

Readme/log for feb21 2024

Matlab files

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Description of each script that you can run

- “**CMA_batch_analysisFeb17.m**” –click on Run button to analyze all abf files in the same directory where this script & its function scripts are stored. Gives results for each file in tables.
- “**feb17_single.m**” – run analysis on an abf file of interest. Specify its file name after “filename1=”. Then hit Run.

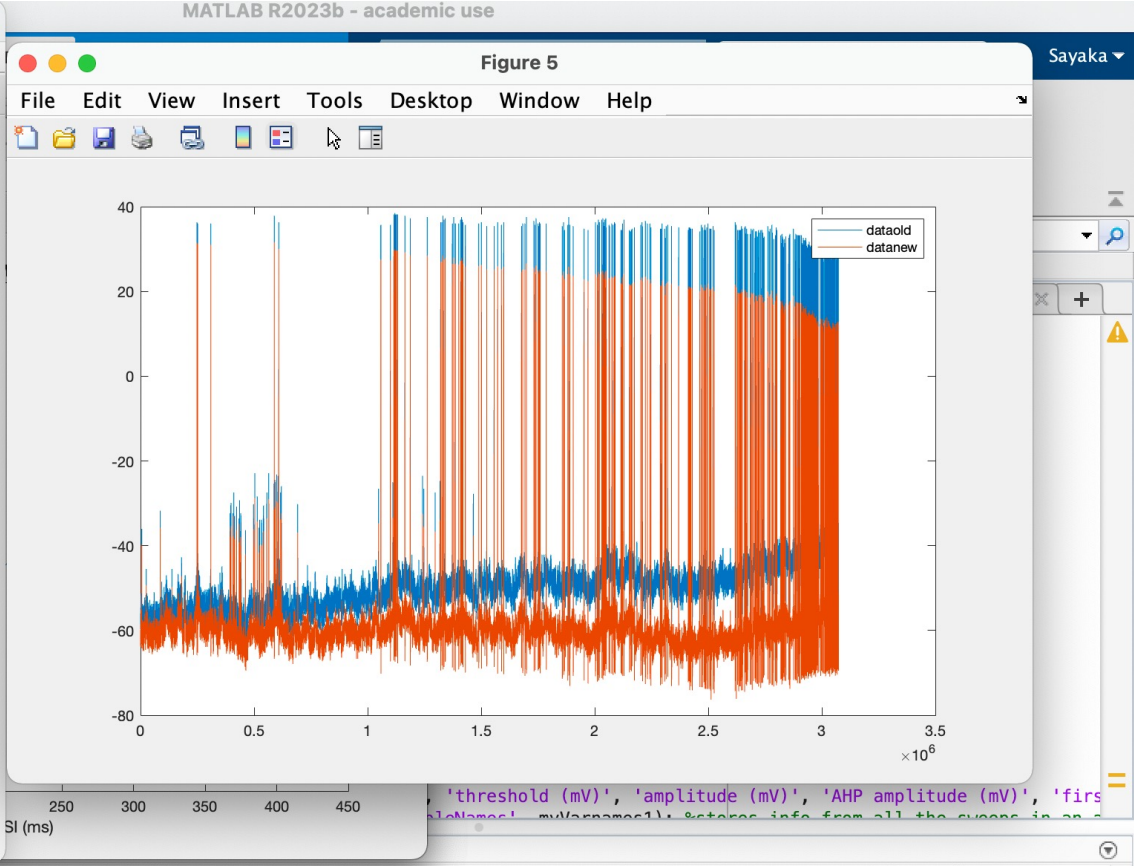
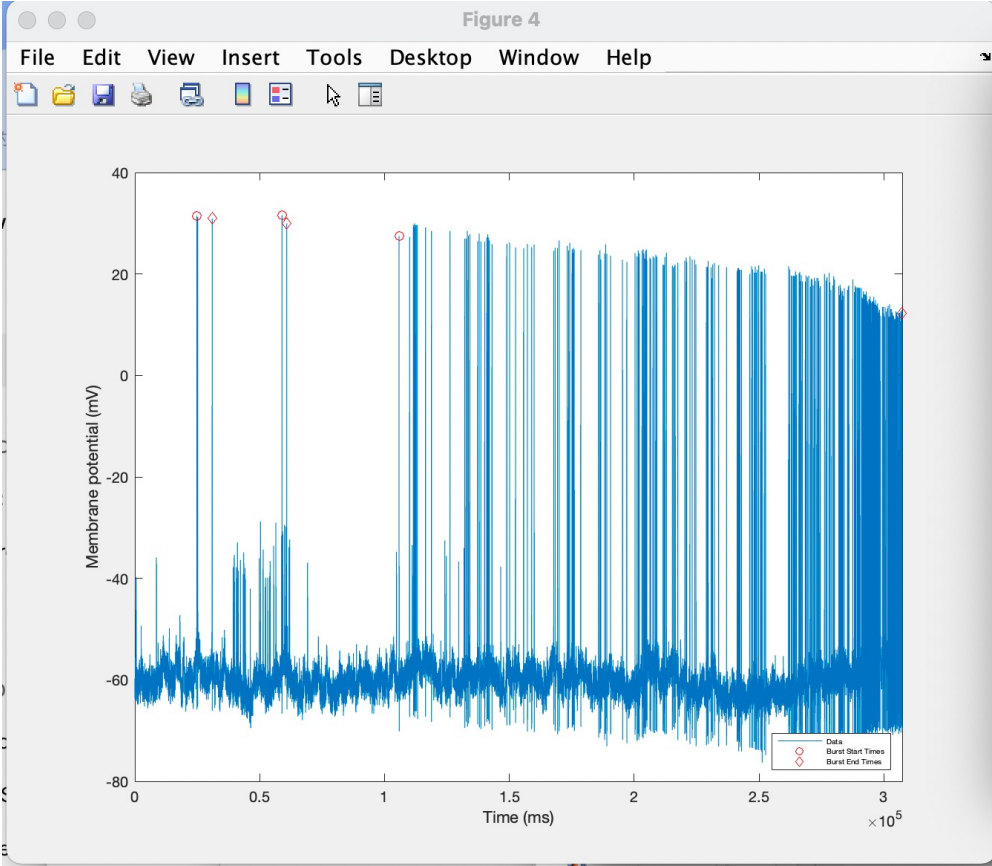
Log-what has been changed from Feb 17 files

- Revised singletSpikeAnalysis5.m so that it calculates AHP correctly. I forgot to convert units in the fallingDuration last time, and when I fixed that, the AHP values looked accurate. Half width, the easiest to determine, looked quite on-point,.

Observations before and after baseline adjustment

- By correcting the shifting/drifted baseline using linear detrend() on data, the bunch of APs in the latter half of the plot are all considered as one big burst, while in the unadjusted version they were considered a series of smaller bursts.
- I think this readjusted version portrays the bursts better.

Sample output – before and after baseline adjustment



continuous_AP_a...
continuous_anal...
cmaindividual_N...
CMABurstAnalysi...
cma_individual_f...
CMA_batch_anal...

Details

Select a file to view details

threshold(mV)	amplitude(mV)	AHP_amplitude(mV)	trough value (mV)	trough location(ms)	pe
NaN	NaN	NaN	NaN	NaN	

T =

1x9 [table](#)

cell name	threshold(mV)	average_ISI(ms)	AP_frequency(Hz)	total_AP_count_in
"2022_12_02_02_0005.abf"	"-23.124"	"1116.4336"	"0.82647"	"254"

fx >>

Zoom: 90% UTF-8 LF script Ln 7 Col 14