

NEW Automated Actigraphy Analysis Package with Routines for Sleep & General Gross Motor Activity

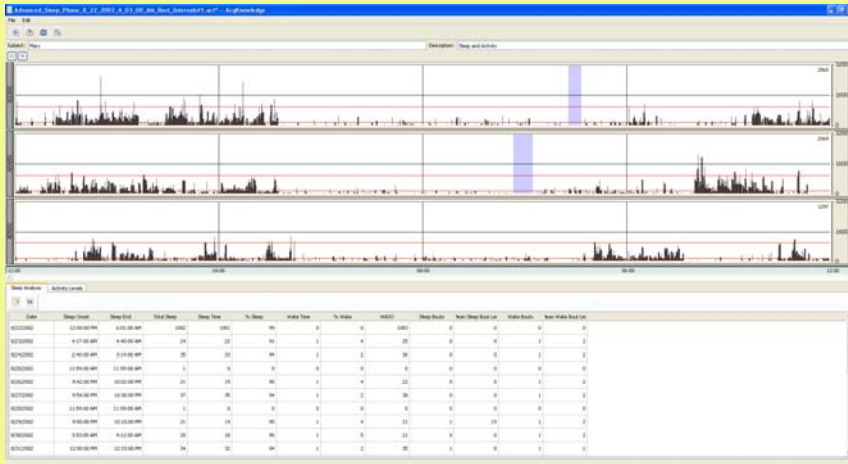
*Record long-term accelerometer data and analyze sleep and activity patterns of mobile subjects.
Correlate activity levels with GPS positioning for even more information.*

The new Actigraphy licensed feature operates in two modes to provide a general indication of activity and also sleep patterns. The analysis routine requires a raw accelerometer signal coming from either a BioNomadix module or the Mobita. The accelerometer will record the general activity levels of the subject and the software will display and report the results. When the analysis is combined with the GPS tracker, it is possible to identify where the subject was located and compare it with the actigraphy data.



SLEEP ANALYSIS

The sleep detection method uses a zero crossing algorithm that breaks the data down into one minute windows as described in the publication by Sadeh A, Sharkey K, et. al. The algorithm then employs a sleep onset heuristic as reported by Cole R, Kripke D, et. al. The data is displayed and the software reports the following twelve sleep related metrics:

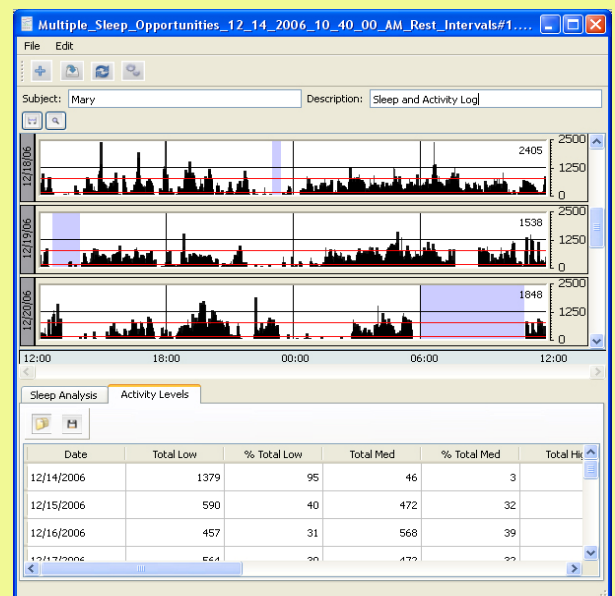


- Sleep onset
- Percentage of wake
- Sleep end
- Wake after sleep onset (WASO)
- Total sleep period length
- Sleep bouts
- Sleep time
- Wake bouts
- Percentage of sleep
- Mean sleep bout
- Wake time
- Mean wake bout

ACTIVITY ANALYSIS

The activity analysis is intended to analyze data that was collected from the subject throughout the day. It reports on the general level of activity that was evident in the accelerometry data and breaks it into low, medium and high activity levels. The report provides the twelve following metrics:

- Total low activity time
- Waking low activity time
- Total high activity time
- Total low activity %
- Waking low activity %
- Total high activity %
- Total medium activity time
- Waking medium activity time
- Total medium activity %
- Waking medium activity %
- Total high activity %
- Waking high activity %



Contact BIOPAC to learn more or request a quotation!