TruVision 11/31 Series IP Camera FW 5.2 Configuration Manual

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Content

Introduction

This is the user manual for TruVision 11/31 Series IP camera models:

IP mini bullet camera:

- TVB-1101 (1.3MPX Bullet, 6 mm lens, PAL)
- TVB-3101 (1.3MPX Bullet, 6 mm lens, NTSC)
- TVB-1102 (3MPX Bullet, 6 mm lens, PAL)
- TVB-3102 (3MPX Bullet, 6 mm lens, NTSC)
- TVB-1103 (1.3MPX Bullet, 4 mm lens, PAL)
- TVB-3103 (1.3MPX Bullet, 4 mm lens, NTSC)

IP VF bullet camera:

- TVB-1104 (1.3MPX Bullet, 2.8 to 12 mm VF Lens, PAL)
- TVB-3104 (1.3MPX Bullet, 2.8 to 12 mm VF Lens, NTSC)
- TVB-1105 (3MPX Bullet, 2.8 to 12 mm VF Lens, PAL)
- TVB-3105 (3MPX Bullet, 2.8 to 12 mm VF Lens, NTSC)

IP mini dome camera:

- TVD-1101 (1.3MPX Plastic Mini Dome, PoE, PAL)
- TVD-3101 (1.3MPX Plastic Mini Dome, PoE, NTSC)
- TVD-1102 (3MPX Plastic Mini Dome, PoE, PAL)
- TVD-3102 (3MPX Plastic Mini Dome, PoE, NTSC)
- TVD-1105 (1.3MPX IP IR Outdoor Mini Dome, PoE/12 VDC, PAL)
- TVD-3105 (1.3MPX IP IR Outdoor Mini Dome, PoE/12 VDC, NTSC)
- TVD-1106 (3MPX IP IR Outdoor Mini Dome, PoE/12 VDC, PAL)
- TVD-3106 (3MPX IP IR Outdoor Mini Dome, PoE/12 VDC, NTSC)

IP VF mini dome camera:

- TVD-1103 (1.3MPX VF Mini Dome, PAL)
- TVD-3103 (1.3MPX VF Mini Dome, NTSC)
- TVD-1104 (3MPX VF Mini Dome, PAL)
- TVD-3104 (3MPX VF Mini Dome, NTSC)

IP wedge camera:

- TVW-1101 (1.3MPX Wedge, 2.8 mm lens, Grey, PAL)
- TVW-3101 (1.3MPX Wedge, 2.8 mm lens, Grey, NTSC)
- TVW-1102 (3MPX Wedge, 2.8 mm lens, Grey, PAL)

- TVW-3102 (3MPX Wedge, 2.8 mm lens, Grey, NTSC)
- TVW-1117 (1.3MPX Wedge, 2 mm lens, Grey, PAL)
- TVW-3117 (1.3MPX Wedge, 2 mm lens, Grey, NTSC)
- TVW-1118 (1.3MPX Wedge, 2.8 mm lens, White, PAL)
- TVW-3118 (1.3MPX Wedge, 2.8 mm lens, White, NTSC)
- TVW-1119 (1.3MPX Wedge, 2.8 mm lens, Black, PAL)
- TVW-3119 (1.3MPX Wedge, 2.8 mm lens, Black, NTSC)

IP wireless wedge camera:

- TVW-1103 (1.3MPX wireless, 2.8 mm lens, Grey, PAL)
- TVW-3103 (1.3MPX wireless, 2.8 mm lens, Grey, NTSC)
- TVW-1104 (1.3MPX wireless, 2.8 mm lens, White, PAL)
- TVW-3104 (1.3MPX wireless, 2.8 mm lens, White, NTSC)
- TVW-1105 (3MPX wireless, 2.8 mm lens, Grey, PAL)
- TVW-3105 (3MPX wireless, 2.8 mm lens, Grey, NTSC)
- TVW-1106 (3MPX wireless, 2.8 mm lens, White, PAL)
- TVW-3106 (3MPX wireless, 2.8 mm lens, White, NTSC)
- TVW-1116 (3MPX wireless, 6 mm lens, White, PAL)
- TVW-3116 (3MPX wireless, 6 mm lens, White, NTSC)

Network access

This manual explains how to configure the camera over the network with a web browser.

TruVision IP cameras can be configured and controlled using Microsoft Internet Explorer (IE) and other browsers. The procedures described use Microsoft Internet Explorer (IE) web browser.

Checking your web browser security level

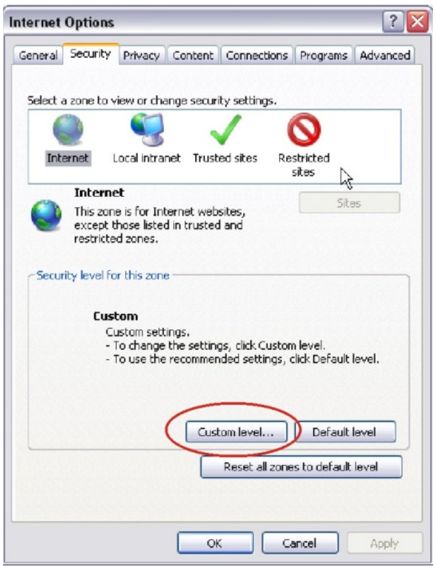
When using the web browser interface, you can install ActiveX controls to connect and view video using Internet Explorer. However, you cannot download data, such as video and images due to the increased security measure. Consequently you should check the security level of your PC so that you are able to interact with the cameras over the web and, if necessary, modify the Active X settings.

Configuring IE ActiveX controls

You should confirm the ActiveX settings of your web browser.

To change the web browser's security level:

1. In Internet Explorer, click **Internet Options** on the **Tools** menu.
2. On the Security tab, click the zone to which you want to assign a web site under "Select a web content zone to specify its security settings".
3. Click **Custom Level**.



Select a zone to view or change security settings.

Internet

This zone is for Internet websites, except those listed in trusted and restricted zones.

Custom

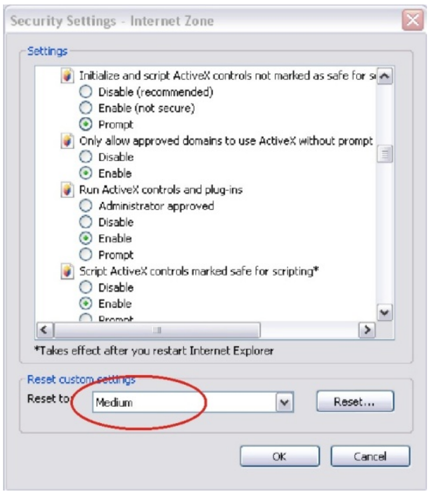
Custom settings.
- To change the settings, click Custom level.
- To use the recommended settings, click Default level.

4. Change the **ActiveX controls and plug-ins** options that are signed or marked as safe to **Enable**. Change the **ActiveX controls and plug-ins** options that are unsigned to **Prompt** or **Disable**. Click **OK**.

   - Or -

Under **Reset Custom Settings**, click the security level for the whole zone in the Reset To box, and select **Medium**. Click **Reset**.

Then click **OK** to the Internet Options Security tab window.



Security Settings - Internet Zone

Settings

Initialize and script ActiveX controls not marked as safe for s
- ○ Disable (recommended)
- ○ Enable (not secure)
- ● Prompt

Only allow approved domains to use ActiveX without prompt
- ○ Disable
- ● Enable

Run ActiveX controls and plug-ins
- ○ Administrator approved
- ○ Disable
- ● Enable
- ○ Prompt

Script ActiveX controls marked safe for scripting*
- ○ Disable
- ● Enable
- ○ Prompt

*Takes effect after you restart Internet Explorer

Reset custom settings

Reset to: Medium

5. Click **Apply** in the **Internet Options** Security tab window.

Windows users

Internet Explorer for Windows operating systems have increased security measures to protect your PC from any malicious software being installed.

To have complete functionality of the web browser interface with Windows, do the following:

- Run the Browser interface as an administrator in your workstation
- Add the camera’s IP address to your browser’s list of trusted sites

To add the camera’s IP address to Internet Explorer’s list of trusted sites:

1. Open Internet Explorer.
2. Click **Tools**, and then **Internet Options**.
3. Click the **Security** tab, and then select the **Trusted sites** icon.
4. Click the **Sites** button.
5. Clear the “Require server verification (https:) for all sites in this zone” box.
6. Enter the IP address in the “Add this website to the zone” field.
7. Click **Add**, and then click **Close**.
8. Click **OK** in the Internet Options dialog window.
9. Connect to the camera for full browser functionality.

Accessing the camera over the internet

Use the web browser to access and configure the camera over the internet.

It is recommended that you change the administrator password once the setup is complete. Only authorized users should be able to modify camera settings. See “User management” on page 53 for further information.

To access the camera online:

1. In the web browser enter the camera’s IP address (default is 192.168.1.70). Use the tool, *TruVision Device Finder*, enclosed on the CD to find the IP address of the camera.

   The Login dialog box appears.

   Note: Ensure that the Active X controls are enabled.

2. Enter your user name and password.

   User name: admin

   Password: 1234

3. Click **Login**. The web browser window appears in live view mode.

Overview of the camera web browser

The camera web browser lets you view, record, and play back recorded videos as well as manage the camera from any PC with Internet access. The browser’s easy-to-use controls give you quick access to all camera functions. See Figure 1 on page 8.

If there is more than one camera connected over the network, open a separate web browser window for each individual camera.

Figure 1: Web browser interface

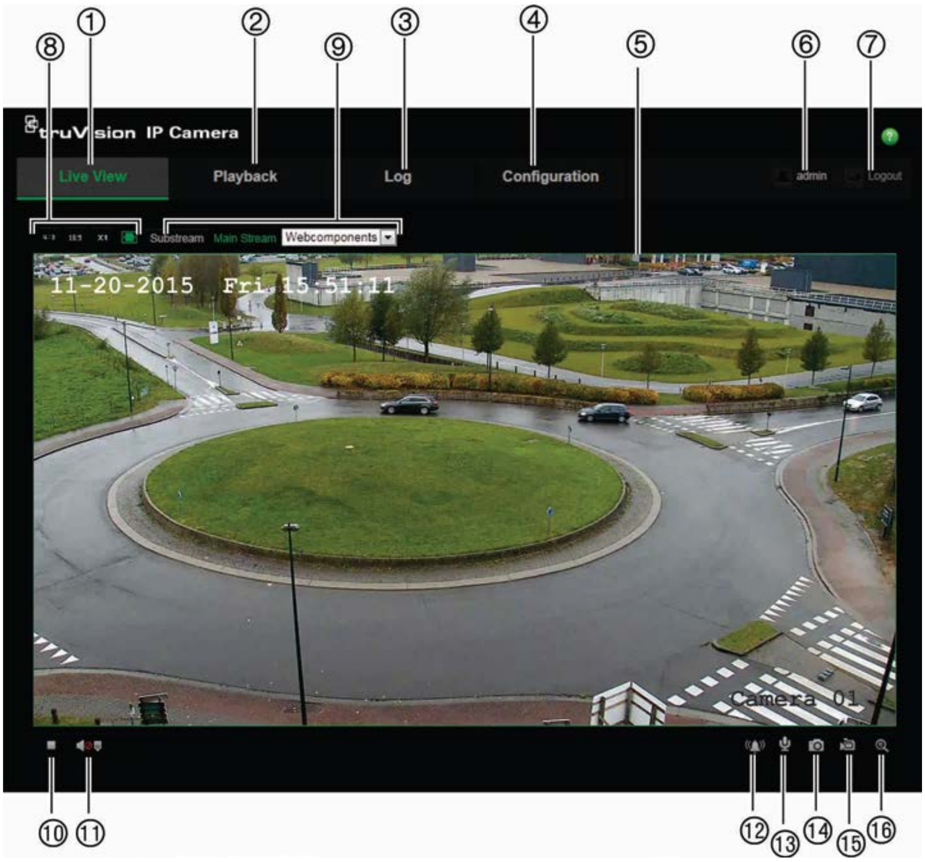


Table 1: Overview of the web browser interface

	Name	Description
1.	Live view	Click to view live video.
2.	Playback	Click to play back video.
3.	Log	Click to search for event logs. There are three main types: Alarm, Exception and Operation.
4.	Configuration	Click to display the configuration window for setting up the camera.
5.	Viewer	View live video. Time, date and camera name are displayed here.
6.	Current user	Displays current user logged on.
7.	Logout	Click to log out from the system. This can be done at any time.
8.	Aspect ratio	Select the aspect
9.	Streaming	Switch between main stream and substream.
10.	Start/stop live view	Click to start/stop live view.
11.	Audio	Adjust volume.
12.	Manual Alarm	Click to trigger the alarm output.
13.	Bidirectional audio	Turn on/off microphone.
14.	Capture	Click to take a snapshot of the video. The snapshot will be saved to the default folder in JPEG format.

	Name	Description
15.	Start/stop recording	Click to record live video.
16.	Digital Zoom	Click to enable digital zoom.

Camera configuration

This chapter explains how to configure the cameras through a web browser.

Once the camera hardware has been installed, configure the camera's settings through the web browser. You must have administrator rights in order to configure the cameras over the internet.

The camera web browser lets you configure the camera remotely using your PC. Web browser options may vary depending on camera model.

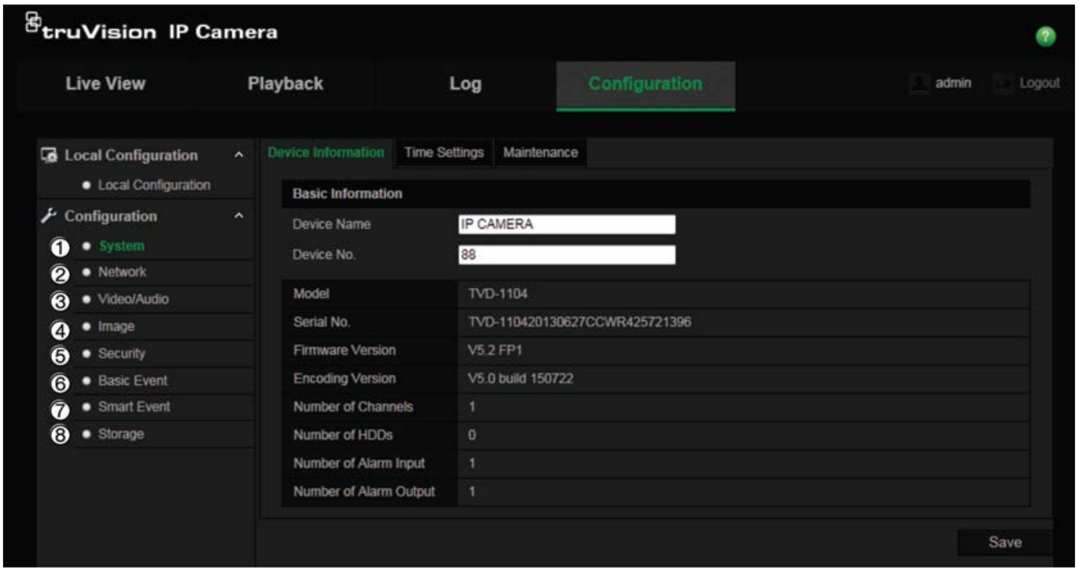
There are two main folders in the configuration panel:

- Local configuration
- Configuration

Configuration menu overview

Use the **Configuration** panel to configure the server, network, camera, alarms, users, transactions and other parameters such as upgrading the firmware. See Figure 2 and Table 2 below for descriptions of the configuration folders available.

Figure 2: Configuration panel (Device Information tab selected)



Basic Information

Device Name: IP CAMERA

Device No.: 88

Model	TVD-1104
Serial No.	TVD-110420130627CCWR425721396
Firmware Version	V5.2 FP1
Encoding Version	V5.0 build 150722
Number of Channels	1
Number of HDDs	0
Number of Alarm Input	1
Number of Alarm Output	1

Table 2: Overview of the Configuration panel

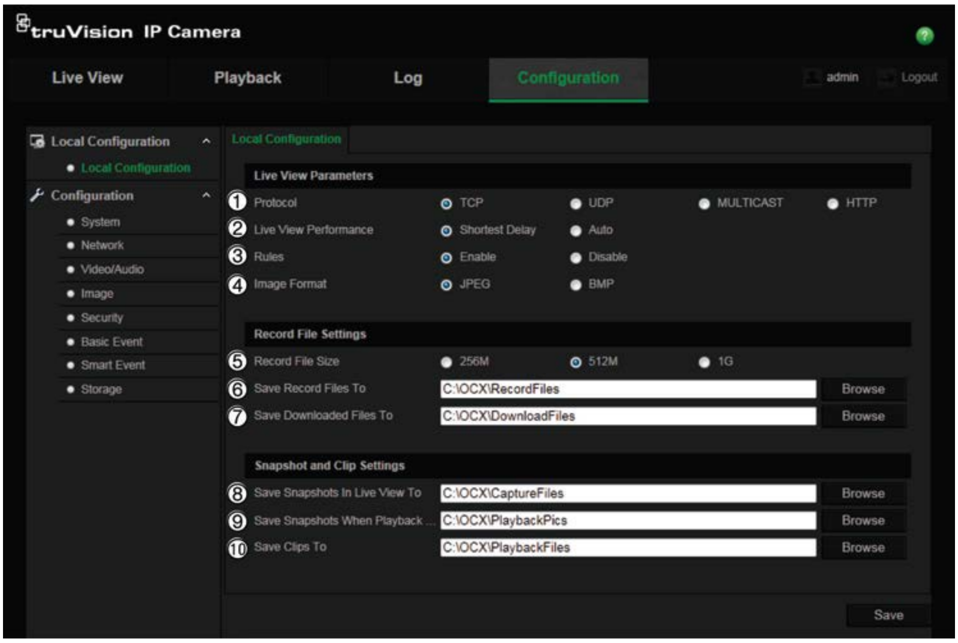
Configuration folders	Description
1. System	Defines the camera name and number. Displays basic information on the device including SN and the current firmware version, time settings, maintenance, and serial port parameters. See "System time" on page 12, "Restore default settings" on page 58, and "Upgrade firmware" on page 59 for more information.
2. Network	Defines the network parameters required to access the camera over the internet. See "Network settings" on page 14 for more information.

Configuration folders	Description
3. Video/Audio	Defines recording parameters. See “Recording parameters” on page 27 for more information.
4. Image	Defines the image parameters, OSD settings, overlay text, and privacy mask. See “Video image” on page 30, “OSD (On Screen Display)” on page 32, “Overlay text” on page 34, and “Privacy masks” on page 34 for more information.
5. Security	Defines who can use the camera, their passwords and access privileges, RTSP authentication, IP address filter, and Telnet access. See “Camera management” on page 53 for more information.
6. Events	Defines motion detection, tamper-proof, alarm input/output, and exception. See “Motion detection alarms” on page 35, “Tamper-proof alarms” on page 39, and “Exception alarms” on page 39.
7. Smart Event	Defines cross line and intrusion detection.
8. Storage	Defines recording schedule, storage management, NAS configuration, and Snapshot parameters. See “NAS settings” on page 48, “Storage devices” on page 49, and “Recording schedule” on page 49 for more information, and “Snapshot parameters” on page 46 for more information.

Local configuration

Use the Local menu to manage the protocol type, live view performance and local storage paths. In the Configuration panel, click **Local Configuration** to display the local configuration window. See Figure 3 and Table 3 below for descriptions of the different menu parameters.

Figure 3: Example of a configuration window (Local configuration shown)



Live View Parameters

1. Protocol ◉ TCP ○ UDP ○ MULTICAST ○ HTTP
2. Live View Performance ◉ Shortest Delay ○ Auto
3. Rules ◉ Enable ○ Disable
4. Image Format ◉ JPEG ○ BMP

Record File Settings

5. Record File Size ○ 256M ◉ 512M ○ 1G
6. Save Record Files To: C:\OCX\RecordFiles
7. Save Downloaded Files To: C:\OCX\DownloadFiles

Snapshot and Clip Settings

8. Save Snapshots In Live View To: C:\OCX\CaptureFiles
9. Save Snapshots When Playback ...: C:\OCX\PlaybackPics
10. Save Clips To: C:\OCX\PlaybackFiles

Table 3: Overview of the Local configuration window

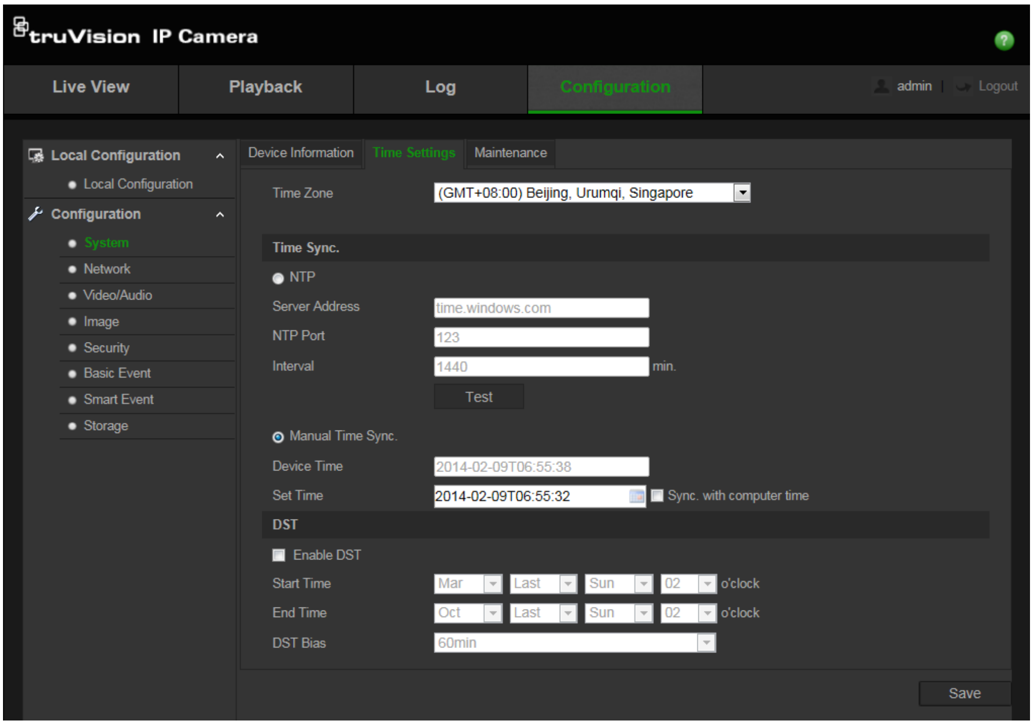
Parameters	Description
Live View Parameters	
1. Protocol	Specifies the network protocol used. Options include: TCP, UDP, MULTICAST and HTTP.
2. Live View Performance	Specifies the transmission speed. Options include: Shortest Delay or Auto.
3. Rules	It refers to the rules on your local browser. Specify whether or not to display the colored marks when motion detection, face detection, and intrusion detection are triggered. For example, when the rules option is enabled and a face is detected, the face will be marked with a green rectangle in live view.
4. Image Format	Choose the image format for a snapshot: JPEG or BMP.
Record File Settings	
5. Record File Size	Specifies the maximum file size. Options include: 256 MB, 512 MB and 1G.
6. Save Record Files to	Specifies the directory for recorded files.
7. Save Downloaded Files to	Specifies the directory for downloaded files.
Picture and Clip Settings	
8. Save Snapshots In Live View To	Specifies the directory for saving snapshots in live view mode.
9. Save Snapshots When Playback To	Specifies the directory for saving snapshots in playback mode.
10. Save Clips To	Specifies the directory for saving video clips in playback mode.

System time

NTP (Network Time Protocol) is a protocol for synchronizing the clocks of network devices, such as IP cameras and computers. Connecting network devices to a dedicated NTP time server ensures that they are all synchronized.

To define the system time and date:

1. Click **Configuration** > **System** > **Time Settings**.



Time Zone: (GMT+08:00) Beijing, Urumqi, Singapore

Time Sync.

○ NTP

Server Address: time.windows.com

NTP Port: 123

Interval: 1440 min.

● Manual Time Sync.

Device Time: 2014-02-09T06:55:38

Set Time: 2014-02-09T06:55:32 □ Sync. with computer time

DST

□ Enable DST

Start Time: Mar Last Sun 02 o'clock

End Time: Oct Last Sun 02 o'clock

DST Bias: 60min

2. From the **Time Zone** drop-down menu, select the time zone that is the closest to the camera's location.

3. Under **Time Sync**, check one of the options for setting the time and date:

   Synchronize with an NTP server: Check the **NTP** enable box and enter the server NTP address. The time interval can be set from 1 to 10080 minutes.

   - Or -

   Set manually: Enable the **Manual Time Sync** function and then click 📅 to set the system time from the pop-up calendar.

   Note: You can also check the **Sync with computer time** check box to synchronize the time of the camera with the time of your computer.

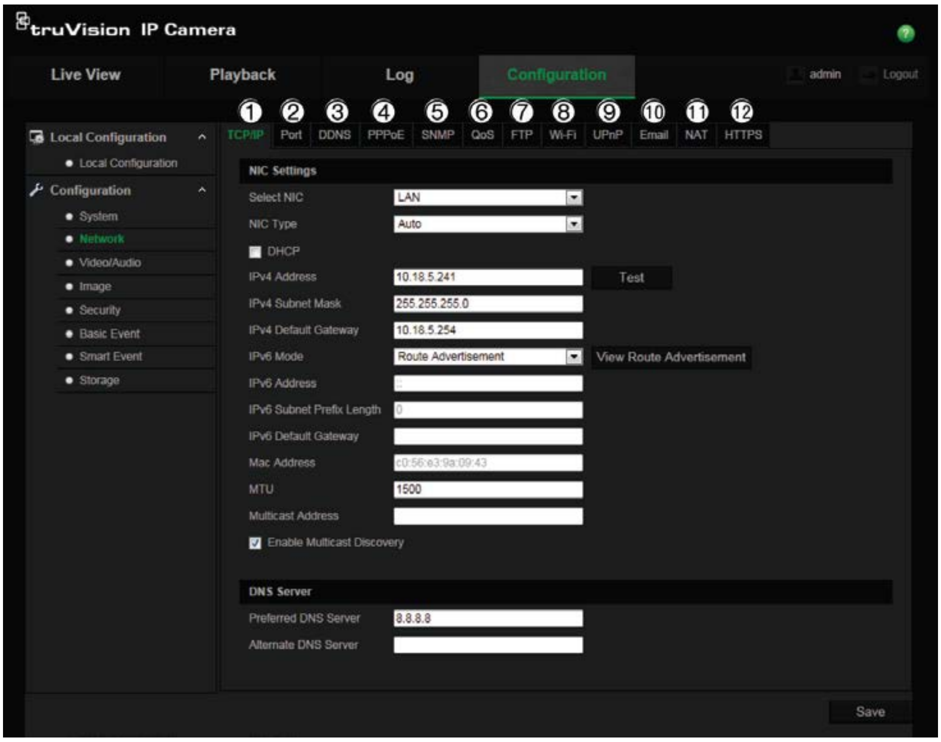
4. Check **Enable DST** to enable the DST function, and set the date of the DST period.

5. Click **Save** to save changes.

Network settings

Accessing the camera through a network requires that you define certain network settings. Use the “Network” folder to define the network settings. See Figure 4 and Table 4 below for further information.

Figure 4: Network window (TCP/IP tab shown)



NIC Settings

Select NIC: LAN

NIC Type: Auto

□ DHCP

IPv4 Address: 10.18.5.241

IPv4 Subnet Mask: 255.255.255.0

IPv4 Default Gateway: 10.18.5.254

IPv6 Mode: Route Advertisement

IPv6 Address: ::

IPv6 Subnet Prefix Length: 0

IPv6 Default Gateway:

Mac Address: c0:56:e3:9a:09:43

MTU: 1500

Multicast Address:

☑ Enable Multicast Discovery

DNS Server

Preferred DNS Server: 8.8.8.8

Alternate DNS Server:

Table 4: Network parameters

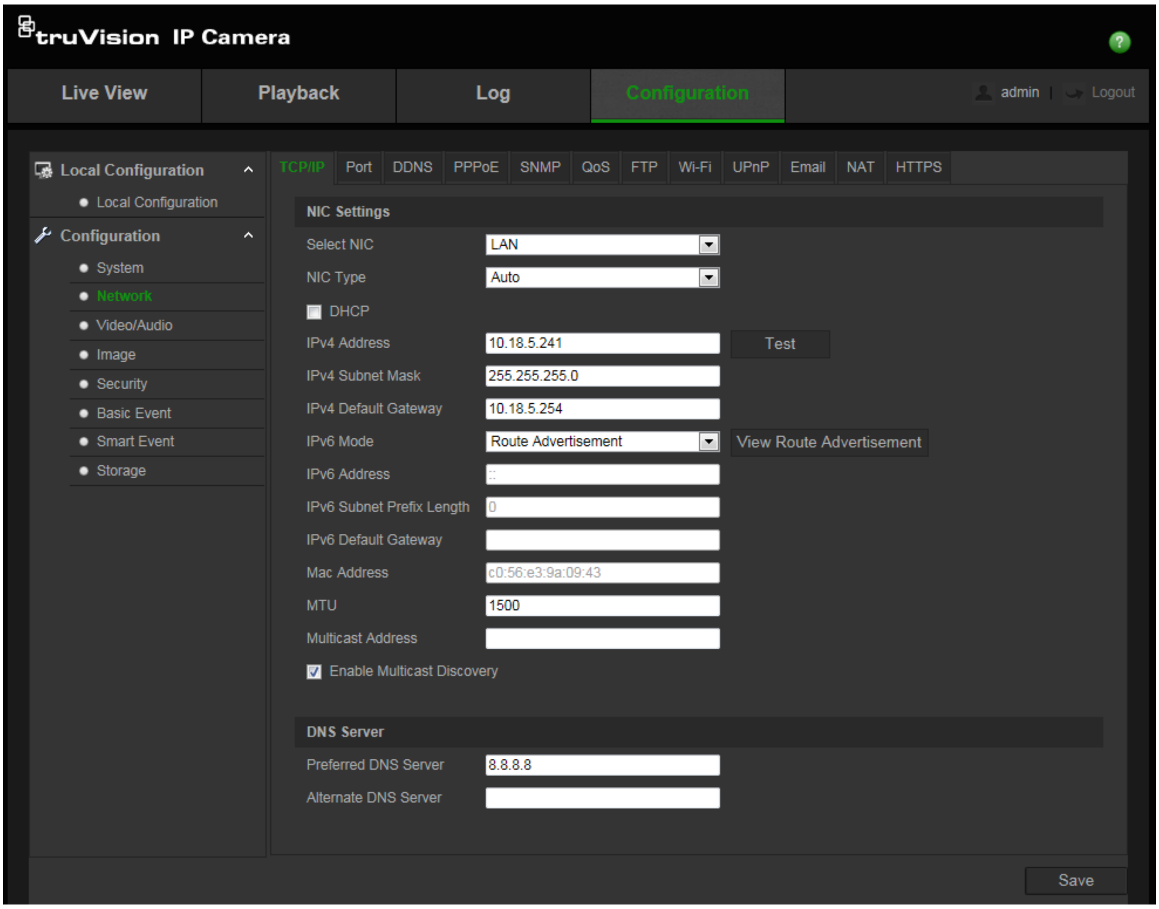
Parameters	Description
1. TCP/IP	**Select NIC:** Specifies LAN or WLAN for different network. **NIC Type:** Specifies the NIC type. Default is Auto. Other options include: 10M Half-dup, 10M Full-dup, 100M Half-dup and 100M Full-dup. **DHCP:** Enable to automatically obtain an IP address and other network settings from that server. **IPv4 Address:** Specifies the IPv4 address of the camera. **IPv4 Subnet Mask:** Specifies the IPv4 subnet mask. **IPv4 Default Gateway:** Specifies the IPv4 gateway IP address. **IPv6 Mode:** Specifies the IPv6 mode, including Manual, DHCP and Router Advertisement. **IPv6 Address:** Specifies the IPv6 address of the camera. **IPv6 Subnet Prefix Length:** Specifies the IPv6 prefix length. **IPv6 Default Gateway:** Specifies the IPv6 gateway IP address. **Mac Address:** Specifies the mac address of the camera. **MTU:** Specifies the valid value range of MTU. Default is 1500. **Multicast Address:** Specifies a D-class IP address between 224.0.0.0 to 239.255.255.255. Only specify this option if you are using the multicast function. Some routers prohibit the use of multicast function in case of a network storm.

Parameters		Description
		Enable Multicast Discovery: Enables the automatic detection of the online network camera via private multicast protocol in the LAN. **DNS server:** Specifies the DNS server for your network.
2.	Port	**HTTP Port:** The HTTP port is used for remote internet browser access. Enter the port used for the Internet Explorer (IE) browser. Default value is 80. **RTSP Port:** RTSP (Real Time Streaming Protocol) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers. Enter the RTSP port value. The default port number is 554. **HTTPS Port:** HTTPS (Hyper Text Transfer Protocol Secure) allows video to be securely viewed when using a browser. Enter the HTTPS port, value. The default port number is 443. **Server Port:** This is used for remote client software access. Enter the server port value. The default port number is 8000. **Alarm Server IP**: Specifies the IP address of the alarm host. **Alarm Server Port**: Specifies the port of the alarm host.
3.	DDNS	DDNS is a service that maps Internet domain names to IP addresses. It is designed to support dynamic IP addresses, such as those assigned by a DHCP server. Specifies IP server, DynDNS, and ezDDNS. **DynDNS (Dynamic DNS**): Enter the user name and password registered to the DynDNS web site. The domain name is that of the DynDNS web site. **ezDDNS**: Enter the host name. It will automatically register it online. **IPServer**: Enter the address of the IP Server.
4.	PPPoE	Retrieves a dynamic IP address.
5.	SNMP	SNMP is a protocol for managing devices on networks. Enable SNMP to get camera status and parameter related information.
6.	QoS	QoS (Quality of Service) can help solve the network delay and network congestion by configuring the priority of data sending. Enable the option in order to solve network delay and network congestion by configuring the priority of data sending.
7.	FTP	Enter the FTP address and folder to which snapshots of the camera can be uploaded.
8.	Wi-Fi	Specifies the wireless network connection parameters.
9.	UPnP	The UPnP (Universal Plug and Play) protocol allows devices to connect seamlessly and to simplify the implementation of networks in the home and corporate environments. With the function enabled, you do not need to configure the port mapping for each port, and the camera is connected to the Wide Area Network (WAN) via the router. Enable and set the friendly name detected.
10.	Email	Specifies the email address to which messages are sent when an alarm occurs.

Parameters	Description
11. NAT	The UPnP (Universal Plug and Play) protocol allows devices to connect seamlessly and to simplify the implementation of networks in the home and corporate environments. With the function enabled, you do not need to configure the port mapping for each port, and the camera is connected to the Wide Area Network (WAN) via the router. Enable and set the friendly name detected.
12. HTTPS	Specifies authentication of the web site and its associated web server, which protects against Man-in-the-middle attacks.

To define the TCP/IP parameters:

1. Click **Configuration** > **Network** > **TCP/IP**.



NIC Settings

Select NIC: LAN

NIC Type: Auto

□ DHCP

IPv4 Address: 10.18.5.241

IPv4 Subnet Mask: 255.255.255.0

IPv4 Default Gateway: 10.18.5.254

IPv6 Mode: Route Advertisement

IPv6 Address: ::

IPv6 Subnet Prefix Length: 0

IPv6 Default Gateway:

Mac Address: c0:56:e3:9a:09:43

MTU: 1500

Multicast Address:

☑ Enable Multicast Discovery

DNS Server

Preferred DNS Server: 8.8.8.8

Alternate DNS Server:

2. Configure the NIC settings, including the NIC Type, IPv4 settings, IPv6 settings, MTU settings, and Multicast Address.

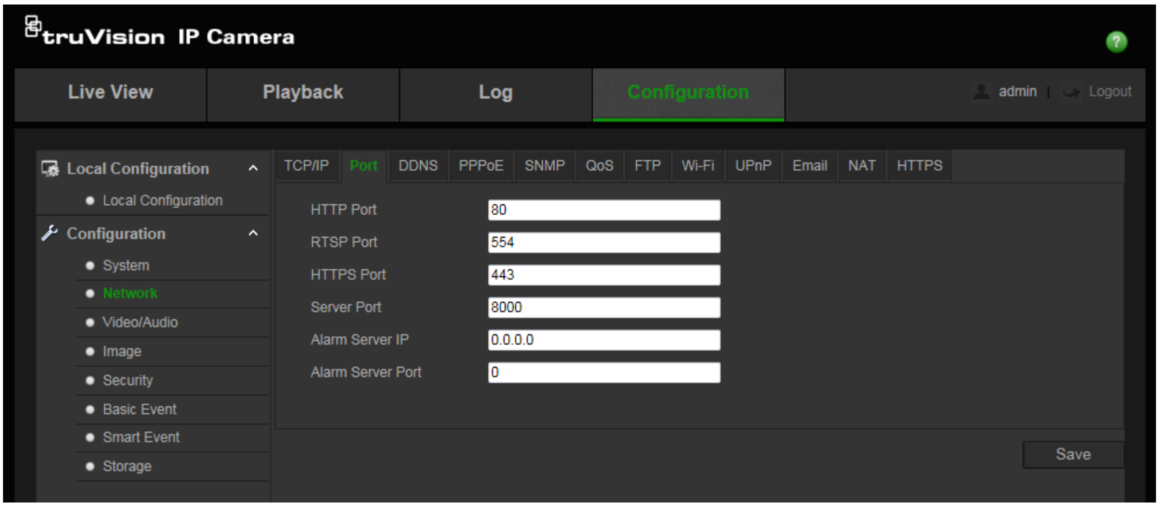
3. If the DHCP server is available, check **DHCP**.

4. If the DNS server settings are required for some applications (e.g., sending email), you should configure the **Preferred DNS Server** or **Alternate DNS Server**.

5. Click **Save** to save changes.

To define the port parameters:

1. Click **Configuration** > **Network** > **Port**.



HTTP Port: 80
RTSP Port: 554
HTTPS Port: 443
Server Port: 8000
Alarm Server IP: 0.0.0.0
Alarm Server Port: 0

2. Set the HTTP port, RTSP port, HTTPS port and Server port of the camera.

   HTTP Port: The default port number is 80. It can be changed to any port number that is not occupied.

   RTSP Port: The default port number is 554. It can be changed to any port number in the range from 1 to 65535.

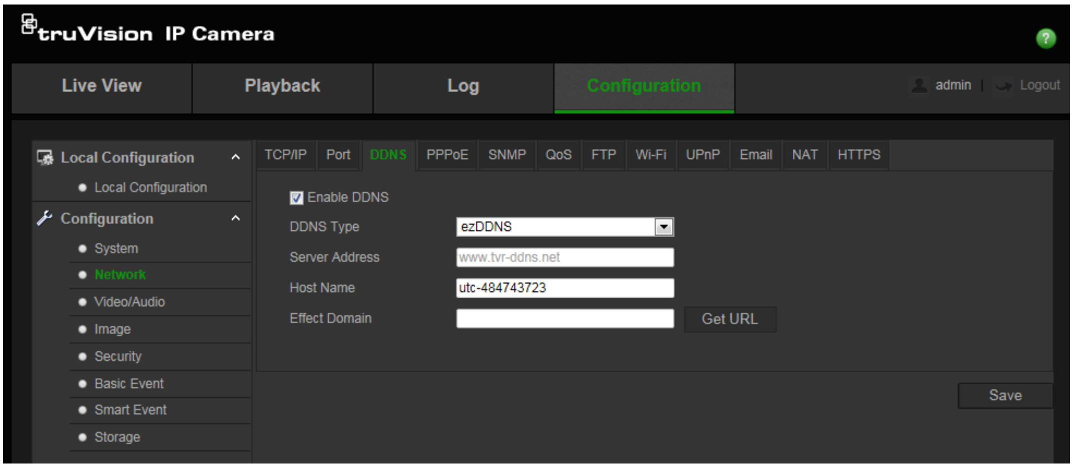
   HTTPS Port: The default port number is 443. It can be changed to any port number that is not occupied.

   Server Port: The default server port number is 8000. It can be changed to any port number in the range from 2000 to 65535.

3. Enter the IP address and port if you want to upload the alarm information to the remote alarm host. Also check the **Notify Alarm Recipient** option under Linkage Method of each Event page.
4. Click **Save** to save changes.

To define the DDNS parameters:

1. Click **Configuration** > **Network** > **DDNS**.



☑ Enable DDNS
DDNS Type: ezDDNS
Server Address: www.tvr-ddns.net
Host Name: utc-484743723
Effect Domain:

2. Check **Enable DDNS** to enable this feature.
3. Under **DDNS Type**, select one of the follow options:
   - DynDNS: Enter the DNSS server address, *members.ddns.org*, which is used to notify DDNS about changes to your IP address, the host name for your camera, the port number (443 (HTTPS)), and your user name and password used to log into your DDNS account. The domain name displayed under “Host Name” is that which you created on the DynDNS web site.
   - ezDDNS: Enter the desired host name under “Host Name”. The default host name is utc-*serial number*. The new host name is registered when you click Save.

   Note: The default server address is *www.tvr-ddns.net*, which cannot be changed.

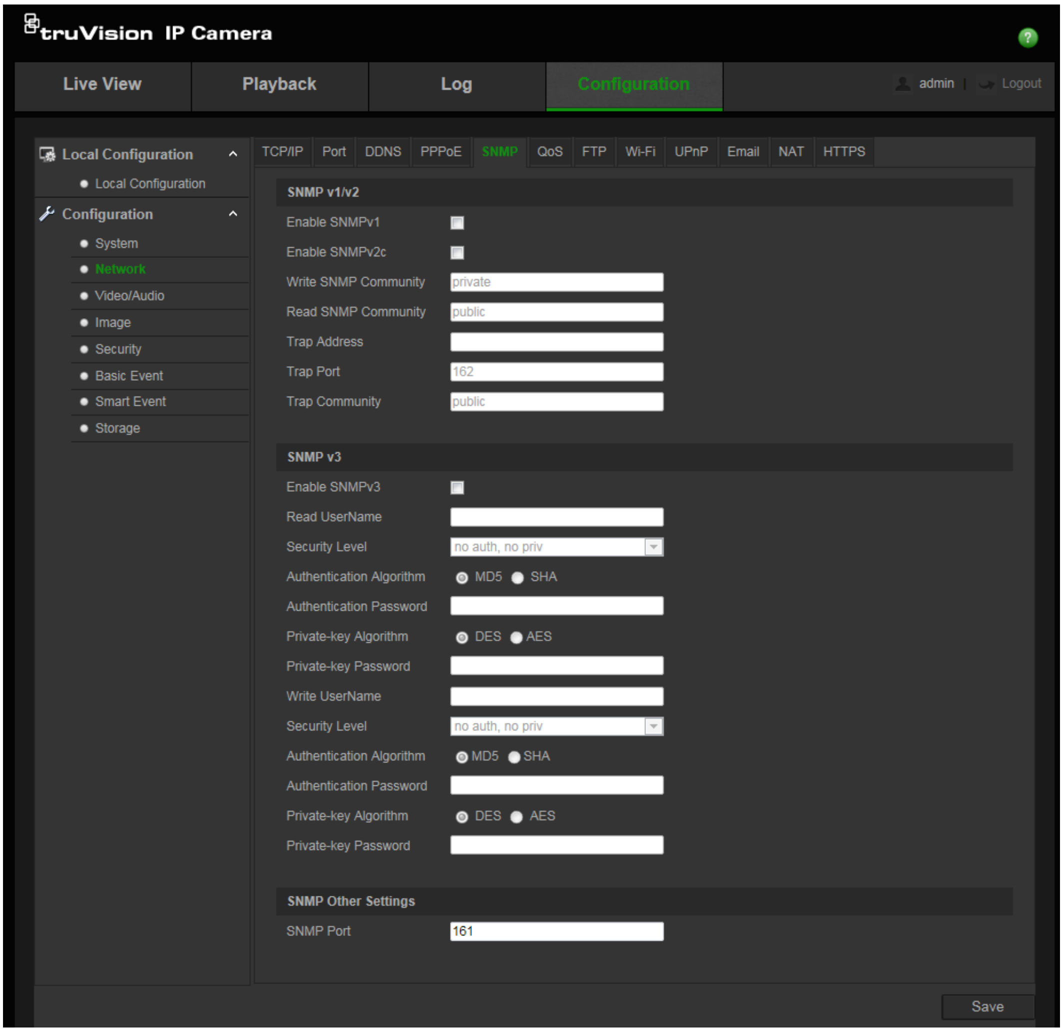
   - **IPServer**: Enter the address of the IP Server.
4. Click **Save** to save changes.
5. If you selected ezDDNS and changed the host name, click the **Get URL** button to confirm the domain name, which is displayed under *Effect Domain*.

To define the PPPoE parameters:

1. Click **Configuration** > **Network** > **PPPoE**.
2. Check **Enable PPPoE** to enable this feature.
3. Enter User Name, Password, and Confirm password for PPPoE access.
4. Click **Save** to save changes.

To define the SNMP parameters:

1. Click **Configuration** > **Network** > **SNMP**.



SNMP v1/v2

Enable SNMPv1 □

Enable SNMPv2c □

Write SNMP Community: private

Read SNMP Community: public

Trap Address:

Trap Port: 162

Trap Community: public

SNMP v3

Enable SNMPv3 □

Read UserName:

Security Level: no auth, no priv

Authentication Algorithm: ● MD5 ○ SHA

Authentication Password:

Private-key Algorithm: ● DES ○ AES

Private-key Password:

Write UserName:

Security Level: no auth, no priv

Authentication Algorithm: ● MD5 ○ SHA

Authentication Password:

Private-key Algorithm: ● DES ○ AES

Private-key Password:

SNMP Other Settings

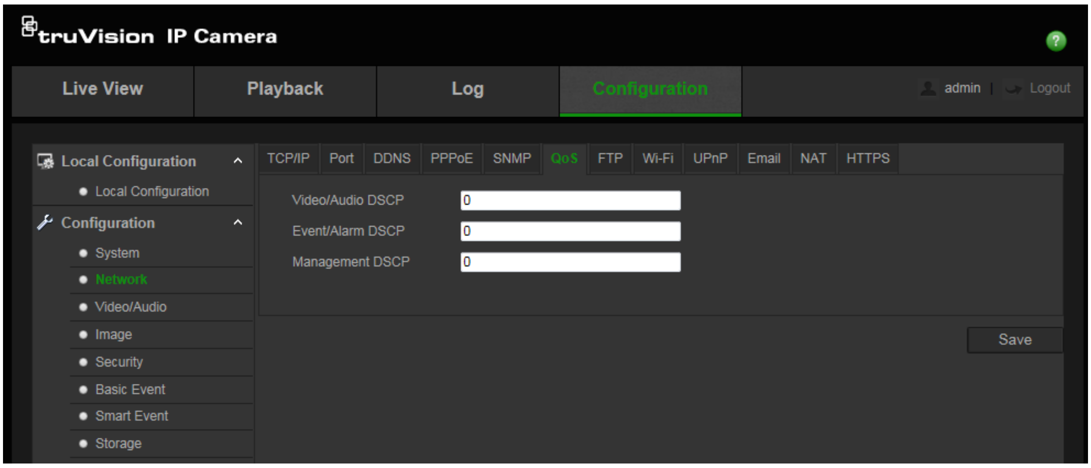
SNMP Port: 161

2. Select the corresponding version of SNMP: v1, v2c, v3, or “Other Settings”.
3. Configure the SNMP settings. The configuration of the SNMP software should be the same as the settings you configure here.
4. Click **Save** to save changes.

Note: Before setting the SNMP, please download the SNMP software and ensure that you can receive the camera information via the SNMP port. By setting the Trap Address, the camera can send the alarm event and exception messages to the surveillance center. The SNMP version you select should be the same as that of the SNMP software.

To define the QoS parameters:

1. Click **Configuration** > **Network** > **QoS**.



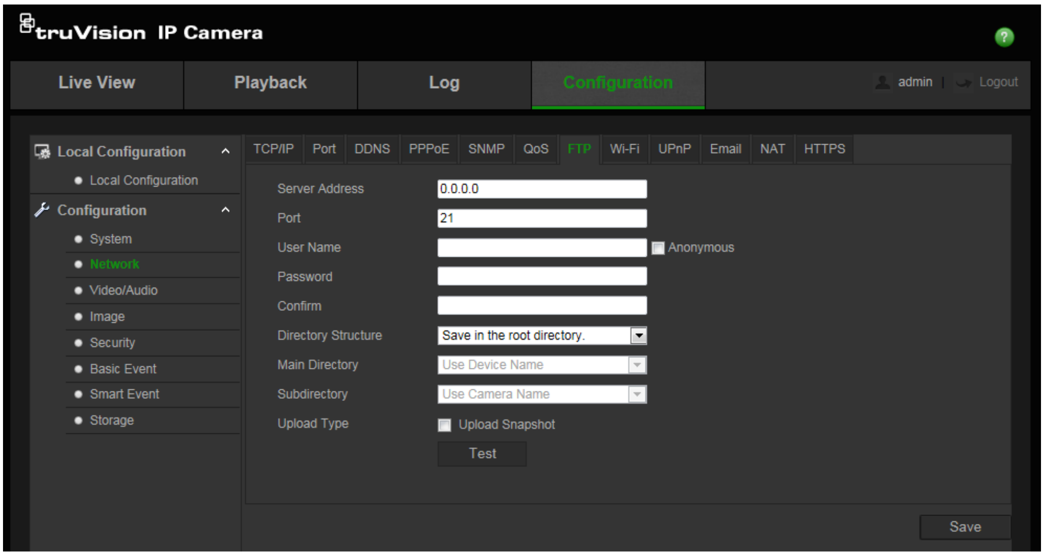
Video/Audio DSCP: 0
Event/Alarm DSCP: 0
Management DSCP: 0

2. Configure the QoS settings, including Video / Audio DSCP, Event / Alarm DSCP, and Management DSCP. The valid value range of the DSCP is 0 to 63. The larger the DSCP value, the higher the priority.

3. Click **Save** to save changes.

To define the FTP parameters:

1. Click **Configuration** > **Network** > **FTP**.



Server Address: 0.0.0.0
Port: 21
User Name: ☐ Anonymous
Password:
Confirm:
Directory Structure: Save in the root directory.
Main Directory: Use Device Name
Subdirectory: Use Camera Name
Upload Type: ☐ Upload Snapshot

2. Configure the FTP settings, including server address, port, user name, password, directory, and upload type.

   Anonymous: Check the check box to enable the anonymous access to the FTP server.

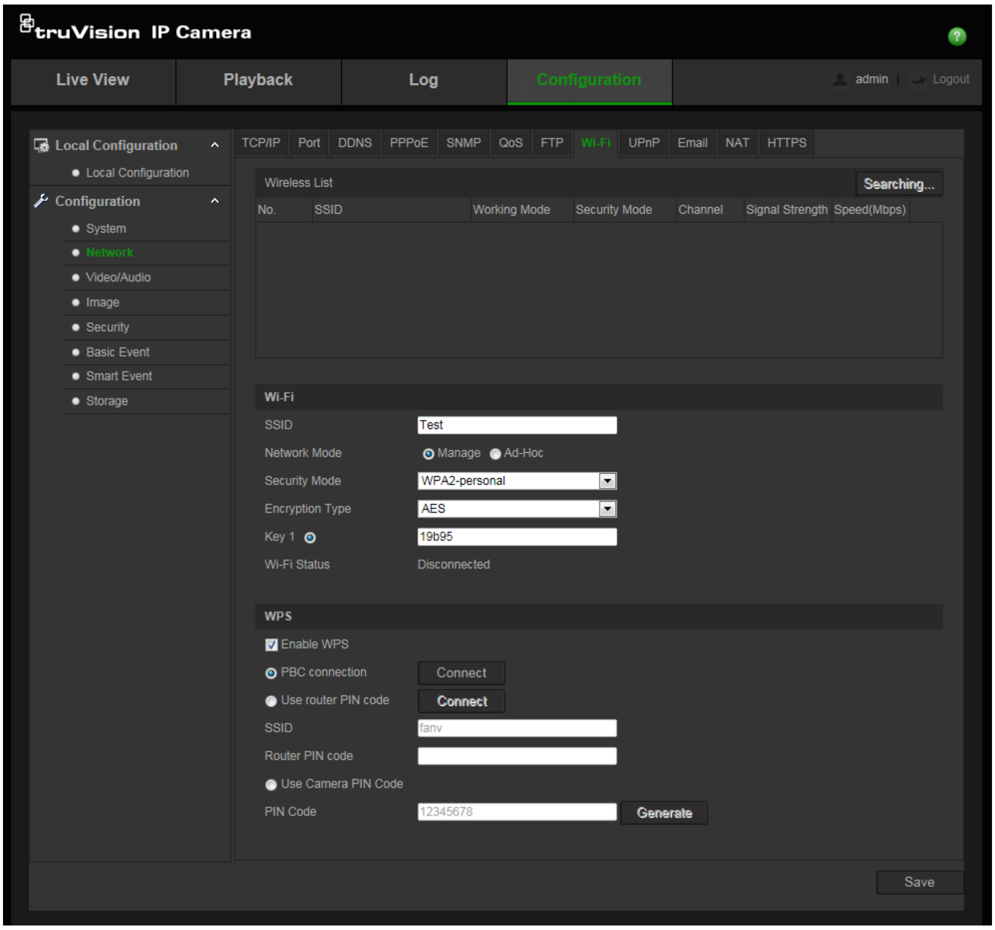
   Directory: In the Directory Structure field, you can select the root directory, main directory and subdirectory. When the main directory is selected, you have the option to use the Device Name, Device Number or Device IP for the name of the directory. When the subdirectory is selected, you can use the camera name or camera number as the name of the directory.

Upload type: To enable uploading the snapshots to the FTP server.

3. Click **Save** to save changes.

To define the Wi-Fi parameters:

1. Click **Configuration** > **Network** > **Wi-Fi**.



Wireless List

No.	SSID	Working Mode	Security Mode	Channel	Signal Strength	Speed(Mbps)

Wi-Fi

SSID	Test
Network Mode	● Manage ○ Ad-Hoc
Security Mode	WPA2-personal
Encryption Type	AES
Key 1 ●	19b95
Wi-Fi Status	Disconnected

WPS

☑ Enable WPS

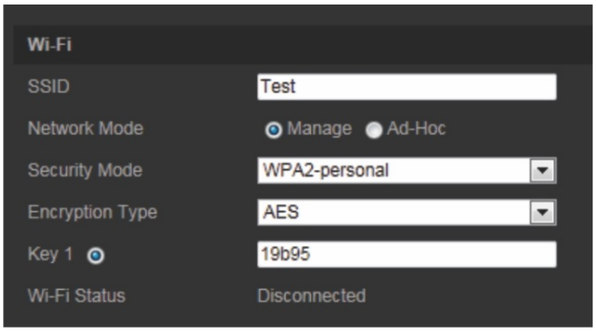
● PBC connection	Connect
○ Use router PIN code	Connect
SSID	fanv
Router PIN code	
○ Use Camera PIN Code	
PIN Code	12345678

Note: When configuring the Wi-Fi settings for the first time, connect the camera to the router via a network cable and then open the web browser to complete the Wi-Fi setup by clicking **Save**. When the Wi-Fi Status changes from “Disconnected” to “Connected”, the wireless connection is successfully set up.

2. Click **Search** to search the online wireless connections.

3. Click a wireless connection on the list to select it.

4. Select the Network Mode as *Manage* or *Ad-hoc*.



Wi-Fi

SSID	Test
Network Mode	● Manage ○ Ad-Hoc
Security Mode	WPA2-personal
Encryption Type	AES
Key 1 ●	19b95
Wi-Fi Status	Disconnected

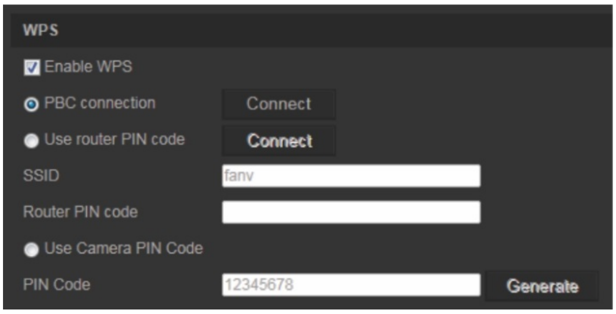
Manage mode: The Security Mode is automatically shown when you select a wireless connection from the list.

Ad-Hoc mode: This is used when accessing the camera via a PC without going through a wireless router. You can identify the camera **SSID** and specify the **Security Mode** required.

Note: The Ad-Hoc mode is default enabled with the camera serial number set as SSID.

5. Select the required **Security Mode**: Not-encrypted, WEP, WPA-personal, WPA-enterprise, WPA2-personal (default), or WPA2-enterprise.

6. To quickly setup the Wi-Fi, check the **Enable WPS** check box to enable the WPS function and select one of the following methods:



WPS

☑ Enable WPS

● PBC connection — Connect

○ Use router PIN code — Connect

SSID: fanv

Router PIN code:

○ Use Camera PIN Code

PIN Code: 12345678 — Generate

PBC mode: Push the WPS button on your wireless router device and the WPS indicator will start flashing. (The WPS settings may be different per device. Please refer to the wireless router User Manual for details). Then check the **PBC Connection** check box and click its **Connect** button. The camera and the wireless network router are connected automatically.

- Or -

Router PIN mode: Check your wireless router device and find the PIN code, which is printed on a sticker or printed on the device. Check the **Use router PIN code** and enter the PIN code in the **Router PIN Code** text box. Then click the “Use router PIN code” **Connect** button to connect the camera to the wireless router.

- Or -

Camera PIN mode: You can generate the PIN code on the camera side and configure the wireless router to finish the connection setting. (Please check the wireless router User Manual for details). Please note that the PIN code expiration time is 120 seconds.

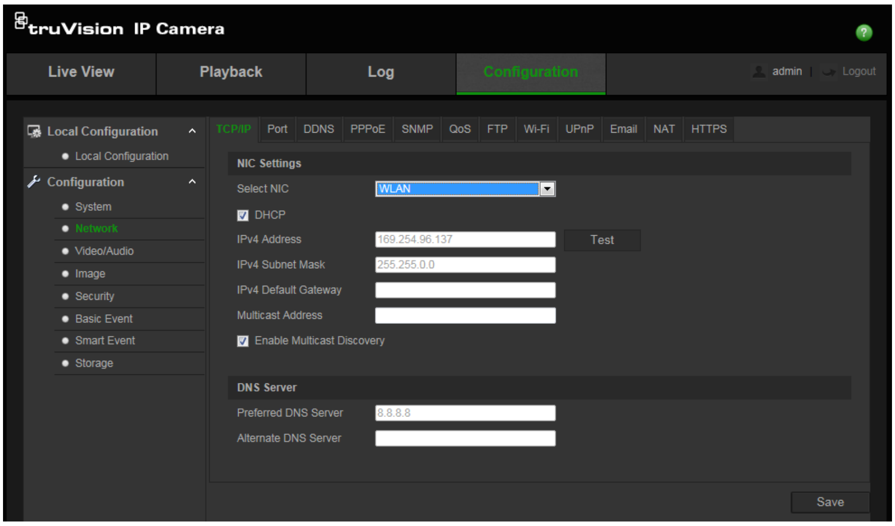
7. Select the encryption type, TKIP or AES (default).

8. Enter the connection key value. Check the wireless status.

9. Click **Save** to save changes. Check the wireless status.

To define the IP address settings:

1. Click **Configuration** > **Network** > **TCP/IP**.



Select NIC: WLAN

☑ DHCP

IPv4 Address: 169.254.96.137

IPv4 Subnet Mask: 255.255.0.0

IPv4 Default Gateway:

Multicast Address:

☑ Enable Multicast Discovery

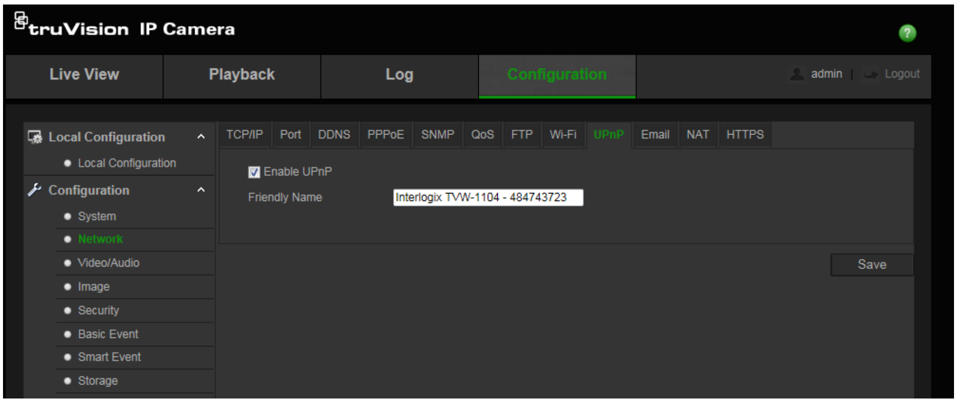
Preferred DNS Server: 8.8.8.8

Alternate DNS Server:

2. For “Select NIC”, select **WLAN**.
3. Set the IPv4 address, the IPv4 Subnet Mask, and the Default Gateway. If you want to be assigned the IP address, check the check box to enable the DHCP.
4. Click **Save** to save changes.

To define the UPnP parameters:

1. Click **Configuration** > **Network** > **UPnP**.



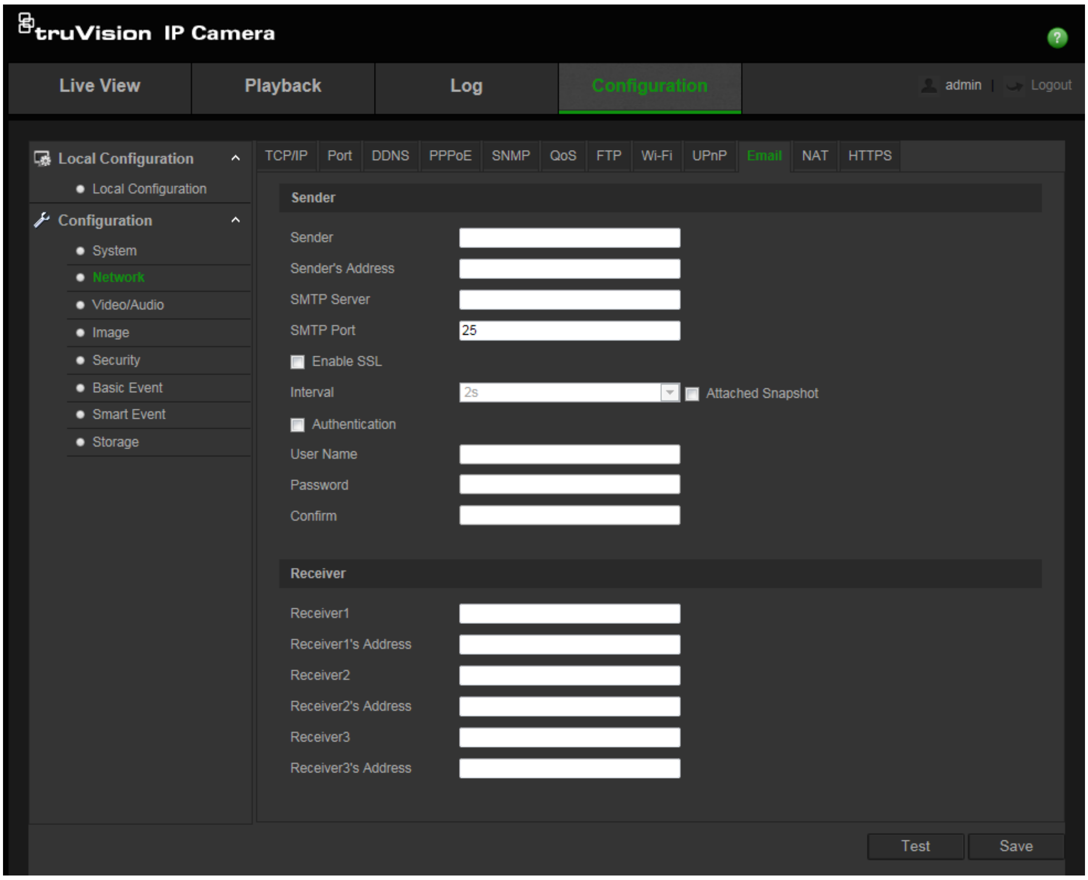
☑ Enable UPnP

Friendly Name: Interlogix TVW-1104 - 484743723

2. Check the check box to enable the UPnP function. You can edit the name of the device when detected online.
3. Click **Save** to save changes.

To set up the Email parameters:

1. Click **Configuration** > **Network** > **Email**.



2. Configure the following settings:

   Sender: The name of the email sender.

   Sender’s Address: The email address of the sender.

   SMTP Server: The SMTP server IP address or host name.

   SMTP Port: The SMTP port. The default is 25.

   Enable SSL: Check the check box to enable SSL if it is required by the SMTP server.

   Attached Snapshot: Check the check box of **Attached Snapshot** if you want to send emails with attached alarm snapshots.

   Interval: This is the time between two actions of sending attached snapshots.

   Authentication: If your email server requires authentication, check this check box to use authentication to log in to this server. Enter the login user name and password.

   User Name: The user name to log in to the server where the images are uploaded.

   Password: Enter the password.

   Confirm: Confirm the password.

   Receiver1: The name of the first user to be notified.

   Receiver’s Address1: The email address of user to be notified.

Receiver2: The name of the second user to be notified.

Receiver's Address2: The email address of user to be notified.

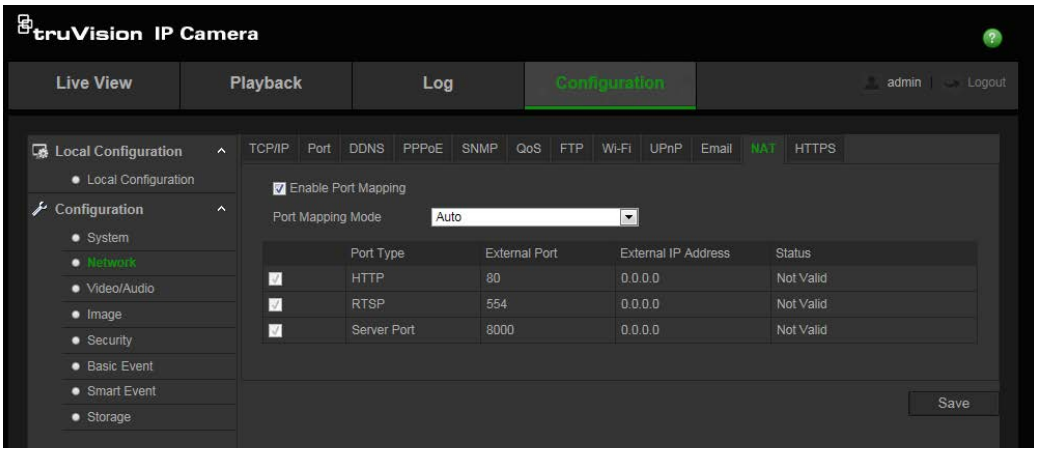
Receiver3: The name of the third user to be notified.

Receiver's Address3: The email address of user to be notified.

3. Click **Test** to test the email parameters set up.
4. Click **Save** to save changes.

To set up the NAT parameters:

1. Click **Configuration** > **Network** > **NAT**.



☑ Enable Port Mapping

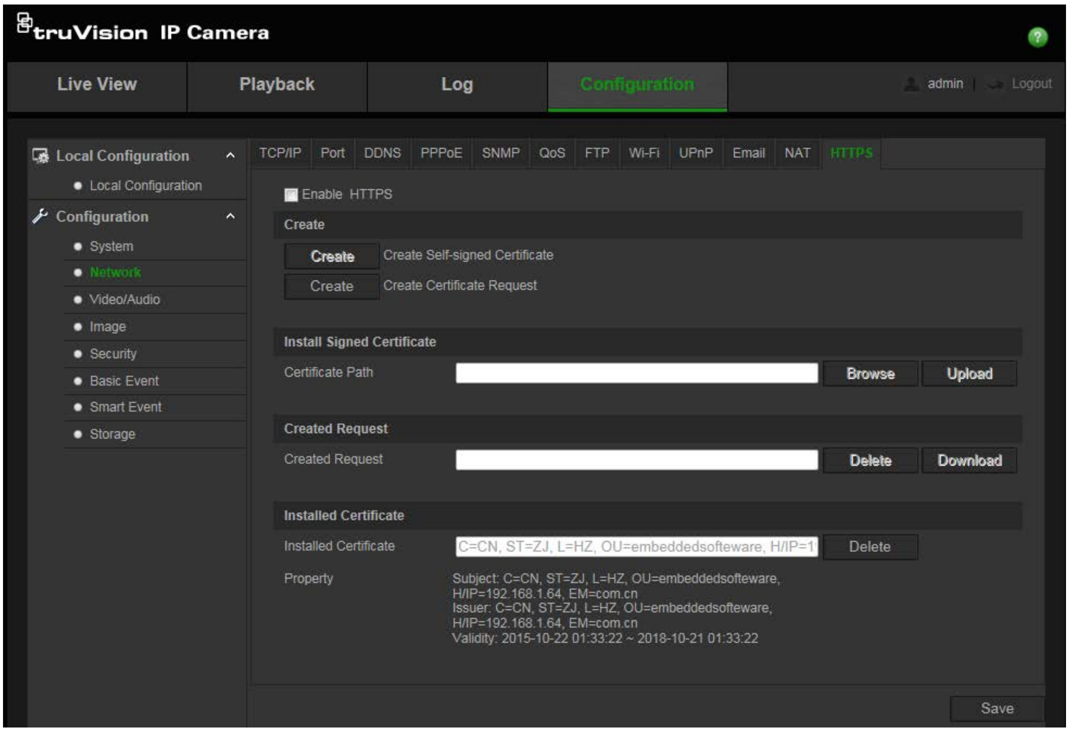
Port Mapping Mode: Auto

	Port Type	External Port	External IP Address	Status
☑	HTTP	80	0.0.0.0	Not Valid
☑	RTSP	554	0.0.0.0	Not Valid
☑	Server Port	8000	0.0.0.0	Not Valid

2. Check the **Enable Port Mapping** check box to enable the NAT function.
3. Select **Port Mapping Mode** to be Auto or Manual. If you choose Manual mode, set the desired external port.
4. Click **Save** to save changes.

To set up the HTTPS parameters:

1. In the **Network** folder, click the **HTTPS** tab to open its window.



☑ Enable HTTPS

Create Self-signed Certificate

Create Certificate Request

Certificate Path

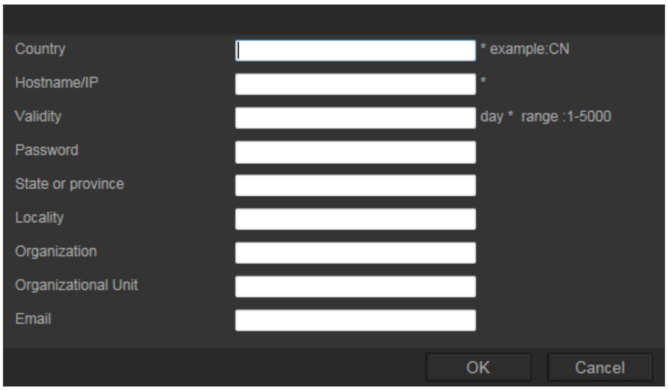
Created Request

Installed Certificate: C=CN, ST=ZJ, L=HZ, OU=embeddedsofteware, H/IP=1

Property: Subject: C=CN, ST=ZJ, L=HZ, OU=embeddedsofteware, H/IP=192.168.1.64, EM=com.cn
Issuer: C=CN, ST=ZJ, L=HZ, OU=embeddedsofteware, H/IP=192.168.1.64, EM=com.cn
Validity: 2015-10-22 01:33:22 ~ 2018-10-21 01:33:22

2. **To create a self-signed certificate**:

   Click the **Create** button beside “Create Self-signed Certificate”. Enter the country, host name/IP, validity and the other information requested.



Country * example:CN

Hostname/IP *

Validity day * range :1-5000

Password

State or province

Locality

Organization

Organizational Unit

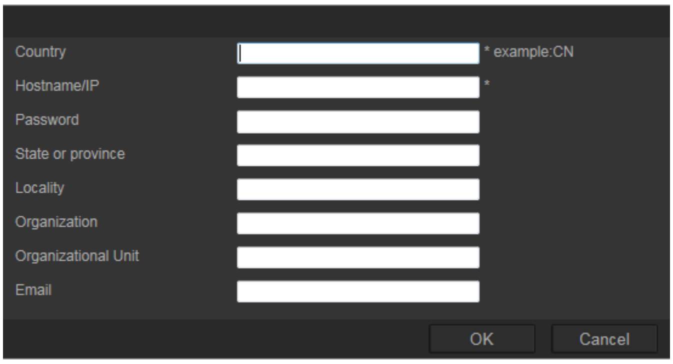
Email

Click **OK** to save the settings.

-Or-

To create a certificate request:

Click the **Create** button beside “Create Certificate Request”. Enter the country, host name/IP and the other information requested.



Country * example:CN

Hostname/IP *

Password

State or province

Locality

Organization

Organizational Unit

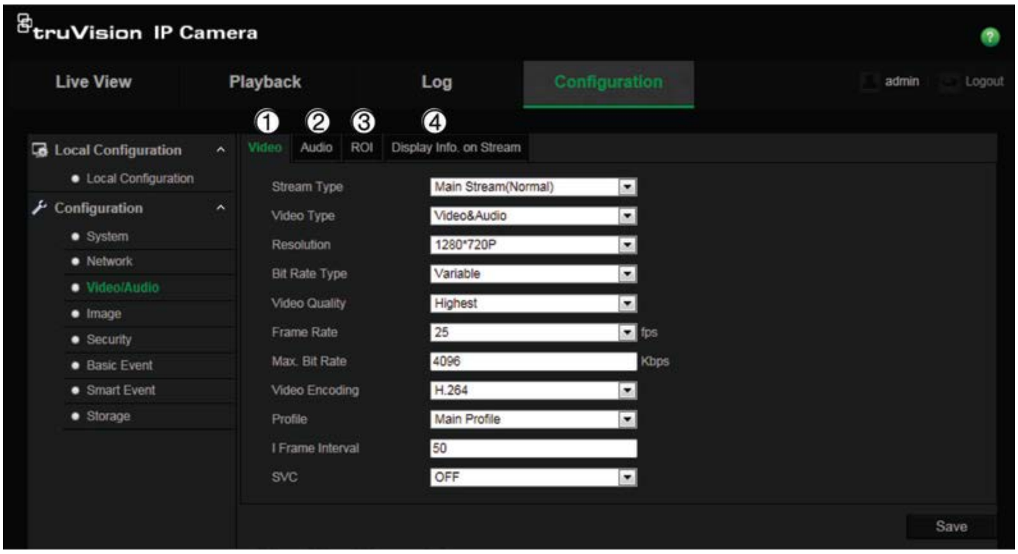
Email

3. Click OK to save the settings. Download the certificate request and submit it to the trusted certificate authority for signature, such as Symantec or RSA. After receiving the signed valid certificate, upload the certificate to the device

Recording parameters

You can adjust the video and audio recording parameters to obtain the picture quality and file size best suited to your needs. Figure 5 and Table 5 below list the video and audio recording options you can configure for the camera.

Figure 5: Video/Audio Settings menu (Video tab shown)



Stream Type	Main Stream(Normal)
Video Type	Video&Audio
Resolution	1280*720P
Bit Rate Type	Variable
Video Quality	Highest
Frame Rate	25 fps
Max. Bit Rate	4096 Kbps
Video Encoding	H.264
Profile	Main Profile
I Frame Interval	50
SVC	OFF

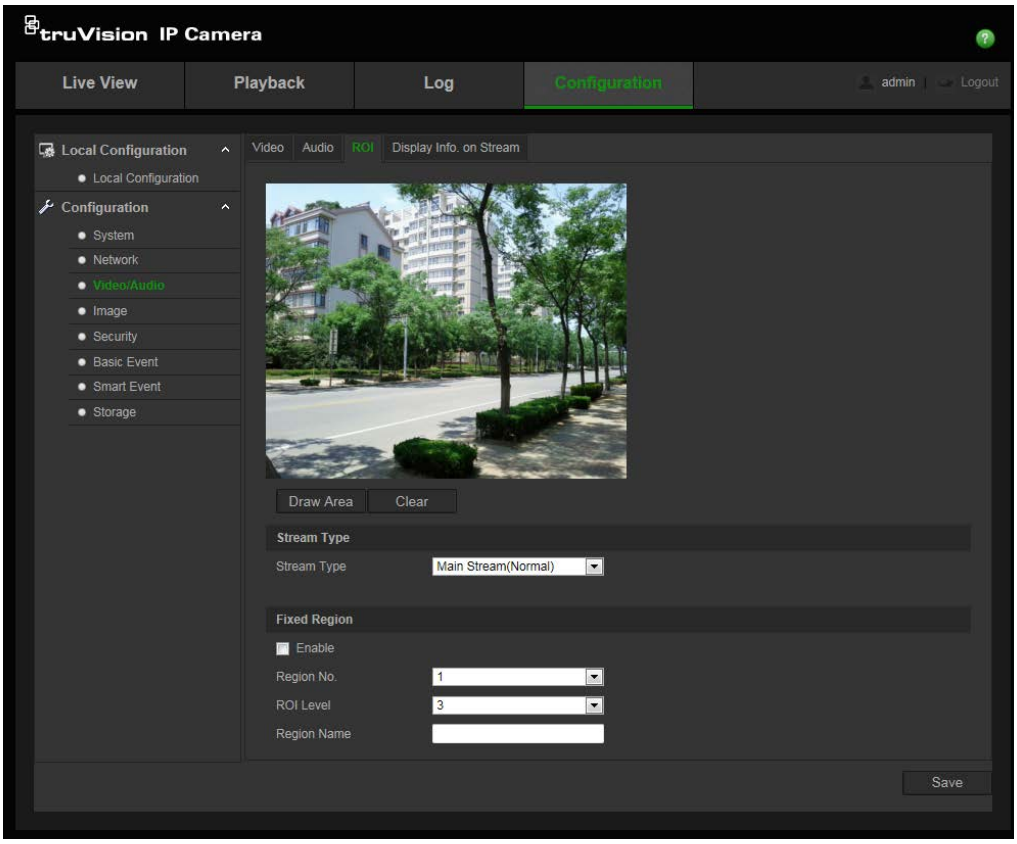
Table 5: Video and audio setting parameters

Tab	Description
1. Video	**Stream Type**: Specifies the streaming method used. Options include: Main Stream (Normal) and Sub Stream.
	Video Type: Specifies the stream type you wish to record. Select Video Stream to record video stream only. Select Video&Audio to record both video and audio streams. **Note**: Video&Audio is only available for those camera models that support audio.

Tab	Description
	Resolution: Specifies the recording resolution. A higher image resolution provides a higher image quality but also requires a higher bit rate. The resolution options listed depend on the type of camera and on whether main or substream is being used. **Note**: Resolutions can vary depending on the camera model.
	Bitrate Type: Specifies whether variable or fixed bit rate is used. Variable produces higher quality results suitable for video downloads and streaming. Default is Constant.
	Video Quality: Specifies the quality level of the image. It can be set when variable bit rate is selected. Options include: Lowest, Lower, Medium, Higher and Highest.
	Frame Rate: Specifies the frame rate for the selected resolution. The frame rate is the number of video frames that are shown or sent per second. **Note**: The maximum frame rate depends on the camera model and selected resolution. Please check the camera specifications in its datasheet.
	Max bit rate: Specifies the maximum allowed bit rate. A high image resolution requires that a high bit rate must also be selected.
	Video Encoding: Specifies the video encoder used.
	Profile: Different profile indicates different tools and technologies used in compression. Options include: Main Profile.
	I Frame Interval: A video compression method. It is strongly recommended not to change the default value 50.
	SVC: Select OFF/ON to disable/enable the SVC function. Select Auto and the device will automatically extract frames from the original video when the network bandwidth is insufficient.
2. Audio	**Audio Encoding**: G.722.1, G.711ulaw, G.711alaw, MP2L2 and G.726 are optional.
	Audio Input: “MicIn” is selectable for the built-in microphone.
	Input Volume: Specifies the volume from 0 to 100.
	Environmental Noise Filter: Set it as OFF or ON. When you set the function on the noise detected can be filtered.
3. ROI	Enable to assign more encoding resource to the region of interest to increase the quality of the ROI whereas the background information is less focused.
4. Display Info. On Stream	When Dual-VCA mode is enabled, the camera sends video analytics results (metadata) to an NVR or other platforms to generate a VCA alarm.

To define ROI parameters:

1. Click **Configuration** > **Video/Audio** > **ROI**.



Stream Type

Stream Type: Main Stream(Normal)

Fixed Region

☐ Enable

Region No.: 1

ROI Level: 3

Region Name:

2. Draw the region of interest on the image. It supports only one region.
3. Choose the stream type to set the ROI encoding.
4. Check the **Fixed Region** to manually configure the area. You can choose the Image Quality Enhancing level for ROI encoding, and you can also name the ROI area.
5. Click **Save** to save changes.

Dual-VCA (Video Content Analysis)

When Dual-VCA mode is enabled, the camera sends video analytics results (metadata) to an NVR or other platforms to generate a VCA alarm.

For example, with an Interlogix NVR (please check Interlogix website for the latest NVR models supporting this feature), you can draw a virtual line in the NVR playback window, and search the objects or people crossing this virtual line.

Note: Only cross line and intrusion detection can support dual-VCA mode.

To define Dual-VCA parameters:

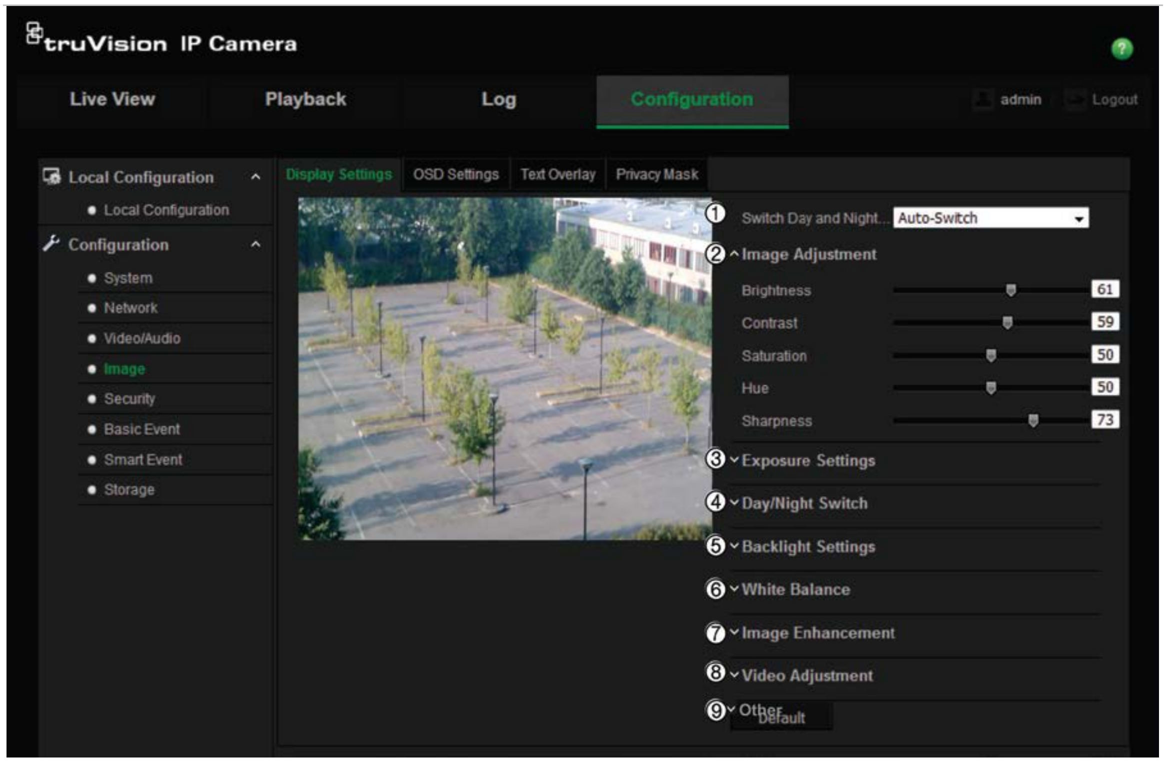
1. In the **Video/Audio** panel, click the **Display Info. On Stream** tab to open its window.
2. Check the check box to enable Dual-VCA.
3. Click **Save** to save changes.

Video image

You may need to adjust the camera image depending on the camera model or location background in order to get the best image quality. You can adjust the brightness, contrast, saturation, hue, and sharpness of the video image. See Figure 6 below.

Use this menu to also adjust camera behavior parameters such as exposure time, iris mode, video standard, day/night mode, image flip, WDR, digital noise reduction, and white balance. See Figure 6 and Table 6 below for more information.

Figure 6: Camera image settings menu (Auto-switch option selected for *Switch Day and Night Settings*)



Switch Day and Night... Auto-Switch

Brightness 61

Contrast 59

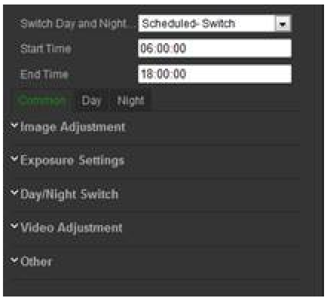
Saturation 50

Hue 50

Sharpness 73

Table 6: Image parameters

Parameter	Description
1. Switch Day and Night Settings	
Auto-Switch	The camera automatically switches between day and night mode. All image settings remain the same for both modes.
Scheduled Switch	The camera switches between the day and night modes according to the schedule configured (see figure below). The start and end times shown are for day mode. The other time period is for night mode. There are three tabs to configure the day/night settings: *Common:* The settings are identical for both day and night modes for Image Adjustment, Exposure, Day/Night Switch, Video Adjustment, and Other. *Day*: Configure the Backlight, White Balance and Image

Parameter	Description
	Enhancement settings for day mode only. *Night*: Configure the Backlight, White Balance and Image Enhancement settings for night mode only.  Switch Day and Night... Scheduled- Switch Start Time 06:00:00 End Time 18:00:00 Common Day Night Image Adjustment Exposure Settings Day/Night Switch Video Adjustment Other
2. Image Adjustment	
Brightness, Contrast Saturation, Hue, Sharpness	Modifies the different elements of picture quality by adjusting the position of the values for each of parameter.
3. Exposure Settings	
Iris Mode	Only Manual is available.
Exposure Time	The exposure time controls the length of time that the aperture is open to let light into the camera through the lens. Select a higher value if the image is dark and a lower value to see fast moving object.
Gain	Select the value to adjust the image brightness.
4. Day/Night Switch	
Day/Night Switch	Defines whether the camera is in day or night mode. The day (color) option could be used, for example, if the camera is located indoors where light levels are always good. There are three options: *Auto*: Camera automatically detects which mode to use; *Day*: Camera is always in day mode; *Night*: Camera is always in night mode.
Switch Time	Only available when Auto D/N switch mode is selected. The filtering time refers to the interval time between switchover the day/night switch. You can set it between 5 and 120 s.
Smart IR	When enabled, it can avoid over exposure issue.
IR Light	Select On/OFF to Enable/disable IR. **Enable**: the IR illuminators will be ON, when the camera turns into night mode. **Disable**: the IR illuminators will be OFF, when the camera turns into night mode **Note**: The IR illuminators always are OFF in Daytime mode.
5. Backlight Settings	
BLC Area	If you focus on an object against strong backlight, the object will be too dark to be seen clearly. BLC compensates light to the object in the front to make it clear. OFF, Up, Down, Left, Right, and Center are selectable.

Parameter	Description
DWDR	When enabled, this feature (wide dynamic range) allows you to see details of objects in shadows or details of objects in bright areas of frames that have high contrast between light and dark areas.
6. White Balance	
White Balance	White balance (WB) tells the camera what the color white looks like. Based on this information, the camera will then continue to display all colors correctly even when the color temperature of the scene changes such as from daylight to fluorescent lighting, for example. Select one of the options: **AWB1:** Apply for small range of 2500 to 9500K, for simple environments. **Locked WB:** Locks the WB to the current environment color temperature. **Incandescent Lamp:** For use with incandescent lighting. **Warm Light Lamp:** For use where the indoor light is warm. **Natural Light:** For use with natural light. **Fluorescent Lamp:** For use where there are fluorescent lamps installed near the camera.
7. Image Enhancement	
Digital Noise Reduction	Digital noise reduction (DNR) reduces noise, especially in low light conditions, to improve image performance. Options include: ON or OFF.
Noise Reduction Level	Set the level of noise reduction. Higher value has a stronger noise reduction. Default is 50.
8. Video Adjustment	
Mirror	It mirrors the image so you can see it inversed. Left/Right, Up/Down, Center, and OFF are selectable. Default is OFF.
Hallway View	To make a complete use of the 16:9 aspect ratio, enable the rotate function when you use the camera in a narrow view scene. During installing, turn the camera to 90 degrees or rotate the 3-axis lens to 90 degrees, and then set the rotate mode as On. You will get a normal view of the scene with 9:16 aspect ratio that ignores needless information such as the walls. Default is OFF.
Video Standard	50 Hz and 60 Hz are selectable. Choose according to the different video standards; normally 50 Hz for PAL standard and 60 Hz for NTSC standard.
9. Other	
Local Output	Select ON or OFF to enable or disable the BNC output. Default is ON.

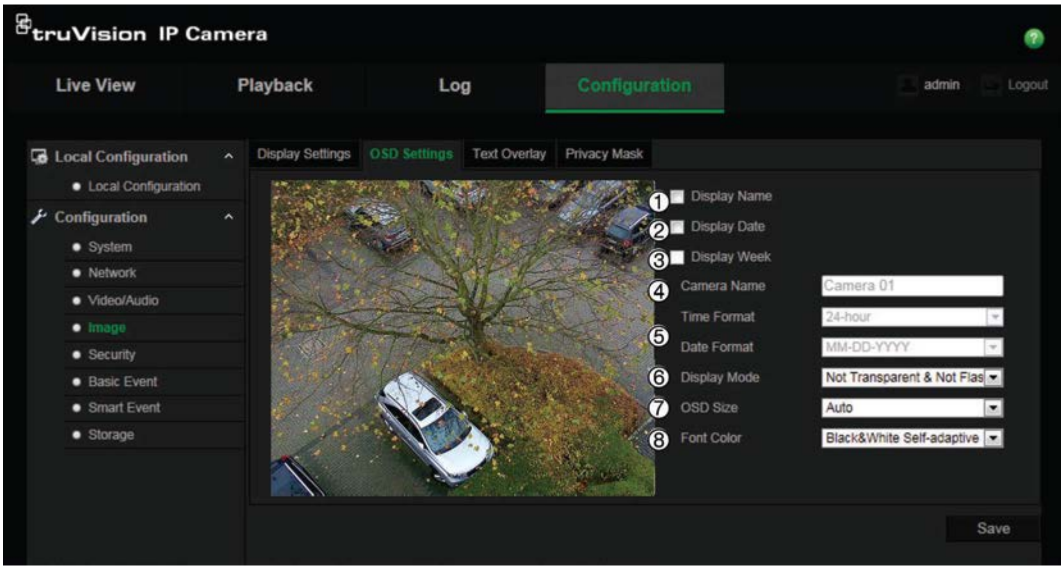
Note: Click the **Default** button to default all the image settings.

OSD (On Screen Display)

In addition to the camera name, the camera also displays the system date and time on screen. You can also define how the text appears on screen.

To position the date/time and name on screen:

1. Click **Configuration** > **Image** > **OSD Settings**.



□ Display Name

□ Display Date

□ Display Week

Camera Name: Camera 01

Time Format: 24-hour

Date Format: MM-DD-YYYY

Display Mode: Not Transparent & Not Flas

OSD Size: Auto

Font Color: Black&White Self-adaptive

2. Check the **Display Name** box (1) to display the camera’s name on screen. You can modify the default name in the text box of **Camera Name**.
3. Check the **Display Date** box (2) to display the date/time on screen.
4. Check the **Display Week** box (3) to include the day of the week in the on-screen display.
5. In the **Camera Name** box (4), enter the camera name.
6. Select the time and date formats from the **Time format** and **Date format** list boxes (5).
7. Select a display mode for the camera from the **Display Mode** list box (6). Display modes include:
   - **Not transparent & Not Flashing**. The image is behind the text. This is default.
   - **Not transparent & Flashing**. The image is behind the text. The text flashes on and off.
8. Select the desired OSD size (7).
9. Select the desired font color (8).
10. Click **Save** to save changes.

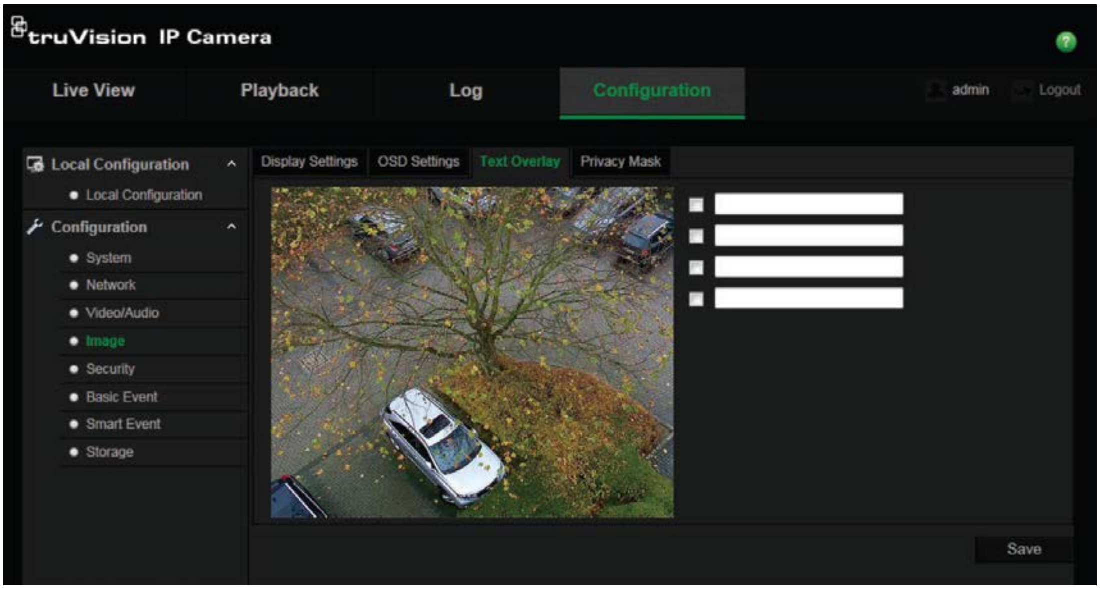
Note:

1. If you set the display mode as transparent, the text varies according the background. With some backgrounds, the text may be not easily readable.
2. When you enable motion detection, it is recommended not to select the flashing display option as overlay text may trigger a motion alarm.

Overlay text

You can add up to four lines of text on screen. This option can be used, for example, to display emergency contact details. Each text line can be positioned anywhere on screen. See Figure 7 below.

Figure 7: Text overlay menu



To add on-screen text:

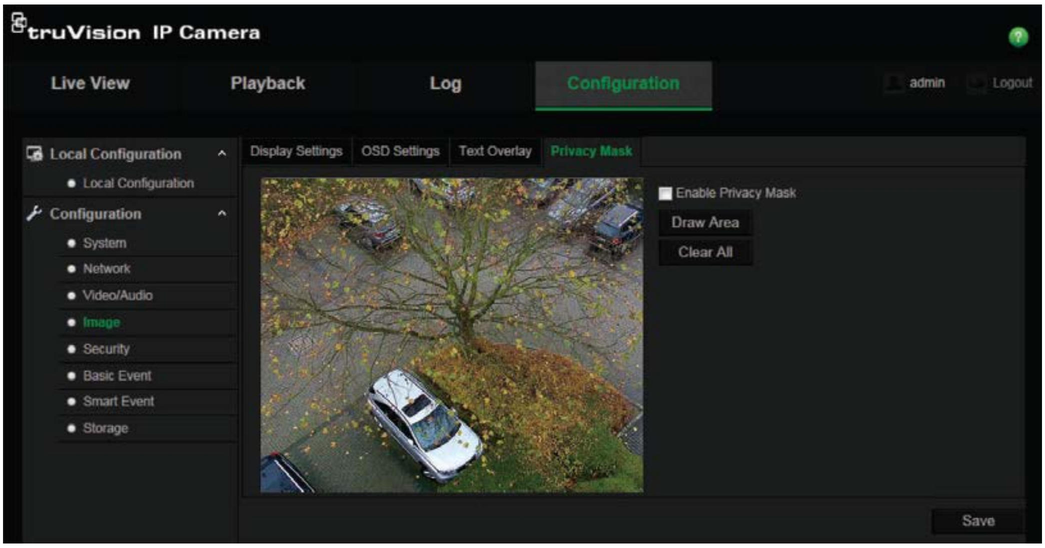
1. Click **Configuration** > **Image** > **Text Overlay**.
2. Check the text box for the first line of text.
3. Enter the text in the text box.
4. Use the mouse to click and drag the red text in the live view window to adjust the text overlay position.
5. Repeat steps 2 to 4 for each extra line of text, selecting the next string number.
6. Click **Save** to save changes.

Privacy masks

Privacy masks let you conceal sensitive areas (such as neighboring windows) to protect them from view on the monitor screen and in the recorded video. The masking appears as a blank area on screen. You can create up to four privacy masks per camera.

Note: There may be a small difference in size of the privacy mask area depending on whether local output or the web browser is used.

Figure 8: Privacy mask menu



To add privacy mask area:

1. Click **Configuration** > **Image** > **Privacy Mask**.
2. Check **Enable Privacy Mask**.
3. Click **Draw Area**.
4. Click and drag the mouse in the live video window to draw the mask area.

   Note: You are allowed to draw up to four areas on the same image.
5. Click **Stop Drawing** to finish drawing, or click **Clear All** to clear all of the areas you set without saving them.
6. Click **Save** to save changes.

Motion detection alarms

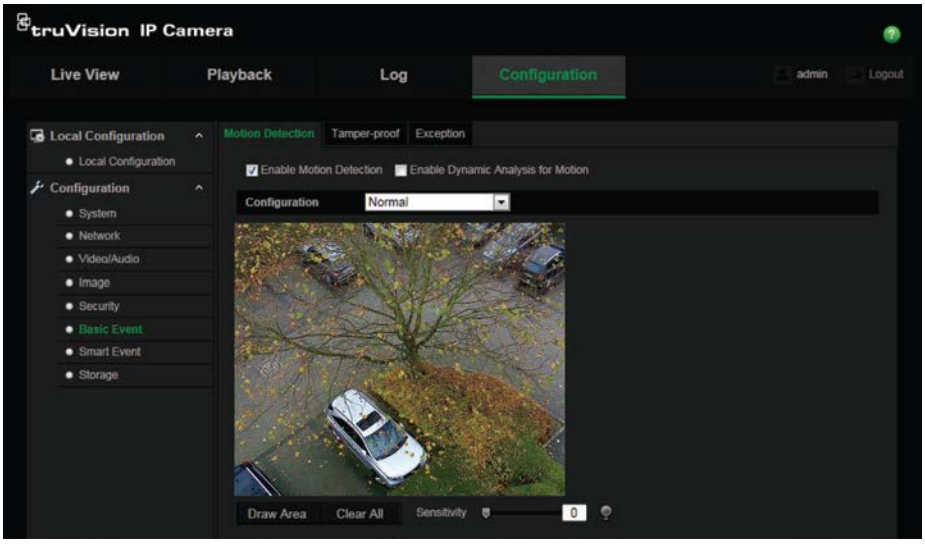
You can define motion detection alarms. A motion detection alarm refers to an alarm triggered when the camera detects motion. However, the motion alarm is only triggered if it occurs during a programmed time schedule.

Select the level of sensitivity to motion as well as the target size so that only objects that could be of interest can trigger a motion recording. For example, the motion recording is triggered by the movement of a person but not that of a cat.

You can define the area on screen where the motion is detected, the level of sensitivity to motion, the schedule when the camera is sensitive to detecting motion as well as which methods are used to alert you to a motion detection alarm.

You can also enable dynamic analysis for motion. When there is motion, the area will be highlighted as green.

Figure 9: Motion detection menu



☑ Enable Motion Detection □ Enable Dynamic Analysis for Motion

Configuration: Normal

Sensitivity: 0

Defining a motion detection alarm requires the following tasks:

1. **Area settings**: Define the on-screen area that can trigger a motion detection alarm and the detection sensitivity level.
2. **Arming schedule**: Define the schedule during which the system detects motion.
3. **Recording schedule**: Define the schedule during which motion detection can be recorded. See “Recording schedule” on page 49 for further information.
4. **Linkage**: Specify the method of response to the alarm.

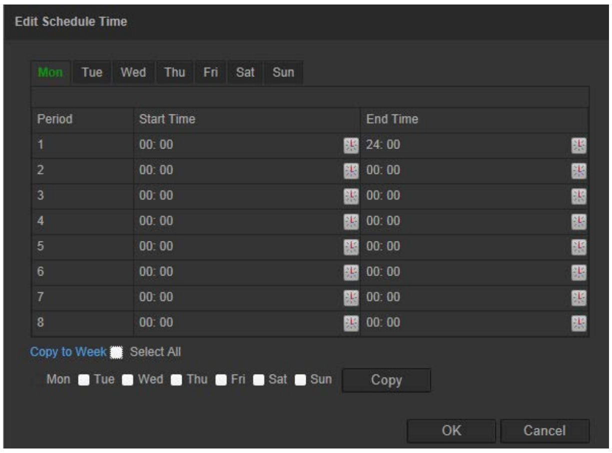
In order to detect the moving objects accurately and reduce the false alarm rate, normal configuration and advanced configuration are selectable for different motion detection environments.

To set up motion detection as normal mode:

1. Click **Configuration** > **Basic Event** > **Motion Detection**.
2. Check the **Enable Motion Detection** box. Check **Enable Dynamic Analysis for Motion** if you want to see where has motion real-time.

   Note: Select Disable for rules in local configuration menu if you don’t want the detected objected displayed with the rectangles.
3. Select **Normal** mode from the drop down menu.
4. Click **Draw Area**. Click and drag the mouse on the live video image to draw an area sensitive to motion detection.
5. Click **Stop Drawing** to finish drawing. Click **Clear All** to delete all areas marked and restart drawing.
6. Move the **Sensitivity** slider to set the sensitivity of the detection. All areas will have the same sensitivity level.

7. Click **Edit** to edit the arming schedule. See the picture below for the editing interface of the arming schedule.



Period	Start Time	End Time
1	00: 00	24: 00
2	00: 00	00: 00
3	00: 00	00: 00
4	00: 00	00: 00
5	00: 00	00: 00
6	00: 00	00: 00
7	00: 00	00: 00
8	00: 00	00: 00

Copy to Week ☐ Select All

Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

8. Choose the day and click ⏲ to set the detailed time period. You can copy the schedule to other days.

9. Click **OK** to save changes.

10. Specify the linkage method when an event occurs. Check one or more response methods for the system when a motion detection alarm is triggered.

Notify Alarm Recipient	Send an exception or alarm signal to remote management software when an event occurs.
Send Email	Sends an email to a specified address when there is a motion detection alarm. **Note:** You must configure email settings before check this option. See “To set up the Email parameters:” on page 23. If you want to send the event snapshot together with the email, you should check the **Attached Snapshot** option.
Upload Snapshot	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server. **Note:** If you want to upload the snapshot to NAS, you must configure NAS settings, If you want to upload the snapshot to FTP, you must configure the FTP settings. Please ensure that the **Upload Type** option is enabled.
Trigger Channel	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. **Note:** This option is only supported by cameras that support alarm output.

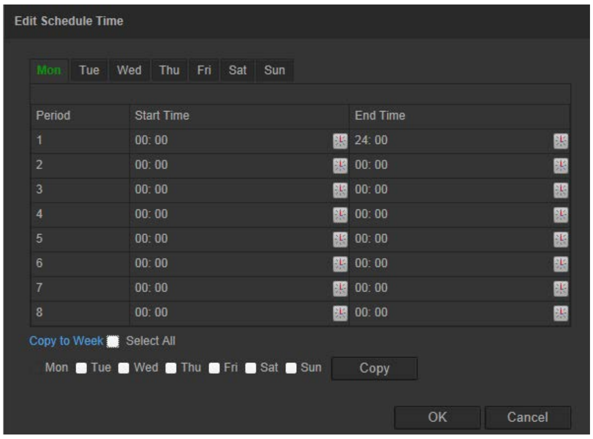
11. Click **Save** to save changes.

When you choose **Advanced** mode, you can set different sensitivities and proportions on different areas. If you choose Auto-Switch or Schedule-Switch, you can also set different settings for day and night or different periods.

To set up motion detection as advanced mode:

1. Click **Configuration > Basic Event** > **Motion Detection**.
2. Check the **Enable Motion Detection** box. Check **Enable Dynamic Analysis for Motion** if you want to see where has motion real-time.

   Note: Select Disable for rules in local configuration menu if you don't want the detected objected displayed with the rectangles.
3. Select **Advanced** mode from the drop down menu.
4. Select OFF, Auto-switch or Scheduled-switch
5. Select **Area No.** and click **Draw Area**. Click and drag the mouse on the live video image to draw an area sensitive to motion detection.
6. Click **Stop Drawing** to finish drawing. Click **Clear All** to delete all areas marked and restart drawing.
7. Move the **Sensitivity** and **Proportion of Object on Area** slider to set the sensitivity and proportion of the detection for different areas
8. Click **Edit** to edit the arming schedule. See the picture below for the editing interface of the arming schedule.



Edit Schedule Time

Period	Start Time	End Time
1	00: 00	24: 00
2	00: 00	00: 00
3	00: 00	00: 00
4	00: 00	00: 00
5	00: 00	00: 00
6	00: 00	00: 00
7	00: 00	00: 00
8	00: 00	00: 00

Copy to Week □ Select All

Mon □ Tue □ Wed □ Thu □ Fri □ Sat □ Sun

9. Choose the day and click 🕒 to set the detailed time period. You can copy the schedule to other days.
10. Click **OK** to save changes.
11. Specify the linkage method when an event occurs. Check one or more response methods for the system when a motion detection alarm is triggered.

Notify Alarm Recipient	Send an exception or alarm signal to remote management software when an event occurs.
Send Email	Sends an email to a specified address when there is a motion detection alarm.
Upload Snapshot	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Trigger Channel	Triggers the recording to start in the camera.

Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Note: This option is only supported by cameras that support alarm output.

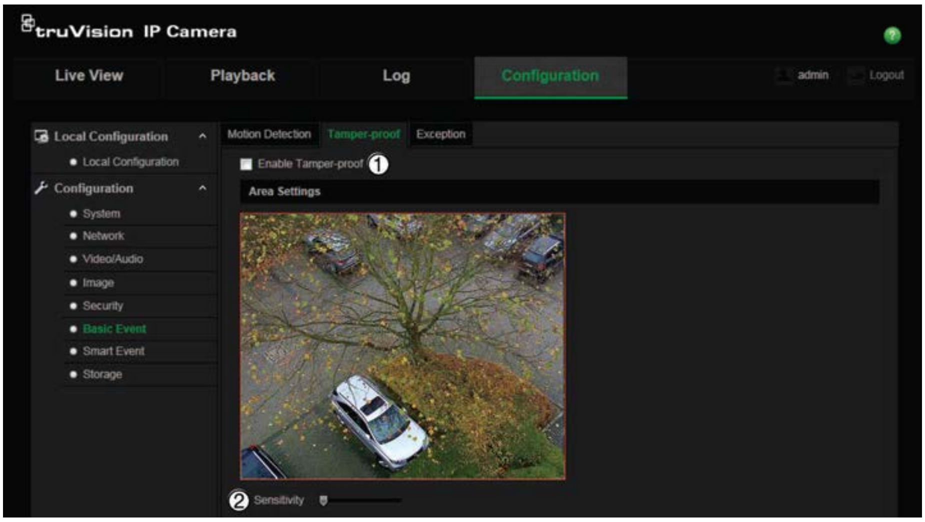
12. Click **Save** to save changes.

Tamper-proof alarms

You can configure the camera to trigger an alarm when the lens is covered and to take an alarm response action.

To set up tamper-proof alarms:

1. Click **Configuration > Basic Event** > **Tamper-proof**.
2. Check the **Enable Tamper-proof** box (1).



3. Move the **Sensitivity** slider (2) to set the sensitivity of the detection.

   All areas will have the same sensitivity level.
4. Click **Edit** to edit the arming schedule for tamper-proof alarms. The arming schedule configuration is the same as that for motion detection. See “To set up motion detection” for more information.
5. Check the check box to select the linkage method taken for the tamper-proof.
6. Click **Save** to save changes.

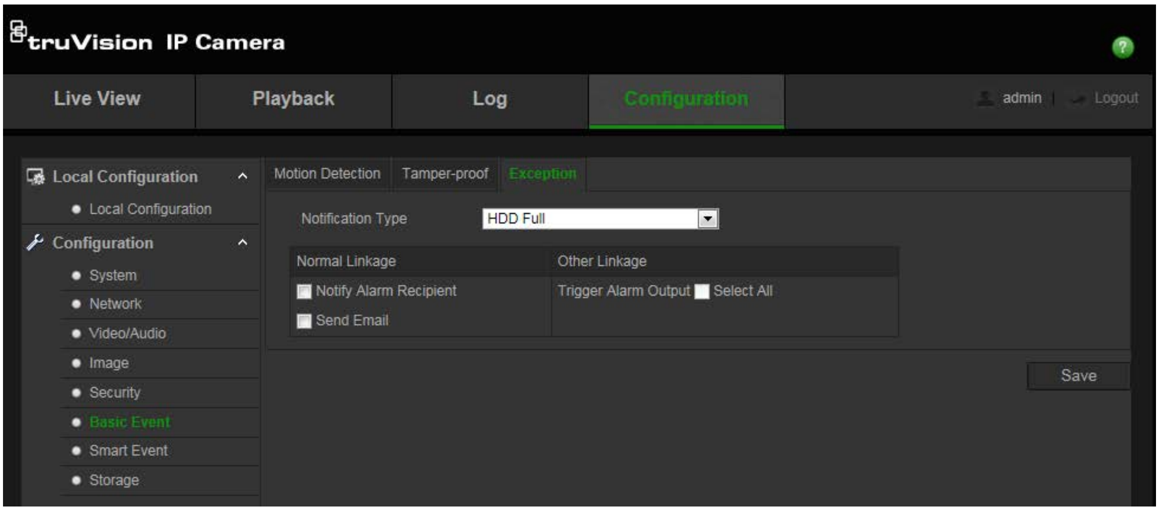
Exception alarms

You can set up the camera to notify you when irregular events occur and how you should be notified. These exception alarms include:

- **HDD Full:** All recording space of NAS is full.
- **HDD Error:** Errors occurred while files were being written to the storage, no storage or storage had failed to initialize.
- **Network Disconnected:** Disconnected network cable.

- **IP Address Conflicted:** Conflict in the IP address setting.
- **Invalid Login:** Wrong user ID or password used to log in to the cameras.

Figure 10: Exception menu



Notification Type: HDD Full

Normal Linkage	Other Linkage
□ Notify Alarm Recipient □ Send Email	Trigger Alarm Output □ Select All

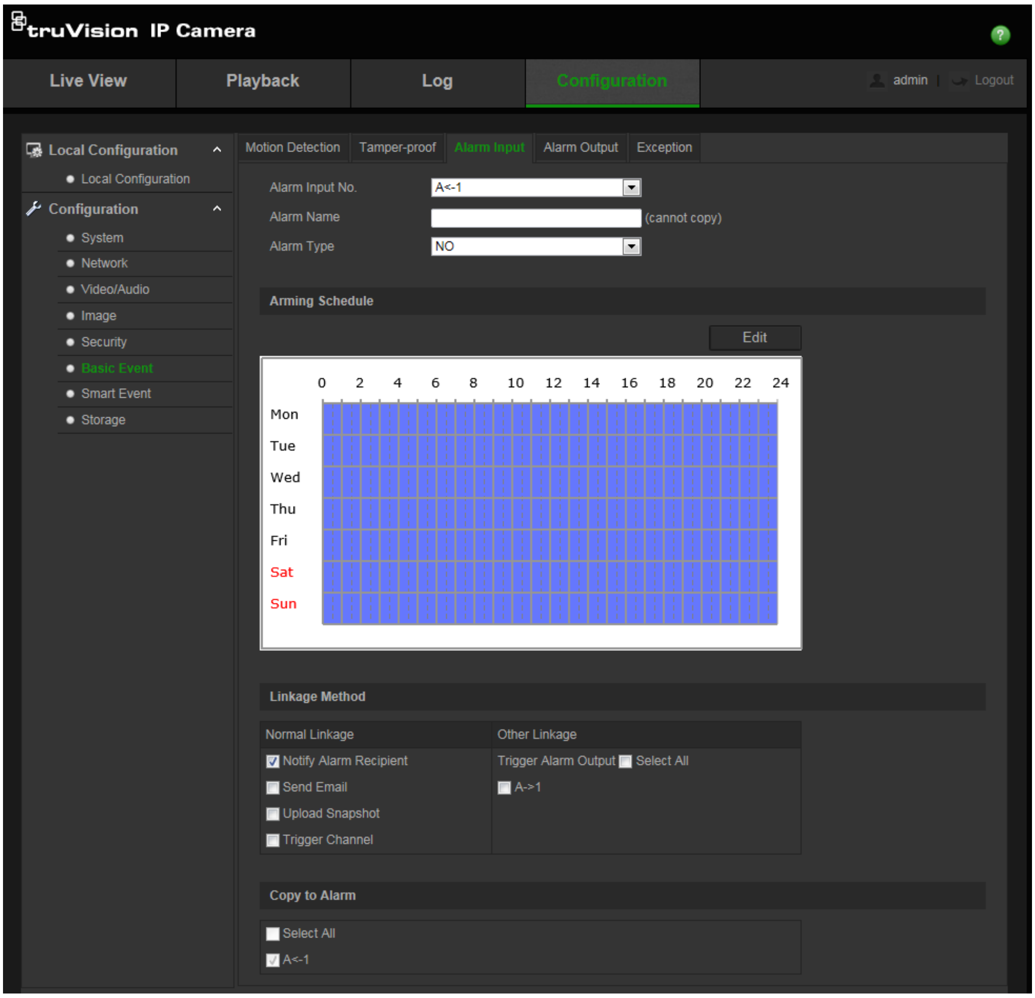
To define exception alarms:

1. Click **Configuration > Basic Event** > **Exception**.
2. Under **Notification Type**, select an exception alarm type from the drop-down list.
3. Check the check box to select the linkage method.
4. Click **Save** to save changes.

Alarm inputs and outputs

To define the external alarm input:

1. Click **Configuration** > **Basic Event** > **Alarm Input**.



Alarm Input No. A<-1

Alarm Name (cannot copy)

Alarm Type NO

Normal Linkage	Other Linkage
☑ Notify Alarm Recipient	Trigger Alarm Output □ Select All
□ Send Email	□ A->1
□ Upload Snapshot	
□ Trigger Channel	

□ Select All

☑ A<-1

2. Choose the **Alarm Input No.** and the **Alarm Type**. The alarm type can be NO (Normally Open) and NC (Normally Closed). Enter a name for the alarm input.

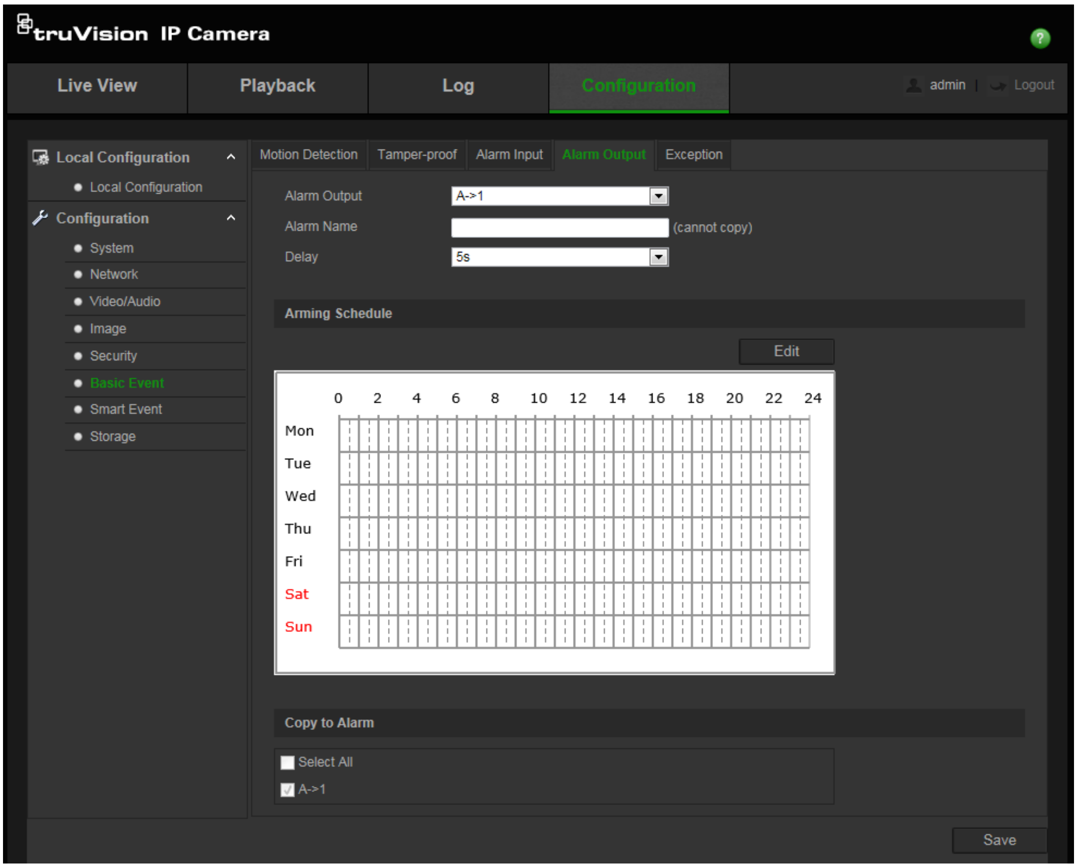
3. Click **Edit** to set the arming schedule for the alarm input. See “Motion detection alarms” on page 35 for more information.

4. Check the desired check box to select the linkage method.

5. Click **Save** to save changes.

To define the alarm output:

1. Click **Configuration** > **Basic Event** > **Alarm Output**.



Alarm Output: A->1

Alarm Name: (cannot copy)

Delay: 5s

□ Select All

☑ A->1

2. Select an alarm output channel from the **Alarm Output** drop-down list. You can also set a name for the alarm output.

3. The delay time can be set to 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min. The delay time refers to the time duration that the alarm output remains in effect after alarm occurs.

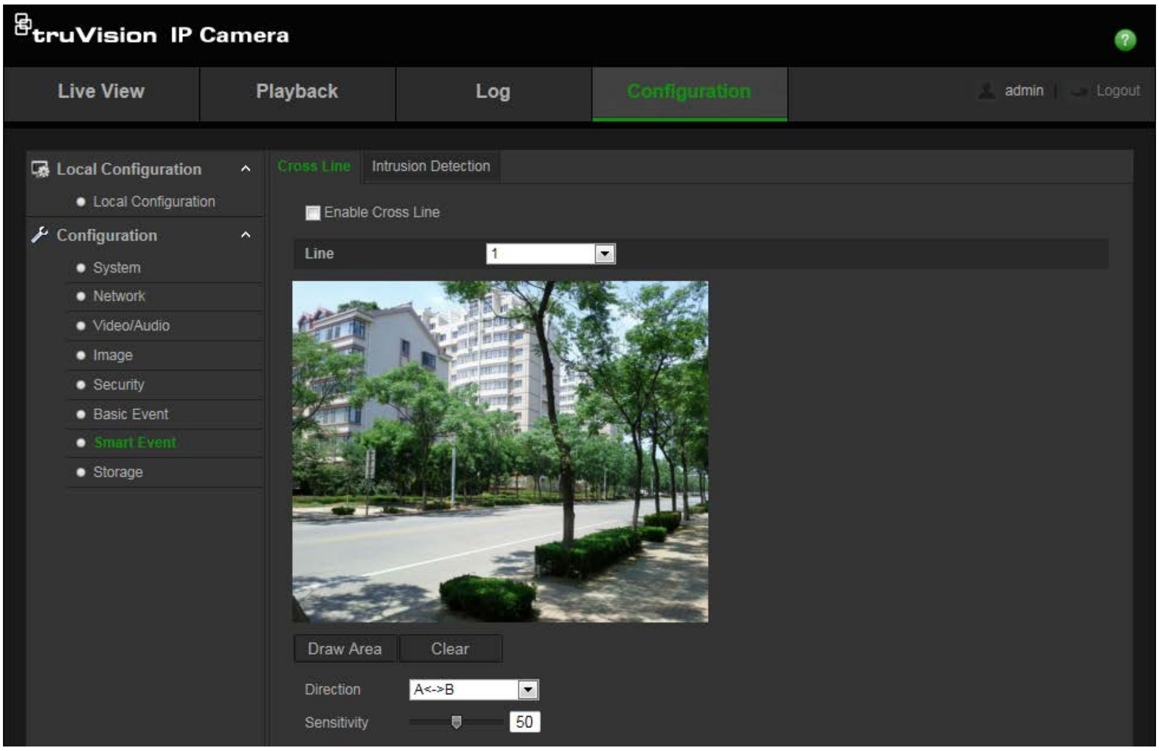
4. Click **Edit** to set the arming schedule for the alarm input. See “Motion detection alarms” on page 35 for more information.

5. Click **Save** to save changes.

Cross line detection

This function can be used to detect people, vehicles and objects crossing a pre-defined line or an area. The line crossing direction can be set as bi-directional, for example, from left to right or from right to left. A series of linkage methods can also be triggered if an object crossing the line is detected.

Figure 11: Cross line menu



□ Enable Cross Line

Line: 1

Direction: A<->B

Sensitivity: 50

To define Cross Line Detection:

1. Click **Configuration** > **Smart Event** > **Cross Line**.
2. Check the **Enable Cross Line** check box to enable the function.
3. Click **Draw Area**. A crossing plane appears on the image.
4. Click on the line. Two red squares appear at each end of the line. Drag one of the red squares to define the arming area.

   Select the direction as A<->B, A ->B, or B->A from the drop down menu.

   A<->B: Only the arrow on the B side is displayed. When an object crosses the plane in both directions, it is detected and alarms are triggered.

   A->B: Only an object crossing the configured line from the A side to the B side can be detected.

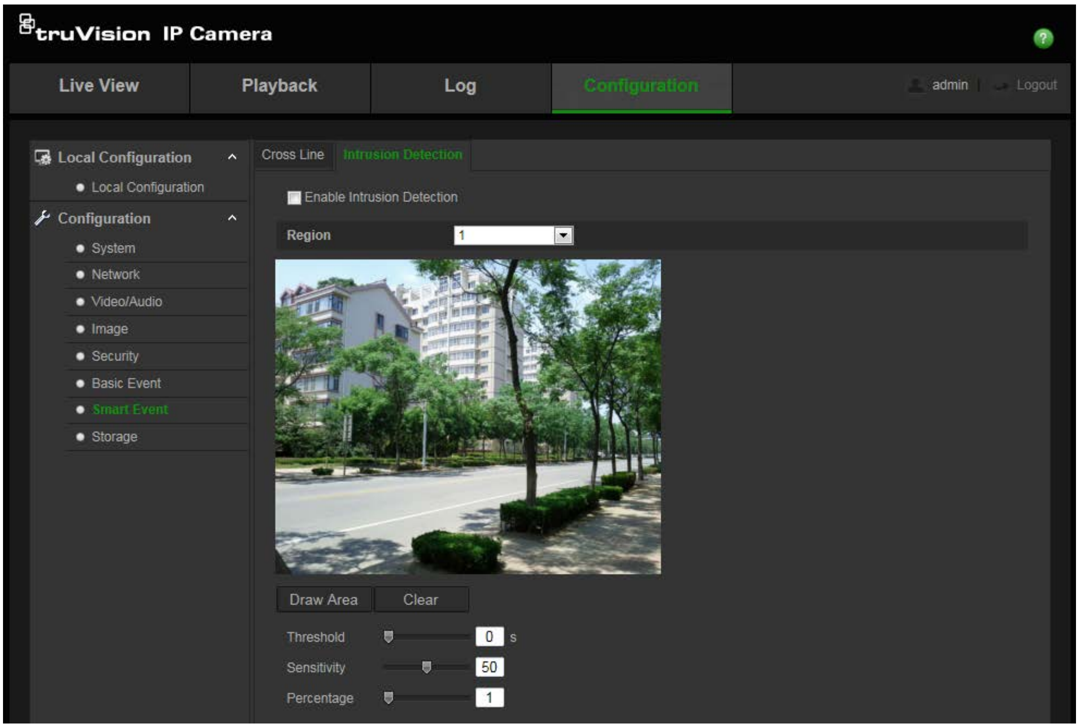
   B->A: Only the object crossing the configured line from the B side to the A side can be detected.
5. Set the sensitivity [1to 100].

6. Click **Edit** to set the arming schedule for the alarm input. See “Motion detection alarms” on page 35 for more information.
7. Configure the linkage action.
8. Click **Save** to save changes.

Intrusion detection

Intrusion detection allows you to set up an area in the surveillance scene. If someone enters the area, a set of alarm actions can be triggered.

Figure 12: Intrusion Detection menu



□ Enable Intrusion Detection

Region 1

Threshold 0 s

Sensitivity 50

Percentage 1

To define intrusion detection:

1. Click Configuration > Smart Event > Intrusion Detection.
2. Check the Enable Intrusion Detection check box to enable the function.
3. Click **Draw Area**, and then draw a rectangle on the image as a defense region. When you draw the rectangle, all lines should connect end-to-end to each other. Up to four areas are supported. You can click **Clear** to clear the areas you have drawn. The defense region parameters can be set up separately.
4. Configure the settings of threshold, sensitivity.

   Threshold: Range [0 to10 s]. This is the time threshold of the object to loiter in the region. If you set the value as 0, an alarm is triggered immediately when the object enters the region.

   Sensitivity: Range [1 to 100]. The sensitivity value defines the size of the object that can trigger the alarm. When the sensitivity is high, a small object can trigger the alarm.

   Percentage: Range [1 to 100]. This defines the ratio of the in-region part of the object that can trigger an alarm. For example, when you set the percentage to 50%, half of the object entering the region will trigger the alarm.

5. Click **Edit** to set the arming schedule for the alarm input. See “Motion detection alarms” on page 35 for more information.
6. Configure the linkage action.
7. Click **Save** to save changes.

Snapshot parameters

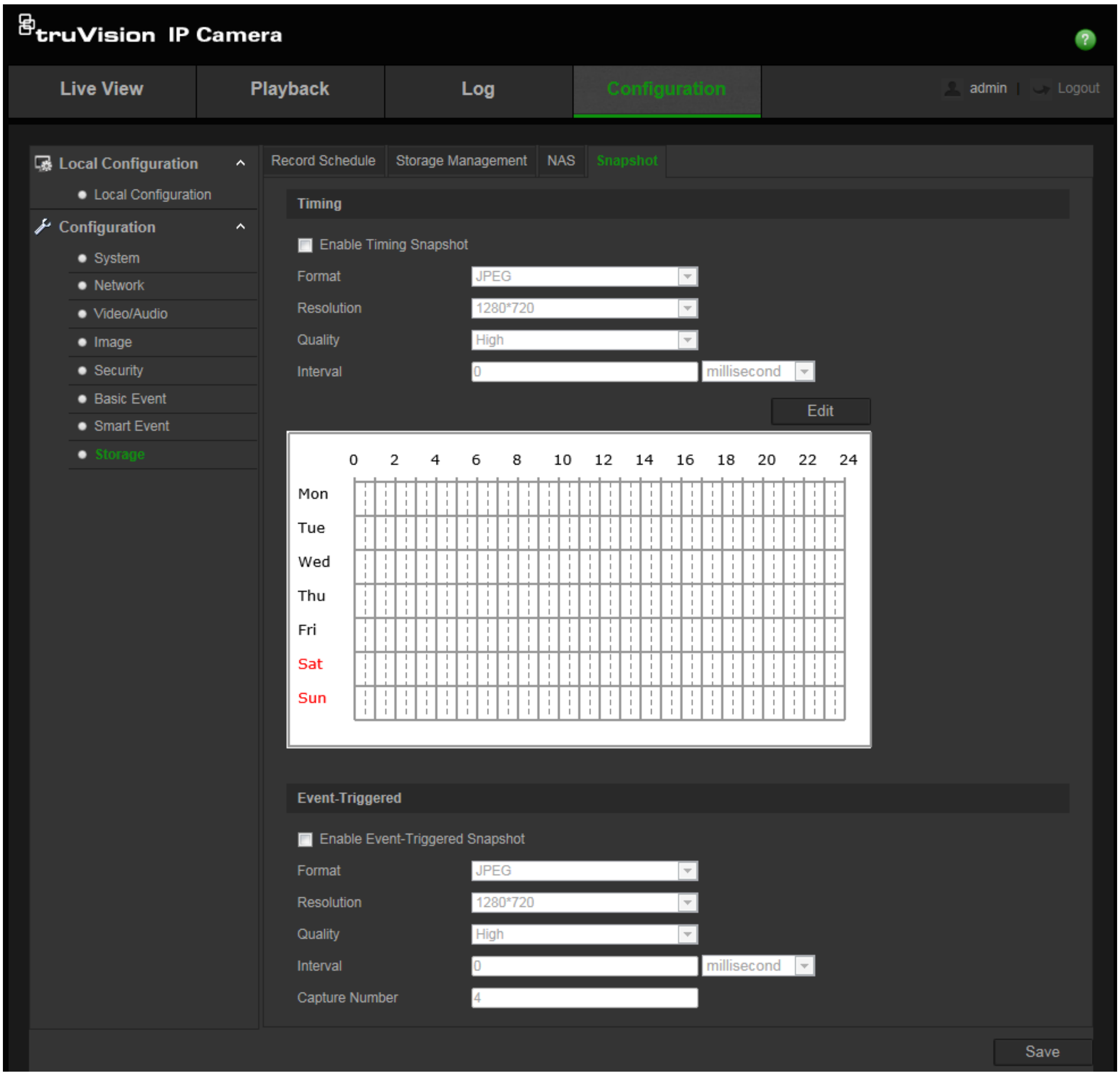
You can configure scheduled snapshots and event-triggered snapshots. The captured snapshots can be stored in the SD card (if supported) or the NAS. You can also upload the snapshots to an FTP server.

You can set up the format, resolution and quality of the snapshots. The quality can below, medium, or high.

You must enable the option **Enable Timing Snapshot** if you want snapshots to be uploaded to the FTP. If you have configured the FTP settings and checked **Upload Type** in the Network > FTP tab, the snapshots will not be uploaded to the FTP if the **Enable Timing Snapshot** option is disabled.

You must enable the option **Enable Event-Triggered Snapshot** if you want snapshots to be uploaded to the FTP and NAS when motion detection or an alarm input is triggered. If you have configured the FTP settings and checked **Upload Type** in the Network > FTP tab for motion detection or an alarm input, the snapshots will not be uploaded to the FTP if this option is disabled.

Figure 13: Snapshot menu



Timing

□ Enable Timing Snapshot

Format: JPEG

Resolution: 1280*720

Quality: High

Interval: 0 millisecond

Event-Triggered

□ Enable Event-Triggered Snapshot

Format: JPEG

Resolution: 1280*720

Quality: High

Interval: 0 millisecond

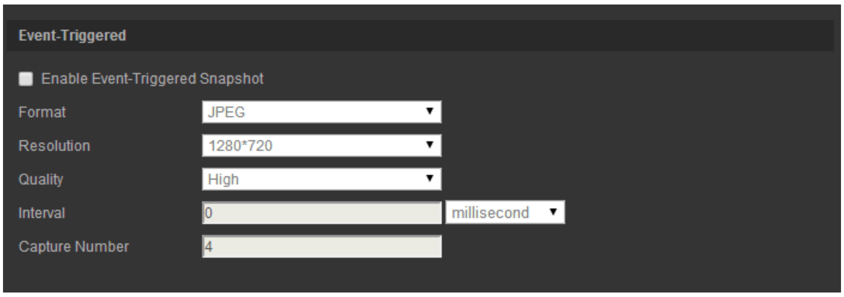
Capture Number: 4

To set up scheduled snapshots:

1. Click **Configuration > Storage** > **Snapshot**.
2. Check **Enable Timing Snapshot** to enable continuous snapshots.
3. Select the desired format of the snapshot, such as JPEG.
4. Select the desired resolution of the snapshot.
5. Select the desired quality of the snapshot: High, Medium, or Low.
6. Enter the time interval between two snapshots. Select the unit of time from the dropdown list: milliseconds, seconds, minutes, hour, or day.
7. Set the schedule for when you want snapshots to be taken. Click **Edit** and the desired schedule for each day of the week.
8. Click **Save** to save changes.

To set up event-triggered snapshots:

1. Click **Configuration** > **Storage** > **Snapshot**.



Event-Triggered

☐ Enable Event-Triggered Snapshot

Format	JPEG	
Resolution	1280*720	
Quality	High	
Interval	0	millisecond
Capture Number	4	

2. Check **Enable Timing Snapshot** to enable continuous snapshots.
3. Select the desired resolution and quality of the snapshot.
4. Enter the time interval between two snapshots. Select the unit of time from the dropdown list: milliseconds, seconds, minutes, hour, or day.
5. Under **Capture Number**, enter the total number of snapshots that can be taken.
6. Click **Save** to save changes.

NAS settings

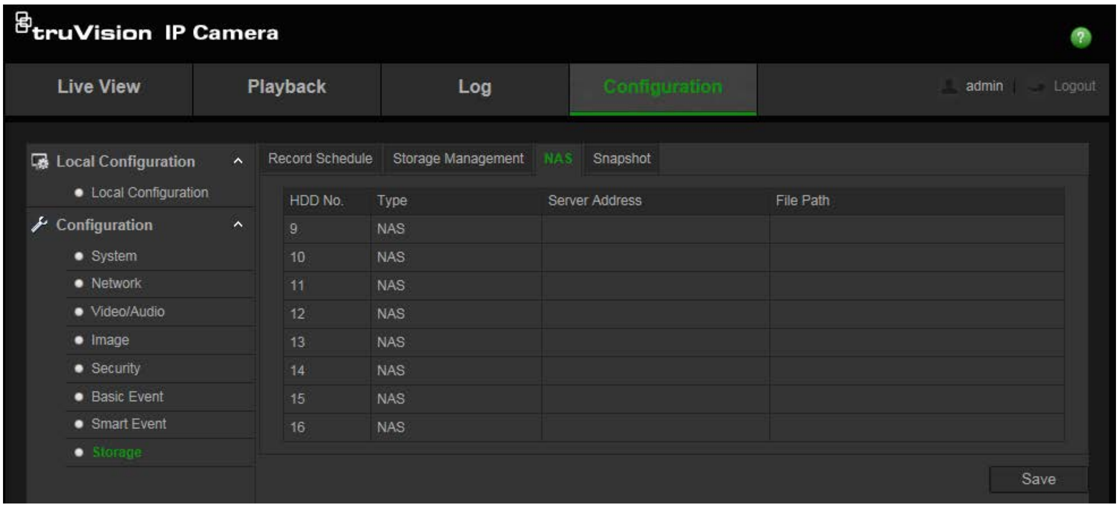
You can use a network storage system (NAS) to remotely store recordings

To configure record settings, please ensure that you have the network storage device within the network. The NAS disk should be available within the network and be correctly configured to store the recorded files, log files, etc.

Notes:

1. Up to eight NAS disks can be connected to the camera.
2. The recommended capacity of NAS should be between 9G and 2T as otherwise it may cause formatting failure.

Figure 14: NAS menu



HDD No.	Type	Server Address	File Path
9	NAS		
10	NAS		
11	NAS		
12	NAS		
13	NAS		
14	NAS		
15	NAS		
16	NAS		

To set up a NAS system:

1. Click **Configuration** > **Storage** > **NAS**.
2. Enter the IP address of the network disk, and the NAS file path.
3. Click **Save** to save changes.

Storage devices

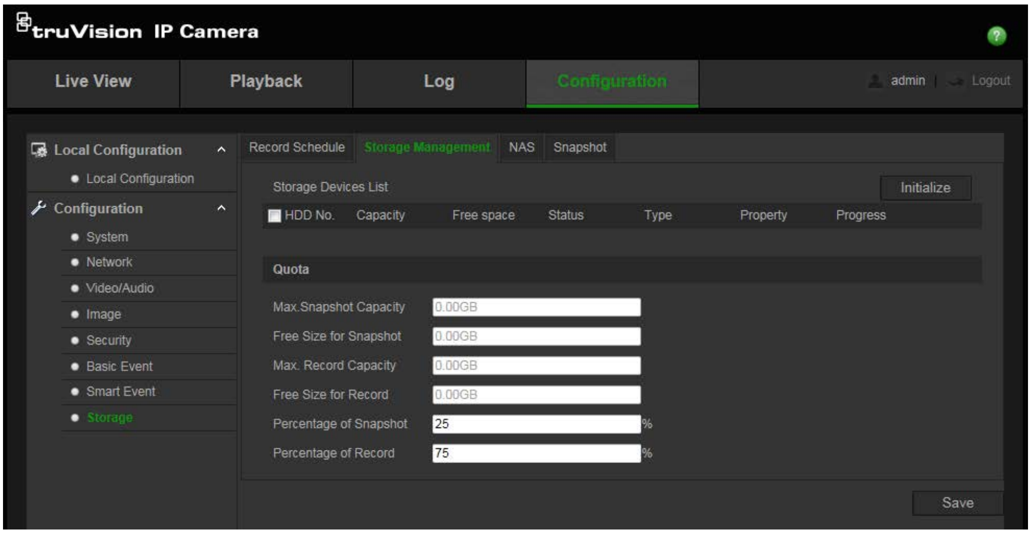
Use the storage management window to display the capacity, free space available and the working status of the HDD of the NAS and the SD card in the camera. You can also format these storage devices.

Before formatting the storage device, stop all recording. Once formatting is completed, reboot the camera as otherwise the device will not function properly.

If Overwrite is enabled, the oldest files are overwritten when the storage becomes full.

To format the storage devices:

1. Click **Configuration** > **Storage** > **Storage Management**.



Storage Devices List

☐ HDD No.	Capacity	Free space	Status	Type	Property	Progress

Quota

Max.Snapshot Capacity 0.00GB

Free Size for Snapshot 0.00GB

Max. Record Capacity 0.00GB

Free Size for Record 0.00GB

Percentage of Snapshot 25 %

Percentage of Record 75 %

2. Check the **HDD Number** column to select the storage.
3. Define the quota percentage for snapshots and recordings, modify the values for each in **Percentage of Snapshot** and **Percentage of Record**.
4. Click **Format**. A window appears to check your formatting permission.
5. Click **OK** to start formatting.

Recording schedule

You can define a recording schedule for the camera in the “Record Schedule” window. The recording is saved on to the SD card or NAS in the camera. The camera’s SD card provides a backup in case of network failure.

The selected recording schedule applies to all alarm types.

Pre-record time

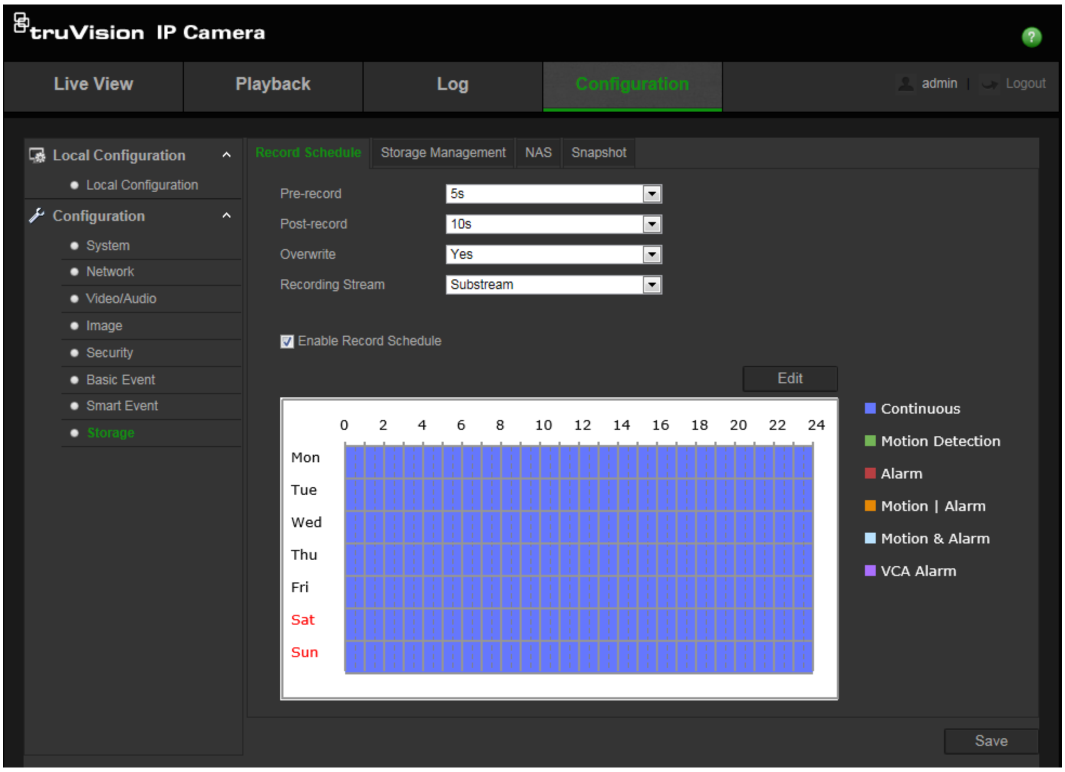
The pre-record time is set to start recording before the event. For example, if an alarm triggers recording at 10:00, and the pre-record time is set as 5 seconds, the camera starts to record the event at 9:59:55. The pre-record time can be configured as “No Pre-record”, 5 s, 10 s, 15 s, 20 s, 25 s, 30 s, or “Not limited”.

Post- record time

The post-record time is set to stop recording after the event. For example, if an alarm triggered recording ends at 11:00, and the post-record time is set as 5 seconds, the camera records until 11:00:05. The post-record time can be configured as 5 s, 10 s, 30 s, 1 min, 2 min, 5 min, or 10 min.

To set up a recording schedule:

1. Click **Configuration** > **Storage** > **Record Schedule**.

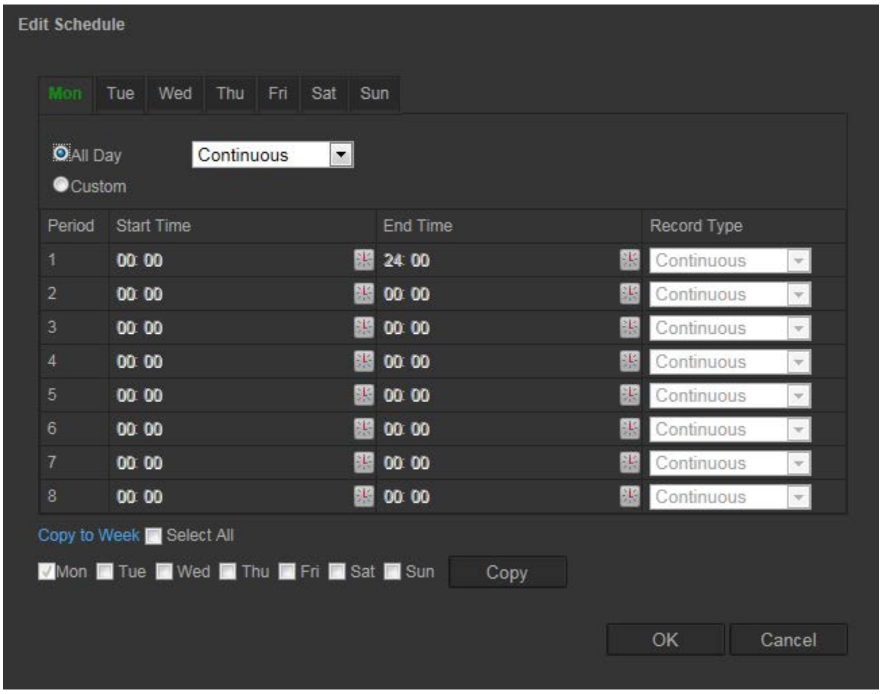


Pre-record: 5s
Post-record: 10s
Overwrite: Yes
Recording Stream: Substream
☑ Enable Record Schedule

2. Click the **Enable Record Schedule** box to enable recording.

   Note: To disable recording, deselect the option.

3. Click **Edit** to edit the recording schedule. The following window appears:



Edit Schedule

Mon | Tue | Wed | Thu | Fri | Sat | Sun

● All Day Continuous

○ Custom

Period	Start Time	End Time	Record Type
1	00:00	24:00	Continuous
2	00:00	00:00	Continuous
3	00:00	00:00	Continuous
4	00:00	00:00	Continuous
5	00:00	00:00	Continuous
6	00:00	00:00	Continuous
7	00:00	00:00	Continuous
8	00:00	00:00	Continuous

Copy to Week □ Select All

☑ Mon □ Tue □ Wed □ Thu □ Fri □ Sat □ Sun Copy

OK Cancel

4. Select whether the recording will be for the whole week (**All Day** recording) or for specific days of the week (**Customize** recording).

   All Day recording: Select one of the record types to record from the drop-down list box:

   - **Normal**: This is continuous recording.
   - **Motion Detection:** The video is recorded when the motion is detected.
   - **Alarm:** The video is recorded when the alarm is triggered via the external alarm input.
   - **Motion | Alarm:** The video is recorded when the external alarm is triggered or the motion is detected.
   - **Motion & Alarm:** The video is recorded when motion and alarms are triggered at the same time.
   - **Cross Line**: Video is recorded when the pre-defined line on-screen in crossed.
   - **Intrusion Detection**: Video is recorded when an intrusion is detected.

   - Or -

   Customize recording: Click the day of the week required and then for period 1 set the start and end times during which you want the camera to begin and end recording. From the drop-down list box, select one of the record types to record. Repeat for additional periods in the day. Up to four time periods can be selected.

   Note: The eight time periods cannot overlap.

Set the customized recording periods for the other days of the week, if required. Click **Copy** to copy the recording periods to another day of the week.

5. Click **OK** and **Save** to save changes.

Note: If you set the record type to “Motion detection”, “Alarm”, “Cross Line” or “Intrusion Detection” you must also define the arming schedule in order to trigger the recording.

Camera management

This chapter describes how to use the camera once it is installed and configured. The camera is accessed through a web browser.

User management

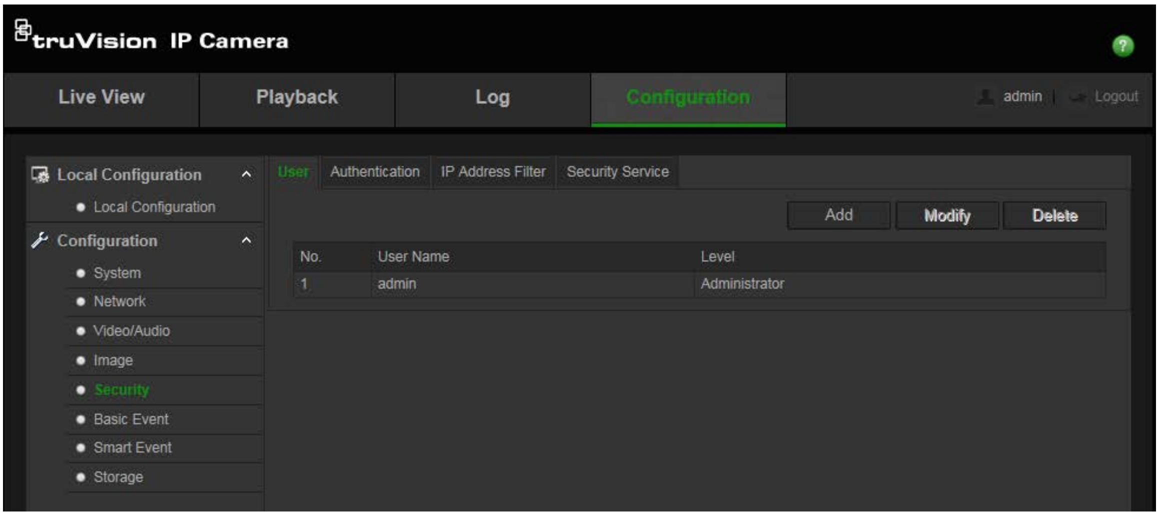
This section describes how to manage users. You can:

- Add or delete users
- Modify permission
- Modify passwords

Only the administrator can manage users. The administrator can create up to 31 individual users for the cameras listed in this manual. For TruVision IP open standard cameras, the administrator can create up to 15 individual users.

When new users are added to the list, the administrator can modify permissions and password of each user. See Figure 15 below.

Figure 15: User management window



No.	User Name	Level
1	admin	Administrator

Passwords limit access to the camera and the same password can be used by several users. When creating a new user, you must give the user a password. There is no default password provided for all users. Users can modify their passwords.

Note: Keep the admin password in a safe place. If you forget it, please contact technical support.

Types of users

A user’s access privileges to the system are automatically defined by their user type. There are three types of user:

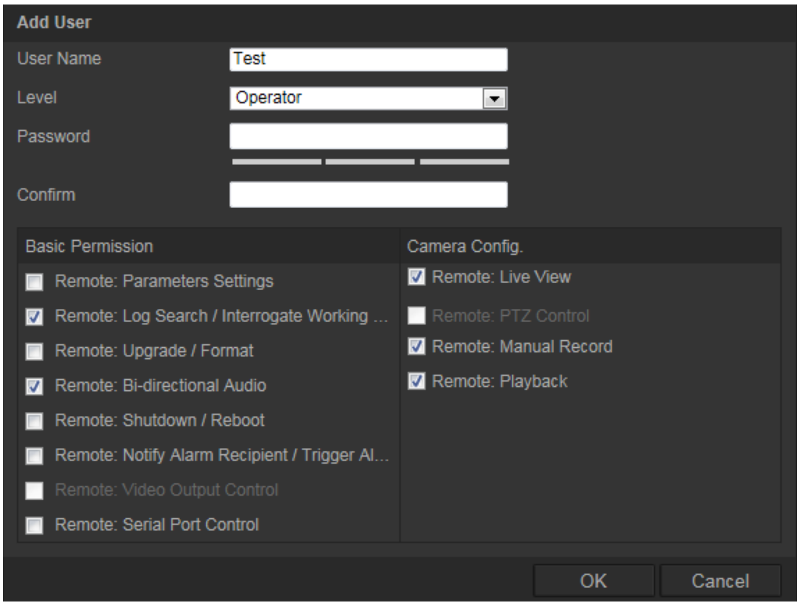
- **Admin**: This is the system administrator. The administrator can configure all settings. Only the administrator can create and delete user accounts. Admin cannot be deleted.
- **Operator**: This user can only change the configuration of his/her own account. An operator cannot create or delete other users.
- **Viewer**: This user has the permission to live view, play back and search logs. However, Viewers cannot change any configuration settings.

Add and delete users

The administrator can create up to 15 users. Only the system administrator can create or delete users.

To add a user:

1. Click the **User** folder to open its window.
2. Select the **Add** button. The user management window appears.



Add User

User Name: Test

Level: Operator

Password:

Confirm:

Basic Permission	Camera Config.
☐ Remote: Parameters Settings	☑ Remote: Live View
☑ Remote: Log Search / Interrogate Working ...	☐ Remote: PTZ Control
☐ Remote: Upgrade / Format	☑ Remote: Manual Record
☑ Remote: Bi-directional Audio	☑ Remote: Playback
☐ Remote: Shutdown / Reboot	
☐ Remote: Notify Alarm Recipient / Trigger Al...	
☐ Remote: Video Output Control	
☐ Remote: Serial Port Control	

3. Enter a user name. The name can have up to 16 alphanumeric characters.
4. Assign the user a password. Passwords can have up to 16 alphanumeric characters.

   Note: We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product.
5. Select the type of user from the drop-down list. The options are *Viewer* and *Operator*.
6. Assign permissions to users. The options are:

Basic Permission	Camera Configuration
Remote: Parameters Settings	Remote: Live View

Basic Permission	Camera Configuration
Remote: Log Search/Interrogate Working Status Remote: Upgrade/Format Remote: Bidirectional Audio Remote: Shutdown / Reboot Remote: Notify Alarm Recipient / Trigger Alarm Output Remote: Video Output Control Remote: Serial Port Control	Remote: PTZ Control Remote: Manual Record Remote: Playback

7. Click **OK** to save the settings.

To delete a user:

1. Select one user in the **User** tab.
2. Click **Delete** button. A message box appears.

   Note: Only the administrator can delete a user.
3. Click **Save** to save the changes.

Modify user information

You can easily change the information about a user such as their name, password and permissions.

To modify user information:

1. Select one user in the **User** tab.
2. Click the **Modify** button. The user management window appears
3. Change the information required.

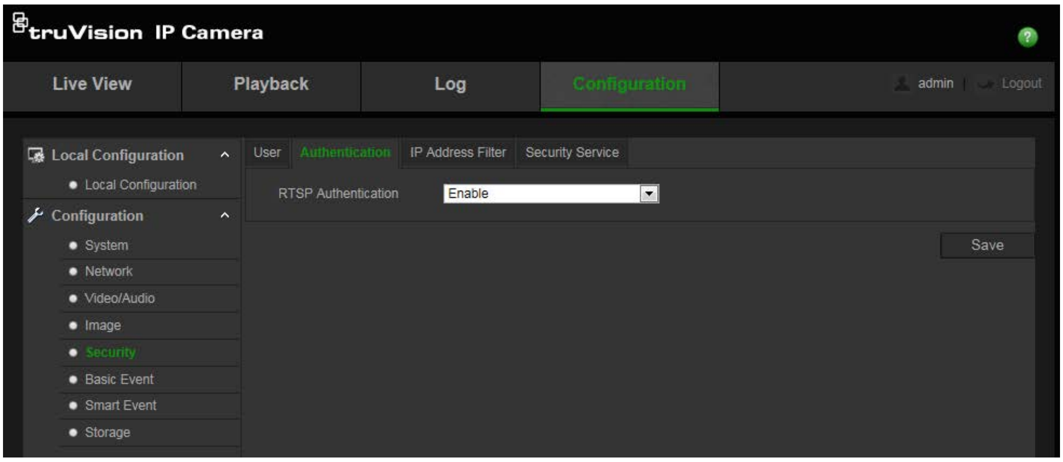
   Note: The user “Admin” can only be changed by entering the admin password.
4. Click **Save** to save the changes.

RTSP authentication

You can specifically secure the stream data of live view.

To define RTSP authentication:

1. Click **Configuration** > **Storage** > **RTSP Authentication**.



RTSP Authentication: Enable

2. Under “RTSP Authentication”, select **Enable** or **Disable** in the drop-down list to enable or disable the RTSP authentication.

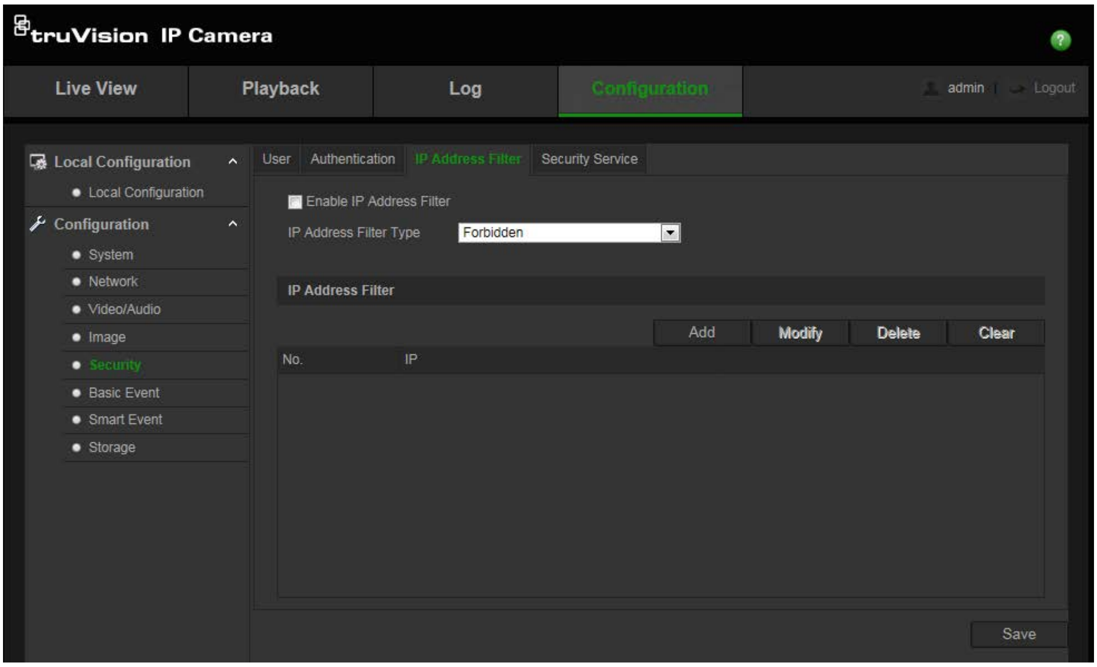
3. Click **Save** to save the changes.

Note: If "RTSP Authentication" is disabled, the user can still see the live view images although there is has no permission for “Remote: Live View".

IP address filter

This function makes access control possible.

Figure 16: IP address filter window



□ Enable IP Address Filter

IP Address Filter Type: Forbidden

No.	IP

To define IP Address Filter:

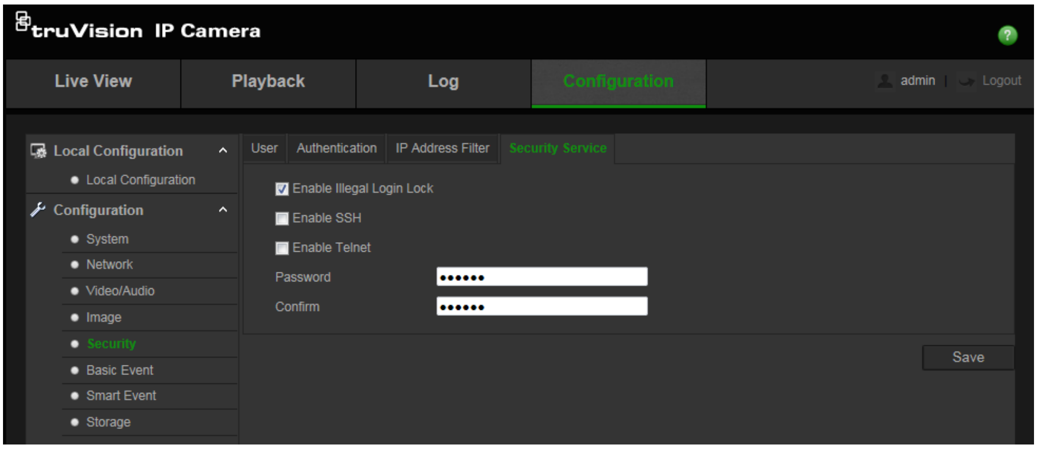
1. Click **Configuration** > **Security**.

2. Select the **IP Address Filter** tab.
3. Check the **Enable IP Address Filter** check box**.**
4. Select the type of IP Address Filter in the drop-down list, **Forbidden** or **Allowed**.
5. Click **Add** to add an IP address.
6. Click **Modify** or **Delete** to modify or delete the selected IP address**.**
7. Click **Clear** to delete all the IP addrsses.
8. Click **Save** to save the changes.

Defining the security service

The camera provides a security service by allowing you to enable remote login and to improve data communication security.

Figure 17: Enable Telnet window



☑ Enable Illegal Login Lock

□ Enable SSH

□ Enable Telnet

Password ••••••

Confirm ••••••

To define Telnet:

1. Click **Configuration** > **Security** > **Security Service**.
2. Check the **Enable Telnet** check box.
3. Click **Save** to save the changes.

Note:

1. The Telnet user name is root as default and cannot be changed.
2. The default Telnet password is “ab12!”
3. The password should have least four characters with at least one letter and one number.

To define SSH:

1. Click **Configuration** > **Security** > **Security Service**.
2. Check the **Enable SSH** check box.

3. Click **Save** to save the changes.

To enable the illegal login lock:

1. Click **Configuration** > **Security** > **Security Service**.
2. Check the **Enable Illegal Login Lock** check box
3. Click **Save** to save the changes.

Note:

1. The IP address will be locked if the admin user performs 7 failed user name/password attempts (10 attempts for the operator/user).

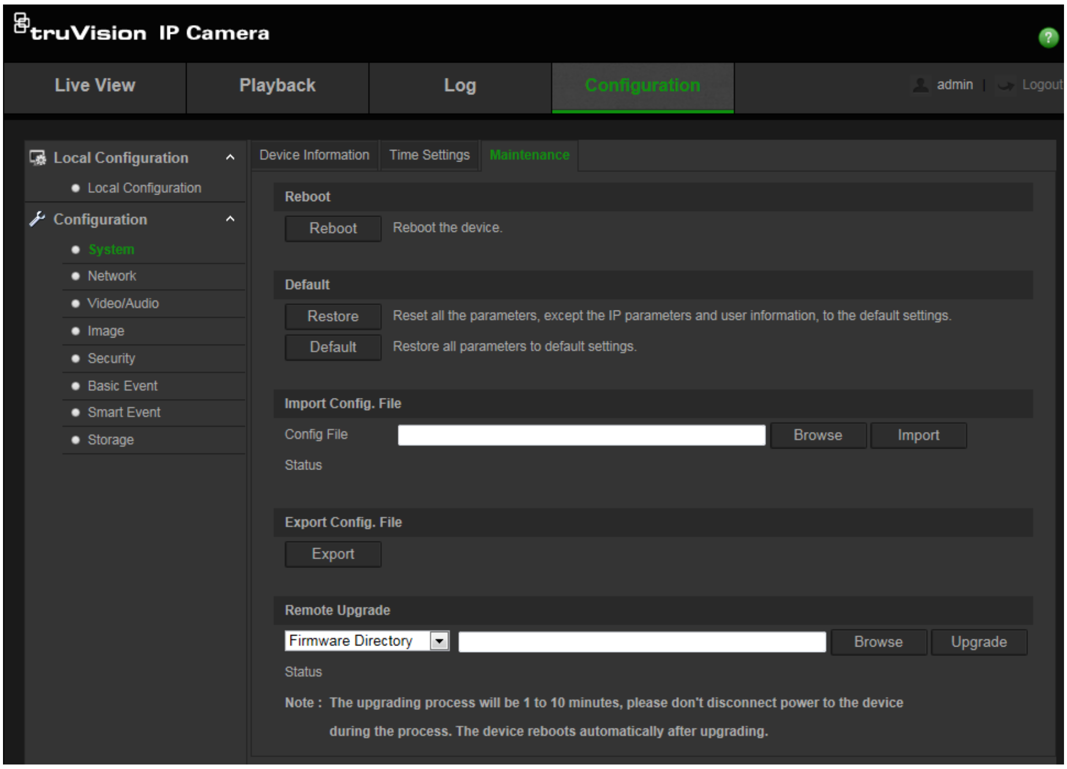
2. If the IP address is locked, you can try to login the device after 5 minutes.

Restore default settings

Use the Default menu to restore default settings to the camera. There are two options available:

- **Restore:** Restore all the parameters, except the IP parameters, to the default settings.
- **Default:** Restore all the parameters to the default settings.

Note: If the video standard is changed, it will not be restored to its original setting when Restore or Default is used.



Reboot the device.

Reset all the parameters, except the IP parameters and user information, to the default settings.

Restore all parameters to default settings.

Note : The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots automatically after upgrading.

To restore default settings:

1. Click **Configuration** > **System** > **Maintenance**.

2. Click either **Restore** or **Default**. A window showing user authentication appears.
3. Enter the admin password and click **OK**.
4. Click **OK** in the pop-up message box to confirm restoring operation.

Import/export a configuration file

The administrator can export and import configuration settings from the camera. This is useful if you want to copy the configuration settings to a camera, or if you want to make a backup of the settings.

To import/export configuration file:

1. Click **Configuration** > **System** > **Maintenance**.
2. Click **Browse** to select the local configuration file and then click **Import** to start importing configuration file.
3. Click **Export** and set the saving path to save the configuration file.

Upgrade firmware

The camera firmware is stored in the flash memory. Use the upgrade function to write the firmware file into the flash memory.

You need to upgrade firmware when it has become outdated. When you upgrade the firmware, all existing settings are unchanged. Only the new features are added with their default settings.

The camera will select the corresponding firmware file automatically. Cookies and data in the web browser are automatically deleted when the firmware is updated.

To upgrade firmware version:

1. Download on to your computer the latest firmware from our web site at:

   www.interlogix.com/video/product/truvision-ip-open-standards-outdoor-cameras/

   - Or -

   www.utcfssecurityproductspages.eu/videoupgrades/
2. When the firmware file is downloaded to your computer, extract the file to the desired destination.

   Note: Do not save the file on your desktop.
3. Click **Configuration** > **System** > **Maintenance**.
4. Select the **Firmware** or **Firmware Directory** option. Then click the Browse button to locate latest firmware file on your computer.

- **Firmware directory** – Locate the upgrading folder of Firmware files. The camera will choose the corresponding firmware file automatically.
- **Firmware** – Locate the firmware file manually for the camera.

Note: Please select Interlogix_Gen_3_ipc.dav for product models listed in “Introduction” on page 3.

5. Click **Update**. You will receive a prompt asking you to reboot the camera.
6. When the upgrade is finished, the device will reboot automatically. The browser will also be refreshed.

Reboot camera

The camera can be easily rebooted remotely.

To reboot the camera through the web browser:

1. Click **Configuration** > **System** > **Maintenance**.
2. Click the **Reboot** button to reboot the device.
3. Click **OK** in the pop-up message box to confirm reboot operation.

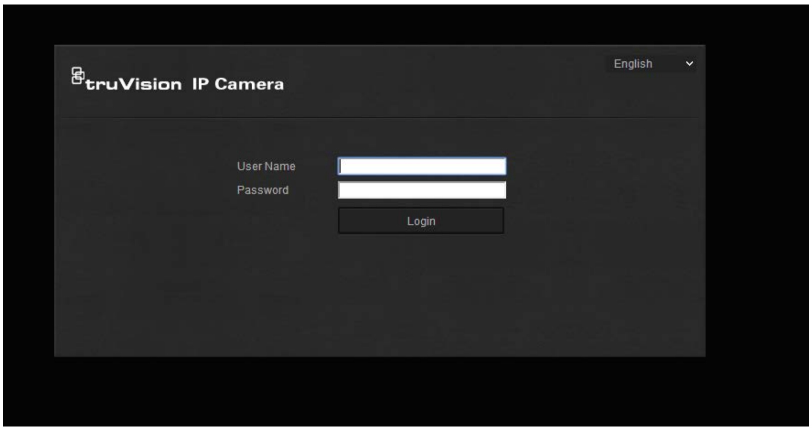
Camera operation

This chapter describes how to use the camera once it is installed and configured.

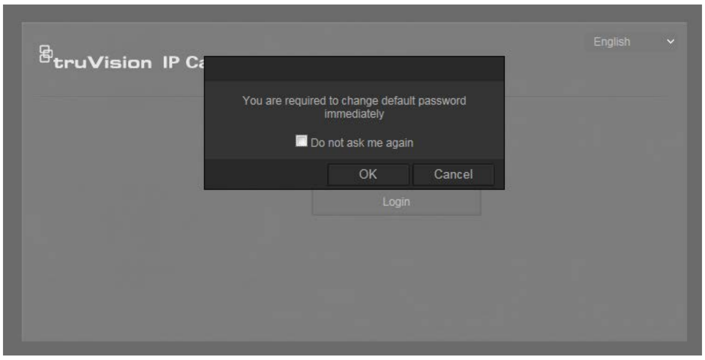
Logging on and off

You can easily log out of the camera browser window by clicking the Logout button on the menu toolbar. You will be asked each time to enter your user name and password when logging in.

Figure 18: Login dialog box



If you do not change the default password of admin, a message will always pop up requesting you to do so.


You are required to change default password immediately

□ Do not ask me again

Live view mode

Once logged in, click “Live View” on the menu toolbar to access live view mode. See Figure 1 on page 8 for the description of the interface.

Start/stop live view: You can stop and start live view by clicking the Start/stop live view button on the bottom of the window.

Record: You can record live video and stored it in the directory you have configured. In the live view window, click the **Record** button at the bottom of the window. To stop recording, click the button again.

Take a snapshot: You can take a snapshot of a scene when in live view. Simply click the **Capture** button located at the bottom of the window to save an image. The image is in JPEG format. Snapshots are saved on the hard drive.

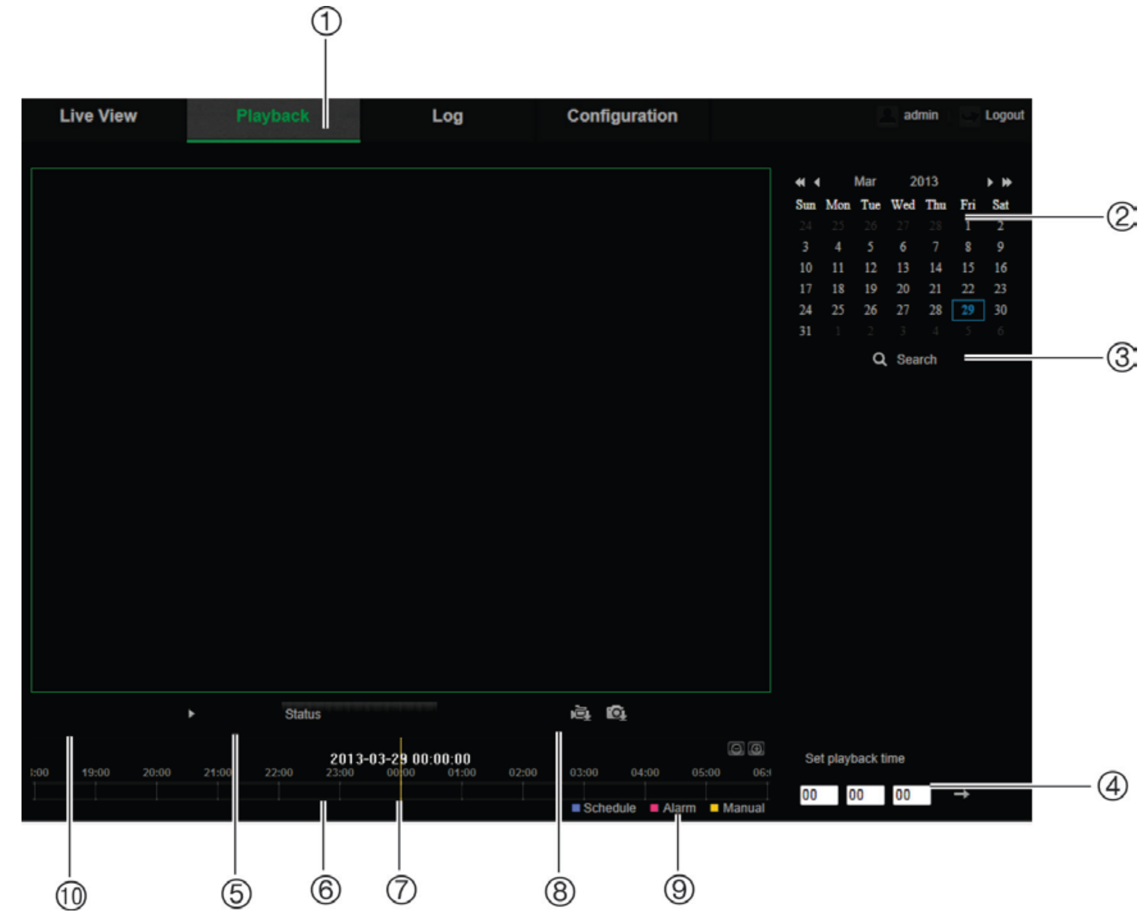
Playing back recorded video

You can easily search and play back recorded video in the playback interface.

Note: You must configure NAS or insert the SD card in the dome camera to be able to use the playback functions.

To search recorded video stored on the camera's storage device for playback, click **Playback** on the menu toolbar. The Playback window appears. See Figure 19.

Figure 19: Playback window



Name		Description
1.	Playback button	Click to open the Playback window.
2.	Search calendar	Click the day required to search.
3.	Search	Start search.
4.	Set playback time	Input the time and click → to locate the playback point.

Name	Description
5. Control playback	Click to control how the selected file is played back: play, stop, slow and fast forward playback.
6. Timeline bar	The timeline bar displays the 24-hour period of the day being played back. It moves left (oldest) to right (newest). The bar is color-coded to display the type of recording. Click a location on the timeline to move the cursor to where you want playback to start. The timeline can also be scrolled to earlier or later periods for play back. Click ⊖⊕ to zoom out/in the timeline bar.
7. Time moment	Vertical bar shows where you are in the playback recording. The current time and date are also displayed.
8. Download functions	Download video files. Download captured images.
9. Recording type	The color code displays the recording type. Recording types are schedule recording, alarms recording and manual recording. The recording type name is also displayed in the current status window.
10. Archive functions	Click these buttons for the following archive actions: 📷 Capture a snapshot image of the playback video. ✂ Start/Stop clipping video files.

To play back recorded video

1. Select the date and click the **Search** button. The searched video is displayed in the timeline.
2. Click **Play** to start playback. While playing back a video, the timeline bar displays the type and time of the recording. The timeline can be manually scrolled using the mouse.

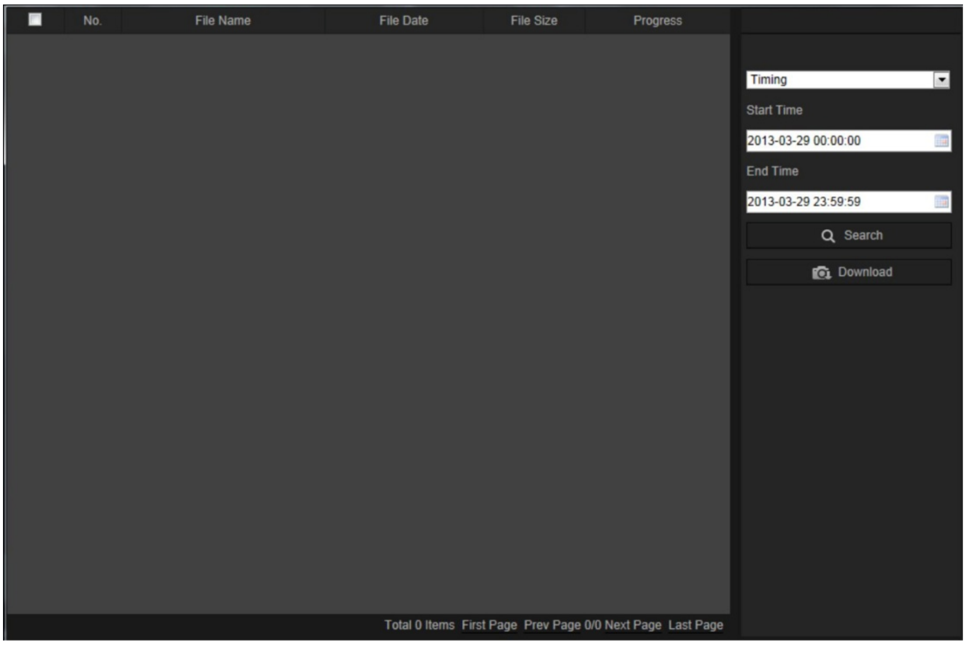
   Note: You must have playback permission to playback recorded images. See “Modify user information” on page 55 to archive recorded video files.
3. Select the date and click the **Search** button to search for the required recorded file.
4. Click to search the video file.
5. In the pop-up window, check the box of the video file and click **Download** to download the video files.

To archive a recorded video segment during playback:

1. While playing back a recorded file, click ✂ to start clipping. Click it again to stop clipping. A video segment is created.
2. Repeat step 1 to create additional segments. The video segments are saved on your computer.

To archive recorded snapshots:

1. Click to open the snapshots search window.



Timing

Start Time: 2013-03-29 00:00:00

End Time: 2013-03-29 23:59:59

2. Select the snapshot type as well as the start and end time.
3. Click **Search** to search for the snapshots.
4. Select the desired snapshots, and click **Download** to download them.

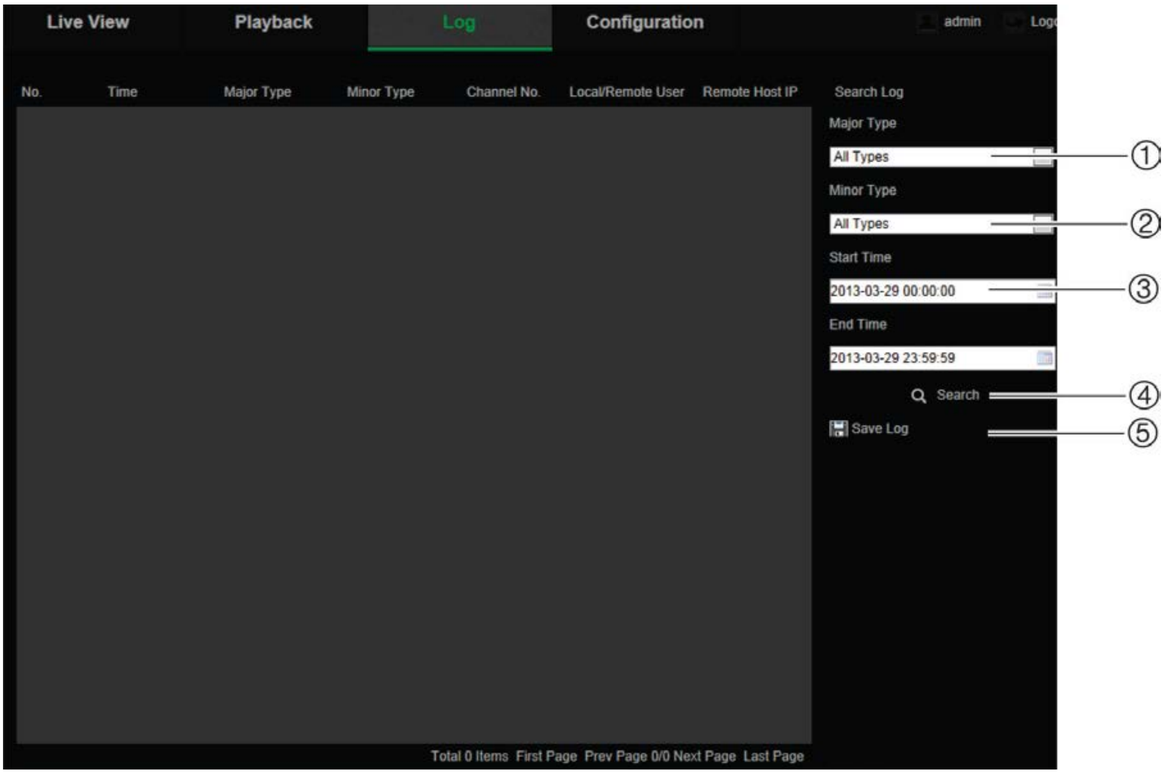
Searching event logs

You must configure NAS or insert a SD card in the dome camera to be able to use the log functions.

The number of event logs that can be stored on NAS or SD card depends on the capacity of the storage devices. When this capacity is reached, the system starts deleting older logs. To view logs stored on storage devices, click **Log** on the menu toolbar. The Log window appears. See Figure 20 on page 65.

Note: You must have view log access rights to search and view logs. See “Modify user information” on page 55 for more information.

Figure 20: Log window



Major Type: All Types

Minor Type: All Types

Start Time: 2013-03-29 00:00:00

End Time: 2013-03-29 23:59:59

1. Major Type
2. Minor Type
3. Start and end search time
4. Start search
5. Save searched logs

You can search for recorded logs by the following criteria:

Major type: There are three types of logs: Alarm, Exception, and Operation. You can also search “All”. See Table 7 below for their descriptions.

Minor type: Each major type has some minor types. See Table 7 below for their descriptions.

Date and Time: Logs can be searched by start and end recording time.

Table 7: Types of logs

Log type	Description of events included
Alarm	Alarm Input, Alarm output, Start Motion Detection, Stop Motion Detection, Start Tamper-proof, Stop Tamper-proof, Cross Line Detection Started, Cross Line Detection Stopped, Intrusion Detection Started, Intrusion Detection stopped
Exception	Invalid Login, HDD Full, HDD Error, Network Disconnected and IP Address Conflicted

Log type	Description of events included
Operation	Power On, Unexpected Shutdown, Remote Reboot, Remote Login, Remote Logout, Remote Configure parameters, Remote Upgrade, Remote Start Record, Remote Stop Record, Remote PTZ control, Remote Initialize HDD, Remote Playback by File, Remote Playback by Time, Remote Export Config file, Remote import config file, Remote Get Parameters, Remote Get Working Status, Start Bidirectional Audio, Stop Bidirectional Audio, Remote Alarm Arming, Remote Alarm Disarming

To search logs:

1. Click **Log**.
2. In the Major Type and Minor Type drop-down list, select the desired option.
3. Select start and end time of the log.
4. Click **Search** to start your search. The results appear in the left window.

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