

Power Point Manual

Get On The
BUS



BrainMaster
Universe
Simplified



“focus”
level 4

The Flow

- In Level 4 Brainmaster Technologies empowers you to be able to customize the protocol to best fit the client's and practitioner's unique needs.
- When you venture into the world of custom protocols you should have a checklist to be certain you are performing what you intend to do with the client.

All protocols are for demo and research purposes only. Clinicians must determine protocol choices. All protocols must be used within scope of practice and scope of competence.

The Flow

- The “Flow” is such a checklist.
- The “Flow” should be used prior to commencing any complex protocol to confirm that objects and procedures are placed according to your intentions.
- The following slides outline the “Flow” which you can use prior to commencing any protocol with a client making sure all objects are intended as you wish.

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Focus

Level 4

Let's Begin

- Make Sure the Atlantis Amplifier is plugged in.

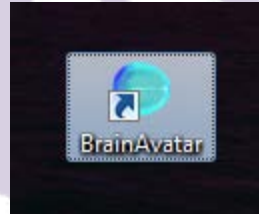


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Focus

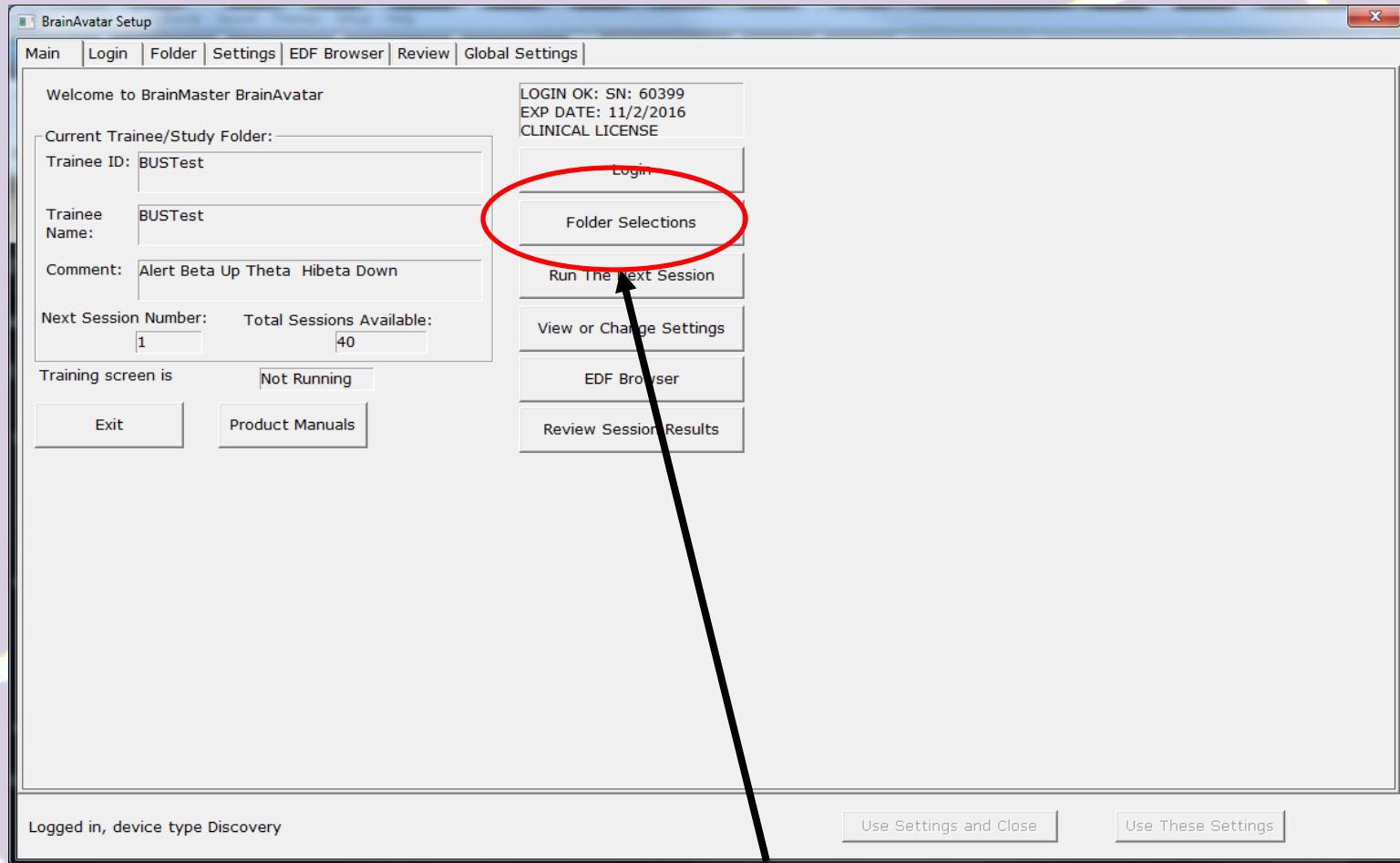
Level 4

- Open BrainAvatar by double-clicking the BrainAvatar Icon.



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- The BrainAvatar Setup Window will Appear



- Click “Folder Selections”.

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- The Select Folder Screen will appear.

BrainAvatar Setup

Main | Login | Folder | Settings | EDF Browser | Review | Global Settings

Select Folder | Create Folder | Folder Notes | Session Librarian | Edit Folder Info.

Select Folder: (you may double-click to select)

| Study Name | Birth Date | Sess | Max | Comment | Technician | Physician | Trainee Name | Created | Modified |
|------------|------------|------|-----|--------------------|------------|-----------|--------------|----------|----------|
| .. | | | | | | | | | |
| BUSTest | 2000-7-4 | 40 | | Alert Beta Up T... | EEG tech | | BUSTest | 2016-8-3 | 2016-8-3 |

Study Name (Trainee ID): BroJad4chPZOKP3P4O1O2

Trainee Name: BroJad4chPZOKP3P4O1O2

Comment: comment

Sessions Used: 4

Max Sessions: 40

Session Librarian

Administer Session Genie | Push Current Study to Server and Delete | Archive Current Study | Archive Current Study and Delete

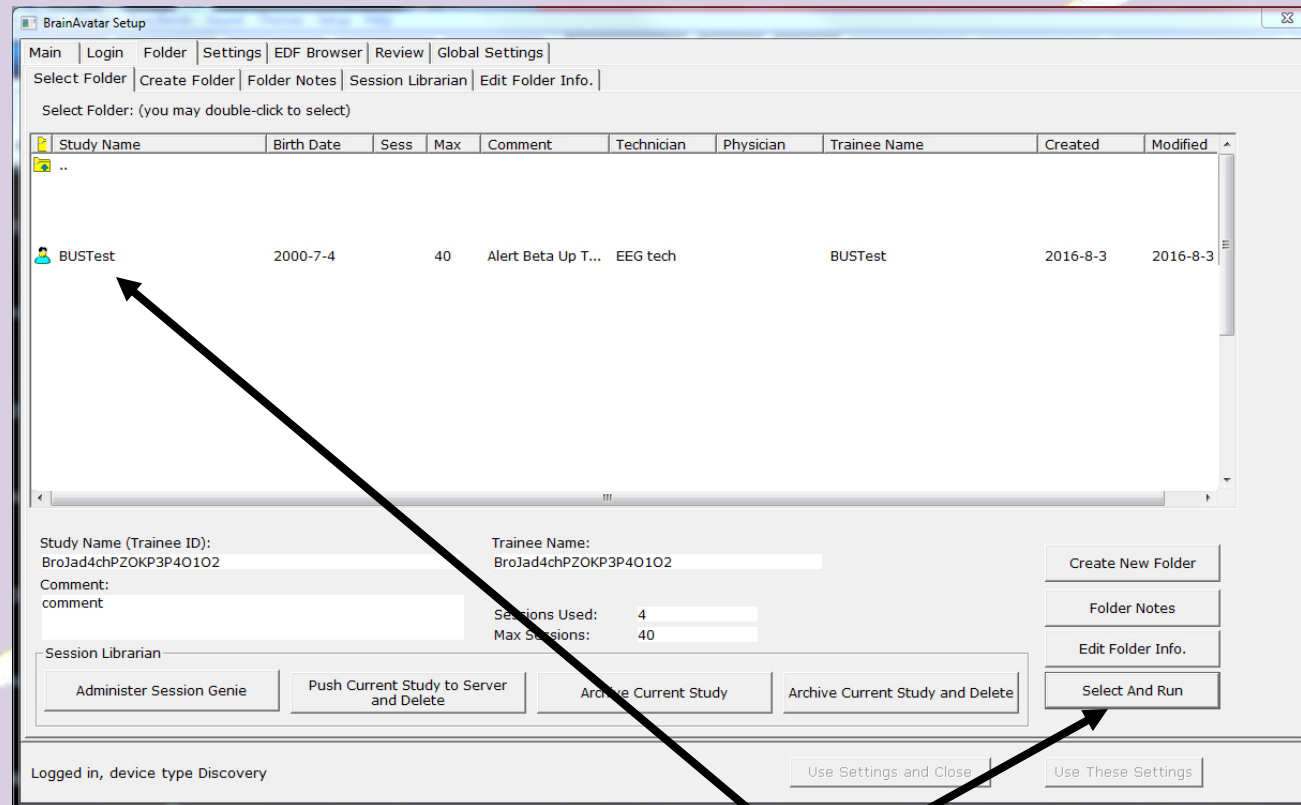
Create New Folder | Folder Notes | Edit Folder Info. | Select And Run

Logged in, device type Discovery

Use Settings and Close | Use These Settings

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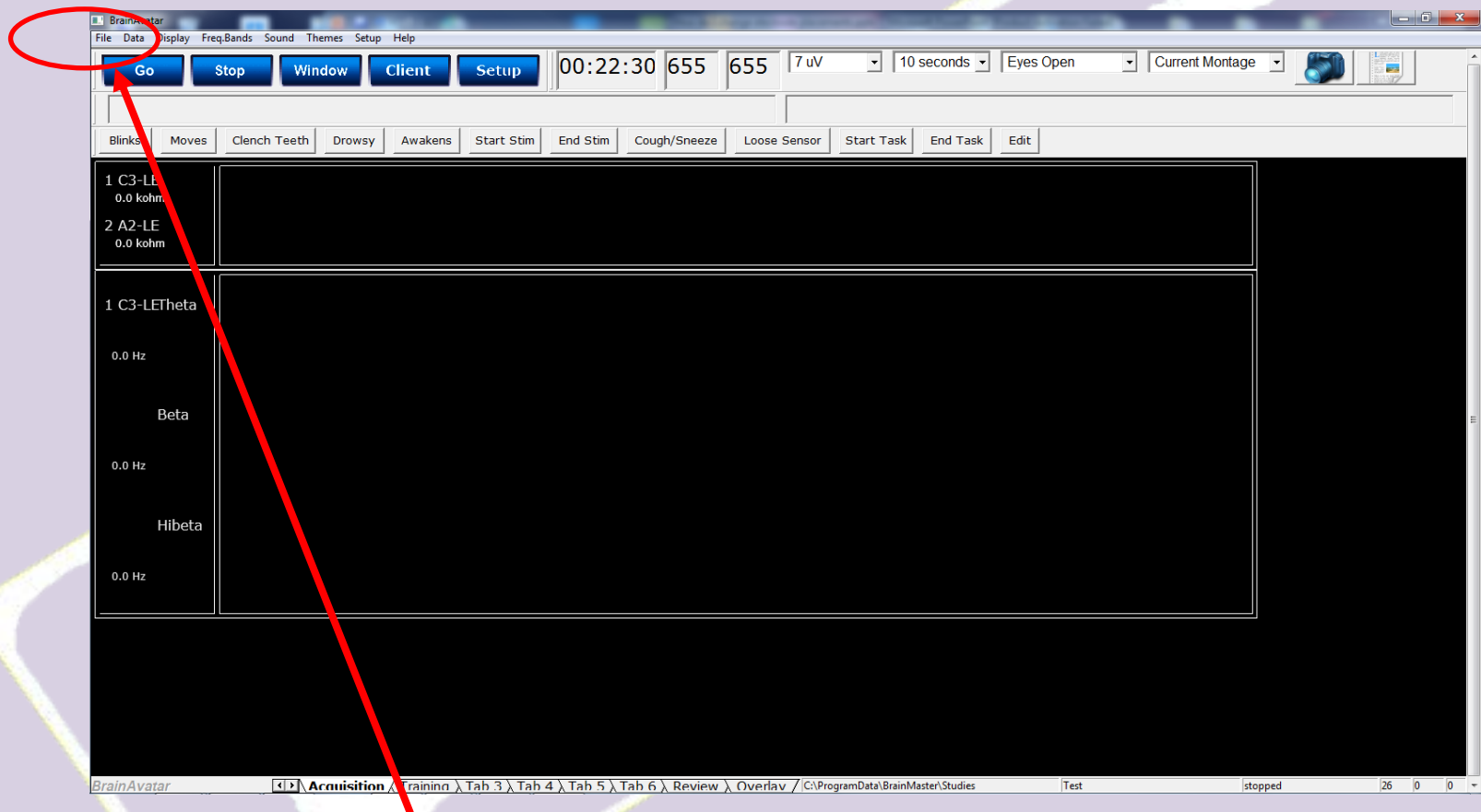
- The Select Folder Screen will appear.



- Click the Study (Folder) you would like to open (in this case BUSTest) and then click “Select and Run”.

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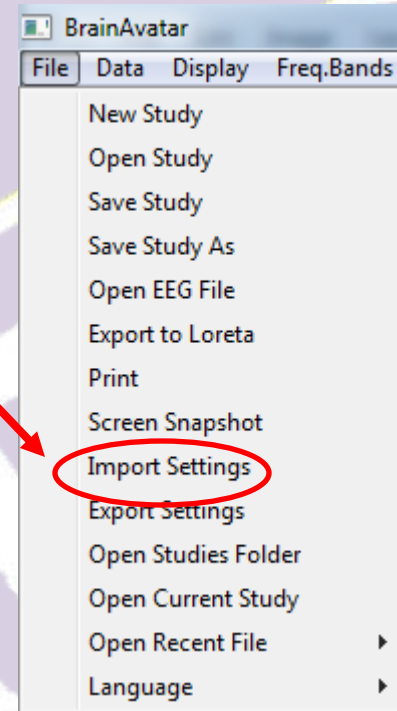
- The BrainAvatar Acquisition Screen is illuminated. Let's load the Focus Level 2 File: 040204chgthreshold to use as an example for performing "The Flow".




- Click "File" from the Main Menu at the top.

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- Next click “Import Settings”



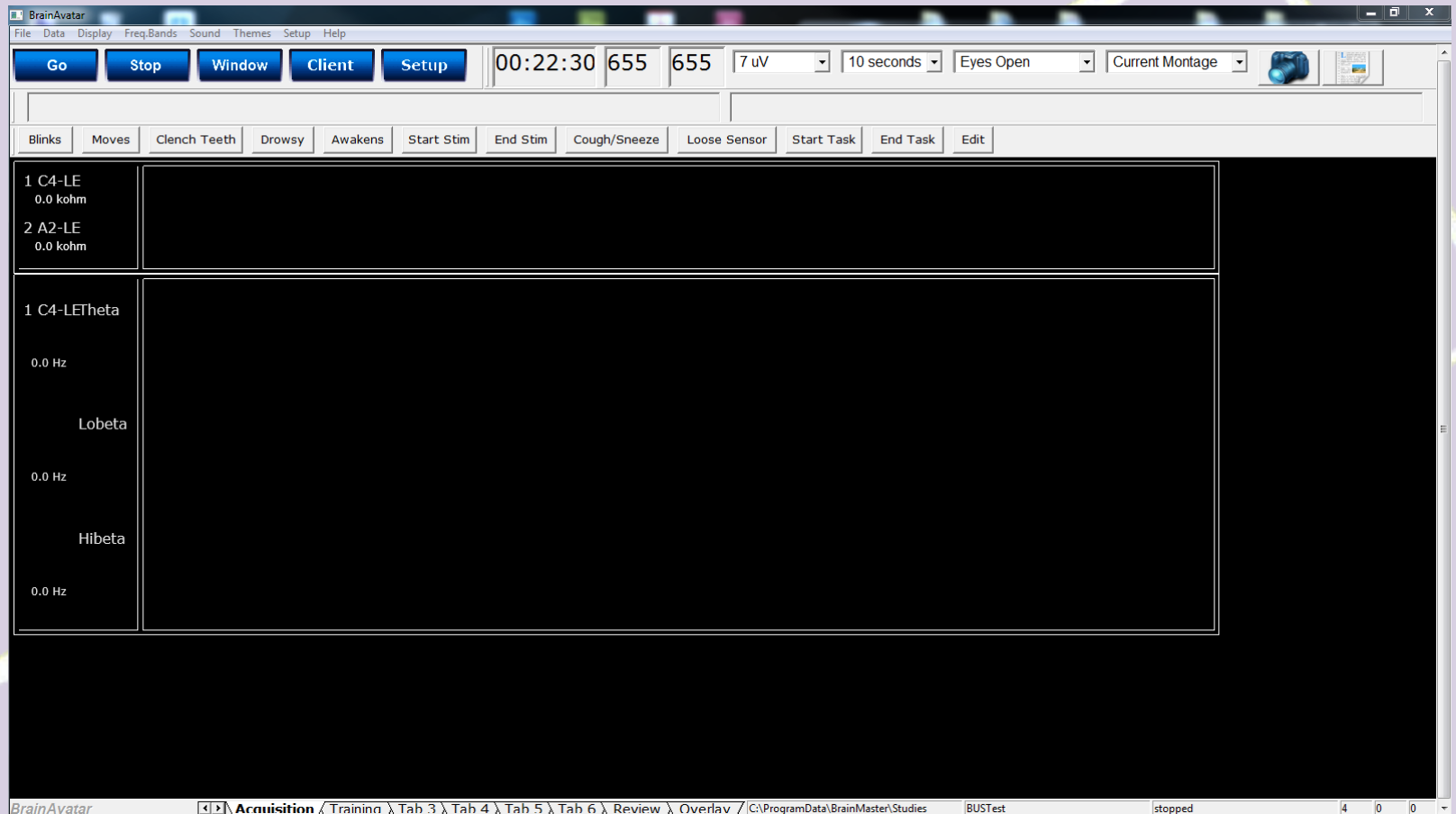
- Scroll to find the Focus Level 2 File for our example and double click it.

| Name | Date modified | Type | Size |
|--|-------------------|-----------|--------|
|  0402004chgthreshold.bdb2 | 1/28/2016 6:14 PM | BDB2 File | 142 KB |

- The Focus Level 2 setting is imported into the Client's Study and is now ready for analysis.

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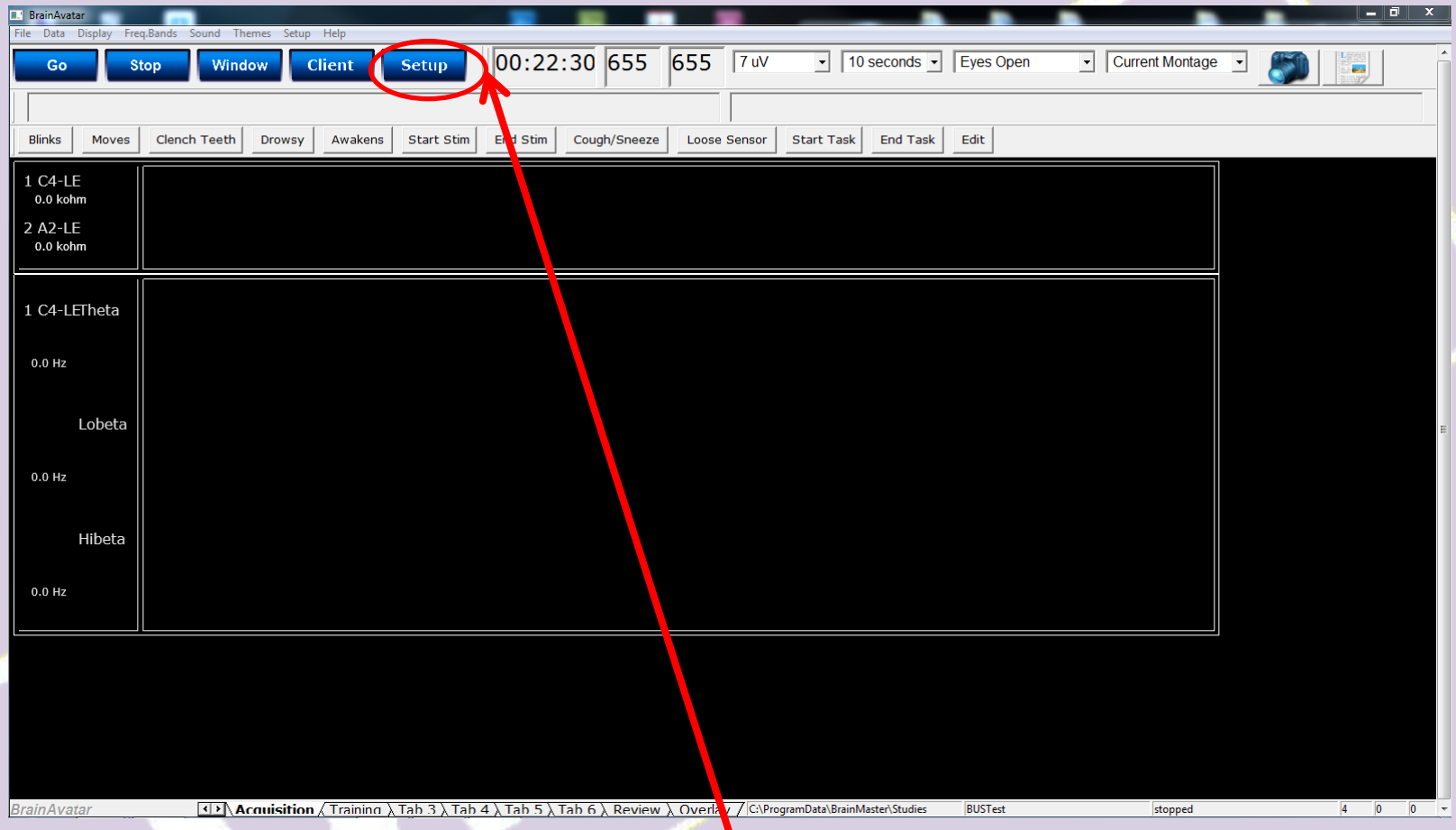
The Flow



- “The Flow” is a checklist which after performed a few times will become second nature to you if followed exactly the same way each time.

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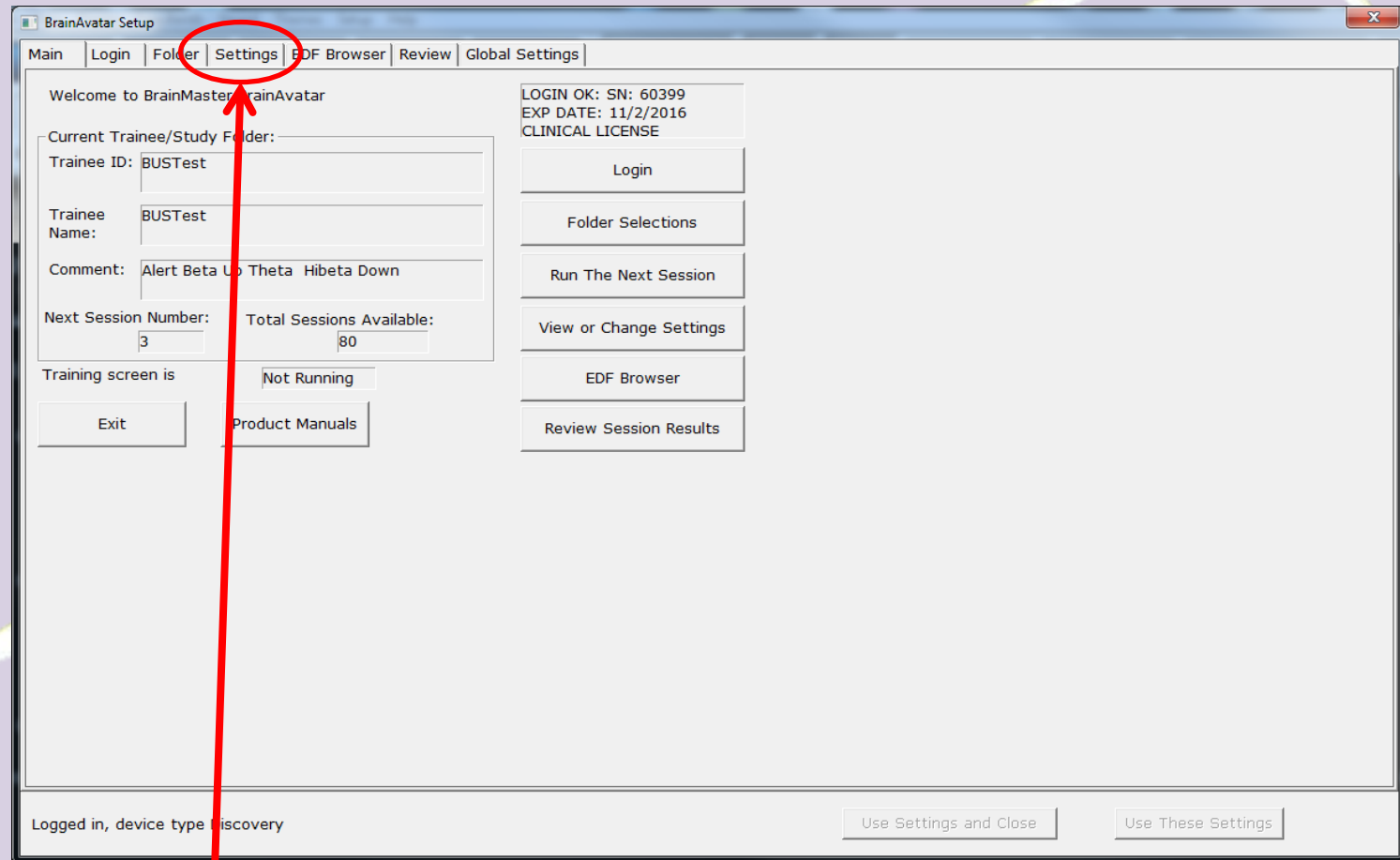
The Flow



- Start by clicking “Setup” or ctrl-e to open the setup screen.

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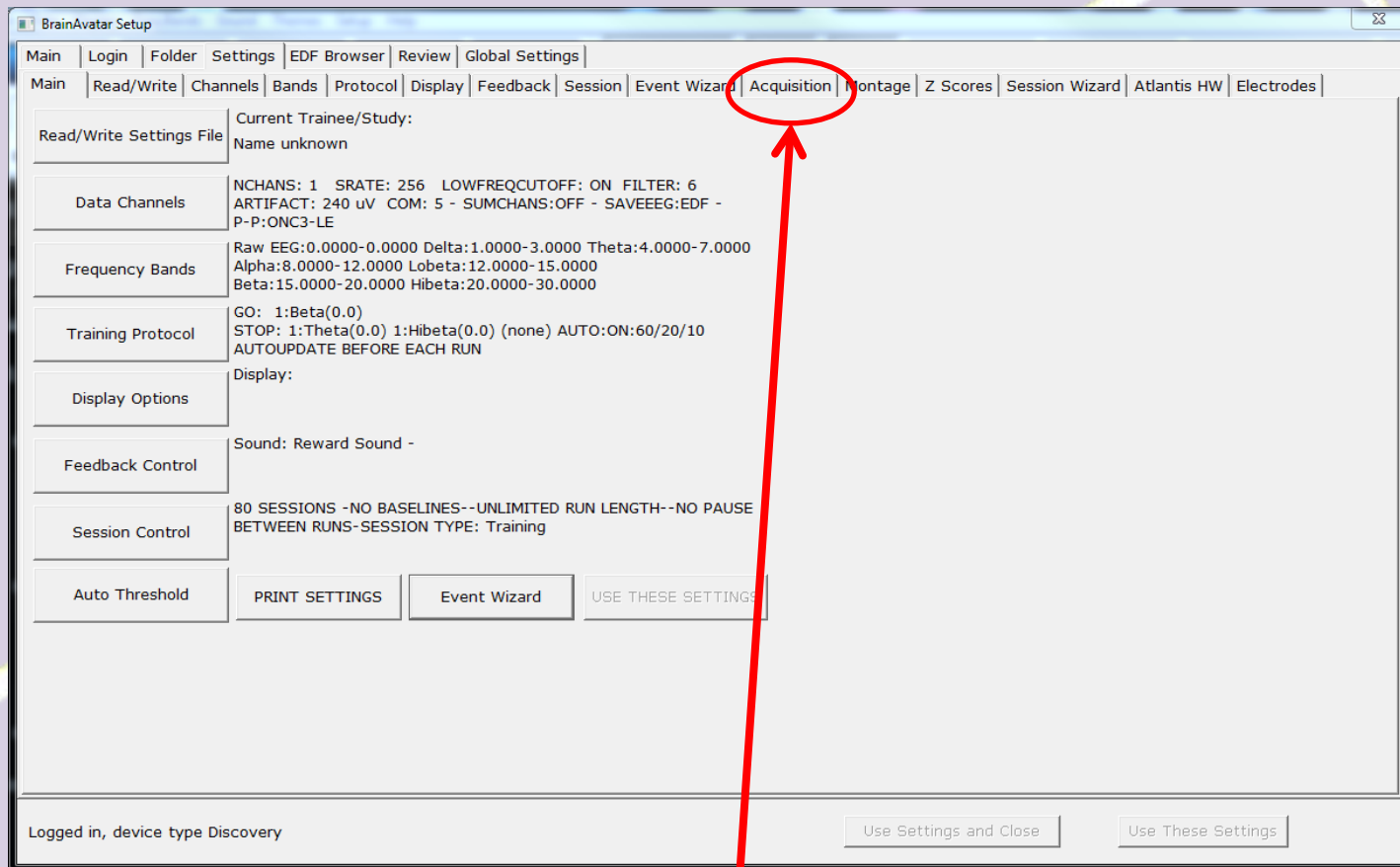
The Flow



- Next click “Settings”.

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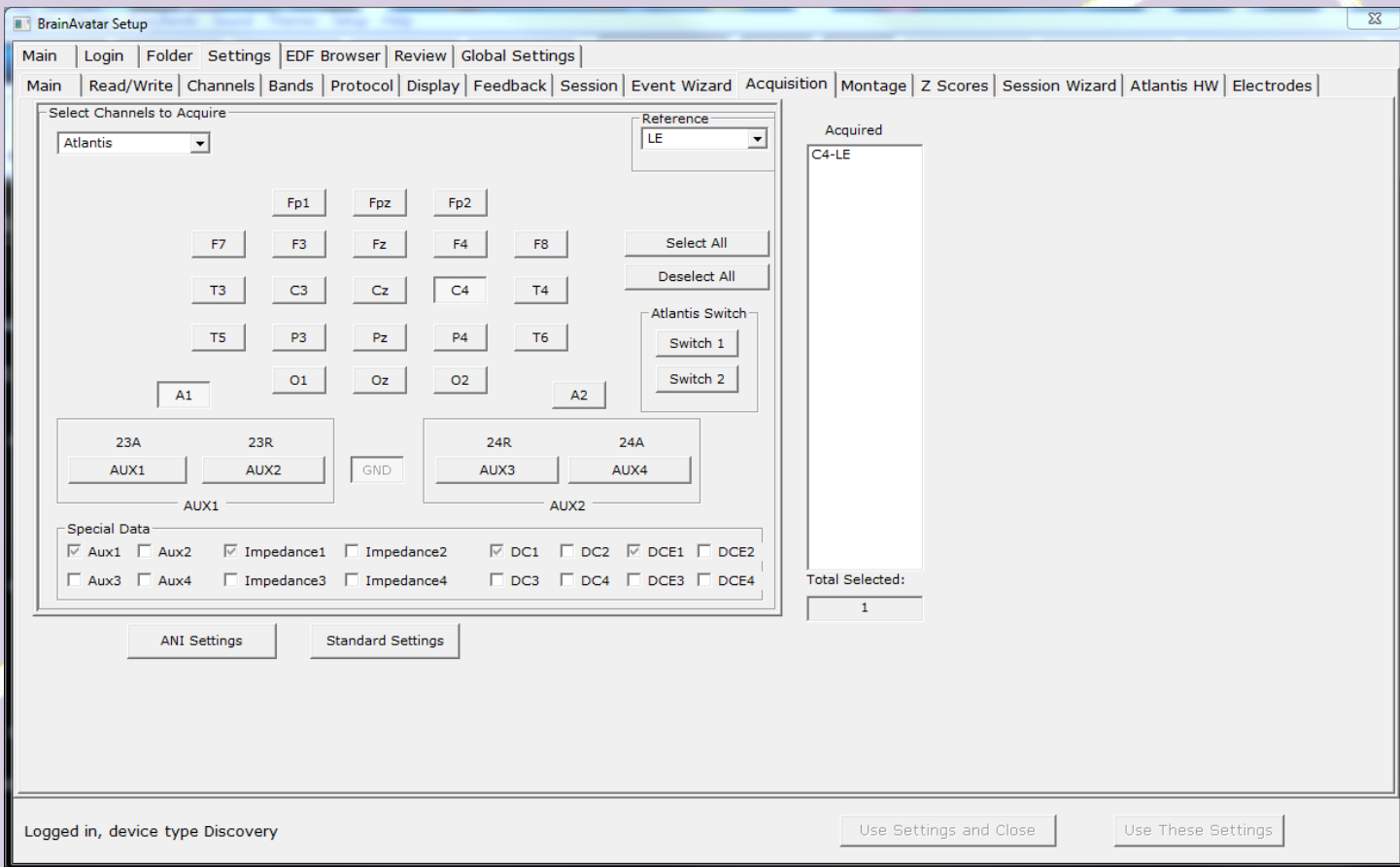
The Flow



- Step 1: Always start with the Acquisition Tab.

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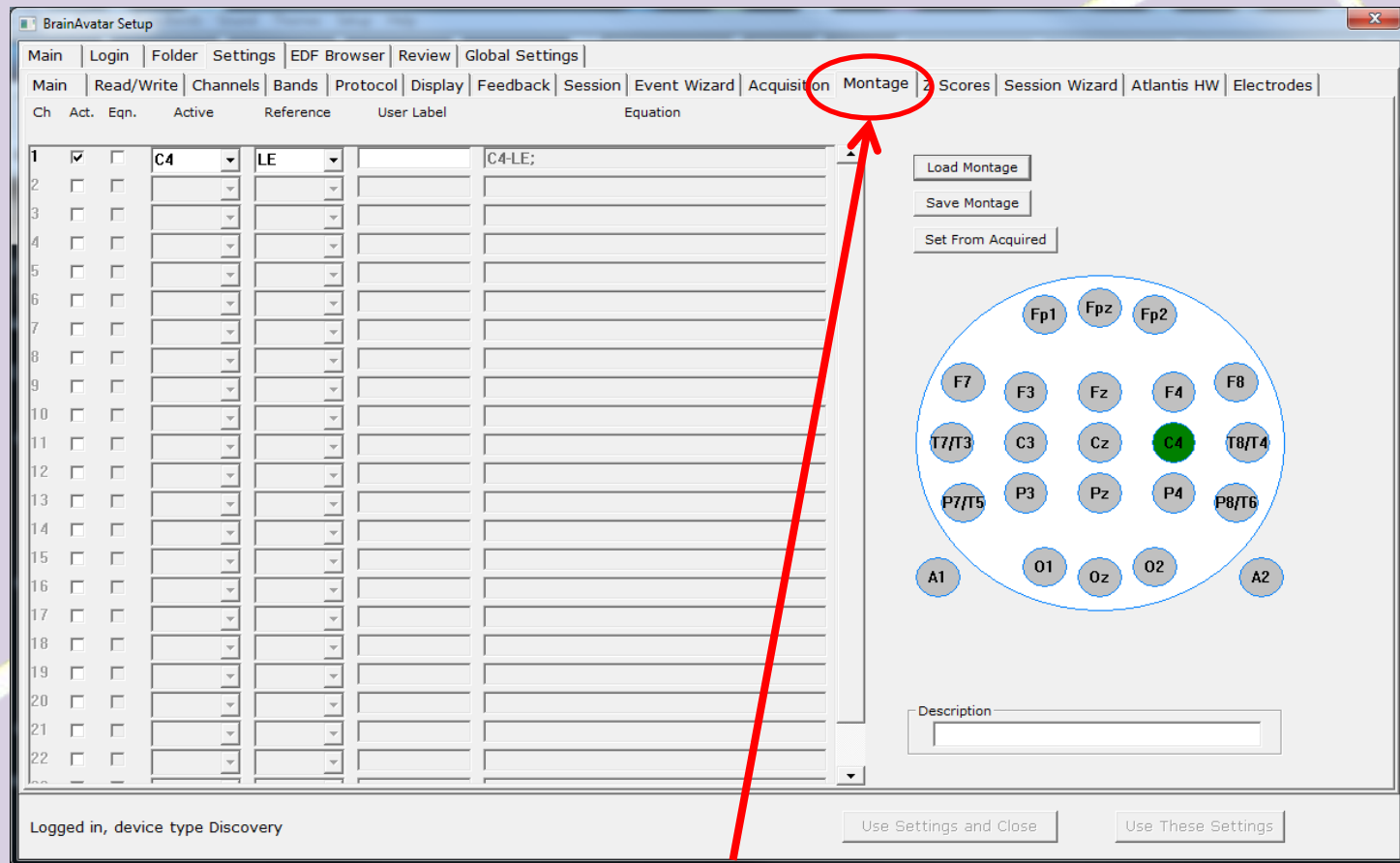
The Flow



- Check to see that the placements you intend to train are selected for acquisition. Also check the references and the ground are correct. This is also a good time to make sure the electrodes are placed correctly on the client's head.

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The Flow



- Step 2: Proceed to the Montage Tab. Check to see if the montage matches the Acquisition. Also, determine if you are using something other than linked ears. Otherwise, simply click “Set from Acquired” to match the Acquisition with a Linked Ears Montage if necessary.

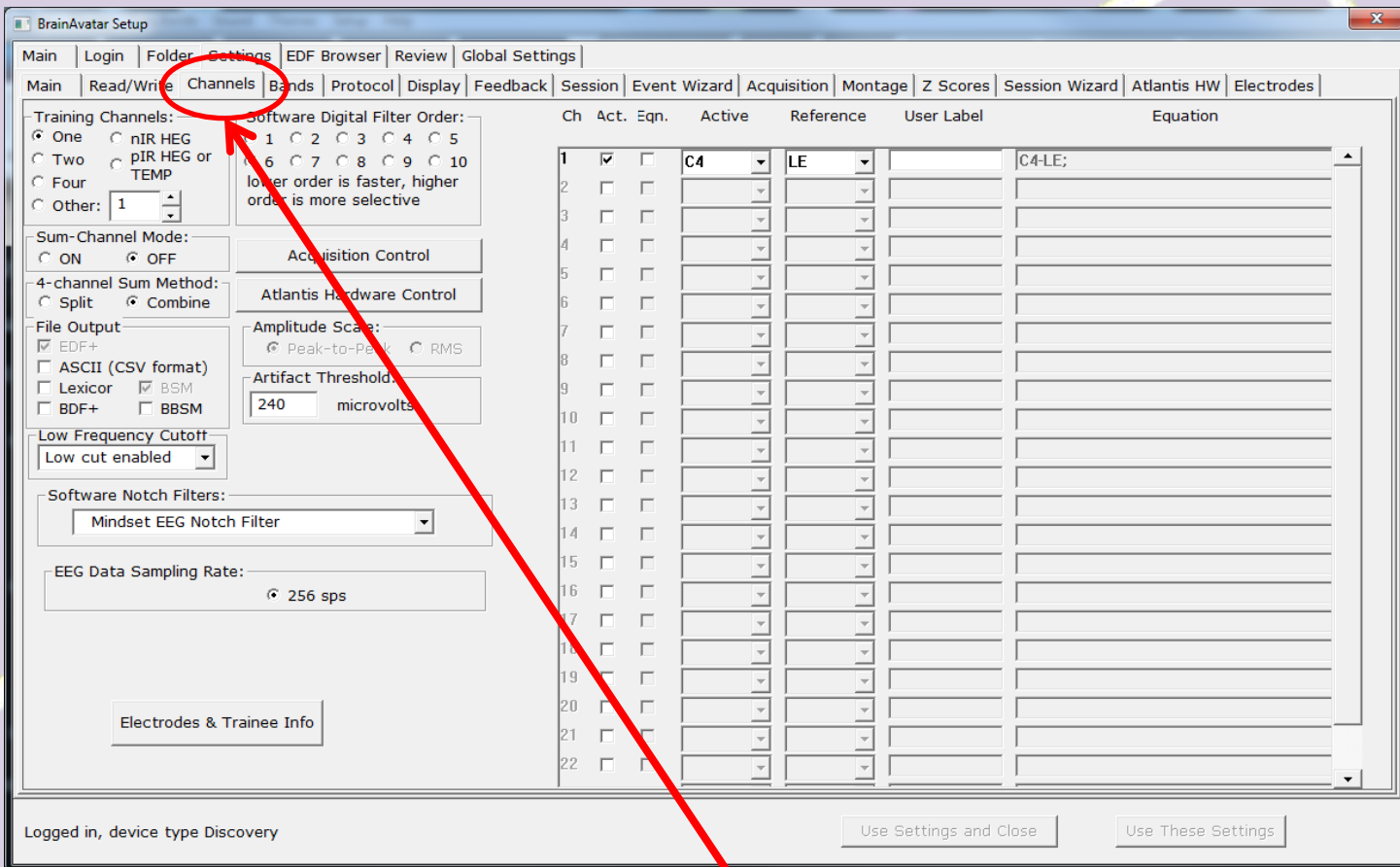
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The Flow

The screenshot shows the 'BrainAvatar Setup' window with the 'Z Scores' tab selected. The interface includes a menu bar at the top with options like 'Main', 'Login', 'Folder', 'Settings', 'EDF Browser', 'Review', 'Global Settings', 'Main', 'Read/Write', 'Channels', 'Bands', 'Protocol', 'Display', 'Feedback', 'Session', 'Event Wizard', 'Acquisition', 'Montage', 'Z Scores', 'Session Wizard', 'Atlantis HW', and 'Electrodes'. The 'Z Scores' tab contains several sections: 'ZScore type' with radio buttons for 'Not using ZScores', 'ANI', 'ZBuilder', 'BrainDx', and 'Custom'; 'ZScore Options' with checkboxes for 'Surface EEG', 'Voxel EEG', and 'Dynamic ZScores', and a 'ZScore Damping Factor' slider; 'Z Builder Options' with radio buttons for 'Control folder', 'Study folder', and 'Browse for file'; 'Acquired' and 'LZT' lists with 'Add-->' and '<--Remove' buttons; 'Trained Values' with checkboxes for 'Abs Power', 'Rel Power', 'Pwr Ratios', 'Asymmetry', 'Coherence', 'Phase', and 'Brodmann'; 'Trained Bands' with checkboxes for 'Delta', 'Theta', 'Alpha', 'Beta', 'H Beta', 'Beta 1', 'Beta 2', 'Beta 3', 'Alpha 1', 'Band 10', 'Band 11', 'Band 12', 'Band 13', 'Band 14', and 'Band 15'; and a large list of brain regions with 'Left' and 'Right' columns. A red circle highlights the 'Z Scores' tab, and a red arrow points to the 'Frontal Lobe' entry in the list. The status bar at the bottom shows 'Logged in, device type Discovery' and two buttons: 'Use Settings and Close' and 'Use These Settings'.

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The Flow



- Step 4: Proceed to the Channels Tab. If the channels do not match what you are acquiring don't worry. Once the protocol is started BrainAvatar will automatically match these channels to the Acquisition Tab.

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The Flow

BrainAvatar Setup

Main | Login | Folder | Settings | EDF Browser | Review | Global Settings

Main | Read/Write | Channels | Bands | Protocol | Display | Feedback | Session | Event Wizard | Acquisition | Montage | Z Scores | Session Wizard | Atlantis HW | Electrodes

Training Channels:
☒ One
☐ nIR HEG
☐ Two
☐ pIR HEG or TEMP
☐ Four
☐ Other: 1

Software Digital Filter Order:
☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☒ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10
 lower order is faster, higher order is more selective

Sum-Channel Mode:
☐ ON ☒ OFF

4-channel Sum Method:
☐ Split ☒ Combine

File Output
☒ EDF+
☐ ASCII (CSV format)
☐ Lexicor ☒ BSM
☐ BDF+ ☐ BBSM

Low Frequency Cutoff
 Low cut enabled

Software Notch Filters:
 Mindset EEG Notch Filter

EEG Data Sampling Rate:
 256 sps

Electrodes & Trainee Info

| Ch | Act | Eqn | Active | Reference | User Label | Equation |
|----|-------------------------------------|--------------------------|--------|-----------|------------|----------|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | C4 | LE | | C4-LE; |
| 2 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 3 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 6 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 7 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 8 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 9 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 10 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 11 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 12 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 13 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 14 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 15 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 16 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 17 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 18 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 19 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 20 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 21 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |
| 22 | <input type="checkbox"/> | <input type="checkbox"/> | | | | |

Artifact Threshold:
 240 microvolts

Amplitude Scale:
☒ Peak-to-Peak ☐ RMS

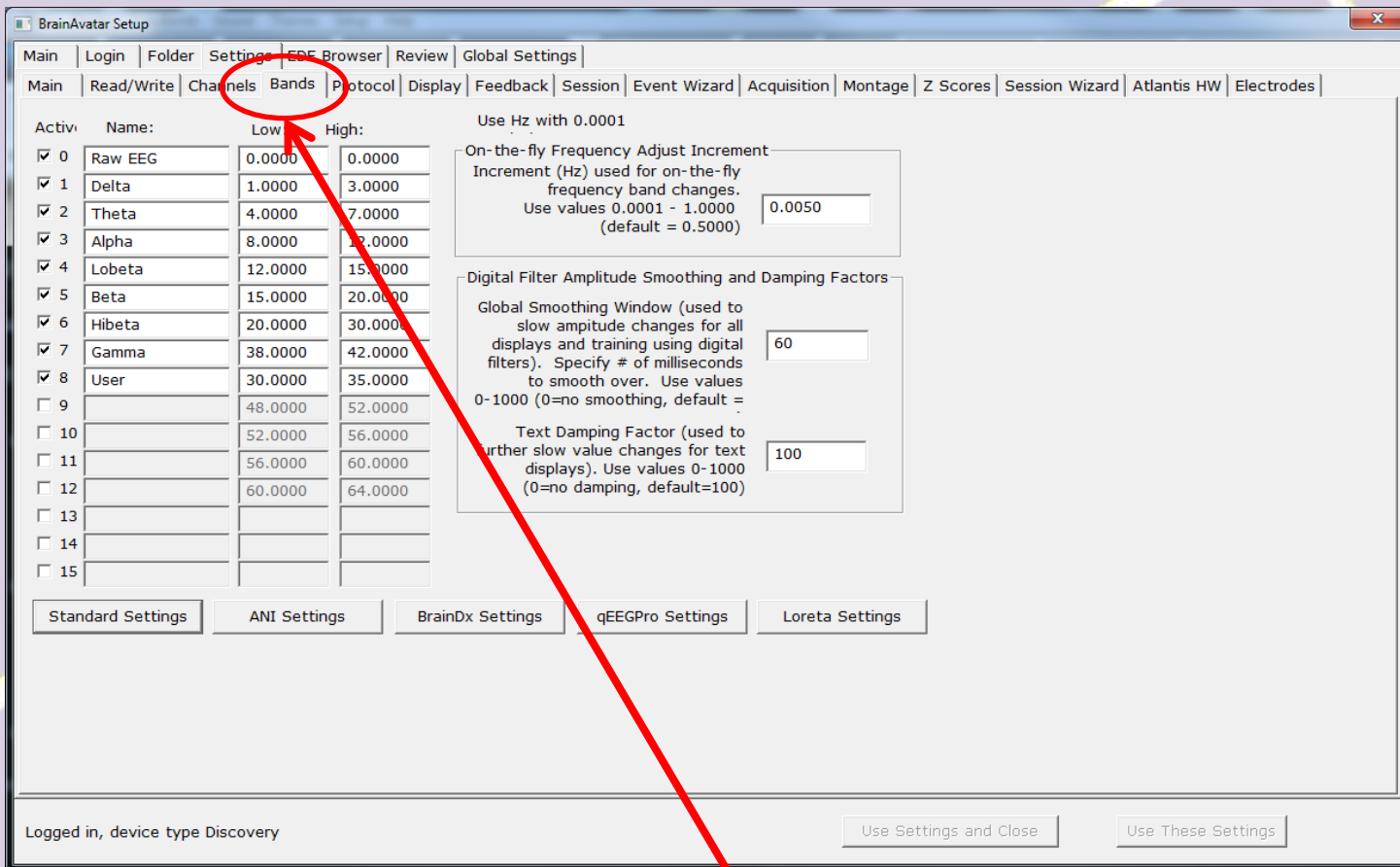
Logged in, device type Discovery

Use Settings and Close Use These Settings

- Step 4: It is important to check some of the other settings. For training it is good for the Low Cut enabled to be activated. Check the software notch filters to prevent electrical interference. Also confirm the Artifact Threshold is adequate. Remember if there is excessive Eye Blink artifact produced you may want a higher threshold.

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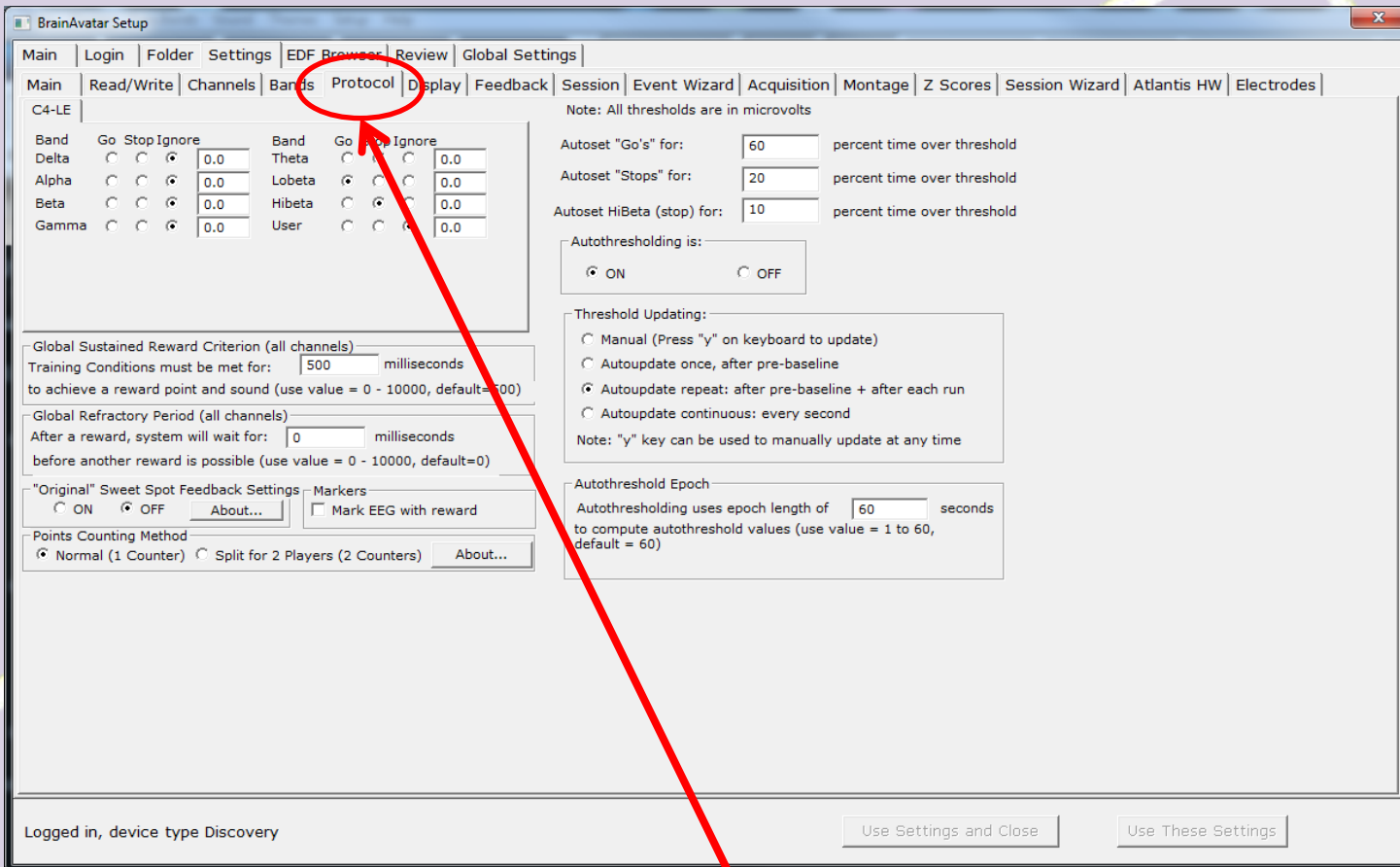
The Flow



- Step 5: Proceed to the Bands Tab. Confirm that the bands you are training have the correct frequency ranges.

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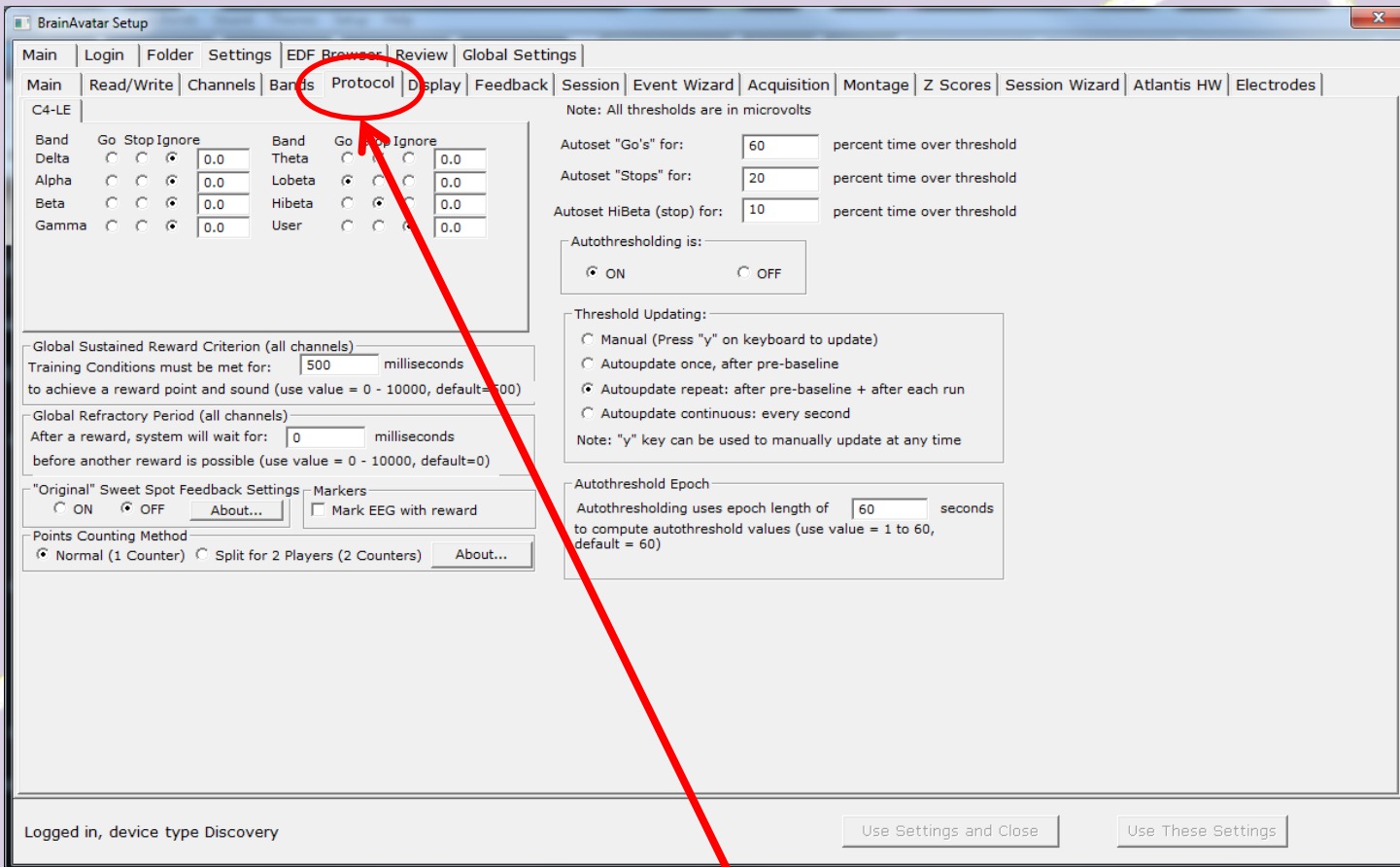
The Flow



- Step 6: Proceed to the Protocol Tab. Confirm the bands to be trained are designated “Go”, “Stop”, or “Ignore” with preset thresholds if desired. If using the Event Wizard all may be selected to “Ignore”.

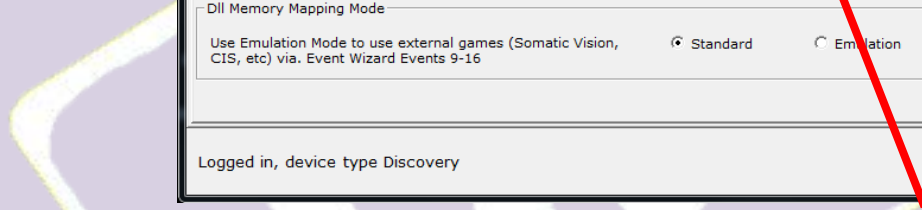
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The Flow



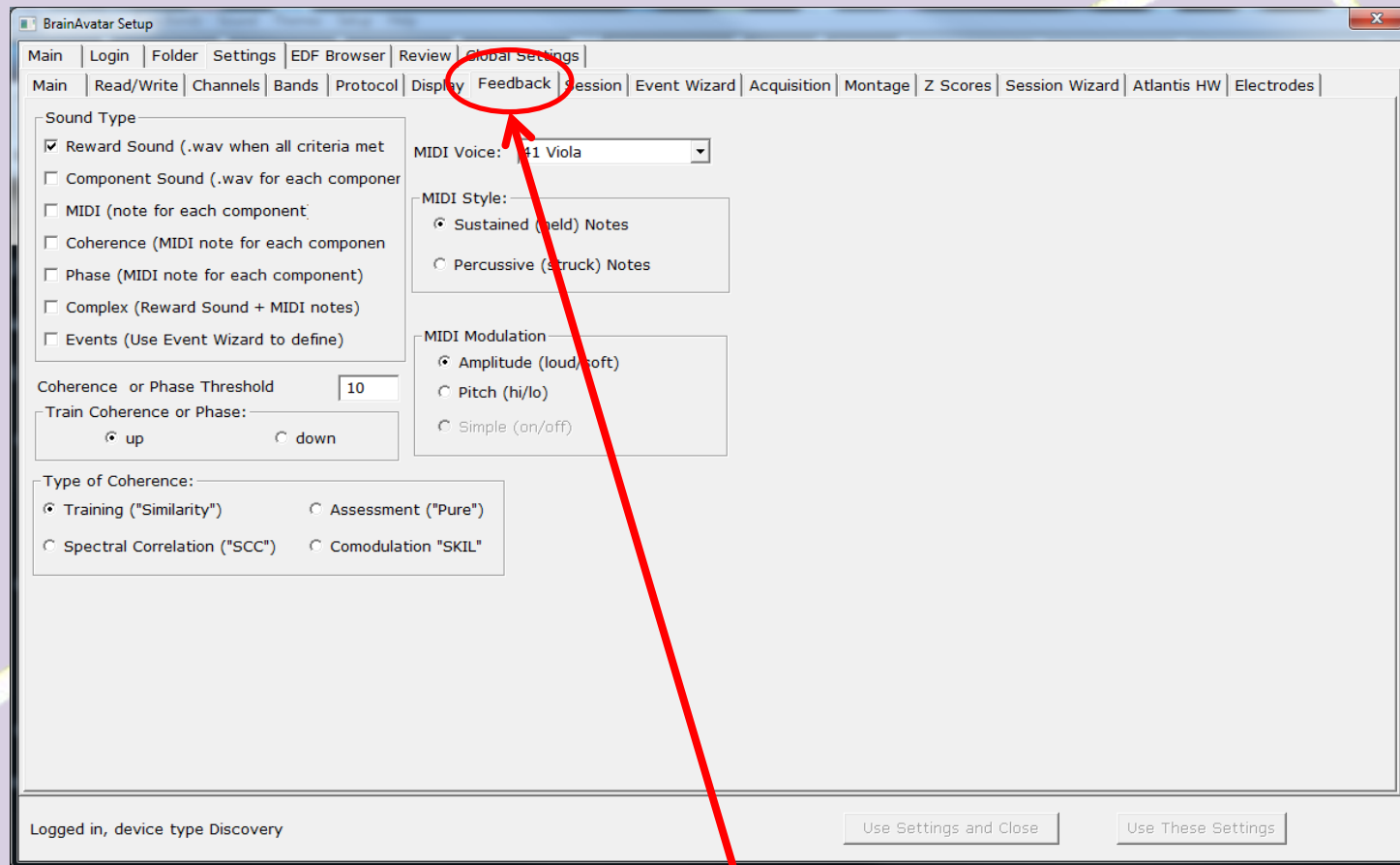
- Step 6: Also, check the percent time over threshold and Automatic versus Manual Settings are as desired.

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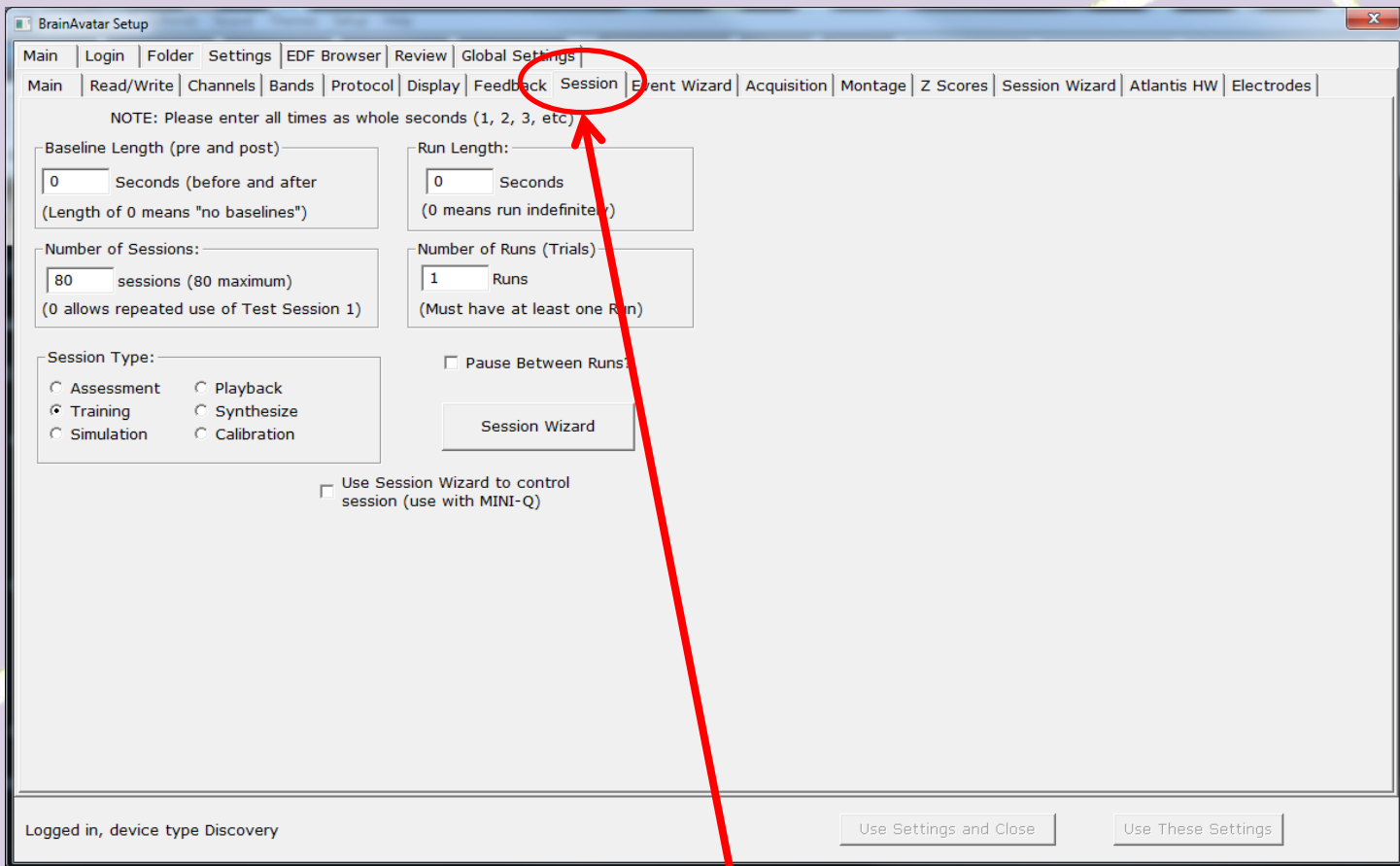
The Flow



- Step 8: Next, check feedback to insure your sound choices are as desired.

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The Flow



- Step 9: The session window is perhaps one of the most important. Be sure the Session type is “Training”. If for instance you played back a clients session there is the possibility the Session Type was saved as “Playback”. If so, the session will not run until the Session Type is switched back to “Training”.

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The Flow

BrainAvatar Setup

Main | Login | Folder | Settings | EDF Browser | Review | Global Settings | **Session** | Event Wizard | Acquisition | Montage | Z Scores | Session Wizard | Atlantis HW | Electrodes

NOTE: Please enter all times as whole seconds (1, 2, 3, etc)

Baseline Length (pre and post):
0 Seconds (before and after)
(Length of 0 means "no baselines")

Run Length:
0 Seconds
(0 means run indefinite)

Number of Sessions:
80 sessions (80 maximum)
(0 allows repeated use of Test Session 1)

Number of Runs (Trials):
1 Runs
(Must have at least one Run)

Session Type:
☐ Assessment ☐ Playback
☒ Training ☐ Synthesize
☐ Simulation ☐ Calibration

☐ Pause Between Runs

☐ Use Session Wizard to control session (use with MINI-Q)

Session Wizard

Logged in, device type Discovery

Use Settings and Close Use These Settings

- Step 9: Also, remember if there is only one run selected a single file will be created for the entire session. If multiple runs are selected than a file will be created for each.

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The Flow

- It is always good if you are using a setting file you haven't used before or if you are unsure of the contents of a setting file to go through the flow prior to running the session before a client.

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