creation on this is a good starting point for use in Blender since it is already a 3D modeller and the operations can just be applied

to the geometry. The approach takes the two end points of the lines created, sets one as the origin and creates a line segment toward the other point, at a random angle (within boundaries) and continues to do this. Once all the line segments are created the entire line is rotated and scaled to fit between the two original points, giving a jagged outline from what used to be a straight line. Once this has been accomplished and the terrain created based on this and noise functions the approach detailed in [?] of eroding the terrain to give more detail and realism can be employed. An extreme programming session was held to take a first attempt at scripting Blender with Python, which was successful, generating a simple “terrain” with “buildings” on it. An introductory session detailing LyX was also held. The two references were added to docarc.

7 Problems:

Total unfamiliarity with LyX: especially referencing problems.

8 Objectives for Next Week:

Read the two terrain geometry papers [?, ?] again to gain a better understanding of how the algorithms work and try to combine them and incorporate them into a generic algorithm. Become more comfortable with LyX and its features.

9 References:

References