Graphics Library

General:

* First3Wells.html
  + Demonstration of how multiple injection sites will behave
* TerrainInterpolation.csv
  + Lat, Lon, Alt of every interpolated point for future processing
* TerrainInterpolation.html
  + Preliminary topological estimate of terrain before injection from measured points
* WellsInfo.csv
  + Lat, Lon, and Volume injected into each well
* ScatterOfTerrain.html
  + Visual representation of measured points -> interpolated points and well location/size

IndividualWells (For an Arbitrary # of Wells):

* CData.html
  + Change in height of fissure created by slurry over time after completion of injection
* RateData.html
  + Rate of water evacuation over time after completion of injection
* TerrainEstimation.html
  + Estimation of terrain after injection of slurry
* VolumeData.html
  + Estimation of volume of well over time after water evacuation has begun

Geocore:

* SubterraneanInterpolation.html
  + Visual display of underground interpolation of geocores
  + Geocores individually undergo material interpolation to fill in depths not explicitly measured. The material makeup of each geocore is then statistically analyzed to discretize differences in compounds in the ground. Then, using those differences, the geocores are then compared and the similar materials are interpolated to form subterranean structures as shown with the surface traces.
  + The locations of each geocore sample are displayed in the plot by vertical lines.

Drilling:

* DrillingOptimization.html
  + This application takes a .pkl file with information on geocore-interpolated void fraction and particle size distribution assigned to a upper surface on each subterranean material. It approximates a solid using inner points throughout where each point is assigned a penetration resistance level which is a linear combination of void fraction and particle size distribution calculations. It then uses a minimum tree generation-node traversal algorithm to find the path between start and end points with least penetrative resistance and maps it visually using a line graph overlayed with surface contour plot

Input:

* survey\_data.csv
  + Measured points from which, n # of interpolated points are generated at an even distribution around terrain
* Geocore\_Survey.csv (and all duplicates)
  + The extracted data of each individual geocore
  + Gather chemistry, void fraction, and particle size distribution (for every particle in the chemical makeup) per depth measured, and enter latitude and longitude of geocore sample