Setting Up Files for Optimization in Neuroscience Gateway (NSG) Portal*

*Does not work for type NeuroRD; Used PlotkinCollab as example folder; .csv wave data
**PlotkinCollab contained more python files that were not used in the given main

Creating Main Directory

1. In the main directory, confirm folder contains mainInputFile.py (D1MatrixSample2opt_varyChans.py), fit_commands.py, paramFitnessChan.py, dataReaderCSV.py (PlotkinD1PatchMatrix.py), and Waves Folder**
   (This is copy-pasting contents of an optimization folder)
2. Create empty /output folder if it does not exist
3. Inside empty output folder, create empty /tmp folder
4. Copy in moose_nerp/moose_nerp subdirectory, dill module, and ajustador/ajustador
   Directory should now look like this:
   Top Level
   mainInput.py (specifies generations, population size, data, calls fit_commands)
   fit_commands.py (ajustador.optimize.Fit, do_fit)
   parameters_fitness_channels.py (channel and fitness parameters)
   csvWavesRead.py (PlotkinD1PatchMatrix.py, uses ajustador.loader)

   ajustador
   dill
   output (contains empty tmp)
   moose_nerp
   wavesData (contains .csv files)

   ####existed in PlotkinCollab but not used
   #inspectOpt.py
   #test
   #tests.log
   #PlotkinCollab contained several extra param_fitness python files

In mainInput.py:

1. Because the path becomes convoluted when running in NSG Portal, cannot hardcode rootdir path.
   Set rootdir = os.getcwd() + "/output"
   ...
   if not in dirname in os.listdir(rootdir):
   os.mkdir(rootdir + dirname)
   os.chdir(rootdir + dirname)

In fit_commands.py:

1. Cannot hardcode tmpdir path. Instead:

   import os
   ...
   lastSlash = os.getcwd().rfind("/")
   tmpdir = os.getcwd()[0: lastSlash] + "/output/tmp/fit" +
   modeltype + "-" + ntype + "-" + dirname

In /ajustador Subdirectory

1. In basic_simulation.py:

   import os and sys BEFORE everything else
   Right after import os, import sys, need to sys.path.append your main directory

   - If name of your main directory is optD1Samples
     index = os.getcwd().find("optD1Samples") + len("optD1Samples/")
     sys.path.append(os.getcwd()[0: index])

   In run_simulation, change the non-standard ASCII characters to something else, ex. "-"

2. Modify following code:

   - Don't need igor – comment out the import statement in ajustador/loader.py. ajustador.loader.relevant igor commands is not called
   - Don't need nrd_output – comment out import statements in xml.py, nrd_fitness,py, drawing.py -- to get rid of tables

Zip folder and upload to NSG Portal