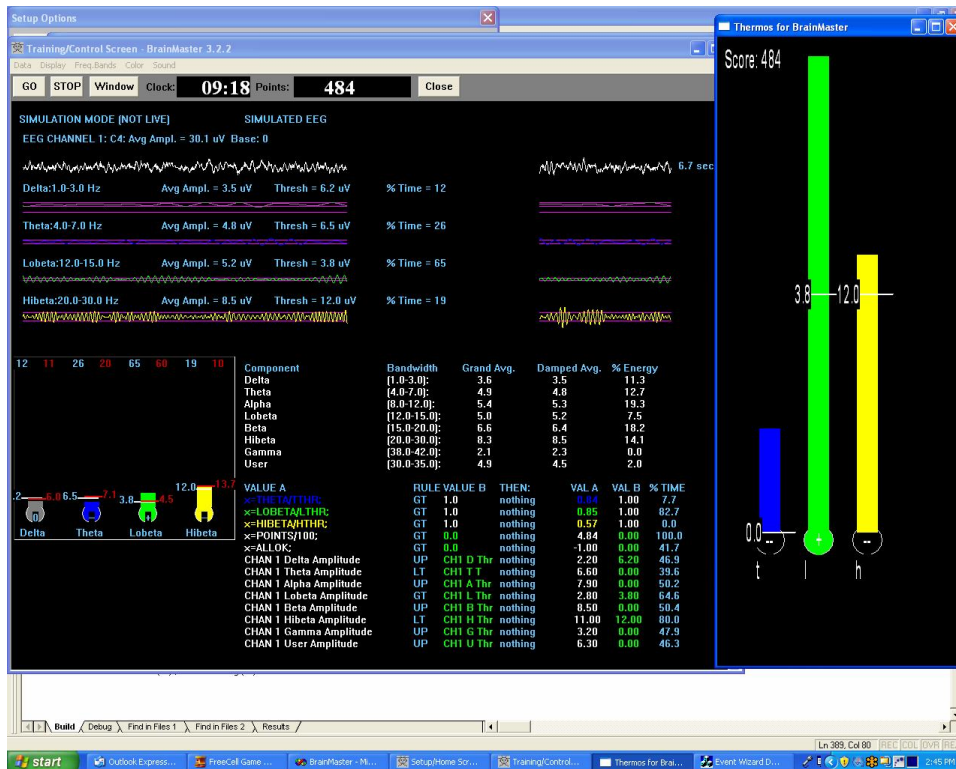


# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

Use of dll aliasing mode to put events into DLL in standard “amplitude” and “threshold” and “mode” locations:  
 Event 9 data shows up as “delta” to external programs. Event 10 shows up as “theta”, and so on.

There are built-in designs in the new 3.2.2 for this, including “EEG Pro 1 channel Multiple Inhibits with Somatic Vision Enabled”, “Percent ZOK with Somatic Vision Enabled, and “HEG pIR or nIR or Temp with Somatic Vision Enabled. Use these protocols, and turn on the “emulation” mode in “Data Channels” to use them.

The following shows a design that sets up the events to have the values normally seen, as a demonstration. The popup programs behave normally, even though the emulation mode is now being used.



# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

Events in this design are set up to look like their normal values.



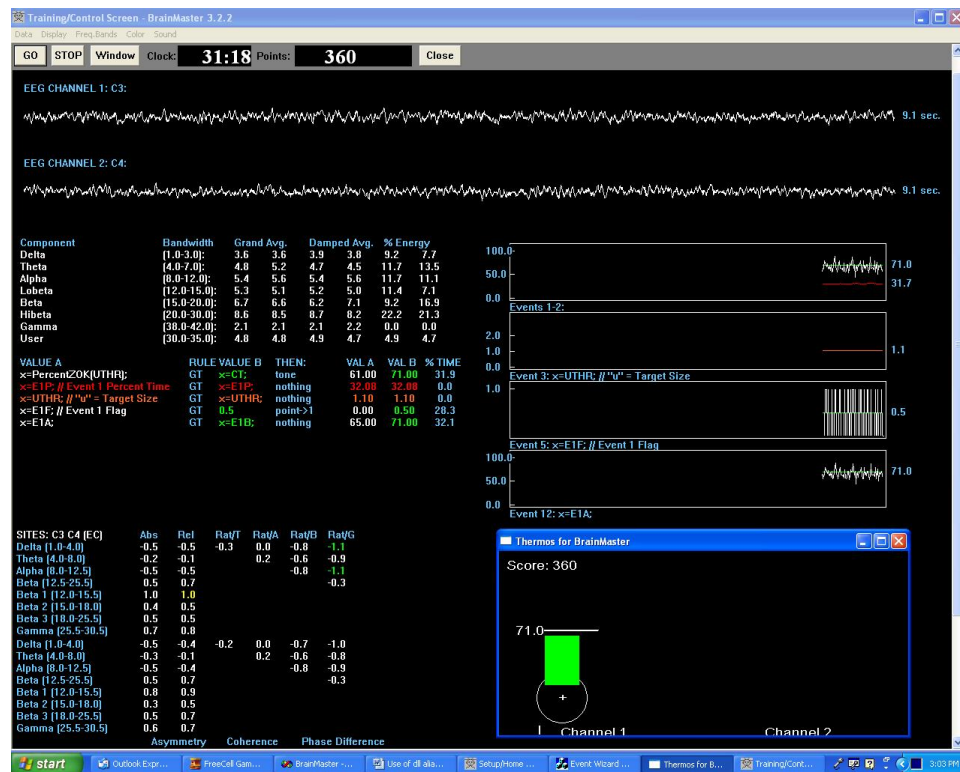
The screenshot shows a dialog box titled "BMrEventGUI30" with a blue header and a red close button. The main area has a light beige background and contains a list of event summaries. Each summary includes a "Summary for Event X:" line, followed by "IF:" and "THEN:" conditions. To the right of each summary is its current status, such as "EVENT 9 IS CURRENTLY: ENABLED". A yellow warning icon is located at the top left of the main area. At the bottom center, there is an "OK" button.

Event Summary	Current Status
Summary for Event 9: IF: Channel 1 Delta Amplitude (NO RULE) Channel 1 Delta Threshold THEN: Do Nothing	EVENT 9 IS CURRENTLY: ENABLED
Summary for Event 10: IF: Channel 1 Theta Amplitude IS LESS THAN Channel 1 Theta THEN: Do Nothing	EVENT 10 IS CURRENTLY: ENABLED
Summary for Event 11: IF: Channel 1 Alpha Amplitude (NO RULE) Channel 1 Alpha Threshold THEN: Do Nothing	EVENT 11 IS CURRENTLY: ENABLED
Summary for Event 12: IF: Channel 1 Lobeta Amplitude IS GREATER THAN Channel 1 Lobeta Threshold THEN: Do Nothing	EVENT 12 IS CURRENTLY: ENABLED
Summary for Event 13: IF: Channel 1 Beta Amplitude (NO RULE) Channel 1 Beta Threshold THEN: Do Nothing	EVENT 13 IS CURRENTLY: ENABLED
Summary for Event 14: IF: Channel 1 Hibeta Amplitude IS LESS THAN Channel 1 Hibeta Threshold THEN: Do Nothing	EVENT 14 IS CURRENTLY: ENABLED
Summary for Event 15: IF: Channel 1 Gamma Amplitude (NO RULE) Channel 1 Gamma Threshold THEN: Do Nothing	EVENT 15 IS CURRENTLY: ENABLED
Summary for Event 16: IF: Channel 1 User Amplitude (NO RULE) Channel 1 User Threshold THEN: Do Nothing	EVENT 16 IS CURRENTLY: ENABLED

## BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

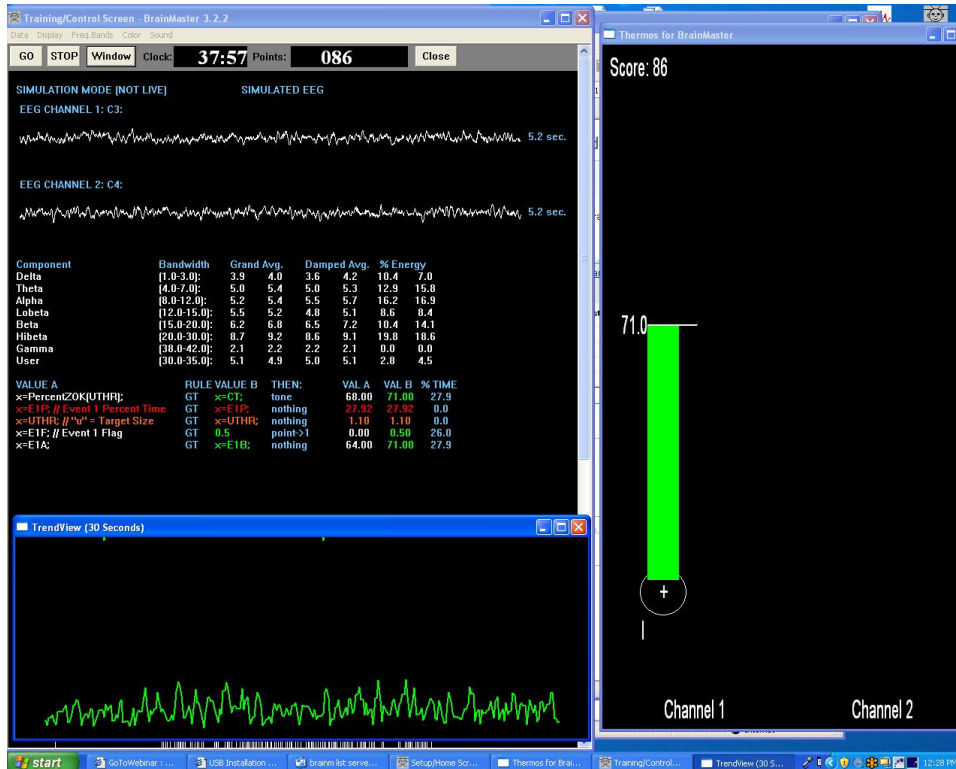
When emulation mode is on, the events 9-16 can be reprogrammed to any values whatsoever, and will then “appear” to external programs as if they were the values of the expected components delta, theta, alpha, lobeta, beta, hibeta, and gamma.

Use with PercentZOK. Now the value of “lobeta” in an external program is actually the percentage of z scores that are normal. Note that Event 12 is set up to reflect the values of Event 1, using the expressions “E1A” and “E1B”. It will thus appear, to the external programs, as if it were data coming in as “lobeta”. That is why this is called “emulation” mode, because the lobeta “emulates” the values of Event 12.



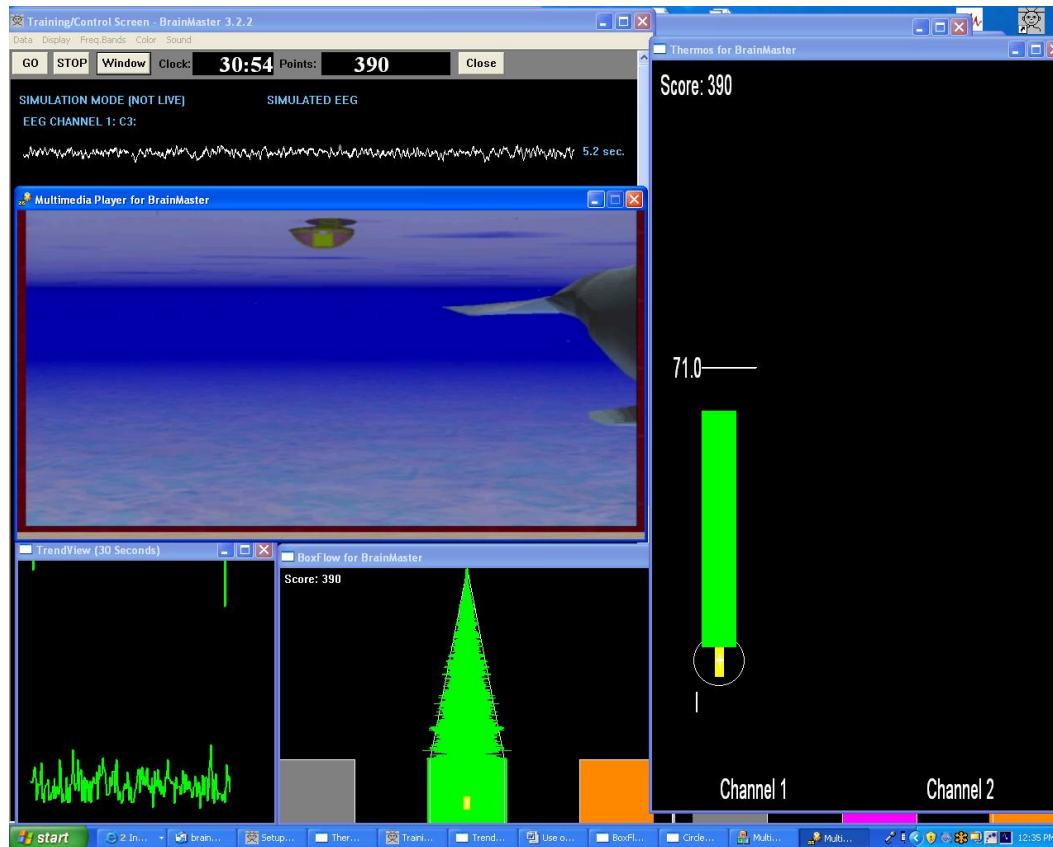
# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

Other popups including trend graph now work in “emulation” mode. They “think” they are looking at a lobeta value, but they are actually being provided with data regarding Event 12, which in this case is the composite PercentZOK value for live Z-Score training.



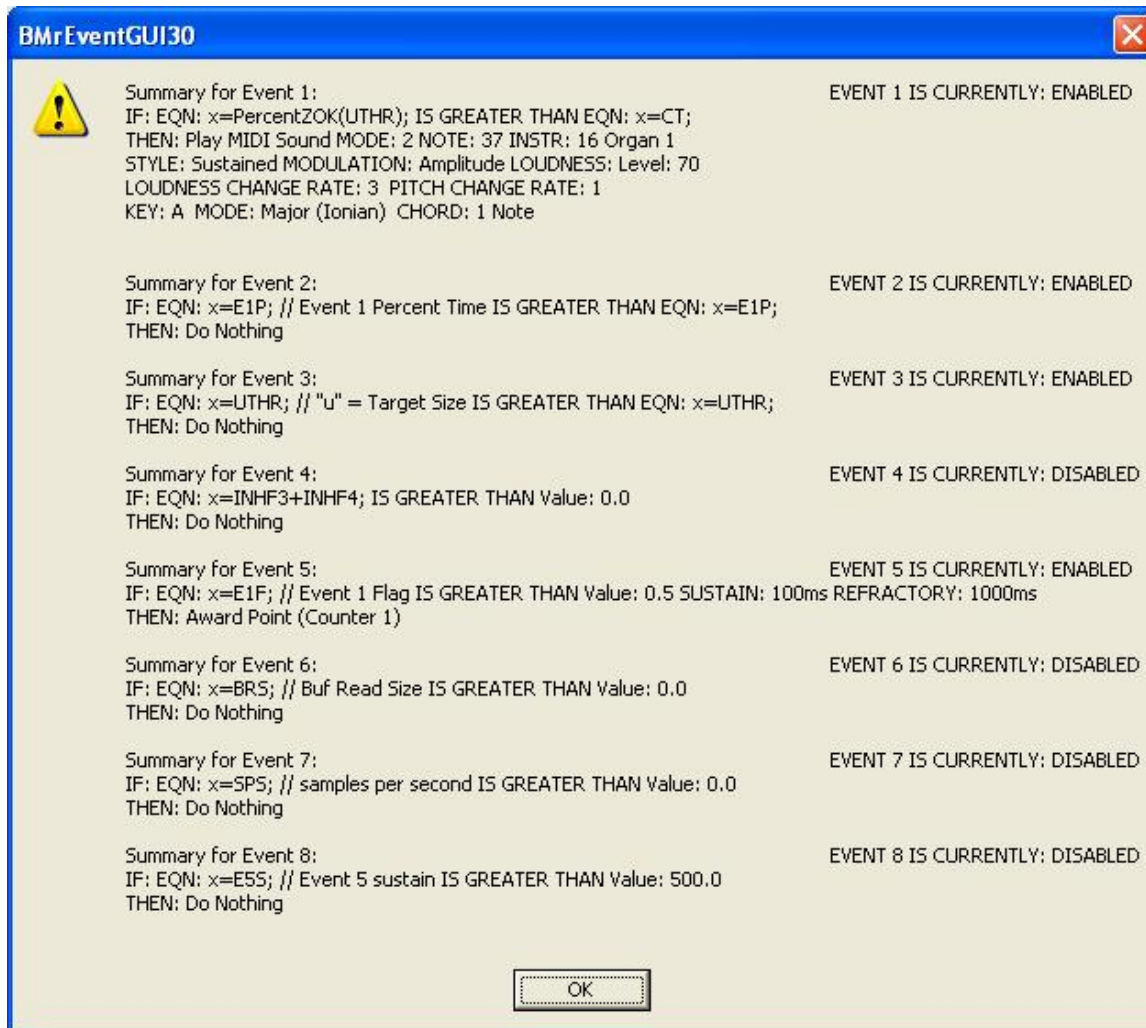
All popup programs, including the MMP animations, DVD player, games from Somatic Vision (Inner Tube, Particle Editor, etc), Cricket, Bugrun, EEG Audio, etc., will operate with any metric including live Z-scores, HEG, temperature, DC and SCP potentials, HRV (forthcoming) and so on.

# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs



# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

PercentZOK design:



The screenshot shows a dialog box titled "BMrEventGUI30" with a yellow warning icon in the top-left corner. The dialog contains a list of eight events, each with a summary of its configuration and its current status. The status is either "ENABLED" or "DISABLED". At the bottom of the dialog is an "OK" button.

Event Summary	Current Status
Summary for Event 1: IF: EQN: x=PercentZOK(UTHR); IS GREATER THAN EQN: x=CT; THEN: Play MIDI Sound MODE: 2 NOTE: 37 INSTR: 16 Organ 1 STYLE: Sustained MODULATION: Amplitude LOUDNESS: Level: 70 LOUDNESS CHANGE RATE: 3 PITCH CHANGE RATE: 1 KEY: A MODE: Major (Ionian) CHORD: 1 Note	EVENT 1 IS CURRENTLY: ENABLED
Summary for Event 2: IF: EQN: x=E1P; // Event 1 Percent Time IS GREATER THAN EQN: x=E1P; THEN: Do Nothing	EVENT 2 IS CURRENTLY: ENABLED
Summary for Event 3: IF: EQN: x=UTHR; // "u" = Target Size IS GREATER THAN EQN: x=UTHR; THEN: Do Nothing	EVENT 3 IS CURRENTLY: ENABLED
Summary for Event 4: IF: EQN: x=INHf3+INHf4; IS GREATER THAN Value: 0.0 THEN: Do Nothing	EVENT 4 IS CURRENTLY: DISABLED
Summary for Event 5: IF: EQN: x=E1F; // Event 1 Flag IS GREATER THAN Value: 0.5 SUSTAIN: 100ms REFRACTORY: 1000ms THEN: Award Point (Counter 1)	EVENT 5 IS CURRENTLY: ENABLED
Summary for Event 6: IF: EQN: x=BRS; // Buf Read Size IS GREATER THAN Value: 0.0 THEN: Do Nothing	EVENT 6 IS CURRENTLY: DISABLED
Summary for Event 7: IF: EQN: x=SPS; // samples per second IS GREATER THAN Value: 0.0 THEN: Do Nothing	EVENT 7 IS CURRENTLY: DISABLED
Summary for Event 8: IF: EQN: x=ESS; // Event 5 sustain IS GREATER THAN Value: 500.0 THEN: Do Nothing	EVENT 8 IS CURRENTLY: DISABLED

# BrainMaster DLL Memory Mapping Emulation Mode for Somatic Vision and other external programs

Event 12 is enabled and set up to reflect the values of Event 1.

