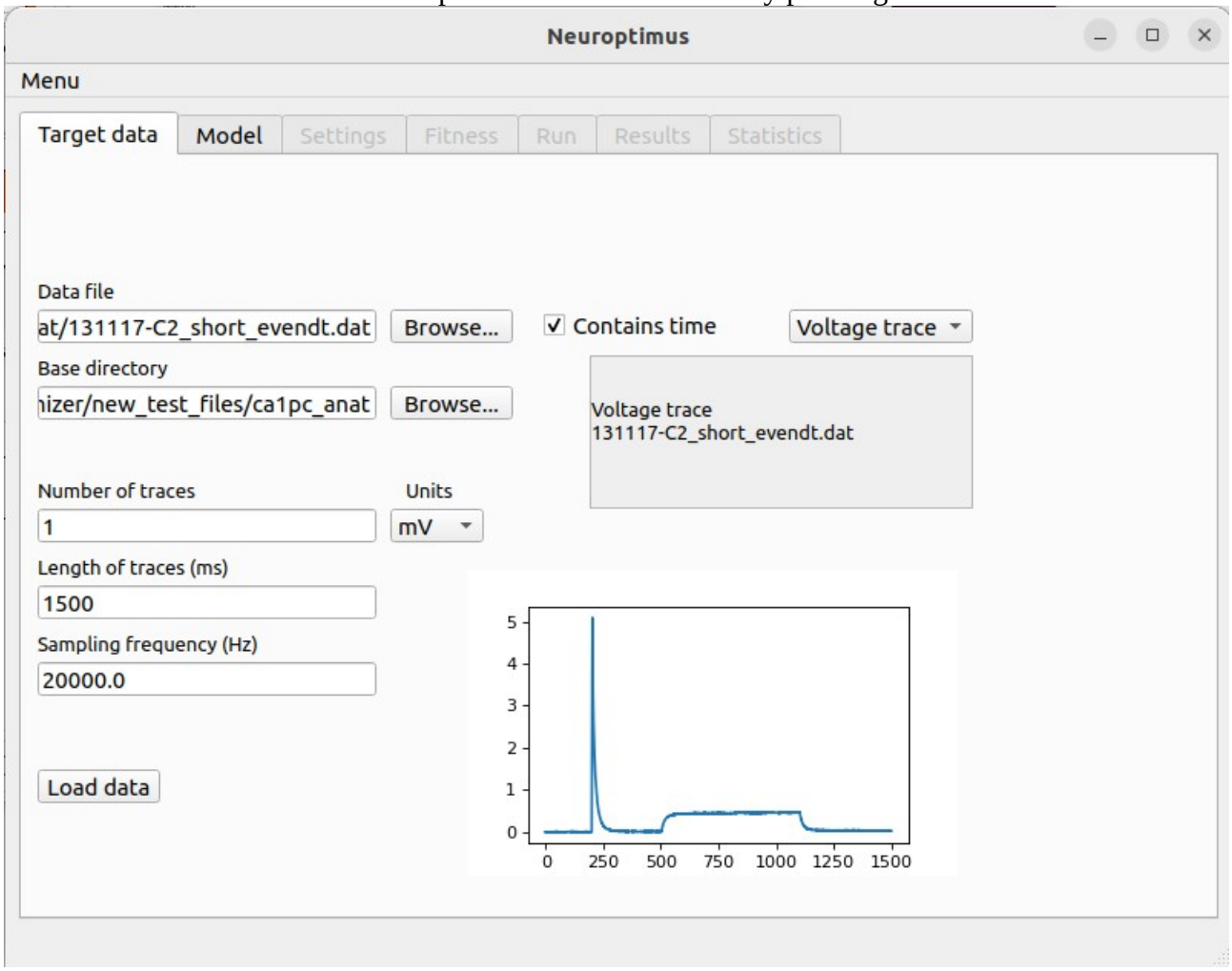
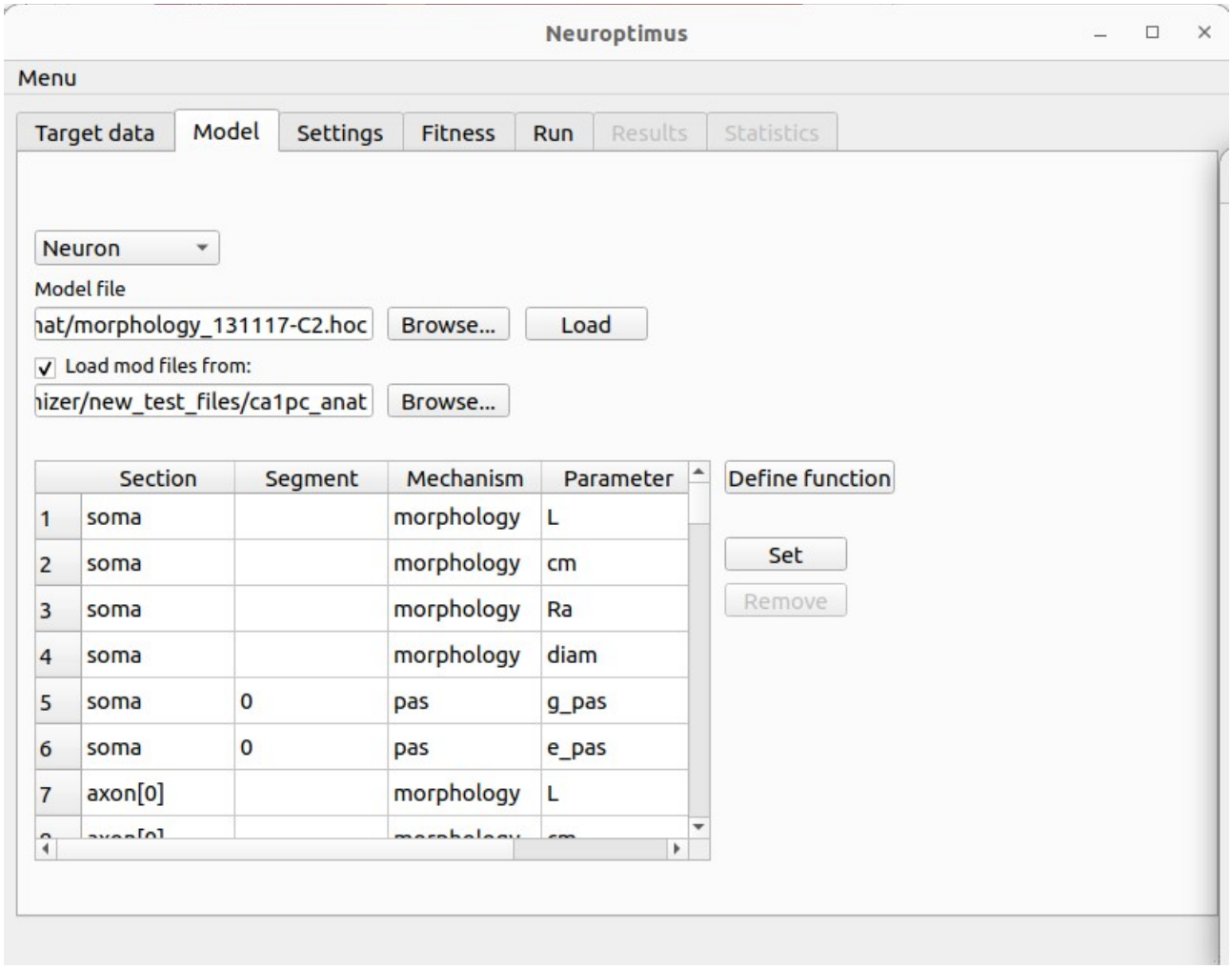
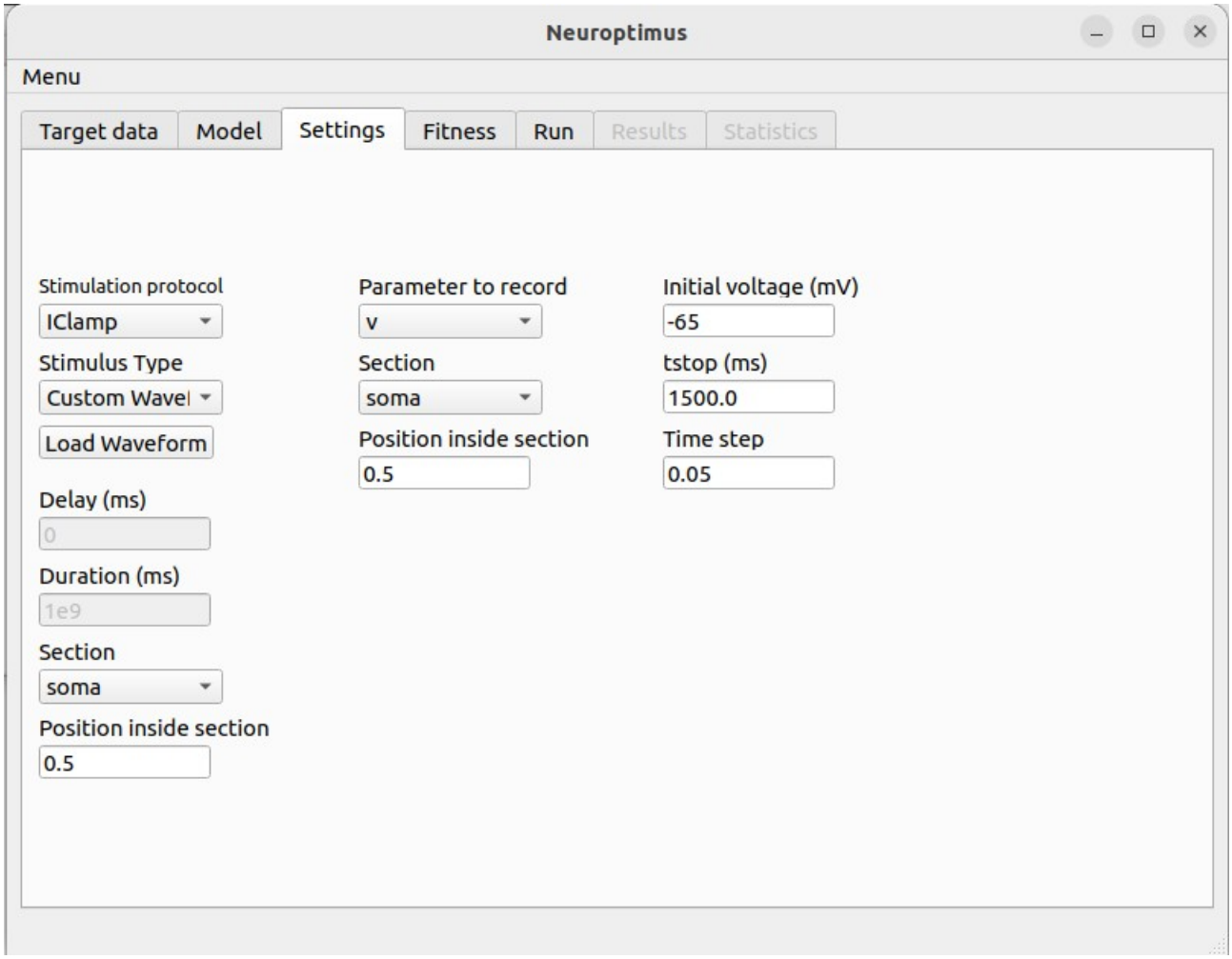
Summary of example:
The input data file ("131117-C2_short.dat") contains one trace obtained from a ca1 layer pyramidal cell by
using current clamp.
The cell was excited by a short 500pA and by a long 10pA pulse injected into the soma, so you have to use
the provided stimuli file (for this, select the "Custom Waveform" option from the dropdown menu on the
stimuli layer and then load the file: "cell2_stim.dat").
The data trace is 1500ms long and the sampling frequency was 20kHz.
The provided model is a passive one and it's based on a precise reconstruction, and we are interested in
the cm, Ra, g_pas parameters.
Because we had to set the e_pas parameter to 0 and we wanted to optimize the previous parameters in
every section, we created a function to do this for us (see "udeffun_pyr_3param.txt"), you can load this on
the model selection layer.
Step-by-step instructions to run the example from the Optimizer GUI:
Run „python3 optimizer.py -g" to start the GUI
At 'Data File' load the target data, at 'Base Directory' choose the directory where you want to save the results. Fill out all the cells and press 'Load data'. Go on by pressing the Model Tab.



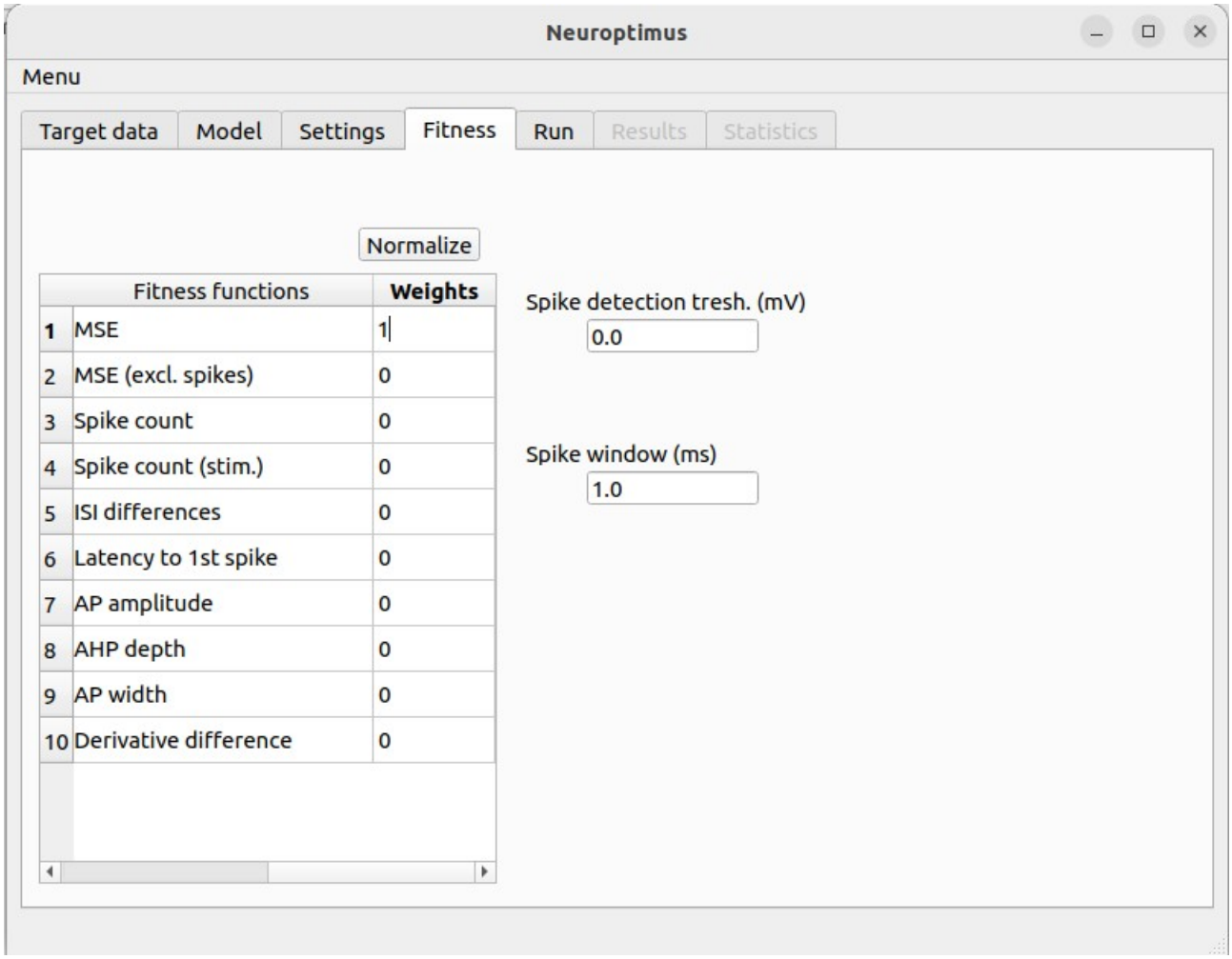
Browse to the model file and load the model.



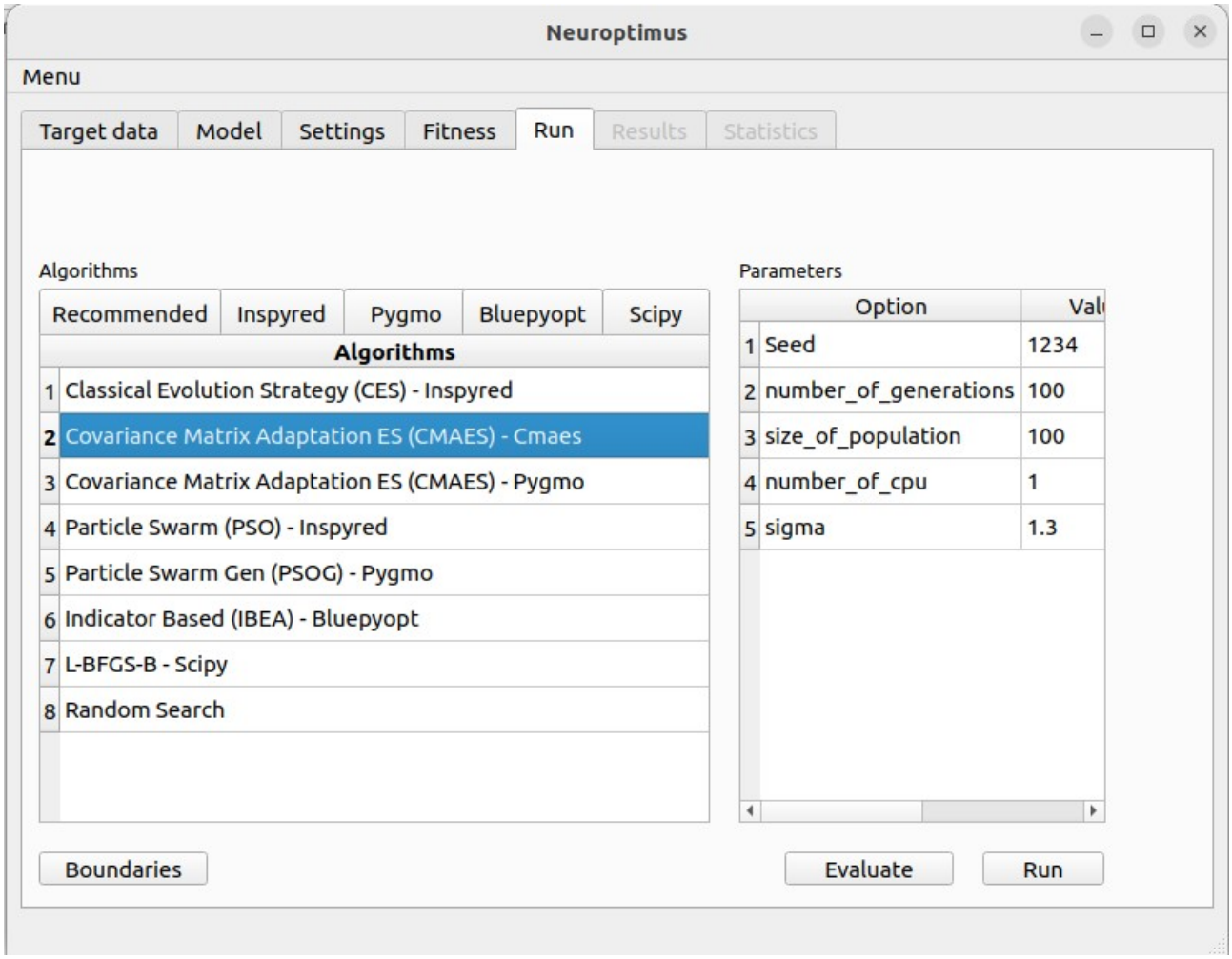
Press the ’Define Function’ button to load the user defined function:
Press ’Ok’, then go on by pressing the Settings Tab.

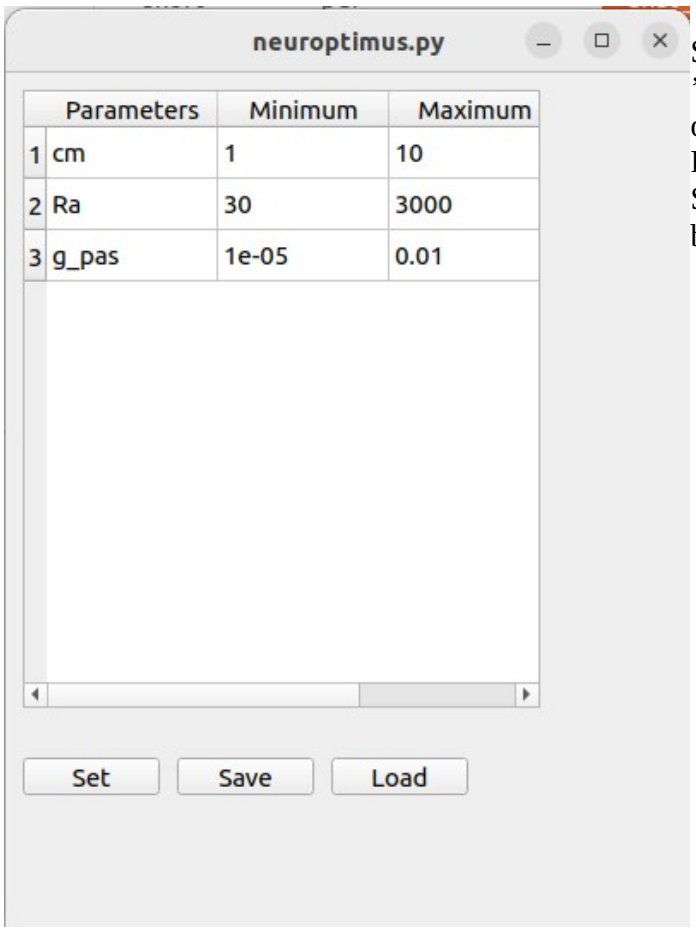


Choose ’Custom Waveform’ as ’Stimulus Type’, then press ’Load Waveform’ to load the file: cell2_stim.dat
Go on by pressing the Fitness Tab.



Choose fitness function(s), and define their weights. Go on by pressing the Run Tab.





Select an algorithm, and press the ’Boundaries’ button to define the boundaries of the parameters to be optimized:
Press ’Set’.
Start the optimization pressing the ’Run’ button.