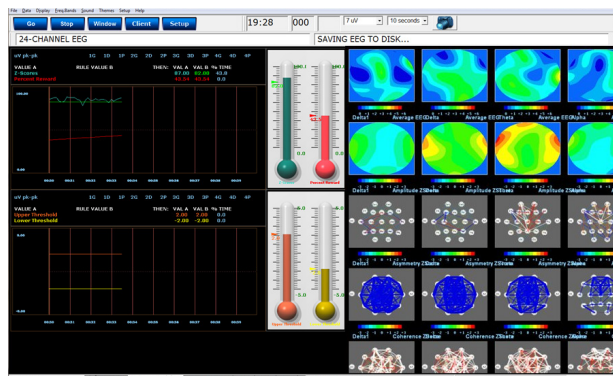


Original BrainMaster LZT Live Z-Score Training for Surface or sLORETA Z-Scores

BrainMaster Technologies, Inc. is unique in providing live LZT methods that provides Multivariate Proportional™ (MVP) variables for use in training. MVP variables are continuous, proportional values that are used in training in the same ways that conventional values such as absolute power, relative power, or raw coherence values have been used in the past. The key to this innovation is that the new MVP variables provide complex yet intuitively simple measurements that are field-proven in producing client results that are rapid, concise, and lasting.

Other approaches to using live Z-Scores typically produce only an “on/off” response, depending on whether one or more Z-Scores are within a range. Thus, the brain is provided with information that tells it whether or not it meets a condition but does not provide any proportional or “how much” information to the trainee. This limits the brain’s ability to learn and respond to the important EEG parameters. Also, such methods do not lend themselves to tuning the training beyond setting the target sizes. BrainMaster’s MVP methods produce new quantitative variables that are not simply “yes/no”, but provide real-time, proportional feedback that can be used for sounds, videos, games, or other feedback methods that respond to either “on/off,” “how much,” or a combination of such control variables. This provides a level of guidance that reduces the number and length of sessions necessary to see results.



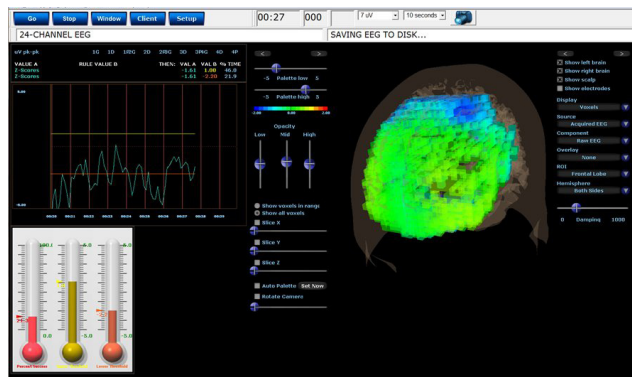
Surface Z-Score Training consists
of the following estimators:
(All 2, 4, or up to 19 channels)

Absolute Power	Amplitude Asymmetry
Relative Power	Coherence
Power Ratios	Phase Difference

Another key element of BrainMaster’s approach is the ability to dynamically change the difficulty of the training on multiple levels, in real-time without interrupting training. This is analogous to being able to adjust the throttle, choke, etc. of a vehicle while it is in motion, which is an essential element of clinical application. With the PZOK method, clinicians commonly adjust the size of the training window and also the percentage of Z-Scores which are required to be met, in order to obtain an reward. This was a non-obvious, yet critical step in the evolution of BrainMaster’s exclusive LZT technology.

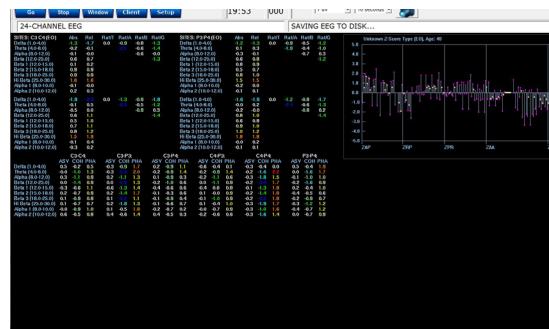
BrainDx Z-Score DLL

BrainMaster is getting ready to release a new generation of Live Z-Score Training (LZT) software. This includes both surface and sLORETA Z-Scores referenced to an internationally recognized database of normal EEG's from the Brain Research Laboratories (BRL) of New York University Medical Center. This allows the computation of Z-Scores for 6,239 brain voxels, computed from live or retrospective EEG records using 19 channels of surface EEG. Surface EEG data are instantaneously converted into EEG power estimates by frequency for 5 millimeter voxels, and compared to age-regressed equations for normal individuals. Each voxel produces a Z-Score (0=normal) indicating the statistical deviation of that voxel deviates from the age expected normal values. This provides a rapid and accurate imaging technique useful for assessment and evaluation as well as for neurofeedback. Surface Live Z-Scores are available for absolute power, relative power, interhemispheric power asymmetry, coherence, and phase, for 10 frequency bands. Before implementation of the normative equations, careful consideration is taken to equate amplifiers. Eyes-closed references for ages 6-80 and eyes-open references for ages 18-80 are currently available.



Applied Neuroscience BrainMaster Z-Score DLL

A scientifically and medically designed software approach which will analyze selected training sites; compare those sites with the NeuroGuide normative database, and automatically train those sites using a designated targeting protocol. Protocols are automatically personalized to the client's individual needs. Significantly reduces guesswork, particularly during brain connectivity training. Most effective when preceded by a full QEEG assessment. Training consists of the following estimators: absolute power, relative power, power ratios, asymmetry, coherence, and phase. Advanced built-in functions and variable definitions facilitate simple design of complex targeting strategies with intuitive trainee feedback. Any combination of targeted Z-Scores may be included in the protocol design, which may train toward normative values, or can be biased for peak-performance, self-awareness, mental fitness, healing, or other neurofeedback applications. Fully supported in 3.0 and BrainAvatar 4.0™ by the Event Wizard, including control of Multimedia animations, sounds, CDs, DVDs, point scoring, games, and advanced protocol design functions. Protocols can be complex, while feedback remains simple. Can be used with 1, 2, 4 or up to 19 EEG channel designs.



Z-Plus Z-Score Add-On Training

This package is optional, and extends the existing LZT training software with new, innovative metrics and displays. These further empower the clinician and the client to identify and train relevant EEG parameters and their changes. Z-Plus is available for Atlantis or Discovery, and is built into the BrainMaster series of software.

Starting with the "Percent ZOK" training method, BrainMaster has developed a family of training variables that intuitively incorporate any or all of the Z-Scores, and turn them into a single proportional variable. With these variables, any combination of channels, parameters (absolute power, relative power, power ratios, coherence, phase, asymmetry), or frequency components (delta, theta, etc.) can be trained. Regardless of the number of channels or parameters chosen, this variable always has the same meaning. It is the "percent of Z-Scores that are within the target limits." It has a maximum value of 100 (100% normal), that continuously varies in time, and is useful both for training and for assessing the overall condition of the client.

Z-Motive is based upon new algorithm that computes a comprehensive system metric that is based upon the positions, weights, and trajectories of multiple Z-Scores, so as to provide a measure of not only the state of the brain, but also its tendency for change. Any or all Z-Scores can be included in the Z-Motive calculation, which provides an instantaneous comprehensive indication of brain state and brain change, when used for neurofeedback training.

Z-Motive combines the concepts of self-regulation, dynamic training, and adaptive targeting. Unlike methods that require the clinician to predefine precisely which Z-Scores to train and within which ranges, Z-Optimal presents the brain with a comprehensive metric that reflects all EEG parameters in a single, proportional value. This value provides a consistent target that reflects all training parameters on a continuous basis, and does not depend on particular targets being "hit" or "missed." Rather, all targets contribute to the total state so that the brain receives global information.

BrainDx Z-Score DLLs

BrainDx Surface Z-Score Training	(533-617)	\$1795.00 (\$1495.00)
BrainDx sLORETA Z-Score Training	(533-618)	\$1795.00 (\$1495.00)
BrainDx Surface/sLORETA Combination	(533-621)	\$3495.00 (\$2895.00)

ANI Z-Score DLLs

ANI 2-Channel Z-Score Training	(533-700)	\$895.00
ANI 4-Channel Z-Score Training	(533-740)	\$995.00
ANI 19-Channel Z-Score Training	(533-414)	\$1995.00 (\$1495.00)

Z-Plus Software option (must own either or both Z-Score DLLs)

Z-Plus for Atlantis	(533-418-4)	\$300
Z-Plus for Discovery	(533-418-19)	\$500



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Some products may be subject to federal excise tax as of January 1, 2013. patent pending. Some products may be in field testing.