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TruVision IP Compact PTZ Camera Configuration Manual

Content

Introduction

This is the configuration manual for the following TruVision IP PTZ camera models:

- TVP-5101   (2.0 MPX, 4X, 20 m IR, H.265/H.264)
- TVP-5102   (2.0 MPX, 20X, 150 m IR, H.265/H.264)
- TVP-5103   (3.0 MPX, 20X, 50 m IR, H.265/H.264)

The installation guide and configuration manual are available on our web site.

Refer to the table below for information on which feature/functions are supported in each model.

Table 1: Features and functions supported by the camera models

Feature	TVP-5101	TVP-5102	TVP-5103
Cross Line Detection	Yes	Yes	Yes
Intrusion Detection	Yes	Yes	Yes
Face Detection	No	No	Yes
Unattended Baggage Detection	No	No	No
Object Removal Detection	No	No	No
Audio Exception Detection	Yes	Yes	Yes
Region Entrance Detection	No	No	Yes
Region Exit Detection	No	No	Yes
Scene Change Detection	No	No	No
Defocus Detection	No	No	No
People/object Counting	No	No	No
Intelligent Tracking	No	No	Yes

Contact information and manuals /tools /firmware

For contact information and to download the latest manuals, tools, and firmware, go to the web site of your region.

Americas:	www.interlogix.com
EMEA:	www.firesecurityproducts.com
	Manuals are available in several languages.
Australia/New Zealand:	www.utcfs.com.au

Network connection

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

TruVision IP PTZ 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**.

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.

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.

Activating the camera

When you first start up the camera, the Activation window appears. You must define a high-security admin password before you can access the camera. There is no default password provided.

You can activate a password via a web browser and via TruVision Device Manager (included on the CD to find the IP address of the camera).

Activation via the web browser:

1. Power on the camera and connect the camera to the network.

2. Input the IP address in the address bar of the web browser, and click **Enter** to enter the activation interface
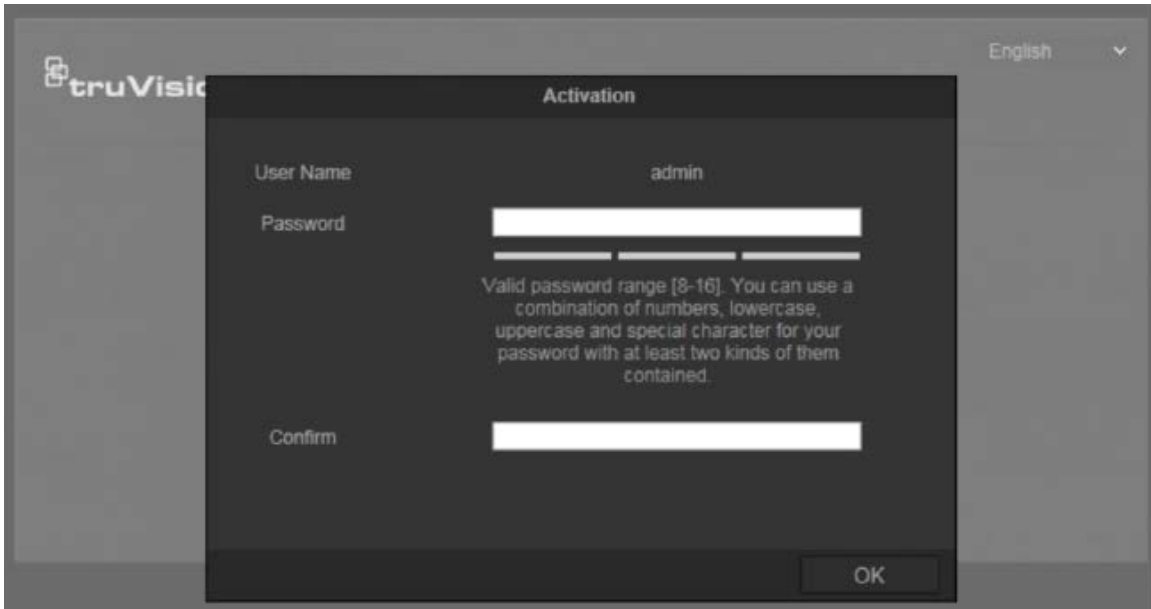
> **Note:**
>
> • The default IP address of the camera is 192.168.1.70.
>
> • For the camera to enable DHCP by default, you must activate the camera via TruVision Device Manager. Please refer to the following section, "Activation via TruVision Device Manager".

3. Enter the password in the password field.

   Note: A valid password range must be between 8 and 16 characters. You can use a combination of numbers, lower and upper case letters, and special characters : _ - , . * & @ / $? Space. The password must contain characters from at least two of these groups. We also recommend that you reset your password regularly. For high security systems, it is particularly recommended to reset the password monthly or weekly for better protection.

4. Confirm the password

5. Click **OK** to save the password and enter the live view interface.

Activation via the web browser:

1. Run the *TruVision Device Manager* to search for online devices.

2. Check the device status from the device list, and select the inactive device.
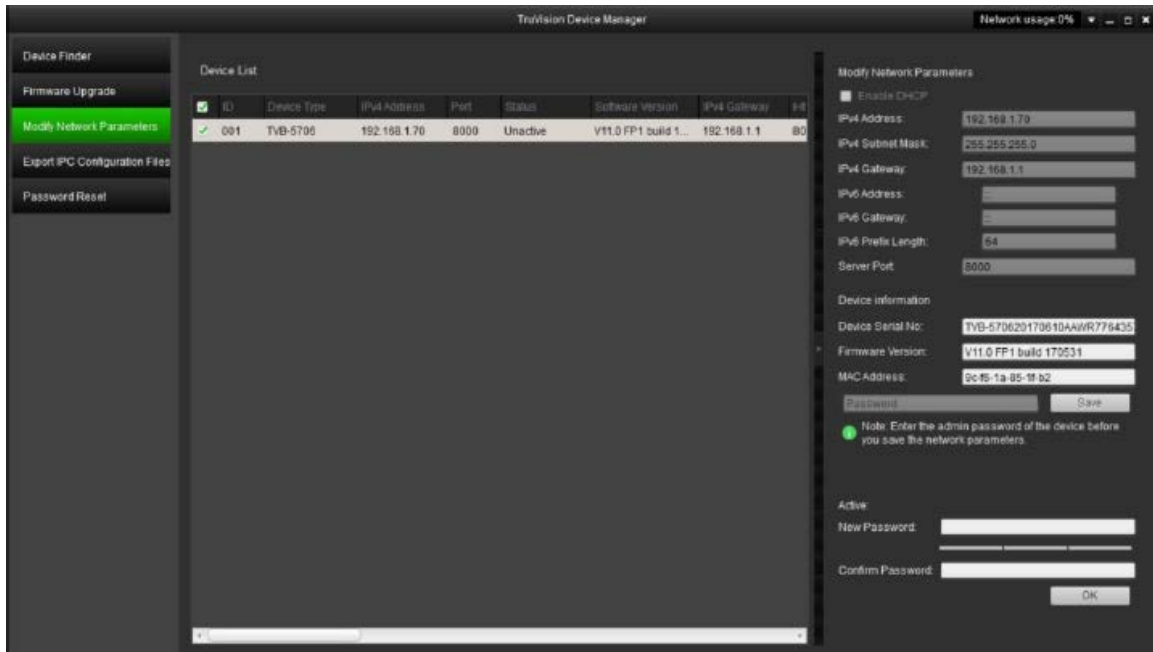
3. Enter the password in the password field, and confirm it.

   Note: A valid password range must be between 8 and 16 characters. You can use a combination of numbers, lower and upper case letters, and special characters : _ - , . * & @ / $? Space. The password must contain characters from at least two of these groups. We also recommend that you reset your password regularly. For high security systems, it is particularly recommended to reset the password monthly or weekly for better protection.

4. Click **OK** to save the password.

   A pop-up window appears to confirm activation. If activation fails, confirm that the password meets the requirements and try again.

5. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the check box of Enable DHCP.
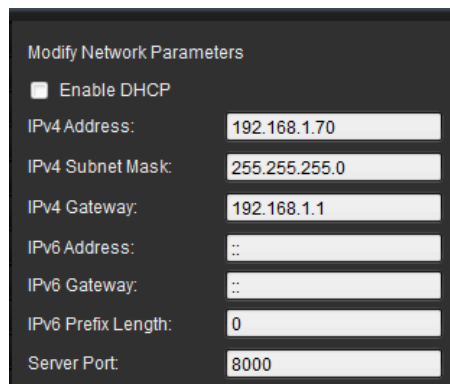
6. Input the password and click the **Save** button to activate your IP address modification.

Overview of the camera web browser

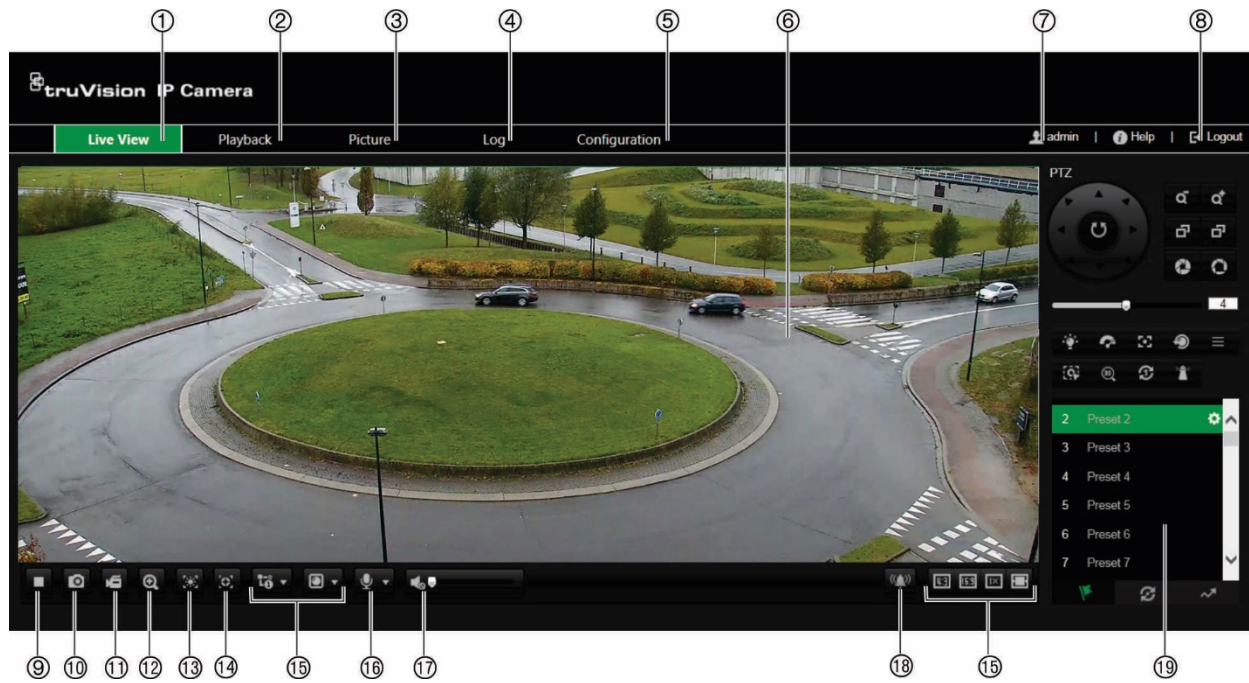The camera web browser lets you view, record, and play back recorded videos on the optional SD card as well as manage the camera from any PC with Internet access. The browser's easy-to-use controls give you quick access to all camera functions. See Figure 1 below.

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

	Name	Description
1.	Live view	Click to view live video.
2.	Playback	Click to play back video.
3.	Picture	Click to search for evet pictures and continues pictures
4.	Log	Click to search for event logs. There are three main types: Alarm, Exception, and Operation.
5.	Configuration	Click to display the configuration window for setting up the camera.
6.	Viewer	View live video. Time, date and camera name are displayed here.
7.	Current user	Displays current user logged on.
8.	Logout	Click to log out from the system. This can be done at any time.
9.	Start/stop live view	Click to start/stop live view.
10.	Capture	Click to take a snapshot of the video. The snapshot will be saved to the default folder in JPEG (or BMP) format. The directory of the folder can be set in Local Configuration >Browser Configuration.

	Name		Description
11.		Start/stop recording	Click to record live video. The video will be saved to the default folder and the directory of the folder can be set in Local Configuration > Browser Configuration.
12.		3D Zoom	Click to enable 3D zoom and draw a rectangle using the left mouse button to specify where you want to zoom in.
13.		Enable Regional Exposure	Click to enable regional exposure
14.		Enable Regional Focus	Click to enable regional focus
15.		Display Control	Click each tab to adjust the layout and the stream type of the live view. You can also click the drop-down menu to select the plug-in (WebComponents or QuickTime).
			For IE (internet Explorer) users, web components and Quick Time are selectable. For non-IE users, web components, QuickTime, VLC, or MJPEG are selectable if they are supported by the web browser.
16.		Bidirectional audio	Turn on/off the microphone (optional).
17.		Audio	Drag to adjust the volume.
18.		Manual Alarm	Click to trigger manual alarm
19.		PTZ control panel	Use this control panel to control pan/tilt/zoom and to carry out other camera functions, such as selecting presets.

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. The camera is configured using the browser.

There are two main folders in the configuration panel:

- Local configuration
- Configuration

Configuration menu overview

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

Figure 2: Configuration window (Device Information tab of the System folder selected)
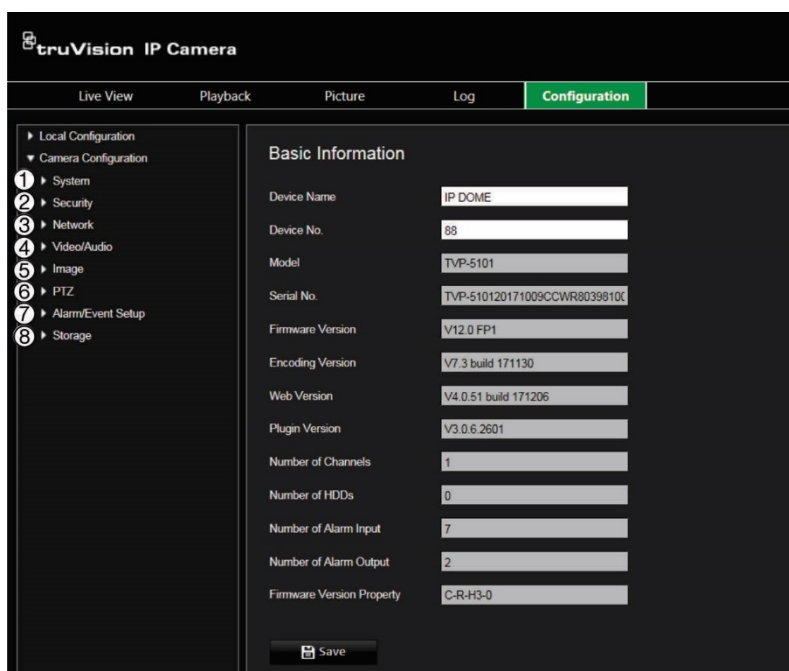
Item	Description
1. System	Defines device basic information including SN and the current firmware version, time settings, and maintenance parameters.

Item		Description
2.	Security	Defines who can use the camera, their passwords and access privileges, RTSP authentication, IP address filter, and telnet access.
3.	Network	Defines the network parameters required to access the camera over the internet.
4.	Video/Audio	Defines recording parameters.
5.	Image	Defines the image parameters, OSD settings and text overlay.
6.	PTZ	Defines the PTZ parameters and privacy masking.
7.	Alarm/Event Setup	Defines motion detection, tamper-proof, alarm input/output, exception, and audio exception detection.
8.	Storage	Defines recording schedule, storage management, NAS configuration and snapshot configuration.

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 below for descriptions of the different menu parameters.

Figure 3: Example of a configuration window
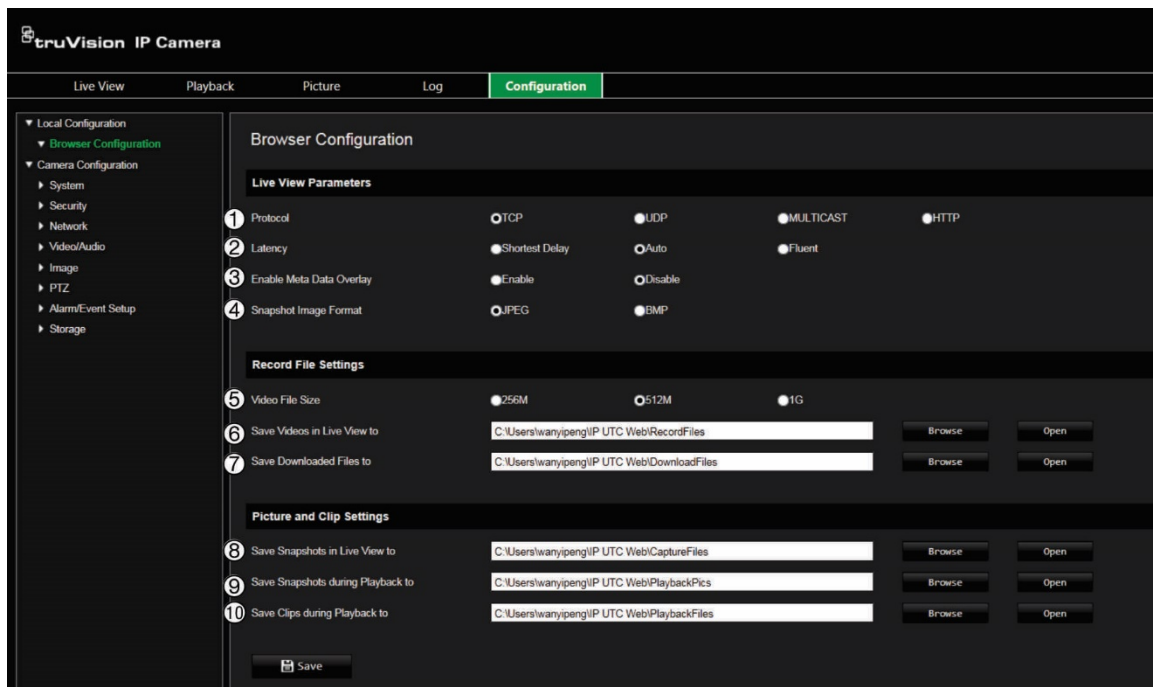
Parameters		Description
Live View Parameters		
1.	Protocol	Specifies the network protocol used. Options include: TCP, UDP, MULTICAST and HTTP.
2.	Latency	Specifies the transmission speed. Options include: Shortest Delay, Balanced or Fluent.

	Parameters	Description
3.	Enable Meta Data Overlay	It refers to the rules on your local browser. Specify whether or not to display the colored marks when motion detection is triggered. For example, when the rules option is enabled and motion is detected, the moving object will be marked with a green rectangle in live view.
4.	Snapshot Image Format	Choose the image format for a snapshot: JPEG or BMP.
	Record File Settings	
5.	Video File Size	Specifies the maximum file size. Options include: 256 MB, 512 MB and 1G.
6.	Save Videos in Live View 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 during Playback to	Specifies the directory for saving snapshots in playback mode.
10.	Save Clips during Playback 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. From the menu toolbar, click **Configuration** > **System** > **Time Settings**.
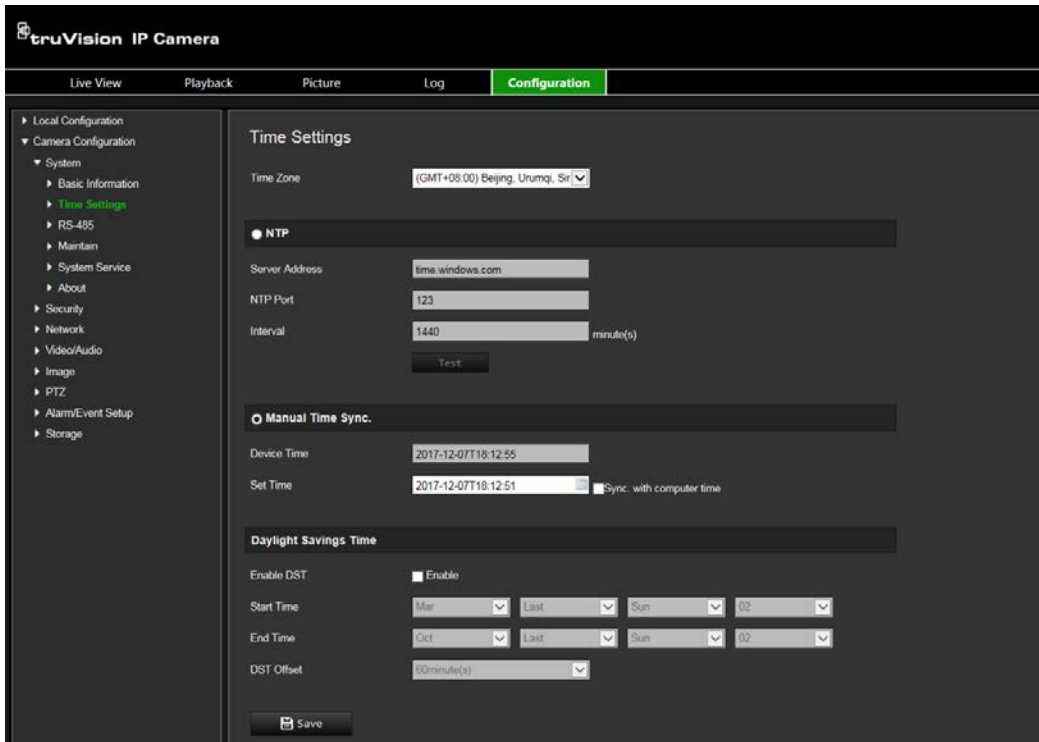
2. From the **Time Zone** drop-down menu, select the time zone that is the closest to the camera's location.

3. **NTP**: Enable the **NTP** function and enter the server NTP address to synchronize with an NTP server. The time interval can be set from 1 to 10080 minutes.

   -Or-

   Manual Time Sync.: 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. Select **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 below for further information.

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

	Parameters	Description
1.	TCP/IP	**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 Mask: Specifies the IPv6 subnet mask.
		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
	DNS Server: Specifies the DNS server for your network and the alternate DNS server that can be used.
	Host Name Configuration: Specifies the DNS name the user can define.
2. DDNS	Specifies IP server, DynDNS and ezDDNS.
3. PPPoE	Use this option when using a direct modem connection between the camera and ISP.
4. Port	**HTTP Port:** Specifies the port used for the Internet Explorer (IE) browser. Default value is 80.
	RTSP Port: Specifies the RTSP port. The default port number is 554.
	HTTPS Port: Specifies the HTTPS port. The default port number is 443.
	Server Port: Specifies the SDK port. The default port number is 8000.
5. NAT	A NAT (Network Address Translation) is used for network connection. Select the port mapping mode: auto or manual.
6. SNMP	Enable SNMP to report the camera status and parameters to SNMP software.
7. FTP	Specifies the FTP address and folder to which snapshots of the camera can be uploaded.
8. Email	Specifies the email address to which messages are sent when an alarm occurs.
9. HTTPS	Specifies authentication of the website and its associated web server, which protects against Man-in-the-middle attacks.
10. QoS	Enable to solve the network delay and network congestion by configuring the priority of data sending.
11. 802.1.X	When the feature is enabled, the camera data is secured and user authentication is needed when connecting the camera to the network.
12. Integration protocol	If you need to access to the camera through the third party platform, you can enable STD-CGI function. And if you need to access to the device through ONVIF protocol, you can configure ONVIF user in this interface. Refer to ONVIF standard for detailed configuration rules.

To define the TCP/IP parameters:

1. From the menu toolbar, click **Camera Configuration** > **Network** > **TCP/IP**.

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. In **Camera Configuration** > **Network** > **Port**.

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

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

To define the DDNS parameters:

1. From the menu toolbar, click **Camera Configuration** > **Network** > **DDNS**.

2. Check **Enable DDNS** to enable this feature.

3. Select **DDNS Type**. Two options are available: DynDNS and IPServer.

   - DynDNS: Enter the following information:

      - Domain name: DynDNS web site

      - Server address: members.dyndns.org

      - Host name: URL created in DynDNS

      - User name/password: login credentials for the DynDNS web site

      - Port: 443 (because the connection to members.dyndns.org is a HTTPS connection)

   - ezDDNS: Enter the host name. It will automatically register it online.

      You can define a host name for the camera. Make sure you entered a valid DNS server in the network settings and have the necessary ports forwarded in the router (HTTP, Server port, RSTP port).

   - **IPServer**: Enter the address of the IP Server.

4. Click **Save** to save changes.

To define the PPPoE parameters:

1. From the menu toolbar, click **Camera Configuration** > **Network** > **PPPoE**.

2. Check **Enable PPPoE** to enable this feature. The dynamic IP address is assigned automatically from the modem.

3. Enter User Name, Password, and Confirm password for PPPoE access.

4. Click **Save** to save changes.

To define the SNMP parameters:

Note: Before setting the SNMP, please download the SNMP software and manage to receive the camera information via 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.

1. From the menu toolbar, click **Camera Configuration** > **Network** > **SNMP**.

2. Select the corresponding version of SNMP: v1, v2c or v3.

   Note: Contact your network administrator for specific information on setting up this function.

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.

To define the 802.1x parameters:

Note: The switch or router to which the camera is connected must also support the IEEE 802.1X standard, and a server must be configured. Please apply and register a user name and password for 802.1X in the server.

1. From the menu toolbar, click **Camera Configuration** > **Network** > **802.1X**.

2. Check **Enable IEEE 802.1X** to enable the feature.

   Note: Contact your network administrator for specific information on setting up this function.

3. Configure the 802.1X settings, including EAPOL version, user name, and password. The EAPOL version must be identical with that of the router or the switch.

4. Click **Save** to save changes.

To define the QoS parameters:

1. From the menu toolbar, click **Camera Configuration** > **Network** > **QoS**.

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 bigger the DSCP value is the higher the priority is.

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

To define the FTP parameters:

1. From the menu toolbar, click **Camera Configuration** > **Network** > **FTP**.

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

   Directory: In the Directory Structure field, you can select the root directory, main directory and tab. 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 tab is selected, you can use the Camera Name, Camera No., or Custom 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 UPnP parameters:

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

4. Check the checkbox to enable the UPnP function. Edit the friendly name of the device when detected online can be edited.

4. Click Save to save changes.

To set up the Email parameters:

1. In **Camera 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 checkbox to enable SSL if it is required by the SMTP server.

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

I**nterval:** This is the time between two actions of sending attached images.

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

Receiver: The name of the user to be notified.

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

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

To set up the NAT parameters:

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

2. Check the checkbox to enable the NAT function.

3. Select **Port Mapping Mode** to be Auto or Manual. When you choose Manual mode, you can set the external port as you want.

4. Click **Save** to save changes.

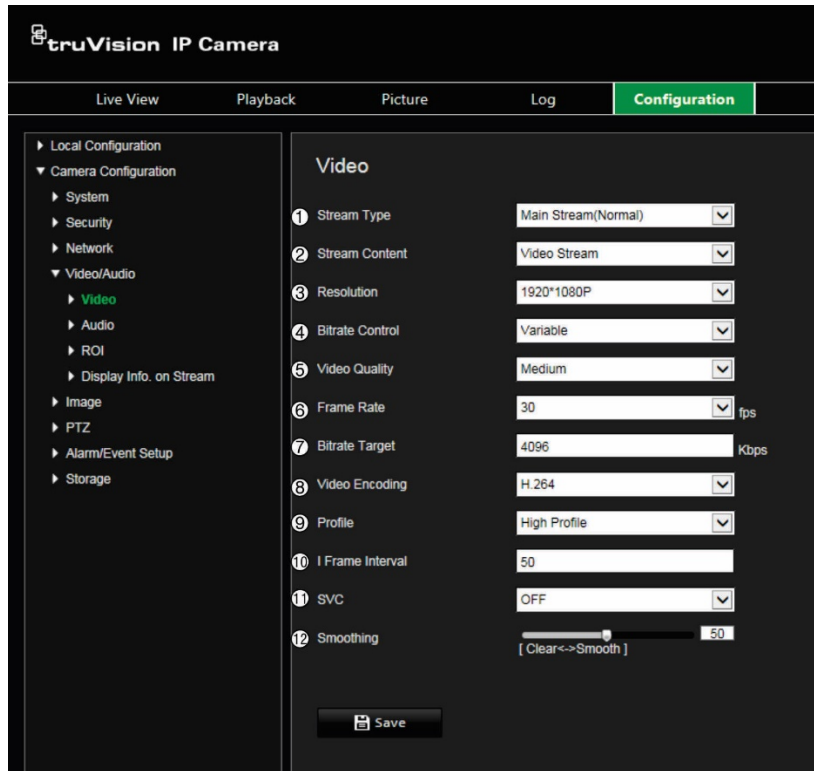## To set up the Integration protocol parameters:

1. Click **Camera Configuration** > **Network** > **Integration Protocol**.

2. Check the **Enable STD-CGI** checkbox and then select the authentication from the dropdown list. Then you can access to the camera through the third party platform.

3. Check the **Enable ONVIF** checkbox to enable the function.

4. Click **Add** to add a new ONVIF user. Set the user name and password, and confirm the password. You can set the user as media user, operator, and administrator.

5. Click **Modify** to modify the information of the added ONVIF user.

6. Click **Delete** to delete the selected ONVIF user.

7. Click **Save** to save changes.

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 below list the video and audio recording options you can configure for the camera.

Note: When you add the camera to a recorder, you need to set-up the recording parameters in the recorder.

**Figure 5: Video & Audio Settings menu (Video tab shown)**

Parameter	Description
1. Stream Type	Specifies the streaming method used.
	Options include: Main Stream (Normal), Substream, and Third Stream.
	Use main stream for live viewing and recording with high resolutions and bandwidth. Use substream when there is a bandwidth limitation, such as when using a mobile app. The third stream can be used for local live viewing or as a backup to the other streams.
2. Stream Content	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.
3. 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 sub stream is being used.
	Note: Resolutions can vary depending on the camera model.
4. Bitrate Control	Specifies whether variable or fixed bit rate is used. Variable produces higher quality results suitable for video downloads and streaming. Default is Constant.
5. 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.

| Parameter	Description
6. 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.
7. Bitrate Target	Specifies the maximum allowed bit rate. A high image resolution requires that a high bit rate must also be selected.
	Options include: 1024, 2048, 3072, 4096, 6144, 8192, 16384 and Custom (enter a value manually).
8. Video Encoding	Specifies the video encoder used.
9. Profile	Different profile indicates different tools and technologies used in compression. Options include: High Profile, Main Profile and Basic Profile.
10. I-frame Interval	A video compression method. It is strongly recommended to set the value to the selected fps or twice the selected fps.
11. SVC	Enable or disable scalable video codec (SVC).
12. Smoothing	Specified the smoothness of the stream. The higher the smoothing value, the more fluent the streaming, but the video quality may decrease. The lower the smoothing value, the higher video quality of the stream, but it may not appear fluent.

Figure 6: Audio settings menu

Note: This feature is only available for those camera models that support audio.
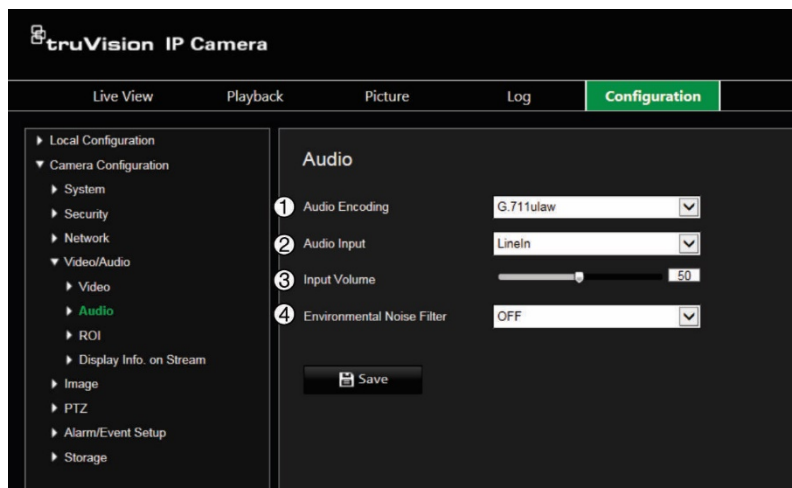
Parameter	Description
1. Audio Encoding	Select G.722.1, G.711ulaw, G.711alaw, MP2L2, G.726 or PCM as the audio encoding type.
2. Audio Input	Select "LineIn" or "MicIn" to select the type of audio input.
3. Input Volume	Specify the volume from 0 to 100.
4. Environmental Noise Filter	Set it as OFF or ON. When enabled, the noise detected can be filtered.

Figure 7: Display video analytics information menu
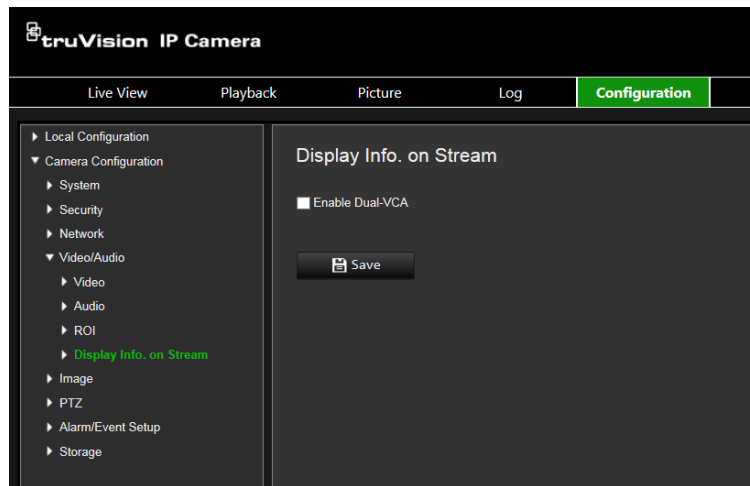
| Description |
| --- |
| When Dual-VCA mode is enabled, the camera sends video analytics results (metadata) to an NVR or other platforms to generate a VCA alarm. |

ROI encoding of an image

You can select an important area of detail or ROI (Region of interest) in a stream, such as a number plate or face. The ROI area will have a higher quality image and the non-ROI areas will have a lower image quality.

You can define up to eight ROIs.

To define an ROI:

1. From the menu toolbar, click **Camera Configuration** > **Video/Audio** > **ROI**.
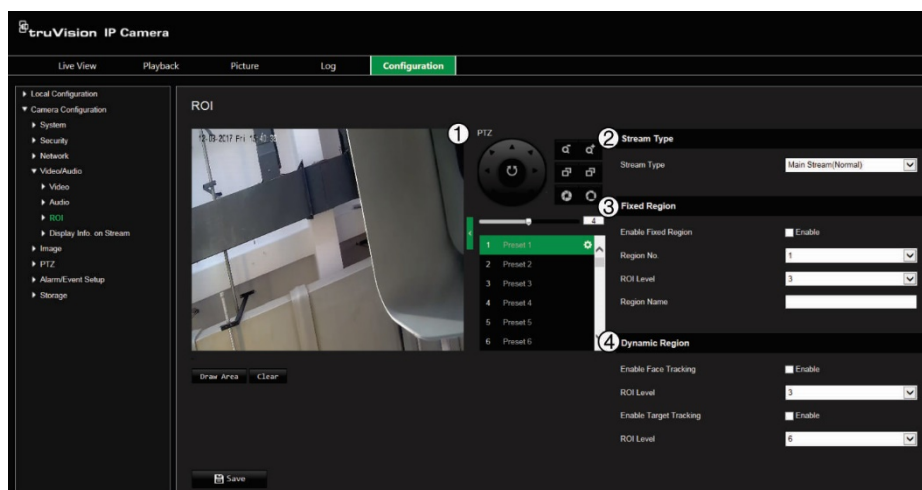
2. Using the PTZ panel (1), move the lens to the desired location.

3. Select the stream type (2): main stream, substream, or third stream.

4. Enable **Fixed Region** (3). This lets you manually configure the image quality enhancement level as well as name the region.

   Region No.: Select the region. Default is 1.

ROI Level: Choose the image quality enhancing level. Default is 6.

Region Name: Enter the desired region name.

5. Using the mouse, draw an area on the image.

6. Enable **Face Tracking** or **Target Tracking** (4), if required. This is an intelligent analysis feature that facilitates auto-tracking. Select the ROI level. Default is 6.

7. Repeat steps 2 to 6 to set other regions. Up to eight regions can be set.

8. Click **Save** to save changes.

PTZ parameters

The following sections explain how to configure the different PTZ parameters.

Initial position

The initial position is the PTZ home coordinates. It can be the factory default position or you can customize the initial position to your own requirements.

To set the initial position:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Initial Position**.

2. Click the PTZ control buttons to find a position as the initial position of the camera. You can also call a defined preset and set it as the initial position.

3. Click **Set** to save the position.
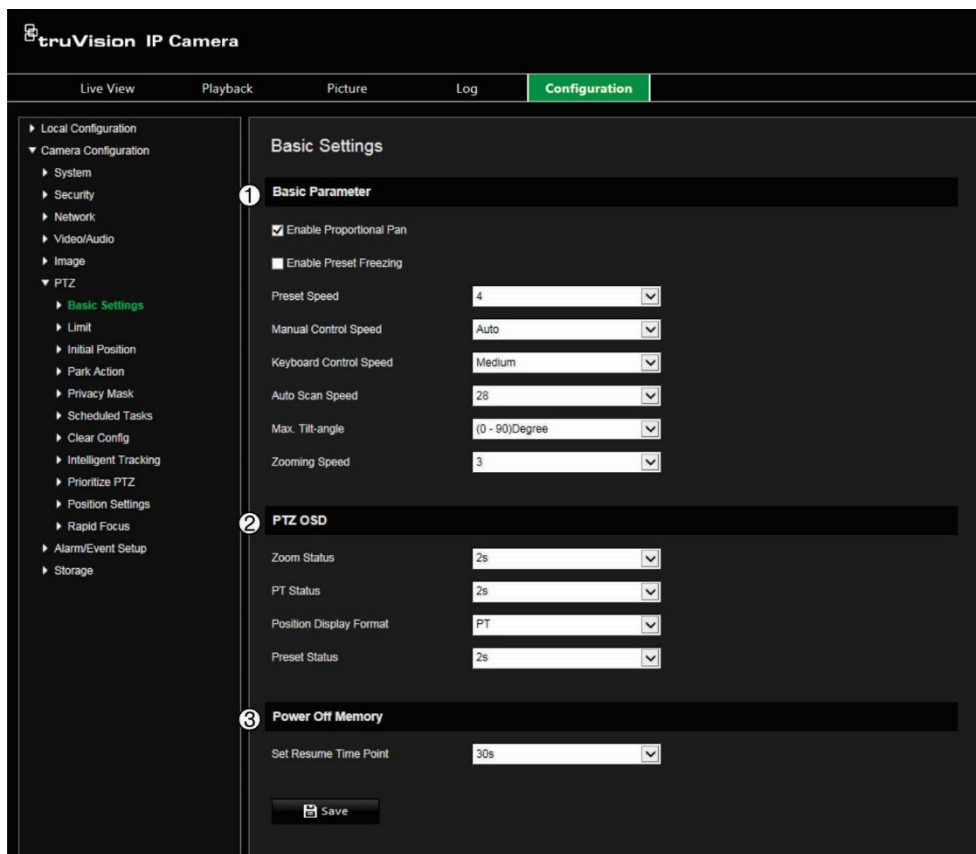
To call and delete the initial position:

Click **Call** to call the initial position. Click **Clear** to delete the initial position and restore the factory default initial position.

Basic PTZ parameters

You can configure the PTZ parameters, such as proportional pan, preset freezing, preset speed, keyboard control speed, auto scan speed, and PTZ OSD.

To define basic PTZ parameters:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Basic Settings**.

2. Configure the following settings:

1.	**Basic Settings:**	
	Proportional Pan	If you enable this function, the pan/tilt speeds change according to the amount of zoom. When there is a large amount of zoom, the pan/tilt speed will be slower for keeping the image from moving too fast on the live view image.
	Preset Freezing	This function enables live view to switch directly from one scene defined by a preset to another, without showing the middle areas between the presets. This helps ensure surveillance efficiency. It can also reduce the use of bandwidth in a digital network system. **Note**: Preset freezing function is invalid when calling up a shadow tour.
	Preset Speed:	You can set the speed of a defined preset from 1 to 8.
	Manual Control Speed	The manual control speed can be set as Compatible, Pedestrian, Non-motor Vehicle, Motor Vehicle or Auto. **Compatible:** The control speed is same as the Keyboard Control Speed. **Pedestrian:** Choose the **Pedestrian** when you monitor the pedestrians. **Non-motor Vehicle:** Choose the **Non-motor Vehicle** when you monitor the non-motor vehicles. **Motor Vehicle:** Choose the **Motor Vehicle** when you monitor the motor vehicles. **Auto:** You are recommended to set it as **Auto** when the application scene of the speed dome is complicated.
	Keyboard Control Speed	Define the speed of PTZ control by a keyboard as Low, Normal or High.

Auto Scan Speed	The camera provides five scan modes: auto scan, tilt scan, frame scan, random scan and panorama scan. The scan speed can be set from level 1 to 40.	
Max. Tilt Angle	You can set the maximum tilt angle of the lens. There are sixteen options: -15 to 90, -14 to 90, -13 to 90, -12 to 90, -11 to 90, -10 to 90, -9 to 90, -8 to 90, -7 to 90, -6 to 90, -5 to 90, -4 to 90, -3 to 90, -2 to 90, -1 to 90, 0 to 90.	
Zooming Speed	You can vary the zooming speed. The zooming speed can be set from level 1 to 3.	

2. **PTZ OSD:**

Set the on-screen display duration of the PTZ status.

Zoom Status	Set the OSD duration of zooming status as 2 seconds, 5 seconds, 10 seconds, Always Close, or Always Open
PT Status	Set the azimuth angle display duration while panning and tilting as 2 seconds, 5 seconds, 10 seconds, Always Close, or Always Open.
Preset Status	Set the preset name display duration while calling the preset as 2 seconds, 5 seconds, 10 seconds, Always Close, or Always Open.

3. Power-off Memory: | The dome resumes its previous PTZ status or actions after it restarts from a power off. You can set the time point at which the dome resumes its PTZ status. You can set it to resume at 30 seconds, 60 seconds, 300 seconds, or 600 seconds before power off.

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

Limit camera movement

The camera can be programmed to move only within a defined area. It can be limited in how much it can move left/right and up/down. This can be useful when you do not want an area, such as a neighboring building, to be included in the camera view.

To define the limit stop parameters:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Limit**.
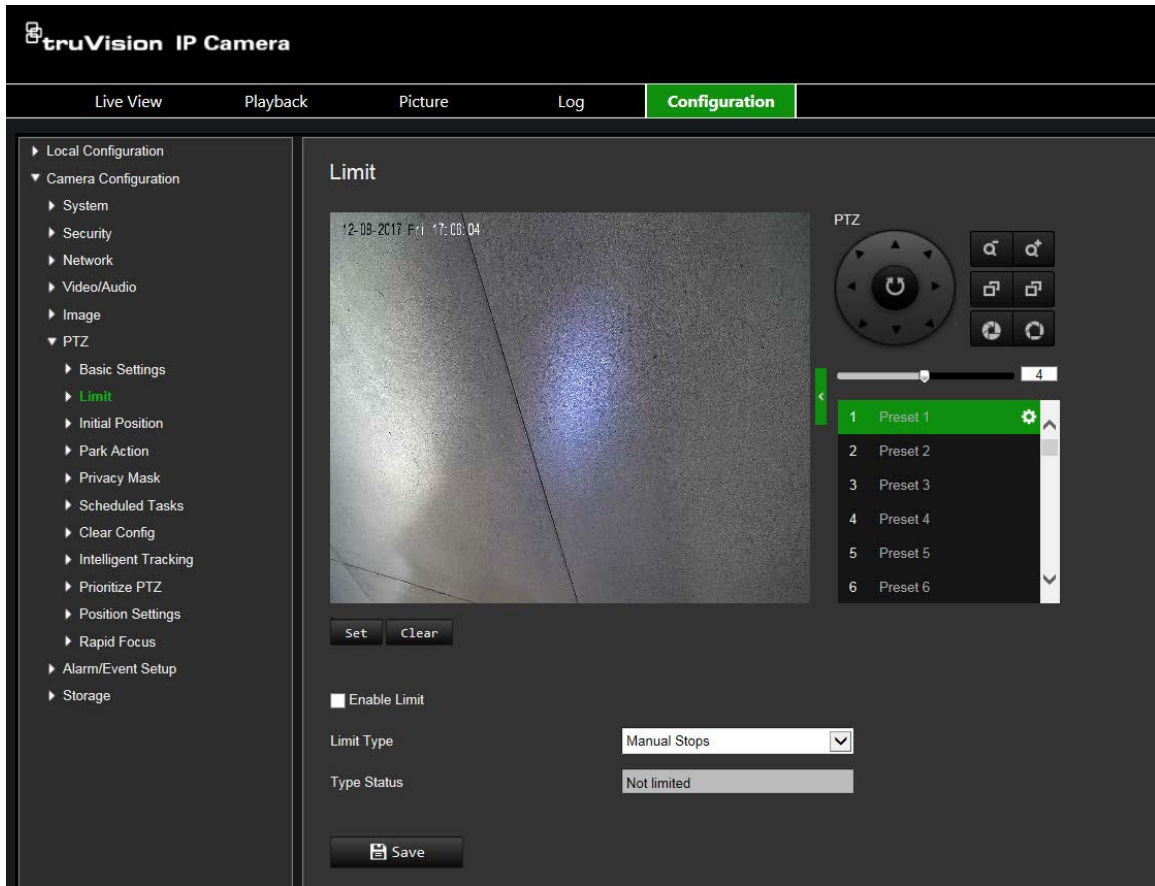
2. Click the **Enable Limit** checkbox to enable the limit function.

3. Click the **Set** button and use the PTZ control panel to set the limits of the camera movement. You can also call up defined presets and set them as the limits of the camera.

    Click **Clear** to delete the set limits.

4. Select the limit type.

    Manual Stops: When manual limit stops are set, you can operate the PTZ control panel manually only within the restricted surveillance area.

    Scan Stops: When scan limit stops are set, the random scan, frame scan, auto scan, tilt scan, panorama scan are performed only within the restricted surveillance area.

    Note: The option *Manual Stops* has priority over *Scan Stops*. If these two functions are set at the same time, only *Manual Stops* is enabled.

    The status of the camera movement is displayed under **Type Status** as *Not Limited* or *Limited*. The limits changes are saved automatically
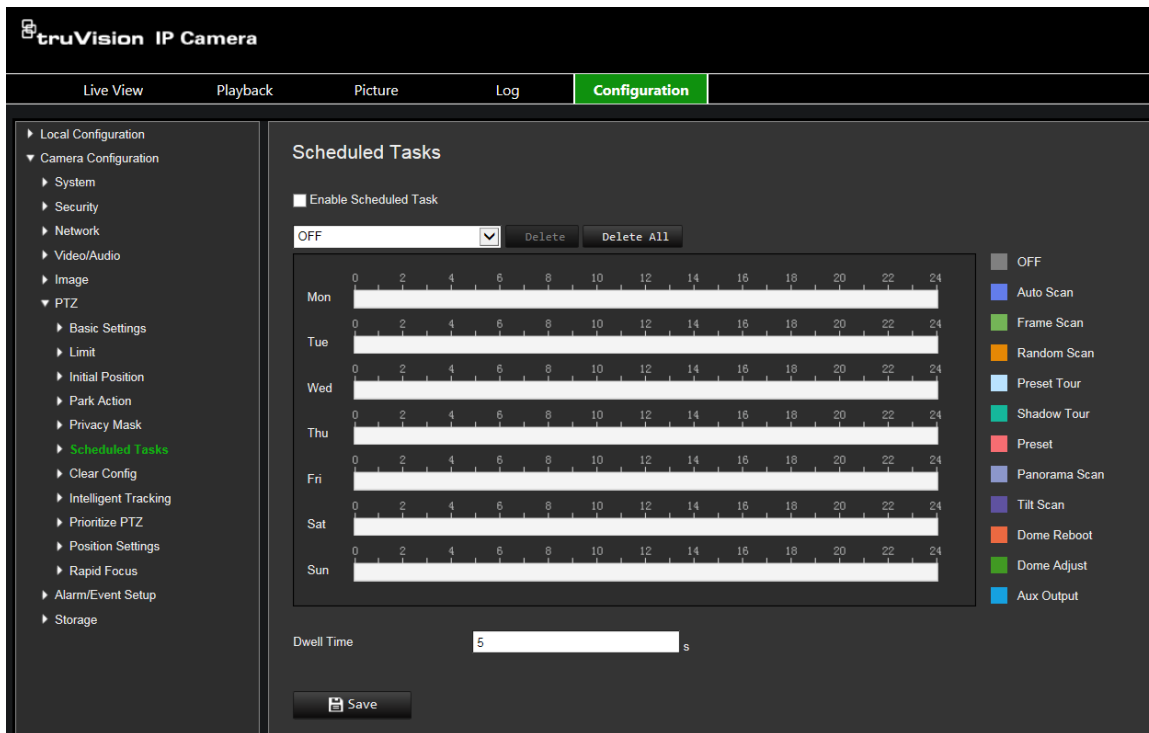
5. Click **Save** to save changes.

Scheduled tasks

You can configure the camera to perform a specific action automatically during a user-defined time period.

To define a scheduled task:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Scheduled Tasks**.

2. Check the checkbox of **Enable Scheduled Task**.

3. Choose the task type from the drop-down list. You can choose from one of the following:

OFF	Preset Tour	Tilt Scan
Auto Scan	Shadow Tour	Dome Reboot
Frame Scan	Preset	Dome Adjust
Random Scan	Panorama Scan	Aux Output

Set the schedule by dragging the mouse pointer on the time bar of the desired day.

—Or–

Click the time bar of the desired day. The pop-up *Timing Tasks* window appears. Select the desired task from the drop-down list and set its schedule:
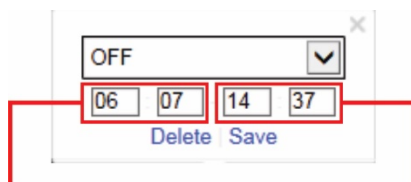
Enter the task start time (hour and minutes)

Enter the task end time (hour and minutes)

Click **Save** to save the settings. Select more tasks and their schedule, if desired.

Note: The color of the scheduled period is that of the selected task type. Multiple task schedules can be set for each day.

4. Set the **Dwell Time**. You can set the dwell time in seconds (a period of inactivity) before the camera starts the scheduled tasks.

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

Park actions

This is the action that will run automatically after the dwell time. A park action can be, for example, a scan, preset, preset tour, or a shadow tour.

Note: The *Scheduled Tasks* function (see page 26) has priority over the *Park Action* function. If these two functions are set at the same time, only *Scheduled Tasks* is enabled.

To define a park action:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Park Action**.
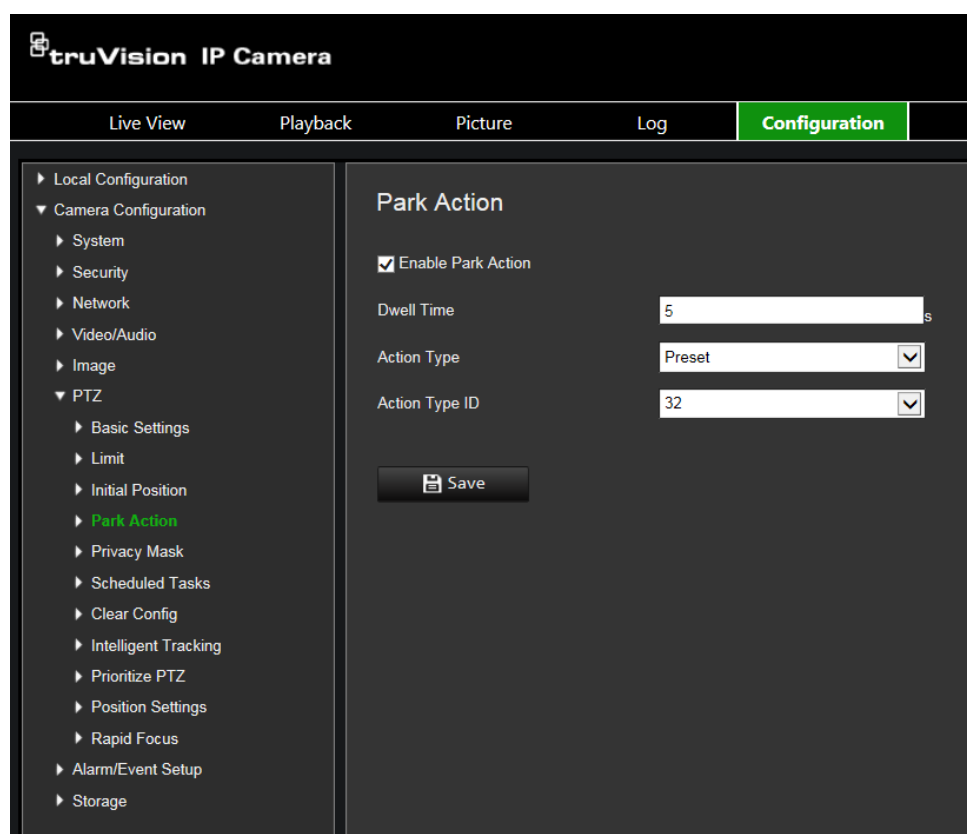
2. Select **Enable Park Action**.

3. Set the **Dwell Time**, which is the inactivity time of the dome before it starts the park action.

4. Select an action from the **Action Type** drop-down list. You can choose from one of the following:

Auto Scan	Preset Tour	Panorama Scan
Frame Scan	Shadow Tour	Tilt Scan
Random Scan	Preset	

5. If you select Preset Tour, Shadow Tour or Presets as Action Type, you need to select **Action Type ID** from the drop-down list.

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 24 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.

To add privacy mask area:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Privacy Mask**.
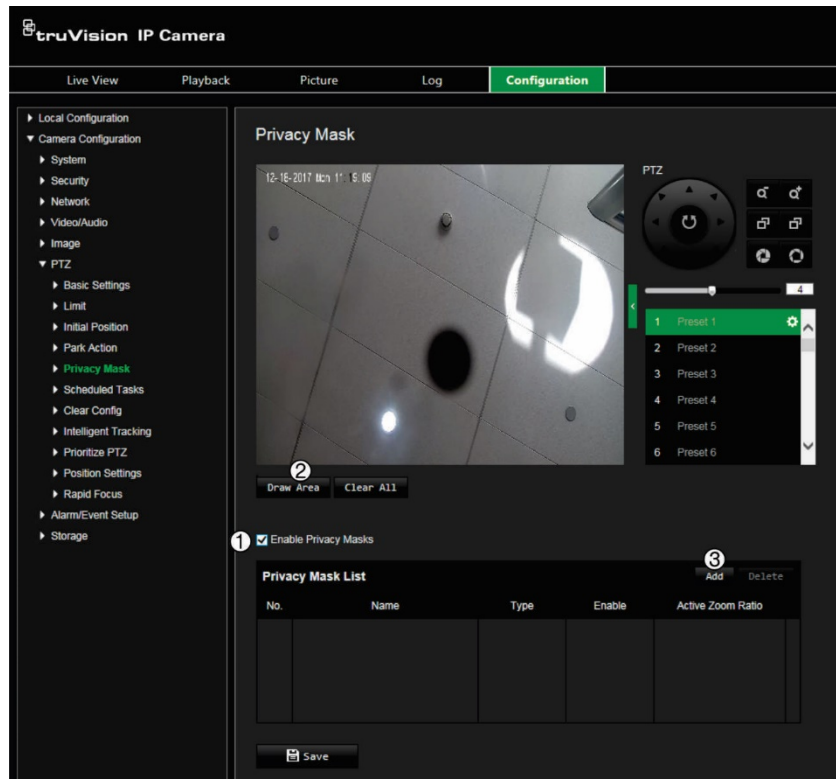
2. Select **Enable Privacy Masks** (1).

3. Using the PTZ control buttons, point the camera at the desired area, or select a predefined preset position, where you want to set the privacy mask.

4. Click the **Draw Area** button (2). Click and drag the mouse in the live video window to draw the mask area.

5. Click **Stop Drawing** to finish drawing, or click **Clear All** to clear all of the areas you set without saving them.

6. Click **Add** (3) to add the area. Enter its name, color, and active zoom ratio. Each mask can be individually set.

| Privacy Mask List | | | | Add | Delete |
No.	Name	Type	Enable	Active Zoom Ratio	
1	Privacy Mask 1	green	Yes	1	
2	Privacy Mask 2	blue	Yes	1	
3	Privacy Mask 3	yellow	Yes	1	

Note: The active zoom ratio is the magnification level the camera will zoom into when motion is detected.
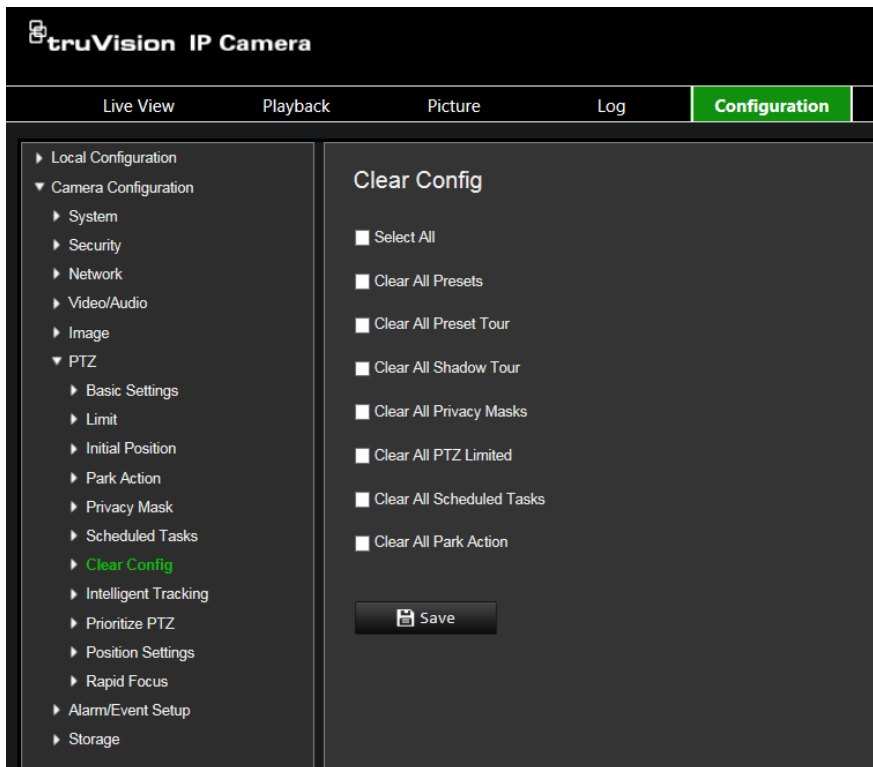
7. Click **Save** to save changes.

Clear PTZ configurations

Use the PTZ configurations menu to clear all presets, preset tours, shadow tours, privacy masks, PTZ limits, scheduled tasks, and park actions.

To clear PTZ configurations:

1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Clear Config**.

2. Select the options that you want to clear:

Select All	Clear All Shadow Tour	Clear All Scheduled Tasks
Clear All Presets	Clear All Privacy Masks	Clear All Park Action
Clear All Presets Tour	Clear All PTZ Limited	

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

Intelligent tracking

Intelligent tracking is used to track a moving object or person in a selected region.

To define intelligent tracking:

1. From the menu toolbar, click **Configuration** > **PTZ** > **Intelligent Tracking**.
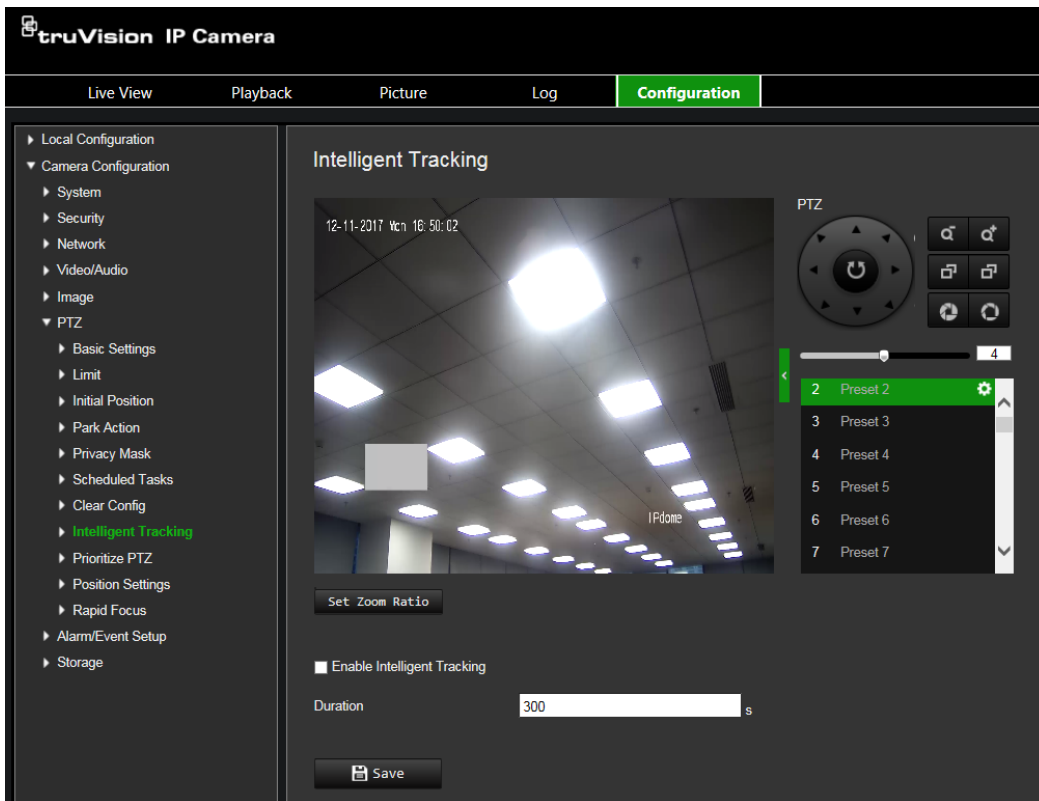
2. Select **Enable Intelligent Tracking**.

3. Using the PTZ control buttons, point the camera at the desired area, or select a predefined preset position, where you want to set intelligent tracking.

4. Set the duration time. This is the time during which the camera follows the moving object or person. You can select up to 300 seconds.

5. Set the zoom ratio (2). This is the zoom level used when you start to track the person or object.

6. Click **Save** to save changes.

Prioritize PTZ

The PTZ dome can be controlled by network and RS-485 signals. You can set the control priority of these two signals.

To define Prioritize PTZ:

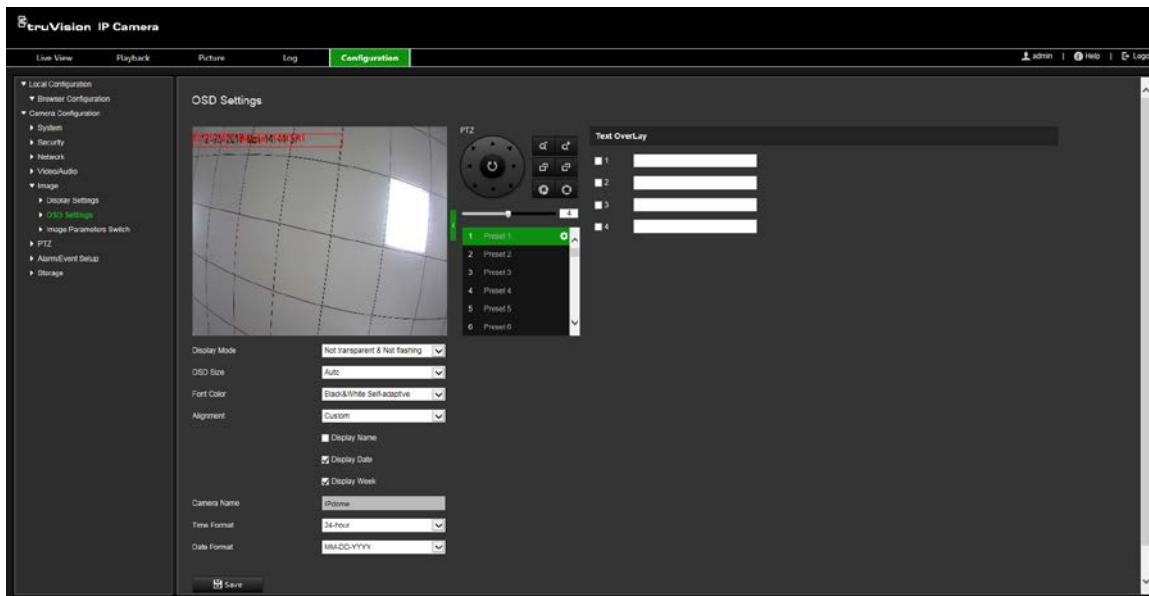1. From the menu toolbar, click **Camera Configuration** > **PTZ** > **Prioritize PTZ**.
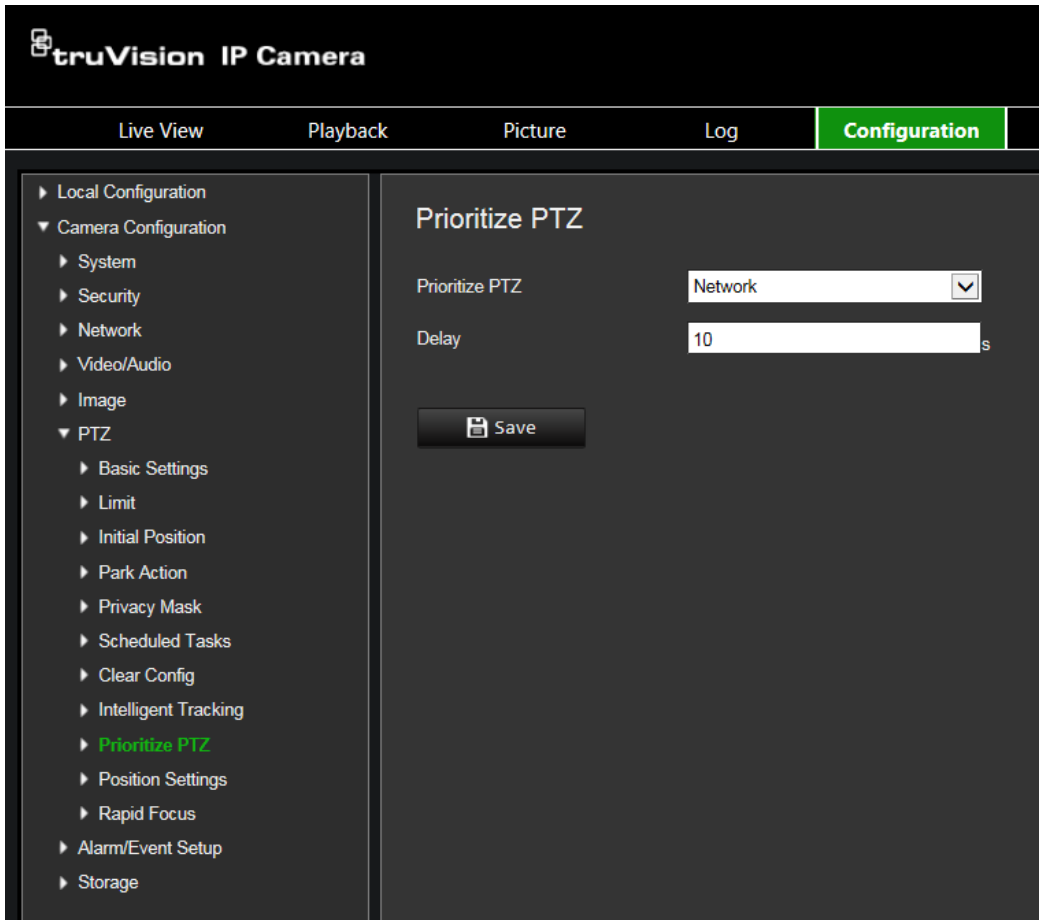
2. Select Network or RS-485 from the drop-down list.

3. Set the delay time (the range is between 2 and 200 s).

4. Click **Save** to save changes.

Overlay text

You can add up to eight 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 8 below.

Figure 8: Text overlay menu

To add on-screen text:

1. From the menu toolbar, click **Camera Configuration** > **Image** > **OSD Settings**.

2. Select the check box for the first line of text and enter the desired text in the text box.

3. Use the mouse to click and drag the red text in the live view window to adjust the text overlay position.

4. Repeat steps 2 to 4 for each extra line of text, selecting the next string number.
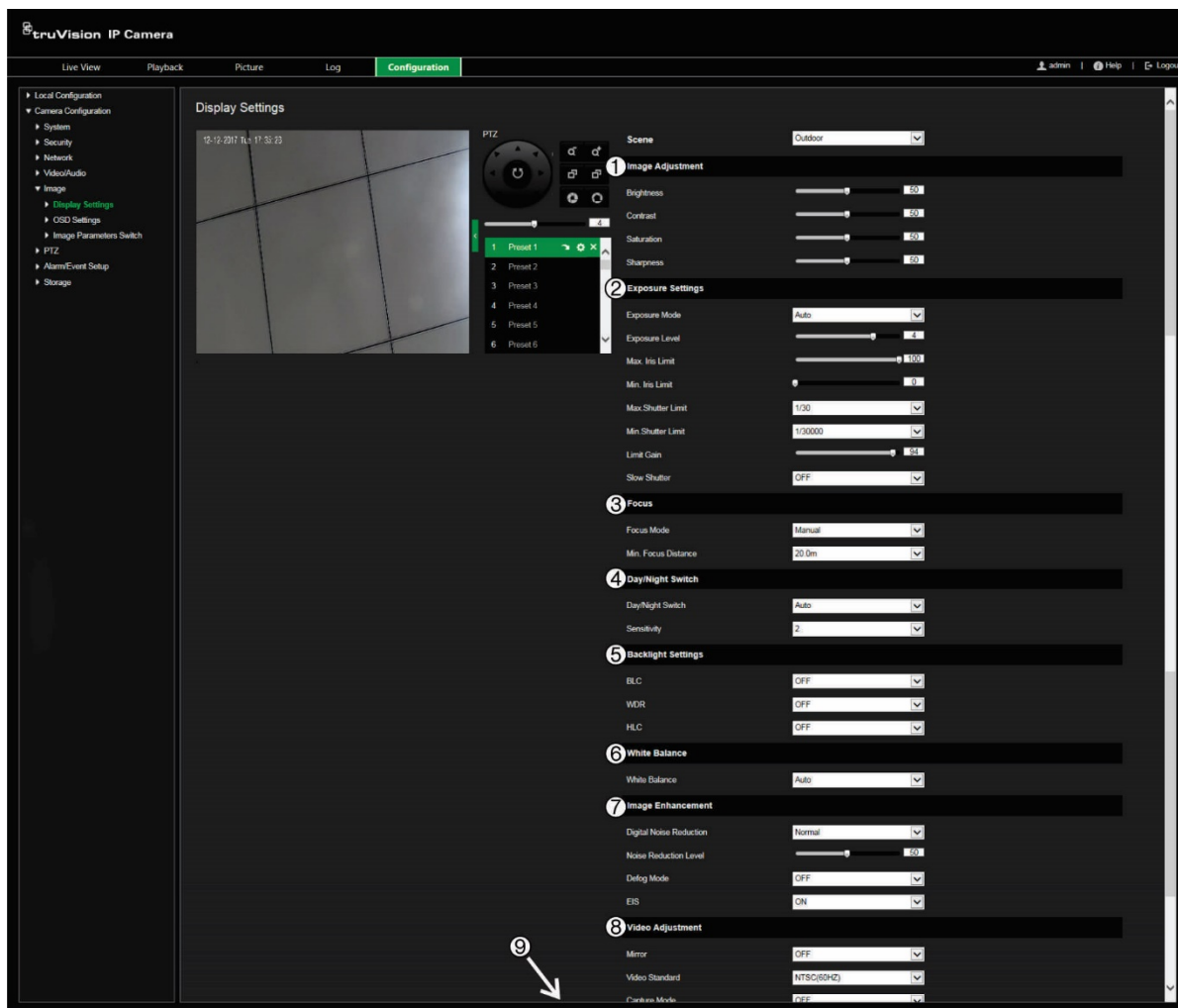
5. Click **Save** to save changes.

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.

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, white balance, and indoor/outdoor mode. See Figure 9 below for more information.

Click the Default button at the bottom of the screen to return all settings to factory default values.

Figure 9: Camera image settings menu

Parameter	Description
1. Image Adjustment	
Brightness, Contrast Saturation, Sharpness	Modifies the different elements of picture quality by adjusting the position of the values for each of parameter.
2. Exposure Settings	
Exposure Mode	The Exposure Mode can be set to Auto, Iris Priority, Shutter Priority, and Manual.
	Auto: The iris, shutter and gain values will be adjusted automatically according to the brightness of the environment.
	Iris Priority: The value of iris needs to be adjusted manually. The shutter and gain values will be adjusted automatically according to the brightness of the environment.
	Shutter Priority: The value of shutter needs to be adjusted manually. The iris and gain values will be adjusted automatically according to the brightness of the environment.
	Manual: You can adjust the values of Gain, Shutter, and Iris manually.
Limit Gain	This feature is used to adjust the image gain. The value ranges from 0 to 100.

Parameter	Description
Slow Shutter	The shutter speed controls the length of time that the aperture is open to let light into the camera through the lens. A slow shutter speed means it is open for longer. Select On or Off.
Slow Shutter Level	If Slow Shutter is enabled, use this feature to adjust the shutter speed. Default value is Slow Shutter*2.

3. Focus Settings

Parameter	Description
Focus Mode	If the camera supports an electronic lens, you can set the focus mode as Manual, Auto or Semi-auto. **Auto**: The camera focus is adjusted automatically. **Manual**: You can control the lens by adjusting the zoom, focus, lens initialization, and auxiliary focus via the PTZ control interface. Default is Manual. **Semi-auto**: The camera focuses automatically only once after panning, tilting and zooming.
Minimum Focus Distance	This function is used to set the limit of the minimum focus distance. The value can be set to 10 cm, 50 cm, 1.0m, 1.5 m, 3 m, 6 m, 10 m, or 20 m.

4. Day/Night Switch

Parameter	Description
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. Select one of the options: **Day**: Camera is always in day mode. **Night**: Camera is always in night mode. **Auto**: The camera automatically detects which mode to use. **Scheduled-Switch**: Select the start and end times for day mode

5. Backlight Settings

Parameter	Description
BLC	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.
WDR	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. Default is Off.
HLC	Highlight compensation (HLC) is a camera technology that detects if there are any strong spots of light and compensates for the area as needed to produce clearer images. Used to read, for example, car number-plates in streets or parking lots at night. Default is Off.

6. White Balance

| Parameter	Description
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: **MWB**: Manually adjust the color temperature to meet your own requirements. **Outdoor**: Apply for outdoor environments. **Indoor**: Apply for indoor environments.

Parameter	Description
	Fluorescent Lamp: Apply for scene where there are fluorescent lamps installed near the camera.
	Sodium Lamp: Apply for scene where there are incandescent lamps near the camera.
	ATW: White balance is continuously being adjusted in real-time according to the color temperature of the scene illumination.
	Auto: White balance is determined automatically.
7. Image Enhancement	
Digital Noise Reduction	Digital noise reduction (DNR) reduces noise, especially in low light conditions, to improve image performance. Select one of the options:
	Normal: Standard DNR. Default.
	Advanced: Set up the Space DNR level and the Time DNR level. *Space DNR* level is used to reduce static noise, but if you configure a higher value, the image may be not clear. *Time DNR* level is used to reduce dynamic noise. If you configure a higher value, the moving object may have an obvious shadow.
	OFF: Disable the function.
Noise Reduction Level	Only available when DNR is set to Normal Mode. Set the level of noise reduction in the Normal Mode. Higher value has a stronger noise reduction. Default is 50.
Defog Mode	You can enable the defog function when the environment is foggy and the image is misty. It enhances the subtle details so that the image appears clearer. Default is Off.
EIS	Electrical Image Stabilizer (EIS) reduces the effects of vibration in a video. Default is Off.
8. Video Adjustment	
Mirror	It mirrors the image so you can see it inversed. Center, or OFF are selectable.
Video Standard	50 Hz and 60 Hz are selectable. Select the standard according to the different video standards; normally 50 Hz for PAL standard and 60 Hz for NTSC standard.
Capture Mode	Set the desired frame rate to meet the different demands of field of view and resolution. A higher frame rate may be required in a location with a lot of movement (such as a money depot).
9. Other	
Lens Initialization	Enable the option so that the lens operates the movements for initialization. Default is Disabled.
Zoom Limit	Set the limit of the maximum value of zooming.

Note: Not all models support all these parameter settings.

OSD

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.

Figure 10: OSD settings menu
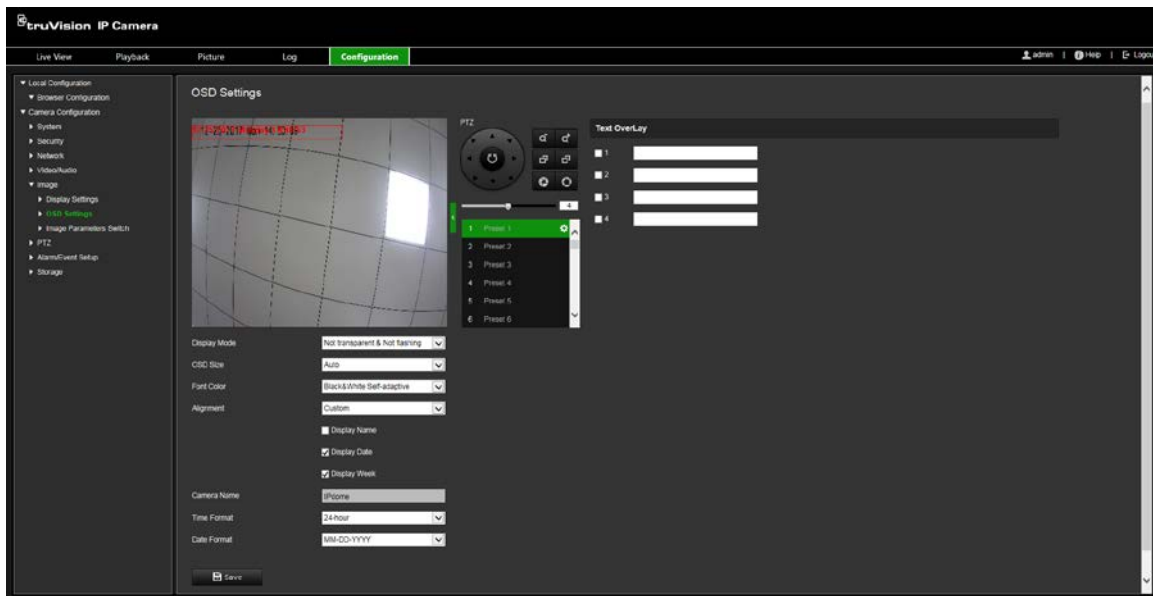
**To position the date/time and name on screen:**

1. From the menu toolbar, click **Camera Configuration** > **Image** > **OSD Settings**.

2. Select the **Display Name** box to display the camera's name on screen. You can modify the default name in the text box of **Camera Name**.

3. Select the **Display Date** check box to display the date/time on screen.

4. Select the **Display Week** check box to include the day of the week in the on-screen display.

5. Select the time format from the **Time format** list box.

6. Select the date format from the **Date format** list box.

7. Select a display mode for the camera from the **Display Mode** list box. Display modes include:

   • **Transparent & Not flashing**. The image appears through the text.

   • **Transparent & Flashing**. The image appears through the text. The text flashes on and off.

   • **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 OSD size that you want.

9. Select the font color: Black & White Self-adaptive or Custom. If *Custom* is selected, click the color palette icon and select the desired color.

10. Using the mouse, place the red OSD text box in the desired positon on screen.

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

Note: If you set the display mode as transparent, the text varies according the scenery. With some backgrounds, the text may be not clear.

Image parameters switch

You can configure **Link to Preset** or **Scheduled-Switch** in this interface. **Link to Preset:** Set the time period and linked scene for the preset and check the corresponding checkbox to go to the linked scene in the configured time period. **Scheduled-Switch:** Set the time period and linked scene and it will go to the linked scene in the configured time period when you check the corresponding checkbox.

Figure 11: Image parameters switch menu
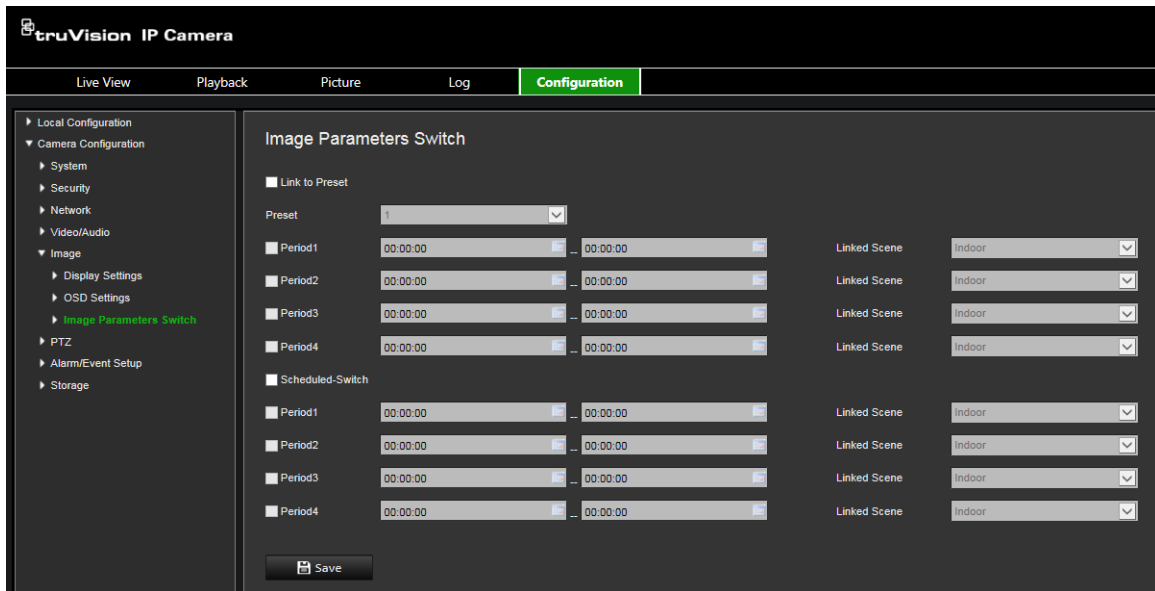
To set the Image Parameters Switch:

1. From the menu toolbar, click **Camera Configuration** > **Image** > **Image Parameters Swtich**.

2. Select **Link to Preset** or **Scheduled-Switch**. (Only one function can be enabled at the same time.)

3. To set up the image parameter switch based on presets, enable **Link to Preset**.

    Select a predefined preset from the drop-down list (see "Using presets" on page 72 for information on setting up a preset).

    Select a period check box and set the start and end time periods as well as the linked scene. Up to four periods can be configured for a selected preset.

4. To set up the image parameter switch based on scheduled periods, enable **Scheduled-Switch**.

    Select a period check box and set the start and end time periods and linked scene. Up to four scheduled periods can be configured.

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

Note: The two functions are not enabled by default.

Motion detection alarms

You can define motion detection alarms to detect motion when the camera is not moving. 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 in green.

Defining a motion detection alarm requires the following tasks:

Figure 12: Motion detection window
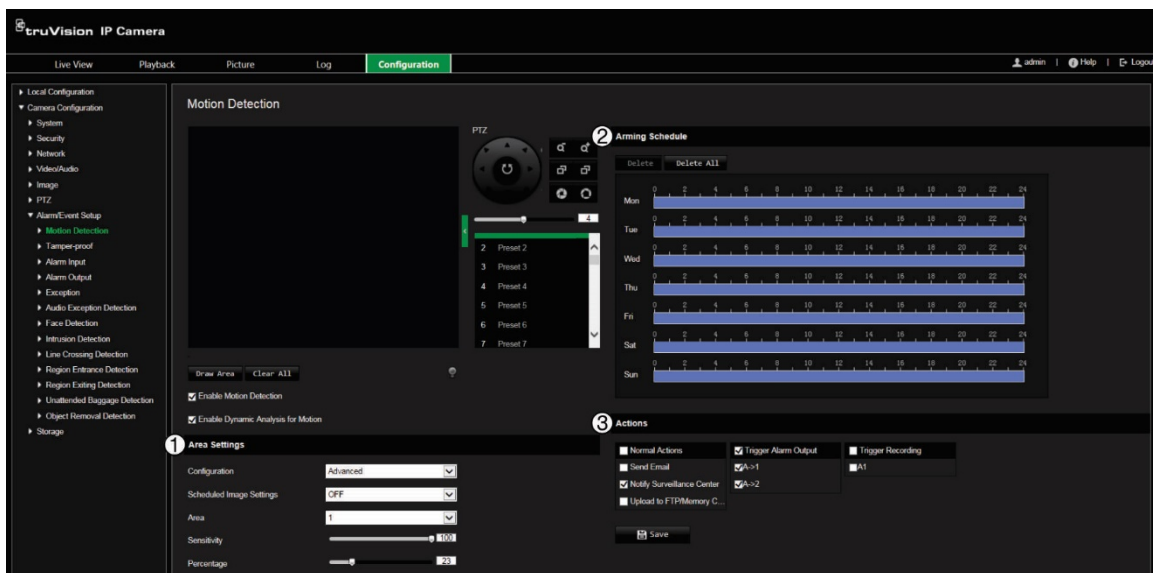
1. **Area Settings**: Define the on-screen area that can trigger a motion detection alarm as well as the detection sensitivity level (see Figure 12, item 1).

2. **Arming Schedule**: Define the schedule which the system detects and records motion (see Figure 12, item 2). See "Recording schedule" on page 53 for further information.

3. **Actions**: Specify the method of response to the alarm (see Figure 12, item 3).

To set up motion detection:

1. From the menu toolbar, click **Camera Configuration** > **Alarm/Event Setup** > **Motion Detection**.

2. Select **Enable Motion Detection**. Select **Enable Dynamic Analysis for Motion** if you want to see in live view where the detected motion has occurred.

   Note: Deselect the "Enable Motion Detection" option to disable the motion detection alarm.

3. Click **Draw Area**. Click and drag the mouse on the live video image to draw an area sensitive to motion detection.

4. Click **Stop Drawing** to finish drawing. Click **Clear All** to delete all areas marked and restart drawing.

5. Move the **Sensitivity** slider to set the sensitivity of the detection. All areas will have the same sensitivity level.

6. Drag and click on the time bar to edit the arming schedule.

Enter the start time (hour and minutes)   Enter the end time (hour and minutes)
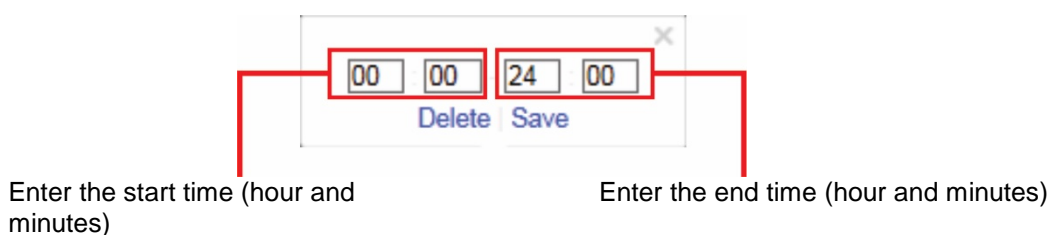
6. You can copy the schedule to other days or to the whole week by clicking 🔲.

7. Specify the actions when an event occurs. Check one or more response actions for the system when a motion detection alarm is triggered.

Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Trigger Recording	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

8. 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. From the menu toolbar, click **Camera Configuration** > **Alarm/Event Setup** > **Tamper-proof**.
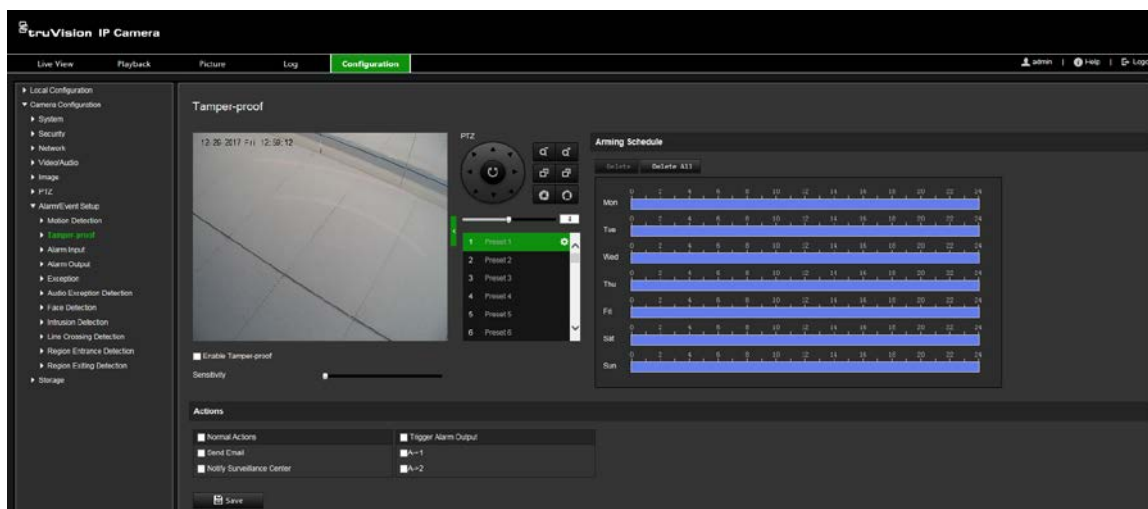
2. Select the **Enable Tamper-proof** check box.

3. Move the **Sensitivity** slider to set the detection sensitivity.

4. Set the arming schedule for tamper-proof alarms. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

5. Select the actions to be used for the tamper-proof detection. The options are:

Notify Surveillance Center	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.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

6. Click **Save** to save changes.

Alarm Input

To define an external alarm input:

1. From the menu toolbar, click **Camera Configuration** > **Alarm/Event Setup** > **Alarm Input**.
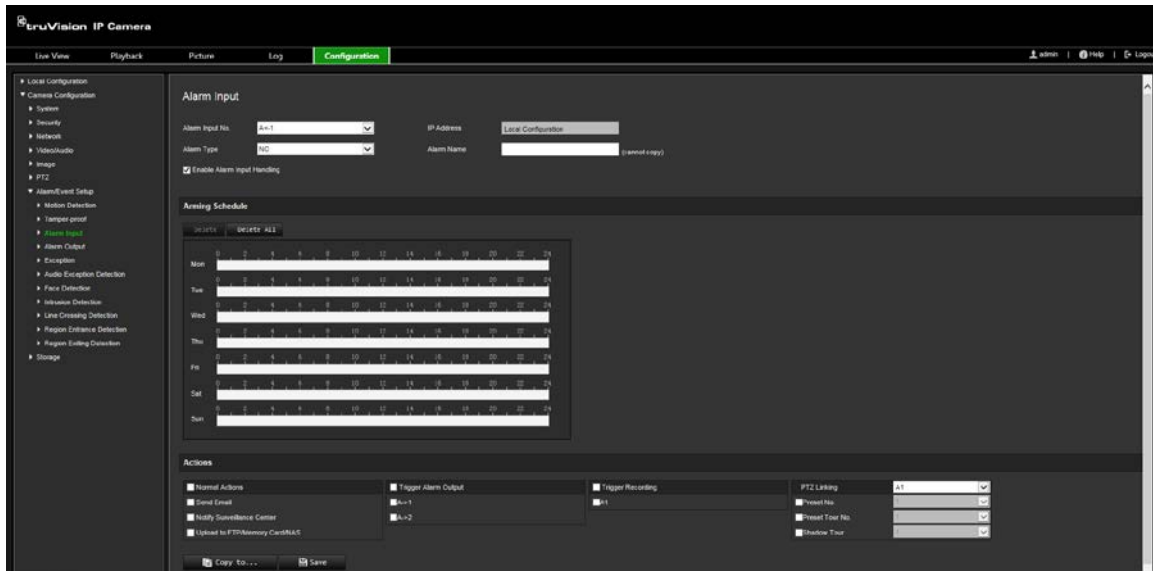
2. Select the **Alarm Input No.** and the **Alarm Type**. The alarm type can be NO (Normally Open) or NC (Normally Closed). Enter a name for the alarm input.

3. Set the arming schedule for the alarm input. See "Motion detection alarms" on page 39 for more information on scheduling.

4. Select the actions to be used for the alarm input. The options are:

   Normal Actions: Notify Surveillance Center, Send Email, Upload to FTP/Memory Card/NAS

   Other Actions: Trigger Alarm Output, Trigger Recording, PTZ Linking

   For *Trigger Alarm Output* the options are: Trigger Alarm Output, A->1, or A->2.

   For *PTZ Linking* the options are: Preset No., Preset Tour No., or Shadow Tour No., and enter the desired number.

5. To copy the alarm setup to another alarm input, select one of the options shown under **Copy to Alarm**.

6. Click **Save** to save changes.

Alarm Output

To define an alarm output:

1. From the menu toolbar, click **Camera Configuration** > **Alarm/Events Setup**> **Alarm Output**.
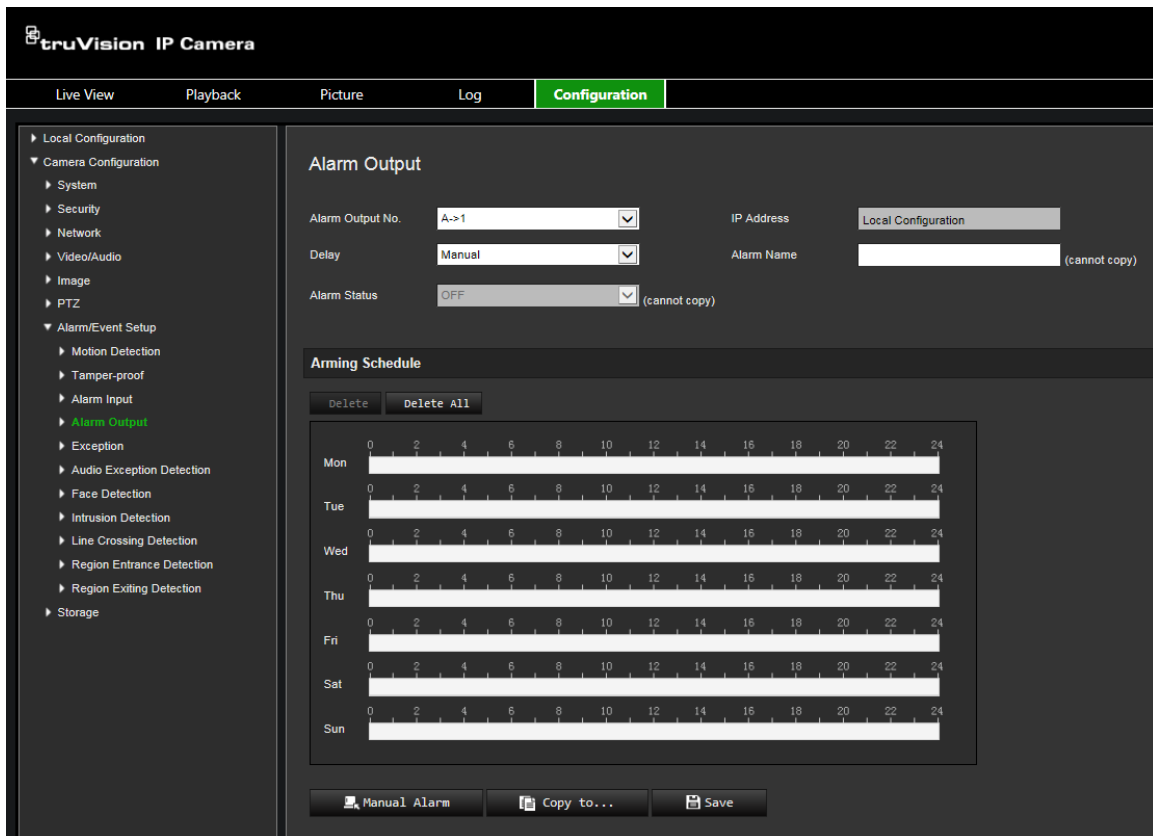
2. Select one alarm output channel from the **Alarm Output** drop-down list. You can also set a name for the alarm output.

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

4. Set the arming schedule for the alarm output. See "Motion detection alarms" on page 39 for more information on scheduling.

5. To copy the alarm setup to another alarm input, select one of the options shown under **Copy to Alarm**.

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.

 Note: As the SD card is in overwrite mode by default, it will never trigger a *HDD Full* alarm.

• **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 IP address setting.

- **Invalid Login**: Wrong user ID or password used to login to the cameras.

To define exception alarms:

1. From the menu toolbar, click **Camera Configuration** > **Alarm/Event Setup** > **Exception**.
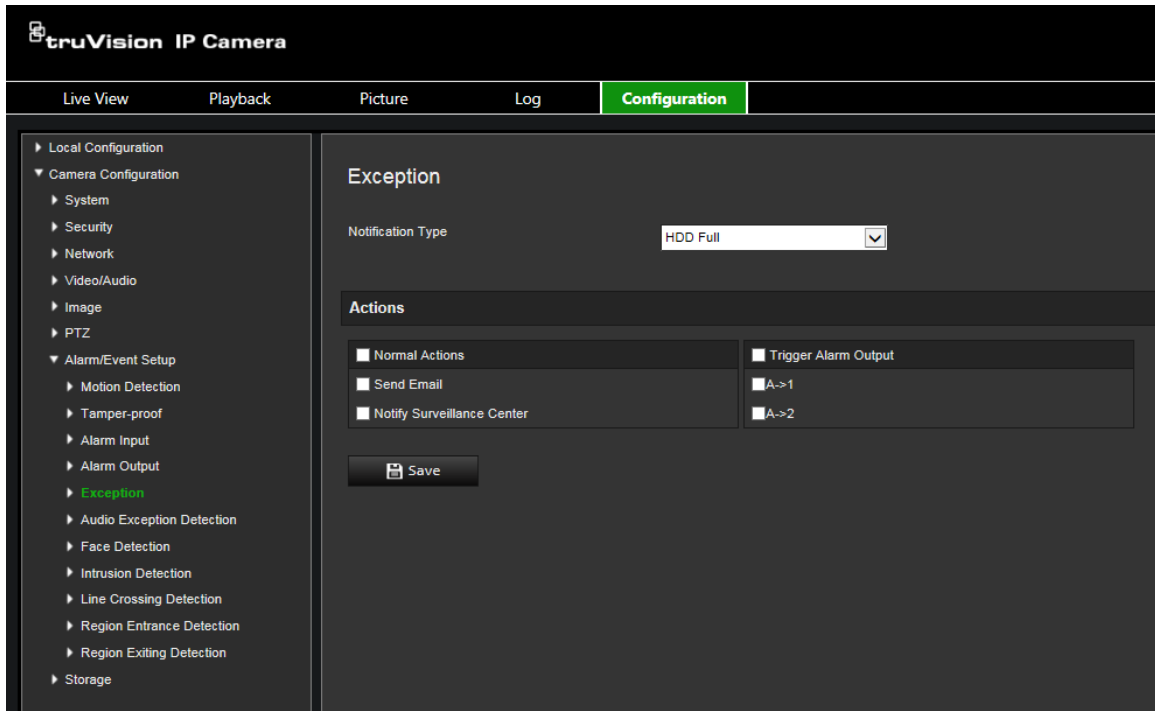
2. Under **Notification Type**, select one of the exception alarms from the drop-down list. The options are: HDD Full, HDD error, Network Disconnected, IP Address Conflicted, Invalid Login.

3. Select the desired the actions: Notify Surveillance Center, Send email, or Trigger Alarm Output. If "Trigger Alarm Output" is selected, select which type is required: Select Trigger Alarm Output, A->1, or A->2.

4. Repeat steps 2 and 3 for each of the exception type alarms to be configured.

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

Audio exception detection

Audio exception detection detects sounds that are above a defined threshold.

To set up audio exception detection:

1. From the menu toolbar, click **Camera Configuration** > **Alarm/Event Setup** > **Audio Exception Detection**.
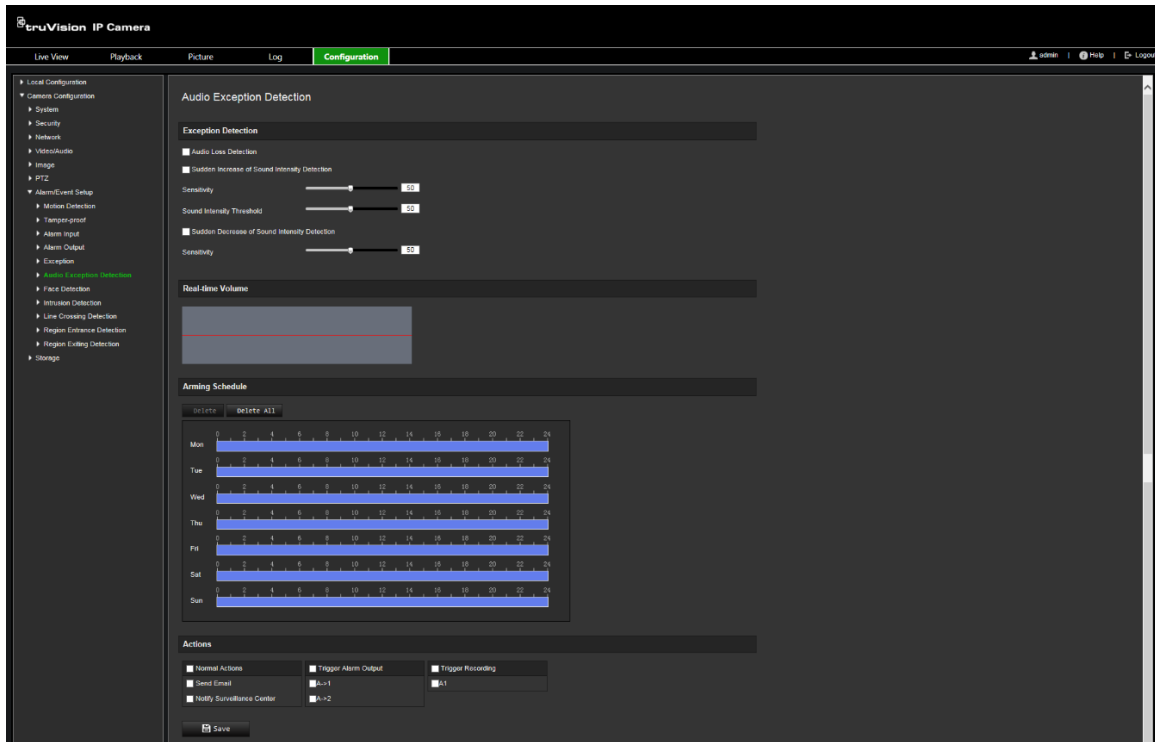
2. Check Enable for **Audio Loss Exception**.

3. Check Enable for **Sudden Increase of Sound Intensity Detection** and set the sensitivity and sound intensity threshold.

4. Select **Sudden Decrease of Sound Intensity Detection** and set the sensitivity.

5. Set the arming schedule for the alarm input. See "To set up motion detection" on page 39 on page for more information.

6. Select the actions to be used. The options are:

|	
Notify Surveillance Center	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.
Trigger Recording	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

1. Click **Save** to save changes.

Face detection

When the face detection function is enabled, the camera can detect a human face that is moving towards it, triggering a configurable response. The camera can only detect a face looking directly into the camera, not side views. This feature is best suited when the camera is in front of a door or is located in a narrow corridor.

To set up face detection:

1. From the menu toolbar, click **Camera Configuration > Alarm/Event Setup> Face Detection**.
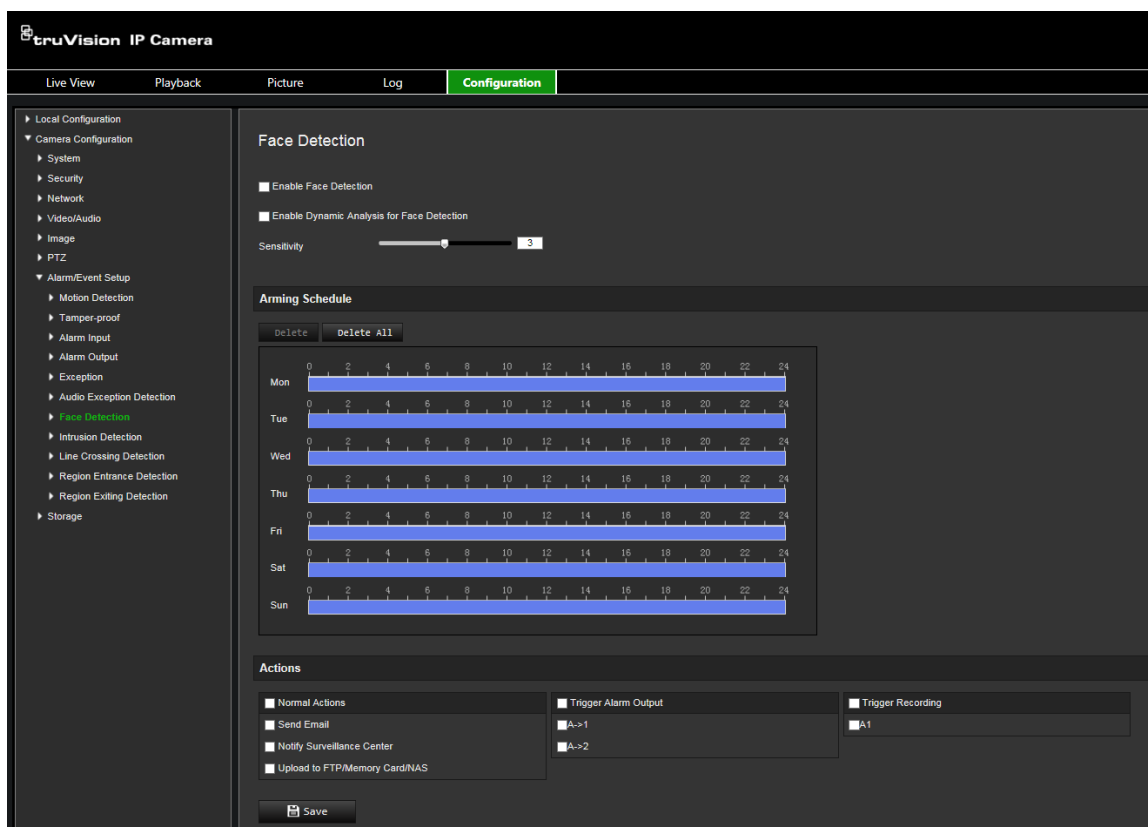
2. Select **Enable Face Detection**.

3. Select **Enable Dynamic Analysis for Face Detection** if you want the face detected to be marked with a green rectangle in live view.

   Note: if you do not want the detected face marked with the green frame, select **Disable** from **Local Configuration > Browser Configuration > Live View Parameters > Enable Meta Data Overlay**.

4. Configure the sensitivity of the face detection. The range is between 1 and 5.

5. Set the arming schedule for the face detection. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

6. Select the actions to be used for the face detection. The options are:

Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Trigger Recording	Triggers the recording to start in the camera.

|	
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

7. Click **Save** to save changes.

Intrusion detection

You can set up an area in the surveillance scene to detect when intrusion occurs. If someone enters the area, a set of alarm actions can be triggered.

To set up intrusion detection:

1. From the menu toolbar, click **Camera Configuration > Alarm/Event Setup> Intrusion Detection**.
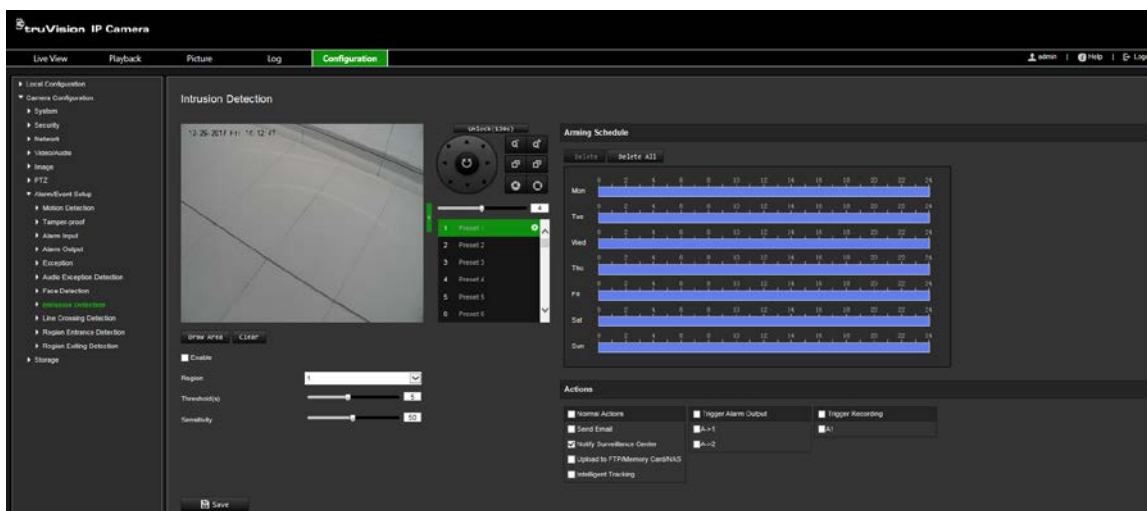
2. Select **Enable** to enable the function.

3. Select **Draw Area** and then draw a rectangle on the image as the defense region. When you draw the rectangle, all lines should connect end-to-end to each other. Up to four areas are supported. Click Clear to clear the areas you have drawn. The defense region parameters can be set up separately.

   Note: The area can only be quadrilateral.

4. Choose the region to be configured.

   Threshold: This is the time threshold that the object remains in the region. If you set the value as 0, the alarm is triggered immediately after the object enters the region. The range is between 0 and 10.

   Sensitivity: 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. The range is between 1 and 100.

   Detection Target: You can select Human, Vehicle, or All (Human &Vehicle) as the detection target from the dropdown list. If *Human* is selected, only people will be

identified as detection objects. If *Vehicle* is selected, only vehicles will be identified as detection objects.

5. Set the arming schedule for the intrusion detection. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

6. Select the actions to be used for the intrusion detection. The options are:

|	
Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Intelligent Tracking	Triggers the intelligent tracking function
Trigger Recording	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

7. Click **Save** to save changes.

Line crossing detection

This function can be used to detect people, vehicles and objects crossing a pre-defined line or an area on-screen. The line crossing direction can be set as unidirectional or bidirectional. Unidirectional is crossing the line from left to right or from right to left. Bidirectional is crossing the line from both directions.

A series of actions can be triggered if an object is detected crossing the line.

To set up line crossing detection:

1. From the menu toolbar, click **Camera Configuration > Alarm/Event Setup> Line Crossing Detection**.
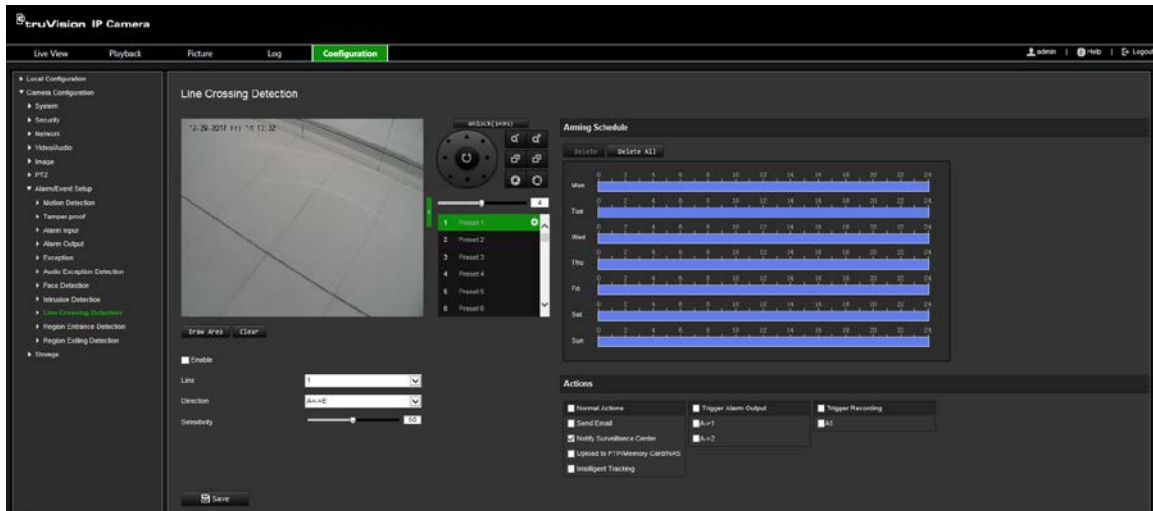
2. Select **Enable** to enable the function.

3. Select **Draw Area** and a crossing plane will show on the image.

4. Click the line and two red squares appear at each end. 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 moves across the plane in both directions, it is detected and alarms are triggered.

   A->B: Only an object crossing the pre-defined line from the A to the B side can be detected and trigger an alarm.

   B->A: Only an object crossing the pre-defined line from the B to the A side can be detected and trigger an alarm.

5. Choose the sensitivity level between 1 and 100.

6. Choose the Detection Target from All, Human or Vehicle.

7. If desired, select another line crossing area to configure from the dropdown menu. Up to four line crossing areas can be configured.

8. Set the arming schedule for the line crossing detection. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

9. Select the actions to be used for the line crossing detection. The options are:

Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Intelligent Tracking	Triggers the intelligent tracking function
Trigger Recording	Triggers the recording to start in the camera.

| Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2.
	Note: This option is only supported by cameras that support alarm output.

10. Click **Save** to save changes.

Region entrance detection

This function detects people, vehicles or other objects that enter a designated region from outside the designated region. Certain actions can be configured to occur when the alarm is triggered.

To set up region entrance detection:

1. From the menu toolbar, click **Camera Configuration > Alarm/Event Setup> Region Entrance Detection**.
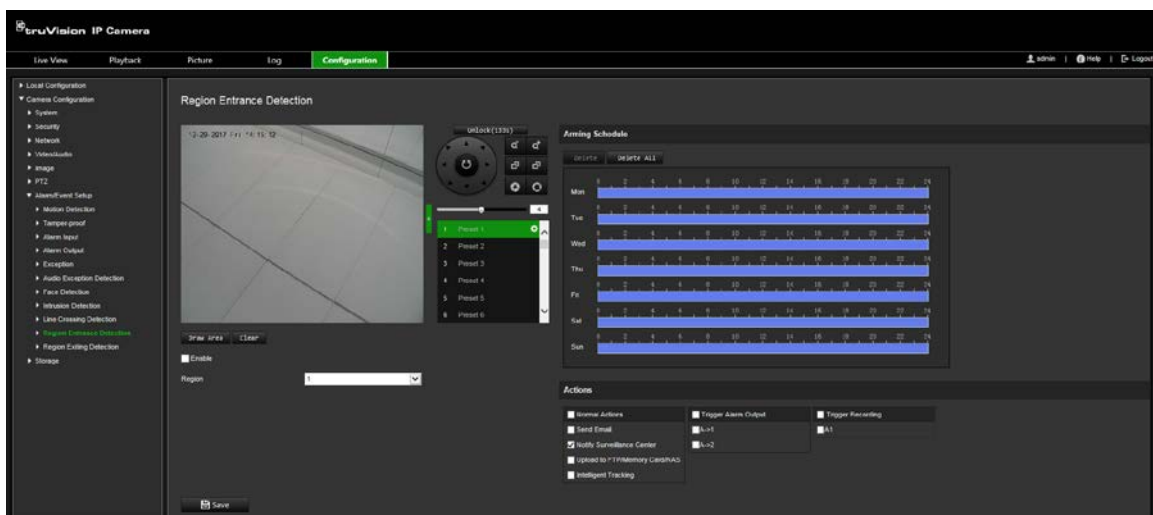
2. Select **Enable** to enable the function.

3. Select the region number to be configured.

4. Click **Draw Area**, and then draw a rectangle on the image as the designated region. When you draw the rectangle, all lines should connect end-to-end to each other. Up to four areas are supported. Click **Clear** to clear the areas you have drawn. The designated region parameters can be set up separately.

   Note: The area can only be quadrilateral.

5. Set the sensitivity level.

   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. The range is between 1 and 100.

6. Select the detection target from All, Human, or Vehicle.

7. Set the arming schedule for the region entrance detection. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

8. Select the actions to be used for the region entrance detection. The options are:

Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Intelligent Tracking	Triggers the intelligent tracking function
Trigger Recording	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

9. Click **Save** to save changes.

Region exiting detection

Region exiting detection function detects people, vehicle or other objects that exit from a designated region, and certain actions can be configured to occur when the alarm is triggered.

To set up region existing detection:

1. From the menu toolbar, click **Camera Configuration > Alarm/Event Setup> Region Existing Detection**.
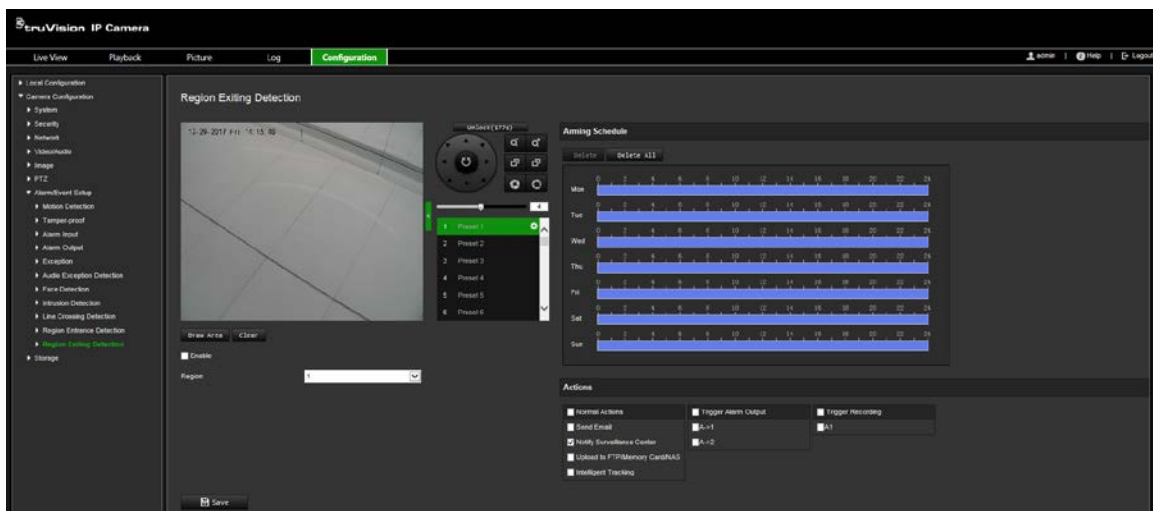
2. Select **Enable** to enable the function.

3. Click **Draw Area**, and then draw a rectangle on the image as the designated region. When you draw the rectangle, all lines should connect end-to-end to each other. Up

to four areas are supported. Click **Clear** to clear the areas you have drawn. The designated region parameters can be set up separately.

Note: The area can only be quadrilateral.

4. Select the region to be configured.

   Sensitivity: 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. The range is between 1 and 100.

   Detection Target: You can select human, vehicle, or all (human &vehicle) as the detection target from the dropdown list. If Human is selected, only human beings will be identified as detection objects and as well as Vehicle.6. Choose the Detection Target from All, Human or Vehicle.

5. Set the arming schedule for the region existing detection. The arming schedule configuration is the same as that for motion detection. See "Motion detection alarms" on page 39 for more information.

6. Select the actions to be used for the region existing detection. The options are:

Notify Surveillance Center	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 to FTP/Memory Card/NAS	Capture the image when an alarm is triggered and upload the picture to NAS or FTP server.
Intelligent Tracking	Triggers the intelligent tracking function
Trigger Recording	Triggers the recording to start in the camera.
Trigger Alarm Output	Trigger external alarm outputs when an event occurs. Select one of the options: Select Trigger Alarm Output, A->1, or A->2. **Note:** This option is only supported by cameras that support alarm output.

7. Click **Save** to save changes.

RS-485 settings

The RS-485 serial port is used to control the PTZ of the camera. Configuration of these parameters should be done before you connect to any devices.

To set up RS-485 settings:

1. From the menu toolbar, click **Camera Configuration > System > RS-485**.
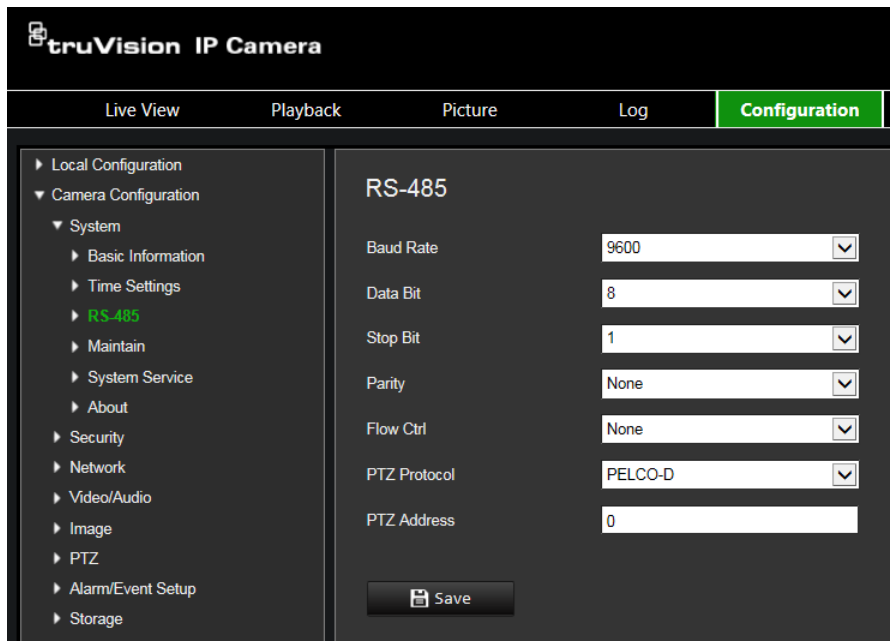
2. Select the RS-485 port parameters.

   Note: The Baud Rate, PTZ Protocol and PTZ Address should be the same as the PTZ camera parameters.

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

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 scheduled time or the event. For example, if an alarm triggers recording at 10:00, and the pre- event time is set as 5 seconds, the camera starts to record at 9:59:55. The pre- event 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 scheduled time or the event. For example, if an alarm triggered recording ends at 11:00, and the post-event time is set as 5 seconds, the camera records until 11:00:05. The post-event 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. From the menu toolbar, click **Camera Configuration** > **Storage** > **Record Schedule**.

2. Select the pre and post-record times.

3. Enable overwrite, if required.

4. Select the stream type (main stream, substream, or third stream).

5. Click the **Enable** check box to enable recording.

    Note: To disable recording, deselect the option.

6. Select one of the record types to record from the drop-down list box:

    - **Continuous**: This is continuous recording.

    - **Motion:** 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, alarms, and audio exception detection are triggered at the same time.

7. Drag the time bar to edit the recording schedule. Click on the selected time period and the following window appears:

| Enter the start time (hour and minutes) | Enter the end time (hour and minutes) |

6. Set the recording periods for the other days of the week if required.

    Click 🔲 to copy the recording periods to another day of the week.
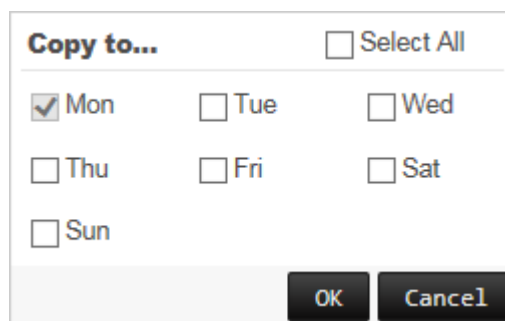
7. Click **OK** and **Save** to save changes.

Note: If you set the record type to "Motion detection", "Alarm" or other alarms such as audio exception detection, you must also define the arming schedule in order to trigger motion detection or alarm input recording.

Format 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. From the menu toolbar, click **Camera Configuration** > **Storage** > **HDD Management**.
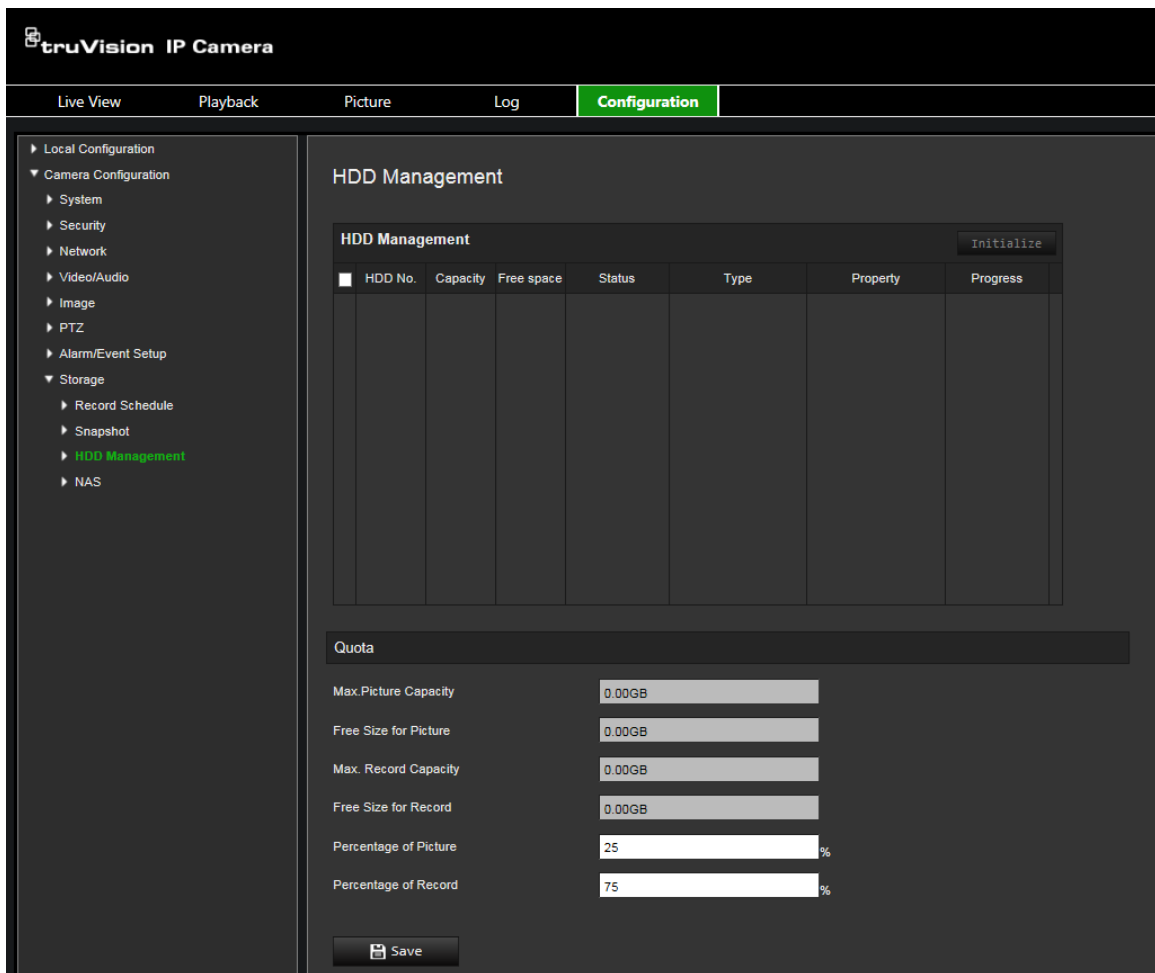
2. Under **HDD Management**, check the desired storage device and click **Initialize**. A window appears to check your formatting permission. Click **OK** to start formatting.

3. Define the quota storage capacity and percentage for snapshots and recordings in the storage devices connected to the camera.

4. 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 correctly configured to store the recorded files, log files, etc.

Notes: Up to eight NAS disks can be connected to the camera.

To set up a NAS system:

1. From the menu toolbar, click **Camera Configuration** > **Storage** > **Net HDD**.

2. Enter the IP address of the network disk and the file path.

3. Configure the Mounting Type as NFS or SMB/CIFS. If you select SMB/CIFS, you can enter the user name and password.
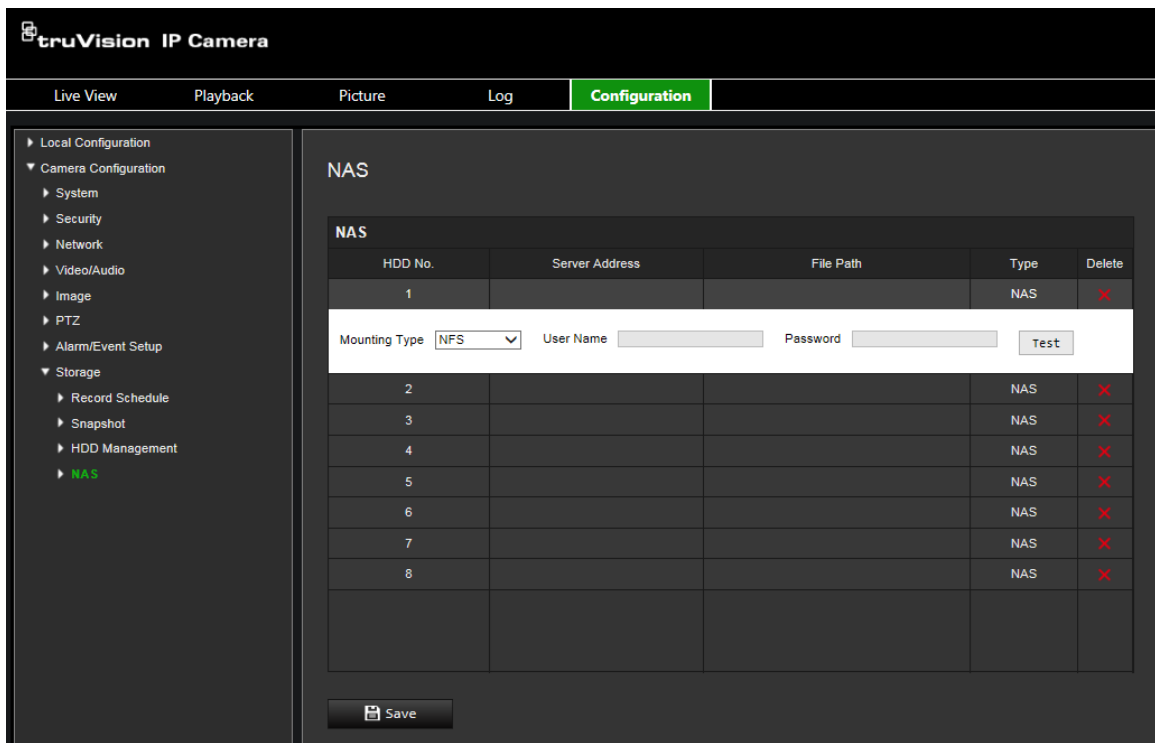
4. Click **Save** to save changes.

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.

Note: If you have configured the FTP settings and check **Upload Picture** in the FTP tab, the snapshots will be uploaded to the FTP. If you also check **Upload to FTP/Memory Card/NAS** for motion detection or alarm input, the snapshots will be uploaded to the FTP when motion detection or an alarm input is triggered.

To set up snapshots:

1. From the menu toolbar, click **Camera Configuration** > **Storage** > **Snapshot**.
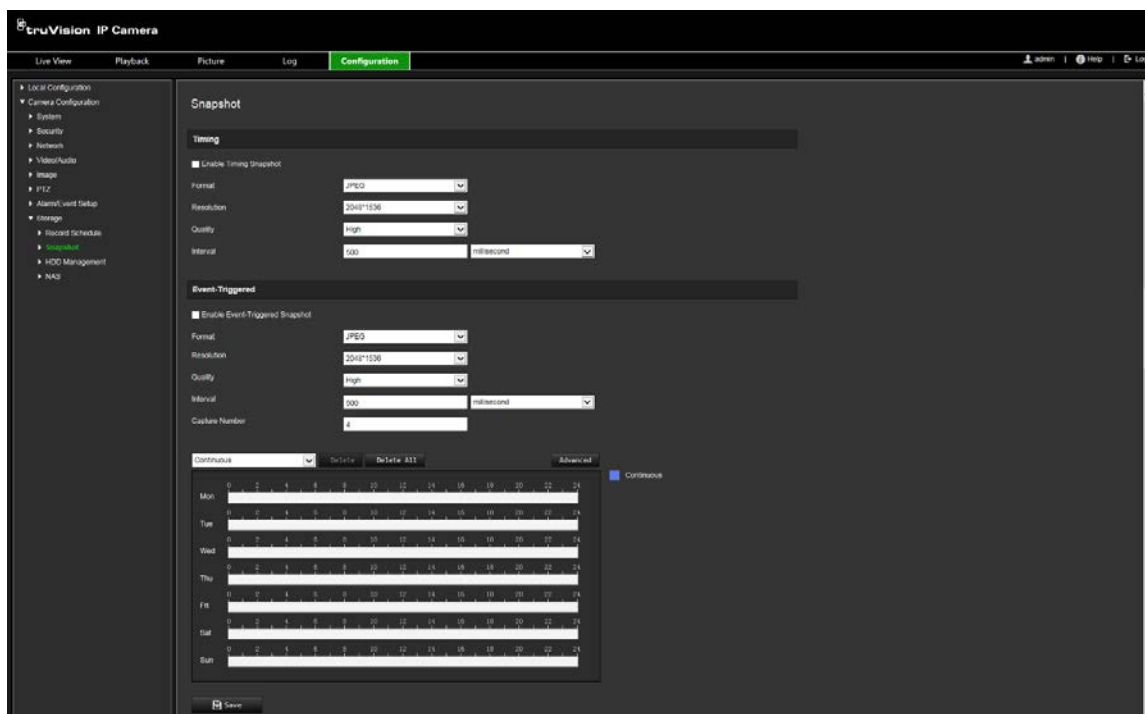
2. Check **Enable Timing Snapshot** to enable continuous snapshots. Check the **Enable Event-triggered Snapshot** to enable event-triggered snapshots.

3. Select the snapshot format (JPEG only), resolution and quality.

4. Set the time interval between two snapshots. The time interval can be in milliseconds, seconds, minutes, hours, or days.

5. If **Enable Event-Triggered Snapshot** was selected, select the number of snapshots to capture. For example, if you set the value as 4, the total number of the snapshot will be multiples of four.

6. Click **Save** to save changes.

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. When new users are added to the list, the administrator can modify permissions and password of each user. See Figure 13 below.

Figure 13: User management window
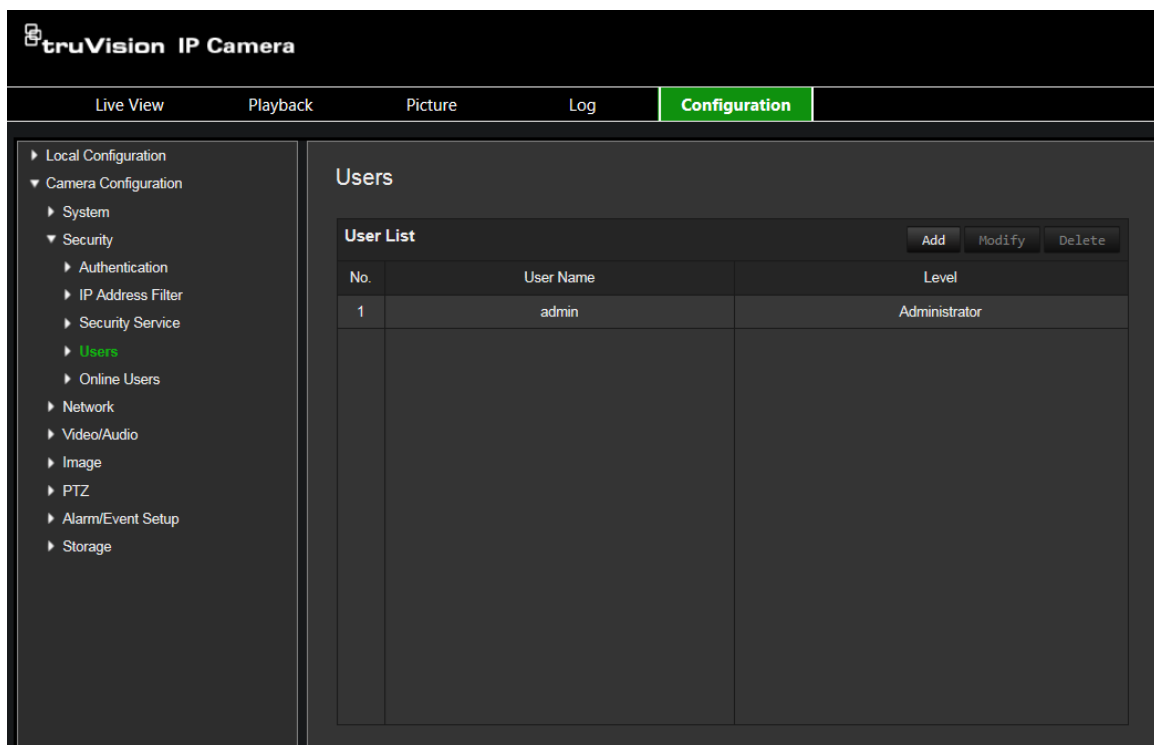
Passwords limit access to the camera and the same password can be used by several users. When creating a new user, you must give the user a password. There is no default password provided for all users. Users can not modify their password, and only the administrator can create or modify password for a user.

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.

- **User**: This user has the permission of live view, playback and log search. However, they cannot change any configuration settings.

Adding and deleting users

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

To add a user:

1. In the **Security** folder, click the **Users** option to open its window.

2. Select the **Add** button. The user management window appears.

3. Enter a user name. The name can have up to 16 alphanumeric characters.

4. Select the type of user from the drop-down list. The options are Viewer and Operator.

5. Assign the user a password. Passwords can have up to 16 alphanumeric characters.

6. Assign permissions to users.

Basic permissions	Camera permissions
Remote parameter settings	Remote live view
Remote log search/Interrogate working status	Remote PTZ control
	Remote manual record
Remote upgrade/format	Remote playback
Remote two-way audio	
Remote shutdown/reboot	
Remote notify surveillance center/Trigger alarm output	
Remote video output control	
Remote serial port control	

7. Click **OK** to save changes.

To delete a user:

1. Select one user in the **Users** option.

2. Click the **Delete** button. A message box appears.

   Note: Only the administrator can delete a user.

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

Modifying user information

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

To modify user information:

1. Select a user in the **Users** option.

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 changes.

RTSP authentication

You can secure the stream data of live view.

To define RTSP authentication:

1. From the menu toolbar, click **Camera Configuration** > **Security** > **Authentication**.
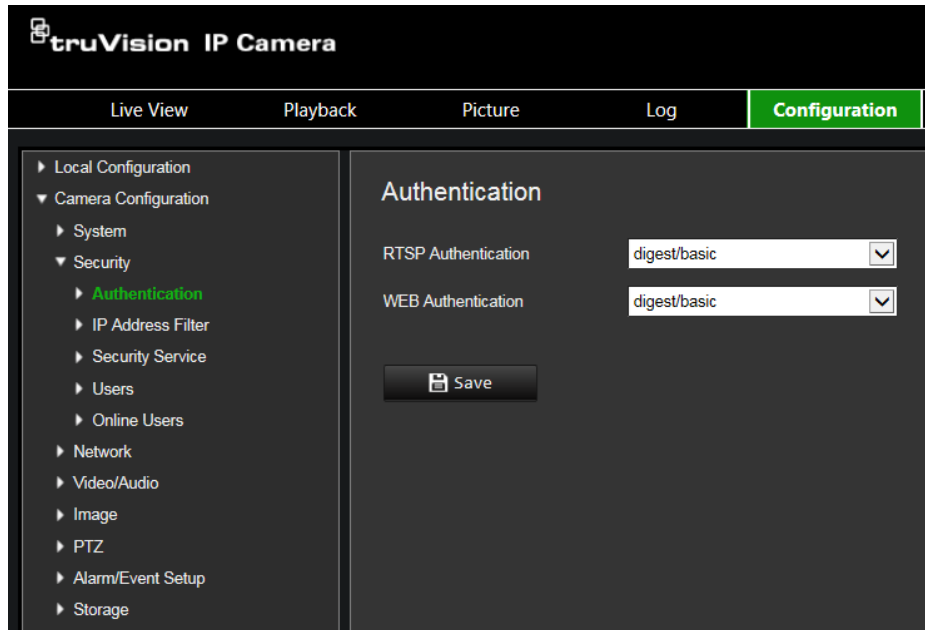
2. Under **RTSP Authentication**, select **digest** or **digest/basic** to choose RTSP authentication type.

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

To define web authentication:

1. From the menu toolbar, click **Camera Configuration** > **Security** > **Authentication**.
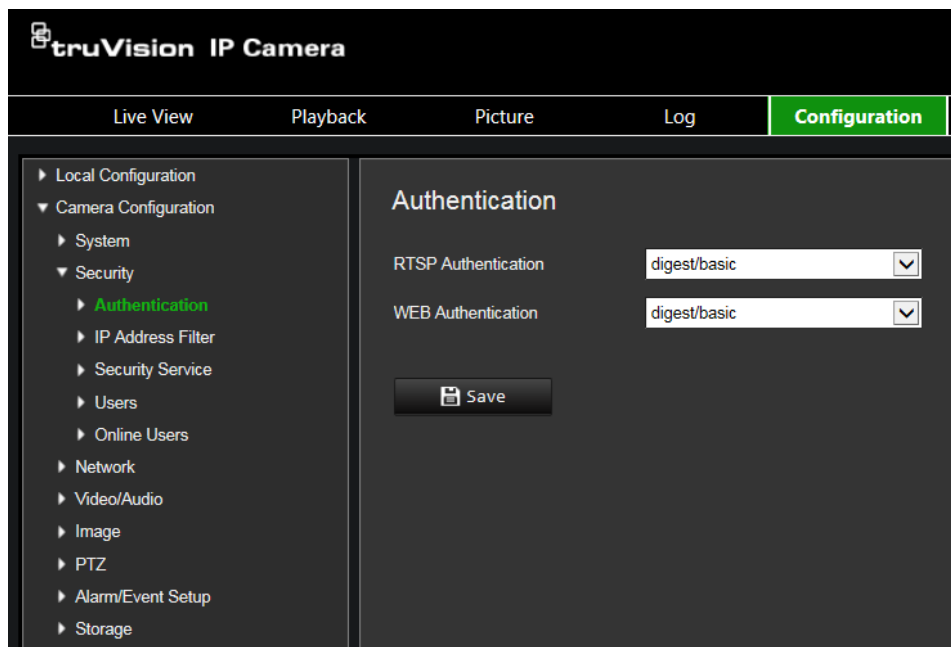
2. Under **WEB Authentication**, select **digest** or **digest/basic** to choose web authentication type.

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

IP address filter

This function permits you to restrict the IP addresses that can be accessed by the camera.

To define an IP address filter:

1. From the menu toolbar, click **Camera Configuration** > **Security** > **IP Address Filter**.
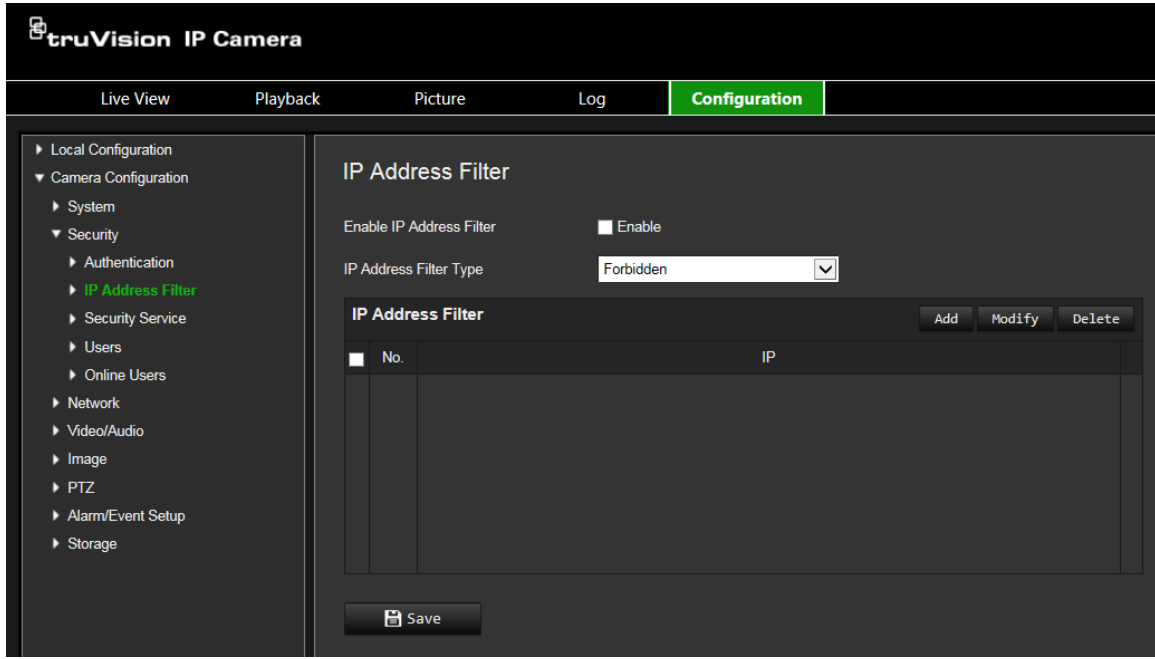
2. Check the **Enable** checkbox.

3. Select the type of IP address filter in the drop-down list, **Forbidden** or **Allowed**.

4. Click **Add** to add an IP address.

5. Click **Modify** or **Delete** to modify or delete the selected IP address.

6. Click **Clear** to delete all the IP addrsses.

7. Click **Save** to save changes.

Defining the security service

This function allows you to enable the invalid login lock.

To enable the invalid login lock:

1. From the menu toolbar, click **Camera Configuration** > **Security** > **Security Service**.
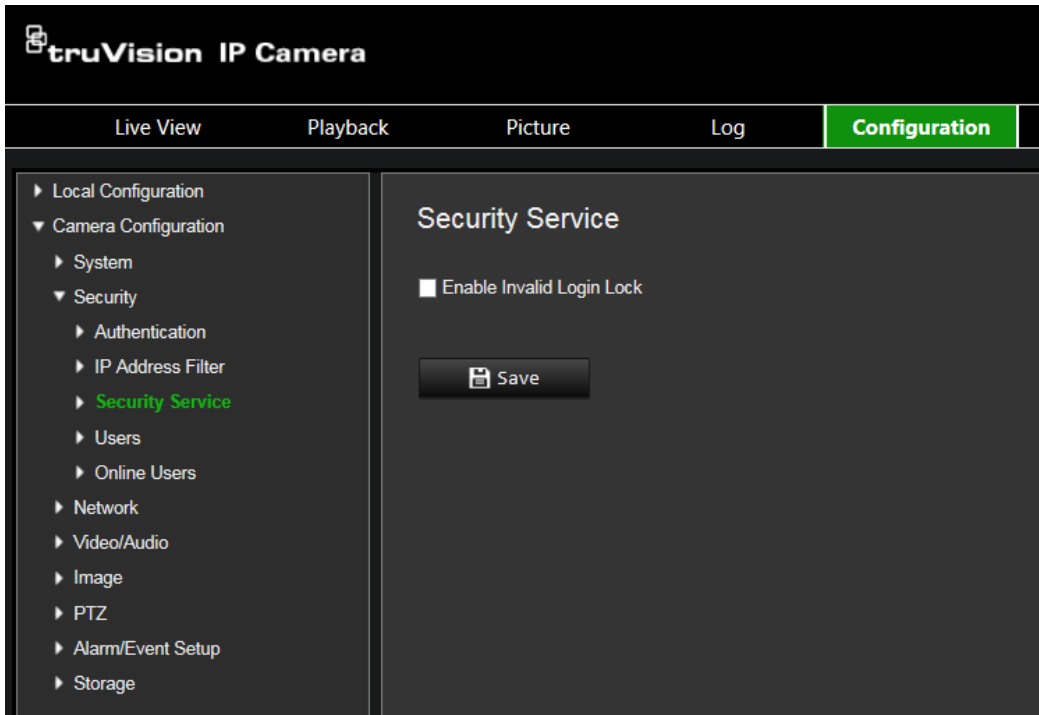
2. Check the checkbox of **Enable Invalid Login Lock**.

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

Note:

1. The IP address will be locked if the admin user performs seven 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 five 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: The video standard cannot be restored to default settings using **Restore** or **Default**.

To restore default settings:

1. In the **Camera Configuration** folder, select the **System** tab.

2. Select the **Maintain** tab.

3. Click either **Restore** or **Default**. A window showing user authentication appears.

4. Enter the admin password and click OK.

5. Click **OK** in the pop-up message box to confirm restoring operation.

Import/export a configuration file

To import/export configuration file:

1. In the **Camera Configuration** folder, select the **System** tab.

2. Select the **Maintain** tab.

3. Click **Browse** to select the local configuration file and then click **Import** to start importing configuration file.

4. Click **Device Parameters** 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.

To upgrade the firmware through the web browser:

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

   www.interlogix.com/library

2. In the **Camera Configuration** folder, select the **System** tab.

3. Select the **Maintain** tab.

   In the Maintenance tab, 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 the firmware files. The camera selects the corresponding firmware file automatically.

   • Firmware: Locate the firmware file manually for the camera.

4. Click the **Browse** button to locate the latest file on your computer.

5. Click **Upgrade**. You will receive a prompt asking you to reboot the camera.

Reboot camera

The camera can be easily rebooted remotely.

To reboot the camera through the web browser:

1. In the **Camera Configuration** folder select the **System** tab.

2. Select the **Maintain** tab.

3. Click the **Reboot** button to reboot the device.

4. Click **OK** in the pop-up message box to confirm reboot operation.

System service

To set the live view connection:

1. From the menu toolbar, click **Camera Configuration** > **System** > **System Service**.

2. Input a number in text field as the upper limit of the remote connection number. For example, when you specify the remote connection number as 10, then the 11th remote connection cannot be established.

3. Click **Save** button to activate the settings.

About

Click **View License** to select the *Open Source Software License*.

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.

If you do not change the default admin password, the pop up window requesting that you do so it will always pop up (see Figure 14 below).

Figure 14: Login window
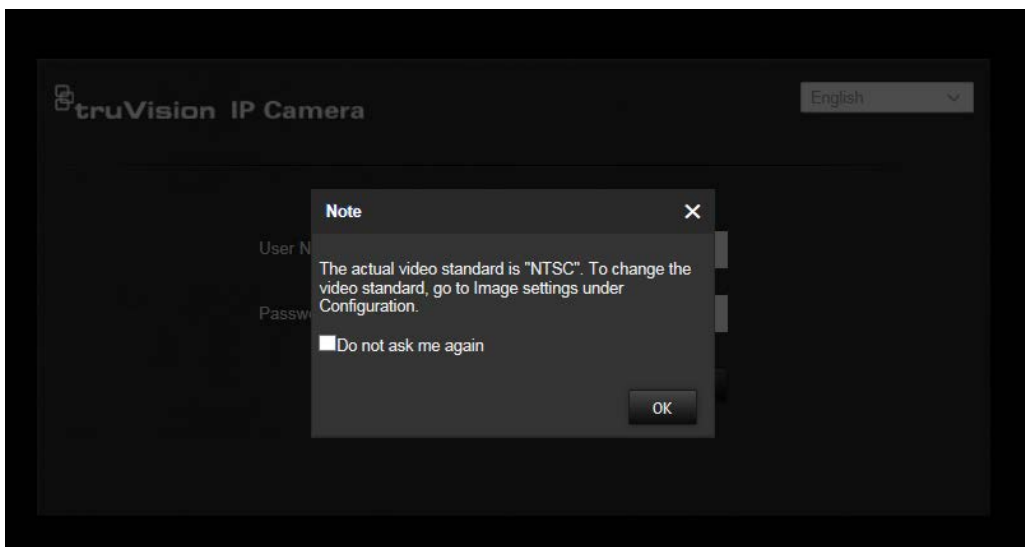
Live view mode

Once logged in, click "Live View" on the menu toolbar to access live view mode. See Figure 1 on page 9 for the description of the interface.

Playing back recorded video

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

Note: You must configure NAS or insert 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 displays. See Figure 15 below.

Figure 15: 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.
5.	Control playback	Click to control how the selected file is played back: play, stop, slow and fast forward playback.
6.	Archive functions	Click these buttons for the following archive actions: 📷 Capture a snapshot image of the playback video. ✂ Start/Stop clipping video files.
7.	3D zoom	Click to enable 3D zoom.
8.	Audio	Drag to adjust the volume.
9.	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.
10.	Time moment	Vertical bar shows where you are in the playback recording. The current time and date are also displayed.
11.	Download functions	⬇ Download video files.

	Name	Description
12.	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.

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 "Modifying user information" on page 60 to archive recorded video files.

3. Select the date and click the **Search** button to search for the required recorded file.

4. Click [icon] 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 [icon] 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.

Snapshots

Note: Follow the instructions under "Snapshot parameters" on page 61 to configure snapshot capture parameters before using the Picture menu.

Click **Picture** to launch the snapshot searching interface. Use this menu to search for, view, and download the snapshots stored in the camera's SD card or in network storage.

To search the snapshots:

1. Make a selection from the **File Type** drop-down list. **Continuous**, **Motion**, **Alarm**, **Line Crossing**, and **Intrusion Detection** are selectable.

2. Click on the calendar icon in the **Start Time** and **End Time** boxes to select the start time and end time.

3. Click **Search** to search the matched pictures.

4. Select the check box next to one or more snapshots and then click **Download** to download the selected images.
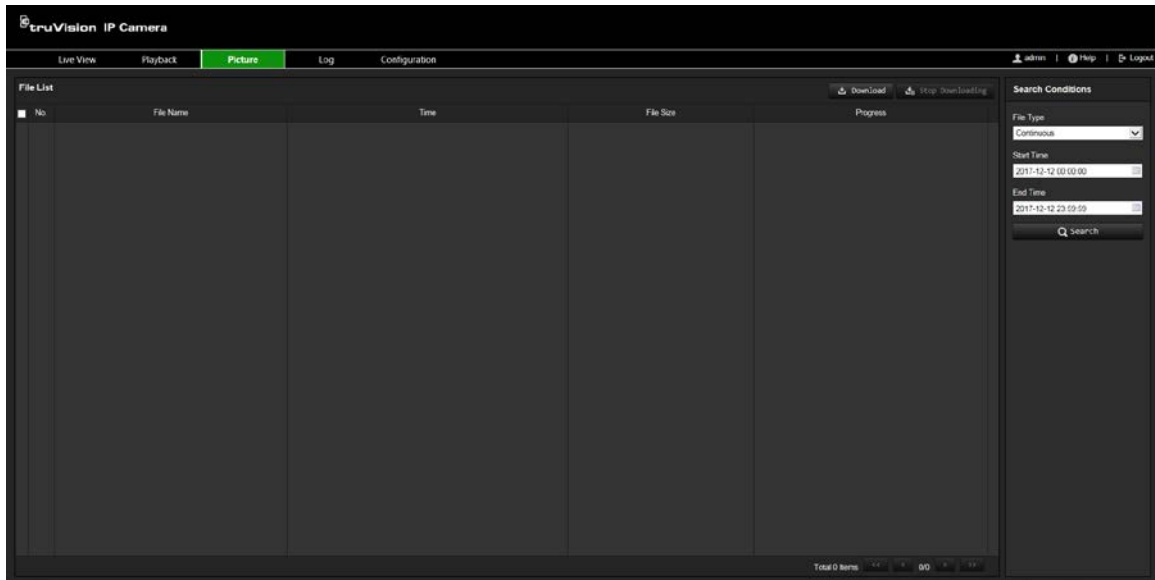
Searching event logs

You must configure NAS or insert a SD card in the PTZ 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 16 below.

Note: You must have view log access rights to search and view logs. See "Modifying user information" on page 60 for more information.

Figure 16: Log window
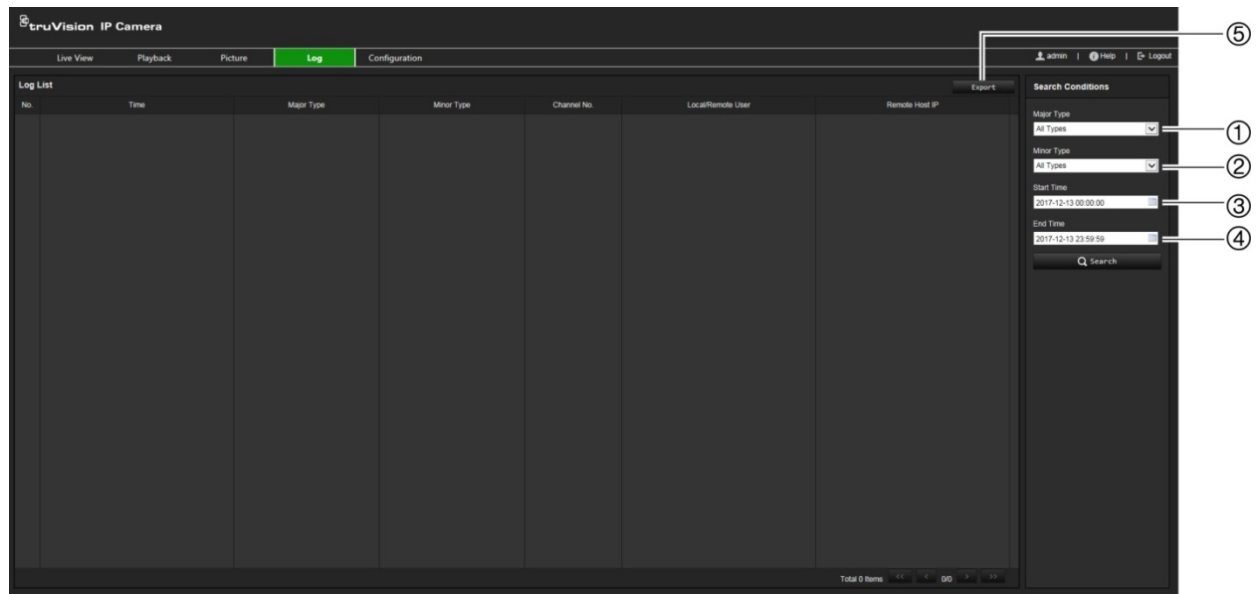
1. Major Type
2. Minor Type
3. Start and end search time

4. Start search
5. Export 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 below for their descriptions.

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

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

Table 2: 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, Audio Input Exception, Sudden Change of Sound Intensity Detection
Exception	Video Signal Loss, Invalid Login, HDD Full, HDD Error, Network Disconnected and IP Address Conflicted
Operation	Power On, Abnormal Shutdown, Remote Reboot, Remote Login, Remote Logout, Remote Configure parameters, Remote Upgrade, Remote Start Record, Remote Stop Record, Remote PTZ Control, Remote Playback by File, Remote Playback by Time, Remote Get Parameters, Remote Get Working Status, Start Bidirectional Audio, Stop Bidirectional Audio, Remote Alarm Arming, Remote Alarm Disarming, Remote Initialize HHD, Remote Export Config File, Remote Import Config File, Establish Transparent Channel, Disconnect Transparent Channel

To search logs:

1. Click **Log** in the menu toolbar to display the Log window.

2. In the *Major Type* and *Minor Type* drop-down lists, select the desired options.

3. Select start and end time of the log.

4. Click **Search** to start your search. The results appear in the left window.

Operating PTZ control

In live view you can use the PTZ control buttons to control pan/tilt/zoom and carry out other functions of the camera.

PTZ control panel

Figure 17: PTZ control panel
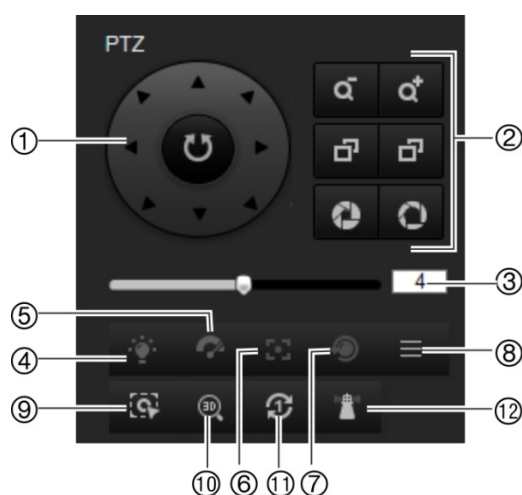
No.	Description
1.	**Directional buttons**: Controls the movements and directions of the PTZ. Center button is used to start auto-pan by the PTZ dome camera.
2.	**Zoom, focus and iris**: Adjusts zoom, focus and iris.
3.	**PTZ movement**: Adjusts the speed of PTZ movement.
4.	Turns on/off the light. Not applicable for these cameras.
5.	Turns on/off camera wiper. Not applicable for these cameras.
6.	Auxiliary Focus
7.	Initializes the lens
8.	Menu
9.	Start Manual Tracking
10.	Enable/Disable 3D Zoom
11.	One-touch Preset Tour
12.	One-touch Park

Note: This feature can vary depending on the camera model.

Using presets

Presets are predefined locations of a PTZ dome camera that allow you to quickly move the PTZ dome camera to a desired position.

You can only call up the predefined presets. For instance, preset 99 is the "Start auto scan". If you call the preset 99, the camera starts the auto scan function.

These predefined presets cannot be modified. You cannot set up new presets.

Table 3: Predefined preset settings

Special Preset	Function	Special Preset	Function
33	Auto flip	93	Set limit stops manually
34	Back to initial position	94	Remote reboot
35	Call preset tour 1	96	Stop a scan
36	Call preset tour 2	97	Start random scan
37	Call preset tour 3	98	Start frame scan
38	Call preset tour 4	99	Start auto scan
39	IR cut filter in	100	Start tilt scan
40	IR cut filter out	101	Start panorama scan
41	Call shadow tour 1	102	Call preset tour 5
42	Call shadow tour 2	103	Call preset tour 6
43	Call shadow tour 3	104	Call preset tour 7
44	Call shadow tour 4	105	Call preset tour 8
92	Start to set limit stops		

To set a preset:

1. Select a preset number from the preset list.
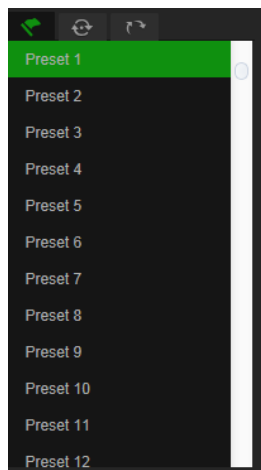
2. Use the PTZ directional buttons to move the camera to the desired position.

3. Click to finish the setting of the current preset.

4. You can click to delete the preset.

To call a preset:

1. Select a defined preset from the list.

2. Click to call the preset.

Using preset tours

A preset tour is a memorized series of presets. The camera stays at a preset for a set dwell time before moving on to the next preset. A preset tour can be configured with up to 32 presets.

You can configure up to eight preset tours.

To set a preset tour:

1. In the PTZ control panel, click to enter the tour settings interface.

2. Select a preset tour number from the drop-down list.

3. Click to enter the adding interface of preset.
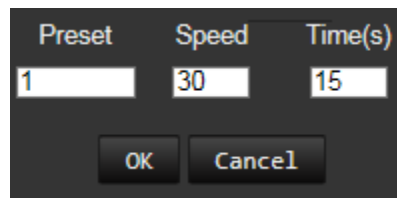
4. Configure the preset number, preset tour time, and preset tour speed.

Preset Tour Time	The dwell time. The length of time for which a camera stays at a preset before moving to the next preset.
Preset Tour Speed	The speed the camera moves from one preset to another.

5. Click **OK** to save a preset into the preset tour.

6. Repeat the steps from 3 to 5 to add more presets.

To call a preset tour:

In the PTZ control panel, select a defined preset tour from the drop-down list and click to call the preset tour.
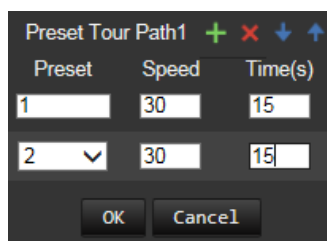
Using shadow tours

A shadow tour is a memorized series of pan, tilt, zoom, and preset functions. You can configure up to four shadow tours.

To set a shadow tour:

1. In the PTZ control panel, click to enter the shadow tour list.

2. Select a shadow tour number from the list.
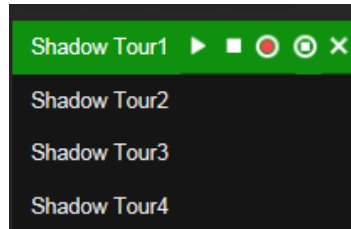
3. Click to enable recording the panning, tilting and zooming actions.

4. Use the PTZ control buttons to move the lens to the desired position after the information:

    •   Pan the PTZ dome to the right or left.

    •   Tilt the PTZ dome up or down.

    •   Zoom in or out.

    •   Refocus the lens.

5. Click to save the settings.

To call a shadow tour:

Select one shadow and click to call the shadow tour.

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