

# Progress Report

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

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## 1 Previous Objectives

Squig curve implementation to generate river paths.

## 2 Progress

All work done has been poster related in an effort to redo the poster for Afrigraph submission.

### 2.1 Height colouring

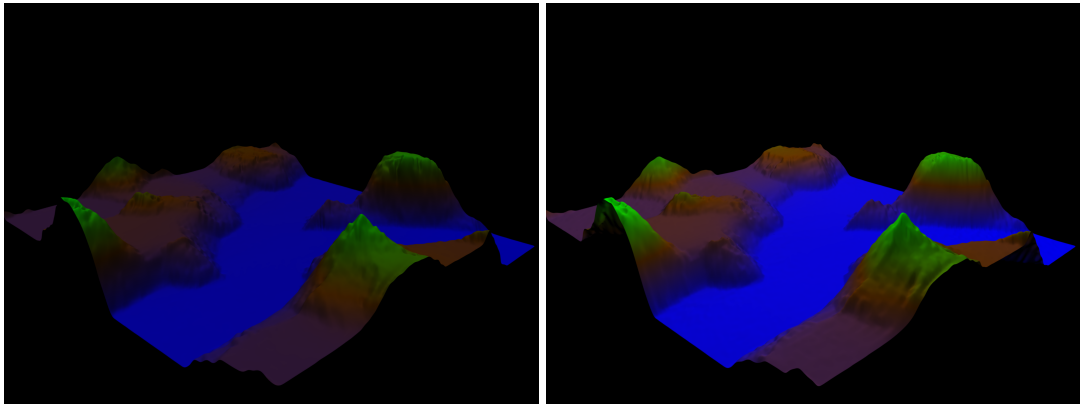
A feature of Blender allows for a “colourband” texture to be mapped onto the object. This works well for emphasizing the height differences and is clearly noticeable in Figures 2, 1.

### 2.2 Lighting

A shortcoming of previous renders were that small changes in the terrain were nullified by the renderer. The lighting has been changed from using a sun light source above the terrain to having four lamp light sources, one on each corner of the terrain. This enhances the granularity of the terrain too and the effect can be seen in the difference between Figure 1.

### 2.3 Flattening

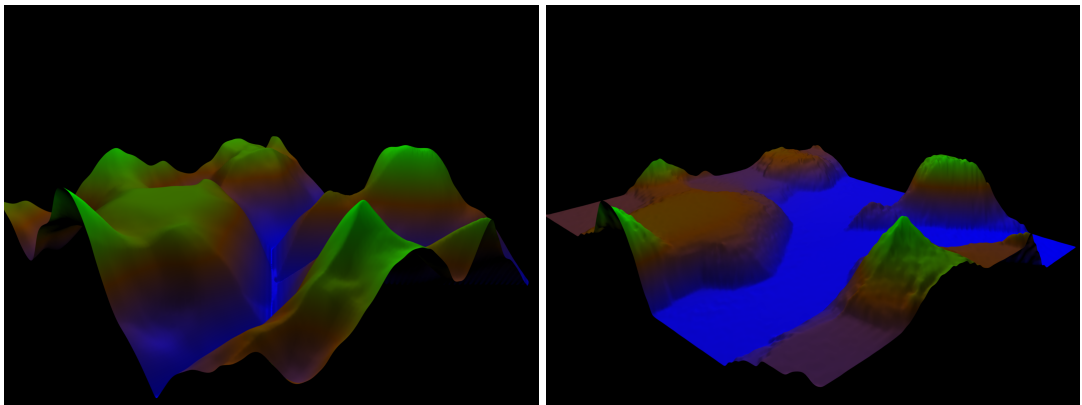
The terrain flattening method was updated and brought back into operation. It now supports multiple calls, allowing the program to flatten multiple areas if necessary, and the results are visible in Figure 2.



(a) Sun

(b) 4 Lamps

Figure 1: Lighting differences



(a) Flattened river terrain

(b) Flattened with erosion

Figure 2: Flattening

### **3 Problems**

Struggled to make an algorithm to generate Squig curves. Discussed this with Kevin Glass and worked out an algorithm that appears good on paper.

### **4 Objectives for Next Week**

Squig curve implementation.