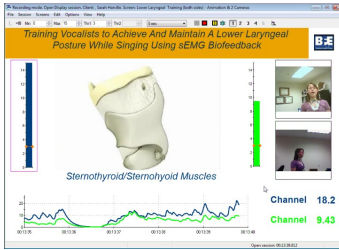# VOICE SUITE
ADAM KIRPATRICK, PhD

Limited Edition Software Suite

It is rare for the worlds of biofeedback and performing arts to intersect. Dr. Adam Kirkpatrick's interest in creating a tangible tool for improving a singer's voice quality has however led to the co-opting of a tool for measuring surface electromyography for teaching singing students to produce a stronger, more unified sound. The Voice Suite is a software package developed by Dr. Kirkpatrick and the Biofeedback Federation of Europe (BFE) for teaching singers to improve their voice quality using SEMG biofeedback. By placing muscle sensors on either side of a singer's larynx, we can monitor the muscle activity of that region and teach the singer to keep the region's muscles relaxed in order to improve the quality of their voice, such that tone quality increases, overall amplitude increases, vibrato oscillations is encouraged and there is an intensifying of singer's formant cluster ("ringing" quality of the voice). Singers find certain concepts become more tangible, after having experienced a session with the equipment and the software. Traditional coaching statements like "drop your jaw" gain real relevance because graphics on the screens are letting the individual know what resonance space gives them the best sound. The suite includes:

- On-screen displays of muscle activity in real-time, including several animations that activate when the individual correctly relaxes the muscles. Optional web camera recording is also possible.
- Two types of recording sessions: a free-flowing session, with instructions, focus and duration that are decided entirely by the coach/student, or a fixed protocol (duration of 50 minutes) with 5 guided activities for teaching a singer to progressively relax their muscles to improve vocal performance.
- Methodology for guiding the instructor and client through a session, to improve the singer's voice quality.

Education & Training Opportunities

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

- 6-Hour **Voice Online Class**: four 90-minutes session of online instruction from a qualified instructor that uses biofeedback with singers. This class is well suited for beginners or experienced practitioners that want to make use of the voice software with singers and public speakers in their practice. A general introduction to the use of surface electromyography (SEMG) as it relates to the measurement of voice and posture, all aspect of using the equipment and Voice suite software will be covered in great detail, and recorded data will be reviewed to ensure proper recording.

- 3-Hour **Voice Master Class Series**: these three 1-hour sessions would consist of online presentation and discussion with Dr. Kirkpatrick of case examples from practice, including review of session and training plan strategy. Dr. Kirkpatrick often brings in singers to practice with the equipment and software live during the session, in order to give participants the chance to see everything in action. These sessions are attended by professionals who may or may not be using the software and equipment, but most definitely want to see or learn from the method.

- A variety of recorded live sessions are also available for purchase from the BFE shop.

For more Information or Questions: **To purchase the suite and/or education & training, go to the BFE Shop:**

redfluency@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 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.

Choose the Encoder to Meet Your Needs

You only need one of the encoders and its associated sensors to run 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.

- **ProComp 5 encoder** is the five-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.

When purchasing the Voice Suite software, the ProComp Infiniti and ProComp5 encoders run on the exact same software design.

Select Associated Sensors Necessary for use with Encoder

This list consists of the all sensors necessary for running the suite

- **MyoScan-Pro sensors (x 2)** are pre-amplified surface electromyography sensors for measuring muscular tension. Disposable electrode pads are necessary with these sensors. Comes with EMG extender leads.

Disposable Electrodes

The MyoScan-Pro sensors require disposable electrode pads for use. For using this particular suite, the sensor electrodes require a wide placement, so **unigel** electrode require to be purchased.