

## **OPTIMIZATION: PERFORM THESE STEPS ON ALL NEUROFEEDBACK COMPUTERS**

- A. Power Management Settings:
  - 1. Click Start and select Control Panel.
  - 2. Double-click the Power Control Panel. (For Toshibas, use the Toshiba Power Management Control Panel.)
  - 3. *Setting Options Vary with Manufacturer and Model.* Set all options to Never turn off or to a high enough setting that it will not occur during a session. (For Toshibas, you'll need to select the Power Save Mode option, such as Full Power, and edit the details for that Power Save Mode). Note: This is particularly important for a Game computer since the keyboard and mouse are rarely used.
  - 4. Click OK to save changes.
- B. Screen Saver:
  - 1. Click Start and select Control Panel.
  - 2. Open the Display Control Panel.
  - 3. Click the Screensaver tab.
  - Set the Screen saver name to "None" or enter a Wait time long enough to avoid the screensaver during a session (e.g., 120 minutes). Note: This is particularly important for a Game computer since the keyboard and mouse are rarely used.
  - 5. Click OK if you've made a change.
- C. Virus Protection and Firewalls:



Follow the manufacturer's instructions to disable virus protection and configure your firewall to avoid interference during a Neurofeedback session. If you access the Internet with the system, disable virus protection only when actively running a session. Firewalls can be configured using "exceptions" to allow access for specific programs.

D. Wireless Internet Devices

We recommend that you disable Wireless access to your computer when running a Neurofeedback session. Some computers have a switch to do so. For others, go to the Windows Device Manager (see Other Performance Tips below to creat a shortcut). Expand the list of Network Adapters. Right-click the Wireless adapter and select Disable.

E. System Memory

If the system has the minimum requirement of system memory to run the operating system, you may wish to add additional memory. Recommended are Windows 98, 128mb and Windows XP, 512mb. If the system uses Integrated Video or an AGP video card, the video may share the system memory. Increasing the system memory may be necessary for optimal performance.

## Create a Shortcut to the Windows Device Manager

- 1. Right-click a blank spot on the Windows Desktop.
- 2. Select New Shortcut.
- 3. In the field, type: c:\windows\system32\devmgmt.msc
- 4. Click Next.
- 5. Change the name to Device Manager. and click Finish.
- 6. Double-click the shortcut when you need to access the Device Manager to check ports, disable/enable hardware, update drivers, etc. Do not change or disable items unless it is recommended.



## **RECOMMENDED COMPUTER PERFORMANCE SETTINGS**

EEG Education & Research recommends the following steps to optimize the performance of EEGer Neurofeedback Software.

## PERFORM THESE STEPS ON COMPUTERS WITH PERFORMANCE PROBLEMS:

- A. Windows XP Video Settings:
  - 1. Click Start. Right-click on My Computer in the menu and select Properties from the menu. System Properties should be displayed.
  - 2. Click the Advanced tab, then the first Settings button for Performance Settings.
  - 3. On the Video Settings tab. Select "Adjust for best PERFORMANCE" and click OK.
  - 4. This will cause other change; for example, the Control Panel will change to Classic view. You can change it back when not running EEGer if you wish.
- B. Video Resolution:
  - 1. Click Start and select Control Panel.
  - 2. Double-click the Display Control Panel.
  - 3. Click the Settings tab.
  - 4. Screen area/resolution minimum requirement is 800x600 with 16-bit color. The best setting depends on the computer equipment, but we generally stay at or below 1024x768 pixels, 32bit color. Note: If your system is already set to 800x600, 16-bit color, you may need to upgrade your desktop video card or laptop computer.
  - 5. If you make a change, click OK. Be sure to respond to any prompts to confirm the change or the system automatically reverts to the previous setting (It does that in case you couldn't see the screen with the new setting.)
- C. Video Acceleration: New, Fast Video Only If Problems
  - 1. Click Start and select Control Panel.
  - 2. Double-click the Display Control Panel.
  - 3. Click the Settings tab, then click the Advanced button.
  - 4. On the video attributes display, click the Troubleshooting tab. (Note: The appearance of this screen varies with different video manufacturers and models.)
  - 5. Slide the indicator for Hardware Acceleration one





