

Geological Data Visualization

Week 3

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Progress

The decision was made to stop working on the C program, and begin work on creating a GUI for the existing MATLAB code. GUI creation can be done through the GUI Design Editor (GUIDE) that is built in to MATLAB, or by hand (writing code). The second method was chosen since it will provide more understanding of what is happening with the GUI, making troubleshooting easier. The MATLAB documentation is very extensive and useful.

In MATLAB there are three primary types of objects that can contain other objects: figures, panels, and axes. Figures hold everything (the entire GUI), panels can be used to separate UI elements, and axes are used to hold plots (though figures do this as well). The current plan is to have a window that shows the images being rendered surrounded by the necessary UI parameters, which are yet to be determined, though an initial idea is to use most of the options from the NCEP website. The first step is to get the basic layout created, then get the graphics to render in the correct frame.

In the future a performance analysis of the existing MATLAB code will be done to see if it's possible to speed it up with code optimizations at all.