# NeuroScore<sup>®</sup> CNS Data Analysis Software





- Gets results faster unparalleled speed of analysis
- Reports instantaneously standardized and customized reporting
- Adapts to your research goals standardized animal-model based algorithms and custom analysis
- Handles telemetry and EEG data in a single application





## Power to Process More Data in Less

NeuroScore is a versatile, streamlined solution that combines easy-to-use tools, efficient data processing, and accurate data analysis to reduce time to results. Built to efficiently analyze chronic data sets common to sleep and seizure studies, this modular platform provides the power and consistency required for CNS research applications.

## Powerful, Efficient Data Analysis

- Specifically designed to quickly load and analyze large, continuous datasets common to acute or chronic CNS studies.
- Analyze data collected in Dataquest A.R.T., Ponemah, EDF/ EDF+ and other file formats.
- Effortlessly view, browse, and synchronize data using sophisticated graphic and numeric displays.
- Identify and mark user-defined events or sleep stages with greater precision using advanced frequency analysis, statistics, and filtering tools.
- Further process derived data by exporting to Excel® and other file formats.

## **Reduce Time to Results**

- Increase throughput by allowing analysis processes to be automated across multiple animals at once using the Batch Processing module.
- Increase efficiencies by automatically monitoring data folders for seamless loading of new recordings.
- Reduce analysis time using automated scoring modules to rapidly and accurately process data.
- Quickly and consistently summarize results using predefined or custom reporting templates.



Batch processing of data sets

## Choose the CNS Software Modules

NeuroScore's modular design allows it to be tailored to a specific research application. The core software is the foundation of the analysis platform and contains the majority of the program features and functions. Choose from the optional modules to enhance the core software.

## **Sleep Scoring Modules**

Dramatically reduce analysis time and variability using the Rodent and Large Animal Sleep Scoring modules.

#### **Automated Rodent Sleep Scoring**

- Scoring based on the frequency content of the EEG and presence of EMG activity and movement.
- Stages include: Paradoxical Sleep, Slow Wave Sleep (SWS-1 and SWS-2), Wake, and Active Wake.

#### Automated Large Animal Sleep Scoring

- Based on the American Academy of Sleep Medicine standards for human sleep scoring, this algorithm uses EEG, EMG, EOG, and activity data.\*
- Stages include REM, Non-REM (N1, N2, N3), Wake, and Active Wake.

### **Sleep Scoring Modules**

The Spike Train detector scans the waveform for repeating EEG spike activity using user-defined amplitude-based criteria.

Several parameters including spike train duration and number of spikes can be displayed per event or summarized over longer time intervals.

## **Video Synchronization**

Improve confidence in results by synchronizing video data acquired with Dataquest A.R.T. or Ponemah to validate or further classify detected events

## **Batch Processing**

Increase throughput by automating analysis processes on multiple recordings at once. Customize workflows for ultimate versatility to:

- Score multiple recordings
- · Export signal or parameter data
- · Generate and export reports
- Complete these three steps within a single workflow

\*www.aasmnet.org

## NeuroScore Core Software

## **Optional Modules**

Automated Rodent Sleep Scoring

Automated Large Animal Sleep Scoring

Seizure Detection

Video Synchronization

**Batch Processing** 

#### **About Data Sciences International**

DSI provides a complete preclinical platform to assess physiological data for research ranging from basic, to drug discovery, and drug development. DSI is the leading provider of telemetry systems, pulmonary solutions, associated software platforms, and services. DSI is a division of Harvard Bioscience Inc.



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