



QUICK START GUIDE

Installation, Setup & Basic Operation
with
Thought Technology's BioGraph Infinity
Version 47



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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Welcome to Zukor's Grind!

First, 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 & CTO
Zukor Interactive

MINIMUM COMPUTER SYSTEM REQUIREMENTS

Your computer system needs to meet the below requirements to properly run Zukor's Grind. 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 for BioGraph Infiniti as well.

Note: Most computers sold within the last two years will meet the key requirements.

1. OPERATING SYSTEM

- **Windows 7 on a regular PC or on a Mac (via Bootcamp).**

NOTE: Microsoft no longer supports Windows XP or Windows Vista.

IMPORTANT: Please make sure you have downloaded and installed **ALL** Windows 7 updates **PRIOR TO INSTALLING** and running 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. (Game monitor should be “widescreen” and 21+ inches.)**

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

NEUROFEEDBACK SYSTEM SOFTWARE REQUIREMENTS

- BioGraph Infiniti - 5.1.4
- Physiology Suite 5.1 (if using for biofeedback)
- EEG Suite - 5.1 (if using for neurofeedback)

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

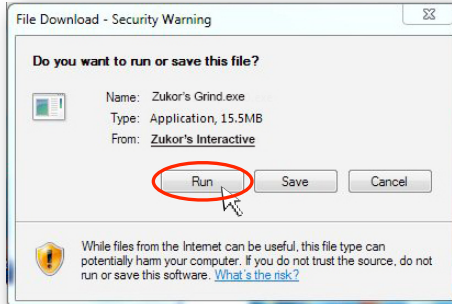
Installation via Download (Explorer)

If using Internet Explorer

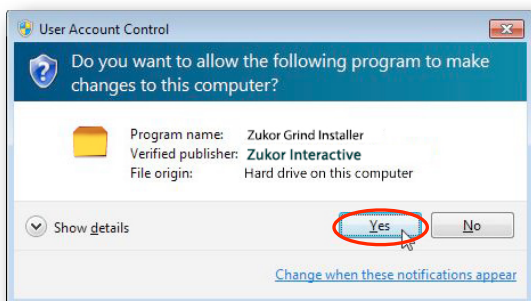
1. Download Zukor's Grind.



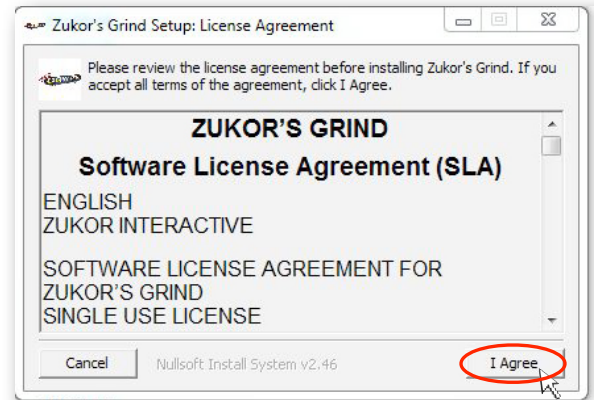
2. When the **File Download Security Warning** box appears, click "Run."



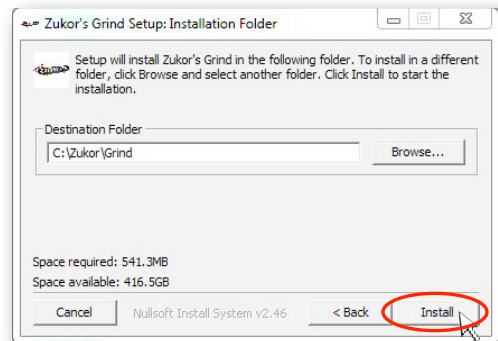
3. When the **User Account Control** box appears, click "Yes."



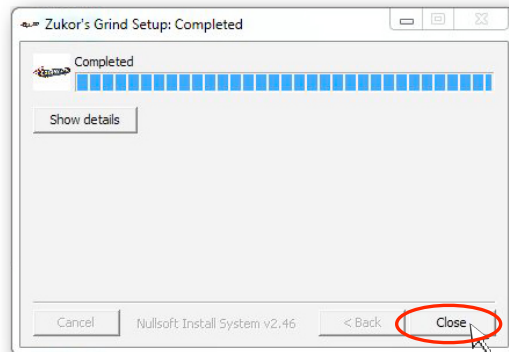
4. When the **Software License Agreement** appears, please read it, then click, "I Agree."



5. When the box below appears, click "Install."



6. When installation is **Completed**, click "Close."



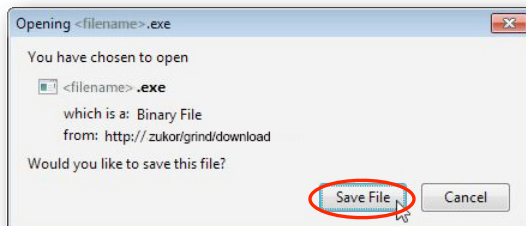
Installation via Download (Firefox)

If using Firefox

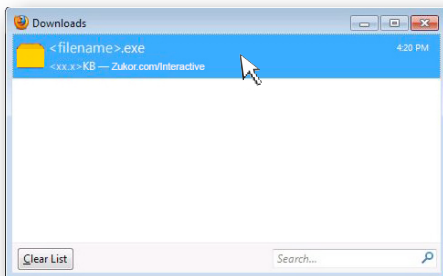
1. Download Zukor's Grind.



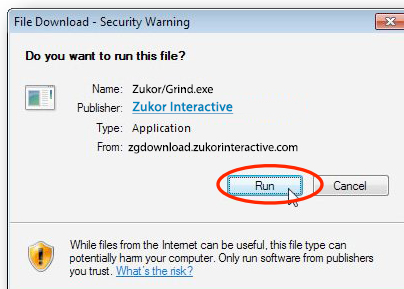
2. When the box below appears, click "Save File."



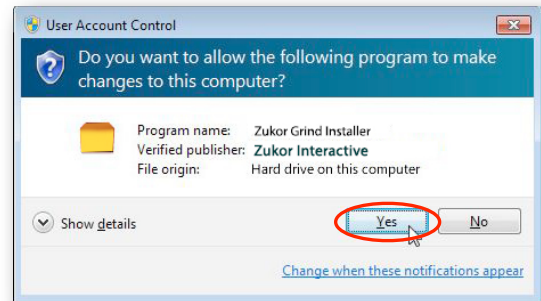
3. Double click **Zukor-Grind-Installer.exe** to open.



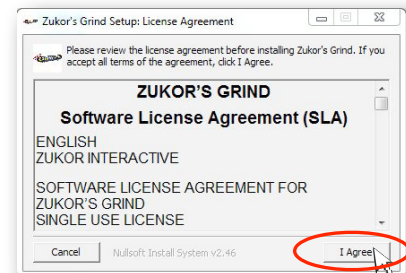
4. When the **File Download Security Warning** box appears, click "Run."



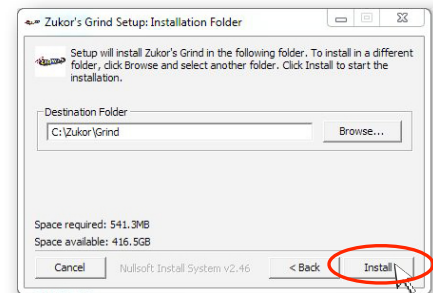
5. When the **User Account Control** box appears, click "Yes."



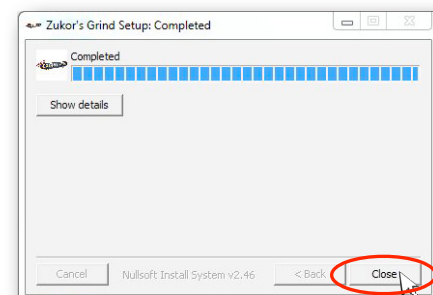
6. When the **Software License Agreement** appears, please read it, then click, "I Agree."



7. When the box below appears, click "Install."



8. When installation is **Completed**, click "Close."



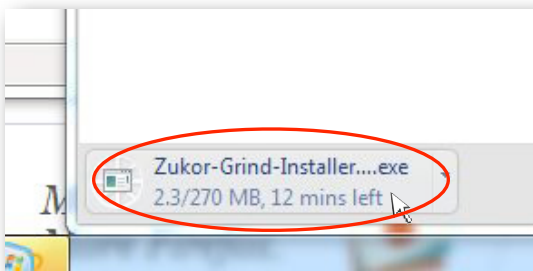
Installation via Download (Chrome)

If using Chrome

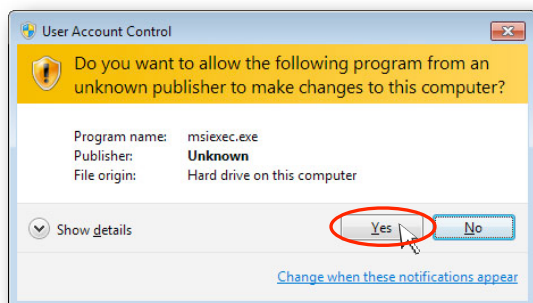
1. Download Zukor's Grind.



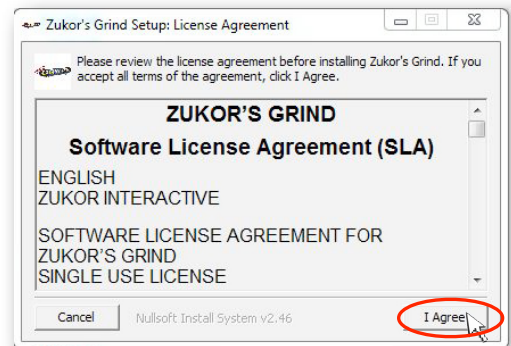
2. Locate the installer **Zukor-Grind-Installer.exe** on the bottom left corner of your browser and click to open.



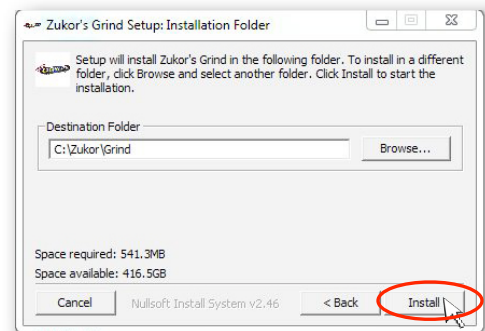
3. When the **User Account Control** box appears, click Yes."



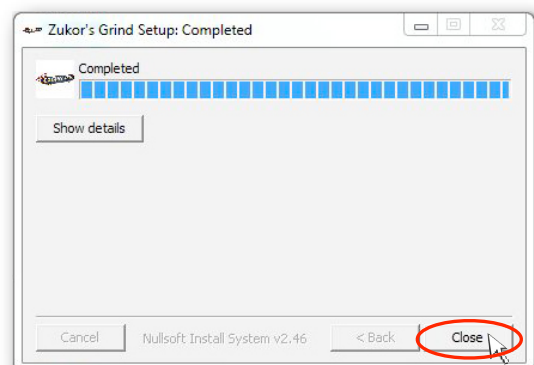
4. When the **Software License Agreement** appears, please read it, then click, "I Agree."



5. When the box below appears, click "Install."



6. When installation is **Completed**, click "Close."



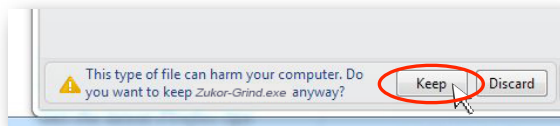
Installation via Download (Safari)

If using Safari

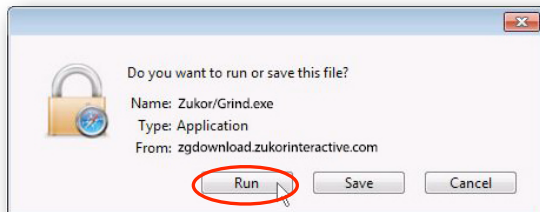
1. Download Zukor's Grind.



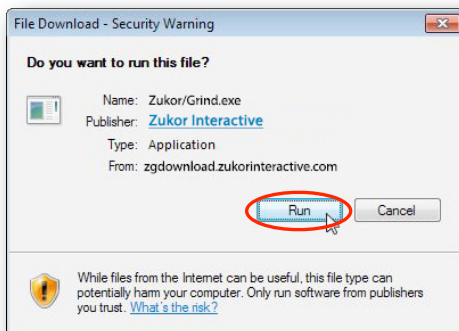
2. When the below dialogue box appears, click "Keep."



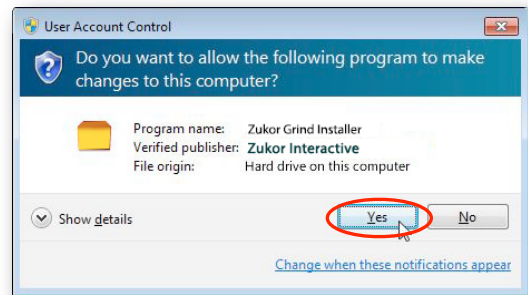
3. When the below box appears, click "Run."



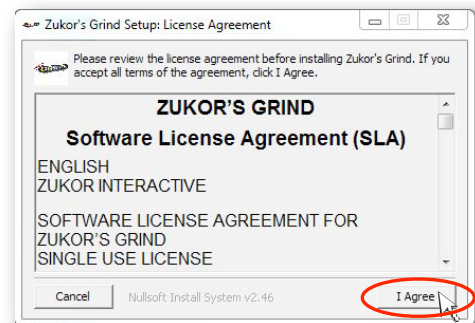
4. When the **File Download Security Warning** box appears, click "Run."



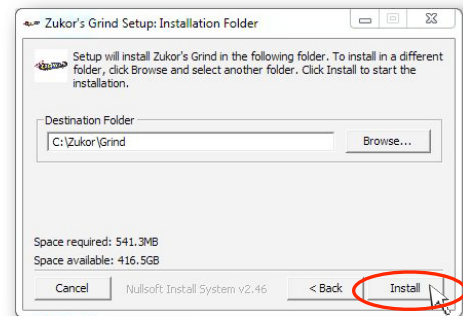
5. When the **User Account Control** box appears, click "Yes."



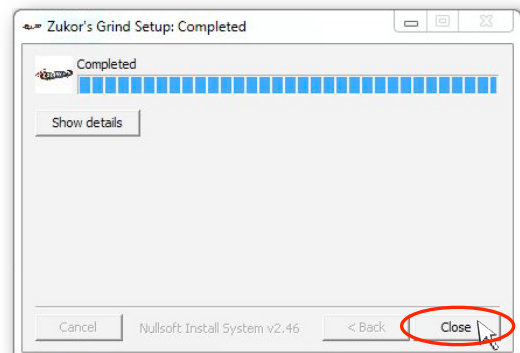
6. When the **Software License Agreement** appears, please read it, then click, "I Agree."



7. When the box below appears, click "Install."



8. When installation is **Completed**, click "Close."



Monitor Setup

Zukor's Grind is designed to work with BioGraph Infiniti in a two monitor configuration. The below steps explain how to configure your monitors in Windows to work properly with BioGraph Infiniti and Zukor's Grind.

Note: If you have previously been using your computer with a second monitor, then it is 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 BioGraph Infiniti.

OVERVIEW

Zukor's Grind works with BioGraph Infiniti and two monitors as follows:

Monitor 1 = "Clinician Monitor" to display the BioGraph Infiniti application and clinician screen.

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

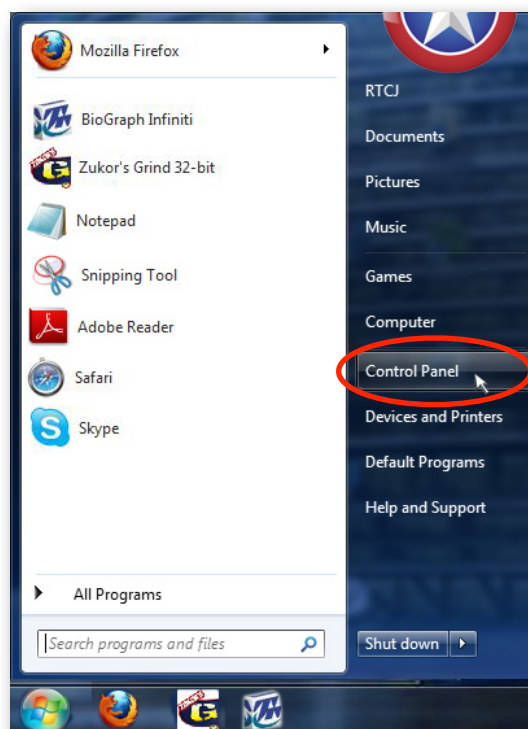
Monitor 2 = "Game Monitor" to display the Zukor's Grind feedback game for the patient.

Note 1: Per the Zukor's Grind system requirements, the Game Monitor (Monitor 2) should be a widescreen 21+ inch monitor. A smaller and/or a non-widescreen monitor will work, but the game display experience will be less than optimal.

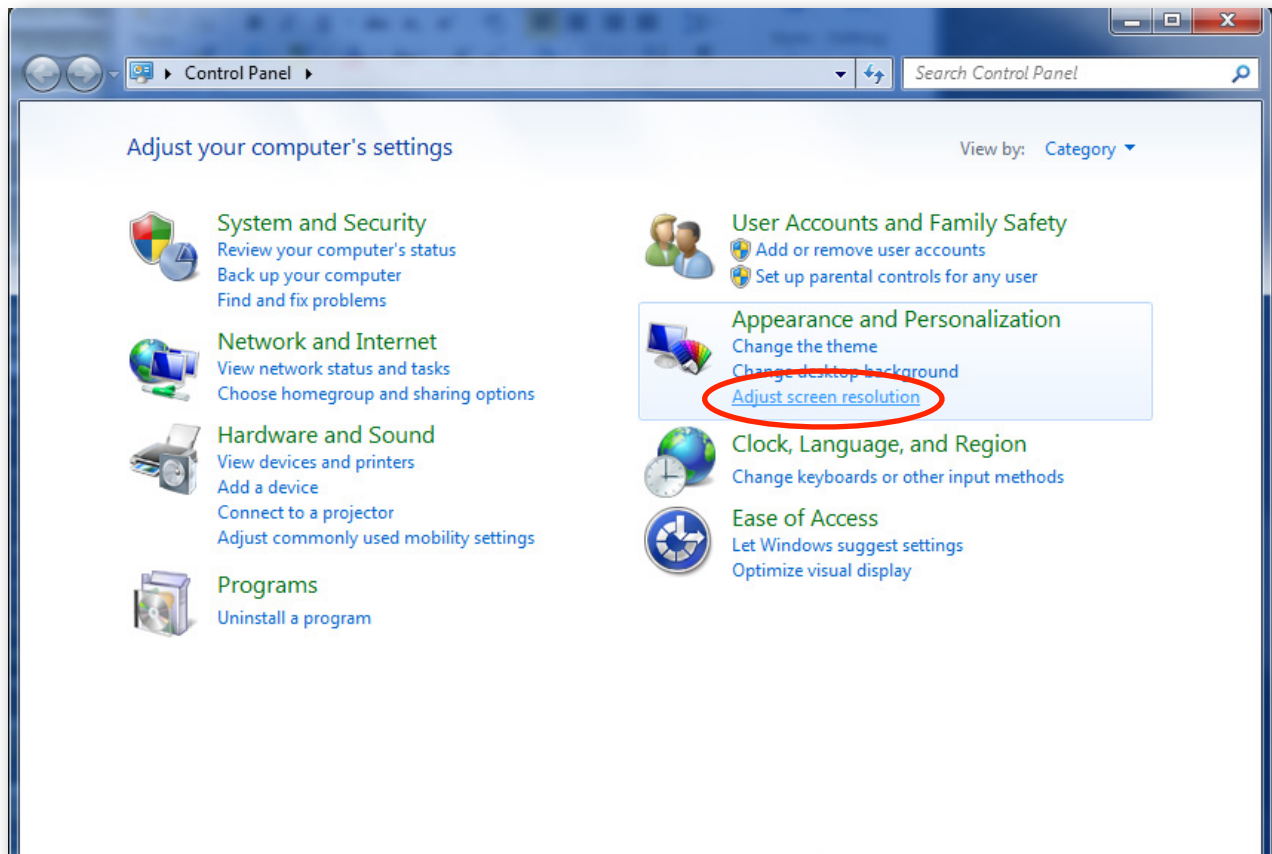
Note 2: Monitor 2 can also be a LCD/Plasma TV or video projector. However some of these alternative displays may require additional configuration changes in Windows.

MONITOR SETUP

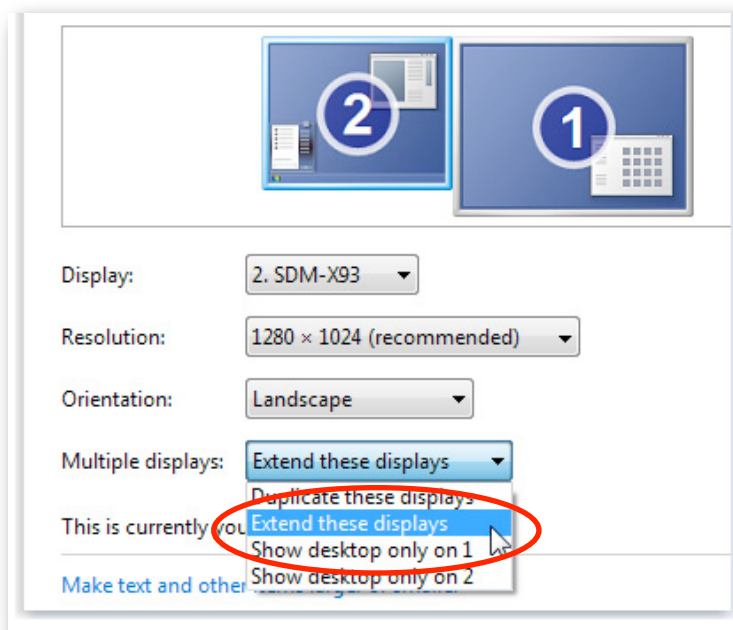
1. On the **Start** menu in Windows go to **Control Panel**.



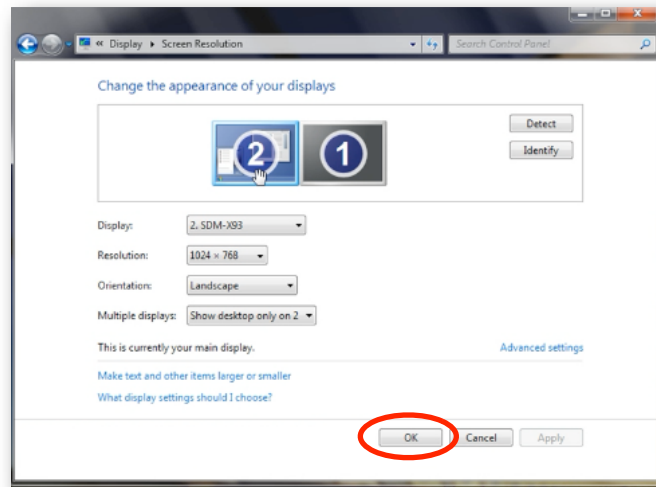
2. On the **Control Panel** window under **Appearance and Personalization**, click on **Adjust screen resolution**.



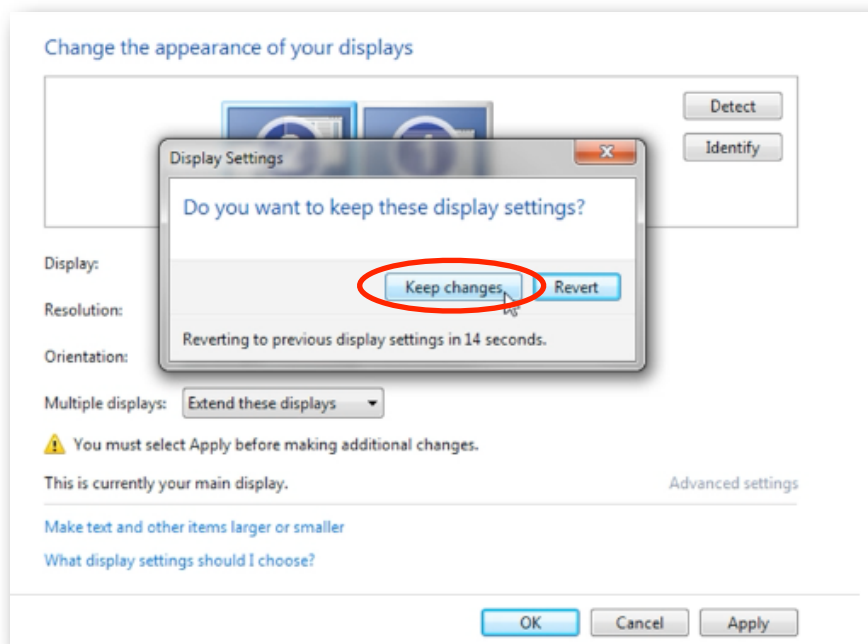
3. Click the drop-down list next to **Multiple displays** and select **Extend these displays**.



4. Then click **OK**.



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

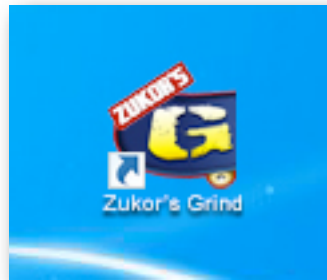


Your monitors are now setup to work properly with Zukor's Grind and BioGraph Infiniti. When you start BioGraph Infiniti it should appear on Monitor 1 (Clinician Monitor) and when Zukor's Grind launches it should appear on Monitor 2 (Game Monitor).

If it does not, then please review the above steps again. If it's still not working, then please contact Customer Support.

Setup BioGraph Infiniti

1. Locate the **Zukor's Grind** icon on your desktop and double click it.



This will launch Zukor's Grind and bring up the **Registration & License Key System**.

2. Complete the **Registration & License Key System** using the on-screen instructions.

A screenshot of the 'Zukor's Grind' Registration & License Key System window. The window has a blue background with a map-like pattern. At the top, it says 'ZUKOR'S GRIND' in a stylized font. Below that, 'REGISTRATION & LICENSE KEY SYSTEM' is written in large, bold, red letters. A subtitle reads: 'THIS SCREEN ALLOWS YOU TO REGISTER AND RECEIVE A LICENSE KEY TO USE ZUKOR'S GRIND'. Underneath is the heading 'INSTRUCTIONS' followed by three numbered steps. Step 1: 'FILL IN YOUR NAME AND EMAIL ADDRESS IN THE SPACES BELOW.' Step 2: 'CLICK THE SEND BUTTON. THIS WILL SEND YOUR NAME, EMAIL ADDRESS AND COMPUTER ID TO ZUKOR INTERACTIVE.' Step 3: 'WHEN YOU RECEIVE AN EMAIL FROM ZUKOR INTERACTIVE WITH THE SUBJECT LINE "LICENSE KEY" YOU MUST COPY AND PASTE THE LICENSE KEY INTO THE LICENSE KEY BOX AND THEN CLICK APPLY. (IN MOST CASES YOU WILL RECEIVE YOUR LICENSE KEY EMAIL WITHIN 1 HOUR, BUT IT COULD TAKE UP TO 24 HOURS.)' An 'IMPORTANT NOTE' follows: 'YOU MUST START AND COMPLETE THIS PROCESS ON THE SAME COMPUTER YOU INTEND TO USE ZUKOR'S GRIND. ONCE THIS PROCESS IS COMPLETED THE GAME WILL BE TIED TO THAT COMPUTER AND ONLY RUN ON THAT ONE COMPUTER.' Below the instructions are input fields for 'NAME' (John Smith), 'E-MAIL' (John Smith@gmail.com), 'COMPUTER ID' (0c245121f121q452k65x8596b2541nz5874p6985), and 'LICENSE KEY' (01W451215K215F523Y5485PZ32A412587456R85). Each field has a corresponding 'SEND' or 'APPLY' button. At the bottom, there is a ZUKOR INTERACTIVE logo, a 'CLOSE' button, and a 'HELP' button. A line of text at the bottom reads: 'ALTERNATIVELY, TO REGISTER AND RECEIVE YOUR LICENSE KEY BY PHONE, CALL ZUKOR INTERACTIVE AT (702) 534-4727, EXTENSION 2.'

Once a valid license key is applied, then Zukor's Grind will start up, and the Main Menu will appear along with the profile popup.

3. On the Main Menu, below the profile popup click **SETUP**.



4. Check the white box next to **THOUGHT TECHNOLOGY'S BIOGRAPH INFINITI**.

5. Click **SETUP ZUKOR'S GRIND**.



6. When the Setup Complete popup appears, click **CLOSE**.



This will bring up the Main Menu.

7. Click **QUIT** to exit the game.



Congratulations! You have completed the basic set up process!

Next, we'll show you how to start
a Zukor's Grind feedback session in Biograph Infiniti.

Using Zukor's Grind & BioGraph Infinity

This section covers a few basic, but important, issues for helping you to use Zukor's Grind & BioGraph Infinity for the first time.

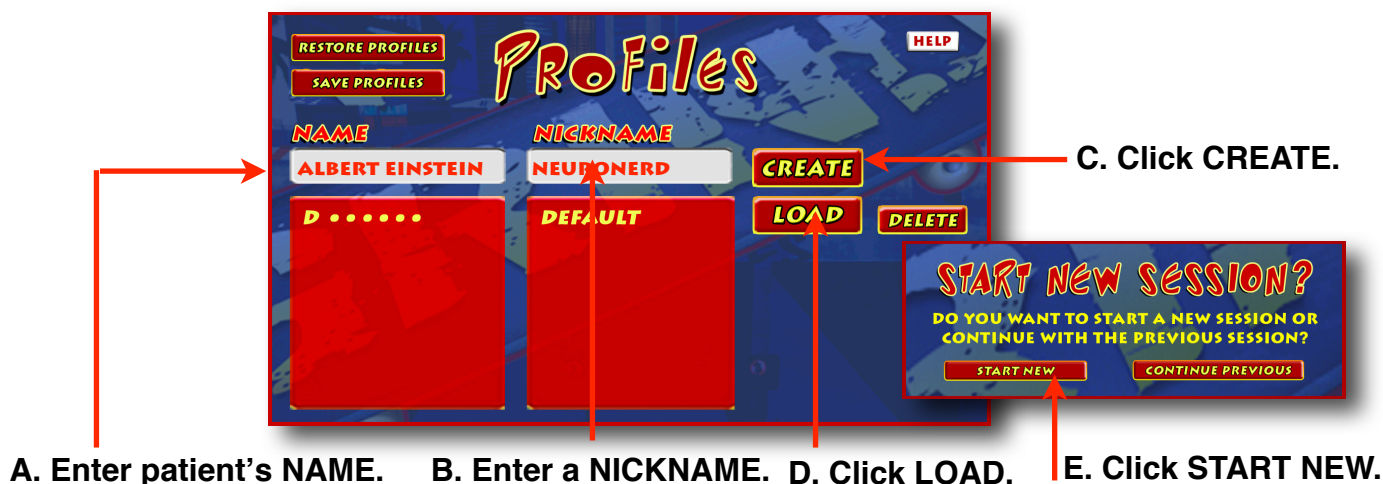
IMPORTANT: You **MUST** always start BioGraph Infinity **BEFORE** starting Zukor's Grind. And, Zukor's Grind **MUST** be started from **INSIDE** BioGraph Infinity. Failure to do this will cause many problems with BioGraph Infinity and Zukor's Grind functionality.

1. Start **BioGraph Infinity** from the desktop icon or however you normally start the application.
2. Setup BioGraph Infinity for a stored data session or live data session in the normal manner.
(See pages 20 or 24 for details)
3. Select one of the three Zukor's Grind clinician screens inside BioGraph Infinity. There is one clinician screen option for neurofeedback and two options for biofeedback. If these screens are not there, then likely you skipped the Setup step (go back to Setup on page 14).

After you select the desired clinician screen, the clinician screen will load on your main monitor and then Zukor's Grind will automatically start up on your game monitor.

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** please press the **HELP** button in the in game Pop up.

5. If desired, click **OPTIONS** to make changes to the settings of the game.



Note: By default there are 10 periods to a session and each period is 2 minutes and 50 seconds.

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.



B. Click on the Character.

C. Click MAIN MENU.

Note: See the in game Help for information on Bonus Characters.

7. Select a **Level** by checking the white box next to the desired level.



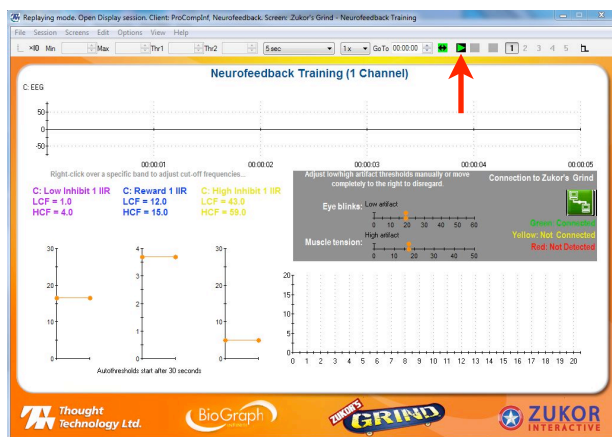
Then, Click the **PLAY GAME** button.

This will take you to the “Ready” screen.

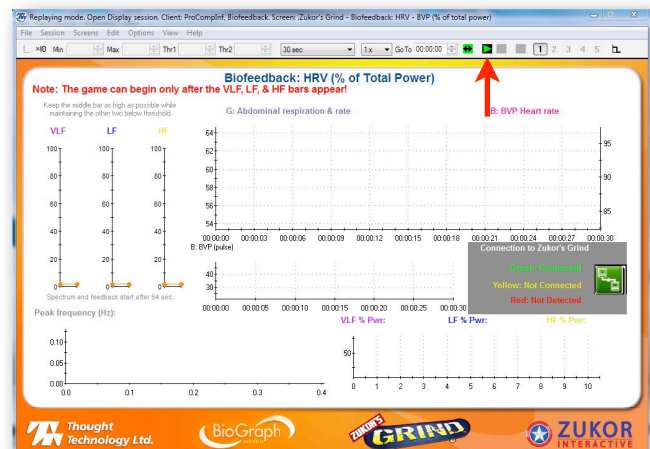


8. To start the feedback session, move the cursor to the BioGraph Infiniti screen on the “clinician” monitor and **click on the clinician screen** to make BioGraph active. Then, **click the green play button** to start the first period of the session.

Neurofeedback



Biofeedback



IMPORTANT: For HRV training, Biograph Infiniti requires 64 seconds of data to occur before the bar meters operate. Please allow 64 seconds of raw data to process before clicking **PLAY GAME** in Zukor's Grind.

Profiles Screen

OVERVIEW

The Profiles screen allows the clinician to create patients “profiles” to store game-related data for each patient, such as option settings and scores. It also allows the clinician to assign a nickname for each patient which they themselves can select themselves. The Profiles do not store EEG or biometric data or other neurofeedback or biofeedback system-related information.

The patient profile serves several important purposes. First, it allows for patient-specific game options settings from the last session to be preloaded for the next session, which thus saves time. Second, it allows all session scores from past sessions to be accessed and compared to the current session, thus monitoring and encouraging improvement. Third, the nickname feature offers a fun and familiar feature from modern video games to reinforce the “game” aspect of the feedback training which makes the feedback training more fun for kids and thus increases the likelihood they will continue their treatment.

Zukor’s Grind’s Profiles screen is fully HIPPA-compliant and will only display the first initial of patients’ first and last names followed by large dots.

CREATE A PROFILE

1. Enter the patient’s first and last name into the NAME field.
2. Enter a nickname into the NICKNAME field.
3. Click the CREATE button.
4. Click the LOAD 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.

CAUTION: Deleting a Profile is permanent! Deleted profiles cannot be restored!



SAVE PROFILES

As a precaution, profiles are automatically saved in two locations on your computer. Additionally, the “Save Profiles” button on the Profiles popup allows you to save a third copy of the profiles data into another location in the Zukor’s Grind folder, C:\Zukor\Grind\profiles\saved. To do this, just click the “Save Profiles” button on the Profiles popup.



CRITICALLY IMPORTANT!!!!!!!!!!

It is **highly recommended** that clinicians do a manual save at the end of each day using the “Manually Backing Up Profiles” instructions below. In the result of a catastrophic computer malfunction this backup copy of the profiles can be used to restore profiles after the computer is fixed or replaced.

MANUALLY BACKING UP PROFILES

To manually back up the profiles, click the “Save Profiles” button on the Profiles popup. Then, copy the “saved” profiles folder which is located at C:\Zukor\Grind\profiles\ to an external storage device such as a CD, backup hard drive, memory stick, etc.

RESTORE PROFILES

If for any reason you need to restore the Profiles and if you have manually saved your profiles using the “Save Profiles” button on the Profiles popup, then just click the “Restore Profiles” button on the Profiles popup. Once the profiles are successfully restored you will see the “Profiles Restored” popup.



PROFILES NOT FOUND

If you click the “Restore Profiles” button and the “No Profiles Found” popup comes up, this means there are no profiles in the “saved” folder. You will then need to manually restore the profiles. Please see “**CRITICALLY IMPORTANT**” above and “**MANUALLY RESTORING PROFILES**” below.



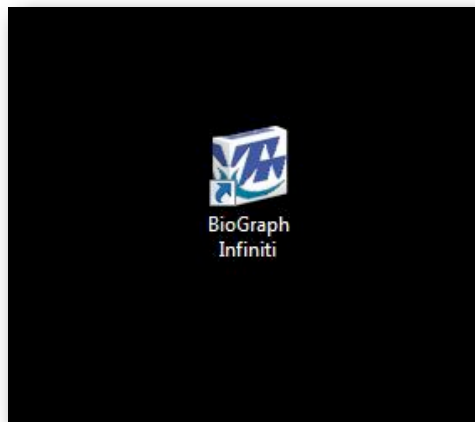
MANUALLY RESTORING PROFILES

To manually restore your profiles you will use the backup copy of the profiles you saved externally (see “**CRITICALLY IMPORTANT**” above) by manually placing them back into the “saved” profiles folder. To do this, take the externally stored copy of the profiles from your external hard drive, memory stick, CD, etc. and copy them into the “saved” folder located at C:\Zukor\Grind\profiles\. Then click the “Restore Profiles” button on the Profiles popup.

Using Zukor's Grind with Stored Data

Once the installation and basic setup of Zukor's Grind are completed, the following steps will show you how to run a Zukor's Grind feedback session in Biograph Infiniti with stored data.

1. Start **BioGraph Infiniti** from the desktop icon or however you normally start the application.

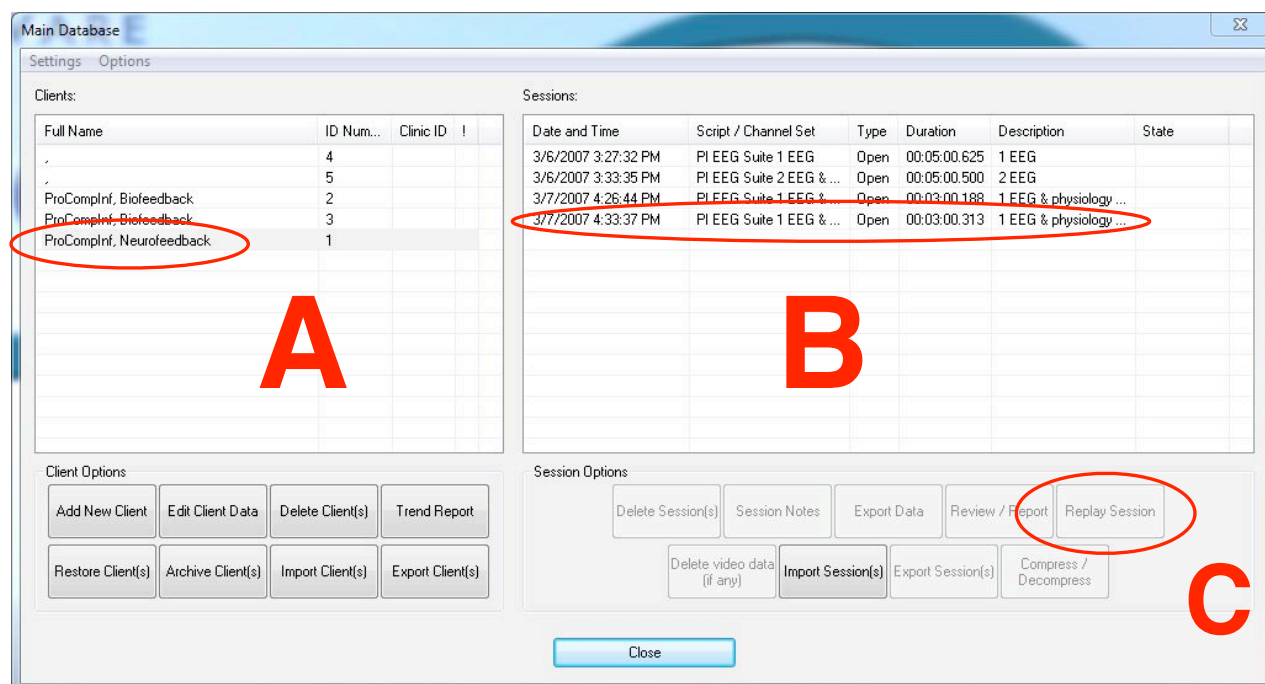


2. Click **Database**.

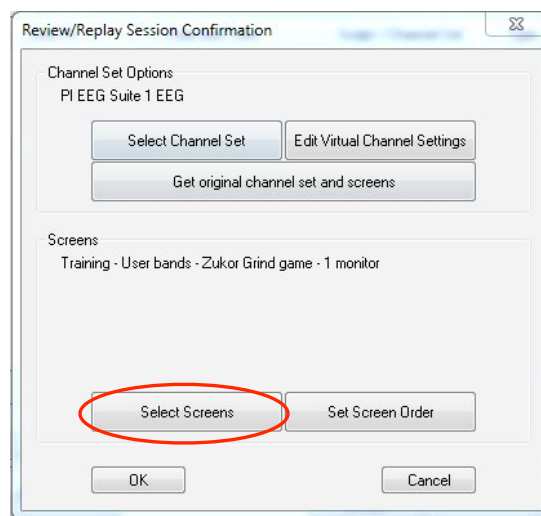


3. In the **Main Database** window:

- A. Select an existing client.
- B. Select an existing session.
- C. Click **Replay Session**.



4. In the **Review/Replay Session Confirmation** window, click **Select Screens**.

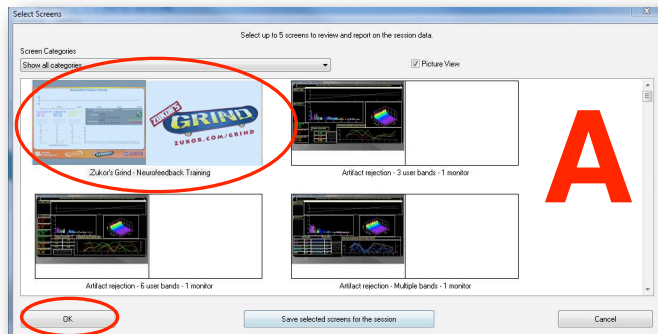


This will bring up the **Select Screens** Window

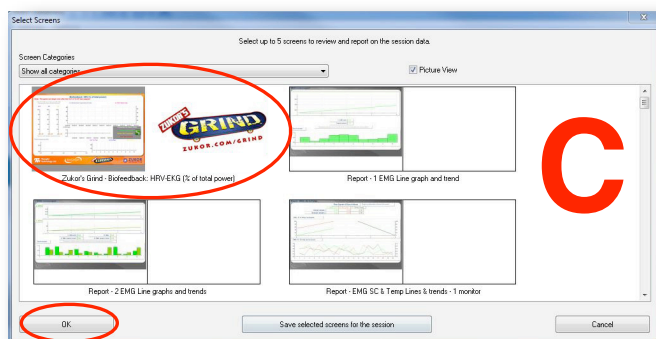
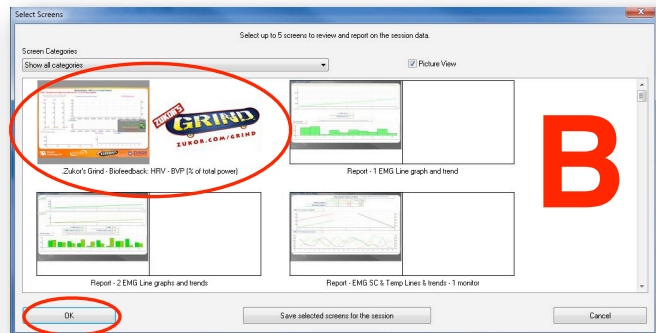
5. On the **Select Screens** window select **either**:

- A. Zukor Grind - Neurofeedback Training.
- B. Zukor Grind - Biofeedback - HRV - BVP (% of total power).
- C. Zukor Grind - Biofeedback - HRV - EKG (% of total power).
- D. Click **OK**.

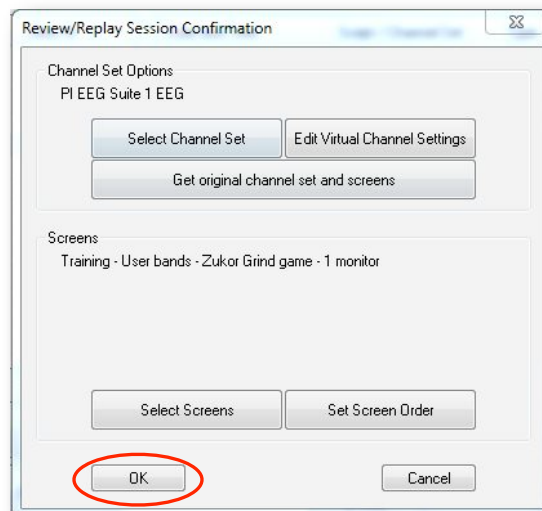
Neurofeedback



Biofeedback



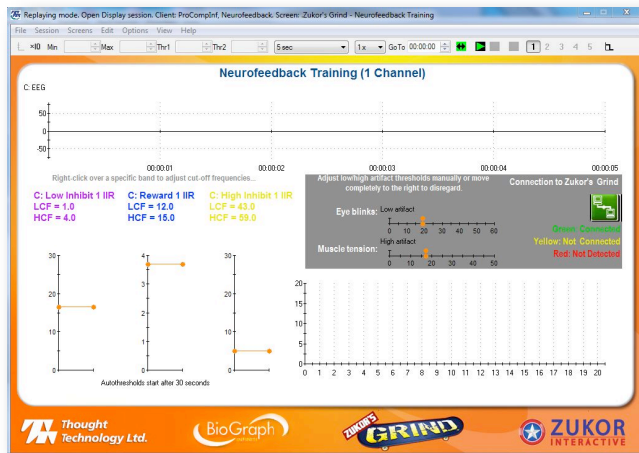
6. In the **Review/Replay Session Confirmation** window, click **OK**.



This will launch the Zukor's Grind clinicians screen on the “clinician monitor” and Zukor’s Grind on the “game” monitor.

CLINICIAN MONITOR

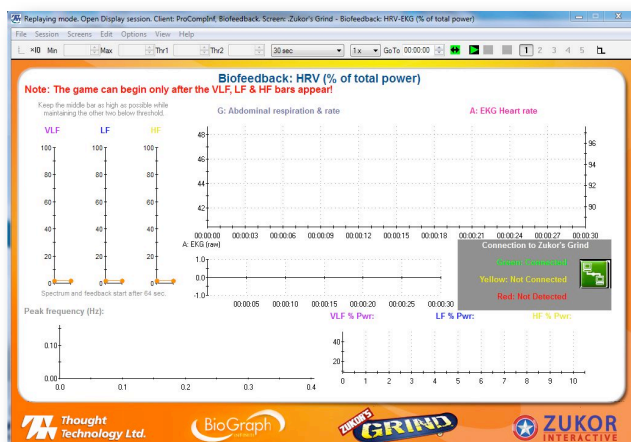
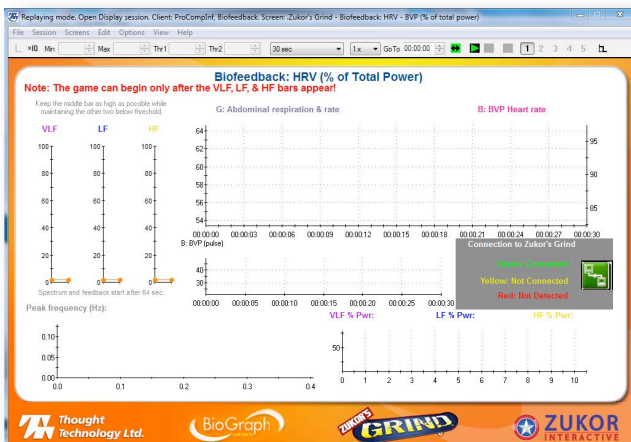
Neurofeedback



GAME MONITOR



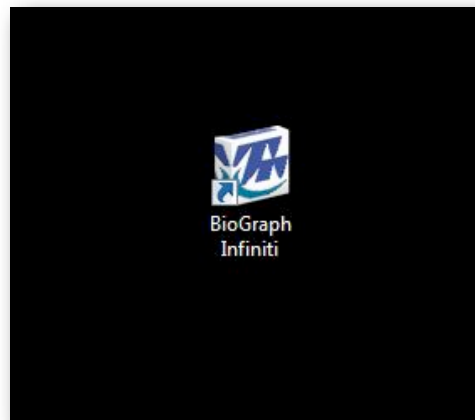
Biofeedback



Using Zukor's Grind With Live Data

Once the installation and basic setup of Zukor's Grind are completed, the following steps will show you how to run a Zukor's Grind feedback session in Biograph Infinity with live data.

1. Start **BioGraph Infinity** from the desktop icon or however you normally start the application.



2. Click **Start Open Display Session**.



3. In the **Start Session** 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. In the **Start Session** window, to select an existing client.

I. Under Clients click on desired client.

II. Click **Define New Session**.

I.

Full Name	ID N.	Clinic ID	Date and Time	Channel Set	Duration	Description
ProCompil. Neu...	2		3/6/2007 2:27:32 PM	PI EEG Suite...	00:05:00:500	1 EEG
ProCompil. Neu...	1		3/6/2007 3:33:35 PM	PI EEG Suite...	00:05:00:500	2 EEG
ProCompil. Neu...	3		3/7/2007 4:26:44 PM	PI EEG Suite...	00:03:00:188	1 EEG
ProCompil. Neu...			3/7/2007 4:33:37 PM	PI EEG Suite...	00:03:00:313	1 EEG

II.

A
New Session

B. In the **Start Session** window to create a new client:

I. Click on **Add New Client**.

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

III. Back on **Start Session** click on **Define New Session**.

III.

Full Name	ID N.	Clinic ID	Date and Time	Channel Set	Duration	Description
ProCompil. Neu...	2		3/6/2007 2:27:32 PM	PI EEG Suite...	00:05:00:500	1 EEG
ProCompil. Neu...	1		3/6/2007 3:33:35 PM	PI EEG Suite...	00:05:00:500	2 EEG
ProCompil. Neu...	3		3/7/2007 4:26:44 PM	PI EEG Suite...	00:03:00:188	1 EEG
ProCompil. Neu...			3/7/2007 4:33:37 PM	PI EEG Suite...	00:03:00:313	1 EEG

B
New Client

I.

CLIENT ID	Client ID	First Name	Last Name	Birth date (MM/DD/YYYY)	Gender	Home phone	Work phone	Street	City	State/Prov	Zip/Postal code	Country	Referred by	Insurance	Claim number	Company	Contact	Insured SSN/IDN	Phone
					<input checked="" type="radio"/> Male <input type="radio"/> Female														

II.

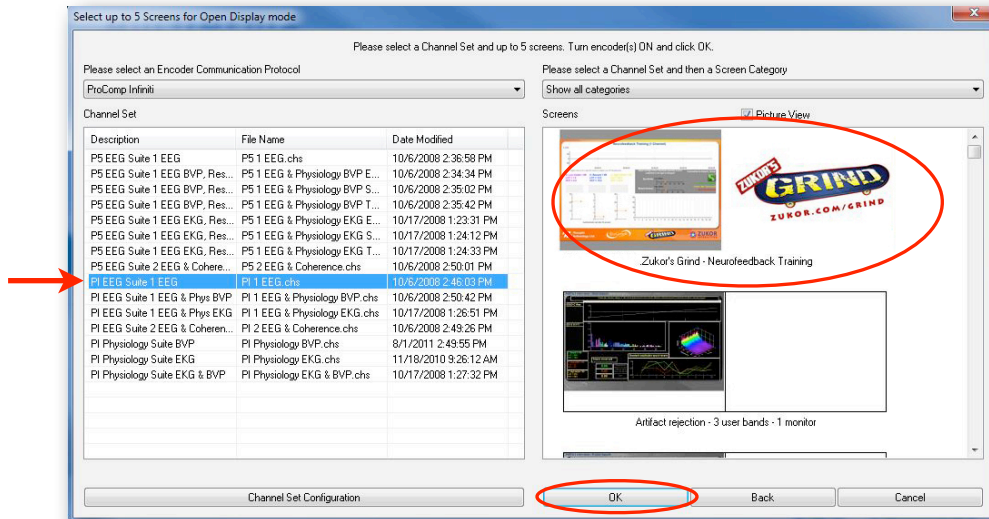
4. Set up channels and screens as needed.

To set up for neurofeedback go to 4-N

To set up for biofeedback got to 4-B

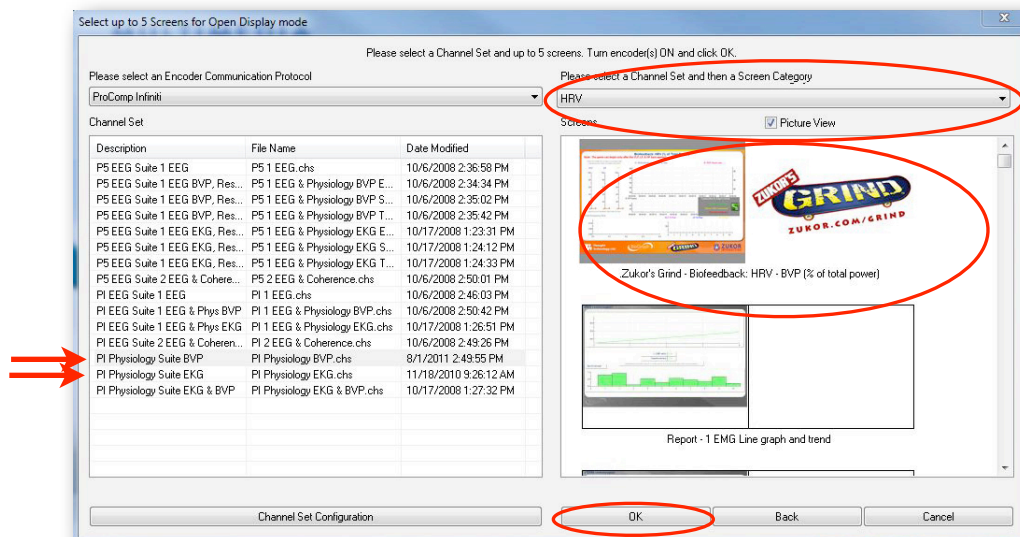
4-N. Neurofeedback:

- A. Under Channel Set, select **PI EEG Suite 1 EEG**.
- B. Under Screens, select the **Zukor's Grind - Neurofeedback Training**.
- C. Click **OK**.



4-B. Biofeedback:

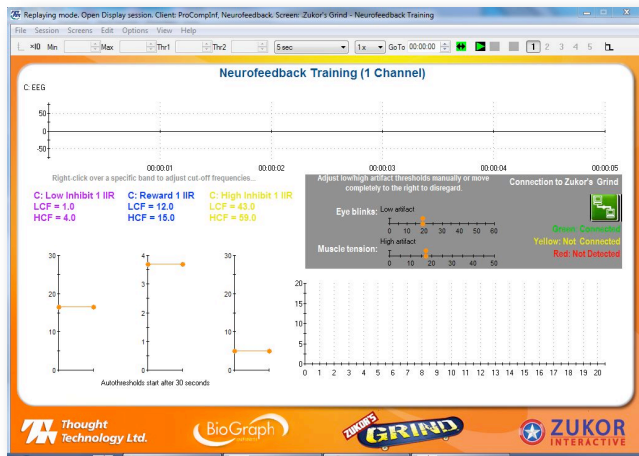
- A. Under Channel Set, select **PI Physiology Suite BVP** or **PI Physiology EKG**.
- B. From the drop down menu above the screen panel select **HRV**.
- C. Under Screens, **Zukor Grind-Biofeedback: HRV - BVP** or **EKG (% of total power)**
- D. Click **OK**.



This will launch the Zukor's Grind clinicians screen on the “clinician monitor” and Zukor’s Grind on the “game” monitor.

CLINICIAN MONITOR

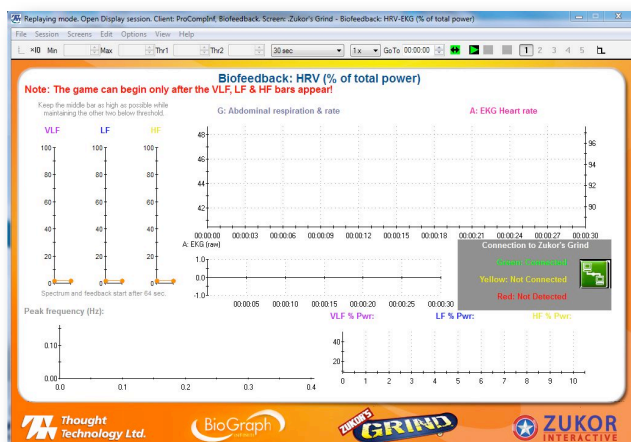
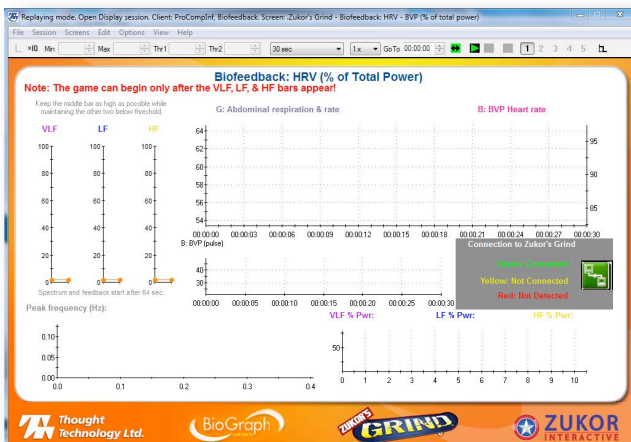
Neurofeedback



GAME MONITOR



Biofeedback



Uninstall Zukor's Grind

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

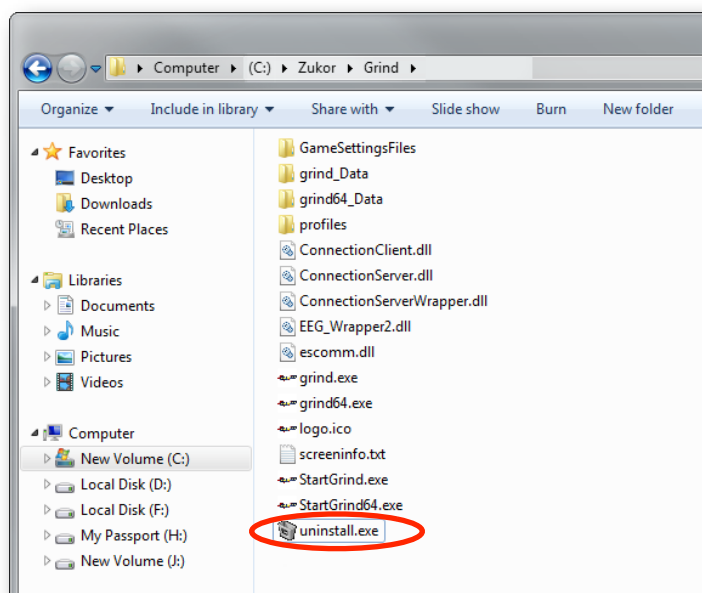
Uninstall Steps

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

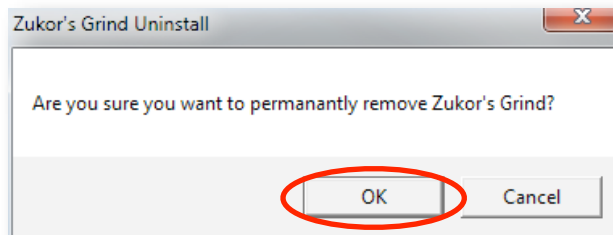
Note: If you followed the regular installation and did not change the installation location, then this folder should be located at: C:\Zukor.

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