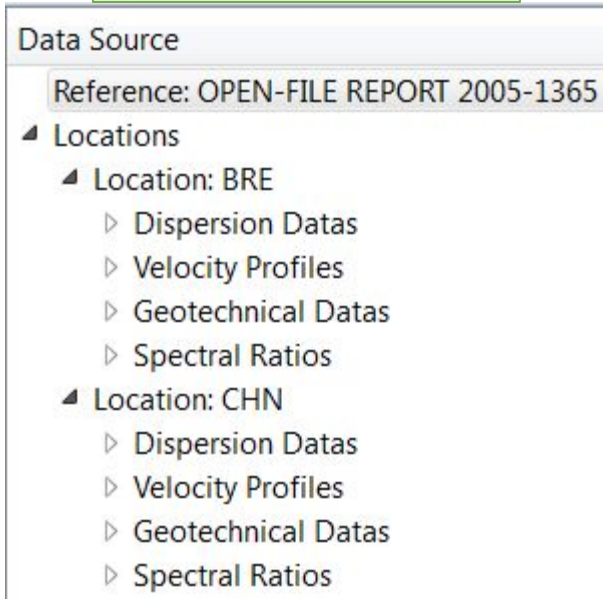
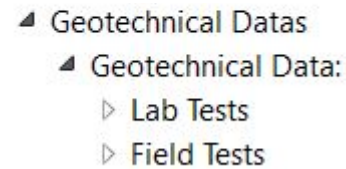


- Nested data is stored in .json files as shown in figure below

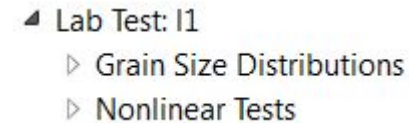
Main data structure



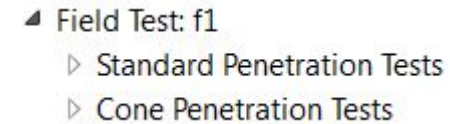
Geotechnical data



Lab test children's



Field test children's



- Multiple locations are nested in this format
- Each location has 4 children's as
 - Dispersion data
 - Velocity data
 - Geotechnical data
 - Spectral ratio

Geotechnical data has two children's

- Lab tests
- Field tests

Task 1

Python script to Read .json nested data, plot tabulated data

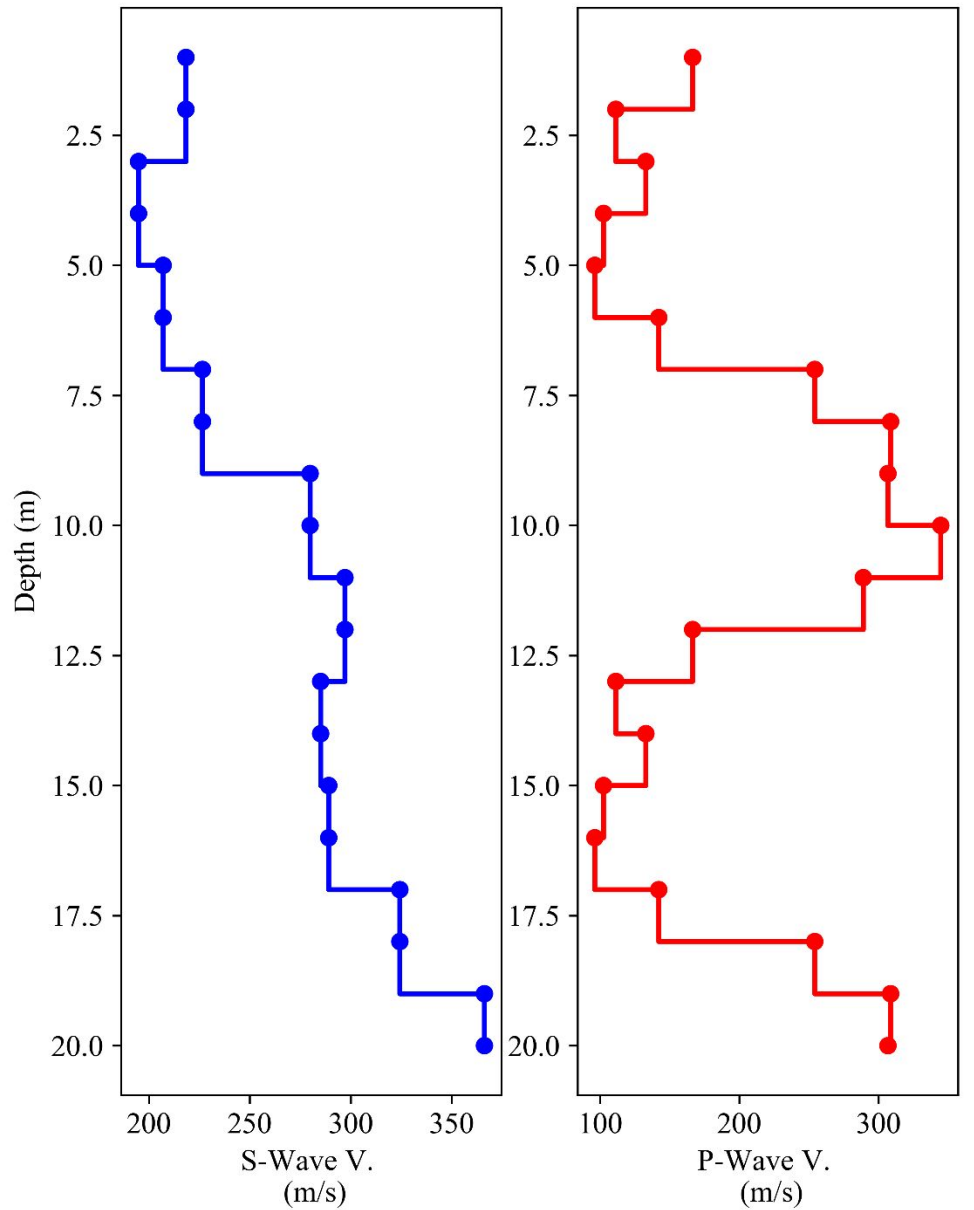
1. Script should be capable of plotting all the nested location data in json file
 - For example in current json there are two nested location, there may be 100 locations, so scripts should be compatible of plotting all those locations.

Plot 1

velocityProfile

1. Vs with depth

2. Vp with depth

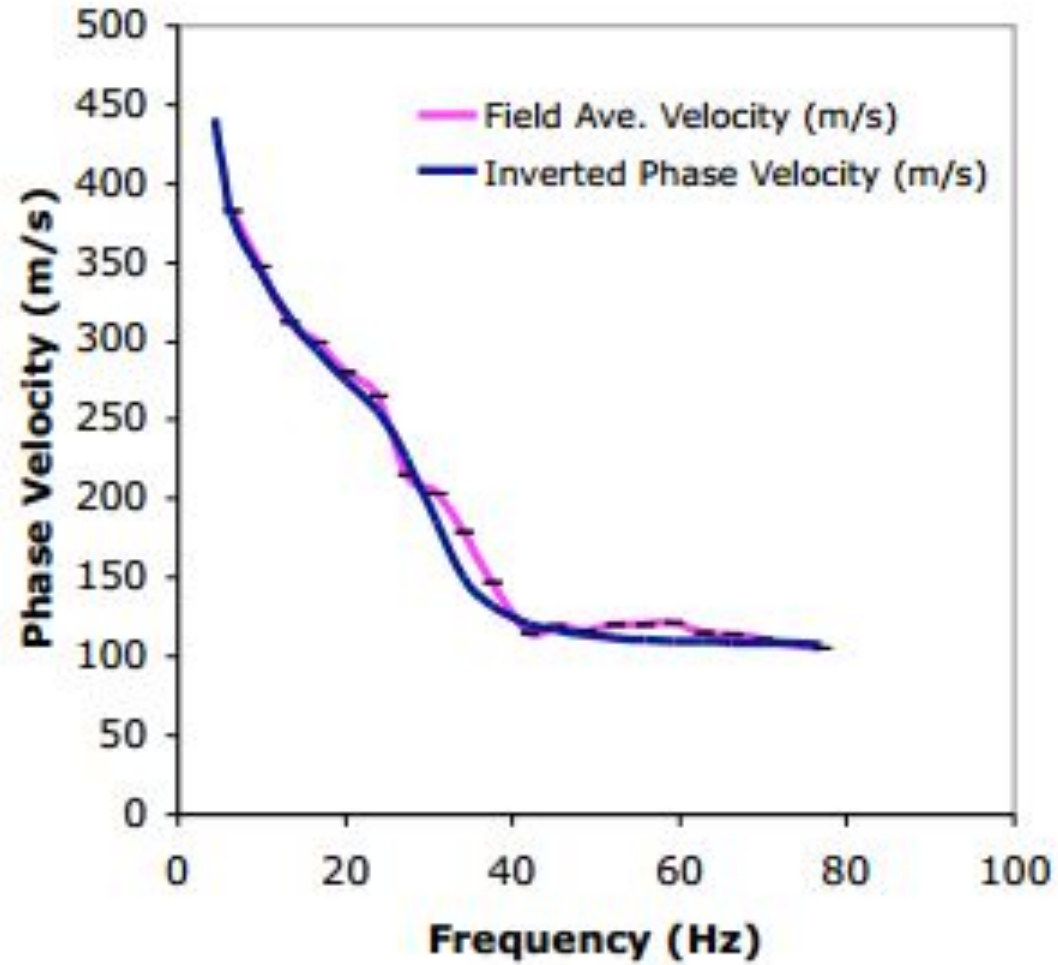


Save as locationname_velocityProfile.png

Plot 2

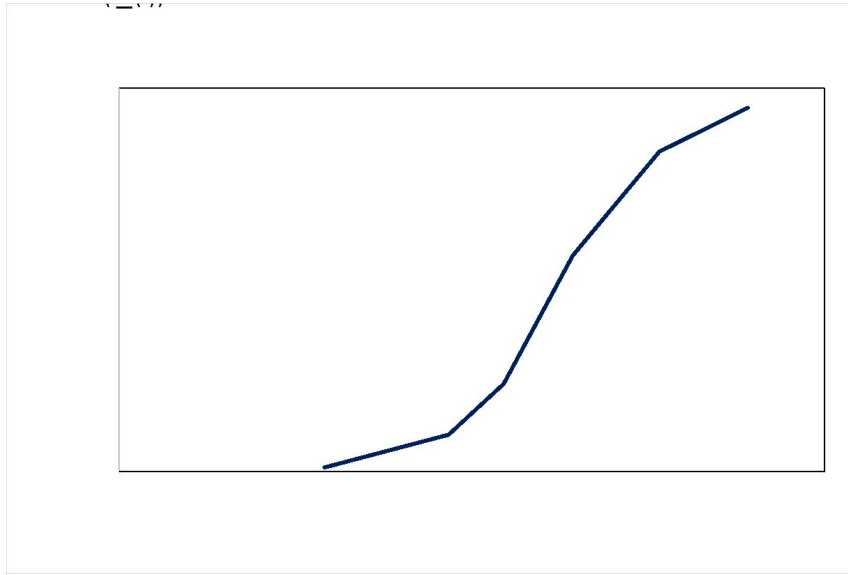
dispersionData

Site dispersion &
theoretical dispersion
velocity with frequency on
same plot

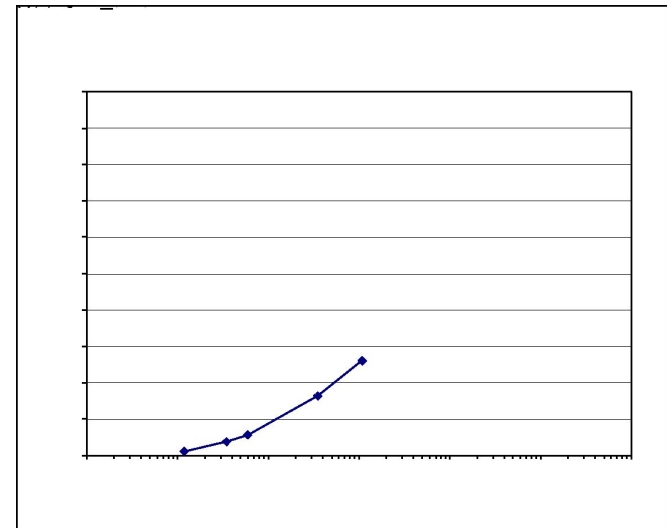
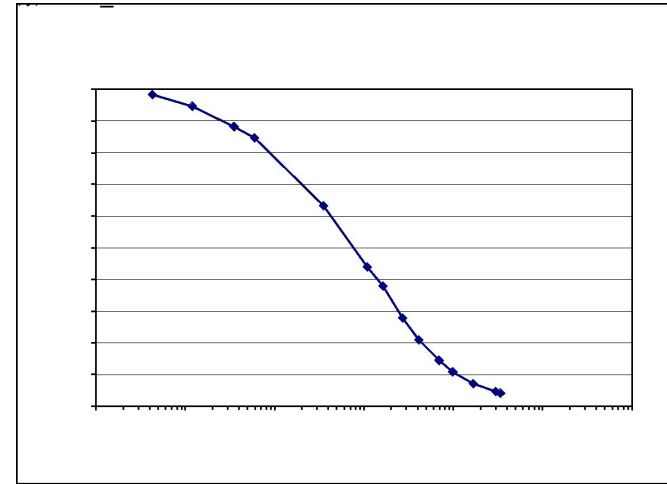


Save as
locationname_dispersionData.png

grainSizeDistribution



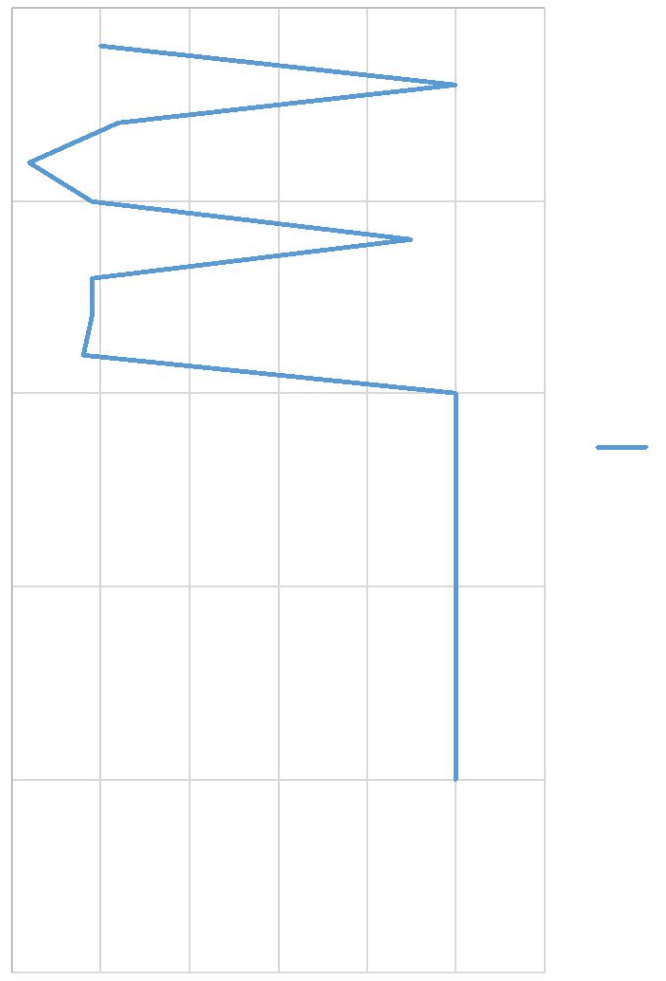
nonlinearTest



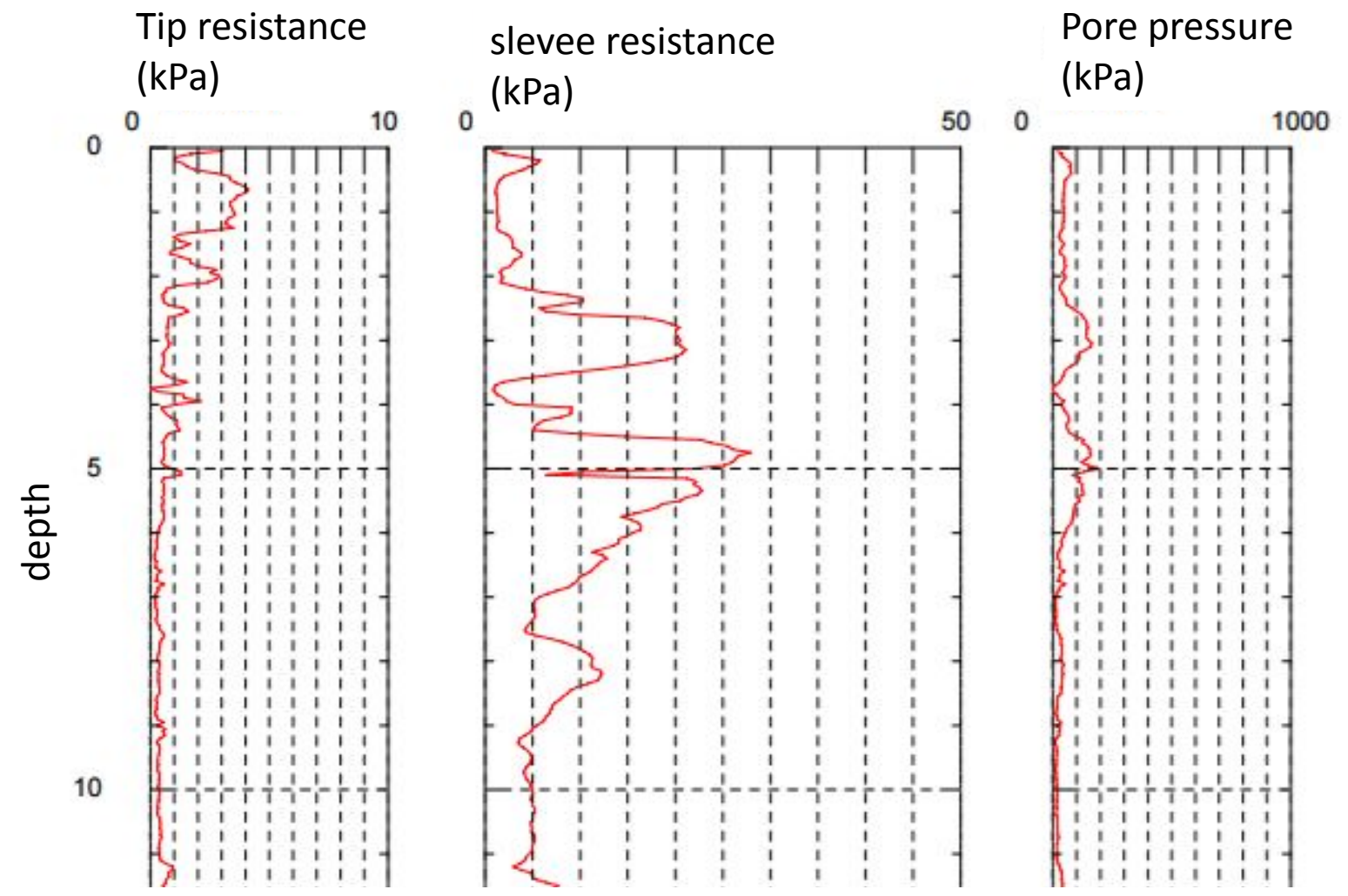
Save as locationname_labTest .png

Plot 4-field test

standardPenetrationTest



conePenetrationTest



Save as locationname_fieldTest .png