# HEART RATE VARIABILITY SUITE
DON MOSS, PHD AND FRED SHAFFER, PHD

Limited Edition Software Suite

Don Moss, PhD and Fred Shaffer, PhD are well known in the biofeedback world for their published works and expertise with regards to heart rate variability (HRV) and biofeedback in general. A team of clinicians and the BFE collaborated with Dr. Moss and Dr. Shaffer in order to implement their research and methods into a software suite for training HRV. From that work, the Heart Rate Variability Suite was born. The software and supporting documents teach the techniques for a variety of convergent training strategies necessary for increasing HRV. Psychologists, therapists and other health practitioners will find this suite, and included clinical guide, particularly helpful for entering the field of HRV biofeedback. The suite includes:

- Over 30 training screens, to be used with progressive strategies for increasing HRV. The screens focus on HRV, but can also measure muscle tension data, skin conductance and temperature. Even some secondary EEG monitoring exists.
- Training screens with designed for 1 or 2 monitor setups.
- One general stress assessment script (19min) and five HRV-related training scripts (10-14min), that include simple instructions for guiding the client.
- Heart rate data monitoring can be done with either the BVP (blood-volume pulse) or EKG (electrocardiogram) sensor, depending on the supervising clinicians' preference.
- Software manual for explaining technical details of the software and equipment.
- Clinical manual, originally written by Dr. Moss and Dr Shaffer, on HRV theory and training strategies for use with the suite or even in general practice.
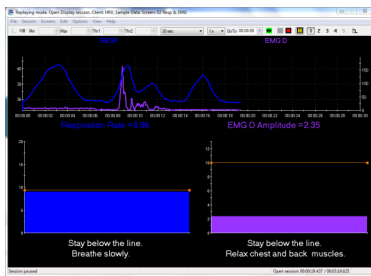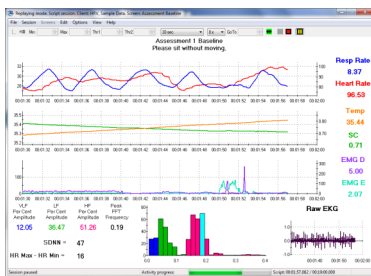
Education & Training Opportunities

The BFE currently offers two types of online lesson/meeting designed to meet your diverse education and training needs. All sessions provide continuing education (CE) credits to psychologists.

- 6-Hour **HRV Class**: 4 x 1.5 hours of online instruction from a qualified instructor on assessment and training for increasing heart rate variability. This class is well suited for beginners or experienced practitioners that want to use Dr. Moss and Dr. Shaffer's HRV Suite and training strategies in the in their practice. All aspects of using the software will be covered in great detail, and recorded data will be reviewed to ensure proper recording. Interpretation of data by the instructor will occur, however focus is maintained on being able to successful use all aspects of the software and equipment.

- 3-Hour **HRV Grand Rounds**: attend live 60-minute online sessions scheduled monthly for three consecutive months and take the opportunity to ask Dr. Moss or team members your questions about different training methods, share new information and discuss cases. Demonstrations of recorded and live data and other information set in an interactive framework provide up-to-date, relevant summaries that can immediately be put to use.

For more Information or Questions:

redhrv@gmail.com

To purchase the suite and/or education & training, go to the BFE Shop:

Www.bfe.org/buy

BioGraph Infiniti Software

BioGraph Infiniti Software is the core of all current and future Thought Technology Biofeedback and Psychophysiology products. It provides a multimedia rich graphical experience, while capturing and analyzing raw data. It includes all the features and functions required to run our specialized application Suites and offers the ability to customize your own screens and suites using the Developer Tool . **BioGraph Infiniti version 5.1.4** is designed to provide full compatibility with the latest Windows 7 operating system.

Required Encoder for running the software

- **ProComp Infiniti encoder** is the eight-channel, multi-modality encoder that has all the power and flexibility you need for real-time, computerized biofeedback and data acquisition in any clinical setting. It records data from up-to eights sensors simultaneously.

Select Sensor Measurements for Collecting Data

This list consists of the all sensors to be used with the encoder in this suite. The respiration and heart rate sensors are obviously the most important.

- **MyoScan-Pro sensors (x1 is strongly suggested; x2 is optional)** are pre-amplified surface electromyography sensors for measuring muscular tension. Disposable electrode pads are necessary with this sensor.
- **BVP sensor (x1)** is a blood volume pulse detection sensor (otherwise known as a PPG sensor) housed in a small finger worn package, to measure heart rate & heart rate variability. It is not necessary to own both BVP and EKG sensors.
- **EKG sensor (x1)** is a pre-amplified electrocardiograph sensor, for directly measuring heart electrical activity, which in turns gives us heart rate and heart rate variability information. It is not necessary to own both BVP and EKG sensors.
- **Respiration sensors (x1)** are durable, latex girth belt for monitoring respiration rate, waveform and amplitude sensor.
- **Skin Conductance (x1)** sensor measures the conductance across the skin, and is normally connected to the fingers.
- **Temperature sensor (x1)** measures skin surface temperature between 10°C – 45°C (50°F - 115°F).
- **Optional: EEG-Z sensor (x1)** is pre-amplified electroencephalograph sensor with built in impedance checking, for measuring brainwaves. **EEG monopolar/bipolar kit with DIN cable** is also necessary to use this sensor. This sensor is of secondary, use.
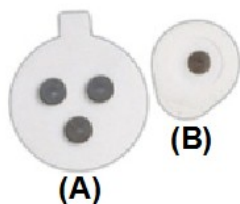
Disposable Electrodes - Triode and/or Unigel

The MyoScan-Pro sensors have two potential electrode placement types, so there are also two types of electrodes for purchase. The **triode** disposable electrode (A) is used for narrow placement and the **unigel** (B) for wide electrode placement. You will need to purchase at least one type of disposable electrode.
The use of the EKG sensor requires the purchase of **unigel** electrodes (B).

Additional Computer Setup Information

The software suite allows (but does not require) for a dual-monitor setup for training clients. Purchase of a second monitor is required if the user wishes to take advantage of that option.