

# COSC 422 Assignment 1

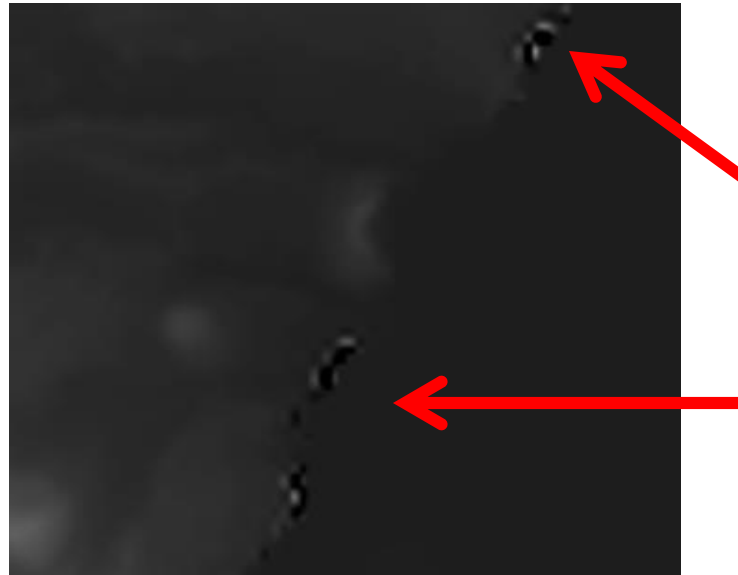
Terrain Rendering

# Important Dates

- Due date extension:  
**Sunday, 15<sup>th</sup> August 11:55pm**
- Drop-dead date with 15% penalty (3 marks):  
Friday, 20<sup>th</sup> August

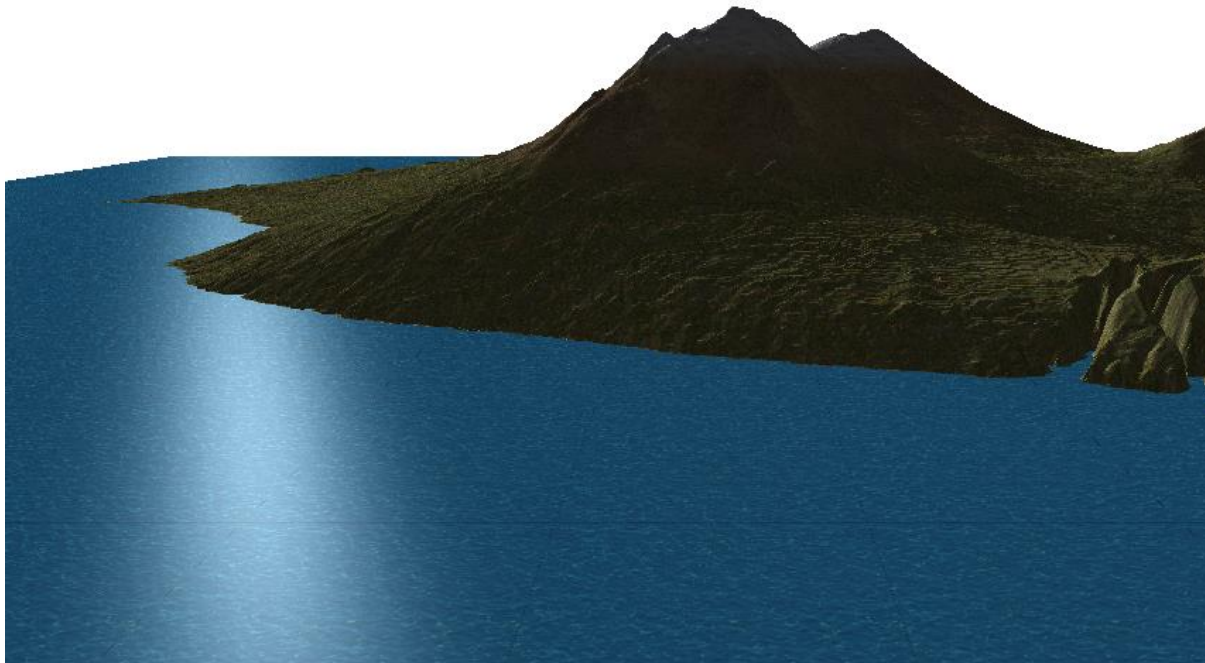
# Height Map, Textures

- You may use the method given in DevILTest.cpp to load height maps and textures using the DevIL library.
- Regions of a height map exported from Tangram Heightmapper could contain bad patches or spots that can result in sharp peaks or troughs on the model.

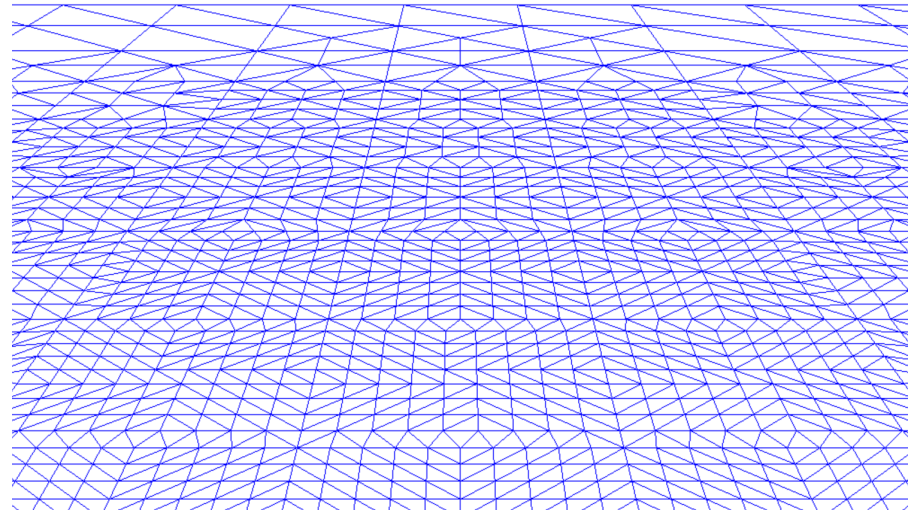
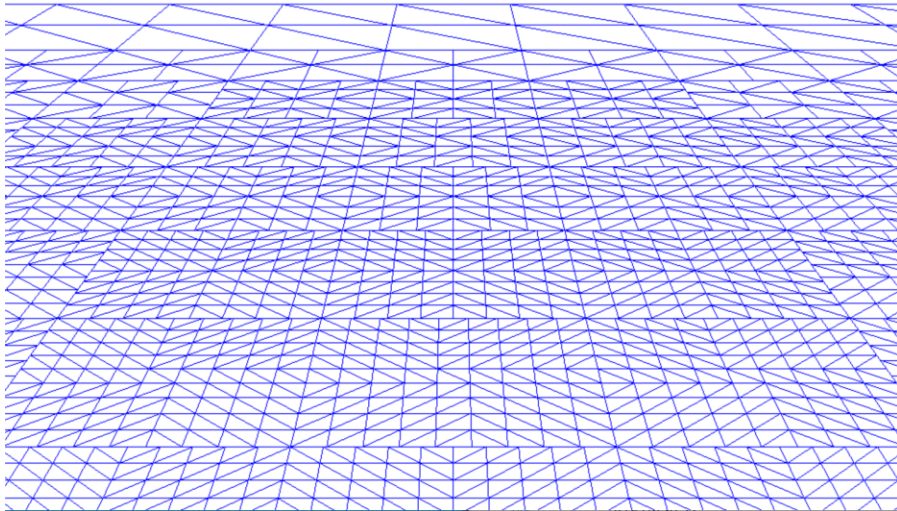
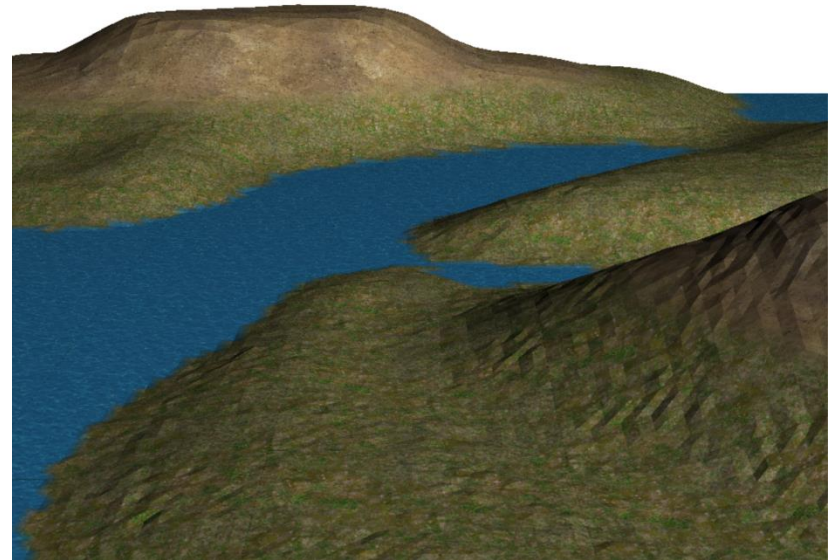
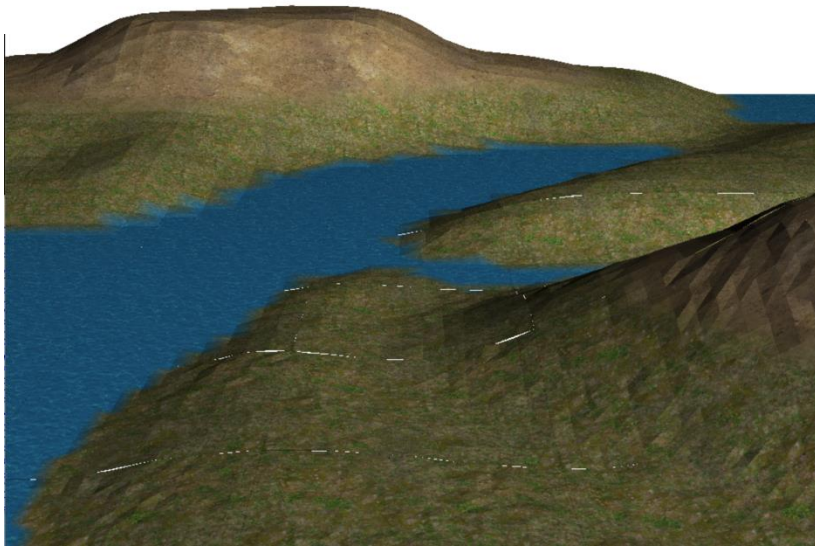


# Lighting

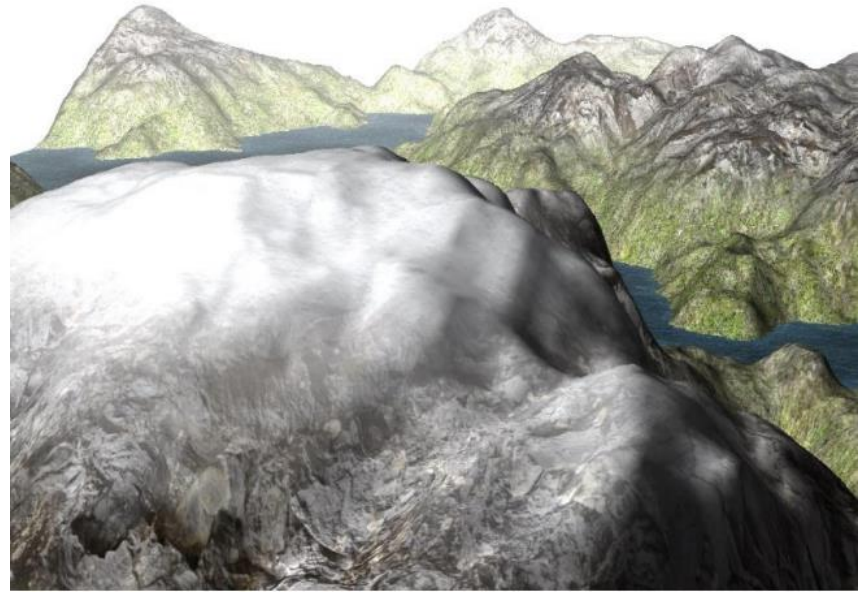
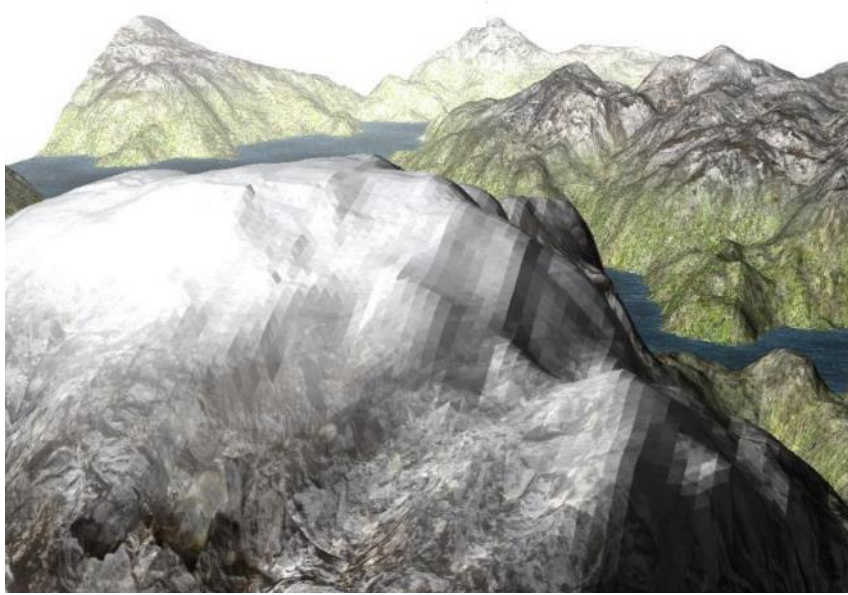
- Use only ambient and diffuse components of reflection for the main part of the terrain.
- Water regions can have specular highlights (**0.5 Marks**). Provide a screenshot and the lighting equation in the report.



# Cracking



# Smooth Shading and Fog



Heightmap sampling and computation of  
per-vertex normal vectors

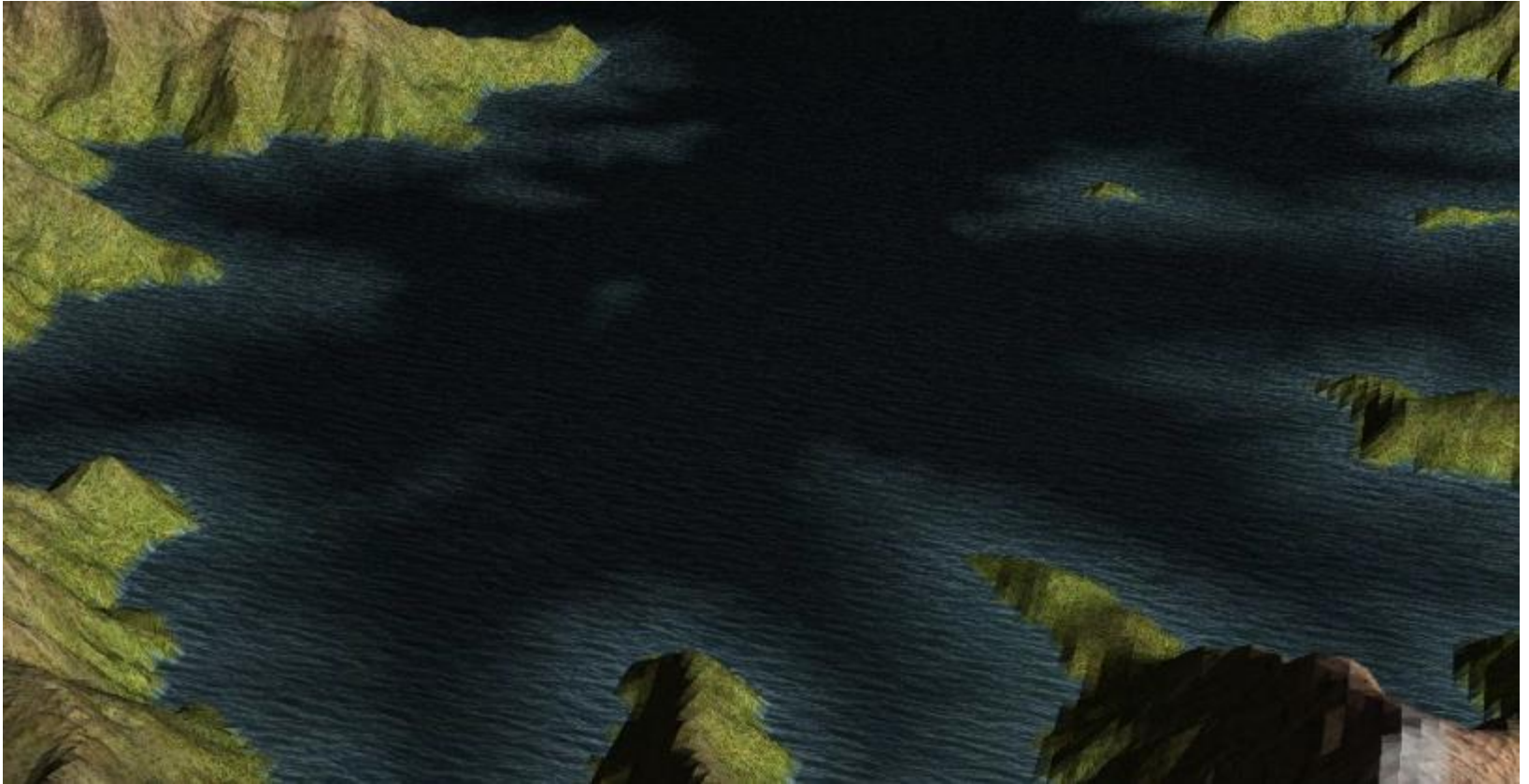


# Texture Weight Interpolation



Solution ? (0.5 Marks)

# Colour Variation With Depth





# Billboards

