User Manual

8000 Series Network Camera

Date: June 2023

Doc Version: 2.4

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.

For further details, please visit our Company's website www.zkteco.com.

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If there is any issue related to the product, please contact us.

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About the Company

ZKTeco is one of the world's largest manufacturers of RFID and Biometric (Fingerprint, Facial, and Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces **the 8000 Series Network Camera**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

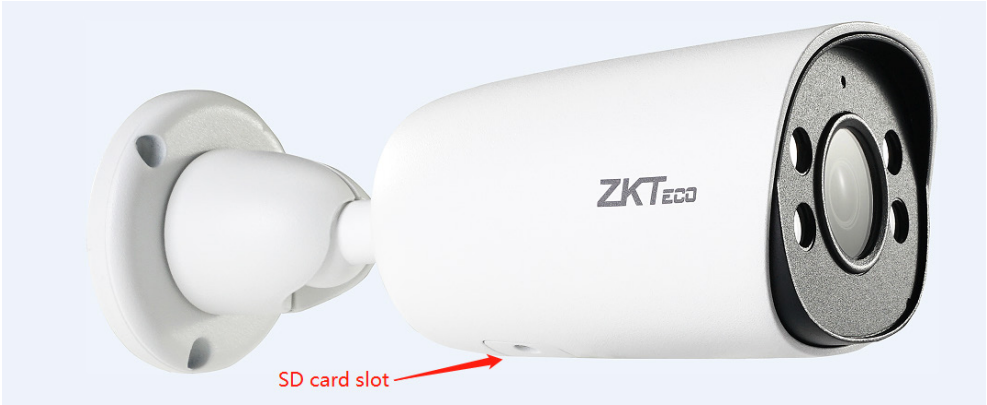
TABLE OF CONTENTS

1. Quick Installation Guide (only SD Card Model)

Step 1: Disassemble:

To ensure that the Micro-SD card will not be easily touched and loosened, the camera has designed the Micro-SD card slot inside the camera. When installing the Micro-SD card, user needs to remove the Micro-SD card slot cover at the bottom of camera. For the Conch model, you need to rotate the camera base to expose the Micro-SD card slot.

- **Bullet Type**



- **Turret Type**

Step 2:

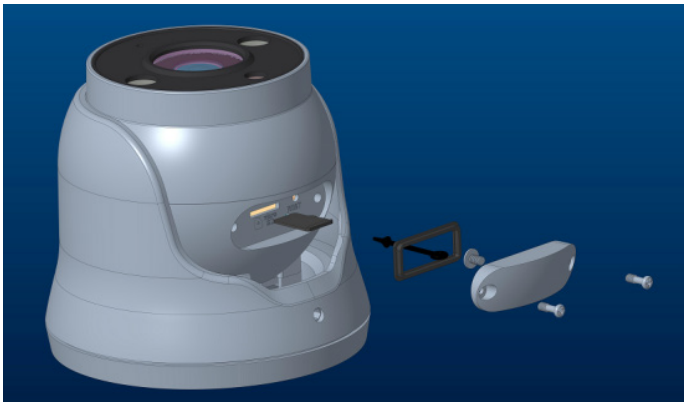
Remove the screws, and then open the cover to access the internal Micro-SD slot.

Step 3:

Insert the Micro-SD card in the correct direction and then push it into the slot.

- **Bullet Type**

- **Turret Type**

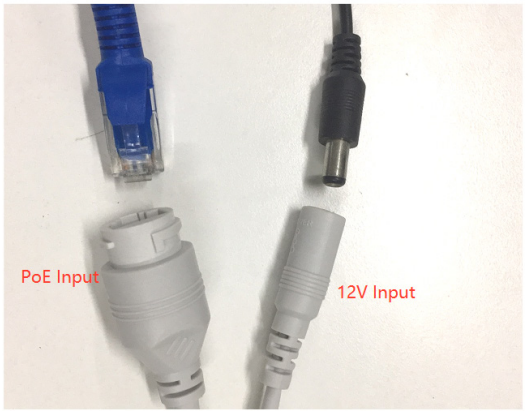


Step 4:

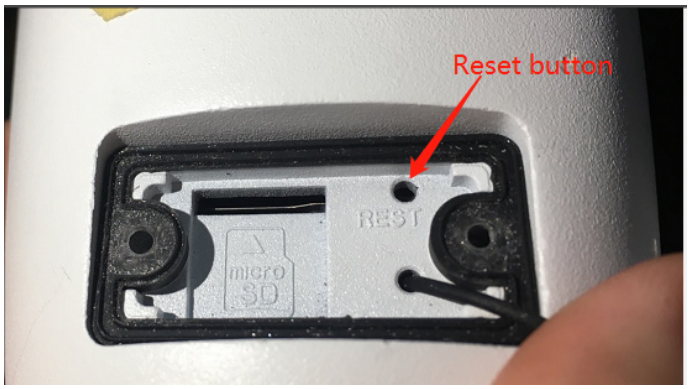
Attach the cover with the screws and then tighten them securely.

Step 5:

Power on the camera using PoE or 12V DC.

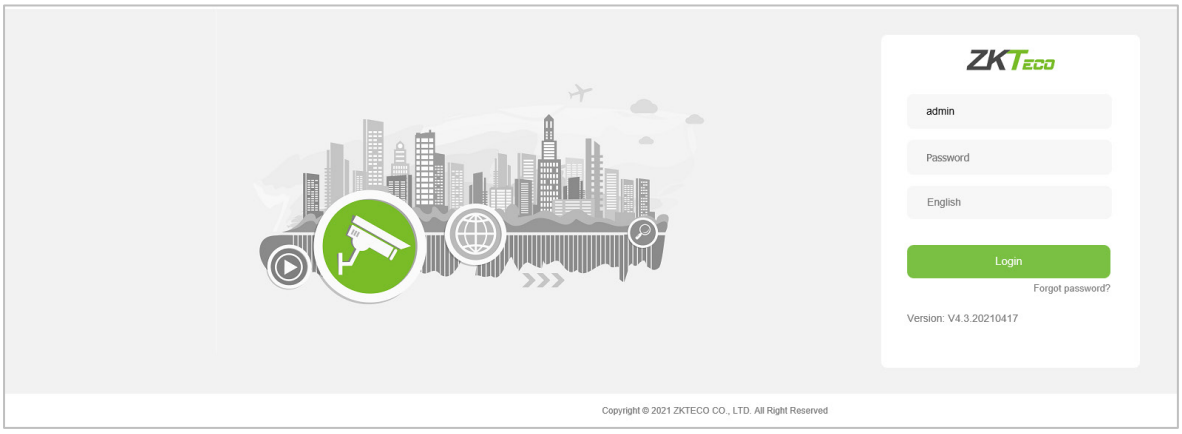


Note: The small round hole next to the Micro-SD card slot is the factory reset button (as show in the picture). In the power-on state, press and hold the small thimble for 3 seconds, and the camera will restore the factory default settings.

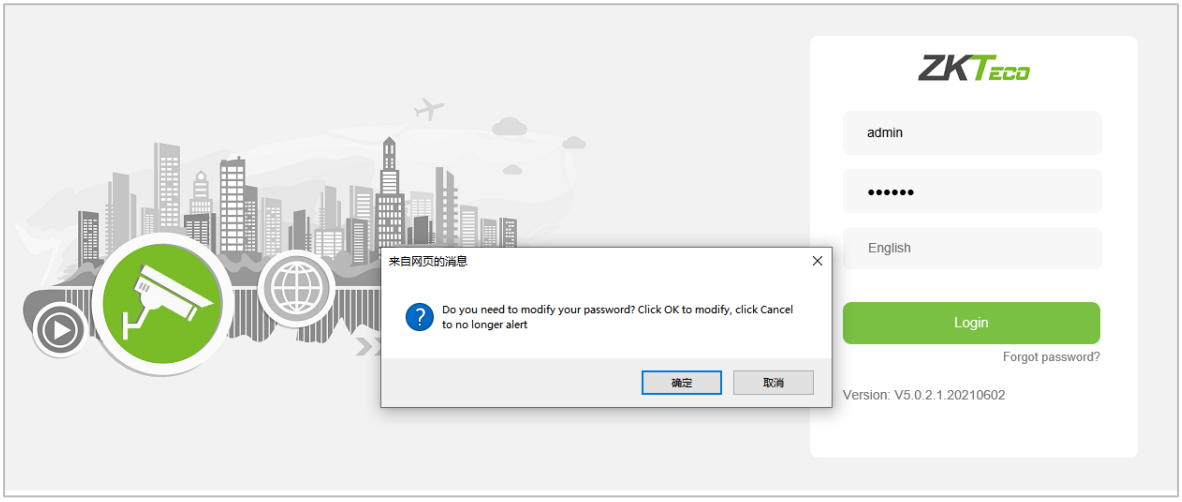


2. Login Interface

1. To access the login interface, input the IP address of the front-end device (the default is 192.168.1.86) in the browser, as shown in the following picture.

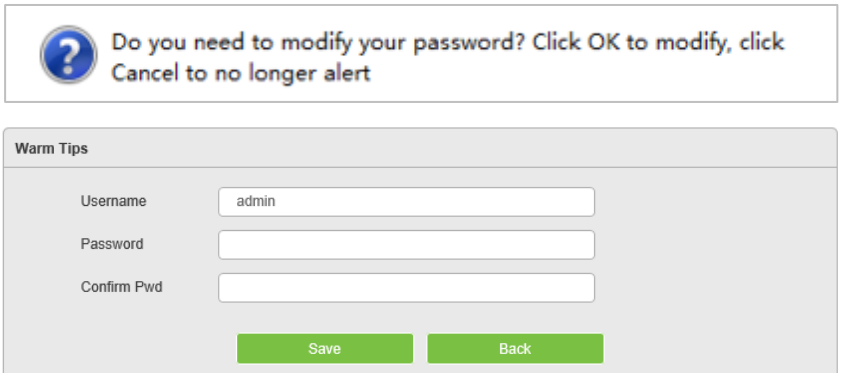


2. Enter username and password then click **Login**, then the system will prompt a message asking whether or not to change the password, as shown in the following figure.

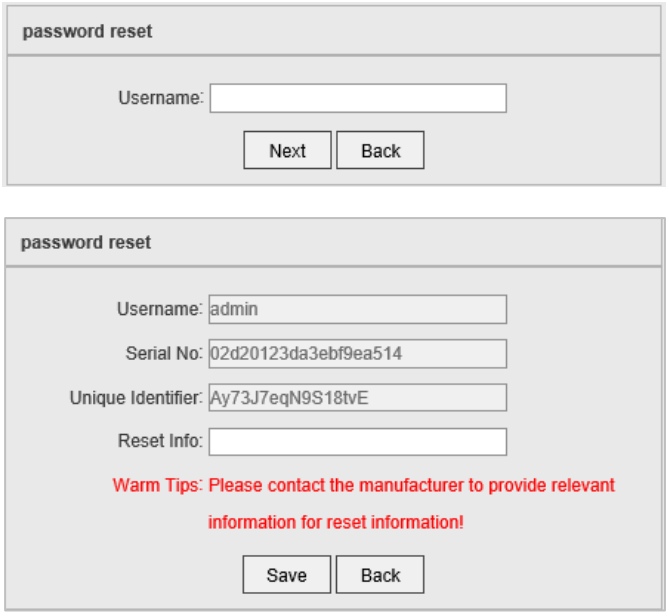


- **User name:** Admin (default setting).
- **Password:** 123456 (default setting), users may modify the password according to the instructions.
- **Language:** English, simplified Chinese.

Note: For account security reasons, users will be prompted to reset their password when they first log in.

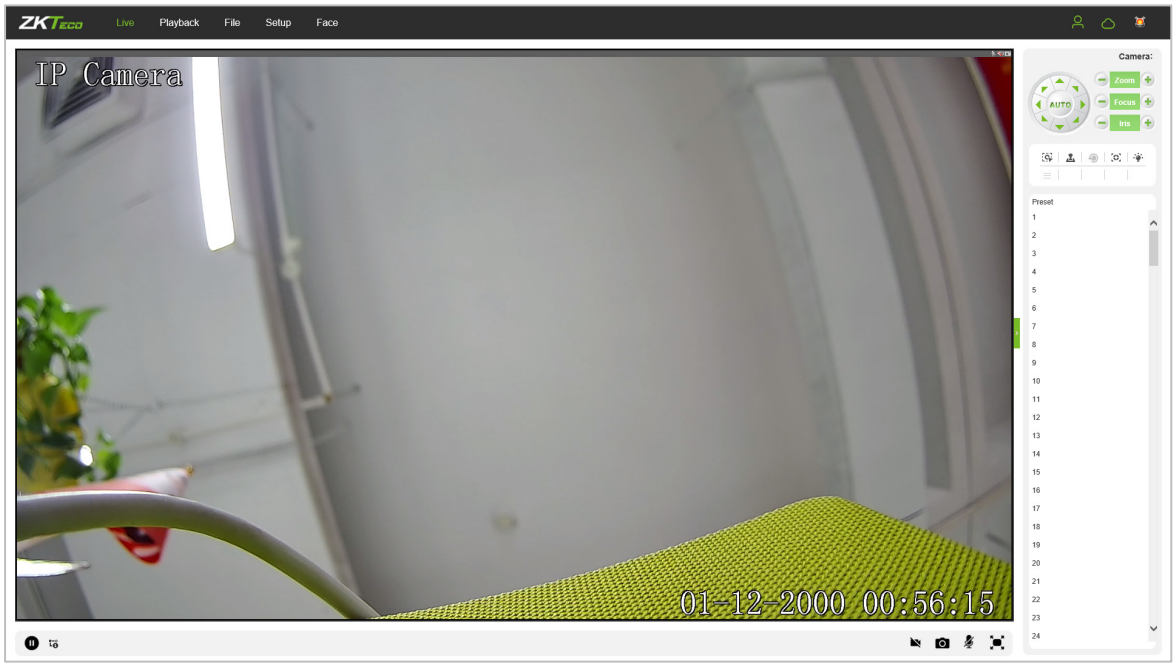


Note: If a user forgets their login password, they can click on the Forgot password?, to prompt the following window to pop up. The default username is "admin." Click **Next** to restore the password to factory settings according to the prompt.

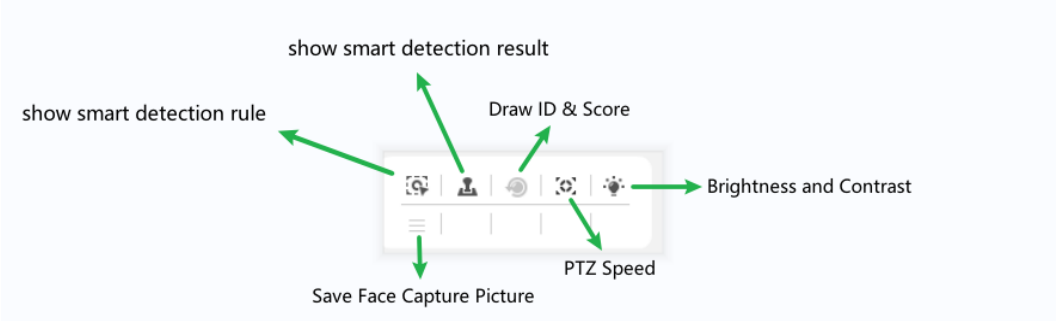


3. Live Videos

You will enter the live video interface after logging in, as shown in the following figure.



Note: To access the full-function display interface, you must first insert a TF card; otherwise, the system will only show you the simplified version.



- **Show Smart Detection Rule:** Show the rules of smart detection.
- **Show Smart Detection Result:** Show the result of smart detection.
- **Save Face Capture Pictrue:** Save face capture instantly.
- **Draw ID & Score:** Shows the face's randomly assigned ID and quality score.

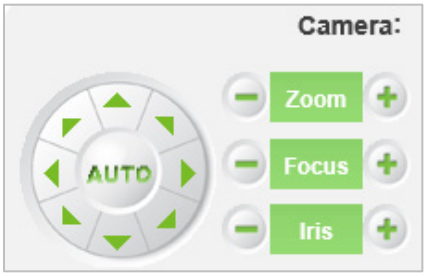
3.1. Full-screen Preview

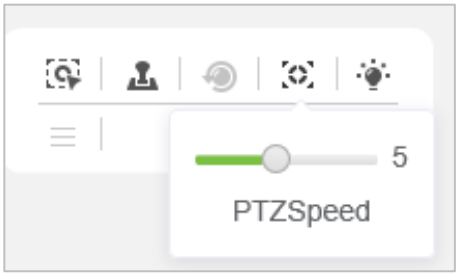
Click the full-screen icon in the lower right corner to get a full-screen preview or, you may right-click to access (and exit) the full screen display on the preview interface.

3.2. Electronic Zoom-in

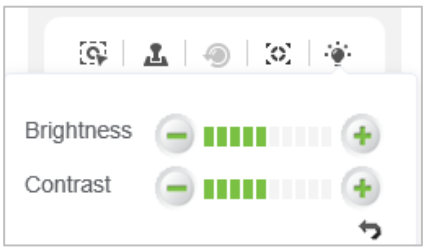
You can scroll the mouse wheel to zoom in the preview image, as the following figure shows.

3.3. PTZ Control





- **PTZ Control:** To use eight directional keys to change the image orientation or click the **AUTO** button to allow auto-rotation.
- **Zoom In/ Out:** To adjust the extent of zooming in or out.
- **Focus:** To adjust the size of focus.
- **Iris:** To adjust the size of aperture.
- **PTZSpeed:** To use the slider to regulate the PTZ speed.



- **Brightness:** To adjust the brightness of the screen.
- **Contrast:** To adjust the contrast of the screen. The ↩ arrow is used to restore factory settings

- **Set a Pre-set Point:** Set a pre-set point by using directional keys on the PTZ control to rotate the camera to the desired location, then select a pre-set value from the pre-set point drop-down list, and then click the button.
- **Call a Pre-set Point:** Call a pre-set point by selecting a pre-set number to be called from the pre-set point drop-down list, and then click the button.
- **Voice Talking:** Click to enable or disable voice intercom.
- **Capture:** Click to take screenshots, the system will pop up a storage path automatically.
- **Full Screen:** Click to display full-screen video preview.
- **Record:** Click to allow or disallow previewing records.

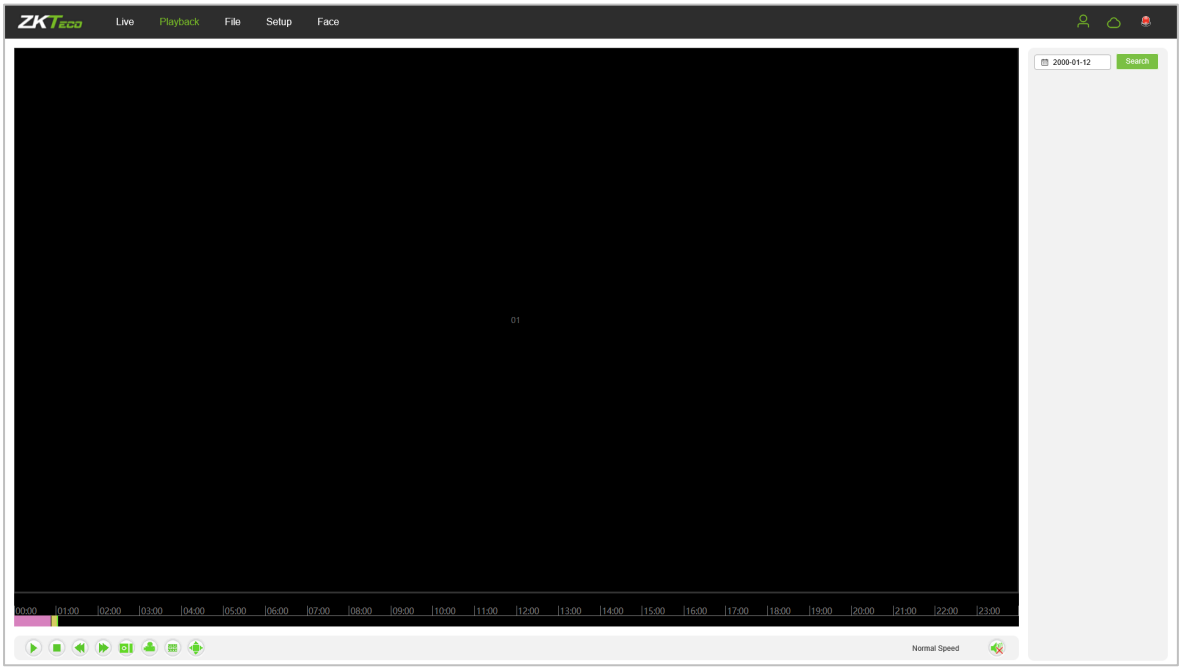
Note: X indicates the function is off or disabled.

4. Playback

(The function is subject to the actual products.)

Note: You must insert a TF card first to access the full function display interface; otherwise, the system will only show you the simplified version.

Click **Playback** to access the playback interface; click on the icon ch01, select the date and time of videos to be retrieved, then click the icon Search, the system will then search for the corresponding videos automatically, as shown in the following figure.



Start: Start the playback.

Stop: Stop the playback.

Slow: Slow down the playback speed (1/2, 1/4, 1/8, 1/16 times).

Fast: Speed up the playback speed (2, 4, 8, 16 times).

Snapshot: Take snapshots in a playback channel.

Backup: Back up videos in a playback channel.

Frame Play: Play by single frame.

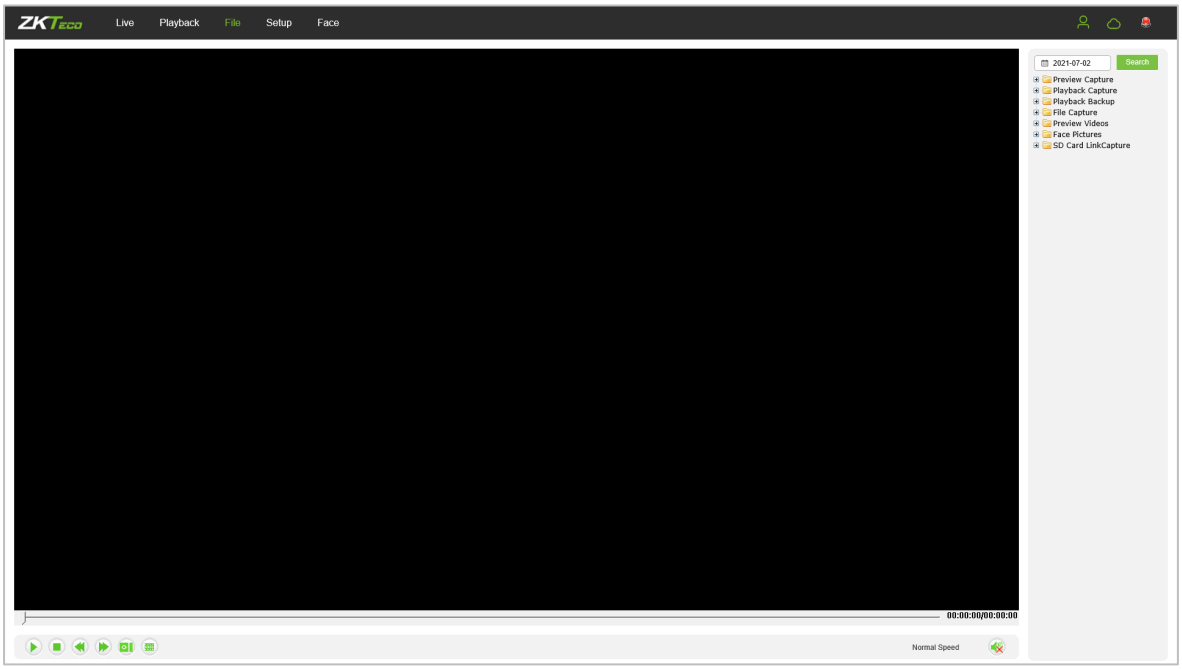
Full Screen: Play videos back in full screen.

Voice: Adjust the volume of playback audio.

Double-click the slider to play the video, or you may click the **Start** button to start playing the videos back.

5. File Management

Note: You must insert a TF card first to access the full function display interface. Otherwise, the system will only show you the simplified version.

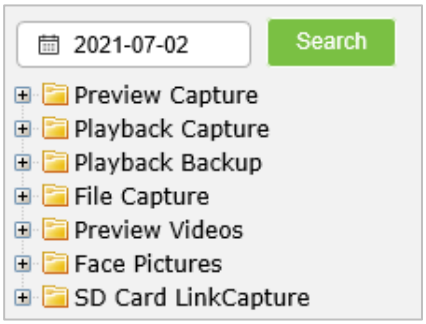


- **Face Picture:** Capture image after face verification successfully.

5.1. Search

To access searched images and videos, input a specific time and click the Search button. The results will be displayed in the lower part of the screen. Double-click on the search results to access the files you need.

Note: You may modify the storage paths of the selected videos or images. A short description will be given below. For more details, please go to **Setup > Local Settings**.



5.2. Preview Capture

To review captured images from video preview, you may search for and double click to obtain images you need.

5.3. Playback Capture

To review captured images from video playback; you may search for and double click to obtain images you need.

5.4. Playback Backup

To retrieve video files, you may search for and view videos files.

5.5. File Capture

To review captured images from the file management interface, you may search for and double click to obtain the images you need.

5.6. Preview Videos

To preview videos recorded, you may search for and double click to access the videos you need.

5.7. SD Card Link Capture

To review snapshots from a SD card; you may search for and double click to access the videos you need.

5.8. Backup Video Play

- **Start:** Click on the button to play a selected backup video.
- **Stop:** Click on the button to stop playing the video.
- **Slow:** Click on the button to slowly play the video back.
- **Fast:** Click on the button to fast-forward the video.
- **Frame:** Click on the button to play the video by frame.
- **Capture:** Click on the button to take a snapshot of the display during playback.
- **Voice:** Click on the button to turn sound on or off during playback.

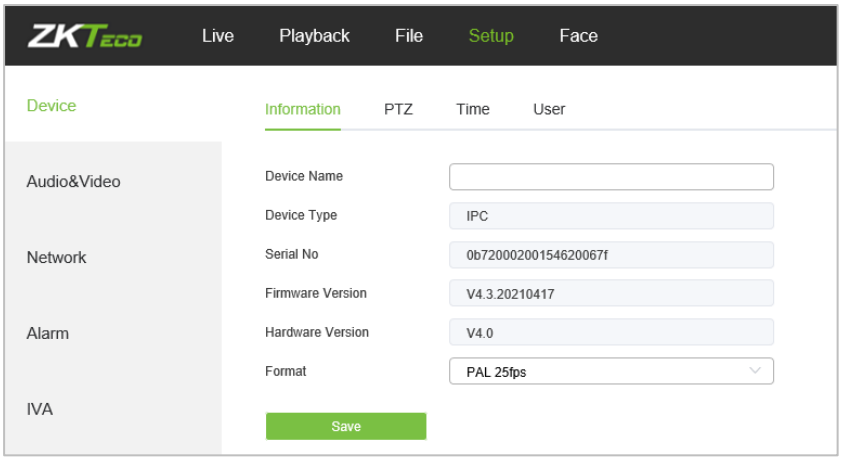
6. Setup

Note: You must insert a TF card first to access the full function display interface. Otherwise, the system will only show you the simplified version.

6.1. Device

6.1.1. Information

Below is the Device Information interface of the IP camera.

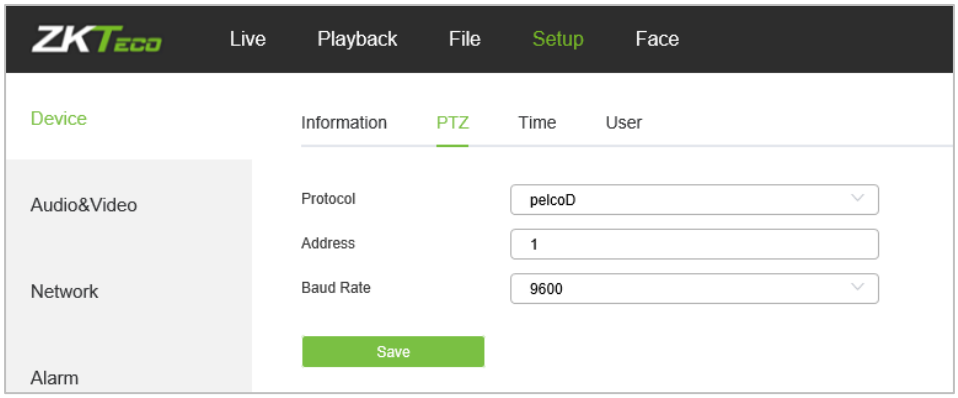


- **Device Name:** Edit the camera name.
- **Device Type:** Display the device type.
- **Serial No:** Display the product serial number.
- **Firmware Version:** Display information about the firmware version.
- **Hardware Version:** Display the version number of the hardware.
- **Format:** Select between PAL and NTSC image scanning system.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.1.2. PTZ

Below is the PTZ Settings interface of the IP camera.

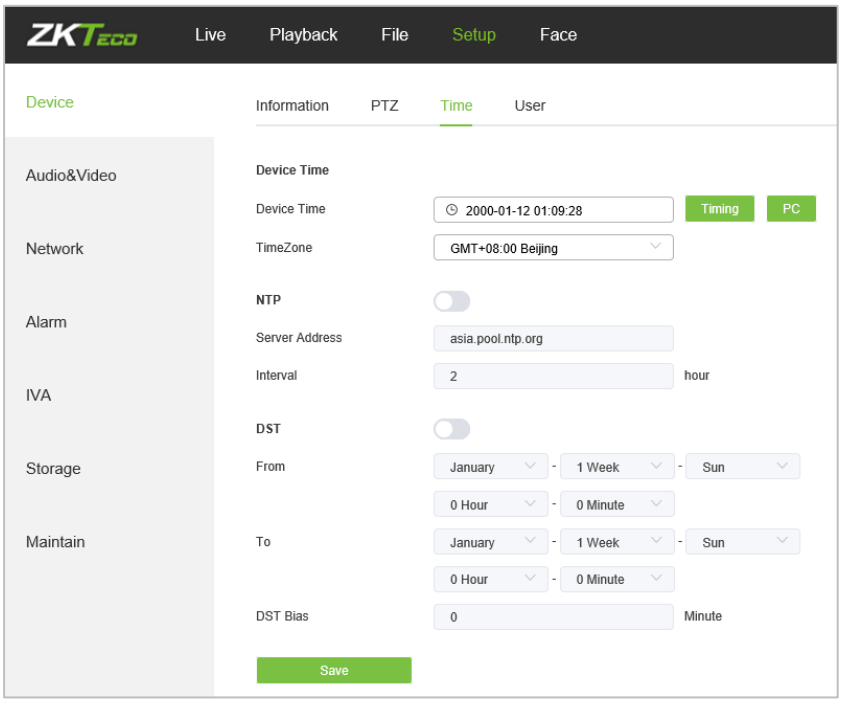


- **Protocol:** Multiple protocols available.
- **Address:** 0-255 address codes available.
- **Baud Rate:** Diverse baud available
- **Operation Method:** Connect the IP high-speed dome to the A/B port, set a protocol and baud rate, and then control the high-speed dome through the IPC preview interface.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.1.3. Time

Below is the Time Settings interface of the IP camera.

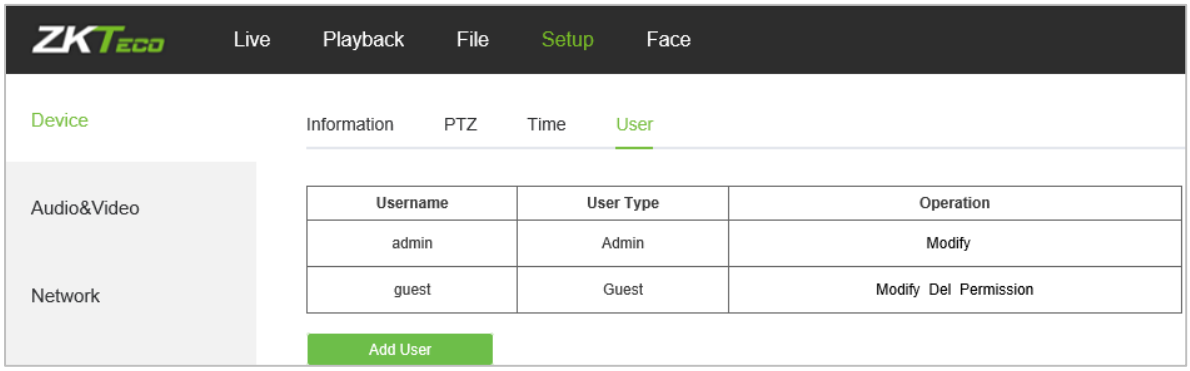


- **Device Time:** Set and display the current time of the camera.
- **Time Zone:** Different time zones are available.
- **Enable/Disable NTP:** Click to enable or disable NTP.
- **Server Address:** Input the IP address of the NTP server.
- **Interval:** Input the interval of time.
- **DST:** Click to enable or disable the Daylight saving time.
- **From and To**: Set the required month and date.
- **DST Bias:** The length of the additional offset after starting daylight saving time (0 to 720 points).

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

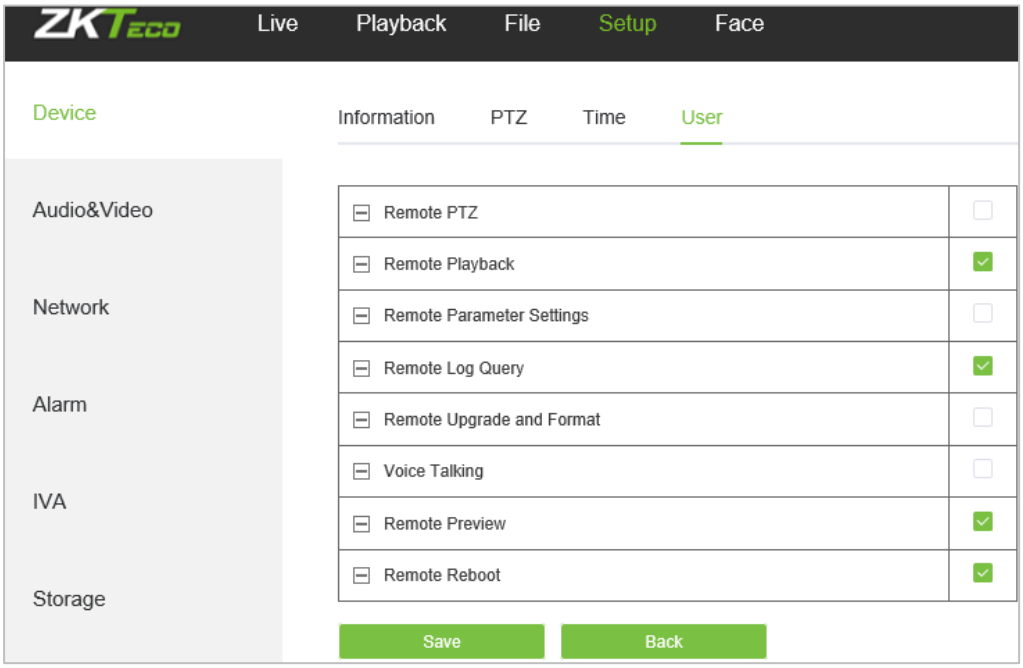
6.1.4. User

Below is the User setting interface of the IP camera, "admin" represents the administrator (default), "default" represents standard users.



- **Modify:** Admin may modify the login password, the default guest user may modify user type. New users may modify their user names, passwords and user types. New users may select a "Guest" or "Operator" account, and set different permission.
- **Del:** Delete a new user.
- **Rights Permission:** Permission assignment for default guest users and new users.
- **Add User:** Add a new user.

Log in with admin account, add a new user and assign permission, as shown in the following figure.

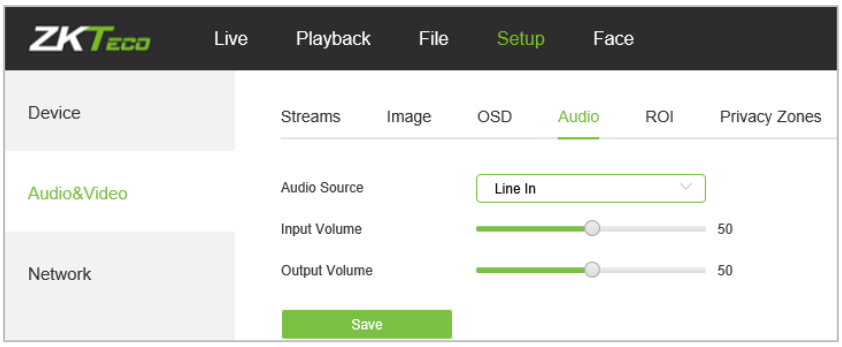


After completing all parameters settings, click **Save**, then the settings will take effectimmediately.

6.2. Audio and Video

6.2.1. Audio

Below is the Audio Settings interface of the IP camera.

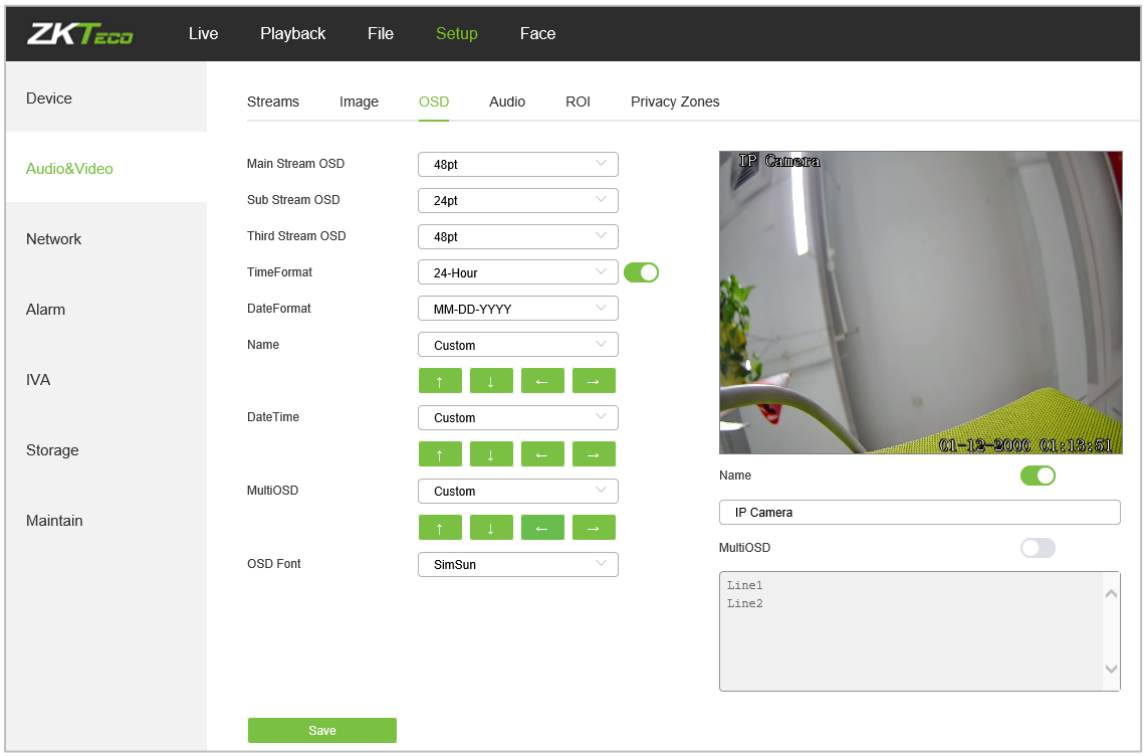


- **Audio Source:** Select the audio input mode between LineIn and MicIn.
- **Input Volume:** Set the input volume which ranges from 0 to 100; the default settings are 50.
- **Output Volume:** Set the output volume which ranges from 0 to 100; the default settings are 50.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.2.2. OSD

Below is the Display Settings interface of the IP camera.



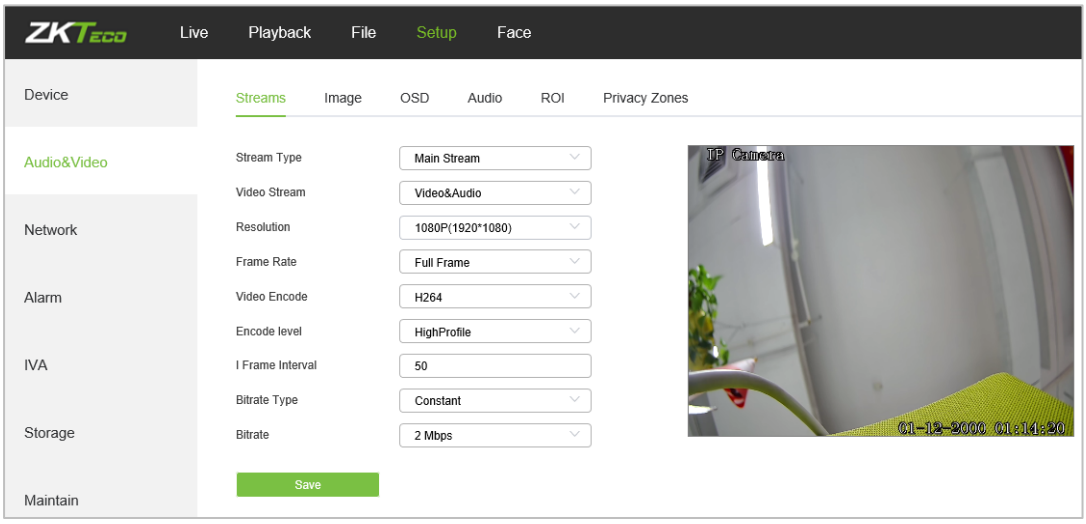
- **Name:** Modify the appointed channel name.
- **Main Stream OSD:** Modify the appointed font of the OSD in main stream preview channel.

- **Sub Stream OSD:** Modify the appointed font of the OSD in sub stream preview channel.
- **Three Stream OSD:** Modify the appointed font of the OSD in three stream preview channel.
- **Multi OSD:** Add a multi-user-defined OSD, which you may choose whether to display.
- **Time Format:** Select different time format for the appointed channel.
- **Date Format:** Select different date format for the appointed channel.
- **Name:** Set the location of the title for the appointed channel.
- **Date Time:** Set the location of the date for the appointed channel.
- **Multi OSD:** Set the position of multi OSD.
- **OSD Font:** Select OSD font from the list.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.2.3. Streams

Below is the Streams setting interface of the IP camera.

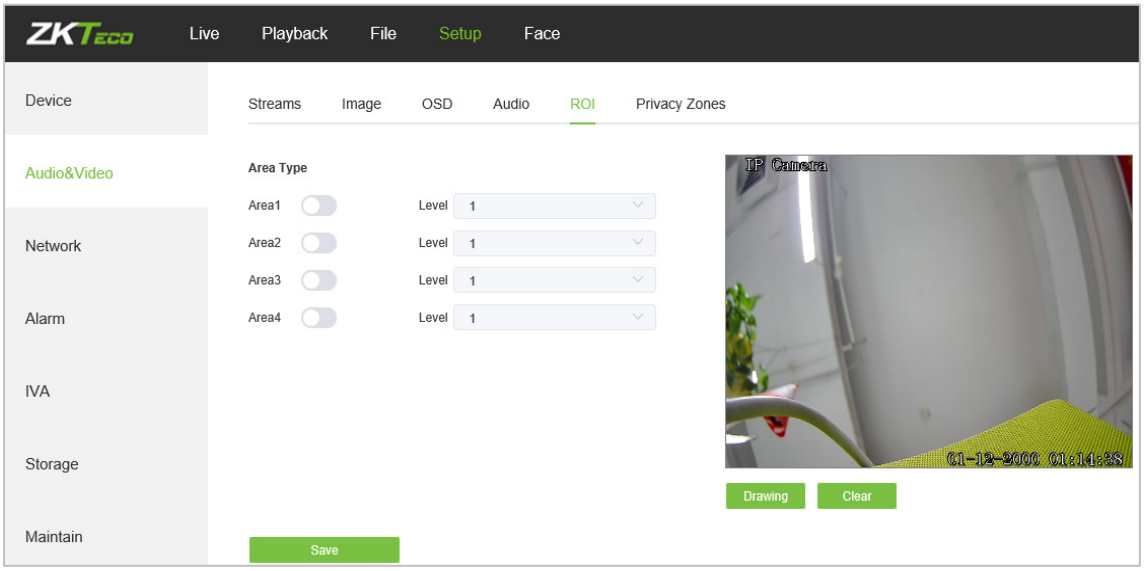


- **Stream Type:** Select the type of stream as Main stream/ Sub-stream/Third Stream
- **Video Stream**: Select the stream as Video&Audio/ Video
- **Resolution:** Several resolutions available (**Note:** Based on the defaulted resolution of different products).
- **Frame Rate:** Select different frame rates from the drop-down list; the default settings is “Full Frame”.
- **Video Encode:** H.264/ H.265.
- **Encode level:** Main profile/ Baseline/ High Profile.
- **I Frame Interval:** Set the interval size of I frame.
- **Bitrate Type:** Constant/ variable.
- **Bitrate:** Set different bitrates for different channels (**Note:** Based on the defaulted resolution of different products)

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.2.4. ROI

Below is the ROI Settings interface of the IP camera.

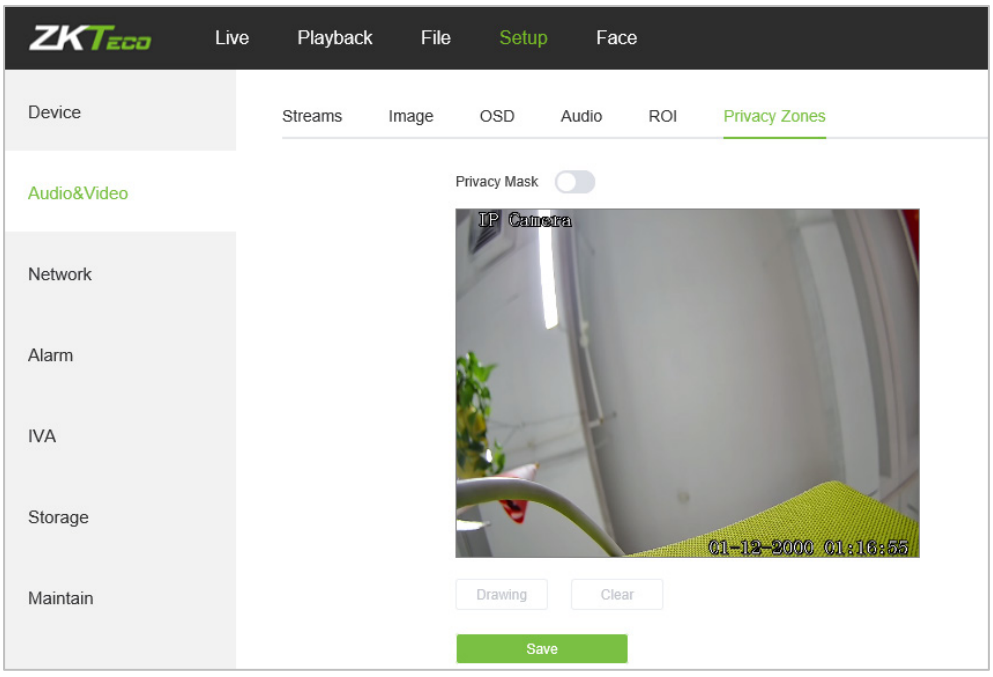


- **ROI Settings:** On the preview window, hold the left mouse button and drag to set the ROI area. There are a total of four ROI areas available. Click Enable: ☑ to set the corresponding ROI region coding level; the higher level the coding, the stronger the ROI region encoding.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.2.5. Privacy Zones

Below is the Privacy Zones setting interface of the IP camera.



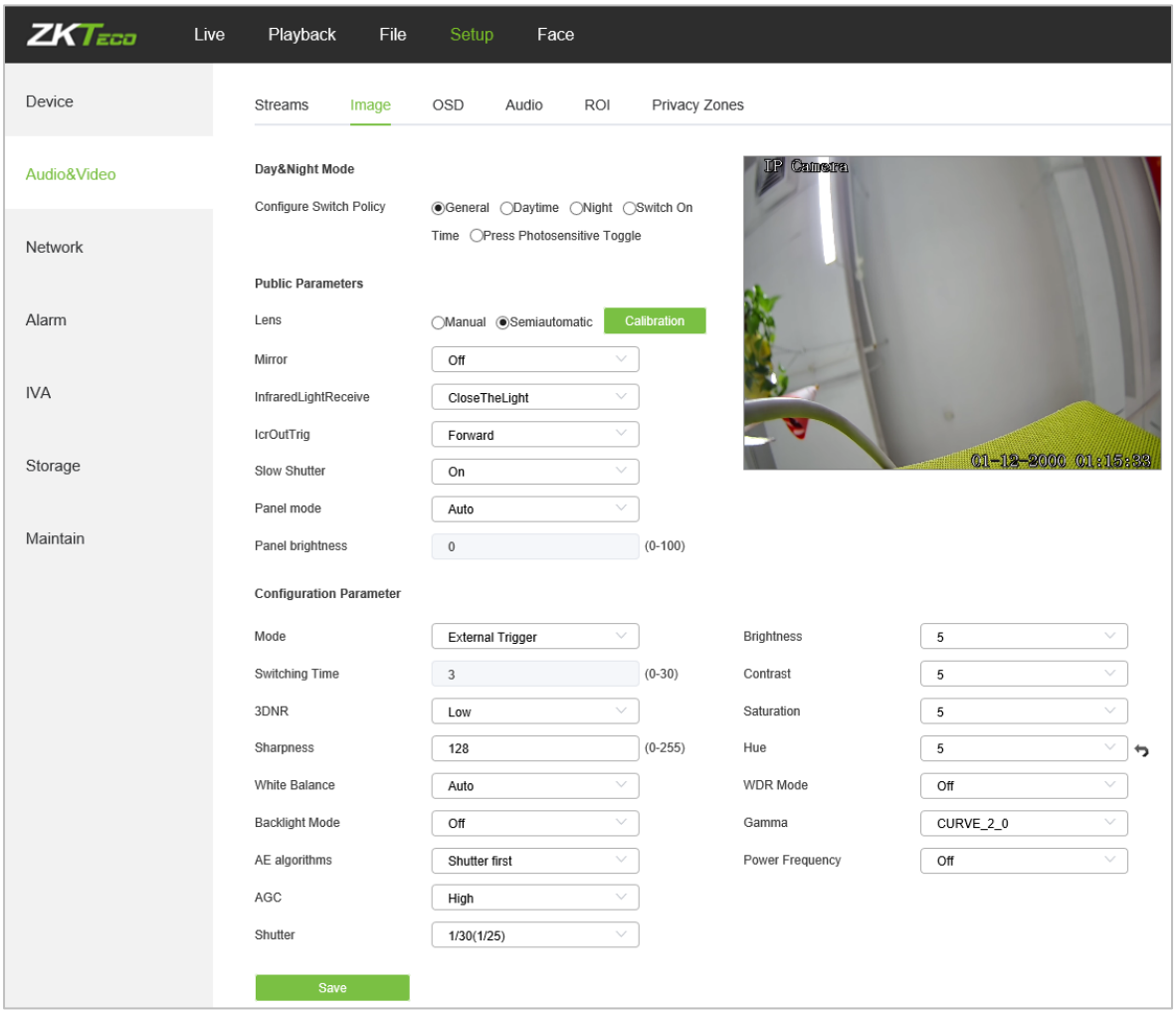
- **Privacy Mask:** Enable or disable the Privacy Mask feature.

- **Area Settings:** Left-click and drag the mouse on the Area Settings preview interface drawing to set the mask area.
- **Clear:** Click to delete the current controlled area.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.2.6. Image

Below is the Image Parameters interface of the IP camera.



- **Day/Night Mode:** Outside Trigger/ Auto/ Color/ Black White. The default setting of non-infrared IP cameras is “Auto”, and the default setting of infrared IP cameras is “Outside Trigger”. Users may set the Day/Night mode as needed according to the type of the IP camera and the actual application environment.
- **Switching Time:** Day & Night switch delay time which ranges from 0-30s; the default setting is 3s.
- **Day/Night:** ranges from 0 to 255. Users may set the value as needed; the default setting is 20.
- **Night/Day:** ranges from 0 to 255. Users may set the value as needed; the default setting is 35.
- **Color Mode:** Normal/ Bright/ Nature; the default setting is “Normal”
- **Mirror:** Off Horizontal Mirror/ Vertical Mirror/ 180° Rotation/90° Rotation/270° Rotation, the default setting is “Off”.

- **WDR Mode:** Off/ BLC/ WDR; the default setting is "Off".
- **3DNR:** Off/ Low/ Mid/ Mid-High/ High; the default setting is "Low".
- **Sharpness:** ranges from 0 to 255; the default setting is 128.
- **Defogging:** Off/ Low/ Mid/ High; the default setting is "Off".
- **Slow Shutter:** Off/On; the default setting is "Off".
- **White Balance:** Users may set the value of white balance. "Auto white balance" is suitable for normal light environment. Users may adjust the white balance mode from the drop-down list.
- **Exposure Control:** Auto/ manual; the default setting is "Auto".
- **AE algorithms:** Shutter first/ gain first; the default setting is "Shutter first".
- **AGC:** AGC can be set when the camera is automatically exposed. You may select from Low/ Mid-Low/ Mid/ Mid-High/ High; the default settings are "Mid-High". The larger the "Auto Gain" value, the better the sensitivity under low illumination, and the more obvious the noise will be.
- **Shutter:** You may set manual exposure; the value ranges from 1/25(30) to 1/10000.
- **Aperture:** Depending on the type of IPC lens, the aperture can be divided into manual aperture and auto aperture (**Note:** based on the defaulted aperture of different products); and the lens can be divided into manual focus and vari-focus.
- **Gamma:** A total of four modules: CURVE_1_6, CURVE_1_8, CURVE_2_0, CsURVE_2_2; the default setting is CURVE_2_0.
- **Power Frequency:** There are three options: off, 50hz, 60hz; the default setting is "off".
- **Light board control mode:** There are three LED board control modes: off, manual, auto; the default setting is "auto".
- **Off mode:** The IR LED will not be turned on.
- **Manual mode:** The brightness of the LED board can be adjusted by manually changing the related parameters, and the value ranges from 1 to 100. The larger the parameter value, the brighter the IR LED.
- **Auto mode:** The brightness of the LED board can be adjusted automatically.
- **Brightness:** The brightness of the LED board can be set when the LED board control is under "Manual" mode. The value ranges from 1 to 100.

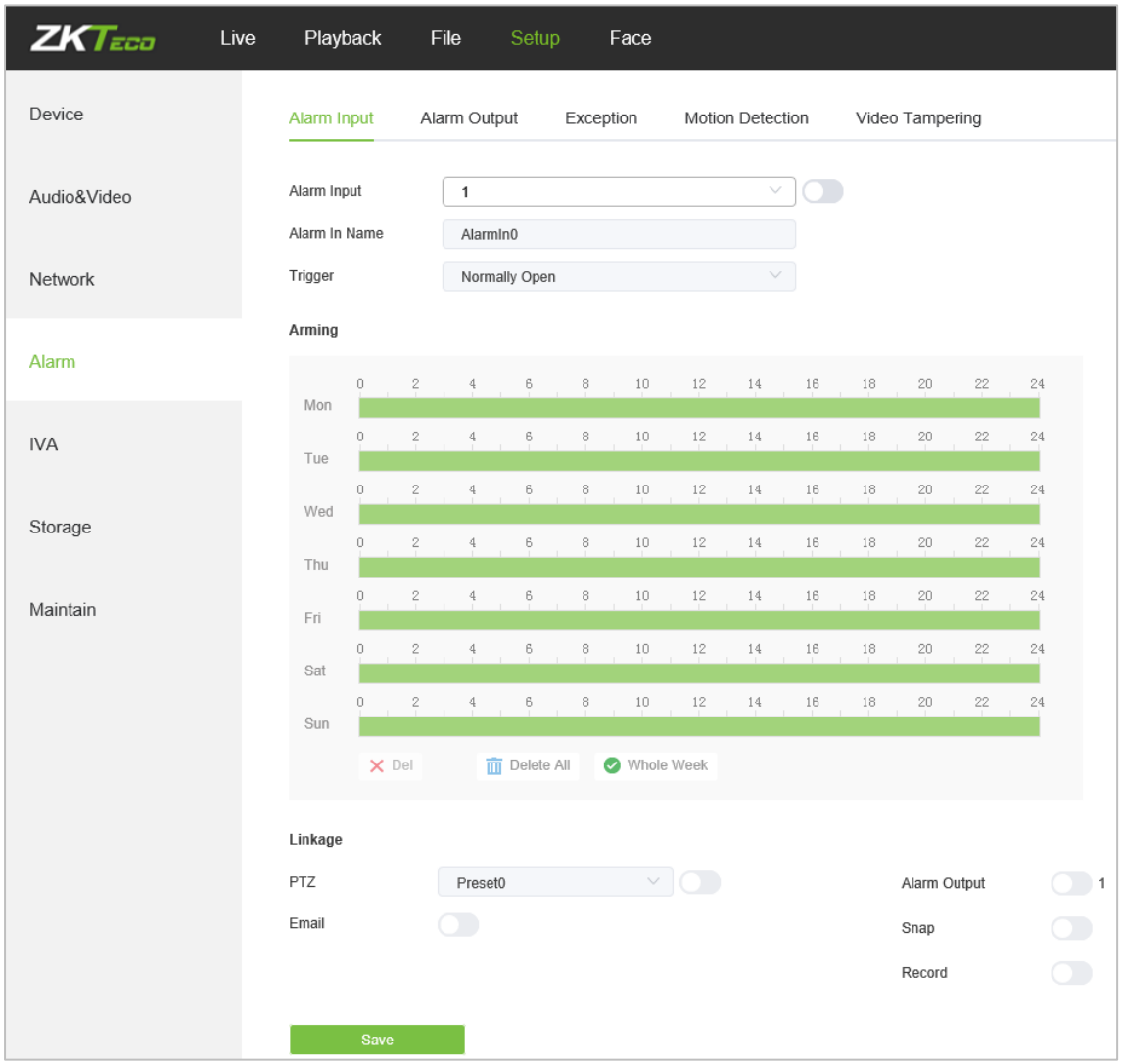
After completing all parameters settings, click **Save**, then the settings will take effect immediately.

- **Target Brightness:** Adjust the target brightness.
- **AE algorithms:** Priority selection of adjusting the brightness.
- **AGC:** Improve the image signal to amplification the brightness, which will amplification the image noise.
- **Shutter:** The exposure time in the snapshot, the longer the exposure time, the brighter the picture.
- **InfraredLightReceive:** After opening the use of infrared lights to make the picture dark.
- **Model:** Brightness adjustment mode of InfraredLight.
- **Brightness:** Manually set the brightness of the InfraredLight.

6.3. Alarm

6.3.1. Alarm Input

Below is the Alarm Input setting interface of the IP camera.



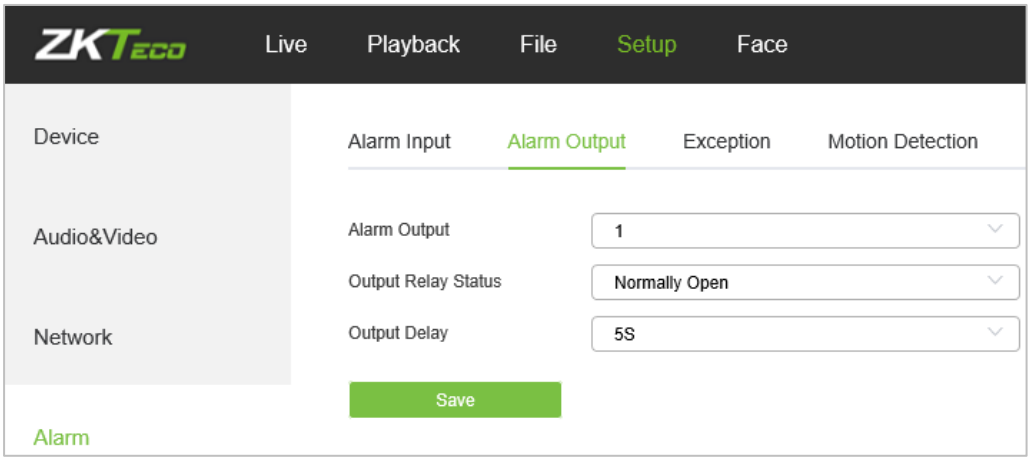
- **Alarm Input:** Select the alarm input port, then check the box Handle : ☐ to implement the following parameters settings.
- **Alarm In Name:** Input a name of an alarm.
- **Trigger:** Select the alarm status: Normally Open/ Normally Close.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday. You may set up to 8 schedules for a day.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Once an alarm is triggered, a signal will be transmitted to the camera to record a video and restore it in the TF card.

- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **Snap Number:** Set the number of snapshots taken each time.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When a signal triggers the alarm, it will link with the preset points.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.3.2. Alarm Output

Below is the Alarm Output setting interface of the IP camera.

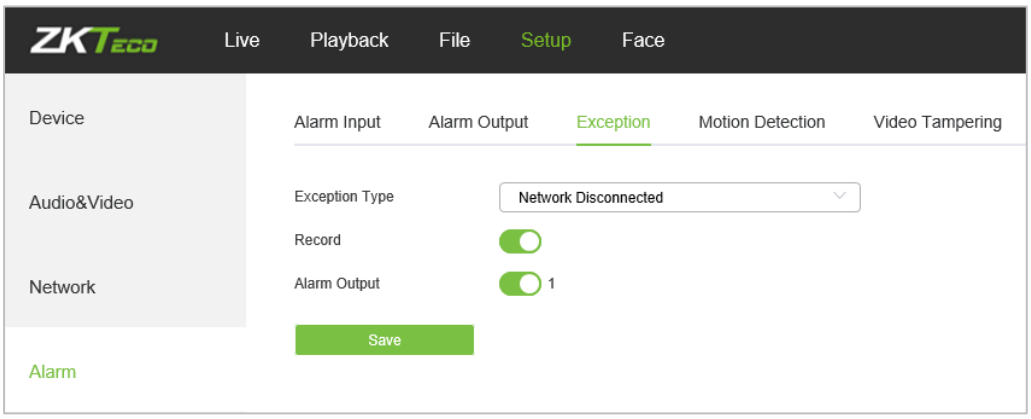


- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **Output Relay Status:** Normally Open/ Normally Close.
- **Output Delay:** Select alarm output delay time, which represents the corresponding output alarm delay time after the alarm stops triggering.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.3.3. Exception

Below is the Exception interface of the IP camera:



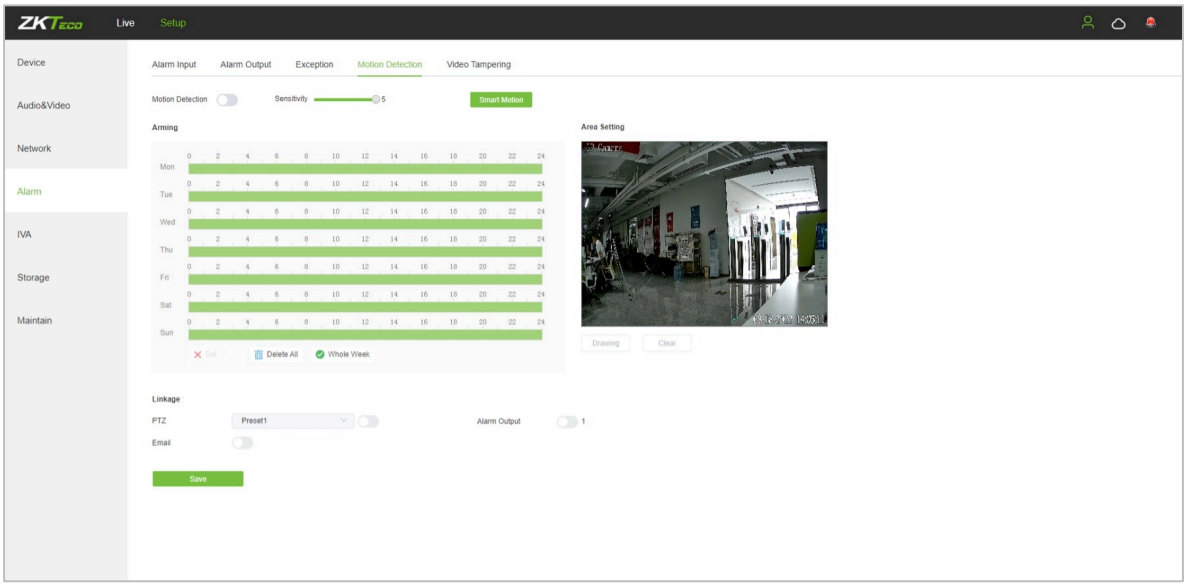
- **Exception Type:** Network Disconnected/ IP Address Conflict.

- **Record:** Click **Record**, when there is an abnormal event which triggers an alarm, the camera will start recording.
- **Alarm Output:** Click **Alarm Output**, the system will link with other alarm devices when there is an abnormal event which triggers an alarm.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.3.4. Motion Detection

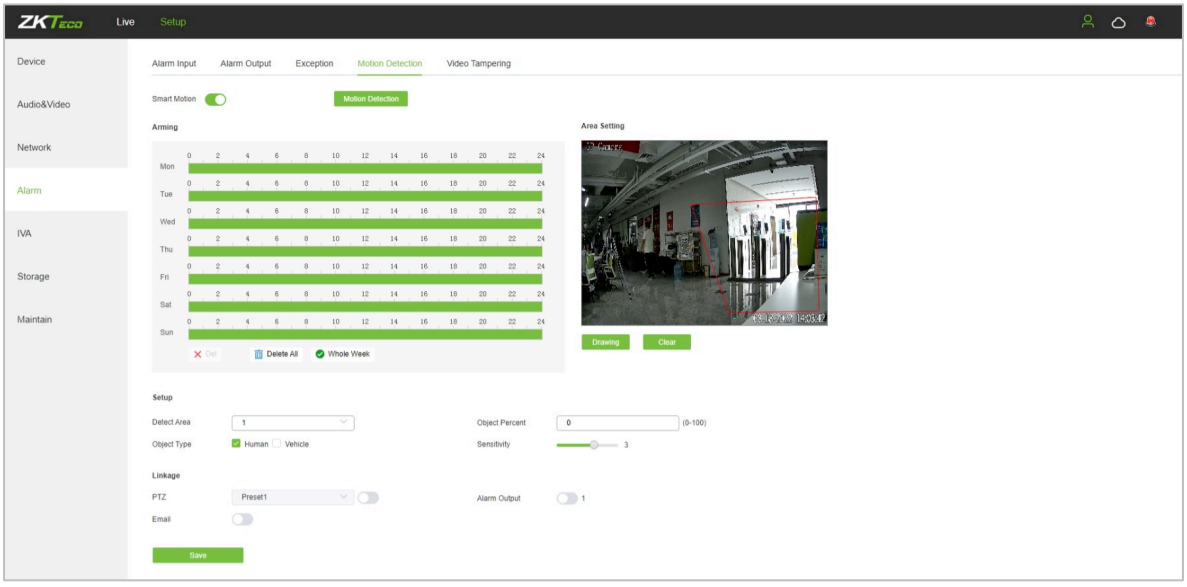
Below is the Motion Detection setting interface of the IP camera.



- **Motion Detection:** Select whether to enable the Motion Detection function.
- **Sensitivity:** The higher the sensitivity, the more obvious the motion detective effect will be.
- **Week:** The Detection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up an arming period; you may set up to 8 time periods for a day.
- **Area Setting:** On the "Area Setting" preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click to clear the current controlled areas.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When motion detection triggers an alarm, the alarm will link with the preset point.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.3.4.1. Smart Motion

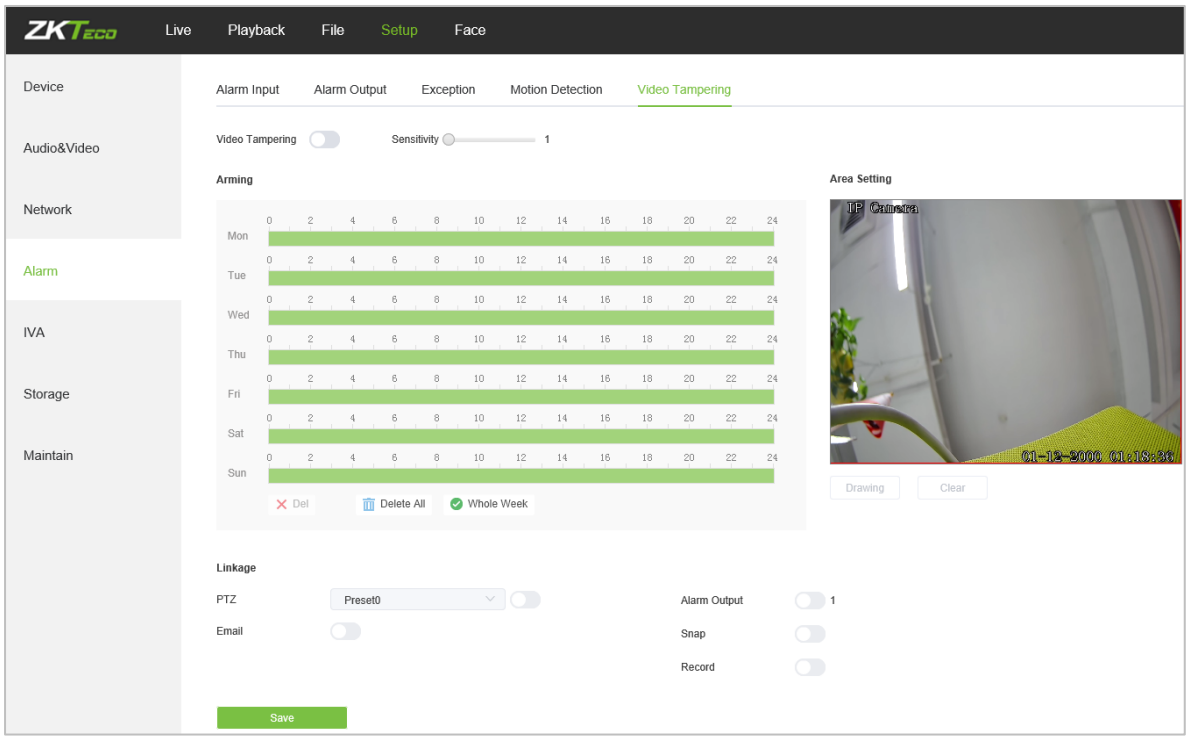


- **Smart Enable:** Select whether to enable the Motion Detection function.
- **Week:** The Detection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up an arming period; you may set up to 8 time periods for a day.
- **Area Setting:** On the “Area Setting" preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click to clear the current controlled areas.
- **Detect Area:** Add controlled zones (max. 4).
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Sensitivity:** The higher the sensitivity, the more obvious the motion detective effect will be.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When motion detection triggers an alarm, the alarm will link with the preset point.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.3.5. Video Tampering

Below is the Video Tampering setting interface of the IP camera.



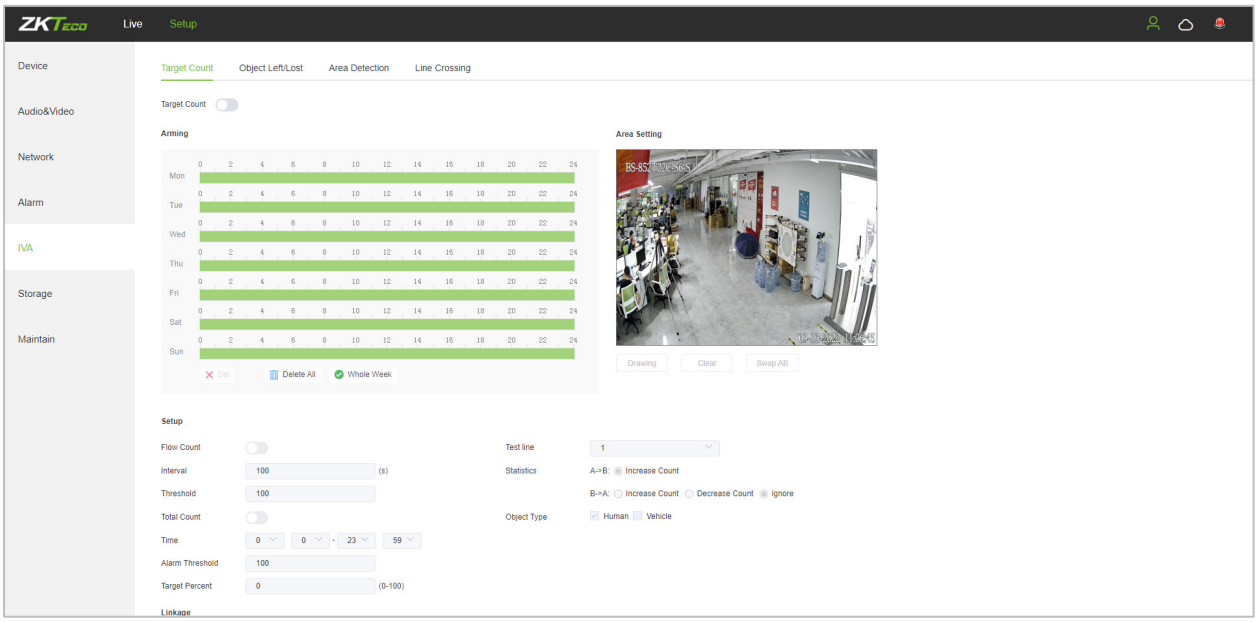
- **Video Tampering:** Select whether to enable the video tampering function.
- **Sensitivity:** The higher the sensitivity, the easier to trigger the video tampering alarm.
- **Week:** The protection time can be set from Monday to Sunday.
- **Arming Schedule:** Set up a protection period; you may set up to 8 time periods for a day.
- **Area Setting:** On the “Area Setting" preview interface, left-click and drag the mouse to set the area to be monitored.
- **Clear:** Click to clear the current controlled areas.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When video tampering triggers an alarm, the alarm will link with the preset points.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.4. IVA

6.4.1. Target Counting

Below is the Target Count setting interface of the IP camera.



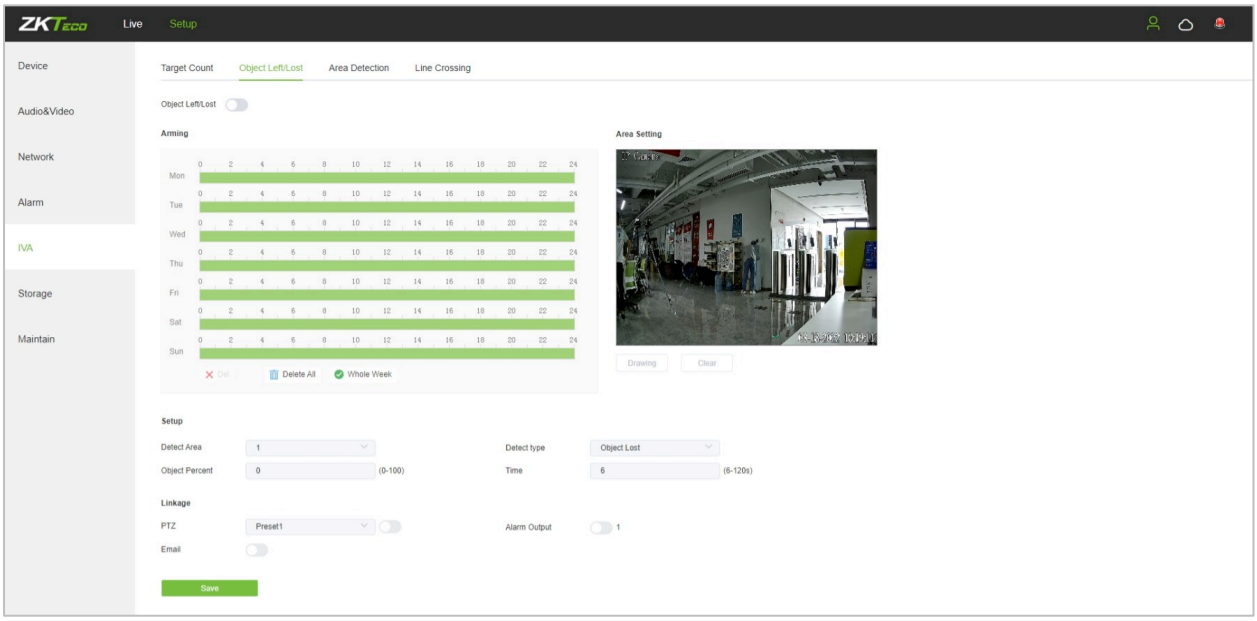
- **Target Count:** Enable or disable the target counting function.
- **Arming Schedule:** Arm schedule can be set from Monday to Sunday.
- **Area Setting:** Click **Drawing**, then left-click and drag the mouse button to set the test line on the Area Settings preview interface. Click **Stopping** to complete the setting, then the system will count the number of targets passing through the line.
- **Clear:** Click to delete all the test lines.
- **Swap AB:** Click to exchange position between A and B.
- **Test Line:** Add test lines (max. 4 test lines).
- **Statistics:** Set the test lines for targets passing through. There are two statistical methods: A > B and B > A. A > B will increase the count by default, and B > A can set to increase the count, decrease the count or ignore
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Flow Count:** Enable or disable the Flow Counter feature.
- **Interval:** Set the counting time interval. When the counting time exceeds the time interval set, the flow counter will reset and enter next counting period automatically.
- **Threshold:** Set the upper count limit. When the value exceeds the set value, the system will automatically trigger the alarm.
- **Total Count:** Enable or disable the Total Counter function.
- **Time Period:** Set the effective time period for the day's total counter.

- **Alarm Threshold:** Set the upper limit of the total flow on a day. When the value exceeds the set value, the system will automatically trigger the alarm.
- **Target Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Snap:** Once an alarm is triggered, a signal will instantly be sent to the camera to take a snapshot and store it in the TF card.
- **Record:** Once an alarm is triggered, a signal will instantly be sent to the camera to record a video and store it in the TF card (for cameras which support TF cards only).
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When target counting triggers an alarm, it will link the pre-sets.
- **Snap Interval:** Set the time intervals for taking snapshots.
- **Snap Number:** Set the number of snapshots taken each time.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.4.2. Object Left / Lost

Below is the Object Left/Lost setting interface of the IP camera.



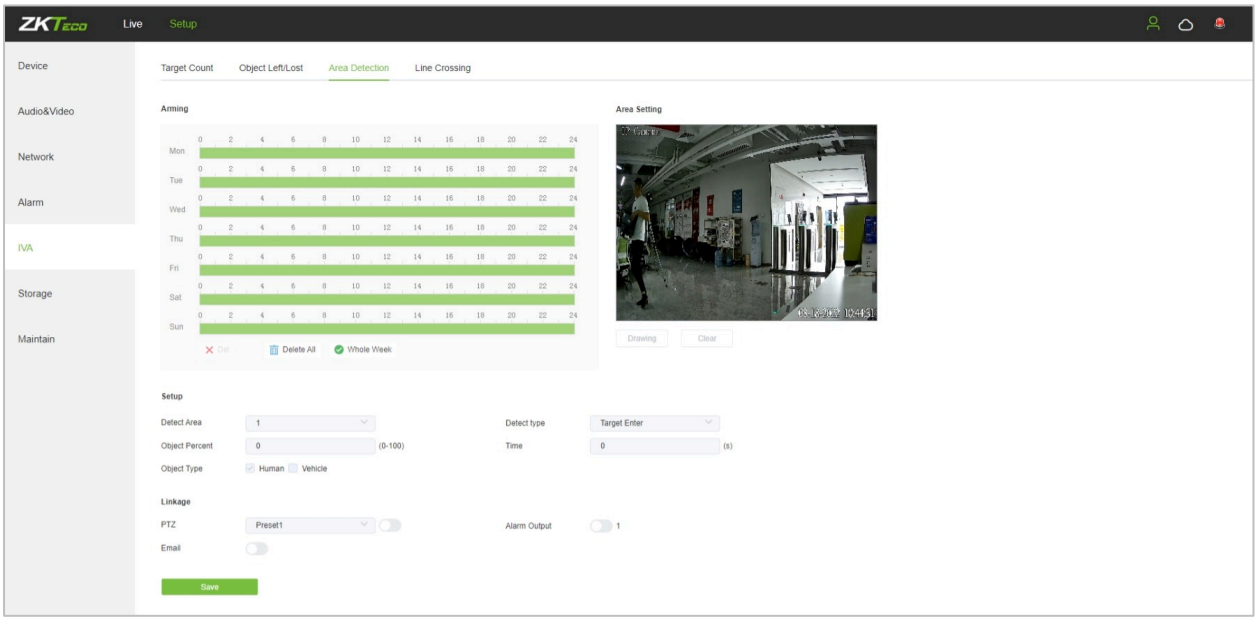
- **Object Left/Lost:** Enable or disable the object left/lost detection function.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday.
- **Area Setting:** Click **Drawing**, then left-click and drag the mouse button to set the detect zone on the Area Settings preview interface. Click **Stopping** to complete the setting, then the system will detect, and monitor objects appeared in the selected area.
- **Clear:** Click to delete all zones.
- **Detect Area:** Add controlled zones (max. 4).

- **Detect Type:** Set the object detection type. There are three detection types, all of them are able to trigger the alarm. “Item lost” represents that the camera will trigger the alarm once it detects that an item originally in the monitored area is missing; “Item left” represents that the camera will trigger the alarm once it detects a new item in the detection area; “Item lost or left” represents that the camera will trigger the alarm once it detects that an item is missing and/or a new item in the controlled area.
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Time:** Set the upper limit of item lost and item left. When it exceeds the set value, the system will trigger the alarm automatically
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.
- **Preset:** When object detection triggers an alarm, it will link with the preset points.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.4.3. Area Detection (Intrusion Detection)

Below is the Area Detection setting interface of the IP camera.



- **Arming Schedule:** Arming schedule can be set from Monday to Sunday.
- **Area Setting:** Click **Drawing**, then left-click and drag the mouse button to set the detect zone on the area settings preview interface. Click **Stopping** to complete the setting, then the system will detect, and monitor objects appeared in the selected area.
- **Clear:** Click to delete all zones.
- **Detect Area:** Add controlled zones (max. 4).
- **Detect Type:** Set the target detect type. There are four detection types, all of them will trigger the alarm. “Target enter” represents that the camera will trigger the alarm once it detects that a target

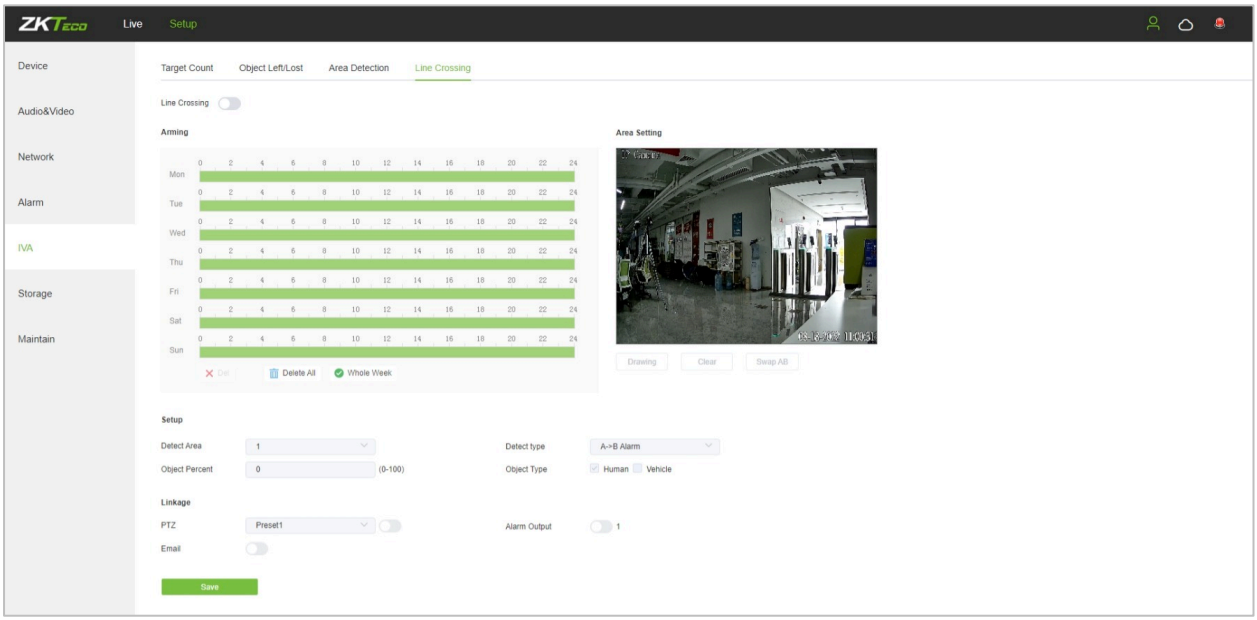
enters the monitored zone; "Target leave" represents that the camera will trigger the alarm once it detects that a target leave the zone; "Target enter or leave" represents that the camera will trigger the alarm once it detects that a target enters and/or leave the zone. The last type is that the camera will trigger the alarm once it finds that the time that a target staying in the controlled area exceeds the upper limit of the set and allowed duration.

- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Time:** When the staying time of the set target in the monitored area exceeds the set duration, the system will trigger the alarm.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.4.4. Line Crossing (Tripwire)

Below is the Line Crossing setting interface of the IP camera.



- **Line Crossing:** Enable or disable the line crossingvirtual guard function.
- **Arming Schedule:** Arm schedule can be set from Monday to Sunday.
- **Area Setting:** Click **Drawing**, then left-click and drag the mouse to set guard lines on the area settings preview interface. Click **Stopping** to complete the setting. When a target passes through the guard line, the system will trigger the alarm.
- **Clear:** Click to delete all zones.
- **Swap AB:** Click to swap the positions of A/B ports.

- **Detect Area:** To add new guard lines (max. 4 guard lines).
- **Detect Type:** Set the guard lines to trigger the alarm. "A > B" refers to targets passing through the guard lines from area A to area B will trigger the alarm. "A < > B" refers to targets passing through the guard lines either from area A to area B or from area B to area A will trigger the alarm.
- **Object Type:** Set the detection object to be human or vehicle, and an alarm will be triggered when the object detected in the area is the set value.
- **Object Percent:** Sets the size of the object that triggers the alert. If objects smaller than the preset value, such as mosquitoes and leaves, enter the monitoring area, the alarm will not be triggered.
- **Email:** Once an alarm is triggered, an email will be automatically sent to the appointed mailbox.
- **Alarm Output:** There should be an active alarm device inserted into the IPC alarm output port. Once an alarm event is triggered, the IPC and alarm device will set off the alarm.
- **PTZ:** Enable or disable PTZ function.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

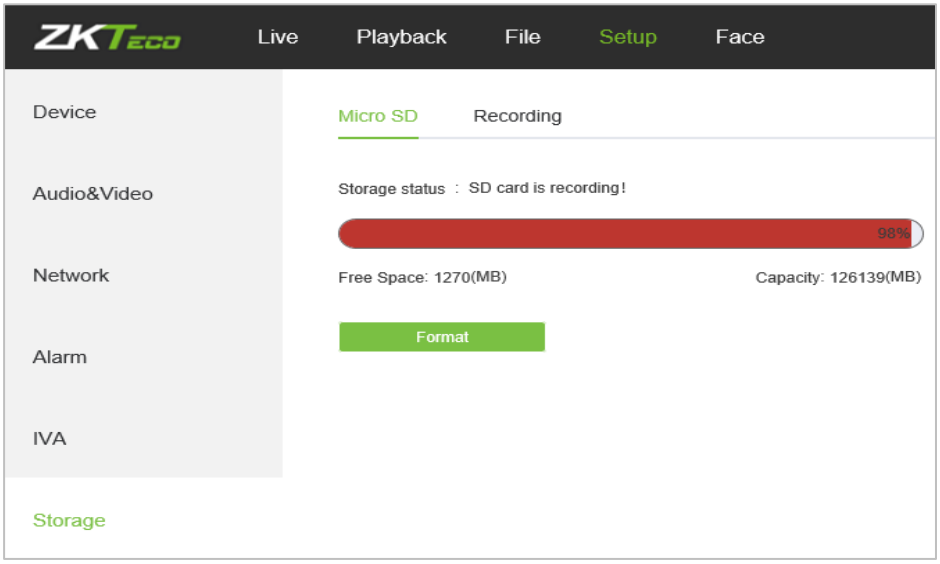
6.5. Storage

6.5.1. Micro SD

(Only displayed on TF Card supported camera)

Below is the Micro SD setting interface of the IP camera. You may view the capacity (MB), free spare (MB), status of the current TF card, and format the TF card.

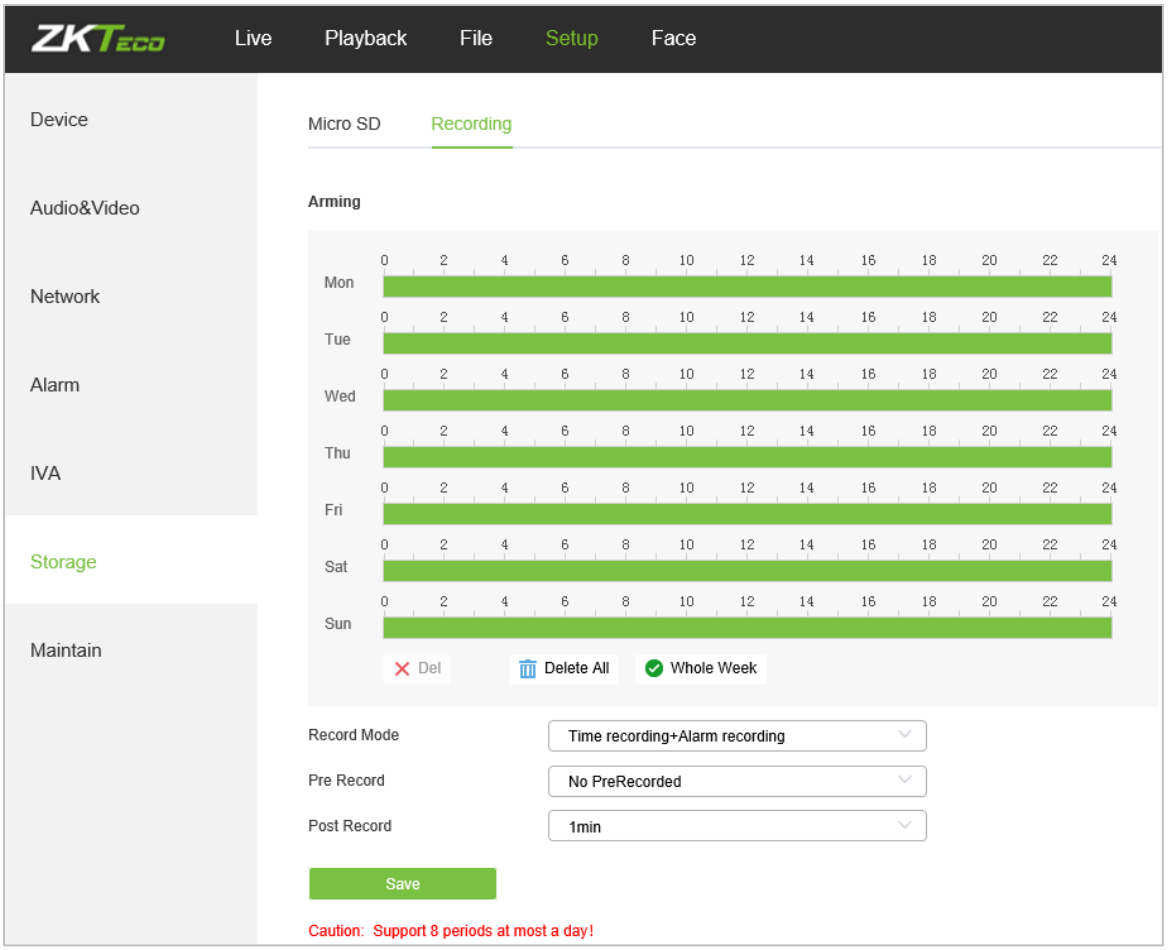
Note: Please disconnect the power supply before you insert or remove the TF card.



6.5.2. Recording

Only displayed on TF Card supported camera.

Below is the Recording setting interface of the IP camera.



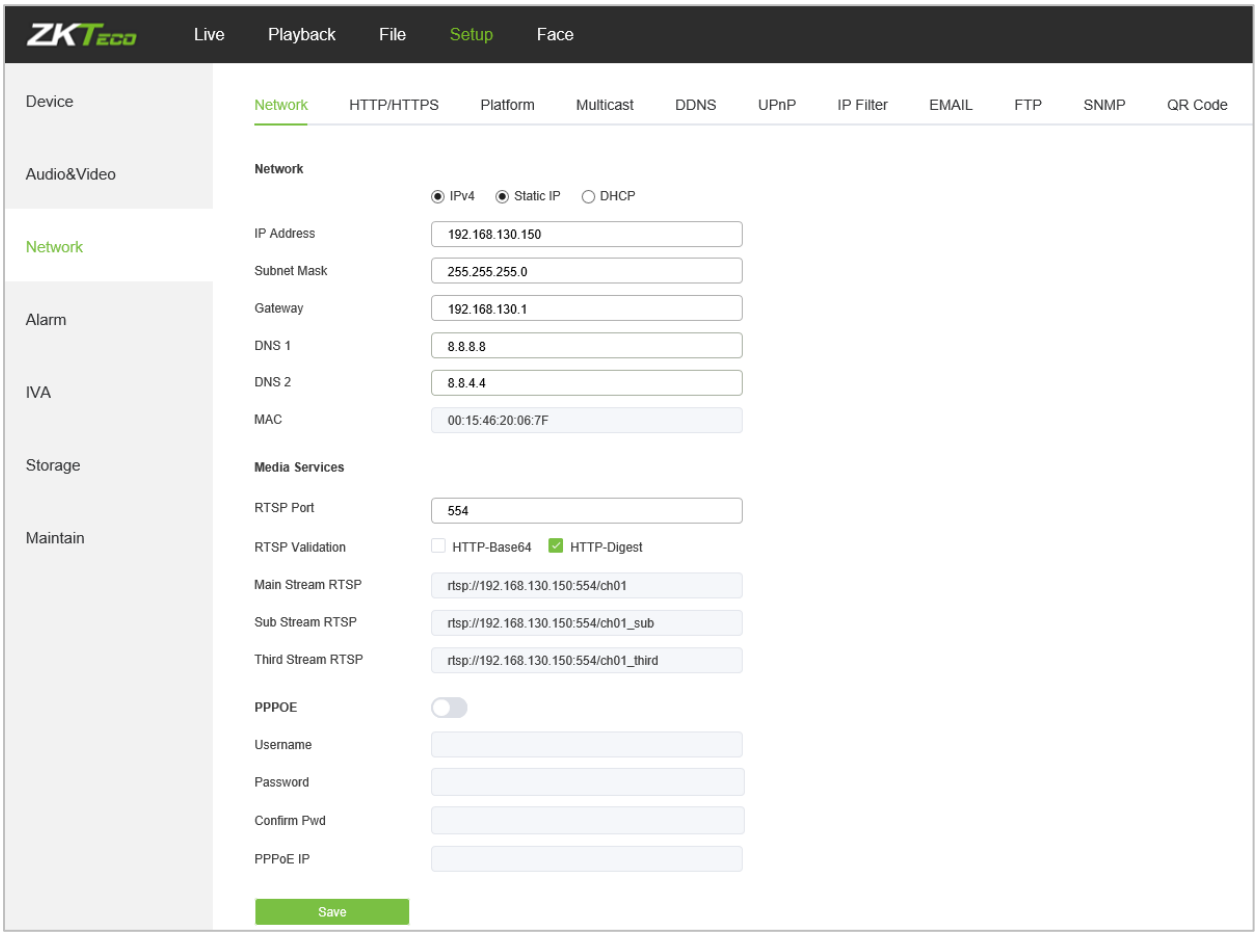
- **Recording Mode:** Select a video mode. There are four modes available: Time recording + Alarm recording, Time recording, Alarm recording, No video.
- **Arming Schedule:** Arming schedule can be set from Monday to Sunday.
- **Week:** Set the recording time from Monday to Sunday.
- **Pre Record:** Set pre-recording time.
- **Post Record:** Set the recording delay time.
- **Video Edge IP Address:** Enter the IP address of NVR or the server.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.6. Network

6.6.1. Network

Below is the Network Setting interface of the IP camera.



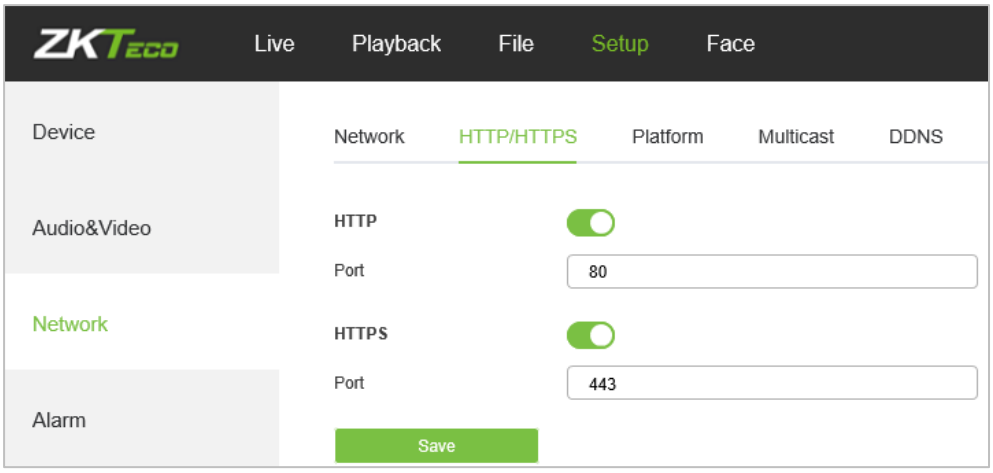
- **IPV4:** IP protocol version No. is 4.
- **Static IP:** The device IP address is permanent.
- **DHCP:** Enable DHCP, then the IP camera will obtain the IP address from the router automatically.
- **IP Address:** Input the corresponding numbers to change the IP address.
- **Subnet Mask:** Input the corresponding IP subnet mask.
- **Gateway:** Input the corresponding gateway address.
- **DNS 1:** IP address of the DNS server.
- **DNS 2:** Another IP address of the DNS server.
- **RTSP Port:** Access the device which needs to map RTSP with a domain name; the default port is 554.
- **RTSP Validation:** Choose a RTSP verification mode from Http-Base64, Http-Digest. After choosing and activating the corresponding RTSP verification mode, during playing RTSP real-time stream, RTSP validation operations need the user name and password for verification.
- **Username:** PPPOE user name.
- **Passwords:** PPPOE password.

- **Confirm Pwd:** Confirm password: Enter the password repeatedly.
- **PPPOE IP:** IP setting of PPPOE.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.6.2. HTTP/HTTPS

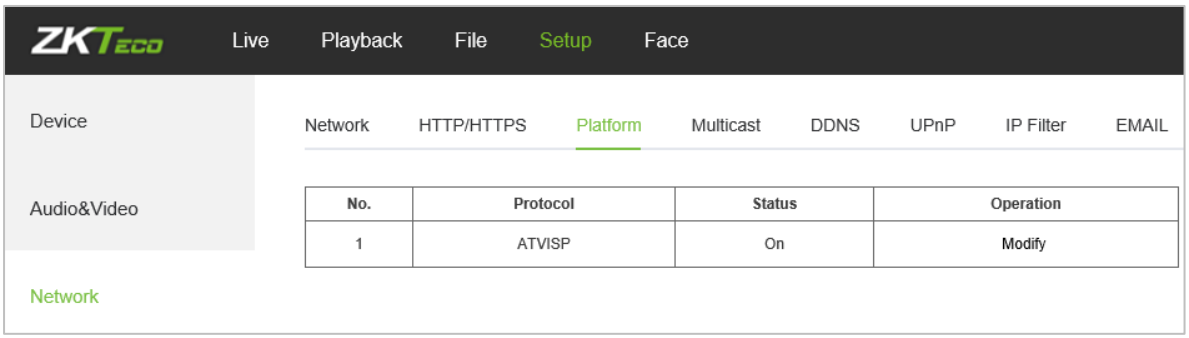
In the HTTP/HTTPS setting interface, users can make PC log in normally via HTTP/HTTPs.



- **HTTP/HTTPs:** Enable or disable HTTP/HTTPS function.
- **HTTP port:** Port range is 1 to 65524. The default value is 80.
- **HTTPs Port:** HTTPs communication port, range is 1 to 65534, default is 443.

6.6.3. Platform

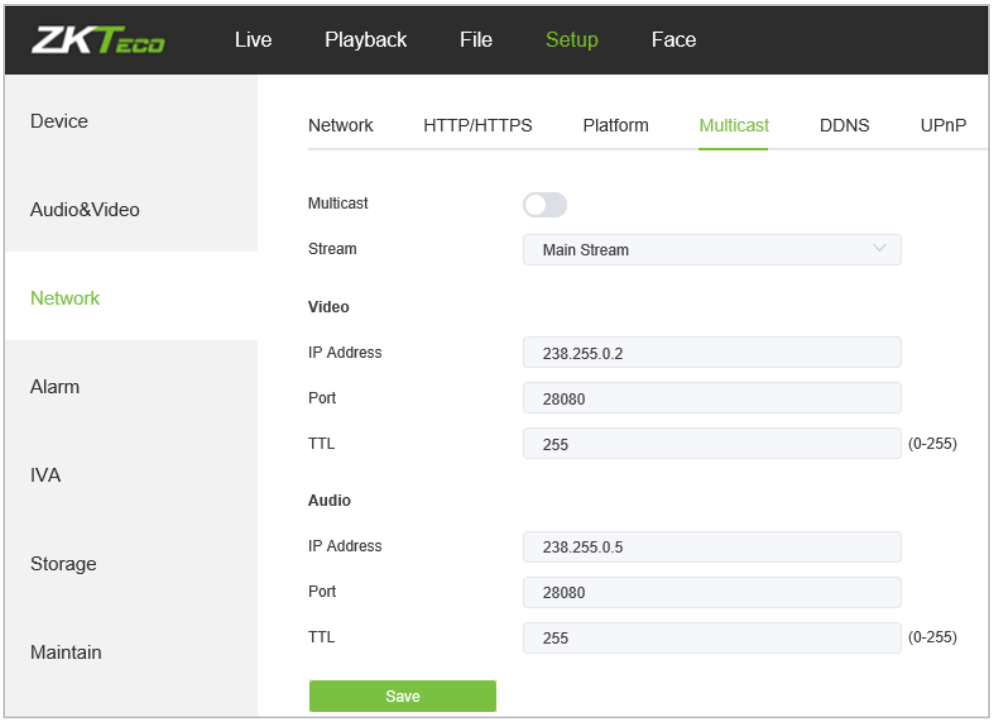
Below is the Management Platform interface of the IP camera:



Users may activate or deactivate a protocol and modify the protocol information here.

6.6.4. Multicast

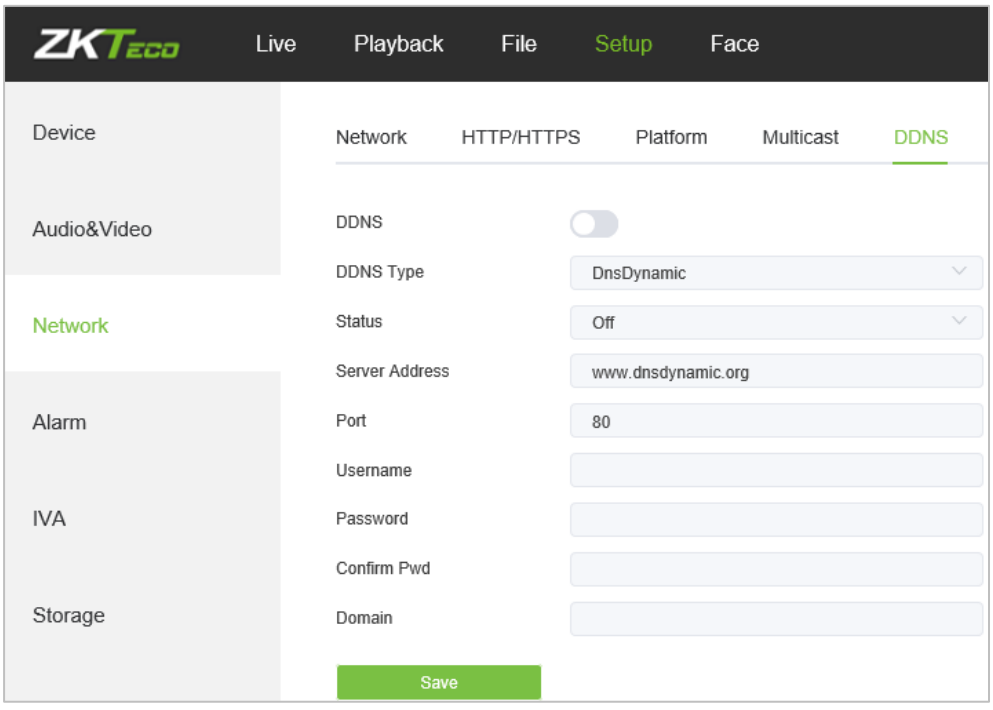
Below is the Multicast Config interface of the IP camera.



Multicast configuration is disabled by default. By clicking **Enable Multicast**, users may set the IP address, port and TTL of main stream video/audio, sub stream video/audio.

6.6.5. DDNS

DDNS is implemented through a dynamic domain resolution server. It requires a fixed IP address on of the device running on the server. The DDNS setting interface of the IP camera is as shown below.

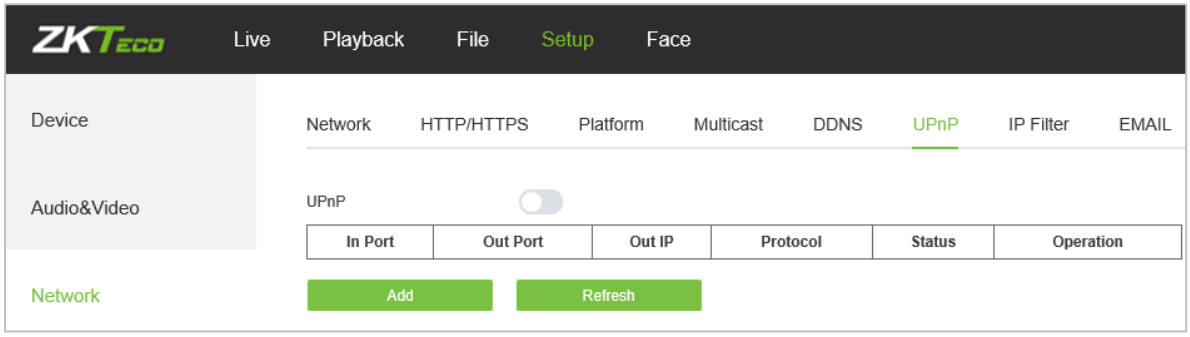


- **DDNS:** Enable or disable DDNS function.
- **DDNS Type:** Select a DDNS server type from Dyndns, PeanutHull, NO-IP, 3322, and DnsDynamic.
- **Status:** Turn on or off the DDNS.
- **Server Address:** Input a server name, for example, dynupdate.no-ip.com.
- **Port:** Input a port. The default port is 80.
- **User Name:** Input a user name.
- **Password:** Input a password.
- **Confirm Pwd:** Input the password again to confirm.
- **Domain:** Input the second domain.

After completing the parameters settings, click **Save**, then the settings will take effectimmediately.

6.6.6. UPnP

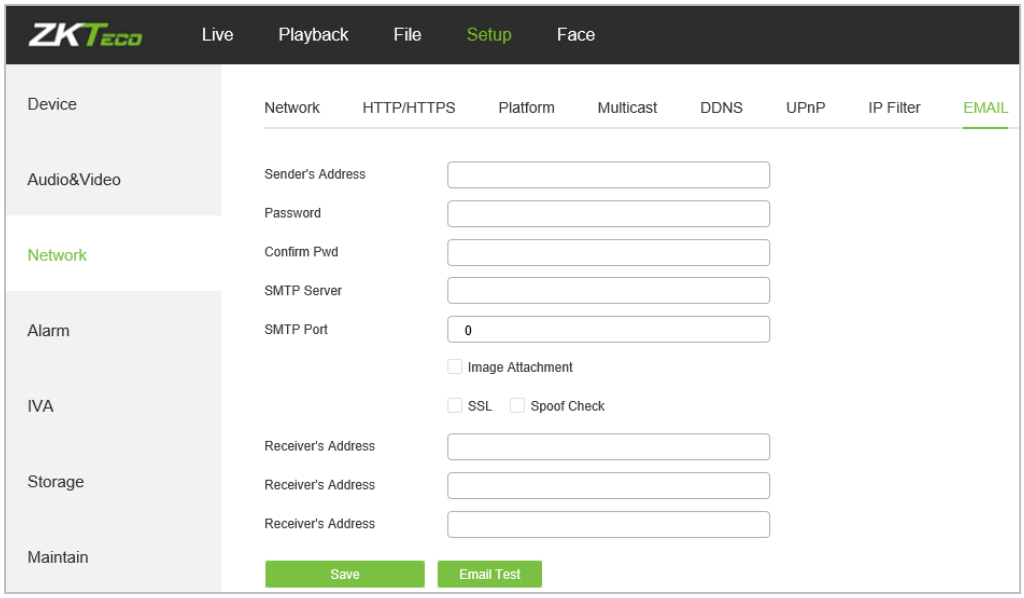
Below is the UPnP Settings interface of the IP camera.



- **UPnP:** Activate or deactivate the UPnP function. When it is enabled, the device can port mapping through the router.
- **Add:** User may add TCP/UDP protocol, set internal and external port.

6.6.7. Email

Below is the Email Setting interface of the IP camera.

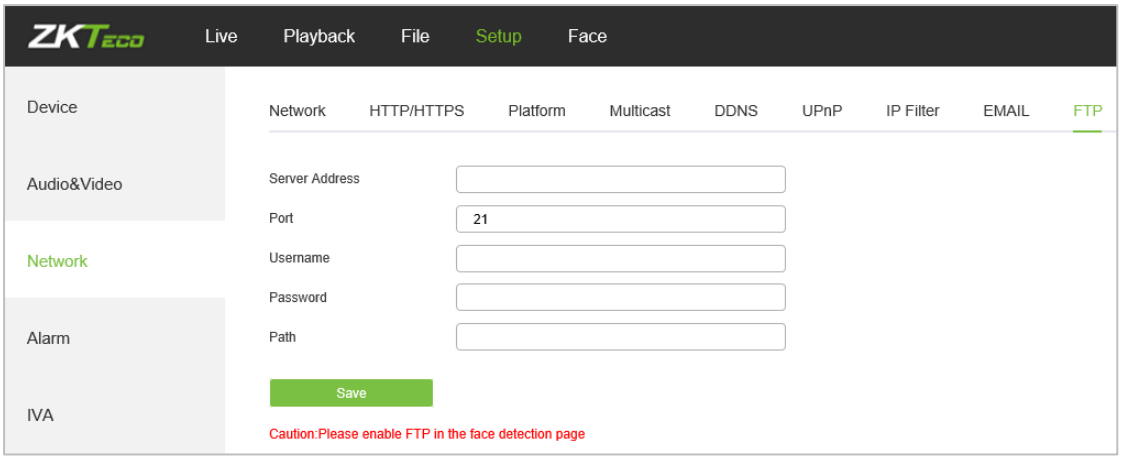


- **Sender's Address:** Input the email address of the sender.
- **Password:** Input the password of the outbox.
- **Confirm Pwd:** Input the password again to confirm.
- **SMTP Server:** Input the SMTP server address of the outbox.
- **SMTP Port:** Input the SMTP server port of the outbox.
- **SSL/Spoof Check:** Tick SSL and Spoof Check to send the email correctly and safely.
- **Receiver's Address:** Input the address of the inbox, fill in the address of the receiving email, you may fill in 3 other receivers' addresses.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.6.8. FTP

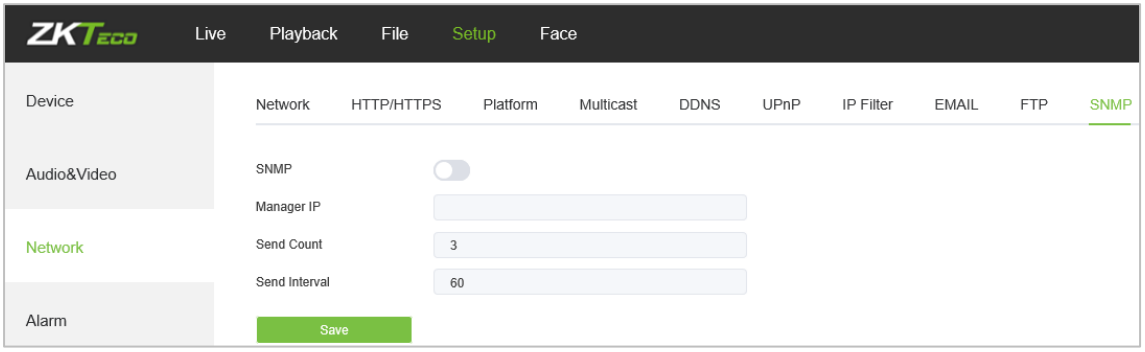
Below is the FTP Setting interface of the IP camera.



- **Server Address:** Input the FTP Server address.
- **Port:** Input the FTP server port.
- **Username:** Input the FTP server username.
- **Password:** Input the FPT server password.
- **Path:** Input the file upload path.

6.6.9. SNMP

Below is the SNMP Setting interface of the IP camera.



- **SNMP:** Enable or disable SNMP service.
- **Manager IP:** Messages will be sent to this manager IP address.
- **Send Count:** The maximum number of messages to be delivered when an alarm is triggered. The value ranges from 1 to 5.
- **Send Interval:** Interval between messages sending. The range is 60 to 250s.

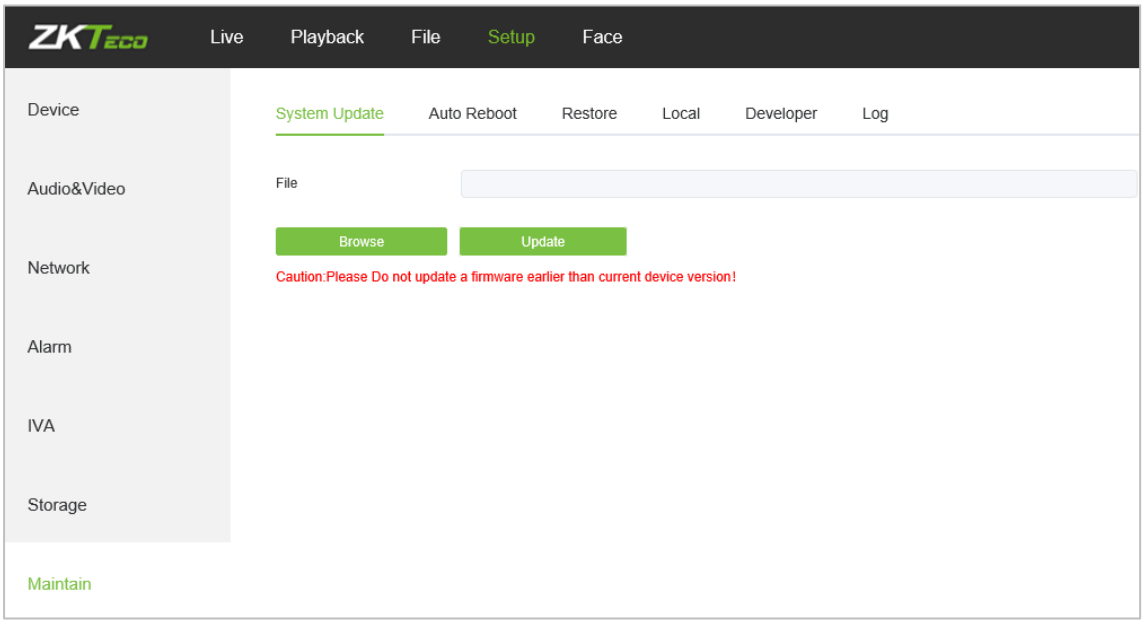
6.6.10. QR Code

Scan the QR code on this page to connect your IPC with P2P function to the mobile app remotely.

6.7. Maintain

6.7.1. System Update

Below is the System Update setting interface of the IP camera.

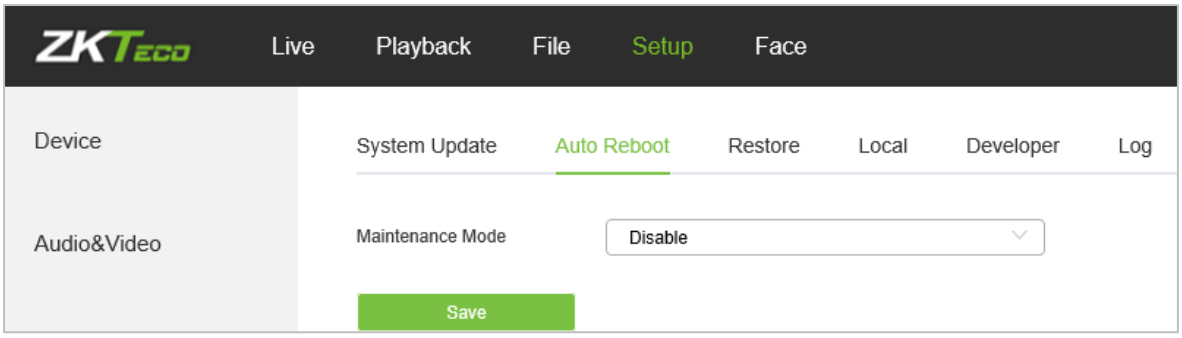


- **File:** Click **Browse** to find and select an upgrade kit, then click **Update**.

Note: Do not disconnect the power supply during upgrade.

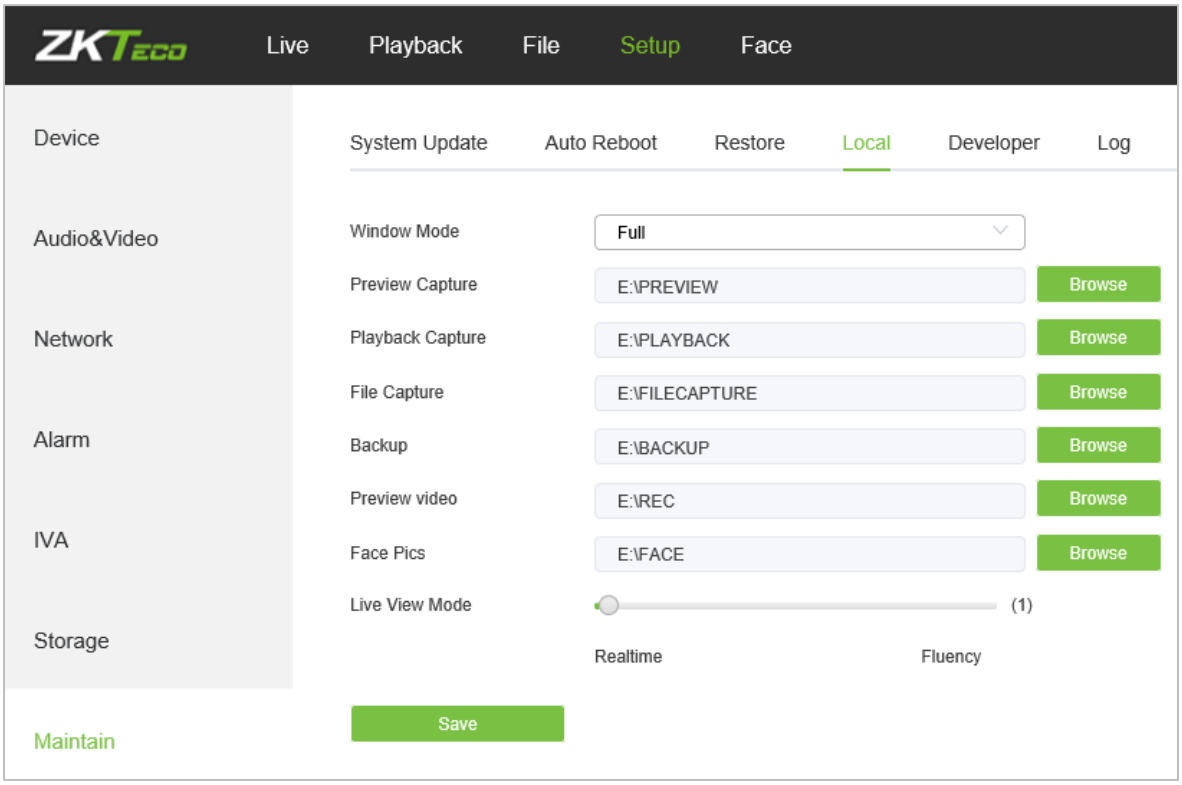
6.7.2. Auto Reboot

Below is the Auto Reboot setting interface of the IP camera. You may choose a maintenance mode from Disable/ Every Day/ Every Week/ Once/ Every Month, then the IPC will reboot as set.



6.7.3. Local

Below is the Local settings interface of the IP camera.

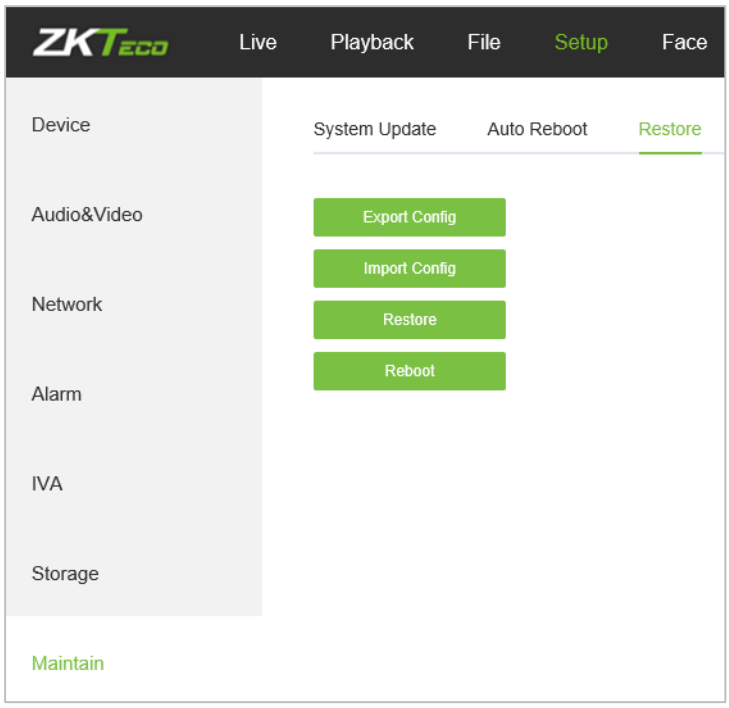


- **Window Mode:** Set the preview window mode (Full/ 4:3/ 16:9/ Original Image).
- **Preview Capture:** Select and modify the storage path of captured files.
- **Playback Capture:** Select and modify the storage path of playback files.
- **File Capture:** Select and modify the storage path of captured files.
- **Backup:** Select and modify the storage path of backup files.
- **Preview Video:** Select and modify the storage path of the video record file.
- **Face Pics Path:** Select and modify the storage path of the video record file.
- **Live View Mode:** Realtime/ Fluency. The value is adjustable.

After completing all parameters settings, click **Save**, then the settings will take effect immediately.

6.7.4. Restore

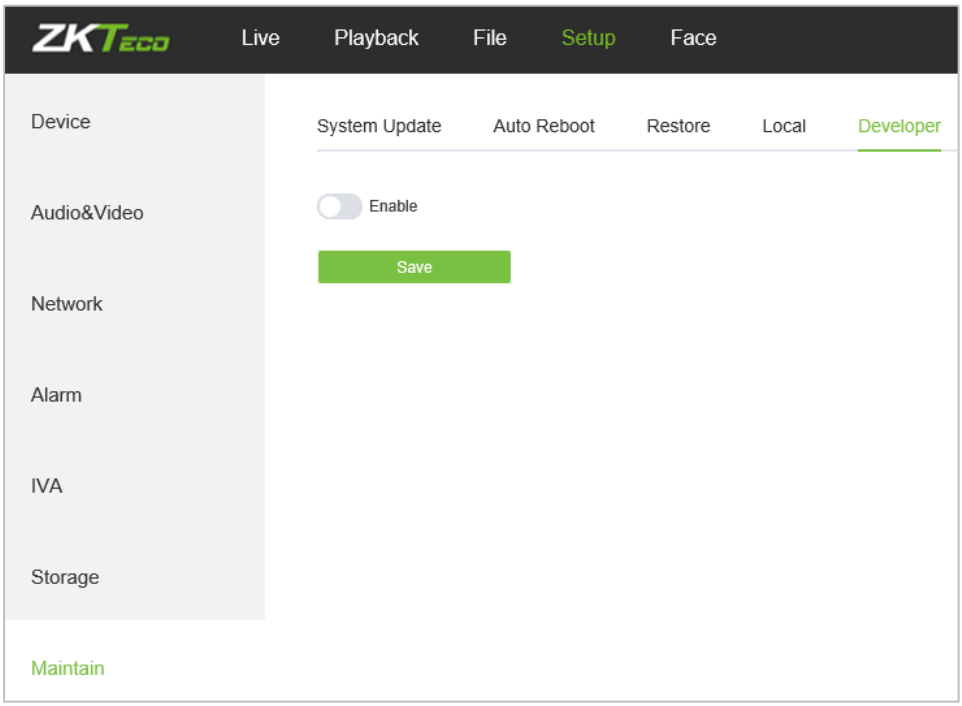
Below is the Restore interface of the IP camera.



- **Export Config:** Export all configurations to PC or a USB.
- **Import Config:** Import selected configuration to the system.
- **Restore:** Restore the device to factory settings.
- **Reboot:** Reboot the device.

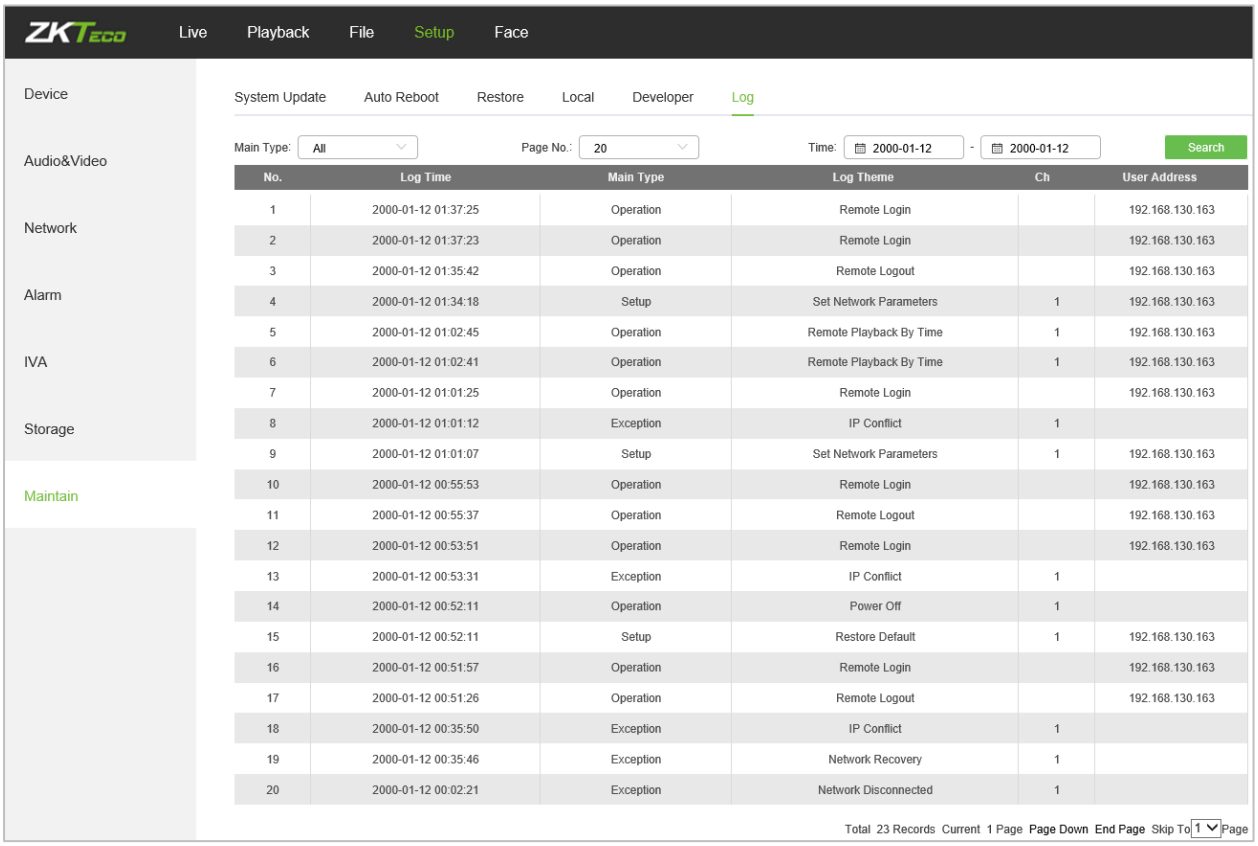
6.7.5. Developer

Below is the Developer interface of the IP camera.



6.7.6. Log Search

Click **Search** on the Log interface, check device log according to the video type and date time, as shown in the below figure.

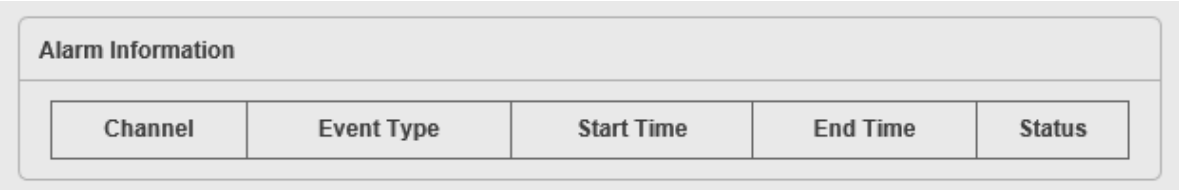


- **Main Type:** Select the type of logs to search for. You may choose among All/ Alarm/ Exception / Operation/Parameter or click "All" to search all types of logs.
- **Start Time/ End Time:** Select the time period of logs to check.
- **Page No.:** Select the number of logs to display on each page.

After completing all settings, click **Search**, then the log information will display on the left.

7. Alarm

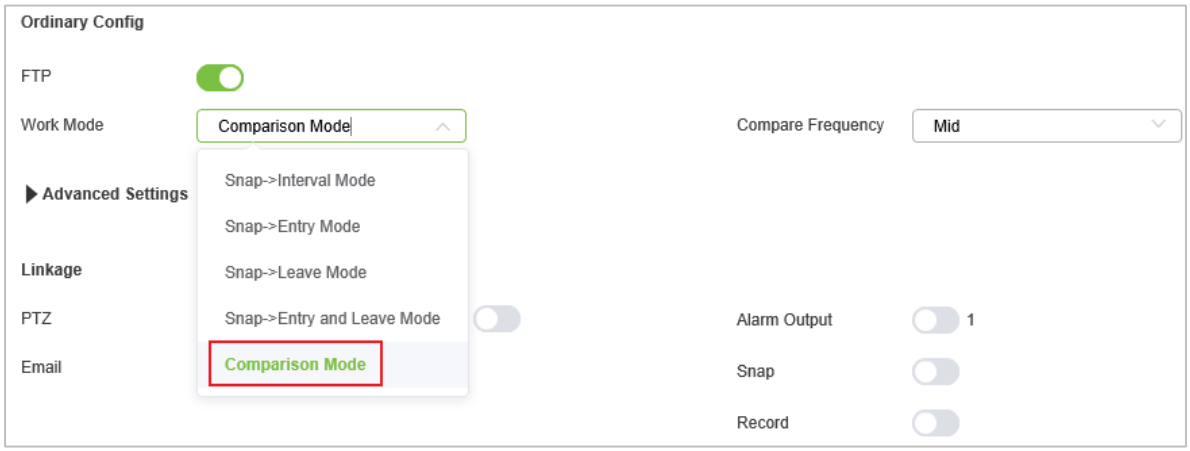
Below is the interface for the alarm feature of the IP camera. Information regarding alarms will be displayed as follows.



8. Face

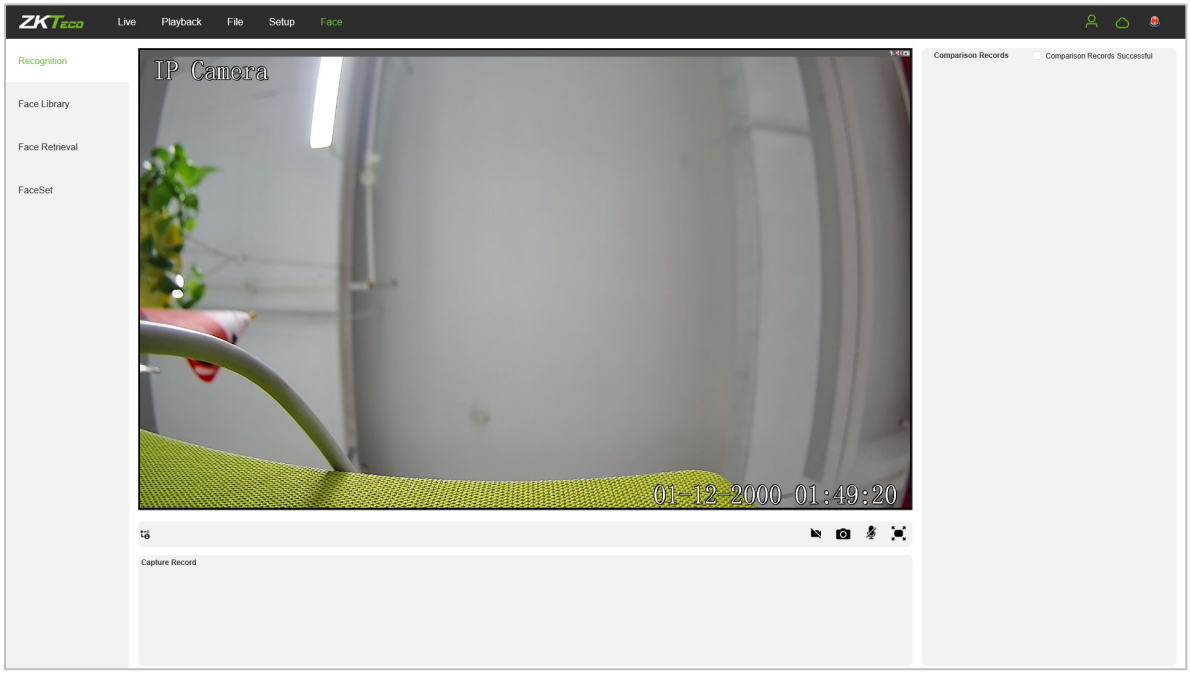
This module is only available for cameras supporting face detection.

Before applying the face comparison function, please select "Comparison Mode" by choosing "**Setup > IVA > Face Detection > Ordinary Config > Work Mode**".



8.1. Face View

Face records will be shown on the following interface.

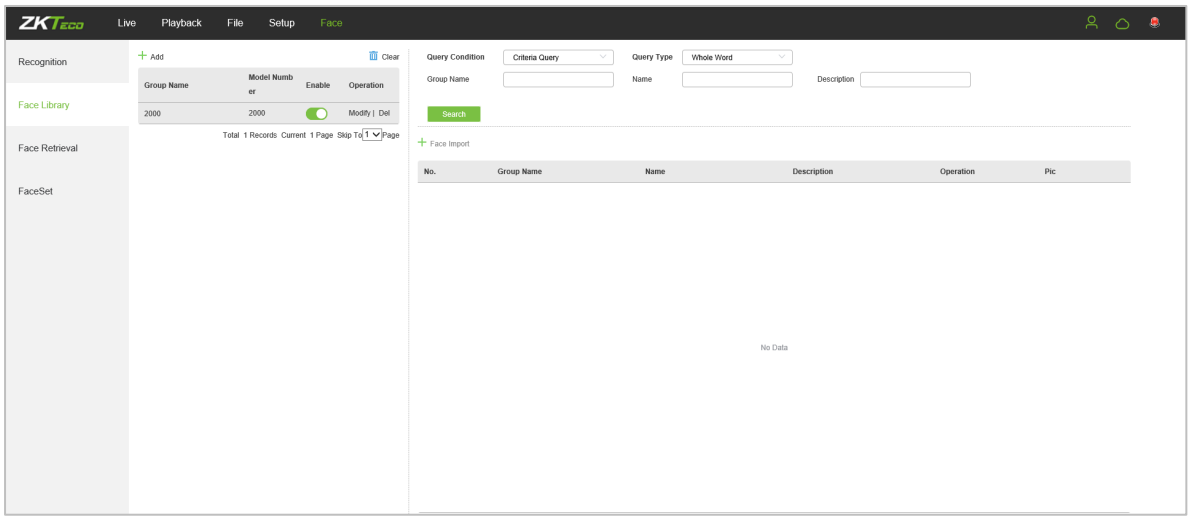


Capture Record: Show the captured face image record.

Comparison Record: Show the comparison results; only compare faces which have been stored in the database.

8.2. Face Library

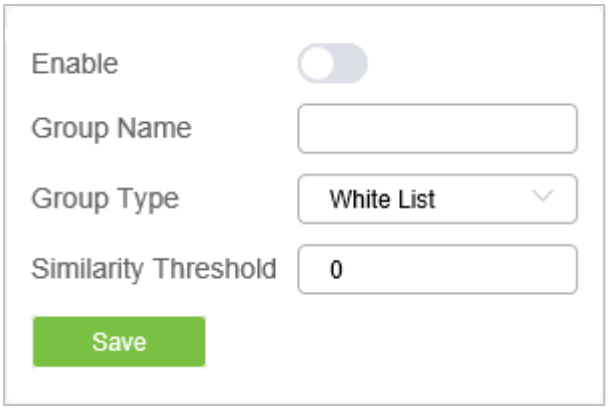
Manage face groups and templates on the following interface.



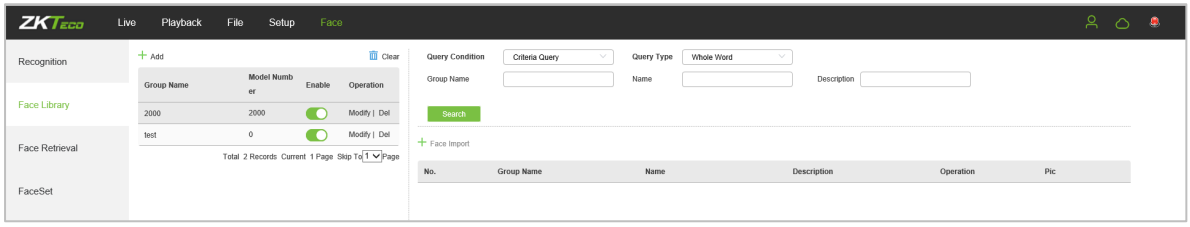
How to set up a Face Group?

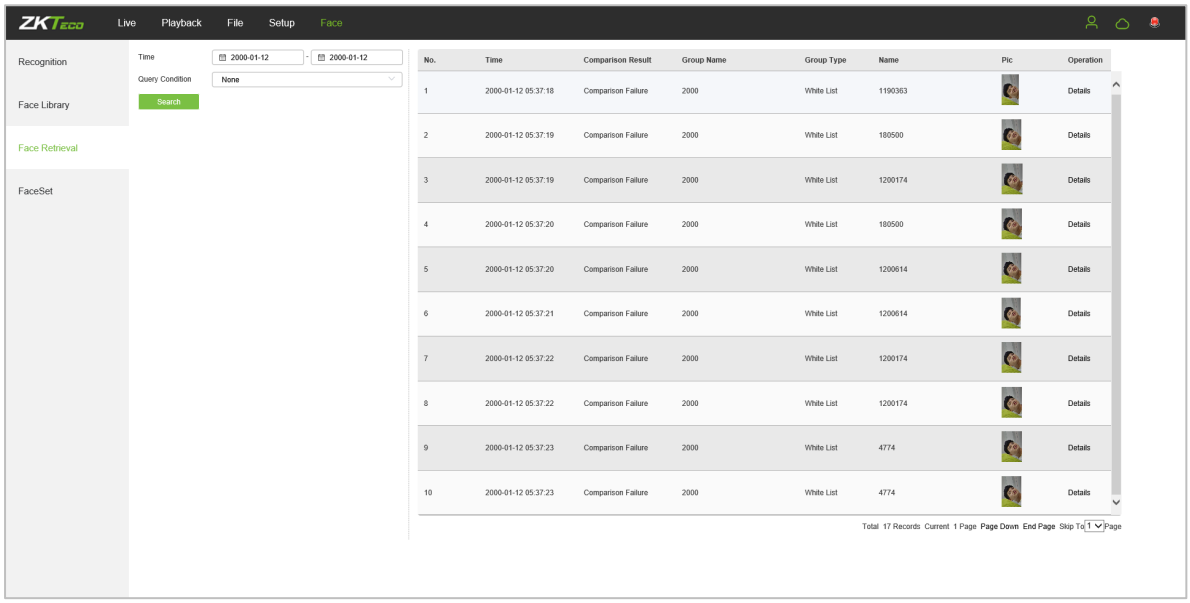
Step 1: Click **+Add** to add a new group.

Step 2: Fill in information about the new group, then save it. Open the "Enable" switch to ask the system to use such information during face comparison.



Step 3: Modify or delete a face group when you needed.

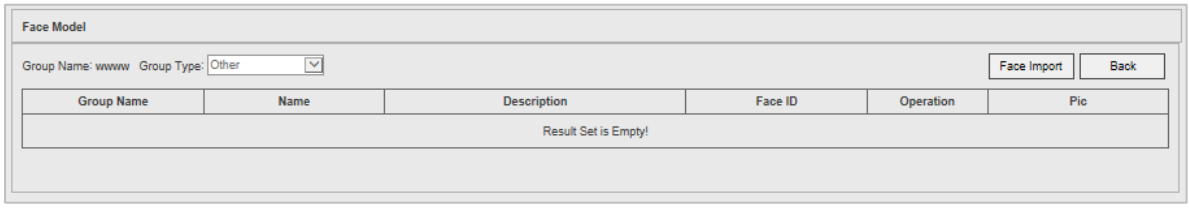




How to set up a Face Model?

Step 1: Click Details button to enter the face import module.

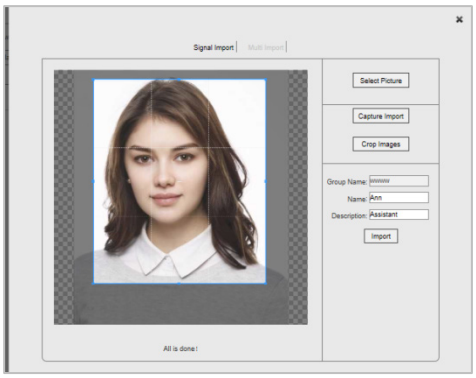
Step 2: Click **Face Import** to start importing face models.



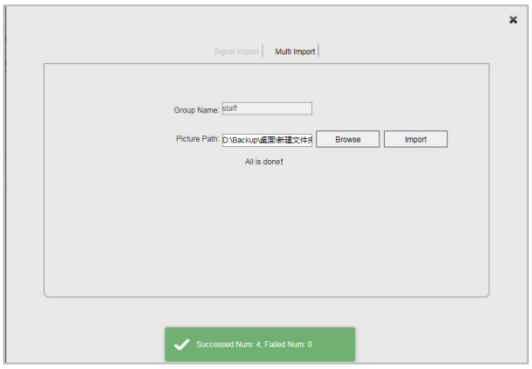
Step 3: Import a face image to the database.

Signal Import: Import one picture at a time. Make sure the face is facing the front, and the picture is clear enough. Fill in the personal information and save it to import.

- **Select Picture:** Import a picture selected from PC.
- **Capture Import:** Capture a face from the camera.

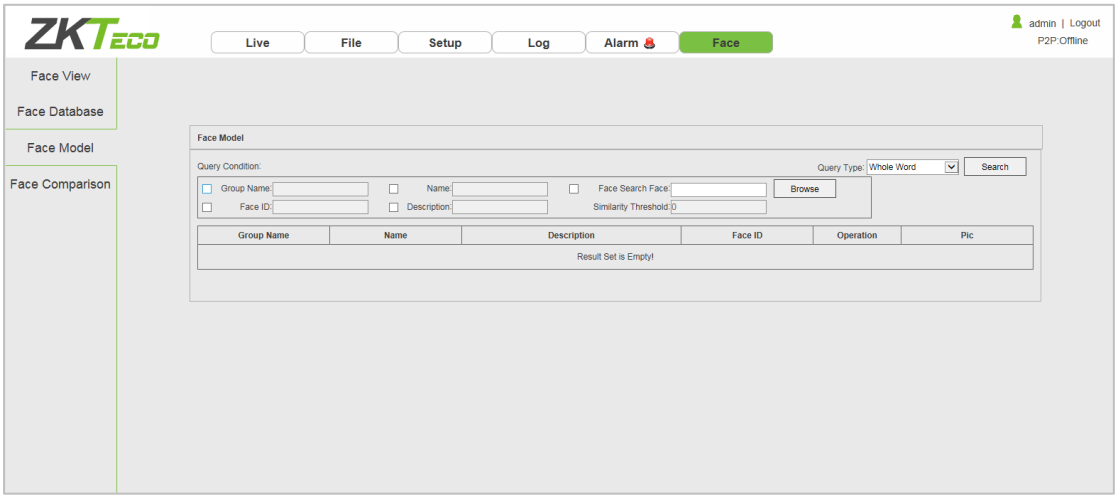


Multi-Import: Import face images by batches from PC. Format of the pictures' names should be "Name_Description_Face ID", for example "Ann_Assistant_001". Then, the personal information will be filled in automatically.



8.3. Face Model

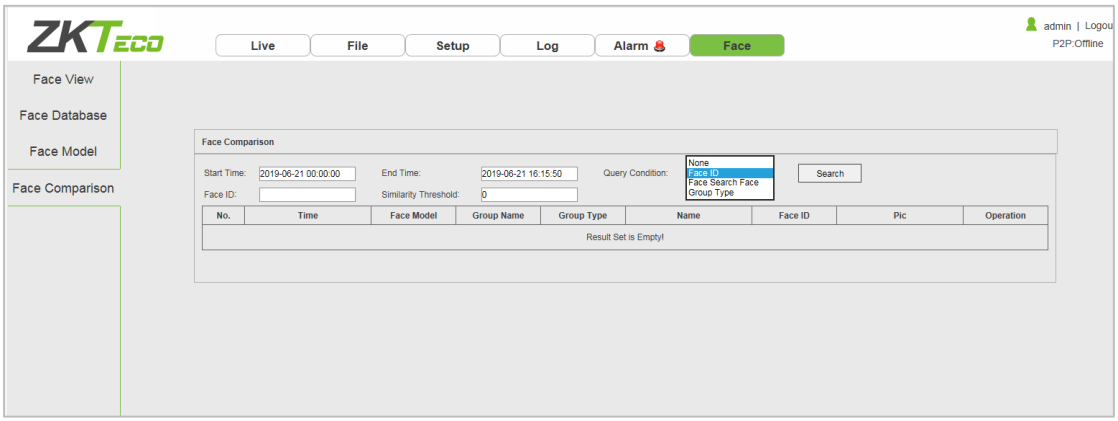
Show the uploaded face templates on the following interface. Users can search for faces by related options and modify the related face information.



8.4. Face Comparison

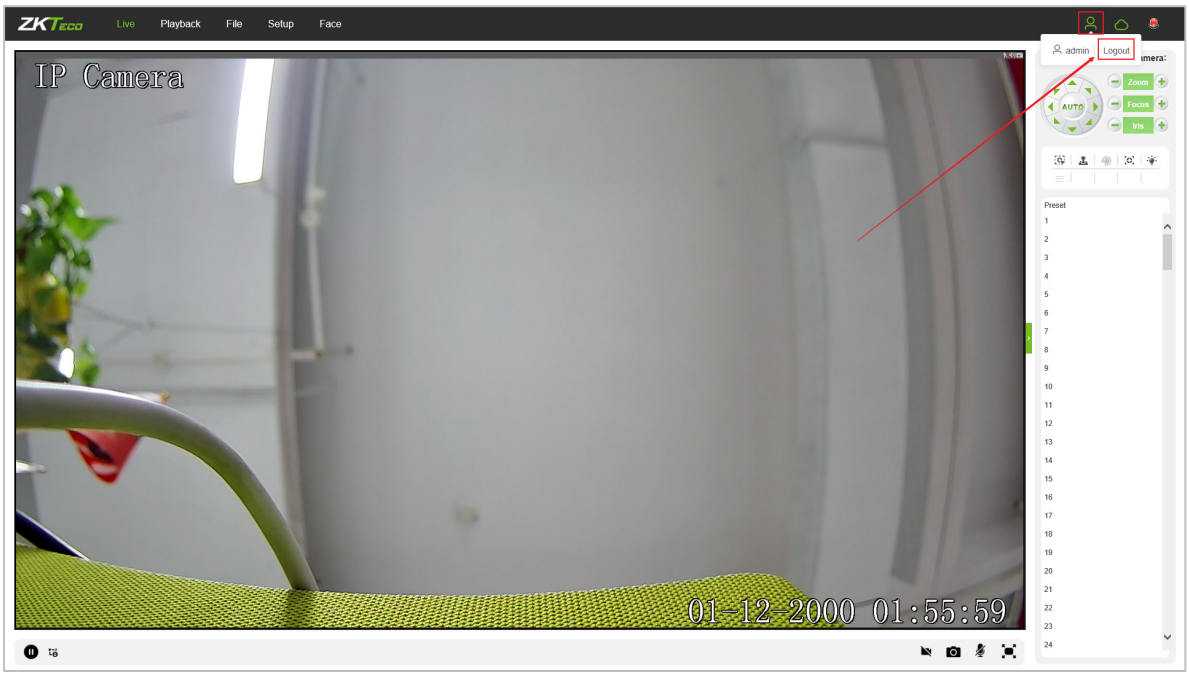
Show the face comparison record. Users can search for records by related options.

Note: A TF card must be pre-installed for storing record.



9. Exit

Click **Logout** to log out, as shown in the following figure.



10. FAQ

Question 1: No video output on the IE browser.

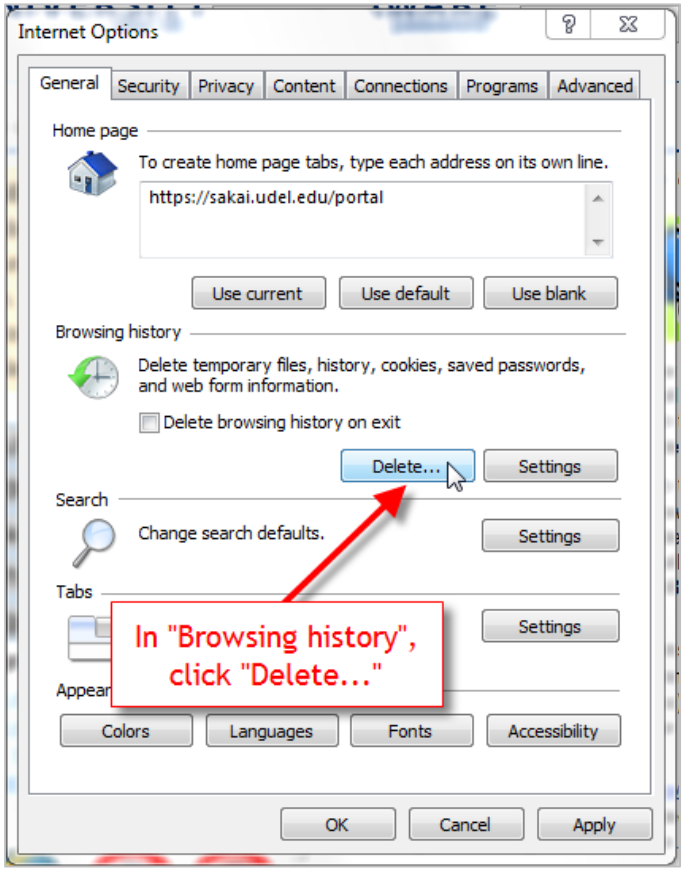
Possible Reason: The web plugin was not installed.

Solution: Download and install the web plugin according to the webpage prompt when it is the first visit. We only support IE browser currently.

Question 2: Failed to log in after upgrading the program.

Solution: Delete IE Caches, and re-install the web plugin.

Specific Steps: Open IE browser, choose "Tool > Internet Options", then, "General > Browsing history", and click **Delete**. After that, select "Temporary Internet files" and confirm by clicking **Delete**. Then back to the login page.



Question 3: The playback of video is not smooth.

Possible Reason 1: The IP Camera frame rate is too low.

Solution: Set a higher frame rate on the respective interface by choosing "Setup > Streams > Frame Rate".

Possible Reason 2: There are too many users connected to the device.

Solution: Disable some of the clients or set a lower frame rate for the IP camera.

Possible Reason 3: The transmission data is large while the bandwidth is small, which leads to loss of data packets.

Solution: Set a lower frame rate or resolution.

Question 4: Can't access the IP camera on IE Browser?

Possible Reason 1: The network is down.

Solution: Test the network on PC to confirm if the network works normally. Please make sure the network cable is available and all RJ45 jacks are connected properly. Also, ensure that there is no computer virus which may cause network issue as well.

If the PCs can ping each other, the network cable environment is normal. In this case, please check the possible reasons below which may lead to the issue:

Possible Reason 2: The IP address is in use by another device.

Solution: Disconnect with the IP camera network port, and directly connect the device with the PC, then set up a new IP address for the camera.

Possible Reason 3: The IP address is set up in another subnet.

Solution: Check the server's IP address, subnet and gateway parameter, then set up the IP camera in the same network.

Possible Reason 4: The MAC address conflicted.

Solution: Modify the MAC address for IP camera.

Possible Reason 5: The Web Port has been changed.

Solution: Connect with network administrator to get the correct port.

Question 5: No audio output.

Possible Reason 1: The audio interface was not connected.

Solution: Please check the device audio interface and make sure the cables are connected property.

Possible Reason 2: The audio function was not enabled on the IP Camera.

Solution: Please check if the audio configuration is enabled or not and select a desired mode.

Question 6: Search NVS can't find the device.

Possible Reason: The Search NVS software uses the multicast protocol to search for device network information across network segments, and the firewall does not allow multicast data packets to pass, so the software may not find the device.

Solution: Turn off the firewall.

Question 7: Image is not clear enough.

Solution: Try adjusting the parameters for images to reasonable values. For details, please refer to Chapter 6.2.6. Image.

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