

**The Developer Tools Level 2 Online Course**

is a 6-hour online workshop using the BioGraph Infiniti Channel Editor. The online course is the equivalent of a 1-day workshop with a total of 6-hours of instruction given over the internet. The six hours are divided into four 1.5-hour lessons given twice a week for two weeks. All courses are limited to a maximum of three participants to ensure individual attention. This workshop is targeted at power users of the BioGraph Infiniti environment. You will receive an overview on the key concepts behind the Channel Editors, opening the door to further learning in this exceptionally powerful development environment.

Editing Existing and Building New Channel Sets

Create a new Channel Set, or edit an existing one starting with the Encoder Set Definition Check, Listing Physical Channels, Defining Sensor Types, checking the encoder Input Configuration Check List, and then enabling and defining Virtual Channels

from a Library of Algorithms using the constant Value Entry Dialog Box to select from over 50 computations including, Arithmetic, Comparator, Boolean, Conversion, Periodic Impulse, Amplitude from BVP, Resistance from Conductance, IBI from BVP, IBI from EKG Respiration Amplitude, Respiration Period, Rate from Time Period, HR Max - HR Min, Linear Transformer, synchronized Event from EKG, Synchronized Event Average, Signal Change Speed, Signal Change Acceleration, FFT Power Spectrum, Coherence, Filters FIR.& IIR, Filter Design and frequency response, Frequency band: Average amplitude, Frequency Band Comodulation Maximum Shift Frequency band: Median Frequency, Frequency band: Percentage of Total Power, Frequency band: Total Amplitude, Filter: NotchFilter, Smoothing Average, Peak to peak Amplitude, RMS Non-Sliding Window, Epoch Timer, Statistical Computations Maximum, Minimum Mean, Standard Deviation Variance, Variability.

Participants Will Learn How To:

- *Explain key aspects of psychophysiological instrumentation recording such as artifact, amplitude, bandpass, and frequency response curve.*
- *Demonstrate a knowledge of aspects of signal processing such as time constant, impedance, and signal-to-noise ratio.*
- *Build and edit channel sets and display screens that use peak-to-peak voltage, root mean square voltage, and power spectrum.*
- *Identify and briefly describe characteristic signals and signal processing for feedback displays.*

CHANNEL SET EDITOR:



Select from over 50 computational algorithms:

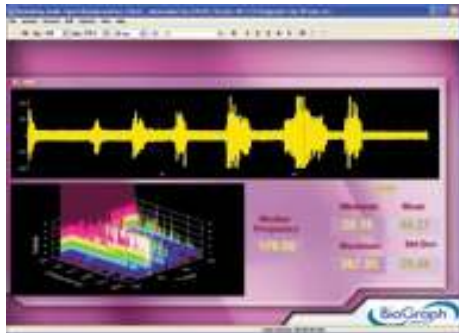
With a library of over 50 computational algorithms to select from, the Channel Editor gives you the ability to expand your signal-processing methods beyond the default channel sets included in the Thought Technology and 3rd Party Application Suites. The Channel Editor gives you the tools you need to address the ever-changing needs of a constantly evolving clinical and research arena.

Collect the psychophysiological data you want:

The Channel Editor is a very flexible tool that allows you to create sophisticated signal-processing methods for extracting clinically relevant information from raw sensor data. The Channel Editor includes an Expert mode and a Wizard mode, which are designed to help beginner and expert users rapidly develop simple or complex channel sets, by guiding them through every step of the building process.

Powerful data-processing features:

With its robust signal acquisition capabilities, accurate artifact rejection functions and flexible statistical analysis engine, the BioGraph Infiniti™ software allows you to easily normalize recorded data and generate reliable data.



CONTINUING EDUCATION ACCREDITATION:

Thought Technology Thought Technology has requested approval of this course for accreditation of 6 Continuing Education Hours through the Biofeedback Certification Institute of America (BCIA) for BCIA recertification. These six hours are divided into 3 hours of General Biofeedback; Psychophysiological Recording 1 hour, SEMG Applications 1 hour, EEG Applications 1 hour, and 3 hours of EEG Biofeedback; Orientation to EEG Biofeedback 1 hours, and Instrumentation and Electronics 2 hours.

COURSE PREREQUISITES:

This course is intended for licensed health professionals and participants are encouraged to seek BCIA accreditation if they are not already accredited. Participants at this course must have completed the Introduction online course and the Screen Editor Lite online course or attended the first two 1-day workshops.

PRESENTERS:

The following presenter will instruct this course and will guide you to a better understanding of your instrumentation:

Schwartz, Mark, BSc. Hons, MBA. Mark is a project manager with the Biofeedback Foundation of Europe responsible for research and education projects linking European researchers and clinicians with their counterparts in North America. He has over 10 years of experience in biofeedback projects and for the last 3 years has taught workshops in Europe and North America on the use of biofeedback instrumentation. He recently became involved in online education. His BSc. Hons is in Psychology from Manchester University, England. His MBA is from Laval University in Quebec.

Tegan, Elizabeth, M.S., R.N., C.S. is a Clinical Nurse Specialist in private practice. She is a psychotherapist and uses neurofeedback and peripheral biofeedback as a part of an holistic approach to mental health issues. She has used neurofeedback extensively for 5 years and is pursuing BCIA-EEG certification. The population she works with are primarily adults with mood disorders, anxiety, stress related physical problems and trauma survivors.

Tian, Shawn, B.A. MBA. Shawn has 3-years of experience in technical sales to Asian markets, software development, technical support and teaching with Thought Technology. Shawn has taught workshops in South Africa, Australia, the United States, China, Hong Kong, and Thailand. He also instructed workshops with Steve Sideroff, Ph.D, in Indonesia. Shawn is also involved in the development of clinical software suites with Sue Wilson, Ph.D, Howard Glazer, Ph.D., Stu Donaldson, MD, and Don Moss, Ph.D. and others. He has an MBA from Western University in Ontario, Canada and a Bachelors Degree from Shanghai Fudan University in China.