

The LGN GUI takes an ascii file as input. Use the extension '.dat' for new input files and put them in the '.../LGNcircuit/dataFiles/' directory ('... \LGNcircuit \dataFiles \' on Windows systems). The data file must have two columns: The first column is the time vector and the second column is the vector containing the corresponding firing rate of the ganglion cell (i.e. both vectors have the same length). Use the file extension .dat on any new input files.

Nine input files are included with the GUI:

- 'impulse\_retina1.dat' - a biphasic input with equal duration of the first and second phase (42.5 ms). The biphasic index of the input is 0.38.
- 'impulse\_retina2.dat' - the same as 'impulse\_retina1.dat', but the biphasic index is 0.5.
- 'impulse\_retina3.dat' - the same as 'impulse\_retina1.dat', but the second phase has a duration of 70 ms.
- 'box\_retina1.dat' - a square signal (duration 400 ms) convoluted with the impulse response given by 'impulse\_retina1.dat'.
- 'box\_retina2.dat' - a square signal (duration 400 ms) convoluted with the impulse response given by 'impulse\_retina2.dat'.
- 'box\_retina3.dat' - a square signal (duration 400 ms) convoluted with the impulse response given by 'impulse\_retina3.dat'.
- 'sin5.dat' - sine input with frequency 5 Hz.
- 'sin10.dat' - sine input with frequency 10 Hz.
- 'sin50.dat' - sine input with frequency 50 Hz.