Sam Pickell

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COMP 5460

<center>Programming Assignment 2 Report</center>

       I was able to successfully complete programming assignment 2, the Sierpinski Gasket that allows user alteration. For the most part, this was straightforward: include buttons, sliders, modification using the HTML DOM, callbacks, and onclick() events. The only tricky part was working with the HTML color picker, which is based around hexadecimal. This ended up initially being a problem as the fragment shader works in terms of decimal numbers from 0-1 for red, green, and blue. What I ended up doing was taking each pair of hexadecimal numbers (eg in #ff0000, I took "ff", "00", and "00") and storing them in a red, green, and blue variable, respectively. I then used "parseInt()" to convert the string to an int, and then "parseFloat()" to convert the int to a decimal. I then divided this decimal value by ff (the maximum hex value) so that I would get a percentage for each color that could then be passed to the fragment shader.

       I also fixed some errors that were present in my first assignment. The shader scripts are no longer in the HTML file; instead, they are completely handled in the JavaScript file. The other error that was fixed was the way the triangle grew/shrank. It now starts off large, gets small, and then goes back to its original size, in steps.