

# Hardware for Siliconcoach Products

## OPTIMAL COMPUTER SPECIFICATIONS

**Look here for Pro 8 Hardware Specifications**

### Standard Definition

- Applies to Pro 7, Digitiser 6, TimeWarp 4, Dialed in Motion Running, Dialed in Motion Cycling.
- Internet connection
- Windows 7 or Windows 8, 32 or 64 bit
- CD read/write.
- Sound card.
- At least a good Intel i5, a midrange i7 or similar with at least 4 GB RAM.
- At least 320 GB free hard disk space for video storage.
- 1280 x 1024 or larger monitor.
- *Pro 7 only:* -For dual cameras you will need 2 Firewire cards and 2 MiniDV cameras.  
-There is no dual USB option on Pro.  
-Pro can import and playback HD video files.
- *Optional:* Separate graphics card with 512 or more MB video RAM.

**Note:** There is a bug in TimeWarp running in Windows 8 where the Warp (time delay) creeps. For example if you set it to 5 seconds then after 10 minutes it is about 15 seconds. This does not happen in TimeWarp running in Windows 7 or in any of our other software running Windows 7/8.

### High Definition

- Applies to Dialed in Motion Running, Dialed in Motion Cycling, P&O.
- These Siliconcoach products can now capture and display dual HDMI video feeds in HD format. However, dual HDMI capture is still on the outer edge of what is possible with consumer products. Therefore, the hardware is very specific and we generally do not allow anyone to set up their machine by themselves. It is better if we are tightly involved with the hardware as it is not just about the processor speed and RAM but the motherboard, BIOS settings, etc.
- Please contact [sales@siliconcoach.com](mailto:sales@siliconcoach.com) for more information on the HD systems.

### What about an Apple Mac?

No Siliconcoach software will run directly in the Macintosh operating system. However, TimeWarp 4, Dialed in Motion Running, Dialed in Motion Cycling and P&O will run on Intel based Macintosh hardware running Windows 7 and 8 under Apple Bootcamp

**Note:** Pro 7 is no longer supported under Apple Bootcamp.

Apple Bootcamp is free but you will need to have a legal copy of Windows 7 or 8. Learn more about Bootcamp at <http://www.apple.com/support/bootcamp/>.

No Siliconcoach software is supported under Parallels or VMWare.

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## CAMERAS AND CONNECTION METHODS

Depending on your needs there are 2 ways to capture video into your computer.

- One is to capture files onto the camera's storage and then download them to the computer at a later time. Once in the computer they can be converted (using free Siliconcoach conversion software) and imported into the software and analysed as normal (except for TimeWarp and Digitiser). Many HD camera formats can be imported with the HD resolution retained.
- The other way to get video footage into the software is via a 'live' feed where whatever the camera is looking at is also shown in the software and this is explained in detail below.

### Live Feed Options

#### Firewire (Pro 7, Digitiser 6, TimeWarp 4, Dialed in Motion Running, Dialed in Motion Cycling, P&O)

##### Camera

Mini DV video camera (these are not being manufactured anymore but many people currently have them).

##### Connection Method

*Single Capture:* A Firewire port in the computer either as a plug-in card or built in.

*Dual Capture:* You will need 2 Firewire cards for dual capture. If you are using a laptop you will need one Firewire port built into the laptop plus an external card for the second camera.

You will also need Firewire cables, 4.5 m (15') are best.

##### Notes

Although this was a very good technology it has faded away. It is practically impossible to get new MiniDV camcorders nowadays so in reality this technology is technically no longer an option.

#### Video to USB Converter (All but Digitiser)

##### Camera

With the demise of MiniDV camcorders around the world in early 2010 we have had to increase the number of ways users can get video feeds into our software.

Now you can use a Video to USB converter which means you can connect to any camera or device that has an A/V output and connect it to the computer through a standard USB 2 port. Most camcorders will work and even older DVD and VHS players, just check they have an A/V output plug.

##### Connection Method

This USB method dramatically increases the number of cameras and devices you can use. You can use any camera or device with an A/V output but you need to add a USB converter into the system. Using this technology you can even connect to home DVD players.



This is the type of A/V cable you will use to connect to the converter.

The yellow-red-white end of the cable is consistent but different manufactures use different single plugs at the other end. Fortunately the AV cable usually comes with the camera so all you need to get is the USB converter (see below)

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## So which Video to USB Converter should get?

There are a lot of video converters available on the market and they are all slightly different so Siliconcoach has tested many and recommends only one which is the **Hauppauge USB Live2** like this [http://www.hauppauge.com/site/products/data\\_usblive2.html](http://www.hauppauge.com/site/products/data_usblive2.html).

This device is available in most major countries including the USA/Canada, New Zealand, Australia, UK and also in Europe. Just search for **Hauppauge USB Live2** and your country in a web search to find your closest outlet or contact [support@siliconcoach.com](mailto:support@siliconcoach.com).

### Notes

There is **no dual USB capture option in Pro or TimeWarp**, however there is in Dialed in Motion Running, Dialed in Motion Cycling and P&O.

This option works well in good light, especially outside. It is very flexible and is relatively inexpensive. However, it is a stop gap until everyone moves up to High Definition where the quality is dramatically better.

## HDMI HD (Dialed in Motion Running, Dialed in Motion Cycling, P&O)

### Camera

Anything that outputs in HDMI format and is recognized by the Blackmagic device drivers will work. Currently the best options are the Panasonic V520 or V720 HD camcorders due to their manual shutter-speed settings. Always check with Siliconcoach before purchasing any camera.

### Connection Method

Our software takes the HDMI live feed out of the camcorder via a device or PCI card and captures it. We do this using a variety of devices as listed below:

- Blackmagic Intensity Pro PCIe Capture Cards.\*
- Blackmagic Decklink PCIe Mini Recorders.\*
- Blackmagic Intensity Shuttles for Thunderbolt.\*\*
- Blackmagic UltraStudio Mini Recorder for Thunderbolt.\*\*

\* Requires a specific motherboard.

\*\* Requires dual Thunderbolt ports in the computer. There are a few computers now available fitted with 2 Thunderbolt ports. These include an i7 MacBook Pro, an i7 iMac (both running Bootcamp and Windows) and a very limited number of Windows PC's but contact siliconcoach before venturing down this option.

### Notes

High Definition is the future of video analysis and hardware is now available to do it at a reasonable price.

The quality High Definition is dramatically better than SD.

Dual live HD capture and playback is still at the higher end of the consumer range of computers but is also now possible.

Contact [sales@siliconcoach.com](mailto:sales@siliconcoach.com) to learn more about the options presented here.

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