



ANPR IP cameras

RY Series - Version with LCD monitor



Installation manual

How to install the camera How to connect to the network



Contents of the manual

The range of RY series cameras is a range of IP POE cameras for legible registration of license plates. These cameras are designed to allow the recording of license plates of vehicles in slow or fast motion, up to 180 km / h. They can operate in any light condition thanks to the built-in IR illuminators and special glare suppression systems.

This manual explains how to connect the camera, how to make basic adjustments and how to configure the parameters for network connection.

ATTENTION - This manual refers to RY cameras with internal monitor for configuration. For older models refer to the relevant manuals.



Installation

CONNECTIONS

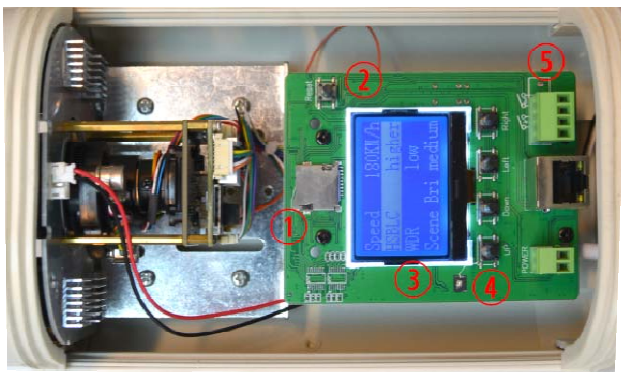
All RY series cameras they have 2 connectors: a mains socket and a 12VDC power plug



12VDC NETWORK

- RJ45 NETWORK PORT - RJ45 FEMALE connector to connect the LAN network. This connector connects to the network, for example to a port on a switch or router, using a straight-through network cable. The camera supports POE power so if your switch supplies POE power, the camera will receive power along the network cable and requires no other connections.
- 12VDC - Plug to connect a 220VAC / 12VDC power supply (not included). This plug is used if you connect the camera to a network switch that does not supply POE power. If, on the other hand, the camera receives POE power from the network cable, this connector will be unused.

INTERNAL BOARD



- 1 - MicroSD card slot for local recording
- 2 - Reset button
- 3 - LCD monitor
- 4 - Push-button panel
- 5 - Alarm relay output OUT

MOUNTING THE CAMERA

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The cameras are equipped with a bracket for wall mounting made to allow the passage of cables inside it. The bracket is usually mounted at the cable exit. The fixing base has 4 holes for wall fixing with plugs. The case is watertight and can be installed outdoors without protection.

POSITIONING THE CAMERA

The positioning of the camera is very important for a good performance of the license plate reading.

The optimal recording of the license plate is carried out at a maximum distance of 30 m. depending on the lens setting. The first thing to check is therefore that the distance as the crow flies (not walkable on the ground) between the camera and the point where the vehicle will be does not exceed this distance, otherwise the LED lighting will not be effective.

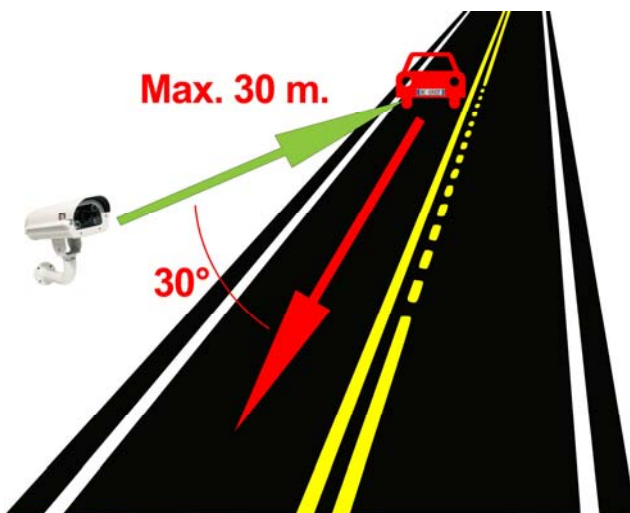
The second thing to consider is to position the camera so that the light from the headlights is not directed directly at the camera.

The optimal angle with respect to the direction of travel of the vehicles is about 15° in the horizontal plane and about 30° in the vertical plane.

It is advisable to install the camera in a raised position with respect to the road surface: the best results can be obtained from 3 to 8 meters.

Having satisfied the 3 previous points, when orienting the camera, it is necessary to ensure that the license plate remains in the camera's field of vision for as long as possible.

The best reading is achieved by framing a single lane, however it is possible to shoot up to 3 lanes with a satisfactory reading. The camera works indifferently by framing the rear or front license plates.



BRIGHTNESS SENSOR

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The camera is equipped with a CDS sensor that allows to detect the ambient brightness and is placed on the back of the camera to avoid incorrect detections due to car headlights. The sensor is located in the rear cable gland of the housing.

It is absolutely necessary to avoid that light sources distort the detection of this sensor, because in this case the camera will not work correctly at night. Above all, it is necessary to avoid the presence of lighting headlights in the vicinity of the camera that would prevent the LEDs from turning on.

For proper operation, make sure that the front LEDs of the camera light up at night.



Network configuration

After connecting the camera to the network and supplying power via POE or external power supply, it is necessary to configure the network parameters in order to make the cameras accessible from a computer. The cameras are supplied with factory address 192.168.1.109

User name: admin

Password: admin

SEARCHTOOL SOFTWARE

To assign the correct IP address to the camera, use the SEARCHTOOL configuration software which can be downloaded from our website in the SOFTWARE | IP CAMERAS | RY SERIES. The function of this software is to detect the presence of the camera on the network, whatever its address, and to allow the camera address to be changed in order to be consistent with the local network. In fact, remember that for the camera to be visible to the other PCs on the network, the first 3 parts of the IP address must be the same as the other PCs on the network and the subnet mask must also be the same. It is advisable to connect one camera to the network at a time and insert new ones only after having configured the previous ones.

PRELIMINARY CHECKS

Before proceeding, you need to get some information from your network administrator about the IP address management used in your network. It is necessary to know an IP address that can be assigned to the camera that is not the same as any other device already present on the network. If you are unsure about how your network works, you can use some commands in the DOS PROMPT.

On a networked PC, launch a DOS window available in the windows accessory programs. Type IPCONFIG at the command prompt and press ENTER. The TCP / IP parameters will appear. The second line is the IP address assigned to your computer.

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```

C:\ Prompt dei comandi
Microsoft Windows XP [Versione 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\DSE>ipconfig

Configurazione IP di Windows

Scheda Ethernet Connessione alla rete locale (LAN):

    Suffisso DNS specifico per connessione: fastwebnet.it
    Indirizzo IP. . . . . : 192.168.2.3
    Subnet mask . . . . . : 255.255.255.0
    Gateway predefinito . . . . . : 192.168.2.1
C:\Documents and Settings\DSE>_

```

In the example above, the address of the PC you are working on is 192.168.2.3 and the subnet mask used is the classic 255.255.255.0. You can therefore assign an address of your choice to the camera, such as 192.168.2.XXX, where XXX stands for a number between 0 and 255.

It is important to choose an address that is not already used by other network equipment. To verify that the chosen address is free, try to perform a PING from the same DOS window by typing PING followed by a space and the IP you wish to assign to the camera. If there is no device corresponding to that address, you will receive 4 REQUEST TIME OUT as in the following example:

```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\AMD>ping 192.168.1.6

Pinging 192.168.1.6 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.6:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Documents and Settings\AMD>

```

All cameras support automatic IP address assignment by a DHCP server. However, this mode is not recommended as in case of network failure or equipment restart it is possible that the cameras change IP address making it necessary to reconfigure the NVR.



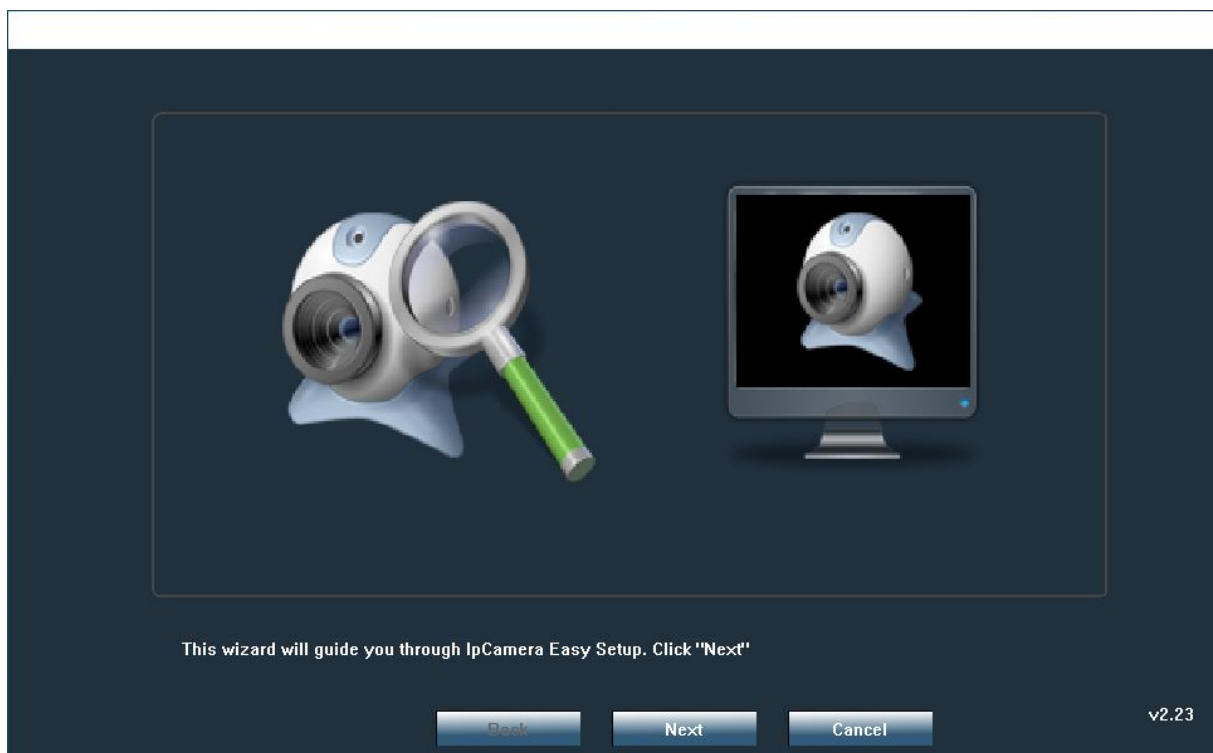
USE OF SEARCH TOOL TO ASSIGN THE IP ADDRESS

All RY series cameras are preset with the factory IP address: 192.168.1.109

After connecting the camera, you need to change the camera address to assign one that is consistent with your network (first 3 parts of the address common to all equipment on the network).

Proceed as follows:

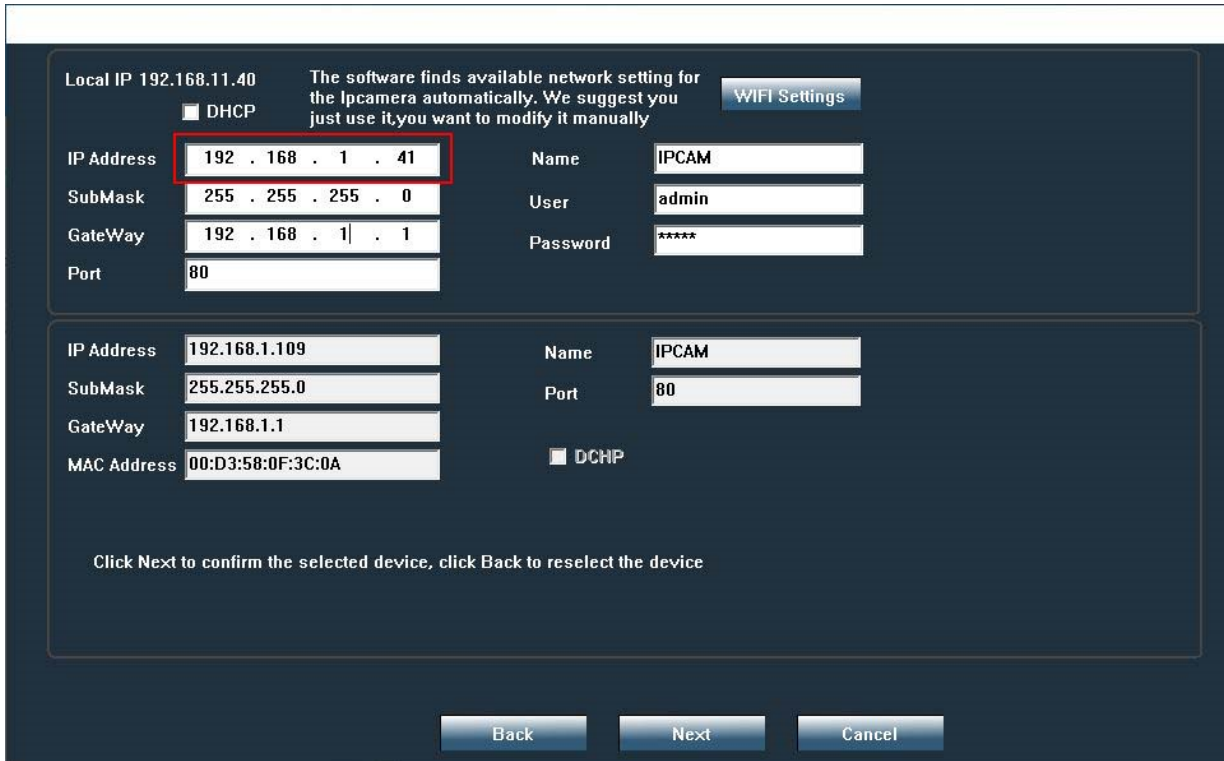
1. Download and install the setup program on your PC.



2. Press NEXT to start the wizard. The program searches for the RY cameras present on the network and lists the new camera in the table.



3. Click on the camera and the NEXT button to open the address configuration page



4. Now enter the correct network parameters you want to assign to the camera. The IP address must be entered in the red box. It must have the first 3 digits the same as those used by your network and not be used by other equipment, as we have explained extensively in the previous chapter. The SUBNET MASK must be the one used by your network (usually



255.255.255.0). The gateway is the address of the network equipment that allows access to the Internet (usually a router with the xxx.xxx.xxx. 1 address of the network). The factory port used for communication is 80 and it is advisable not to change it.

5. You can edit the network parameters as you like by writing in the boxes. In the USER PASSWORD boxes you must enter the access credentials of the camera which are factory default

USER: admin

PASSWORD: admin

6. Press NEXT to transfer the configuration to the camera.
7. Are you done. Now the camera has the right configuration to communicate with your network. If you have other cameras, connect them one at a time and assign different addresses to each of them.



Access with browser

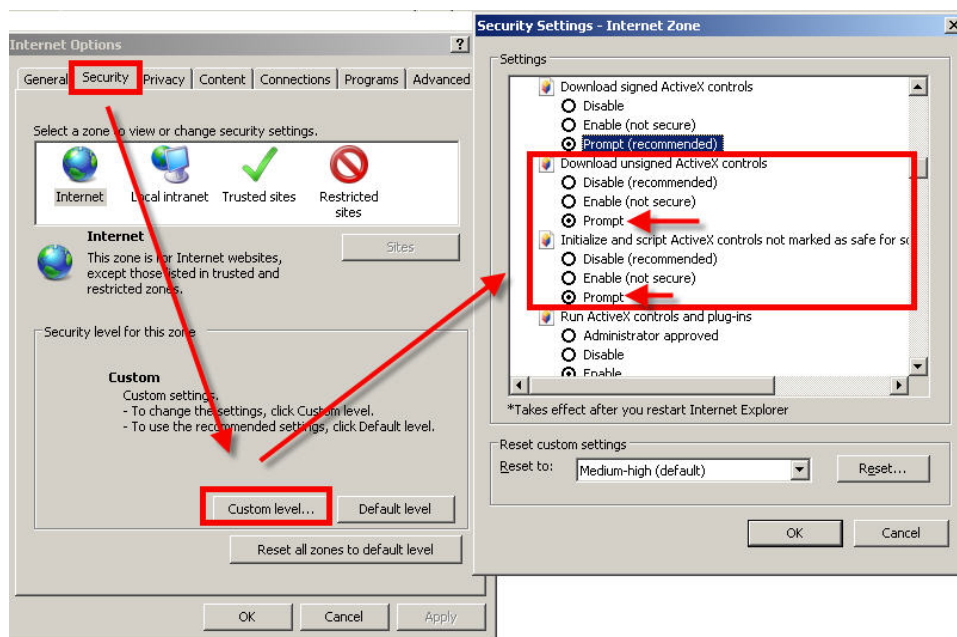
To control the camera you can use the INTERNET EXPLORER browser.

It is not possible to use other browsers for access except by using the IETAB plug-in.

If you log in with other browsers, such as Chrome or Firefox you will be able to control the commands (zoom, focus, settings) but you will not be able to see the live video of the camera.

ENABLE THE RUNNING OF ACTIVEX

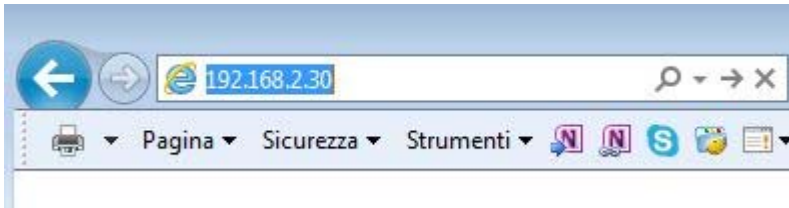
Internet Explorer contains security settings that can prevent the installation of the ActiveX component. Before proceeding with the connection, it is necessary to enable the execution of the ActiveX not marked as safe. In Internet Explorer choose INTERNET TOOLS / OPTIONS



In the PROTECTION folder choose the area of interest (Internet or Local network) and click CUSTOM LEVEL. Enable all items that relate to downloading and running ActiveX especially those NOT marked as safe. It is possible to set the items indifferently on ENABLE or ASK FOR CONFIRMATION. Finally save and restart the browser.

ACCESS WITH INTERNET EXPLORER

To access the camera with Internet Explorer, enter the IP address you have assigned in the address box. In the example below we make a connection on the internal network to the camera with IP address 192.168.2.30.



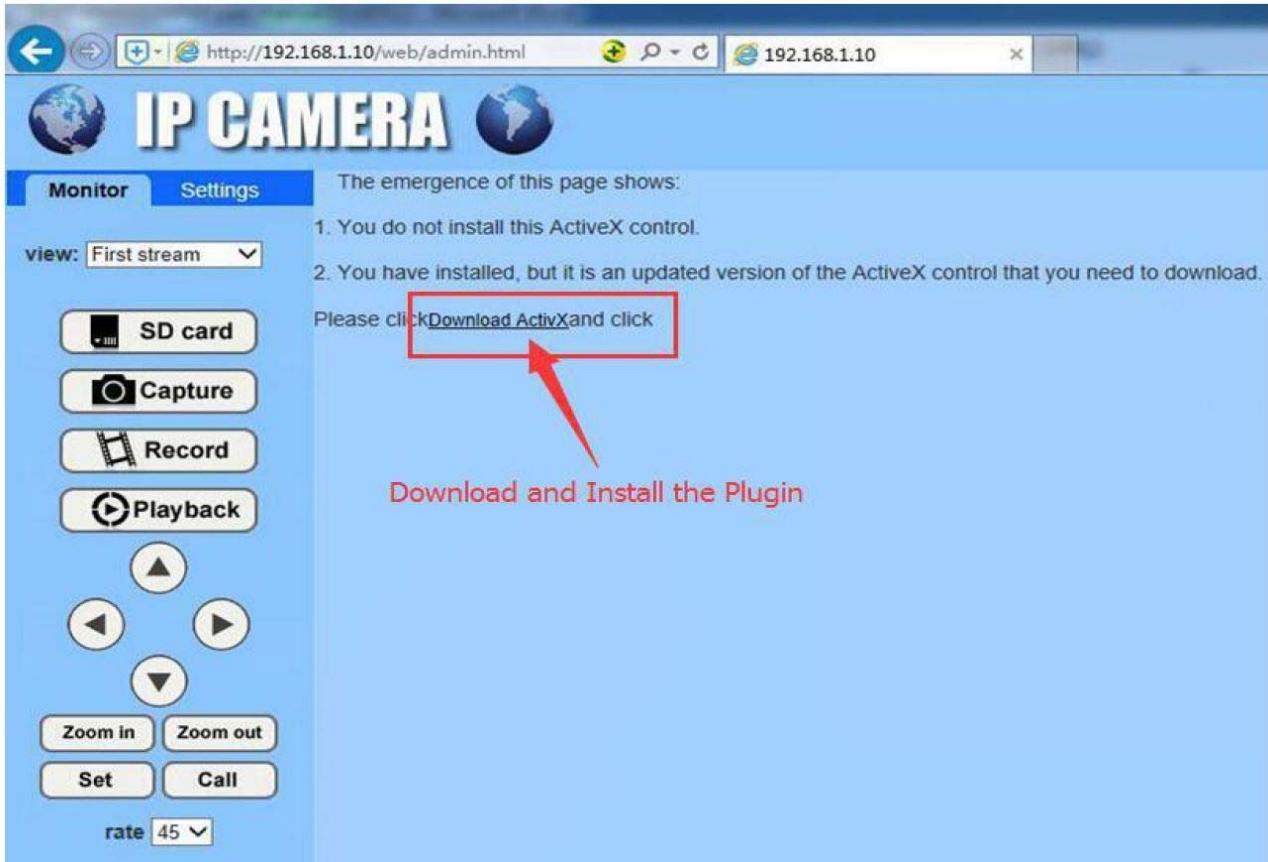
It is not necessary to specify the connection port as the cameras use port 80 by default, which is the one normally used by browsers.

If for any reason you should change the HTTP port in the camera settings then it will be necessary to specify the port to call in the browser by following it to the IP address. In this example we are calling the IP 192.168.2.30 on port 85.



ACTIVEX INSTALLATION

In order for the RY series IP cameras to be viewable on the browser, the ActiveX components must be installed. At the first access you make, the camera will detect the lack of these components and will show the installation message. If the warning does not appear, click on SETUP SOFTWARE to download the activeX components.



It is possible to either run the program directly by choosing RUN or to save the file on the local PC and then install it manually. To install the plugin you need to close the browser. Once the program has been installed, restart the browser and connect again.

LOG-IN

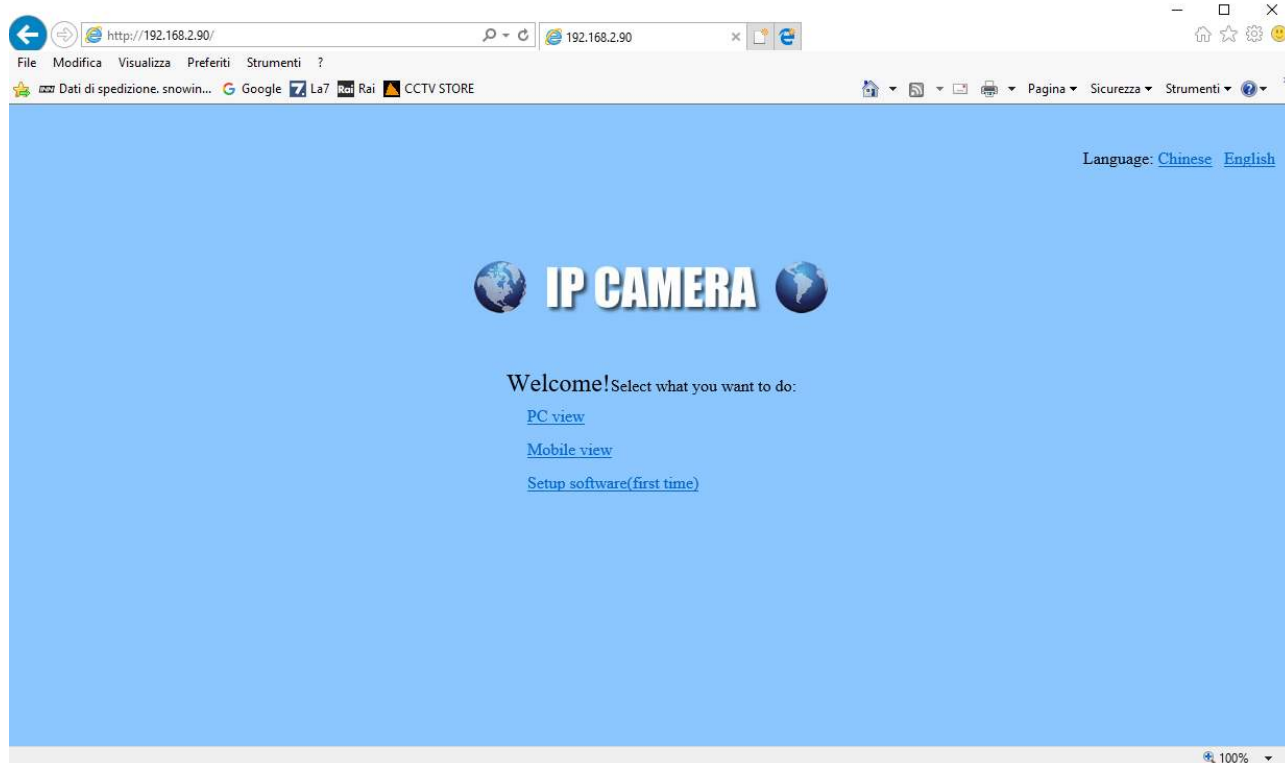
If the connection to the camera is successful, the log-in window appears.

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Choose the ENGLISH language and the PC VIEW mode. Then enter your credentials

The factory access data of the RY Series cameras are:

USER NAME: admin

PASSWORD: admin

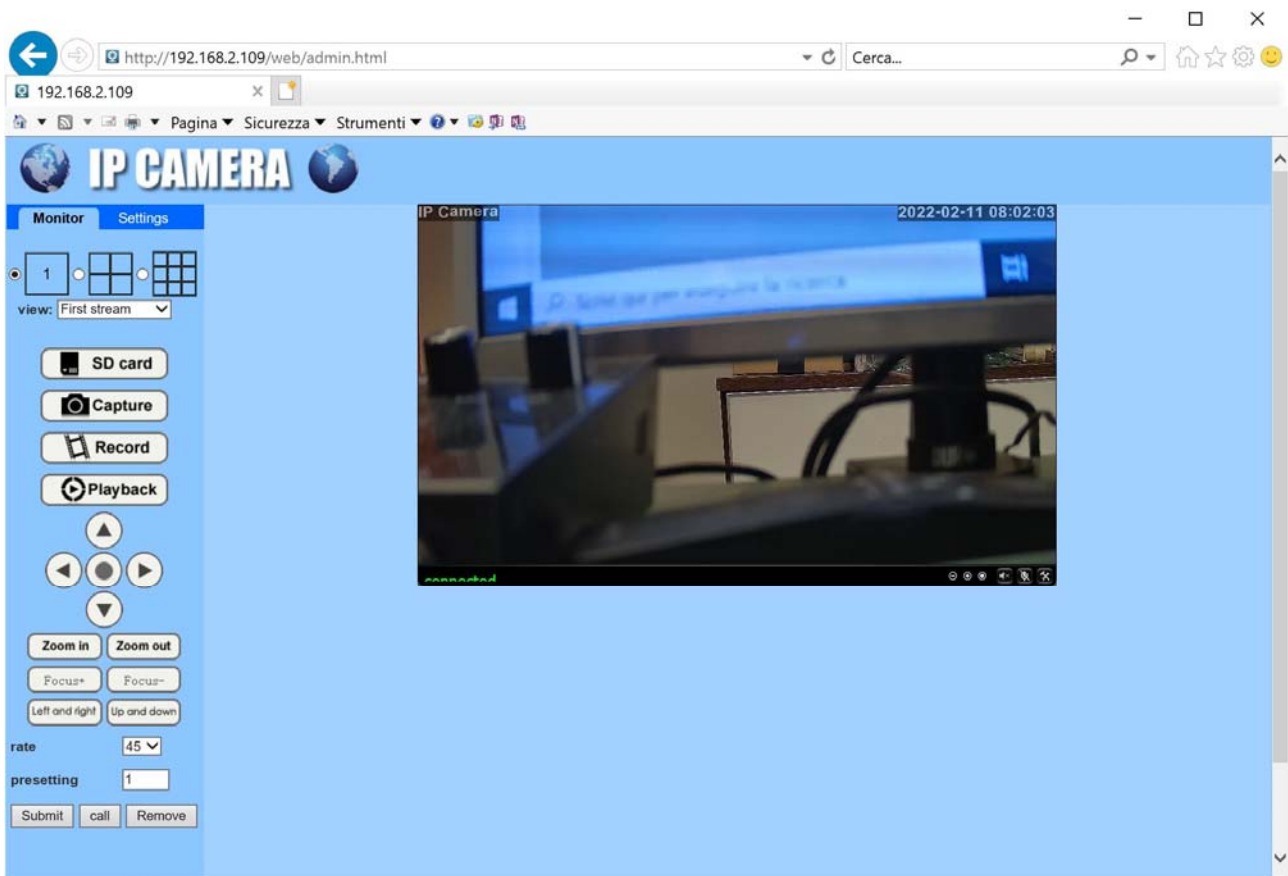
You enter the camera control mask.

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In this live view window there are some commands that you can use right away to properly install the camera. The main one is the lens adjustment which is described below.



Lens adjustment

These cameras are equipped with a motorized lens with autofocus. For effective license plate capture it is essential that the lens is perfectly adjusted. The adjustment is made by connecting to the browser, as explained in the previous chapter.

Initially press the ZOOM IN / OUT button and adjust the width of the frame (wide angle / zoom) according to the area to be framed.

Remember that the greater the wide angle, the less image detail inevitably corresponds. Generally it is good to frame as narrow a width as possible around the position where the license plate will be so that it appears as large as possible in the frame.

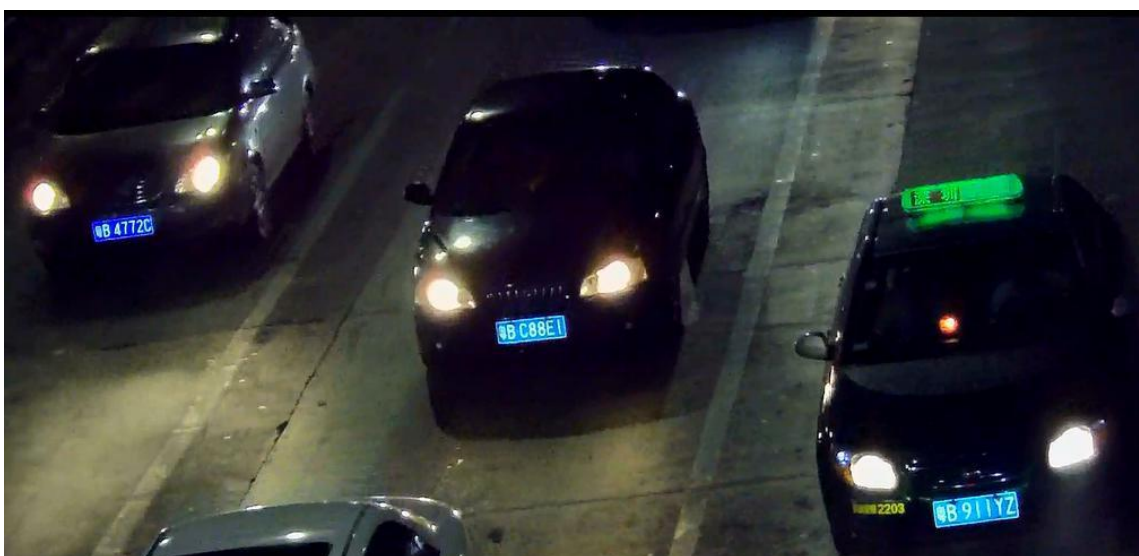
These cameras can frame up to 3 lanes at the same time.

Once the field of view has been defined, focusing will take place automatically. Eventually you can also act further on the FOCUS button to manually refine the focus on the framed area.

Remember that each lens has its own depth of field so that only a portion of the space in front of the camera can be perfectly focused. Focus on the area of greatest relevance where the vehicle's license plate will be to adjust the focus to the optimum. Make sure you have as large a monitor as possible to be able to assess the quality of detail well.

For a correct adjustment of the lens it may be useful to position a stationary car in the exact point where the license plate is read. This adjustment should be done in night vision, where conditions are worst.

Here is an effective shot as an example





ANPR regulation

These ANPR license plate cameras are developed to capture the license plate in a legible way in all conditions.

Connected to an NVR, they guarantee to find plates that are always legible in the recordings.

The cameras are supplied with factory settings that allow license plates to be read in most situations. However there are some adjustments that you can modify to optimize the performance in your situation and which are configured with the internal screen and its 4 buttons:

1 Up, 2 Down, 3 Left, 4 Right.

Use buttons 1 and 2 to move through the menu and button 3 and 4 to change the value of the selected item.



SPEED- Select the maximum speed of the vehicles in transit. You have the following steps

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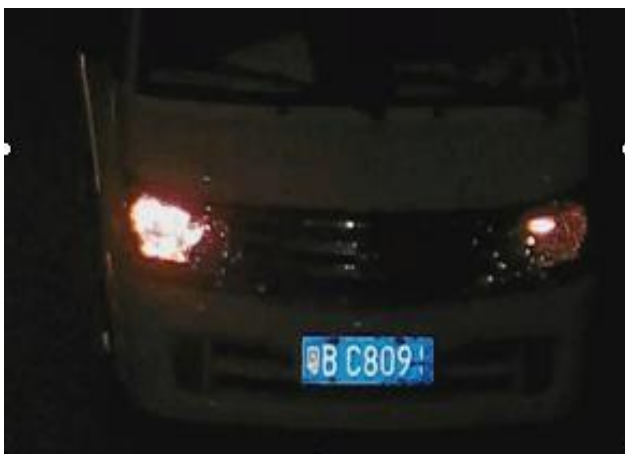
available: 30Km / h, 60 Km / h, 90 Km / h, 120 KM / h, 150 Km / h, 180 Km / h.

Consider that the higher the speed of the media set, the darker the night image will be as a faster shutter speed is required. Conversely, by setting a lower speed you will get a night image that also allows a decent view of the vehicle and not just the license plate. AUTO adjustment is also available which adjusts automatically.



SPEED 30 Km / h

The vehicle is also visible in color, but if the vehicle is fast the number plate is moved



180 Km / h

The vehicle is hardly visible, but the license plate is legible even at high speed

Be careful not to be excessively attracted by setting low speeds to obtain the night image of the vehicle in color, as in this situation a vehicle traveling at a higher speed will have a moving and difficult to read license plate.

HSBLC- It is the electronic function that avoids glare caused by vehicle headlights. You can adjust the intensity of this function to LOW / MEDIUM / HIGH / HIGHER / AUTO.



HSBLC corrected



Insufficient HSBLC

WDR- This parameter allows to increase the visibility of the environment around the vehicle. You can set this function on progressively increasing values: CLOSE (excluded), LOW, MEDIUM, HIGHER, HIGH



WDR CLOSED

The environment around the vehicle is hardly visible



WDR MEDIUM

The environment around the vehicle is more visible

SCENE BRIGHT- Here you can set the night brightness of the environment in which shooting takes place. You can choose the increasing values CLOSE (excluded), LOW, MEDIUM, HIGHER, HIGH. It is however recommended to keep the factory setting for this parameter except for particular shooting situations. For example, it may be convenient to set HIGH lighting in environments that are always well lit at night, such as in the surveillance of a motorway tollbooth or a service station.



CORRECT BRIGHT SCENE



EXCESSIVE BRIGHT SCENE

LED LIGHT- Here you can adjust the intensity of the IR illuminator to match the shooting

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distance. You have 13 levels of LED brightness (1..13). If the plate is shot closely, below 10 m. for example, it may be convenient to reduce the brightness of the LEDs to prevent it from being too bleached.

To adjust the lighting correctly, place yourself in real dark conditions and lights on by positioning a stationary vehicle at the license plate reading point. If the plate is bleached with illegible characters, it is necessary to reduce the power of the LEDs.



CORRECT LED POWER



EXCESSIVE LED POWER

CDS START- For a good reading of the license plates in the dark it is necessary that the front IR LEDs light up in night mode. Here you can set the activation threshold of the IR LEDs from 1 to 10 according to the night lighting of the environment. If you set a low value, the LEDs will turn on earlier. With a high value, however, it will have to be darker for the LEDs to light up.

By reducing this setting to low values you can compensate for the presence of any light sources near the camera which, by preventing the LEDs from turning on, prevent a good night reading of the license plates.

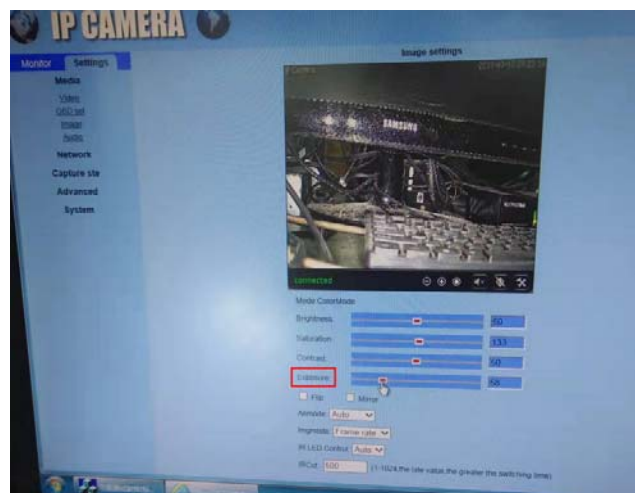
CHECK MODE- This parameter relates to the HSBLC function for the suppression of headlight glare which has been described above. If you leave the factory setting CHECK MODE ON, the

HSBLC function is activated only when a vehicle passes while it remains deactivated if no vehicles pass. This usually improves the overall quality of the shot because the HSBLC function tends to mask any area of the shot that is very bright. However, it is possible to disable this option by setting CHECK MODE OFF to ensure that the HSBLC function is always active. This adjustment is recommended if the vehicle remains in the shooting area for a short time and ensures that the anti-glare system will always work and the license plate will always be legible.



HSBLC TIME- Adjusts how long the HSBLC function remains active when a vehicle passes (2..5 seconds) when the previous option is set to ON (CHECK MODE ON)

MODE- This setting is factory set to ON. It means that the camera adjusts the shutter speed (EXPOSURE) automatically, according to the speed setting of the vehicle. It is advisable to keep this setting because the brightness of the image will be automatically defined according to the speed of the media to be shot. If you set this item to OFF, you need to adjust the shutter speed with the browser



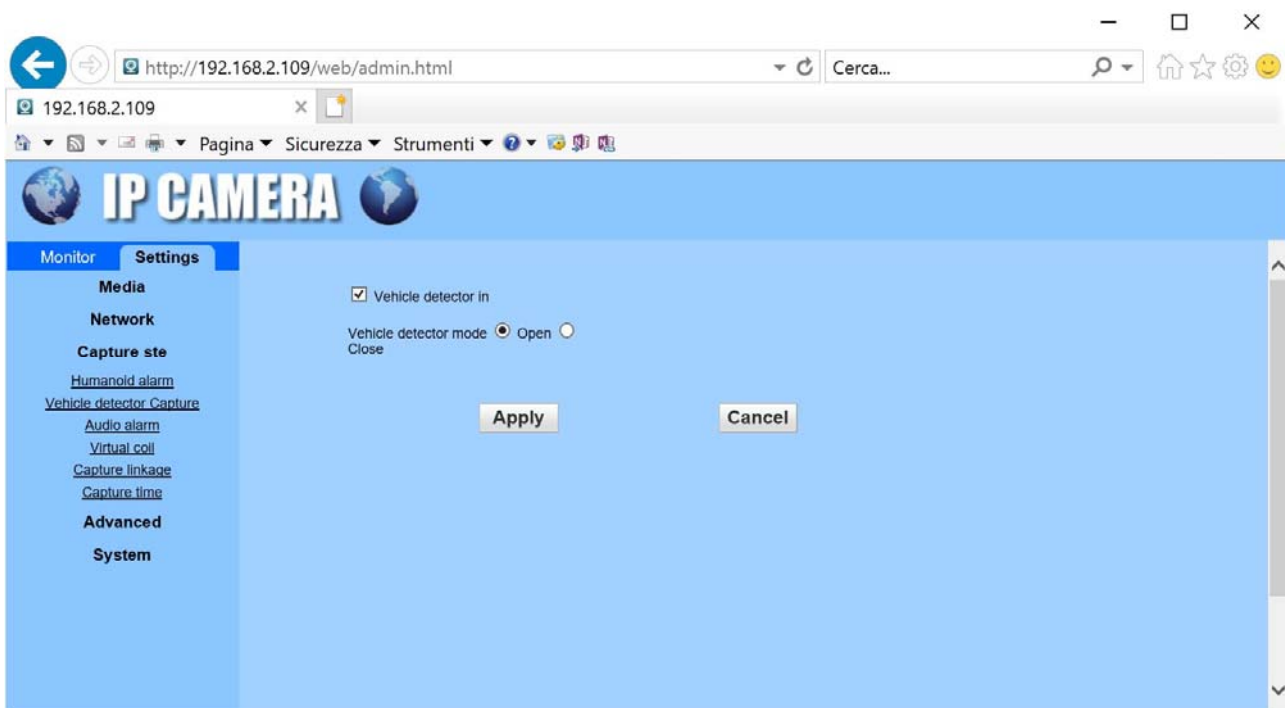


Vehicle capture adjustments

These cameras are not only able to record license plates in a legible way, but also have an algorithm that allows them to detect the presence of a vehicle and perform automatic actions, regardless of the license plate. With the browser you can program different types of actions that the camera will automatically perform when a vehicle is detected. These settings are found in the section **SETTING | CAPTURE**

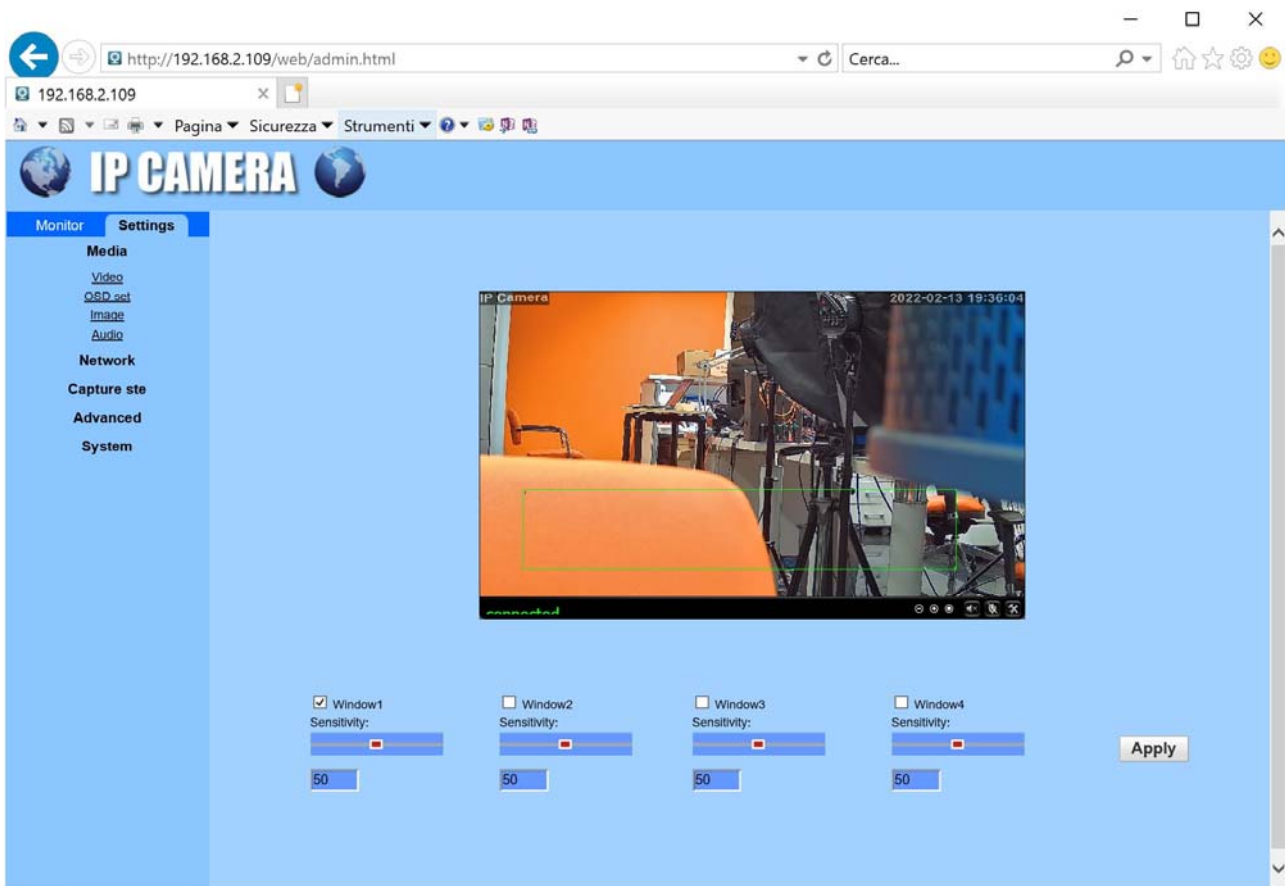
ENABLE VEHICLE DETECTION

In **SETTING | CAPTURE | VEHICLE DETECTOR CAPTURE** you can enable vehicle detection



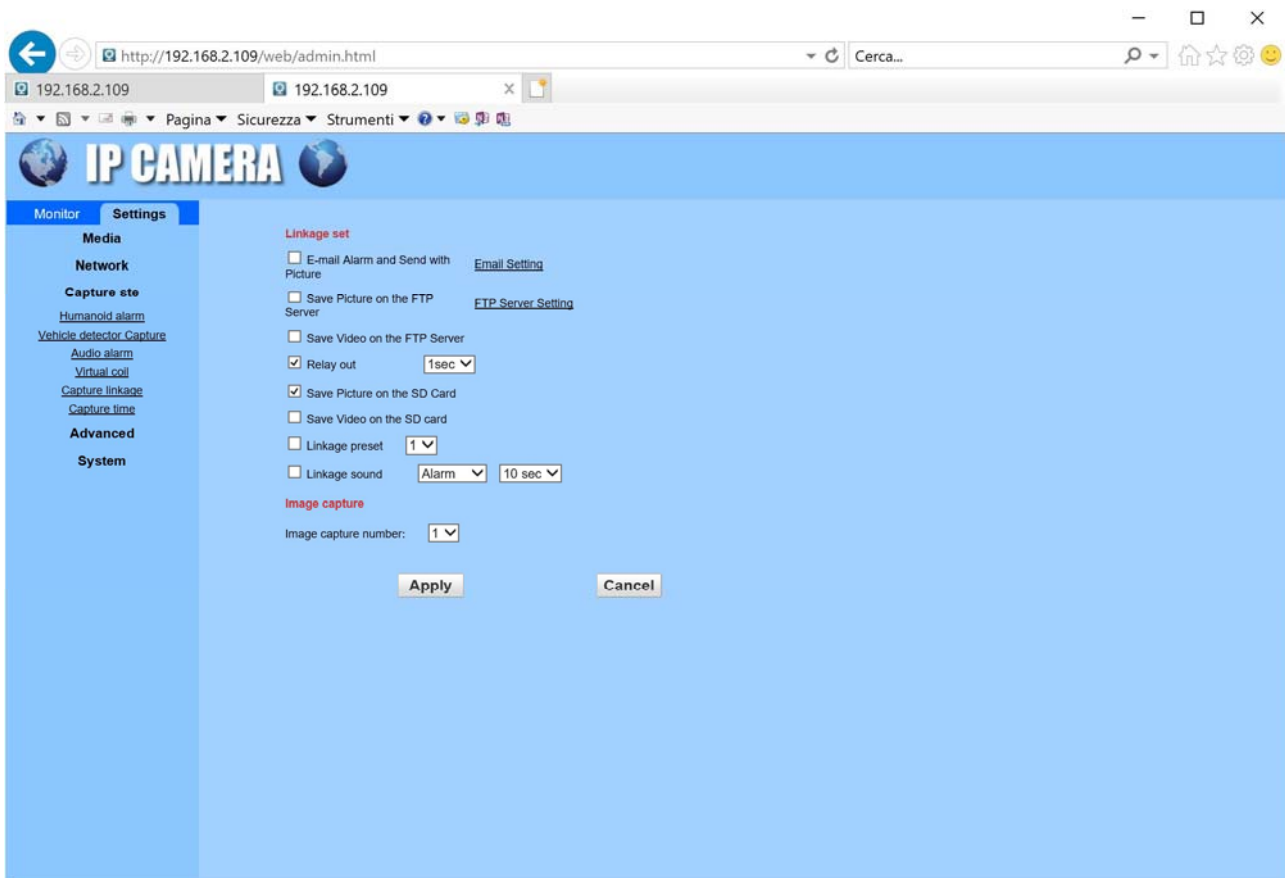
SET CAPTURE AREAS

In **SETTING | CAPTURE | VIRTUAL COIL** you can set the vehicle detection area based on the width of the roadway. You have 4 areas to trace by dragging the mouse in the image. You can also set the detection sensitivity by dragging the slider.



SET ACTIONS TO BE PERFORMED

In SETTING | CAPTURE | CAPTURE LINKAGE sets the actions to be performed when the camera detects a vehicle



E-MAIL ALARM - Send the photo via email by setting the SMTP server data to be used for sending and the recipient email address

SEND PICTURE FTP - Sends the photo via FTP by setting the access data to the FTPS server

VIDEO FTP - Sends a video clip to the FTP server

RELAY OUT - Activates the alarm output located on the camera card (OUT) for a settable time

SAVE PICTURE / VIDEO ON SD CARD - Saves the photo and / or video on the MicroSD card that you can insert into the camera

PRESET / SOUND - Not used

IMAGE CAPTURE NUMBER - Sets the number of photos to be taken for each vehicle detected (1,2,3)



Access with client IPCamera

To control the RY cameras from a computer, you can download the IP CAMERA CLIENT software from our website in the SOFTWARE | IP CAMERAS | RY SERIES. This program allows you to manage the cameras from a PC without using the browser. It starts up in just a few steps. The factory login credentials are:

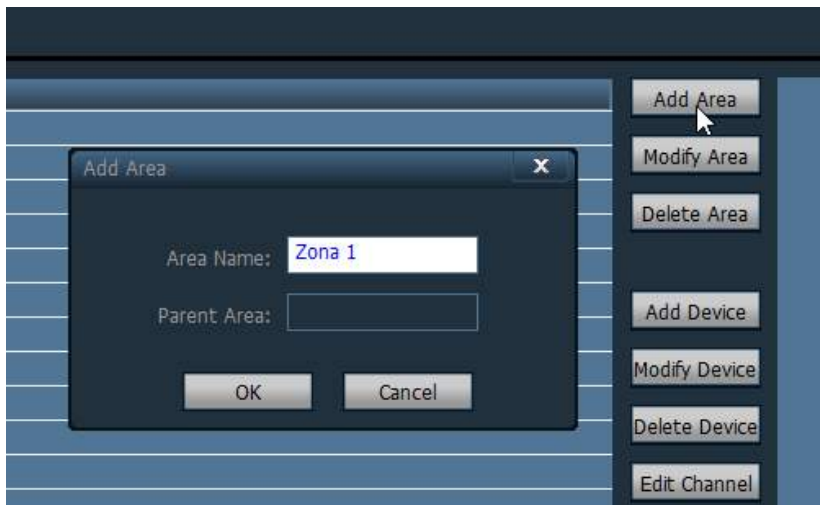
USER: admin

PW: empty field

1. The IPCamera Client program provides for the management of areas within which to insert the cameras. It is a useful function for dividing the system if it is made up of many cameras. First you need to create an area where to insert the cameras Press the CONFIGURATION button,



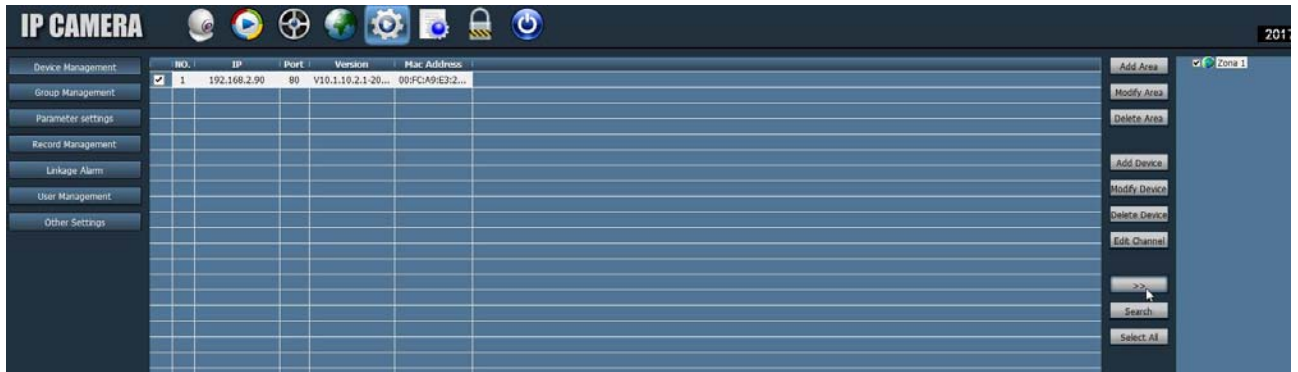
then click ADD AREA and type in the name you prefer.



2. Now you need to choose the cameras to add to the area you created. Press SEARCH to find the camera you have configured, then select the camera and zone you have created. Then press the >> button to add the camera to the zone.

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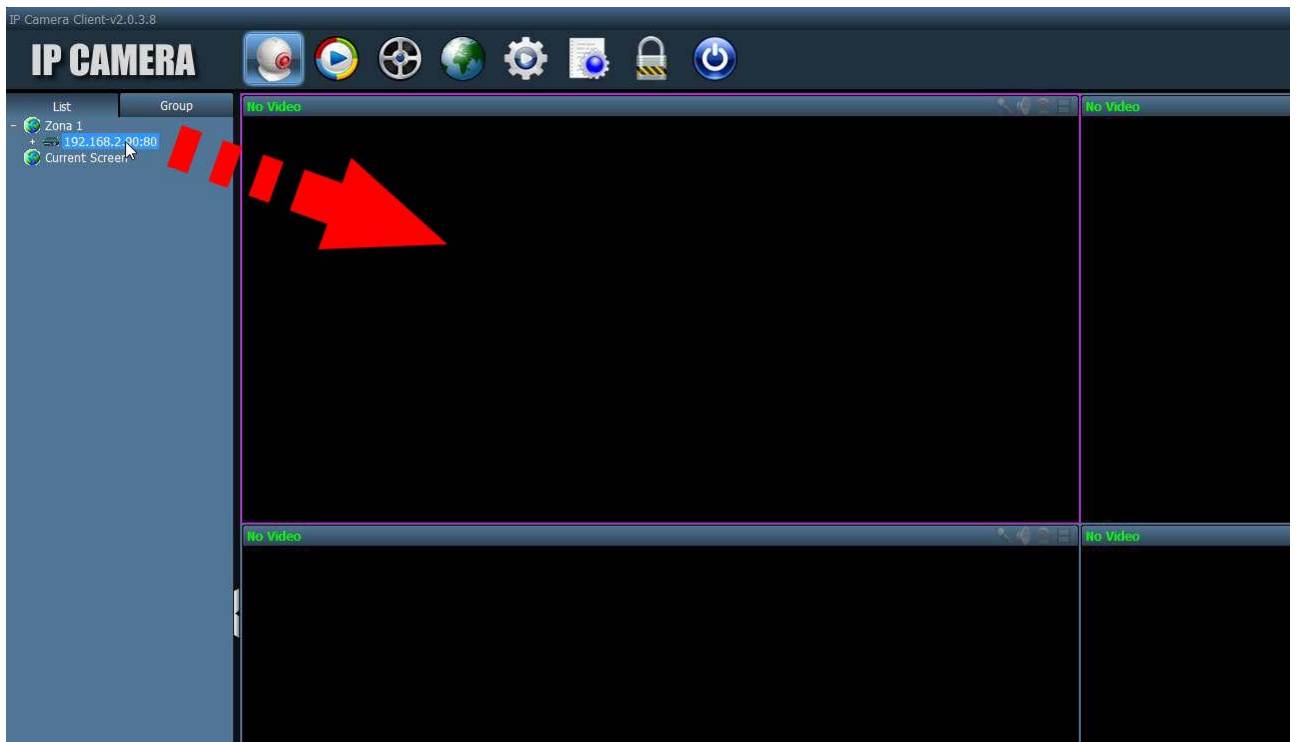
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3. You can now return to the live view area by clicking the icon above



On the left you will find your area with the IP address you added. Double-click to show the video channels connected to the IP address, then drag the video channel into a visual box with the mouse.

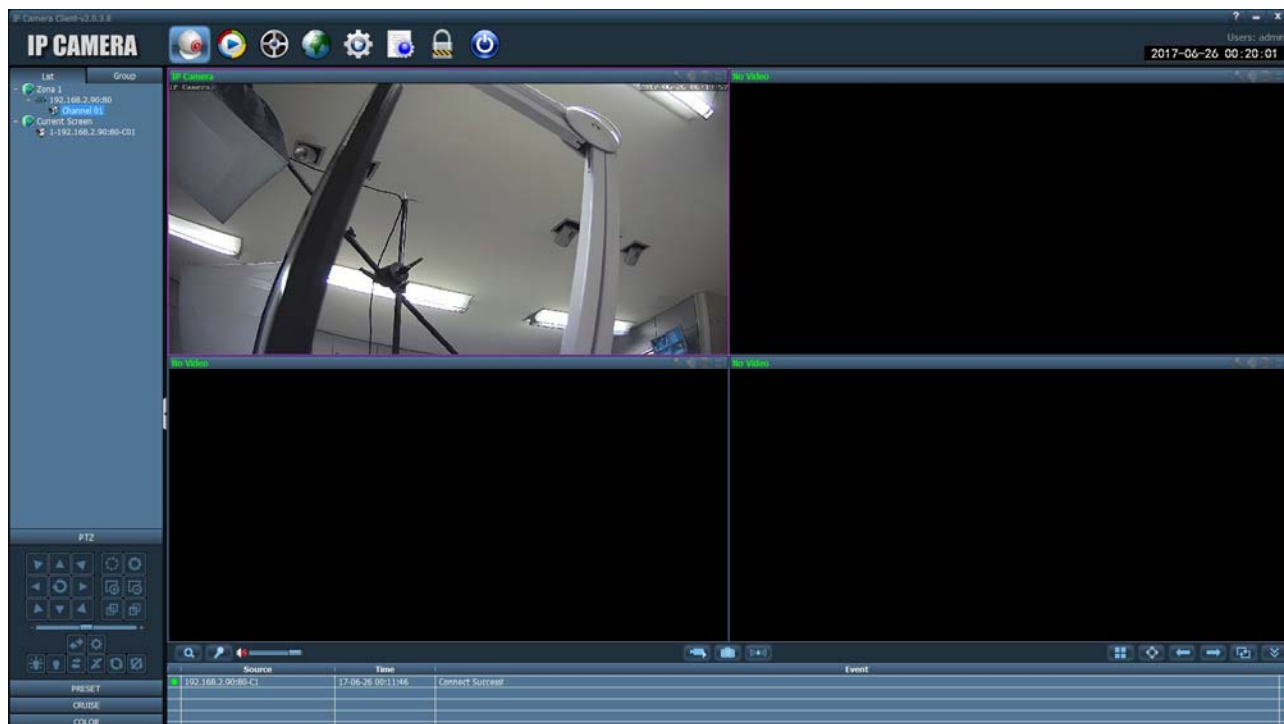


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Connection with RTSP player

The cameras support the RTSP protocol which is factory set to use port 554. It is possible to connect to the camera using any RTSP player such as VLC.

The address to be called must have the following syntax:

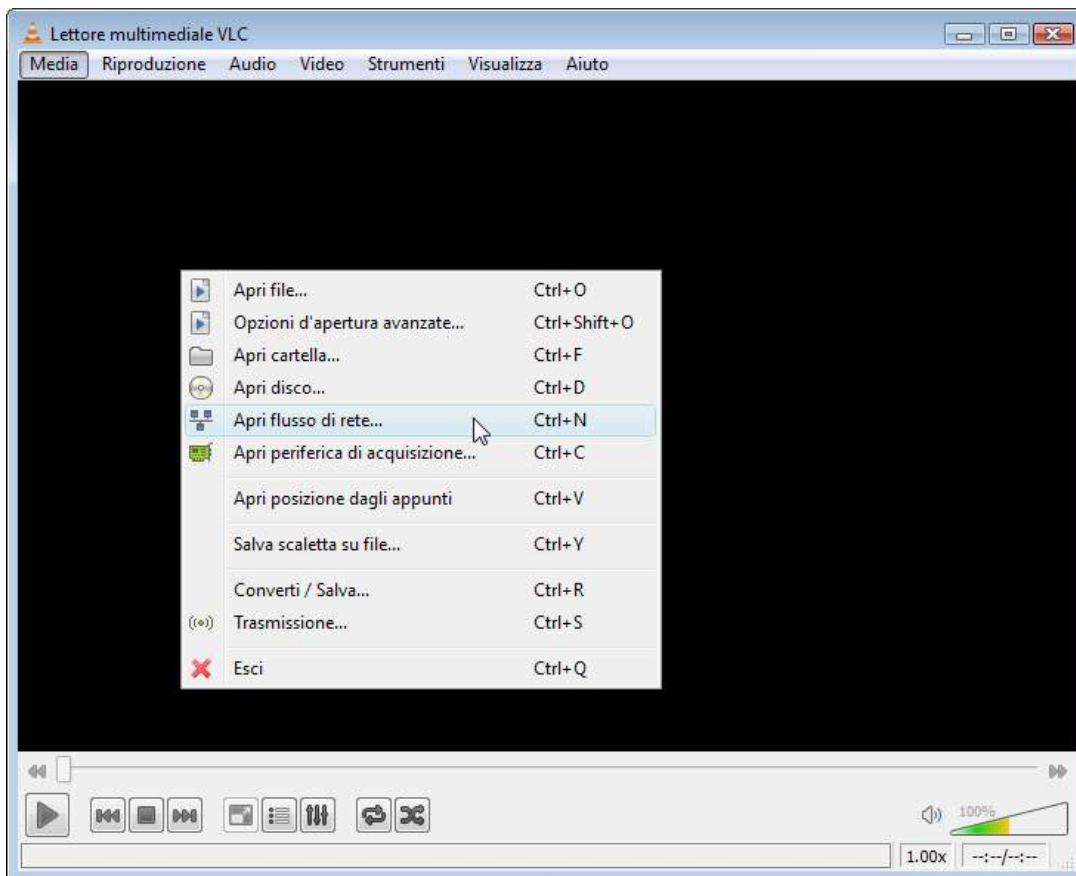
RTSP: // IP / 11 to receive the main stream

RTSP: // IP / 12 to receive the secondary stream

Here is an example:

rtsp: //192.168.2.90/11

Right away how operate **for example with the VLC player:**

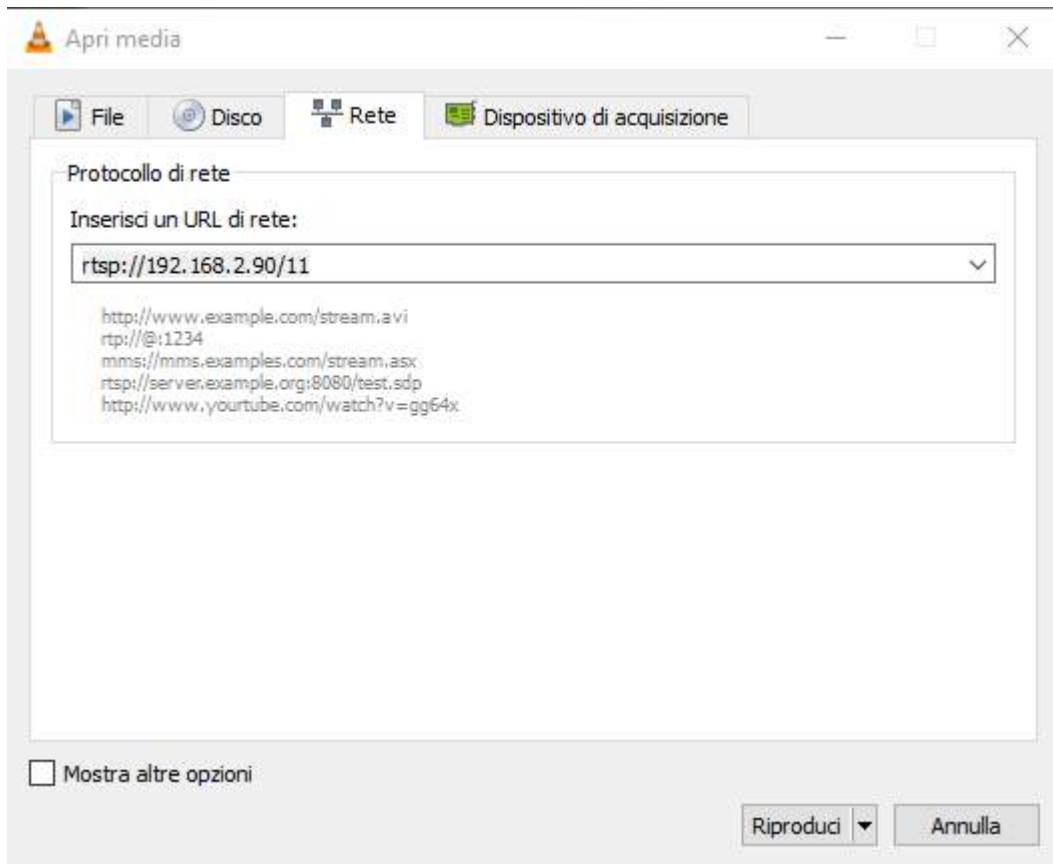


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Access with ONVIF NVR

RY series IP cameras are cameras designed to be connected to NVR network video recorders.

To do this we use the ONVIF standard that these cameras fully support. To connect the cameras to ONVIF NVRs, please refer to the manuals of the recording equipment.



As a rule, the NVRs automatically recognize the communication parameters to communicate with the cameras. If manual entry is necessary, note that the RY series cameras use port 8080 to communicate with the NVRs over the onvif protocol.

ATTENTION

When loading a RY camera on an NVR it is good to NEVER KEEP the credentials (user and password) proposed by the NVR, even if they appear to be correct, but always overwrite them both manually.



Web access with P2P

As a rule, the connection to these cameras through the Internet is not performed by calling the individual cameras directly but by connecting to the NVR. For this type of connection, refer to the NVR manual.

However, it is also possible to connect directly to the cameras.

To make this connection easier, even without having static IP, and without configuring the router ports, the cameras are equipped with the support of a P2P cloud server.

Each user of a RY series camera purchases together with it the possibility of using a free CLOUD service available online to make connection via the Internet very simple.

This service allows you to solve with a few mouse clicks the two main problems in connecting to the DVR via the Internet, namely:

- **Subscription to a DDNS service if you do not have a fixed Internet IP**
- **Router port mapping**

ACTIVATION OF CLOUD SERVICES

The first operation to do in order to use the cloud servers and enable the management of the cloud server in the camera configuration.

To subsequently enable or disable the cloud server, proceed as follows:

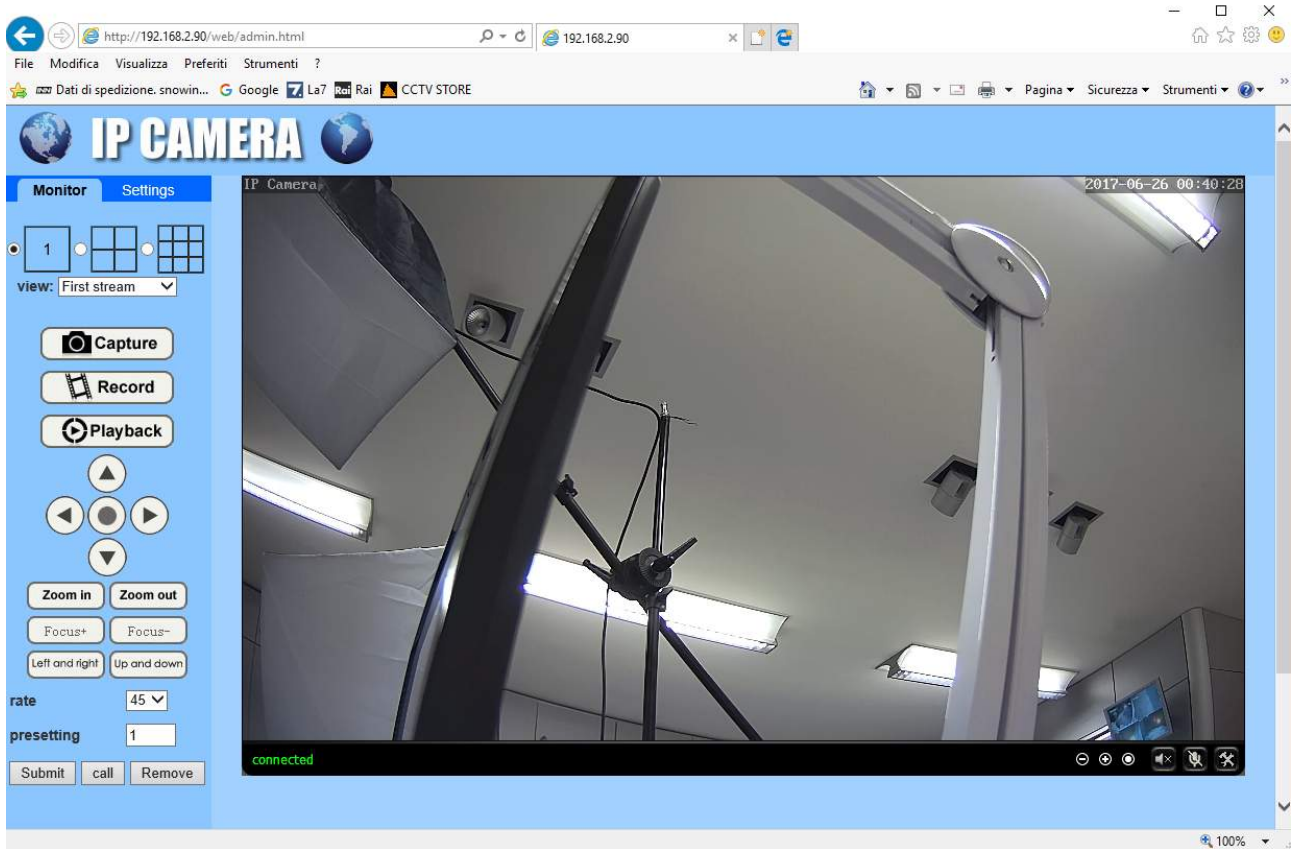
1. Connect to the camera with Internet Explorer as shown in the previous chapters

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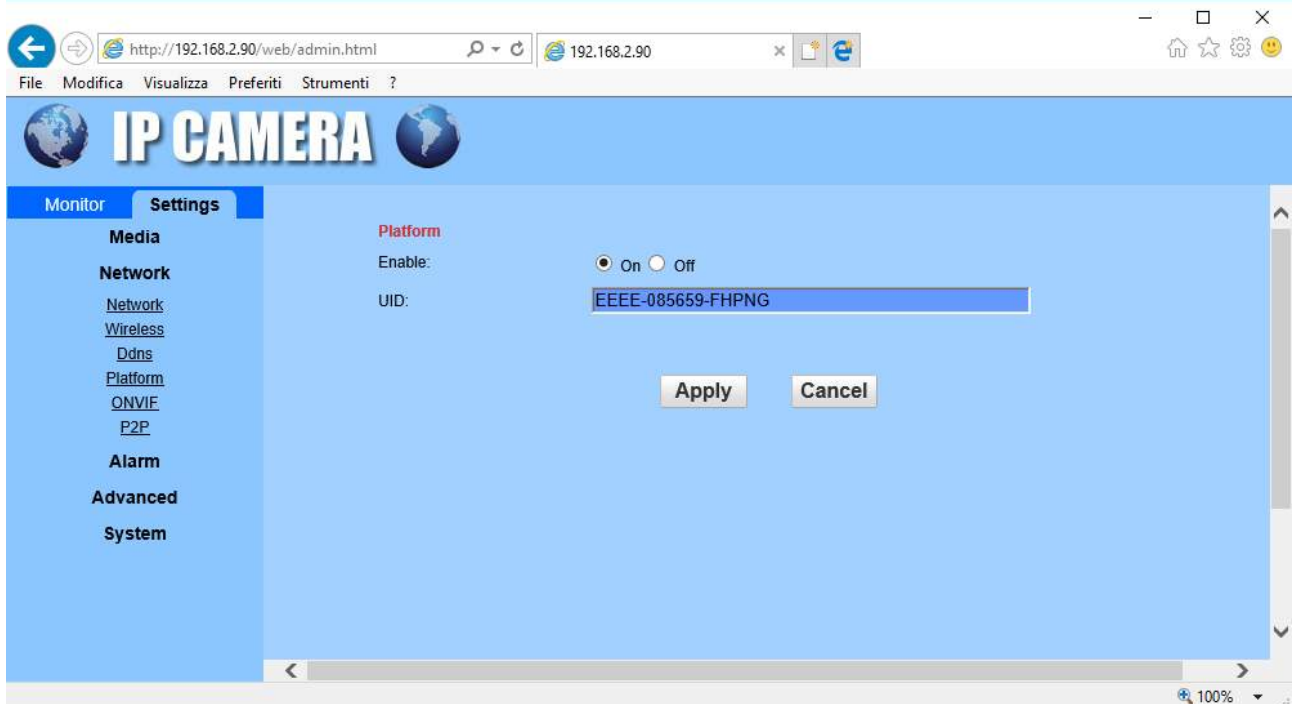
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2. Choose the SETTINGS folder, then, in the menu on the left, open the NETWORK / P2P page



3. The camera you purchased is already registered in the CLOUD server and is marked with a unique Serial Number (UID) that you see on this page. To enable the cloud service, move the switch to ON and press APPLY

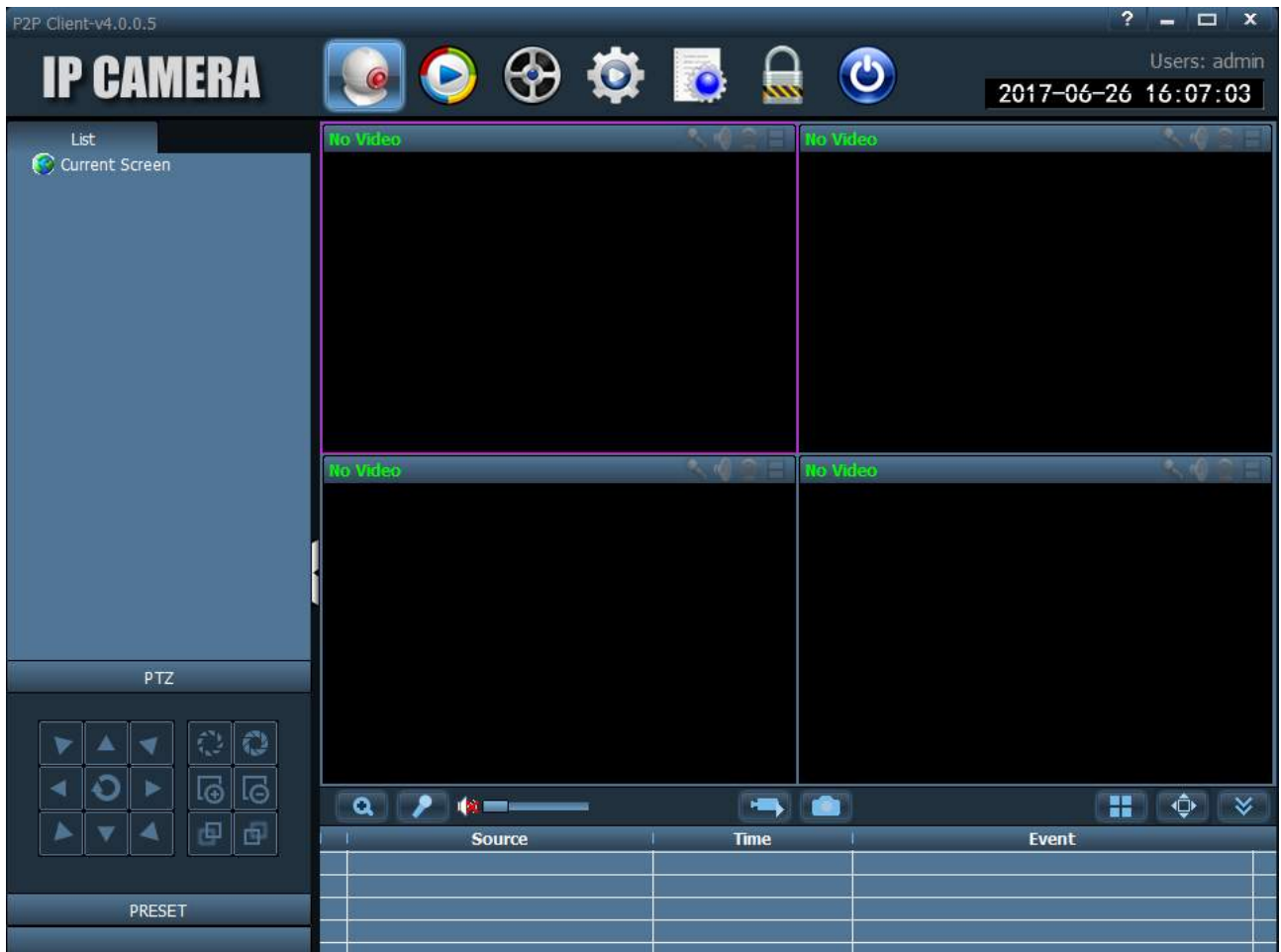
Web access with P2P from PC

To connect via the Internet with a computer using the P2P cloud, use the HIP2P CLIENT program that you can download from our website in the SOFTWARE | IP CAMERAS | RY SERIES.

For connect via the Internet using the HIP2P program proceed as follows:

1. Launch the program.

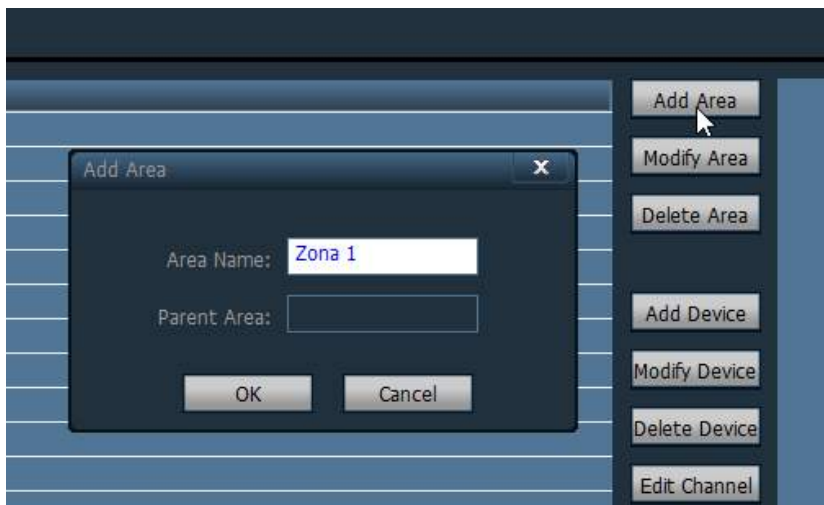
As for the IPCamera program described above, the factory credentials are: USER: adminPASSWORD: leave blank



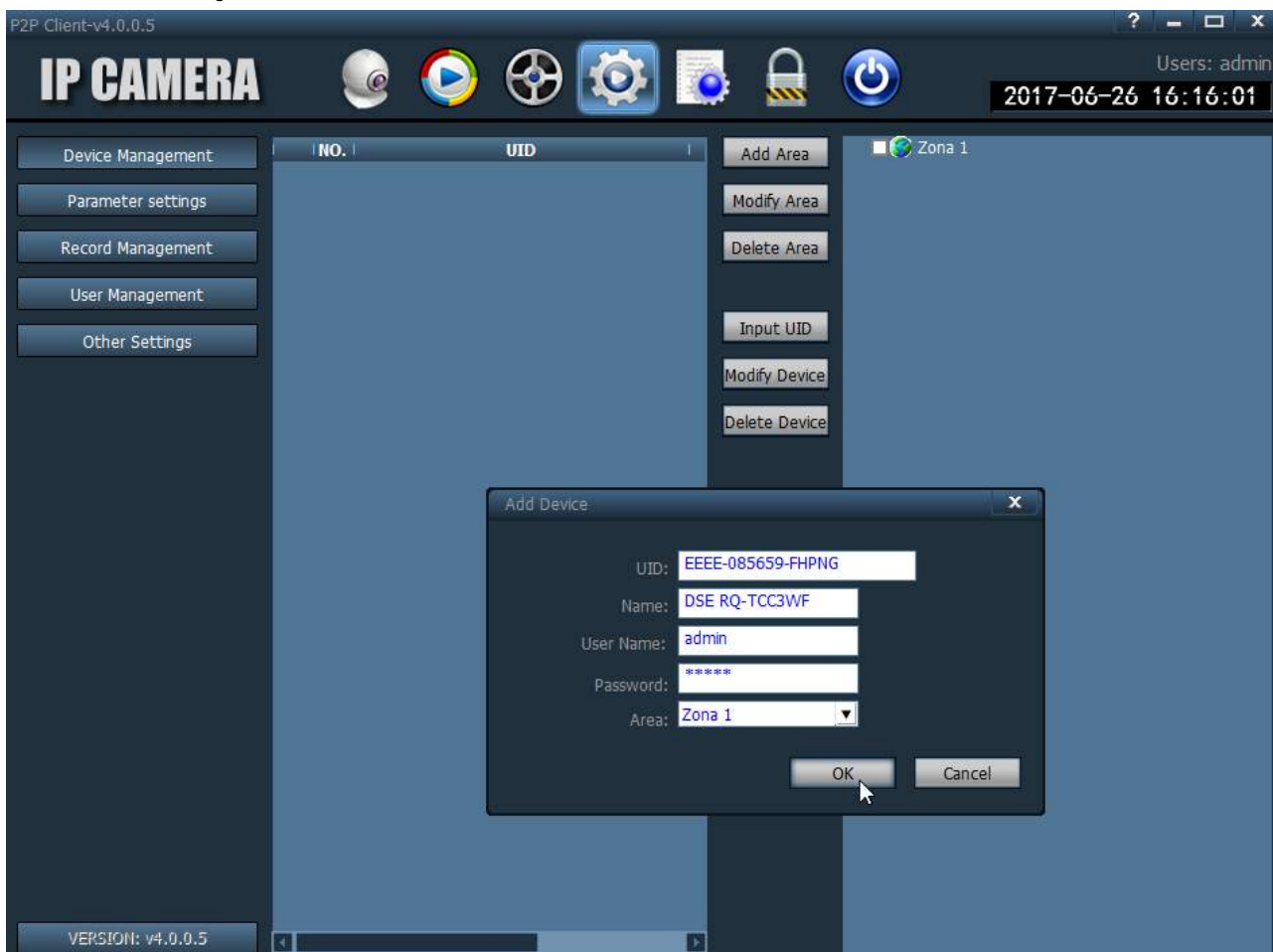
2. The program provides for the management of areas within which to insert the cameras. It is a useful function for dividing the system if it is made up of many cameras. First you need to create an area where to insert the cameras Press the CONFIGURATION button,



then click ADD AREA and type in the name you prefer.



3. Now you need to add the camera by operating in the settings and in the DEVICE MANAGEMENT section. You don't have to use the IP address, but the UID code that you could detect in the P2P configuration as seen above. Press INPUT UID and enter the data as in the example below. You must enter the UID of the camera as you read it on the browser page, then a name of your choice to distinguish the camera and finally the access credentials to the camera which by default are: USER: adminPASSWORD: admin



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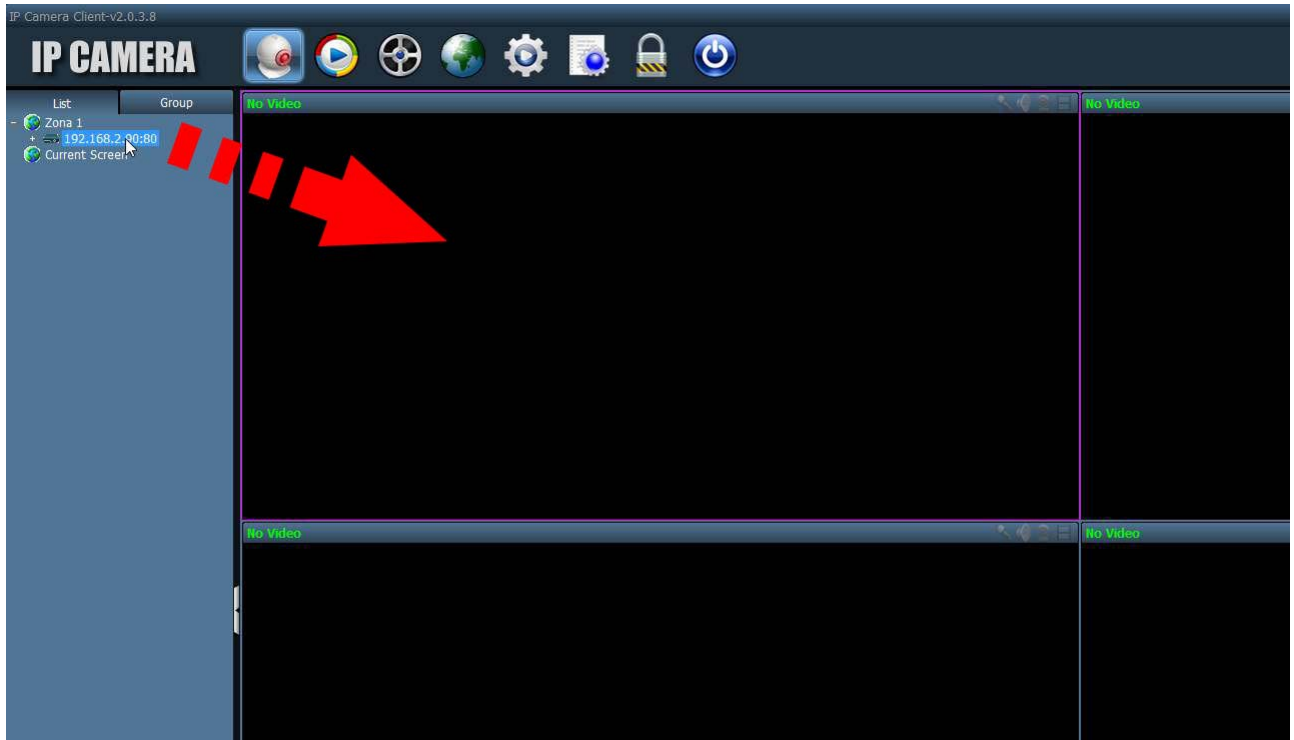


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4. You can now return to the live view area by clicking the icon above



On the left you will find your area with the camera you added inside. Drag it with the mouse in a visual pane.



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P2P Client-v4.0.0.5

IP CAMERA

Users: admin
2017-06-26 16:24:49

List

- Zona 1
 - DSE RQ-TCC3WF
- Current Screen
 - 1-DSE RQ-TCC3WF

PTZ

PRESET

DSE RQ-TCC3WF

No Video

No Video

No Video

Source	Time	Event
EEEE-085659-FHPNG (DSE RQ-TCC3...	17-06-26 16:21:49	Connect Success!



Web access with P2P from APP

It is possible to connect to the cameras via the Internet using the P2P cloud and the application **CAMHI** available for Android and iOS and downloadable for free from Google Play or Apple Store.



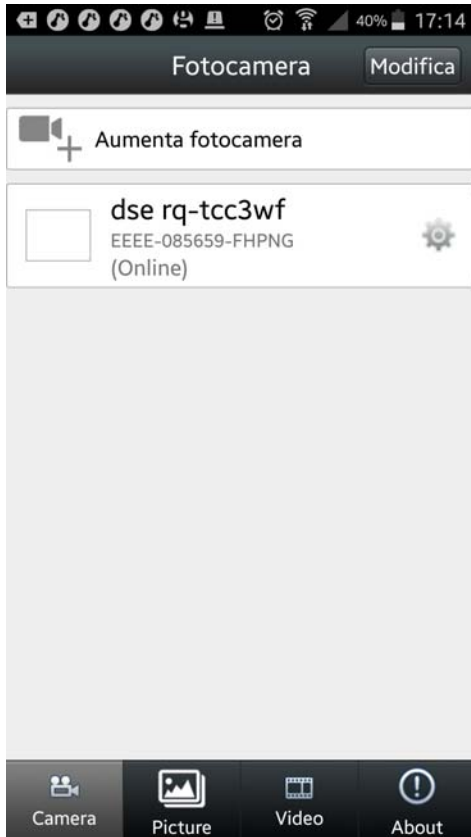
You can install the application on both smartphone and tablet.

To use the application proceed as follows:

1. Launch the application and press the + symbol ADD CAMERA.
2. Enter the connection data. You can enter a name of your choice that distinguishes the camera, then the UID code that you find in the network configuration with Internet Explorer as seen above, finally the user name and password which by default are: NAME: admin PASSWORD: admin



3. You will now find the camera in the camera list. Pay attention that ONLINE appears which means that the camera has been detected as connected to the cloud server.



4. To start live playback tap the camera.



5. You can take photos or record video by tapping the camera and camera icon. To listen to the audio tap the speaker icon. With the triangle icon you can flip the image horizontally or vertically. With the power icon you exit the live view. Particularly important is the square icon at the bottom right where you can choose whether to receive the lightest mobile stream (LOW) or the main high resolution stream (MAX). The latter option should only be used on a local network or with high-performance Internet connections. The other icons in this window

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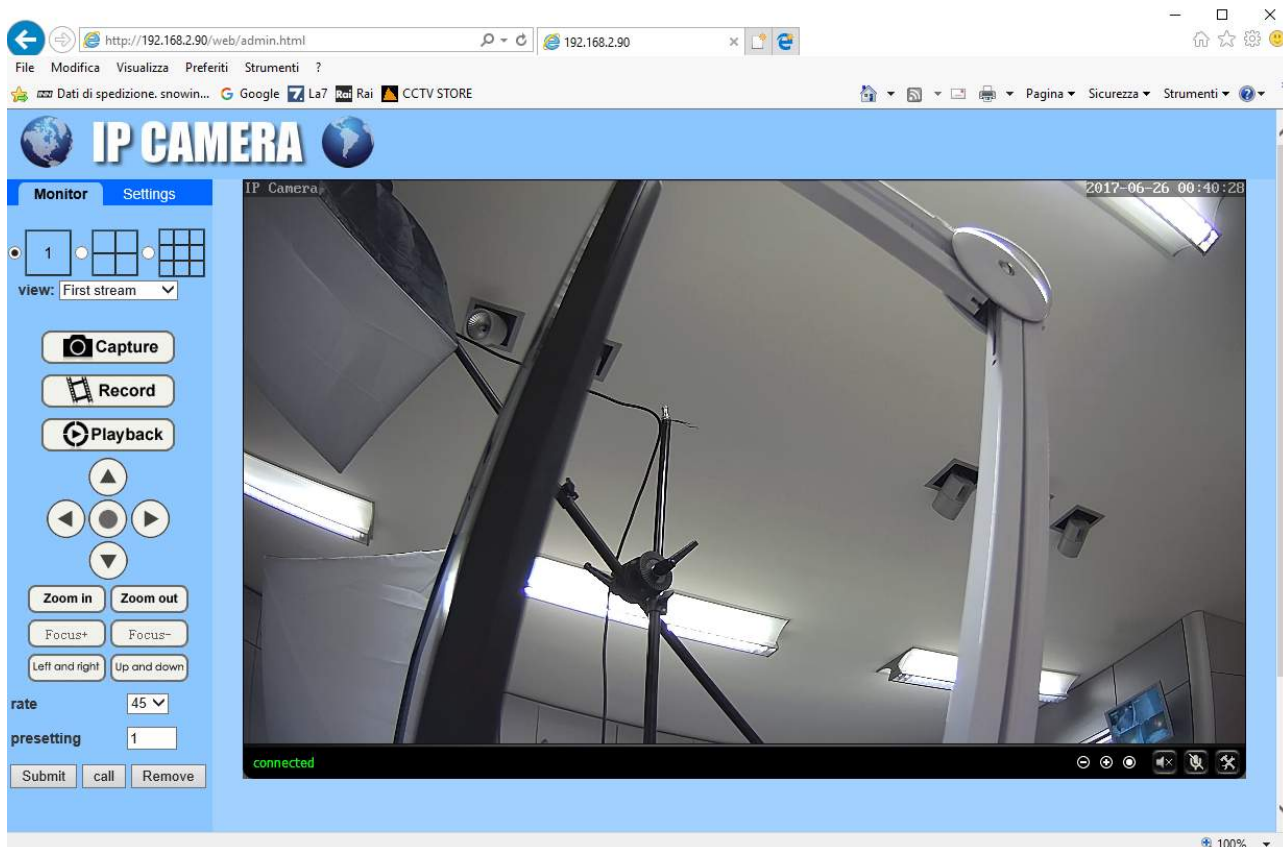


are not active on these models.

Advanced configuration

The configuration of the more specific parameters of the camera can be done through the Internet Explorer browser. Normally intervening in these adjustments is not necessary in most applications.

Log in with the IE browser as seen above.



Then choose the SETTINGS tab where all the camera settings are contained.

MEDIA / VIDEO

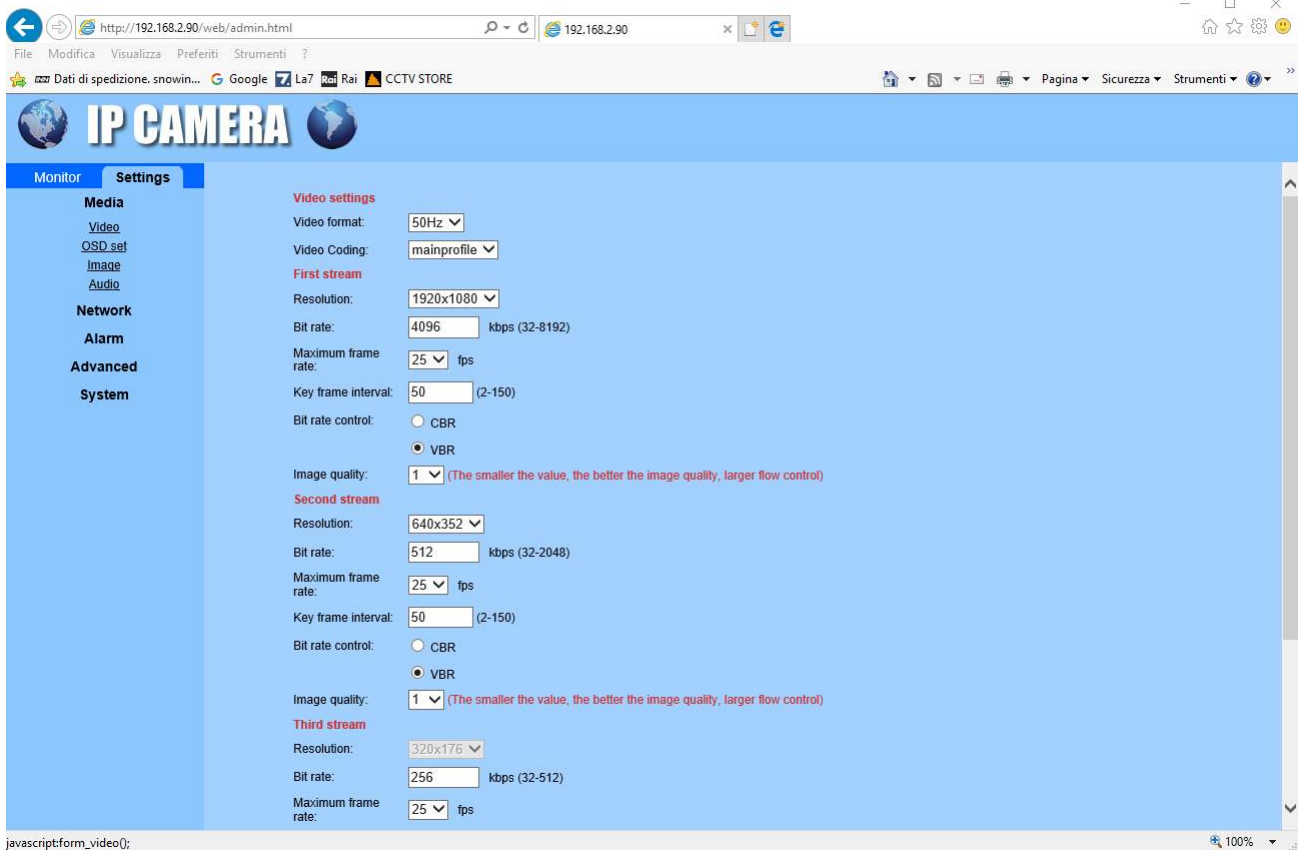
On this page, you can set up the video streams of the camera. The camera can manage 3 video streams + one streaming for mobile devices. From the connected client you can choose which stream to receive based on the available bandwidth.

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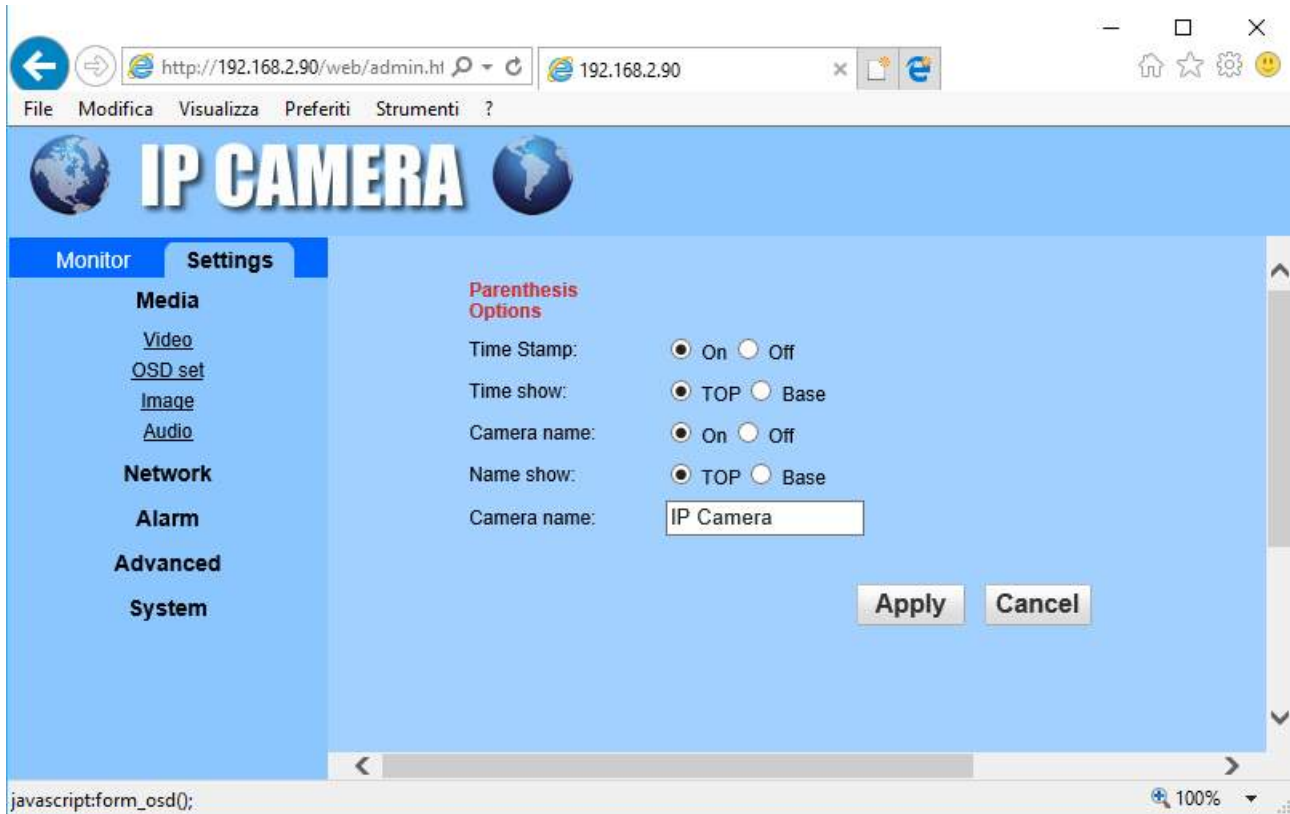
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For each stream you can set the resolution (max 1920x1080), the bit rate or band occupied (the higher the band corresponds to the lower compression and therefore the better quality), the frame rate or number of frames / second (max 25/30 f / sec which corresponds to real-time video) and finally the type of bitrate control (VBR = variable or CBR = constant). The main stream (FIRST STREAM) is the one used by the NVR and by the equipment on the local network. It is good to leave it on the highest quality levels. The other streams are used with limited bandwidth. You can leave the factory parameters unless the bandwidth available via the web is really low and you feel the need to further reduce the occupied bandwidth.

MEDIA / OSD SET

In this section you can define which information to superimpose:



TIME STAMP - superimposing the time and date
TIME SHOW - showing the date at the top (TOP) or at the bottom (BASE)

CAMERA NAME - show the camera name
NAME SHOW - show the name at the top (TOP) or bottom (BASE)
CAMERA NAME - type in the name you want to assign to the camera

MEDIA / IMAGE

In this section you can adjust the image



SLIDERS - Use the sliders to adjust the visual parameters FLIP / MIRROR - Flip the image horizontally or vertically.

WDR - Wide Dynamic Range - Improves the vision of areas with different levels of brightness

AEMODE - Adjusts the functioning of the electronic shutter (automatic, internal, external)

IMGMODE - Not used

IR LED - Sets the image B / W or color or with automatic day / night switching

SHUTTER - Not used

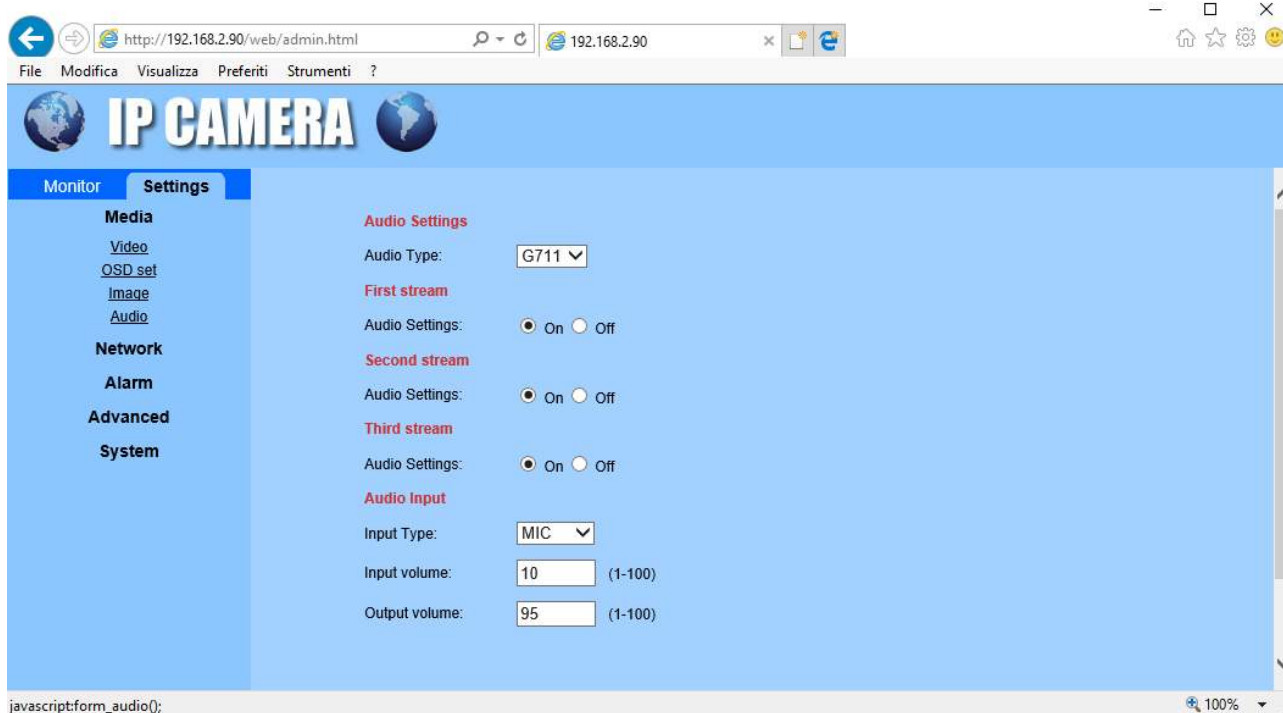
IRCUT - Not used

NOISE - Electronic video noise reduction (0-100)



MEDIA / AUDIO

In this section you can adjust the audio. The cameras are equipped with an external input for connecting a microphone



AUDIO TYPE - Defines the G711 or G726 audio compression

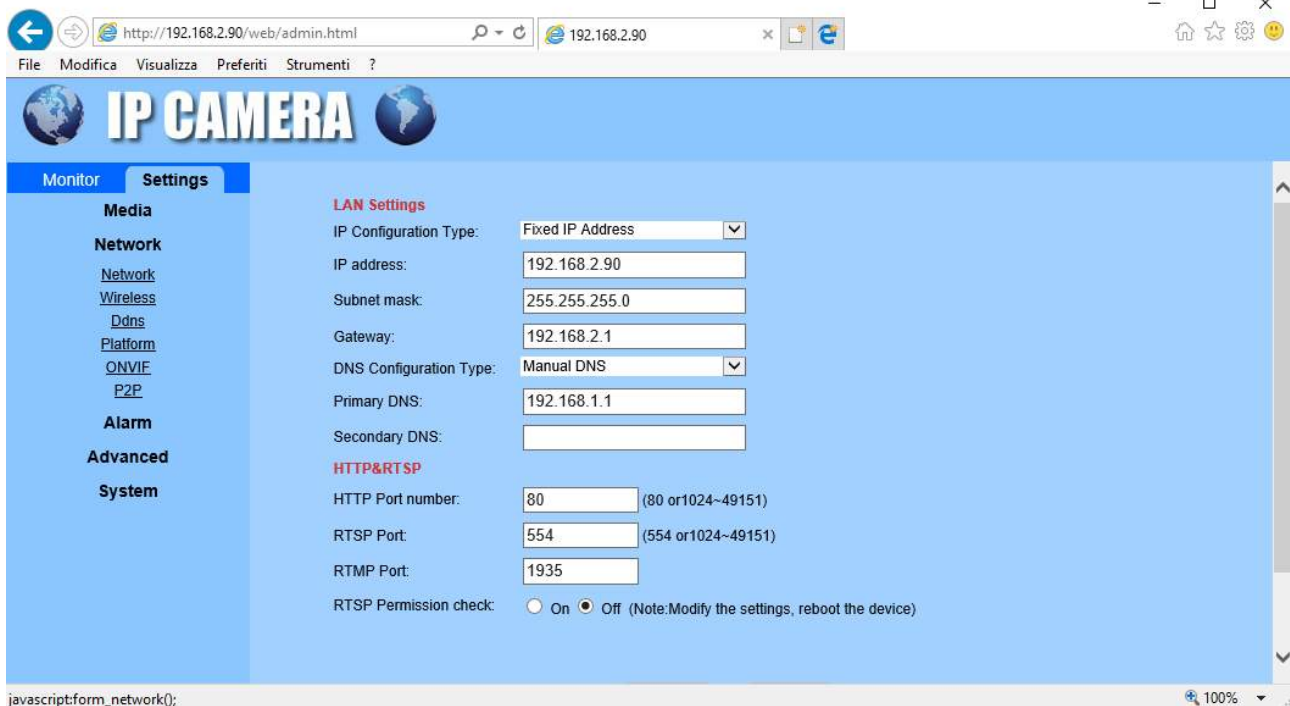
ON / OFF - Enable audio on the camera's 3 video streams

INPUT - Select MIC for the microphone input

INPUT / OUTPUT VOLUME - Adjusts the sensitivity and volume of the audio input

NETWORK / NETWORK

In this section, the network parameters of the camera are set



Generally these parameters are programmed during installation with the IPCamera program. In this window it is possible to modify them if necessary, taking care to do so consciously since modifying these settings normally leads to having to adapt the client devices to be able to maintain the connection.

IP TYPE: The cameras support both manual IP address assignment and automatic assignment by a DHCP server on the network. The latter is generally not used because it could cause the camera address to change over time.

IP ADDRESS / SUBNETMASK / GATEWAY: These are the classic parameters that allow the peripheral to communicate with its own network. Normally these parameters are assigned during installation with the IPCamera software as explained in the installation manual. If the data is entered manually, the camera must share the first 3 numbers of the IP address with the rest of the network (eg 192.168.0.xxx) and also the subnet mask (usually 255.255.255.0). The gateway is the IP address of the device that allows access to the Internet, usually a router and is almost always number 1 on the network (e.g. 192.168.0.1)

DNS TYPE- Defines whether to enter the DNS manually or to retrieve it from the router automatically

DNS- It is the DNS server address that allows the camera to interpret website addresses. If this address is invalid, the camera cannot contact websites such as our P2P server or NTP server for the time.

You can enter the DNS server address of your Internet provider (ISP) or other online DNS servers such as Google's (8.8.8.8).

DOORS

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Here you can change, if necessary, the communication ports that the camera uses in the network dialog.

HTTP PORT- It is the port used by the camera for connection with browsers. Port 80 by default is the one used by browsers normally if you do not specify a different port. If you change this port it will be necessary to indicate the new port in the address bar of the browser at each connection. For example, to connect to the address 192.168.2.120 on port 72 you will have to call `http://192.168.2.120:72`

RTSP PORT: It is the port used for video streaming with RTSP protocol towards clients such as VLC, REALPLAYER etc. Factory: 554

RTMP PORT- This port is used in encrypted security communications

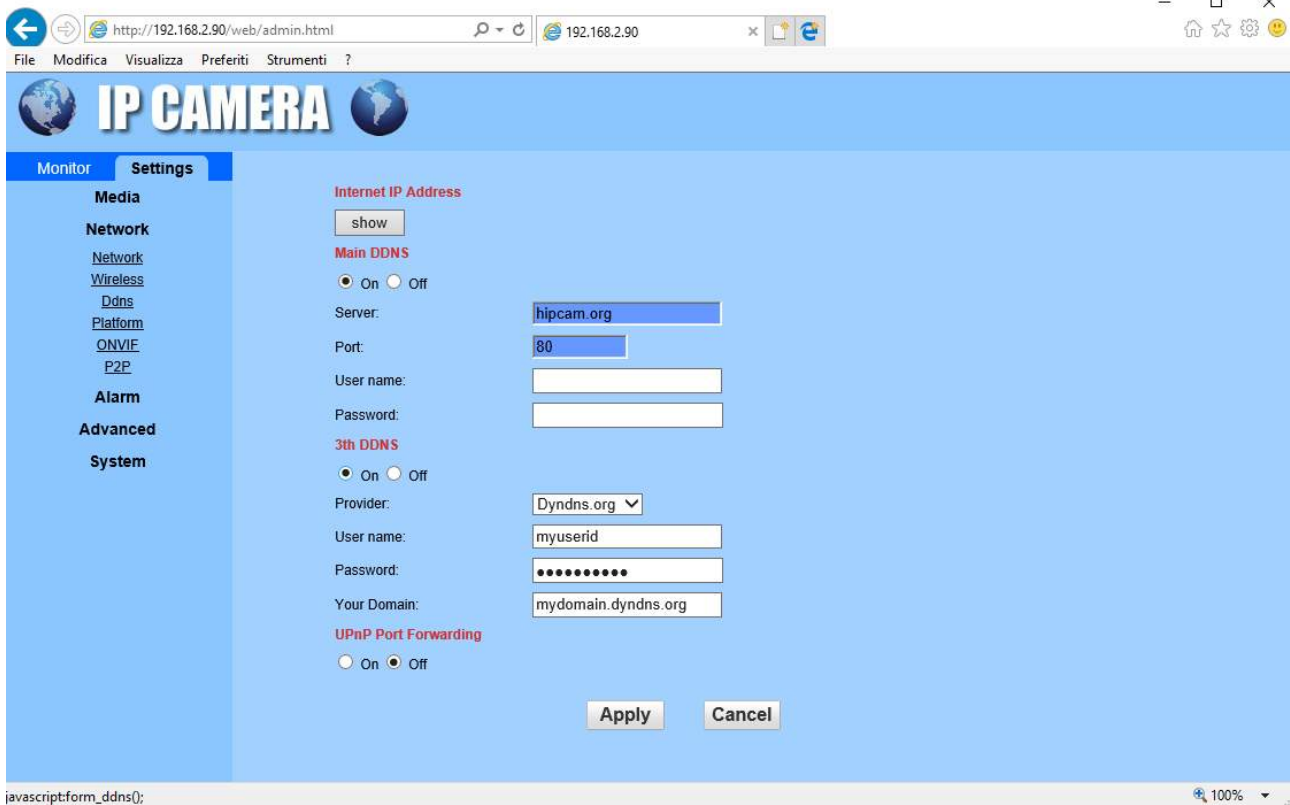
RTSP PERMISSION CHECK- Enable if you want to require authentication before sending the RTSP video

NETWORK / WIRELESS

In this section you set up the connection to the wifi network as explained above

NETWORK / DDNS

In this section you set up the connection to a possible DDNS server. This functionality, although still active, is now superseded by the convenient P2P function of the cameras. You can enter them in this window DDNS server credentials if for some reason you need to use it. The most common DynDNS.org, No-ip, 3322.org are supported.

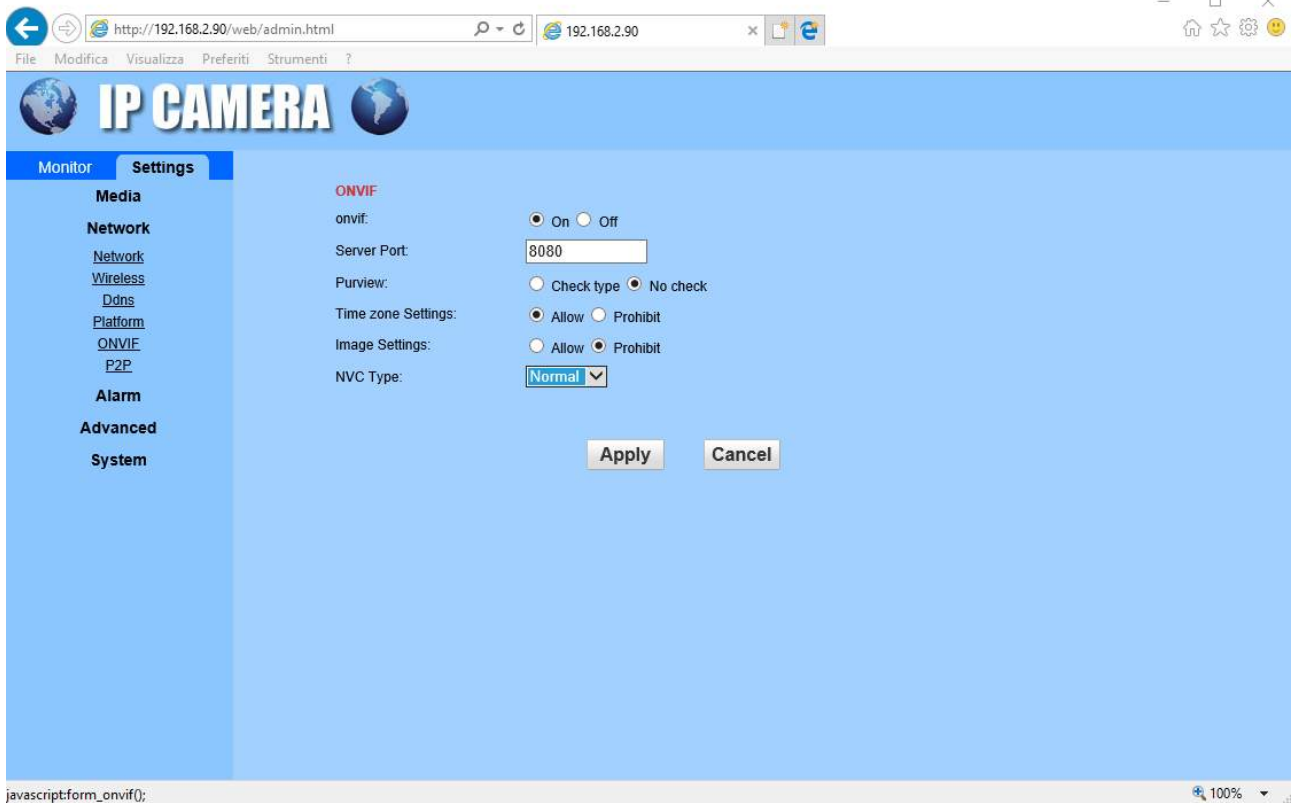


NETWORK / PLATFORM

Not used

NETWORK / ONVIF

In this section you can adjust some features in the management of the onvif protocol used by the camera to communicate with the NVR. It is advisable not to change these parameters except to optimize the dialogue with your NVR.

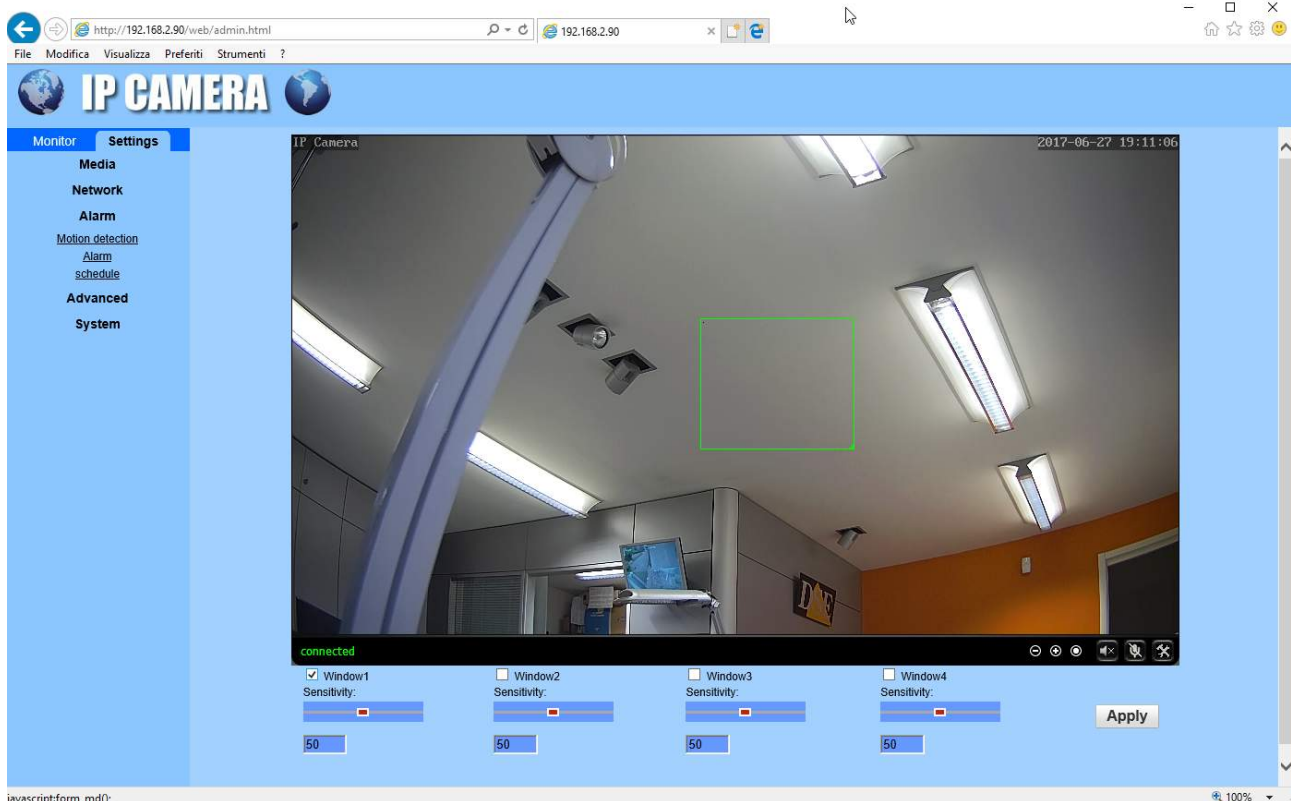


NETWORK / P2P

Connection management with P2P servers already described previously in this manual

ALARM / MOTION DETECTION

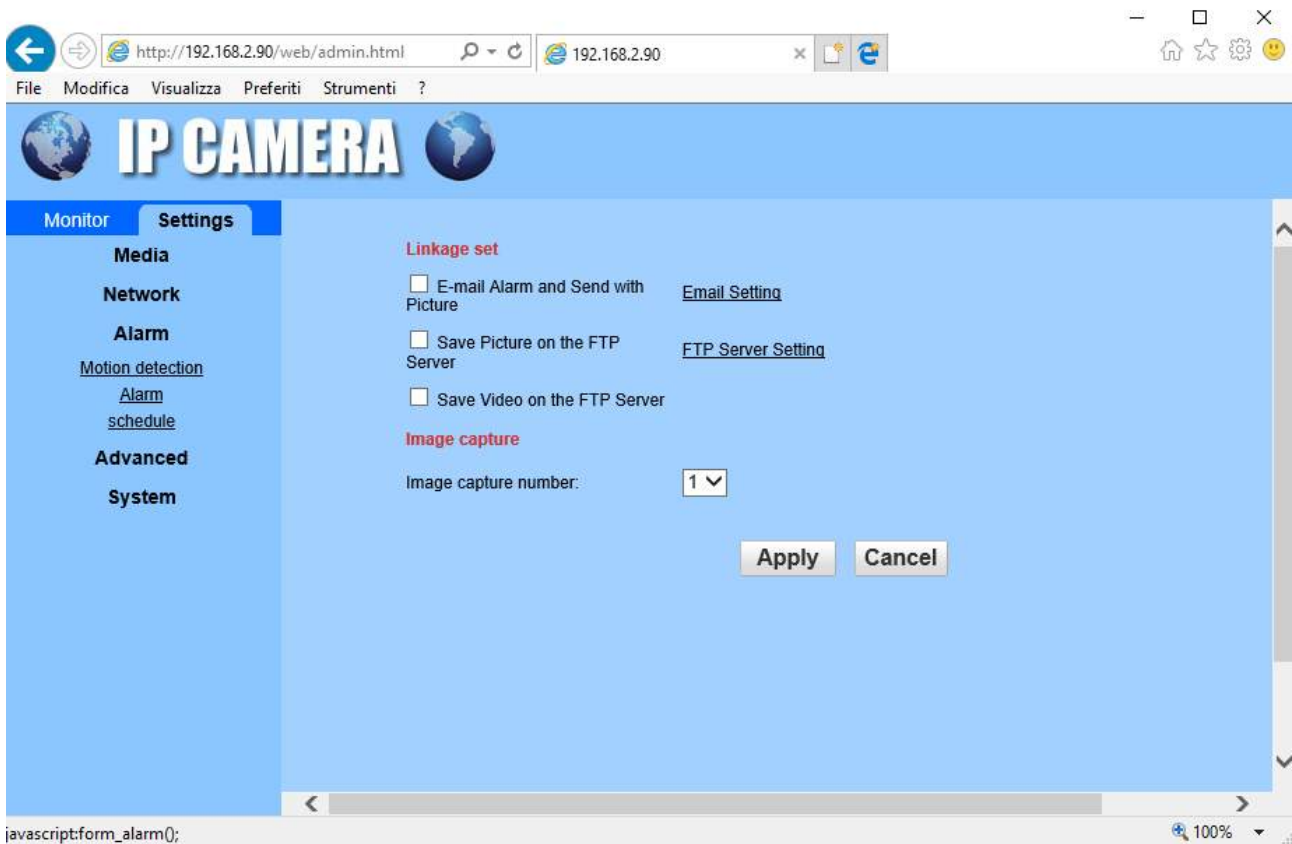
These cameras can detect the presence of movement in the field of view and trigger alarm actions. This feature is called Motion Detection. It is a function that is usually done by the NVR for greater convenience, but the cameras are also able to support it. To use motion detection you need to set up a detection area



The detection area is drawn by dragging the mouse. The cameras can manage 4 different detection areas. For each you can set the detection sensitivity with the slider.

ALARM / ALARM

This section allows you to define which alarm actions the camera should perform in the event of a motion alarm. It is possible to send emails and upload files to FTP servers.



E-MAIL ALARM - Enable to send alarm emails in case of motion detection. The photo is attached to the email at the time of detection.

EMAIL SETTING - This link opens a popup where you can enter the sending data of the email. It is necessary to enter the name of the SMTP server and the port to use (check with the internet provider), the recipient address (SEND TO) and the one you want to appear as the sender (SENDER), finally the subject and the text of the email . There is a TEST button to test the connection.

SAVE PICTURE ON FTP - Enable to send the motion event photo to an FTP server on the network.

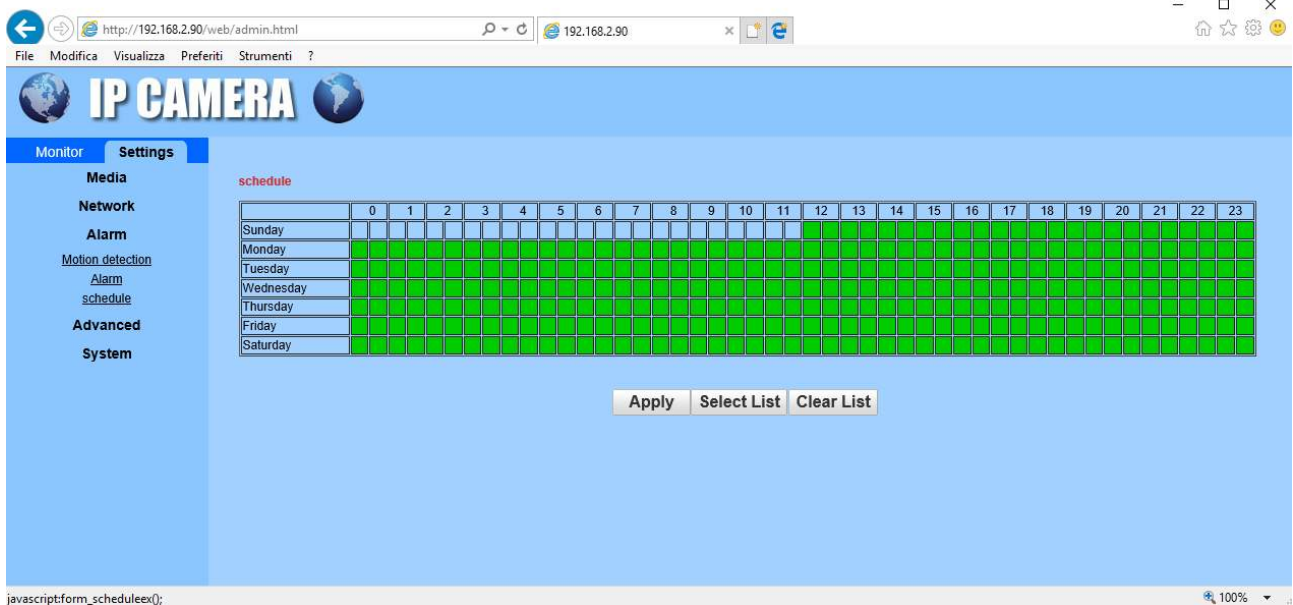
FTP SETTING - This link opens a popup where you can enter the data of the FTP server. You need to enter the FTP server address, port (usually 21) and login credentials. It is possible to indicate the folder where to save the files.

SAVE VIDEO ON FTP - If you enable this option, the camera sends a short 15 second video about the event as well as the alarm photos.

IMAGE CAPTURE NUMBER - Here you define how many photos to take in the event of a motion alarm and then send them via email or ftp (from 1 to 3).

ALARM / SCHEDULE

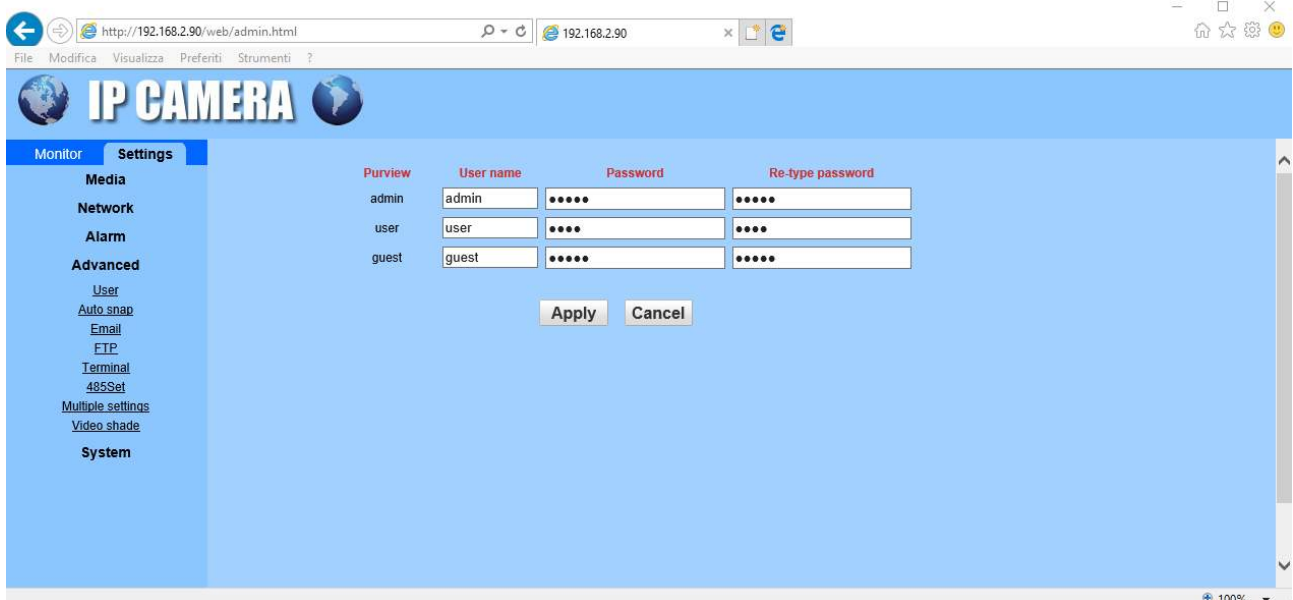
This section allows you to enable motion detection only at certain times of the week



The green colored boxes represent the time slots where the detection will be active
SELECT LIST - Activates all time slots
CLEAR LIST - Disables all time bands

ADVANCED / USER

This section allows you to change the passwords for accessing the camera.



The camera can manage 3 passwords which are factory default

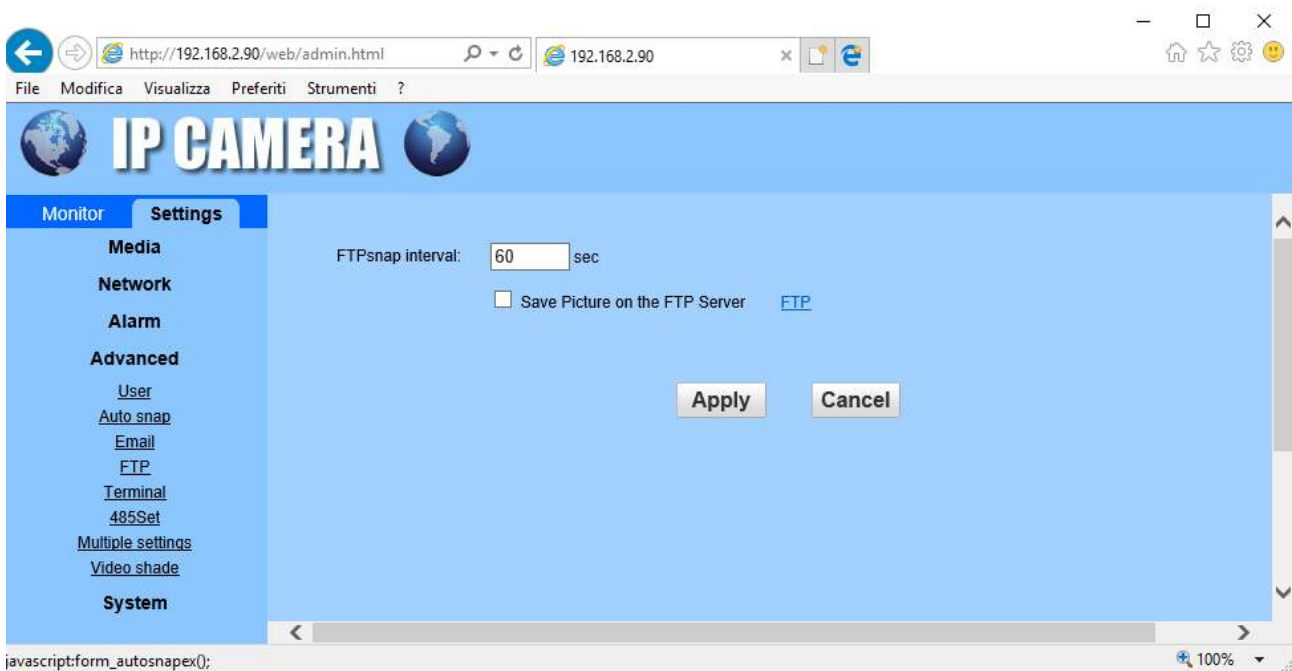
1. admin / admin - It is the administrator password with access to all functions
2. user / user - It is the user password that provides all live functions but not the configuration
3. guest / guest - This is the guest password which only allows you to view the live image



In these boxes you can change your username and password as you like, taking care not to forget them.

ADVANCED / AUTO SNAP

This function is very convenient if you use the camera to update the image of a website for example for a webcam service. Thanks to this function, the camera sends a frame to an ftp server at regular time intervals.



FTP SNAP INTERVAL - You can set the time interval between one sending and another. The range is very wide: from 5 to 86400 seconds.

SAVE PICTURE - Enables the sending of frames via ftpFTP - Allows you to enter the data of the FTP server. You need to enter the FTP server address, port (usually 21) and login credentials. It is possible to indicate the folder where to save the files.

ADVANCED / TERMINAL

Not used

ADVANCED / 485 SET

Not used

ADVANCED / LAN SEARCH

Not used

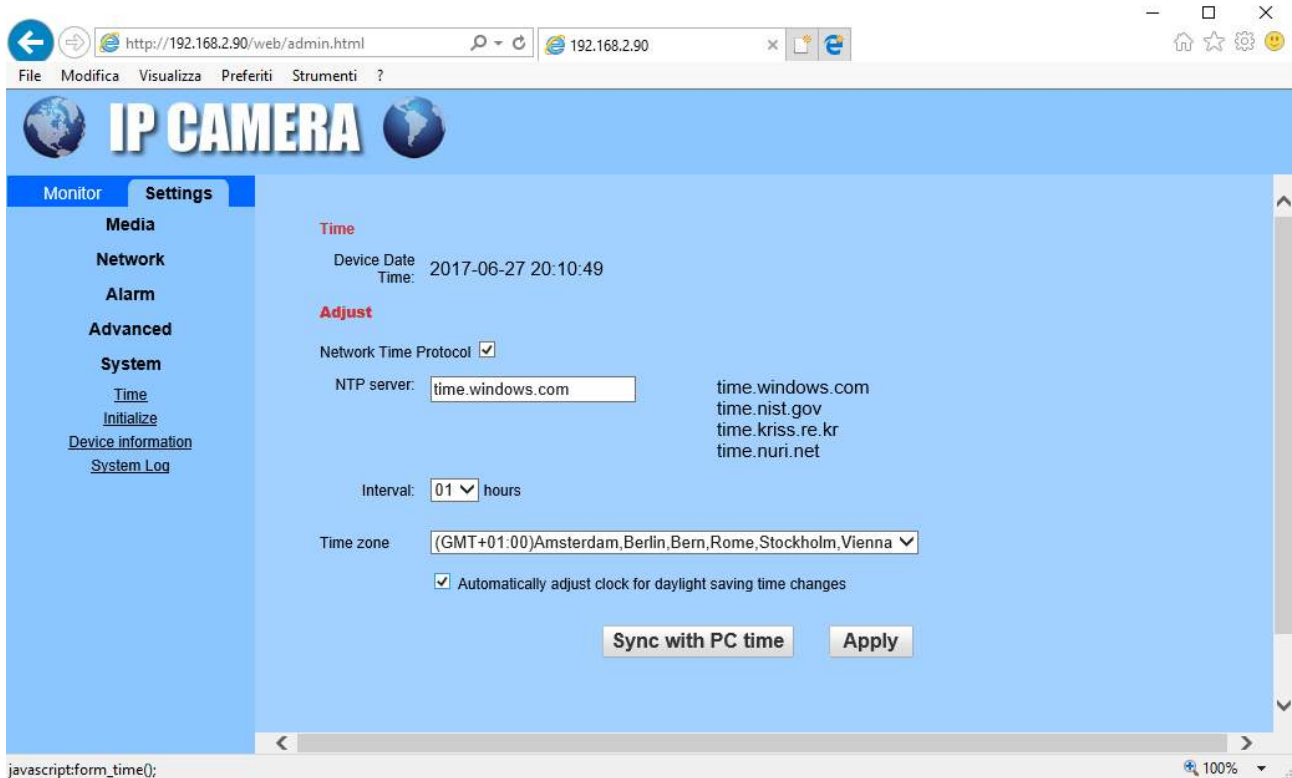
ADVANCED / VIDEO SHADE



Not used

SYSTEM / TIME

This section allows you to change the time displayed by the overlay camera



TIME - Displays the current date and time stored in the camera

NETWORK TIME PROTOCOL (NTP) - By selecting this option it is possible to have the camera automatically synchronize the time and date via the internet with an NTP (Network Time Protocol) server chosen from the list available. This is a very good option because it allows you to always keep the time correct. For synchronization to take place, the network to which the camera is connected must have access to the Internet and that the gateway (usually the router address xxxx.1) and the DNS server (recommended that of Google 8.8.8.8).

INTERVAL - Indicates the timing of synchronization with the server.

TIME ZONE - Select the reference time zone. For Italy GMT + 1.

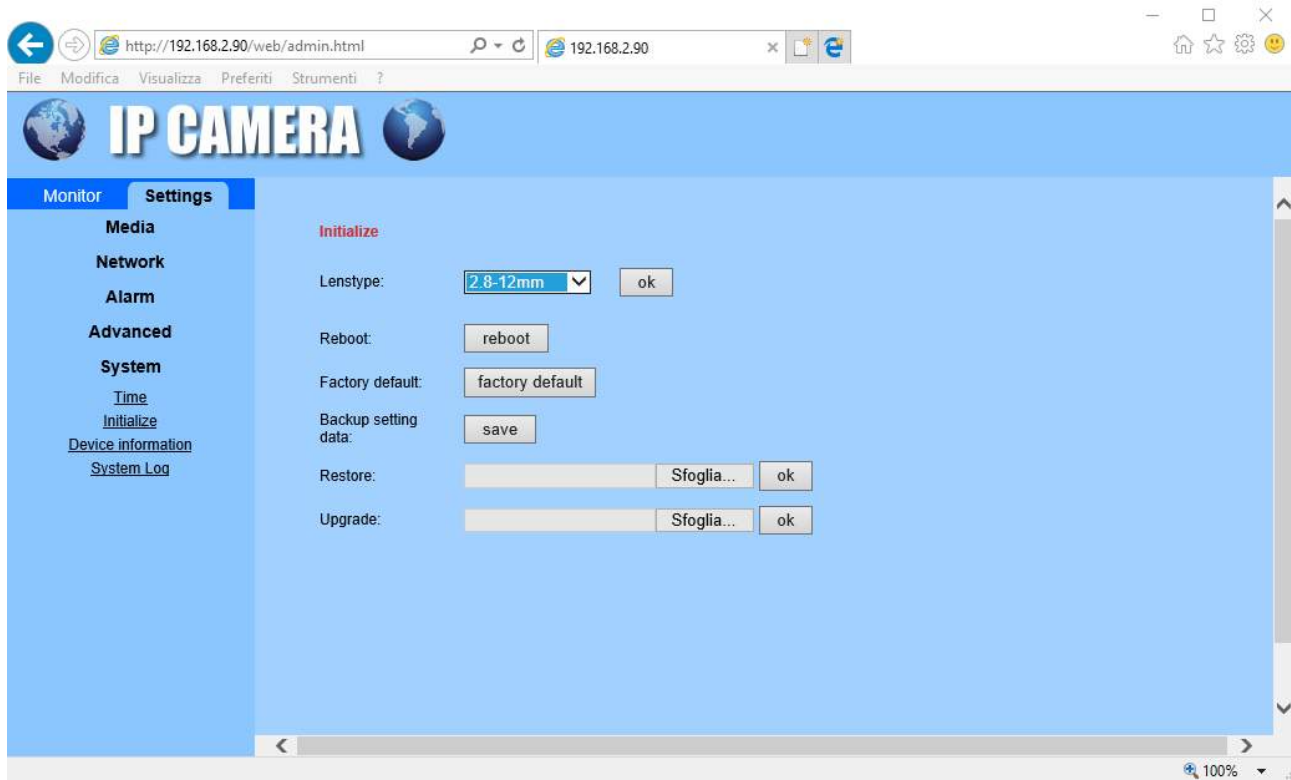
AUTOMATICALLY ADJUST CLOCK FOR DST - Select this option to have the camera change its time automatically when switching to daylight saving time.

SYNC WITH PC TIME - Pressing this button automatically synchronizes the date and time with the computer in use.



SYSTEM / INITIALIZE

This section allows some maintenance functions



LENS - Not used

REBOOT - Reboot the camera

FACTORY DEFAULT - Restore factory parameters

BACKUP SETTING - Exports the camera configuration to a .BIN file that can be saved on the local PC

RESTORE - Allows you to reload the previously saved camera configuration

UPGRADE - Allows you to update the camera firmware

SYSTEM / DEVICE INFORMATION

This section is informational only and shows all camera status data

SYSTEM / SYSTEM LOG

This section contains the camera event log

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The screenshot shows a web browser window with the URL `http://192.168.2.90/web/admin.html`. The page title is "IP CAMERA" and it features a navigation menu on the left with options: Monitor, Settings, Media, Network, Alarm, Advanced, System, Time, Initialize, Device information, and System Log. The main content area displays a system log with the following entries:

Timestamp	Action	User	Event
[2017_06_26 18:03:08]	login	user(admin)	for live stream.
[2017_06_26 18:03:55]	login	user(admin)	for live stream.
[2017_06_26 18:04:08]	logout	user(admin)	from live stream.
[2017_06_26 18:04:11]	login	user(admin)	for live stream.
[2017_06_26 18:08:37]	logout	user(admin)	from live stream.
[2017_06_26 18:08:40]	login	user(admin)	for live stream.
[2017_06_26 18:08:46]	login	user(admin)	for live stream.
[2017_06_26 18:08:47]	ircut: display switch(blackwhite -> color).		
[2017_06_26 18:08:49]	logout	user(admin)	from live stream.
[2017_06_26 18:09:01]	login	user(admin)	for live stream.
[2017_06_26 18:09:06]	logout	user(admin)	from live stream.
[2017_06_26 18:09:11]	login	user(admin)	for live stream.
[2017_06_26 18:09:16]	logout	user(admin)	from live stream.
[2017_06_26 18:09:17]	login	user(admin)	for live stream.
[2017_06_26 18:09:21]	logout	user(admin)	from live stream.
[2017_06_26 18:11:47]	login	user(admin)	for live stream.
[2017_06_26 18:11:52]	logout	user(admin)	from live stream.
[2017_06_26 18:11:54]	login	user(admin)	for live stream.
[2017_06_26 18:11:55]	logout	user(admin)	from live stream.
[2017_06_26 18:12:01]	login	user(admin)	for live stream.
[2017_06_26 18:12:08]	logout	user(admin)	from live stream.
[2017_06_26 18:12:11]	login	user(admin)	for live stream.
[2017_06_26 18:12:14]	logout	user(admin)	from live stream.
[2017_06_26 18:12:18]	login	user(admin)	for live stream.
[2017_06_26 18:12:21]	logout	user(admin)	from live stream.

At the bottom of the log area, there are two buttons: "Clear Log" and "Refresh".



Restore factory configuration

If you've messed around excessively with the adjustments and are now unable to get the correct view of the license plates, you can restore the factory settings.

The factory settings are the most suitable for most applications and almost always allow the reading of the license plate in all situations.

To restore the factory settings, locate the RESET button on the camera board, located above the screen, and hold it down for 3 seconds. The reset restores all the factory configurations while preserving only the network configuration.