



# RL Series IP Cameras

PTZ Speed Dome of ONVIF IP network



## Installation and Configuration

How to connect the camera How to make the  
connection in the network How to configure the camera



## Contents of this handbook

The range of cameras NAKED RL series is a range of IP cameras for network connection developed for use with NVRs.

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



## Introduction

The IP speed dome cameras RL series are IP Network Cameras with compression H265 / H264.

It is "NAKED" cameras that is with an essential hardware equipment. They are developed to work with network video recorders NVR ONVIF facilities to be provided in combination to handle the recording and remote access functions.



The units are connected to a LAN via RJ45 port as a computer or other network drives and images can be displayed on a PC using Internet Explorer browser.

Unlike other motorized our ranges, the whole range RL supports POE + (IEEE802.3at) and can be then fed along the network cable with our POE switch. Alternatively it can POE power to the local power 12VDCe with 12VDC adapter (included).



The RL Series cameras fully support the protocol

International ONVIF and are compatible with any IP recording software or network video recorder (NVR) can handle this standard.



## Technical data

See updated at tables:

[https://www.dseitalia.it/Prod\\_telecamere\\_motorizzate\\_brandeggiabili\\_IP\\_POE\\_per\\_esterno.htm](https://www.dseitalia.it/Prod_telecamere_motorizzate_brandeggiabili_IP_POE_per_esterno.htm)



## Installation

### CONNECTIONS

The speed dome series RL cameras have only 2 connections: a socket and a power plug 12VDC,



- NETWORK PORT RJ45 - RJ45 FEMALE connector to connect the LAN. This port is used to connect to a network switch using a standard LAN cable. If you use a PoE + switch this port also conducts the power.
- 12VDC - plug which connect the power supply 220VAC / 12VDC by at least 3A (included) if not using PoE power. If you are using a PoE + switch this connector is left unused.
- AUDIO - Some models have a female RCA connector to connect an external microphone for audio

### VERIFICATION OF CONNECTIONS

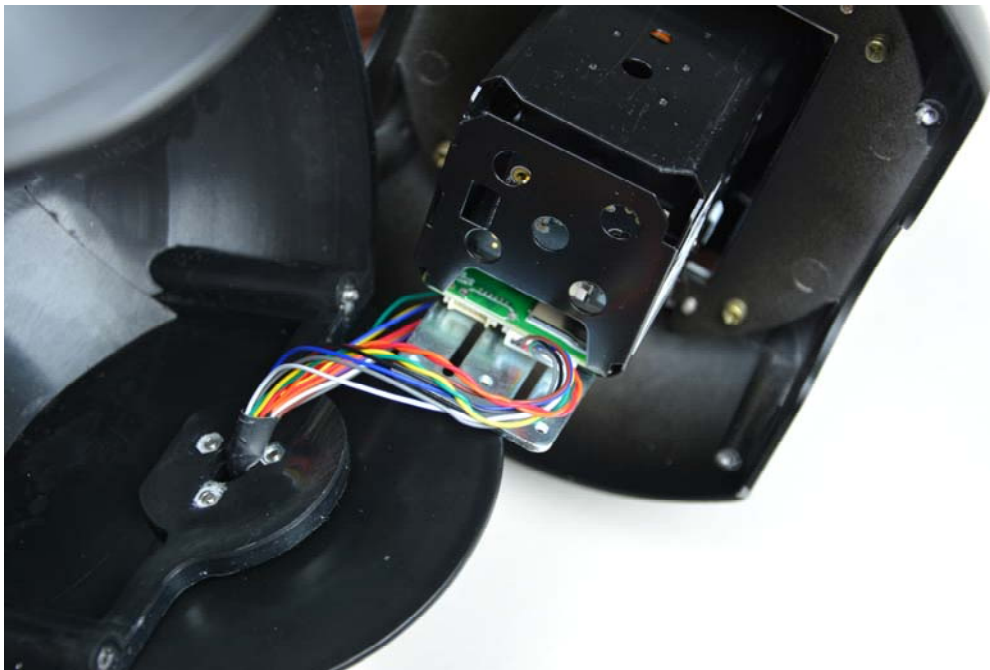
After the camera connected to verify that it performs an automatic rotational movement which certifies the proper nutrition. If the camera does not perform

no movement occurs on the power. If you're using one poe switch, may not support POE + IEEE802.3at to 30W, but just the normal POE IEEE802.3af.

After connecting the network cable to the switch verifies that the LEDs of the switches that correspond to the port that is used to start flashing. If verification remain off the network cable.

### SD CARD

Some cameras have an internal SD card slot which can be accessed by removing the camera cover. You can insert an SD card up to 128GB to record board room.



### MOUNTING THE CAMERA

The cameras are to be fixed to the wall with the supplied mounting bracket. The connecting cord extends through the bracket.

The camera housing is watertight and can be exposed to rain. The connections must be protected from the weather.

The cable entry may be provided at the center of the bracket if the cable passage is walled. Alternatively, a lateral conduit entrance is provided in the base of the bracket.

# INSTALLATION MANUAL

## IP CAMERAS SPEED DOME SERIES RL



Page: 7

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## Network Configuration

After providing power to the camera via the 12VDC power supply and after having connected the camera to the network switch with the LAN cable, the configuration of the network parameters must proceed in such a way to be able to make the cameras accessible by computer. The cameras are supplied with **IP address 192.168.1.110 factory**.

### SOFTWARE IPWIZARD

The CD supplied with the camera software is included **IPWIZARD for Windows**

it is good to install on any PC on the network. The function of this software is to detect the presence of the camera in the network, regardless of its address, and allow you to change the camera address in order to make it consistent with your network. Recall that because the camera is visible from the other PCs on the network it is necessary that the first 3 address parts are the same as other network PC and is equal also the subnet mask. To avoid conflicts we recommend a camera to network at a time, and insert new ones after you have set earlier.

### PRELIMINARY CHECKS

Before you must obtain from your network some information about the management of the IP addresses used in the network. E 'need to know an IP address can be assigned to the camera that is not equal to any other device already present in the network. If you are unsure of your network operations, you can use certain commands in DOS PROMPT.

On a network PC, open a DOS window available between the Windows accessory programs.

Type IPCONFIG at the command prompt and press ENTER. They will see the TCP / IP parameters. The second line is the IP address assigned to your computer.



```

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 above example the address of the PC on which you are working is 192.168.2.3 and the subnet mask used is the classic 255.255.255.0. The camera will be able, therefore, to assign an address chosen by the 192.168.2.XXX type, where XXX stands for a number between 0 and 255.

IS' important **choose an address that is not already used by other devices** of network. To verify that the chosen address is free, try to make a PING from the same DOS window by typing PING followed by a space and by the IP you wish to assign to the camera. If there is no device responds 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\WAMD>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\WAMD>

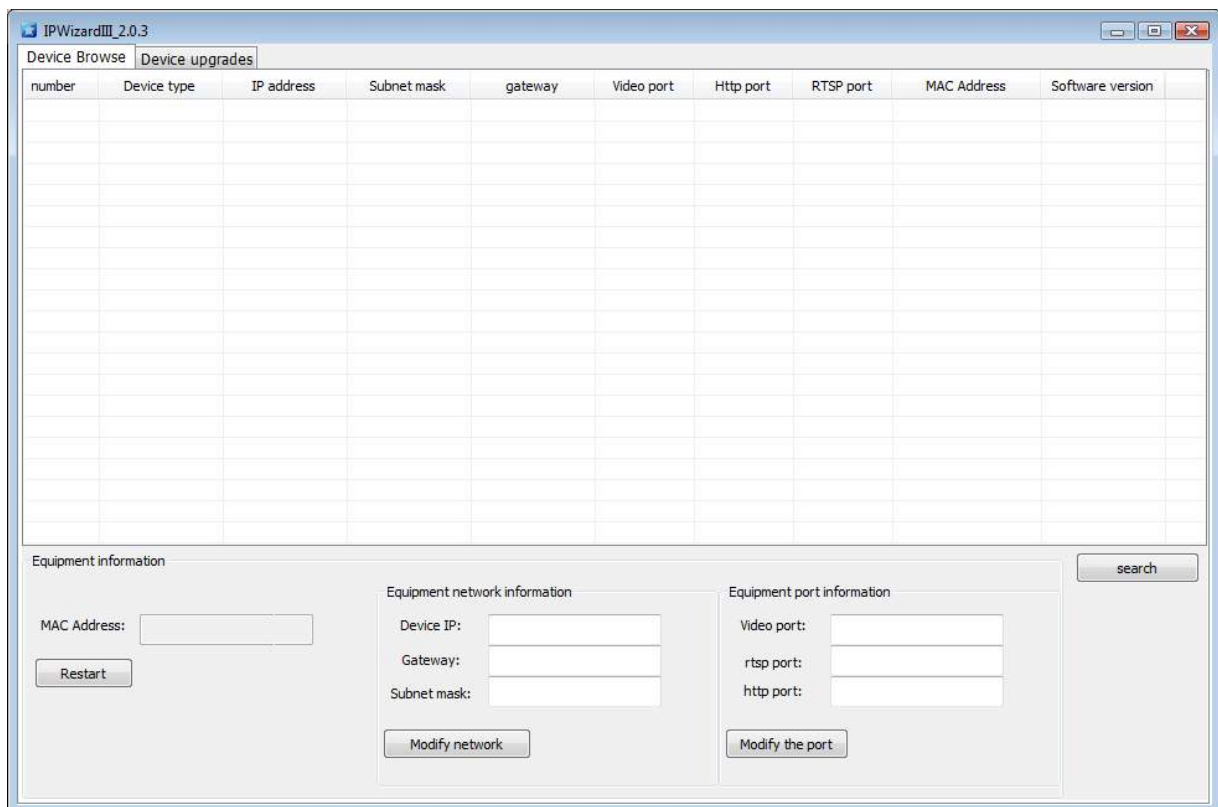
```

All cameras support the automatic IP address assignment from a DHCP server. This mode, however, is not recommended because in the event of power failure or restart of the equipment it is possible that the cameras IP address change necessitating a reconfiguration of the NVR. Better therefore assign a fixed address.

### IPWIZARD OF USE TO ASSIGN IP ADDRESS

After connecting the camera need to change the address of the camera to assign one consistent with its own network (first 3 parts of the address common to all network equipment). Proceed as follows:

1. Insert the CD into a PC player and explore the content. You'll find a file called IPWIZARD. IP WIZARD does not require installation. E 'can copy the file to a USB key to easily run the program on any PC on the network. Double click on the icon and it will launch the program.



2. Click on the SEARCH button. The program will start to search for the IP camera series RL

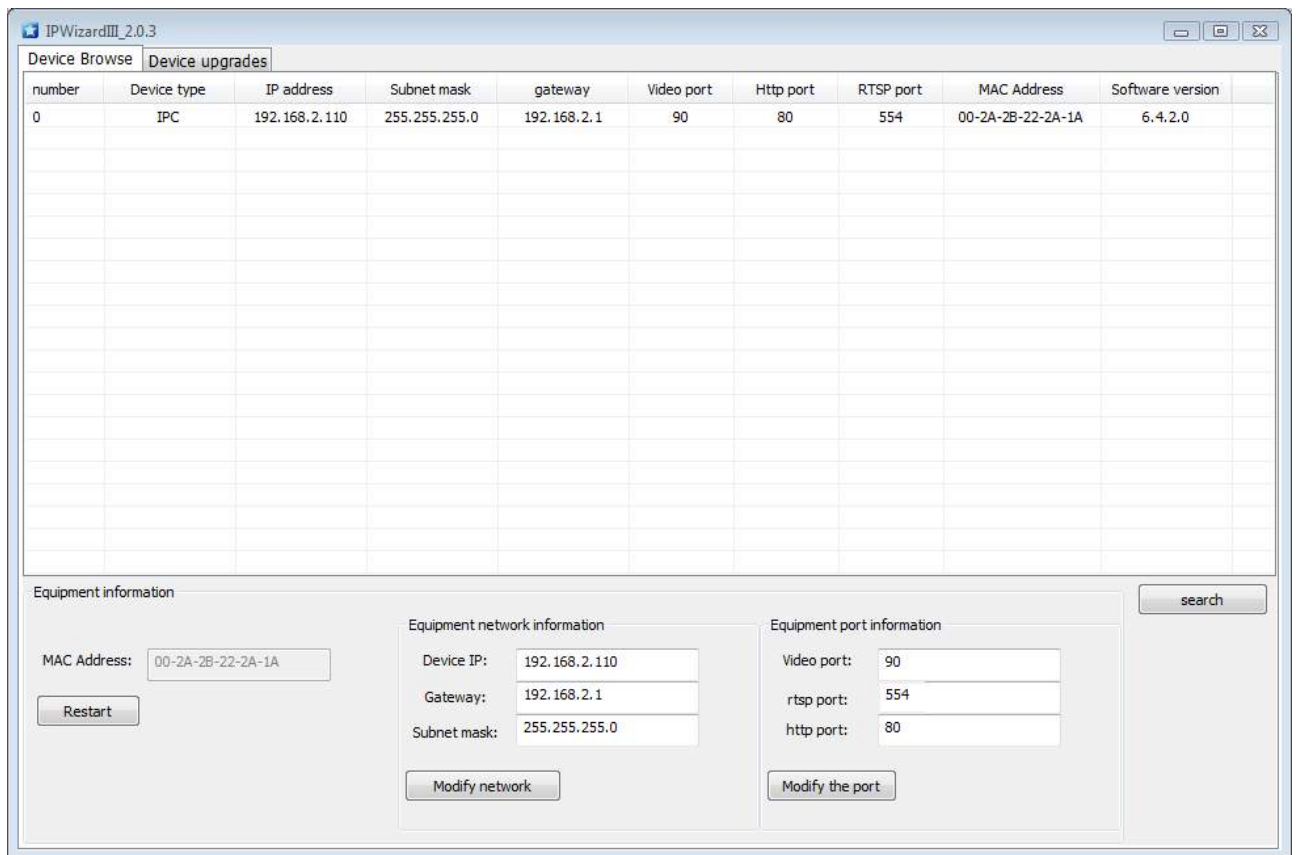


present in the network. Wait to complete the search. IPWIZARD is able to detect even cameras with different address class from that of the PC on which you are working.

3. When the search will see the list of detected cameras. If the camera is not

It was detected tests the functionality of network links. In the IP ADDRESS column shows the IP address of the camera current.

Click on the camera and you will appear in the lower section all other network parameters.



4. Of particular relevance are of the IP address (IP ADDRESS) which must have the same class

of the network (the first three groups of equal numbers) and the SUBNETMASK which must be the same as that used by the network (typically 255.255.255.0).

the communication ports used by the camera that agrees are also reported not change if not really necessary. You can edit the network parameters at will by writing in the boxes. Awards MODIFY NETWORK for transferring the pattern into the camera. Wait for the camera to accept the new settings. Check, by pressing the SEARCH button, the camera after a short wait to be detected with the new address.



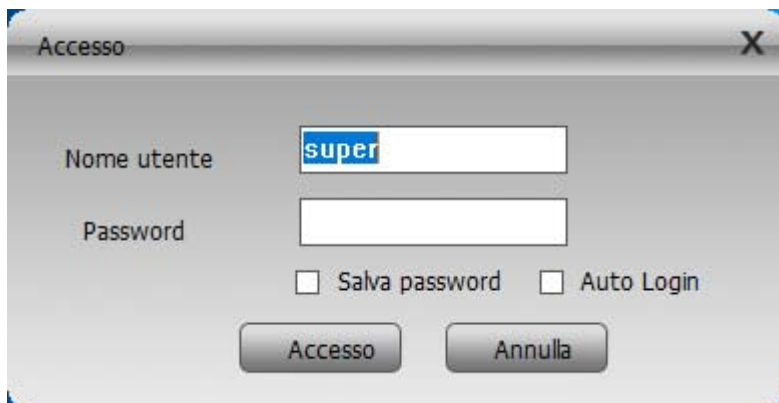
### SETTING ADDRESS WITH THE PROGRAM CMS

Even the CMS program, always on the CD, allows you to change the IP address of the cameras. You can use it as an alternative to IPWIZARD if you prefer to install software that allows you also to test the cameras. Proceed as follows:

5. Insert the CD into a PC player and explore the content. You will find an installation file  
--- .exe, double click on it and install the program on your PC. During installation, you can specify the program installation folders and saving files
6. Once the installation is complete, run the CMS program from its desktop icon



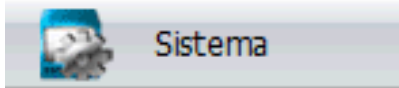
7. At the first start the program asks you to create an administrator account  
program. The factory password is EMPTY. You can specify a user name and password at will that will be remembered and select SAVE PASSWORD. Or simply enters beating ENTER





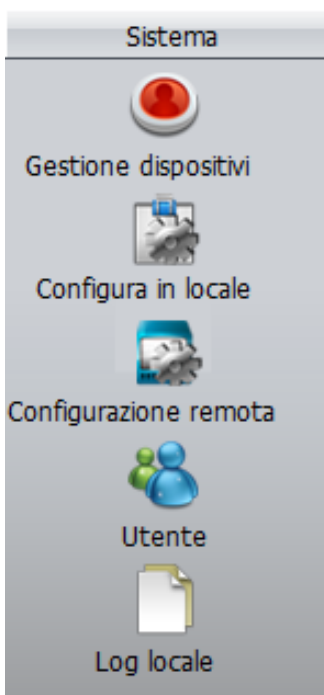
8. Click the System button in the bottom right-hand column to open a menu for

System Management



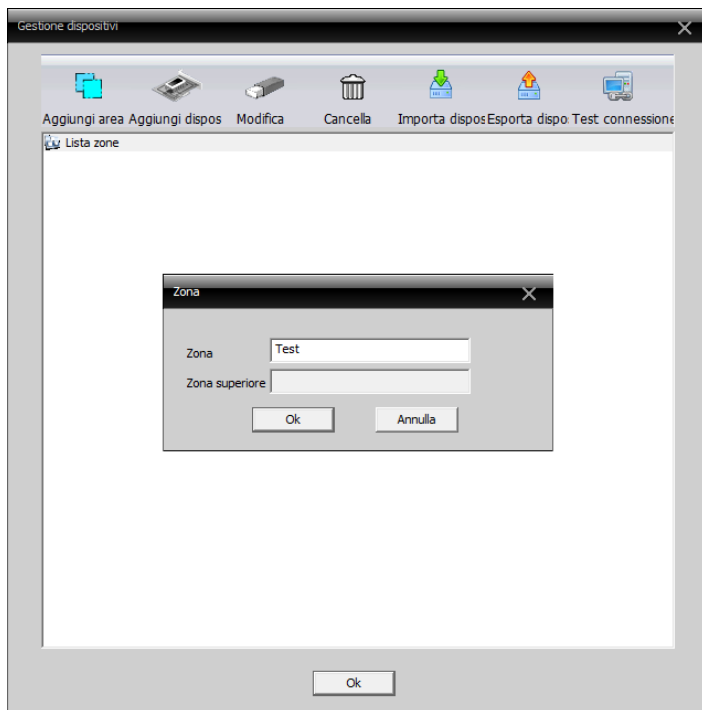
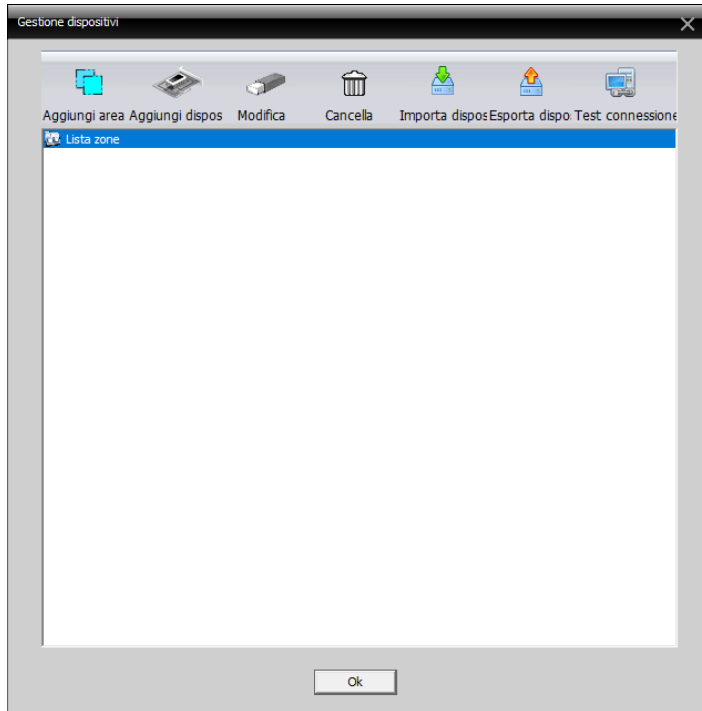
9. On the right the following menu. Click on the top button with voice MANAGEMENT

DEVICES



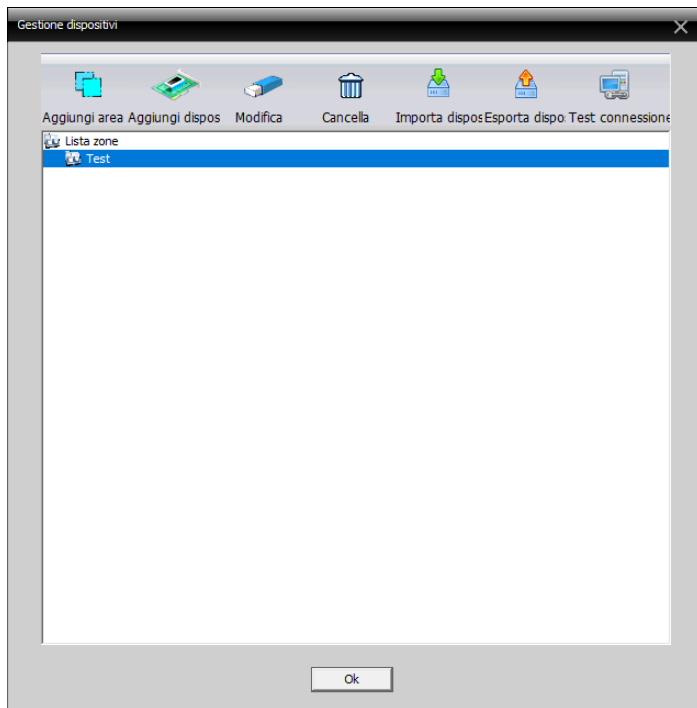
10. The program allows you to split the cameras to operate in different areas. Awards of

ADD AREA and enter any name for the area where you will find the camera that you want to add

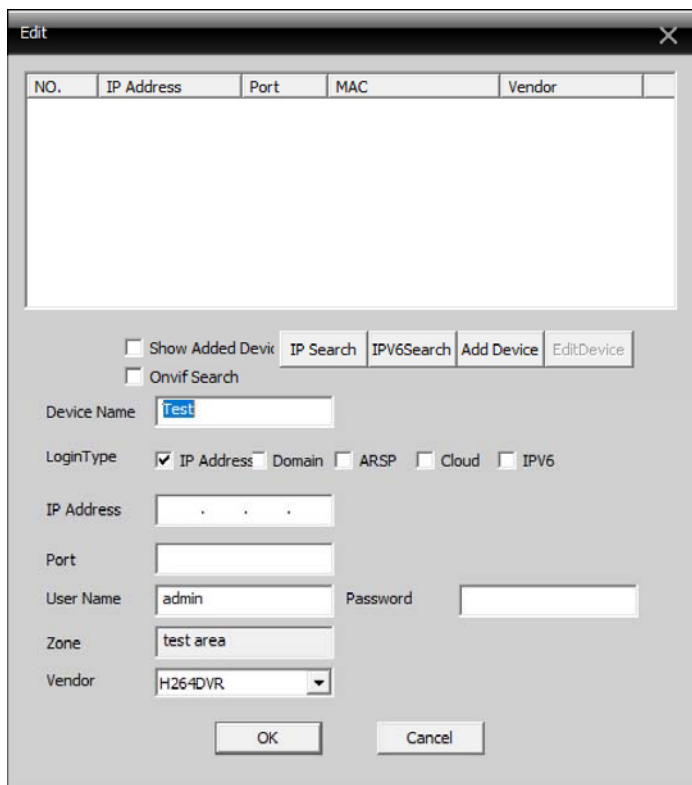




11. Select the area you just created and click on the ADD DEVICE button



12. This will open the following window that allows you to manage devices





Click on the SEARCH ADDRESS button to view all the cameras connected to your network. The address IP default of these cameras is 192.168.1.110

No	Indirizzo IP	Porta	MAC	Fornitore
1	192.168.1.86	34567	00:12:17:f6:a9:f1	DVR H.264

ONVIF di ricerca     rca indirizzo     PV6 di ricerca     iungi dispositi     ifica dispositi

ONVIF di ricerca

Nome:

Accesso:  Indirizzo IP     Dominio     ARSP     Cloud     IPV6

Indirizzo IP:

Numero porta:

Nome utente:     Password:

Zona:

Fornitore:

Ok    Annulla

13. Before you add the camera, the default IP address must be changed to make it consistent with your network. To do this select from the list and press the camera button on the EDIT DEVICE.

14. This will open a window containing all of the camera's network settings that we change at our pleasure.



A screenshot of a web-based configuration window titled "Modifica dispositivo" (Modify device). The window contains several input fields for network and device settings. The fields are: "Indirizzo IP" (IP Address) with the value "192 . 168 . 1 . 86"; "Subnet-Mask" with the value "255 . 255 . 255 . 0"; "Gateway" with the value "192 . 168 . 1 . 1"; a checkbox labeled "upero automat" (likely "DHCP automatic") which is checked; "Porta HTTP" (HTTP Port) with the value "80"; "Porta TCP" (TCP Port) with the value "34567"; "MAC" with the value "00:12:17:f6:a9:f1"; "Nome" (Name) with the value "admin"; and "Password" which is empty. At the bottom of the window are two buttons: "Modifica" (Change) and "Cancella" (Cancel).

Enter the new IP address and make sure all other data is correct (the IP address and gateway segment should be equal).

Confirm the changes by pressing CHANGE. The password of the factory and EMPTY camera. In the example below we have modified the camera address 192.168.2.86 in because obviously we are working on a network that uses address class

192.168.2.xxx. We have chosen 86 in a purely arbitrary because, for example, we decided to give our 6 cameras addresses from 81 to 86. We have kept the subnet mask of 255.255.255.0 factory because our network, as most internal networks using this subnet mask.

The following arguments are not essential for the operation, but in any case we have included in the DEFAULT GATEWAY the address of the router of our network 192.168.2.1 and DNS servers we kept those of the factory which are then free those of Google. We do not modify the communication ports because they do not need.

The above it is of course only an example, to understand what reasoning should be followed in setting up a correct address.

15. You will be brought back to the previous screen. Press again on the button SEARCH

ADDRESS to display the camera with the new address.



No	Indirizzo IP	Porta	MAC	Fornitore
1	192.168.2.86	34567	00:12:17:f6:a9:f1	DVR H.264

ONVIF di ricerca     rca indirizzo     IPv6 di ricerca     iungi dispositi     ifica dispositi

ONVIF di ricerca

Nome:

Accesso:  Indirizzo IP     Dominio     ARSP     Cloud     IPV6

Indirizzo IP:

Numero porta:

Nome utente:     Password:

Zona:

Fornitore:

Ok    Annulla

Now select the camera in the list and click on the ADD DEVICE button to add the camera to the area selected devices and to control the video with the program. Click OK twice to close the open windows and return to the main screen of the software.

### TEST THE CAMERA WITH THE PROGRAM CMS

1. You can now view the camera's live video that you just added to ensure it is

It was added correctly. To do so, expand the IP address of your camera to display the type of device on the top left of the page



2. Drag the device that appears (in this example CAM01) in one of the windows in the middle section of the software for the video visualizzarci



### USING THE PROGRAM CMS AFTER INSTALLATION

In addition to being useful in the installation and in the CMS program of testing cameras you can also leave eventually installed on one or more PCs on the network for direct visualization and control of the camera without going NVR. It also lets you save videos in the coming local PC acting as a backup recording in addition NVR.

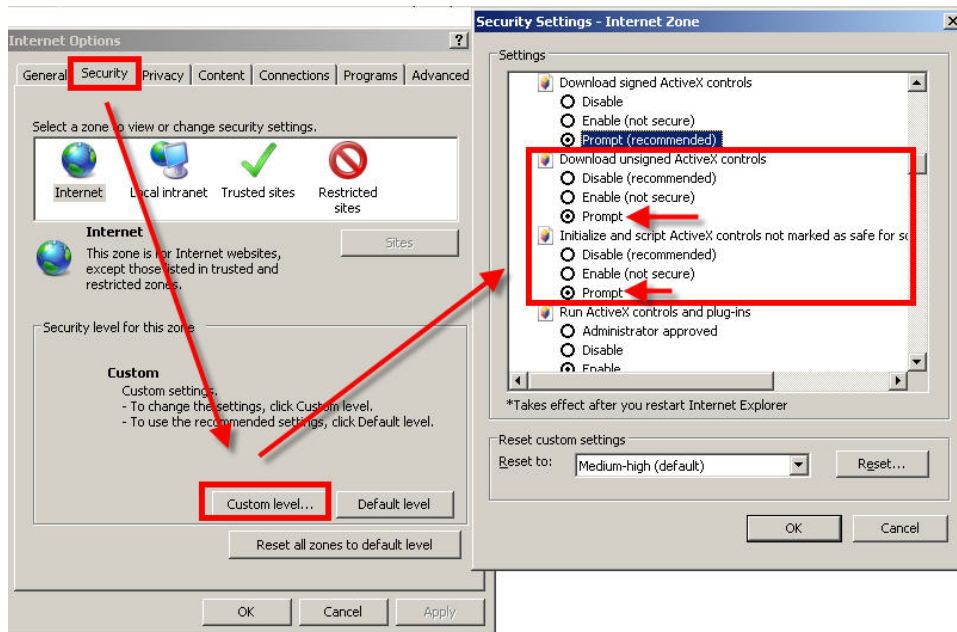


## with browser access

Once properly set the network parameters, you can make the first access to the camera using the IE browser. Do not use other browsers like Edge, Chrome etc. they are not supported.

### ENABLE PERFORMANCE OF ACTIVEX

Internet Explorer has security settings that may prevent the installation of the ActiveX component. Before making the connections necessary to enable the execution of ActiveX not marked as safe. In Internet Explorer, select TOOLS / INTERNET OPTIONS

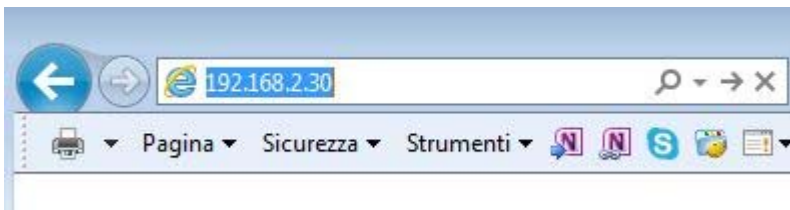


In the folder PROTECTION choose the area of interest (Internet or local network) and click CUSTOM LEVEL. Enable all items for the download and execution of ActiveX especially those NOT marked as safe. E 'can set the items either ENABLE or ASK FOR CONFIRMATION. Finally, save and restart the browser.



### ENTER THE ADDRESS IN THE BROWSER

To access the camera using the browser, type in the address box, the IP address that you assigned. In the example below we perform a link on the internal network to the camera with IP address 192.168.2.30.



It is not necessary to specify the connection port since the cameras using factory port 80 which is the one usually used by browsers.

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



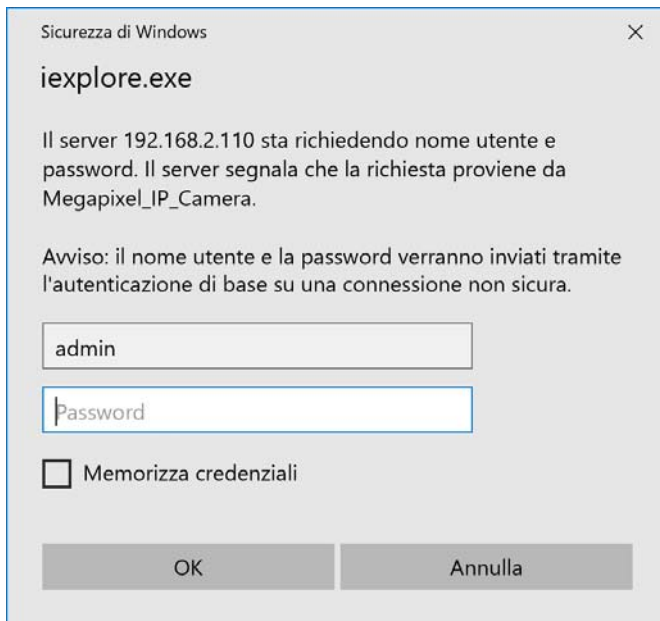
### LOG-IN

If the connection to the camera has successfully presents the log window to enter the access data

The data of the RL Series cameras factory passwords are:

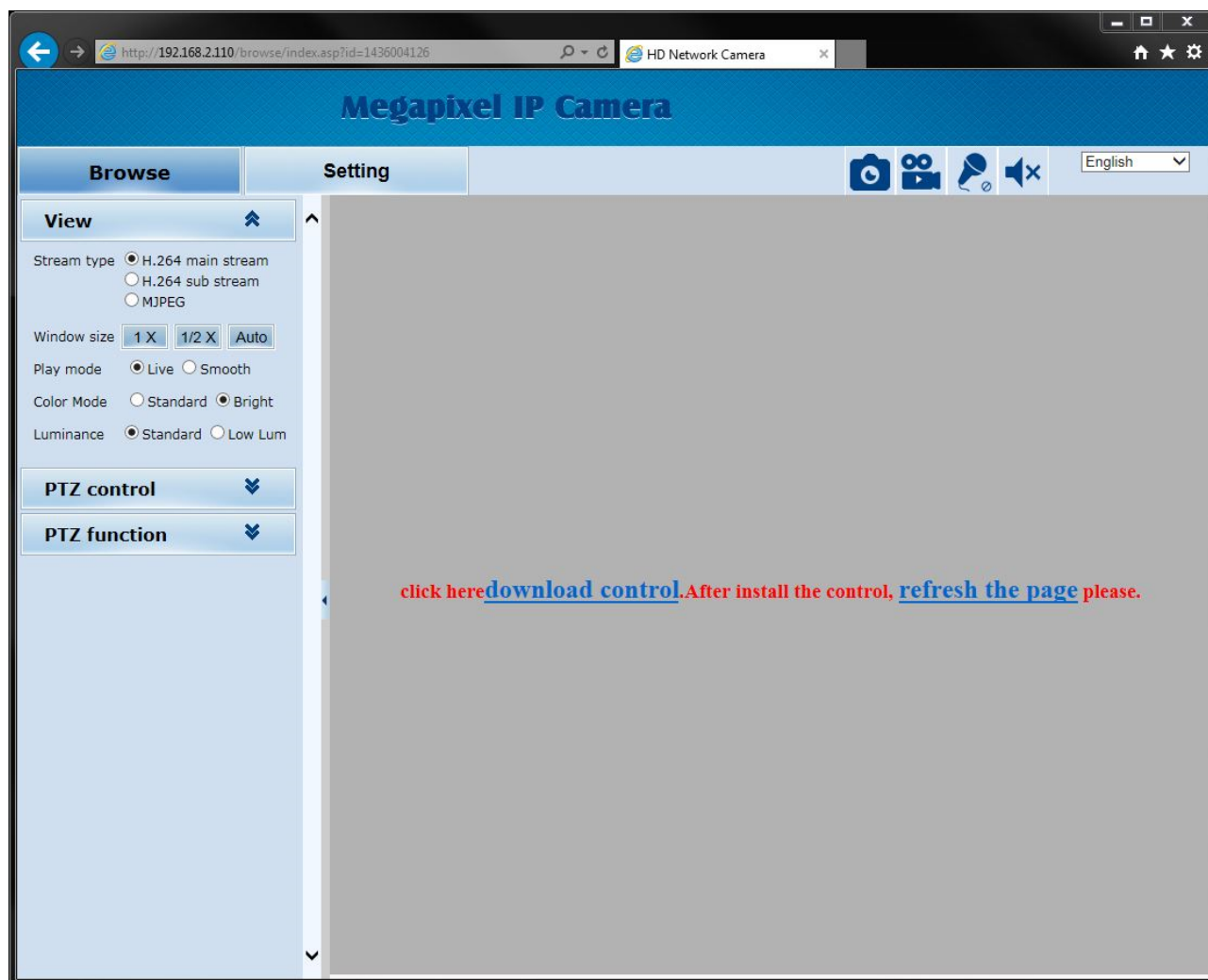
**USERNAME: admin**

**PASSWORD: leave blank (or admin)**

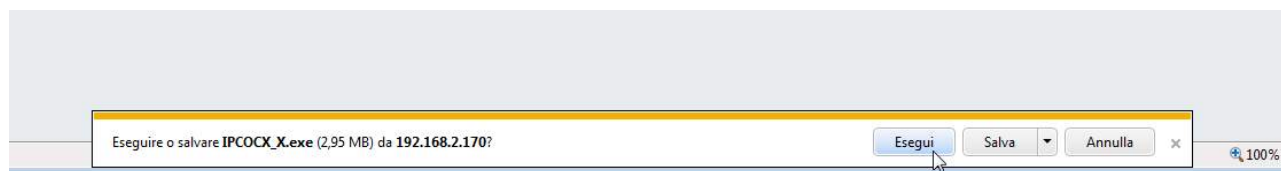


### INSTALLING ACTIVEX

In order to make sure that the RL series IP cameras are displayed on the browser you must install the ActiveX components. On first access you make, the system will detect the absence of these components in your computer and will display the following window.



Click on **DOWNLOAD CONTROL** to download activeX components.



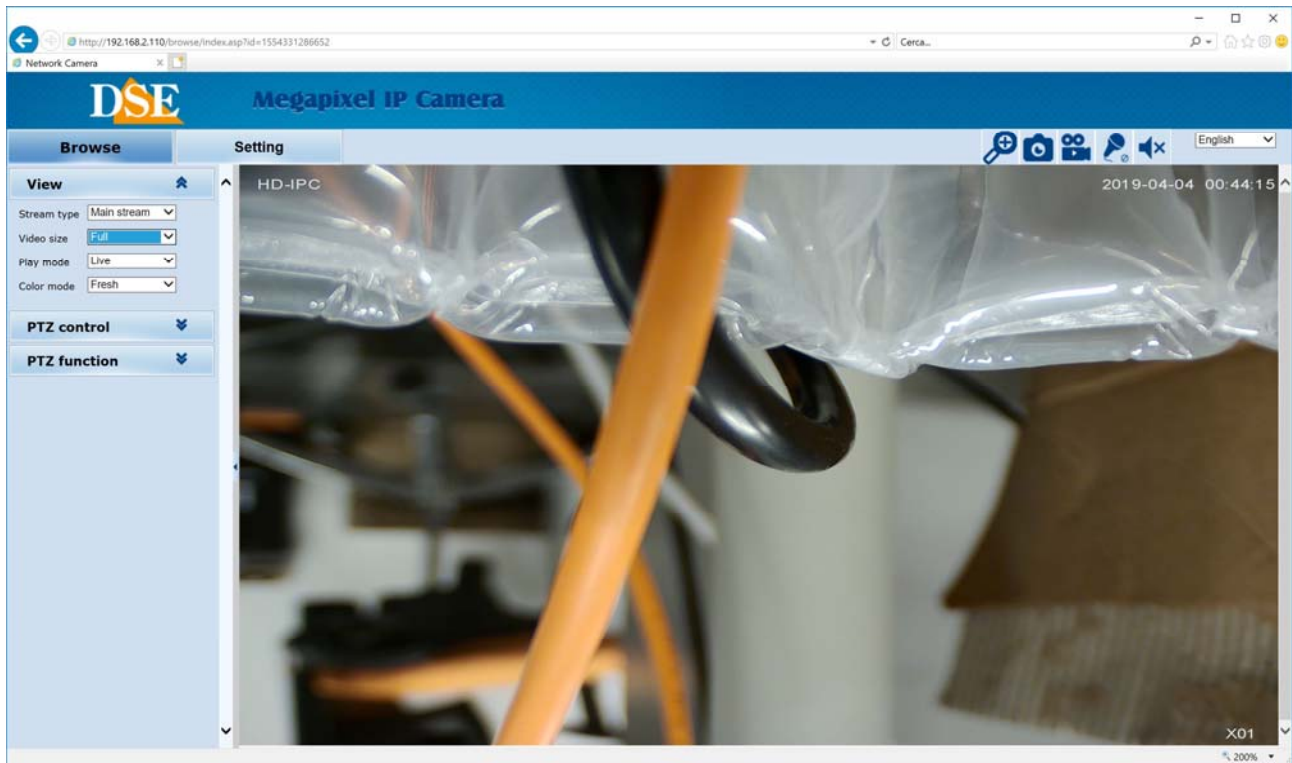
E 'can both run the program directly by choosing **RUN** to save the file on your local PC and then install it manually. We must close the browser to install the plugin. Once the program is installed need to restart your browser and re-connect to the camera.

# INSTALLATION MANUAL

## IP CAMERAS SPEED DOME SERIES RL



Page: 24



The options in the dialog are described in detail below.





## Login with ONVIF NVR

These cameras can be connected to a network video recorder (NVR) or external recording software.



To do this you use the ONVIF standard, which fully support these cameras. To connect cameras to NVR or software ONVIF refer to the recording equipment manuals. As a rule, NVR recognize the communication parameters to communicate with the cameras automatically.

These cameras utilize the door factory **8999** to communicate with ONVIF devices. If your NVR does not support H265 video compression

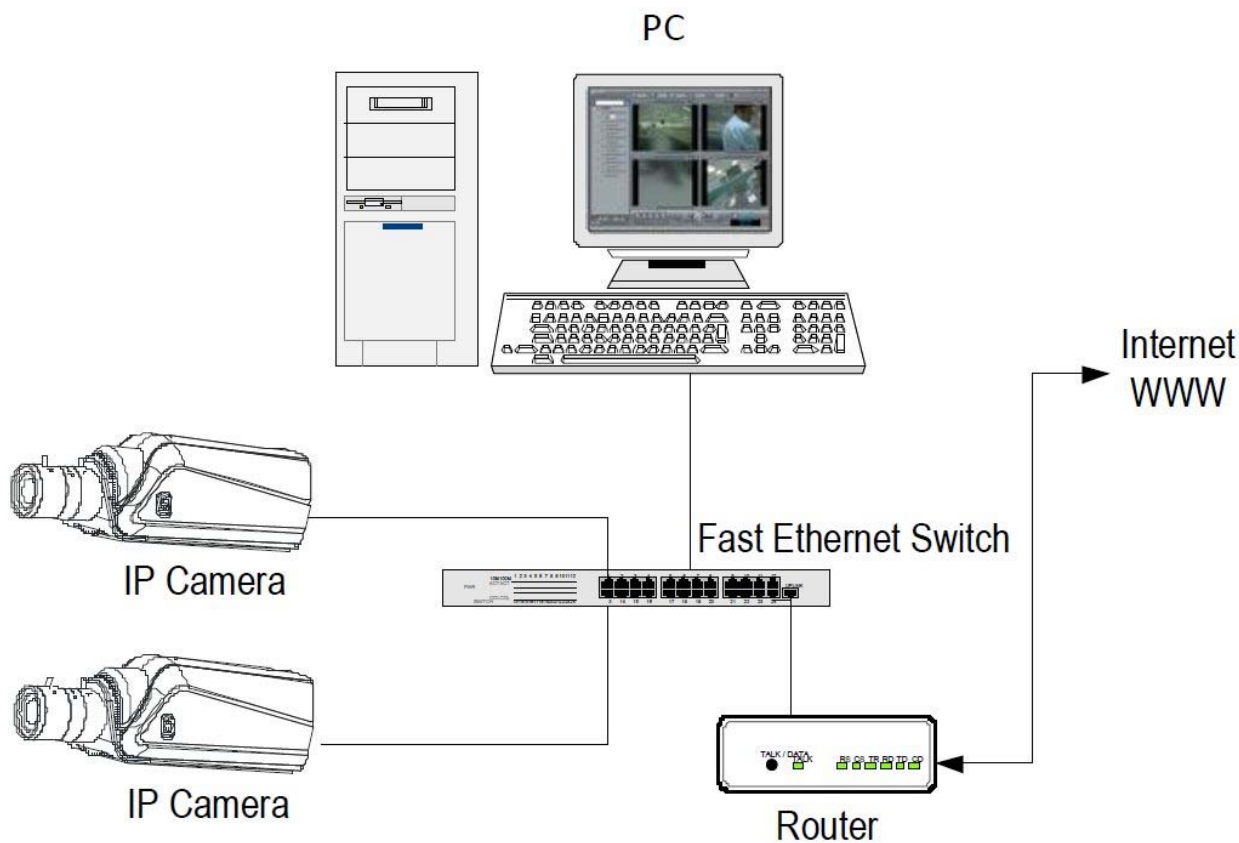


### from web access router

The connection to a rule cameras through the Internet is not made by calling individual cameras but making the NVR connection. For this type of connection is necessary to refer to the manual of NVR. E ', however, can also connect to the web directly to the cameras with the Internet Explorer browser. To do this you need to make a configuration inside the router following the directions in this chapter where we explain the mapping of the communication ports. To connect from the app with the phone you can also avoid the port mapping using the P2P cloud server free.

### MAPPING WITH WEB ACCESS DOORS ROUTER

An installation of IP cameras is often placed inside a LAN connected to the Internet via a router as in the following scheme





If we use for viewing the cameras internal PC to the network, the addresses of the cameras (usually the 192.168.XXX.XXX type) are directly accessible. If you wish to connect via the Internet using a PC placed elsewhere, the internal network addresses will no longer be reached directly, because the only IP address visible from the web will be what our router will by its WAN side that is towards the Internet outside world.

This address is assigned by the provider (ISP). And 'advisable to get from the provider a fixed address each time they connect. If there is a chance you need to use DDNS services (see configuration manual).

is not sufficient, however, type in the browser the IP address of the WAN side Router to connect to the cameras. The router acts as a filter and drops every external call that a call from within the network is not paid before. In order to connect the cameras it is therefore necessary to insert inside the router ports of directing instructions which, depending on the router manufacturers are called NAT, PORT FORWARDING, PORT MAPPING etc.

In practice, access the router configuration and insert instructions so that this direct calls coming from outside, to the inside IP address of the cameras. Obviously the directing is only performed for the communication ports that are used by the cameras and that will be detailed below.

The communication ports used by the factory RL Series cameras are as follows:

- **HTTP PORT:** Default 80. The cameras use this port to communicate with browsers like IE. Browsers such as Internet Explorer use the factory port 80 for communication. For example, if we type in the browser address bar: `http://212.12.34.201` will be called the IP address 212.12.34.201 on port 80. If in the configuration of the camera is set to a different HTTP port (eg. 81, 82 etc. ) needs to be clarified in the browser which port to use for the call after pointing the address with ":" to separate it. If, for example. `http://212.12.34.201:81` we type will be called the IP address 212.12.34.201 port 81.
- **VIDEO PORT:** Default 90. E 'used by the camera for sending video



- **PORT ONVIF:** Default 8999. And 'the port used by the cameras for dialogue with NVR onvif.
  
- **PORT CMS:** By default 34567. E 'the port used to communicate with the CMS software.

If behind the router counts more than one camera and you want to reach them individually from the outside you must be assigned to each of them a different http port. For example 80,81,82 doors etc.

In the NAT router settings you will have the direction of each door towards the inside address of the own camera.

Note that many routers require that each directing NAT is also combined with a rule in the firewall section that determines the opening of the affected port. Consult your router's manual for details on how to program the port mapping

Remember that web access to IP cameras in this range is much easier if done through the NVR, why the information provided in this chapter are present only for informative purposes for particular applications.

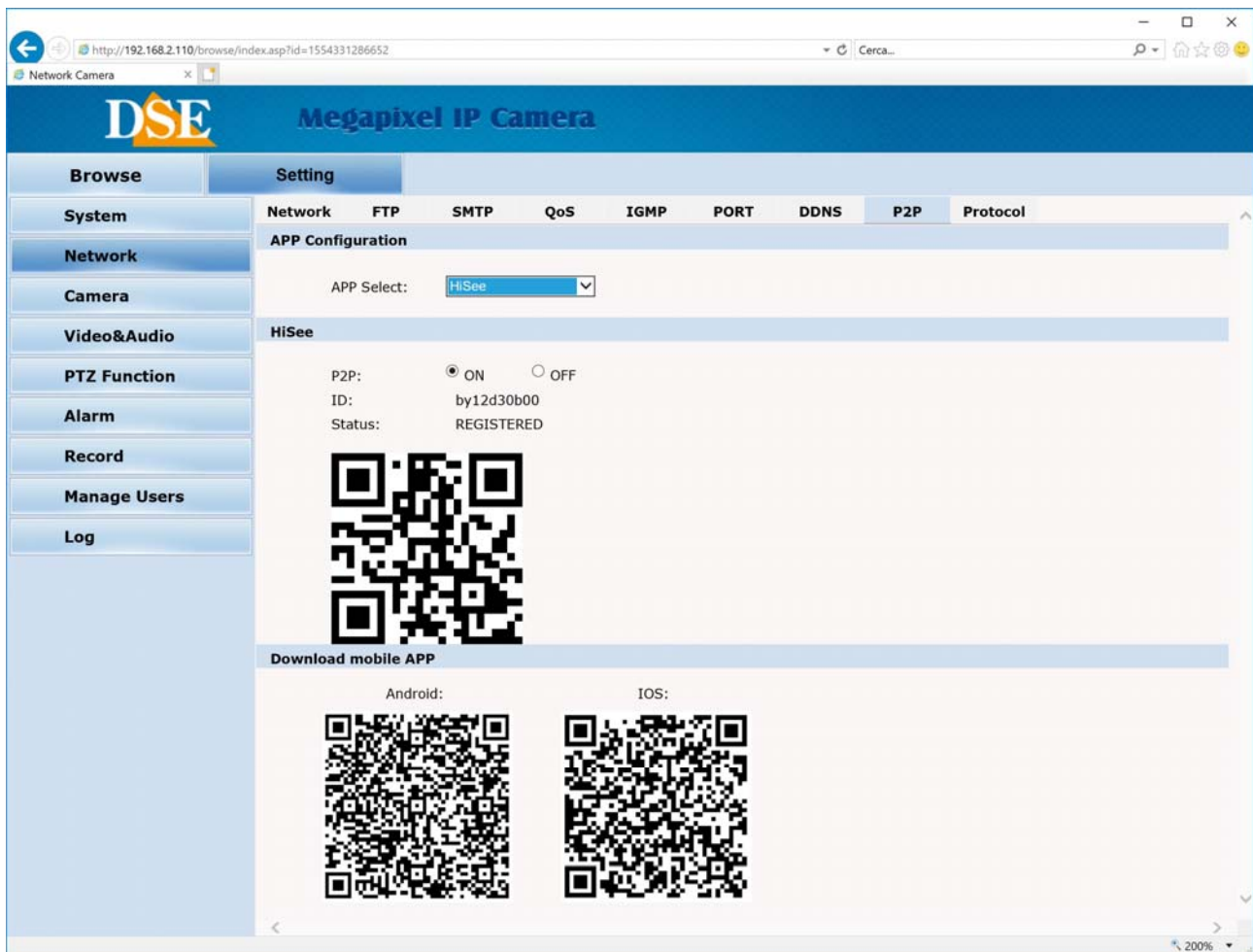


## Login with Mobile APP

These cameras can be controlled generally by NVR with its app. E', however, also possible to connect with the mobile phone directly to the camera using the app: HISEE.

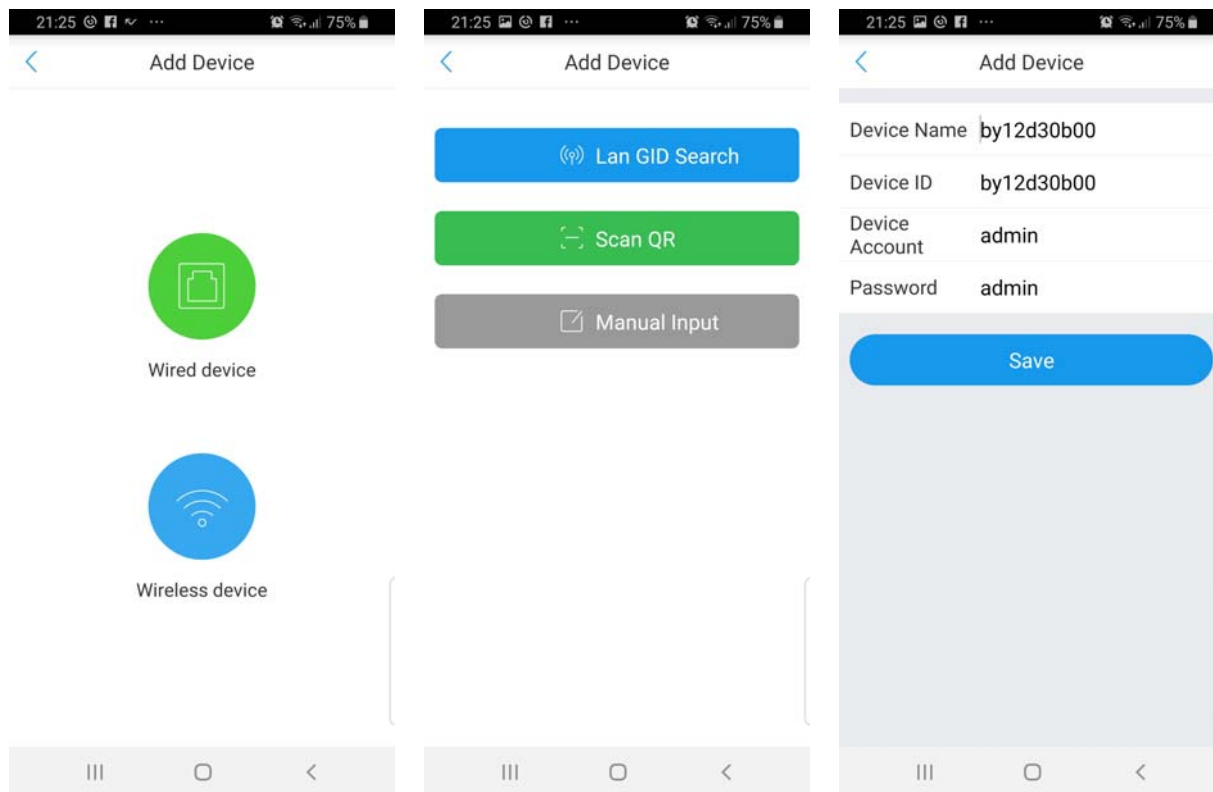
This app uses a P2P cloud server through which you can connect through the Internet without static IP, nor any port mapping in the router.

All information is contained in the P2P NETWORK-board configuration.



Use the qr code to download the app HISEE which is available for Android and iOS for free. Check that the P2P function is enabled and the STATUS is indicated as REGISTERED. If the connection to the server is not done checking the network settings of the NVR.

When you start the app HISEE as you first create an account on the server. Once the account is created you can upload your camera by pressing the + button ADD DEVICE



**WIRED DEVICE** Select to add the camera. You can add by browsing camera network (LAN SEARCH), scanning the qr code on the page P2P (SCAN QR) or by entering the data manually.

By placing the camera with its ID using the P2P cloud server that lets you connect the camera via the Internet. You must also enter the camera's login credentials (admin / admin or admin / empty factory)

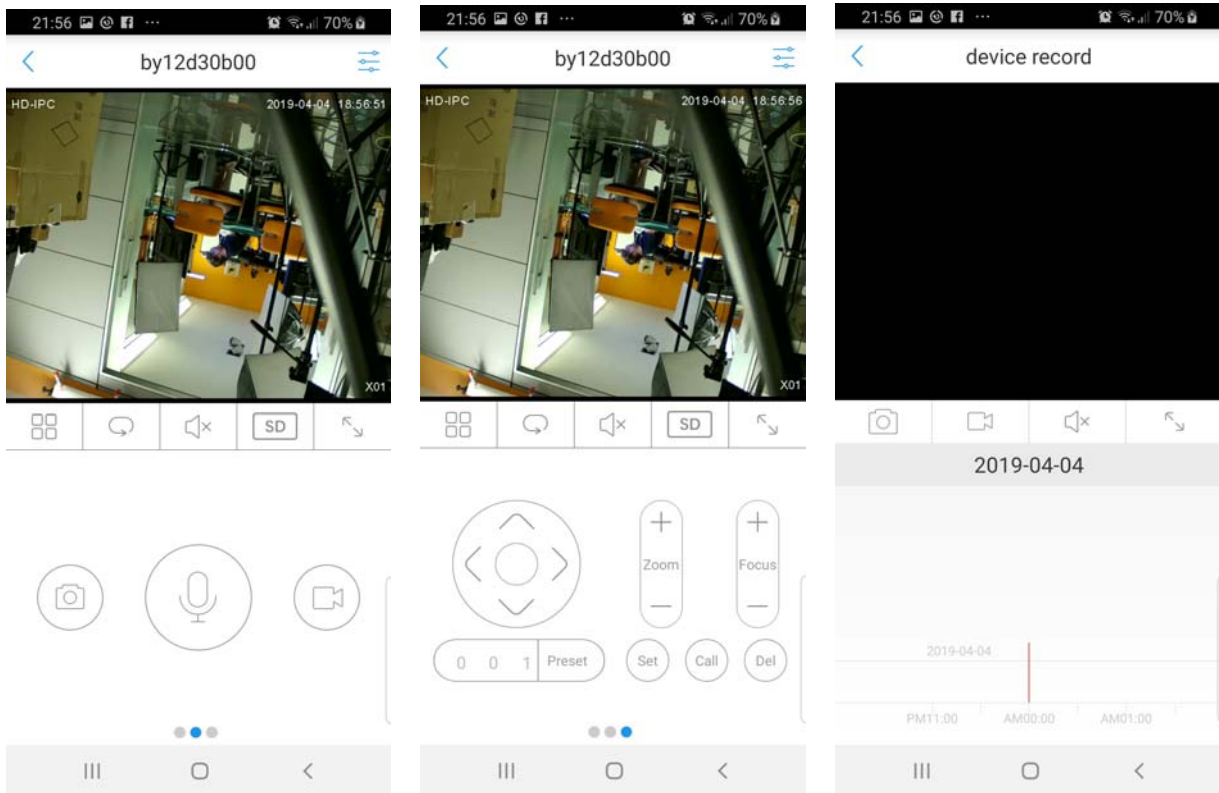
Once connected with the camera you can view live images and control the camera movements including preset control. You can also view your recordings stored in the SD card, if the camera is equipped.

# INSTALLATION MANUAL

## IP CAMERAS SPEED DOME SERIES RL



Page: 31



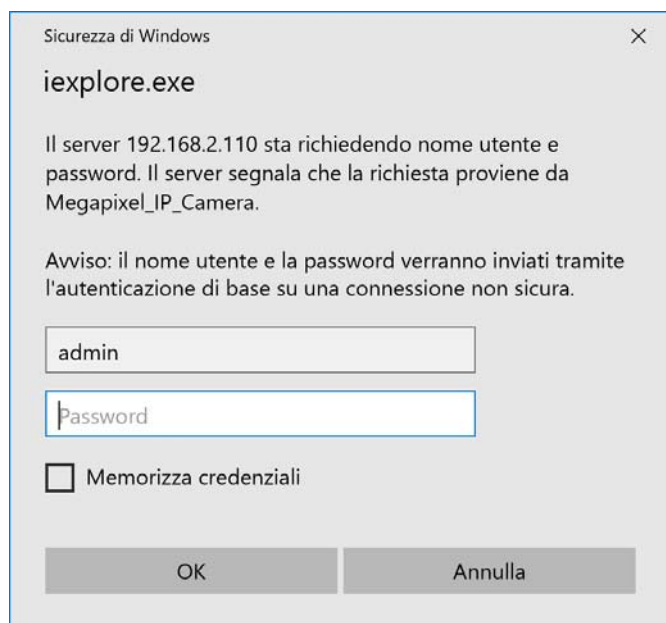


## LIVE Controls

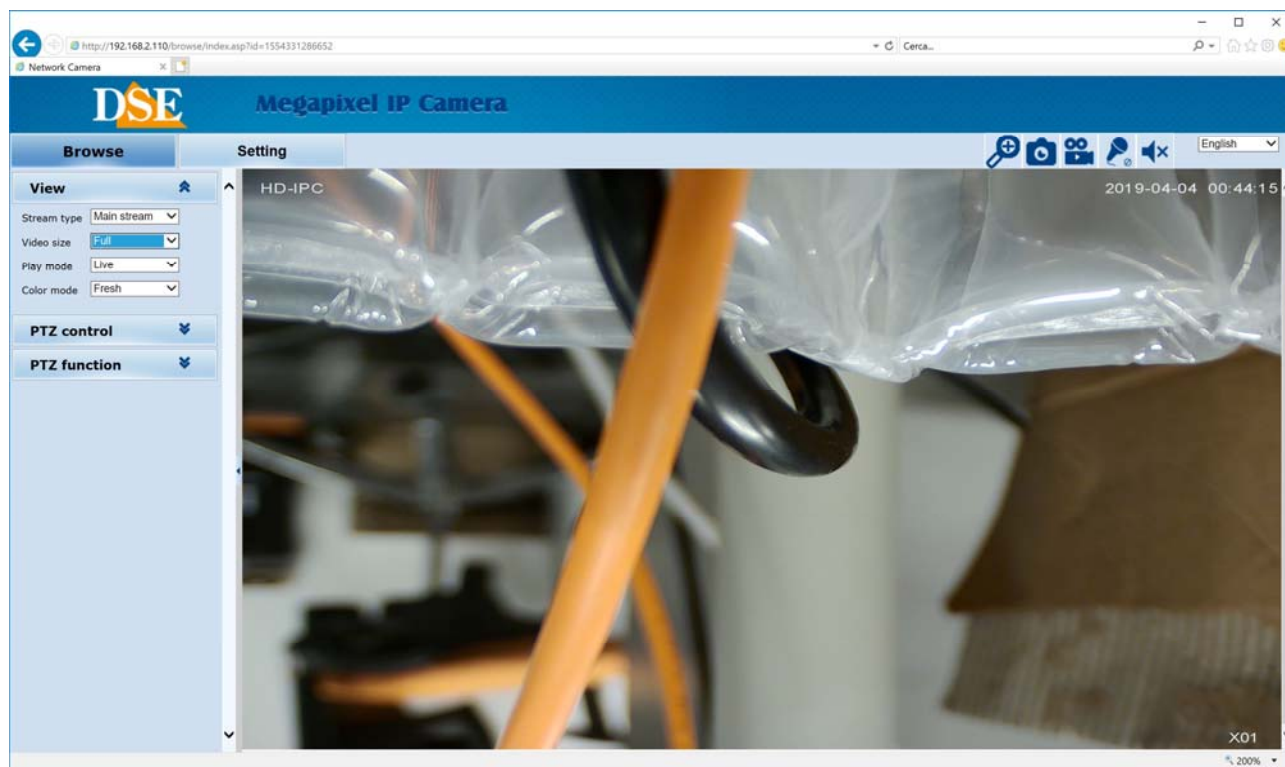
In previous pages we explained how to access the cameras with your PC using the Internet Explorer browser

If you have not done before now access with the browser on your camera should resume the manual and follow the instructions above to connect successfully.

This section of the manual start from the login window to enter user name and password for access, admin / factory or leave blank admin / admin







### LIVE VIEWING AND CONFIGURATION

The Internet Explorer interface window is divided into two tabs that can be selected with tabs at the top.



BROWSE - LIVE Vision and control of the camera movements  
SETTING - Camera Configuration

BROWSE Choose to display the real-time camera.

### VIEW



In this window you define the video streaming features that you want to receive from the camera

**STREAM TYPE** - The camera is able to manage 3 video streams. In this box you decide which video streaming in the browser to receive between 3 available:

- Main stream - And 'the main video stream normally used in connection to the internal network
- Sub stream - It 'a video stream lighter to use with low bandwidth available,  
for example via the Internet
- MJPEG - Video Stream high quality and least compression for special purposes only network  
internal

The characteristics of these streams are defined in the configuration. In this window you choose which to use for the current connection. As a rule should choose the main stream of the local network and the sub stream via the Internet

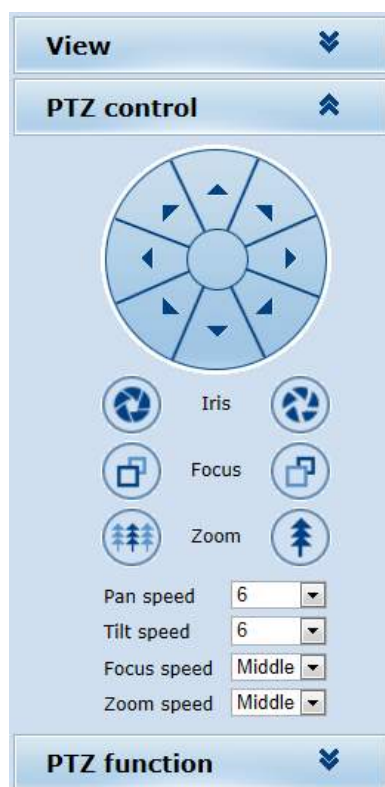
**VIDEO SIZE** - Define the size of the live window. Recommended AUTO or 1/1 (Original size). small size of the window, however, are available 1 / 2x 1 / 4x or full screen (FULL).

**PLAY MODE** - Choosing live streaming faithfully follow the pre-defined settings. Choosing Smooth will adapt to bandwidth availability to maintain smooth video.

**COLOR MODE** - Speaker lightly on the live video performance by balancing colors in shades FRESH (bright tones), and STANDARD COLD (cold colors)



### PTZ CONTROL



In this window you control the camera movements. The movements are controlled with the mouse buttons while the IRIS, FOCUS and ZOOM intervene on IRIS, FOCUS and ZOOM. In this parameter, the zoom is always controlled and IRIS FOCUS and can not be active if the camera settings provide automatic capabilities.

At the bottom it is possible to adjust PAN SPEED (horizontal movement speed), TILT SPEED (vertical movement speed), FOCUS SPEED (firing rate) and ZOOM SPEED (zoom speed).

In addition to this panel, you can also control the camera movements with the mouse directly on the live window.

And 'possible to control the zoom quickly with the mouse wheel

### PTZ FUNCTION



Like all speed dome cameras also RL series can perform automatic movements.

To avoid misunderstandings in the reading of this part of the manual appropriate first to clarify that for these cameras, there are 4 types of automatic movements:

- **PRESET** - The presets are preset camera positions characterized by a precise value of X / Y coordinates, zoom and focus. You can easily call if necessary. You can define up to 255 presets. To define a preset position the camera, choose the preset number and click SET. To recall the preset, select the number and click CALL. To delete a preset, select the number and press MOV.
- **AUTOPAN** - It is understood the continuous movement of the camera horizontal rotation (panning) to start scanning click AUTOPAN. To stop sending any other command
- **TOUR** - Also commonly called CRUISE. It means the automatic movement of the camera between presets with a residence time on each of them programmable. The camera has 3 TOUR: Tour 1 preset between 1 and 16, Tour 2 17:32 between presets and preset Tour 3 between 33 and 48. Any preset in the tour not set are ignored.
- **PATTERN** - Not available on these models



### CHECKS LIVE



In this panel you can perform some checks in the LIVE Vision. E 'can take a picture of the live image and also start and stop recording a clip. The button with the lens activates the digital zoom with which you can draw a box to digitally magnify the image. The microphone and speaker are used to activate the audio functions of the cameras so equipped. The photos in JPG and AVI movie files are saved in the plugin installation folder for IE which by default is C: / IPC\_PlayerAX. The destination can be changed in the configuration.



## Configuration

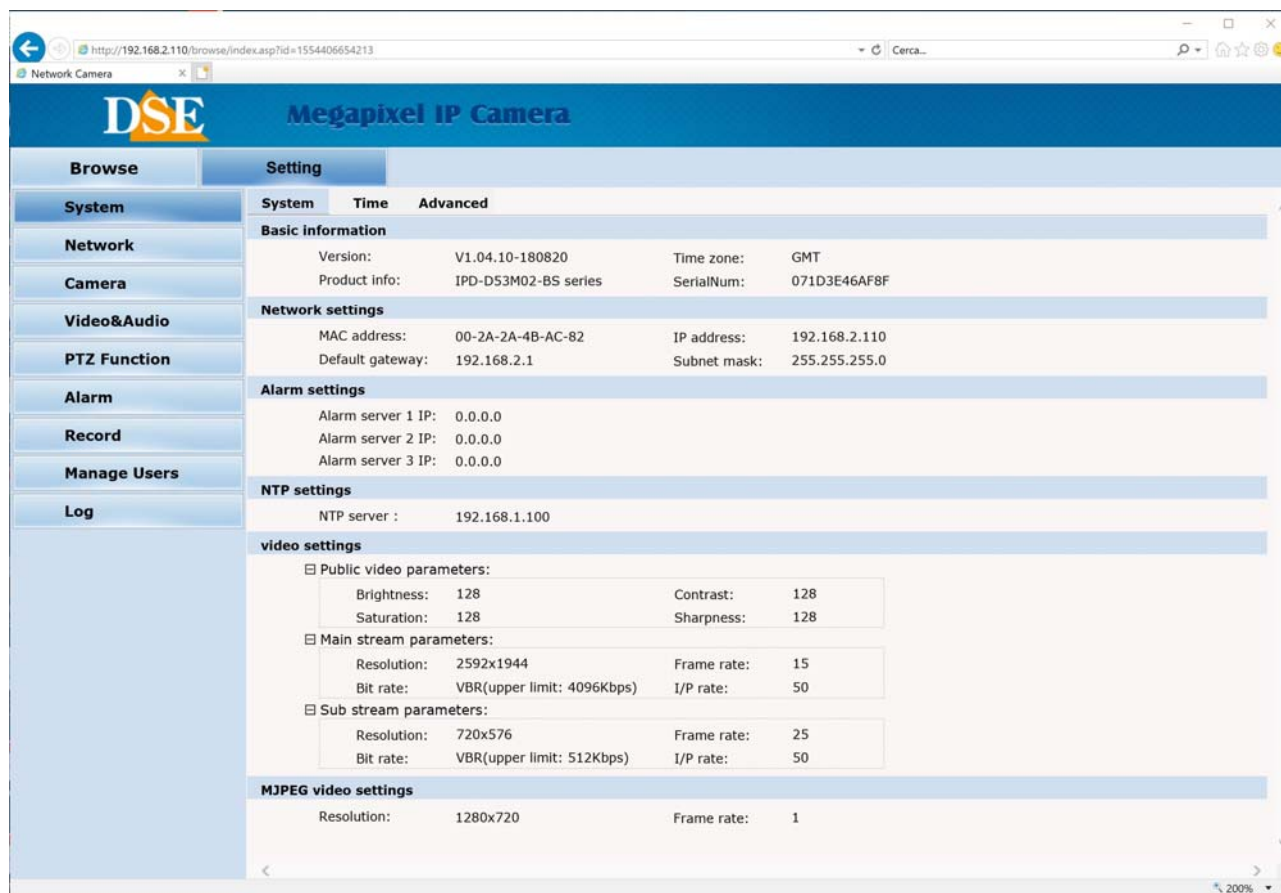
Using your Internet Explorer browser, you can configure the operation of the camera options.



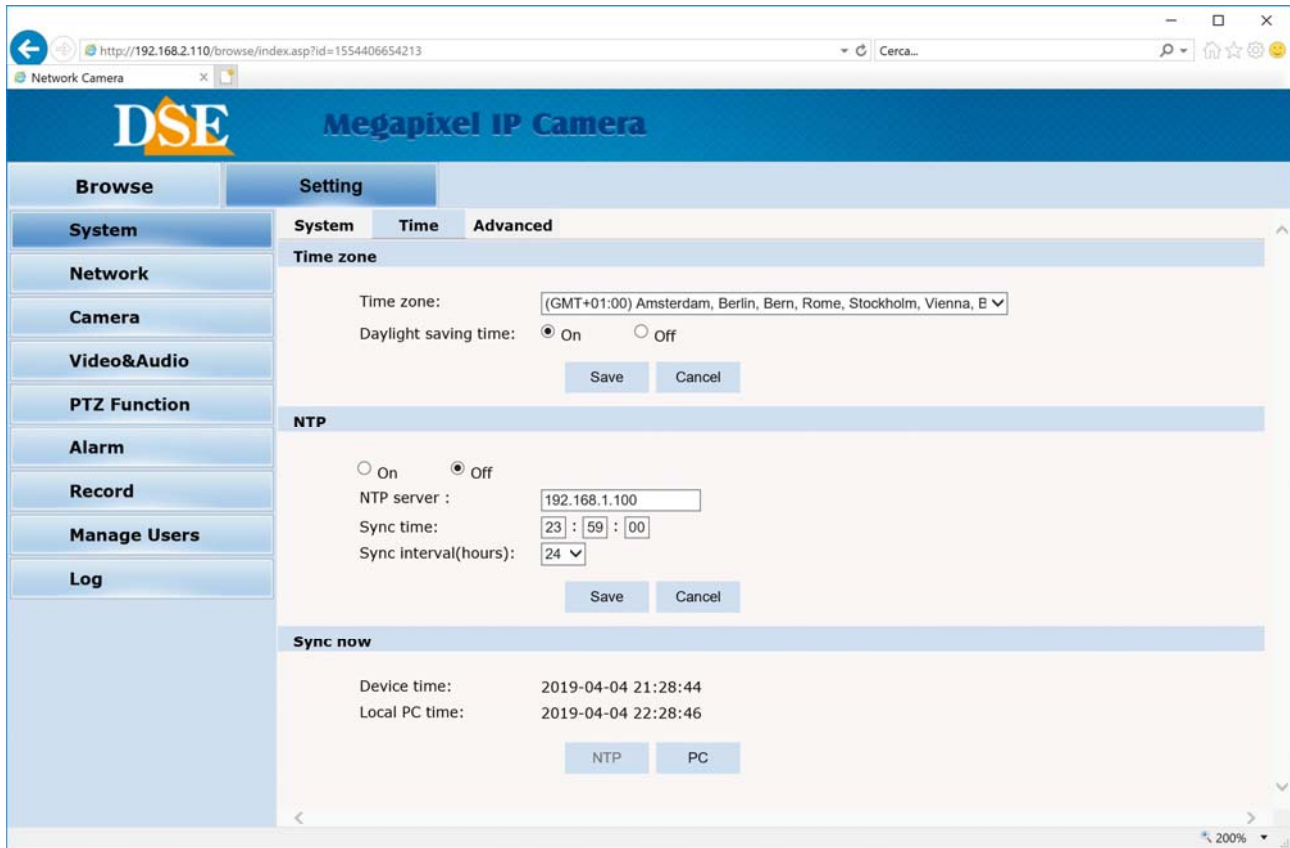
Click the SETTING tab to access the configuration.



### SYSTEM



The first page of the SYSTEM to the SYSTEM folder displays all the information on the camera status. This is an information page can not be modified



The SYSTEM / TIME page includes time adjustment of the camera

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

**DAYLIGHT SAVING TIME** - Indicate whether managing the automatic changing to summer / winter time.

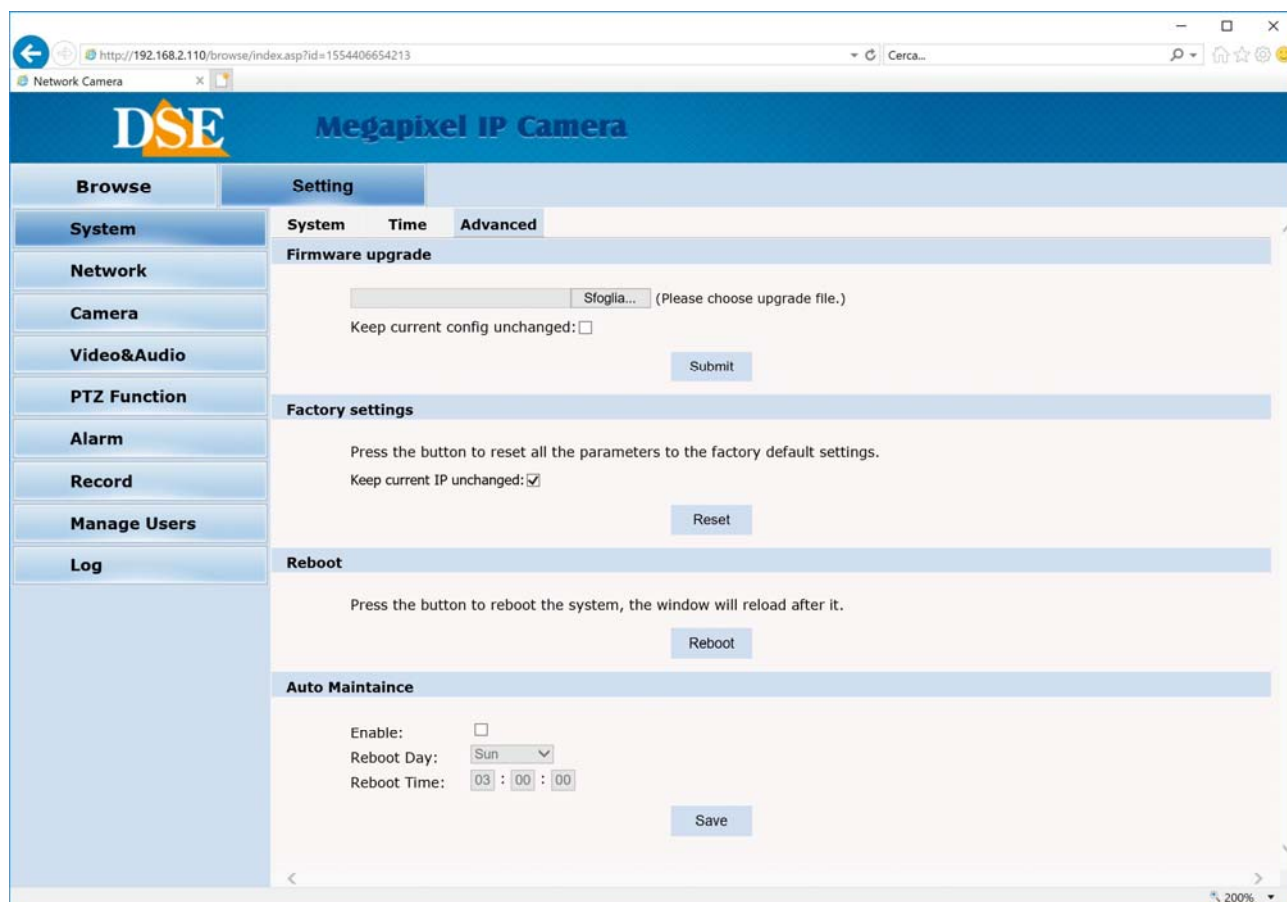
**NTP SERVER** - Here it is possible to make sure that the camera automatically synchronize the time and date via the internet with an NTP (Network Time Protocol). Enter the server address, the time and frequency of each synchronization.

**DEVICE TIME** - The current date and stored in the camera's time

**LOCAL PC TIME** - The date and time on the PC.

**NTP / LOCAL PC** - Here you can choose to synchronize the camera's time with the time on your PC or NTP server.





The SYSTEM / ADVANCED page includes some maintenance functions

**FIRMWARE UPGRADE** - E 'can make the firmware update, only if requested by the technical DSE

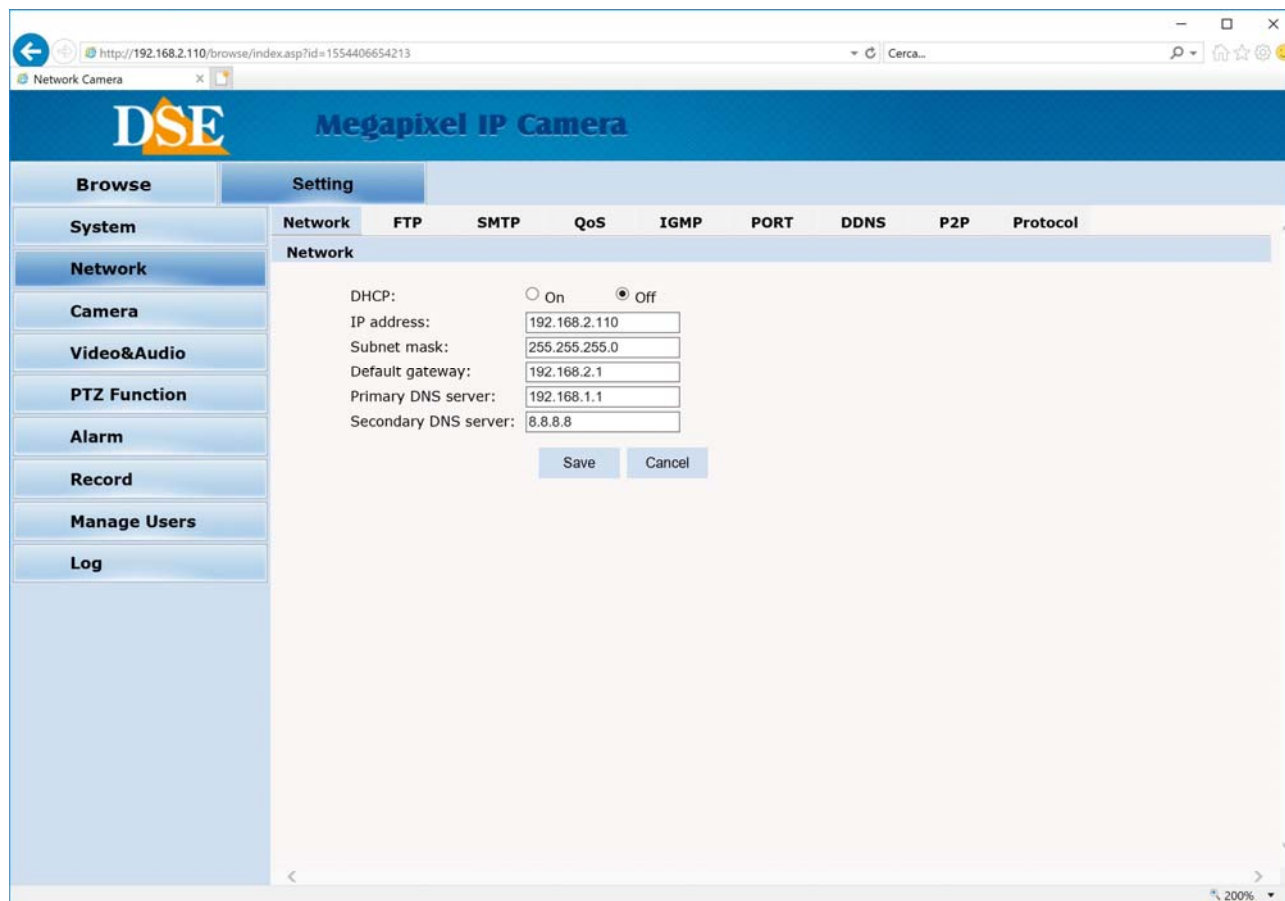
**FACTORY RESET** - Restores the camera's factory settings. If you check maintain CURRENT IP camera maintains its current IP, otherwise reset to 192.168.1.110 Factory

**REBOOT** - Reboot the camera

**AUTO maintenance** - You can schedule periodic automatic restart at a certain time.



### NETWORK



The network page includes the camera network data

**DHCP:** The cameras support both manual IP address assignment is automatic assignment from a DHCP server on the network. The latter is typically not used because it could cause the change in the address time of the camera. The DHCP mode may be of help if you are uncertain about the network configuration to be assigned to the camera. You can start the camera in DHCP mode, to automatically take the correct parameters, then exclude the DHCP and copy the parameters in the static configuration.

**IP / SUBNET MASK / DEFAULT GATEWAY:** The classics are parameters that allow the device to communicate with your network. Normally these parameters are assigned during the installation with the IPWIZARD software as shown in the installation section.



**PRIMARY / SECONDARY DNS** - And 'the DNS server address that allows the camera to interpret the web site addresses. It is assigned by the Internet Service Provider (ISP) to your network. If you do not know the DNS of your provider, you can use Google DNS 8.8.8.8 and 8.8.4.4

**FTP** - The cameras can upload images to a website via FTP on a time basis. It 'a very used in applications webcam application. It 'can specify the address of the FTP server with the login credentials, port, folder and file name to update. E 'can also specify how many frames to send in xx seconds.

A screenshot of a web-based configuration interface for FTP settings. The interface has a light blue header with the word 'FTP' in white. Below the header, there are several labeled input fields: 'Server :', 'Port :', 'User name:', 'Password:', 'Server Path :', 'FileName :', 'Snap Number :', and 'Snap Interval :'. The 'Server' field contains '0.0.0.0', 'Port' contains '21' with '(1-65535)' in smaller text to its right, 'Snap Number' contains '1', and 'Snap Interval' contains '1' with a 's' to its right. At the bottom of the form are two buttons: 'Save' and 'Cancel'.

**SMTP** - Cameras can send alarm EMAIL. E 'can indicate the address of the SMTP mail server, the sender address to use and 2 recipients (TO / CC). You can also enable password authentication if the server is requesting. Enabling SNAPSHOT is attached to email the photos of the event.

**QoS** - There are 4 options QUALITY 'OF SERVICE network: normal, high reliability, high bandwidth utilization, low latency. There are 4 different ways to handle delays and network congestion.

**IGMP** - Management of advanced network protocols for multicasting

**PORT** - Here you can change the ports used by the camera for network communication: http (default 80), Video (default 90), RTSP (default 554), Record (default 8088) and ONVIF (8999)

**DDNS** - If you need access to particular applications through the Internet directly to the camera (instead of NVR) is definitely advisable to have a fixed IP address so that you always know the exact address to connect. If you can not get from your provider, all cameras in the range support services



DDNS (Dynamic DNS) that allow you to constantly monitor the machine's IP address. These services, also available for free, provide the user with a domain name that you type into your browser. The DDNS provider redirects communication to the IP address that the camera has at that moment.

The RL Series cameras support the most common DDNS services and are able to send to the DDNS provider periodically Internet IP address assigned to them.

E 'can set the provider address the port and authentication.

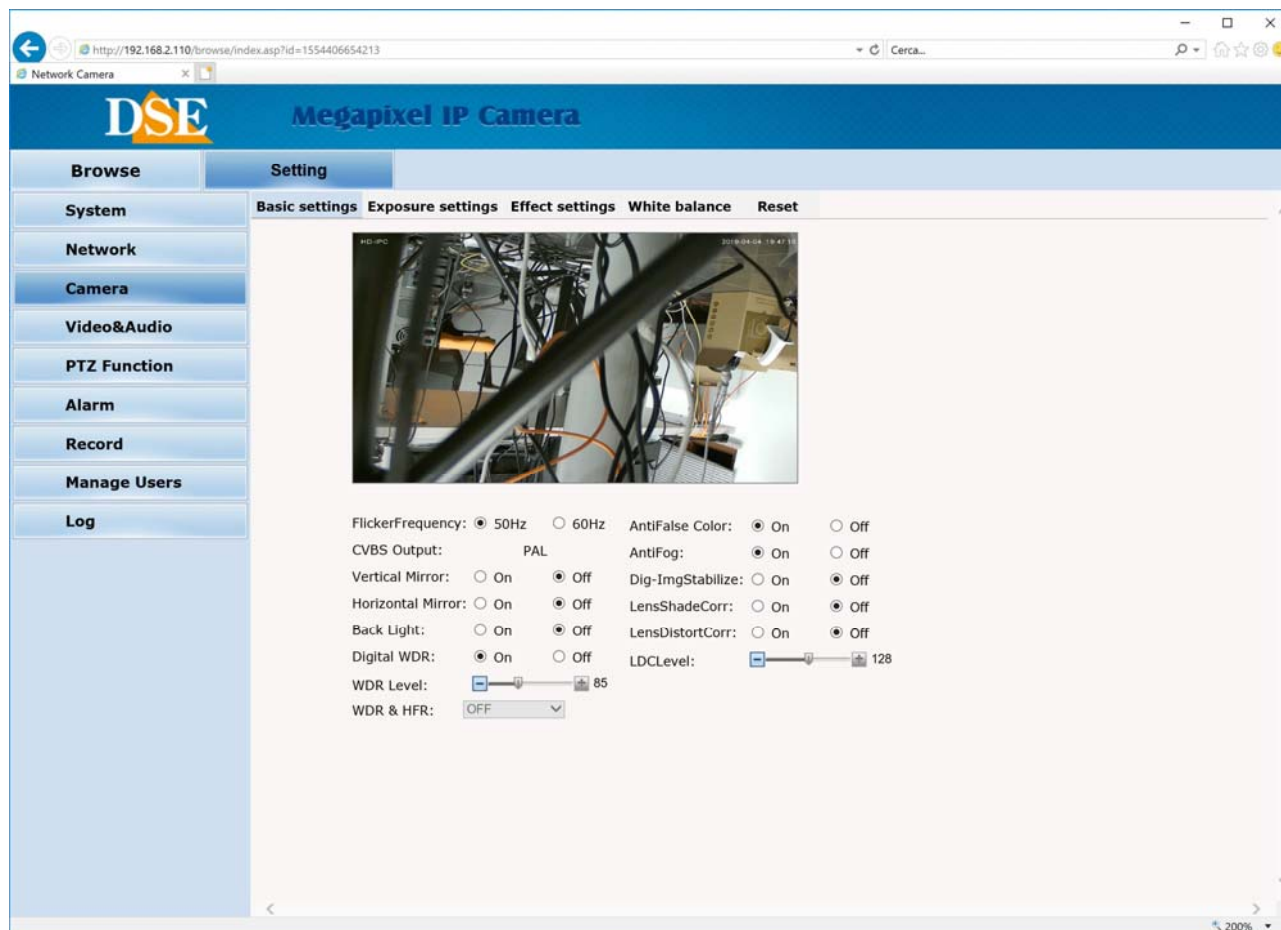
Using mobile apps and cloud included with the camera is not necessary to use DDNS services.

**P2P** - In this section there are signs for the P2P service in the cloud server that allows access from phone without static IP and router configuration. It 'been described how to use these functions in the section relating to APP.

**PROTOCOL** - In this section you can enable / disable use of the ONVIF protocol and some private protocols from other manufacturers.



### ROOM

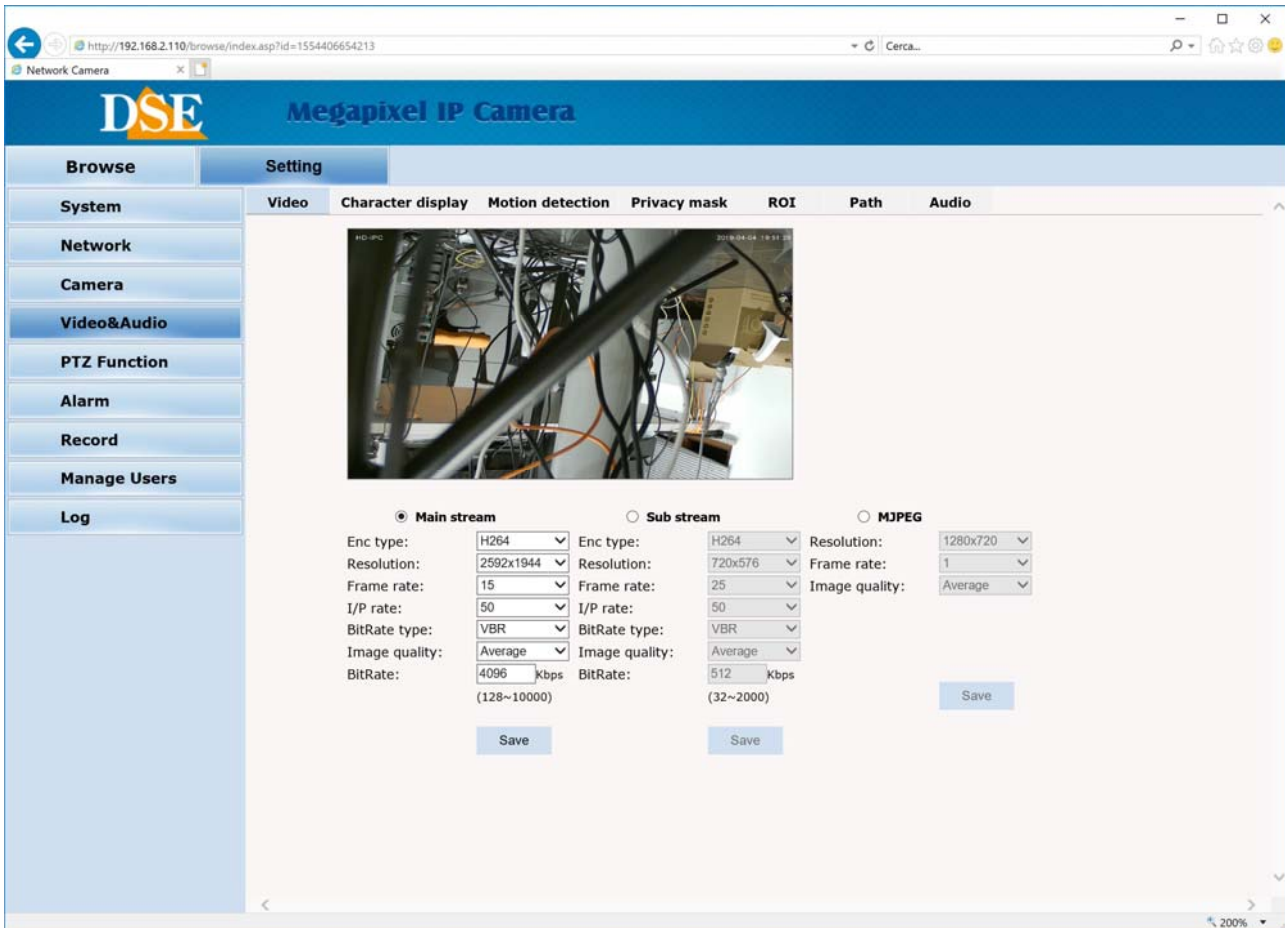


The CAMERA page, with its various tables includes configuration parameters of the module camera with the usual image adjustment items. You can immediately see the result in the preview of the changes you make.

If you have not achieved the desired result, restores factory settings to reset page.



### VIDEO AUDIO



In this section you set the feature of the video stream. The camera manages 3 stream: MAIN STREAM (main stream), SUB STREAM (secondary stream) and MJPEG STREAM (MJPEG stream with static compression). Since connected client you can define which stream to use based on the available bandwidth.

**ENC. TYPE** - Select H265 if you use an NVR that supports this compression format, but if you have a more dated NVR using the H264 standard consolidated.

**RESOLUTION** - The resolution is adjustable depending on the model you purchased.

**FRAME RATE** - It 's the number of frames per second that make up the video stream (max.

25). Consider that 25 f / sec corresponds to the so-called real-time ie the television standard in which the human eye does not perceive the individual frames but a single uninterrupted sequence. Generally you can reduce this parameter up to 10/12 f / sec without perceiving large video fluidity differences and thus saving a lot of bandwidth.

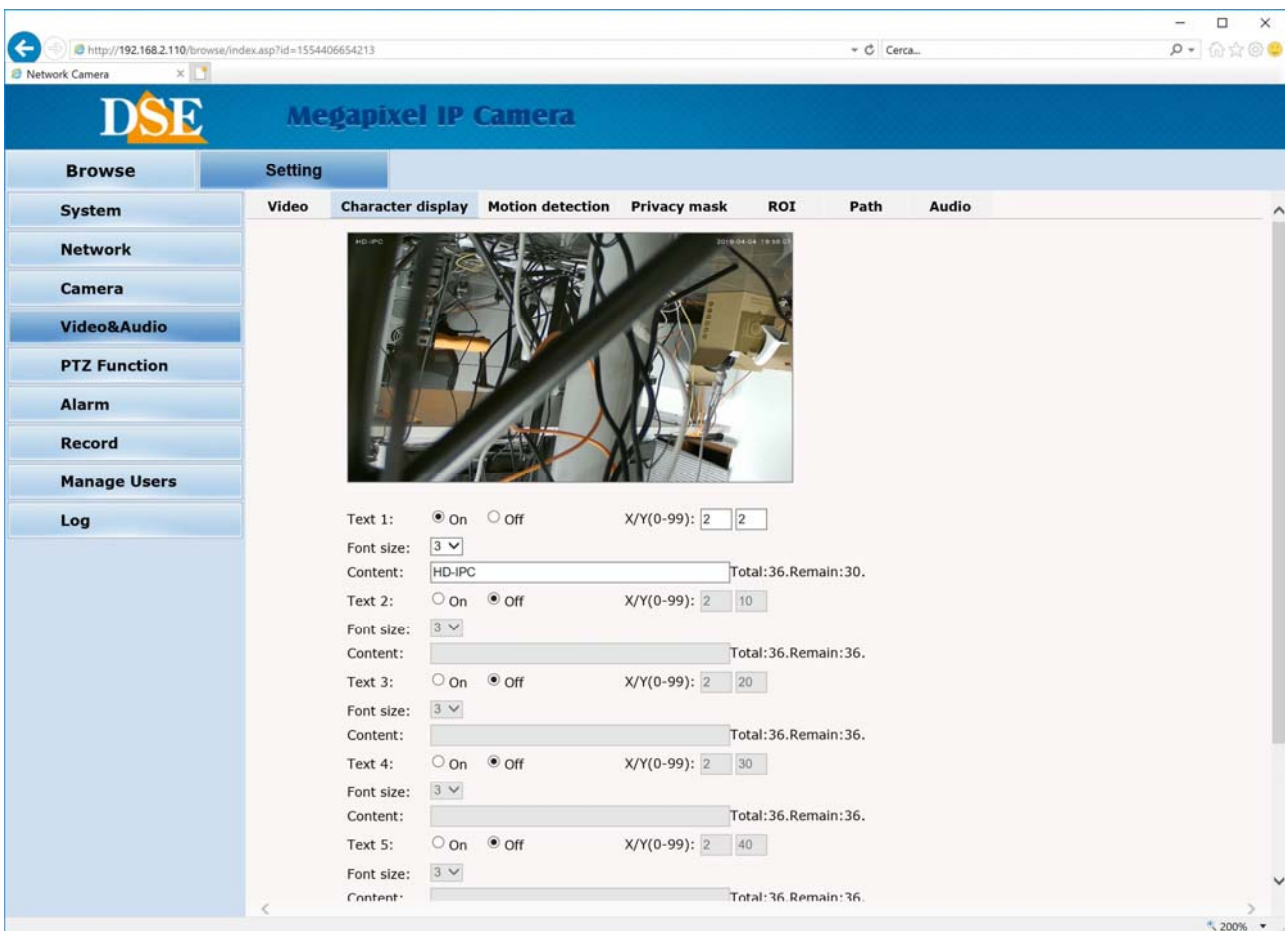


**I / P RATE** - The relationship between the frame and P frames in the video stream. The higher the ratio, the lower the bandwidth required.

**BIT RATE TYPE** gives the possibility to choose between two different bandwidth management mode occupied: **CONSTANT BIT RATE** (CBR) and **VARIABLE BIT RATE** (VBR).

In CBR mode, the camera maintains a constant bit rate that can be set in the box below. In the VBR mode instead of changing the bit rate camera in different operating conditions in order to maintain a constant video quality.

**BITRATE** - It represents the maximum bandwidth that the camera deal with its video streaming. As a rule should not exceed 4000-6000 Kbps



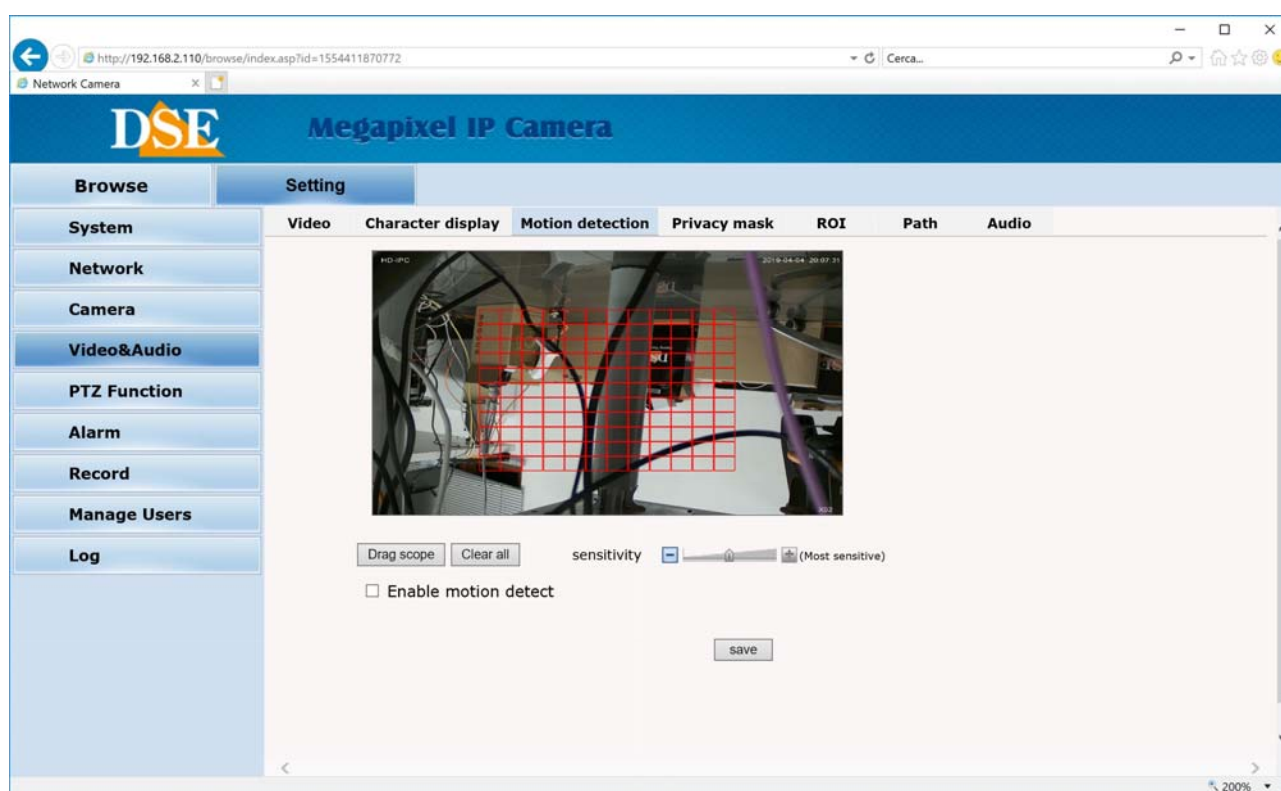
The CHARACTER DISPLAY table allows to define the overlays in the image



**TEXT 1 ... 5** - E 'can define up to two titles to bring up an overlay. And 'possible to edit the content, location and choose the font.

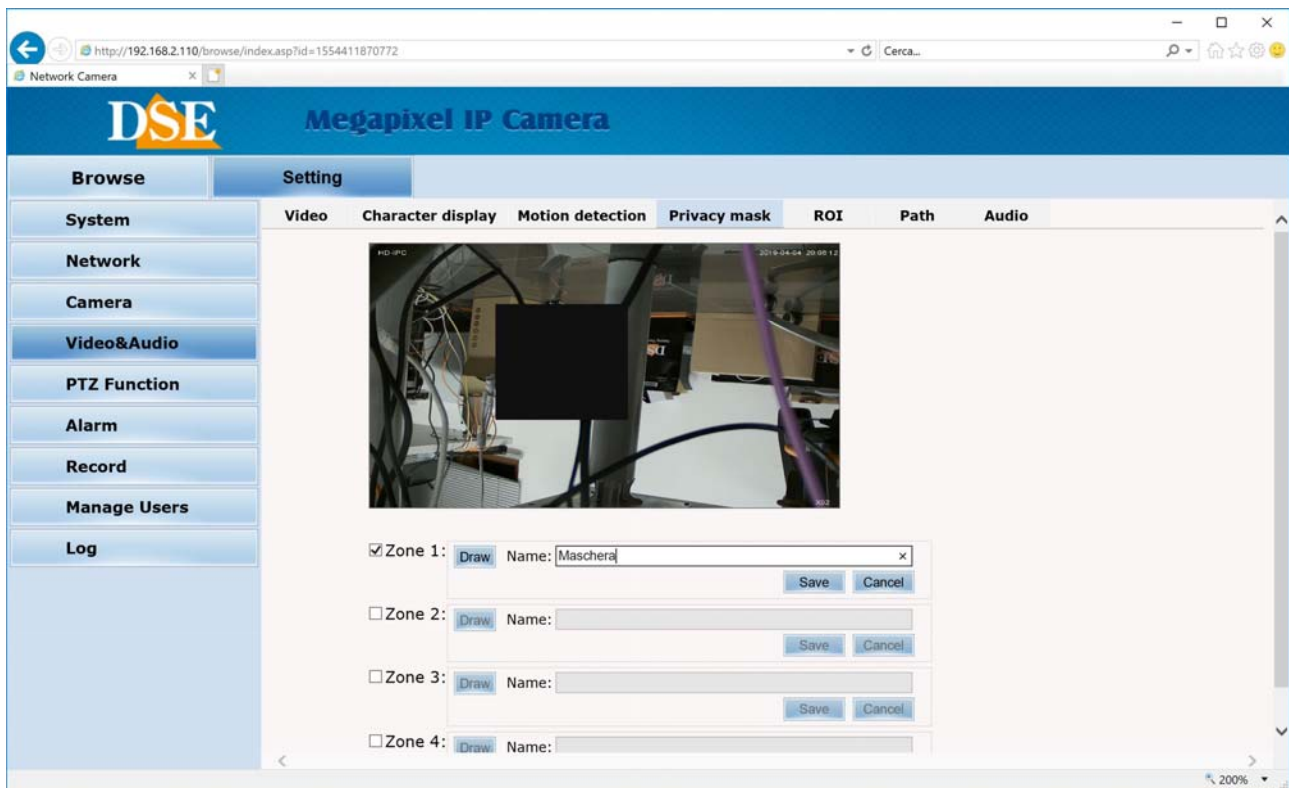
**MULTIPLE** - E 'can bring up an overlay zoom level

**TIME / DATE** - E 'can bring up an overlay Time and Date

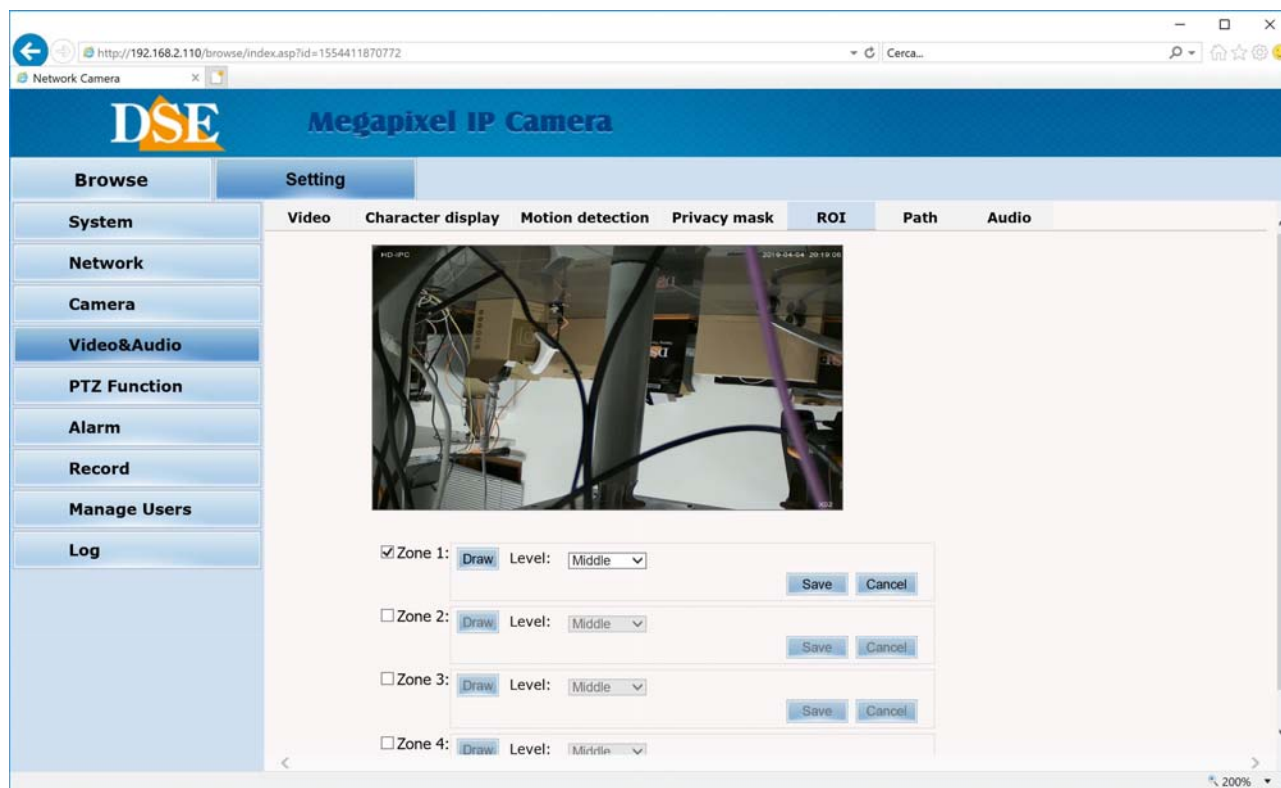


**MOTION** - You can activate the motion detection. Generally, motorized cameras, being mobile, not allow for the detection of movement but you can do it by choosing **ENABLE MOTION DETECTION**, if you decide to keep them mostly steady. Factory detection is active throughout the second half but you can click **CLEAR ALL** and then select the area where you want to detect motion. With the **SENSITIVITY** cursor adjusts the detection sensitivity.





**PRIVACY** - You can set privacy masks (max 4) to obscure the visual areas. Even this function you can use if you decide to keep the camera mostly stationary.



**ROI** - You can define areas in the second half where having picture quality levels higher or lower. The camera will use a lower video compression in the areas where you set a high quality.

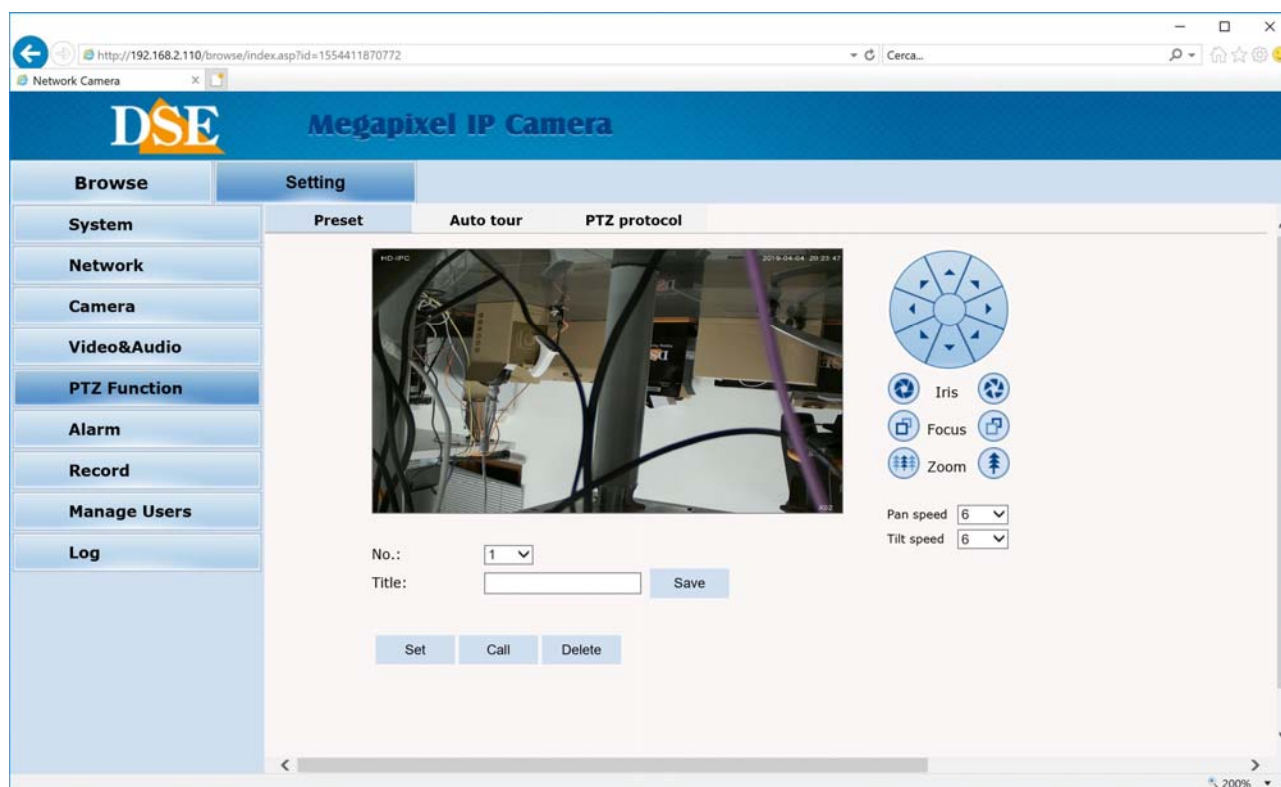
**PATH** - Defines the storage location of the video files are recorded in the local disk and snapshot. E 'can also vary the save format.

**AUDIO** - For vehicles with audio you can enable input and audio output and adjust the volume.

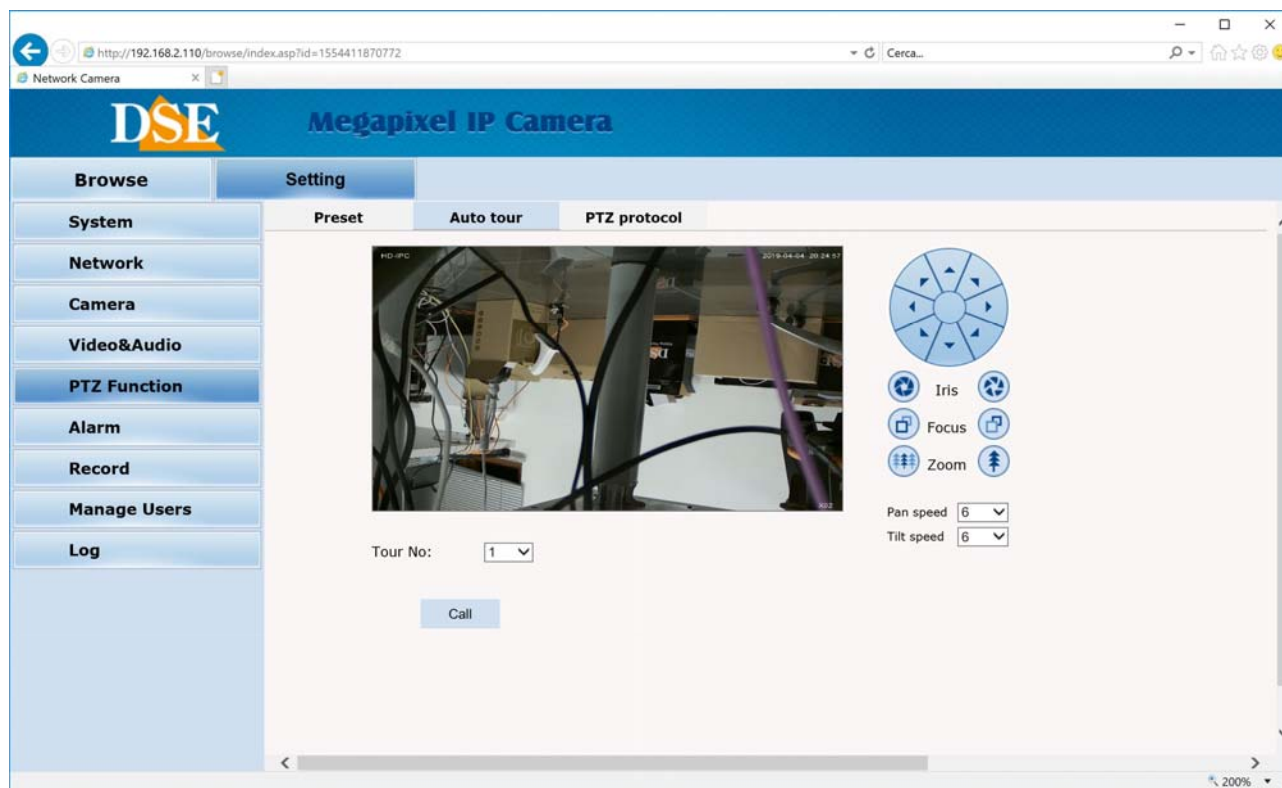


### PTZ FUNCTION

In this section you set the camera's automatic movements



**PRESET** - The presets are preset camera positions characterized by a precise value of X / Y coordinates, zoom and focus. You can easily call if necessary. You can define up to 255 presets. To define a preset position the camera by using the controls on the right, choose the preset number and click September E 'you can also be assigned to the preset a name. To recall the preset, select the number and click CALL. To delete a preset, select the number and press DELETE.



**AUTO TOUR** - Also commonly called **CRUISE**. It means the automatic movement of the camera between presets with a residence time on each of them programmable.

The camera has 3 TOUR: Tour 1 preset between 1 and 16, Tour 2 17:32 between presets and preset Tour 3 between 33 and 48. Any preset in the tour not set are ignored. To start the tour, select the number and press **CALL**. To stop sending any other command.

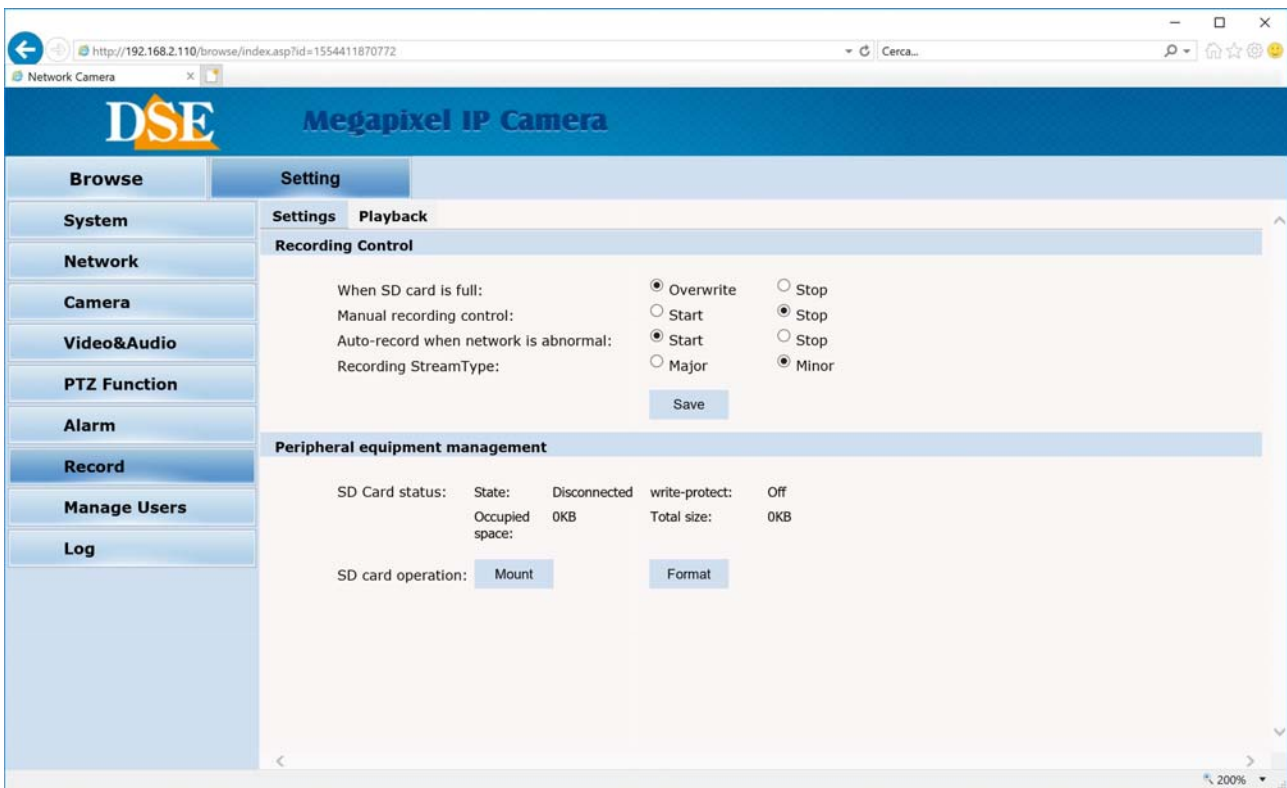
**PTZ PROTOCOL** - Not used on these models



### ALARM

Not available on these models

### RECORD



In models with SD card you can control the recording to the camera board.

WHEN SD CARD IS FULL - Define if memory full registration should stop or continue deleting older files.

MANUAL RECORDING - You can manually start recording on SD Card.

AUTO RECORD WHEN NETWORK IS ABNORMAL - Automatically starts recording on SD card in case of network failure.

RECORDING STREAM - Choose if you want to record on sd card the primary or secondary stream.

SD CARD STATUS - Display the status of the card.



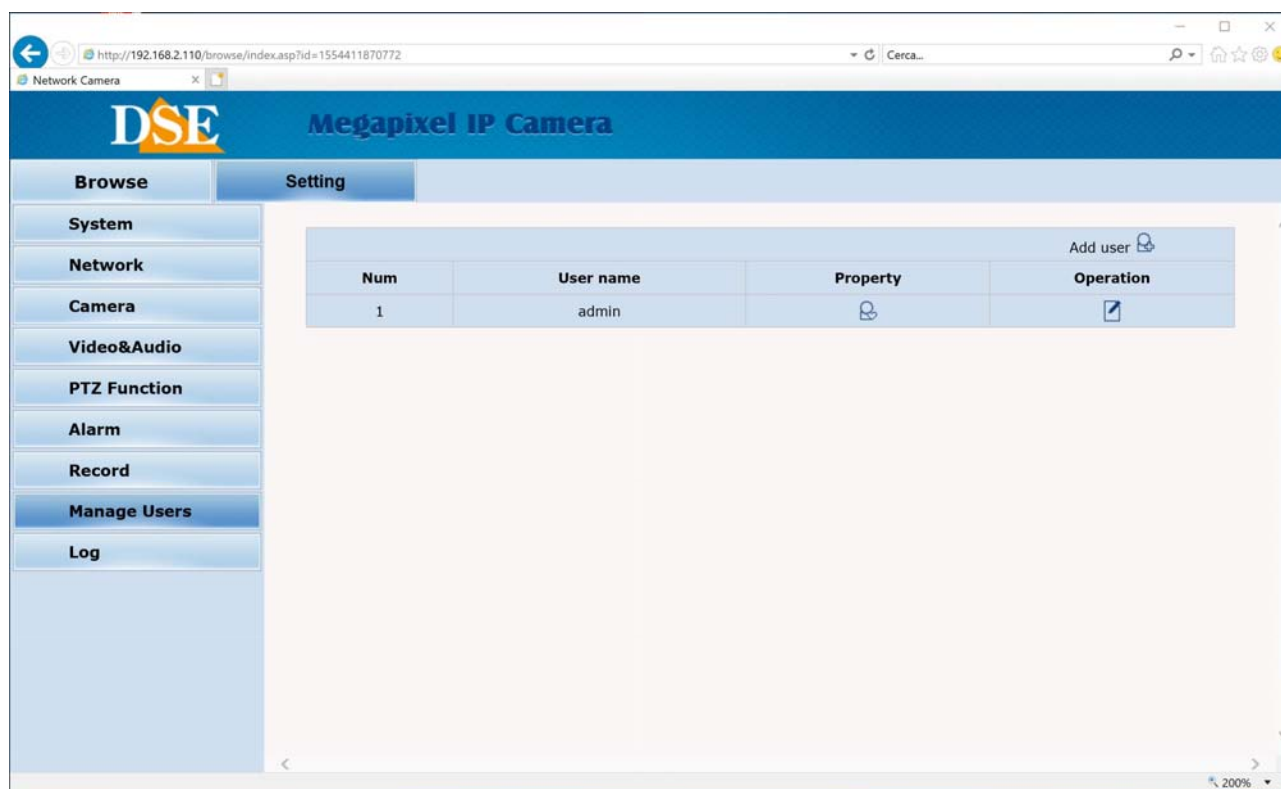
MOUNT - Detects the presence of the sd card

FORMAT - Format the SD card by erasing the contents.

PLAYBACK - You can play back movies recorded on SD card.

### USER MANAGEMENT

On this page you can create new users that can access the camera



USER Press ADD to add a new user with your USER NAME and PASSWORD



### LOG

On this page you can read the contents of the memory of the camera events

The screenshot shows the web interface of a Megapixel IP Camera. The browser address bar displays `http://192.168.2.110/browse/index.asp?id=1436005472`. The page title is "Megapixel IP Camera". The navigation menu on the left includes "Browse" and "Setting". Under "Setting", the "Log" option is selected. The main content area displays a table of event logs with the following columns: "Date", "Time", and "Log".

Date	Time	Log
2015 - 07 - 04	13 : 35 : 44	appwatchdog say: WDG_OPS_HOLD_SHORT cmd recved
2015 - 07 - 04	13 : 35 : 44	Alarm input 1
2015 - 07 - 04	13 : 35 : 37	appwatchdog say: WDG_OPS_RESET cmd recved,now will reset the apps
2015 - 06 - 25	12 : 55 : 20	appwatchdog say: WDG_OPS_HOLD_SHORT cmd recved
2015 - 06 - 25	12 : 55 : 18	system start completely!
2015 - 06 - 25	12 : 55 : 13	webs start completely!!!
2015 - 06 - 25	12 : 55 : 12	Alarm input 1
2015 - 06 - 25	12 : 55 : 10	change ip from ip:192.168.1.10 to new ip:192.168.2.110!!!
2015 - 05 - 04	16 : 52 : 06	appwatchdog say: WDG_OPS_HOLD_SHORT cmd recved
2015 - 05 - 04	16 : 52 : 04	system start completely!
2015 - 05 - 04	16 : 51 : 59	webs start completely!!!
2015 - 05 - 04	16 : 51 : 57	Alarm input 1
2015 - 05 - 04	16 : 51 : 55	change ip from ip:192.168.1.10 to new ip:192.168.2.110!!!
2015 - 05 - 04	16 : 52 : 05	appwatchdog say: WDG_OPS_HOLD_SHORT cmd recved
2015 - 05 - 04	16 : 52 : 03	system start completely!
2015 - 05 - 04	16 : 51 : 58	webs start completely!!!
2015 - 05 - 04	16 : 51 : 57	Alarm input 1
2015 - 05 - 04	16 : 51 : 55	change ip from ip:192.168.1.10 to new ip:192.168.2.110!!!
2015 - 05 - 04	16 : 52 : 05	appwatchdog say: WDG_OPS_HOLD_SHORT cmd recved
2015 - 05 - 04	16 : 52 : 03	system start completely!
2015 - 05 - 04	16 : 51 : 58	webs start completely!!!
2015 - 05 - 04	16 : 51 : 57	Alarm input 1
2015 - 05 - 04	16 : 51 : 55	change ip from ip:192.168.1.10 to new ip:192.168.2.110!!!
2015 - 05 - 13	10 : 00 : 37	set streamid 4 streamrate to 4096



## Special commands for NVR

If you control the camera with a NVR or console for IP cameras, there are provided system PRESET which serve to carry out the main configurations and launch the main automatic movements without access through the browser.

The commands are listed in the following table. On some NVR, depending begin handling the presets from 0 or from 1 may need to reduce all preset numbers in a figure table.

PRESET	FUNCTION
33	180 ° PAN Wheel
34	Reset
81	Step Day / Night Automatic
82	Activate night vision B / W
83	Active vision Color day
84	IR power Maximum Strength
85	reduced power IR Strength
87	Enable BLC
ninety two	Enable scanning AB
94	OSD Menu off
95	OSD on
96	Start tour 1
97	Start tour 2
98 (38)	Start tour 3
99 (39)	Start panning 360 °





## Camera OSD Menu

Recalling the PRESET 95 opens the camera setup menu that allows to operate all configurations that are executed by the browser for what concerns the camera module and the pan and tilt movements. This text menu is useful for setting camera functions directly from an NVR without accessing the computer browser.

A screenshot of the camera's OSD (On-Screen Display) menu. The text is white on a black background, arranged in a vertical list. The menu options are: - < SYSTEM >, < DOME >, < CAMERA >, < LANGUAGE >, < DISPLAY >, < RESET >, and EXIT.

```
- < SYSTEM >
< DOME >
< CAMERA >
< LANGUAGE >
< DISPLAY >
< RESET >
EXIT
```



## Connect with an RTSP client

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

The address to call must have the following syntax:

Main Streaming: RTSP: // IP / 1 / h264major secondary Streaming:

RTSP: // IP / 1 / h264minor MJPEG Streaming: RTSP: // IP / 1 /

h264mjpeg

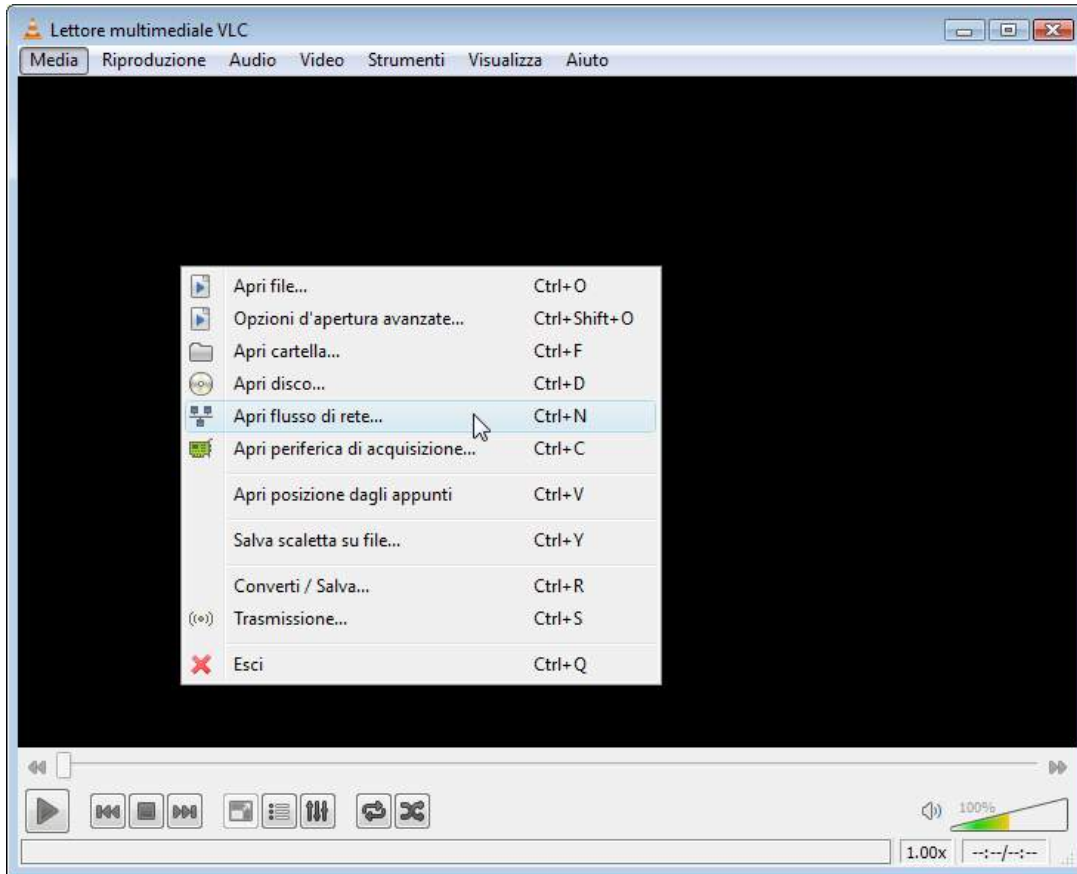
The camera must be set as the factory USER: admin; PASSWORD (empty)

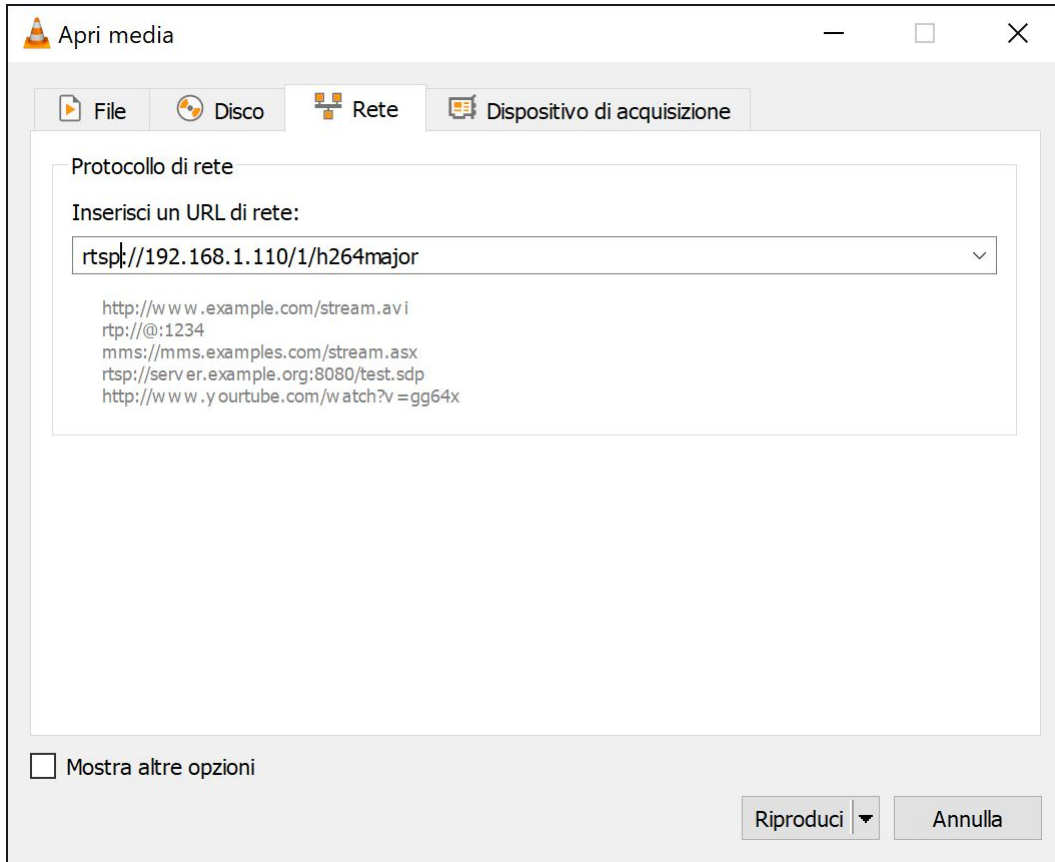
Here's an example with the IP Factory

Main Streaming: RTSP: //192.168.1.110/1/h264major secondary Streaming: RTSP: //

192.168.1.110/1/h264minor MJPEG Streaming: RTSP: // 192.168.1.110/1/h264mjpeg

Below see how to operate for example with the free VLC player:







## Capture a photo with Internet Explorer

The RL Series cameras allow you to snap a photo using real time Internet Explorer With these addresses.

<http://ip/mjpgstreamreq/1/image.jpg>

<http://ip/jpgimage/1/image.jpg>

# INSTALLATION MANUAL

IP CAMERAS SPEED DOME SERIES RL



Page: 62

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