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Data Visualization

Assignment 6

Upon initializing dorian.vti, I sought to improve several aspects of the example visualization provided in the assignment guidelines. In the example, the hurricane/wind vortex is colored using a binary red/blue system. The center of the hurricane appears to be sharp red while the outer layers of the hurricane are entirely a harsh blue. I felt as though additional context could be provided to the viewer by lessening the sharp and immediate contrast from red to blue. In my case, I colored the streamlines according to temperature and with a pleasant cool/warm color scheme that provided a smoother color transition. Essentially, I retained the red/blue theme while softening the contrast a little bit and coloring according to temperature. Next, for my glyphs, I found that reducing the number of seeds was necessary. In the example, there are so many glyph seeds that it is almost difficult to tell what is happening in the rest of the visualization. In my assignment, I drastically reduced the number of seeds, provided arrows for wind direction and even colored them according to temperature as well. Finally, I toned down the opacity. These changes provide further context to the reader while reducing visual clutter. When looking at my stream and glyph filters, they are presented with a visualization of the hurricane that is informative yet not visually overwhelming. Lastly, for my pressure contour filter, I added values ranging from 90,000 to 101,500 while shortening the distance between intervals the higher you go. This provided a satisfactory array of concentric rings that are more closely packed in the center where pressure variations vary more wildly. I also changed the color scheme to a sharply contrasting “inferno” set. This vividly outlines the intense pressure found within the eye of the hurricane while also demonstrating the low pressure consuming the outer layers of the storm. High pressure is tightly packed in the middle while low pressure emanates out from this intense center in vast swaths. My final touches included coloring the land map. Green for land and blue for water is intuitive to any viewer and thus, I decided to retain this aspect of the example visualization.