

COMMUNICATION IN EEGer™

You must have the correct settings on both the Therapist and Client/Game computer to communicate properly. If the two computers are not communicating, use these instructions to identify the source of problem.



We recommend that you remove devices when traveling with laptops. Be sure to Shut Down your computer before removing any devices (particularly USB devices). Then, before starting your laptops again, you should attach all devices to THE SAME PORTS from which they were removed. Always carry driver CDs for USB devices, in case you need to reinstall.

Unable to Communicate

1. The Game/Client computer setting is not correct:
 - a. **Serial communication:** The COM port that is currently selected is displayed in the upper-left corner of the Game/Client computer game menu. Press **F3** to cycle the next available COM port on the Game menu. Return to the Therapist and try Tools-Retrieve Installed Game List. You can try different COM port values until you receive the Success message.

NOTES:

- If you have a Modem on your system, avoid selecting the Modem COM port to try to communicate. Modems are usually assigned COM3 (*HP and some Gateway computers use COM4*).
 - The COM port setting for the Game computer screen is not necessarily the same number as the one specified in the Therapist computer setup. For example, you can be using COM5 on the Therapist computer and connect to COM4 on the Game/Client computer. Port number assignments are dependent on other ports available on each computer. *See instructions at the end of this document for checking port assignments in Windows.*
- b. For **Ethernet** connection (ENET), press **F5** on the game menu to check the Ethernet name/address displayed is correct for the Therapist computer. The IP addresses for both the Game and Therapist computer should begin with the same digits (e.g., 192.168.1.1 and 192.168.1.2)
 - c. Sometimes this is necessary to reset the COM or Ethernet ports after hardware is connected. Turn OFF both computers (shut down completely, not Restart). After startup, with both your Therapist and Client computer on and at their main neurofeedback screen, use Tools-Retrieve Installed Game List.
2. The Therapist computer setting is not correct:
 - a. If there is still no connection after checking the Game computer connection, select Configuration from the Preferences menu on the Therapist. Check that your **Serial/Modem port for game computer connection** or **Ethernet client computer address/name** is set correctly. Change and save if needed, then close the window.

The Ethernet address of the Therapist computer is displayed at the top of the Preferences-Configuration screen. The IP addresses for both the Game and Therapist computer should begin with the same digits (e.g., 192.168.1.1 and 192.168.1.2)

- b. If using a 9-pin Serial port for the connection to the Game computer, it is usually COM1 or COM2. Try selecting each and see if you can reset the game computer. (For USB-Serial adapter connections, refer to p. 12 of the Installation and Instructions Guide for instructions to check port assignments.)

NOTES:

- For ProComp amplifiers, make sure the selection for game communication is not the same as the ProComp choice.
- If you have only one 9-pin Serial port and use a ProComp amplifier, it is preferable to use the 9-pin Serial port for the amplifier.

Other Reasons Game Might Not Respond

1. Game does not come up at all.
 - a. Make sure the Therapist screen displays RUN in the lower left corner after F5 is pressed.
 - b. If the first stage seems to be skipped, make sure the first RUN stage in Plan Session is 0 minutes.
 - c. The computers are not communicating. Review communication setup in the installation section of this guide.
 - d. A computer firewall is active and the application is blocked. Disable the firewall and try communicating. If it works, re-enable the firewall and follow the manufacturer's directions to allow EEGer or EGS.
 - e. You've updated to a newer version of EEGer and did not install it on both systems. The version number displayed in the lower-left of the EEGer Therapist main screen and the upper-right of the EGS menu should be different by one integer. For example, EEGer 4.1.5H works with EGS 3.1.5H. If you don't have the right set, install the update on the appropriate system.
2. Game initializes (title is displayed) but does not start when Therapist is in RUN mode.
 - a. It may be because adjustments were made on the brainwave screen before the game has finished initializing. When F9, F11, or F5 are pressed to adjust traces, a signal is sent to the game which sometimes interferes with communication if it is not ready to receive the signal. Press Esc on the Therapist computer to exit the session and begin again.
 - b. EEGer version prior to 4.1.5H. Try pressing F5 on the game menu, delete 5510 and enter 0 then exit. If you can communicate after that, the problem can be resolved by updating your EEGer software.
 - c. A computer firewall is active and the application is blocked. Disable the firewall and try communications. If it works, re-enable the firewall and follow the manufacturer's directions to allow EEGer or EGS.
 - d. The video resolution setting is too high for the amount of available video memory.
 - e. Some USB-Serial adapters may not handle the higher communication speed of EEGer version 4.1 or later. You may need to replace the adapter with another brand/model.
3. Game starts but is sluggish or not responding.
 - a. Adjust the traces to provide better feedback. With no traces highlighted (press Enter twice to be sure), press F9 to autoscale the lower traces. Then press F11 to autothreshold. Remember, it's a 30-second average so you'll need a decent signal for some time to be sure the values are useful.
 - b. If adjustments are made and the Reward band is not responding, the game might not be properly licensed. You can check for the licenses on the configuration screen under "Keyfiles". Note that this is only checked during RUN stages. You can Replay with any game.
 - c. Therapist score is increasing faster than the Game screen. There is a communications problem that must be resolved for proper feedback. One possible cause is the video resolution on the Game computer. Adjust the resolution to the minimum requirement (800x600, 16-bit color). Another cause is mismatched computer processors. If that does not resolve the problem, please contact Technical Support.
 - d. A computer firewall is active and the application is blocked. Disable the firewall and try communications. If it works, re-enable the firewall and follow the manufacturer's directions to allow EEGer or EGS.

Ethernet Communication Problems

If the first digits in the IP address do not match, the computers are not “on the same network”. This can occur if there is an active Wireless connection as well as the Crossover/Direct cable connection.

Disable the Wireless connection(s), turn off the computer and turn on again. If the IP addresses match, you should be able to communicate.

If the system has been used to connect to a network or the Internet, there may be a specific address entered in the network setup properties that prevents it from communicating with a direct connection to the other computer.

1. Go to the Windows Control Panel for Network Connections.
2. Access the Properties for the LAN connection.
3. Select Internet Protocol (TCP/IP) and click Properties.
4. If there is a specified IP address that was not set for using EEGer, click to select “Obtain an IP address automatically.”
5. To force the IP address for both computers:
6. Go to the Windows Control Panel for Network Connections.
7. Access the Properties for the LAN connection.
8. Select Internet Protocol (TCP/IP) and click Properties.
9. Click “Use the following IP address”. You can specify the IP address to use for each system to set up a matching network configuration.

For example:

- a. Enter 10.10.10.1 for the Therapist computer or 10.10.10.2 for the Game computer.
 - b. Enter 255.255.255.0 for Subnet Mask.
 - c. Leave the Gateway entry blank.
10. Click OK to save changes. Shut down the system (turn off completely) and start up again.

Identifying Serial COM port assignments in Windows

COM port settings can be determined by viewing the Windows Device Manager. Serial, 9-pin ports will generally be COM1 and COM2. For systems using USB ports, esp. with XP, unplugging or moving devices can cause the COM port number to change. Confirm the COM port being used in the Device Manager.

1. Click START. Use the RIGHT mouse button to click My Computer (Computer if Vista), then left-click Properties. The System Properties dialog is displayed.

2. Go to the Device Manager:

WINXP/VISTA: Click the Hardware tab then the Device Manager button.

WIN98: Click the Device Manager tab.

3. Click the + next to "**Ports (COM & LPT)**" to expand the list.

Write down the numbers of the COM ports available. (USB-Serial adapters appear under a brand name. For example, "Prolific USB-to-Serial Com Port").

Note: For USB ports, if you have more than one device connected, you can disconnect one to see which COM port is removed then reinsert it to confirm the correct number assigned.

Therapist-Game Connection: COM ____
ProComp Connection: COM ____
Game-Therapist Connection: COM ____