

Assignment 1
CSCI 4110U
Melvin Cheng

In order to construct the terrain, the program takes the first 2 values from the file which are the x and y size respectively. Then it takes the next 2 values which are the x and y value for the low resolution of the terrain. Then the program takes the H value from the file. After the H values are the height values.

After reading the file, the program constructs the grid. After constructing the grid, the program uses the diamond-square algorithm to create the fractals.

Any pixels below the -2 is considered water, anything between -2 and 0 is considered sand, anything above 10 is considered a mountain, anything above 30 is considered snow, and everything else is considered grass.

In order to move around the terrain, the user may press 'w' to look down, 's' to look up, 'a' and 'd' to look left and right respectively, 'q' to strafe left, 'e' to strafe right, 'r' to move up, 'f' to move down, 'x' to move forward, and 'c' to move backwards. The user may also use the 'p' key to toggle wire frame.

