This document contains a method to cut down on the number of terrain quadrants sent to the vertex shader. However there was not enough time to implement it.

Currently, 9 terrain quadrants are processed every frame. But the user can only see around 4 of them. The rest of the quadrants are to the side or behind the player – but those quadrants vertices are still being processed by the vertex shader. A solution could involve creating a vector from the middle of each terrain quadrant to the users viewing direction. If the dot product of the viewing direction and the quadrant vector is above a certain value, then that quadrant would get processed. So this dot product would be done for the 9 quadrant cells, every frame. This would remove around half of the quadrants sent to the shader, saving 70,000 vertices being processed.

The image on the right shows a bird's eye view of the terrain quadrants. The user's position vector is in red. The vector direction is their viewing direction. The black vectors (not all are drawn) are vectors from the centre of the quadrants, to the user's vector. If we calculate the dot product of the user and quadrant vectors, then we would only process the quadrants whose dot products with the users vector is above 0. This would only make the visible quadrants be processed by the vertex shader. The quadrants behind the user would not be processed.