WHAT IS BT4BE? (BRAIN-TRAINER FOR BIOERA)

- **BTI's software to replace BioExplorer on BioEra platform**
  - **Modular: apps add HEG, shadowing, games, others**
  - **Integrated: Assessment/training of HEG/EEG/Feedback**
  - **Easy to learn and use: Built-in Manual and Auto-Updates**
  - **Works with multiple amplifiers**
  - **Active programmer for problem-solving and upgrades**
- **Why replace BioExplorer**
  - **18 years old without major updates**
  - **Problems working with Windows10—especially updates**
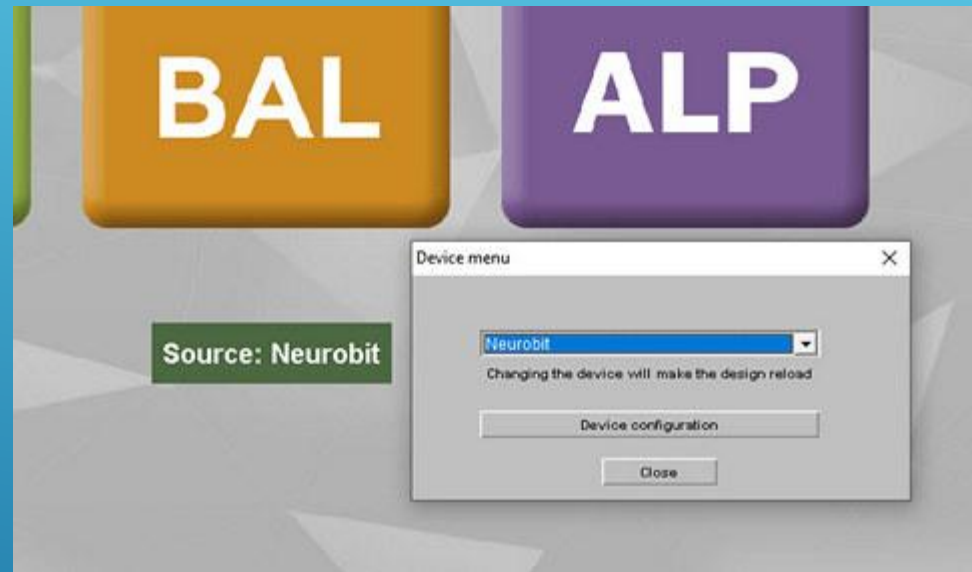 - **Additional protocols, feedback and services difficult to add**

Designs Menu

▶ **Brain-Trainer version (1.1.1 full release non-beta)**

▶ **Upper-right: Link for Online Manual**

▶ **Lower-left: Check for updates (Auto option)**

▶ **Upper-left: Green icon for Program Status**

▶ **Lower-right: Quick-Start of Saved protocol**

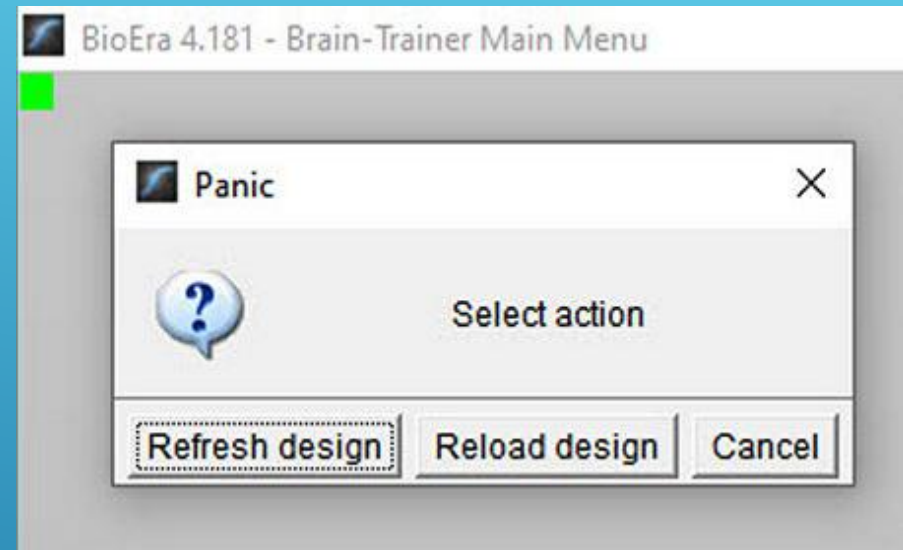▶ **Lower right: Change location for saving files**

SELECT YOUR AMPLIFIER

▸ **Click amplifier name to get drop-down menu with options**

  ▸ **Neurobit Optima, Pocket Neurobics Wiz, NeuroAmp, Simulator, Playback**

  ▸ **Set configurations of amplifier**

  ▸ **Color of button shows status of amplifier connection**
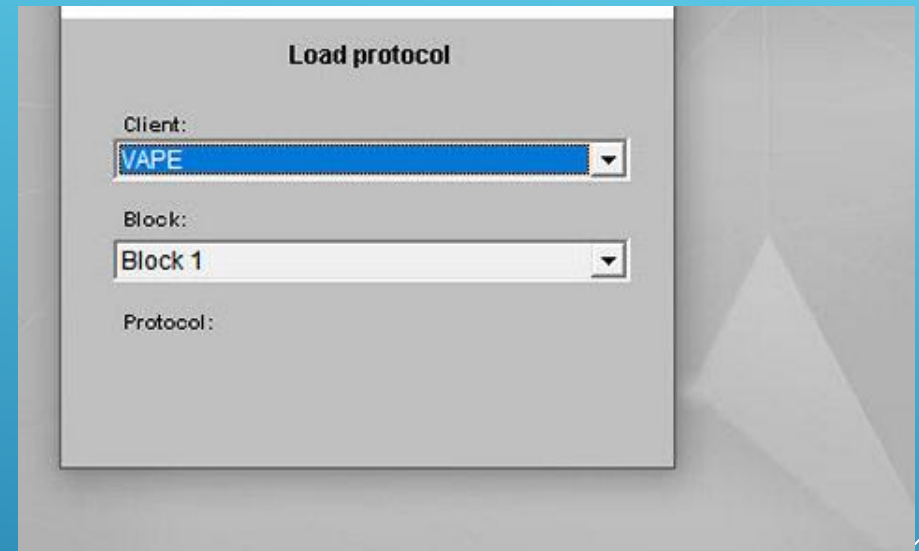
▸ **Only need to do one time.**

Program Status Icon

- **Shows status of connection (Green or Red)**

- **Resolves most lock-ups**
  - **Click once for Panic options when freeze occurs**
    - **Refresh last action**
    - **Reload screen**

The Quick-Start Folder

- **Start saved Client Protocol directly from Open screen**
  - **Click folder icon to open**
  - **Select Client**
  - **Select Block**
  - **Select Protocol**
- **Protocol opens with correct frequencies and selections**
- **Set feedback options and train**

Select Task to be performed

- ► **What can BT4BE do?**
    - ► **Record Trainers' Q assessment data**
    - ► **Train HEG/LIFE (with HEG 2.0 app).**
    - ► **Frequency training**
    - ► **Connectivity**
    - ► **Balance protocols**
    - ► **Alpha, Alpha Theta training**

RECORDING ASSESSMENT DATA

- **2 Standard Recording Options for Trainer's Q**
  - **Record with 2C amp**
  - **Record with 4C amp**
- **No artifact Recording 4C**
  - **Artifact thresholds preset before recording**
  - **Software rejects epochs with artifact real-time**
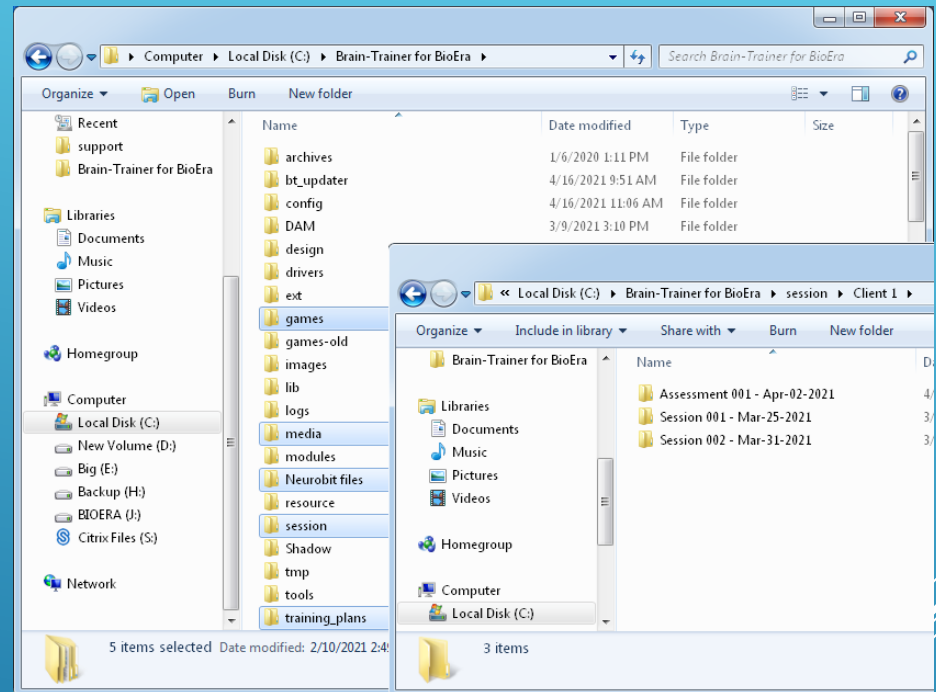 - **Record until 60 seconds clean data recorded.**

RECORDING ASSESSMENT DATA

- ▶ **Add/select Client**
- ▶ **Select recording step**
- ▶ **Auto-name file/allows record-over.**
- ▶ **5-second count-down timer allows pause if signal problems appear.**
- ▶ **Pause after 60 seconds (or 60 clean epochs)**
- ▶ **Power spectrum views**
- ▶ **Oscilloscope view**
- ▶ **Signal quality displays**

SESSION DATA/FILES SAVED

- **Files in Local Disk (C)**

- **Brain-Trainer for BioEra folder includes data, resources, training plans**

- **Each Client has folder in session folder**

- **Assessment data format for TQ auto-produced**

Main Training Screen

- **Tools in upper-right**
  - Matrix: Designs Menu to select new protocol
  - Folder: Access to any saved protocols
  - Disk: Save as protocol for use in training plan
  - Online Manual link
- **Green icon in upper left.**
- **Lower-left ID's screen element cursor is over.**

FRE Options

- **FRE1+: combines inhibits and rewards for 1-4 channels (summed signals)**

- **FRE2C: allows separate challenge/feedback for each channel**

- **FRE4C: allows separate or same inhibits/reward for channels**

- **FRE%1C: FRE/Total (SMR or other band)**

- **1+, 2C and 4C have specialty Preset protocols**

CON Options

- **Multiband Coherence 2C: trains 4 bands up or down or both; with rocking**

- **Sync 2C: trains synchrony in 3 bands (delta, theta, alpha, SMR, gamma)**

- **Multivariate Coherence 4C: specialty protocol**

BAL Options

- **Alpha-Beta Asymmetry 2C: trains symmetry in alpha and/or beta**

- **Difference: Trains ratios definable by trainer**

- **Sum&Difference 2C: definable by trainer**

ALP Options

▶ **Alpha Up and Alpha Theta to train Alpha Peak Frequency or deep-states.**

Running a Training Session

▶ **Open BT4BE to Design screen (from start-up or using Matrix icon)**

▶ **Click desired category and protocol; or**

▶ **If you have already saved the protocol, click the Folder icon, select Client, Block and Protocol**

TRAINING SCREEN CONTROLS

- ▶ **Protocol Name**
- ▶ **Pause/Play/Stop control**
- ▶ **Clock: click to set session time**
- ▶ **Amplifier (green if connected/recognized)**
- ▶ **Wave icon: signal tester**
- ▶ **Feedback selection**
- ▶ **Slider icon: Feedback controls**
- ▶ **Notes icon: MIDI & click sound editor**
- ▶ **Speaker icon: MIDI on/off**
- ▶ **Option to Record session**
- ▶ **Design Set-up Options**
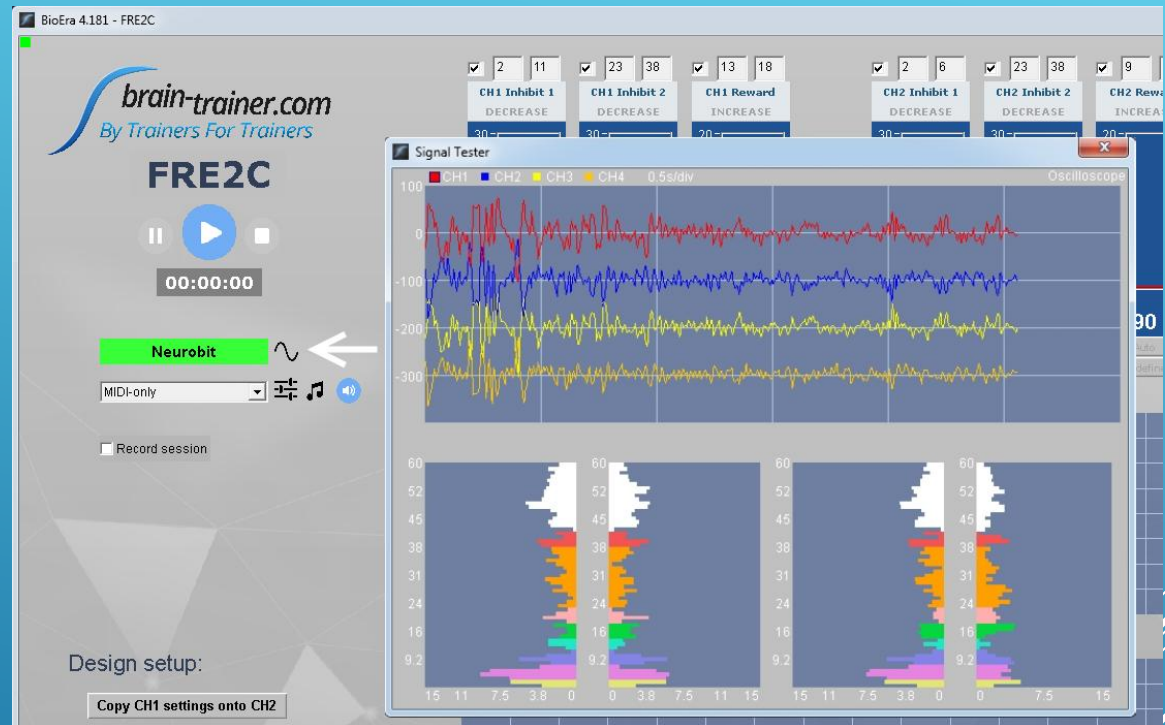- ▶ **Contingent Chime Feedback**

CHANGE AMPLIFIER CONFIGURATION

- ▸ **Click on Amplifier name**

- ▸ **Can change to another installed amplifier**

- ▸ **Can change amplifier configuration**

  - ▸ **Number of channels**

  - ▸ **Linked/Independent references**

  - ▸ **Click close**

  - ▸ **Wait for amp name to turn green again**

TEST SIGNAL BEFORE STARTING

▶ **Click on waveform beside amplifier name**

▶ **When signal looks good, close window**

▶ **Ready to begin training.**

FEEDBACK OPTIONS

- **Choose Option**
  - MIDI only
  - Video with/ without MIDI
  - Shadow (if app added)
  - Games (if app added)
- **Setting feedback controls**

SAVING PROTOCOLS/TRAINING PLANS

▶ **Open protocol and set frequencies and protocol type**

▶ **Click on disk icon, add or find client**

▶ **Select client, block and type in session information.**

▶ **Save.**

▶ **Can be reopened from folder icon.**