

Quick Start User Guide

Mind Media Brainboost applications

This user guide has been created to educate and inform the reader about the Brainboost interactive applications with the BioTrace+ V2018A software.

For more information about NeXus, our BioTrace+ software, please visit our website or contact us.

www.mindmedia.com

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Introduction

The BioTrace+ Brainboost screens are designed to be used with Brainboost Brain Assistant applications. This user guide focuses on the use of the BioTrace+ Brainboost screens with NeXus and BioTrace+.

BioTrace+ sends up to 4 channels/signals to the Brainboost application. The following parameters of these channels/signals are sent:

- Channel name
- Data value
- Threshold level
- Direction of training, up or down (reward tag)

The BioTrace+ Brainboost screens have been developed for BioTrace+ version 2018A or newer and the following versions of the Brainboost applications or newer:

- BrainAssistant V21:3r

First install the Brainboost Screens and then the Brainboost Brain Assistant application.

The following screens are included in the BioTrace+ Brainboost screens update:

EEG

- 1x EEG 1 band
- 1x EEG 2 bands
- 1x EEG 3 bands
- 2x EEG 2 bands
- 4x EEG 1 band

Temperature

- Temperature

Z-Score

- Z-Score 2 channels
- Z-Score 4 channels

EMG

- 2x EMG (100-500 Hz)

HRV

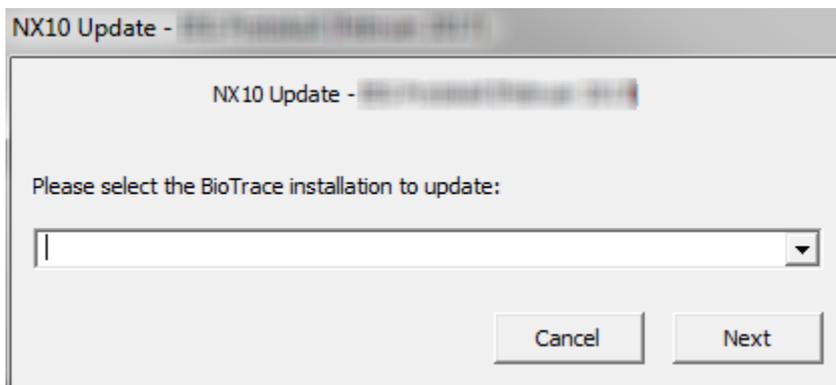
- HRV – Blood Volume Pulse

Skin conductance

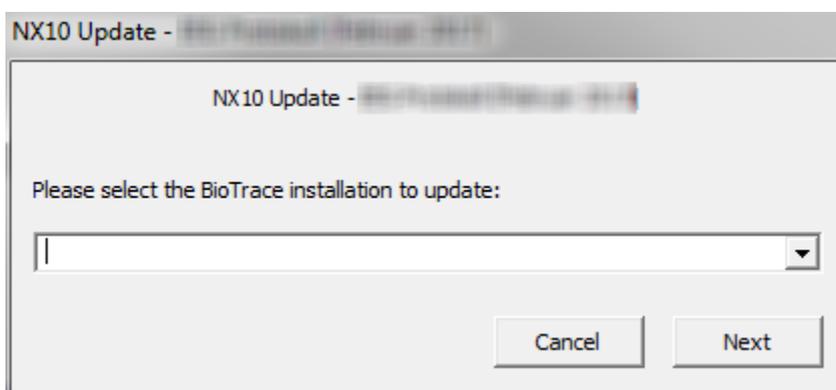
- Skin Conductance

Installing Brainboost screens in BioTrace+

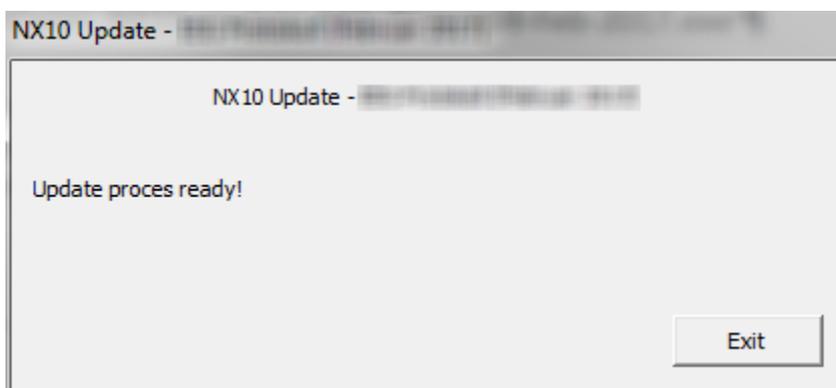
1. Close BioTrace+
2. Run the file **NX4/10/32 Update– Brainboost.exe** (the software will now search for BioTrace+ installs on the computer).



3. Select the BioTrace+ directory where the protocol needs to be installed (this step is only necessary when there are multiple versions of BioTrace+ installed) and click **Next**.



4. Click **Exit** once installation has finished.

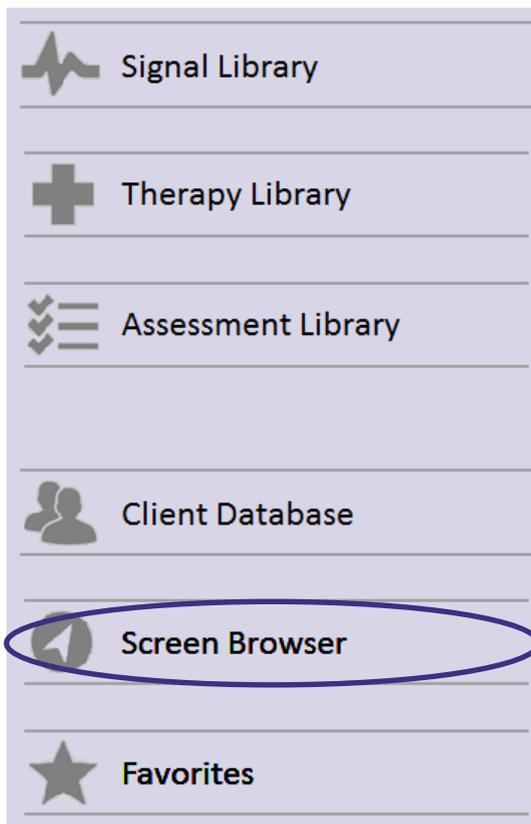


Installing and registering Brainboost application(s)

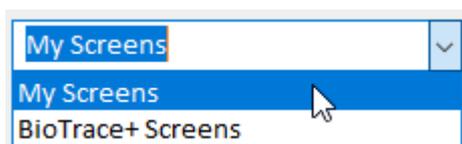
See the Brain Assistant getting started for information about downloading, installing and registering the Brain Assistant: <https://brainassistant.tribe.so/feed/getting-started>

Using Brainboost applications with BioTrace+

1. Open a BioTrace+ Brainboost screen. The BioTrace+ Brainboost screens are located in the **Screen browser**.



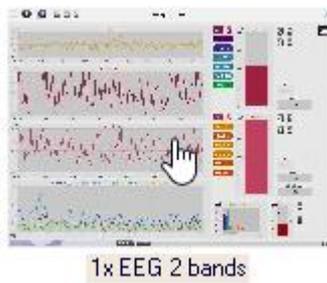
2. Choose **My Screens**



3. Choose **Brainboost**



4. Double click to open a therapist screen



5. Open the Brainboost Brain Assistant application. Make sure to open a Brainboost screen in BioTrace+ **before starting** the Brainboost Brain Assistant application. Restart the Brain Assistant if necessary.
6. Choose one of the feedback options in the Brain Assistant and click **Start** to open the feedback application.



7. Start training

Some feedback applications require client controls by controller or keyboard:

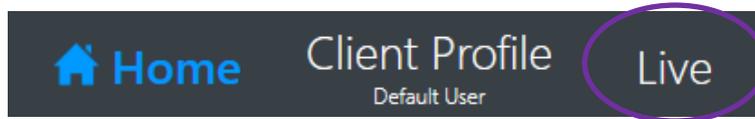


- A wireless Windows Xbox controller can be used (recommend)
 - Arrows on keyboard (make sure to click in the feedback application to allow keyboard control)
8. See the Brain Assistant getting started for more information about use of the Brain Assistant: <https://brainassistant.tribe.so/feed/getting-started>

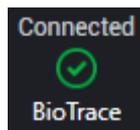
Troubleshooting

Check connection between BioTrace+ Brainboost screen and Brain Assistant

1. Click Live in the Brain Assistant



2. Connection between BioTrace+ and Brain Assistant can be checked (upper right). When having a BioTrace+ Brainboost screen and the Brain Assistant application opened, a checkmark should be displayed



3. If no checkmark is displayed between BioTrace+ and Brain Assistant:
 - i) Close the Brain Assistant
 - ii) Make sure to have a BioTrace+ Brainboost screen opened (“Using Brainboost application” step 1-4)
 - iii) Reopen the Brain Assistant
4. If still no checkmark is displayed between BioTrace+ and Brain Assistant:
 - i) Open Settings



- ii) Download and install C++ Redist



Feedback application (game) doesn't react on keyboard controls

1. Click (once) in the feedback application to allow keyboard control

Appendix 1 Adding Brain Assistant plugin to default BioTrace+ screens.

Default BioTrace+ screens can also be used with Brain Assistant. Follow the steps below to add the Brain assistant plugin to a therapist screen:

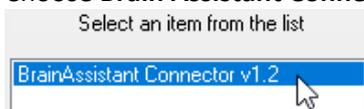
1. Open a BioTrace+ therapist screen
2. Press “E” on your keyboard to open the Edit Mode
3. Click the DirectX plugin button



4. Drop the plugin in the therapist screen



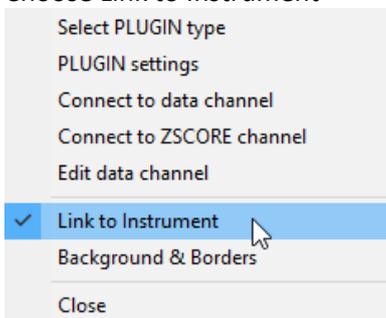
5. Choose **Brain Assistant Connector** and click **OK**



6. Press “E” on your keyboard to exit the Edit Mode
7. Right click **next to** the plugin



8. Choose Link to Instrument



9. Select one or multiple (maximum 4) **bar graphs** and click **OK**
10. Choose “Save Screen As” to save the screen as a new screen:

- i. Select (or create ) a folder. New screens can also be saved in the Brainboost folder **Brainboost**
- ii. Click the Save button to save the screen in the selected folder



- iii. Give a screen description and click OK
- iv. Open the screen from the Home screen: “Home” > “Screen Browser” > “My Screens” > double click to open the screen



1x EEG 2 bands