DIGITUS® Plug&View IP cameras

User Guide

1 Introduction:

The Plug&View IP camera series by DIGITUS offers P2P cloud services in order to avoid the complicated network configuration for the camera installation. Everything you need is "Plug&View" and a few installation steps.

2 Supplied with:

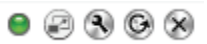
- 1 X IP camera
- 1 X AC adapter
- 1 X ethernet cable
- 1 X installation CD
- 1 X Mounting Accessories
- * DN-16038/DN-16039/DN-16040/DN-16043/DN-16044 also include a built in 2GB memory for storage.

3 Installation procedure:

3.1 Connect

Please follow the instructions of the **Quick Start Guide** to connect your Plug&View camera and to start using it from your user account. Then log in to your user account in http://plug-view.com. After a successful login you will see an overview of the images of your registered cameras.

4 Description of the toolbar

The toolbar  can be found to the right side above the image of each IP camera. Here you can quickly see the operational readiness and make various settings.

4.1 LED display symbols

■ **Green light**
When the green light is ON, your IP camera is online und sending. The video image is successfully displayed on the screen.

■ **Yellow light**
When the yellow light is ON, the IP camera is online, but not yet sending. No video image is displayed on the screen.

■ **Red light**
When the red light is ON, the IP camera is offline and nothing is displayed on the screen.

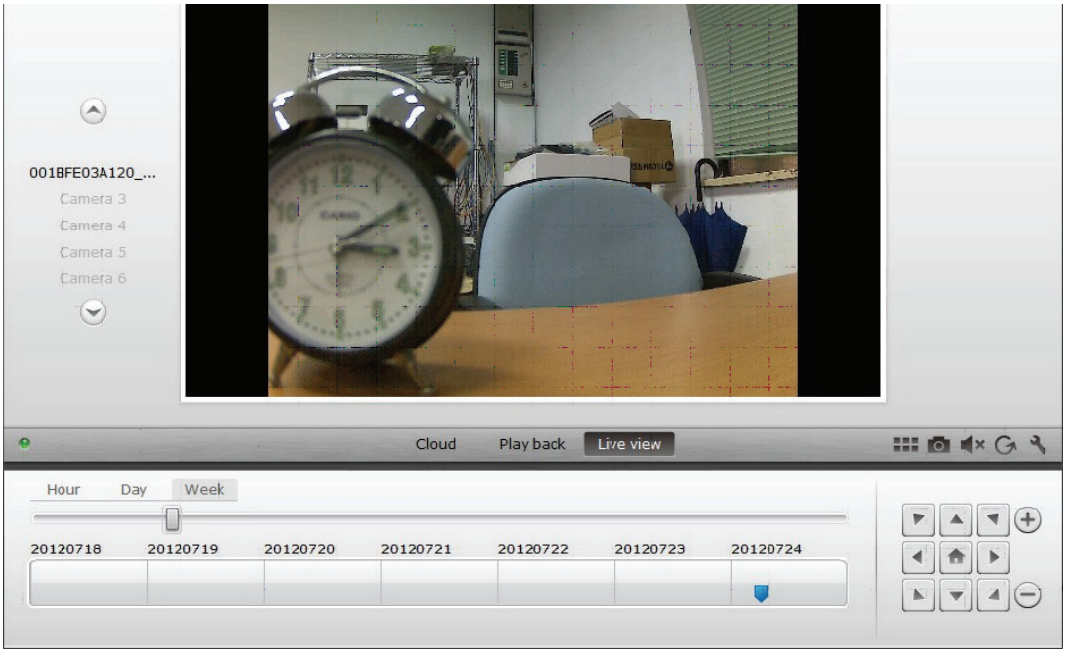
4.2 Full Screen

The 'Full Screen' button opens a new screen for better viewing of the video image, which is then displayed across the entire screen.

4.3 Live image and PTZ

The button ***"Live View"*** will display the live-stream or images from the selected IP camera in real-time. If you have multiple plug&view cameras installed, you can switch between the different cameras using the display on the left-hand side of the screen. Use the arrow buttons and to select other IP cameras from the list.

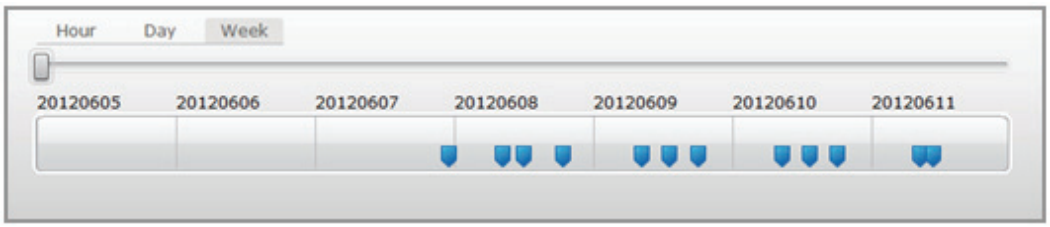
In the event of connection problems, e.g. because of a slow Internet connection, you can click on to reload the live-stream or real-time images. By clicking on , on the right side at the bottom of the screen, one can access the configuration controls for the selected camera.



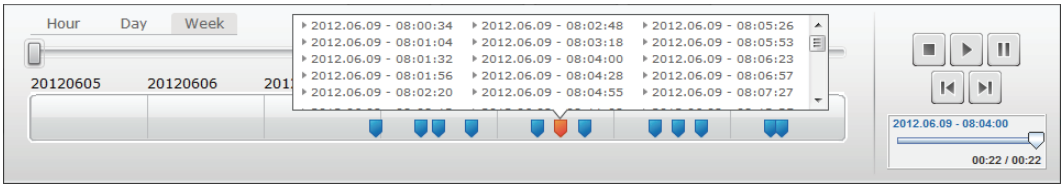
If the selected IP camera supports PTZ functions, the PTZ control panel, with which you can control the camera, can be selected. Otherwise the field will be grayed out to indicate that it has no function. Each motion adjustment requires a click.

4.4 Playback

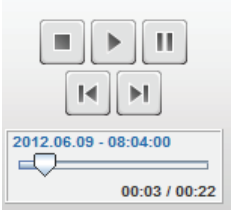
The ***"Play back"*** function is only supported when an SD-card for media recording has been inserted into the IP camera. By using the blue tags on the time axis, all recorded events can be retrieved. All recorded events have been stored and tagged with a blue mark on the time axis. You can select to view them for different time periods, by clicking on the left side of the time axis, on hour (hour), day (day) or week (week).



When hovering over a blue tag with the mouse, the color changes to orange and the details of the recorded clips are displayed. Select a specific clip to check this.



During playback of the selected media clip, you can stop or pause it, or switch to the next clip, using the ***media control buttons***. You can also ***drag the marker of the video search control*** to the desired position in the playback.



Settings
The Settings button opens up a special web user interface for the configuration of the IP camera.
Please log in with "admin" as the username and password.

Muting
With the button, you can switch the sound of the camera on or off.

Refreshing
With the Refresh button you can refresh or reload the video image on you IP camera.

Deleting
With the Delete button , you can delete specific IP camera medium from the overview page.

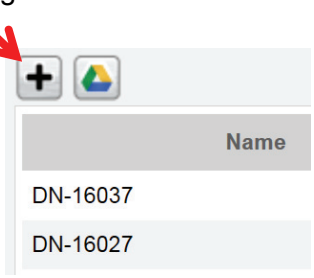
Screenshot
With the Photo button you can take a still shot of the current video image and save it directly to your PC.

Click on the top right of the screen to exit the full-screen mode or click on the bottom right side to return to the matrix display page.

In the camera matrix, click on "Settings" in order to see the list of cameras.

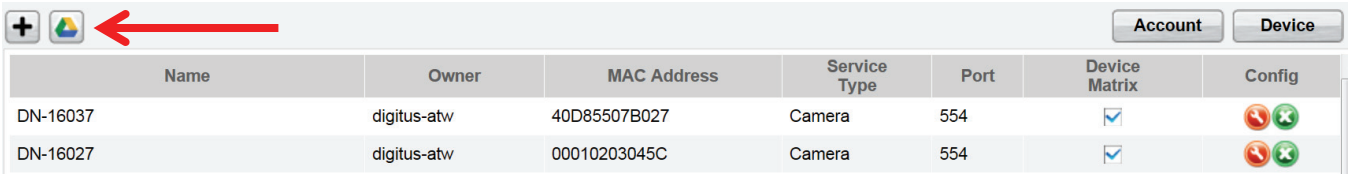
In this list you can see the details of your camera(s) and by clicking on change the name of the camera, with you can remove a specific camera from your account and with the hook button underneath "Device Matrix" select if she should be displayed with a Live Image in the overview.

By clicking on the "Plus" symbol on the left, above the list, an additional camera can be registered to your account.

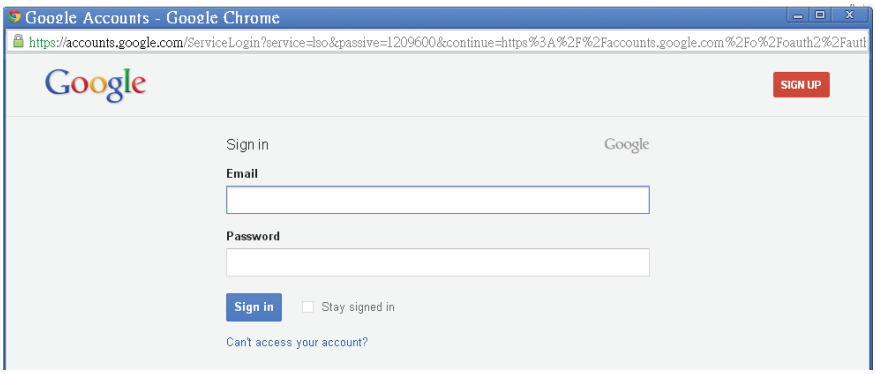


Google Drive Backup

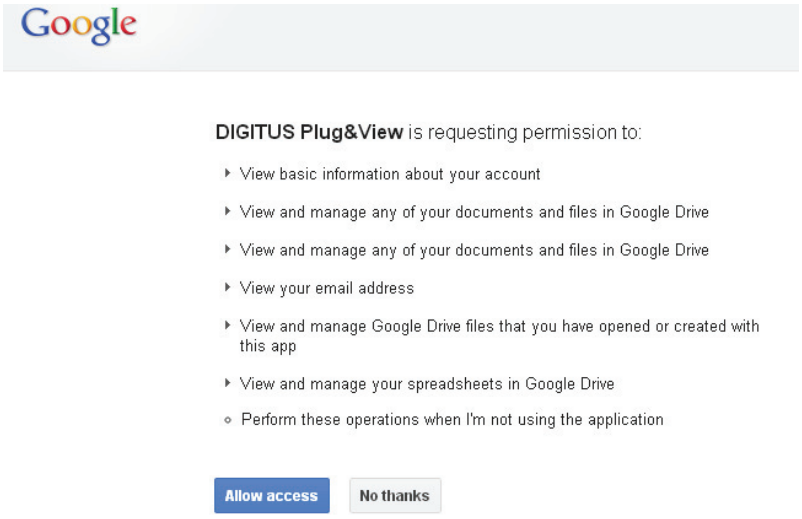
To the right your Google Drive Account for the cloud-backup is set up. **You must have a microSD memory card installed in your camera in order to be able ot use Google backup.** Please click on the button "Google authentication" and then accept the request in the following window to use "Google Drive" as cloud storage, by clicking on "OK".



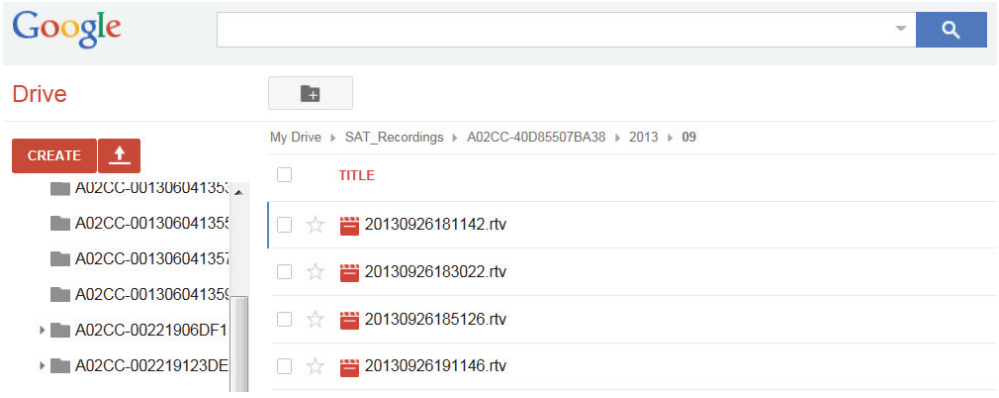
You will be redirected to the Google drive registration page. Please enter your Google Mail address and password, if you already have an account.

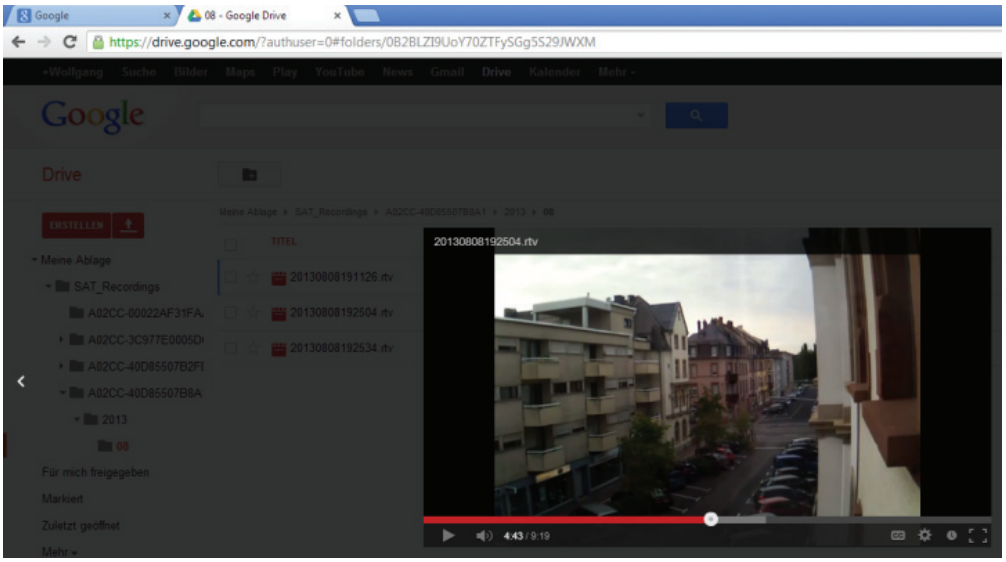


After entering your Google account information, please accept the access rights to allow for the video-backup from the camera to the Google drive. The windowwill then close automatically.



Through the storage function of Google-Cloud, a copy of your video files from the microSD-card is loaded onto Google drive. This means, that the videos, triggered by movement or timer, can be played from the cloud storage, online, using your browser. Please log in to your Google drive and select the recorded video (RTV) files in the directory "SAT_Recordings" to watch the videos online.



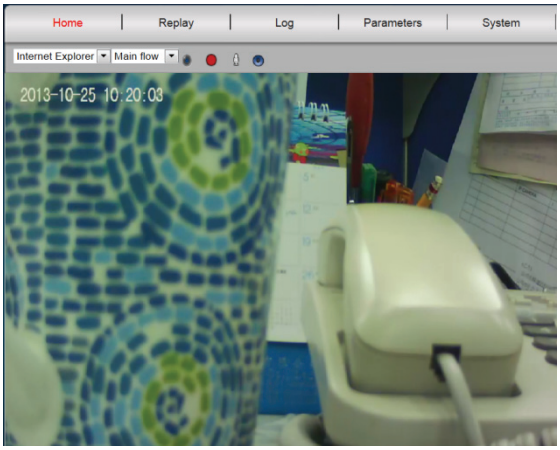


5 Camera User Interface

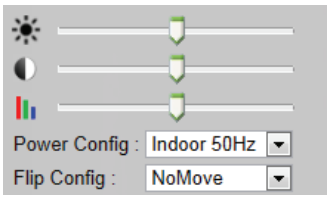
The camera user interface has 6 menu items (**Home**, **Replay**, **Log**, **Parameters**, **System** and **WiFi**). In order to be able to use the multimedia and control functions, the OCX component must be installed in Internet Explorer and the VLC Mediaplayer in Firefox and Chrome. A download link will be displayed in the user interface if necessary.

5.1 Home

This page shows the live image from the camera.



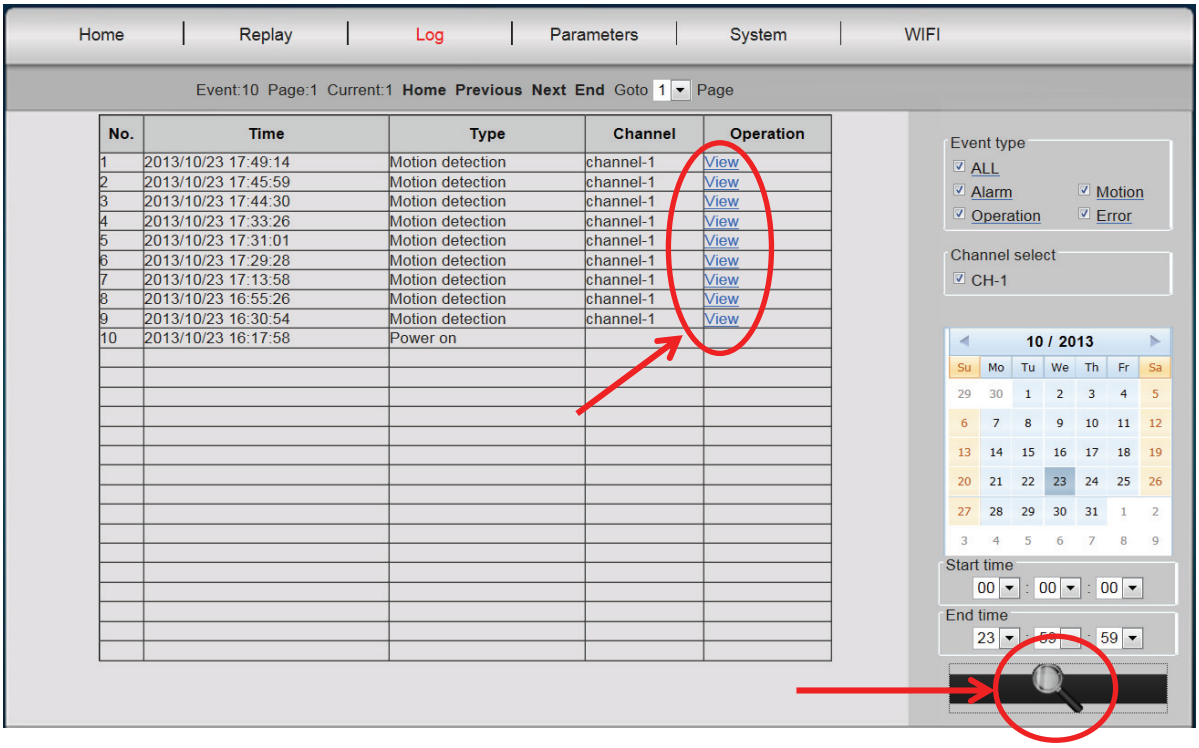
Under "Home" you can also Pan and Tilt (Plug&View Optiarc or similar PTZ cameras), as well as control the video settings such as brightness, contrast and saturation.



5.2 Replay

5.3 Log

The log records all events such as motion detection or alarm. Select a date and then press the Search button (magnifying glass) to list all events on this date. To view the recorded video, click on "View".

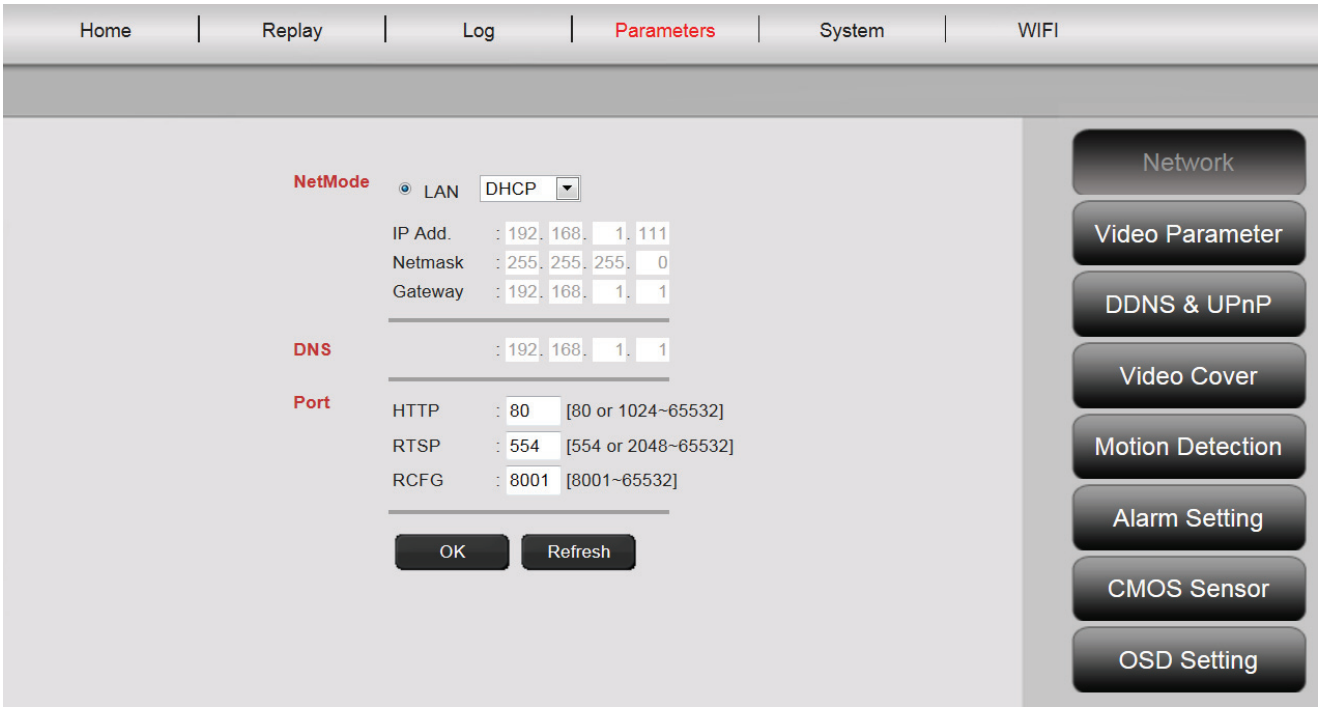


5.4 Parameters

This is where you configure Network, Video Parameter, DDNS & UPnP, Video Cover, motion detection, Alarm Setting, CMOS Sensor and Monitor.

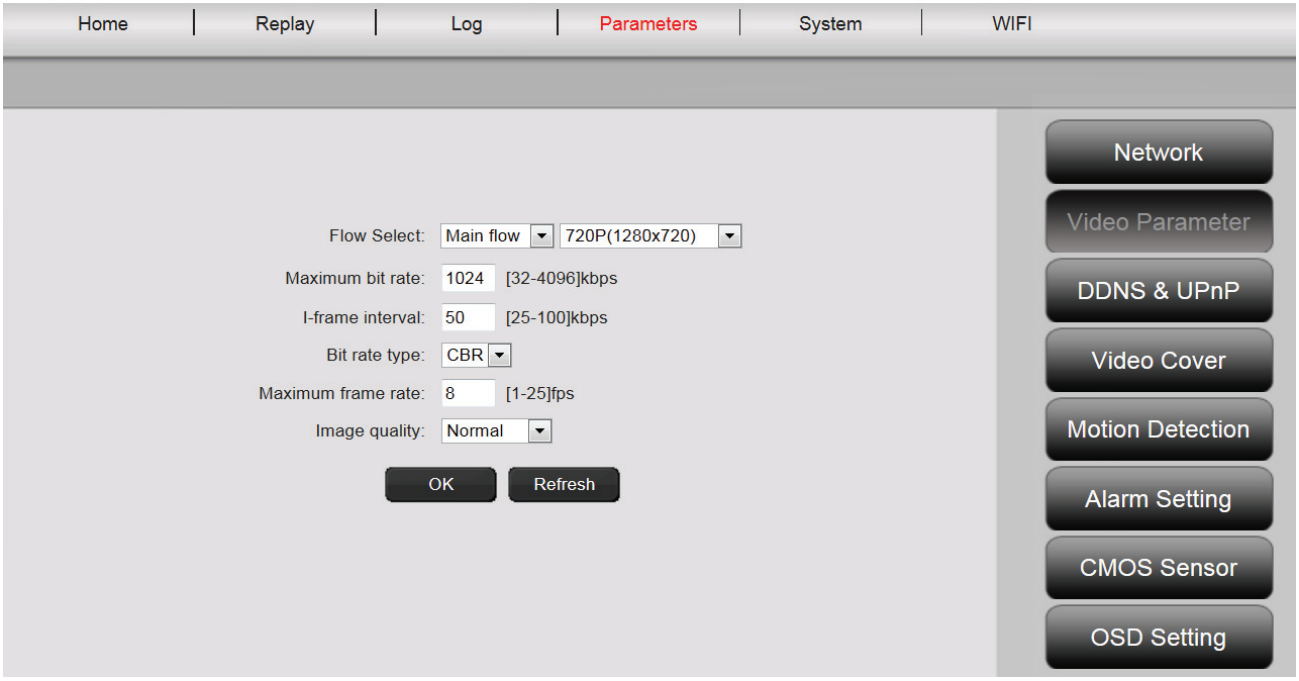
5.4.1 Network

Here you assign a fixed IP address to the camera, according to the configuration of your LAN, or select DHCP if you are using a DHCP-server, such as your router, for the assigning of IP-addresses. The ports for HTTP, RTSP and RCFG can be modified here, if port forwarding settings are required on your router.



5.4.2 Video Parameter

Under Video Parameter you can configure the resolution, bit rate, Type, frame rate and image quality of the video stream.



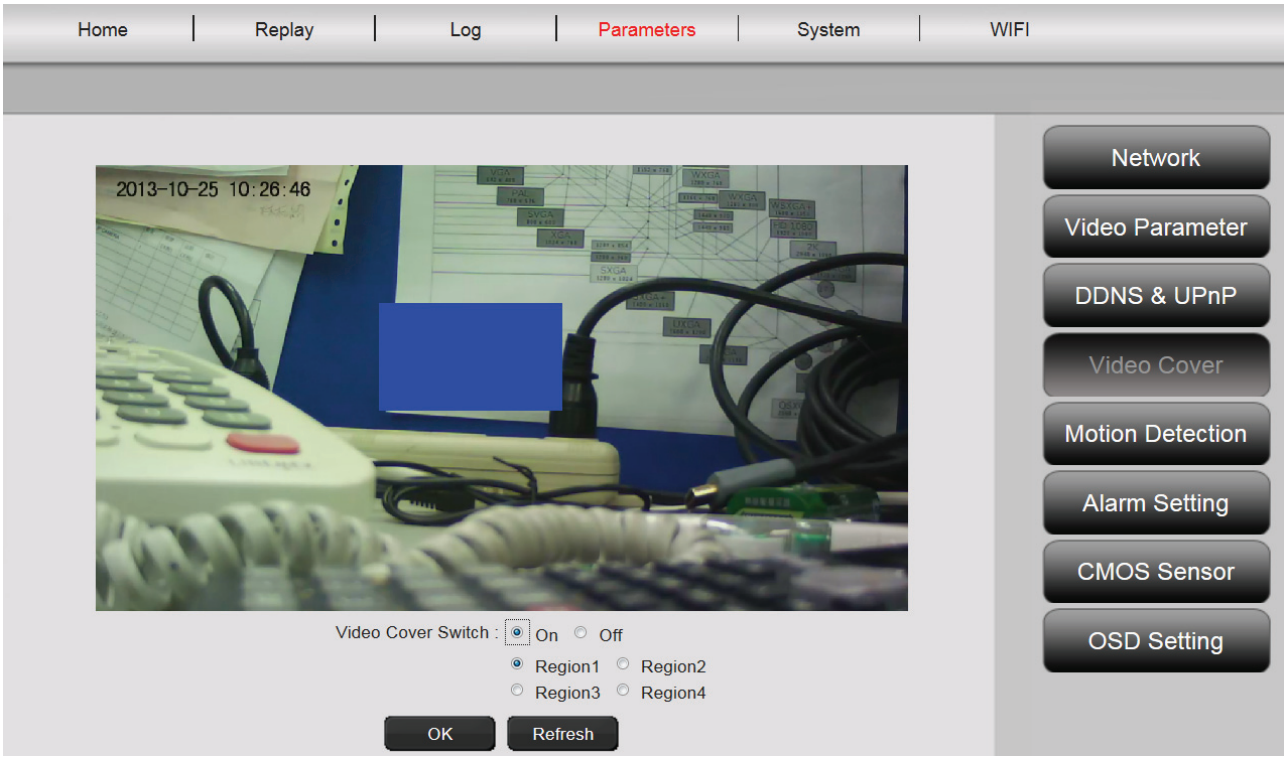
You can choose between 'high' and 'normal video quality'. 'High Quality Video' is used mainly for high-resolution video streams via a PC with higher clock frequencies and faster Internet connection. 'Normal video quality' is usually for use with mobile phones. The main- and sub stream modes support Constant Bit Rate (CBR) and Variable Bit Rate (VBR). You can select between 5 levels in the Image Quality settings: from very high to very low.

5.4.3 DDNS & UpnP

If you want to have additional access to the user interface via a DynDNS provider, activate Dynamic DNS by selecting "on" and enter your domain and access data. If the camera handles the assignment of the ports and the forwarding via UPnP, please note, to also adjust the necessary settings on your router (changes to the security settings to allow UPnP).

5.4.4 Video Cover

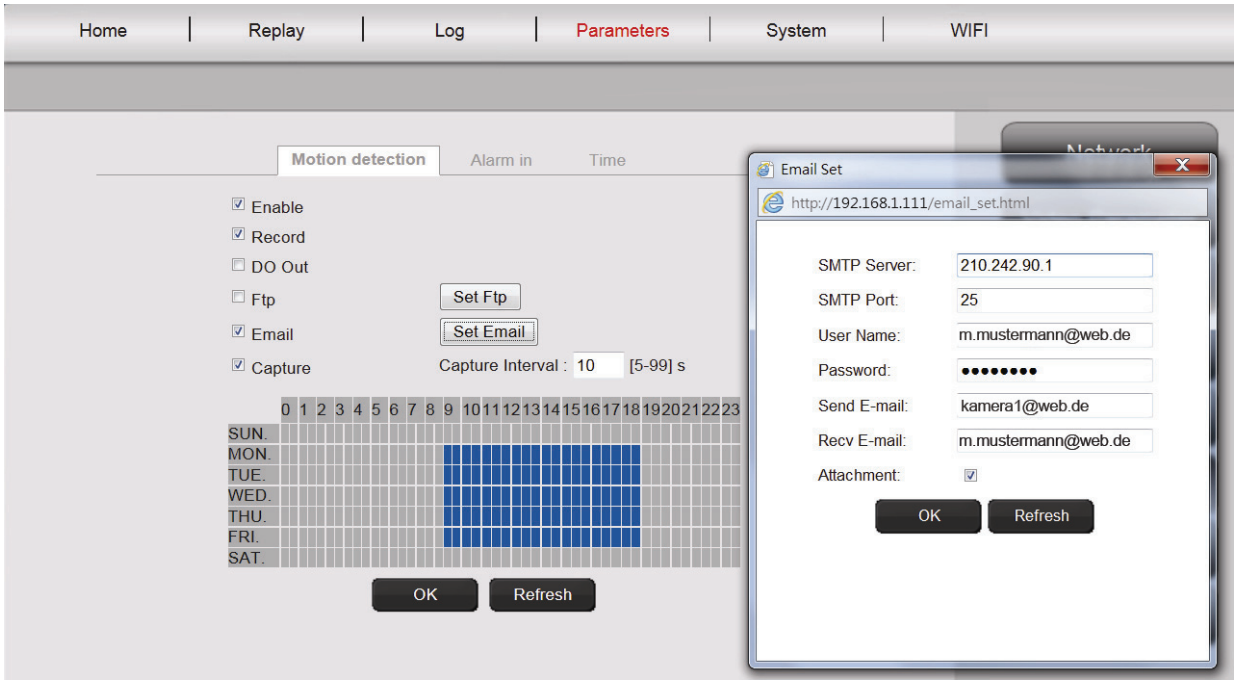
"Video Screen" marks any specific area within the video image which is blacked out during a recording. Activate Video Screen by clicking on "on". Then click inside the video image and drag with the mouse button from the top left to the bottom right corner of the desired area. A high-lighted color box will appear, which represents the covered area. Click on "Region 2" to select another area and repeat the process. Once you have selected up to 4 areas, finish the process by clicking on "OK".



5.4.5 Motion Detection

Enable the motion detection with a click on "On". The colored area within the video image is the motion detection area, i.e. the area in which a movement triggers a picture or a video recording. In the original delivery condition, almost the entire screen is covered with red boxes. In order to exclude certain areas from the motion detection, click**in the bottom right corner**of the colored marker **and move the mouse towards the top left, while holding the mouse key down**. By doing this, you delete the marker for that area. Respectively, you do the same in the opposite direction**, from top left to bottom right**, to select a new **area for motion detection**. The sensitivity ranges from 0 to 5, whereby the smallest value represents the highest sensitivity. The typical setting is 3. The value behind "next motion detection after..." specifies after how many frames the motion detection will be triggered again. By clicking on "OK" you complete the setting and will then receive a message in a pop-up window, to set the 'Action' next, which should start as soon as the camera registers a movement within the range. Confirm with "OK" and you will be automatically moved to the "Alarm Setting".

5.4.6 Alarm

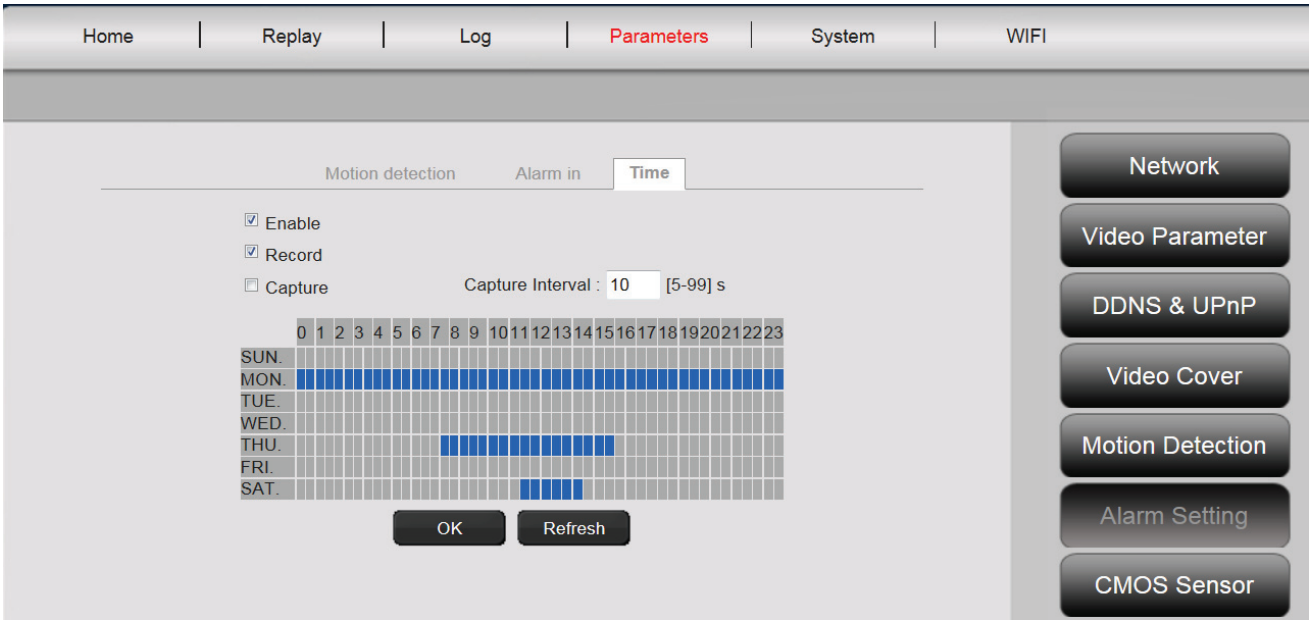


There are three types of alarm setting: **Motion detection, Alarm in (external alarm)** and **Time**. To activate the **motion detection**, click on the tab with the corresponding name. Please make the settings under the right-hand menu "Motion Detection" first, as long as the coverage and the sensitivity have not yet been set, as described in 6.1.5. Select the time frames for the motion detection with the left mouse button in the time grid. Click on "Enable" and on "Record" to save the video recording, which was triggered through motion detection, on the microSD card. You can also setup e-mail notification of motion detection, as described below. By activating "Capture", a snapshot will be triggered in the event of motion detection. This image will then be automatically sent to you as an attachment with the e-mail notification.

Storing your videos/pictures on an FTP-server is also possible. Please enable FTP and press "Set FTP" to enter your credentials. This function will then transfer all videos and pictures from the microSD card to your FTP-server.

Enabling "DO Out" triggers a switch contact in the event of motion detection, which can be forwarded to an alarm system via an external port of the camera (e.g. Plug&View Optiarc).

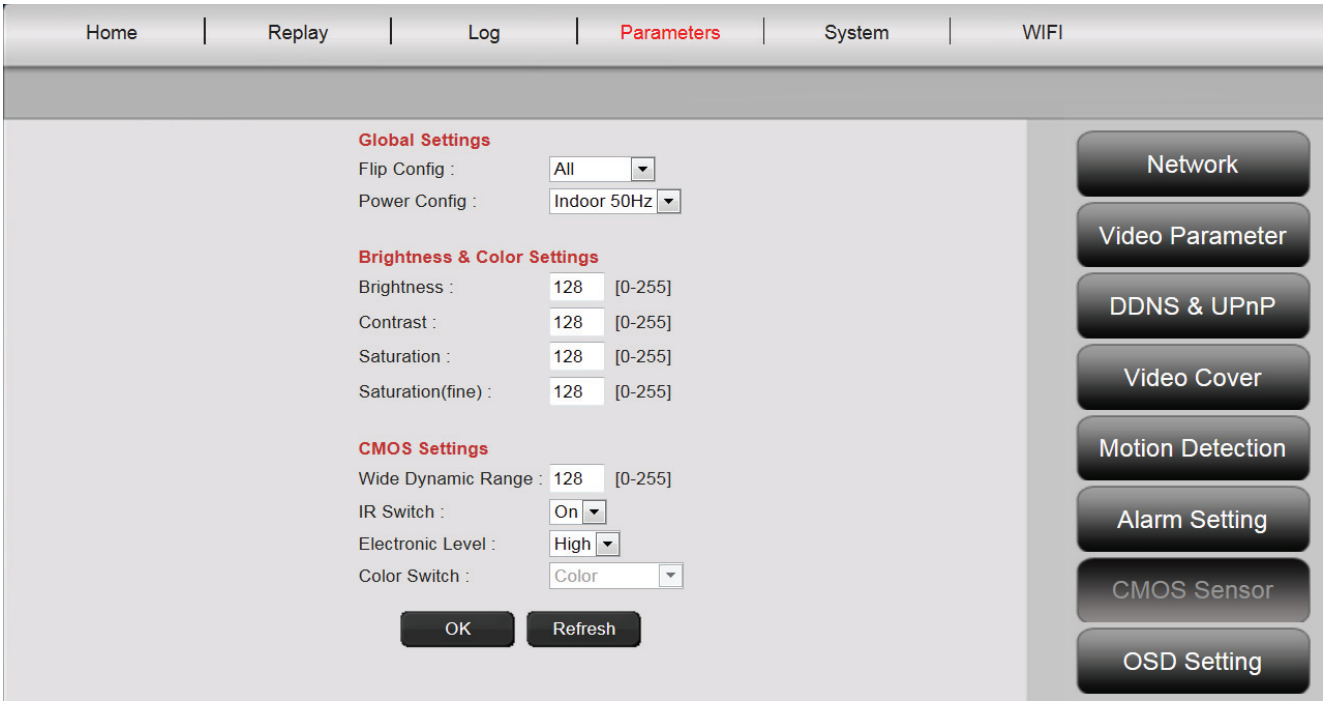
In the tab "**Alarm In**" the recording can be triggered externally through a passive switch contact, e.g. a window or door sensor. Your camera must be equipped with an external connector (e.g. Plug&View Optiarc) to be able to connect a suitable cable, through which the "Record", or "Capture" will be triggered.



With "**Time**" you can set the desired time for continuous recording to the microSD-Karte. You can, for example, set the time for the normal working hours from Monday to Friday, from 09.00 to 18.00, by marking the desired time period in the time grid with the mouse. The colored area means that in this period the recording will be continuously running. A second click in the colored area deletes the time window. Activate any time slot for the scheduled recording and specify whether videos and/or images should be recorded and the time interval (e.g. every 5 seconds) at which the images should be taken. Videos will be recorded on the SD card until the storage capacity is exhausted. Then, starting with the oldest recording, the recordings will be overwritten.

5.4.7 CMOS Sensor

Here you will find various setting options for image optimization:



The settings for "**Flip Config**" turn the video image by 180°, e.g. when the camera is installed on the ceiling: "UpDown" – vertical rotation, "LeftRight" – horizontal rotation, "All" – verticale and horizontal rotation, "NoMove" – no rotation.

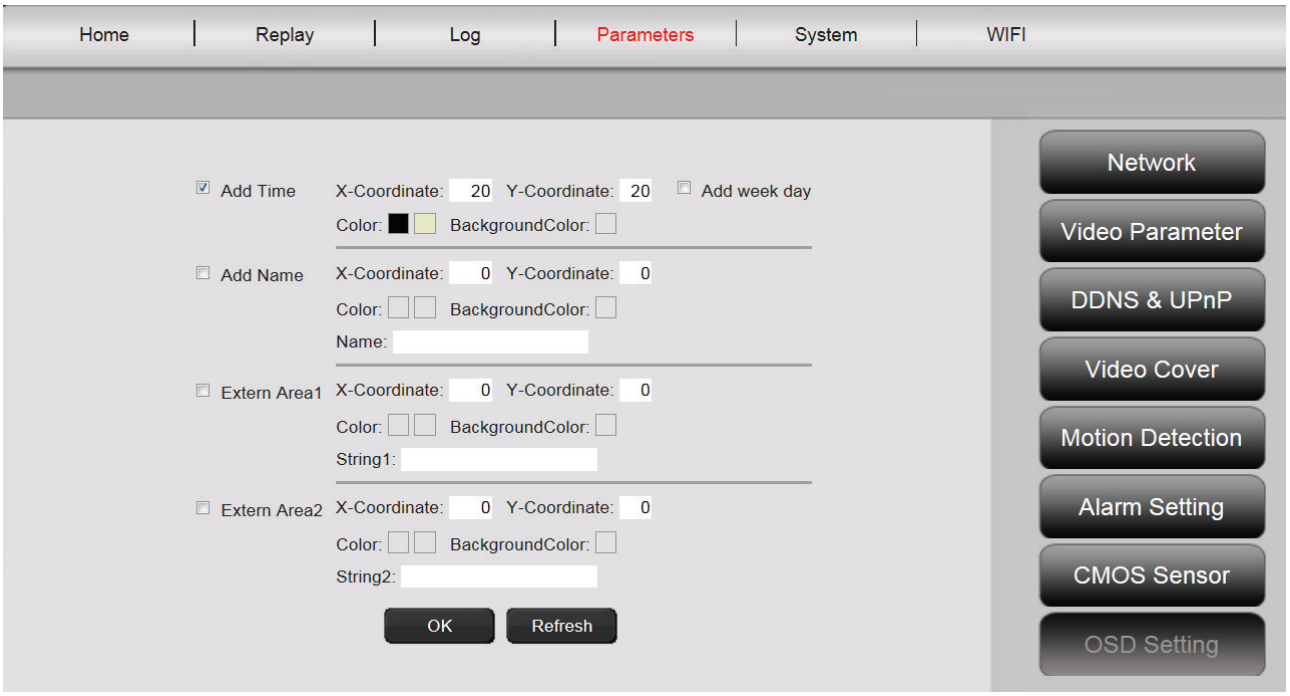
In "Power Config" determine the frequency of the site for the indoor or outdoor use of the camera. For indoor installations and operation in Europe, select "Indoor 50Hz". For use outside Europe, e.g. in the USA and Japan, select "Indoor 60Hz". For outdoor use (e.g. Plug&View OptiMax) select "Outdoor".

With the settings under "**Brightness**" you can optimize brightness, contrast and saturation of the camera image. The default value is 128.

Under "**CMOS**" you can set the exposure value at which the camera switches back and forth between day and night mode with the number behind "Wide Dynamic Range". If "IR Switch" is set to "On", the integrated infrared LED it will be activated automatically in low light conditions. The "Off" setting disables the LEDs and you can then specify in "Color Switch", whether the camera image should be in black-and-white or color in low light conditions or, respectively, should automatically switch from color to black-and-white.

"Electronic Level" to "High" or "Low" determines how sensitive the LEDs respond to changing lighting conditions.

5.4.8 Monitor (text overlays)



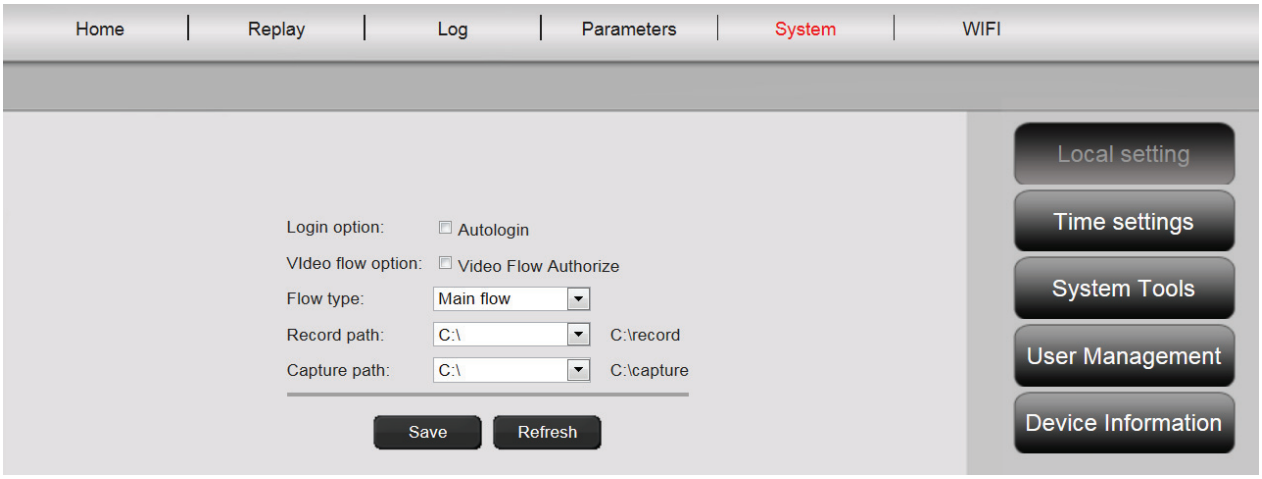
You can make the time and camera name, as well as two additional textual information (Free Text) display on the monitor (in the camera live image). The color and position of the characters are freely adjustable.

5.5 System

The system settings consist of Local Setting, Time Settings, System Tools, User Management and Device Information.

5.5.1 Local Setting

Here you specify whether the login to your account should be done automatically. Here you can set the video quality and for direct recording of images and videos via the local storage path to your computer, while video playback is activated.



5.5.2 Time Settings

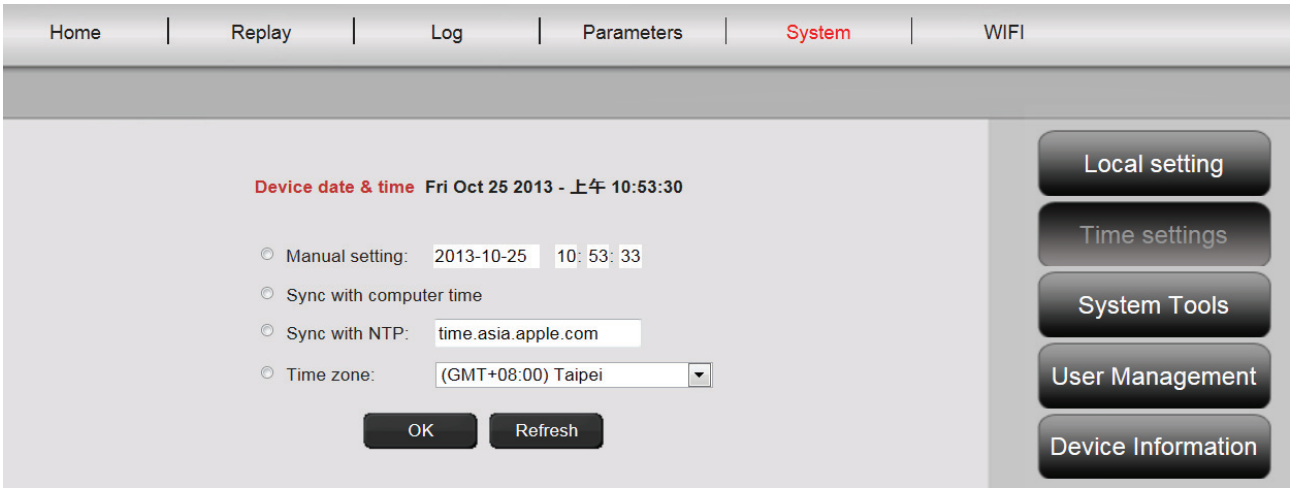
Manual setting, Sync with computer time, Sync with NTP and Time zone are optional. Select the method you want to use. Select the method you want to use.

Manual setting: Enter time and date manually.

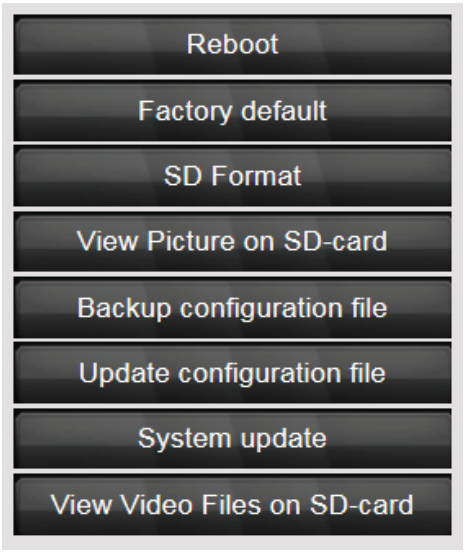
Sync with computer time: The time of the IP camera is automatically synchronized with your PC.

Sync with NTP: Enter the URL or IP address of the NTP server.

Time zone: Select the Time Zone according to your location.



5.5.3 System Tools



Reboot – triggers a restart of the camera. After approx. 20 seconds you can log in again

Factory default – resets the camera to factory settings. All of the changes you have made will be lost.

SC Format – formats (FAT32) an inserted SD-card for video and images

View Picture on SD-card – displays the recorded images

Backup configuration file – saves the current configuration of the camera on your PC

Update configuration file – restores the camera configuration you had preciously stored on your PC

System update– allows you to manually update the firmware

View video files on SD-card – shows the recorded videos

5.5.4 User Management

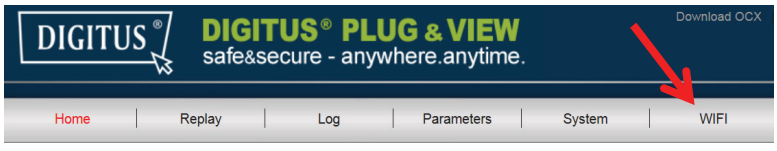
In the delivery state, you logged into the camera as Administrator. As admin you can create and delete users, who have access to the camera user interface. Normal users do not have permission to add or delete users.

5.5.5 Device Information

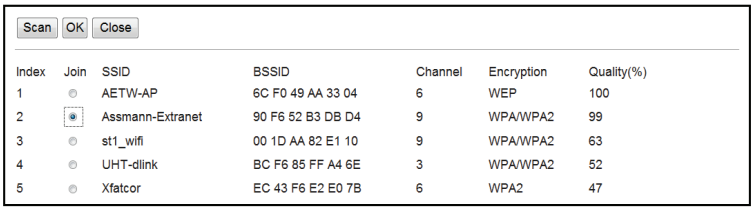
Here you can see all the important technical data concerning your camera at a glance: Brand and Type, serial number, software (firmware) version, the MAC address of the Ethernet adapters, the current Ethernet network settings, as well as the date and time of the last time the camera was switched on. Under SD card information you can see the maximum available capacity of the microSD-card (if installed).

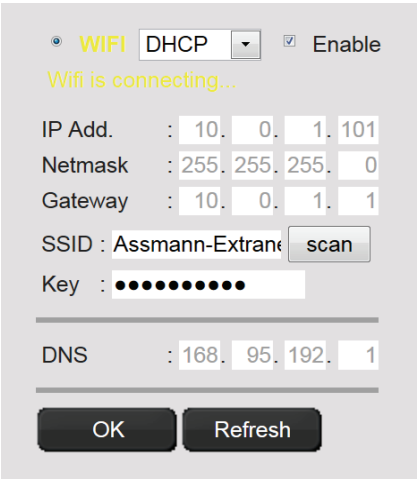
5.6 WIFI

In the user interface of the camera click on WIFI, to configure the wireless settings.



A search window will appear, in which the available wireless networks in your environment will be displayed. Please select the identifier (SSID) of your network and confirm with "OK".





In the next window enter the WLAN-key and confirm with "OK".

Next, the connection to your wireless LAN is established. The indication "Wifi connection will be established" is blinking in YELLOW. If the connection was successfully established, this will be displayed in a separate window. The display then changes to "Wifi connection".

You can now remove the network cable from the camera and close the browser window.

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The ASSMANN Electronic GmbH hereby declares that the IP cameras, type Plug&View, are in accordance with the requirements and provisions of the Directive 1999/5/EC.
The full Declaration of Conformity can be found under http://www.digitus.info.