Software Tools and Services
for chrono and psycho physiology
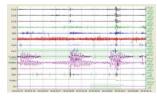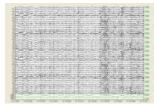
PRANA Viewer

Display Options

The PRANA® software for biosignal processing has powerful display capabilities to assist expert visualisation and facilitate reviewing and interpretation.

With its intuitive navigational toolbar and commands, the software allows efficient visualisation and exploration of digital biosignal recordings at multiple time scales using synchronisation markers.

- Direct display from the traces of an unlimited set of signals at any recording time intervals and scales with signal measuring tools and complete synchronicity.
- Specific event markers directly displayed on the corresponding recording traces.
- Whole temporal trends of selected features extracted from recordings using any software plug-ins (evolutive spectral arrays, event densities and stage scoring series).
- Adjustable spectral densities display of selected artefact-free portions of recording traces.

PRANA in sleep breathing disorders
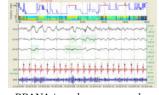
PRANA in quantitative EEG

Session Modes

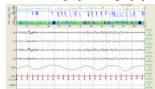The PRANA® software for biosignal processing features two different ways to review and analyse multi-channel recordings:

- one for the continuous recording sessions (*.cnt) like classical polysomnographic recordings or long-term ambulatory recordings,
- another for sequential recording sessions (*.spi) like iterative vigilance tests or scheduled serial psychometric or behavioural tasks.

With either continuous or sequential recording sessions, one can quickly and easily modify channels, time and amplitude scales, and explore traces using a large palette of navigation tools:

- keyboard paging commands,
- traces auto-scrolling,
- mouse-clic zooming,
- synchronisation functions.

PRANA in polysomnography

PRANA in iterative vigilance tests

The software offers a permanent access to every session-related information, with an instant and synchronous display of the recorded signals, the expert scored stages and all the software analysis results.

- The session recording dialog-box displays the name, location and information of the recording file(s) used in the current session, as well as the montage and calibration settings used.
- The session analysis dialog-box displays for the current

session the name, location and information of the different analysis and detection files obtained from using the different software suite plug-ins.

- The session audit dialog-box displays the different actions performed by the current registered user and keeps track of the executed software plug-ins with all their related settings.

Session Information Tools

Review Tools

The software offers a large palette of search tools allowing to quickly and easily locate and navigate to any particular event included in the recordings.

The software search tools allow quickly finding any:
- recording sections, start and end times,
- reviewing epochs, times, sequences,
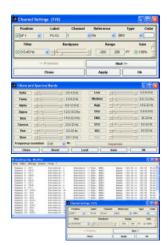- scoring epochs and stages,
- marking events and annotations.

Reviewing Tools

Montage and Filters

The software for expert reviewing of biosignals allows instant montage reformatting using various settings, different channels, filters and scales.

- The software montage editor can display as many channels as desired, re-referencing recorded channels, quickly identifying channels using default colours and adjusting the display settings of each channel.
- The software filter editor allows the application of adjustable digital band-pass filters to each displayed channels using different filtering methods.
- The software offers different calibration tools to set and adjust the amplifier settings (amplifier sensitivity and A/D conversion unit) of each each recorded signals.
- The software settings for different montages and filters can be stored into ASCII text files (*.mtg/cal) for use on further instances, and modified using any text editor.

Channels, montage and filtering tools

Artifact Removal and Signal Denoising

The PRANA® software for biosignal processing offers a large set of blind source separation (BSS) algorithms for independent component analysis (ICA) featuring denoising of artifacted recordings.