README for Alex’s core acquisition

**runExpt**

Main script that you run the experiment from. To start an experiment enter a command like this runExpt('test',1,18). This runs an experiment with a prefix code ‘test’ and experiment number 1 which means the data is saved in a folder called ~\Data\ephysData\test\expNum001. The third input argument specifies the stim set number which in this case is 18.

runExpt relies on the following functions:

**getFlyNum**

Works out which fly number you are on.

**getFlyDetails**

Asks you for the line, date of eclosion etc.

**getDataFileName**

Works out where to save data. I save trials in a folder structure like this:

~\DataFolder\ephysData\prefixCode\expNum\flyNum\cellNum\cellExpNum

For example:

Data\ephysData\18C11\expNum001\flyNum012\cellNum001\cellExpNum003

The cell has a cellExpNum so that I can run different kinds of stimulus sets with the same cell. Note that I save each trial’s data individually so that data isn’t lost if MATLAB crashes part-way through an experiment. You can merge trials at the end of an experiment using the mergeTrials function.

**preExptRoutine**

Runs a set of trials for acquiring data for, calculating and saving pipette resistance etc. It uses the following functions:

**measurePipetteResistance**

**measureMembraneResistance**

**measureAccessResistance**

**exampleStimSet**

runExpt calls a stimSet to run the experiment in the section of code called “Run experiment with stimulus”. This example code shows you what a stimSet looks like. The stimSets are the main code that you will edit.

**acquireTrial**

Each stimSet calls acquireTrial to acquire a particular trial.

**ephysSettings**

Stores the information about the wiring of you DAC etc. You will need to edit this doc.

**decodeTelegraphedOutput**

Decodes the telegraphed output channel from the Axopatch 200B.

**plotData**

A rough plotting function for plotting data at the end of a trial.

**mergeTrials**

Merges individual trials into one matrix.