

WALL-E iD

Video identification software for IP cameras

User guide

1. Introduction

1.1 What is WALL-E iD ?

WALL-E iD is a non-commercial Windows software designed to turn any network « IP » camera into a video identification system for track and field events. Any network camera can be used with VideoID I, as long as you know the RTSP address. This address can generally be found in the user manual of your camera, or on the manufacturer website.

1.2 What kind of camera should I buy ?

It is strongly recommended to use a good quality branded camera, such as HIKVISION, BOSCH etc. The final result, the reliability and the overall performance of the video identification process will always be closely related to the quality of the device. It is not necessary to use a very expensive camera, though, as you can already find very good devices from 150€-170€, that would be more than sufficient for every kind of events.

1.3 Camera resolution

Best results are obtained with a full HD device (1920x1080). The higher the resolution, the more detailed the video will be, thus the more you will be able to zoom in to read the bib numbers on a snapshot. You should keep in mind, though, that a too high resolution may take too much time for the computer to encode the final video, which means you'll lost frames at the end of the recording. You'll also need a very good network connection to work with very high resolutions. Therefore, you should always carry several tests if you want to use a higher resolution than 1920x1080. This is also not recommended to go for a too high resolution when using CPL devices or WiFi.

1.4 Wide Dynamic Range (WDR)

You should use a device with a good WDR function. This will increase the readability of the video in high contrasts situation, such as a very bright and sunny day.

1.5 PoE or not PoE?

A PoE camera is powered thanks to the Ethernet cable. There is no need to add an external power supply. If there is a UTP (ethernet) cable running under or above the track from the timing room, the PoE injector can be put indoors, in the timing room. Otherwise, it can always be put outdoor, but beware that it is never IP rated against water, which means you'll then have to protect it from eventual rain (under a plastic box or in a junction box, for instance).

1.6 WiFi or Ethernet?

We do not recommend connecting a network camera through WiFi, except if the access point gives a very good and strong signal because this would greatly increase the risk of bad connexion, thus lost frames. Then, there may be a part of the recording (and, subsequently, athletes) missing. Using a wired connexion will always be the best solution.

1.7 Disclaimer

This software is distributed "as it is", and we would never be responsible of any problem that may occur while using it, even if it has been used properly. You would be kind to report any bug or suggestion to contact@liveathletics.be

2. Using the software

2.1 Setting the camera stream link

If you don't know the browsing RTSP link (rtsp://...), please read the documentation enclosed with your device, or contact the manufacturer. The link should be like :

```
rtsp://admin:password@192.168.0.5:5544/0.h264
```

WHERE :

admin	=	username to connect to the camera
password	=	password to connect to the camera
192.168.0.5	=	the ip address of the camera on your network

Again, please refer to the documentation of your device for further information.

Once you know the RTSP address, activate the “**live view**” tab and paste the link into the “**RTSP link OR file path**” field. If the link is correct and your camera is well connected to the network, you should now be able to watch the live stream of your camera by clicking on the **Open stream** button. If nothing appears, check again if the camera is connected to your network and if the parameters in the RTSP link are correct (ip address...).

WARNING : you can watch the live view if no recording is processing. Before starting a new recording, click on the **Close stream or stop** button FIRST!

2.2 Recording a new arrival

To start recording a new arrival, check first if the live streaming has been stopped.

Then, activate the “**Record and playback**” tab.

Recording an arrival – step by step:

1. Click on  **Record**
2. Specify a name for the race. When you are ready to start the recording, click OK.
→ We advise you to click on RECORD and specify the name of the race just after the start, without clicking OK just yet. Then, wait until the first athlete comes into the last straight line (100m) and click ok.
3. The first frame of the recording appears on the screen, confirming it has started.
4. When all the athletes have arrived, click on  **Stop recording**

TIP : if nothing appears after clicking OK (blank screen), this means that no stream has been found, thus no recording will be performed! If this happens, check the parameters once more.

2.3 Play back

You can easily and quickly playback a recording by double clicking on its name in the list at the bottom left part of the screen, next to the record button. The file starts playing automatically. You can interrupt the reading by clicking on **PAUSE**. The two last recordings are visible, but you can scroll down the list to recall older recordings.

2.4 Scrolling through the recording

When a recording is played, you can scroll through it very easily and precisely using the timeline slider, right under the video screen. Move the slider to the right to go forwards, or the the left to go backwards.

You can always increase or decrease the accuracy of the timeline slider by modifying the **scale**. 10 000 is set by default and should meet most of the cases. If you change the value, we advise you to use a multiple of 1000 (1000, 2000, 3000...).

TIP : if you are using a mouse, place the pointer onto the timeline slider and scroll the mouse wheel up and down to go backwards/forwards. Please note this shortcut works only if the pointer is located **ON** the timeline slider.

2.5 Deleting a recording

You can delete a recording by selecting it in the list and click on the bin button or press delete on the keyboard. You can select multiple recordings by holding the CTRL key or select all the recordings with the CTRL + A shortcut, like you would do in windows explorer.

NOTICE : this won't delete the video file from the drive (see 2.6).

2.6 Where are the files saved?

All the video files are saved into the "records" map located in the application directory.