

MindWare

TECHNOLOGIES LTD.

A Lafayette Instrument Company

Physiological Signal Processing Hardware and Software



Data Acquisition, Amplifiers, A/V Recording, Event and Stimulus I/O

Biological Nexus (BioNex)

bi.ol.o.gy [bahy-ol-uh-jee] –noun

- is the science of life.

nex.us [nek-suh s] –noun

- a connection or link associating two or more things, the center or focus of something.



The MindWare BioNex line provides a flexible, upgradeable, powerful and easy to use system for all your laboratory data acquisition needs. The BioNex line has two different mainframes, a 2 slot and an 8 slot unit that are capable of up to 8 and 32 configurable channels respectively. They are customizable with any of the six signal conditioning and two audio/video modules for synchronized audio/video collection. It is ideal for collecting signals such as: ECG, EMG, EEG, EOG, various transducers for force, angle, etc., stand alone instruments, impedance cardiography, and plethysmography. There are extensive digital event capabilities for synchronous, asynchronous and keyboard event capture. BioLab software ships with every BioNex unit and provides an intuitive and flexible interface for signal recording, display and event capture. BioLab also provides in line filtering, scaling, signal processing, and real time trending and analysis capabilities. This is in addition to being 100% compatible with the MindWare suite of advanced signal processing applications. BioNex combines quality data acquisition mainframes, precision amplifiers, easy to use BioLab software, synchronous A/V collection, and event and stimulus I/O to provide a total solution for your lab. Contact us today to find out more!

Ambulatory & Wireless Monitoring

MindWare's line of ambulatory and wireless monitoring solutions are flexible to meet your most demanding research needs. There are four different ambulatory monitoring instruments for such measures as ECG, EMG, EEG, EOG, skin conductance (GSC), impedance cardiography, goniometers, accelerometers, and other transducers. Each unit can collect data locally to a SD memory card or transmit data via Wi-Fi with a wireless router to a desktop PC. Up to four units in any combination, or 16 different channels can be acquired simultaneously from multiple subjects, or a single subject. In addition, collection of audio, video, and triggering/event marking can be integrated into the system through additional MindWare hardware. MindWare's BioLab acquisition and analysis application seamlessly integrates everything to give you the "total picture" on multiple or single subject studies in psychology, behavior, and biomechanics applications.



There are three ambulatory monitoring instruments to choose from:

- Ambulatory Impedance Cardiograph, Model 50-1000-00
- Ambulatory 3 Channel Bio-Potential with GSC, Model GSC 50-3000-00
- Ambulatory 4 Channel Bio-Potential, Model 50-5000-00



Laboratory Systems

Premium Lab Audio/Video System

Model 50-6004-00

The MindWare Premium Audio/Video System combines the high fidelity capabilities of the MindWare Standard Lab Audio System Model 50-6000-00 with the monitoring and recording function of the MindWare Premium Lab Video System Model 50-6002-00. The premium system offers remote controlled pan/tilt/zoom color cameras using a web based interface. This powerful integration allows noiseless two-way communications, audible stimulus presentation, subject monitoring, and on-the-fly digital recording.



Mobile Lab (Audio/Video Stimulus Response)

Model 50-6005-00

MindWare's portable lab is designed for field research using two professional mobile field cases containing all equipment needed for most psychophysiology studies.

The Mobile Lab Audio/Video Stimulus Response case has the capability of monitoring and recording audio/video while delivering startle quality, audible and visual stimuli. Using remote controlled Pan/Tilt/Zoom cameras and a picture in picture inserter, multiple subject views are mixed and recorded into a single image.



Stimulus Response System

Model 50-6008-00

The MindWare Stimulus Response System provides the capability of presenting audible or visual stimuli to a subject as well as recording their responses. In addition to stimulus presentation, subjects can be queried using many assessment tools including questionnaires or pre-recorded audio files.

Responses are collected using wireless keyboard and mouse which provides the means for performance measurement. Visual stimuli are presented using an LCD monitor. Continuous rating can be performed when integrated with the MindWare Continuous Rating System or BioNex Rating & Response Module. This system can also be integrated into your physiologic recording system to insert event marking.



**Contact us
today to build
your lab!**

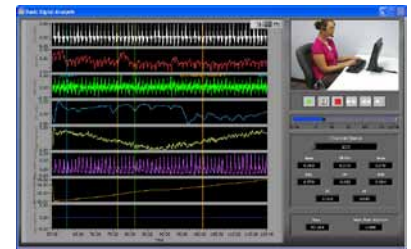
Advanced Processing Software Apps

The MindWare suites of physiologic applications offer the life science researcher a sophisticated array of tools to analyze autonomic function. Its ease of use, flexibility, graphical interface, and integration of proven and validated methodologies make these products the instruments of choice for researchers worldwide. The applications have proven to be a quick and accurate means of converting raw physiological data to meaningful statistical representations, allowing faster data reduction and analysis of autonomic function.

Basic Signal Analysis (BSA) Software

Model 60-1117-00

Calculate basic statistics (mean, median, mode, max, min, RMS, AC, DC) for any type of waveform



BSA

Heart Rate Variability (HRV) Analysis Software

Model 60-1100-00

Calculates VLF, LF, HF/RSA power, HR, respiration rate, IBI series

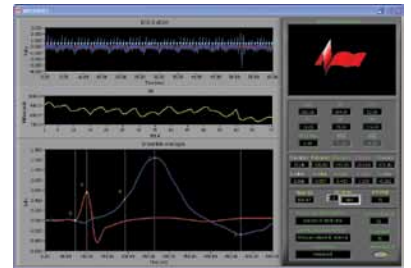


HRV Analysis

Impedance Cardiography (IMP) Analysis Software

Model 60-1101-00

Calculates LVET, PEP, SV, CO, HR, dZ/dt max, Mean IBI, IBI series, number of R peaks

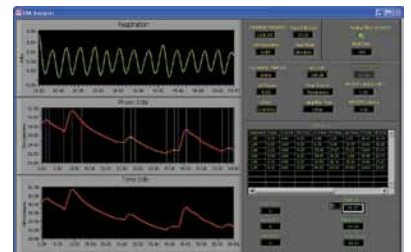


Impedance Cardiography Analysis

Electrodermal Activity (EDA) Analysis Software

Model 60-1102-00

Calculates specific and non-specific skin conductance responses based on events

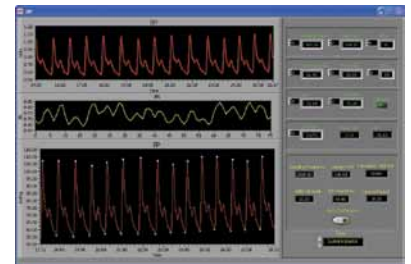


EDA Analysis

Electromyography (EMG) Analysis Software

Model 60-1103-00

User programmable linear envelope methods, filter cutoffs, filter order and windowing size



BP Analysis

Blood Pressure (BP) Analysis Software

Model 60-1104-00

Calculates systolic, diastolic peak and mean values, Heart rate, mean IBI, IBI series

Electroencephalogram (EEG) Analysis Software

Model 60-1105-00

Calculates total power within definable frequency bands, peak frequency, and peak power point



BioLab

BioLab

Model 60-3700-00

BioLab can quickly and easily acquire data from MindWare's entire versatile line of desktop and wireless hardware including all the BioNex and Ambulatory instruments.