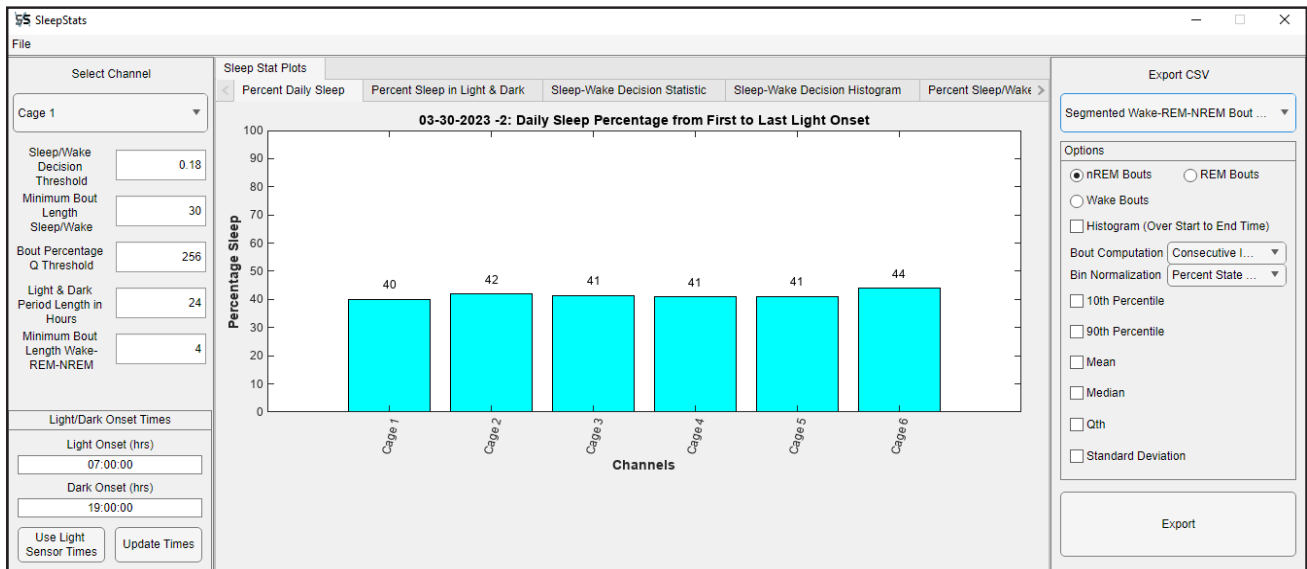# SleepStats™ System Overview
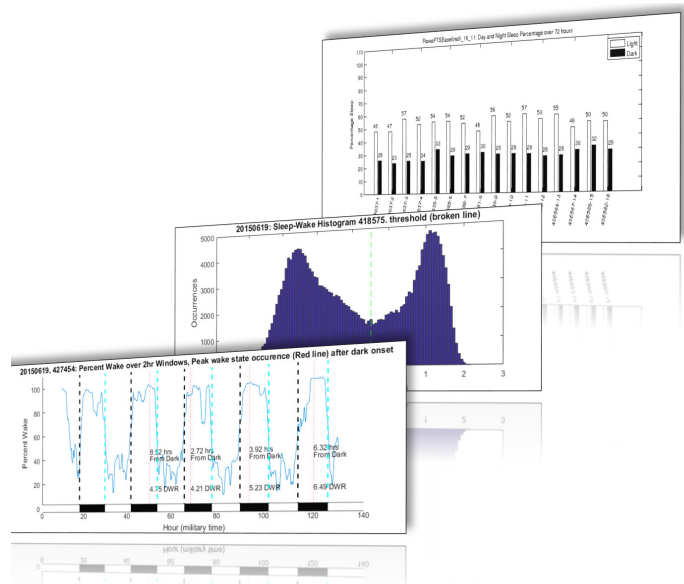

Introduction

The SleepStats™ data explorer software software provides a convenient interface to open and process data recorded by the *PiezoSleep*™ behavior monitoring system. The software automatically segments data into sleep/wake to provide summaries of various sleep-wake parameters to characterize rodent sleep with human level accuracy [1]. SleepStats4 PRO offers additional functionality, including NREM-REM classification, light-dark segmentation via environmental sensor, and activity analysis. Data can be summarized according to according to user-defined parameters, accommodating a variety of experimental designs.

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1 Agreement between SleepStats classification and human scoring was 92% agreement compared to concordant scores assigned in 4 -second epochs by two independent manual raters in 42 C57BL\6 mice
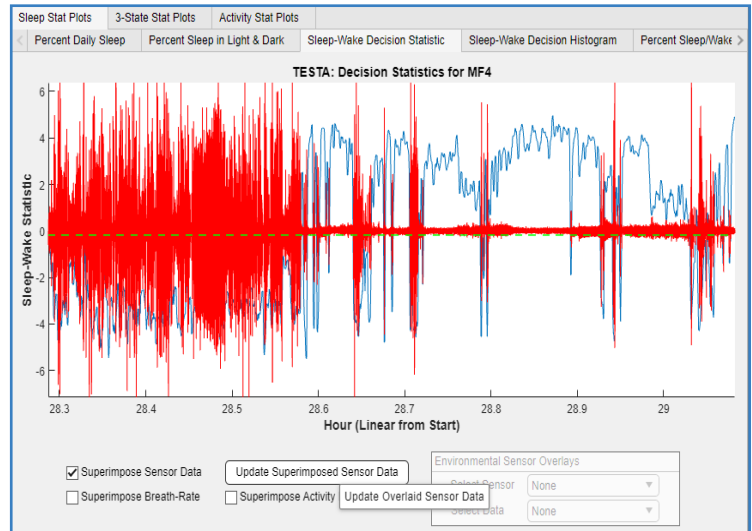
Automated Sleep-Wake Analysis

- Percent Daily Sleep

- Percent Daily Sleep in Light & Dark

- Sleep-Wake Decision Statistic

- Sleep-Wake Decision Histogram

- Percent Sleep/Wake Over Sliding Interval
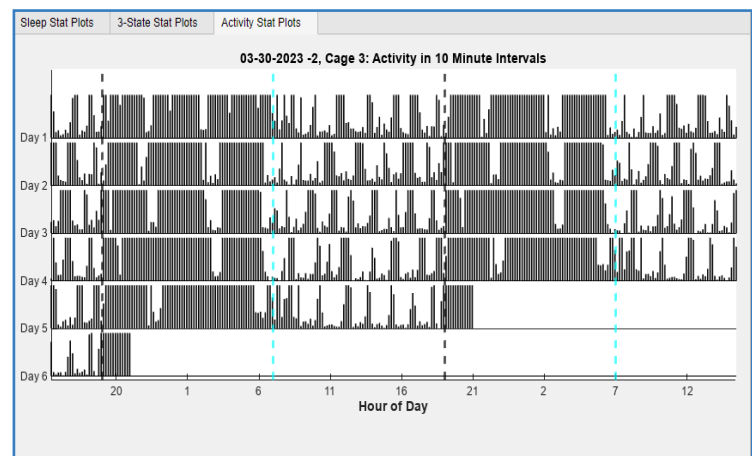
- Sleep-Wake Bout Length Histogram

Pro Version

SleepStats 4 Pro offers enhanced software functionality, featuring 3-state vigilance behaviors (Wake, NREM, and REM), activity levels, and an expanded set of CSV export functions. In addition to viewing and exporting data from our environmental sensor, it also has options to use the light levels to automatically segment out light and dark cycles when computing phase-based statistics. This is useful when applying non-periodic light-dark cycles.

SleepStats4 Pro Features

- Wake-NREM-REM classification

- Automatic Light-Dark Segementation via

  Environmental Sensor

- Activity Analysis

- Expanded Export Options

Lite Version

Want to give SleepStats a try for yourself? SleepStats Lite provides basic functionality to analyze sleep, as well as select data exports available. SleepStats Lite, as well as, a sample data set can be downloaded for free from our website.