



QUICK START GUIDE

Installation, Setup & Basic Operation with Mind Media's BioTrace+ *Version ZG 2.0-1*



ZUKOR'S GRIND

Quick Start Guide

Installation, Setup & Basic Operation

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ACKNOWLEDGMENTS

ZUKOR'S GRIND

is dedicated in loving memory of

Helen Turcotte Davis
1937 - 2011

Jefferson C. Davis, M.D.
1932 - 1989

*They dedicated their lives to advances in medicine
and continuing medical education.*

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SPECIAL THANKS TO:

Mind Media

Erwin Hartsuiker, Pieter Ermers, Thomas Baumgartner, Tim Keren, Yoran Paulus, Bart Janssen, Arthur Burgers, Angelique Smeets

My Wife

An extra special thanks to my wonderful wife, Sandra Turcotte

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Welcome to Zukor's Grind!

Thank you for purchasing Zukor's Grind. It is our sincere hope that it contributes to improved patient treatment. Our goal was to create a feedback game with the same world-class professionalism and sophistication as our neurofeedback and biofeedback system partners provide in their amplifiers and system software.

With Zukor's Grind, we have introduced many features to neurofeedback and biofeedback feedback games which have never before been seen in the field. Each feature was methodically considered and carefully developed under the guidance of and with feedback from experienced neurofeedback clinicians, in particular, our chief clinical advisor, Dr. Allen Novian.

This guide will help you make the most of these features. Additionally, there is built-in Help throughout the game. Should you need additional explanation of any feature, please contact us directly and we will make sure you fully understand it.

As you use Zukor's Grind, we hope you not only benefit from its vast range of innovative new features, but also from the ability to customize the features to meet your specific neurofeedback or biofeedback training strategy and the unique needs of each patient. Even more than the features themselves, we strongly believe (and our clinical advisors have repeatedly told us) that the ability for clinicians to select and customize features is critical for effective clinical neurofeedback and biofeedback treatment.

We welcome your feedback and suggestions, which we will use to create even more effective feedback games in the future. So, please let us know how we are doing.

Zukor Interactive is committed to supporting the increasingly important fields of neurofeedback and biofeedback. We are a proud member of the ISNR and AAPB and are financially supporting industry research efforts.

We strongly believe neurofeedback and biofeedback have an extremely bright future.

Thank you again for your support!

Samuel Turcotte Davis

President & Chief Technology Officer

Zukor Interactive

MINIMUM COMPUTER SYSTEM REQUIREMENTS

Your computer system needs to meet the below requirements to properly run Zukor's Grind.

Computer systems which don't meet these requirements may run the game,
but you might encounter issues ranging from minor to extreme.

These requirements are in alignment with the requirements of BioTrace+ as well.

NOTE: Most computers sold within the last two years will meet the first two requirements.

1. OPERATING SYSTEM

- Windows 7 or Windows 8/8.1 on a regular PC or on a Mac (via Boot Camp).

NOTE: Microsoft no longer supports most versions of Windows XP or Windows Vista.

IMPORTANT: Make sure you have installed **ALL** Windows 7 or Windows 8/8.1 updates **PRIOR** to installing Zukor's Grind. Failure to do this may lead to improper operation of the game.

2. COMPUTER GRAPHIC REQUIREMENTS

- Dedicated graphics card with at least 512 MB dedicated video memory.

NOTE: Systems which do not meet these graphic requirements will still likely play the game, but may require graphic adjustments within the game to reduce graphics quality so the game will play smoothly.

3. MONITORS/DISPLAYS

- Two monitors (dedicated dual monitor setup).
- Game monitor should be 21+ inches, "widescreen" and set at a minimum resolution of 1024 x 768.

NOTE: Video projectors, Plasma TVs, LCD TVs and LED TVs usually work as well, but could require different Windows graphic settings to be selected.

NEUROFEEDBACK/BIOFEEDBACK SYSTEM SOFTWARE REQUIREMENTS

- Mind Media's BioTrace+ for NeXus-4, NeXus-10, NeXus-32

Note: It is highly recommended that BioTrace+ and Zukor's Grind be run on a single, dedicated system with no other applications running.

Installation

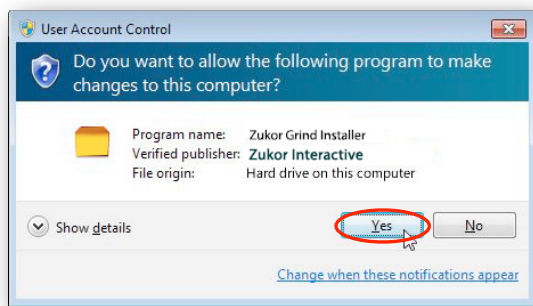
Follow the below steps after you have downloaded Zukor's Grind.

1. Locate the **Zukor's Grind Installer**. Likely it is in your Downloads folder or, maybe, on your Desktop.

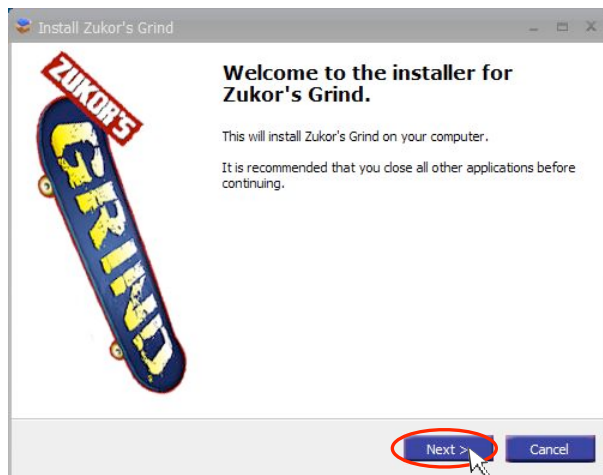


NOTE: The installer may have automatically started after downloading finished and the **User Account Control** (Step 3) may already be visible.

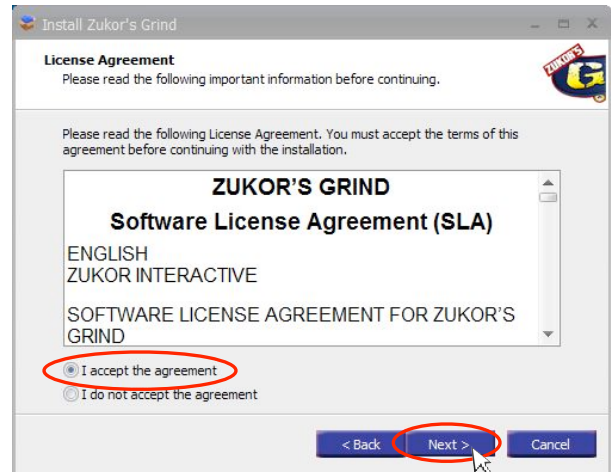
2. Double click the **Zukor's Grind Installer** icon.
3. If the **User Account Control** box appears, click **"Yes."**



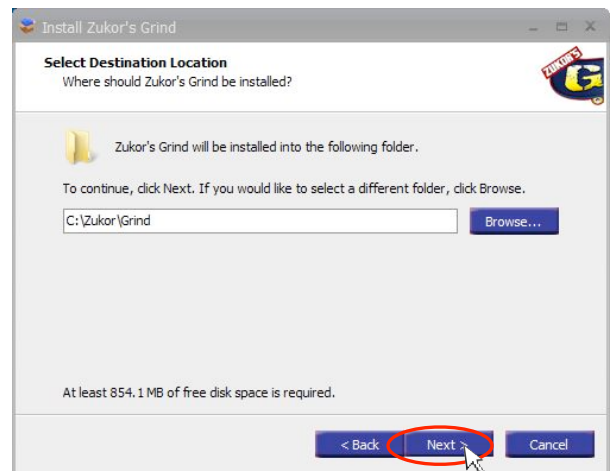
4. When the installer appears, click **"Next."**



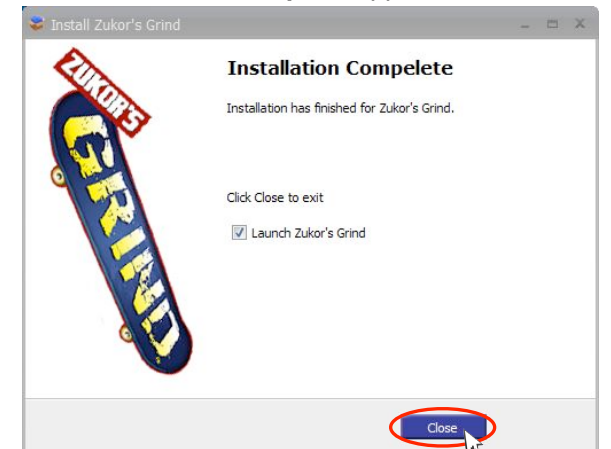
5. When the **Software License Agreement** appears, please read it and, if you agree, then select, **"I accept the agreement."** and then click **Next**.



6. When the box below appears, click **"Next."**



7. When **Installation Complete** appears, click **"Close."**



Monitor Setup (Windows 7)

Zukor's Grind is designed to work with BioTrace+ in a two monitor configuration.

The below steps explain how to configure your monitors in Windows to work properly with BioTrace+ and Zukor's Grind.

Note: If you have previously been using your computer with a second monitor, then it is very likely your monitors are already set up correctly. However, following the below steps will make sure your monitors work correctly with Zukor's Grind and BioTrace+.

OVERVIEW

Zukor's Grind and BioTrace+ work with two monitors as follows:

Monitor 1 = The "Clinician Monitor" to display the BioTrace+ application and clinician screen.

Note: The Clinician Monitor (Monitor 1) can be a laptop screen.

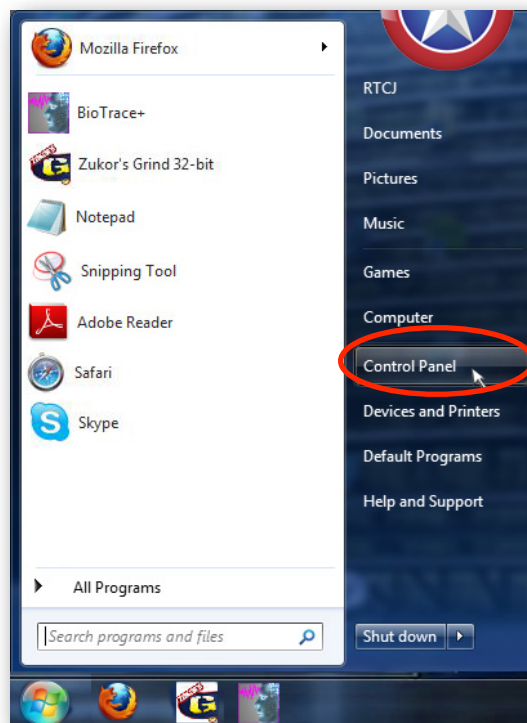
Monitor 2 = The "Game Monitor" to display the Zukor's Grind feedback game for the patient.

Note 1: Per the Zukor's Grind system requirements, the Game Monitor (Monitor 2) should be a 21+ inches widescreen monitor and set at a minimum resolution of 1024 x 768. A smaller monitor, a non-widescreen monitor or one set at a lower resolutions will work, but the game display experience will be less than optimal.

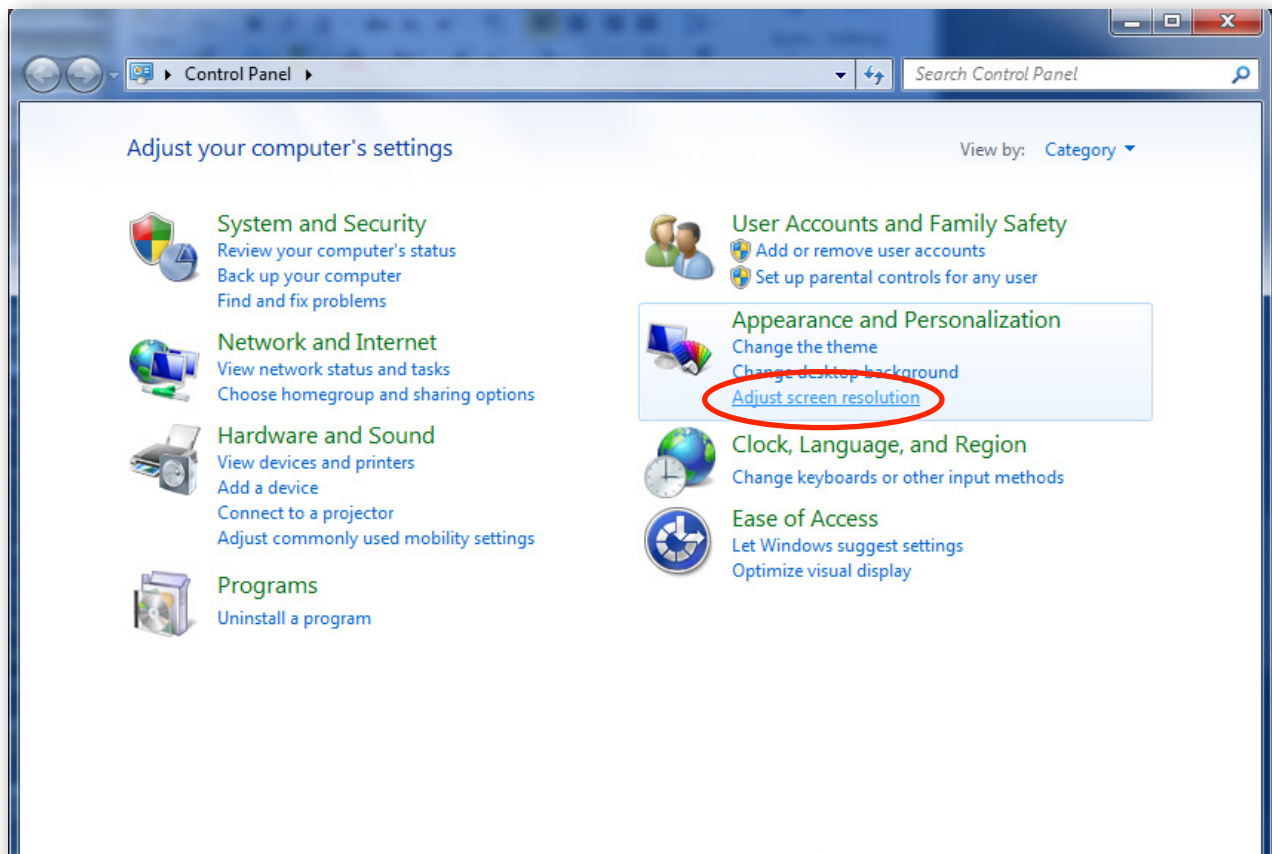
Note 2: Monitor 2 can also be a Plasma/LCD/LED TV or video projector. However, some of these alternative displays may require additional configuration changes in Windows.

MONITOR SETUP

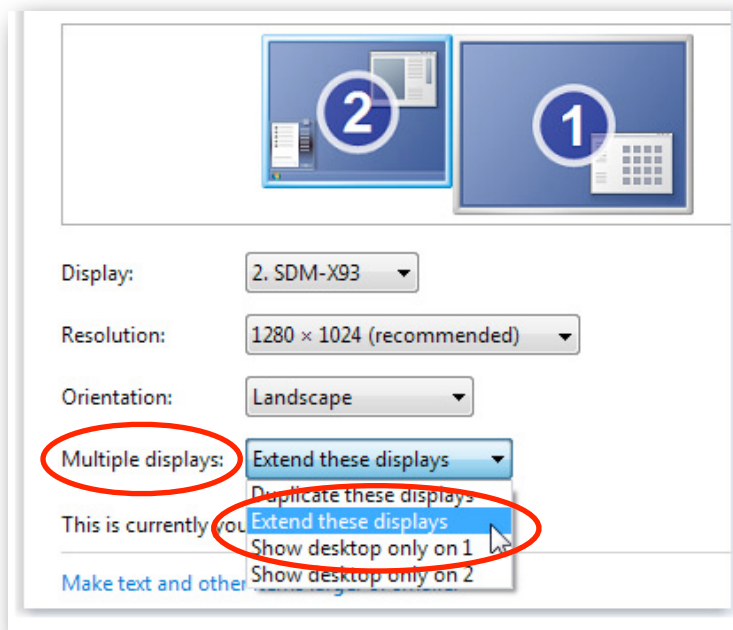
1. Via the **Start** menu in Windows go to **Control Panel**.



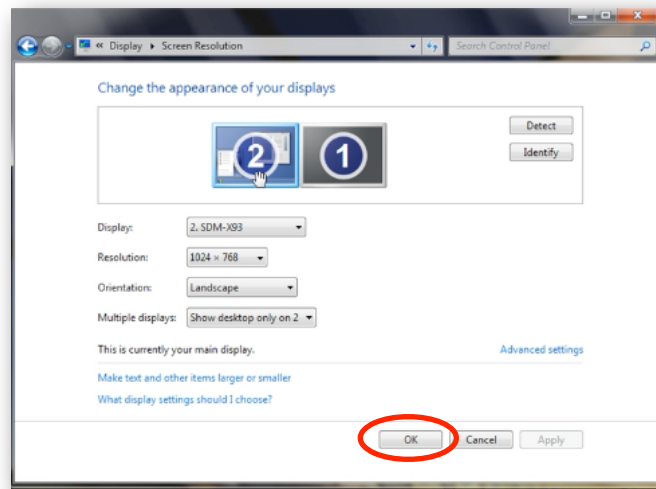
2. On the **Control Panel** window under **Appearance and Personalization**, click on **Adjust screen resolution**.



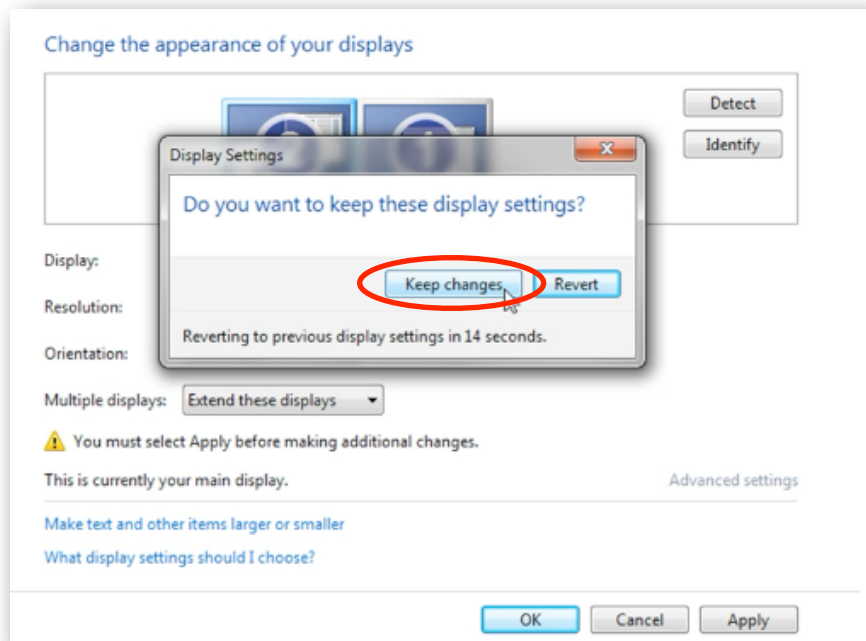
3. Click the drop-down list next to **Multiple displays** and select **Extend these displays**.



4. Then click **OK**.



5. On the **Display Settings** confirmation popup, click **Keep changes**.



Your monitors are now setup to work properly with Zukor's Grind and BioTrace+.

When you start BioTrace+ it should appear on Monitor 1, "Clinician Monitor," and when you launch Zukor's Grind it should appear on Monitor 2, the "Game Monitor."

If it does not, then please review the above steps again.

If it's still not working correctly, then please contact whomever you purchased Zukor's Grind.

Using BioTrace+ With Stored Data

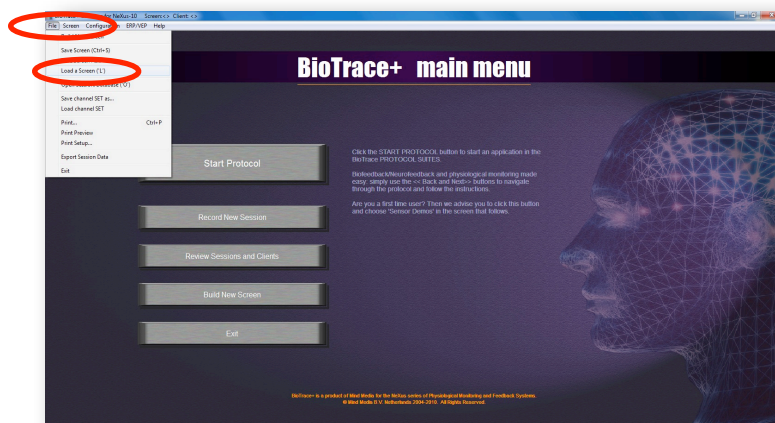
This section explains how to use Zukor's Grind and BioTrace+ with stored data. We highly recommend you try Zukor's Grind and BioTrace+ with stored data before you try it with live data.

For using Zukor's Grind and BioTrace+ with live data, please see the next section.

1. **Start BioTrace+** using the BioTrace+ desktop shortcut icon or however you normally start the application.

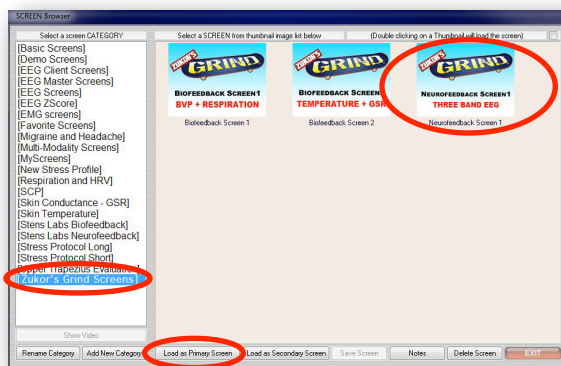
IMPORTANT: You MUST ALWAYS start BioTrace+ BEFORE starting Zukor's Grind.

2. On the BioTrace+ main menu under the **File** drop down menu select **Load a Screen ('L')**.

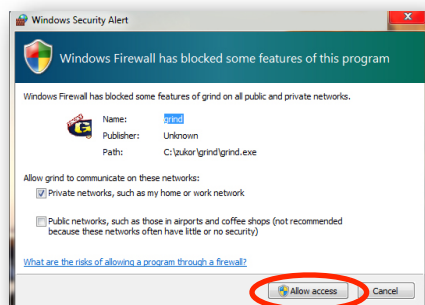


3. On the **SCREEN Browser** window, under **Select a CATEGORY** click [Zukor's Grind Screens].

4. For neurofeedback, select **NEUROFEEDBACK SCREEN 1**, then click on **Load as Primary Screen**.



5. If you are prompted by your Windows Firewall Security, click **Allow access**.



6. When it asks “Would you like to review a prior session?,” click YES.



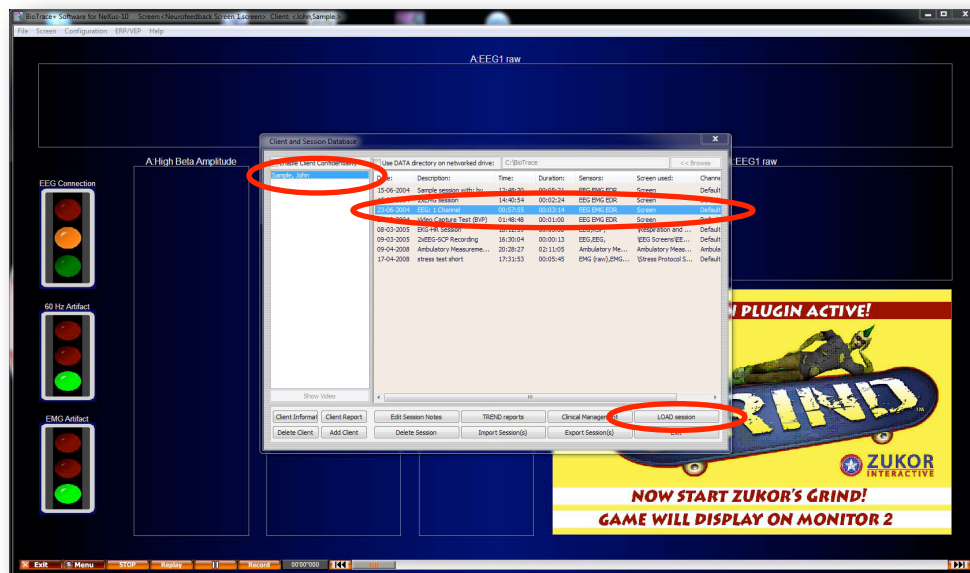
7. On the **Client and Session Database** window, click the desired neurofeedback client's name.

IMPORTANT NOTE: If you just want to learn how Zukor's Grind works with BioTrace+ then we suggest you use the “Sample, John” client which is installed by default by Mind Media for testing purposes.

8. Then select the appropriate EEG data file by double clicking it (or single click it and then click **LOAD Session**).

IMPORTANT NOTE 1: The session file must contain EEG data on Channel A.

IMPORTANT NOTE 2: If using “Sample, John” then use “EEG: 1 channel.”



The BioTrace+ screen should look like below, which is the **Zukor's Grind NEUROFEEDBACK SCREEN 1**.



Now, proceed to “Basic Usage: Zukor's Grind & BioTrace+” on page 16.

Using BioTrace+ With Live Data

This section explains how to use Zukor's Grind and BioTrace+ with live data.

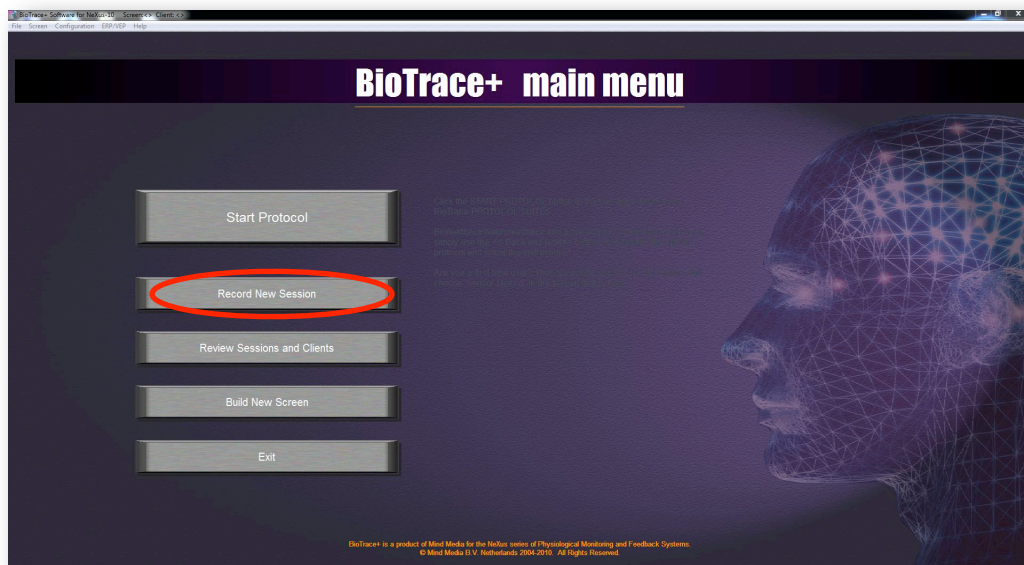
However, we highly recommend you try Zukor's Grind and BioTrace+ with stored data before you try it with live data.

For using Zukor's Grind and BioTrace+ with stored data, please see the previous section.

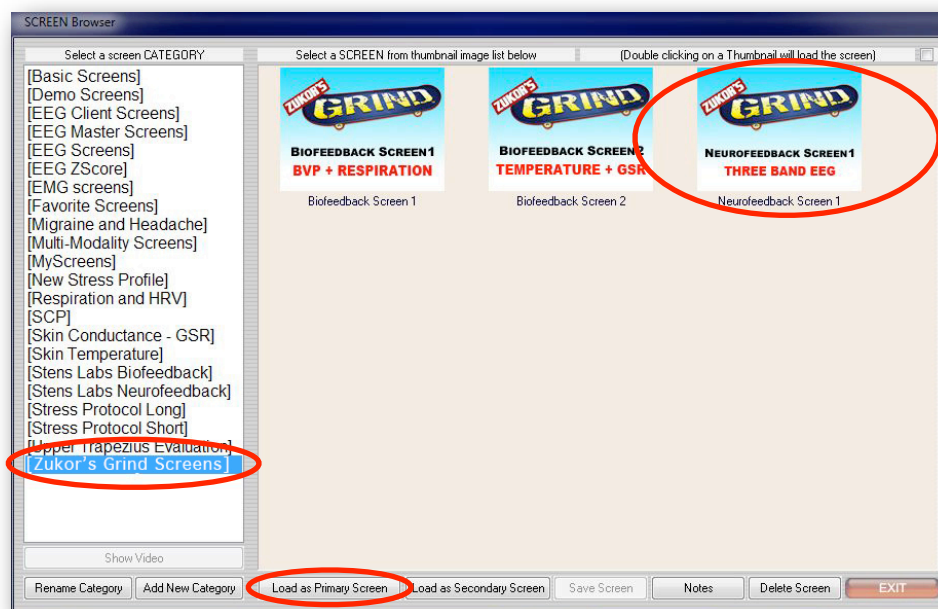
1. Start BioTrace+ using the BioTrace+ desktop shortcut icon or however you normally start the application.

IMPORTANT: You MUST ALWAYS start BioTrace+ BEFORE starting Zukor's Grind.

2. On the BioTrace+ main menu, click on **Record New Session**.



3. On the **SCREEN Browser** window, under **Select a CATEGORY** click [Zukor's Grind Screens].
4. For neurofeedback select **NEUROFEEDBACK SCREEN 1**, then click on **Load as Primary Screen**.



5. In the **CLIENT** window you can either:

A. Select an Existing Client (go to option A below).

B. Create a New Client (go to option B below).

A. To select an Existing Client:

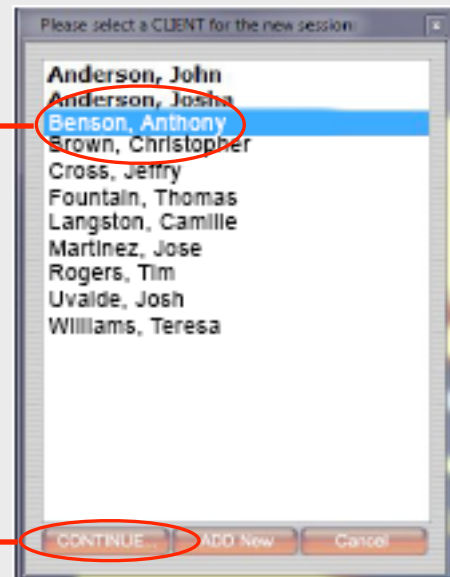
I. In the **CLIENT** window click on the desired client.

II. Click **CONTINUE**.

A
Existing Client

I.

II.



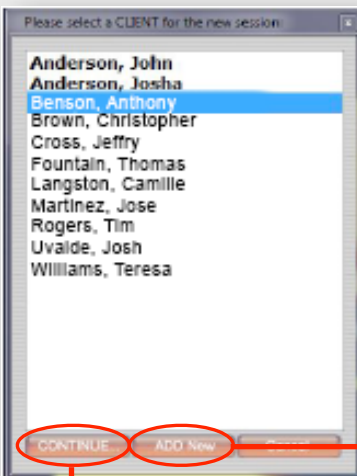
B. To create a New Client:

I. Click on **Add New**.

II. Fill in the fields required for a new client, then click **OK**.

III. Back in **CLIENT** window, click **CONTINUE**.

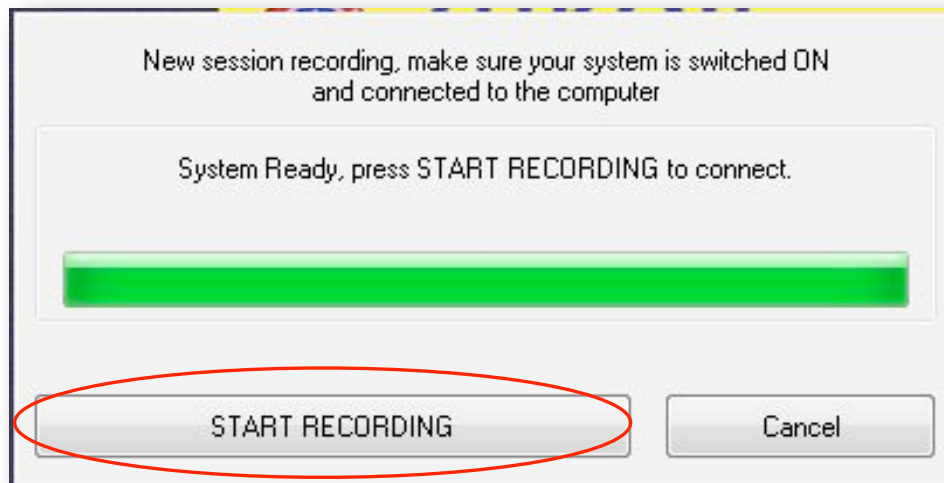
B
New Client



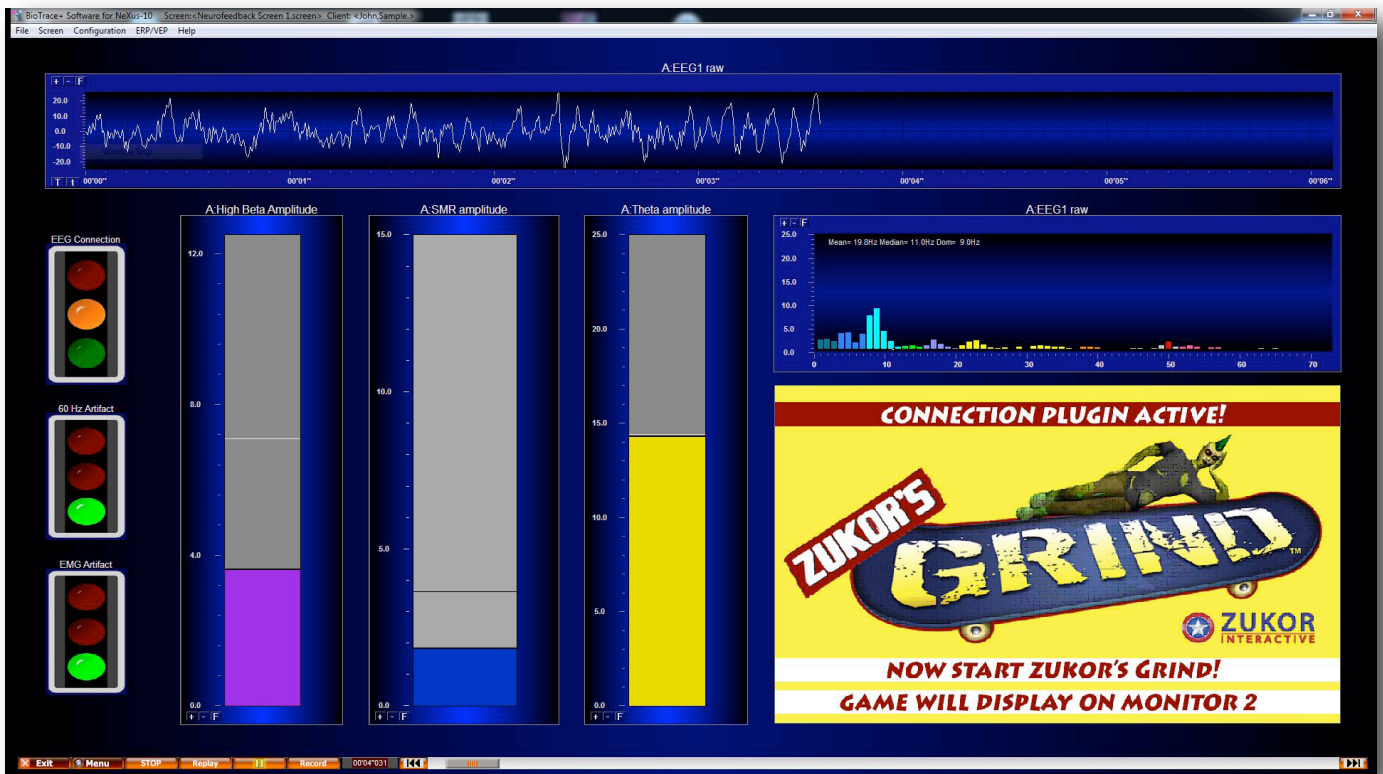
III.

II.

6. On the below popup window, click **START RECORDING**.



The BioTrace+ screen should look like below, which is the **Zukor's Grind NEUROFEEDBACK SCREEN 1**.



Now, proceed to "Basic Usage: Zukor's Grind & BioTrace+" on page 16.

Basic Usage: Zukor's Grind & BioTrace+

This section covers the basic usage of Zukor's Grind and BioTrace+

It is intended for first time users doing standard SMR "reward" and "inhibit" training.

1. Start **BioTrace+** from the desktop icon or however you normally start the application.

CRITICAL: You MUST ALWAYS start BioTrace+ BEFORE starting Zukor's Grind!

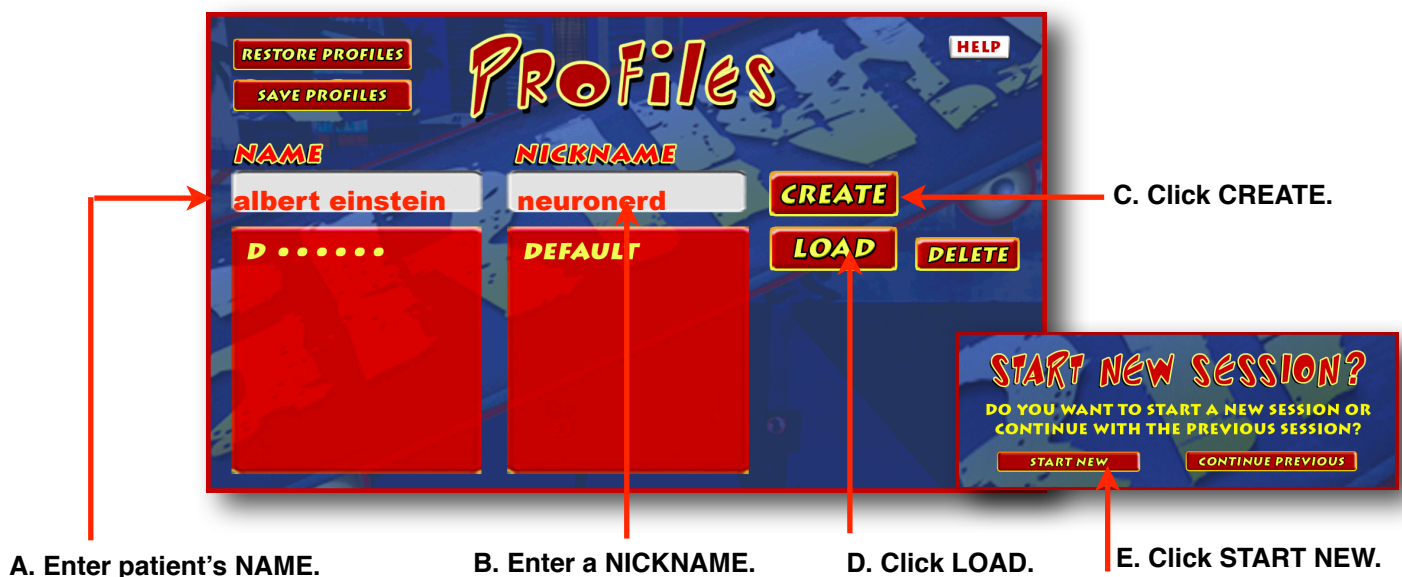
2. Setup BioTrace+ for a stored data session or live data session. (See pages 11 or 13 for details.)
3. Start Zukor's Grind from Zukor Launcher on Monitor 2.



4. After the Zukor's Grind startup animation the **Profiles** menu will appear.

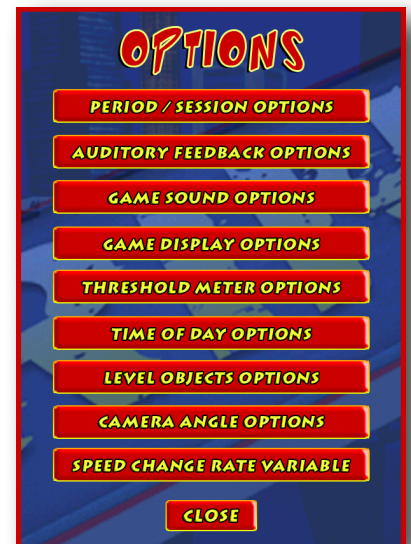
- A. Enter the patient's first and last name into the **NAME** field.
- B. Enter a nickname into the **NICKNAME** field.
- C. Click the **CREATE** button.
- D. Click the **LOAD** button.
- E. Click the **START NEW SESSION** button to load this profile and go to the Main Menu.

NOTE: If the NICKNAME box is left blank, the system will fill the NICKNAME box with the full name from the NAME box. If you prefer not using Nicknames we suggest you simply put a period "." in the nickname box.



For more information on **Profiles**, press the **HELP** button in Zukor's Grind or go to page 18.

5. If desired, click **OPTIONS** to make changes.



NOTE: For more information on **Options** please select an individual option, then click the **HELP** button.

6. Select the desired **Character**:

- A. Click the **CHARACTERS** button on the Main Menu.
- B. Click on your desired character.
- C. Click **MAIN MENU** to go back to the Main Menu.



A. Click Characters.



B. Click on the Character.

C. Click MAIN

HELP button

NOTE: There are two fun “Bonus Characters” available!
Please click the **HELP** button on the Character’s screen for information on how to activate them.

7. Select a **Level** by checking the white box next to the desired level, then click the **READY** button.



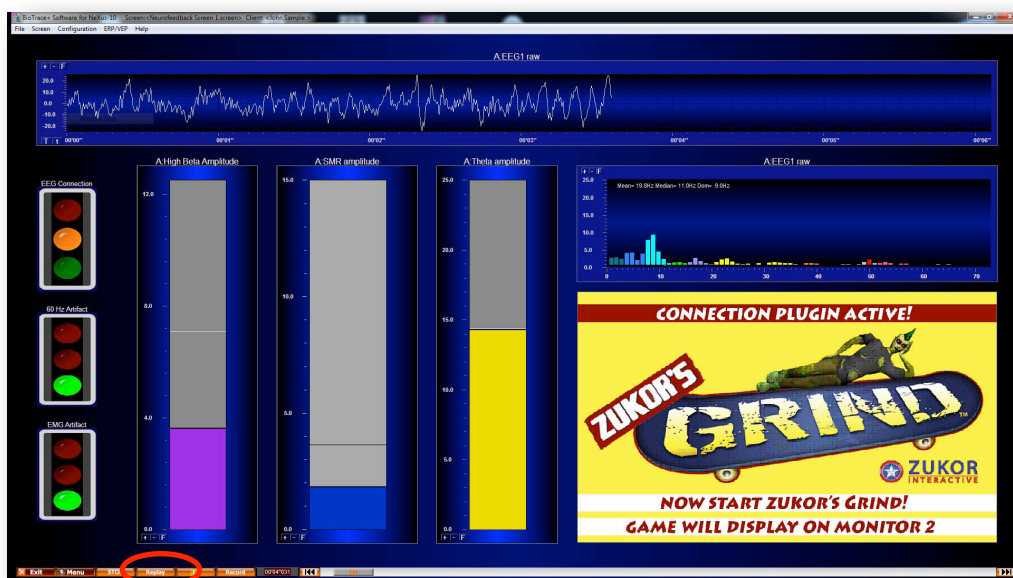
This will take you to the “Ready” screen.

IMPORTANT: There can a delay of a few second between the time you click **READY** and when the **Ready** screen loads. This delay depends on many factors, but primarily the “speed” of your computer.



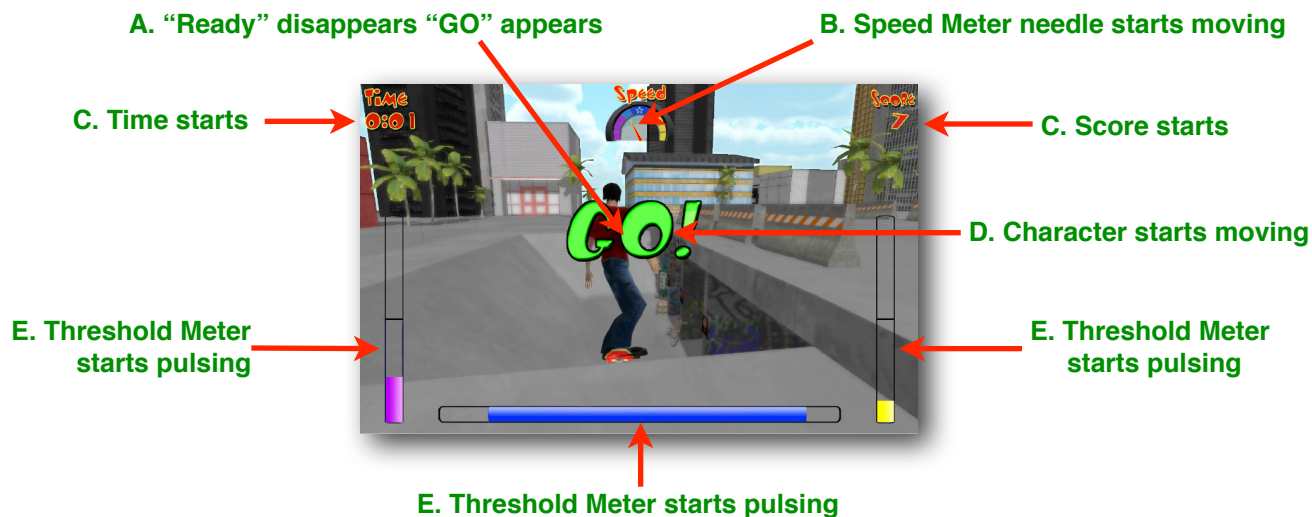
NOTE: If you decide not to start the game, then hit the space bar to bring up the PAUSED popup from which you can chose to go to the Main Menu and other options.

8. To start the game, on the BioTrace+ clinician screen, click the **Replay** button to start the first period.

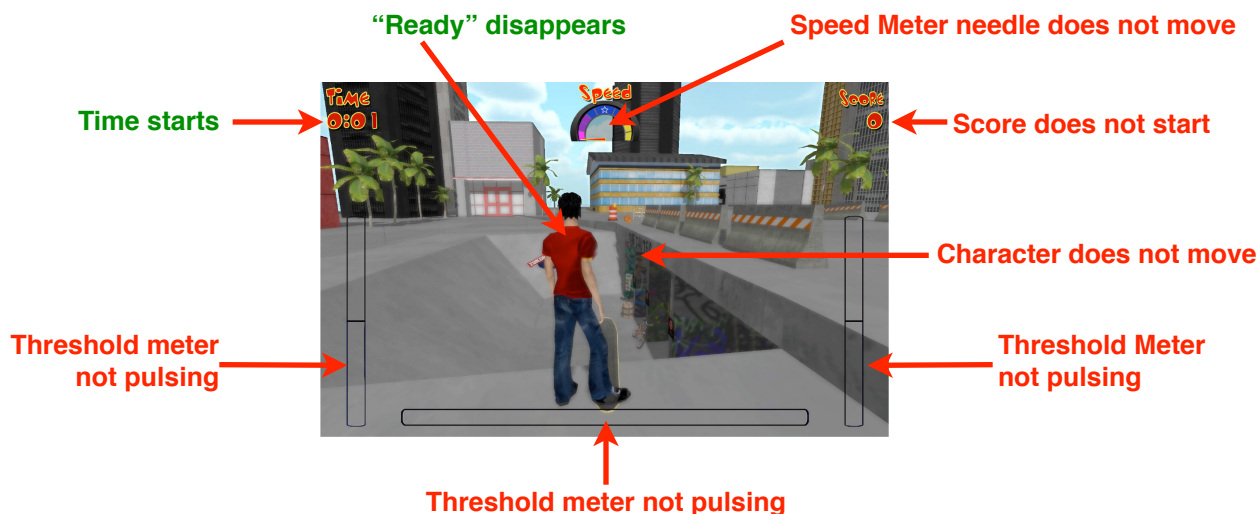


9. You will know the game period has started if:

- A. The word “**Ready**” disappears and the word “**GO**” appears.
- B. The **Speed** meter needle starts to fluctuate.
- C. The **Time** and **Score** begin to count.
- D. The **Character** starts to move.
- E. Colors start to pulse on some or all the **Threshold Meters**.



IMPORTANT: If the word “**Ready**” disappears and the **character does not move**, then the game correctly received the start signal from BioTrace+, but there is not sufficient meaningful threshold data to move the character. In this case there will also be little or no pulsing colors on the threshold meters. To correct this situation, adjust the threshold settings on BioTrace+ clinician’s screen. Of particular importance is the SMR Amplitude threshold setting.



10. When the feedback game period ends the character will stop moving and raise his, her or its arms in the air and an end of period jingle (short music sound) plays. A few seconds later the Scores screen will appear.

NOTE: By default there are 10 periods to a session and each period is 2 minutes and 50 seconds. To change these settings go to Period/Session Options via the Options button on the Main Menu. However, you can stop the game period prior to the defined period end time by clicking the Pause or Stop button in BioTrace+.



11. When the game period ends, click the Pause button on the BioTrace+ clinician screen. The Pause button can be clicked while the game is on the “End of Period” screen or the Scores screen.



IMPORTANT: Failure to pause the data in the BioTrace+ clinician screen will result in problems, which can include the next period abruptly starting without notice and/or other next period start/stop issues. You must stop the data flowing from BioTrace+ **BEFORE** the game goes back to the “Ready” screen.

12. When ready to start the next feedback game period, click the large **NEXT PERIOD** button on the Scores screen. This will then bring up the “Ready” screen. Then click Replay in BioTrace+, i.e. repeat Step 8.



Uninstall Zukor's Grind

If you need to uninstall (remove) Zukor's Grind from your computer for any reason, please follow the below steps.

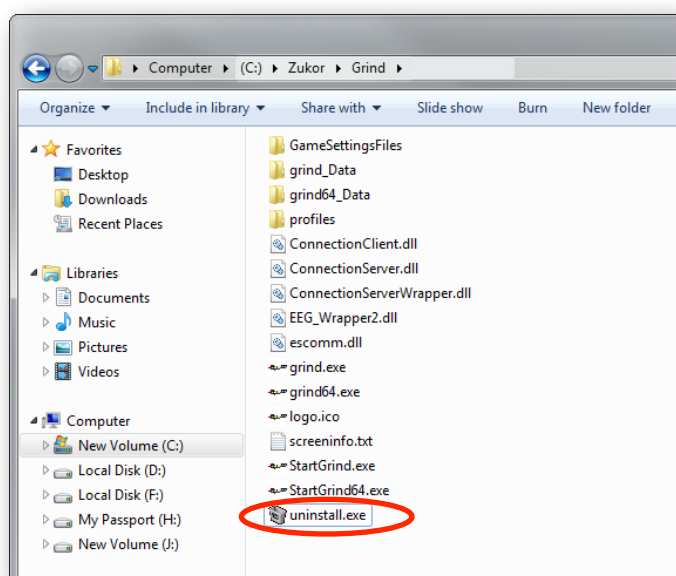
Uninstall Steps

1. Locate and open the **Zukor** folder on your computer.

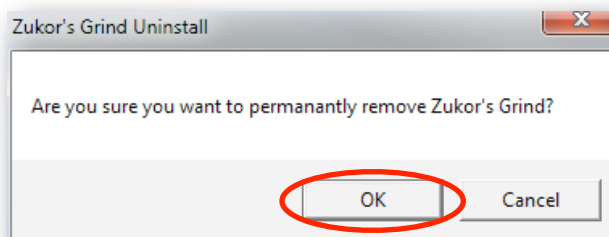
Note: If you followed the regular installation and did not change the installation location, then this folder should be located in: C:\Zukor.

2. Inside the Zukor folder, open the **Grind** folder.

3. Locate the and double click **uninstall** or **uninstall.exe**.



4. On the confirmation window, click **OK**.



IMPORTANT: The patient Profiles, including Scores will not be deleted and can be used if you reinstall another version of Zukor's Grind.