IDCam

E22-01-20

Installation manual

Contents

1 How to use the help

This help offers extensive information on the functions of this software. You can search the entire list of help subjects, search the index, or search the help file for a word or a group of words.

Typographic conventions The following table describes the most important conventions that are used in the help function.

	Description
MENU > MENU COMMAND	Text written in this color indicates: ▪ A menu element and a menu command that you must click in succession. ▪ A list of options that is opened when you click on the down arrow.
Text	Information texts for the program are indicated with this font.
►	Action steps are indicated with this symbol. Execute the action steps in the specified sequence.
	Bullet points are indicated with this symbol.
Ⓐ	This symbol is used to reference a position in a figure or an area of a figure, from the text.

The help navigation area contains three tabs:

■ Contents

The book icons open when they are clicked and the sections and subjects contained are displayed. When navigating through help, you will see where you are immediately, and you will see other subjects that are relevant via the contents.

■ Index

Contains an alphabetical list of keywords. To find something in the index, either enter the desired keyword or use the scrolling function. When entering a keyword the program automatically takes you to the appropriate part of the index. Double click the desired keyword to display the associated help topics.

■ Search

You can search for every instance of a word or phrase in help.

2 Positioning and connecting the camera

In this section you will find information on the optimal positioning and the various connection possibilities of the Axis camera.

General safety instructions for setting up the camera:

ℹ️ **Danger of injury and damage!**

If the wrong set up location is selected for the camera, people can be injured or the camera can be damaged.

- Position the camera so that no one can run into or drive into the camera.
- Keep rescue routes free.
- Lay out the cables in such a manner that no one can stumble over them, and that the cabling cannot be damaged or separated.
- Lay out the cabling in such a manner that it is protected against moisture and damage, due to vehicles for example.
- Set up the camera in such a manner that it does not obstruct any spectator's view of the finish line.
- Protect the camera from moisture.

General instructions concerning the set up location of the camera:

After setting up the camera, prior to each competition, the focus for the camera must be adjusted for optimal recording. The optimal position for image capture depends on the type of sport and the on-site conditions.

► Set the zoom on the camera to "0".

► Position the camera so that an unobstructed view of the finish line is possible.

► Place a person with a free, non-used bib number in the middle of the finish line.

► Adjust the zoom and focus of the camera so that the complete finish line and the bib number are optimally in the camera image.

► Take a picture with the F9 key and check the pictures taken for good identifiability of the finish line and the bib number.

► If necessary optimize the camera settings and position until the finish line and the bib number are clearly identifiable.

Example of camera positioning:
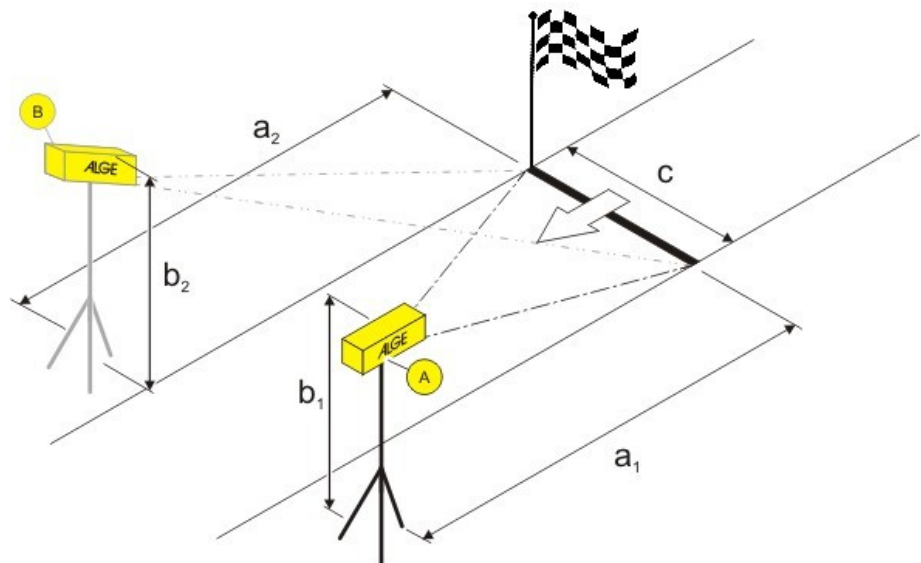
	Description
A, B	Camera 1, camera 2 is optional and depends on the competition.
a1, a2	Distance of the camera to the finish line.
b1, b2	Height of the camera.
c	Width of the finish line.

Sample data for positioning: This sample data is comprised of proven values based on practical experience that serve as a reference. Adjust the distances to your on-site conditions.

Type of competition	C	A1	B1	A2	B2
Mountain bike	4-6 m	5-7 m	1.7 m	-	-
If a lot of traffic is expected at the destination, use two cameras as an option.	8-12 m	7-10 m	1.2-1.7 m	7-10 m	1.5-2 m
Running event	4-6 m	5-7 m	1-1.2 m	-	-
	8-12 m	7-10 m	1-1.7 m	7-10 m	1-1.7 m

Example for the use of IDCam and a timer: The designations in the Fig. indicate the respective components or cable designation.

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2.1 Power supply (PoE)

The Axis camera is supplied via a PoE switched-mode power supply. PoE (Power over Ethernet) offers the advantage that the camera is supplied with power via the network cable and cabling is simplified.

Overview:

	Description
(A)	Network connection: ■ Input voltage 100 to 240 VAC; 50-60 Hz; 0.4 A
(B)	Display ERR: ■ Is illuminated red if an overload or short circuit has occurred. The switched-mode power supply automatically attempts to establish the supply to the consumer as soon as the error has been corrected.
(C)	Display ACT: ■ Is illuminated green when the switched-mode power supply unit is supplied with power. ■ Flashes green when a consumer is connected to the switched-mode power supply. ■ Is not illuminated if a consumer is not connected or if the consumer has power consumption of less than 1 W.
(D)	Network connection POWER+DATA OUT: ■ Connection to the camera.
(E)	Display LNK: ■ Is illuminated green when a network connection is established.
(F)	Network connection DATA IN: ■ Connection to the network or computer.

**Connect the camera to the
power supply:**

Danger due to electric shock!

Improper connection of the switched-mode power supply
and the cabling can cause electric shock.

► Protect switched power supply and cabling from moisture.

► Only use cables that are undamaged and in faultless condition.

► Disconnect the supply of the switched power supply unit be-
fore connecting a consumer.

► Connect Axis camera to the POWER+DATA OUT network connection via a
patch network cable or crossover cable.

► Connect the PoE switched power supply to the network, see *Connect-
ing an Axis camera to a computer/network*.

► Connect the power supply to the power supply unit.

2.2 Mounting the weather protection housing

Overview:
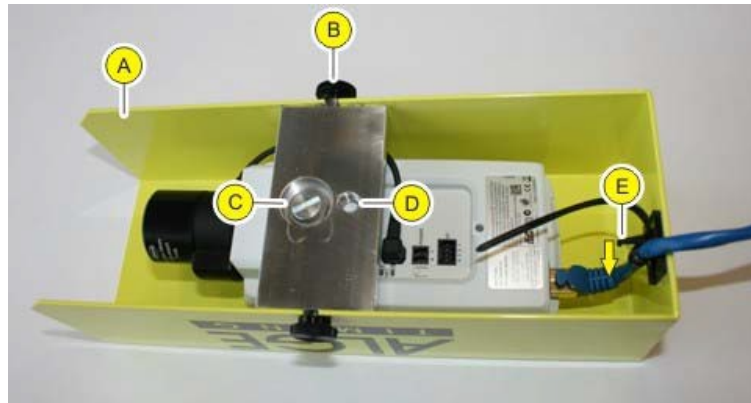
	Description
(A)	Aluminum weather protection housing.
(B)	Knurled screws for fastening the weather protection housing on the mounting plate.
(C)	Mounting plate: Use this bore for implementation with ball joint (item number 484). Keep screws and washers on hand for future use.
(D)	Mounting plate: 3/8" 16 turn UNC thread for standard tripods.
(E)	Reusable cable ties with unlock mechanism for strain relief of the network cable.

How to mount the weather protection housing:

► Unscrew the knurled screws and remove the weather protection housing from the mounting plate.

► If you are using a standard tripod:
Fit the screw with washers through bore **D** of the mounting plate and screw it to the camera.

Example assembly with geared head:

► If you are using the ball joint:
   Fit the thread of the ball joint through bore **C** of the mounting plate and by turning, fasten it to the camera.

Example assembly with ball joint:

► Guide the network cable through cable ties into the weather protection housing and connect it to the camera.

► Fasten the weather protection housing on the mounting plate:
   Tighten the knurled screws by hand.

► Is the network connector connected to the camera without diagonal pull?
   Tighten the reusable cable ties.

► Detach the reusable cable ties:
   Keep the unlock mechanism depressed in the arrow direction and slide the tab back.

► Fasten the camera together with the weather protection housing on the tripod.

How to dismount the weather protection housing

ℹ The weather protection housing is dismounted in the reverse sequence of the process described for mounting.

## 2.3 Connecting an Axis camera to a computer/network

There are two possibilities for connecting the Axis camera to the computer:

- Direct connection, Axis camera - computer, with a patch network cable.
- Connection, Axis camera - computer, via an existing network. Use this possibility if you want to connect more than one Axis camera, or if you have an existing network.

The network settings shown in the overviews are sample data that shows a functioning IP address configuration. Adapt the settings to your on-site requirements as needed.

► Draw up a similar overview for assignment of the network settings.

► Enter your own settings in the overview.

How to connect the Axis camera directly to the computer:
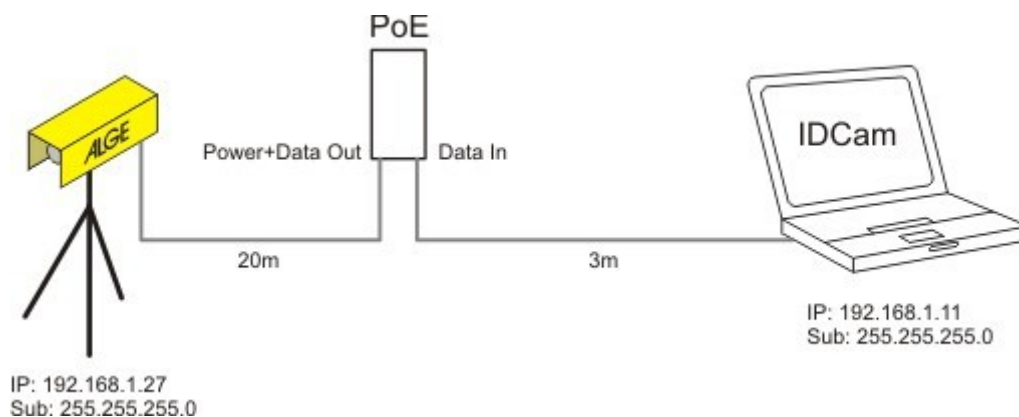
How to connect one or more Axis cameras via an existing network:
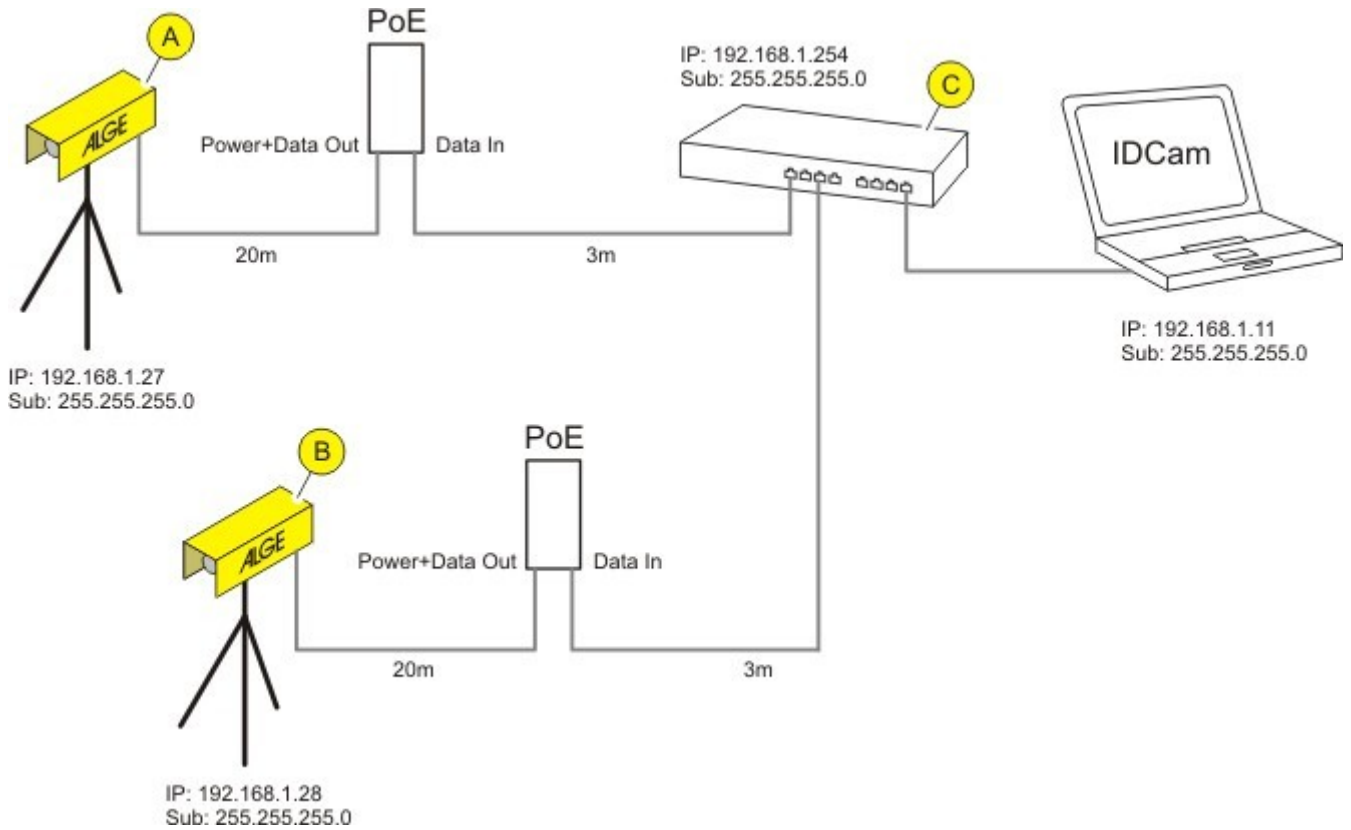
	Description
Ⓐ	Camera 1
Ⓑ	Camera 2, optional.
Ⓒ	Switch or existing network.
	IP...IP address Sub... Subnet mask

2.4 Setting the IP address on the computer

On this page you will find information on how you can set or change the IP address of the computer.

In most networks, a so-called DHCP server is integrated that automatically assigns an IP address to the devices in the network, and thus enables communication between the devices.
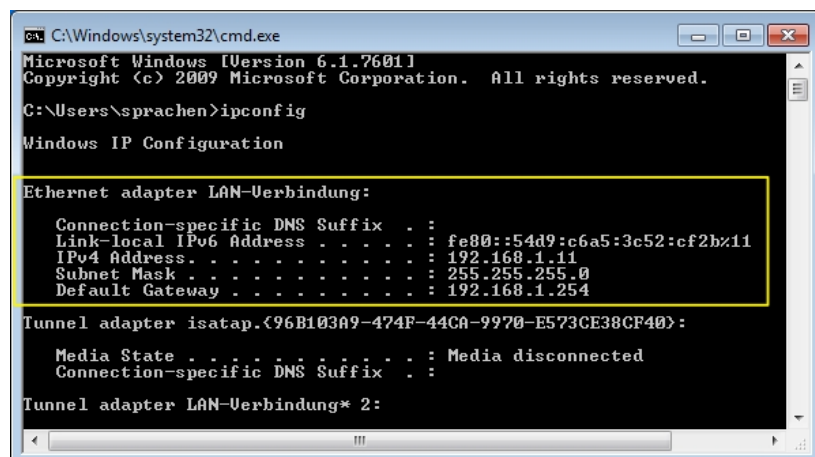
To use IDCam the computer requires a static IP address.

How to find out the IP address of the computer:

Use the DOS command, **ipconfig**, to find out whether the computer has an IP address, and if so what it is.

► Press the key combination, WINDOWS KEY + R, and enter **cmd** in the input field and confirm with OK.

► The command line window will open.

► Enter the **ipconfig** command in the command line window and confirm with the Enter key.

In the display, under Ethernet adapter LAN connection, you will find the current IP address, subnet mask and standard gateway of the computer.

► Note the data of the IP address and the subnet mask for the subsequent configuration.

How to set the IP address of the computer:

► In Windows, click START > CONTROL PANEL > NETWORK AND INTERNET > NETWORK AND SHARING CENTER.

► Click through the individual windows in the sequence shown in the Fig. below.

► In the LAN connection window, select the entry, Internet Protocol Version 4 (TCP/IPv4).
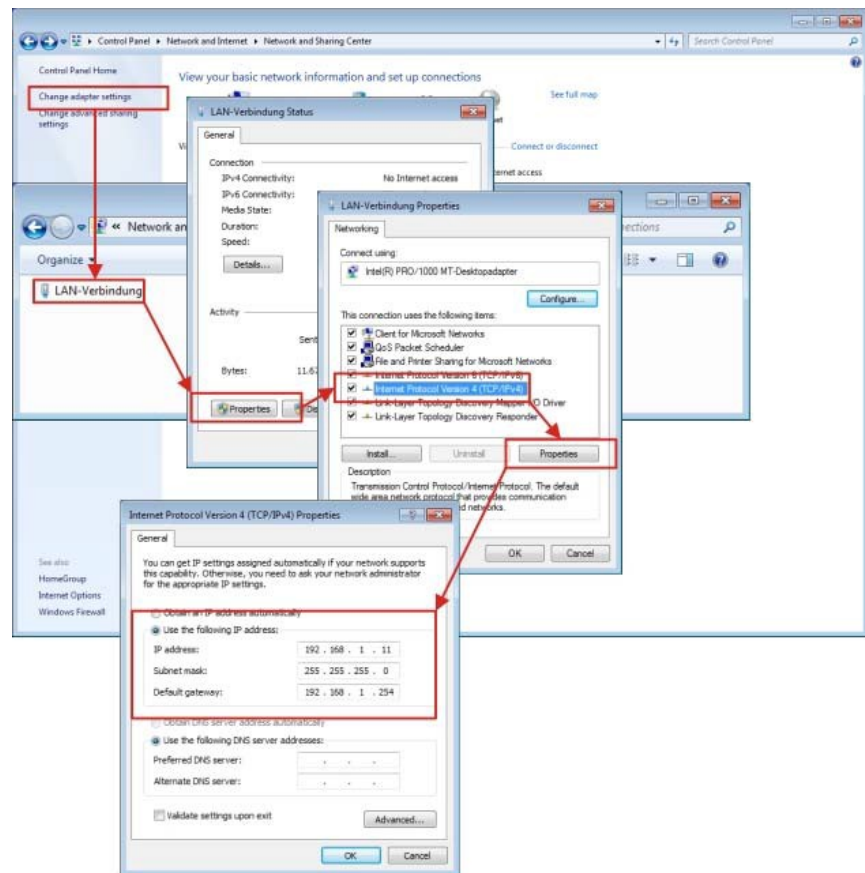
► In the fields, enter the IP address, subnet mask, and standard gateway.

► Confirm the entry with OK.

► Close the window with OK/CLOSE.

Now the computer has a static IP address.

2.5 Changing the IP address of the Axis network camera via web interface

ℹ AOn this page you will find information on how to set or change the IP address of the camera.

In most networks, a so-called DHCP server is integrated that automatically assigns an IP address to the devices connected in the network and thus enables communication between the devices.
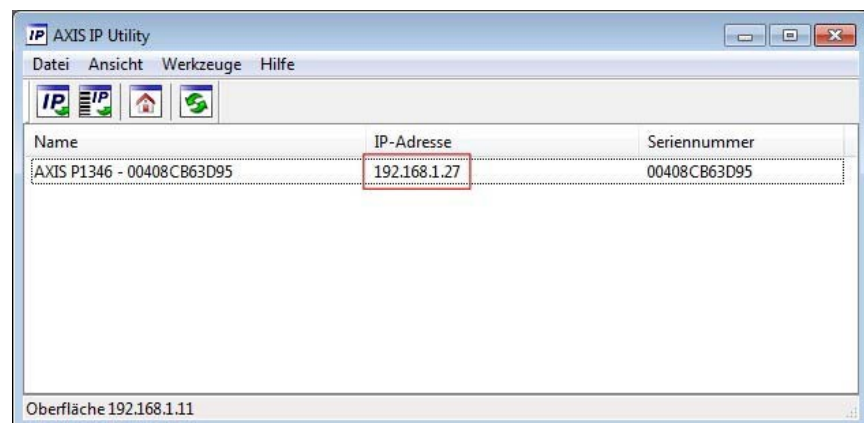
The Axis network camera requires a static IP address for use with IDCam.

Ensure that the following prerequisites are satisfied:

▪ The camera must be connected to the network and the power supply.

How to determine the IP address of the Axis network camera:

► Click **?** > **AXIS IP UTILITY.**

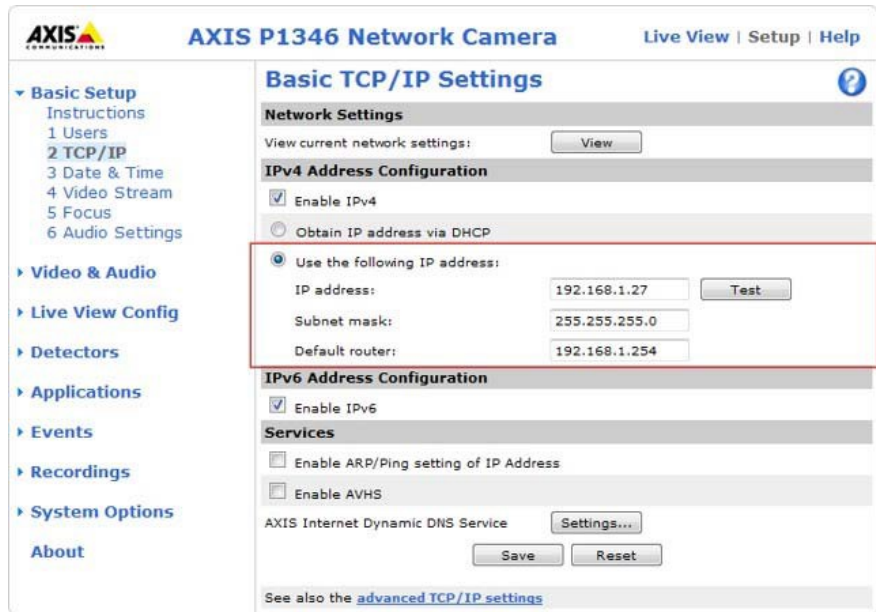The AXIS IP Utility program window will open. You will find the IP address in the marked area.

ℹ Ensure that this IP address is entered in the IP address field under IDCam and camera settings.

How to change the IP address via the web interface:

► In the web interface, click BASIC SETUP > 2 TCP/IP.

► Select a free IP address in the same network segment in which the computer is connected.

► Enter the **IP address, subnet mask** and **standard gateway** in the fields.

► Check the IP address for use:
Click the TEST button.

If the IP address is still free, this message will be displayed:

If the IP address is already in use by a different device, this message will be displayed:
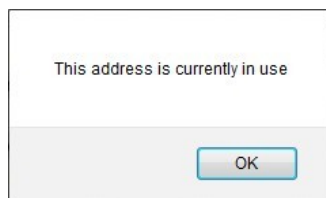
► If the test result shows a used IP address:
Enter a different IP address and repeat the test.

► Click SAVE to save the changes.

Ensure that this IP address is entered in the IP Address field under IDCam and camera settings.

2.6 Setting the IP address of the Axis network camera with AXIS IP Utility

ℹ️ On this page you will find information on how you can set or change the IP address of the camera.

In most networks a so-called DHCP server is integrated that automatically assigns an IP address to the devices connected in the network and thus enables communication between the devices.

The Axis network camera requires a static IP address for use with IDCam.

How to set the IP address with the AXIS IP utility:

ℹ️ Use the AXIS IP utility for the initial setting of the IP address, after the Axis network camera has been reset to delivery status. If the camera already has an IP address, and if you want to change this address, then simply change the IP address via the camera's web interface.

Overview - AXIS IP Utility:
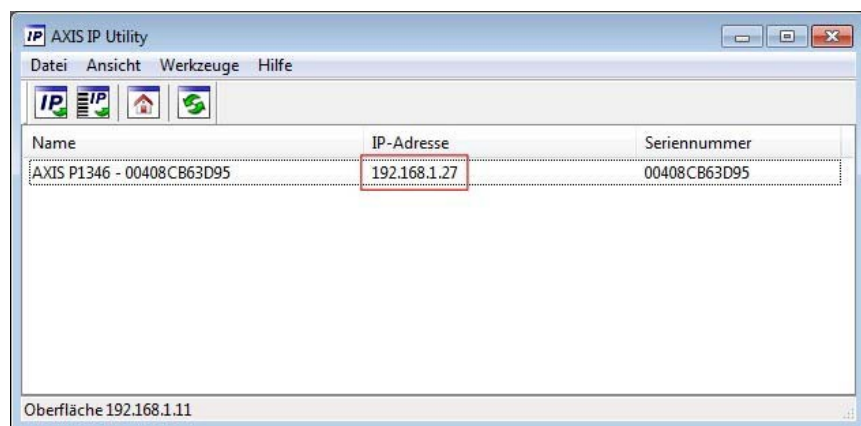
|	Description
IP	**ASSIGN IP ADDRESS:** Assigns a new IP address to the selected device.
≡IP	**ASSIGN IP ADDRESS SERIAL NUMBER:** Assigns a new IP address to the selected device using the serial number.
🏠	**HOME PAGE:** Opens the home page of the selected device in the web browser.
🔄	**UPDATE:** Reads out the camera information again.

ℹ️ After starting the AXIS IP utility, the program automatically searches for AXIS network cameras in the network and shows existing camera in the window.

How to change the IP address of the camera:

Ensure that the following prerequisites are satisfied:

▪ Camera must be connected to the network and the power supply.

▪ The computer on which AXIS IP Utility is executed and the camera must be connected in the same network.

► Select a free IP address in the same network segment, in which the computer is connected.

► Select a camera in the list:
Select the desired camera per mouse click.

► The selection will be highlighted in blue.

► Assign an IP address:

► Click the button ASSIGN IP ADDRESS.

► Alternatively, right click the highlighted selection and select ASSIGNMENT OF THE IP ADDRESS….

The Assignment of the IP address window will open.
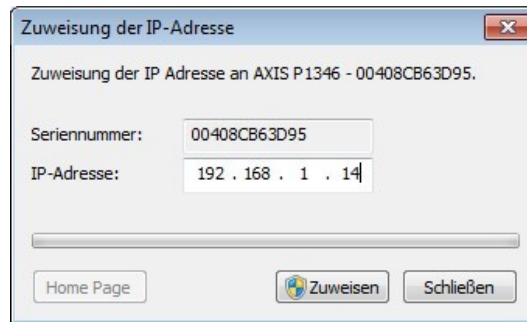
► In the **IP ADDRESS** field, enter the free IP address and confirm the entry with **ASSIGN**.

► End assignment of the IP address without changes:
Click **CLOSE**.

An information window will open.
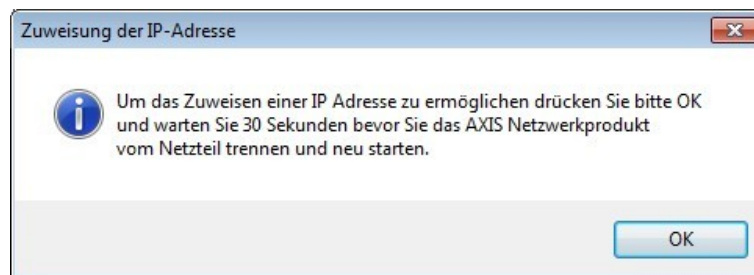
► Confirm with **OK** and wait for 30 seconds.

► Briefly disconnect the power supply to the camera and then reconnect the power supply to the camera.

> **i** The IP address will be saved in the camera. This process can take up to 10 minutes.

If the IP address has been successfully saved in the camera, the following message will be displayed.
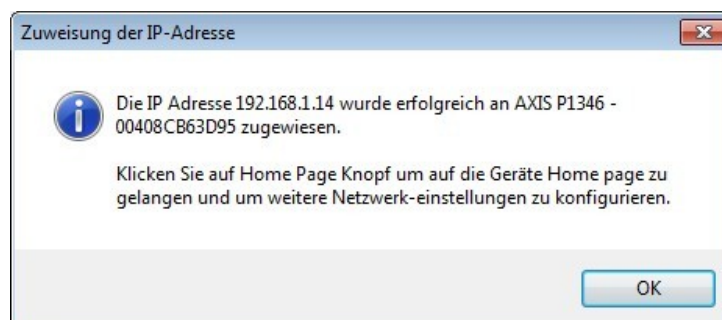
► Close the window with **OK**.

The IP address cannot be changed?

When changing the IP address, after the time elapses, this message will be displayed:

Zuweisung der IP-Adresse

Konnte die IP-Adresse 192.168.1.14 nicht 00408CB63D95 zuweisen.

OK
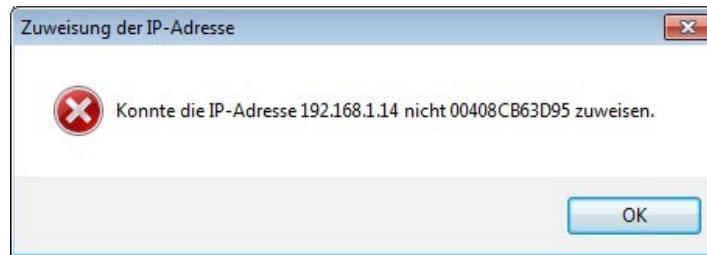
The action steps and the temporal sequence have not been complied with.

► Perform the action steps again, in the described sequence.

The IP address is already assigned in the network for a different device.

► Look for a new IP address for the camera.

► Re-execute the action steps in the described sequence.

3   Axis network camera extended settings

> ℹ On these pages we would like to inform you of very particular camera settings. These settings have been proven in practice and should give you a starting point for sport-type dependent fine tuning.
>
> All the settings are completely described in the documentation provided with the Axis network camera.

Steps that must be executed one time after resetting the camera to delivery status:

> ℹ If you have reset the camera to the factory settings, you must execute the following steps one time. Skip this section if the camera has not been set to delivery status..

▶ Right click in the camera preview and select EXTENDED SETTINGS....

▶ Enter a password in the PASSWORD and CONFIRM PASSWORD fields, e.g. **system**.

> ℹ This password must be identical to the password in the PASSWORD field under IDCam and camera Settings. If the access data varies, IDCam cannot establish a connection to the camera and cannot record any images.
>
> Note the password and the IP address and keep them in a safe place that is known only to you - you will need the user data and the IP address for the subsequent configuration.

► Confirm the entry with OK.

► Enter the USER NAME and PASSWORD in the fields.

► Confirm the entry with OK.

► In the CAPTURE MODE pull-down menu, select the highest resolution.

> Detection of image details - i.e. a high resolution - is more important for detection of bib numbers/participants than is a high frame rate.
>
> If a sport type requires a higher frame rate, them by selecting a lower resolution a higher frame rate can be achieved. The camera can supply a maximum of 30 frames/s.
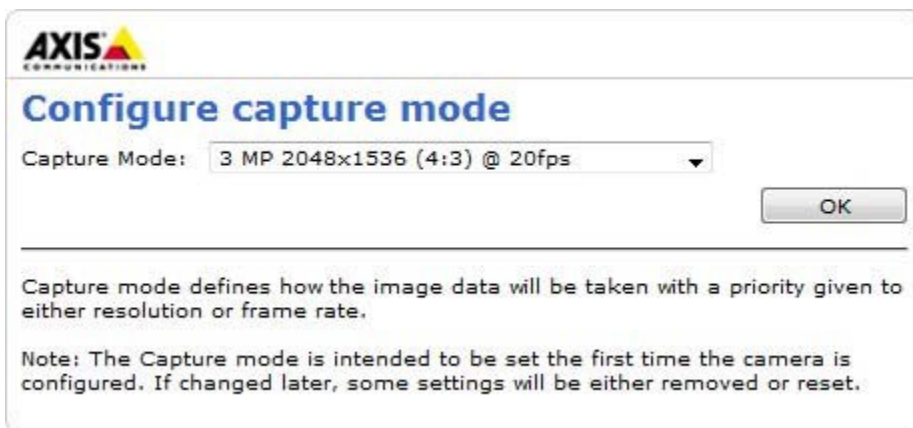
► Confirm the entry with OK.

The basic settings will be saved in the camera. After the save process the camera image will be saved in the web browser.

Now you can make the additional adaptations to the requirements of the competition, see *Axis network camera extended settings*.

How to go to the extended settings:

► In the CAMERA PREVIEW right click and select EXTENDED SETTINGS....

The Internet browser will open the web interface of the camera.
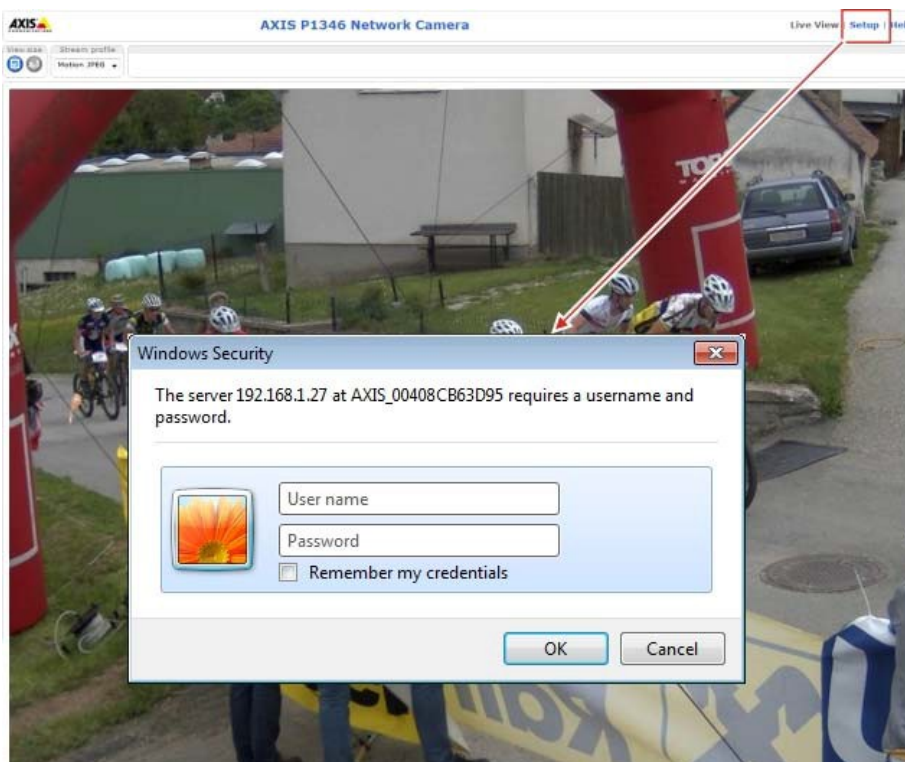
► Click SETUP and enter the user name and password.

► Confirm the entry with OK.

The web interface with the extended settings of the Axis network camera will be displayed.

In the extended settings save all changes with SAVE.
Closing the web interface without prior SAVE, discards any changes made in the settings.

3.1 Resetting the camera settings, restarting the camera

i The Axis network camera offers various maintenance functions that can be executed as needed.

Overview:
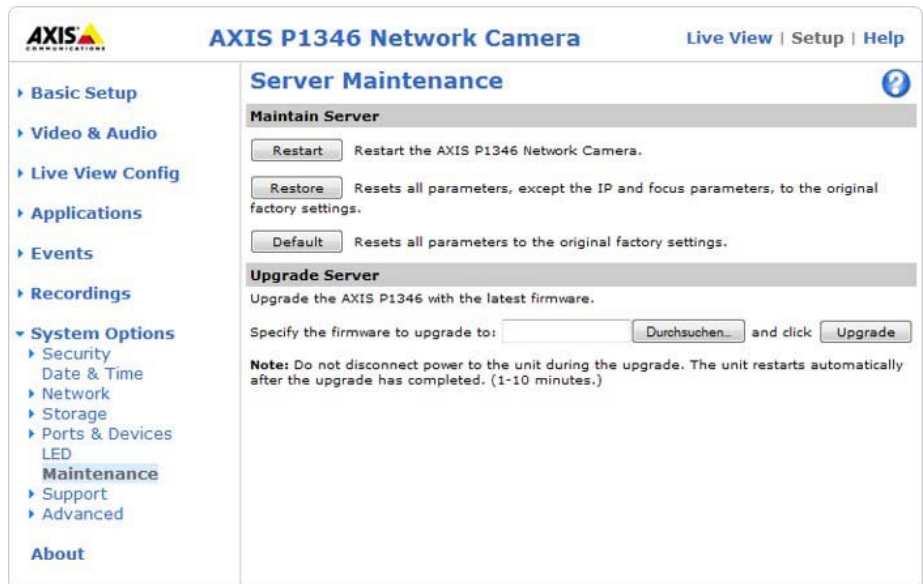
	Description
RESTART	The RESTART function restarts the camera without changing the camera settings. ► Use this function if you want to restart the camera without changing the settings.

	Description
RESTORE	The RESTORE function resets most of the camera settings to the values set in the factory. The following settings remain stored: ■ Focus settings ■ Boot protocol (DHCP or static) ■ Static IP address ■ Standard router ■ Subnet mask ■ Language of the product interface ■ System time ■ 802.1x - settings ► Use this function if you want to reset the camera to the values set in the factory.
DEFAULT	The DEFAULT function resets **ALL** camera settings to the values set in the factory. All settings, such as IP address, password, focus, etc. must then be reconfigured and set again. The control key on the underside of the camera has the same effect as the DEFAULT function. ► Use this function if you are connecting a new camera to IDCam or if the access data to the camera is unknown.

How to reset the camera to delivery status without web interface:

► Disconnect the camera from the power supply.

► Press the control key on the underside of the camera and keep it depressed.

► Connect the camera to the power supply.

► When the status display on the top side is illuminated yellow (this can take up to 15 seconds):
Release the control key.

The camera has now been reset to the values set in the factory.

► Before the next use of the camera, execute the action steps as described under Steps to be executed once after resetting the camera to the delivery status.

3.3 Setting image resolution, image rotation

Overview:

How to adjust the resolution:

> **i** Always select the highest possible image resolution so that the bib numbers can be easily identified. High image resolution is more important than a high frame rate!

► Click BASIC SETUP > 4 VIDEO STREAM.

► In the RESOLUTION pull-down menu select the required value.

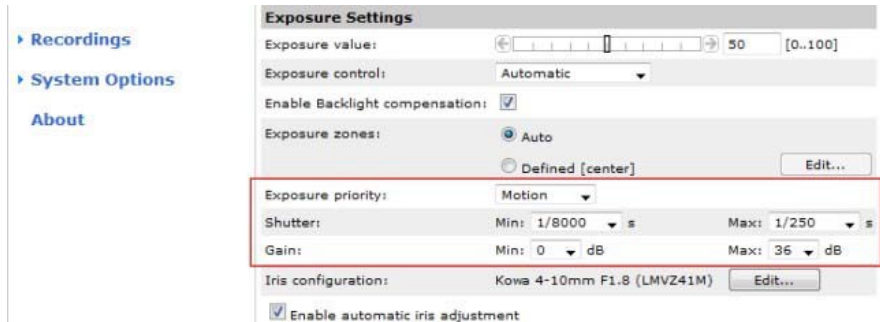The camera image will be saved in this resolution.

How to set the image rotation:

> **i** You set the image rotation if you must fasten the camera upside down or on the side.

► Click BASIC SETUP > 4 VIDEO STREAM.

► In the ROTATE IMAGE pull-down menu, select the value 180 if the camera is fastened to a tripod.

The camera image will be rotated by this value.

3.4 Adjusting the shutter, gain

Overview:

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i The values listed for the settings are optimal for most applications. You can adapt the values appropriately if the light conditions are poor (twilight, clouds) or if the sport type requires an adaptation.

How to set the shutter:

i With the shutter you influence the shutter speed of the camera and thus the motion sharpness and brightness in the recorded image.

Setting instructions:

- The faster the shutter speed that is set the sharper the motion in the image will be and the darker the image will be.

- The slower the shutter speed that is set, the more blurry the motion in the image will be and the lighter the image will be.

► Click VIDEO & AUDIO > CAMERA SETTINGS.

► If, in the EXPOSURE PRIORITY field a value other than MOTION is set:
Change the value to MOTION and confirm with SAVE.

   The setting possibilities for Shutter min/max will be displayed.

► In the SHUTTER > MIN: pull-down menu select the required value.
Default value: 1/8000 s.

► In the SHUTTER > MAX: pull-down menu, select the required value.
Default value: 1/250 s.

How to set the gain: **Setting instructions:**

- ▪ If you set the gain too high, in poor light conditions the pixel noise can trigger the motion detection of IDCam - undesired images will be record-ed.

- ▪ In strong sunlight or if there are strong reflections due to snow/water surfaces, gain should be reduced because the image will be too bright/overexposed and details will be difficult to identify.

- ▪ If too little light is available, the Axis network camera will automatically switch over to B/W operation.

► Click VIDEO > CAMERA SETTINGS.

► In the GAIN > MIN: pull-down menu select the required value.
Default value: 0 dB.

► In the GAIN > MAX: pull-down menu select the required value.
Default value: 36 dB.

Tip:
The optional weather protection housing (WP-IDCam) offers protection from weather influences, and if there is strong sunlight/light reflections it reduces the backlighting influences on the camera.

3.5 Adjusting the focus with the focus wizard

ℹ️ When movements in front of the camera cannot be avoided, the focus wizard should not be used.

Overview:
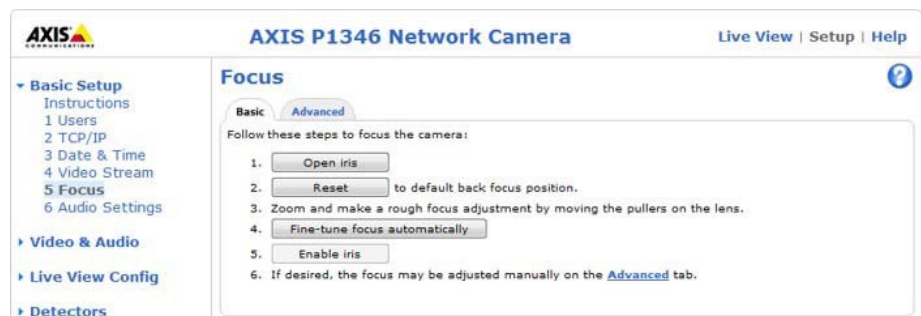
How to adjust the focus/zoom with the focus wizard:

► Right click in the Camera preview and select EXTENDED SETTINGS....

The start page of the camera will open in the web browser.

► In the web browser click SETUP > BASIC SETUP > FOCUS.

ℹ️ For proper focus the aperture should always be completely open when focusing.

► In the BASIC tab, click OPEN IRIS.

► If this button is deactivated (grayed-out) then the iris is already deactivated.

► If the focus has already been set beforehand:
Click RESET.

► Set up the camera in such a manner that it can no longer be moved.

► Unscrew the zoom control and focus control:
Turn the screw counterclockwise.

► Adjust the zoom as required.

► Fix the zoom control in place:
Turn the screw clockwise.

► Set the camera for the most distant remote focus position:
Turn the lens completely clockwise.

i When focusing the camera, the view in front of the camera should not change. If the camera is moved or if a finger or object is placed in front of the lens, the adjustment procedure must be repeated, starting with this action step. The person who adjusts the lens must be behind or at the side of the camera.

► Briefly press the control key of the camera.

The status LED will start to flash green.

► Slowly turn the lens counterclockwise until the status LED is again flashing green.

Meaning of the colors during the adjustment:

▪ Red:
Focus is inadequately adjusted.

▪ Yellow:
Focus not optimally adjusted.

▪ Green:
Focus is optimally adjusted.

► End the focus wizard:
Briefly press the control key on the camera.

i The focus wizard will end automatically after 15 minutes elapse.

► Fix the focus regulator in place:
Turn the screw clockwise.

► In the web browser, check the image quality in the Live view.

► Click FINE-TUNE FOCUS AUTOMATICALLY.

Automatic fine-tune focus will start automatically.

► Wait until the fine-tuning is concluded.

► Click ENABLE IRIS.

If this button is deactivated (grayed-out) the iris is already activated.
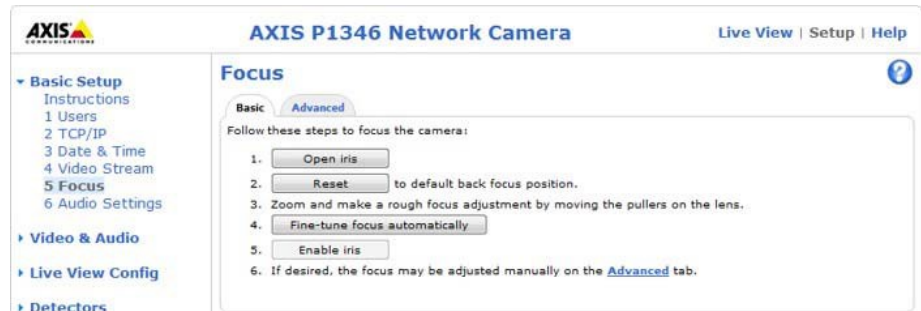
Focusing is now concluded.

3.6   Adjusting focus/zoom manually

i   If the camera is mounted so that simultaneous control of image sharpness on the monitor and adjustment of the lens is not possible, then use the focus wizard for focusing, see *Adjusting the focus with the focus wizard*.

Overview:

How to adjust the focus/zoom:

► Right click in the Camera preview and select EXTENDED SETTINGS....

The start page of the camera will open in the web browser.

► In the web browser click SETUP > BASIC SETUP > FOCUS.

i   For proper focusing, the iris should always be completely open when focusing.

► In the BASIC tab click OPEN IRIS.

If this button is deactivated (grayed-out) the iris is already deactivated.

► If the focus has already been set beforehand:
Click RESET.

► Unscrew the zoom control and focus control:
Turn the screws counter clockwise.

► Position a person with a free, non-used bib number in the middle of the finish line.

i   Adjust the image sharpness as precisely as possible using the sharpness control or the focus wizard, before starting the fine tuning. As a rule, the sharpness control provides the best results.

► Adjust **zoom** and **focus** so that the **complete finish line** and the **bib number** are shown in **sharp focus in the image window**.

► Fixing the zoom control and focus control in place:
Turn the screws clockwise.

► Click FINE-TUNE FOCUS AUTOMATICALLY.

The automatic fine tune focus will start.

► Wait until the fine tuning is concluded.

► Click ENABLE IRIS.

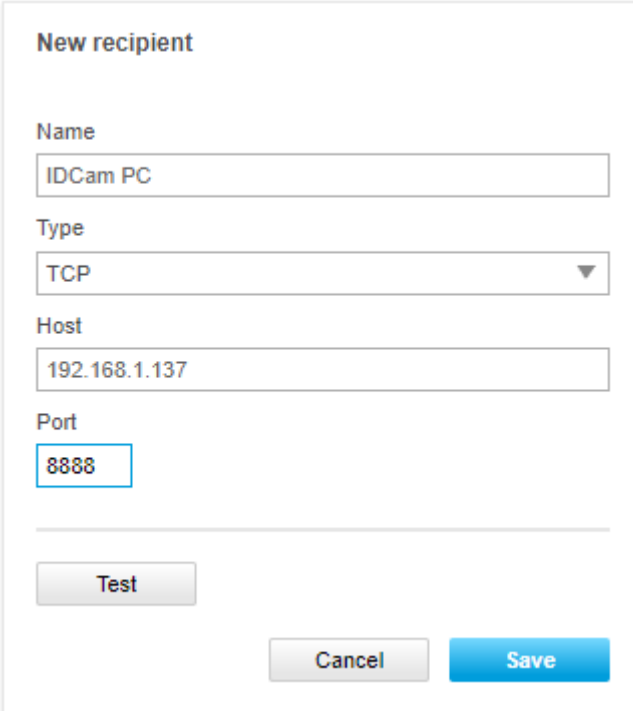If this button is deactivated (grayed-out) the iris is already activated.

Focusing is now concluded.

IDCam_v1.0.4371_Installation_en-US.docx

4   How to setup the Camera motion detection:

In the IDCam software make a right-click to the preview window and choose "advanced settings".
This will open a browser window with the IP Address of your camera. Enter as username "root"' and the password of your camera to login.
Then open settings in the corner right down.

Go to "System" and click to "Events".
Click to "Recipients", then to "+" to add the receiver.
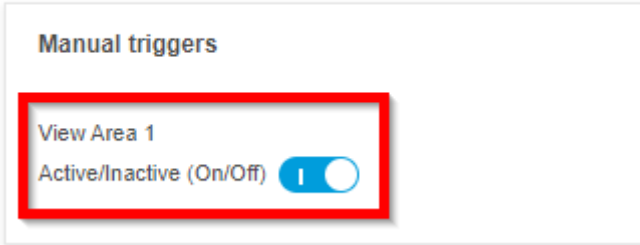
Type must be "TCP". In the host field, enter the IP Address of your IDCam PC. Use "8888" as the port.

Under "Rules" click to "+" to add a new rule
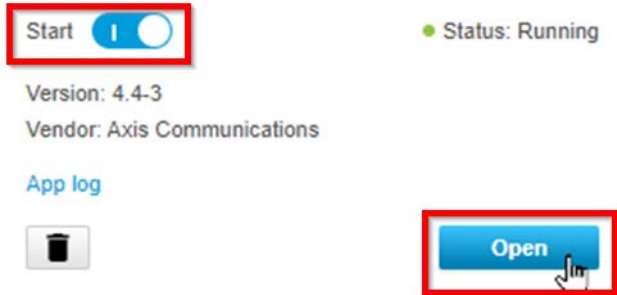

As message, enter "RECORD|ONCE".

Go to "Apps" and click to "Axis Video Motion Detection".
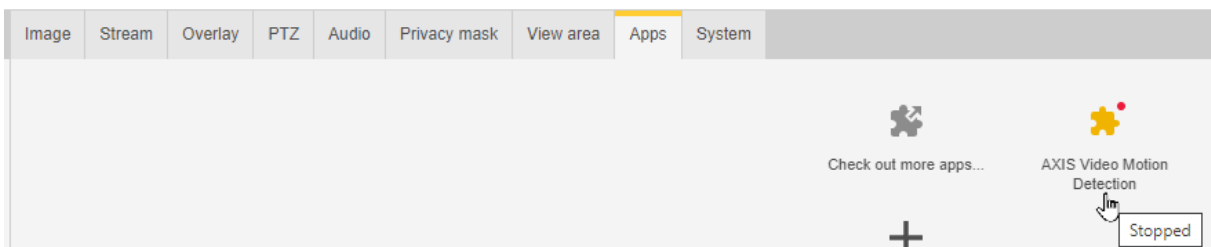
Switch the App on and click "open".

Start ☑

Status: Running

Version: 4.4-3
Vendor: Axis Communications
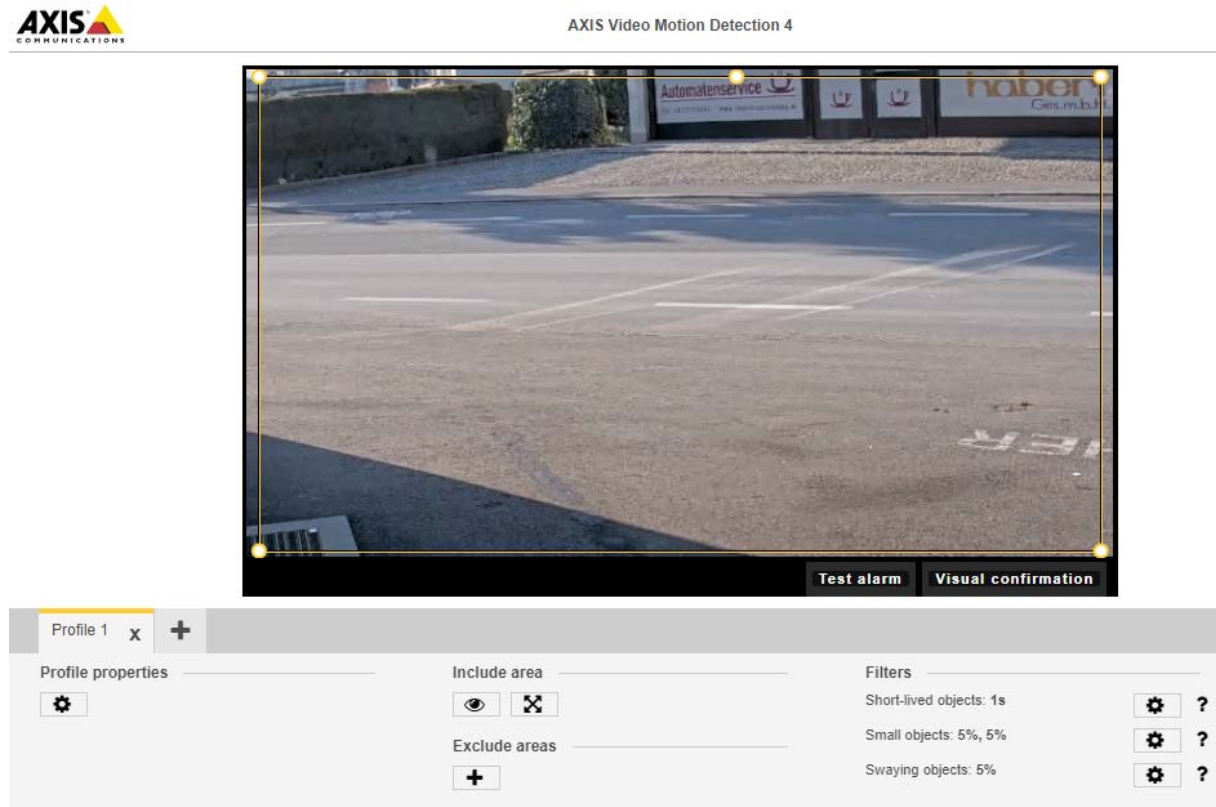
App log

🗑 Open

That will open a new browser-tab where you can setup the detection area and some other detection settings.

When you click to "Test alarm" the IDCam software should record once.

AXIS Video Motion Detection 4

Test alarm   Visual confirmation

Profile 1 x +

Profile properties
⚙

Include area
👁 ✕

Exclude areas
+

Filters
Short-lived objects: 1s   ⚙ ?
Small objects: 5%, 5%   ⚙ ?
Swaying objects: 5%   ⚙ ?

The pre- and post record time you can setup in the IDCam software under "IDCam settings".