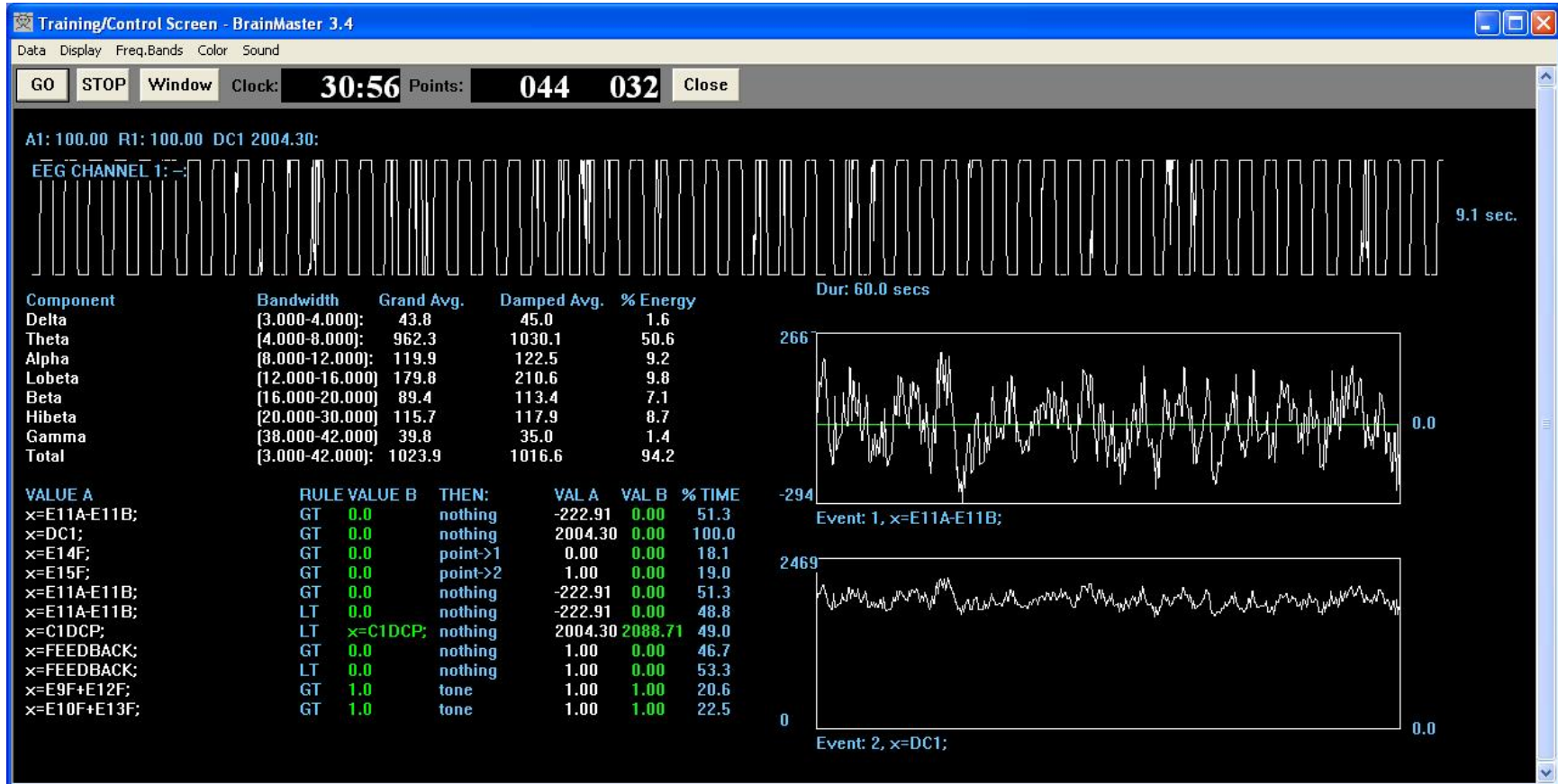DC and SCP Cycle Training

DC and SCP Cycle Training

This design is based upon the "Tubingen" approach of training SCP up and down alternately.
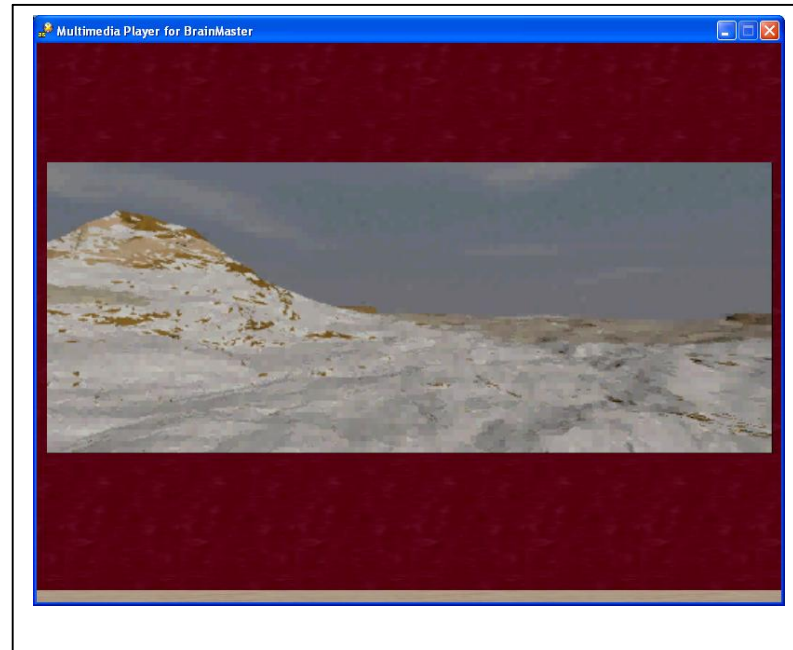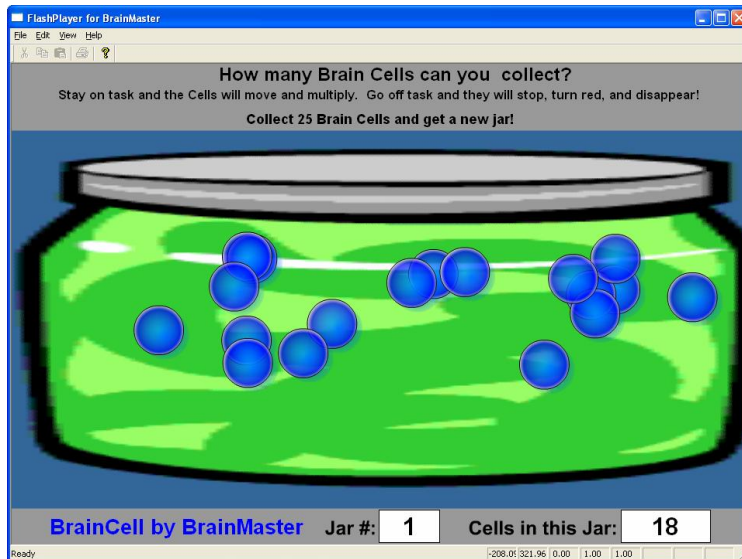

You must have the Session Wizard to do this. MINI-Q owners have this. Others have to get a license for the Session Wizard.

The feedback changes every 8 seconds. For 8 seconds, you hear a high sound when the SCP is rising. Then for 8 seconds you hear a low sound when the SCP is falling. This repeats 120 times.
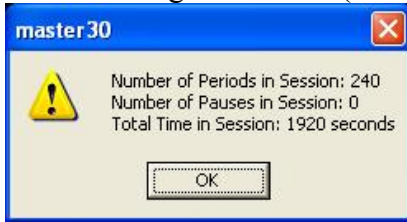
Flash games and animations and DVD's, CD's, etc are enabled. The rewards come when either task is being successfully done, so as the trainee alternates to increase and decrease SCP, they build up rewards in the game.

Puzzle and Space Race will respond to the points counter 1.
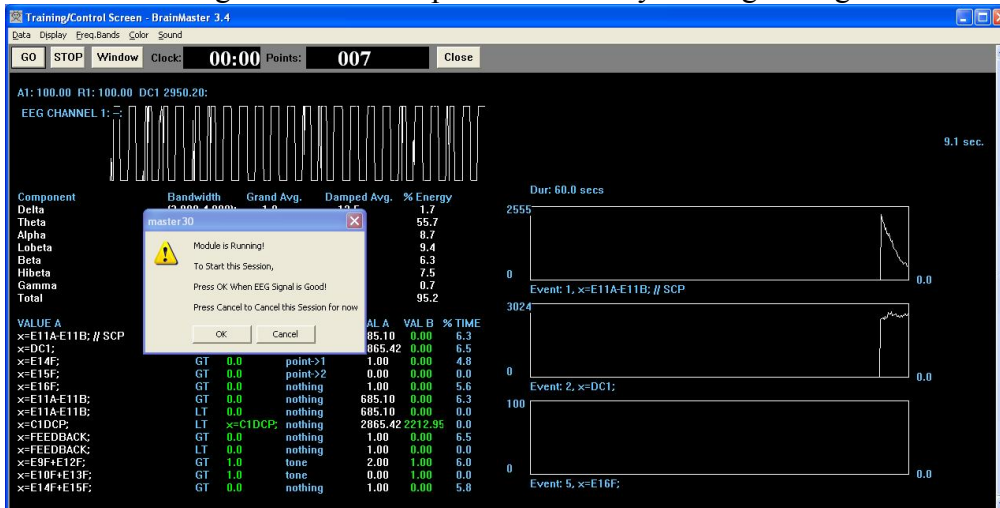
DC and SCP Cycle Training

When starting the session (Run the Next Session / GO) First you will see this:
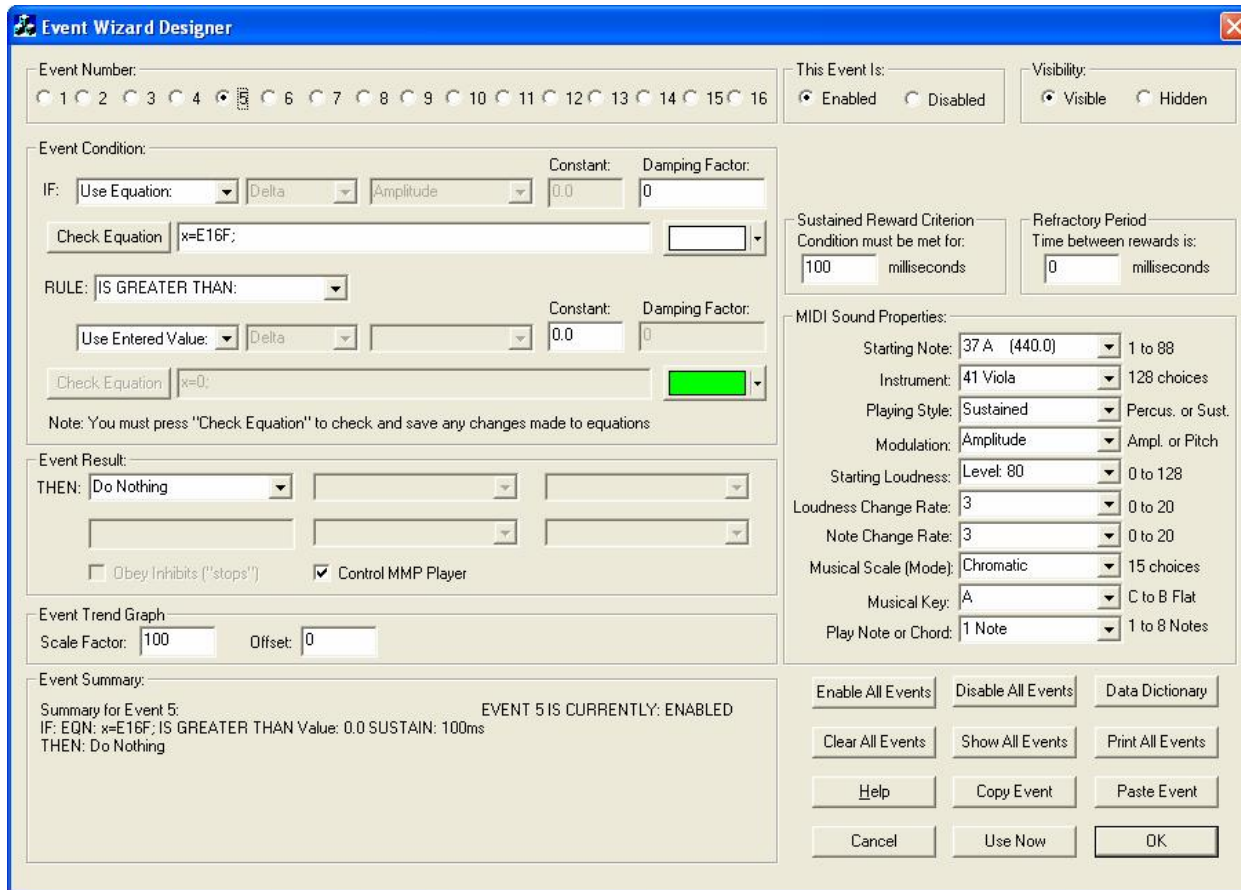

Then this:

Just "click through" these. Then press OK when you see good signals on the screen below.

This design uses "Full Atlantis" mode combined with the Event Wizard and the Session Wizard.
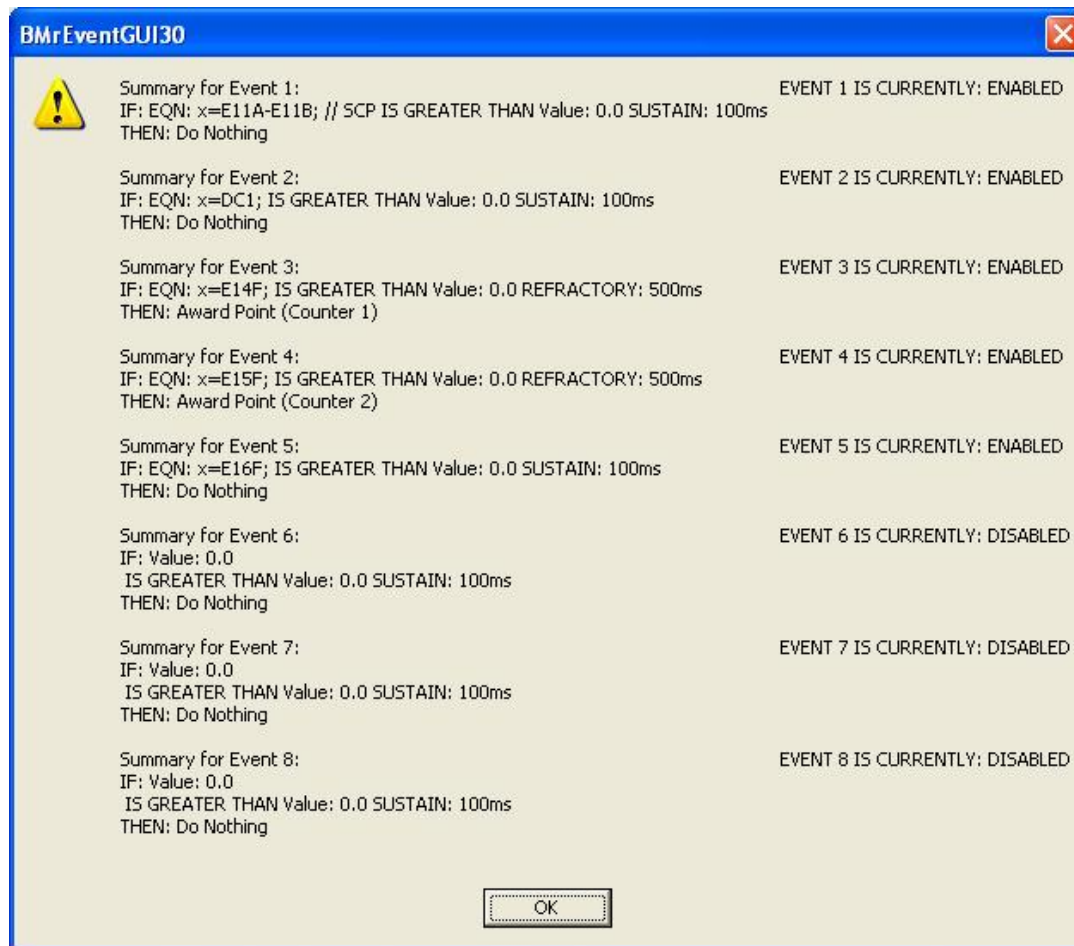
Flash Games & multimedia are controlled by Event #5

Points are on events 3 (up) and 4 (down) – can add refractory period or sustained reward if desired
MIDI is on events 14 (up) and 15 (down) – can adjust sounds voices, pitch, modulation, etc.

The events are listed below:

```
BMrEventGUI30                                                      [X]

⚠   Summary for Event 1:                          EVENT 1 IS CURRENTLY: ENABLED
     IF: EQN: x=E11A-E11B; // SCP IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

     Summary for Event 2:                          EVENT 2 IS CURRENTLY: ENABLED
     IF: EQN: x=DC1; IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

     Summary for Event 3:                          EVENT 3 IS CURRENTLY: ENABLED
     IF: EQN: x=E14F; IS GREATER THAN Value: 0.0 REFRACTORY: 500ms
     THEN: Award Point (Counter 1)

     Summary for Event 4:                          EVENT 4 IS CURRENTLY: ENABLED
     IF: EQN: x=E15F; IS GREATER THAN Value: 0.0 REFRACTORY: 500ms
     THEN: Award Point (Counter 2)

     Summary for Event 5:                          EVENT 5 IS CURRENTLY: ENABLED
     IF: EQN: x=E16F; IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

     Summary for Event 6:                          EVENT 6 IS CURRENTLY: DISABLED
     IF: Value: 0.0
      IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

     Summary for Event 7:                          EVENT 7 IS CURRENTLY: DISABLED
     IF: Value: 0.0
      IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

     Summary for Event 8:                          EVENT 8 IS CURRENTLY: DISABLED
     IF: Value: 0.0
      IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
     THEN: Do Nothing

                              [    OK    ]
```

BMrEventGUI30

Summary for Event 9:
IF: EQN: x=E11A-E11B; IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
THEN: Do Nothing

EVENT 9 IS CURRENTLY: ENABLED

Summary for Event 10:
IF: EQN: x=E11A-E11B; IS LESS THAN Value: 0.0 SUSTAIN: 100ms
THEN: Do Nothing

EVENT 10 IS CURRENTLY: ENABLED

Summary for Event 11:
IF: EQN: x=C1DCP; IS LESS THAN EQN: x=C1DCP;SUSTAIN: 100ms
THEN: Do Nothing

EVENT 11 IS CURRENTLY: ENABLED

Summary for Event 12:
IF: EQN: x=FEEDBACK; IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
THEN: Do Nothing

EVENT 12 IS CURRENTLY: ENABLED

Summary for Event 13:
IF: EQN: x=FEEDBACK; IS LESS THAN Value: 0.0 SUSTAIN: 100ms
THEN: Do Nothing
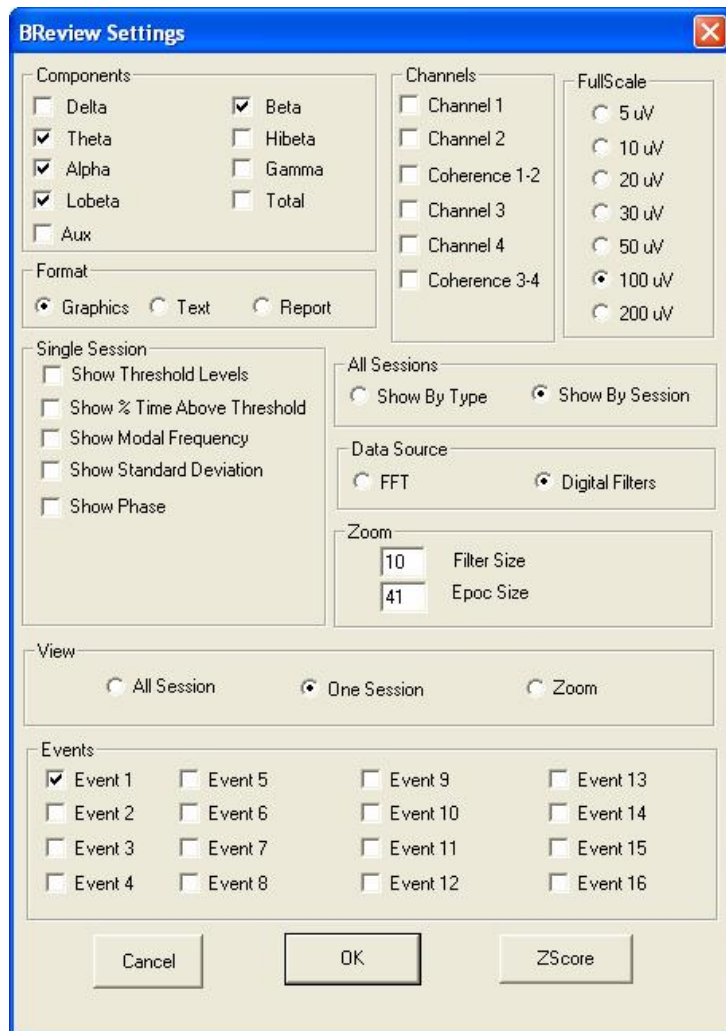
EVENT 13 IS CURRENTLY: ENABLED

Summary for Event 14:
IF: EQN: x=E9F+E12F; IS GREATER THAN Value: 1.0
THEN: Play MIDI Sound MODE: 2 NOTE: 44 INSTR: 48 Strings
STYLE: Sustained MODULATION: Amplitude LOUDNESS: Level: 100
LOUDNESS CHANGE RATE: 3 PITCH CHANGE RATE: 3
KEY: A MODE: Chromatic CHORD: 1 Note

EVENT 14 IS CURRENTLY: ENABLED

Summary for Event 15:
IF: EQN: x=E10F+E13F; IS GREATER THAN Value: 1.0
THEN: Play MIDI Sound MODE: 2 NOTE: 37 INSTR: 16 Organ 1
STYLE: Sustained MODULATION: Amplitude LOUDNESS: Level: 100
LOUDNESS CHANGE RATE: 3 PITCH CHANGE RATE: 3
KEY: A MODE: Chromatic CHORD: 1 Note

EVENT 15 IS CURRENTLY: ENABLED

Summary for Event 16:
IF: EQN: x=E14F+E15F; IS GREATER THAN Value: 0.0 SUSTAIN: 100ms
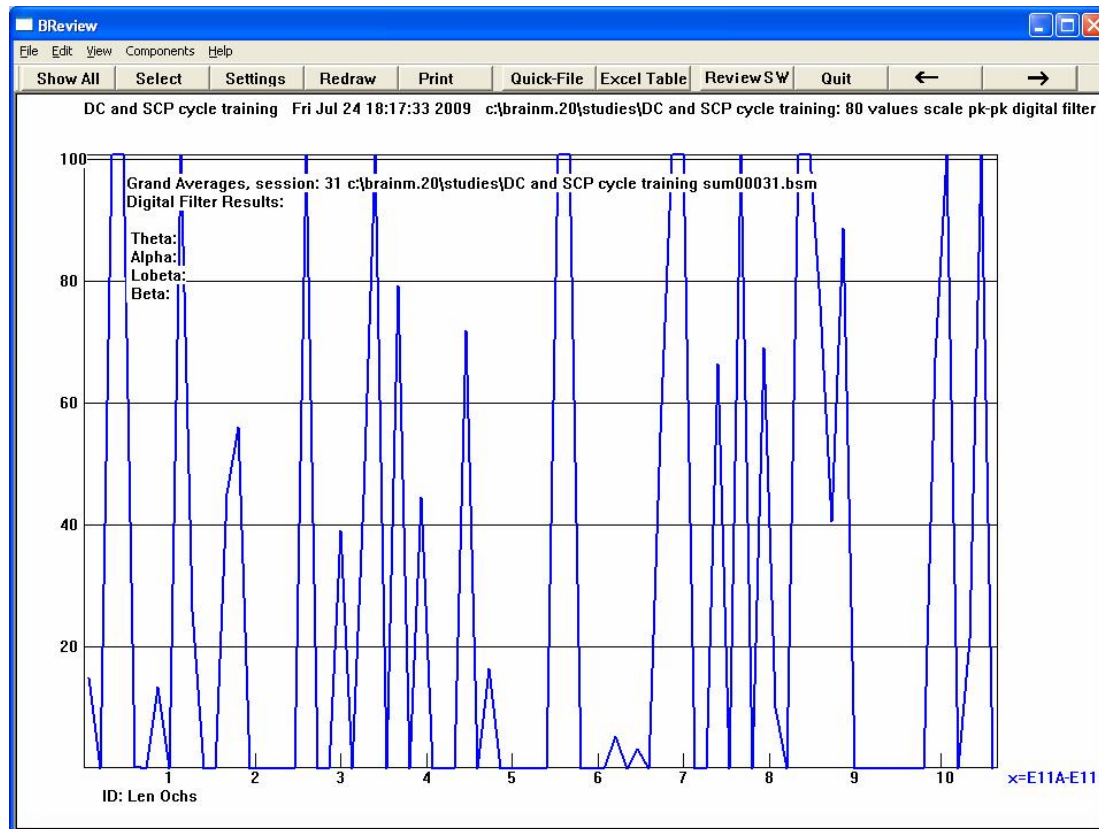THEN: Do Nothing

EVENT 16 IS CURRENTLY: ENABLED

[OK]

SCP data can be reviewed using BReview: (Review Session Results)
Turn off all the "Channels" and select Event 1

DC and SCP Cycle Training

This is not real data, but it shows how the display works. We still have to work on scaling the graph for negative numbers.

Note that during this training, the BrainMaster continues to acquire all EEG data including alpha, beta, gamma amplitudes, and you can even use z-scores during this as well.

This program can be easily increased to 2 or 4 channels by modifying some of the Events. The basic design would not change.

DC and SCP Cycle Training

The Session Wizard program looks like the following:

BrainMaster Session Wizard Control File
VERSION: 2
NAME: DC and SCP Feedback
COM: DC and SCP Feedback

NCHANS: 1

BEGCYCLE: 1
FEEDBACK: 1
DUTY: 100
PERIOD: 8
FEEDBACK: -1
DUTY: 100
PERIOD: 8
ENDCYCLE: 1

DO:
DOCYCLE: 1
DOCYCLE: 1
DOCYCLE: 1
(total of 120 times)