ProComp 2™ is a compact yet powerful two-channel device that allows clinicians to set up a second clinical system – or to empower their clients by offering them a take-home device that is convenient to wear on a headband or a shirt collar.

The ProComp 2™ contains a built-in sensor for EEG monitoring and biofeedback (simply connect an extender cable). You can also use it with one or two of the ProComp Infiniti sensors. The ProComp 2™ system contains all the peripherals to easily connect to a desktop or laptop IBM-compatible PC. Ideal for sports or ergonomic use with optional telemetry.

• Ability to expand your clinical practice quickly and economically by adding training rooms.

    • Power to train in home environment, thereby enhancing long-term compliance and improving outcomes.

      • Capacity to monitor peripheral measures as well as EEG for greater flexibility.

ProComp Infiniti™ is an 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. Housed in an ergonomically-designed case and requiring only a USB port, ProComp Infiniti can be used with any IBM-compatible laptop or desk-top PC. The new high-speed TT-USB connection allows for higher sampling rates. The first two sensor channels provide ultimate signal fidelity (2048 samples per second) for viewing raw EEG, SEMG, EKG and HR/BVP signals.

Not only can ProComp Infiniti capture data in real time by connecting directly to the PC via its fiber-optic cable, but it can also store data on a Compact Flash memory card for uploading later to the PC, or use optional telemetry anytime it is desirable.

ProComp Infiniti covers the full range of objective physiological signals used in clinical observation and biofeedback in any environment.

"I love the BioGraph Infiniti. It's a comprehensive biofeedback system complete with EEG Neurofeedback plus a wide selection of flexible biofeedback modalities to fit any clinician's needs. Its state-of-the-art multimedia capabilities are engaging, effective, and fun!"

Lynda Kirk, MA, LPC, BCIA
Senior Fellow, BCIA-EEG Fellow,
QEEG-Diplomate ,
ISNR Past President & Fellow,
AAPB Past President

All 10 channels of FlexComp and Channel A & B of ProComp provide ultimate signal fidelity (2048 samples/second) for RAW EEG, SEMG, EKG and HR/BVP signals.

On FlexComp and ProComp, all channels can be used with any combination of sensors, including EEG, EKG, RMS SEMG, Skin Conductance, Heart Rate, Blood Volume Pulse, Respiration, Goniometer, Force, Accelerometer, Torsiometer and Voltage input.

ENCODER COMPARISON

	# Channels	Sampling Rate	Unit focus	Highlights
ProComp 2	2	256 on Channel A & B 32 on Channel C & D	Home trainer or secondary unit for a clinic	Higher resolution and a wider spectrum exceeding that of competitors. Monitors 1 part in 8192 with a resolution of less than 0.1uV for clinical accuracy and biofeedback.
ProComp Infiniti	8 (up to 32)	2048 on Channel A& B 256 on Channel C-H	Our most popular clinical unit	Modular design allows you to monitor up to 8 EEGs at any combination of our other sensors
FlexComp Infiniti	10 (up to 40)	2048 on all 10 channels	Research and clinical unit	High speed data acquisition: 10 channels of EEG, raw SEMG or any combination of sensors. Can function as a ProComp Infiniti.

SEMG Sensor (surface electromyography) is used for muscle rehabilitation, relaxation, sports medicine, training & peak performance. Choose between MyoScan – for Raw, Median Frequency, Spectral Analysis and RMS or MyoScan-Pro for RMS only.

EEG Sensor (electroencephalography) is used for neurofeedback, assessing attention & training for peak performance. EEG-Z is both an EEG sensor and an impedance checker.

EKG Sensor (electrocardiography) is used for heart rate, RSA & HRV (heart rate variability) biofeedback.

Respiration Sensor: Uses a durable electronic sensor mounted on a self-adhesive belt to measure respiration amplitude and rate. The thoracic and/or abdominal waveforms are ideal to train deep breathing for relaxation and stress control.

Skin Conductance Sensor SC is measured in micro-siemens (micromhos), and provides an important parameter of stress. Measures changes in electrical conductivity in fingers or toes. Supplied with removable finger bands, with Ag-AgCl electrodes which are replaceable.

HR/BVP Sensor (heart rate/blood volume pulse, photoplethysmography) is a finger-worn sensor which provides heart rate, pulse amplitude, RSA and HRV biofeedback, to monitor peripheral blood flow and to train for relaxation.

Temperature Sensor (In Celsius or Fahrenheit) is used for relaxation training and stress control and is also used to monitor changes in peripheral blood flow. A small bead thermistor measures temperatures from 50 to 115°F (10 to 45°C) with a resolution of 0.008°F.

Telemetry Infiniti ™ Ideal for sports and ergonomic applications where wireless solutions are desired. (30 feet /10 m range). Includes both Bluetooth transmitter and receiver. The small unit attaches to the side of the case in seconds.

Goniometer Adapter connects to third party single and dual axis goniometers for monitoring flexion/extension or torsion to measure joint position and angular changes during movement.

Bend Sensor is small enough to be placed on fingers and wrists to monitor joint motion. 180 degrees of flexion. Use sensors back to back to get a 360 degree range.

Force Sensor Adapter connects to third party sensors of varying sensitivity to measure pressure or force.

Voltage Isolator is used to monitor voltage from external devices of 0-0.2V or 0-2.0 volts output, such as blood pressure monitors, capnography, pCO2, etc. It also provides isolation from external devices such as oscilloscopes or computer data acquisition boards.

Foot Switch allows you to remotely set a time mark or move a script to the next step.

Buy With Confidence

Complete System Configuration Each system comes complete with a choice of hardware, BioGraph Infiniti software, Developer Tools and at least one Suite that is a combination of channel sets, screens and scripts. Add specialized Suites depending on your needs. The Developer Tools allow you to either add your personal touches to existing screens or to produce your own. Add BioGraphX Infiniti animation CD's, to enhance your sessions with exciting animations.

Expandability and Connectivity Options The BioGraph Infiniti system also offers options to interface with a variety of third party products: Cognysis DVD and gaming devices, HEG, Peter Van Deusen's TLC Assess program and various specialized CDs from Michael & Lynda Thompson, Louise Marks, Steve Padgitt, George Martin, Don Moss & Fred Schaffer, Howard Glazer and the Biofeedback Foundation of Europe (www.BFE.org). If you have a product that you wish to interface with our system, send us an email with all the details.

Training Options Thought Technology offers training on our instrumentation by our staff and over 150 distributors in over 55 countries. We also offer online internet courses, demonstrations and assistance. For a complete up-to-date listing of our workshops, please visit our website.

With a team of 50 employees and over half a million instruments sold worldwide, we are the world's leading biofeedback and psychophysiological instrument manufacturer. We maintain a state of the art quality control program, to verify our compliance with North American and International standards for medical equipment (ISO 13485:2003 and CE certification).

Visit our website for further product details, computer requirements product/Suites manuals, PDF brochures and software updates. Join our free user's group to share your experiences and learn from others.

Contact us by phone or email for more details on our products, our legendary support and our workshops. Extended Warranty available.
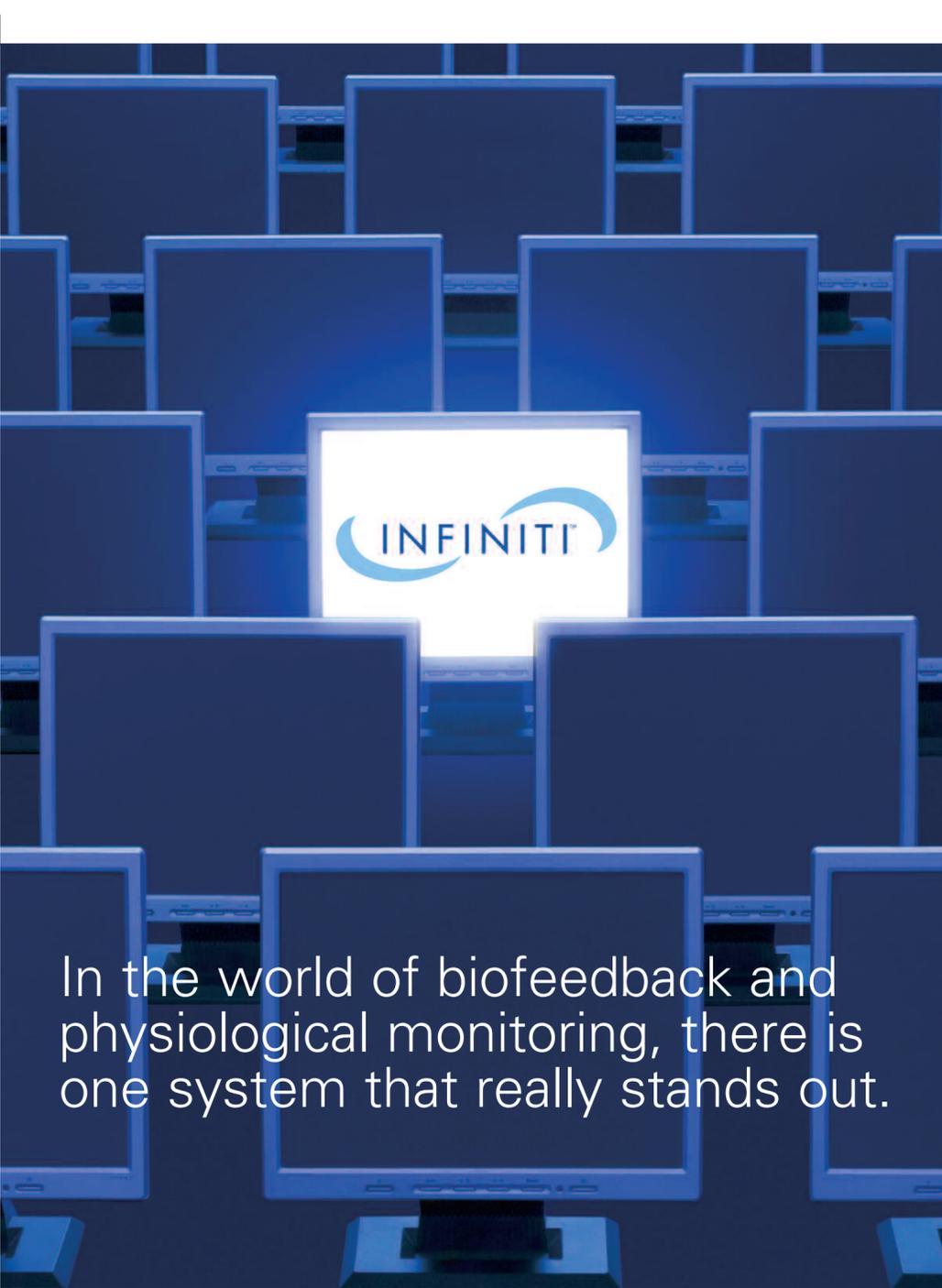
In the world of biofeedback and physiological monitoring, there is one system that really stands out.

Infiniti System:
A Complete Solution for Biofeedback and Physiological Monitoring

The Infiniti System is the culmination of Thought Technology's 30 years of innovation and leadership, incorporating the latest advances in electronic hardware and PC software architecture. Its power and versatility enable the system to be customized to any practice for any budget. From one to forty channels, we offer a system that meets your data acquisition and biofeedback requirements - with the assurance of reliable signal accuracy and infinite flexibility.

Hardware solutions for all budgets

Infiniti hardware platform. Our new ProComp Infiniti and FlexComp Infiniti encoder devices incorporate cutting-edge technology, while enhancing the signal quality, resolution and integrity that make Thought Technology hardware synonymous with quality and reliability.

FlexComp Infiniti is our top-of-the-line encoder and is the ideal data acquisition and psychophysiological monitoring device for power users. It offers 10 high-speed channels (2048 samples/second) and can acquire data from any Thought Technology sensor.

Researchers and clinicians will appreciate its flexibility to display raw, median frequency, RMS, peak-to-peak, 2D and 3D frequency and power spectrum, SEMG, EEG and EKG signals. Up to four encoders can be connected together to produce a 40-channel "window" into a subject's physiology.

From the lab to the field, FlexComp Infiniti has the power to record and save complex data instantaneously to the computer or Compact Flash (for remote data storage).

Capture data in real time by connecting directly to the PC via fiber-optic cable.

HARDWARE FEATURES

Built-in impedance checking for enhanced quality of recording. With the EEG-Z sensor, the system provides integrated electrode and inter-electrode impedance readings in one easy step. All peer reviewed journals insist on this information.

Automatic sensor recognition guarantees proper hardware setup.

Feather-light fiber-optic cable provides a low noise, direct-to-computer USB connection that is clean, fast
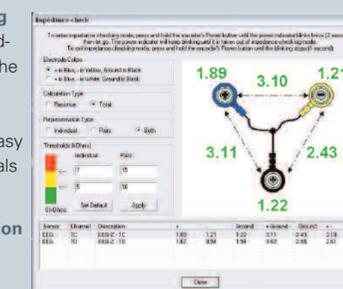
and immune to electrical interference or movement and provides total assurance of client safety.

Compact Flash memory card slot. Save data to compact flash cards for ambulatory data logging and post-recording analysis in BioGraph Infiniti software.

Auto calibration to keep the instruments accurate when moving between environments with very different temperatures.

A Software Solution
for All Applications

BioGraph Infiniti can be used straight out of the box using existing screens and scripts from the various Suites included with your package. These, as well as other third party CD's, automatically install into the BioGraph Infiniti, for immediate use. Simply click on 'Start a Session', choose your clients and their training screens and start training. For subsequent training sessions, the client's screens and other settings are loaded from the prior session.

Customize your training and assessment needs with quick access to the Screen Editor in Record, Replay and Review modes, directly from the main application.

Changes can be as simple as choosing from the large list of different animations and sounds that are included with the software and Suites, or as radical as substituting display instruments or modifying feedback conditions. Full control of the Screen Editors is available directly from the BioGraph Infiniti program. Extra animations can easily be installed from the BioGraphX Infiniti CD collections, from third party products or from your own creative resources.

The BioGraph Infiniti has a growing number of software modules - a multimedia biofeedback and data acquisition environment, powerful Developer Tools and a selection of specialized Application Suites for EEG or physiological biofeedback, SEMG-based rehabilitation and more.

SOFTWARE SUITES

Multi-Modality suite (for ProComp Infiniti Encoder): includes 96 standard screens plus 48 new screens, created by leading clinicians with international reputations. Designed for assessment, feedback, training, reviewing & reporting; these specialized screens offer a world of choice for clinical & research use.

Legacy Suite: (for the ProComp 2 and ProComp+ encoders). Allows the ProComp 2 to be used as a complete stand alone system and for our ProComp+ users to be able to work with the BioGraph Infiniti software. The Suite includes channel sets, screens and scripts for all modalities and includes a number of screens that were designed by leading clinicians.

SESSIONS

Open Display Sessions: Enhance client learning by rapidly switching between up to 5 screens with increasingly challenging tasks. Open Display sessions are most useful when experimenting with different training strategies and when spontaneous training decisions are required.

Scripted Sessions (Protocols): Permit you to prepare a series of events in advance and have them run automatically. Scripted sessions are most often used to perform standardized assessments and record baseline measures. These sessions can later be trended to show client progress.

BIOGRAPH® INFINITI SOFTWARE FEATURES

- Simple user interface
- Intuitive training screens
- Easy database management
- Powerful post session data analysis
- Flexible session reports and trend reports within or across sessions

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SOLUTIONS FOR EEG NEUROFEEDBACK:
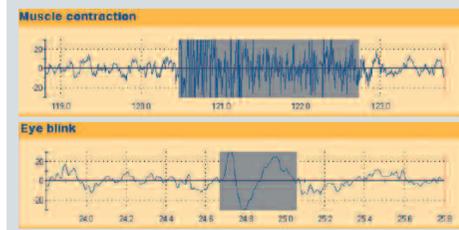
Customizable Frequency Bins allow you to easily modify the upper and lower cutoff frequencies (visible range) of the 2D and 3D FFT instruments. The 3D display can be rotated to any position for a better view of the EEG or IBI spectrum.

Percentage of Time Above/Below Threshold: A clear indication of a client's learning curve and shows when to make the task more or less challenging.

Automatic Threshold Options: include Dynamic Up or Down, Lagged and Target Percentage of Time Above/Below Threshold. Each method optimizes the challenge/feedback ratio for improved learning, allows hands-free operation and minimizes the need for clinical intervention during physiological and EEG biofeedback sessions.

Cumulative Epoch Statistics enable you and the client to view progress over time.
- Epoch Statistics & Total Statistics
- Trend Curves
- On Screen histograms

Automatic EEG Artifact Rejection easily removes eye blink and muscle contraction artifacts for cleaner statistics.
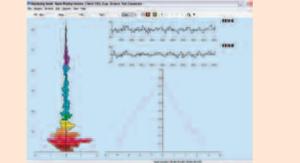
Built-in Impedance Checking facilitates consistent recording quality.
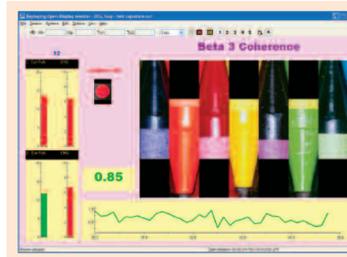
Coherence and Phase Synchrony Screens provide feedback on standard EEG amplitude and on the coherence between two channels for any specified frequency band. Coherence can be displayed as 0 to 1 or -1 to 1, to give feedback on phase, as well as coherence.

Comodulation graph displays the cross correlation between the frequency spectra (FFT) of two EEG channels.

True Dual Monitor Support allows you to control your client's side instruments. Adjust graph scales and cutoff frequencies on the fly on the clinician screen; changes are automatically mirrored on the client's monitor without distraction.

Event Markers allow for easier post session analysis and artifact rejecting. Details of event markers and screen changes are listed in a table in the printed report.
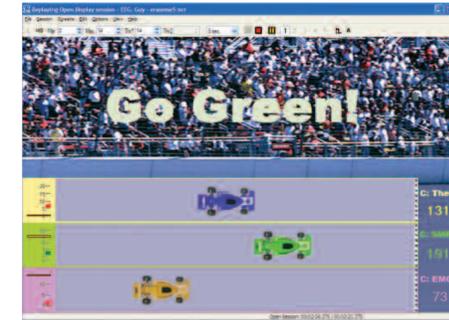
Target Counters allow for sophisticated event counting functions.

Bitmaps, AVI's, MP3's, CDs and various other stimulating or relaxing audio/visual presentations to choose from - or add your own.
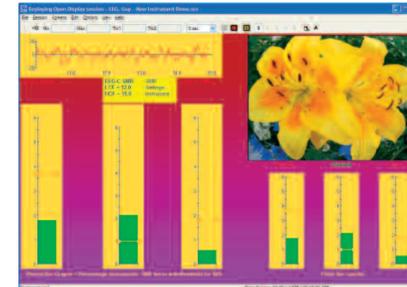
On-the-fly display options allow you to quickly change virtual channel settings, such as:
- IIR and FIR cut-off frequencies
- Smoothing/damping rate
- Epoch time

Turn Work into Play: Children's brainwaves power the racing cars, motivating changes intuitively. Many engaging games are available.

SOLUTIONS FOR HEART RATE VARIABILITY (HRV) AND RESPIRATORY SINUS ARRHYTHMIA (RSA):

View the VLF, LF, HF (Very Low, Low and High frequency) activity in various ways to provide instantaneous information on your client's heart rate variability: HRV percentage of power, amplitude bargraphs, numerics, multi-line graphs, 2D (with peak frequency) and 3D FFTs.

Heart rate and respiration overlapped in a multi-line graph provides both a clear picture and indispensable teaching tool of the rhythm of breathing and its influence on HRV.

Templates can be created to guide your clients to breathe correctly.

Cut Off Frequencies change the number and color of bin frequencies on the 2D FFT instrument.

Animations and other graphic displays are easily added to training screens.

Extensive statistics are available to view and assess the data.

**Option at 2048 samples/second** to provide highly accurate R-R intervals from EKG and HR/BVP sensors.

Quickly toggle between up to 5 screens to maximize training benefits and to enhance post-session analysis.

Includes top clinician's screens for HRV.
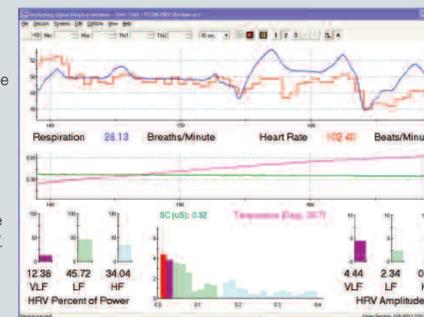
"Heart Rate Variability (HRV) biofeedback is one of the most promising new areas of clinical treatment and research in biofeedback.
Don Moss, PHD.

"My research team loves the Infiniti system. We are currently studying HRV and the system is elegant."
Fred Shaffer, Ph.D
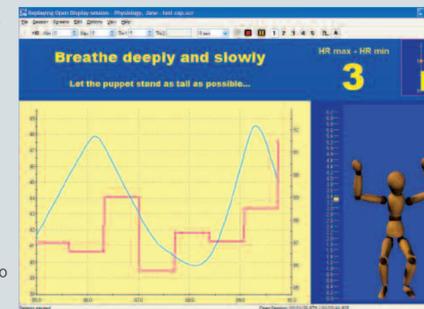
SOLUTIONS FOR SEMG BIOFEEDBACK
DYNAMAP SUITE

DynaMap Suite provides specialized screens and animations for the SEMG market. It includes assessment, training and monitoring screens and provides client outcome and progress reports - including specific bilateral muscle assessment screens to evaluate imbalances. Combined with any of four Thought Technology encoders: FlexComp Infiniti, ProComp Infiniti, ProComp+, or ProComp2, it lets you record, replay and review sessions of 2 to 10 channels of surface EMG (SEMG) for performing assessments, practicing biofeedback exercises or monitoring client outcome.
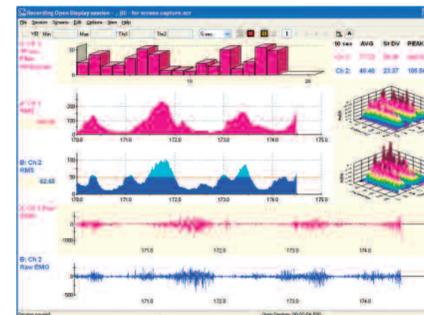
ERGONOMICS SUITE

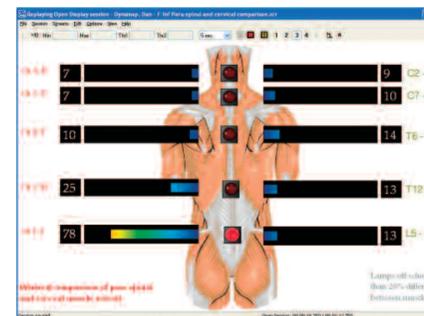**Ergonomics Suite** combines 2 to 10 channels of SEMG with force and goniometer (using our adapters) for a fast assessment of posture and range of motion, as well as for biofeedback training. Use any one of four Thought Technology encoders to record and save raw SEMG at 2048 samples/second or RMS SEMG at 256 samples/second.

Histograms, 3D bars or 2D ribbon-like displays with selectable update rate, show a running trend of standard statistics and freezing history on the screen.
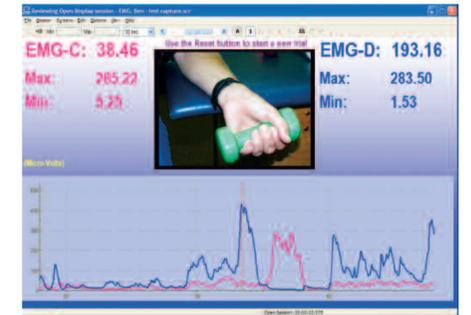
High speed SEMG (2048 samples/second) for up to 40 input channels with display and statistics for raw, RMS, median frequency, and power spectrum.

Choice of single, multi or filled line graphs to easily view how muscle activity compares or contrast between muscle groups.

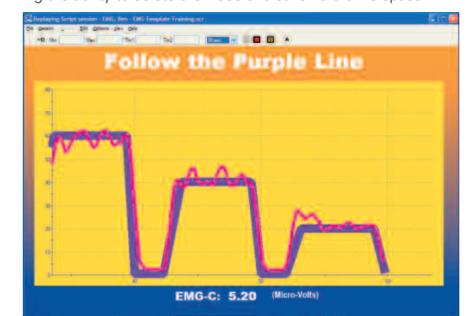**Simultaneous video integration from up to 2 webcams:** correlate the trace, video and digital readouts with a moveable cursor for a comprehensive analysis of each movement, including the ability to delete the video and save hard drive space.

Para-spinal scan: para-spinal imbalance and other information are both graphically and numerically indicated.

Template training: Easily create templates to guide your client's training.