

NEUROSOLUTIONS FOR THE FUTURE

the all-in-one solutions for electrophysiology / injections

ARIS-22

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NEUROSTAR

NEUROSOLUTIONS FOR THE FUTURE

ARIS-22

The all-in-one system for *in vivo* electrophysiology

ARIS-22 is a computer controlled hardware solution for *in vivo* electrophysiology. It integrates into a single compact box: preamplifiers, amplifiers, filters, impedance measurement module, stimulus generator and data acquisition module. In combination with the control software **neuro-Guide**, it offers a complete and powerful workstation for *in vivo* electrophysiology.



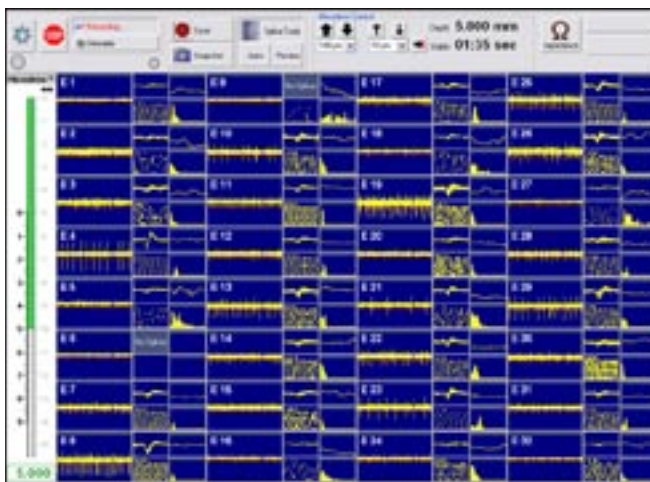
facts:

- Computer Control
- Recording (4 channels, spikes/LFP)
- Integrated Preamplifiers
- Programmable Stimulus Generator
- Impedance Measurement
- Data Acquisition
- Digital Events

ARM

Multichannel (64) system for extracellular recordings

ARM is a computer controlled multichannel recording and data acquisition system. It offers amplification, filtering, acquisition of extracellular neuronal activity: 32 action potential channels and 32 LFP channels. ARM is capable of both real-time and off-line spike-sorting and analyses.



facts:

- Recording (64 Channels)
 - 32 Action Potential
 - 32 LFP
- Data Acquisition Module
- Omnetics Connectors
- Digital Events



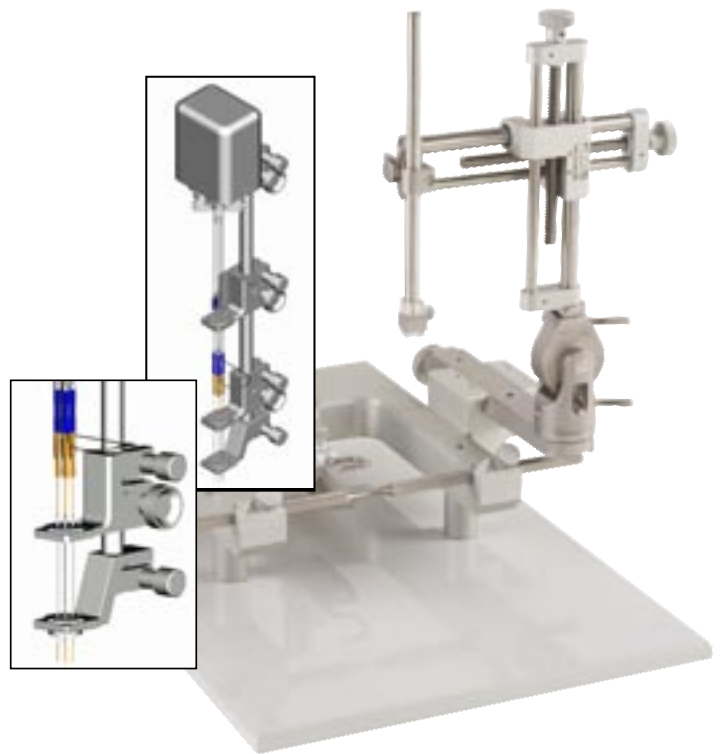
i4

Micropositioner for 4 independent electrodes
Single Motor Microdrive also available!

facts:

- Computer Control
- Standard Stereotaxic Compatible
- Independent Move of 4 Electrodes
- Flexible X-Y-Grid-Positioning
- High Accuracy

i4 was designed to position and advance up to 4 electrodes individually. This lightweight solution can be used on all common stereotaxic frames for rodents. The full integration in the **neuro-Guide** suite guarantees optimal control of each electrode combined with straightforward recording, data acquisition, real-time analysis and visualization.



StereoDrive

Motorized Stereotaxic System

Designed to adapt conventional stereotaxic systems, StereoDrive allows motorized, computer controlled stereotaxic positioning in all 3 orthogonal axes. Atlas integration and intuitive movement control, enables high accuracy, high-throughput electrophysiology and stereotaxic injections. StereoDrive is fully supported by the **neuro-Guide** software.

facts:

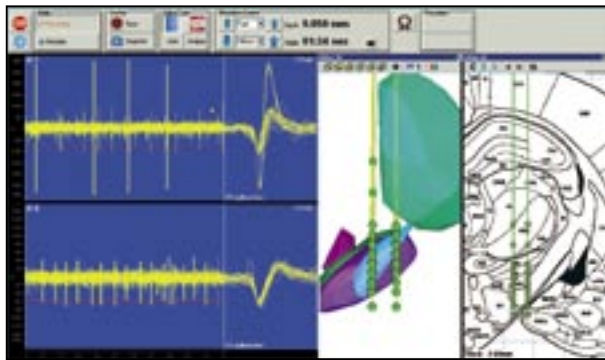
- Computer Control
- Standard Stereotaxic Compatible
- Stereotaxic Positioning in All 3 Axes
- High Accuracy
- High-Throughput



neuro-Guide

Complete management solution for *in vivo* electrophysiology

neuro-Guide is the complete software platform for electrophysiology. It fully controls recording, stimulation, impedance measurement, signal acquisition, real-time signal analysis, micropositioning. The new atlas-based 2D and 3D views provide real-time visualization of electrode advancement, localization relative to brain regions of interest and recording/stimulation sites along the trajectories. It supports high-throughput screening by unassisted exploration for single-unit neuronal activity. Automated raw-signal file organization and database management enables straightforward subsequent processing with **SpeedSort** and **Reco** analysis and visualization tools.



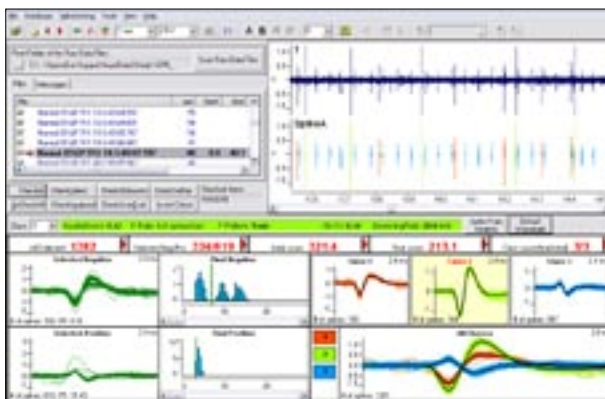
facts:

- Full Experiment Control
- Micropositioner Control
- 2D/3D Atlas Visualization
- Real-time Automated Spike Sorting
- On-the-fly Scan for Neuronal Activity
- Signal Database
- Management

SpeedSort

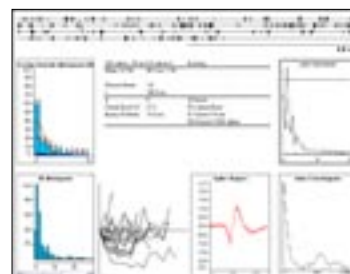
Automated, robust spike-sorting software package with fast batch analysis capabilities

SpeedSort is a fully featured package for robust, reliable and fast spike-sorting and subsequent spike-train analysis. The spike-sorting algorithms are based on multiperspective information (intelligent thresholding, sortability-score, shape, shape statistics, timestamp statistics). The batch sorting mode allows unassisted, unbiased, robust analysis for a large set of signal data. SpeedSort supports data import from **neuro-Guide** and data export to **Reco**.



facts:

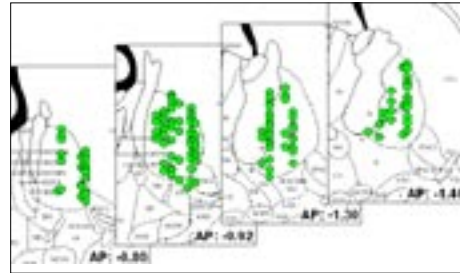
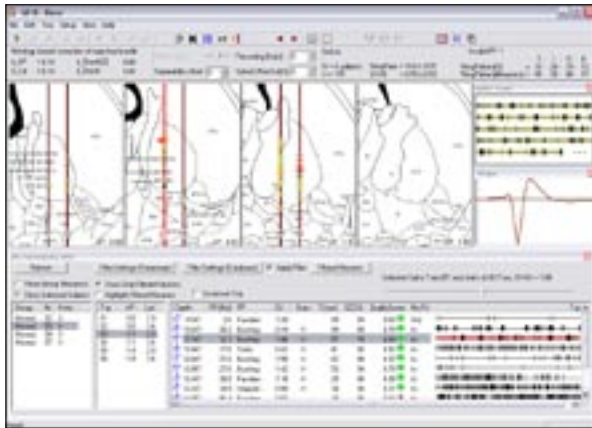
- Automated Spike-Sorting
- Reliable, Robust Spike Classification
- Batch Sorting, High-Throughput
- Firing Pattern Analysis
- Extended Spike-Train Analysis



Reco

Tool for comprehensive overview of electrophysiology data and histology-based reconstruction of recording sites

Reco is an innovative tool for suggestive visualization of the analysis results for a whole group of electrophysiological experiments. Furthermore it supports optimal recording sites reconstruction due to advanced atlas/histology matching. Reco improves and accelerates the evaluation and interpretation of the experimental results by a comfortable presentation of the results overview and by a user-friendly interactive selection of analysis details.



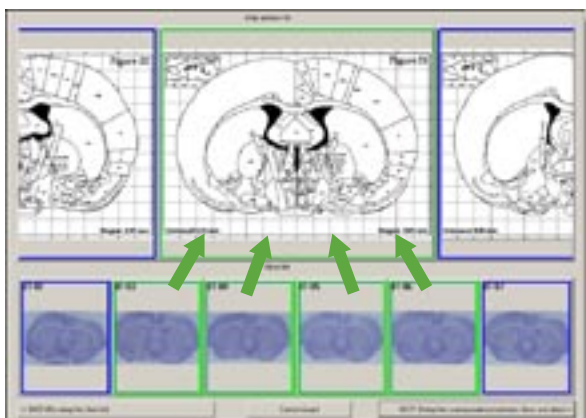
facts:

- Atlas/histology Matching
- Reconstruction of Recording Sites
- Comprehensive Result-Overview
- Integrated Statistics
- Image-Export for Publishing

HistoMatch

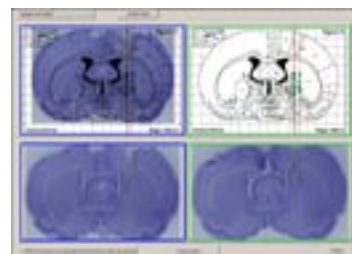
Dedicated software for atlas/histology matching and reconstruction of injection/lesioning/recording sites

HistoMatch is a powerful, easy-to-use software tool for interactive atlas/histology matching. It supports straightforward digitization of histological preparations, rapid identification, assignment and fitting of the „best“ histological slice containing the brain region of interest to the correspondent atlas slice.



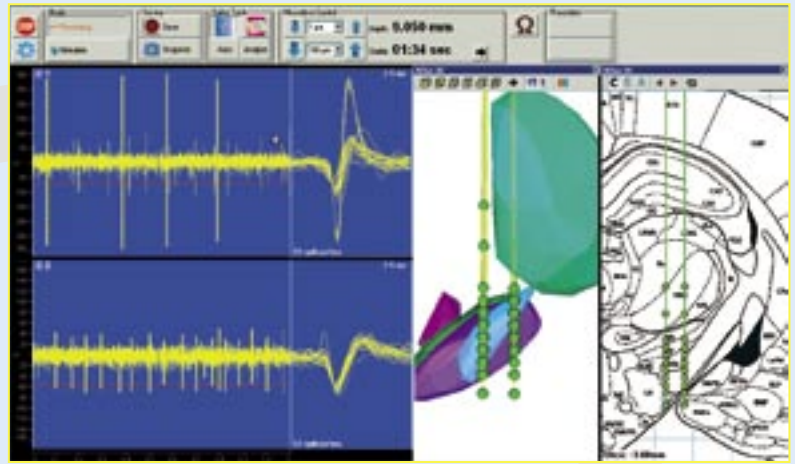
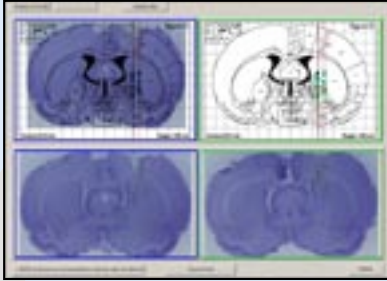
facts:

- Atlas/Histology Matching
- Straightforward Digitization/Sorting of Brain Slices
- Reconstruction of Injection/Lesioning/Recording Sites
- High-Throughput



neuro-Guide

Full Experiment Control
Real Time Spike Sorting
Micropositioner Control
Atlas/Histology Matching

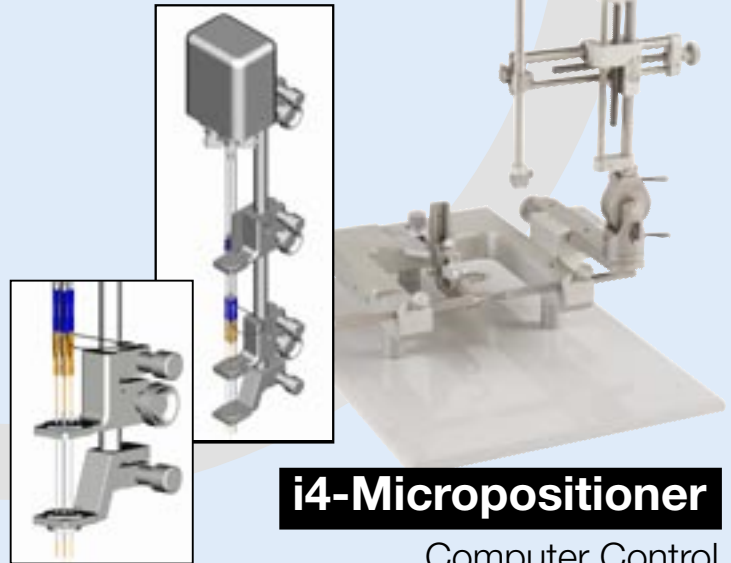


all-in-one workstation
electrophysiology/injections
high-throughput
straightforward



ARIS-22

Computer Control
Recording (4 to 64 channels)
Impedance Measurement
Stimulation
Data Acquisition



i4-Micropositioner

Computer Control
Standard Stereotaxic Compatible
Independent Movement of 4 Electrodes
Flexible X-Y Grid Positioning