

University of London



A signal analysis environment for MATLAB

Neuroscience Toolkit

Version 0.8 12th June 2008 Author: Malcolm Lidierth King's College London The sigTOOL Neuroscience Toolkit adds import functions for a number of commonly used commercial file formats to sigTOOL. It also provides analysis functions for spike train analysis and a link to Wave_clus spike sorting software.

Acknowledgements

Import of most of the formats below depends of the use of a redistributable Windows application extension available from the manufacturer's website. In addition, some use the MATLAB/Neuroshare API.

I am grateful to Professor Rodrigo Quian Quiroga of the University of Leicester, UK for permission to include an interface to the Wave-clus software.

File extension	Manufacturer	Software	Platforms
ABF^1	Molecular Devices	pClamp,	Windows only
	Inc (Axon	AxoScope,	
	Instruments)	ClampFit	
CFS ²	Cambridge	Signal	Windows only
	Electronic Design		
	Ltd		
MAP^2	Alpha Omega		Windows only
SMR/SON ³	<u>Cambridge</u>	Spike2 software	All
	Electronic Design		
	Ltd		
NEX ³	Nex Technologies	NeuroExplorer	Windows only
NEV ³	Cyberkinetics Inc		Windows Only
PLX ³	Plexon Instruments		Windows only
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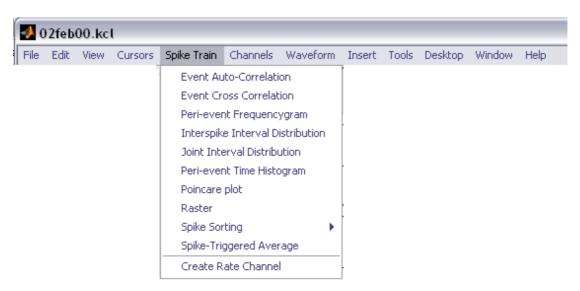
¹ Supported via the manufacturer's Windows application extension

1

² Supported via the manufacturer's Windows application extension and the Neuroshare/MATLAB API. See www.neuroshare.org

³ Uses MATLAB native code.

The following analysis functions are added by the Neuroscience Toolkit to a Spike menu in sigTOOL data views:



These menus provide analysis functions for spike trains. They also allow a spike train to be converted to a rate channel that may be further analyzed using the standard Waveform menu analysis functions.

See the online help for further details.