

The quality and configuration of the computer used with the Pro-Trainer software Program is critical to the output and video rendering you will receive. Our systems include customized computers, configured to meet the exacting standards for high quality video recording and playback.

The standard “business” computer is not designed for video recording and playback purposes. In addition, we recommend the computer be used primarily for motion analysis and is not the “general use” computer for your business or practice. It is difficult to find an “off the shelf” computer with the proper components and capacities. The system should be configured and built by a company that specializes in video analysis.

Some key points to consider are:

**PC Speed:** The computer requires a good processor speed. It must be capable of handling large amounts of data very quickly as it is transmitted from the video camera. A slow processor will drop or lose portions of the video signal. The resulting video will appear “choppy” during playback.

**PC Memory:** Because of the huge amount of data (bits) required to store video images, the computer’s memory (RAM) needs to be of a sufficient size for this process. Too little memory and you will experience the same problems as you will with slow PC speed. The RAM becomes even more important if you are using multiple cameras simultaneously.

**PC Video Processor:** During the streaming of the LIVE video to the computer, the video is processed through the Video RAM. In order to meet the high resolution and display needs of the computer, it is strongly recommended the computer is configured with DEDICATED VIDEO RAM. A good example of this is a “multi-media computer” which typically is designed with a separate Video card. The quality of the card is a very important factor in the computer; if you use a “bargain” card, you could end up with choppy video.

**PC Hard drive:** The .avi videos (format used for recording of videos) are some of the least compressed videos and therefore require additional storage capability on the computer.

**Video Connection:** In order to have the FAST, LIVE connection for viewing of videos, the Mini-DV camcorder utilizes the IEEE-1394 protocol, also known as FireWire or I-Link. Due to hardware limitations, each camcorder requires connection to a unique FireWire card installed in the computer. In the case of a desktop computer, this means you will typically require one (1) to three (3) FireWire cards installed in the case. This is important to note, as cards may be designed with up to three (3) connections per card and only one can be used per camcorder. In order to have two (2) camcorders connected to a notebook computer, you will need one (1) built in FireWire (1394) port and a FireWire (1394) Express card slot (either “34” or “54” style). Once again, the typical Express Card has two (2) ports, however only one can be used to connect to the FireWire cable.

**No 3rd Party Software**—the PC cannot have any 3rd party video software installed such as video games or other video capture software. Anti-virus software may also cause processing problems.

***The type of computer (desktop or notebook) selected is dependent on a number of factors.***

The first and most important is how and where you will be using the system. If you want to set up the Motion Analysis System and use it primarily with a treadmill, or for functional movements within a specific space, you should consider the desktop computer. This will allow you connect up to three (3) camcorders for more efficient recording purposes.

If you have limited space and or want to use the System both indoors and outdoors (or at multiple locations) you should consider a notebook computer.

Contact us at: [www.sportsmotion.com](http://www.sportsmotion.com) or [www.medicalmotion.pro](http://www.medicalmotion.pro)

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## DESKTOP COMPUTER:

Recommendations — *desktop* computer running the Pro-Trainer software.

Specifications:	Recommended
Processor Speed:	2.33 GHz – 3.4 GHz (i5 or i7)
Screen:	22-27" Flat screen or larger
RAM:	2 – 8 GB DDR3 RAM
Graphics RAM:	2 to 4 GB <b>DEDICATED</b> Video RAM
Video Display:	800x600 (minimum—up to 1920x1080 ) & 32 bit hi-color
Hard Drive:	320 GB – 1TB
Sound Card:	quality sound card for slow motion playback; microphone input
Operating System:	Windows 7, Windows 8
CD:	CD-RW or 8X DVD
FireWire:	FireWire PCI card—* <b>1 expansion slot per camcorder</b>
<i>(Note: expansion slots need to be provided if multiple camcorders are to be connected to computer—maximum of four (4) per desktop computer, dependent on the processor speed and the Graphics RAM)</i>	
Ethernet:	Gigabit Controller
HDMI:	Recommended for connectivity to larger monitor for dual views

## NOTEBOOK COMPUTER:

Recommendations— *notebook* computer running the Pro-Trainer software.

Specifications:	Recommended
Processor Speed:	2.4 GHz – 2.66 GHz (i5 or i7)
Screen:	15.6" (16/9 ratio) LCD
RAM:	2 – 4 GB DDR3 RAM
Graphics RAM:	1—2 GB of <b>DEDICATED</b> Video RAM
Video Display:	800x600 (1920 x 1080 recommended)& 32 bit hi-color
Hard Drive:	320 GB—500 GB
Sound Card:	quality sound card for slow motion playback; microphone input
Operating System:	Windows 7, Windows 8
FireWire:	Integrated FireWire port and Expansion slot for Express Card *
MultiMedia:	8x DVD Drive
Ethernet:	Gigabit Controller
Wi-Fi:	801.11 b/g/n
HDMI:	Recommended for connectivity to larger monitor for dual views

\* The FireWire Express card typically comes with two (2) connections on the card, however, due to the bandwidth requirements for the .avi file format, only one (1) port can be utilized to connect a camcorder.

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