1. **Matlab**
   1. Connect to Drobo Server WolfLabMini/DroboData/Data\_Analysis/ to find Baseline Recordings folders

Drobo nsu-wolf-003.med.upenn.edu (130.91.98.248)

Login: wolflabshared

Password: hippocampus

* 1. Run scripts (use 0 for Mac, 1 for Windows):

For PTRODE linear 32-channel probes (acute pigs, use all channels to extract spikes data)

LoadCSC\_v3.m;

KlustaData = NlxToKlust\_stringTS([1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32],[], 'kwikdata.dat', 0);

clear;

For Vector probes (acute and chronic pigs, don’t use the first channel, only channels # 2-32)

LoadCSC\_v3.m;

KlustaData = NlxToKlust\_stringTS([2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32],[], 'kwikdata31.dat', 0);

clear;

* 1. Check if kwikdata.dat/kwikdata31.dat files are MB/GB size

1. **Run Klusta @Spike:**
   1. Connect Syno Server in Finder or Mac terminal:

Syno nsu-wolf-008.med.upenn.edu

* 1. Three types of files should be in Syno directory (.dat, .prb, and .prm):

.dat files -

kwikdata.dat (for PTRODEs) or kwikdata31.dat (for Vectors) files are generated in Matlab (see 1.2)

.prm files -

KlustaCSCs.prm/KlustaCSCs31.prm files are copies to each directory from Probe\_Params folder on Syno;

Check experiment\_name, prb\_file, and parameters such as sample\_rate=30000 (chronic)/32000 (acute), n\_channels = 31 (Vector)/32 (PTRODE); detect\_spikes=both or positive only.

.prb files –

Electrode’s probe file is either downloaded from online depository, copied from Probe\_Params folder on Syno or created by hand

* 1. ssh to sasha@Spike in Terminal and connect to Syno data from Spike server

Spike (nsu-wolf-007.med.upenn.edu(130.91.99.147)

neurosurg07:~ sasha$ ssh -Y sasha@nsu-wolf-008.med.upenn.edu

sasha@Spike:/media$ cd /media/SynoData/Sasha\_Data\_Klusta/ % data folder on Syno server

Copy data from Syno to Spike to run analysis on large data analysis files on Spike:

sasha@Spike:/media/SynoData/Sasha\_Data\_Klusta$ cp -r \*folder\_name/ ~/Data\_Klusta/

* 1. Activate Klusta environment on sasha@Spike:

source activate klusta

* 1. Sort spikes by running Klusta (KlustaCSCs.prm/KlustaCSCs31.prm)

(klusta)sasha@Spike:~/Data\_Klusta/\*folder\_name$ klusta KlustaCSCs.prm (use –overwrite to re-run analysis)

* 1. Copy all .kwik files back to Syno server to open in KlustaViewa (KlustaViewa is for PC environment)

(klusta)sasha@Spike:~/Data\_Klusta/\*folder\_name$ cp kwikdata.k\* /media/SynoData/Sasha\_Data\_Klusta/\*folder\_name

1. **Run KlustaViewa (on Windows)**

[klusta] Y:\Sasha\_Data\_Klusta\\*folder\_name\>klustaviewa kwikdata.kwik