Specialized Application Scripts

by Lynda Thompson, Ph.D. and Michael Thompson, MD



LIMITED EDITION SOFTWARE SUITE



About The Authors

Lynda Thompson, Ph.D., Psychologist, has done teaching, clinical psychology, school psychology and owned learning centres. She has given invited workshops and lectures on five continents on Neurofeedback and Biofeedback. She became Executive Director of The ADD Centre in Toronto in 1993. Her doctoral dissertation (1979) dealt with hyperactive children treated with methylphenidate. She is co-author with William Sears of *The A.D.D. Book: New Understandings, New Approaches to Parenting Your Child.*



Michael Thompson, M.D. administrates the Biofeedback Institute and teaches. When formerly practicing medicine he was Associate Professor and head of post-graduate education in Psychiatry, University of Western Ontario, examiner Royal College of Physicians, chairman examinations committee in psychiatry. While Associate Professor, University of Toronto, he was psychiatric consultant to The Hospital for Sick Children's neurology department. Numerous professional publications include *A Resident's Guide to Psychiatric Education* and *The Neurofeedback Book: An Introduction to Basic Concepts in Applied Psychophysiology*.



Together the Thompson's have recently written chapters on ADHD, Asperger's and Stress Management in books by Budzynski and Abarbanol and in Lehrer et al, and are currently working on a chapter on Autistic Spectrum for an upcoming book by Schwartz and Andrasik.

Specialized Application Scripts Suite

Harness the skills of Doctors Lynda and Michael Thompson using this companion Limited Edition Software Suite to "Setting up for Clinical Success" the first Suite designed by the Thompsons for neurofeedback practitioners. "Specialized Application Scripts" goes beyond "Setting up for Clinical Success", to provide health professionals with an automatic series of explanations and appropriate feedback screens for a number of disorders using the Thought Technology Infiniti biofeedback system. This limited edition of the Specialized Application Scripts comprises 12 scripts. Scripts are only a 'start'. As any professional knows, many other components must be integrated into the program for the individual client. The scripts must be altered to meet the needs of the individual. But for the professional who is using the Infiniti, and has not yet mastered its rich complexity, these may be a helpful starting point. They are to be used after an assessment has been carried out, either single and/or 2 channel, or a 19 channel (full-cap) with QEEG and LORETA analysis. The latter, 19 channel assessment, is the gold standard but it is not absolutely necessary in all cases.

Suite Based On Experience

This Limited Edition software suite comes from experience with a wide variety of clients aged from 4 ½ to 70 years of age that have been treated at the ADD Centre and Biofeedback Institute. Adults range from top executives and athletes wanting to optimize their performance to those with anxiety, depression, head injuries, and so on. Children that visit the center present with ADHD, learning disabilities, Asperger's, Autism, and Tourette's. This variety has led to the development of software display screens and scripted sessions for different purposes. Display screens that combine the neurofeedback with biofeedback in a manner that clients old and young find useful and helpful. The scripted display screens are the next best thing to having Michael Thompson looking over your shoulder. They encompass the basic conditions for which a practitioner can expect to have a reasonable likelihood of attaining positive outcomes using neurofeedback and/or a combination of neurofeedback and biofeedback.

The Infiniti Operating System

Version 5 of the BioGraph Infiniti software now provides a Quick Start Button and Favorite Presets that

have been put to use in this version of the BFE Limited Edition Suite. Some screens show the new 3D Spectrum instrument and increased time scale options. BioGraph's overall compatibility with Microsoft's Windows Vista was improved. Files can now be found using a desktop shortcut, called "BioGraph Infiniti Data Folder", to give easy access to these folders.

Hardware & Software Configurations (Encoders & Channel Sets)

This Limited Edition suite offers channel sets for both the ProComp Infiniti and the ProComp2 encoders. The powerful ProComp Infiniti encoder gives professionals the power to monitor up to 8 client signals at the same time. The more compact ProComp2 contains a built-in EEG sensor requiring only an electrode lead for neurofeedback. It can also monitor any one of seven other measures from the client but only one at a time. There are two channel set configurations for the ProComp Infiniti and two for the ProComp2. Both can be used for monitoring neurofeedback and biofeedback.



Scripted Sequencing of Instruction & Display Screens

Scripted sessions present a sequence of instruction and display screens in a consistent way based on the Thompson's experience. Instruction screens explain to the trainer how to use measurements including:



- 1. How to collect statistics in a manner that shows the client how they are progressing in each segment of the session and how to graph the statistics at the end of the session.
- 2. How to rapidly change settings in the channel set to enable the client to follow how they are progressing while the feedback is actually on. This method uses '% of time > a threshold constant' reading that is visible beside each bar graph. There are a number of scripts for different conditions including Anxiety (Attention & Asperger's) and Optimal Performance. The Optimal performance script was specifically designed for very high level professional athletes and executives. The Asperger's Autistic Spectrum script gives a number of initial introduction information screens that explain where electrodes are usually placed and the reasons for these suggestions.

The Moderate Depression script emphasizes activation of the left frontal lobe compared to the right. The Agitated Depression (& Bipolar Symptoms) script is for clients who do not show the "classic" inactivity of the left frontal lobe compared to the right and require a somewhat different intervention approach. This is described in the script. The sSeizure Disorder Script places a strong emphasis on SMR enhancement and biofeedback; it can be successfully adapted for use for those clients who present with a movement disorder such as Tourettes or Dystonia (often seen with Parkinson's). For the Procomp2 there is an ADHD General that is the usual starting script for children and some adults who tune out in Theta and/or Thalpha. ADHD-Adult: This is a different script. It is used with adults who tune out in high frequency Beta (and, at times, Thalpha).

Cautions

Scripted sessions present instruction and signal display screens sequentially to help the clinician lead the session and need to be used with caution.

- 1. Do not proceed unless you know the reasons for the default, initial, 10-20 electrode placement.
- 2. Do not proceed unless the patient has received a QEEG assessment.
- 3. Exercise extreme caution concerning changes to electrode placements and frequencies settings.
- 4. Be very aware of certain types of waves that must NOT be reinforced.
- 5. Know the rationale behind using metacognitive strategies.
- 6. Know the reasons for combining neurofeedback with biofeedback.

Enhance your practice with specialized software.

When you purchase a BFE Limited Edition Suite, you not only invest in an ensemble of specialized channel sets, screens and scripts for the Infiniti system; but you also join a global network of practitioners and researchers. Being part of this group gives you many privileges including reduced costs for the Learn From the Best program of online lectures, supervision and mentoring sessions and how-to beginner and intermediate level courses. When you use the Infiniti software with a BFE suite you are not only investing in software and documentation you are buying extra time to treat your clients and enhance your practice. What is more, you will know that your purchase is contributing to the advancement of research and education in this exciting field.

Ordering, Payment and Terms of Use

To purchase this software suite, simply visit the suites page of the BFE website and order online (www.bfe.org), or download the Software Suites order form from and complete and return as instructed. The Limited Edition Software Suite is priced at US\$150.

Limited Edition Software Suites are sold at **HALF** of the commercial retail value with the understanding that the software and documents provided on the Limited Edition may contain errors. Customers are warned that the software and documents are provided in exchange for suggestions on what needs to be changed, clarified, or otherwise improved for the future commercial editions. Purchasers **MUST** understand and give permission for their name to be added to a unique group that will receive updates to the Limited Edition suite at **NO CHARGE** until a commercial edition is published by the Biofeedback Foundation of Europe. The Limited Edition suite may also contain warnings and recommendations from leading clinicians for the off-label use of biofeedback devices.

Purchasers agree not to copy or distribute the software without the written permission of the Biofeedback Foundation of Europe.

"I wanted to write to you to share my excitement about the Infiniti scripts developed by Michael Thompson. Recently, I visited with Michael and had a personal tour of the scripts themselves. They are a godsend to clinicians!

I am a BCIA-C approved clinical psychologist in New York City who has owned TT Products for the past five years. The scripts that Michael has written are ideal for my clinical needs. Because I also spend time doing psychotherapy and psychodiagnostics, I do not have the on-the-fly knowledge that comes with using the Infiniti software all of the time. Michael's scripts and screens allow me to "find my place" quickly, and still remain focused on my client's needs."

Steve Yarris, Psy.D.



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