The goal of the Visualization Project is to learn how to gather, display, and present research quality data to both technical and general audiences using 3-D visualization and multimedia techniques. You will be given the opportunity to choose a geographic region to “visualize”. If you are already working on a research project for your thesis, I highly recommend that you develop your visualization project around this topic. The fundamental goal for your visualization project should be to develop a 3-D interactive map of data and images that you can use in future settings (i.e., scientific presentations, poster displays, general education talks, classroom teaching). We will work toward building a final visualization scene that will be presented and displayed at the UTEP Cyber-ShARE Visualization Center. Tentative benchmarks for this process are described below:

- **Discussion of possible visualization project topics/regions:** November 6
- **Short outline (list of data) for visualization project due:** November 13
- **Visualization presentations:** November 27, November 29, and December 11

The basis of your visualization project will be SRTM topography, which will serve as the backdrop setting for your visualization. Your primary task throughout the semester will be to search for data resources that you can include in your visualization scene. These can be from the Internet, or you may already have a dataset ready to go, or you may have to make a dataset from scratch.

An example visualization of the San Andreas Fault might include the following elements:

1) SRTM topography
2) San Andreas fault locations
3) Major cities/county lines
4) Coastlines
5) Earthquake locations, color-coded according to magnitude
6) Imbedded aerial images of the tectonic landscape

Your final visualization project will include the following:

1. A “packaged” visualization scene, which must contain at least 5 “layers” of interactive data.
2. A short digital movie of your visualization “fly-through”.
3. A short summary of your visualization and any conclusions that you are able to make about the data you are presenting (a few paragraphs to 1 page in length is fine).
4. A reference list of data used in the visualization.

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You are required to make an appointment with Frank Osuna (fjosuna@utep.edu) to schedule a 15-minute practice session in the Visualization Lab before your presentation day.