

# **REPETITIVE STRAIN INJURY (RSI) SUITE**





### Limited Edition Software Suite

The Repetitive Strain Injury (RSI) suite was designed by Pedro Teixeira, the Biofeedback Federation of Europe's senior electromyography software developer and instructor, as a tool for implementing the clinical method described in the book **Muscle Biofeedback at the Computer**, co-authored by Erik Peper, Ph.D., and Katherine Hughes Gibney. This software is designed to aid clinicians in the assessment and training for the prevention and recovery from repetitive strain injury, for use with a wide spectrum of clientele but also with a potential focus on office workers. Professionals looking to enter the field of RSI prevention and ergonomics will benefit from this package. The suite includes:

- Typing Assessment script for evaluating muscle tension, changes in respiration and general increase in stress levels as an individual assumes a series of different positions when working at the computer (duration of 3.5 minutes). Instructions are embedded directly into the evaluation.
- Excel report that graphs relevant statistics from the typing assessment into an easy -to-read manner.
- General assessment and training screens used for a variety of ergonomic settings and activities script. Refer to the accompanying book for the many different situations and exercises.
- Micro-breaks training screens for teaching heavy computer users to periodically relax their muscles.
- Suite documents are included with the suite purchase, which include a software manual for every technical aspect of using the suite, as well as sample client data.

Please note: the **Muscle Biofeedback at the Computer** book is sold separately from the Repetitive Strain Injury suite. The book can be purchased from a variety of locations, including as a PDF document from the BFE's online shop.

## **Education & Training Opportunities**

The BFE currently offers one type of online lesson/meeting designed to meet your education and training needs:

• 1-Hour **Introduction to the RSI Suite Webinar**: Jon Bale, BFE Research Manager, reviews the software and documents included in the "RSI Suite" from assessment to training. The webinar covers the following items; authors, goals of the suite, necessary equipment, sensors & accessories, typing assessment & excel report, general assessment & training screens, and microbreak training.

If you are interested in arranging other types of qualified instructor-guided lessons, then the BFE would gladly do so. Please contact the BFE Shop (**shop@bfe.org**) do make such arrangements. Other possible online lessons could include:

• 6-Hour **RSI Class**: four 90 minute onlinesessions of instruction from a qualified instructor on ergonomic assessment and training using biofeedback. This class would be suited for beginners or experienced practitioners that want to use the make of the RSI Suite and biofeedback in general within their ergonomic 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, how-ever focus is maintained of being able to successful use all aspects of the software and equipment.



For more Information or Questions:

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

greenrsi@gmail.com

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 RSI Suite and offers the ability to customize your own screens using the Developer Tool. The suite functions with **BioGraph Infiniti version 5.1.4** or **6.0**, and is designed to provide full compatibility with the latest Windows 8 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 of sensors to use is relative to which parts of the software. Below, the maximum number of sensors are listed.

- **MyoScan-Pro sensors (x4)** are pre-amplified surface electromyography sensors for measuring muscular tension. Disposable electrode pads are necessary with this sensor. Aspects of the software use 1, 2 or 4 of these sensors. We suggest at least owning 2 MyoScan-Pro sensors.
- **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. The suite can run with either the BVP or EKG sensor, no need for both.
- **EKG sensor (x1)** is a pre-amplified electrocardiograph sensor, for directly measuring heart electrical activity. Disposable electrode pads are necessary with this sensor. The suite can run with either the BVP or EKG sensor, no need for both.
- **Respiration sensors (x1 or x2)** are durable, latex girth belt for monitoring respiration rate, waveform and amplitude sensor. Different components of the sotware use 1 or 2 respiration sensors. Owning 2 sensors is important for differentiation of thoracic breathing from belly/abdominal breathing.
- **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  $10^{\circ}C 45^{\circ}C$  ( $50^{\circ}F 115^{\circ}F$ ).

## **Disposable Electrodes Necessary for Sensors**

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.