

## 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

### Neurview - 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



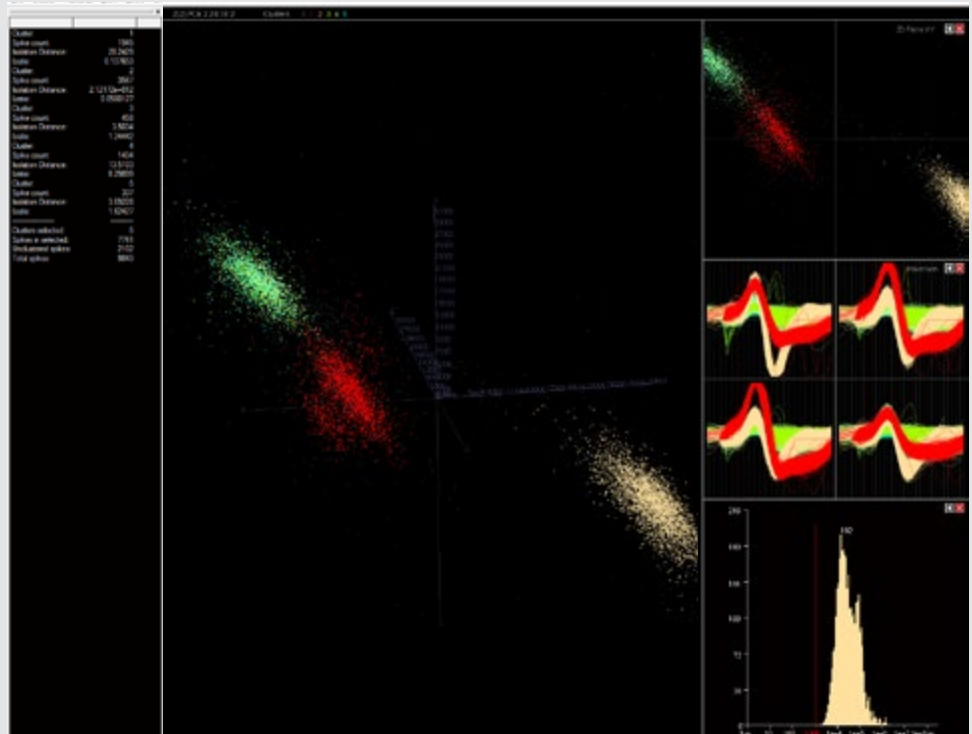
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### SNAP Sorter – Smart Neural Action Potential Software fast, consistent auto-clustering results

- 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

