

Cygnnet® Software – What are the recommended computer requirements?

The **recommended computer requirements** are:

- Windows 10 - 64 bit
- Intel® Core™ i7 (Quad-core)
- **We explicitly and exclusively recommend Intel processors**
- 16 GB RAM
- VR Ready Graphics Card: NVIDIA GTX 1060 or greater or AMD RX-480 or greater
- Laptop Graphics cards: "integrated" graphics memory is not supported. (Dual graphics cards that switch between a low power and high power chip are supported but require special video driver configuration. Please contact tech support for driver version and links)
- Sound card
- DVD-Rom Disc Drive - required if you want to use DVD movies
- Second monitor with 1080p resolution and an HDMI connection

In the following, we like to give a couple of recommendations if you are looking for a appropriate computer for your Neurofeedback system. These days, you can use almost any PC for neurofeedback. However, there are a few considerations and recommendations:

- Cygnnet is qualified for 32 and 64 bit operating systems. Only with the serial QIK devices that we sold a few years ago there is an incompatibility with 64bit systems. For this issue we offer a special USB-Serial adapter. We now sell only USB QIKs.
- For convenience reasons and because they allow a higher mobility, we recommend to use a notebook. Desktop PCs can be used only stationary and have no integrated monitor.
- Don't get a notebook with low screen resolution. Most cheap notebooks come with 1366 x 768 pixels, we recommend at least 1600x900 or better Full-HD (1900x1080), otherwise all windows overlap all the time and you'll have to scroll a lot. Of course, the optimum screen resolution depends on your eyes.
- If you intend to use the notebook mostly stationary, consider a 17" screen. You will not regret it. A desktop computer should better be provided with a 24" screen.
- DVD player: See notice in FAQ "What to do when DVD drive problems occur?"
- If you have a chance, check for the noise of the built-in fan. Some computers produce quite noticeable noise with can be annoying in a quite practice room.
- SSD hard drives came down in price quite substantially. They are still more expensive than conventional mechanical drives but produce no audible noise and increase the speed of a computer substantially.
- When choosing an Anti-Virus software, it should be kept in mind that the "real-time capability" of our neurofeedback system (NeuroAmp amplifier and software) is an essential prerequisite for the successful application of neurofeedback. All processes of other software that run in the background (and this addresses particularly the virus protection programs), can interfere the "real-time capability" or even prevent it. An example are McAfee security products that can interfere with Cygnnet® dramatically and unfortunately very often are pre-installed on new computer systems. But also the anti virus software "Avast" and

"Kaspersky" have led to problems with Cygnet, for example the startup procedure of Cygnet was interrupted showing the error message "Invalid Exit Code -2". Our recommendation: The protection, which is integrated in Windows since Windows 7 ("Microsoft Security Essentials") is sufficient for most applications. Cygnet was developed and qualified on computers that either use "Microsoft Security Essentials" or "Norton Internet Security" for virus and firewall protection. Our experiences are exclusively constrained to this protection software and therefore we recommend only the mentioned products.

The rest is up to your taste: size, weight, battery lifetime, etc. We are happy to review your computer choice and comment if it is suitable or not.

Before downloading the newest Cygnet® version make sure, your pc complies to the pc requirements.

In general, we recommend to have your computer serviced by a professional, unless you enjoy maintaining your computer by yourself. It is a similar situation as with cars, where most people go to a garage.

- PC installation
- Computer safety
- Backups