Software Development Tools

reliable, configurable & expandable software development tools

NetCom

**application programming interface (API) for
networked distributed processing development**

- Communicates with **Cheetah** for online interaction with custom, user-written programs

- Provides network distribution of **Cheetah** data records for real-time data analysis & experiment control.

- Selectively distributes data records across network to one or more computers, each running multiple analysis programs – for increased performance efficiency

- Sends commands to **Cheetah** & its hardware interfaces – full control from user apps

- Requests status of **Cheetah** settings

- Generates Event Records with experiment control programs & distributes to all other NetCom programs for message communications & coordination

- C++, .NET, MATLAB® & IronPython interfaces & examples

Extend Experiment Control Beyond Cheetah

- Complexity only limited by your imagination & programming skills

- Run multiple coordinate programs across a network of connected computers

- Input & output experiment controls with general purpose analog & digital I/O boards

Neuraview - Data File Viewer

- Views all **Cheetah** data files in multi-trace oscilloscope display format

- Optimized displays for scrolling & zooming

- Improved measurement legends & user interface

- Event Marker search

- Splits data files into smaller files organized by trials or other criteria using Event Markers

- Loads large files faster
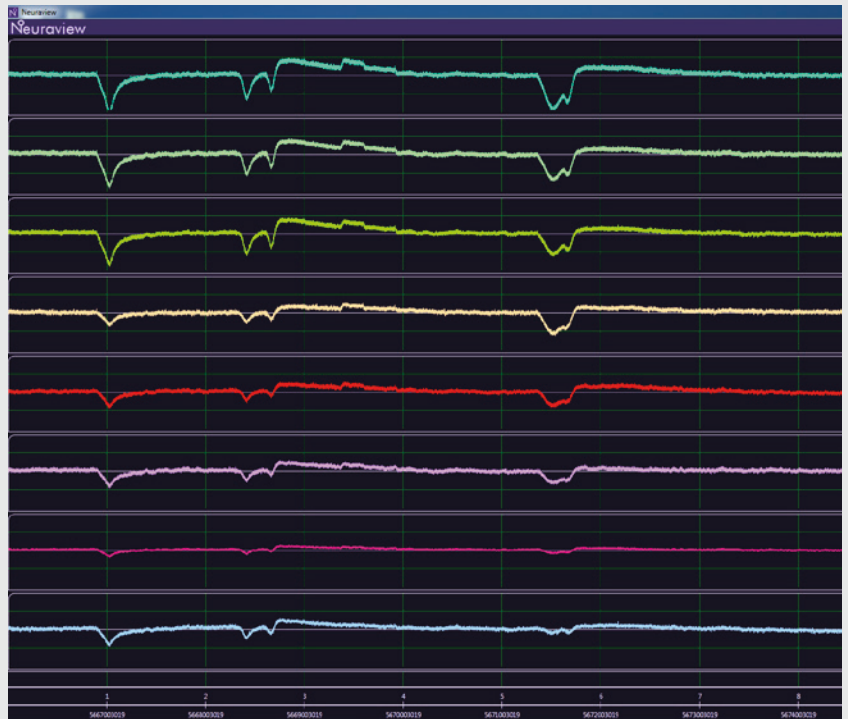
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SNAP Sorter – Smart Neural Action Potential Software
fast, consistent auto-clustering results

- Classify & sort over 100,000 tetrode spikes in minutes

- Batch process all data sets within two hours

- View tetrode cell results before next recording session

- Use with **SpikeSort 3D** for review and touch up

Note: Tetrode spikes & cluster definitions are so accurate that, in most cases, results do not require touch up with SS3D!
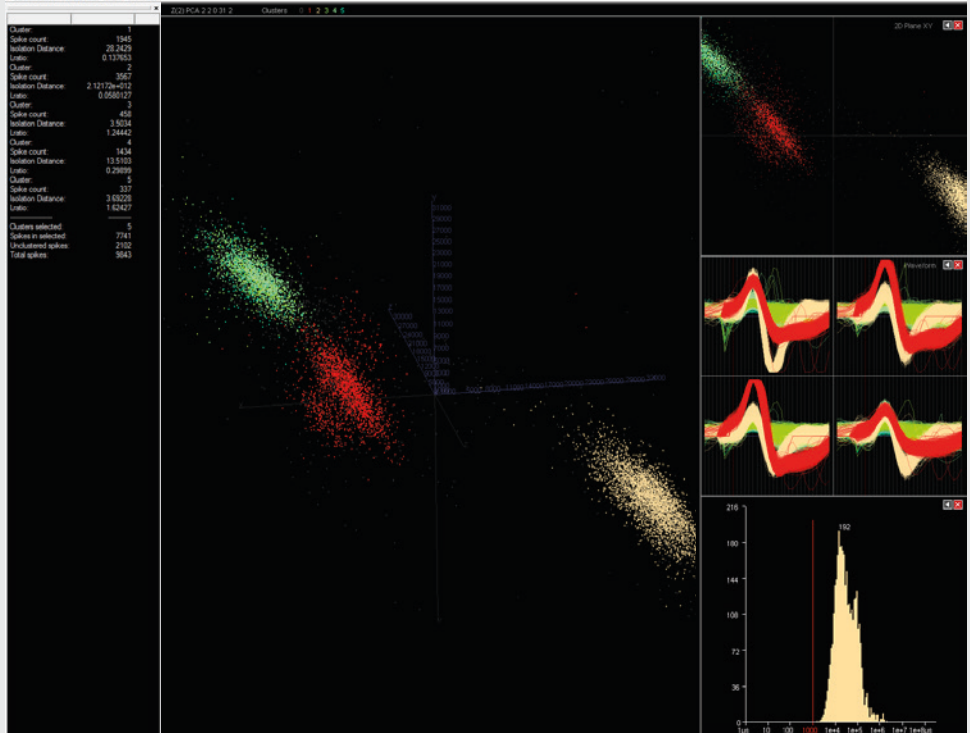
- Eliminates hours of manual spike sorting on each data set
- Provides better results than manual cutting
- Provides results before the next day's recording so you can:
    analyze your data
    assess integrity of your experiment
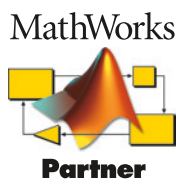   adjust your tetrode depths between sessions

SS3D display of SNAP Sorter results for 3 tetrode cells. SNAP provides results without your intervention.

Developed and used daily by MIT rodent and NHP labs, the algorithm for cluster analysis is patented by MIT and licensed exclusively by Neuralynx.

MATLAB® Resources – Data File Interfaces for Analysis Routines

- MATLAB .MEX files for Neuralynx data file Import & Export functions

- Use .m files library with **NetCom** for development of custom, online scripts

- Utilize example scripts, such as Stream Channels & Events, Place Fields, & NLX FFT (an online/offline viewer)

- Download free scripts for excellent coding base for custom applications

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