

Manual VideoID II



2019v1

SPORT TIMING SYSTEMS



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Manual VideoID II

Welcome to the "VideoID II" user manual.

May we recommend you to gently browse through the entire manual first, just to have an initial idea of how the book is structured. As we can't possibly explain all details simultaneously, this might help you a bit in understanding and tracing things back. Of course, the table of contents will also help you in doing so.

Please note that all pictures are examples, the delivered version can be different than shown in this manual please inform yourself before purchase.

If you, after reading this document, have any further question regarding the operation or service of this or any other TimeTronics equipment, please contact your local distributor or TimeTronics directly, by email: info@timetronics.be, or call us at +32 (0) 14 23 19 11.

Please also contact us if you have any remarks or advice regarding this user manual: info@timetronics.be

Good luck and thank you for your confidence in the TimeTronics products and services.

The editors

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1. Hardware setup

1.1 Complete setup

In a complete setup, your system contains the following parts:

- MacFinish photofinish + PC (**not included** in Video-ID-configuration)
- Portable or desktop computer with VideoID II software

The minimum specs:

- HDD— 200Mb
 - OS—Windows (32- and 64-bit)
 - CPU—Intel Core 2 Duo, or equivalent
 - RAM—2 GB RAM
 - Video—128 MB
 - Ports—Gigabit Ethernet. Not USB converter. Also all devices in between should be Gigabit.
- VideoID II (**POE = Power Over Ethernet**) camera with suitable tripod for mounting
 - An Ethernet network (ethernet cables and POE-switch or POE- injector)

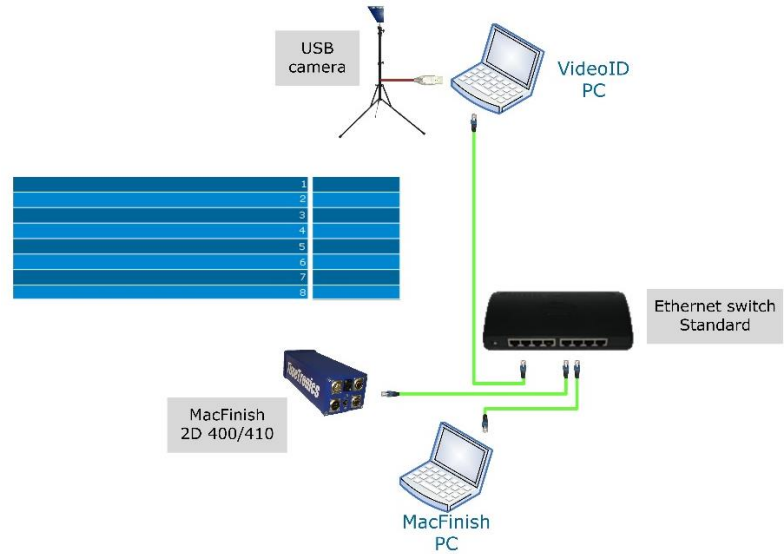
Since 2017, the NEW VideoID II setup is MUCH easier and MORE practical in use. Please look at the drawing below, and you will discover the following advantages;

a) The VideoID computer is moved from the inside of the track to the "photofinish room". The pc is now more protected (from rain and sun), and it becomes very practical for a full REMOTE control of the camera.

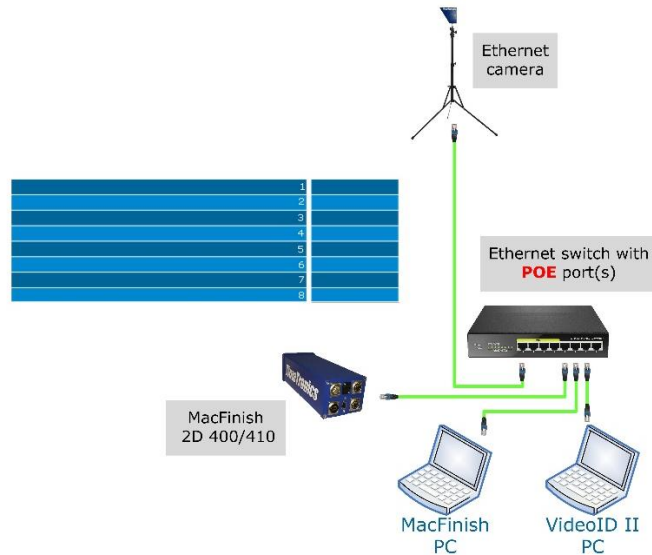
b) In this new configuration you do **NOT** need power anymore inside the track for VideoID. The new VideoID camera is powered by **POE (Power Over Ethernet)** = One ethernet cable which carries the video data AND the power signal for the camera.

The VideoID computer can and will now be used for **RECORDING and PLAYBACK** instead of only recording. This means that the video file does NOT have to be transferred to the MacFinish computer (= much faster), and you can use the screen of the VideoID computer as a "2nd screen" for the photofinish operator! Therefore; please place the videoID computer "as close as possible" = next to the MacFinish pc, so that the photofinish-operator will be able to see BOTH screens simultaneously!

VideoID (USB) configuration



VideoID II configuration



1.2 Installation of the VideoID

- Place the MFVideo ID camera on the correct location inside the athletic track, pointing to the athletes arriving in lane 1-3 (during a LONG DISTANCE race). We recommend you place it about 4-6 meters behind the finish line, on the inside of the track. The height of the camera should be the height of the athlete BIB numbers, and the camera should point horizontally. In a later phase, as soon as the VideoID II software is installed, you can adjust the ZOOM of the camera lens (if required) to see WIDER or NARROW, and adjust the FOCUS of the lens to record sharp videos. After that adjustment, please FIXATE the zoom and focus settings of the lens by fastening both lens screws. If you perfectly adjusted the lens once, nobody has ever to do that again, if you place the camera always at the same position.

- Connect one of the POE-outputs of the Ethernet switch to the VideoID camera (using a long Ethernet UTP CAT6 cable from the switch to the inside of the track); *Note; If you do not have a switch with POE-port(s), you can also buy/use a POE "injector"; this is a box which is connected between the VideoID camera and a "normal" ethernet switch, which will "inject" 48Vdc electrical power to the ethernet cable for the camera.*
- Be sure your computer network (consisting of at least two pc's, namely the MacFinish pc and the VideoID computer) is managed right. If you don't need to be connected to another network, we recommend you use static (=fixed) IP addresses, of course WITHIN the same IP-range. Read appendix A, or contact your computer supplier if you do not know how to do this! Connect both PC's to the ethernet switch; use any of the connections (with or without POE).

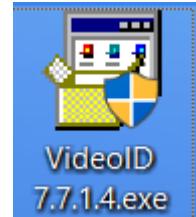
2. Software installation

Note: For the installation of the MacFinish software, consult the MacFinish manual. Use version MF7.7.3.11 or later!

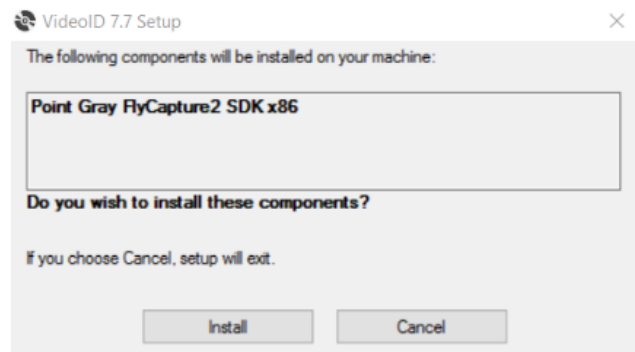
Note: If you buy the PC for VideoID from TimeTronics (which we advise), the VideoID software and all driver(s) will be already installed and software installation is tested! You can directly start using the system.

Follow the next steps to correctly install the VideoID II software:

- Download and unzip the latest software from our website (<http://www.timetronics.be/software.html>) to your local hard drive.
- Start the installation by double-clicking the INSTALLER:
 - This could be this icon or a future new icon of the VideoID II software.
 - Please notice that it also can be a later version than this 7.7.1.4.exe.



- After the Welcome screen, you will see a request to install the drivers of the Point-Gray camera module that we use. These driver(s) will only be installed once, so NOT during any later upgrade of our software. You will have to confirm (agree) with the driver installation to let the VideoID II software work on your computer with this new ethernet VideoID II camera.



- In the next screen you will see the step to install the real VideoID II software. Wait for the installer to do its job and finally click on "Finish". The installation is successfully completed.

3. Using the VideoID II software

You can start the software by double-clicking on the shortcut on the desktop, or in the start menu folder, or if this is not the case you can find the program in the folder **C:\Program Files (X86)\TimeTronics\Video ID 7.7**

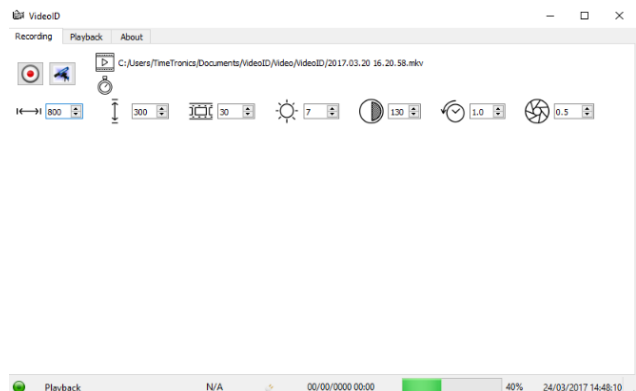


3.1 Overview of the screen

After starting the software, you will see one of the following windows on your screen.

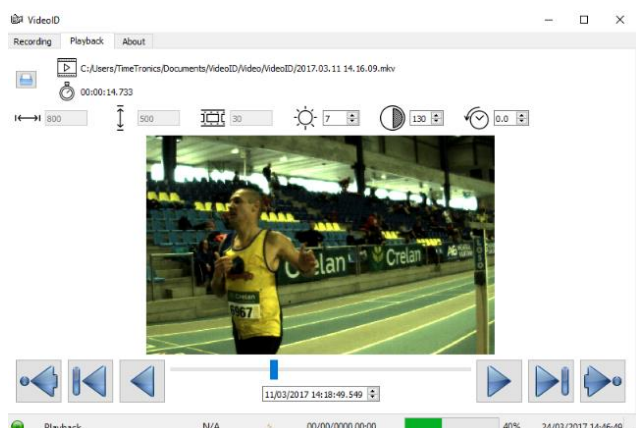
The most important fields you should notice are the 3 "TAB" buttons **on the top**, named Recording, Playback and About:

1. The "Recording" tab is used to adjust the camera + lens, and choose your desired recording settings in the software, for an optimal quality of the recorded video. Here you will also select to WHICH MacFinish photofinish you want to connect. Later we will explain that you only need to select this MacFinish once, because at next startup the software will automatically choose the same



MacFinish (if it is found on the network when VideoID is started up). The details of the software "recording"-settings are explained in the next chapter.

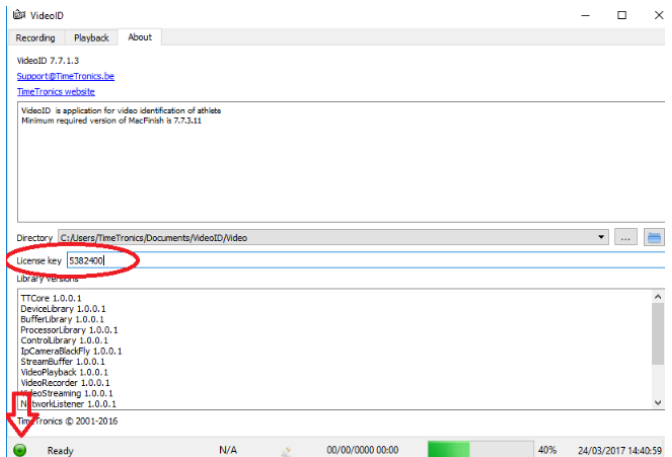
2. The "playback" tab is used most of the time; for automatic playback of the recorded video, which corresponds to the photofinish picture that you investigate on the selected MacFinish. You will later notice that this VideoID software will automatically switch to another file if you select another race in MacFinish, and automatically spool the video to the time which corresponds with the MacFinish racetime at your cursor location.



In other words, if you move the mouse of the MacFinish computer OVER the MacFinish photo that you just recorded, the VideoID computer will show in its playback screen the video frame which is recorded at the time that the photofinish recorded the athlete that you point to on the MacFinish.

Note; With the button on the top-left of the screen you can manually select a previously recorded (demo) file, for manual investigation or test.

3. The "About" tab shows extra information and settings of this software.
 - a. The display of the "minimum required version" of the MacFinish software, which is compatible with this VideoID II software.
 - b. "Directory" = the folder where the videofiles are saved. Press the button "... " to select the directory, or the rightmost button to "open" the directory to see a list of the files.
 - c. Your license key (code); Without the correct code for your camera, you can not use the VideoID II software. The correct code is delivered by TimeTronics with your system. After you, *press the "green round" button (on the bottom-left of the screen, look at the red arrow) to link the license key with the attached camera, and to start using the camera.*

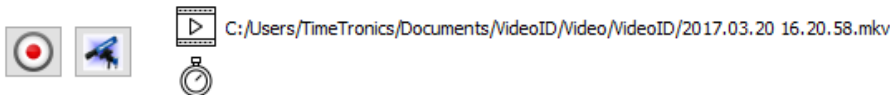


3.2 Overview of the VideoID II software controls

Like already mentioned, the software contains three 'TAB' controls, on the top of the VideoID II software: Recording, Playback and About. Each TAB will show a different screen content, for the corresponding functions.

3.2.1 Recording window

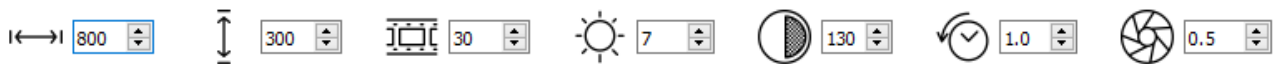
You can notice in this window three "rows" of controls, which we will explain more in detail here below:



From left to right you see the controls and indicators for:

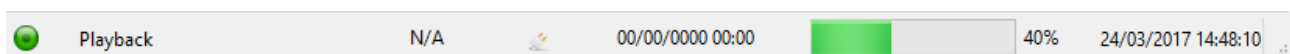
1. Button (red circle) to 'start' and 'stop' a **manual video recording**. This is an option of the software, which you will normally NOT use, because during the normal use the VideoID II will 'listen' to the MacFinish photofinish, and **AUTOMATICALLY** record video when the MacFinish is recording the photofinish picture of a race.

2. The (blue) 'MacFinish' button to start a connection with a MacFinish photofinish. When you use this button you will be able to **SELECT WHICH MacFinish** on the network (if there are multiple) you will use with this VideoID II. Again this is an optional button which is normally not needed, because the software will remember which MacFinish you have used the last time, and AUTOMATICALLY connect to that same MacFinish at startup (if the MacFinish is found in the network). Therefore we advise to start the MacFinish camera and software first, and then the VideoID II software. This method makes life easier for you. We also have improved the software in the connection process; you DO NOT NEED to enter any IP-address of the VideoID any more in the MacFinish software, it is all automatic!
3. The next icons and text in black is just information; NO CONTROL! You see the filename of the (live) recorded videofile, and below that the duration (in seconds) of the last videofile recorded.



From left to right you see the controls for:

4. The WIDTH of the recording window, in number of pixels. Default value = 800pixels.
5. The HEIGHT of the recording window, in number of pixels. Default value = 300pixels.
6. The FRAME RATE of the recorded video, in number of frames/sec. Default value = 30 frames/sec.
7. The LIGHT intensity. This control can display the recorded video with higher or lower intensity. Default value = 0.
8. The CONTRAST. This control can display the recorded video with higher or lower contrast. Default value = 100.
9. The PERIOD of recording BEFORE and AFTER each athlete arrival. Default value = 1 sec.
10. The SHUTTER SPEED of the recording: a **smaller value makes the video sharper** for fast moving objects, but also makes the video darker when there is insufficient light (nighttime recording). Default value = 1 msec.



From left to right you see the controls and indicators for:

10. Button to connect to a MacFinish camera, f.e. if you changed (corrected) the license key (in About window).
11. The status and Date and Time of connected MacFinish.
12. The amount (%) of free memory on your PC hard disk.
13. Date and time of the Video-ID II computer.

3.2.2 Playback window

You can notice in this window four "rows" of controls, which we will explain more in detail here below:



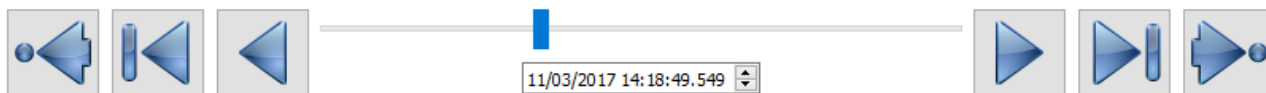
From left to right you see the controls and indicators for:

1. Button to MANUALLY 'Open' any **previously recorded videofile**. This is an option of the software, which you will normally NOT use, because during the normal use the VideoID II will 'listen' to the MacFinish photofinish, and **AUTOMATICALLY** FIND and DISPLAY the videofile that was recorded during the race that the MacFinish is currently displaying.
2. The next icons and text in black is just information; NO CONTROL ! You see the filename of the currently open videofile, and below that the duration (in seconds) of that videofile.



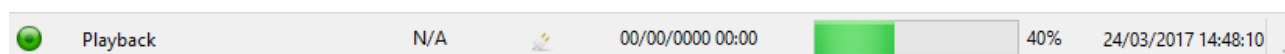
From left to right you see the controls for:

3. The WIDTH of the playback window, in number of pixels. Cannot be changed in playback.
4. The HEIGHT of the recording window, in number of pixels. Cannot be changed in playback.
5. The FRAME RATE of the recorded video, in number of frames/sec. Cannot be changed in playback.
6. The LIGHT intensity. This control can display the playback window with higher or lower intensity. Default = 0.
7. The CONTRAST. This control can display the playback window with higher or lower contrast. Default value = 100.
8. The PERIOD of recording BEFORE and AFTER each athlete arrival. Cannot be changed in playback.



From left to right you see the controls and indicators for:

- 9. Button to show the FIRST frame of the selected Videofile.
- 10. Button to show the PREVIOUS frame of the selected Videofile.
- 11. Button to PLAY the selected Videofile in BACKWARD direction.
- 12. Button to PLAY the selected Videofile in FORWARD direction.
- 13. Button to show the NEXT frame of the selected Videofile.
- 14. Button to show the LAST frame of the selected Videofile.

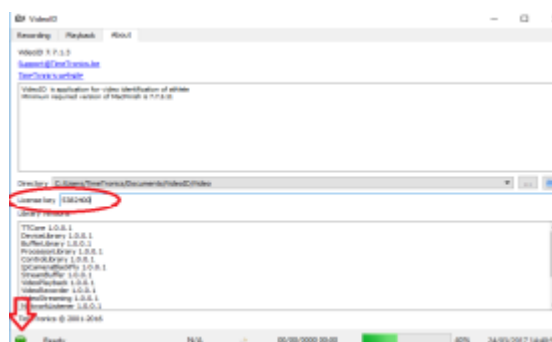


From left to right you see the controls and indicators for:

- 15. Button to connect to a MacFinish camera, f.e. if you changed (corrected) the license key (in About window).
- 16. The status and Date and Time of connected MacFinish.
- 17. The amount (%) of free memory on your PC hard disk.
- 18. Date and time of the VideoID II computer.

3.2.3 "About" window

You can notice in this window different lists and controls, which we will explain (from top to bottom) in detail here below:



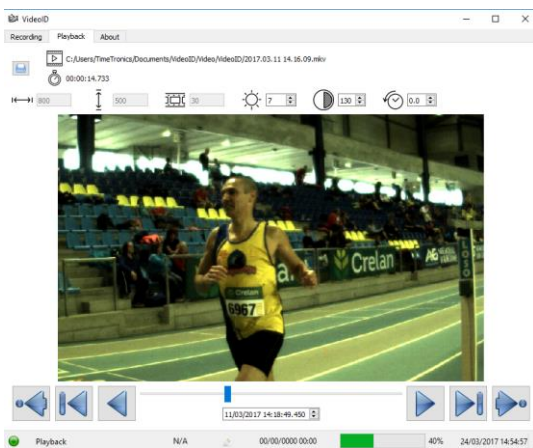
- 1. The software version you are using.
- 2. The display of the "minimum required version" of the MacFinish software, which is compatible with this VideoID II software.
- 3. "Directory" = the folder where the videofiles are saved. Press the button "... " to select the directory, or the rightmost button to open the directory to view a list of the files.
- 4. Your license key (code): **Without the correct license code for your camera, you cannot use the VideoID II software.** The correct code is delivered by TimeTronics with your VideoID II system. After you typed the licensecode, press the "green round" button (on the bottom-left of

the screen, look at the red arrow in the above picture) to link the license key with the attached camera, and to start using the camera. The license code that you typed will be remembered by the software, so that you never have to enter it again.

5. List of the used modules and drivers for the video streaming. This is just information for specialists, you do not normally need to use any of this information.

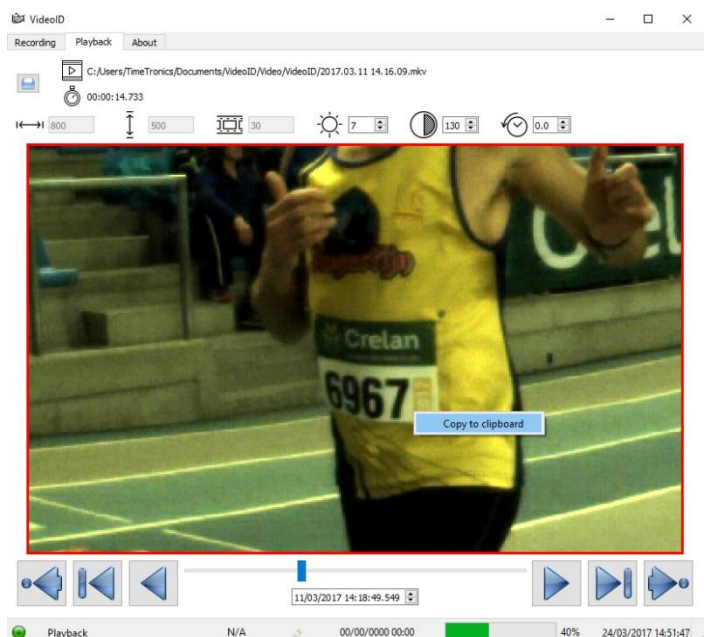
3.2.4 Extra features of the VideoID software

When you click with the LEFT MOUSE BUTTON in the video window, you will see the ZOOMING function of the software. This can **help you to identify** the athlete, when the bib number is not directly readable.



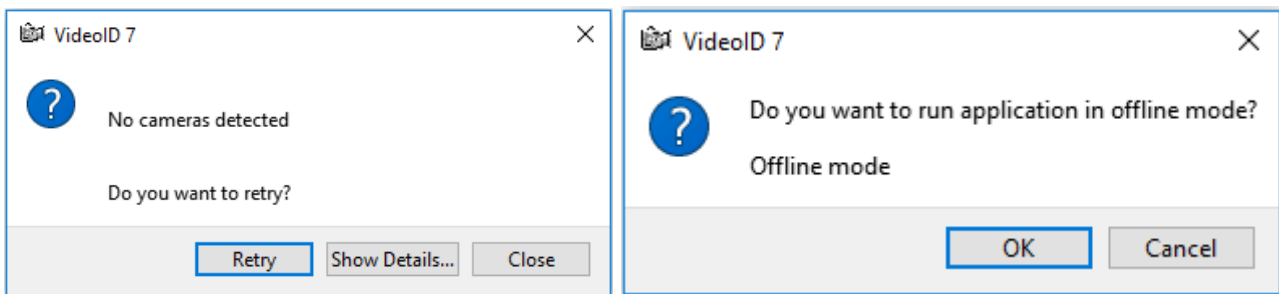
Note: In zooming 'mode' you will see a red line around the video window.

When you click with the RIGHT MOUSE BUTTON in the video window (normal size or zoomed size), you COPY the contents of the video window to the CLIPBOARD.



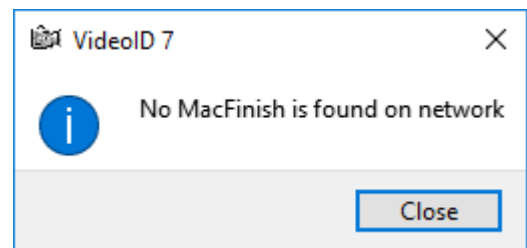
3.2.5 What if there is NO VideoID camera found in the computer network?

If you see the window like on the picture here below, this means that NO (ethernet) VideoID II camera was found in the network. First check if you have correctly connected such a camera, and have NOT forgotten to use a POE (Power over Ethernet) switch or "POE power injector", and try again (press "Retry" button). There are NO IP-address or other settings you have to make for the camera connection, because this is done completely automatic. Perhaps you do not want to use the camera, but want to playback older videofiles? In that case press the "close" button of the first window, and click on "OK" in the second window to use the VideoID II soft without camera ("Offline mode").



3.2.6 What if there is NO MacFinish found in the network?

If you see the window like on the picture here on the right, this means that NO MacFinish is found in the network. First check if you have correctly and successfully started MacFinish, and that the network connection is functionally ok. If necessary, please check appendix A at the end of this user manual.



If you have no MacFinish currently operational, you can press the "Close" button of the VideoID II software, to use the VideoID in "Off-line" mode, which means that you can use the VideoID II without a MacFinish connection for:

- a) MANUALLY record a new video file,
and/or
- b) PLAY a previously recorded video (manually or automatically recorded under MacFinish control)

4. Using the MacFinish software with the new VideoID II

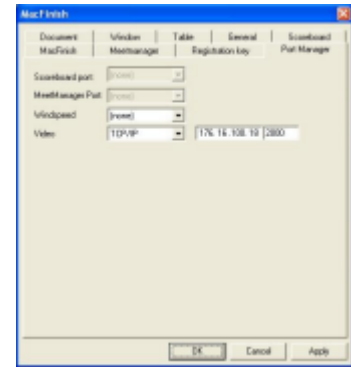
The VideoID software will LISTEN to the connected MacFinish, which means that in this new version (7) of VideoID the MacFinish DOES NOT ANYMORE needs to have to link to the MFVideo

ID software, so there are NO SETTINGS to perform in the MacFinish software; This makes the usage of this NEW VideoID II software very easy !

Note: Just make sure that you use a RECENT version of MacFinish software = minimum version MF7.7.3.11 (or later).

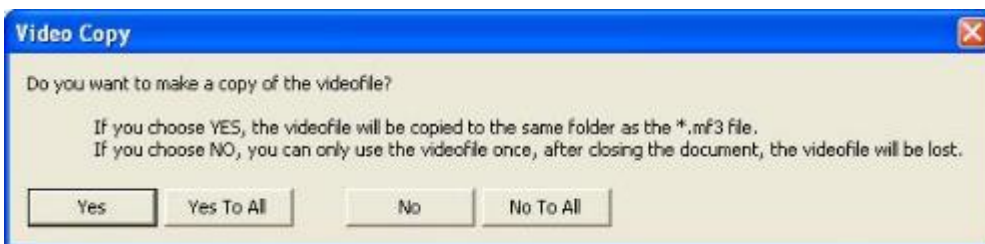
4.1 Connection to MF VideoID

- Settings of TCP-IP and IP-address of the VideoID pc: NOT USED for this VideoID II
- Button for (re-)connection of MacFinish with VideoID II: NOT USED.



4.2 Reading the MacFinish image from the MF camera

The Videofile does NOT ANY MORE need to be transferred from the VideoID pc to the MacFinish pc, so you will not any more see the below MacFinish window, and you do not need to wait any more for that videofile transfert. *There are also no risks anymore that the folder with the videofile is not (read/write) shared for the MacFinish, or that an antivirussoftware is blocking the access to the shared folder. This makes this new VideoID II software a great improvement to the previous version.*



*Note: If you have the computer Firewall ON, or use antivirussoftware settings which block **all** communication between your pc and other pc's, then it is possible that the communication*

between VideoID II and MacFinish is not working. In that case please ask a computer specialist to change the settings, or contact TimeTronics (+32 14/231911 or info@timetronics.be) for more advise on this matter.

4.3 Using the MacFinish together with VideoID II

4.3.1 How to identify athletes in MacFinish

If you move with the mouse over a recent recorded photofinish image, you will notice that the VideoID II software (on the VideoID pc) will FIND and DISPLAY the corresponding video file, and that the video image moves too. The (date and time-of-day) times in both files are linked and synchronized.

So if you click in the MacFinish photo to add the time and athlete ID to the MacFinish "result table", the video frame you see in the VideoID II screen will be the one with the same athlete you point to in the MacFinish window. It is easy to read his number and choose that ID from the "PARTICIPANT list" pop-up window in MacFinish. Reminder; you can zoom in the VideoID by clicking with the LEFT mouse button (use the mouse of the VideoID pc, see chapter 3.2.4)

WARNING: Remember that the HEADER of the athlete identification column in the MacFinish result table should show "ID" ; in other words, the MacFinish should be in "long distance race" mode, and not "Sprint" race mode where we read the LANE of an athlete. Please check the MacFinish manual for more information.

4.3.2 VideoID running on separate PC or on the MacFinish PC

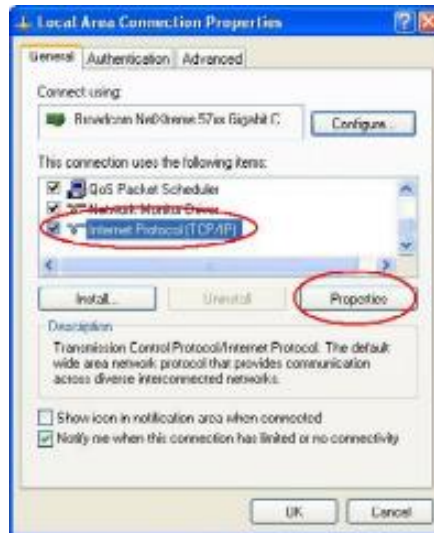
We have explained in chapter 1.1.c on page 3 that it is advised to have the VideoID II software running on a separate PC, and to place its monitor screen as close as possible to the MacFinish computer monitor. We can also mention here that it is (theoretically) possible to run the VideoID II software on the MacFinish computer itself, but then the performance of the VideoID II and the MacFinish software is REDUCED, and will depend on the speed performance of your computer. Therefore we do not advise this solution, but you are free to test and use this solution, but be aware that we do not guarantee the performance ! You are further advised to record the video at a LOWER frame-rate, like for example 10-15 frames/sec, which is normally more than enough, and (if necessary) also reduce the size of the recording video window.

Appendix A: Managing a computer network

A.1. Assigning an IP address

Open the properties of your Local Area Connection (Control Panel -> Network and Internet Connections -> Network Connections -> right click on Local Area Connection and choose Properties).

Open the TCP/IP properties by selecting "Internet Protocol (TCP/IP)" and clicking the Properties button.



If your computer is not connected to a bigger network, you can deselect "Obtain an IP address automatically". You then have to fill in an IP address you chosen yourself. Fill in a unique IP address for every computer (MacFinish and MFVideo ID).

Example: the IP addresses you use should come from one of these ranges (don't mix ranges).

X is a number from 1 to 255.

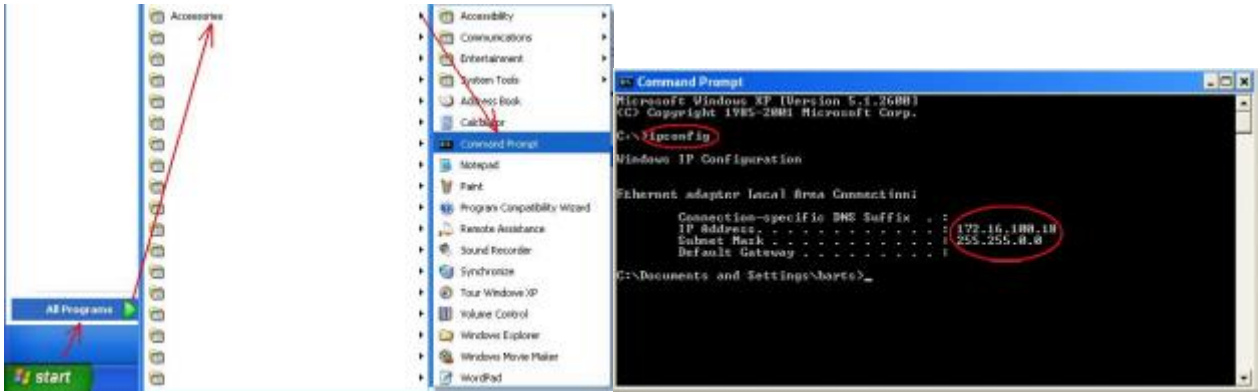
10.X.X.X (Subnet mask 255.0.0.0)

192.168.X. X (Subnet mask 255.255.0.0)

172.16.100. X (Subnet mask 255.255.255.0)

A.2. What is my IP address

The easiest way to get your IP address is to open a Command Prompt window and type in the command "ipconfig" followed by <enter>.



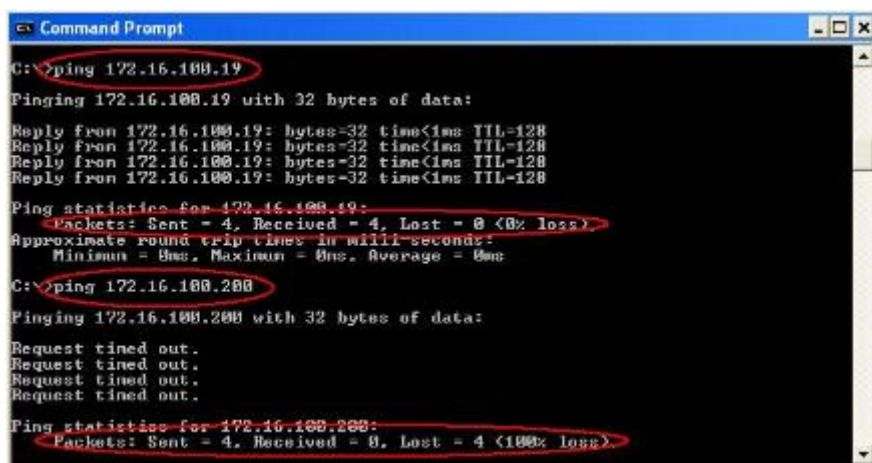
Note: when you want to use MacFinish and MFVideoID on the same computer, you can use the localhost IP address **127.0.0.1**.

A.3. Can I connect to the other computers

To see if you can connect to the other computers, you can “ping” to them.

Type in the Command Prompt window the command “ping + IP address of remote computer”.

In the picture below I checked to see if my computer was successfully connected to the computers with IP addresses 172.16.100.19 and 172.16.100.200. The first connection was OK (4 packets send, 4 packets received), the seconds one failed (Request timed out). If the “ping”-test does not work, this means that the communication can be blocked by your firewall or a virus-scanner (on one or both computers).



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