Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ESCI7205 hw7

**Due Th., Nov 7, 2013.**

You now have a sample GUI that you have build yourself during the lab in class. We will now make a GUI that could become the basis for a useful tool in your future data processing.

Design and build a GUI that uses the Mac OS file selecting dialog box to select a SAC file, then open and read the file and initially plot it in the time domain. Offer a way to switch the display of the data to the frequency domain (amplitude spectrum) and back to the time domain.

Your GUI will need as a minimum

Push Buttons:

For getting a SAC file (this will allow you to look at different files)

To select the plot type

I have put another sac file reader on the class web page. It is called “get\_sac.m”. This m file uses the Mac OS file selecting dialog box to select a SAC file, then opens and reads the file. It also checks the endian and fixes it if necessary (How does it do this? Are there are other ways, possibly better, to do it?).

As discussed in class yesterday, an algorithm exists to implement the design specifications. Actually there are many algorithms to do it (there are many ways to skin-a-cat). Your individual GUIs should be unique (different) in look and feel and coding.