Dahua Panoramic + PTZ Network Camera Web3.0

Operation Manual

Version 1.0.1

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Important

The following functions are for reference only. Some series products may not support all the functions listed below.

Cybersecurity Recommendations

1. Change Passwords and Use Strong Passwords

The number one reason systems get “hacked” is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

“Nice to have” recommendations to improve your network security

1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

2. Change Default HTTP and TCP Ports:

● Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.

● These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses, from accessing the system.

5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

6. Forward Only Ports You Need:

● Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.

● You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

7. Disable Auto-Login on SmartPSS:

Those using SmartPSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

8. Use a Different Username and Password for SmartPSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want someone collecting those passwords and trying them out on your video surveillance system. Using a different username and password for your security system will make it more difficult for someone to guess their way into your system.

9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

10. UPnP:

● UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.

● If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

16. Isolate NVR and IP Camera Network

The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

Electrical safety

- All installation and operation should conform to your local electrical safety codes.
- The power source shall conform to the requirement of the Safety Extra Low Voltage (SELV) standard, and supply power with voltage rated by DC 12 V or AC 24 V according to the Limited power Source requirement of IEC60950-1. Please note that the power supply requirement is subject to the device label.
- Make sure the power supply is correct before operating the device.
- A readily accessible disconnect device shall be incorporated in the building installation wiring
- Prevent the power cable from being trampled or pressed, especially the plug, power socket and the junction extruded from the device.
- We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

Environment

- Do not aim the device at strong light to focus, such as lamp light and sun light, otherwise it might cause over brightness or light marks, which are not the device malfunction, and affect the longevity of Charge Coupled Device (CCD) or Complementary Metal-Oxide Semiconductor (CMOS).
- Do not place the device in a damp or dusty environment, extremely hot or cold temperatures, or the locations with strong electromagnetic radiation or unstable lighting.
- Keep the camera away from water or other liquid to avoid damages to the internal components.
- Keep the indoor device away from rain or damp to avoid fire or lightning.
- Keep sound ventilation to avoid heat accumulation.
- Transport, use and store the device within the range of allowed humidity and temperature.
- Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.
- Pack the device with standard factory packaging or the equivalent material when transporting the device.

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others' such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures include but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

About the Manual

- The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall govern.
- We are not liable for any loss caused by the operations that do not comply with the Manual.
- The Manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper User's Manual, CD-ROM, QR code or our official website. If there is inconsistency between paper User's Manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Please contact the customer service for the latest program and supplementary documentation.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the Guide (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the Manual are the properties of their

respective owners.

- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation

1 Product Introduction

1.1 Product Overview

The product series is able to provide video preview, record, smart track and intelligent behavior analytics and so on based on the requirements of detail tracking, panoramic monitoring and large scene monitoring of various industries. The product is widely applied in government enterprise, public facility management and other industries, besides, it can provide practical serialized solutions separately or combined with storage device for several application fields such as safe city, industrial park security and public place safety etc. The product is equipped with following features.

Panoramic coverage and detail tracking

Adopts integrated structure design, it can cover both overall and partial monitoring, the panoramic camera is able to realize omnibearing coverage for the scene, the speed dome can implement quick positioning and tracking upon details.

Multi-scenario intelligent application

It can realize intelligent detection, realtime alarm and evidence acquisition for abnormal behaviors via intrusion and alarm linkage function in several application scenarios.

The main application scenario is shown in Figure 1-1.

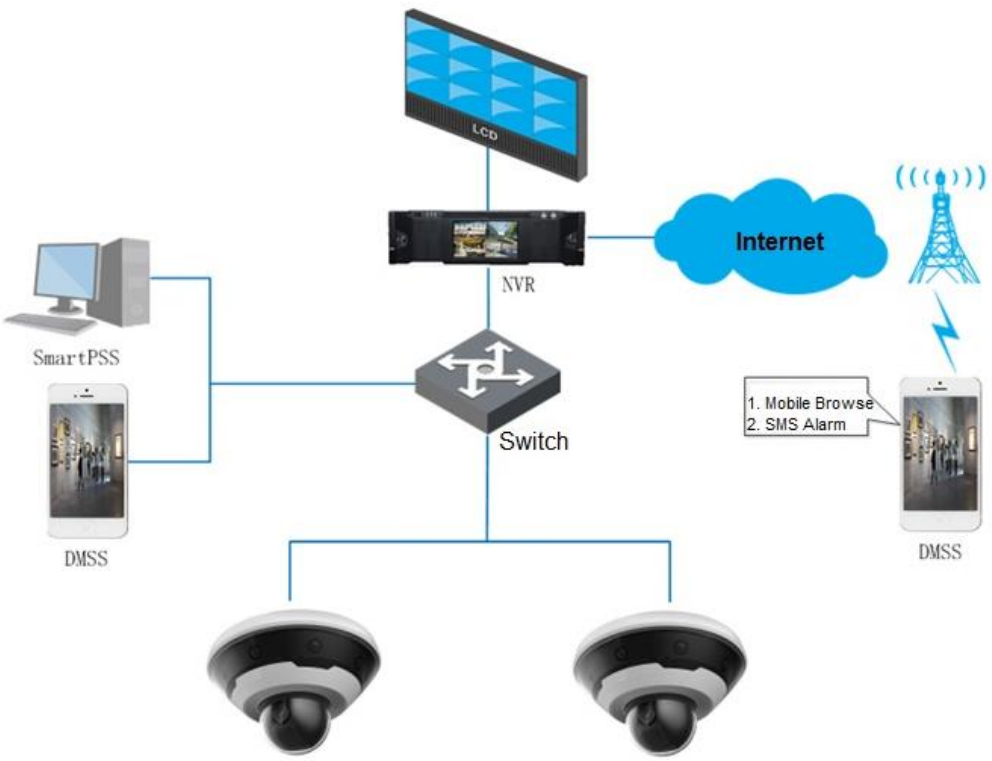


Figure 1-1

1.2 Function Features

Realtime Monitoring

Function	Note
Live	Supports preview panoramic camera image and tracking speed dome image at the same time. It can monitor panorama via panoramic camera, meanwhile it can check details via manual tracking or intelligent activated positioning by tracking speed dome. Supports preview mode switch.
PTZ control	It can operate the tracking speed dome to position and recognize details via PTZ. Speed dome PTZ functions include camera rotation, scan, preset, tour, pattern, pan and position etc.
Talk	It can contact front-end monitoring sites in time and deal with abnormities quickly after talk is enabled.
Local snapshot	It can monitor the image abnormities via snapshot or triple snapshot during preview, which is convenient to check and deal with abnormities subsequently.
Local record	It can record abnormities of monitoring image during preview, which is convenient to check and deal with abnormities subsequently.
others	Switch video stream or media protocol. Manually position tracking speed dome to the target location in the image of panoramic camera. Zoom in partial area of the tracking speed dome image or roll mouse to zoom tracking speed dome image. Check if there is alarm output. Zoom in partial details of the video image. Manually track target via tracking speed dome. It can automatically track target when the target triggers intelligent rules and generate alarm after setting intelligent rules. Adjust display effect of the monitoring image. Enable or disable intelligent rules display. Supports full screen preview. Supports to adjust fluency of video image. Supports to display the video image of panoramic camera and tracking speed dome according to different layout.

Record

Function	Note
Scheduled record	The system is able to record automatically according to the schedule which has been set after scheduled record is set.
Video playback and download	Playback video files, check valuable video clip. Download valuable video clip, which can be used as evidence for judgement.
Picture playback	Playback snapshot and check valuable captured pictures.
Alarm linkage record	It is able to activate corresponding channel to record when alarm happens.

Alarm

Set alarm prompt mode or voice according to alarm type.

Check alarm information.

User Management

Function	Note
User group management	Support to add, modify and delete new user group. Support to manage user authority according to user group.
User Management	Support to add, modify and delete users. Support to set user authority.
Modify password	Support to modify user password.

Event Management

Function	Note
Smart Track	Support smart track between bullet and speed dome. Support switch between smart track and tracking speed dome linkage.
Video Detection	Support motion detection, video tamper and scene changing. When alarm happens, it supports a series of linkage actions, such as record, relay-out, send email, PTZ and snapshot etc.
Audio Detection	Support input abnormity and intensity change. When alarm happens, it supports a series of linkage actions, such as record, relay-out, send email, PTZ and snapshot etc.
IVS	Support general behavior analysis of panoramic camera and tracking speed dome. Panoramic camera supports intrusion and tripwire, tracking speed dome supports cross fence, tripwire, intrusion, object abandoned, fast moving, parking detection, crowd gathering, object missing and loitering detection. When alarm happens, it supports a series of linkage actions, such as linked tracking, linked record, relay-out, send email, PTZ and snapshot etc. Support to add calibration area, filter disturbance and shadow, valid target filtration.
Face Detection	Only tracking speed dome supports face detection. When alarm happens, it supports linked record, relay-out, send email, PTZ and snapshot etc.
People Counting	Only tracking speed dome supports people counting. When alarm happens, it supports linked record, relay-out, send email, PTZ and snapshot etc.
Heat Map	Only tracking speed dome supports heat map. It supports to check report of heat map.
Alarm Setting	It triggers alarm when external alarm inputs device and generates alarm. When alarm happens, it supports linked record, relay-out, send email, PTZ and snapshot etc.

Function	Note
Abnormity	Supports SD card abnormity, network abnormity and illegal access detection. It supports linked relay-out and send email when SD card abnormity or illegal access alarm happens. It supports linked record and relay-out when network abnormity alarm happens.

2 Initial Config

In this chapter it is to introduce the device initial config operation, which includes device initialization, login device, log out WEB interface and password reset.

2.1 Device Initialization

It needs to implement device initialization when you use the device for the first time. Here it is to take WEB operation as an example to introduce device initialization. You can also initialize device via *Quick Config Tool*, NVR and platform etc.

Note

In order to guarantee device safety, please keep admin login password properly after device initialization, and modify the password regularly.

Step 1

Open IE browser, input camera IP address in the address bar and click **Enter**.

The system will display the interface of *Device Initialization* after it is connected successfully, which is shown in Figure 2-1.

Note

The default IP address is 192.168.1.108.

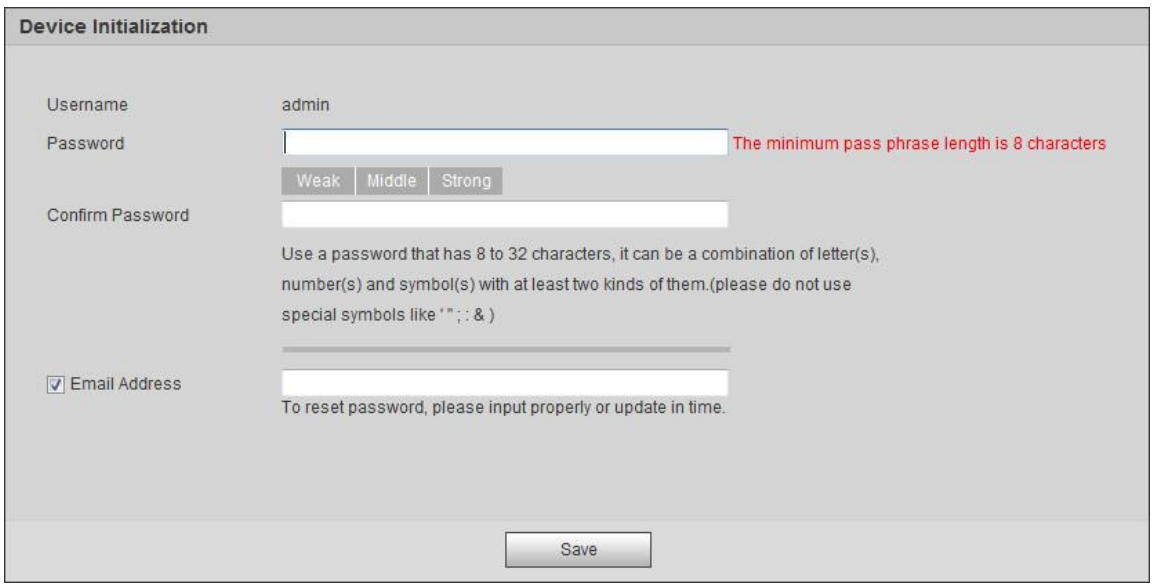


Figure 2-1

Step 2

It is to set admin login password, please refer to Table 2-1 for more details.

Parameter	Note
User name	The default user name is **admin**
Password	The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding “”, “”, “;”, “:”, “&”) . The password shall contain at least two categories. Usually we recommend the strong password.
Confirm password	
Email	Input an email address for reset password purpose. In case you forgot password in the future, input the security code you got on the assigned email to reset the password of admin.

Table 2-1

Step 3

Click **Save**.

The system will display the interface of *End-User License Agreement,* which is shown in Figure 2-2.

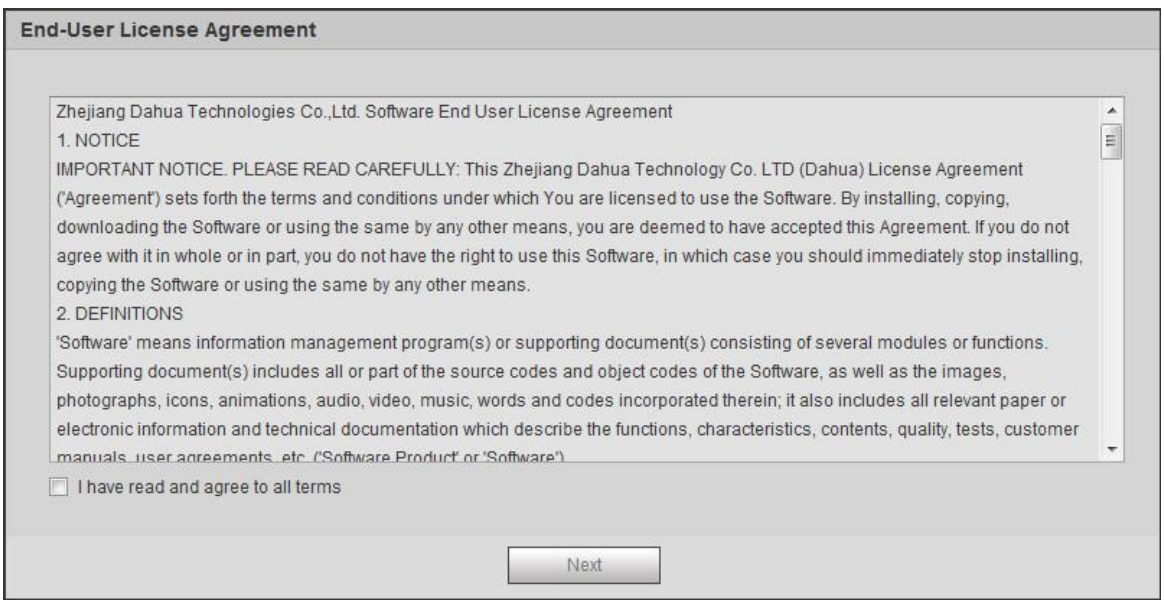


Figure 2-2

Step 4

Select *I have read and agree to all terms* and click **Next**.

The system will display the interface of Easy4iP, which is shown in Figure 2-3.

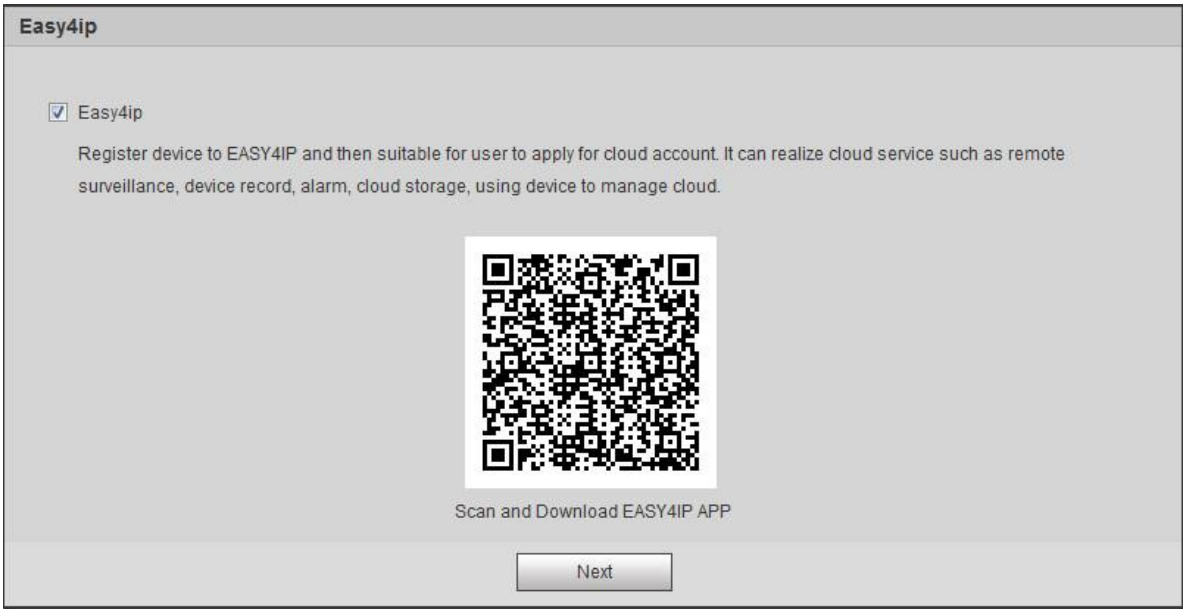


Figure 2-3

Step 5

Click **Save** and device initialization is completed.

2.2 Reset Password

Users can reset password via reserved email when you forget the password of admin user.

Step 1

Open IE browser, input camera IP address in the address bar and click **Enter** button.

The system will display the Login interface after it is successfully connected, which is shown in Figure 2-4.

Figure 2-4

Step 2

Click *Forgot password?*

The system will display the interface of *Reset Password*, which is shown in Figure 2-5.

Figure 2-5

Step 3

Reset login password.

Scan the QR code according to the interface prompt and acquire security code, then input the security code which is received via your reserved email.

Caution

- Please use the security code to reset the password within 24 hours after you received the security code via your reserved email. Otherwise the security code will be invalid.
- If you fail to use security code for twice continuously, then the system will prompt that it fails to acquire security code for the third time. It needs hardware to restore device default setting or wait for 24 hours and acquire it again if it needs to use the device normally.

Step 4

Click **next**.

The system will display the interface where you can set the new password, which is shown in Figure 2-6.

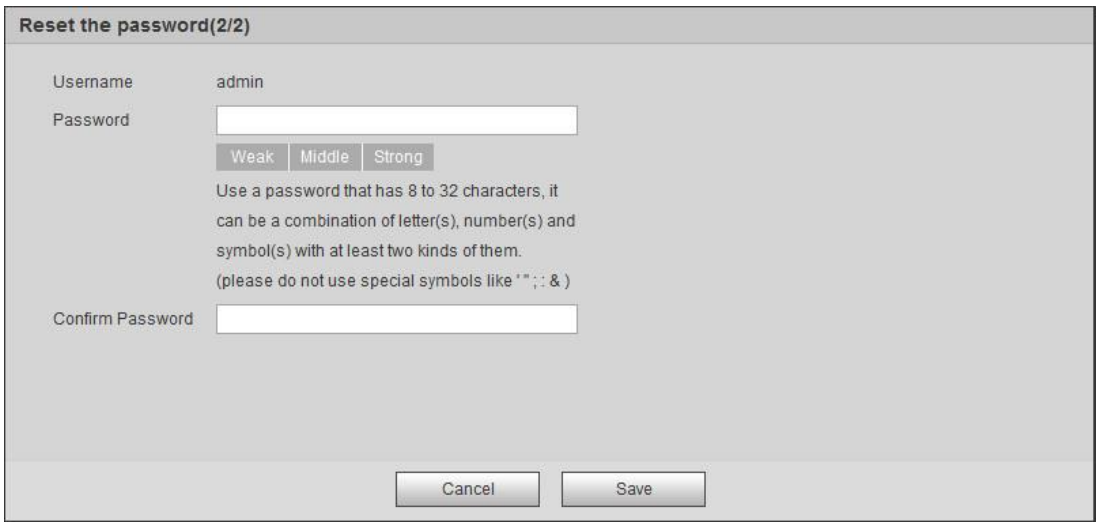


Figure 2-6

Step 5

Reset *Password* and *Confirm Password*.

The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding “‘”,“"”,“;”,“:”,“&”) . The password shall contain at least two categories. Usually we recommend the strong password.

Step 6

Click **Save** and complete password reset.

The system will display the *Login* interface.

3 Basic Config

3.1 Modify IP Address

The default IP address of all the devices is 192.168.1.108, please modify device IP address according to network planning for the first use or during network adjustment.

You can modify device IP address individually or in batch via ConfigTool, you can also log in WEB client to modify the device IP address.

- You can modify device IP address individually when there are less devices or the device login password is not the same.
- You can modify device IP address in batches when there are more devices or the device login password is the same.

Precondition

- ConfigTool installation package has been acquired, please consult technical service if not.
- Network intercommunication between PC installed with ConfigTool and device.

3.1.1 Modify Individually

It is going to introduce how to modify device IP address individually via ConfigTool in this chapter.

Note

Please refer to "4.2.1 Set TCP/IP Parameter" for details about modifying IP address via WEB client login

Step 1

Click  and the system displays the interface of **Modify IP**.

Step 2

Click **Search Setting** and the system displays the dialog box of **Setting**, which is shown in Figure 3-1.

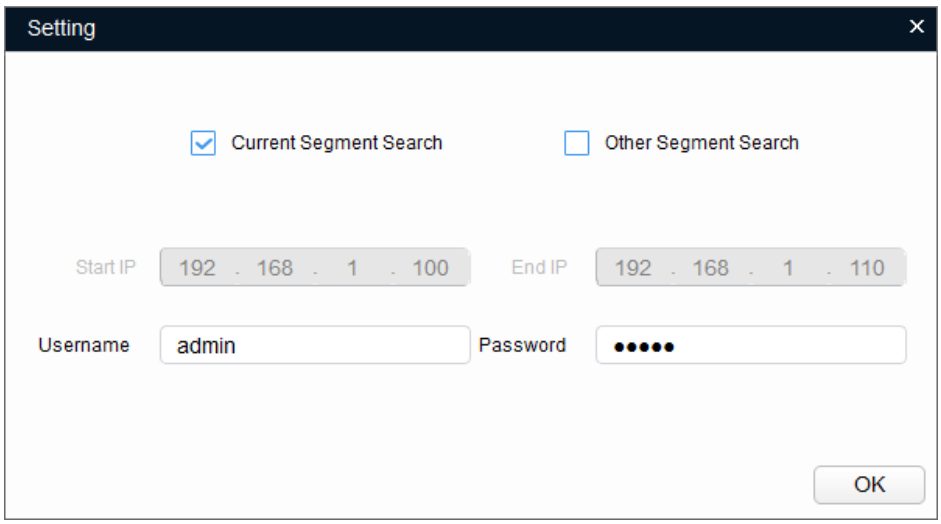


Figure 3-1

Step 3

Set the device network segment, login user name and password, and then click **OK**. The system will display the searched devices after searching completes.

Note

The default username and password is **admin** and **admin** respectively.

Step 4

Click the corresponding  of the device whose IP needs to be modified.

The system will pop out a dialog box of Modify IP, which is shown in Figure 3-2.

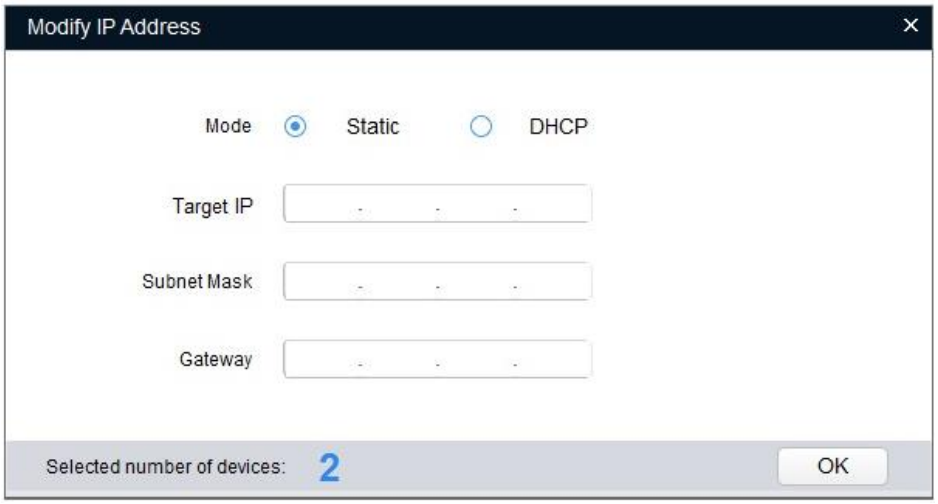


Figure 3-2

Step 5

Select the mode of setting IP address according to the actual situation.

DHCP: Set mode as **DHCP** when there is DHCP server in the network, then the device will automatically acquire IP address from DHCP server.

Manual mode: Set mode as **Static** and fill in the Target IP, Subnet Mask and Gateway, and then the device IP address is modified into the IP address which has been set.

Step 6

Click **OK** to complete modification.

3.1.2 Modify in Batches

Step 1

Click  and the system displays the interface of **Modify IP**.

Step 2

Click **Search Setting** and the system displays the dialog box of **Setting**, which is shown in Figure 3-3.

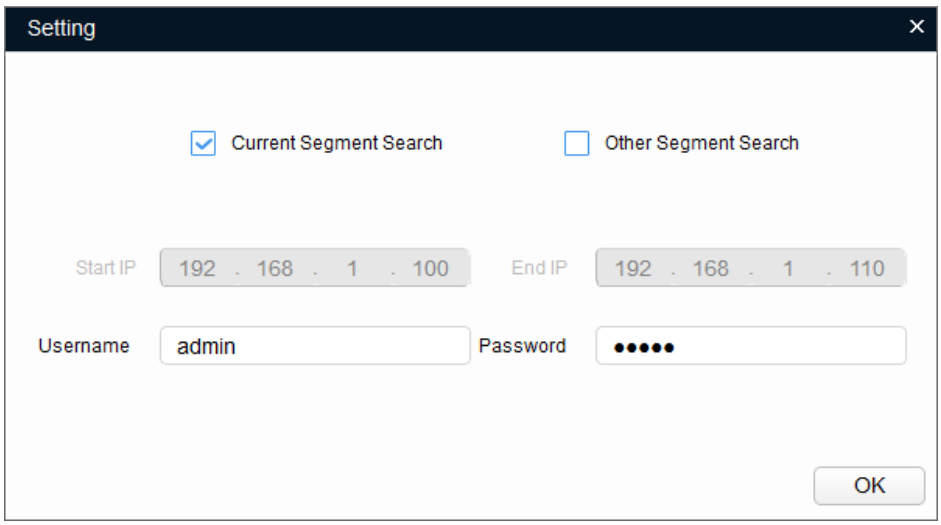


Figure 3-3

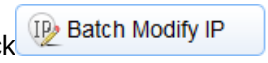
Step 3

Set the device network segment, login user name and password, and then click **OK**. The system will display the searched devices after searching completes.

Note

The default username and password is **admin** and **admin** respectively.

Step 4

Select the devices whose IP addresses need to be modified, and then click 

.

The system will pop out a dialog box of **Modify IP**, which is shown in Figure 3-4.

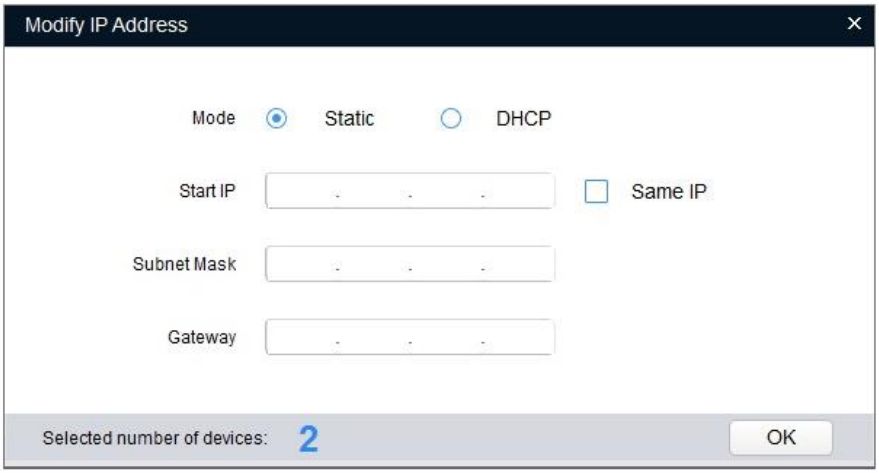


Figure 3-4

Step 5

Select the mode of setting IP address according to the actual situation.

DHCP: Set mode as **DHCP** when there is DHCP server in the network, then the device will automatically acquire IP address from DHCP server.

Manual mode: Set mode as **Static** and fill in the Start IP, Subnet Mask and Gateway, and then the device IP address will be modified from Start IP sequentially.

Note

Select **Same IP** and the selected devices will be set with the same IP address.

Step 6

Click **OK** to complete modification.

3.2 Log in WEB Interface

It can log in device WEB interface via browser and realize device operation, config and maintenance after IP address has been modified.

Background Info

Please refer to Table 3-1 for the recommended config of PC which logs in device WEB interface.

PC Component	Recommended Config
Operating System	Windows 7 and higher
CPU	Intel core i3 and higher

Graphics Card	Intel HD Graphics and higher
Internal Storage	2GB and higher
Monitor	1024×768 and higher
Browser	Internet Explorer 8/9/10/11

Table 3-1

Operation Steps

Step 1

Open browser, input camera IP address into the address bar and click **Enter** button. The system will display **Login** interface after it is successfully connected, which is shown in Figure 3-5.

Figure 3-5

Step 2

Input **Username** and **Password**, click Login.

The system will display the **Live** interface after successful login, which is shown in Figure 3-6.

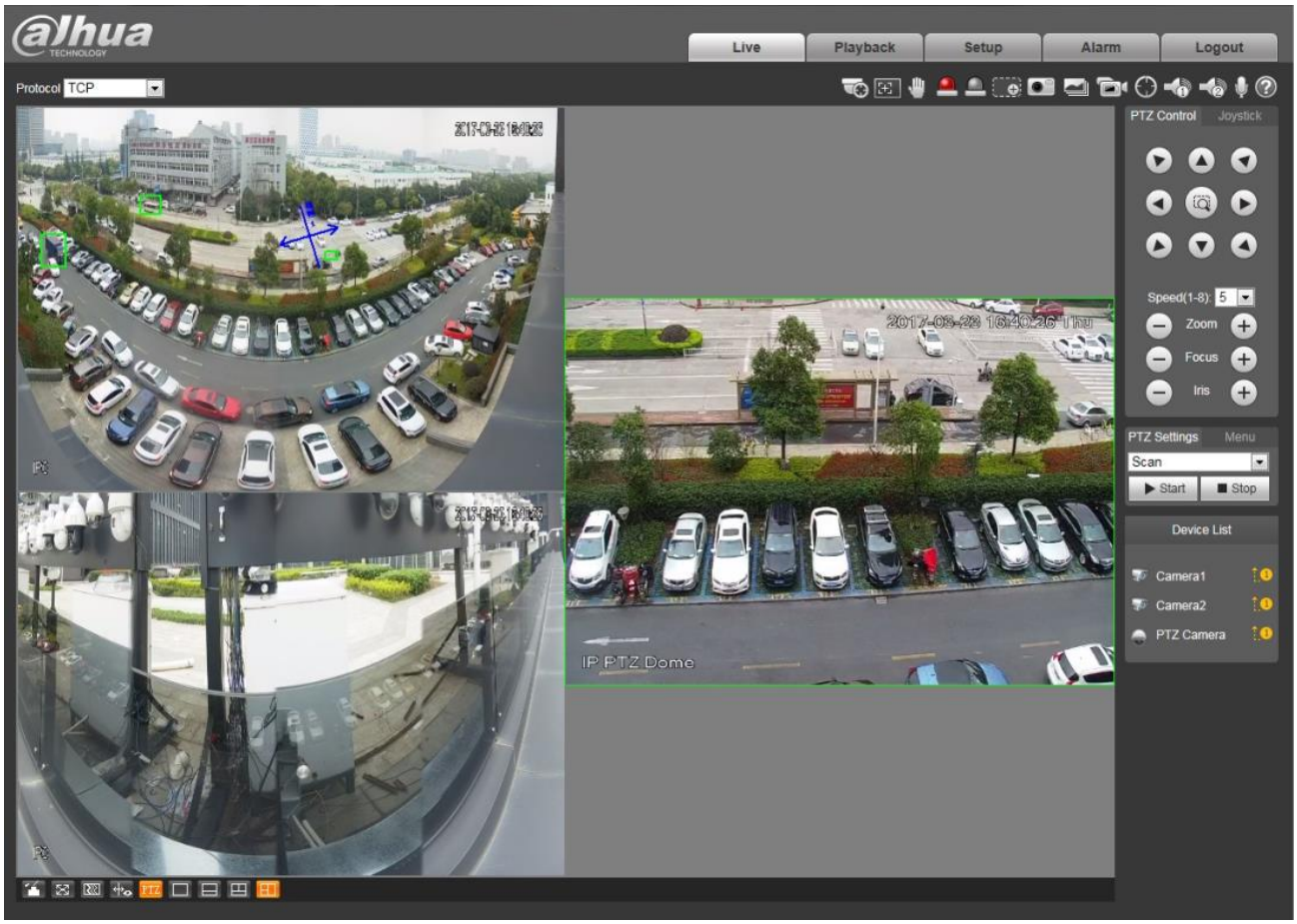


Figure 3-6

Note

Click the **Logout** button on the upper right corner to log out the system.

3.3 Modify User Password

Please make sure to modify the default password of the device and modify password regularly in order to guarantee device security. Meanwhile it is recommended to modify the password with high complexity.

Step 1

Select "Setup > System > Account > User" and the system will display the interface of User Name, which is shown in Figure 3-7.

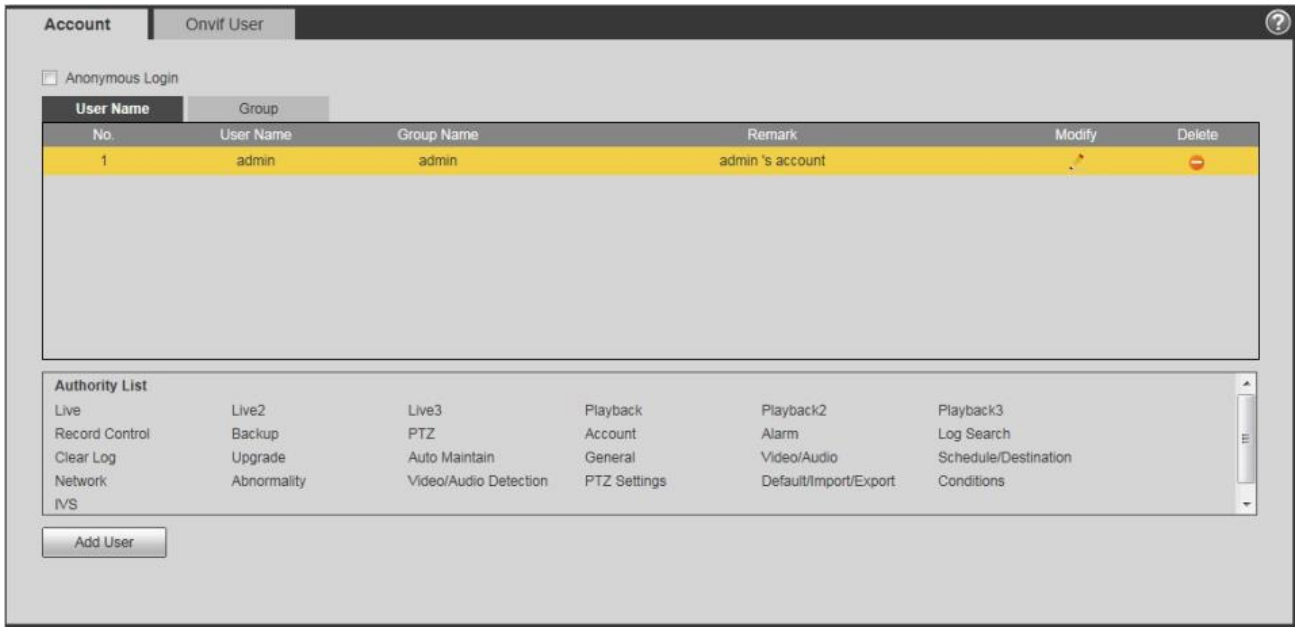


Figure 3-7

Step 2

Click . The system will pop out the dialogue box of **Modify User**.

Step 3

Select **Modify Password**. The system will display the interface which is shown in Figure 3-8.

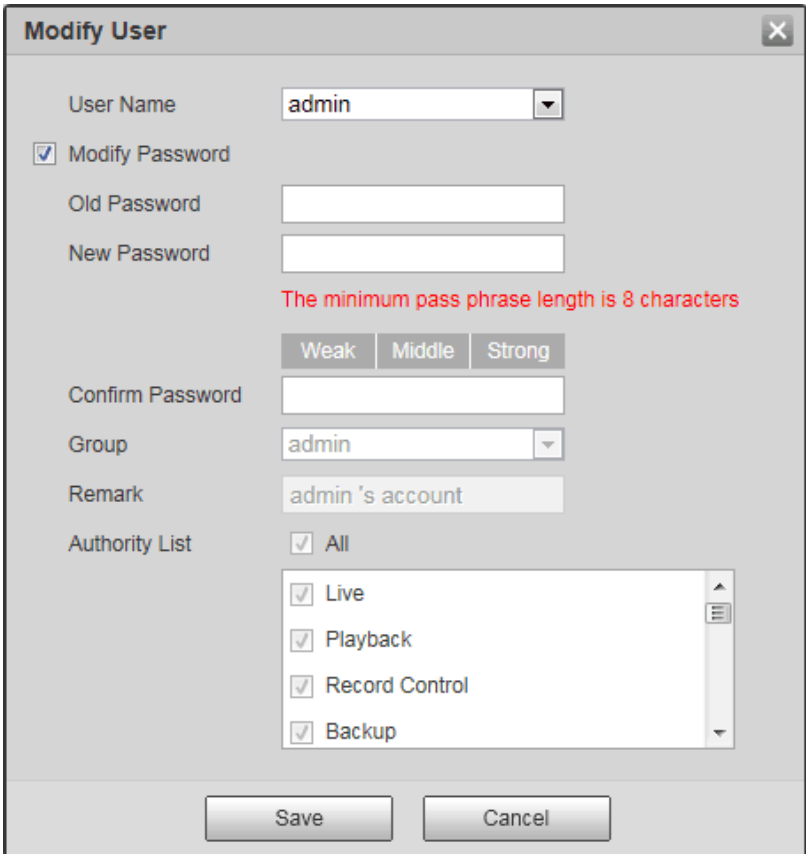


Figure 3-8

Step 4

Enter **Old Password**, **New Password** and **Confirm Password**.

Step 5

Click **Save** to complete password modification.

4 General Operation

4.1 Live

Users can implement a series of operations such as Live, Snapshot and Record etc. upon realtime monitoring image on the **Live** interface.

Note

Different devices may have different functions, please refer to the actual interface for more details.

Double click the image and the image of this channel will be full screen displayed, double click or press **Esc** button, the image will be recovered to original size.

4.1.1 Live Interface Introduction

Click **Live** and the system will display the **Live** interface, which is shown in Figure 4-1. The Live interface of WEB client contains five functions, please refer to Figure 4-1 for more details.

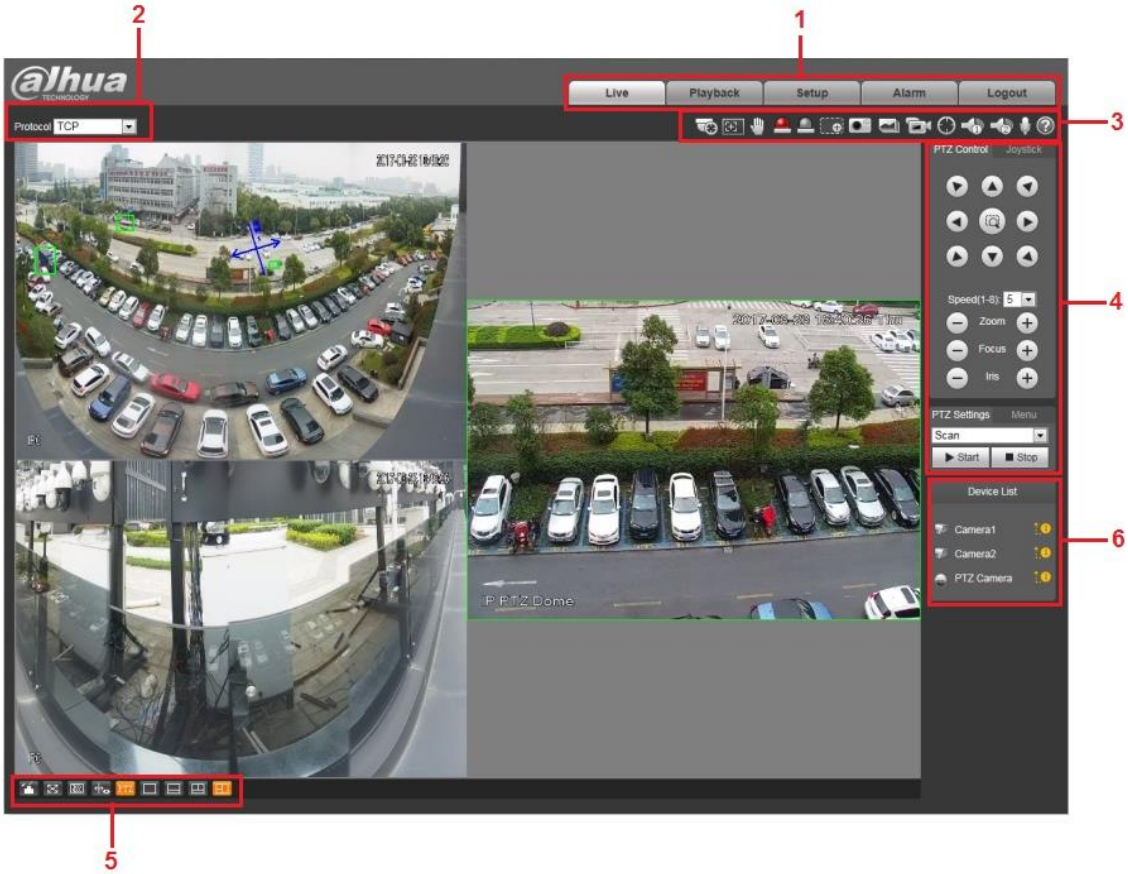


Figure 4-1

SN	Name	Note
1	System menu	Click the function name on the system menu column to enter corresponding config interface.
2	Code setting	Stream media protocol, types of network transmission protocol, including TCP, UDP and multicast.
3	Video window function	Please refer to "3.1.2 Video Window Function" for more details.
4	PTZ control	Please refer to "3.1.3.5 PTZ Control" for more details.
5	Video window adjust	Please refer to "3.1.3 Video Window Adjust" for more details.
6	Switch stream	Display device list and switch main stream and substream. Click on the right of corresponding camera, then you can switch preview stream, please select according to actual situation. and represents substream 1 and substream 2 respectively; Means main stream. For mainstream, it has big code stream with high image definition, but it occupies big bandwidth, suitable for storage and monitoring. For substream, code stream is comparatively smaller than Main stream, the image is quite fluent and it occupies small bandwidth, suitable for monitoring instead of main stream when network bandwidth is not enough.

Table 4-1

4.1.2 Video Window Function

The video window function option is shown in Figure 4-2. Please refer to Table 4-2 for more details about each icon.

Note

Different devices may have different functions, please refer to the actual interface for more details.

Figure 4-2

SN	Name	Note
1	Manual Position	Manually position the tracking speed dome to the selected location of corresponding panoramic camera. Select image of panoramic camera channel, click the icon and click or select randomly on the image of panoramic camera channel, the tracking speed dome will automatically position the selected location.

SN	Name	Note
2	Regional Focus	It can realize auto focus in the selected area of the tracking speed dome. Select channel image of the tracking speed dome, click the icon and click or select randomly on the channel image of the tracking speed dome, and then the speed dome can realize auto focus upon the selected region.
3	Gesture	It is to operate the mouse to control PTZ via the channel image of tracking speed dome. Select the channel image of tracking speed dome, click the icon and drag image to control PTZ via pressing left button on the channel image of tracking speed dome, it can zoom the image via rolling mouse wheel.
4	Relay-out	Display alarm output status, click the icon to compulsively enable or disable alarm. Red: It means outputting alarm. Gray: it means ending alarm.
5	Digital Zoom	After selecting the channel image, it supports the following two types of zoom video image: Click the icon, select regional area of the channel image to zoom in, click right button to recover original status. Click the icon and zoom video image size via rolling the mouse wheel.
6	Snapshot	Select channel image, click the icon and the system will auto take snapshot upon the image of the selected channel.
7	Triple Snapshot	Select channel image, click the icon and the system will auto take triple snapshot upon the image of the selected channel.
8	Record	Click the icon and the system starts to record, the video will be stored in the storage path which has been set. Please refer to 4.1.2.5 Set Storage Path for more details about operation.
9	Manual Track	Click the icon and drag left button to select tracking target on the preview interface of the tracking speed dome, the system will auto track and select the target.
10	Audio	Click it to enable or disable audio output of monitoring interface. **Note** Only the device with audio supports the function.
11	Talk	Click it to enable or disable bidirectional talk. Please turn off stereophonic mixing on the computer when enabling bidirectional talk. **Note** Only the device with audio supports the function.
12	Help	Click it to open help file.

Table 4-2

4.1.3 Video Window Adjustment

Note:

Different devices may have different functions, please refer to the actual interface for more details.

Figure 4-3

4.1.3.1 **Local Image Adjustment**

It is to adjust the brightness, contrast, hue and saturation of different channel video images on the local WEB end.

Note

Please refer to 4.1.1 Camera for more details about the operation of actual image parameter adjustment.

Select channel image, click  and it will display image adjustment interface on the right of preview interface, which is shown in Figure 4-4.

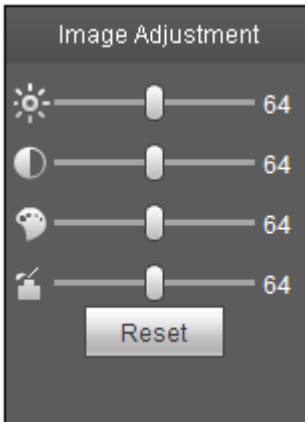


Figure 4-4

Icon	Function	Note
	Brightness adjustment	Adjust the total brightness of the selected channel image, it can adjust the value when the whole image is too bright or too dark. Both the dark and bright area of the image will be equivalently increased or decreased during adjustment.
	Contrast adjustment	It is to adjust the contrast of the selected channel image, when the image total brightness is suitable, but the image contrast is not enough, then it can adjust the value.
	Hue adjustment	It is to adjust the color. There is a default value according to the photosensitivity of the sensor. Generally the value doesn't need to be adjusted greatly.
	Saturation adjustment	It is to adjust the color, the threshold will not affect the overall brightness of the image.
	Reset	Click the button to reset the brightness, contrast, hue and saturation back to system default value.

Table 4-3

4.1.3.2 **Full Screen Display**

Click  and the channel image will be displayed with full screen.

In full screen mode, double click the channel image or press **Esc** button to exit full screen display.

4.1.3.3 **Adjust Fluency**

It is to adjust the fluency of channel image.

Select the channel image, click  to select fluency level, it supports realtime, general and fluency.

4.1.3.4 **Intelligent Rules Display**

It is to control video image display or disable rule info. It is enabled by factory default.

After configuring intelligent rules, click  and select Enable, video image will display intelligent rules and target detection box. Please select **Disable** if you need to cancel display.

4.1.3.5 **PTZ Control**

It is to operate the PTZ of tracking speed dome.

Note

Only tracking speed dome supports PTZ control function.

Click  and the system will display PTZ control panel, which is shown in Figure 4-5. Please refer to Table 4-4 for the function of each button.

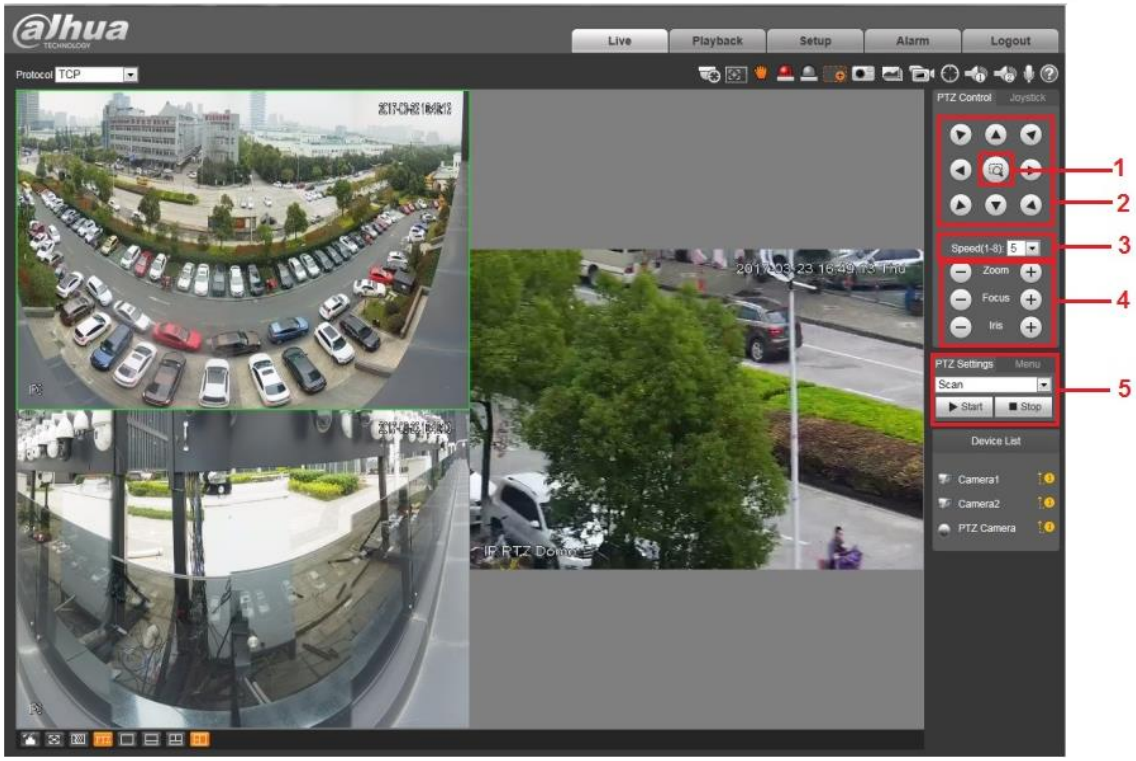


Figure 4-5

SN	Function	Note
1	Quick Position	It is the function of quick position. Use mouse to draw a box in the monitoring image of tracking speed dome, and the PTZ will quickly position to the scene.
2	Direction Button	It supports 8 directions, which are up, down, left, right, upper left, upper right, lower left and lower right.
3	Speed	It is mainly used for speed operation, the bigger the step length is, the faster the speed becomes. The step length is only valid to PTZ direction control.
4	Zoom, Focus, Iris	Click  and corresponding parameter value becomes bigger, click  and corresponding parameter value becomes smaller.
5	PTZ Function	**Note** It needs to complete 4.3 Set PTZ Function before using PTZ function. The supported PTZ functions include: Scan Click **Start** and the camera will automatically scan back and forth in the area which has been set. Preset Select preset number, click **Check** and the camera will move to the corresponding location of the preset. Tour Select tour number, click **Start** and the camera will automatically move back and forth according to the preset sequence which has been set. Pattern Select pattern number, click **Start** and the camera will automatically move back and forth according to the moving trajectory which has been set. Assistant Reserve extended function. Go to Input the needed horizontal and vertical angle, click **Go to** and it can accurately position some spot.

Table 4-4

4.1.3.6 **Window Layout**

Select display layout of the channel image.

Single picture: Click  and select the channel which needs to be displayed, support to select panoramic camera 1, panoramic camera 2 or tracking speed dome.

Double picture: Click  and the tracking speed dome is displayed by default, select panoramic camera 1 or panoramic camera 2.

Triple picture: Panoramic camera 1, panoramic camera 2 and tracking speed dome are displayed simultaneously, click  and the panoramic cameras are displayed on the top and the tracking speed dome is displayed on the bottom; click  and panoramic cameras are displayed on the left and tracking speed dome is displayed on the right.

4.2 Playback

WEB client playback supports video playback and picture playback.

Note

It needs to refer to 4.5 Storage for setting period, storage mode and record control of record and snapshot before playback.

Different devices may have different functions, please refer to the actual interface for more details.

Click **Playback** and the system will display the interface of **Playback**, which is shown in Figure 4-6.

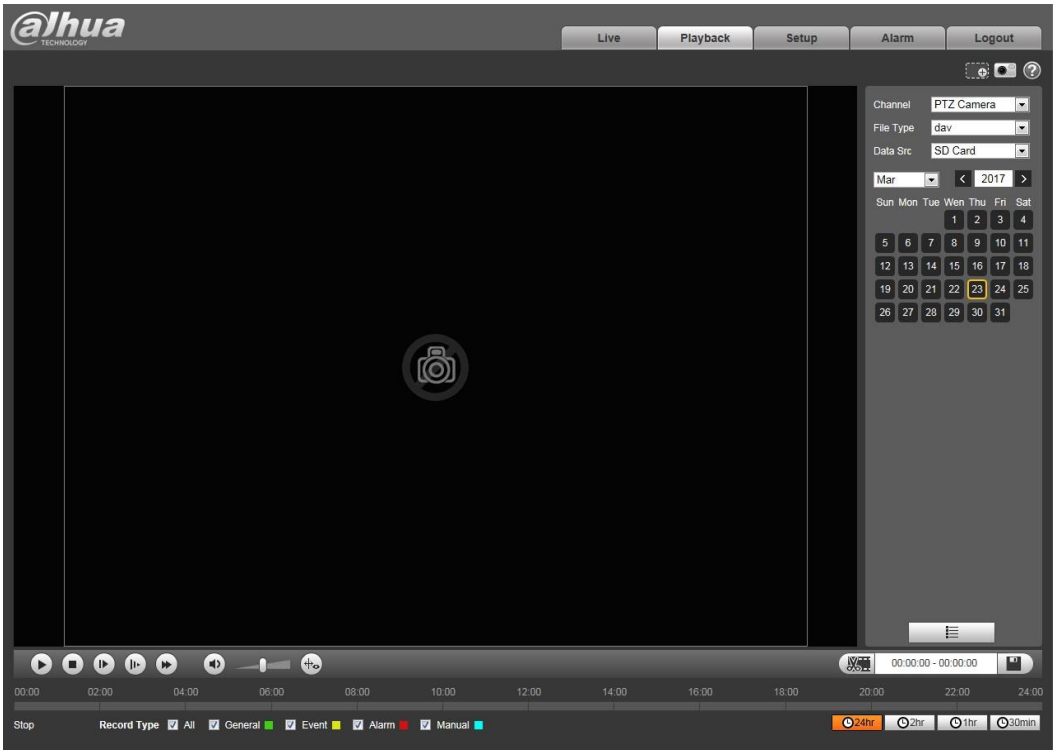


Figure 4-6

4.2.1 Video Playback

Video playback includes interface introduction, function column, playback video, video clip and aux function.

4.2.1.1 **Interface Introduction**

It is to play video according to the requirement.

Select file type as "dav", and the system will display the interface of video playback, which is shown in Figure 4-7, refer to Table 4-5 for more details.

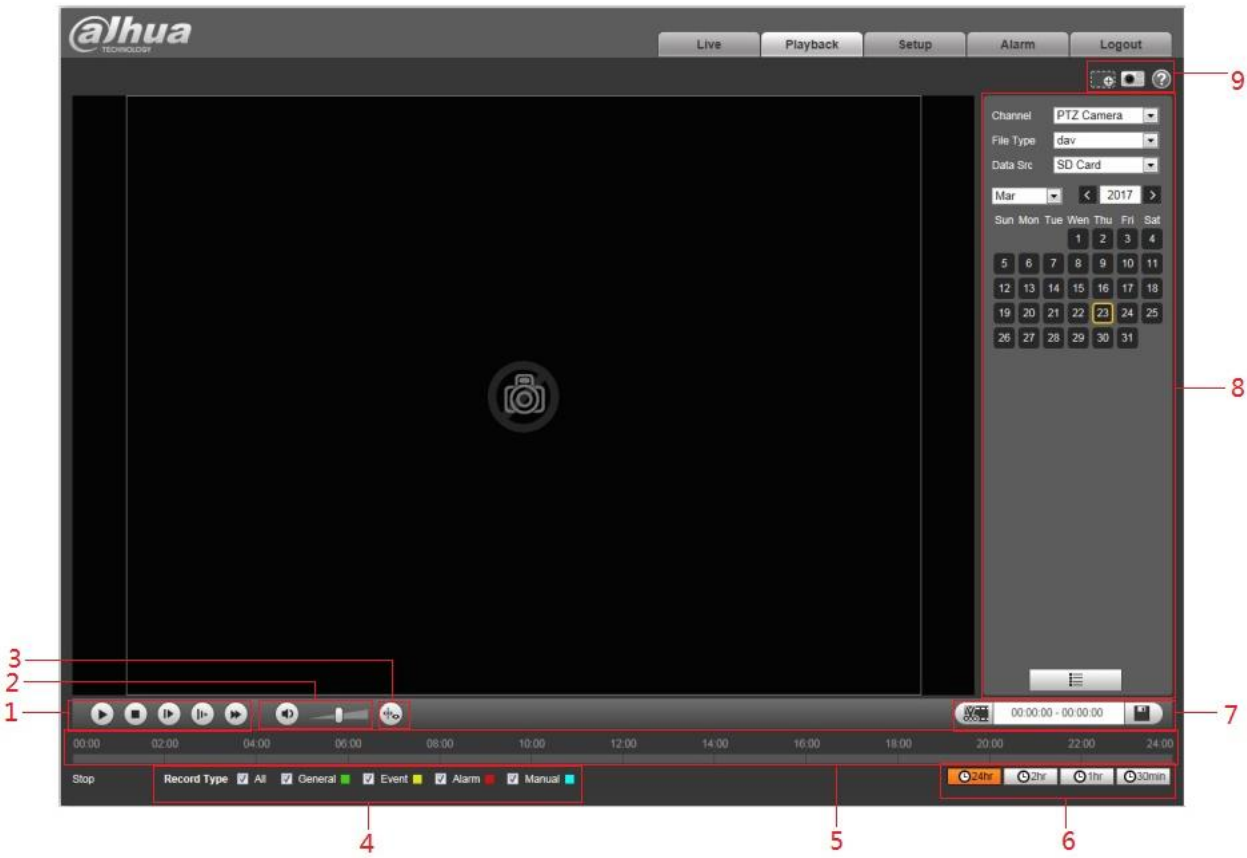


Figure 4-7

SN	Function	Note
1	Play control bar	Play control button, refer to "3.2.1.2 Play Control Bar" for more details.
2	Volume adjustment bar	Control the volume during playback, which includes following two states:  , it means mute state.  , it means voice broadcast state, volume can be adjusted.
3	Rule info bar	After enabling "Rule Info", the preview interface will display intelligent rules and object detection box. It is enabled by default. **Note** If it is configured with intelligent rules during recording, then it is valid by enabling "Rule Info" when play backing the recorded files.
4	Record type	Record type includes general, event, alarm and manual, you can check the record type according to requirements.

SN	Function	Note
5	Progress bar	It is to display the record type and its period. Click some spot in the color area, then it will begin to playback from the time point. Different record types mean different color, please refer to record type selection bar for corresponding relations.
6	Progress bar time format	It includes  、  、  和  four types of format.. Take  for example, it means the whole progress bar is 24 hours.
7	Video cut bar	Cut some piece of video and save. Please refer to "3.2.1.4 Video Clip" for more details.
8	Playback file bar	Here it can select file type, data source and record date etc.
9	Aux function bar	Aux function includes digital zoom and snapshot, please refer to "3.2.1.5 Aux Function" for more details.

Table 4-5

4.2.1.2 **Play Control Bar**

Please refer to Table 4-6 for more description about play control.

Icon	Function	Note
	Play	When it displays the icon, it means pause or not playing video, click the icon to switch to normal play state.
	Stop	Click the icon to stop playing video
	Play by frame	Click the icon and skip to next frame to play. **Note** It needs to pause playback when using the function of play by frame.
	Slow forward	Click the icon and then it plays slowly.
	Fast forward	Click the icon and it plays fast.

Table 4-6

4.2.1.3 **Playback Video**

Step 1

Select record type in the "Record Type Selection Bar" according to requirement, which is shown in Figure 4-8.

Figure 4-8

Step 2

Select the channel which needs to playback video, set "File Type" as dav", "Data Source" as "SD card", which is shown in Figure 4-9.

File type includes dav and jpg, "dav" means video playback and "jpg" means picture playback.

Figure 4-9

Step 3

Select the month and year of the video which needs to be checked, click the date with blue background. The system will display the record file progress bar with color.

Note

Display the date with blue background, it means there is record file on this date.

Different colors are corresponding to different record types on the progress bar, please refer to Figure 4-8 for more details.

Step 4

Play video

Click the in the play control bar.

The system will play the record file of the selected date (According to time sequence)

Click some time point on the progress bar (area with color), which is shown in Figure 4-10.

The system will play the record file from this time point.

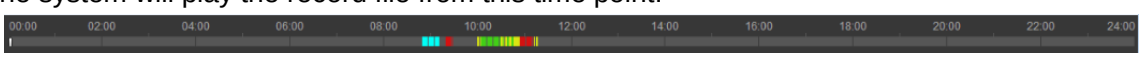


Figure 4-10

Click the  in the file list, the record file of the selected date will be displayed in the list, double click the file in the list, which is shown in Figure 4-11.

The system plays the double-clicked file, and at the same time it shown file size, begin time and end time. Please refer to Table 4-7 for more details.

Figure 4-11

Operation	Note
Search	Input begin time and end time, click . Search all the record files between begin time and end time.
Download	Select "Record Format" as "dav" or "mp4", click . The file is downloaded to the designated storage path. Please refer to "4.1.2.5 Set Storage path" for more details. **Note**

Operation	Note
	The system fails to support download and play video at the same time.
Back	Click  to return to calendar interface.

Table 4-7

4.2.1.4 **Video Clip**

Clip some piece of video and save it to the designated storage path, which is shown in Figure 4-12.

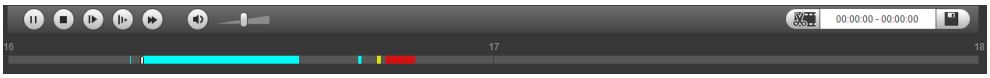


Figure 4-12

Step 1

Select "Record Format" as "dav" or "mp4".

Step 2

Click on the progress bar and select the begin tine of cut video, click  and begin clipping.

Step 3

Click to select end time of cut video, click  to finish clipping.

Step 4

Click  .

The system will prompt that it can't playback and download at the same time.

Step 5

Click "OK" and the system will disable playback, and the clipped file will be saved to designated storage path. Please refer to "4.1.2.5 Set Storage Path" for more details.

4.2.1.5 **Aux Function**

The aux function of playback includes digital zoom and snapshot, please refer to Table 4-8 for more details.

Icon	Function	Note
	Digital zoom	It supports following two types of operation to zoom video image: Click the icon and zoom in the selected area of the video image, click right button to recover original status. Drag the image under zoom in status, you can check images of other areas. Click the icon and scroll the mouse wheel to zoom video image.
	Snapshot	Click the icon and capture one picture of the video, and save it into the designated storage path. **Note** Please refer to "4.1.2.5 Set Storage Path" for more details.

Table 4-8

4.2.2 Picture Playback

Picture includes function bar of interface and playback picture file.

4.2.2.1 **Interface Introduction**

Select "File Type" as "jpg", the system will display the interface of "Picture Playback", which is shown in Figure 4-13.

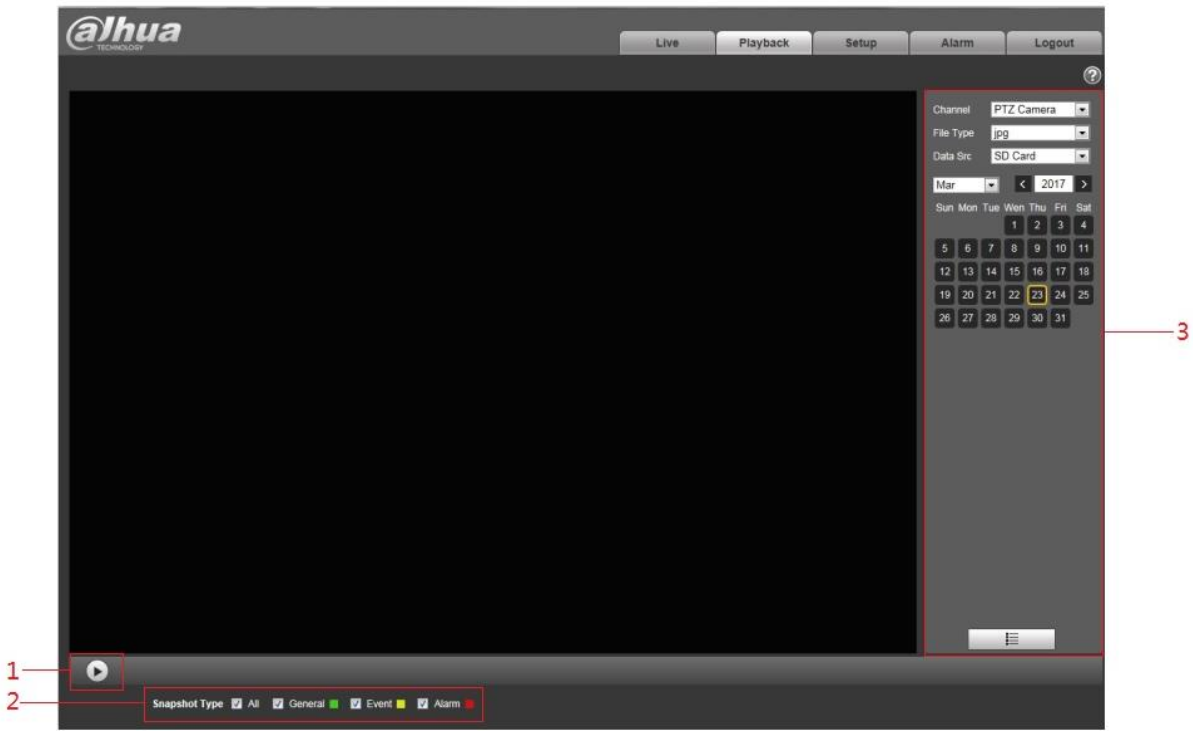


Figure 4-13

SN	Function	Note
1	Play control bar	It includes following two types:  , default status icon, it means pause or not play picture, click the icon to play picture.  , it means playing pictures, click the icon to stop playing. It can realize mutual switch between two states.
2	Snapshot type selection bar	Snapshot type includes general, event and alarm. It is to select and check snapshot type according to requirement.
3	Playback file bar	Here it can select file type and snapshot date etc.

Table 4-9

4.2.2.2 **Playback Picture**

It is to inquire and play snapshot pictures according to requirements.

Step 1

Select the snapshot type which needs to be checked in the "Snapshot Type Selection Bar', which is shown in Figure 4-14.

Figure 4-14

Step 2

Select the channel which needs to playback pictures, set "File Type" as "jpg", which is shown in Figure 4-15. File type includes dav and jpg, "dav" means video playback, "jpg" means picture playback.

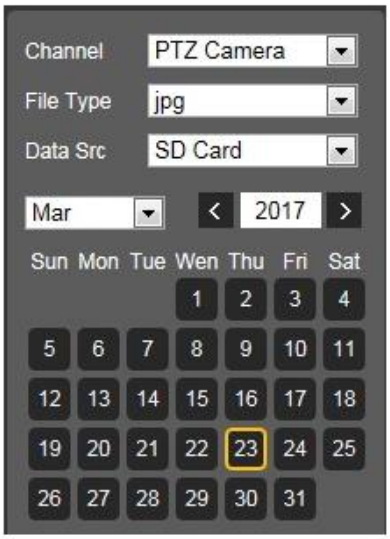


Figure 4-15

Step 3

Check snapshot month, year and date with blue background according to requirements.

Note

The date with blue background means there is picture file on this date.

Step 4

Play picture

Click the  in the play control bar, the system will play the pictures of selected date (according to time sequence).

Click the  in the file list, the picture file of selected date will display in the list, double click the file in the list, which is shown in Figure 4-16.

The system will play the double-clicked file. Please refer to Table 4-10 for more details.

Figure 4-16

Operation	Note
Search	Input begin time and end time, click . Check all the picture files between start time and end time.
Download	Click , the file will be downloaded to local. **Note** Download operation may be different according to different browsers, please refer to the actual brower for more details.
Return	Click to return to calendar interface.

Table 4-10

4.3 Configure Alarm Info

It is used to subscribe alarm event, the system will record alarm info on the right window bar when it triggers the alarm event which has been subscribed by users.

Note

Different devices may have different functions, please refer to the actual interface for more details.

4.3.1 Understand Alarm Type

It has to understand the alarm type and the precondition which generates event, please refer to Table 4-11 for more details.

Alarm type	Note	Precondition
Motion Detect	It generates alarm when it detects there is moving object in the video image.	It has enabled the function of motion detection, please refer to "4.4.2.1 Set Motion Detection" for more details.
Disk Full	It generates alarm when remaining capacity of SD card is less than the value which has been set.	It has enabled SD card capacity warning detection function, please refer to "4.4.10.1 Configure SD Card Abnormity Parameter' for more details.
Disk Error	It will generate alarm when device SD card malfunctions or abnormal	It has enabled SD card error detection function, please refer to "4.4.10.1 Configure SD Card Abnormity Parameter" for more details.
Video Tampering	It will generate alarm when there is video being tampered.	It has enabled video tampering function, please refer to "4.4.2.2 Configure Video Tampering" for more details.
External Alarm	It will generate alarm when there is external alarm being input.	The device is equipped with alarm input interface and it has enabled external alarm function, please refer to "4.4.9 Configure Alarm" for more details.
Illegal Access	It will generate alarm when the times of login password error has reached the allowed times.	It has enabled illegal access detection function, please refer to "4.4.10.3 Configure Illegal Access Parameter" for more details.
Audio Detect	It will generate alarm when audio connection is abnormal.	It has enabled audio abnormity detection function, please refer to "4.4.3 Set Audio Detection" for more details.
IVS	It will generate alarm when intelligent rule triggers.	It has enabled IVS, face detection or people counting, please refer to "4.4.5 Set IVS", "4.4.6 Configure Face Detection" or "4.4.7 Configure People Counting" for more details.
Scene Changing	It will generate device when device monitoring scene changes.	It has enabled scene changing detection, please refer to "4.4.2.3 Configure Scene Changing Detection" for more details.

Table 4-11

4.3.2 Subscribe Alarm Information

Enable alarm prompt and custom alarm tone according to the actual situation.

Step 1

Click "Alarm" and the system will display the "Alarm" interface, which is shown in Figure 4-17.

Figure 4-17

Step 2

Select alarm type.

Step 3

Select "Prompt", the system will prompt and record alarm info according to actual situation.

When the subscribed alarm event triggers, the system is not on the "Alarm" interface, then it will show  on the "Alarm" tab, and it will record alarm info automatically, the icon will disappear when clicking "Alarm" tab.

When subscribed alarm event triggers, the system is on the "Alarm" interface, then it will record corresponding alarm info on the right alarm list of the interface.

Step 4

Select "Play Alarm Tone" and select tone path.

When subscribed alarm event triggers, the system will play the selected audio files and prompt there is alarm event triggering.

5 Config

5.1 Camera Setup

It is to set the camera, video and audio conditions, which is to guarantee normal monitoring for the device.

Note

Different devices may have different functions, please refer to the actual interface for more details.

5.1.1 Set Camera Condition

5.1.1.1 **Set Camera Parameter**

It is to set or check the camera parameters of tracking speed dome and panorama camera. It will take tracking speed dome as an example to introduce the config of camera parameters.

Note

The camera parameters may be different according to different models, please set parameters according to the actual device.

The camera parameters of both panorama camera and tracking speed dome may be different, please refer to the actual interface for more details.

It is to set image conditions of tracking speed dome and panorama camera, adjust image parameters to reach optimum preview effect. Select "Setup > Camera > Conditions", select "Channel" as "1", the system will display the camera condition interface of tracking speed dome, which is shown in Figure 5-1; Select "Channel" as "2" or "3", the system will display the camera condition interface of panorama camera, which is shown in Figure 5-2.

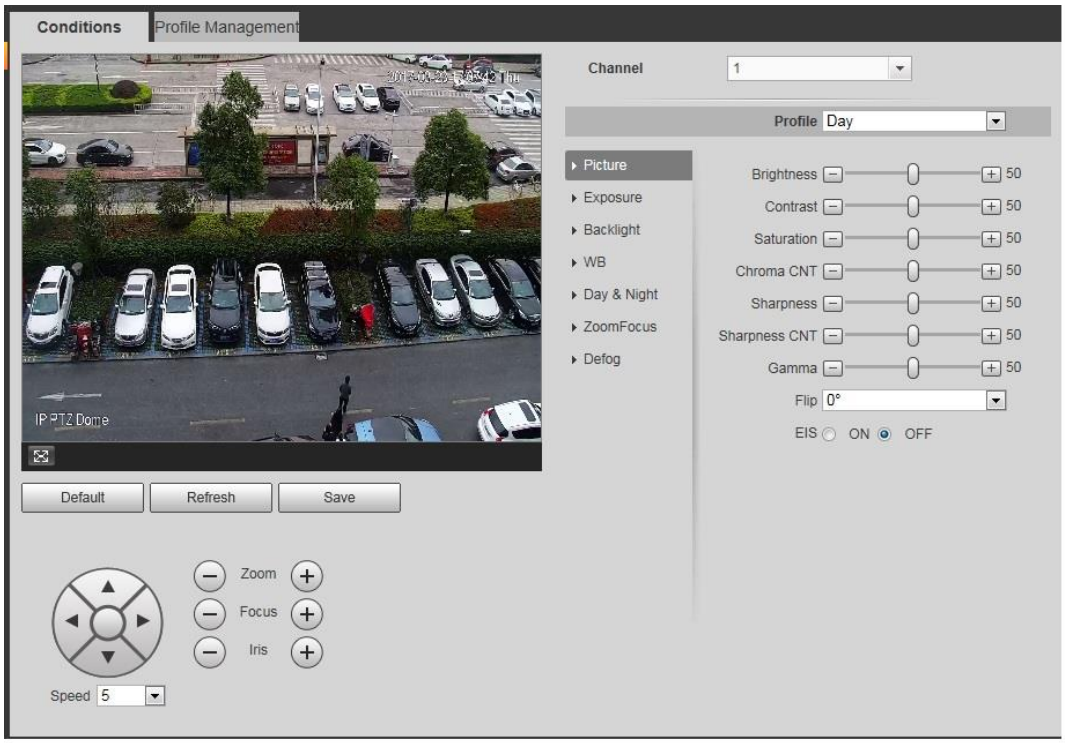


Figure 5-1

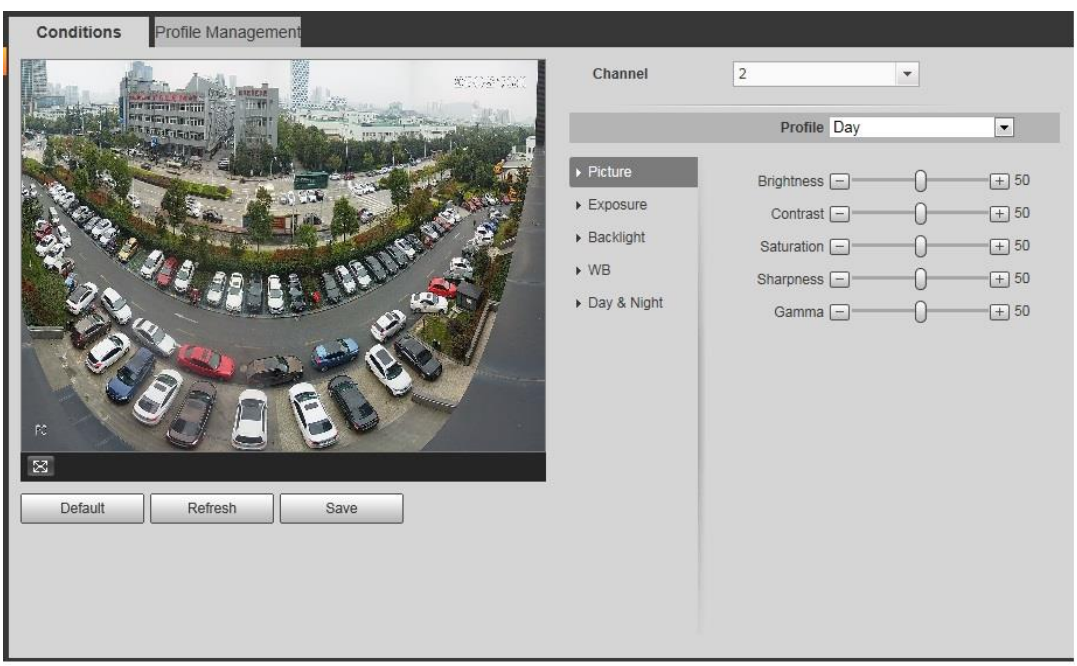


Figure 5-2

Please refer to Table 5-1 for more details about camera parameters.

Parameter	Note
Config File	It is to set the config mode of camera condition, including general, day and night.
Image	It is to set the camera image parameter, including brightness, contrast, saturation, chroma CNT, sharpness and Gamma etc.
Exposure	It is to set the exposure mode of camera, including auto, manual, shutter priority, gain priority and iris priority.
Backlight	It is to set backlight mode of camera, including BLC, HLC, WDR and off.
WB	It is to set the WB mode of camera, tracking speed dome includes auto, indoor, outdoor, tracking, manual, sodium lamp, natural light and street lamp; panorama camera includes auto, natural light, street lamp, outdoor, manual and area custom.
Day/Night	It is to set day/night mode of camera, type includes electrical and ICR; mode includes color, B/W and auto.
Zoom&Focus	It is to set zoom and focus mode of camera lens, zoom can enable digital zoom and set zoom speed etc., focus mode includes auto, semi-auto and manual.
Defog	It is to set the defog mode of image, including off, auto and manual.
Default	It is to restore the parameters of camera condition back to default.

Table 5-1

5.1.1.1.1 Set Image Parameter

It is to set image parameter of camera, including brightness, contrast, saturation and sharpness etc.

Step 1

Click "Image" and the system will display the interface of "Image", which is shown in Figure 5-3.

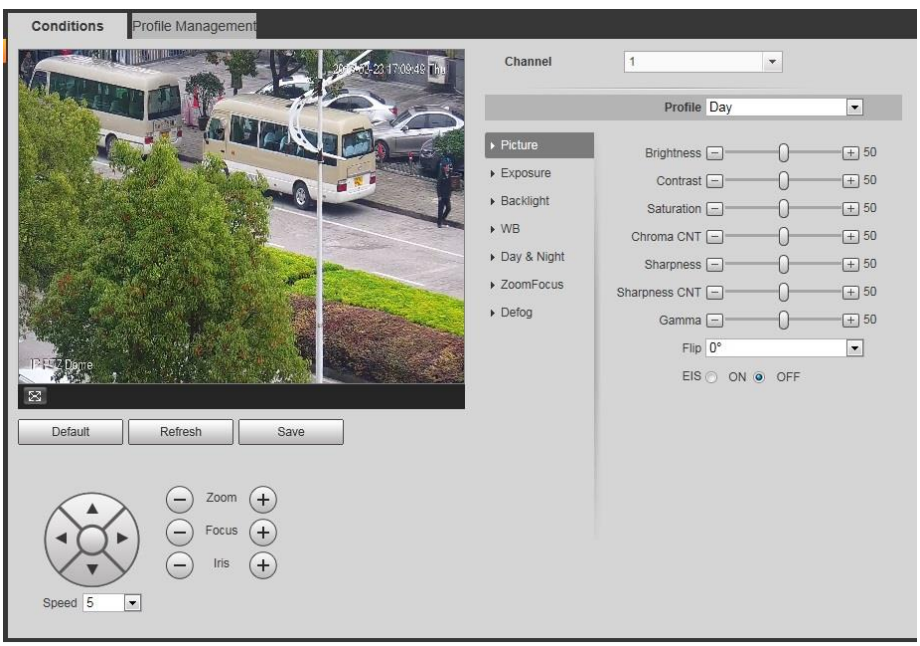


Figure 5-3

Step 2

It is to set image parameters, please refer to Table 5-2 for more details about parameter description.

Parameter	Note
Brightness	It is to adjust image overall brightness via linear adjustment mode. The bigger the value is, the brighter the image becomes; the smaller the value is, the darker the image becomes.
Contrast	It is to adjust image contrast. The bigger the value is, the bigger the brightness contrast becomes, and on the contrary it becomes smaller.
Saturation	It is to adjust the darkness and lightness of the color. The bigger the value is, the darker the color becomes, and on the contrary it becomes lighter. The value won't affect the overall brightness of the image.
Chroma CNT	It is the control degree of image color, the bigger the value is, the more obvious the control becomes.
Sharpness	It is to adjust the sharpness degree of image edge. The bigger the sharpness value is, the more obvious the image edge becomes. The image becomes easier to generate noise when the value is set too big.
Sharpness CNT	It is to adjust the control level of camera sharpness, the bigger the value is, the stronger the sharpness control becomes.
Gamma	It is to change image brightness via non-linear adjustment mode, improve dynamic display range of the image. The bigger the value is, the brighter the image becomes; on the contrary the image becomes darker.
Mirror	The monitoring image will be displayed reversely left and right after mirror is enabled.
View Angle	It is to change the display direction of monitoring image. Normal: Monitoring image is normally displayed. Reverse: The monitoring image is displayed reversely up and down.

Table 5-2

Step 3

Click "Save" to complete setting.

5.1.1.1.2 Set Exposure Parameter

Step 1

Click "Exposure" and the system will display the interface of "Exposure', which is shown in Figure 5-4.

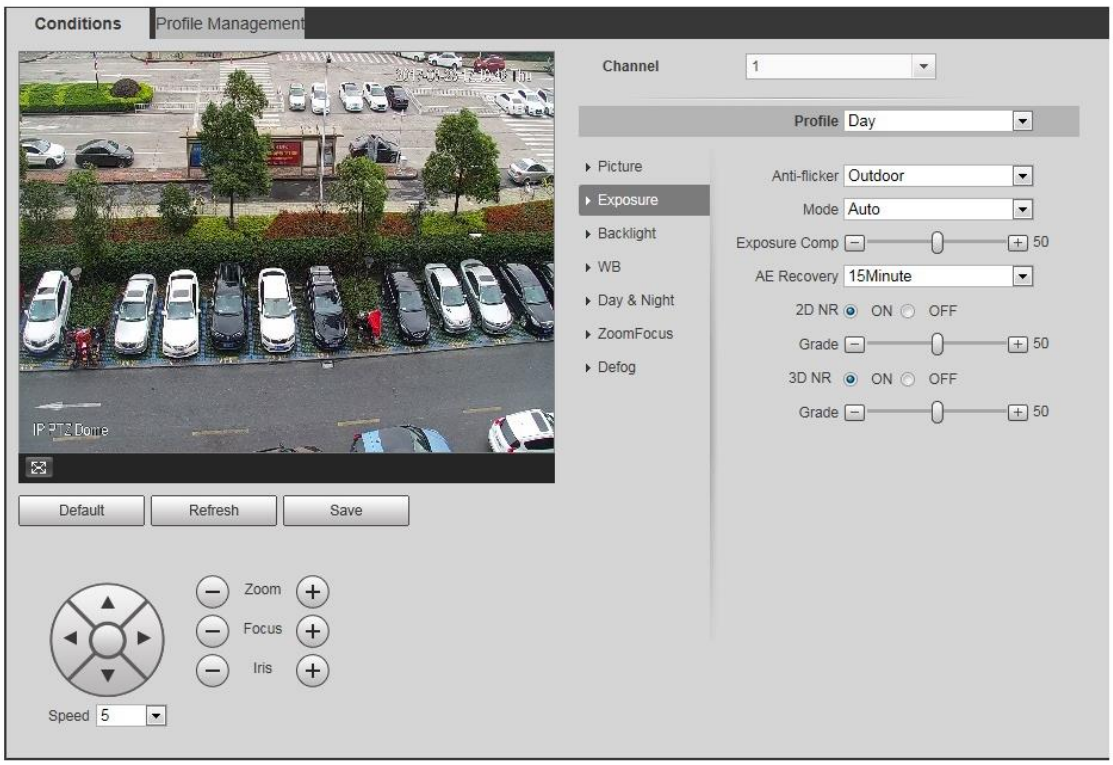


Figure 5-4

Step 2

It is to set exposure parameter, please refer to Table 5-3 for parameter details.

Parameter	Note
Anti-flicker	50Hz: When the current is 50Hz, system can auto adjust the exposure according to the environment brightness in case there is any stripe in the image. 60Hz: When the current is 60Hz, system can auto adjust the exposure according to the environment brightness in case there is any stripe in the image. Outdoor: You can switch to exposure mode when it is in outdoor mode, it can realize the result in the corresponding exposure mode.

Parameter	Note
Mode	It is to set exposure mode of the camera. **Note:** When “Anti-flicker” is set as “Outdor”, the “exposure mode” can be set as “shutter priority”, “iris priority” or "gain priority" mode. Different devices have different exposure modes; please refer to the actual interface. It includes the following options: Auto: It can auto adjust the image brightness according to the environment. Shutter priority: The device can auto adjust according to the shutter range which is set by priority during normal exposure range according to the different scene brightness. The device will auto adjust shutter value if the image brightness fails to reach the effect and the shutter value has reached to upper limit or lower limit, which is to make the image reach the best brightness. Iris priority: Iris value is fixed, the device can auto adjust the shutter value if the image brightness fails to reach effect and the shutter value has reached the upper limit or lower limit, the device can auto adjust the gain value to make the image reach the best brightness. Gain priority: The device can auto adjust according to the gain range which is set by priority during normal exposure range according to the different scene brightness. The device will auto adjust shutter value if the image brightness fails to reach the effect and the gain value has reached to upper limit or lower limit, which is to make the image reach the best brightness. Manual: It is to manually set gain value and shutter value, adjust the displayed brightness of the image.
Shutter	When the "Mode" is set as "Manual" or "Shutter Priority", you can set the parameter. It is to select the shutter value of the camera.
Gain Range	When the "Mode" is set as "Manual" or "Gain Priority", you can set the parameter. It is to adjust the gain value of the camera.
Iris Range	When the "Mode" is set as "Manual" or "iris Priority", you can set the parameter. It is to adjust the iris value of the camera.
2D NR	It is to average the pixel of single frame image and other pixels, which is to lower the image noise. When "Basic NR" is set as "Enable", you can set the level of basic NR, the higher the level is, the better the NR effect becomes.
3D NR	It is to process the image with multiframe (at least two frames), it can realize noise reduction of the image by using the interframe information between the previous and latter frame. When "Advanced NR" is set as "Enable", you can set the level of advanced NR, the higher the level is, the better the NR effect becomes.

Table 5-3

Step 3

Click "Save" to complete the setting.

5.1.1.1.3 Set Backlight Mode

Backlight mode includes BLC, WDR and HLC.

BLC: it can avoid cucoloris phenomenon of the darker area in the backlight environment.

WDR: It can suppress the overbright area and compensate darker area by enabling WDR, which can make the overall image clear.

HLC: It is to weaken the high light, which can be applied in the areas such as toll gate, entrance and exit of the parking lot and etc. As for extreme light, it can snapshot the human face in the dark environment and it can realize better effect for the details of the plate number.

Step 1

Click "Backlight" and the system will display the interface of "Backlight", which is shown in Figure 5-5.

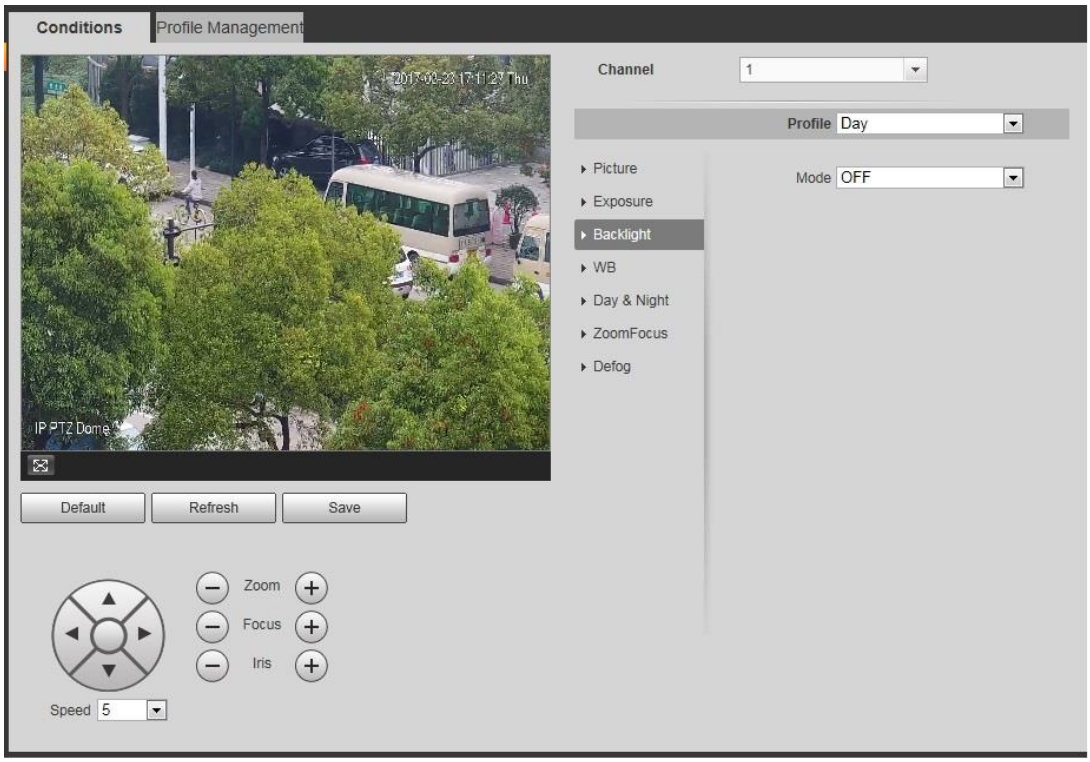


Figure 5-5

Step 2

It is to set backlight mode, please refer to Table 5-4 for more details.

Note

There might be video loss of a few seconds during the process when the camera is switched from non WDR mode to WDR mode.

Backlight Mode	Note
BLC	The system can make exposure automatically according to the environment, which is to make the image in the darkest area clear to be seen.
WDR	According to the environmental brightness, it will lower the brightness of the area with high brightness and enhance the brightness of the area with low brightness, which is to make the objects in both high brightness and low brightness area display clearly.
HLC	The system will constrain the brightness of the area with high brightness and decrease the size of the halo area, which is to lower the brightness of the whole image.

Table 5-4

Step 3

Click "Save" to complete settings.

5.1.1.1.4 Set WB

White balance means restoring the white object by camera. It can make white objects in image display white in different environments after setting white balance mode.

Step 1

Click "WB" and the system will display the interface of "WB", which is shown in Figure 5-6.

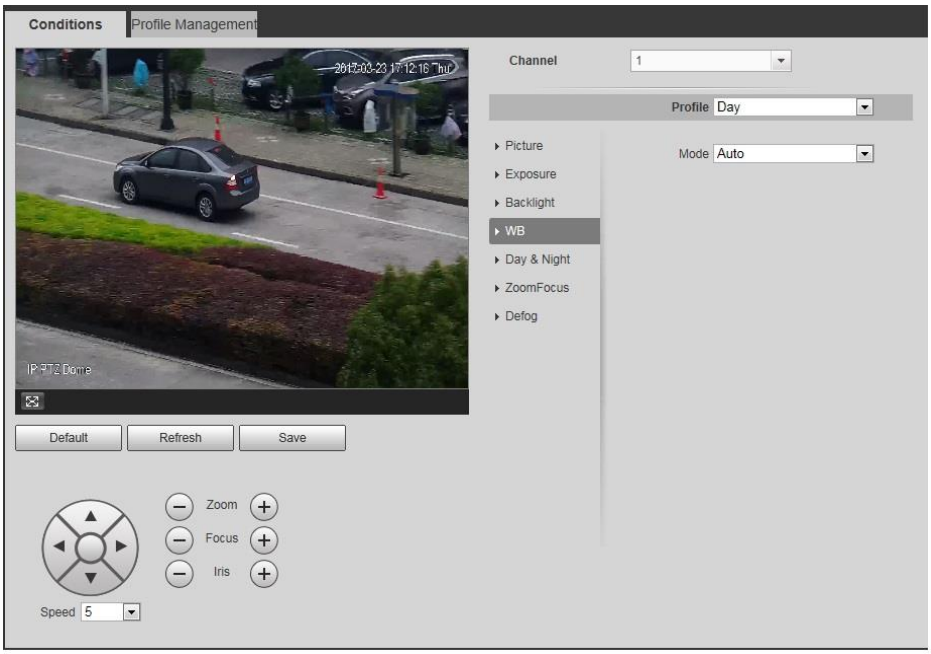


Figure 5-6

Step 2

It is to set WB mode, please refer to Table 5-5 for more details.

WB Mode	Note
Auto	The system can make white balance compensation upon different light environments automatically, which is to make the image color normal.
Indoor	The system can implement general white balance compensation upon indoor light, which is to make image color normal.
Outdoor	The system can implement white balance compensation upon most indoor scenarios containing natural light and artificial light, which is to make image color normal.
Manual	Manually set red gain value and blue gain value, the system can implement compensation upon different color temperature in the environment according to the setting.
Sodium Lamp	The system can implement white balance compensation upon sodium lamp environment automatically, which is to make image color normal.
Natural Light	The system can implement white balance compensation upon natural light environment automatically, which is to make image color normal.
Street Lamp	The system can implement white balance compensation upon street lamp environment automatically, which is to make image color normal.

Table 5-5

Step 3

Click 'Save" to complete setting.

5.1.1.1.5 Set Day/Night Mode

It is to set the conversion between color mode and black & white mode.

Step 1

Click "Day/Night' mode and the system will display the interface of "Day/Night Mode", which is shown in Figure 5-7.

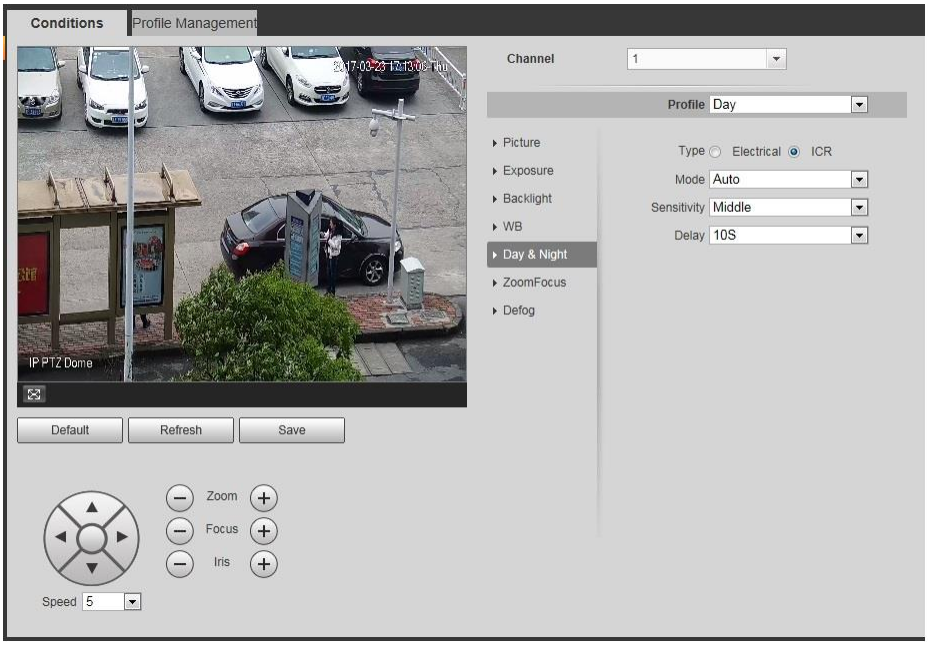


Figure 5-7

Step 2

It is to set day/night mode parameter, please refer to Table 5-6 for more details.

Parameter	Note
Mode	The camera image is displayed as color or Day&Night mode. **Note** "Mode" setting is not affected by the setting of "Config File". Color: The camera image is displayed as color image. Auto: The camera auto select to display color image or black & white image according to the brightness of monitoring image. Black & White: The camera image is displayed as black & white image.
Sensitivity	The parameter can be set when the "Mode" is set as "Auto". It is the sensitivity of the switch between image color display and black & white display.
Delay	The parameter can be set when the "Mode" is set as "Auto". It is the delay time of switch between image color display and black & white display.

Table 5-6

Step 3

Click "Save" to complete setting.

5.1.1.1.6 Zoom & Focus

Step 1

Click "Zoom Focus" and the system will display the interface of "Zoom Focus", which is shown in Figure 5-8.

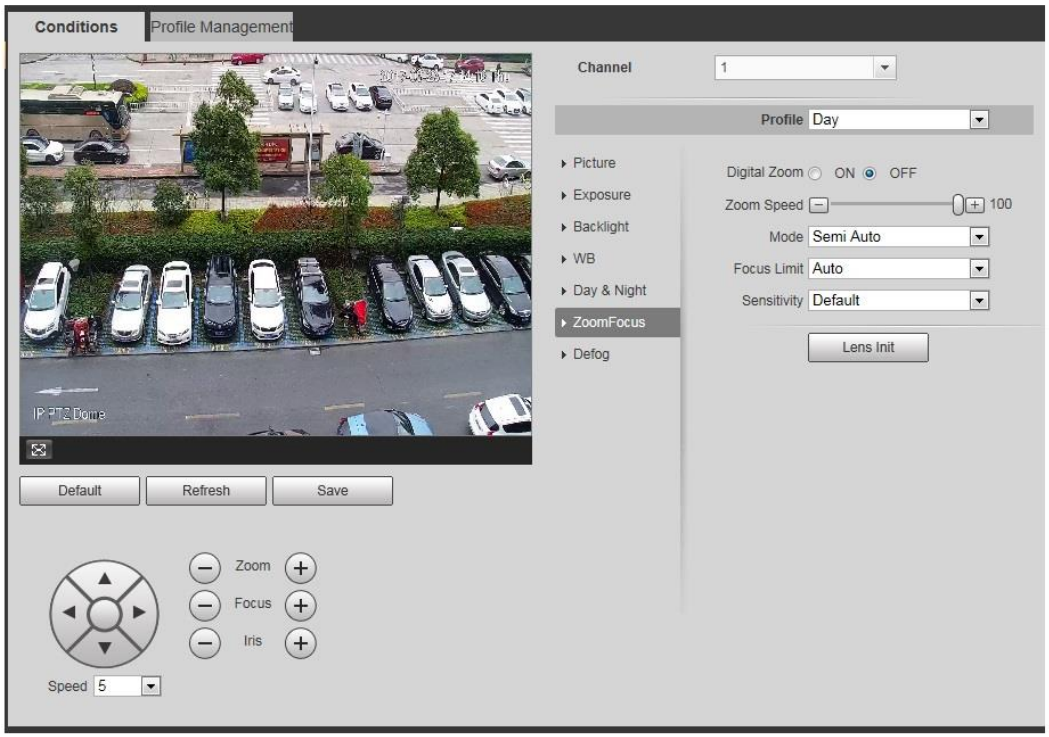


Figure 5-8

Step 2

It is to set zoom and focus parameter, please refer to Table 5-7 for more details.

Parameter	Note
Digital Zoom	Select "ON" to enable digital zoom. When optical zoom reaches max, it can continue to implement digital zoom after it is enabled.
Zoom Speed	It is the zoom speed of the camera, the bigger the value is, the faster the zoom speed becomes.
Mode	Camera focus mode. Auto: it is the full auto mode, it will trigger focus automatically when there is image moving or object changing and the image becomes blurry in the scene. Semi-auto: Manually trigger focus, including pressing focus button, zoom trigger focus, preset trigger focus, 3D positioning trigger focus, PTZ rotation trigger focus. Manual: it needs to click the corresponding ⊖ or ⊕ to manually focus.
Focus Limit	The camera's focus distance, it is to avoid focusing on the dome enclosure due to the short focusing distance, meanwhile it can modify focusing speed via changing focusing distance.
Sensitivity	It is the camera focusing sensitivity, the higher the sensitivity is, the easier it becomes to trigger focus; the lower the sensitivity is, the harder it becomes to trigger focus.

Table 5-7

Step 3

Click "Save" to complete setting.

Note

Click "Lens Init" to implement lens initialization for the lens of tracking speed dome, at this moment the device lens will be stretched, which means correction upon lens zoom and focus.

5.1.1.1.7 Set Defog Mode

The image quality will become lower when the device is located in the environment with fog and haze, it can enable defog function to adjust the image definition.

Step 1

Click "Defog" and the system will display the interface of "Defog", which is shown in Figure 5-9.

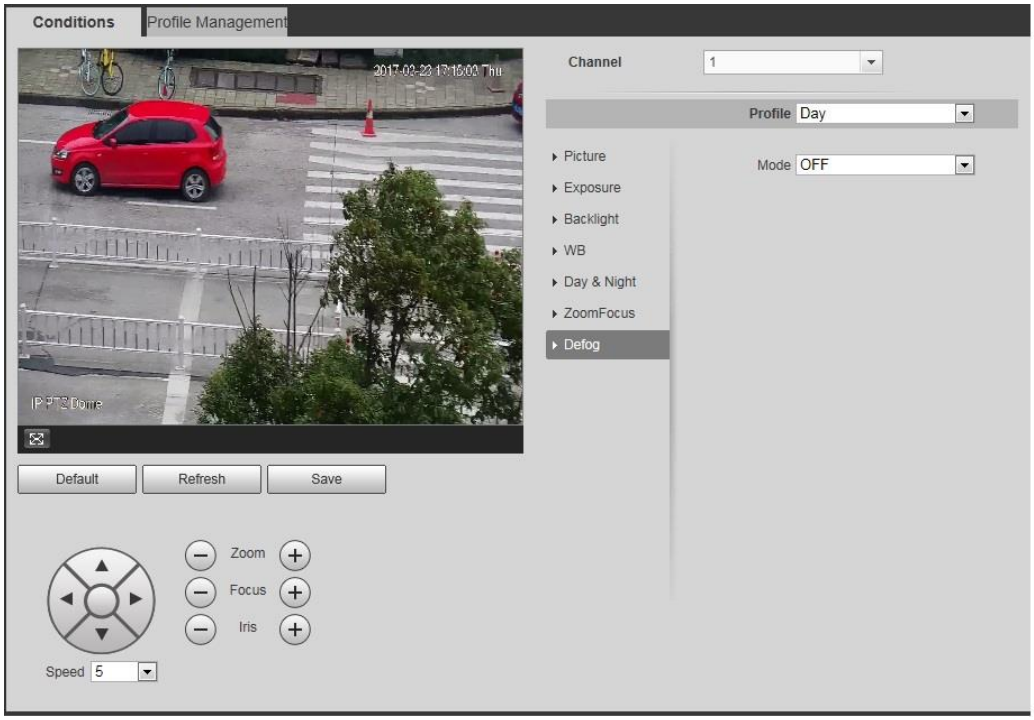


Figure 5-9

Step 2

It is to set defog mode according to the actual scene, please refer to Table 5-8 for more details.

Defog Mode	Note
Manual	Manually set intensity, the system will adjust image definition according to the intensity which has been set.
Auto	The system can auto adjust image definition according to the actual scenario.
off	It is to disable defog function.

Table 5-8

Step 3

Click "Save" to complete setting.

5.1.1.2 **Profile Management**

For config profile management, it can select "General", "Full Time" and "Schedule".

Step 1

Select "Setup > Camera > Conditions > Profile Management" and the system will display the interface of "Profile Management".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to manage the config file of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to manage the config file of panorama camera.

Step 3

Set config file.

- When the "Profile Management" is set as 'General", the system will implement monitoring according to general config.

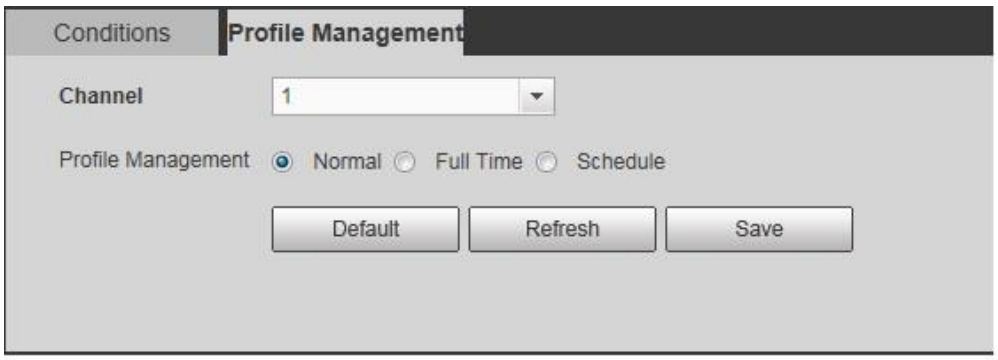


Figure 5-10

- When the "Profile Management" is set as "Full Time", it can select "Always Enable" as "Day" or "Night", the system will implement monitoring according to the config which is always used.

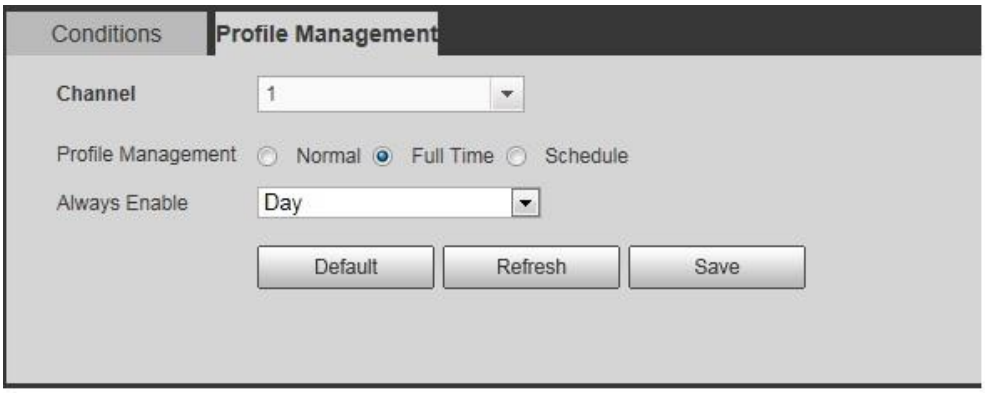


Figure 5-11

- When the "Profile Management" is set as "Schedule", it can set some period as day and set some other period as night, if it sets 8:00～17:00 as day, then 0:00~8:00 and 18:00～24:00 are considered as night, the system will implement monitoring by adopting corresponding config in different time.

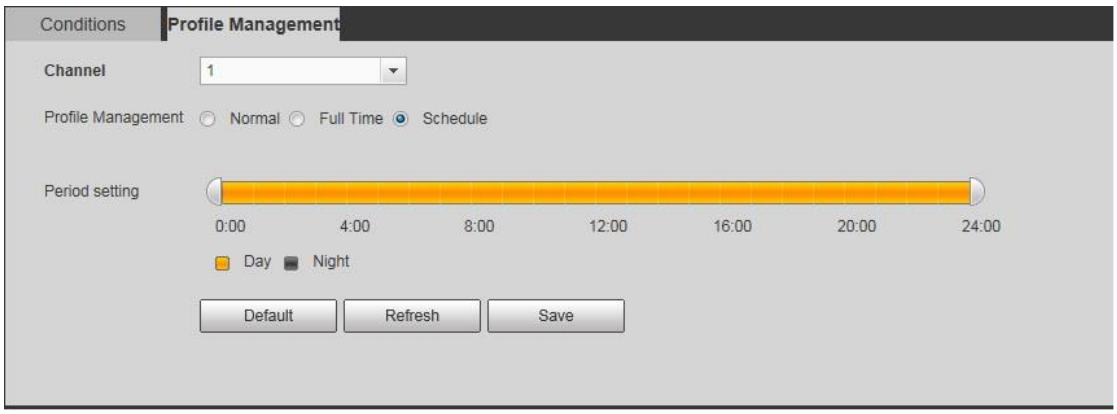


Figure 5-12

Step 4
Click "Save" to complete setting.

5.1.2 Set Video Parameter

It is to set the video parameters of tracking speed dome and panorama camera, including video, snapshot, overlay, ROI and path. The chapter is to take tracking speed dome as an example to introduce the setting of video parameters.

5.1.2.1 **Set Video**

It is to set the video stream parameters of tracking speed dome and panorama camera, which includes stream type, encode mode, resolution, frame rate, bit rate type, bit rate, I frame interval, SVC and watermark setting etc.

Step 1

Select "Setup > Camera > Video > Video" and the system will display the interface of "Video", which is shown in Figure 5-13.

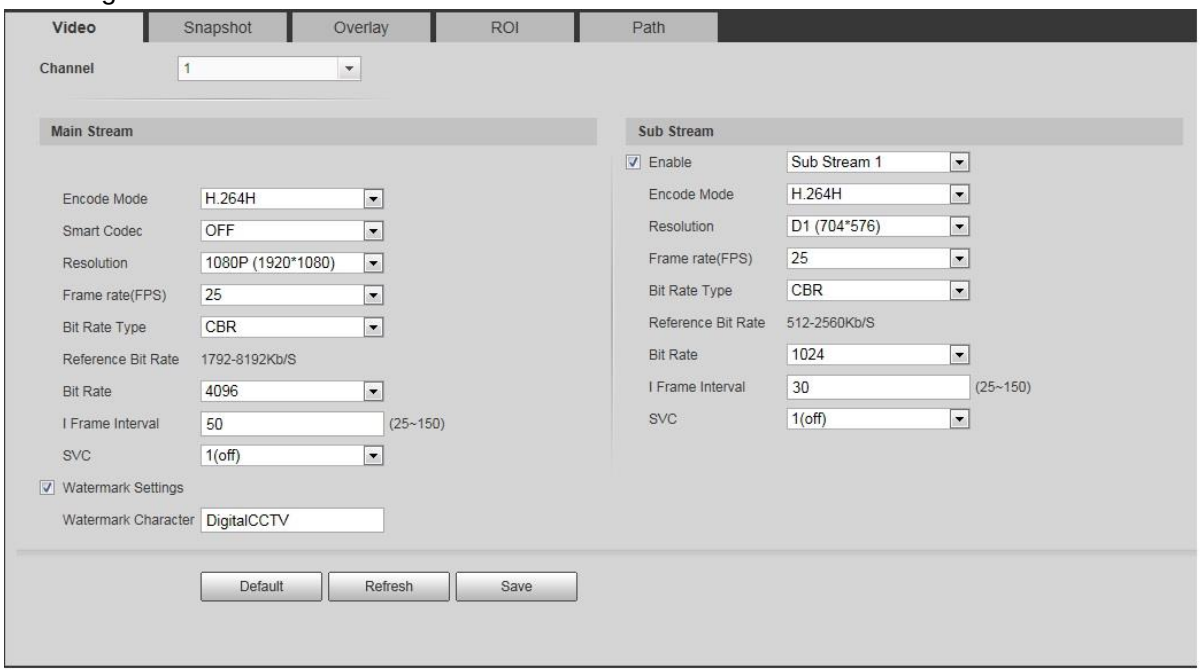


Figure 5-13

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the video stream parameters of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the video stream parameters of panorama camera.

Step 3

It is to set video stream, please refer to Table 5-9 for more details.

Parameter	Function
Enable	Select "Enable" to enable sub stream, it is enable by default. The device supports sub stream 1 and sub stream 2 at the same time.

Parameter	Function
Encode mode	It is the encode mode of video. ● H.264: Main Profile encode mode. ● H.264B: Baseline Profile encode mode. ● H.264H: High Profile encode mode. ● MJPEG: In this encode mode, the video needs large bit stream to guarantee the video definition. You can use the max bit stream value in the recommended bit to get the better video output effect. ● H.264: Main Profile encode mode.
Smart Codec	Enable smart codec to improve image compression performance and reduce storage space. **Note** After enabling smart codec, the device will not support third stream, ROI, intelligent event detection and other functions, please refer to the actual interface for more details.
Resolution	Video resolution. The max resolution of different channels may be different, please refer to the actual interface for more details.
Frame Rate (FPS)	Number of frames contained in the video of each second. The higher the frame rate is, the more vivid and smooth the image becomes.
Bit Rate Type	There are two options: VBR and CBR. ● CBR: bit rate change is very little, the bit rate changes around the stream value which has been set. ● VBR: The bit rate will change according to the monitoring scenes. **Note** When the "Encode Mode" is set as "MJPEG", the bit rate type can only be CBR.
Image Quality	When the "Bit Rate Type" is set as "VBR", it can set the parameter. There are 6 levels of video image quality, which are best, better, good, bad, worse and worst.
Reference Bit Rate	It is to recommend the best stream value range to the users according to the resolution and frame rate configured by the users.
Bit Rate	When the "Bit rate type" is set as "CBR", it can set the parameter. It is to select stream value according to "Reference Bit Rate", the bit rate changes around the stream value which has been set. Select "Custom" and you can manually set bit rate value.

Parameter	Function
Stream Upper Limit	When the "Bit Rate Type" is set as "VBR", you can set the parameter. It is to select the stream upper limit according to "Reference Bit Rate", the stream will change according to the monitoring scene, but the max stream value changes around the stream value which has been set.
I Frame Interval	The number of P frame between two I frames, the range of I frame interval changes according to the different frame rate. It is recommended to set I frame interval twice as big as frame rate.
SVC	Frame rate can be encoded by layer. SVC is a type of scalable encode mode on time domain. It is 1 be default, which means encoding without layer.
Watermark Settings	Select "Watermark Settings" to enable watermark function. After watermark function is enabled, you can check if the video is tampered via verifying watermark character.
Watermark Character	It is the character of watermark verification, it is Digital CCTV by default. **Note** Watermark character can only consist of number, letter, underline and strikethrough within 128 characters.

Table 5-9

Step 4

Click "Save" to complete settings.

5.1.2.2 **Set Snapshot**

It is to set the snapshot parameters of tracking speed dome and panorama camera, which includes snapshot type, image size, quality and interval etc.

Step 1

Select "Setup > Camera > Video > Snapshot" and the system will display the interface of "Snapshot", which is shown in Figure 5-14.

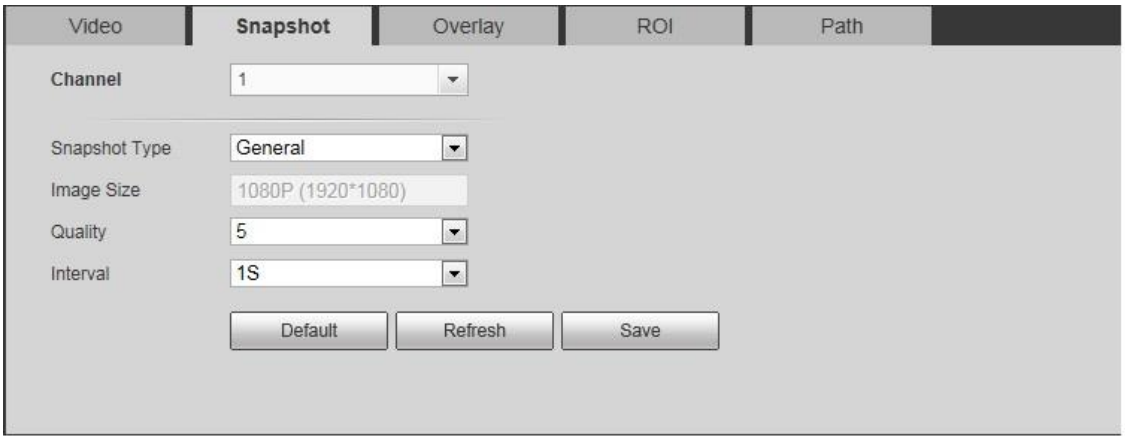


Figure 5-14

Step 2

Select channel.

- When the "Channel" is set as "1", it can set the snapshot parameter of tracking speed dome.
- When the "Channel" is set as "2" or "3", it can set the snapshot parameter of panorama camera.

Step 3

It is to set snapshot, please refer to Table 5-10 for more details.

Parameter	Function
Snapshot type	There are two modes: General (schedule) and Event (activation). ● General snapshot means making snapshot within the range which is set by schedule. ● Event snapshot means making snapshot when triggering video detection, audio detection, intelligent event and alarm.
Image size	It is the same with the resolution of main stream snapshot
Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. Select "Custom" to manually set snapshot frequency.

Table 5-10

Step 4

Click "Save" to complete settings.

5.1.2.3 **Set Overlay**

It is to set the video overlay info of both tracking speed dome and panorama camera, which includes privacy mask, channel title, time title, text overlay, OSD info, font and picture overlay.

5.1.2.3.1 Set Privacy Masking

It can set privacy mask when it needs to protect privacy of some area on the video image.

Note

Only panorama camera supports privacy mask function.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "Overlay".

Step 2

Set "Channel" as "2" or "3".

Step 3

Click "Privacy Mask" and the system will display the interface of "Privacy Mask", which is shown in Figure 5-15.

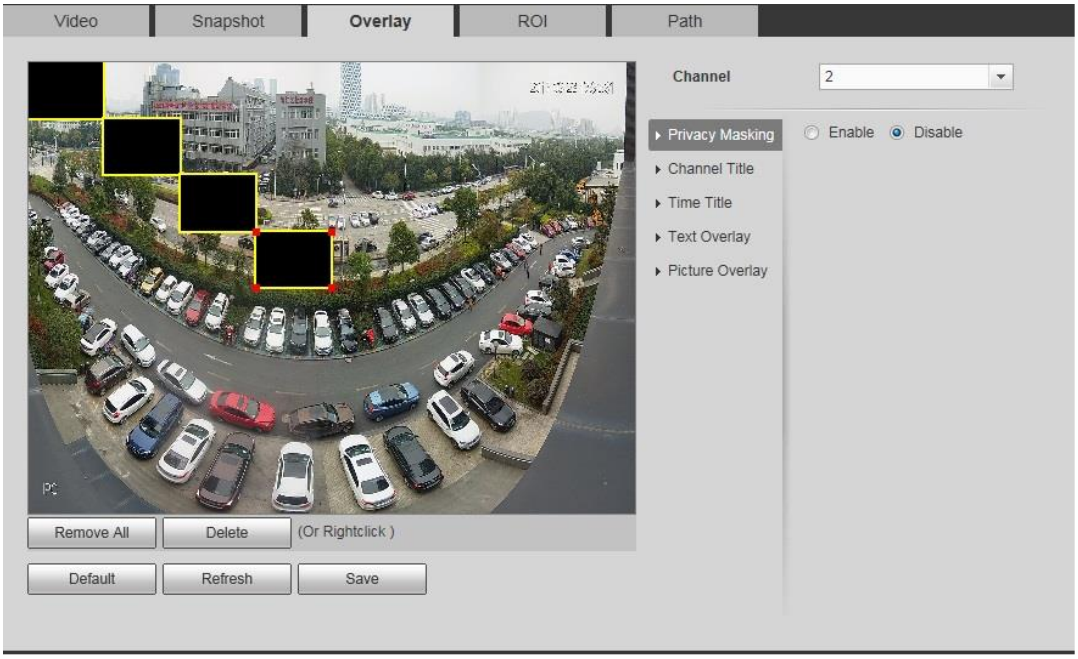


Figure 5-15

Step 4

Select "Enable" and drag area to privacy area, which is to protect area privacy.

Note

It can set max 4 areas.

Step 5

Click "Save" to complete settings.

5.1.2.3.2 Set Channel Title

It can set channel title when it needs to display channel title in the video image.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "Overlay".

Step 2

Select channel.

When "Channel" is set as "1", it is to set video overlay of tracking speed dome.

When "Channel" is set as "2" or "3", it is to set video overlay of panorama camera.

Step 3

Click "Channel Title" and the system will display the interface of "Channel Title", which is shown in Figure 5-16.

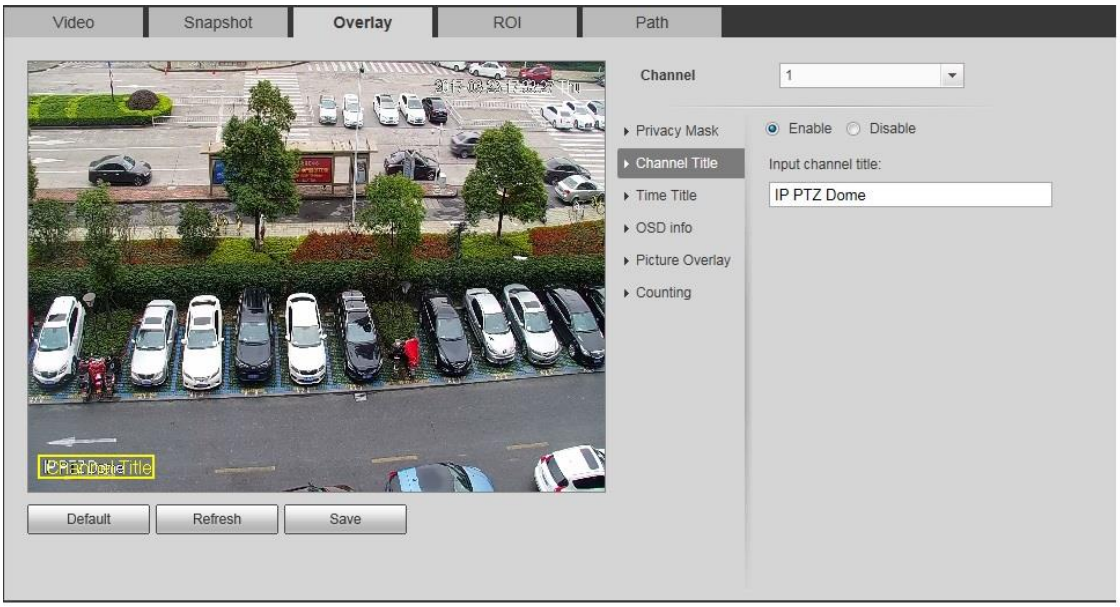


Figure 5-16

Step 4

Select "Enable" and set channel title, then the channel title will be displayed in the video image.

Note

It can use mouse to drag channel title area box to adjust the location of channel title in the video image.

Step 5

Click "Save" to complete setting.

5.1.2.3.3 Set Time Title

It can set time title when it needs to display time info in the video image.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "Overlay".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the video overlay of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the video overlay of panorama camera.

Step 3

Click "Time Title" and the system will display the interface of "Time Title", which is shown in Figure 5-17.

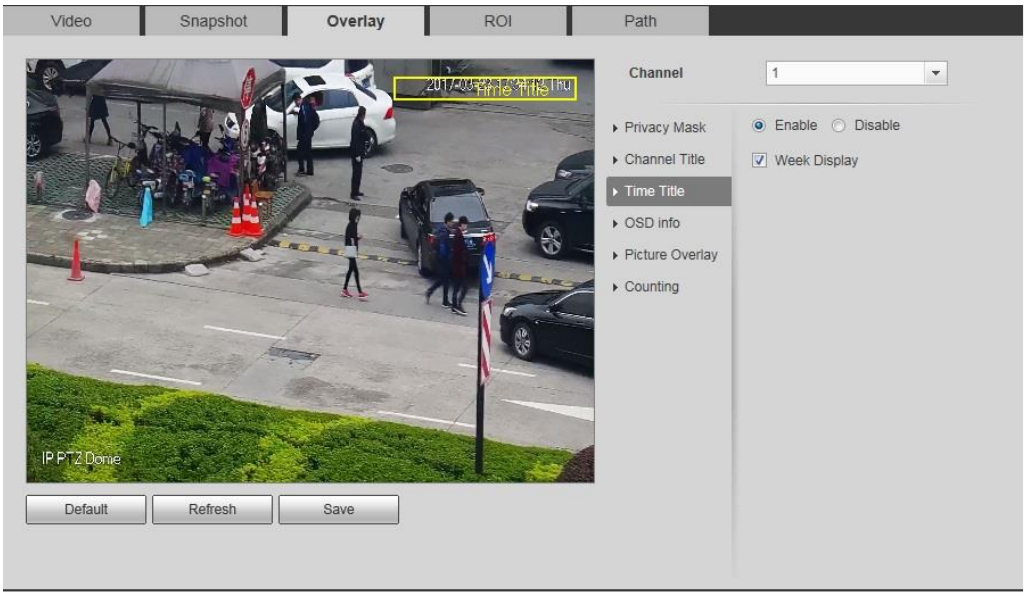


Figure 5-17

Step 4

Select "Enable" and time info will be displayed in the video image.

Step 5

Select "Week Display" and week info will be displayed in the video image.

Note

You can use mouse to drag time title area box to adjust the location of time info in the video image.

Step 6

Click "Save" to complete setting.

5.1.2.3.4 Set Text Overlay

It can set text overlay when it needs to display text overlay in the video image.

Note

- Text overlay and picture overlay can't be enabled at the same time.
- Only panorama camera supports text overlay function.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "overlay".

Step 2

Set the "Channel" as "2" or "3".

Step 3

Click "Text Overlay" and the system will display the interface of "Text Overlay", which is shown in Figure 5-18.

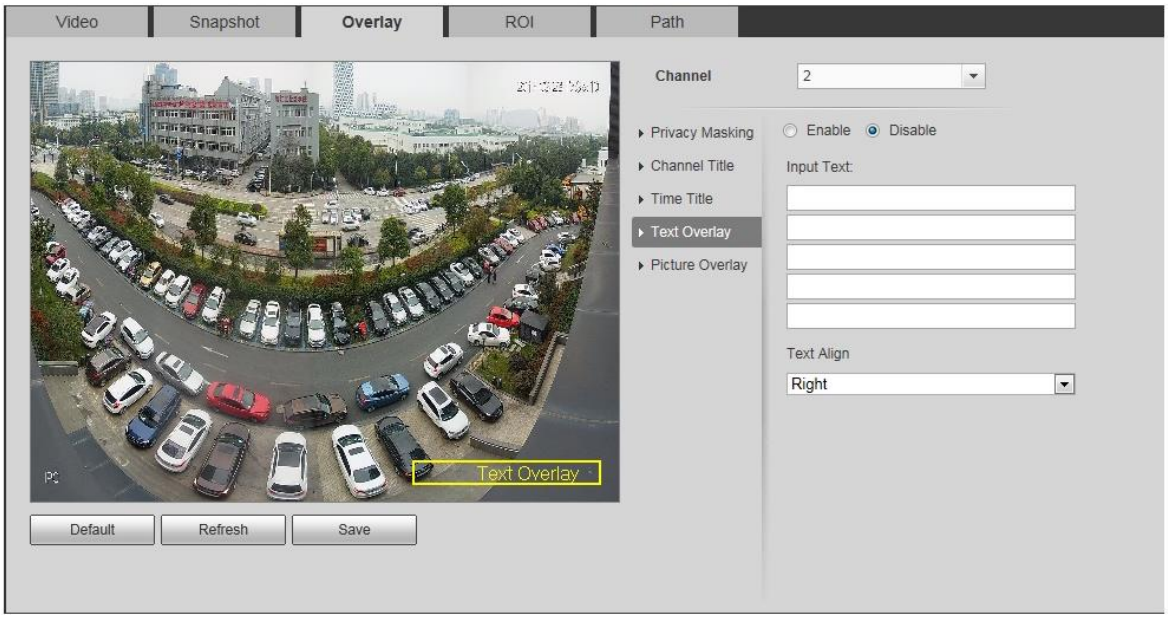


Figure 5-18

Step 4

It is to set temperature, RS485 and text overlay info according to the actual requirements.

- Select corresponding "Enable" of temperature, and select the display mode of temperature. Temperature means the internal temperature of the device, the display modes of temperature includes ℃, ℉ and K.
- Set "RS485" as "Enable", and it is to enable RS485 communication function.
- Select "Enable", input text info, select alignment mode, and the text overlay info will be displayed in the image.

Note

You can use mouse to drag text overlay area box to adjust the location of text overlay in the image.

Step 5

Click "Save" to complete settings.

5.1.2.3.5 Set Picture Overlay

It can set picture overlay when it needs to display picture info in the video image.

Note

Text overlay and picture overlay can't be enabled at the same time.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "Video Overlay".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set video overlay of tracking speed dome.
- When the "Channel" is set as '2" or "3", it is to set the video overlay of panorama camera.

Step 3

Click "Picture Overlay" and the system will display the interface of "Picture Overlay", which is shown in Figure 5-19.

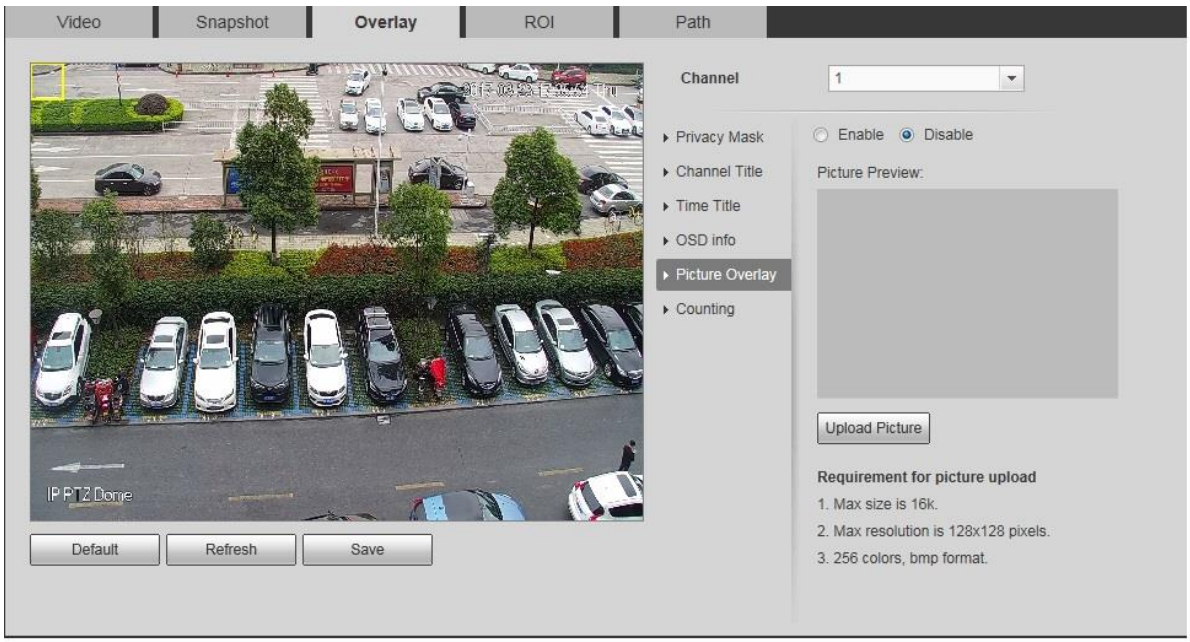


Figure 5-19

Step 4

Select "Enable" and the system will prompt to close OSD info, click "OK".

Step 5

Click "Upload Picture", select overlaid picture and it will be displayed in the video image.

Note

You can use mouse to drag picture overlay area box to adjust the location of overlaid picture in the image.

Step 6

Click "Save" to complete setting.

5.1.2.3.6 Set Privacy Mask

It can set privacy mask when it needs to protect the privacy of some areas in the image.

Note

- Only tracking speed dome supports privacy mask function.
- The config of privacy mask takes effect realtime.

Step 1

Select "Setup > Camera > Video > overlay" and the system will display the interface of "Overlay".

Step 2

Set "Channel" as '1".

Step 3

Click "Privacy Mask" and the system will display the interface of "Privacy Mask", which is shown in Figure 5-20.

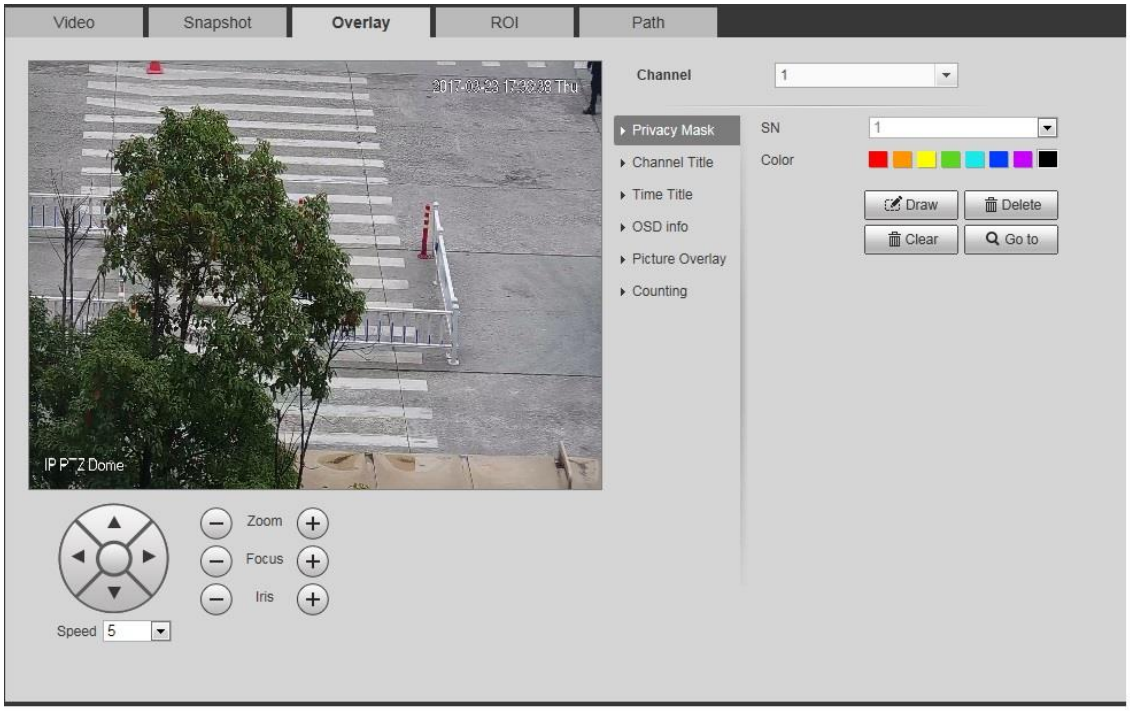


Figure 5-20

Step 4

Select "SN".

Step 5

Adjust preview image to proper location via PTZ, select proper color and click "Draw", press the left button and drag out rectangular box in the preview image.

Note

Select "SN" and click "Go to", then the PTZ camera will move to the corresponding location of setting privacy mask.

5.1.2.3.7 Set OSD Info

It can set OSD info when it needs to display preset, PTZ coordinates, zoom, pattern, text and so on.

Note

Only tracking speed dome supports OSD info function.

Step 1

Select "Setup > Camera > Video > Overlay" and the system will display the interface of "Video Overlay".

Step 2

Set "Channel" as "1".

Step 3

Click "OSD Info" and the system will display the interface of "OSD Info", which is shown in Figure 5-21.

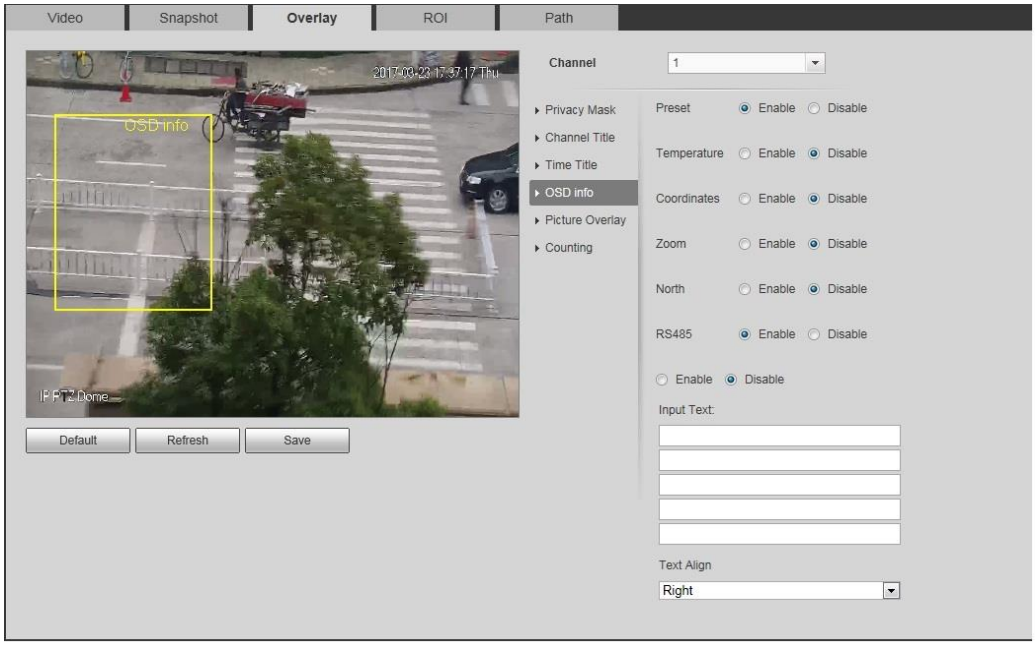


Figure 5-21

Step 4

It is to set OSD info, please refer to Table 5-11 for more details.

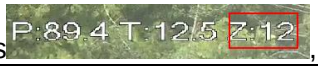
Parameter	Note
Preset	Select "Enable", it will display the preset name in the image when switching to the preset which has been set, such as  , and it will disappear after 3 seconds.
Temperature	Select "Enable" and it will display internal temperature of the current device.
Coordinates	Select "Enable" and it will display PTZ coordinates info in the image.
Zoom	Select "Enable" and it will display zoom info in the image, such as  , which means 12x zoom rate.
North	Select "Enable" and it will display north direction in the image.
RS485	Select "Enable" and it will enable RS485 communication function.
Text	Select "Enable" and set text, it will display text in the image.
Input Text	
Alignment	It will display alignment mode in the image.

Table 5-11

Step 5

Click "Save" to complete setting.

5.1.2.4 **Set ROI**

It is to set ROI in both tracking speed dome and panorama camera, the ROI image will be displayed according to the image quality which has been set.

Step 1

Select "Setup > Camera > Video > ROI" and the system will display the interface of "ROI", which is shown in Figure 5-22.

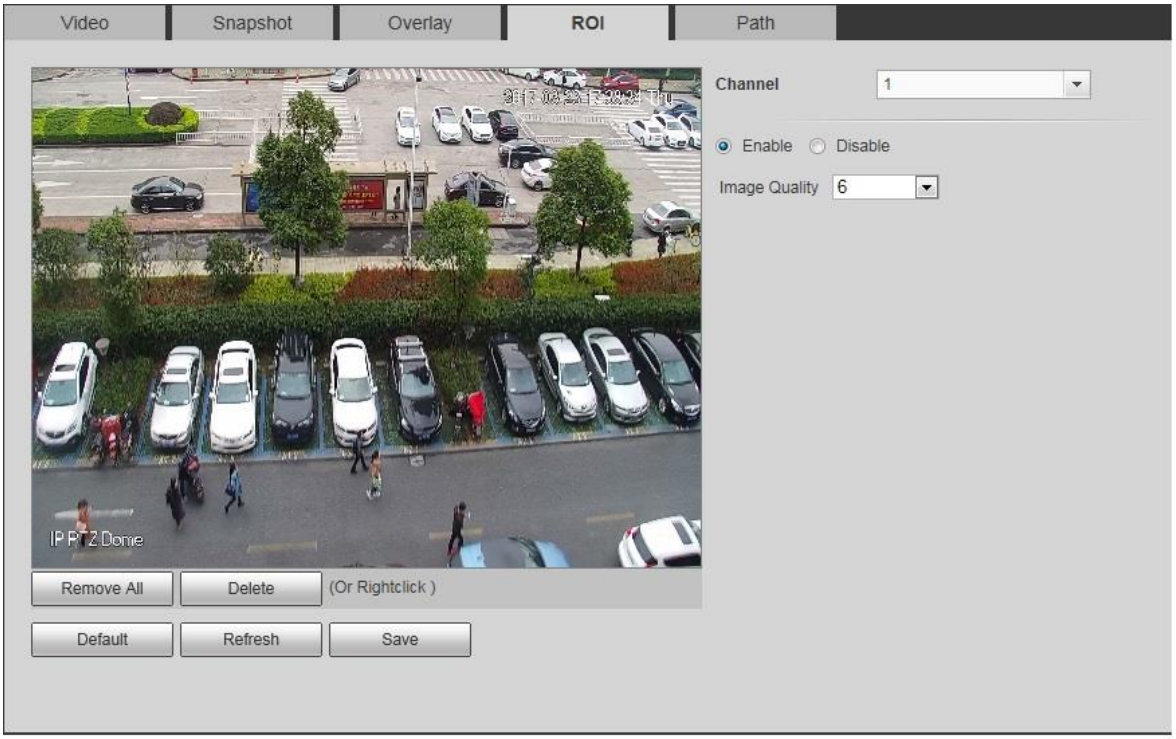


Figure 5-22

Step 2

Select channel.

When the "Channel" is set as "1", it is to set the ROI of tracking speed dome.

When the "Channel" is set as "2" or "3", it is to set the ROI of panorama camera.

Step 3

Select "Enable" and it will enable ROI function.

Step 4

Press left button and draw ROI area in the image, and then you can set the image quality of ROI area.

Note

- It can set max 4 areas.
- Click "Clear" to delete all the area boxes; Select area box, click "Delete" or right click to delete the corresponding area box.

Step 5

Click "Save" to complete setting.

5.1.2.5 **Set path**

It is to set the storage path of live snapshot, live record, playback snapshot, playback download and video clips.

Step 1

Select "Setup > Camera > Video > Path" and the system will display the interface of "path", which is shown in Figure 5-23.

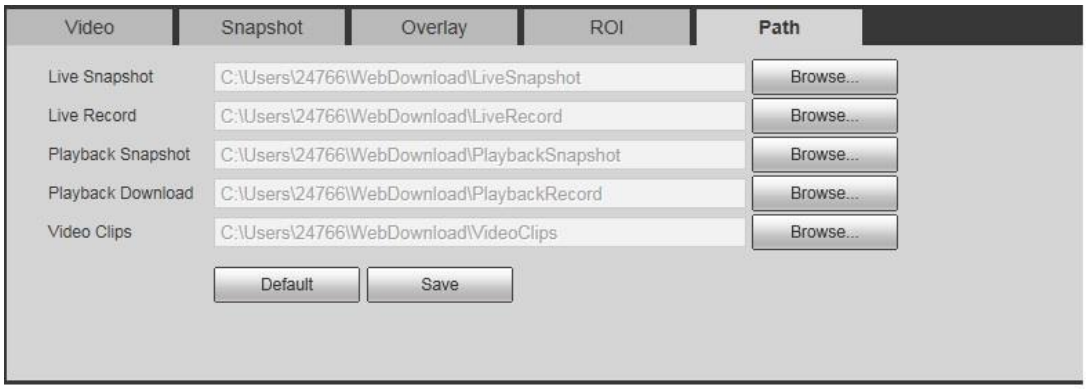


Figure 5-23

Step 2

Click "browse" respectively and set the storage path of live snapshot, live record, playback snapshot, playback download and video clips. Please refer to Table 5-12 for more details.

Path	Note
Live Snapshot	Live snapshot is corresponding to the snapshot of preview interface. Default path is C:\Users\Administrator\WebDownload\LiveSnapshot.
Live Record	Live record is corresponding to the record linkage of preview interface. Default path is C:\Users\Administrator\WebDownload\LiveRecord.
Playback Snapshot	Playback snapshot is corresponding to the snapshot of playback interface. Default path is C:\Users\Administrator\WebDownload\PlaybackSnapshot.
Playback Download	Playback download is corresponding to the download of playback interface. Default path is C:\Users\Administrator\WebDownload\PlaybackRecord。
Video Clips	Video clip is corresponding to the clip of playback interface. Default path is C:\Users\Administrator\WebDownload\VideoClips。

Table 5-12

Note

The Administrator in the default path is the PC account which is locally logged in.

Step 3

Click "Save" to complete setting.

5.1.3 Configure Audio Parameters

It is to set the parameters of encode mode, sampling frequency, AudioIn type, noise filter and so on.

Step 1

Select "Setup > Camera > Audio" and the system will display the interface of "Audio", which is shown in Figure 5-24.

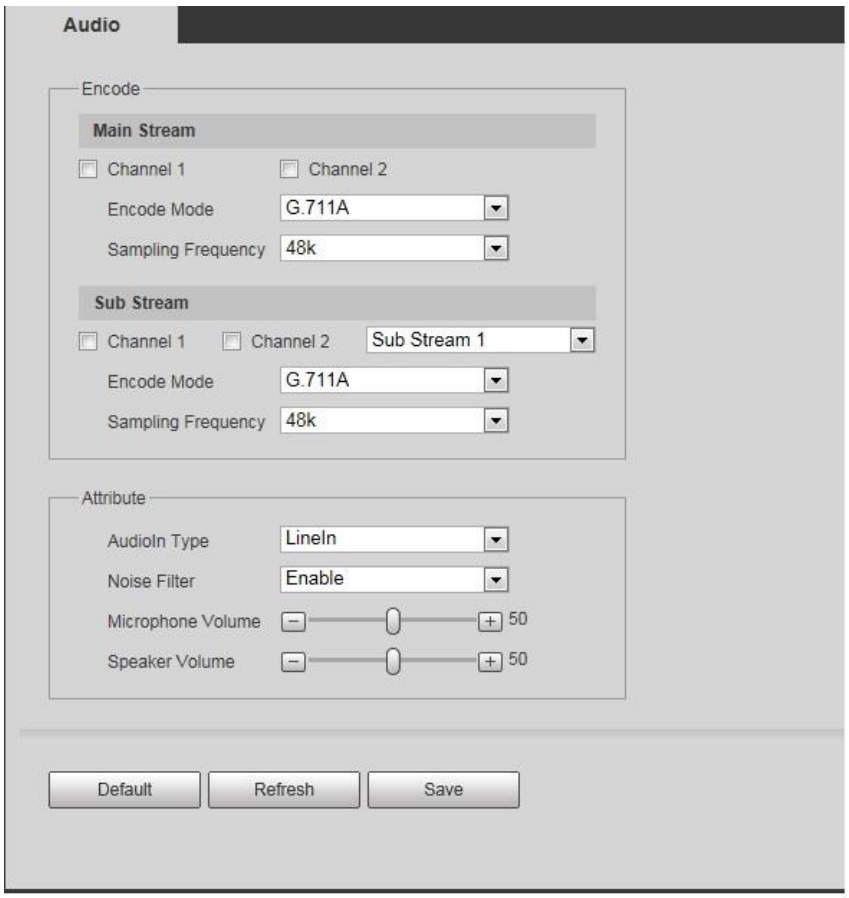


Figure 5-24

Step 2

It is to set audio parameters, please refer to Table 5-13 for more details.

Parameter	Note
Channel 1/Channel 2	It can enable audio only when video is enabled. It will enable audio output channel 1 or audio output channel 2 after selecting "Channel 1" or "Channel 2" of main stream or sub stream area.
Encode Mode	It is to encode mode of audio, including G.711A, G.711Mu, G.726, AAC, MPEG2-Layer2, G.722.1 and G.729. The encode mode which has been set is valid to both audio and talk at the same time.
Sampling Frequency	Audio sampling frequency, including 8k, 16k, 32k, 48k and 64k.

Parameter	Note
AudioIn Type	It is the audio type which is connected to device. ● LineIn: The device has to externally connect to audio input source ● Mic: The device doesn't need to externally connect to audio input source.
Noise Filter	The system will automatically filter the noise in the environment after enabling noise filter.
Microphone Volume	It is to adjust the microphone volume. **Note** Only some devices support microphone volume adjustment.
Speaker Volume	It is to adjust the speaker volume. **Note** Only some device support speaker volume adjustment.

Table 5-13

Step 3
Click "Save" to complete setting.

5.2 Network Setup

5.2.1 Set TCP/IP Parameter

Make sure the IP address and DNS server of the camera which you need to set can be interconnected to other devices in the networking.

Precondition
Please make sure the camera has been correctly connected to the network.

Operation Steps
Step 1
Select "Setup > Network > TCP/IP" and the system will display the interface of "TCP/IP", which is shown in Figure 5-25.

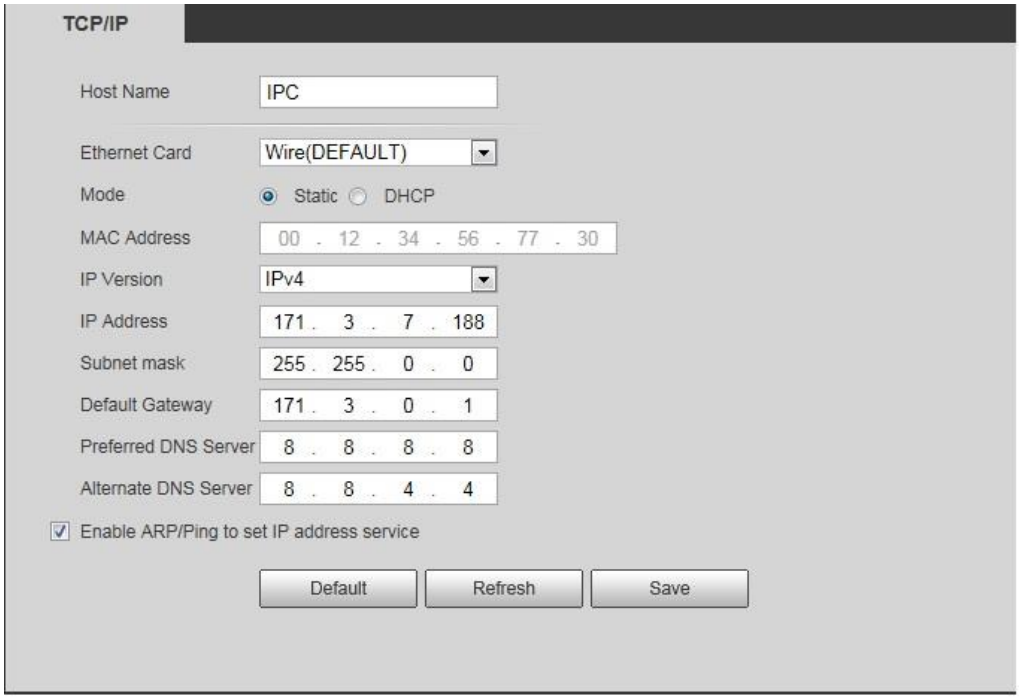


Figure 5-25

Step 2

It is to set TCP/IP parameters, please refer to Table 5-14 for more details.

Parameter	Function
Host Name	It is to set current host device name. It supports max 15 characters.
Ethernet Card	Select the Ethernet card which needs to be configured, it is wired by default.
Mode	● Static Manually set IP address, subnet mask and gateway. ● DHCP Auto acquire IP function. "IP address", "Subnet mask" and "Default gateway' can't be set when enabling DHCP. It can check the current IP address no matter whether DHCP is valid or not.
Mac Address	It is to display host Mac address, which can't be modified.
IP Version	It is to select IP version. IPV4 or IPV6.
IP Address	Input planned IP address. Input corresponding "IP address"

Subnet mask	and "Subnet Mask" according to the actual situation. **Note** The device will make legal inspection to all the IPv6 addresses, IP address and default gateway have to be in the same segment, which means that it can pass inspection as long as the field of designated length of subnet prefix has to be the same.	
Default gateway	Make sure it has to be in the same segment with IP address according to the actual situation.	**Note** IPv6 version has no default gateway. It inputs 128 bits for preferred DNS and alternate DNS, which can't be null.
Preferred DNS Server	DNS server IP address.	
Alternate DNS Server	Alternate IP address of DNS server.	

<table>
<tr>
<td>Enable ARP/Ping to set device IP address service.</td>
<td>
Select the check box, you can use ARP/Ping command to modify or set the device IP address if you know the device MAC address.
When it is enabled by default, ping packet can set device IP via specific length within 2 minutes during device reboot, the service is off 2 minutes later, the service will be closed immediately after setting IP successfully. Ping packet can’t set IP if it is not enabled.
A living example of setting device IP via ARP/Ping
1. Acquire spare IP address, it needs to make sure the device and PC are in the same LAN.
2. Acquire the device physical address from the device label.
3. Enter command line from PC and input the following command.
Windows syntax
arp –s <IP Address> <MAC>
ping –l 480 –t <IP Address>
Windows example
arp -s 192.168.0.125 11-40-8c-18-10-11
ping -l 480 -t 192.168.0.125
UNIX/Linux/Mac syntax
arp –s <IP Address> <MAC>
ping –s 480 <IP Address>
UNIX/Linux/Mac example
arp -s 192.168.0.125 11-40-8c-18-10-11
ping -s 480 192.168.0.125
4. Cut off the power and reboot the device or reboot the device via network.
5. Check computer command line output and there is similar information such as "Reply from 192.168.0.125…", then it is successfully set, and close the command line.
6. Input http://IP address into the browser and visit.
</td>
</tr>
</table>

Table 5-14

Step 3

Click "Save" to complete setting.

5.2.2 Set Connection Parameter

5.2.2.1 **Set Connection Port Parameter**

You can set the max number of ports which can be connected to device and each port value.

Step 1

Select "Setup > Network > Connection > Connection" and the system will display the interface of "Connection", which is shown in Figure 5-26.

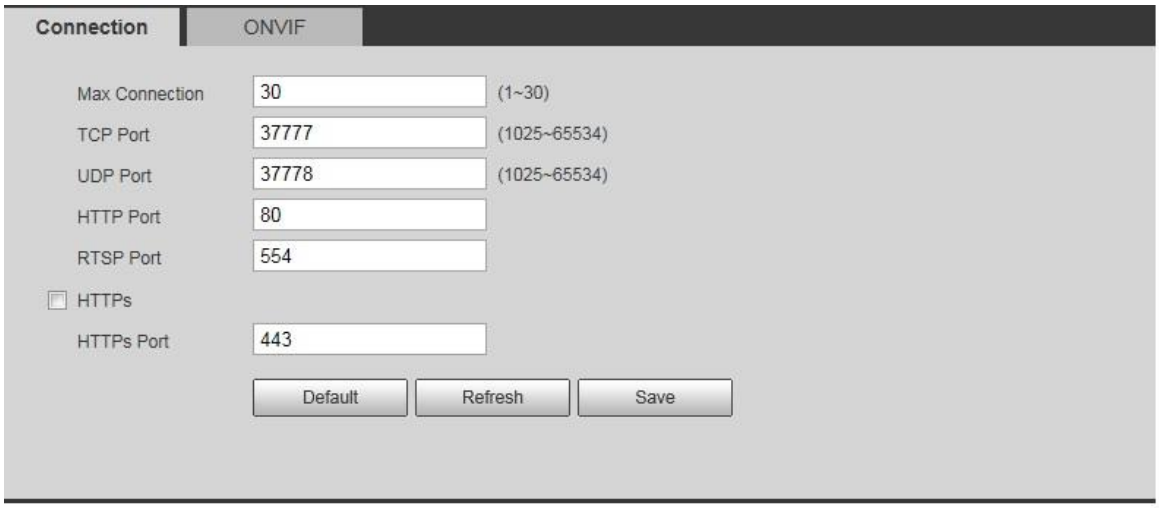


Figure 5-26

Step 2

It is to set connection parameters, please refer to Table 5-15 for more details.

Note

- It needs to reboot the device and make it valid when modifying other parameter setting except max connection.
- 0～1024, 37780～37880, 1900, 3800, 5000, 5050, 9999, 37776, 39999 and 42323 have been used as special ports, which are not allowed to be set by users.
- It is not recommended to use the default value of other ports when setting ports.

Parameter	Function
Max Connection	It is the number of clients which are allowed to be logged in by device at the same time (such as WEB client, platform client, mobile client and so on), it is 10 by default.
TCP Port	It is the port which provides service for TCP protocol communication, it is 37777 by default.
UDP Port	User data package protocol port, it is 37778 by default.

HTTP Port	HTTP communication port, it is 80 by default. If it sets other value, then it needs to add modified port number at the address when using browser to log in.
RTSP port	● The RTSP port number is 554 by default. Please leave it blank if using default. Users use QuickTime or VLC to play the following formats. BlackBerry supports the function as well. ● Real-time monitoring URL format, please require real-time RTSP media server, require channel No., and bit stream type in URL. You may need to provide username and password. ● It needs to set encode mode as H.264B, set resolution as CIF and disable audio when users use BlackBerry to visit. **URL format description is shown as follows:** **rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0** ● Username: such as admin. ● Password: such as admin ● IP: Device IP, such as 10.7.8.122. ● Port: Port number, it is 554 by default, leave it blank if it is default. ● Channel: channel number, it begins as 1. If it is channel 2, then channel=2. ● Subtype: stream type, main stream is 0 (then subtype=0), sub stream is 1 (then subtype=1). For example, it is to request sub stream of sub stream 2 of some device, URL is shown as follows: **rtsp://admin:admin@10.12.4.84:554/cam/realmonitor?channel=2&subtype=1** Username and password don't need to be designated if it needs no authentication, and it uses the following format: **rtsp://ip:port/cam/realmonitor?channel=1&subtype=0**
Enable HTTPs	HTTPs communication service control, select "Enable HTTPs", you can adopt https://ip:port to log in the device, and it can adopt https://ip to log in when selecting default port.
HTTPs Port	HTTPs communication port, value range is from 1025 to 65534, default is 443.

Table 5-15

Step 3

Click "Save" to complete setting.

5.2.2.2 **Set ONVIF Login Authentication**

ONVIF interface standard makes network video products from different manufacturers interconnected (including front-end camera and back-end storage device).

Note

- ONVIF function is enabled by default.

- The camera login "Username" and "password" are both admin via ONVIF, "Port" is 80.

Step 1

Select "Setup > Network > Connection > ONVIF" and the system will display the interface of "ONVIF", which is shown in Figure 5-27.

Figure 5-27

Step 2

Set "Authentication" as "Enable".

Step 3

Click "Save" to complete setting.

5.2.3 Set PPPoE Parameter

It is to build network connection via enabling PPPoE (Point-to-Point Protocol over Ethernet) dial mode; the device will acquire a dynamic IP address of WAN. Please acquire PPPoE user name and password provided by ISP (Internet service provider) before operation.

Note

- Please disable UPnP when selecting PPPoE enable, which is to avoid PPPoE dialing.
- It fails to modify IP via WEB when PPPoE dialing is successful.

Step 1

Select "Setup > Network > PPPoE" and the system will display the interface of "PPPoE", which is shown in Figure 5-28.

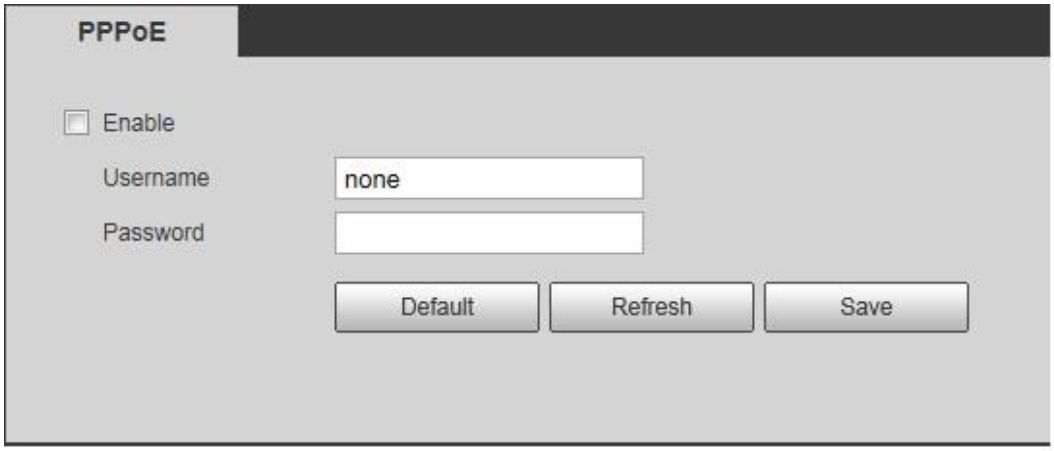


Figure 5-28

Step 2
Select "Enable" and input PPPoE username and password.
Step 3
Click "Save" to complete setting.
The system prompts that it is successfully saved and it realtime displays the acquired public network IP address, users can visit the device via this IP address.

5.2.4 Set DDNS Parameter

DDNS (Dynamic Domain Name Server) is used in a situation when the IP address of device changes frequently, which is used to dynamically update the relationship between the domain name of DNS server and IP address. It is to guarantee that the users can get access to the device via domain name.

Preconditions

Please confirm if the device supports the type of DNS before config.

- It doesn't need to register domain name if DDNS type is Dahua DDNS.
- Please log in website registration domain name of DDNS service provider on the WAN PC if DDNS type is other types.

Note

After users successfully register and log in DDNS website, they can check all the info of connected devices under the registered user.

Operation Steps
Step 1
Select "Setup > Network > DDNS" and the system will display the interface of "DDNS', which is shown in Figure 5-29.

Figure 5-29

Step 2

Select "Server Type" and configure DDNS parameters according to the practical situation.

- Please refer to Table 5-16 for DDNS parameter config if it selects DDNS type as "QUICK DDNS".

Parameter	Note
Server Address	It is the address of DDNS server provider, it is www.quickddns.com by default, which can't be modified.
Mode	It is auto by default, it can select manual as well.
Domain Name	It is "*MAC Address*.dahuaddns.com" for both auto and manual default, it can set prefix manually.
Username	It is the username to log in the server, optional.

Table 5-16

- Please refer to Table 5-17 for DDNS parameter config if it selects DDNS type as other type.

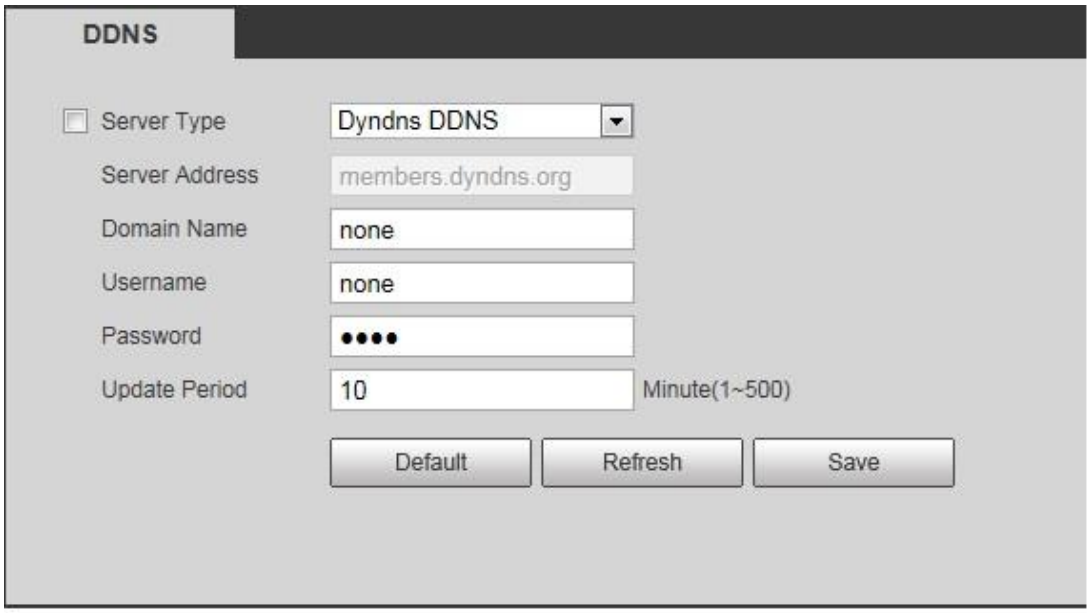


Figure 5-30

Parameter	Note
Server Type Server Address	It is the name and address of DDNS server, the corresponding relation is shown as follows Dyndns DDNS address is: members.dyndns.org NO-IP DDNS address is: dynupdate.no-ip.com CN99 DDNS address is: members.3322.org
Domain Name	It is the domain name which is registered on the website of DDNS server provider
Username Password	Input the username and password acquired from DDNS service provider. Users need to register account on the website of DDNS server provider (including username and password).
Update Period	It is the connected update period between device and server, it is 10 minutes by default.

Table 5-17

Step 3

Click "Save" to complete config.

Input domain name in the PC webpage browser, and press【Enter】button. It means config is successful if it can display device WEB interface, it means config fails if it fails to display.

5.2.5 Set IP Filter

In order to enhance device network security and protect device data, users can set the user who is allowed to have access to the device via IP filter.

- White list: it can have access to the device only when the users' IP/MAC is in the white list, otherwise, it fails to have access to the device.
- Users are not allowed to set the device IP/MAC as white list.
- MAC verification is valid when the IP of device and user PC are in the same LAN.

Note

MAC verification can only be restricted according to the router MAC during WAN access.

Step 1

Select "Setup > Network > IP Filter" and the system will display the interface of "IP Filter", which is shown in Figure 5-31.

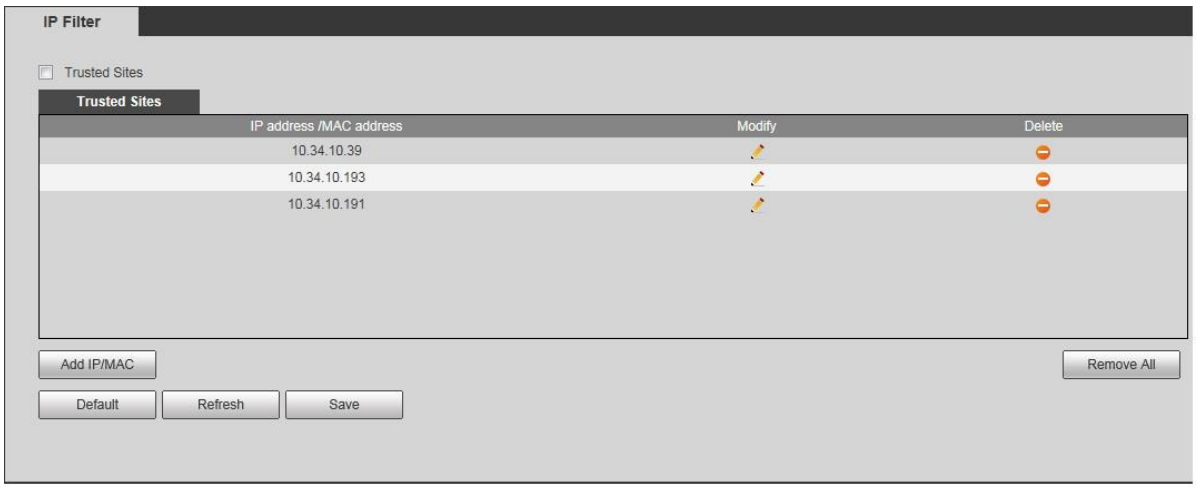


Figure 5-31

Step 2

Add user's IP/MAC into the white list.

1. Click "White List" and the system will display the interface of "White List".
2. Click "Add IP/MAC" and the system will pop out the dialog box of "Add IP/MAC'.
3. Configure IP address info, please refer to Table 5-18 for more details.

Parameter	Note
IP Address	Input the host IP address which needs to be added.
IP Segment	Input the segment start address and end address which need to be added.
MAC	Input host MAC address which needs to be added.

Table 5-18

4. Click "Save".

Step 3

Select "Enable" to enable white list.

Step 4

Click "Save" to complete setting. Use the IP host in the white list to log in device WEB interface, and you can log in the device successfully.

5.2.6 Set SMTP Parameter

It will send email immediately when alarm, video detection, abnormal events and intelligent events happen via setting Email.

Step 1

Select "Setup > Network > SMTP" and the system will display the interface of "SMTP", which is shown in Figure 5-32.

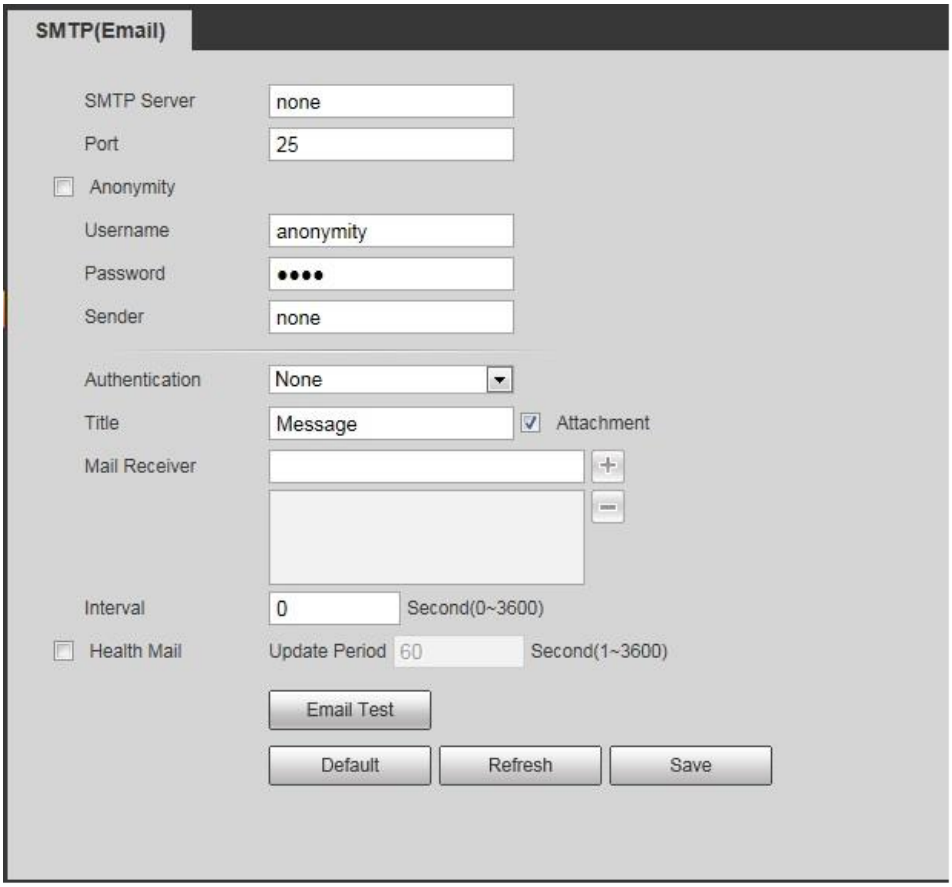


Figure 5-32

Step 2

Configure SMTP server, please refer to Table 5-19 for the config description of common email.

Email Type	SMTP Server	Encryption Mode	Port	Note
QQ	smtp.qq.com	SSL	465	For encryption mode, it can't select "None". "SMTP" service has to be available to the Email. Password has to adopt "Authorization Code", it is invalid to use both QQ login password and email login password. **Note** The authorization code is acquired when Email enables SMTP service.
		TLS	587	
163	smtp.163.com	SSL	465/994	Email has to enable "SMTP" service. Password has to adopt "Authorization Code", it is invalid to use email login password. **Note** The authorization code is acquired when Email enables SMTP service.
		TLS	25	
		None	25	
Sina	smtp.sina.com	SSL	465	Email has to enable "SMTP" service.
		None	25	
126	smtp.126.com	None	25	Email has to enable "SMTP" service.

Table 5-19

Step 3

It is to set other parameters of SMTP (Email), please refer to Table 5-20 for more details.

Parameter	Function
Anonymity	Select the check box and the emails received by users won't display the sender's info.
Sender	Sender's email address.
Authentication (Encryption mode)	It is to select encryption mode, including NONE, SSL and TLS.
Attachment	Select the check box and it means that it is allowed to send attachment.
Title (Subject)	It supports to input Chinese, English and numbers, it can input max 63 characters.
Mail receiver	Receiver's email address. It can support max three receiving addresses.

Parameter	Function
Interval	It is the interval of sending emails, "0" means there is no interval for sending emails. After setting interval, when alarm, video detection and abnormal event trigger E-mail, the Email won't send E-mail immediately according to the trigger of alarm signal, but send email according to the interval of previous same event email, which is mainly applied to the phenomenon that frequent abnormal events generate a large number of emails and too much pressure for email server.
Health Mail	Health mail can confirm if email link is successful according to the test info sent by the system itself. Select the check box and set the interval of health mail, then the system will send email test info according to the interval.
Email Test	It is to test if email receiving and sending are normal. The email will receive test email in the situation with correct config. It needs to save email config info before email test.

Table 5-20

Step 4
Click "Save" to complete setting.

5.2.7 Set UPnP Parameter

It is to establish mapping relation between private network and extranet via UPnP protocol, extranet users can have access to intranet devices via visiting extranet IP address.

Preconditions

- Please make sure PC has been installed with UPnP network service.
- Log in router, it is to set router WAN port IP address and make it connect to extranet.
- Router enables UPnP function.
- Connect the device to router LAN port and connect to private network.
- Set the device "IP Address" as the private network IP of router, or select "DHCP" to acquire IP address automatically.

Operation Steps

Step 1
Select "Setup > Network > UPnP" and the system will display the interface of "UPnP", which is shown in Figure 5-33.

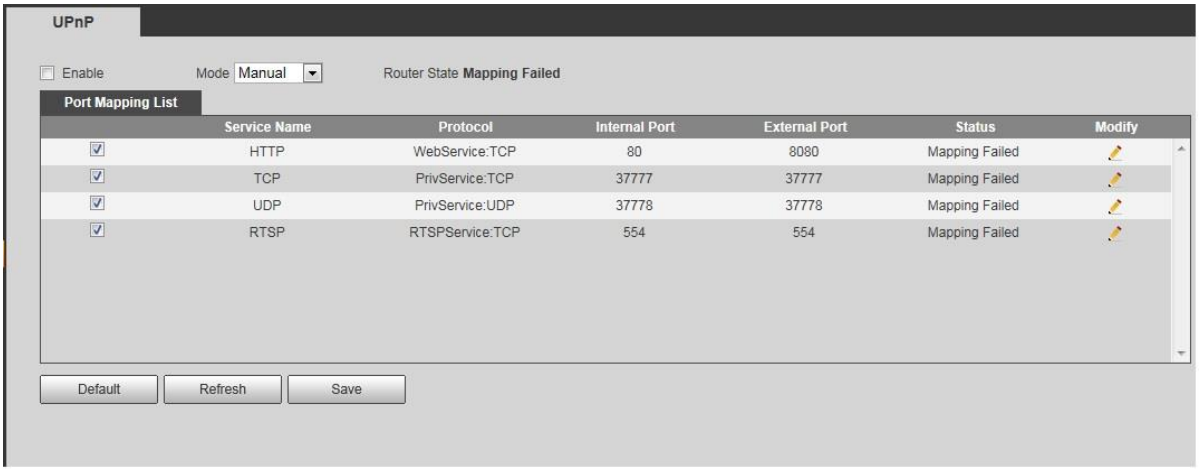


Figure 5-33

Step 2

Select "Enable" to enable UPnP function.

Step 3

Select mode and check corresponding service name.

UPnP consists of two mapping modes which are auto and manual.

- Manual mapping mode allows users to modify external port.
- Auto mapping mode selects unoccupied ports to complete port mapping automatically, users don't need to modify mapping.

Step 4

Click "Save" to complete setting.

Input "http://extranet IP: external port number "into the browser and you can have access to the private devices of corresponding port number of the router.

5.2.8 Set SNMP Parameter

SNMP (Simple Network Management Protocol) provides architecture of underlying network management for network management system. It can control SNMP function in the network service setting. It is connected to the device via relevant software tool, it can acquire relevant config info of the device after it is successful.

Preconditions

- Install SNMP device monitoring and management tool, such as MIB Builder and MG-SOFT MIB Browser.
- Acquire corresponding MIB file of the current version from technical staff.

Operation Steps

Step 1

Select "Setup > Network > SNMP" and the system will display the interface of "SNMP", which is shown in Figure 5-34 and Figure 5-35.

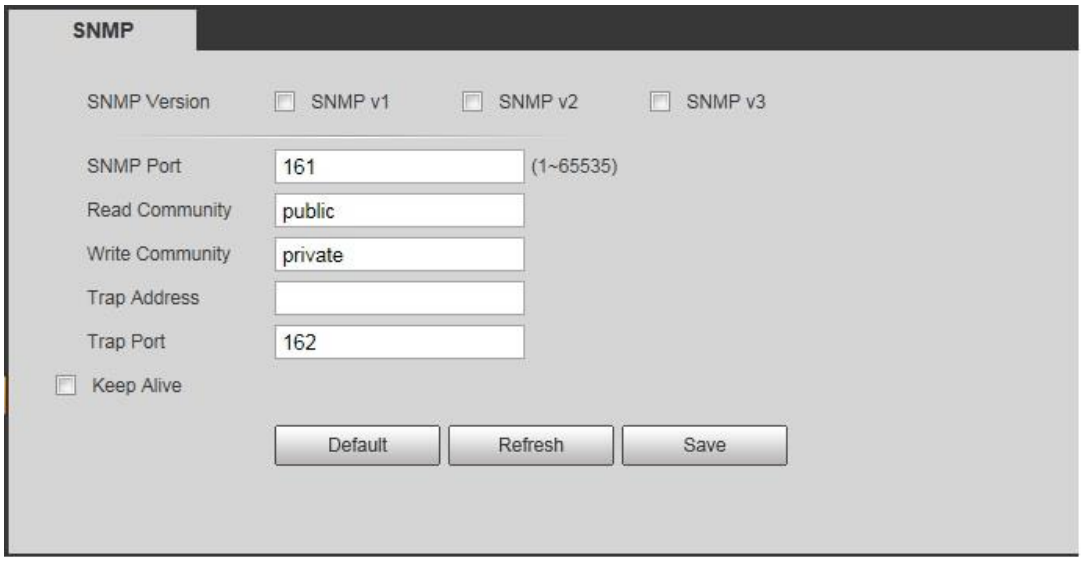


Figure 5-34

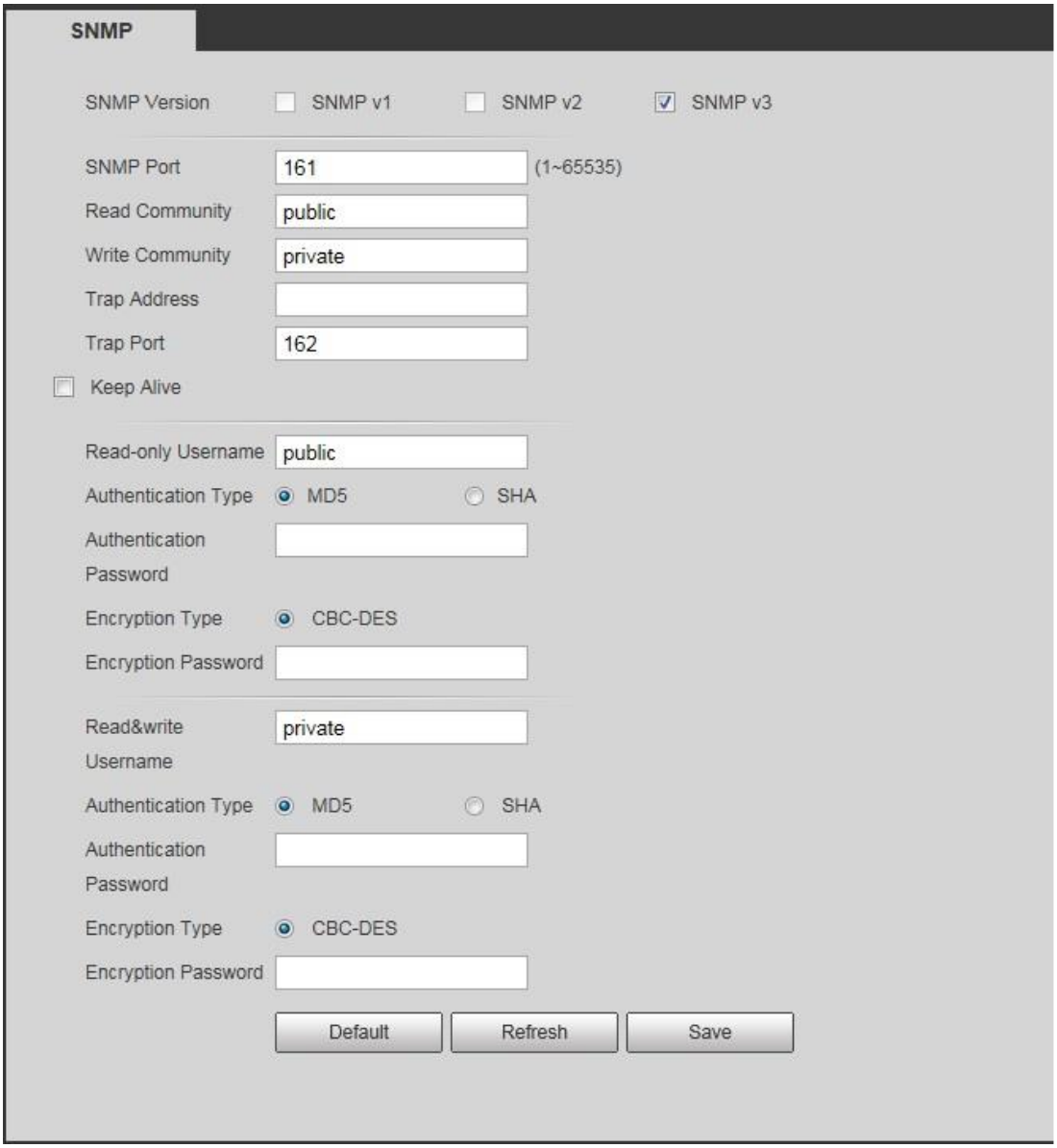


Figure 5-35

Step 2

Select "SNMP Version" and enable SNMP.

Step 3

It is to configure SNMP parameters, please refer to Table 5-21 for more details.

For Trap address, it has to fill in with IP address of PC which is installed with MG-SOFT MIB Browser, the other configs are default.

Parameter	Function
SNMP Version	Select check box of corresponding version, and the device will deal with the info of corresponding version. ● Check SNMP v1, device only process v1 info. ● Check SNMP v2, device only process v2 info. ● Check SNMP v3, it can set username, password and encryption method. Server calibrate corresponding username, password and encryption method to access device and v1/v2 are unavailable.
SNMP port	The listening port of the proxy program of the device.
Community	It is a string, it is used as a command between management and proxy, defining a proxy, and a manager's authentication. It needs to guarantee the device shall be in accordance with proxy.
Read community	Read-only access to all SNMP targets. **Note** Only number, letter, _, and – supported.
Write community	Read/write access to all SNMP targets. **Note** Only number, letter, _, and – supported.
Trap address	The destination address of the Trap information from the proxy program of the device. For Trap address, it has to fill in with IP address of PC which is installed with MG-SOFT MIB Browser, the other configs are default.
Trap	SNMP trap is a proxy message sent to admin as important event notice or status change.
Trap Port	It is the destination port that proxy program sends trap info on the device, the default is 162, range is 1~65535.
Read-only username	It is public by default. **Note** The name can only be made up by number, letter and underline.
Read/write username	It is private by default. **Note** The name can only be made up by number, letter and underline.
Authentication Type	It can select MD5 or SHA, it is MD5 by default.
Authentication Password	The password length is no less than 8 characters.
Encryption Type	It is CBC-DES by default.

Parameter	Function
Encryption Password	The password length is no less than 8 characters.

Table 5-21

Step 4

Click "Save" to complete setting.

Step 5

Check device info.

1. Run MIB Builder and MG-SOFT MIB Browser softwares.
2. Compile two MIB files via MIB Builder software.
3. Run MG-SOFT MIB Browser software and load the compiled module into the software.
4. Input the device IP which needs to be managed into the MG-SOFT MIB Browser software, select version number and check.
5. Unfold the tree-shaped list displayed on the MG-SOFT MIB Browser software and acquire the device config info, such as how many video and audio channels are equipped with the device, version number of program and so on.

Note

PC is equipped with Windows operating system, and it has disabled SNMP Trap service. Alarm info will pop out on MG-SOFT MIB Browser software when there is alarm.

5.2.9 Set Bonjour Parameter

Bonjour, known as zero config networking, can automatically discover the computer, device and service on the IP network. Bonjour adopts industry-standard IP protocol to allow device to discover each other automatically which it doesn't need to input IP address or configure DNS server.

After Bonjour function is enabled, the device can be automatically detected in the operating system and client which support Bonjour. It will display "Server Name" configured by users when the device is automatically detected by Bonjour.

Step 1

Select "Setup > Network > Bonjour" and the system will display the interface of "Bonjour", which is shown in Figure 5-36.

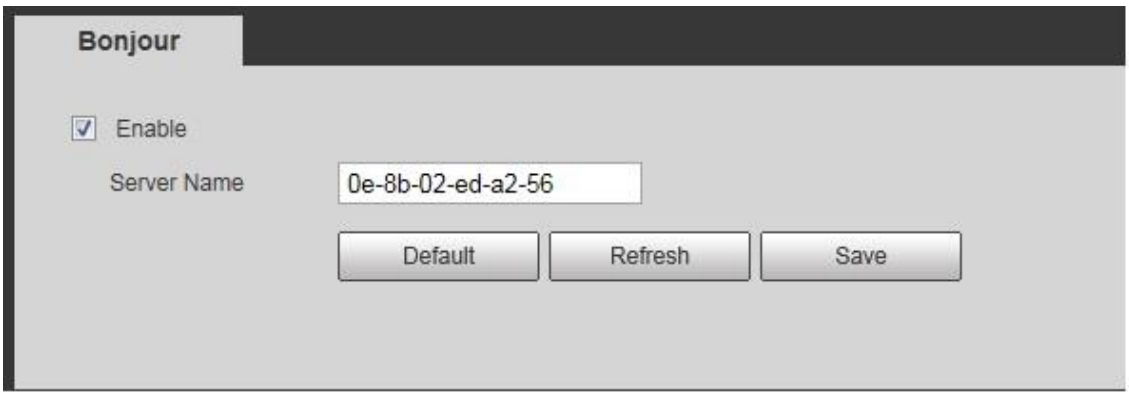


Figure 5-36

Step 2
Select "Enable" and set server name.
Step 3
Click "Save" to complete setting.

It can have access to WEB interface via Safari browser in the operating system and client which support Bonjour, the steps are shown as follows:
Step 1
Click the "Show All Bookmarks" of the Safari browser.
Step 2
Enable "Bonjour" and it can automatically detect the devices which enable Bonjour function in the LAN.
Step 3
Click to have access to the corresponding WEB page.

5.2.10 Set Multicast

It has access to device via network and preview the video image. It will fail to preview video image if it exceeds the access upper limit of the device, and at this moment, it can set multicast IP upon the device and adopt multicast protocol access to solve the problem.
Step 1
Select "Setup > Network > Multicast" and the system will display the interface of "Multicast", which is shown in Figure 5-37.

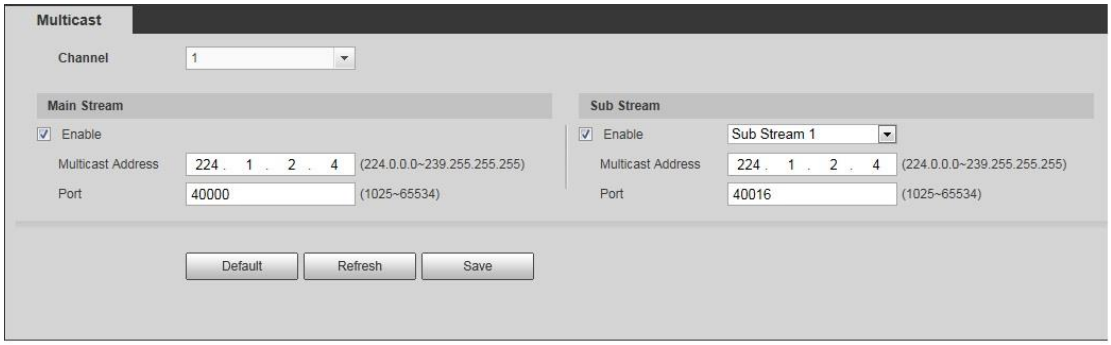


Figure 5-37

Step 2

Select "Enable" of main stream or sub stream and enable multicast function.

Step 3

Input multicast address and port.

Multicast port is not limited while the range of multicast IP address is limited, which is shown in Figure 5-38.

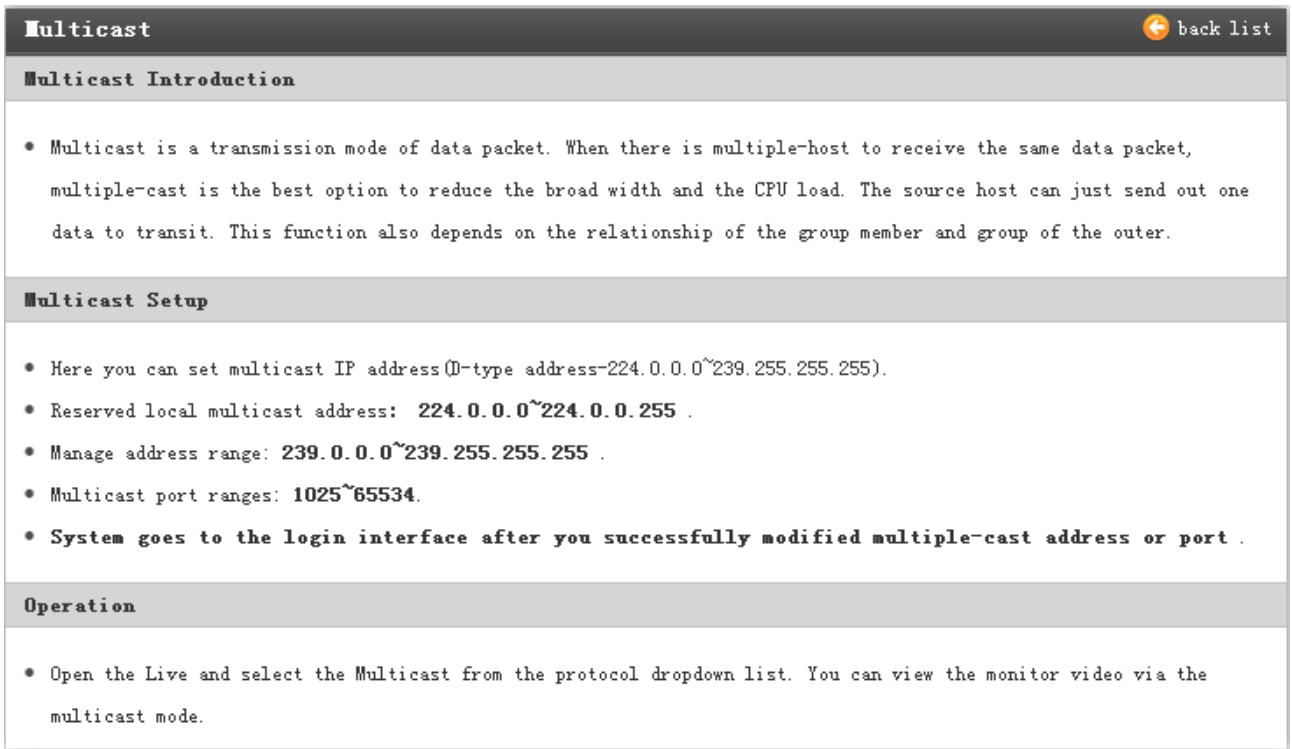


Figure 5-38

All the other addresses can be used except the addresses above with specific meaning, which is shown in Figure 5-39.

Figure 5-39

Step 4
Click "Save" to complete setting.
Select "Protocol" as "Multicast" on the WEB preview interface, then you can monitor video image via multicast.

5.2.11 Set 802.1x Parameter

It can control whether the device can be connected to LAN, besides, it can well support the requirements of network authentication, charging, safety and management.
Step 1
Select "Setup > Network > 802.1x" and the system will display the interface of "802.1x", which is shown in Figure 5-40.

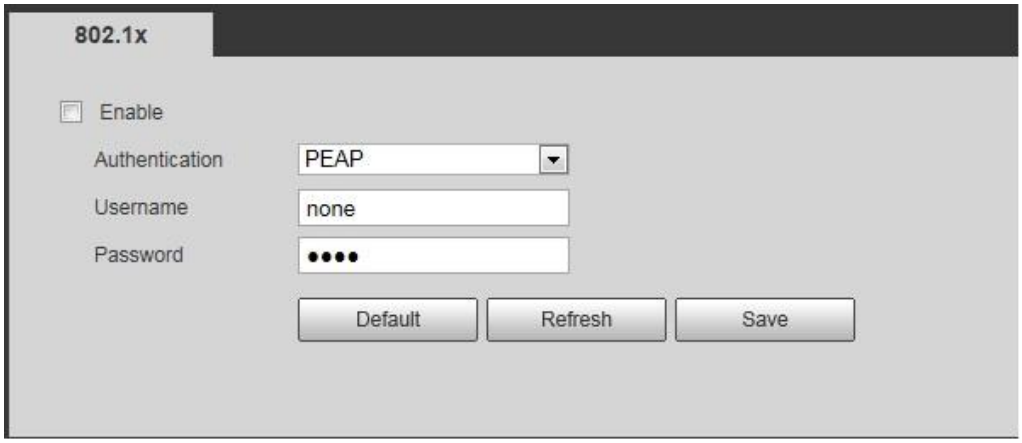


Figure 5-40

Step 2
Select "Enable" to enable 802.1x function.
Step 3
It is to set 802.1x parameter, please refer to Table 5-22 for more details.

Parameter	Note
Authentication	PEAP (protected EAP protocol)
Username	It is the username of identity authentication, it needs to be admitted and authorized by server end.
Password	It is to set the password which is corresponding to the username.

Table 5-22

Step 4
Click "Save" to complete setting.

5.2.12 Set QoS Parameter

Qos (Quality of Service) is network security mechanism. It is a technology to fix the network delay and jam problem and etc. For the network service, the quality of service includes the transmission bandwidth, delay, the packet loss and etc. We can guarantee the transmission bandwidth, lower the delay, and reduce the loss of the data packet and anti-dither to enhance the quality.
We can set the DSCP (Differentiated Services Code Point) of the IP to distinguish the data packet so that the router or the hub can provide different services for various data packets. It can select the different queues according to the priority (64 different priority levels) of the packets and select the bandwidth of the each queue. Level 0 is the lowest, and level 63 is the highest. It can also discard at the different ratio when the broad bandwidth is jammed.
Step 1
Select "Setup > Network > QoS" and the system will display the interface of "QoS", which is shown in Figure 5-41.

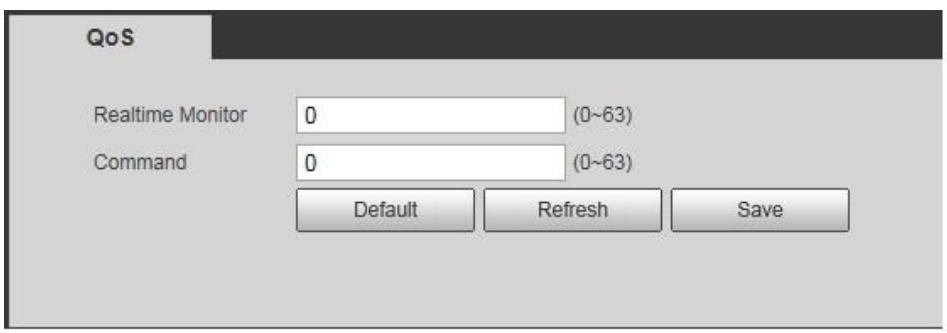


Figure 5-41

Step 2
It is to set QoS parameters, please refer to Table 5-23 for more details.

Parameter	Note
Realtime Monitor	It is the priority level of network video monitoring data packet.
Command	It is the priority level of non-monitoring data packet such as device config and query etc.

Table 5-23

Step 3
Click "Save" to complete setting.

5.3 Set PTZ Function

Only tracking speed dome supports PTZ function setup.

5.3.1 Set Preset

Preset means that the camera can store location parameters such as PTZ pan angle, tilt angle and lens focal length into the device, besides, it can quickly call these parameters when necessary and move the PTZ and camera to this location.
Step 1
Select "Setup > PTZ > Function > Preset" and the system will display the interface of "Preset", which is shown in Figure 5-42.

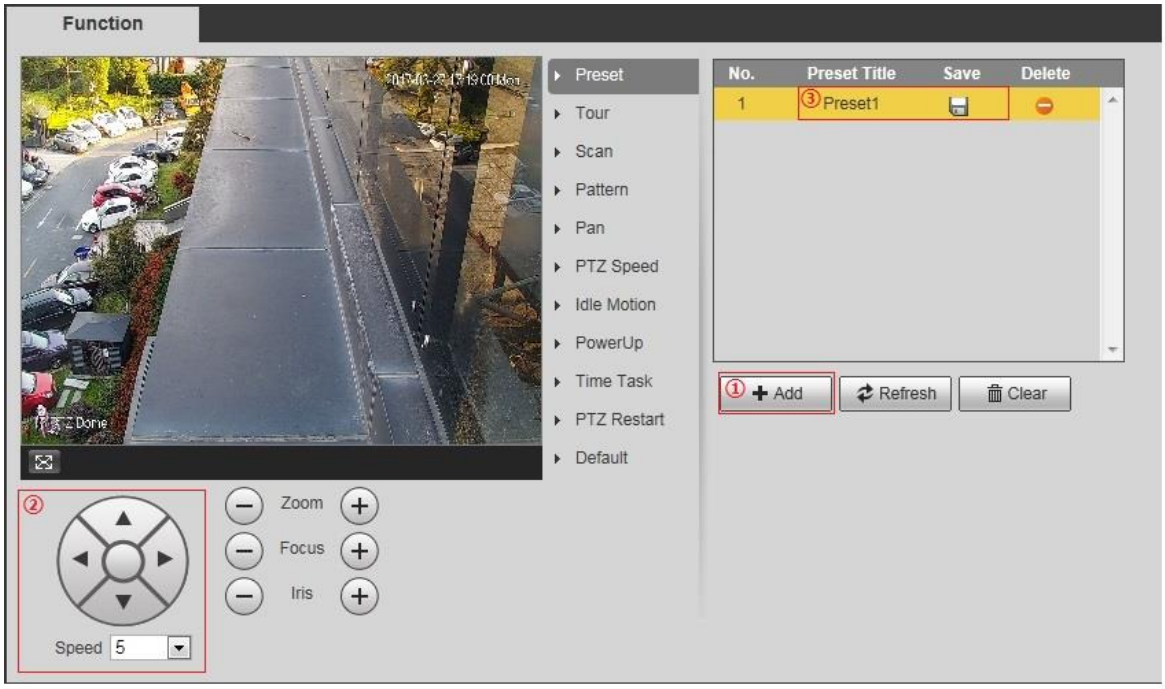


Figure 5-42

Step 2
Set preset.

1. Click "Add" to add a new preset.
2. Move the camera to the needed monitoring direction via controlling the PTZ control panel.
3. Double click the new preset title to modify title, click  to complete setting.

Note

- Click  to delete the presets which are wrongly configured or not needed any more.
- Click "Clear" to delete all the added presets.

5.3.2 Set Tour

Tour means that it can put some presets into the auto tour queue according to the needed sequence by setting in advance, which can make it convenient and fast for the camera to automatically move non-stop according to the preset sequence back and forth.

Precondition
It has set several presets.

Operation Steps
Step 1
Select "Setup > PTZ > Function > Tour" and the system will display the interface of "Tour", which is shown in Figure 5-43.

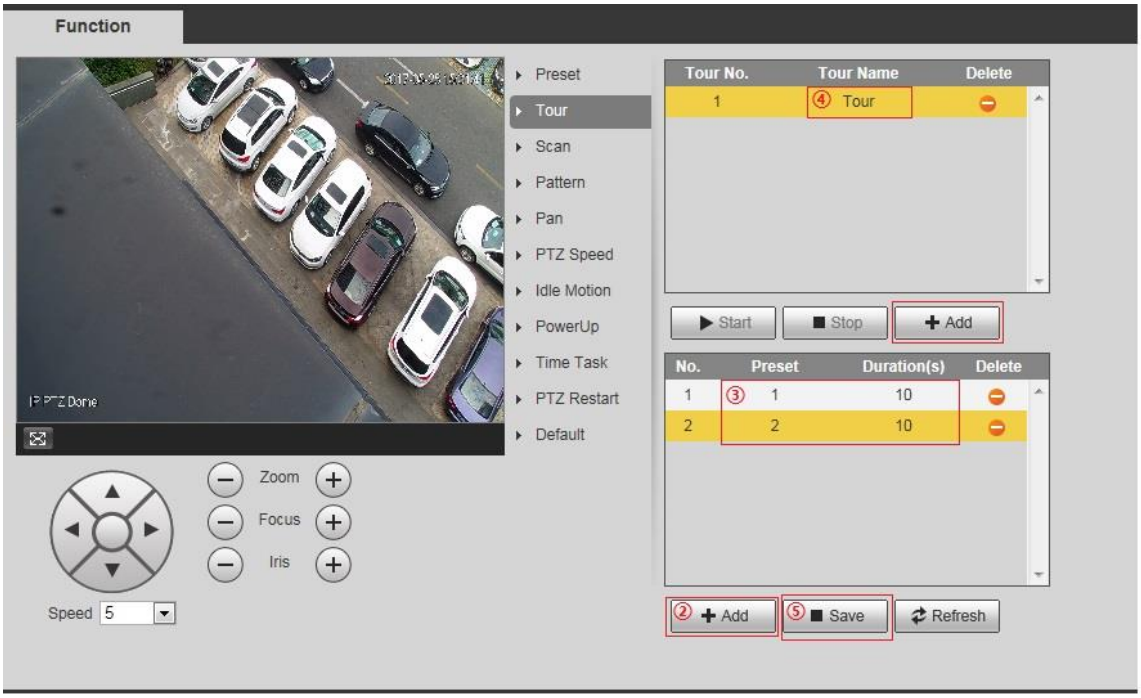


Figure 5-43

Step 2

Set tour.

1. Click "Add" to add a new tour.
2. Click "Add" to add a new preset.
   Several clicks to add several presets.
3. Double click to select preset, and double click to set duration.
4. Double click the new tour name to modify name, click "Save" to complete setting.

Note

Click ⊖ to delete corresponding tour and presets.

Step 3

Select tour, click "Start" to start tour.

Click "Stop" to stop tour.

5.3.3 Set Scan

Scan means that the camera can scan back and forth with a certain speed within a certain range horizontally.

Step 1

Select "Setup > PTZ > Function > Scan" and the system will display the interface of "Scan", which is shown in Figure 5-44.

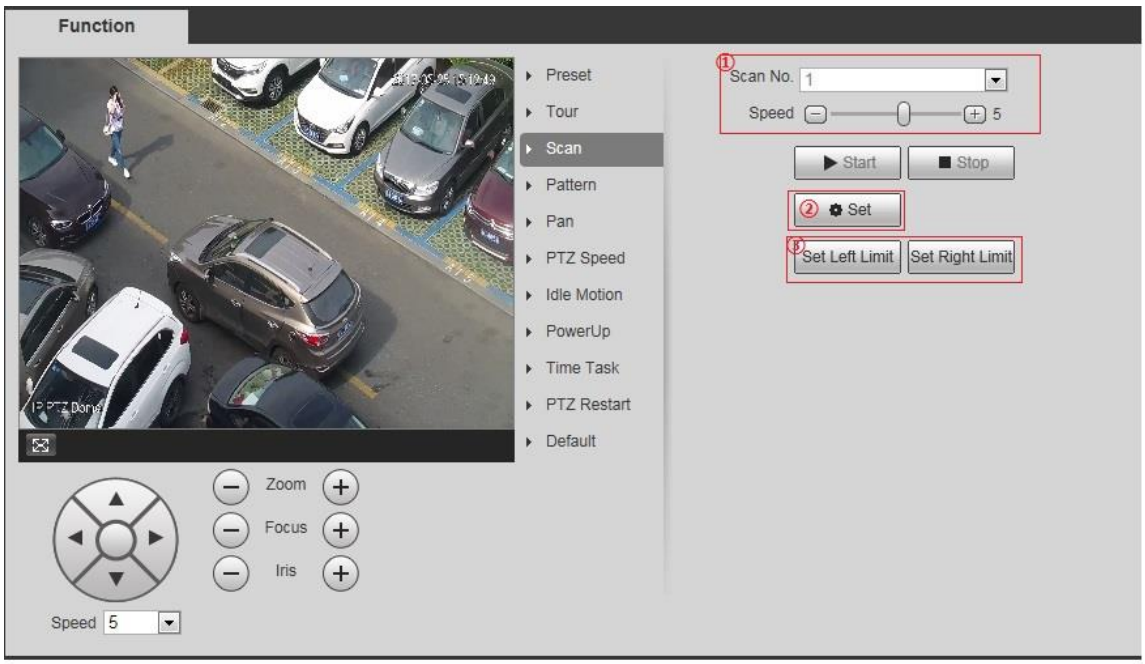


Figure 5-44

Step 2

Set scan.

1. Select scan number and set scan speed.
2. Click "Set" and the system will display "Set Left Limit" and "Set Right Limit".
3. Move the camera to the needed left limit via operating control panel, and click "Set Left Limit"; move the camera to the needed right limit, and click "Set Right Limit" to complete setting.

Step 3

Select scan number, click "Start" to enable scan.

Click "Stop" to stop scan.

5.3.4 Set Pattern

Pattern means that it can continuously record the manual operation upon the PTZ and zoom in & out and other movement tracks, it takes the start record as initial point and the camera will move automatically back and forth according to the moving trajectory.

Step 1

Select "Setup > PTZ > Function > Pattern" and the system will display the interface of "Pattern", which is shown in Figure 5-45.

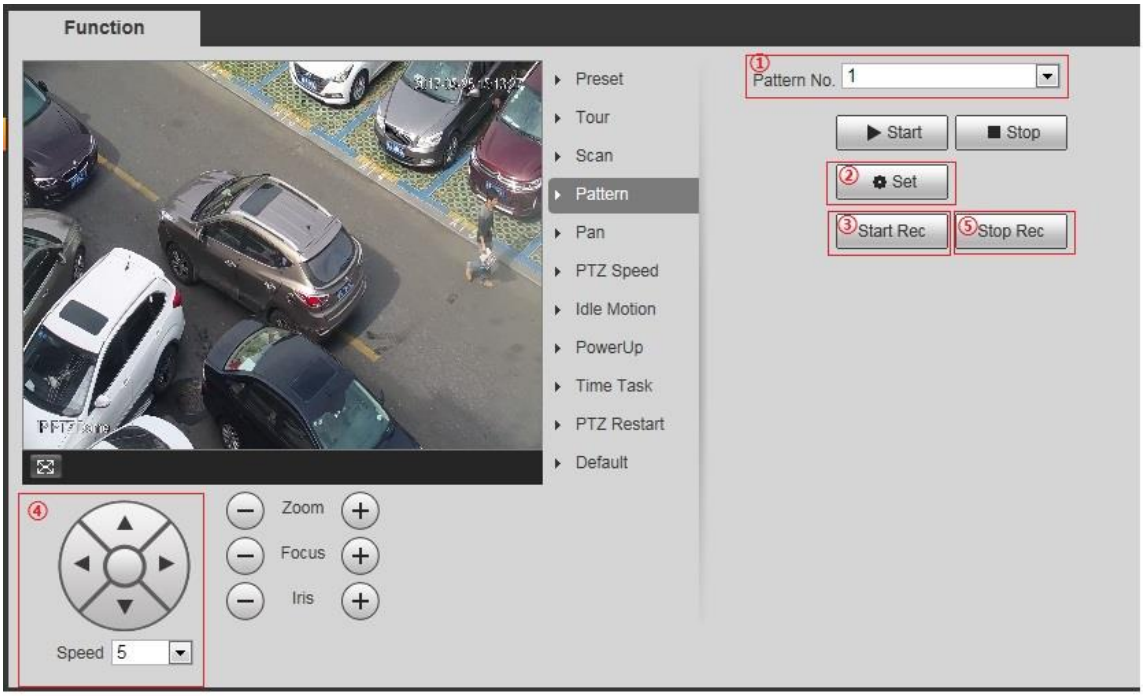


Figure 5-45

Step 2

Set pattern.

1. Select pattern number.
2. Click "Set" and the system will display the buttons of "Start Rec" and "Stop Rec".
3. Click "Start Rec".
4. It can control camera monitoring direction, zoom and focus via operating PTZ control panel.
5. Click "Stop Rec" to complete setting.

Step 3

Select pattern number, click "Start" to enable pattern.

Click "Stop" to stop pattern.

5.3.5 Enable Pan

Pan means that the camera can continuously rotate 360° horizontally with a certain speed.

Step 1

Select "Setup > PTZ > Function > Pan" and the system will display the interface of "Pan", which is shown in Figure 5-46.

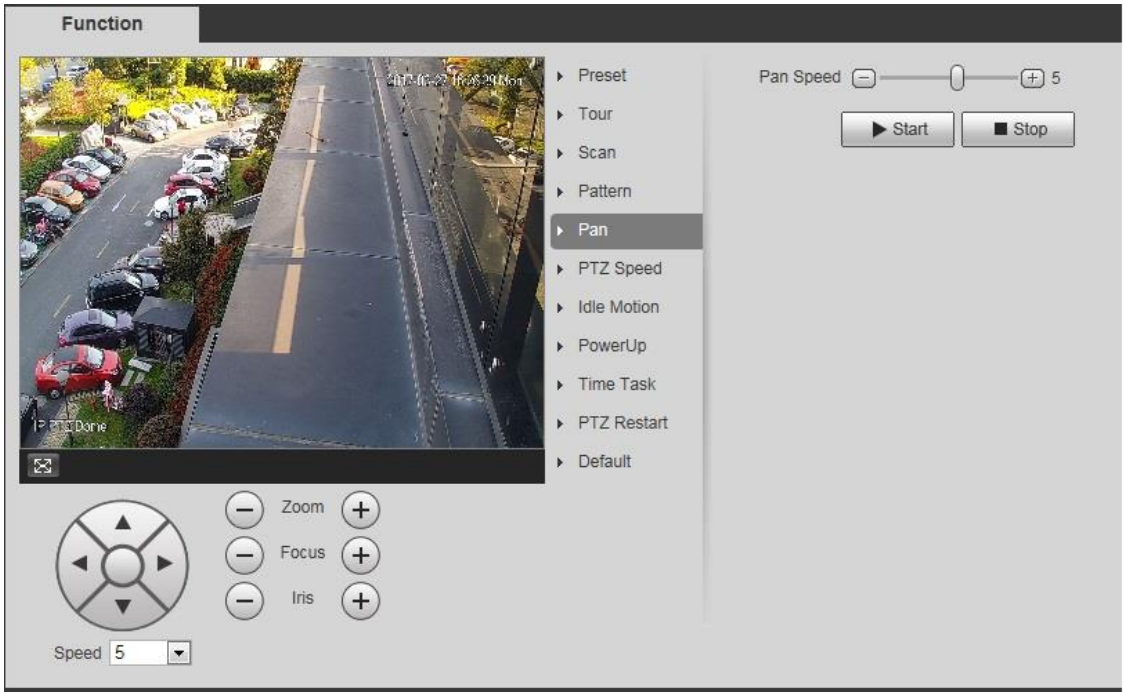


Figure 5-46

Step 2

Set pan speed, click "Start" and the camera starts pan.

Click "Stop" to stop pan.

5.3.6 Set PTZ Speed

PTZ speed means the rotation speed of the PTZ.

Step 1

Select "Setup > PTZ > Function > PTZ Speed" and the system will display the interface of "PTZ Speed", which is shown in Figure 5-47.

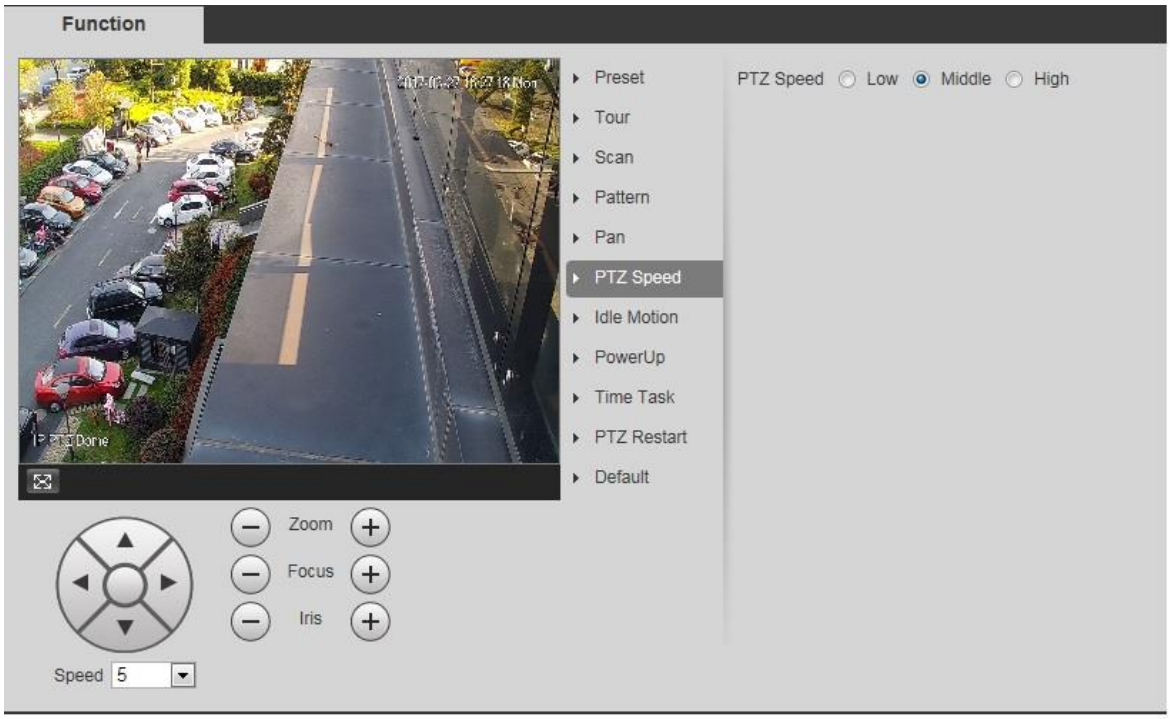


Figure 5-47

Step 2
Select PTZ speed and complete setting.

5.3.7 Set Idle Motion

Idle motion means that the camera implement the action which is set in advance if it fails to receive any valid command within specific period of time. It has to make sure the selected motion has completed config before setting idle motion.

Preconditions
It has set preset, tour, scan and pattern.

Operation Steps
Step 1
Select "Setup > PTZ > Function > Idle Motion" and the system will display the interface of "Idle Motion", which is shown in Figure 5-48.

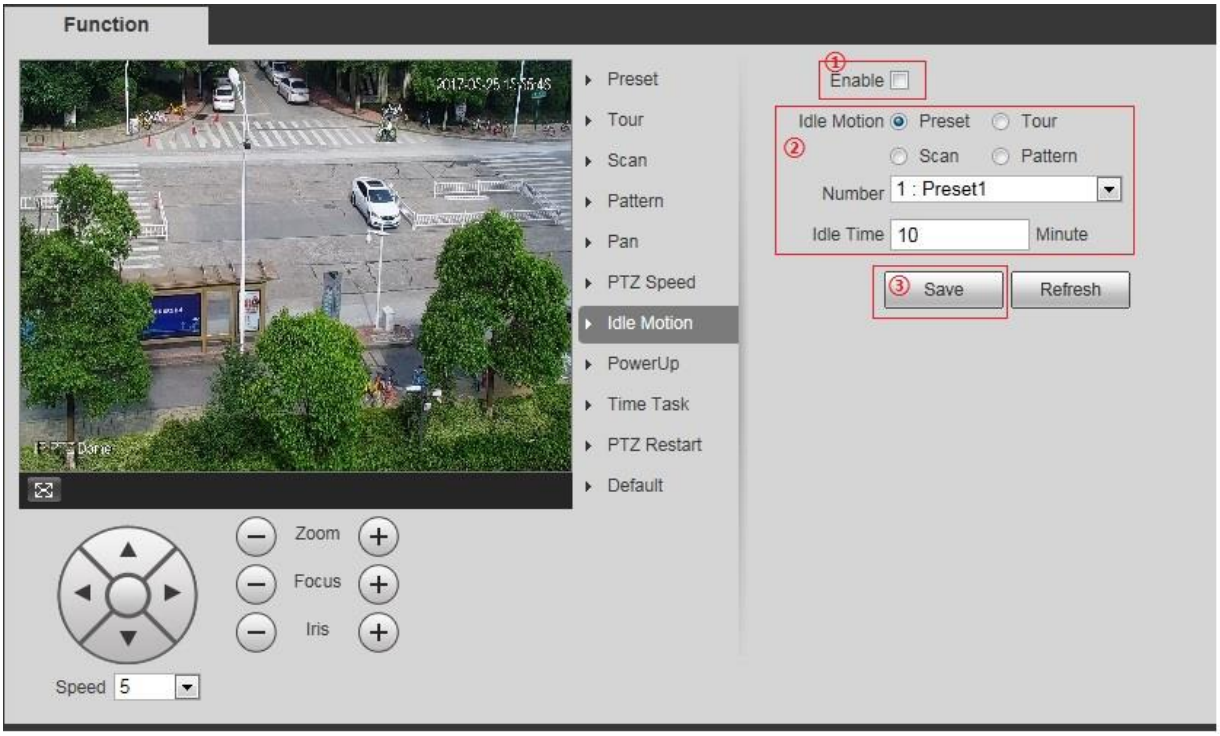


Figure 5-48

Step 2

Set idle motion.

1. Select "Enable" to enable idle motion.
2. Select idle motion, select the number if there is number for idle motion and set idle time.
3. Click "Save" to complete setting.

5.3.8 Set PowerUp

PowerUp means the action that the camera will implement automatically after power up.

Step 1

Select 'Setup > PTZ > Function > PowerUp" and the system will display the interface of "PowerUp", which is shown in Figure 5-49.

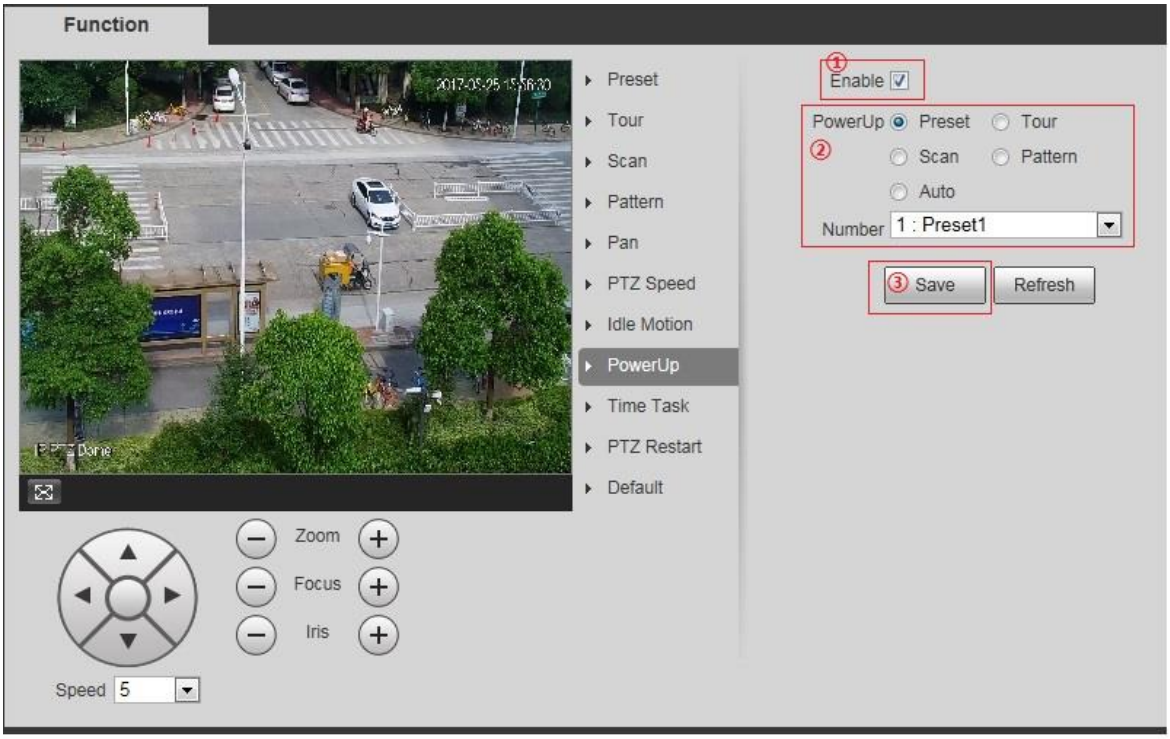


Figure 5-49

Step 2

Set PowerUp.

1. Select 'Enable"
2. Select powerup and select corresponding number if there is one.

   Note

   The system will run the last movement which lasts 20s before power off when selecting "Auto".
3. Click "Save" to complete setting.

5.3.9 Set Time Task

Time task means that it implements relevant task movements within the period which has been set.

Precondition

It has set preset, tour, scan and pattern.

Operation Steps

Step 1

Select "Setup > PTZ > Function > Time Task" and the system will display the interface of "Time Task", which is shown in Figure 5-50.

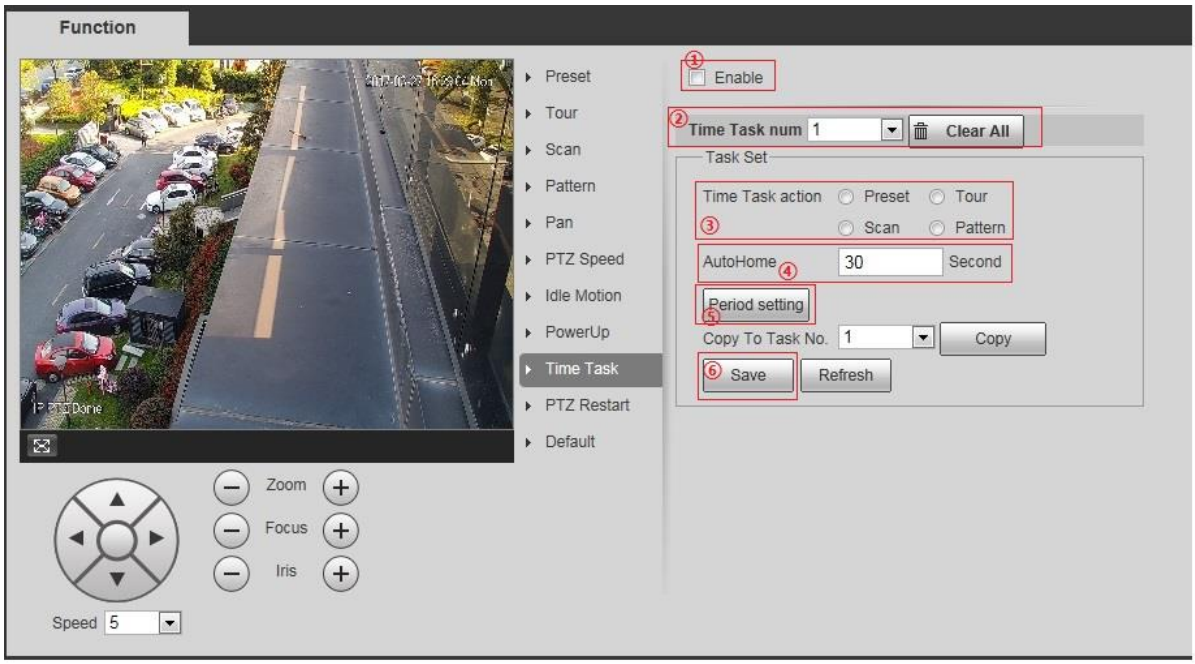


Figure 5-50

Step 2

Set time task.

1. Select "Enable" to enable time task function.
2. Click "Time Task No" to select a time task number.
3. Select corresponding time task action, the system will display the number box of corresponding action. Click "Action No" and select the corresponding number of the action.
4. Set auto home time in "AutoHome".
   AutoHome time means the time that it needs to restore time task when time task is interrupted by manual PTZ calling.
5. Click "Period Setting" to set the time of time task, and click "Save".
6. Click "Save" to complete the setting of time task.

Step 3

(Optional) Copy time task.

Copy the config info with task number to other task numbers.

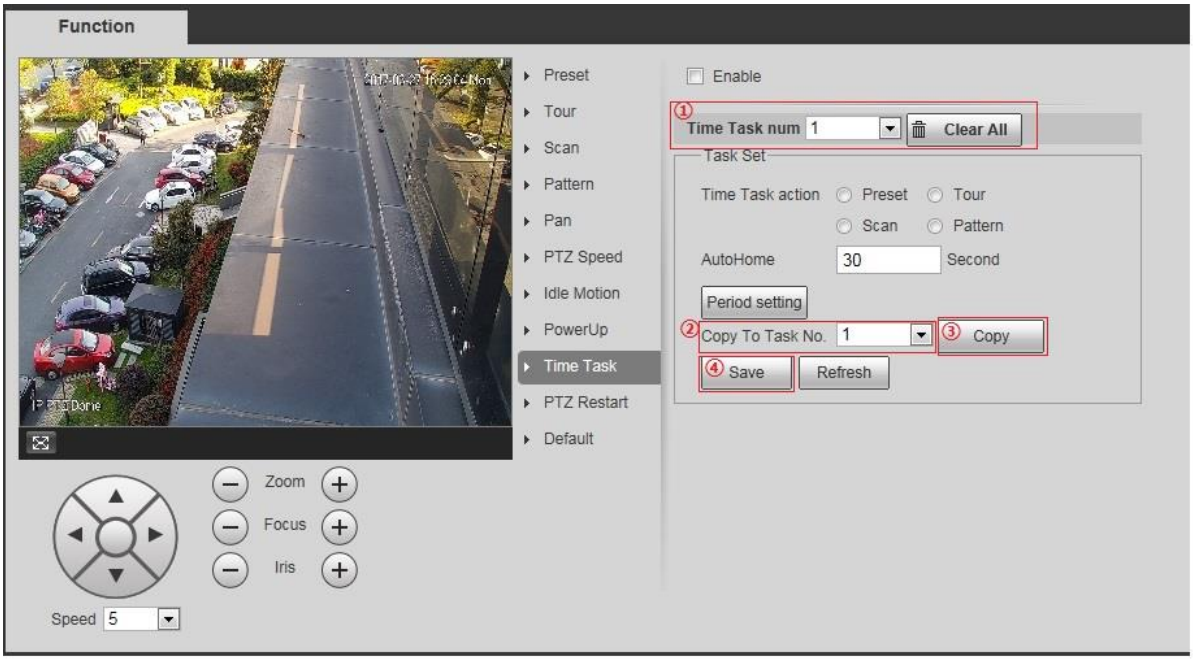


Figure 5-51

1. Select "Time Task No." which has already been configured with task number.
2. Select time task number which is to be configured in "Copy to Task No".
3. Click "Copy".
4. Click "Save" to complete the setting of time task.

5.3.10 PTZ Restart

Restart the PTZ manually.

Step 1

Select "Setup > PTZ > Function > PTZ Restart" and the system will display the interface of "PTZ Restart", which is shown in Figure 5-52.

Figure 5-52

Step 2

Click "PTZ Restart" to restart the PTZ.

5.3.11 Default

Caution

The function will delete all the PTZ configs implemented by users after it is enabled, please operate carefully.

Step 1

Select "Setup > PTZ > Function > Default" and the system will display the interface of "Default", which is shown in Figure 5-53.

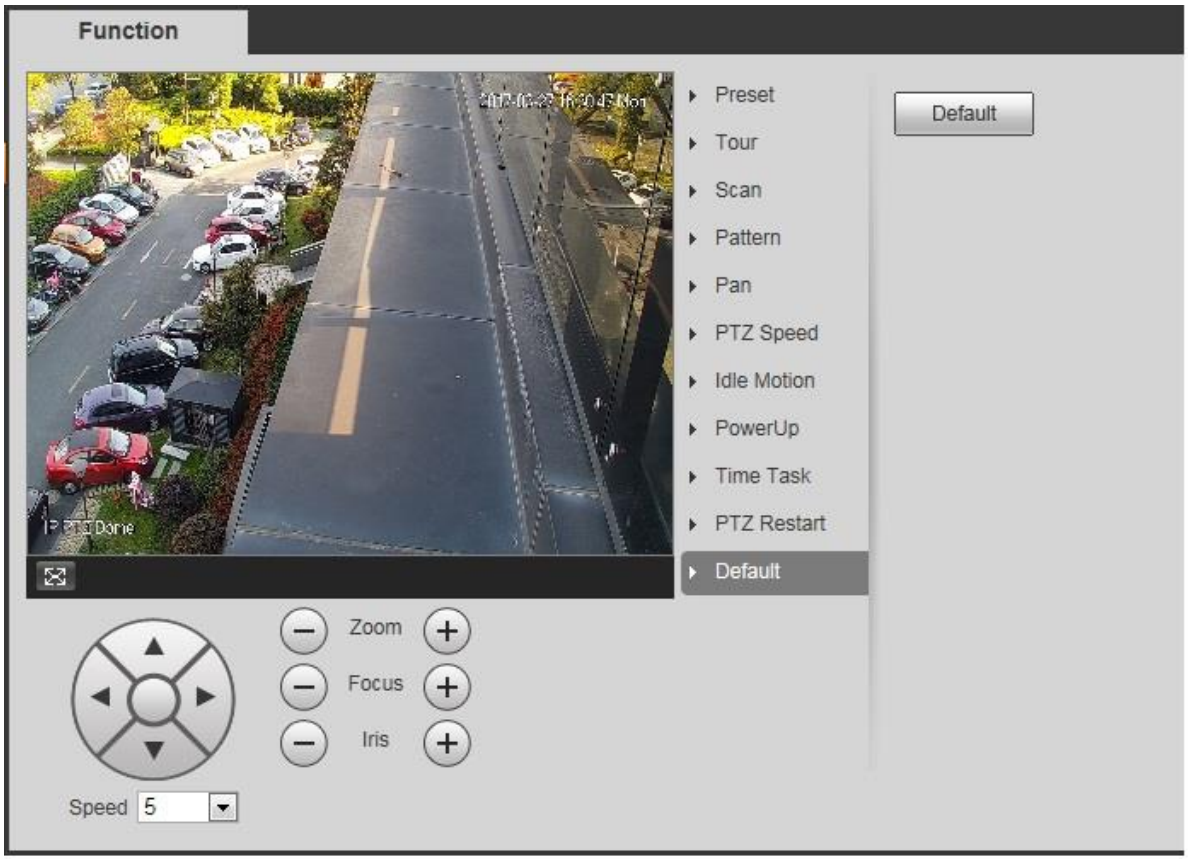


Figure 5-53

Step 2
Click "Default" and the PTZ function will be restored to default config.

5.4 Event

5.4.1 Set Smart Track

After enabling linkage tracking and setting calibration parameters, the tracking speed dome will be activated to corresponding location and track the object till it is out of the monitoring range when the intelligent rules of panorama camera triggers alarm.

Precondition
The panorama camera has set intelligent rules of intrusion or tripwire, please refer to "4.4.5 Set IVS" for more details.

5.4.1.1 **Enable Alarm Track**

Alarm track is off by default, smart track is valid only after enabling alarm track.

Step 1

Select "Setup > Event > Smart Track > Alarm Track" and the system will display the interface of "Alarm Track", which is shown in Figure 5-54.

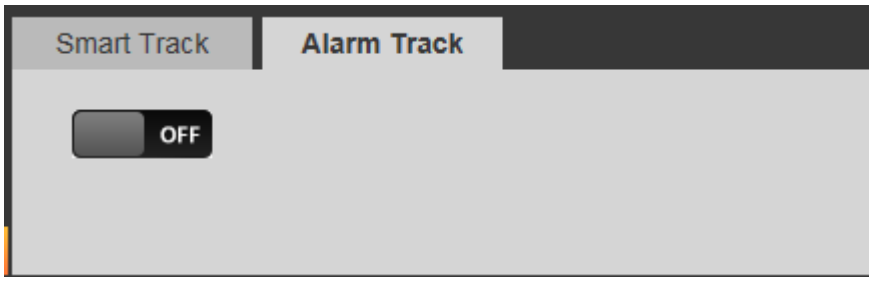


Figure 5-54

Step 2

Click the slider to enable alarm track.

5.4.1.2 **Set Calibration Parameter**

The device is equipped with calibration parameter when it is delivered out of factory. Please refer to the chapter and make manual calibration when the default application effect is not good enough.

Step 1

Select "Setup > Event > Smart Track > Alarm Track" and the system will display the interface of "Smart Track", which is shown in Figure 5-55.

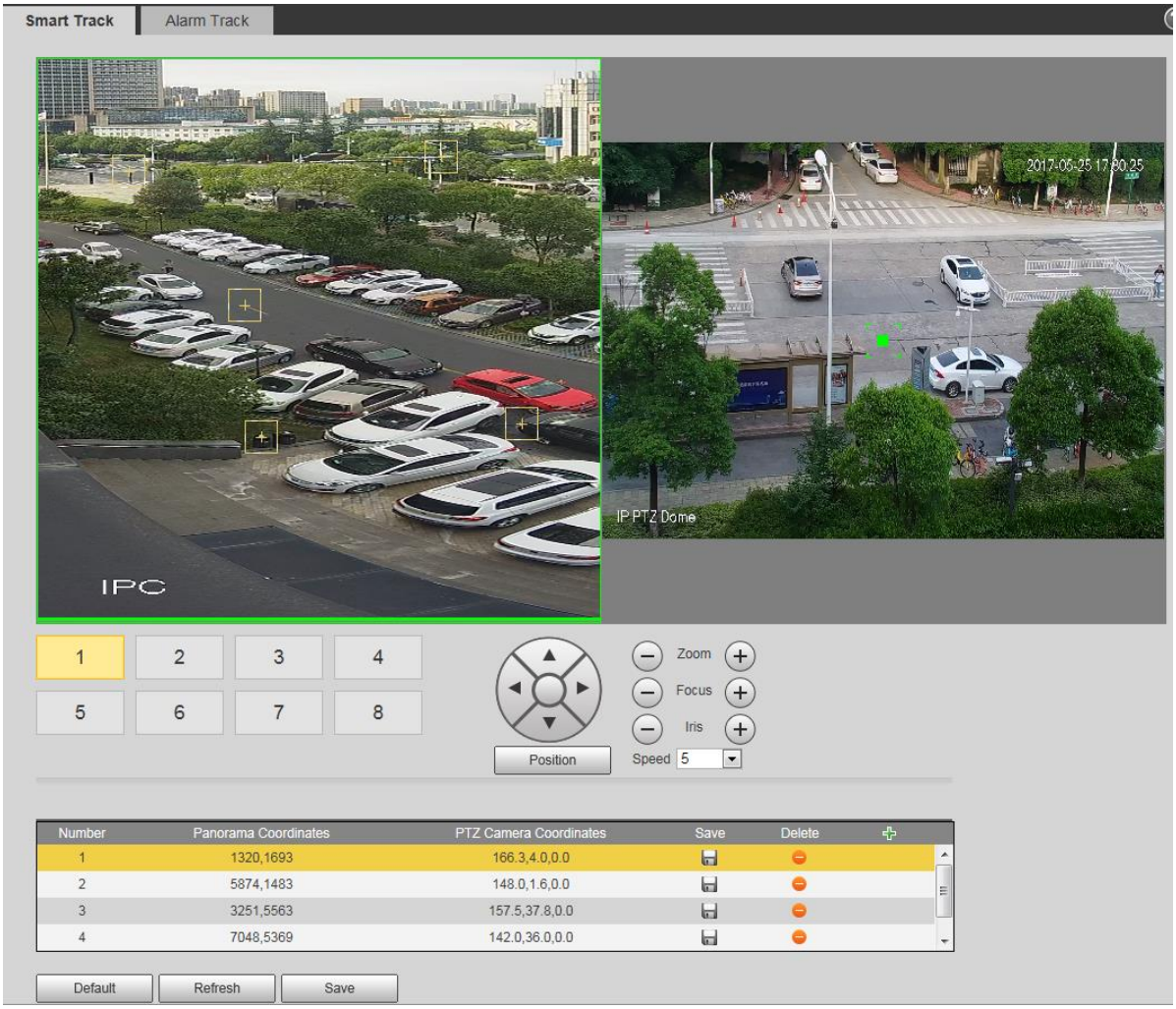


Figure 5-55

Step 2

Select the lens number below in sequence (which is shown in Figure 5-56), add calibration point for corresponding lens video image.

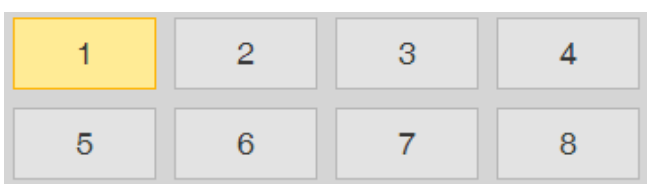


Figure 5-56

1. Click  and click video image to display calibration box, drag the calibration box to proper location.
2. After clicking "Position", click calibration location in the image of tracking speed dome, move the video image of tracking speed dome to the corresponding location of the calibration point.
3. Click  to save calibration record.

Repeat 1~3 to add at least four calibration points for video image of each lens.
Step 3
Click "Save" to complete setting.

5.4.2 Set Video Detection

Video detection includes motion detection, video tamper and scene changing, which are used to detect abnormity of video image and handle it in time.

5.4.2.1 **Set Motion Detection**

The system will generate alarm and activate the actions which have been set when it detects there is target moving and it reaches the sensitivity which is preset.
Step 1
Select "Setup > Event > Video Detection > Motion Detection" and the system will display the interface of "Motion Detection", which is shown in Figure 5-57.

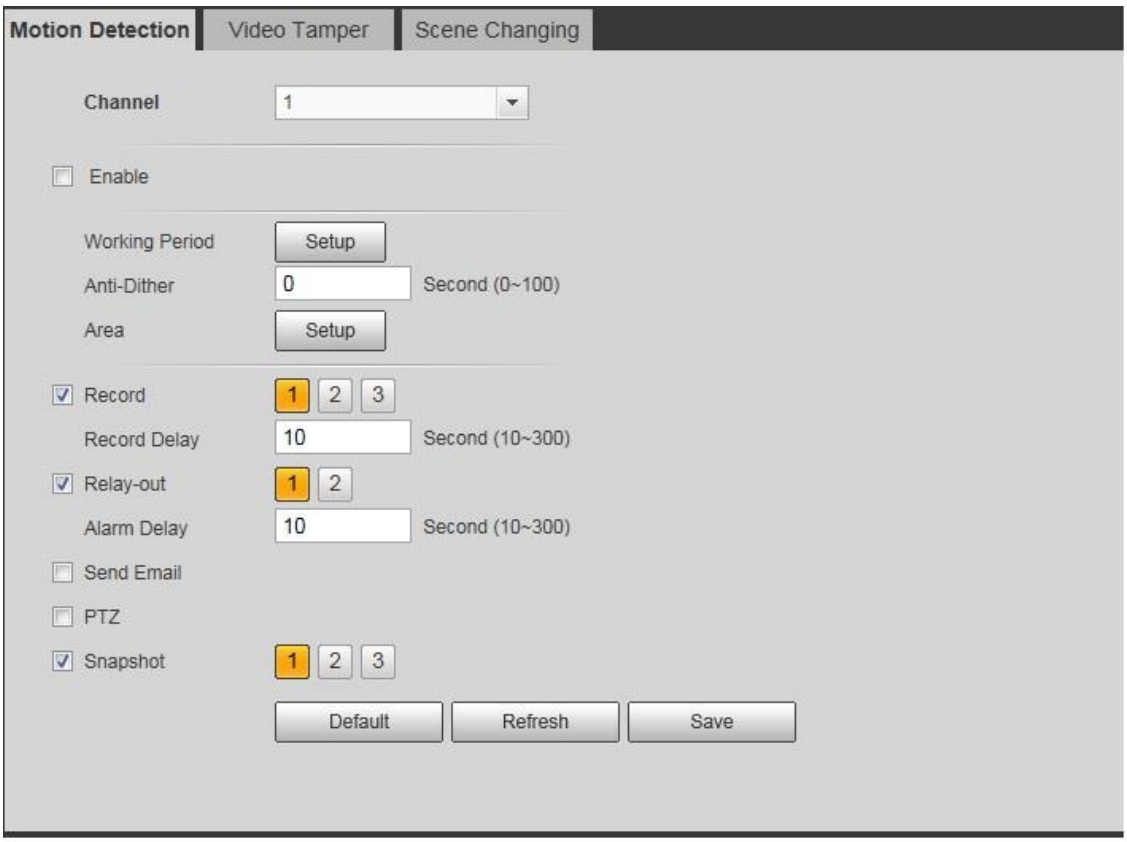


Figure 5-57

Step 2

Select channel.

- When the "Channel" is set as "1", it will set the motion detection of tracking speed dome.
- When the "Channel" is set as '2" or "3", it will set the motion detection of panorama camera.

Step 3

Select "Enable" to enable motion detection function.

Step 4

It is to set motion detection area.

1. Click the "Setup" which is next to the "Area". The system will pop out the interface of "Area", which is shown in Figure 5-58.

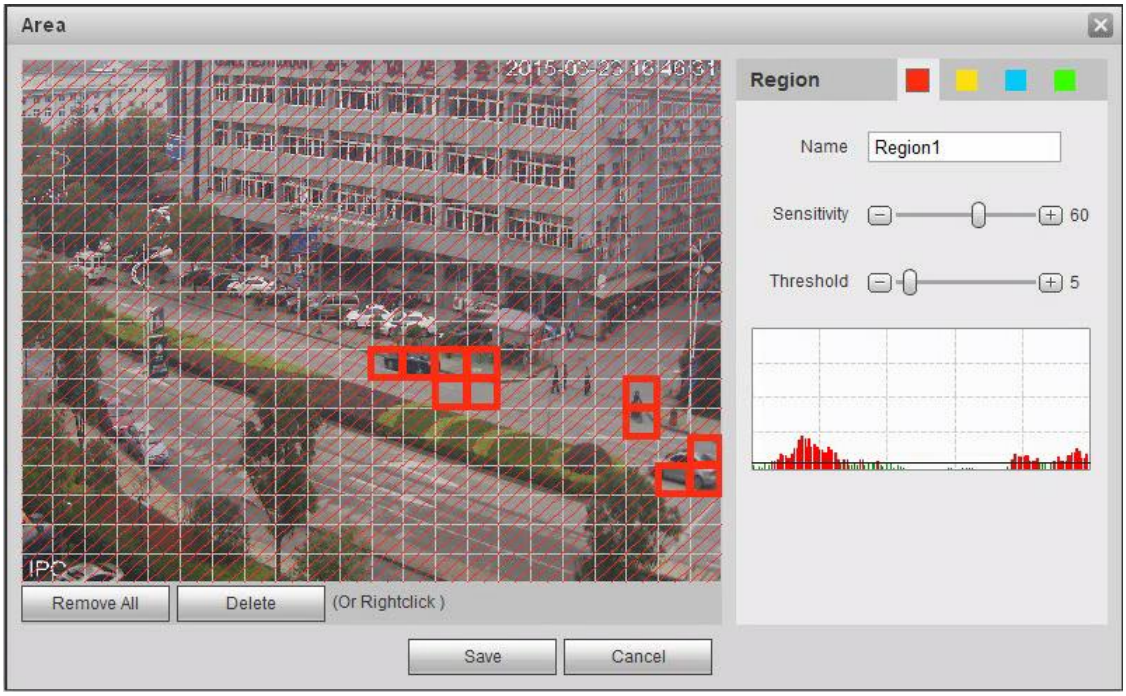


Figure 5-58

2. Set area name, it is to set valid area of motion detection according to the actual situation, and it can set the value of sensitivity and threshold respectively.
   The bigger the sensitivity is, the easier it is to generate motion detection, the smaller the threshold is, the easier it is to generate motion detection; the entire video image is the valid area of motion detection by default.

Note

- Different colors represent different areas; each area can set different detection area.
- The red line in the Oscillogram means triggering motion detection; green line means not triggering motion detection.

3. Click “Save” to complete area setting.

Step 5

It is to set the parameters of motion detection, please refer to Table 5-24 for more details.

Parameter	Function
Working Period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Anti-dither	System only records one motion detection event during the anti-dither period.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Function
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-24

Step 6

Click "Save" to complete setting.

5.4.2.2 **Set Video Tamper**

The system will generate alarm and activate the actions which have been set when the detection video image is tampered.

Step 1

Select "Setup > Event > Video Detection > Video Tamper" and the system will display the interface of "Video Tamper", which is shown in Figure 5-59.

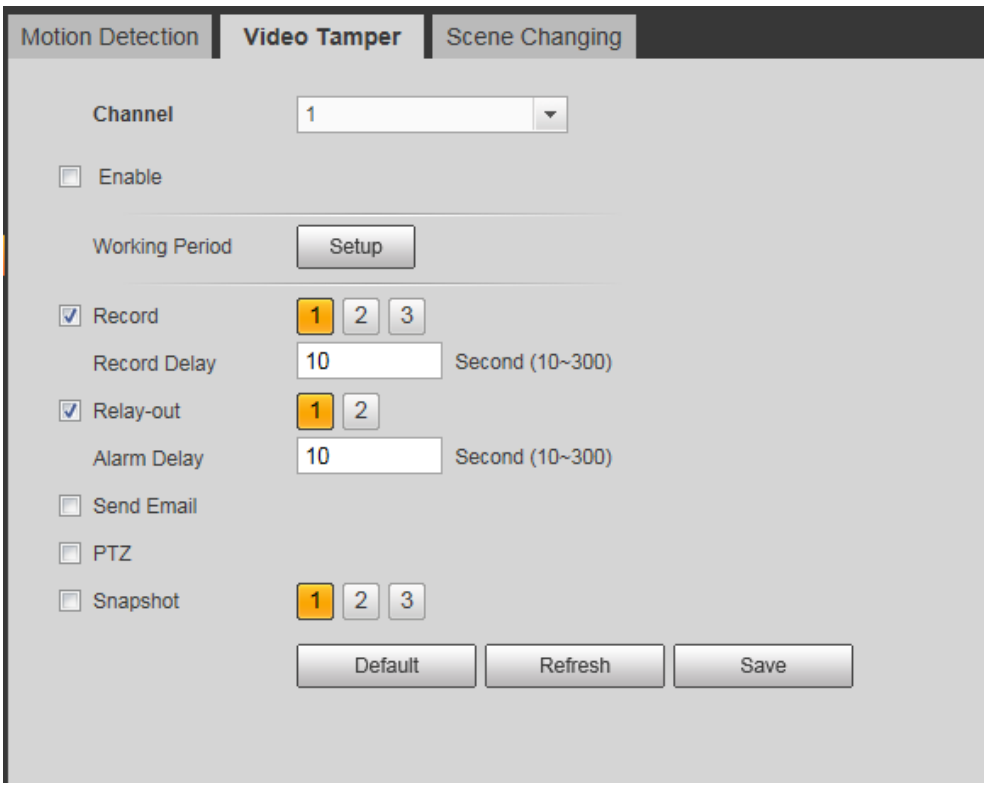


Figure 5-59

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the video tamper detection of tracking speed dome.
- When the 'Channel" is set as "2" or '3", it is to set the video tamper detection of panorama camera.

Step 3

Select "Enable" to enable video tamper detection.

Step 4

It is to set the parameters of video tamper detection, please refer to Table 5-25 for more details.

Parameter	Function
Working Period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to "4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.

Parameter	Function
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-25

Step 5

Click "Save" to complete setting.

5.4.2.3 **Set Scene Changing**

The system will generate alarm and activate the actions which have been set when it detects that there is quite big change happened to the image scene.

Step 1

Select "Setup > Event > Video Detection > Scene Changing" and the system will display the interface of "Scene Changing", which is shown in Figure 5-60.

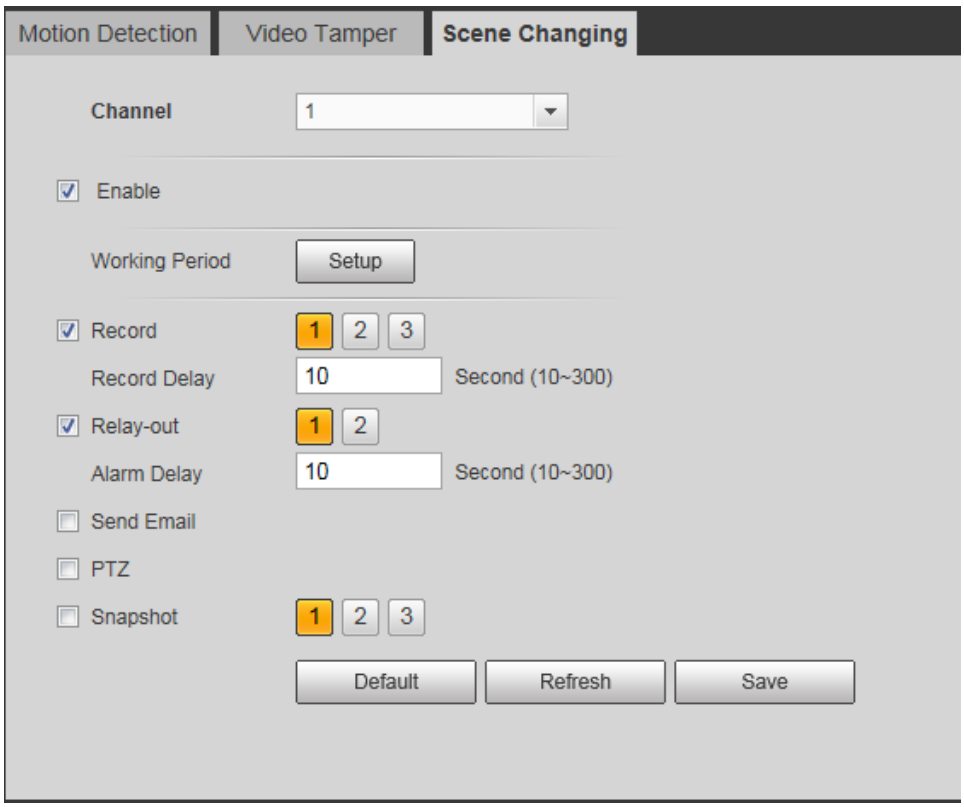


Figure 5-60

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the scene changing of tracking speed dome.
- When the 'Channel" is set as "2" or '3", it is to set the scene changing of panorama camera.

Step 3

Select "Enable" to enable scene changing detection.

Step 4

It is to set the parameters of scene changing, please refer to Table 5-26 for more details.

Parameter	Function
Working Period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to "4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-26

Step 5
Click "Save" to complete setting.

5.4.3 Set Audio Detection

Step 1
Select "Setup > Event > Audio Detection" and the system will display the interface of "Audio Detection", which is shown in Figure 5-61.

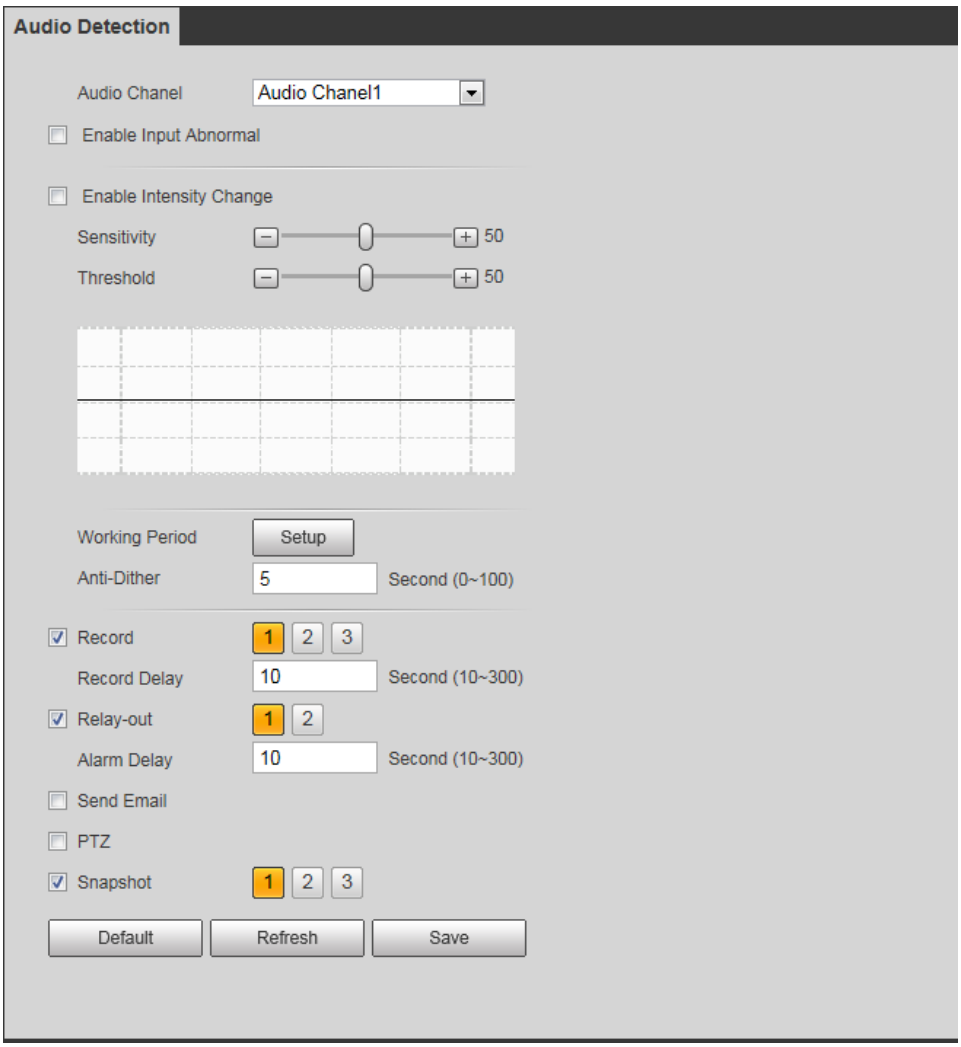


Figure 5-61

Step 2

Select audio channel.

Step 3

It is to set audio detection parameters, please refer to Table 5-27 for more details.

Parameter	Function
Enable Input Abnormal	Select the check box, it will generate alarm when it detects audio input abnormity.
Enable Intensity Change	Select the check box, it will generate alarm when it detects there is audio intensity change and it exceeds the threshold.
Sensitivity	It can be judged as audio abnormity when the input volume change exceeds continuous environment volume; users need to adjust according to the actual environment test.
Threshold	It is to set the filtered environment volume intensity, if the environmental noise is too big, then the value needs to be set higher, users can adjust according to the actual environment test.
Working Period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Anti-dither	System only records one motion detection event during the anti-dither period.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.

Parameter	Function
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-27

Step 4

Click "Save" to complete setting.

5.4.4 Smart Plan

5.4.4.1 **Set Smart Plan of Tracking Speed Dome**

It is to set the smart plan of tracking speed dome. The smart plan of tracking speed dome can be valid only after enabling smart plan.

Step 1

Select "Setup > Event > Smart Plan" and the system will display the interface of "Smart Plan".

Step 2

Select "Channel" as "1" and the system will display the smart plan interface of tracking speed dome, which is shown in Figure 5-62.

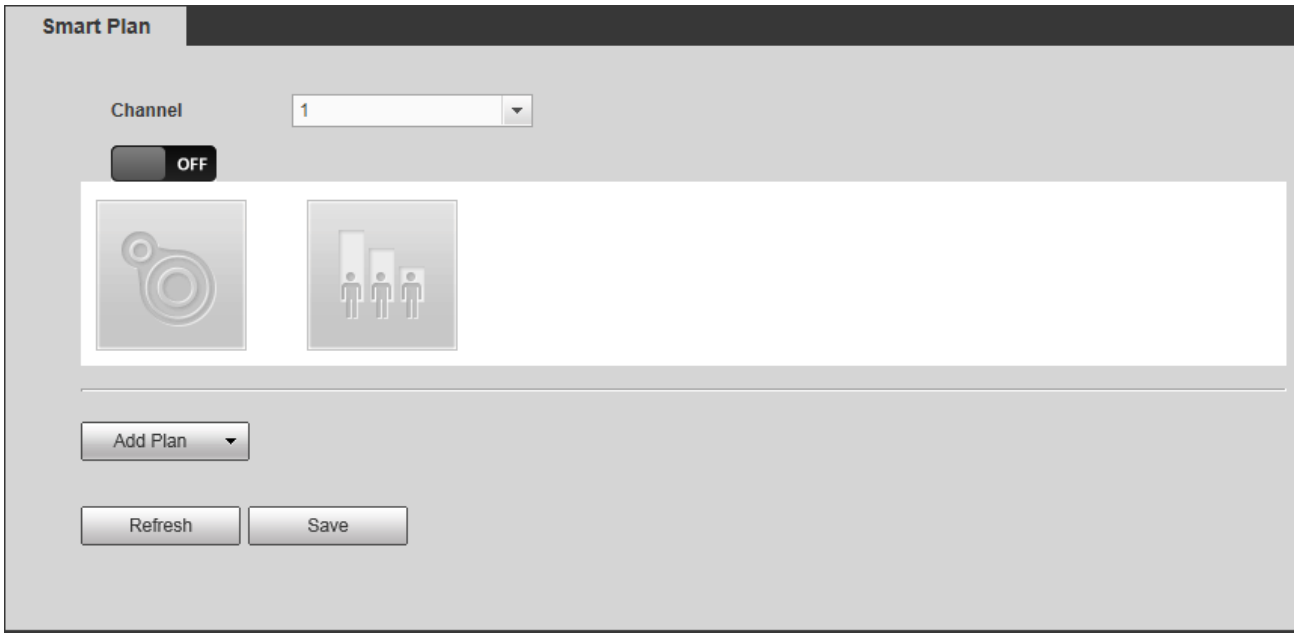


Figure 5-62

Step 3

Enable corresponding intelligent function according to requirements.

- Enable heat map or people counting function.
  1. Click the slider in the 

 to enable function switch.
  2. Click heat map or people counting to enable corresponding intelligent function.
     The selected intelligent function will be displayed with high brightness, click the selected intelligent function to cancel it.
- Enable IVS or face detection function.
  The system enables IVS and face detection function by default.
  1. Select preset in "Add Plan" and the system will display the corresponding plan of the preset.
  2. Click IVS or face detection to enable corresponding intelligent function.
     The selected intelligent function is displayed with high brightness, click the selected function to cancel it.

Step 4

Click "Save" to complete setting.

5.4.4.2 **Set Smart Plan of Panorama Camera**

It is to set the smart plan of panorama camera. The smart plan of panorama camera can be valid only after enabling smart plan.

Step 1

Select "Setup > Event > Smart Plan" and the system will display the interface of "Smart Plan".

Step 2

Select "Channel" as "2" or "3" and the system will display the smart plan interface of panorama camera, which is shown in Figure 5-63.

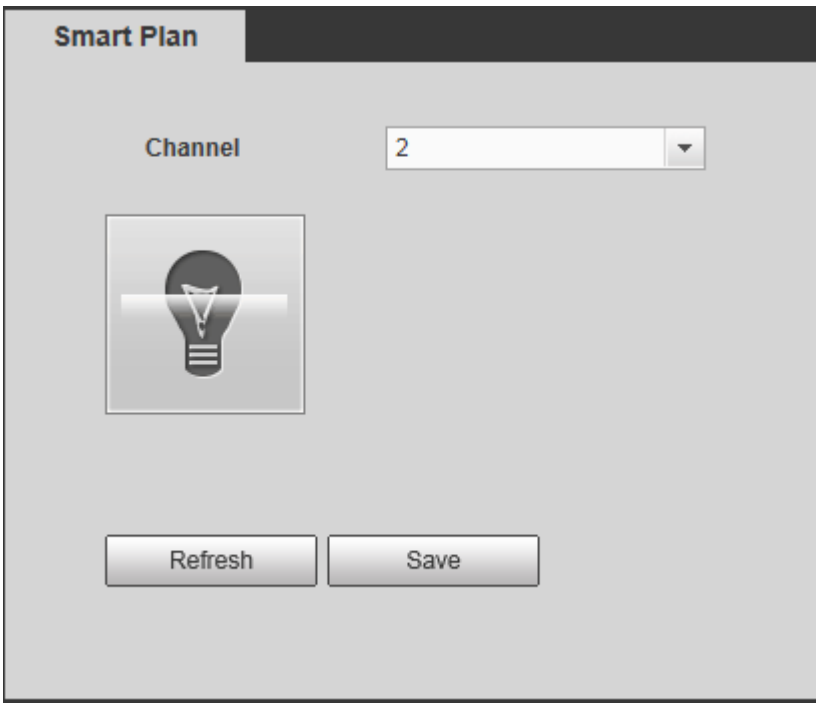


Figure 5-63

Step 3

Click IVS to enable corresponding intelligent function.

The selected function will be displayed with high brightness, click the selected function to cancel it.

Step 4

Click "Save" to complete setting.

5.4.5 Set IVS

5.4.5.1 **Basic Requirements of Scene Selection**

- The total proportion of the target shall not exceed 10% of the image.
- The target size in the image can't be less than 10 pixel ×10 pixel, the size of abandoned target can't be less than 15 pixel × 15 pixel (CIF image); The height and width of the target can't exceed 1/3 of the image; it is recommended that the target height is about 10% of the image height.
- The difference of brightness value between target and background can't be less than 10 gray levels.

- Make sure the target appears at least over 2 seconds continuously in the field; the movement distance has to be bigger than the width of the target itself and makes sure it is no less than 15 pixels (CIF image).
- Try to lower the complexity of the monitoring scene analysis if it is possible; it is not advised to use IVS functions in the environment where the targets are dense and light change is very frequent.
- Try to keep away from the areas such as glass, ground reflected light, water surface, branch, shadow, mosquito disturbance and etc. try to keep away from the backlight scene to avoid direct light.

5.4.5.2 **Set Intelligent Rules**

It can set intelligent rules for tracking speed dome or panorama camera after enabling IVS smart plan, including cross fence detection, tripwire, intrusion, abandoned object, fast moving, parking detection, people gathering, missing object and loitering detection. The following chapter is going to take tracking speed dome as example to introduce intelligent rules.

Note

After entering the "Rule Config" interface of tracking speed dome, the PTZ lock function is automatically enabled, the lock time is 180s, during which it can only control PTZ manually. You can manually click "Unlock" to unlock.

5.4.5.2.1 Set Cross Fence Detection

The system will generate alarm and activate the actions which have been set when the target crosses two fence lines according to the set direction.

The requirements of fence are shown as follows:

- It doesn't support transparent fence, such as iron fence.
- It doesn't support short wall (the wall height is shorter than the height of an average person).

Crossing fence includes two directions which are upward and downward.

The judgement standard of crossing fence upward is: target rectangular box and bottom warning line intersect → target rectangular box separates from bottom warning line → target rectangular box central spot crosses top warning line → alarm.

The judgement standard of crossing fence downward is: target rectangular box central spot crosses top warning line → target rectangular box separates from bottom warning line → target rectangular box and bottom warning line intersect → alarm.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of cross fence.

1. Click, double click the new rule, set rule name, select rule type as "Cross Fence Detection", which is shown in Figure 5-64.

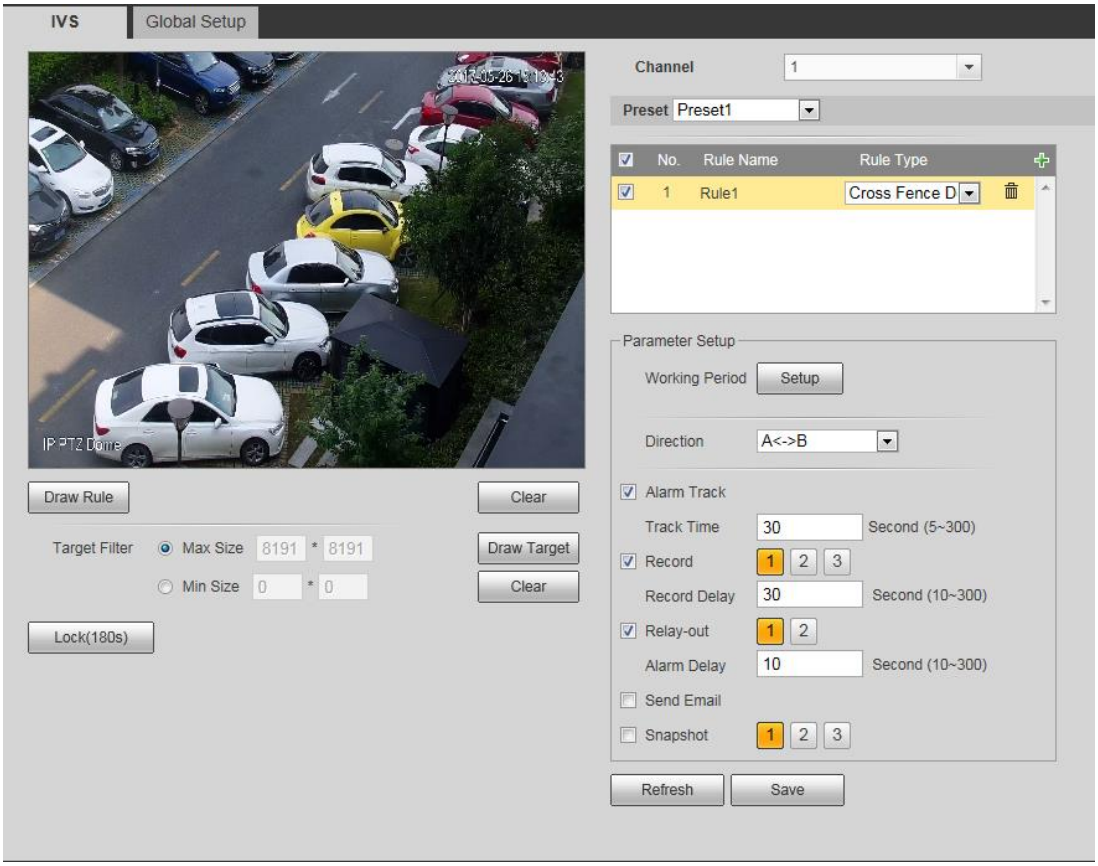


Figure 5-64

2. Click "Draw Rule" to draw upper fence on the monitoring image, right click to end drawing; click on the monitoring image to draw lower fence, right click to end drawing.

   Note

Click "Clear" to delete all the drawn rules.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of cross fence, please refer to Table 5-28 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Direction	It is set the direction of crossing fence, you can select A→B、B→A、A↔B.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.

Parameter	Note
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-28

Step 5

Click "Save" to complete setting.

5.4.5.2.2 Set Tripwire

The system will generate alarm and activate the actions which have been set when the target crosses the warning line according to the set direction.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of cross fence.

1. Click, double click the new rule, set rule name, and select rule type as "Tripwire", which is shown in Figure 5-65.

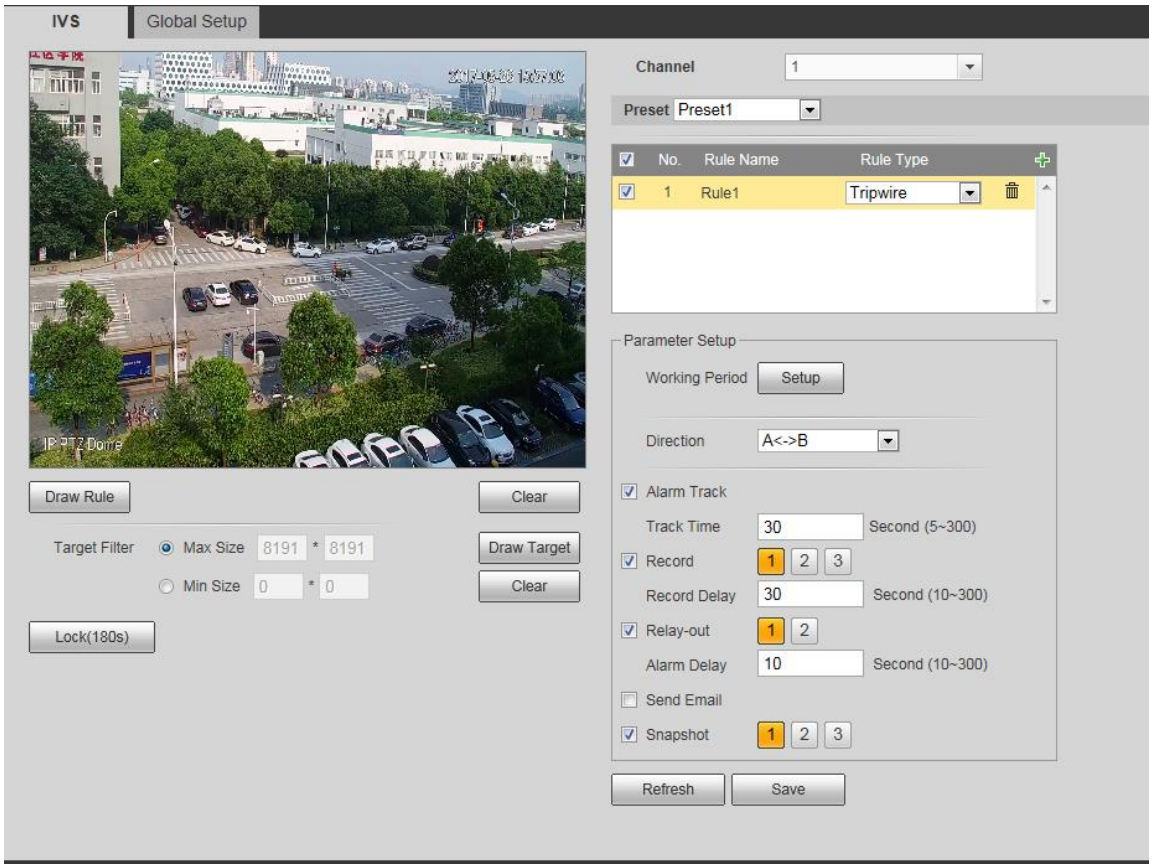


Figure 5-65

2. Click "Draw Rule" to draw rules on the monitoring image, right click to end drawing;

   Note

   Click "Clear" to delete all the drawn tripwires.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of target is between two filter boxes.

- In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of tripwire, please refer to Table 5-29 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Direction	It is set the direction of crossing fence, you can select A→B、B→A、A↔B.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note**

Parameter	Note
	It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-29

Step 5

Click "Save" to complete setting.

5.4.5.2.3 Set Intrusion

The system will generate alarm and activate the actions which have been set when the target enters, leaves or appears in the area.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of intrusion.

1. Click, double click the new rule, set rule name, and select rule type as "Intrusion", which is shown in Figure 5-66.

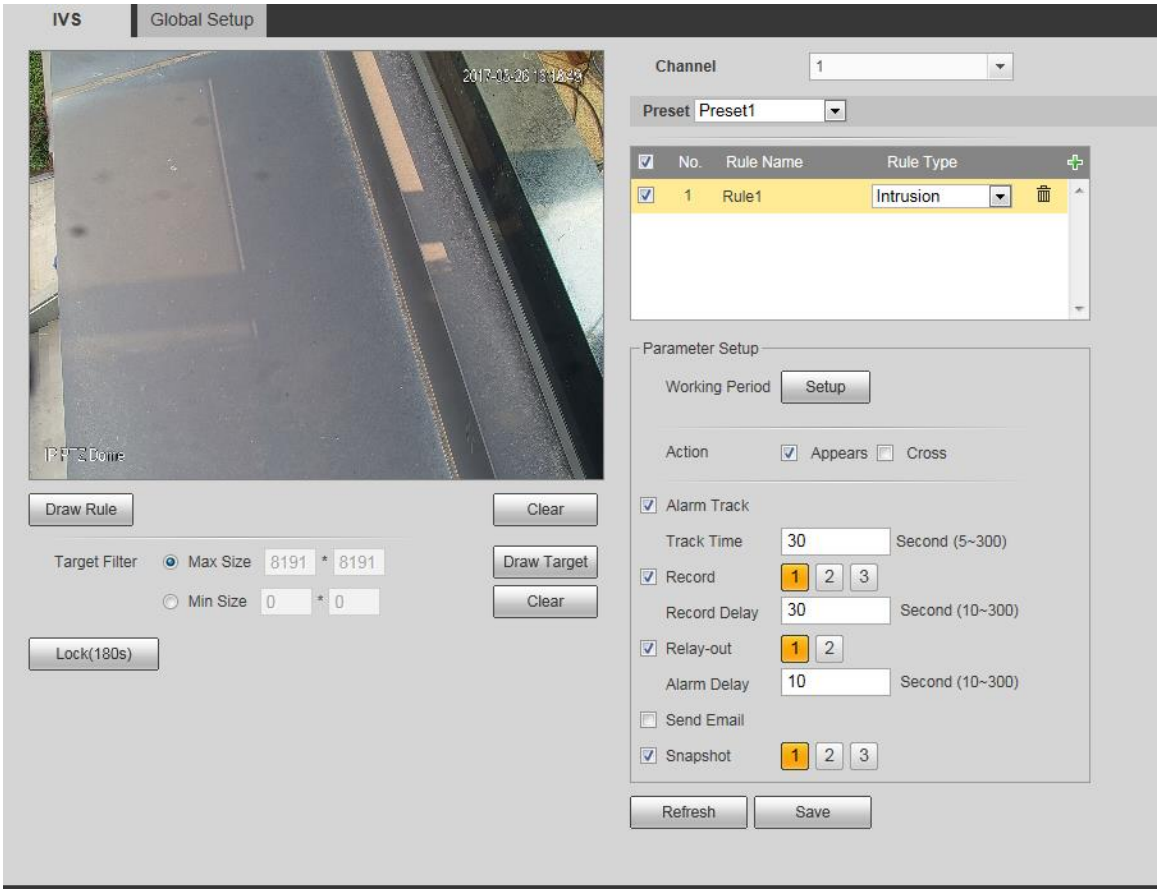


Figure 5-66

2. Click "Draw Rule" to draw rules on the monitoring image, right click to end drawing;

   Note

   - It takes some time and space from when the target appears to when the target is confirmed, therefore, it has to leave some space when drawing the warning area, don't draw rules near the blocking object.
   - Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of target is between two filter boxes.

- In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of intrusion, please refer to Table 5-30 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Action	It is to set the actions of intrusion, it can select appears and cross. ● Appears: it will generate alarm when the target appears in the area. ● Cross: It will generate alarm when the target enters, exits or enter & exit the area.
Direction	It can se the parameter when "Action" is set as "Cross". It is to set the direction of crossing area, including enter, exit, enter&exit.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.

Parameter	Note
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-30

Step 5

Click "Save" to complete setting.

5.4.5.2.4 Set Abandoned Object

The system will generate alarm and activate the actions which have been set when the target enters, leaves or appears in the area.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of abandoned object.

1. Click, double click the new rule, set rule name, and select rule type as "Abandoned Object", which is shown in Figure 5-67.

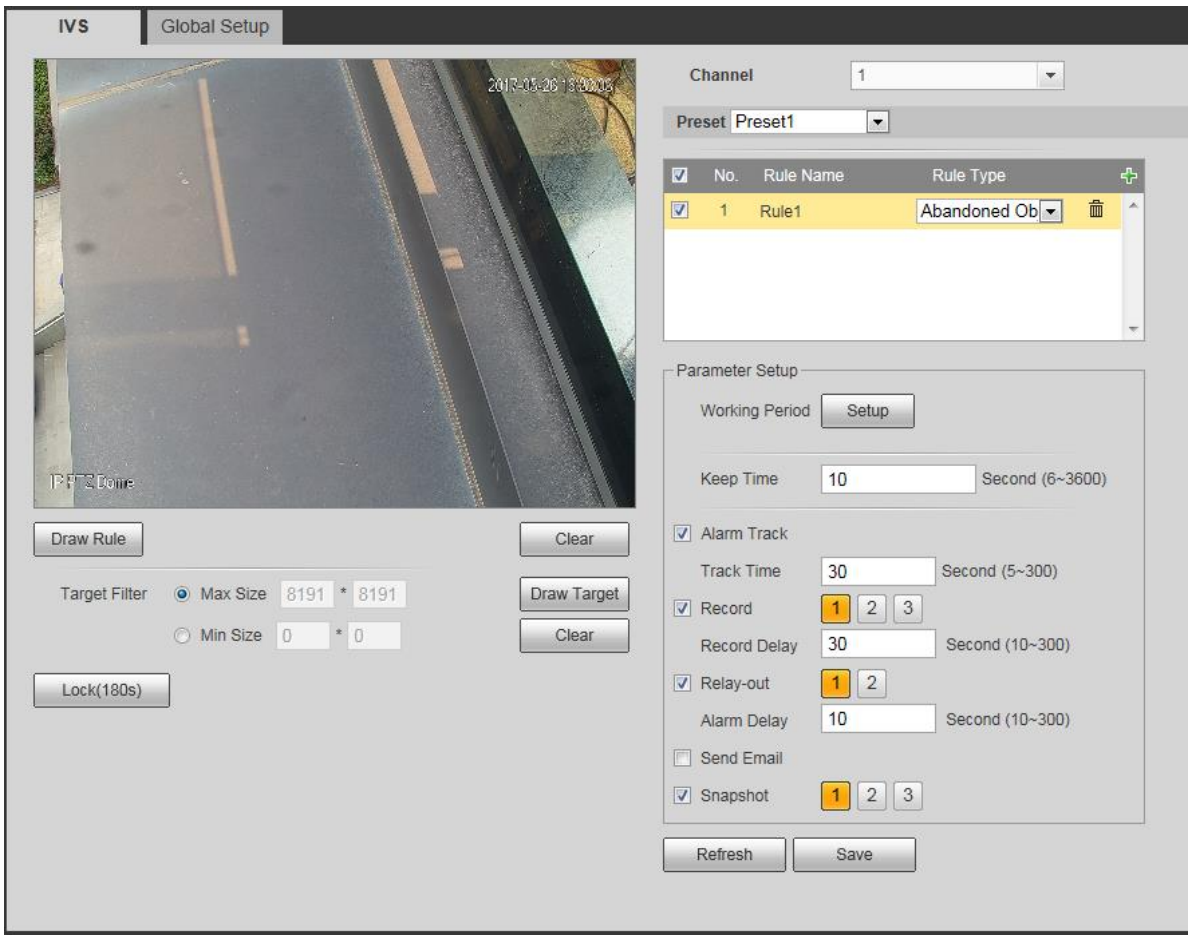


Figure 5-67

2. Click "Draw Rule" to draw rules on the monitoring image, right click to end drawing;

   Note

   - It can also trigger alarm if a pedestrian or vehicle stays a longer time than the set value. In order to filter this kind of alarm, generally the abandoned object shall be smaller than both person and vehicle, the max size of filter target is recommended to be smaller than people and vehicles.

- Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of abandoned target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of abandoned object, please refer to Table 5-31 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Keep Time	It is the shortest time from when putting the target into the detection area to when it triggers alarm.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device

Parameter	Note
	when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-31

Step 5

Click "Save" to complete setting.

5.4.5.2.5 Set Fast Moving

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of fast moving.

1. Click, double click the new rule, set rule name, and select rule type as "Fast Moving", which is shown in Figure 5-68.

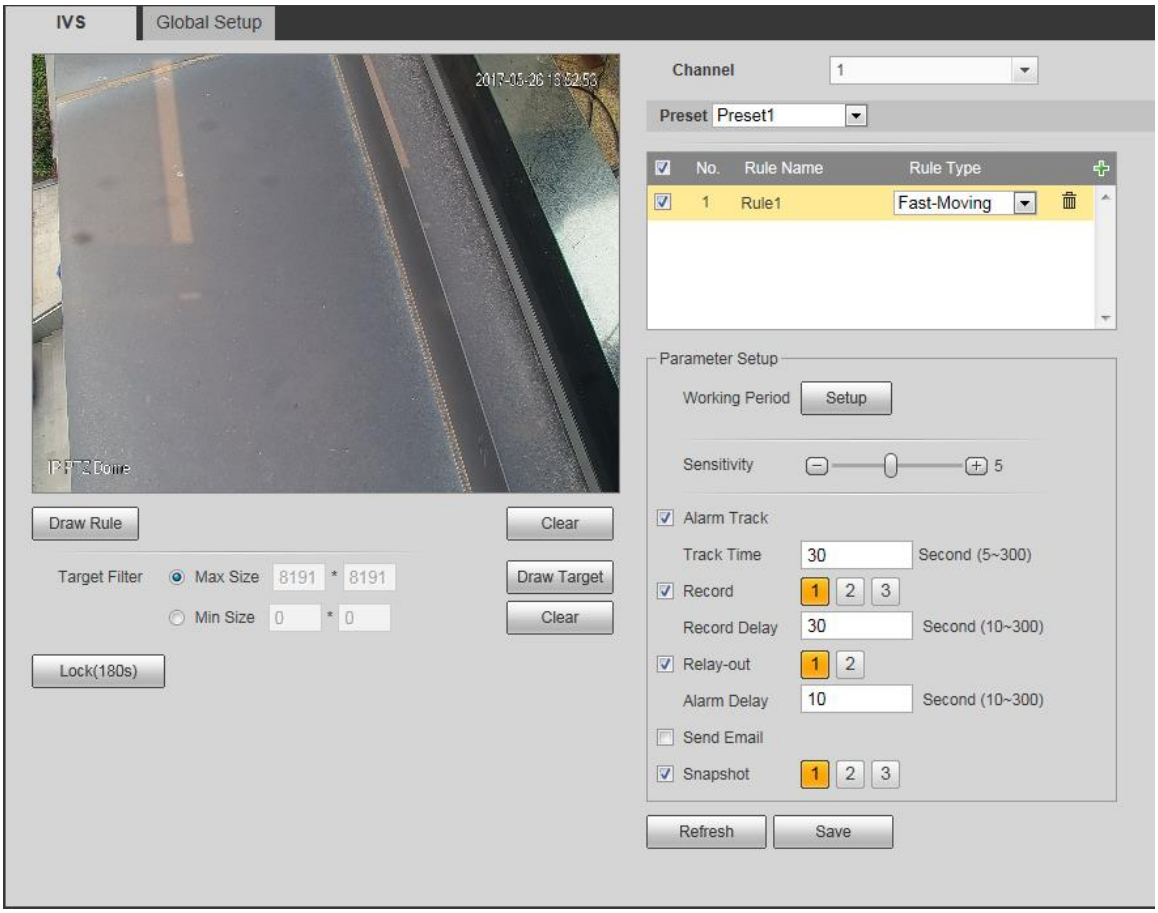


Figure 5-68

2. Click "Draw Rule" to draw rules on the monitoring area, right click to end drawing;

   Note

   Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of fast-moving target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of fast moving, please refer to Table 5-32 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 4. Click “Setup” and the system will pop out the interface of “Working Period”. 5. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 6. Click “Save” to complete the setup of working period.
Sensitivity	It is used for the system to detect moving target.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.

Parameter	Note
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-32

Step 5

Click "Save" to complete setting.

5.4.5.2.6 Set Parking Detection

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of parking detection.

1. Click, double click the new rule, set rule name, and select rule type as "Parking Detection", which is shown in Figure 5-69.

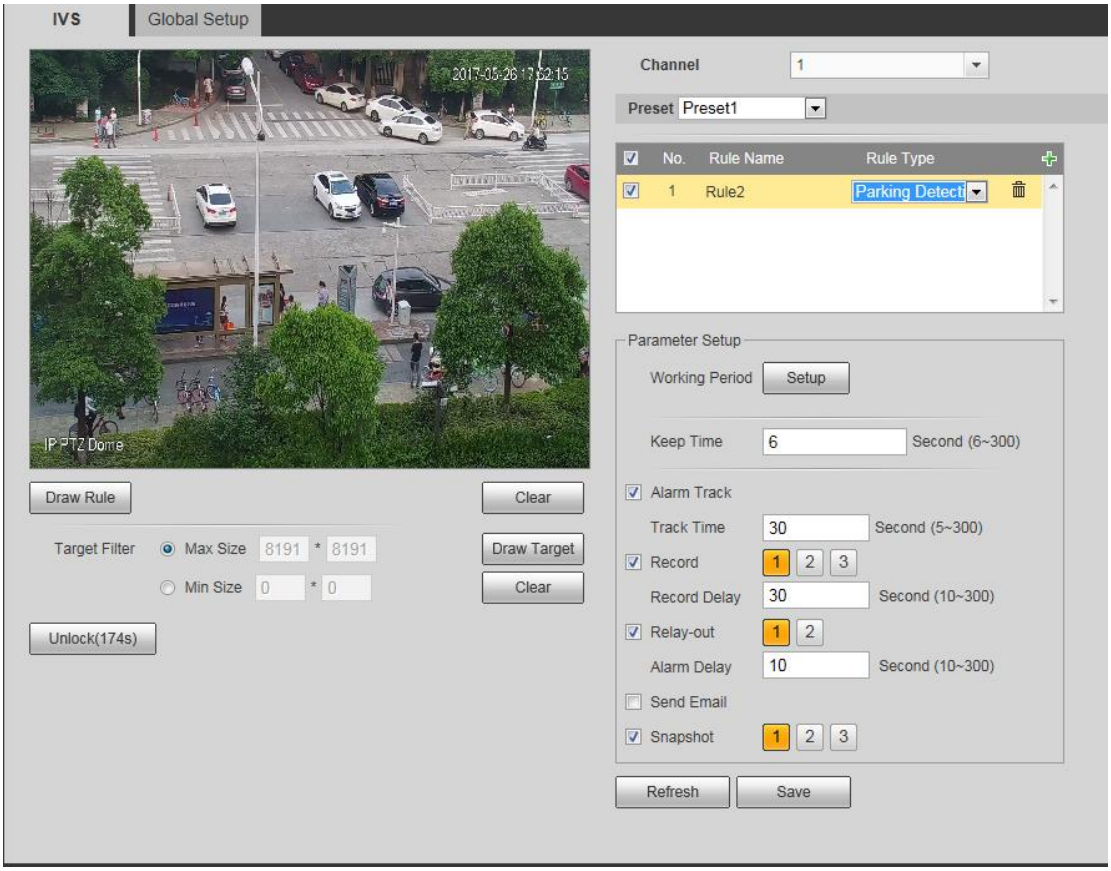


Figure 5-69

2. Click "Draw Rule" to draw monitoring area on the monitoring image, right click to end drawing;

   Note

   Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of parking detection, please refer to Table 5-33 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods:

Parameter	Note
	● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Keep Time	It is the shortest time from when the target stops in the detection area to when it triggers alarm.
Alarm track	Select the check box, the tracking speed dome will automatically trigger alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Note
Snapshot	Select check box and set the channel number of snapshot. The corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-33

Step 5

Click 'Save" to complete setting.

5.4.5.2.7 Set Crowd Gathering

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of crowd gathering.

1. Click, double click the new rule, set rule name, and select rule type as "Crowd Gathering", which is shown in Figure 5-70.

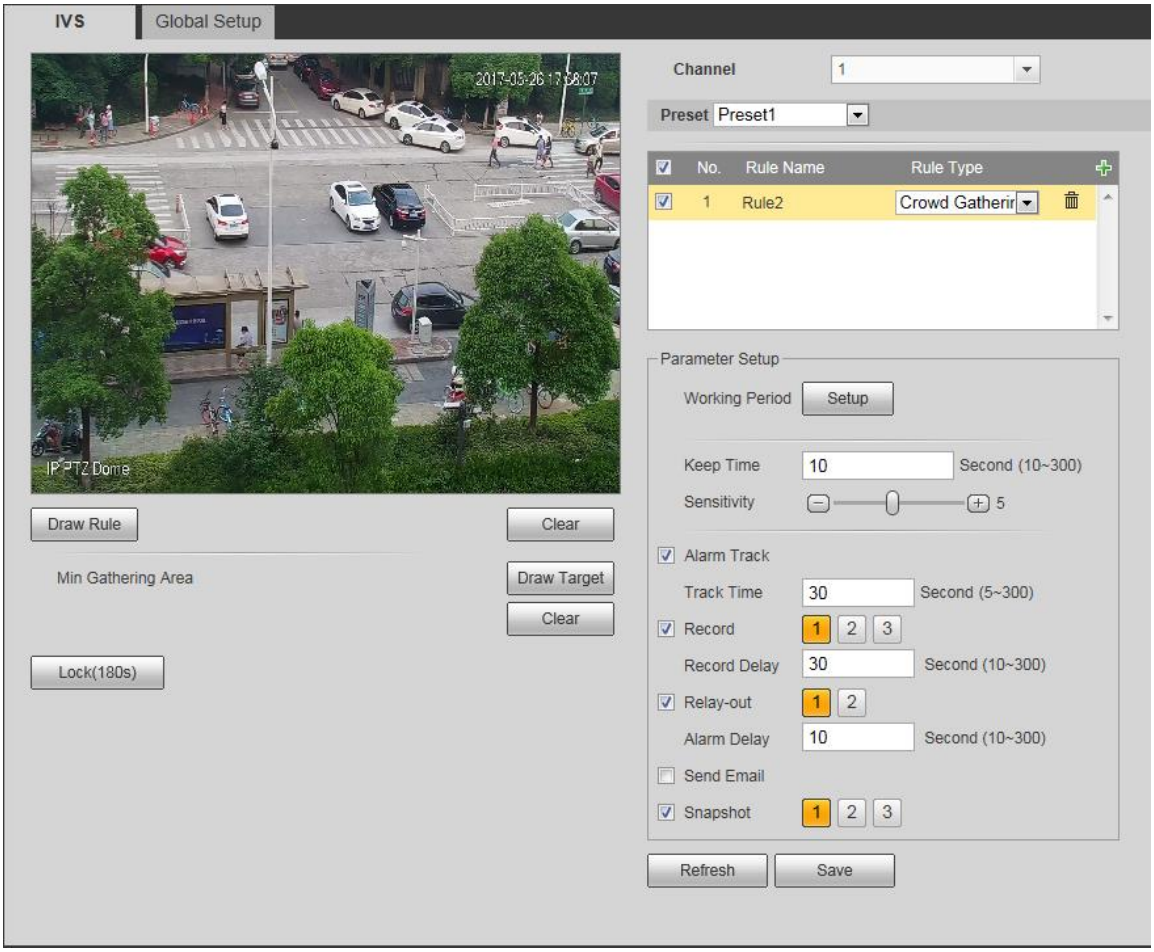


Figure 5-70

2. Click "Draw Rule" to draw monitoring area on the monitoring image, right click to end drawing;
   Note
   Click "Clear" to delete all the drawn monitoring areas.
3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.
   Note
   - It will alarm only when the size of crowd target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.
4. It is to set the parameters of crowd gathering, please refer to Table 5-34 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set.

Parameter	Note
	1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Keep Time	It is the shortest time from when the target crowds in the detection area to when it triggers alarm.
Sensitivity	It is to set the sensitivity which triggers alarm.
Alarm track	Select the check box, the tracking speed dome will automatically trigger Alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.

Parameter	Note
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-34

Step 5

Click "Save" to complete setting.

5.4.5.2.8 Set Missing Object

The system will generate alarm and activate the actions which have been set when the target is taken away from the detection area and it exceeds the set time.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of missing object.

1. Click, double click the new rule, set rule name, and select rule type as "Missing Object", which is shown in Figure 5-71.

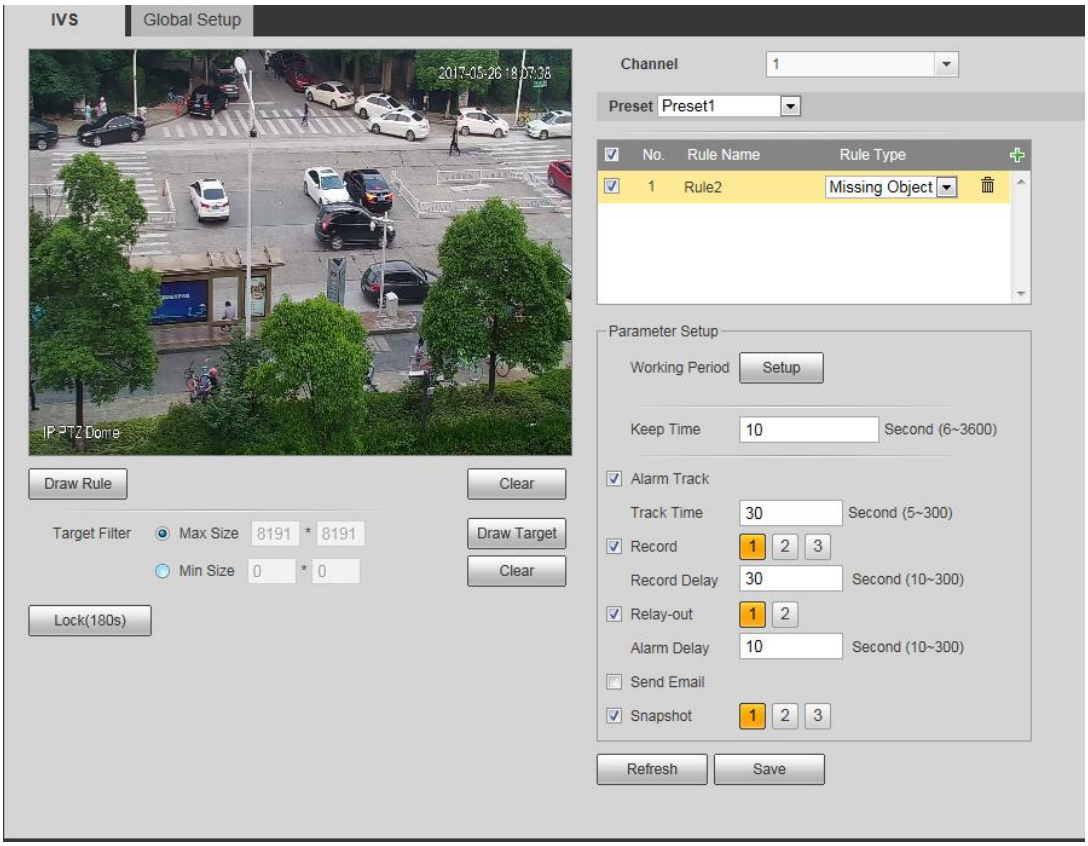


Figure 5-71

2. Click "Draw Rule" to draw monitoring area on the monitoring image, right click to end drawing;

   Note

   Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of crowd target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of missing object, please refer to Table 5-35 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods:

Parameter	Note
	● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Keep Time	It is the shortest time from when the target is taken out of the detection area to when it triggers alarm.
Alarm track	Select the check box, the tracking speed dome will automatically trigger Alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Note
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-35

Step 5

Click "Save" to complete setting.

5.4.5.2.9 Set Loitering Detection

The system will generate alarm and activate the actions which have been set when the target loiters in the detection area and it exceeds the set time.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > IVS" and the system will display the interface of "IVS".

Step 2

Select channel.

- When the "Channel" is set as "1", it is to set the intelligent rules of tracking speed dome.
- When the "Channel" is set as "2" or "3", it is to set the intelligent rules of panorama camera.

Step 3

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when it is to set the intelligent rules of tracking speed dome.

Step 4

It is to configure the rule of loitering detection.

1. Click, double click the new rule, set rule name, and select rule type as "Loitering Detection", which is shown in Figure 5-72.

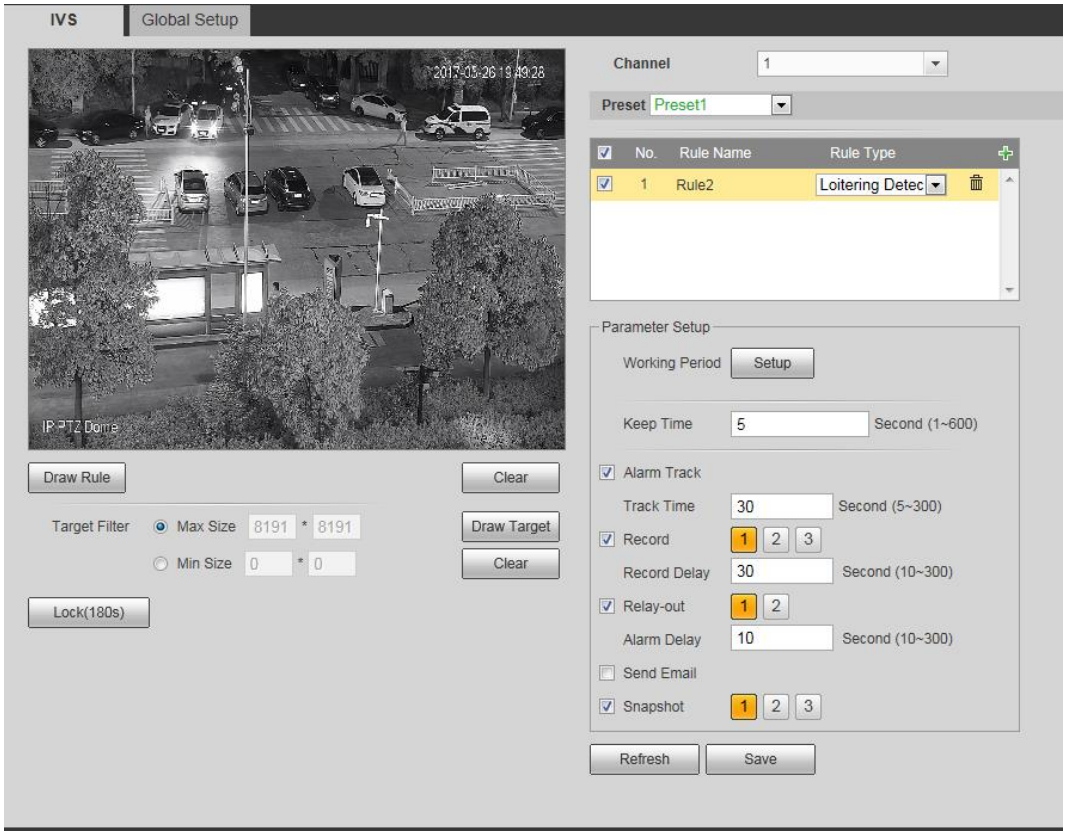


Figure 5-72

2. Click "Draw Rule" to draw monitoring area on the monitoring image, right click to end drawing;

   Note

   Click "Clear" to delete all the drawn monitoring areas.

3. Select max size or min size, click "Draw Target", and drag any angle of the filter box to enlarge or narrow the filter box to proper size.

   Note

   - It will alarm only when the size of crowd target is between two filter boxes.
   - In the state of drawing, select "Max Size" or "Min Size", click "Clear" to delete corresponding filtering box.

4. It is to set the parameters of loitering detection, please refer to Table 5-36 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to

Parameter	Note
	drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Keep Time	It is the shortest time from when the target is taken out of the detection area to when it triggers alarm.
Alarm track	Select the check box, the tracking speed dome will automatically trigger Alarm when the target triggers intelligent rule.
Track time	It is the time when the tracking speed dome automatically track the object which triggers alarm after alarm occurs.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Note
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-36

Step 5

Click "Save" to complete setting.

5.4.5.3 **Global Setup**

It is to set the global parameters of tracking speed dome or panorama camera. The chapter is going to take tracking speed dome as an example to introduce the config of global parameters.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset or channel.

Operation Steps

Step 1

Select "Setup > Event > IVS > Global Setup" and the system will display the interface of "Global Setup", which is shown in Figure 5-73.

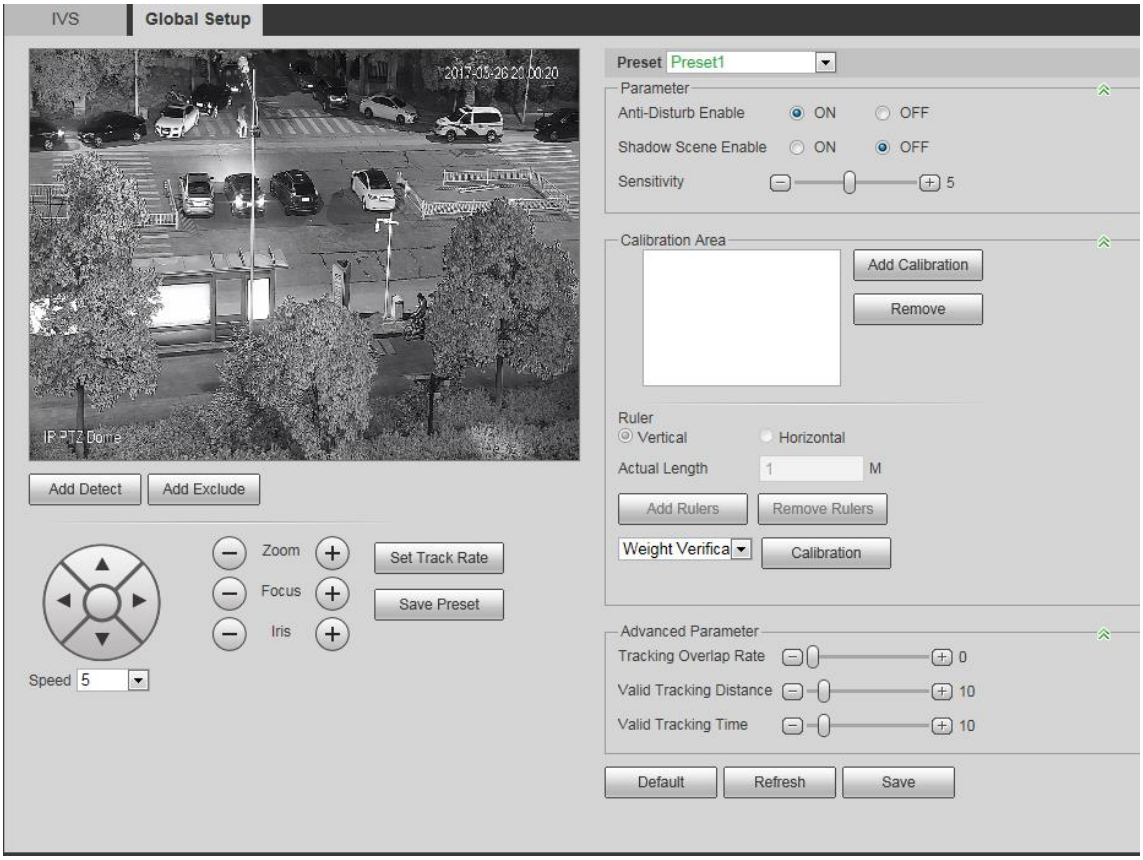


Figure 5-73

Step 2

Select "Preset" and the camera will quickly move to the corresponding position of the preset.

Note

It needs to implement the step when the device supports to select preset.

Step 3

Add detect area and exclude area.

1. Click "Add Detect" and draw detection area on the monitoring image, right click to end drawing.
   Note
   Click "Add Detect" again to draw detection area again.
2. Click "Add Exclude" and draw excluded area in the detection area, right click to end drawing.
   Note
   - Click "Delete" to delete exclude area.
   - Only the exclude areas which are drawn in the detection area are valid.
   - It supports to draw several exclude areas.

Step 4

Calibration area.

1. Click "Add Calibration" and draw calibration area in the monitoring image, right click to end drawing.
2. Select "Horizontal" and set the corresponding actual length of the horizontal ruler, and draw horizontal ruler in the calibration area.
3. Select "Vertical" and set the corresponding actual length of the vertical ruler, and draw vertical ruler in the calibration area.
4. Ruler verification
   - Select "Width Verification", click "Calibration" and draw the length which needs to be verified in the calibration area.
   - Select "Height Verification", click "Calibration" and draw the length which needs to be verified in the calibration area.

Note

- Select "Area", Click "remove" to delete the calibration area.
- Select the added "Vertical" or "horizontal", click "Remove Ruler" to delete the rulers which are not needed.

Step 5

It is to configure the parameters of global setup, which is shown in Table 5-37.

Parameter	Note
Anti-disturb Enable	Select "Enable" to enable anti-disturb function. It is to filter leaf shake and water ripple which cause disturbance to the device intelligent analysis.
Shadow Scene Enable	Select "Enable" to enable shadow scene filter function. As for the scene with shadow, it can make target box contain target itself only (exclude shadow), the target with several shadows can be separately detected, which provides more accurate initial target position. It will be misjudged that the shadow is excluded if part of target is similar to the shadow.
Sensitivity	The bigger the value is, the easier for low contrast target and small target to be triggered, the bigger the virtual detection rate is, the bigger the false detection rate becomes.
Tracking Overlap Rate	It can recognize the target only when the overlap rate with original position after target moves is smaller than the valid target overlap rate which has been set.
Valid Tracking Distance	It can recognize the target only when the ratio between moving pixel on the image for the target and image width pixel of certain proportion is bigger than the valid tracking distance which has been set.
Valid Tracking Time	It can recognize target when the target movement time is bigger than the valid tracking time which has been set.

Table 5-37

Step 6
Click "Save" to complete setting.

5.4.6 Set Face Detection

The system will generate alarm and activate the actions which have been set when it detects human face in the video image.

Precondition

Please refer to "5.4.4 Set Smart Plan" for the IVS smart plan which has been set preset face detection for the tracking speed dome.

Operation Steps

Step 1
Select "Setup > Event > Face Detection" and the system will display the interface of "Face Detection", which is shown in Figure 5-74.

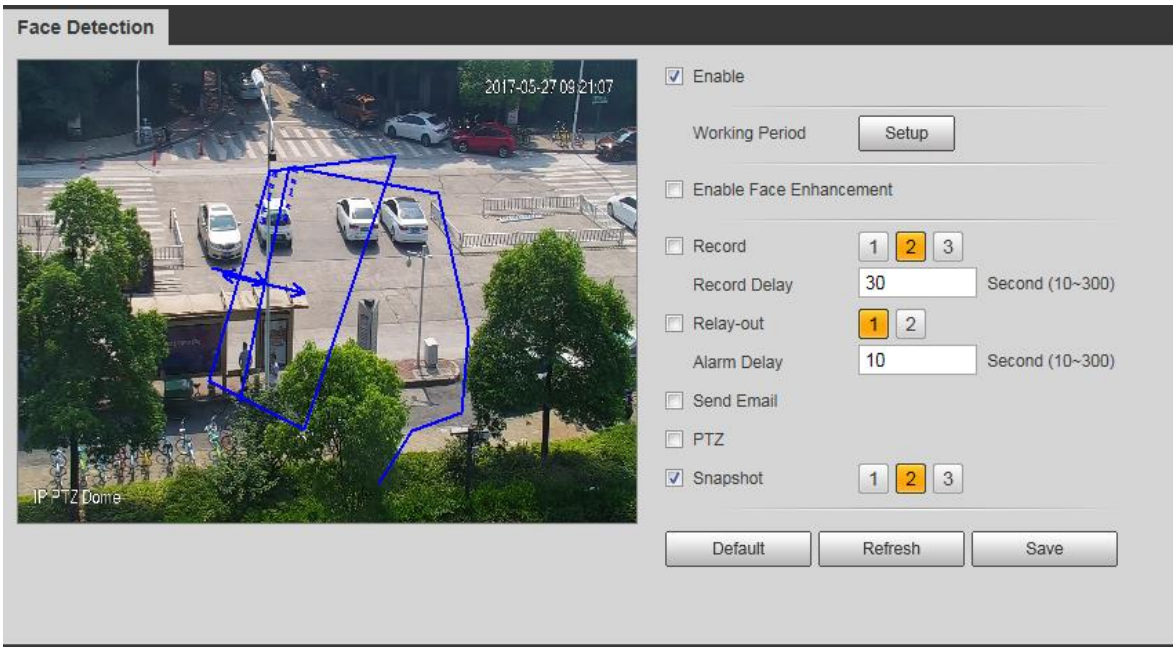


Figure 5-74

Step 2
Select "Enable" to enable face detection function.
Step 3
It is to configure the parameters of face detection, please refer to Table 5-38 for more details.

Parameter	Note
Working period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Enable Face Enhancement	Select the check box and it will guarantee face clear by priority when the bit rate is set very low.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Note
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-38

Step 4

Click "Save" to complete setting.

5.4.7 Set People Counting

5.4.7.1 **Set Rules**

The system will generate alarm and activate the actions which have been set when the number of people in the statistics area reaches the set condition.

Precondition

It has set the people counting smart plan of the tracking speed dome, please refer to "5.4.4 Set Smart Plan" for more details.

Operation Steps

Step 1

Select "Setup > Event > People Counting > People Counting" and the system will display the interface of "People Counting", which is shown in Figure 5-75.

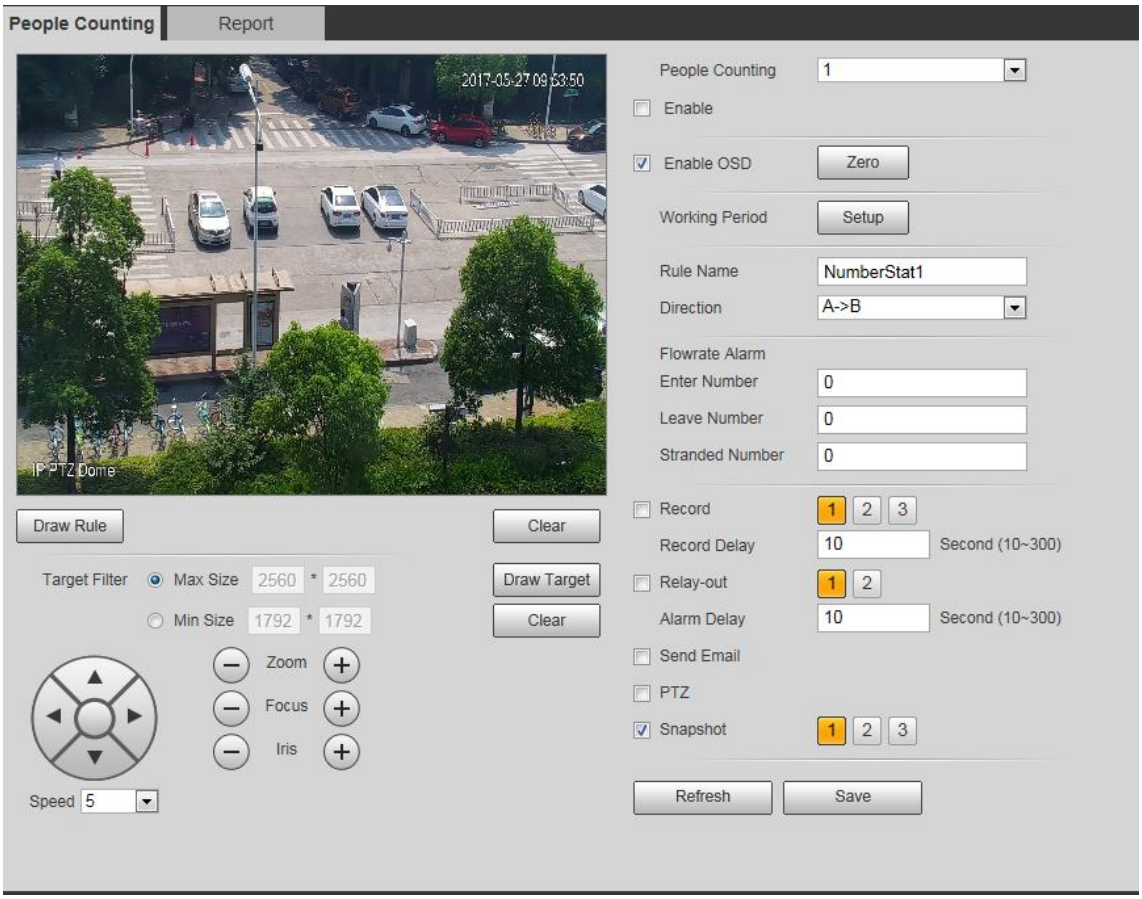


Figure 5-75

Step 2

Select serial number of people counting in the area which needs people number statistics via PTZ control panel.

Step 3

Click "Draw Rule" and press left button to draw people counting area on the monitoring image.

Step 4

Select "Enable" to enable the function of people counting.

Step 5

It is to configure the parameters of people counting, please refer to Table 5-39 for more details.

Parameter	Note
Enable OSD	Select the check box and the people counting result will be displayed in the monitoring image. Click "Zero" to clear the statistics and it will count again from 0.
Working period	It is to set the alarm period, it can enable alarm event only during the period

Parameter	Note
	range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.
Rule Name	It is to set the name of people counting rule.
Direction	It is to set the direction of people counting, it can select A->B and B->A.
Flowrate Alarm	It is the alarm condition of people counting, it will trigger alarm when the statistics number reaches enter number, leave number or stranded number.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record delay	System can delay the record for specified time after alarm ended.
Relay out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means the alarm delays a period of time to stop after alarm ends.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.

Parameter	Note
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-39

Step 6

Click "Save" to complete setting.

5.4.7.2 **Report**

It is to check the people statistics data of a certain period.

Precondition

It has enabled people counting function, please refer to "5.4.7.1 Set Rules" for more details.

Operation Steps

Step 1

Select "Setup > Event > People Counting > Report" and the system will display the interface of "Report", which is shown in Figure 5-76.

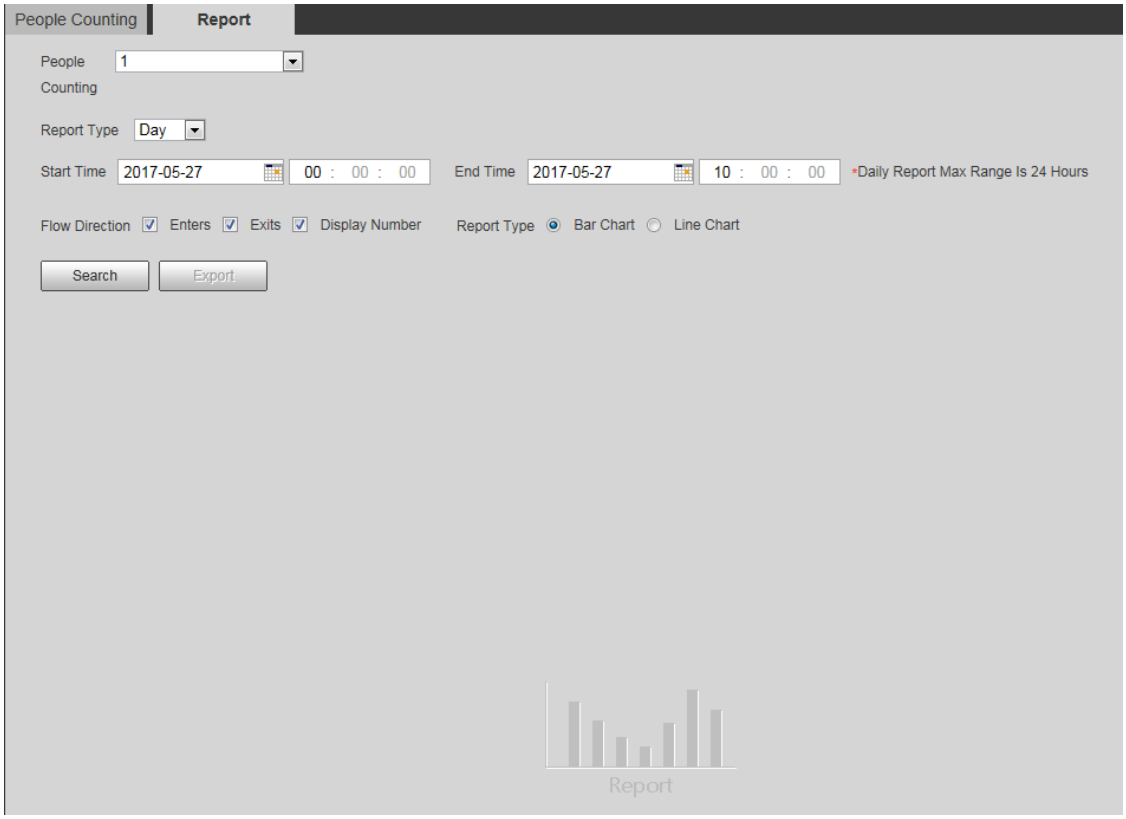


Figure 5-76

Step 2

Select the serial number of people counting which needs to be inquired.

Step 3

It is to set search condition, please refer to Table 5-40 for more details.

Parameter	Note
Report Type	It is the report period and display form of people counting report, report period can select day, month or year, report display form can select bar chart or line chart.
Start Time	It is the start time of people counting report.
End Time	It is the end time of people counting report.
Flow Direction	It is the direction of people counting report, you can select enters or exits.
Display Number	Select "Display Number" and it will display enter or exit number of people in the report.

Table 5-40

Step 4

Click "Search" and the system will display the result of people counting.

5.4.8 Heat Map

It can generate report according to the density statistics of object movement. The color ranges from blue to red, blue means the minimum of heat value while red means the maximum of heat value.
The original data will be removed when mirror or view angle changes.

5.4.8.1 **Set Rule**

Precondition

It has set the heat map smart plan of tracking speed dome, please refer to "5.4.4 Smart Plan" for more details.

Operation Steps

Step 1

Select 'Setup > Event > Heat Map > Heat Map" and the system will display the interface of "Heat Map", which is shown in Figure 5-77.

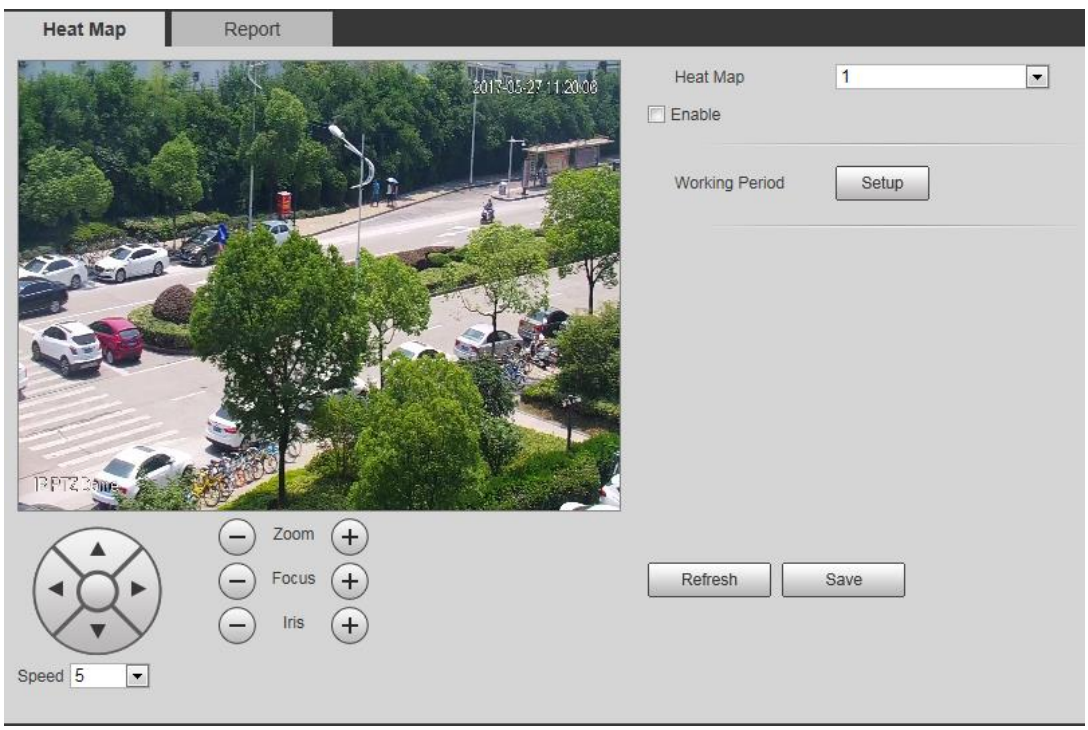


Figure 5-77

Step 2

Select serial number of heat map in the area which needs people counting via PTZ control panel.

Step 3

Select "Enable" to enable heat map function.

Step 4

Configure working period.

1. Click "Setup" and the system will pop out the interface of "Working Period", which is shown in Figure 5-78.

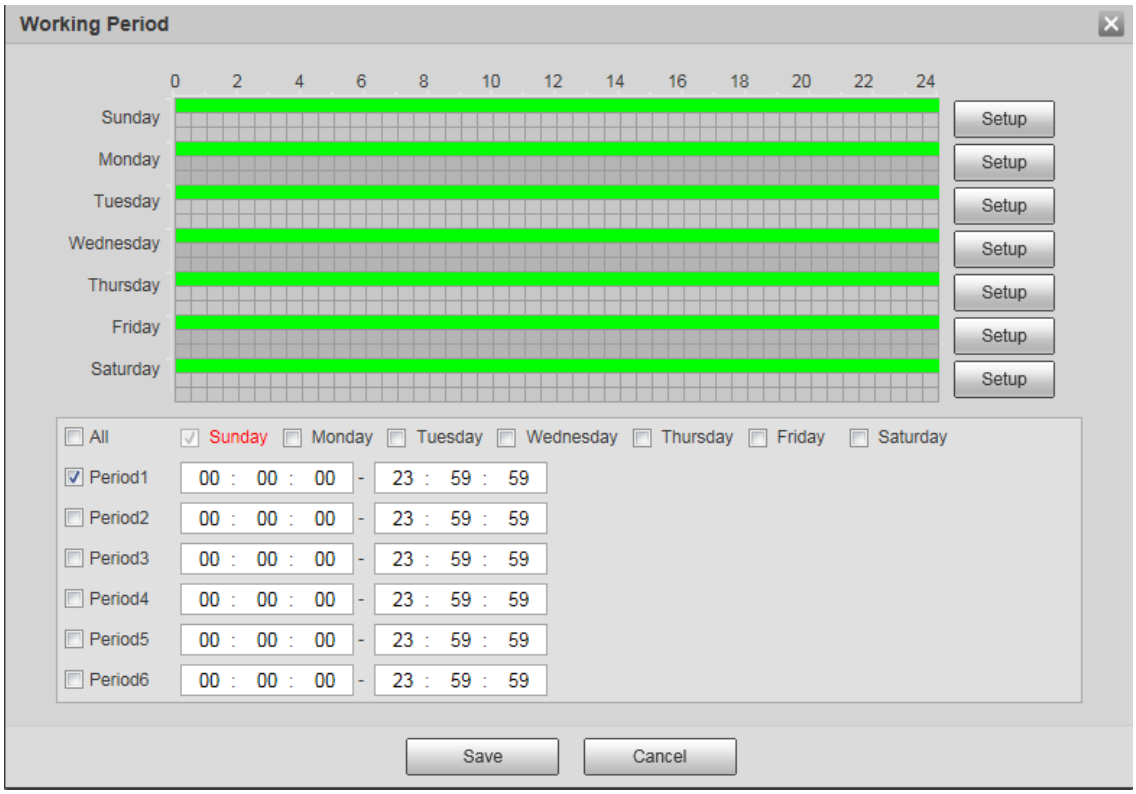


Figure 5-78

2. Set alarm period.
   - Method 1: Press the left mouse button and drag on the setting interface directly to make setting.
   - Method 2: Click the "Setup" of the corresponding day, select the check box in front of the period at the bottom and input time value, there are six periods to be set every day.
3. Click "Save".

Step 5

Click 'Save" to complete setting.

5.4.8.2 **Report**

It is to check the heat map data within a certain period.

Precondition

It has enabled heat map function, please refer to "5.4.8.1 Set Rule" for more details.

Operation Steps

Step 1

Select "Setup > Event > Heat Map > Report" and the system will display the interface of "Report", which is shown in Figure 5-79.

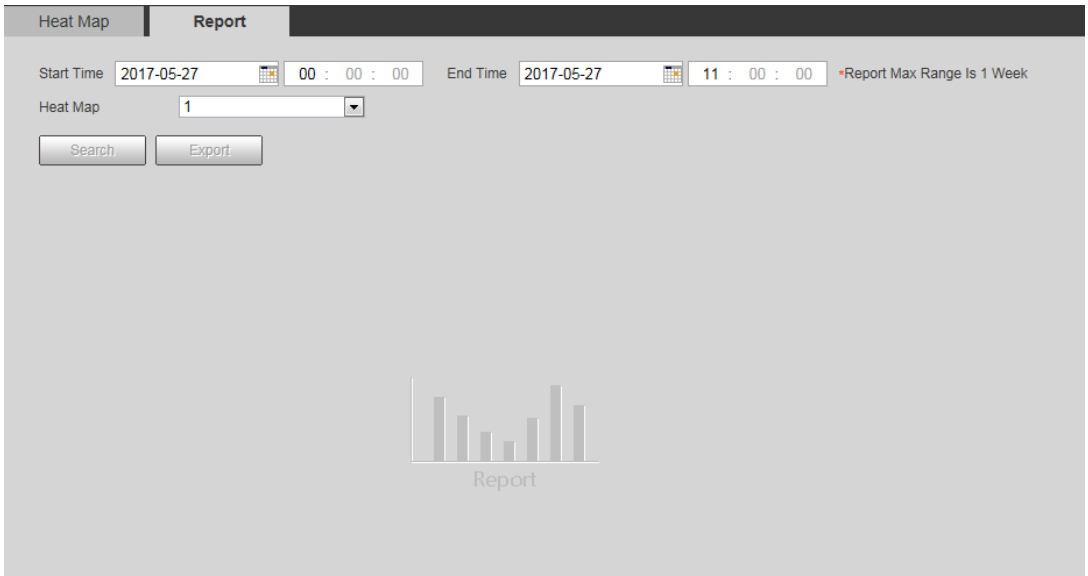


Figure 5-79

Step 2

Set start time and end time.

Step 3

Select the serial number of people counting which needs to be inquired.

Step 4

Click "Search" and the system will display the result of heat map.

5.4.9 Set Alarm

The system will generate alarm and activate the actions which have been set when the external alarm input device generates alarm.

Step 1

Select "Setup > Event > Alarm" and the system will display the interface of "Alarm", which is shown in Figure 5-80.

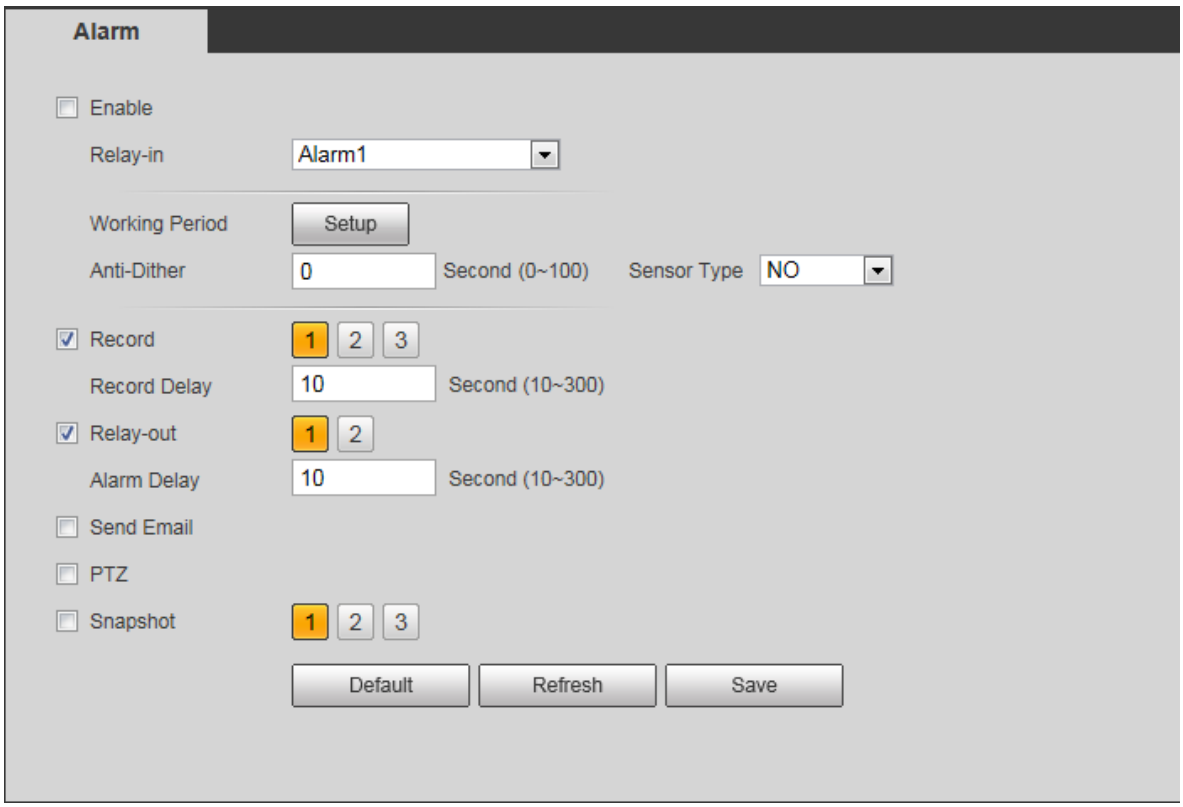


Figure 5-80

Step 2

Select "Enable" to enable alarm linkage.

Step 3

It is to set the parameters of alarm, please refer to Table 5-41 for more details.

Parameter	Function
Relay-in	It is to select external alarm device.
Working Period	It is to set the alarm period, it can enable alarm event only during the period range which has been set. 1. Click “Setup” and the system will pop out the interface of “Working Period”. 2. It is to set working period according to the following methods: ● You can input time numerical value or press the left mouse button to drag on the setup interface to set. ● Click the "Setup" of corresponding week, select the check box in front of the period on the bottom of the interface, and input time value, there are six periods to be set every day. 3. Click “Save” to complete the setup of working period.

Parameter	Function
Anti-dither	System only records one alarm event during the anti-dither period.
Sensor Type	It is to select NO or NC according to the type of external alarm device sensor.
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.
PTZ	Select check box, set activation and corresponding serial number. The system will activate and move to the selected preset, tour or pattern when alarm occurs. Activation operation includes preset, tour and pattern. **Note** It needs to set PTZ before enabling the function, please refer to "5.3 Set PTZ" for more details.
Snapshot	Select check box and set the channel number of snapshot. The Corresponding channel will take snapshot automatically when alarm occurs. **Note** ● Please refer to "5.1.2.5 Set path" for snapshot storage path query and setting. ● It needs to enable motion snapshot before enabling the function, please refer to "4.5.1.2 Snapshot Schedule" for more details.

Table 5-41

Step 4

Click "Save" to complete setting.

5.4.10 Abnormity

Abnormity includes SD card abnormity, network abnormity and illegal access.

Note

Only the device with SD card function has these three statuses: No SD card, Capacity warning, and SD card error.

5.4.10.1 **SD Card Abnormity**

The system can generate alarm and activate the actions which have been set when SD card is abnormal. SD card abnormity includes No SD card, capacity warning and SD card error.

Step 1

Select “Setup > Event > Abnormity > SD Card" and the system will display the interface of “SD Card”, which is shown in Figure 5-81

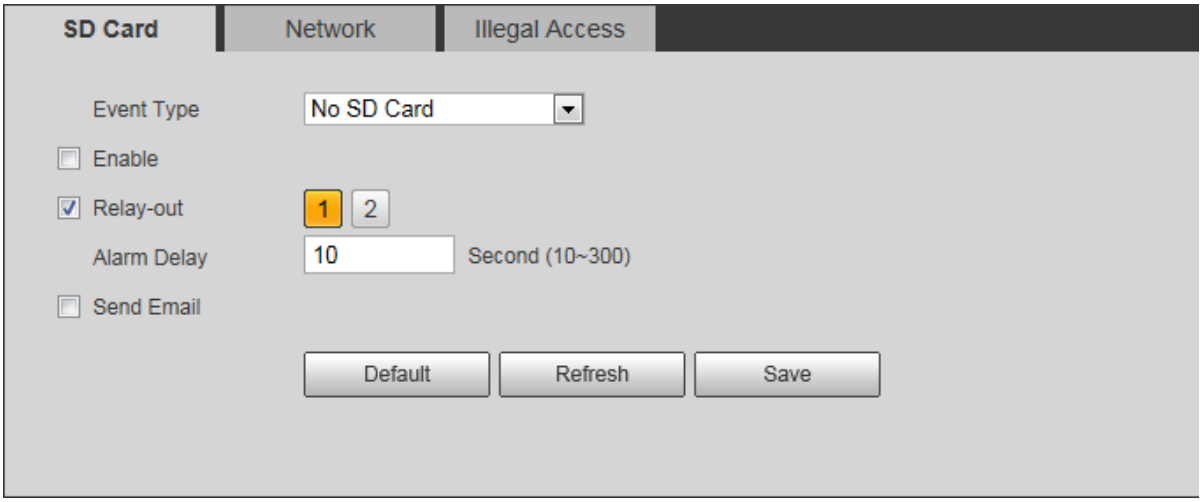


Figure 5-81

Step 2

It is to set event type.

Step 3

Select "Enable" to enable the function of SD card abnormity detection.

Step 4

It is to set the parameters of SD card abnormity detection, please refer to Table 5-42 for more details.

Parameter	Function
Capacity Limit	It can set the parameter when the "Event Type" is set as "Capacity Warning". It is to set the percentage of SD card remaining capacity, it will generate alarm when the remaining capacity is less than the percentage.

Parameter	Function
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.

Table 5-42

Step 5

Click "Save" to complete setting.

5.4.10.2 **Network Abnormity**

The system will generate alarm and activate the actions which have been set when network is abnormal. The network abnormity includes network disconnection and IP conflict.

Step 1

Select "Setup > Event > Abnormity > Network" and the system will display the interface of "Network", which is shown in Figure 5-82.

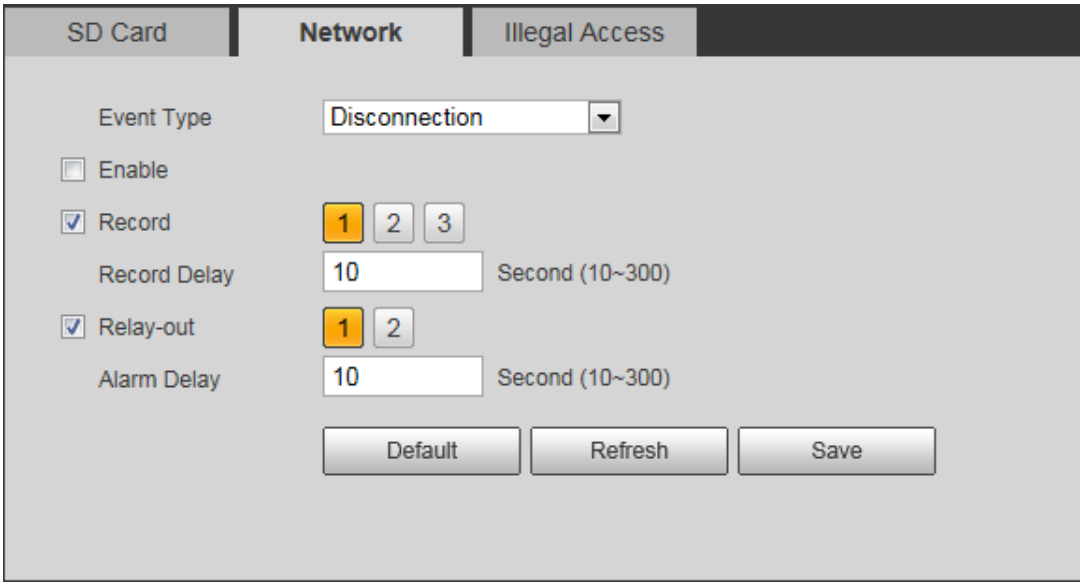


Figure 5-82

Step 2

Set event type.

Step 3

Select "Enable" to enable the function of network abnormity detection.

Step 4

It is to set the parameters of network abnormity, please refer to Table 5-43 for more details.

Parameter	Function
Record	Select check box and set record channel, the corresponding channel will implement alarm and record automatically when alarm happens. **Note** ● Please refer to "5.1.2.5 Set Path" for record file storage location query and setting. ● The system record needs to meet following two conditions when alarm happens. ◆ It has enabled motion detection record, please refer to "4.5.1.1 Configure Record Schedule" for more details. ◆ It has set auto record, please refer to '4.5.3 Configure Record Control" for more details.
Record Delay	System can delay the record for specified time after alarm ended.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.

Table 5-43

Step 5

Click "Save" to complete setting.

5.4.10.3 **Illegal Access**

The system will generate alarm and activate the actions which have been set when the times of login error exceeds the times which have been set.

Step 1

Select "Setup > Event > Abnormity > Illegal Access" and the system will display the interface of "Illegal Access", which is shown in Figure 5-83.

Figure 5-83

Step 2

Select "Enable" to enable the function of illegal access function.

Step 3

It is to set the parameters of illegal access detection, please refer to Table 5-44 for more details.

Parameter	Function
Login Error	It is the times of continuously inputting wrong password when logging in the device. When the times of login error exceeds the set value, the account will be locked.
Relay-out	Connect alarm output port to alarm device (such as lamplight, siren and so on), select check box and set alarm output device, enable alarm linkage output port, and the system can activate corresponding alarm output device when alarm occurs.
Alarm Delay	System can delay the alarm output for specified time after alarm ended.
Send Email	Select check box, and the system will send email to inform users when Alarm occurs. **Note** It needs to set Email before enabling the function, please refer to "5.2.6 Set SMTP Parameter" for more details.

Table 5-44

Step 4

Click "Save" to complete setting

5.5 Storage

5.5.1 Set Schedule

Config schedule includes configuring record, snapshot and holiday.

Note

The device will fail to record or snapshot according to the schedule if the record mode is off in the record control.

5.5.1.1 **Set Record Schedule**

It is to set the record schedule of panorama camera or tracking speed dome, record type includes general, motion and alarm.

Step 1

Select "Setup > Storage > Schedule > Record Schedule" and the system will display the interface of "Record Schedule", which is shown in Figure 5-84.

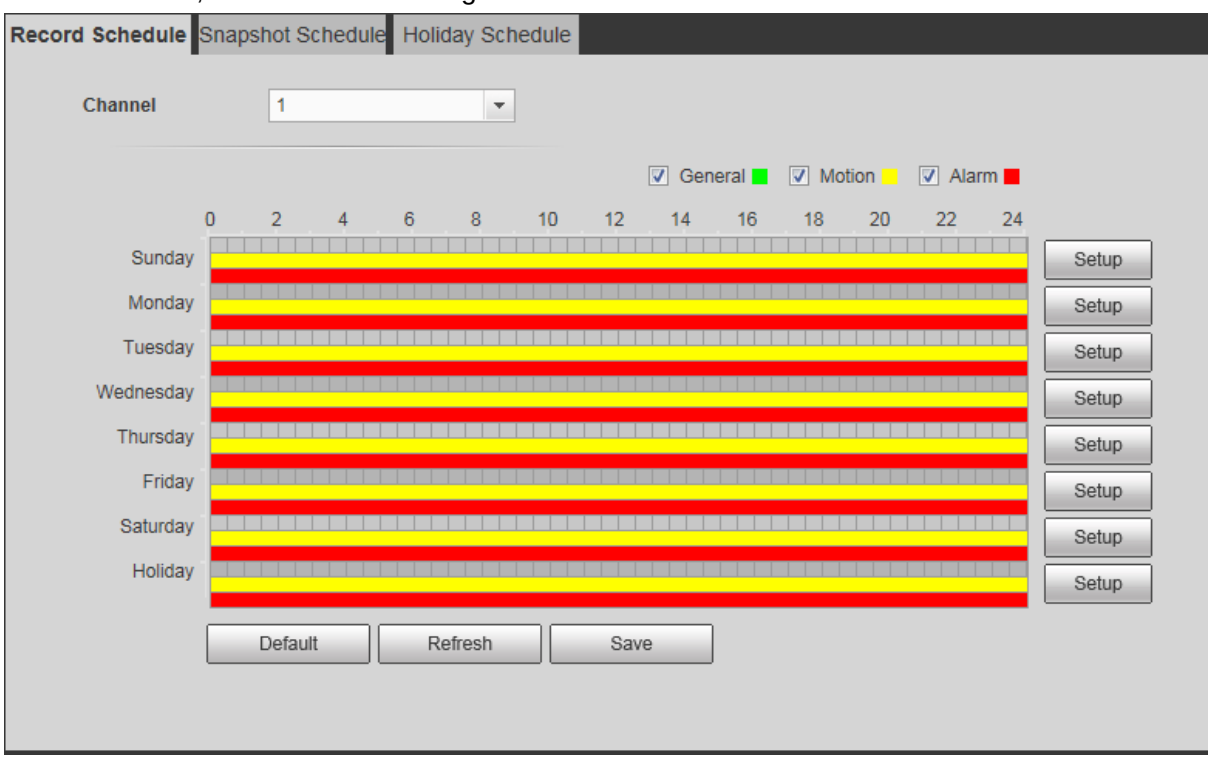


Figure 5-84

Step 2

- When the "Channel" is set as "1", it is to set the record schedule of tracking speed dome.
- When the "Channel" is set as "2", it is to set the record schedule of panorama camera.

Step 3

Select record type and set period.

Note

You can select record type by pressing the left button and dragging on the time line of the corresponding day on the interface of record schedule, and then you can set the period of different record types.

1. Click the "Setup" of corresponding day and the system will pop out the dialogue box of "Setup", which is shown in Figure 5-85.

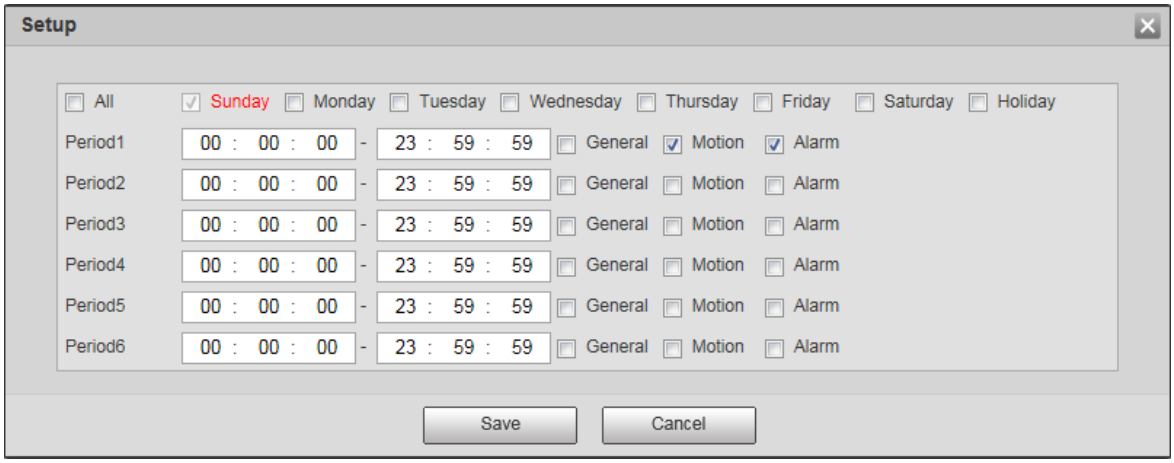


Figure 5-85

2. Select day and the check box in front of the period, and set period.

   Note

   - There are six periods which can be set every day.
   - The setting will be applied to the whole week if it selects all, you can also select the check box in front of the day to make separate setting upon several days.

3. Select the record type of corresponding period.
4. Click "Save" and the system will return to the interface of "Record Schedule". Different colors means different types of record schedule. Green means general record schedule, yellow means motion record schedule and red means alarm record schedule.

Step 4

Click "Save" to complete setting.

5.5.1.2 **Set Snapshot Schedule**

it is to set snapshot schedule of panorama camera or tracking speed dome, snapshot type includes general, motion and alarm.

Step 1

Select "Setup > Storage > Schedule > Snapshot Schedule" and the system will display the interface of "Snapshot Schedule", which is shown in Figure 5-86.

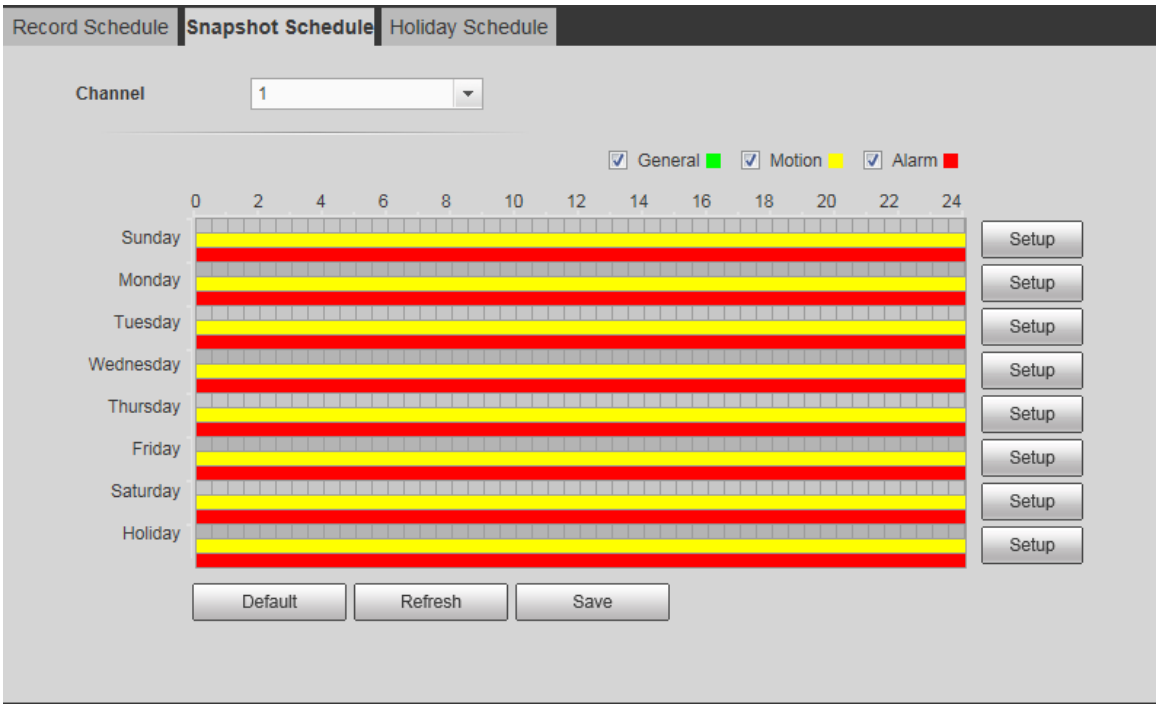


Figure 5-86

Step 2

- When the "Channel" is set as "1", it is to set the snapshot schedule of tracking speed dome.
- When the "Channel" is set as "2", it is to set the snapshot schedule of panorama camera.

Step 3

Select snapshot type and set period.

Note

You can select snapshot type by pressing the left button and dragging on the time line of the corresponding day on the interface of snapshot schedule, and then you can set the period of different snapshot types.

1. Click the "Setup" of corresponding day and the system will pop out the dialogue box of "Setup", which is shown in Figure 5-87

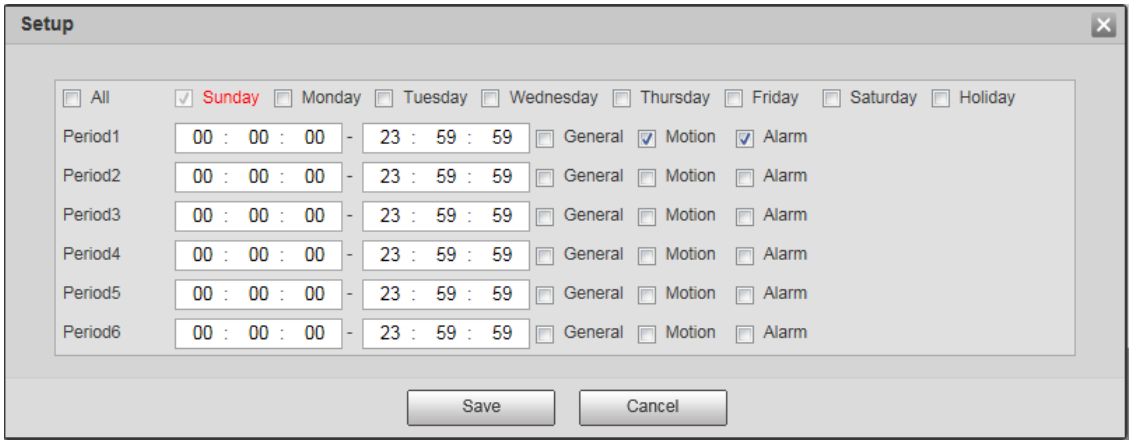


Figure 5-87

2. Select day and the check box in front of the period, and set period.

   Note

   - There are six periods which can be set every day.
   - The setting will be applied to the whole week if it selects all, you can also select the check box in front of the day to make separate setting upon several days.

3. Select the snapshot type of corresponding period.
4. Click "Save" and the system will return to the interface of "Snapshot Schedule". Different colors means different types of snapshot schedule. Green means general snapshot schedule, yellow means motion snapshot schedule and red means alarm snapshot schedule.

Step 4

Click "Save" to complete setting.

5.5.1.3 Set Holiday Schedule

It is to set specific date as holiday. It will snapshot and record according to the holiday snapshot schedule and record schedule when the snapshot and record are enabled in the holiday schedule.

Note

It needs to set the holiday record schedule or snapshot schedule when it is to realize snapshot according to holiday. Please refer to "5.5.1.1 Set Record Schedule" and "5.5.1.2 Set Snapshot Schedule" for more details.

Step 1

Select "Setup > Storage > Schedule > Holiday Schedule" and the system will display the interfac of "Holiday Schedule", which is shown in Figure 5-88.

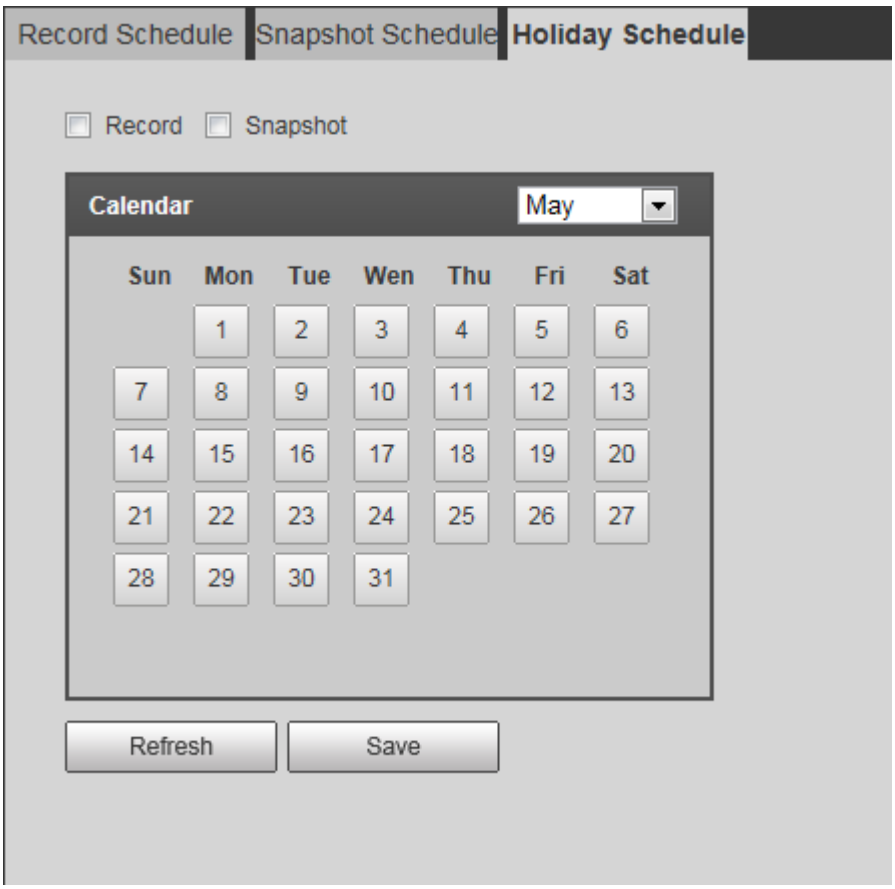


Figure 5-88

Step 2

Select "Record" or "Snapshot".

Step 3

Click the date which needs to be set as holiday. The selected date will display yellow shading.

Step 4

Click "Save" to complete setting.

5.5.2 Destination

5.5.2.1 **Set Path**

Path can help to configure the storage mode of record and snapshot according to the event type, you can select local SD card, FTP or NAS for storage. Check it to store corresponding type of record or snapshot to the needed storage device.

Note

Only the device which supports SD card can display "Local".

Step 1

Select "Setup > Storage > Destination > Path" and the system will display the interface of "Path", which is shown in Figure 5-89.

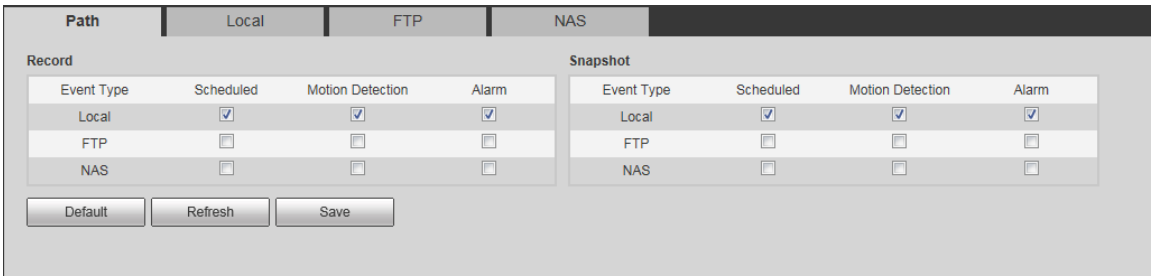


Figure 5-89

Step 2

Select storage mode for the corresponding type the event of record or snapshot according to the actual situation.

Parameter	Note
Event Type	It includes scheduled, motion detection and alarm.
Local	Store it to SD card.
FTP	Store it on the FTP server.
NAS	Store it on the NAS server.

Table 5-45

Step 3

Click "Save" to complete setting.

5.5.2.2 **Set Local**

It displays the infor of local SD card, it can set SD card as read only, write only, hot swap or format.

Select "Setup > Storage > Destination > Local" and the system will display the interfce of "Local", which is shown in Figure 5-90.

- Click "Read Only" to set the SD card as read only.
- Click "Write Only" to set the Sd card as write only.
- Click "Hot Swap" to realize hot swap for SD card.
- Click "Format" to format the SD card.

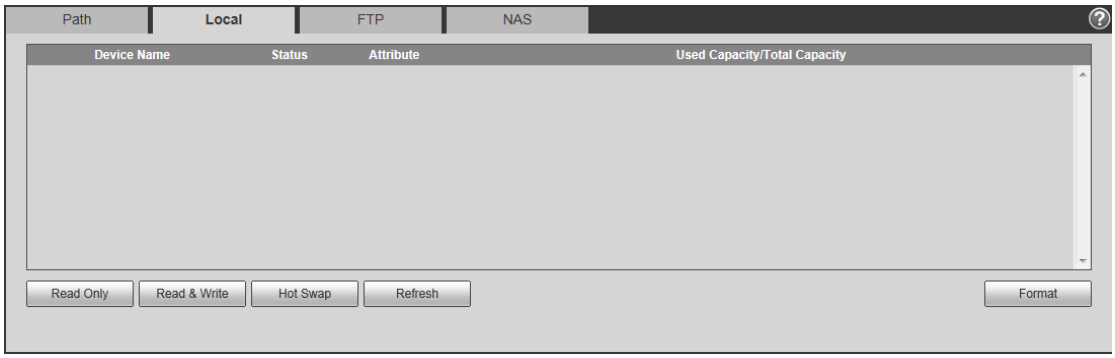


Figure 5-90

5.5.2.3 **Set FTP**

FTP function can be enabled when destination selects FTP storage mode. When network disconnection or malfunction occurs, it can emergently store all record or snapshot to the local SD card.

Step 1

Select "Setup > Storage > Destination > FTP" and the system will display the interface of "FTP", which is shown in Figure 5-91.

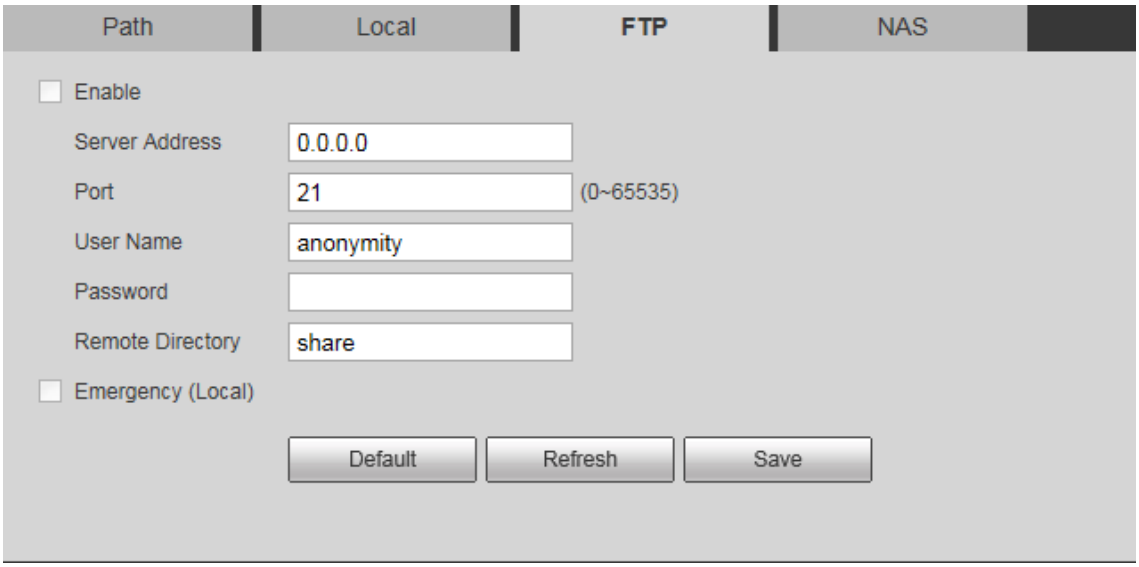


Figure 5-91

Parameter	Note
Server Address	FTP server address
Port	FTP server port.
User Name	It is the user name which is used to log in FTP server.
Password	

Parameter	Note
	It is the password which is used to log in FTP server.
Remote Directory	Store it to the directory on the FTP server.
Emergency (Local)	Select the check box, record or snapshot will be stored to local SD card when FTP is abnormal.

Table 5-46

Step 4

Click "Save" to complete setting.

5.5.2.4 **Set NAS Server**

NAS function can be enabled when the path selects NAS storage mode. Select NAS storage to store the files into the NAS server.

Step 1

Select "Setup > Storage > Destination > NAS" and the system will display the interface of "NAS", which is shown in Figure 5-92.

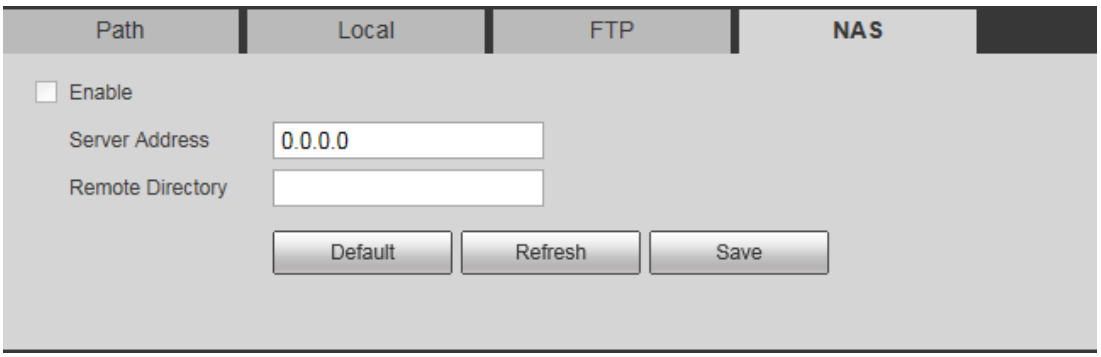


Figure 5-92

Step 2

Select "Enable" to enable NAS function.

Step 3

It is to configure the parameters of NAS server, please refer to Table 5-47 for mode details.

Parameter	Note
Server Address	NAS server address.
Remote Directory	Store it to the directory on the NAS server.

Table 5-47

Step 4

Click "Save" to complete setting.

5.5.3 Record Control

It is to configure pack duration, pre-event record, disk full, record mode and record stream.

Step 1

Select "Setup > Storage > Record Control" and the system will display the interface of "Record Control", which is shown in Figure 5-93.

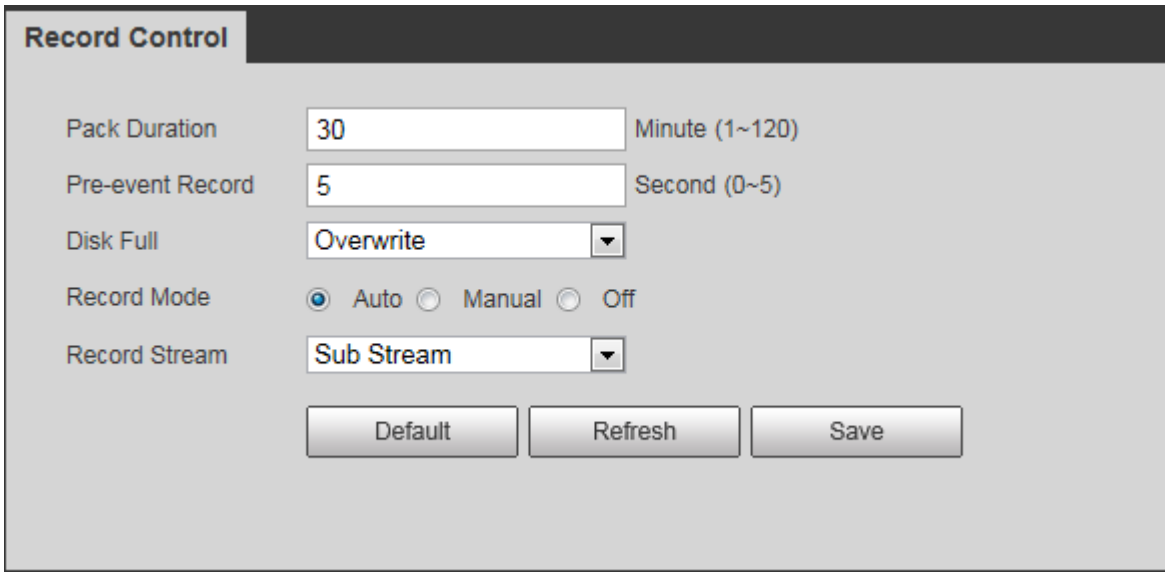


Figure 5-93

Step 2

It is to configure the parameters of record control, please refer to Table 5-48 for more details.

Parameter	Note
Pack Duration	It is the duration to pack each video file.
Pre-event Record	It is the time of pre-event record when alarm generates. When it inputs 5, then the system will store the video 5 seconds before alarm occurs into the record file. **Note** The system will store the pre-event record video data before recording into the record file when alarm or dynamic detection activates record and the record is not enabled.
Disk Full	It is the record strategy when the disk is full. Stop: it will stop recording when the disk is full. Overwrite: It will overwrite the earliest video file by cycle when the disk is full.

Parameter	Note
Record Mode	The system will begin to record when selecting manual mode; the system will begin to record within the period of record schedule set by the system.
Record Stream	It includes main stream and sub stream.

Table 5-48

Step 3

Click "Save" to complete setting.

5.6 System

5.6.1 General

It includes general, date&time and splicing.

5.6.1.1 **General**

It is to set the device name, language and video standard.

Step 1

Select "Setup > System > General > General" and the system will display the interface of "General", which is shown in Figure 5-94.

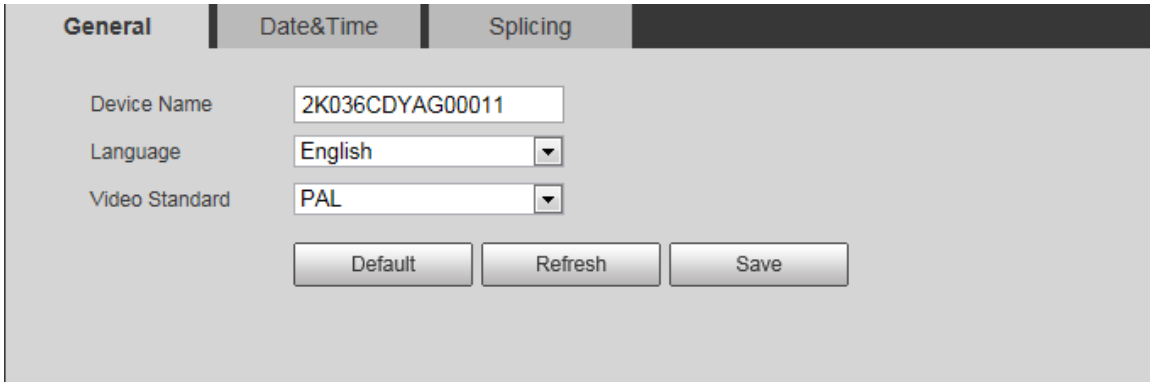


Figure 5-94

Step 2

It is to configure the parameters of general, please refer to Table 5-49 for more details.

Parameter	Note
Device Name	It is to set the device name. **Note** Different devices have different device names.
Language	It is the system language.

Parameter	Note
Video Standard	It is to display the video standard of the device, such as 50Hz.

Table 5-49

Step 3

Click "Save" to complete setting.

5.6.1.2 **Date & Time**

It is to set date format, time format, time zone, system time, enable DST or set NTP server.

Step 1

Select "Setup > System > General > Date&Time" and the system will displayt the interface of 'Date&Time", which is shown in Figure 5-95.

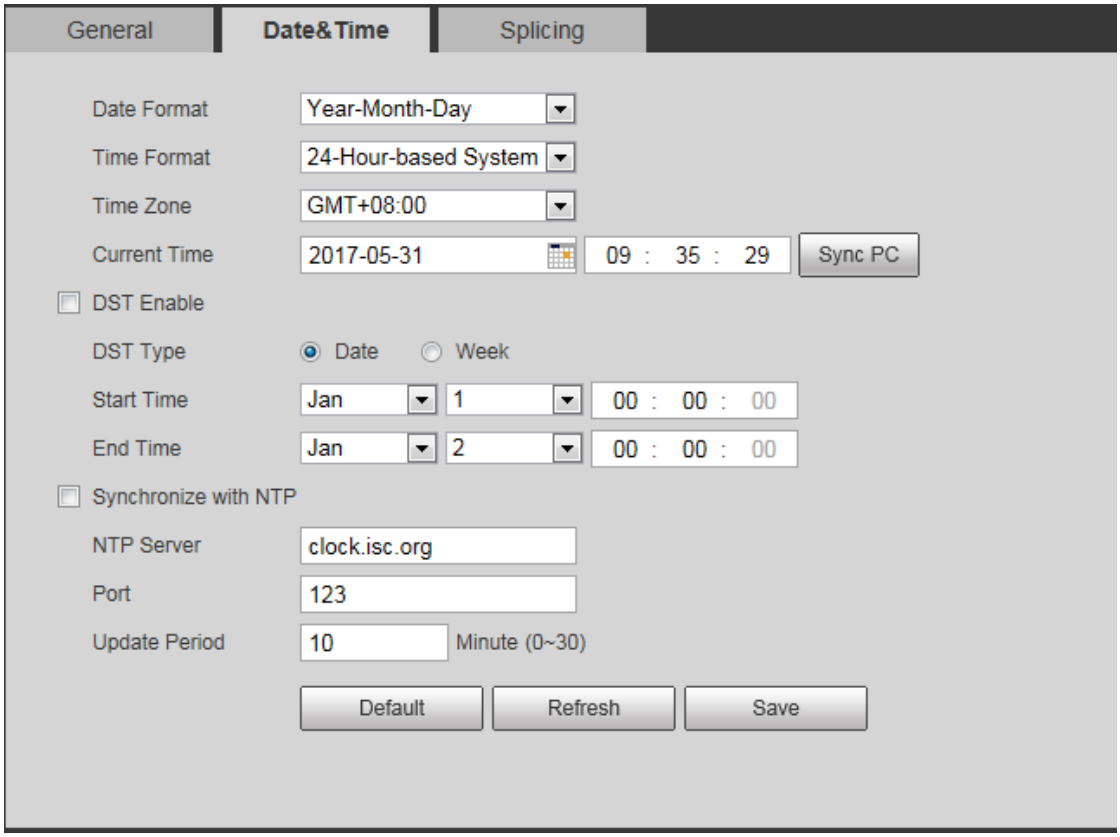


Figure 5-95

Step 2

It is to configure the parameters of date & time, please refer to Table 5-50 for more details.

Parameter	Note
Date Format	It is the date format displayed by the system.
Time Format	It is the time format displayed by the system, including 24-hour system and 12-hour system.
Time Zone	It is the time zone where the device is located.
Current Time	It the current system time of the device. Click "Sync PC" and it will adjust system time on the basis of PC time.
DST Enable	It needs to enable DST when the place where the device is located implements DST. It will enable DST when selecting "DST". It can set start time and end time of DST according to week or date.
Synchronize with NTP	It needs to enable NTP function when the device needs to synchronize with the NTP server. It enables NTP function when selecting "Synchronize with NTP".
NTP Server	It is the IP address or domain name of NTP server.
Port	It is the port number of NTP server.
Update Period	It is the period of synchronizing time between device and NTP server.

Table 5-50

Step 3

Click "Save" to complete setting.

5.6.1.3 **Splicing**

It is to splice the image of corresponding lens for panorama camera.

Step 1

Select "Setup > System > General > Splicing" and the system will display the interface of "Splicing", which is shown in Figure 5-96.

Figure 5-96

Step 2

Select the camera which needs to be spliced.

Step 3
Click "Start" and the system will begin to splice the panorama camera which has been selected.

5.6.2 Account

Users can implement user management operation only when they have user management authority.

- The user name or group supports max 31 characters, which only consists of letter, number, underline, spot or @.
- The password can be set between 8 and 32 characters, which can only be number and letter. The users who have management authoritym can not only modify their own password but also modify the password of other users.
- The max number of users is 18 and the max number of groups is 18.
- Account adopts two mode which are group and user, neither group name nor user name can be repeated, one user can only belong to one group, and the user authority can only select the authority subset of the group.
- The cuttent logged in user can't modify his own authority.
- There is one default user called admin for the system, it belongs to higher authority user by factory default.
- Select "Anonymous Login" and it won't need user name or password after inputting IP. The anonymously logged in user can only have "Live" authority in the authority list if it logs in the device with "Anonymous Login". Click "Logout" to log in the device with other users when it is in the state of anonymous login.

5.6.2.1 **Add Group**

There are two groups by default which are admin and user, you can also customize group. You can delete group or modify group authority or remark after adding group.
Step 1
Select "Setup > System > Account > Account > Group" and the system will display the interface of "Group", which is shown in Figure 5-97.

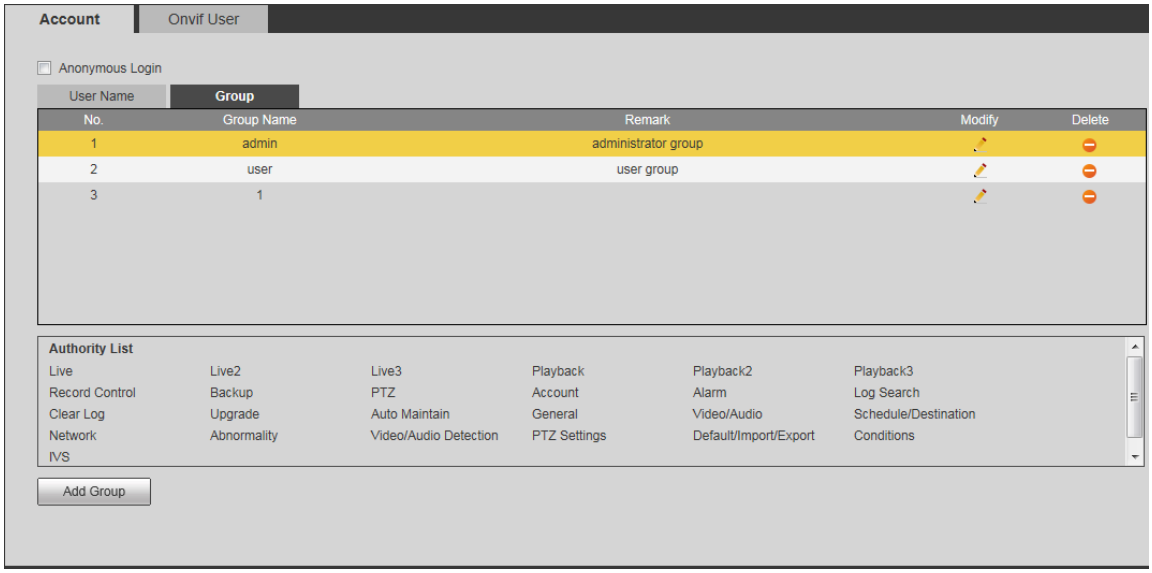


Figure 5-97

Step 2

Click "Add Group" and the system will pop out the dialog box of "Add Group", which is shown in Figure 5-98.

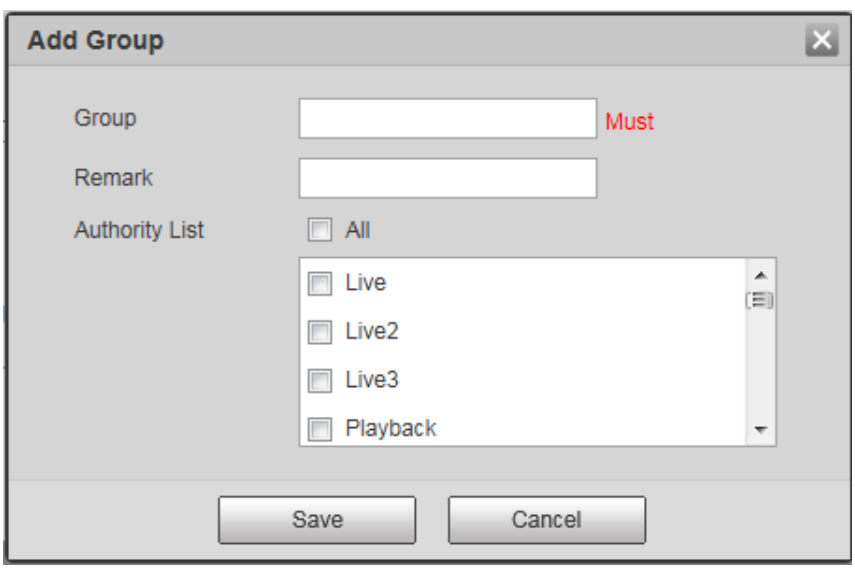


Figure 5-98

Step 3

Fill in the group name and remark information, select authority list of the group.

Step 4

Click "Save" to complete adding. It will display newly-added group in the group list, which is shown in Figure 5-97.

Note

- Click after adding group, you can modify the remark and authority of the group; click to delete the added group, admin and user group can't be deleted.
- Click the corresponding of admin or user group, and it can only modify the remark of group.

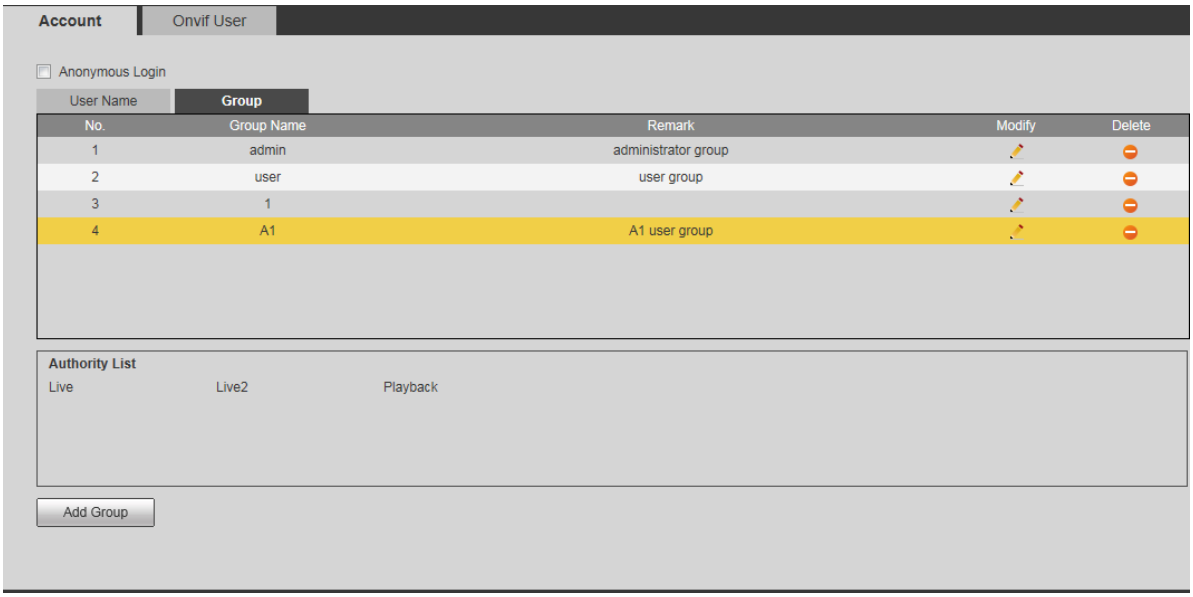


Figure 5-99

5.6.2.2 **Add User**

There is admin user by default for the system, you can add user. It can delete user, modify user password and so on after adding user.

Step 1

Select "Setup > System > Account > Acount > User" and the system will display the interface of "User", which is shown in Figure 5-100.

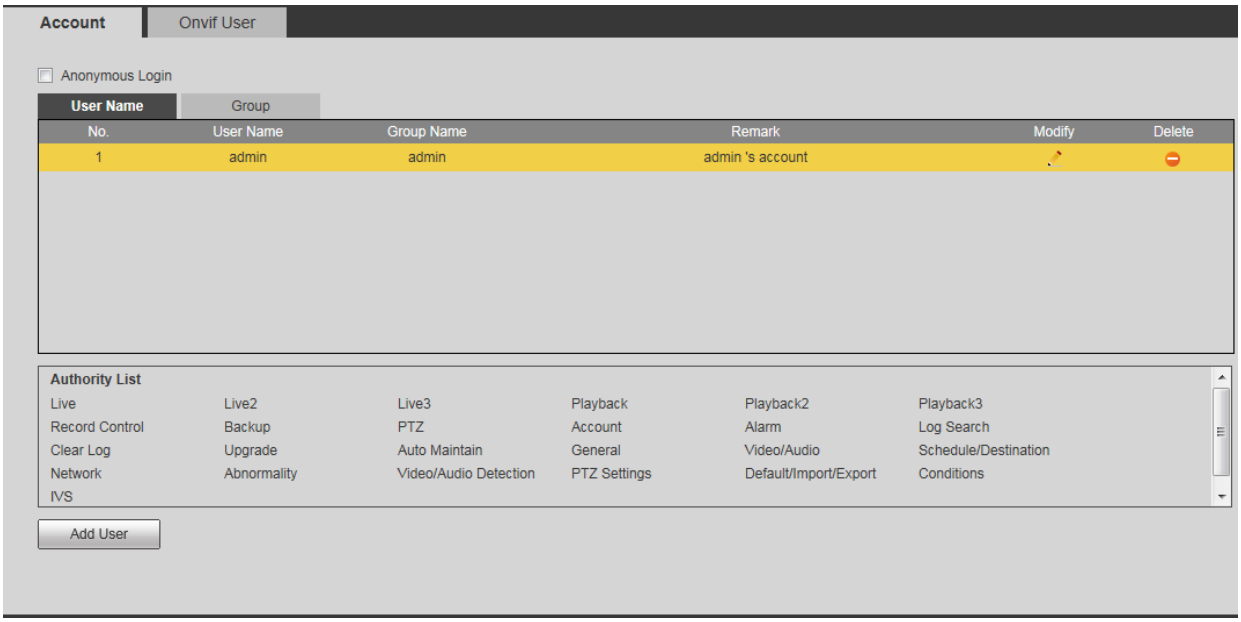


Figure 5-100

Step 2

Click "Add User" and the system will pop out the dialog box of "Add User", which is shown in Figure 5-101.

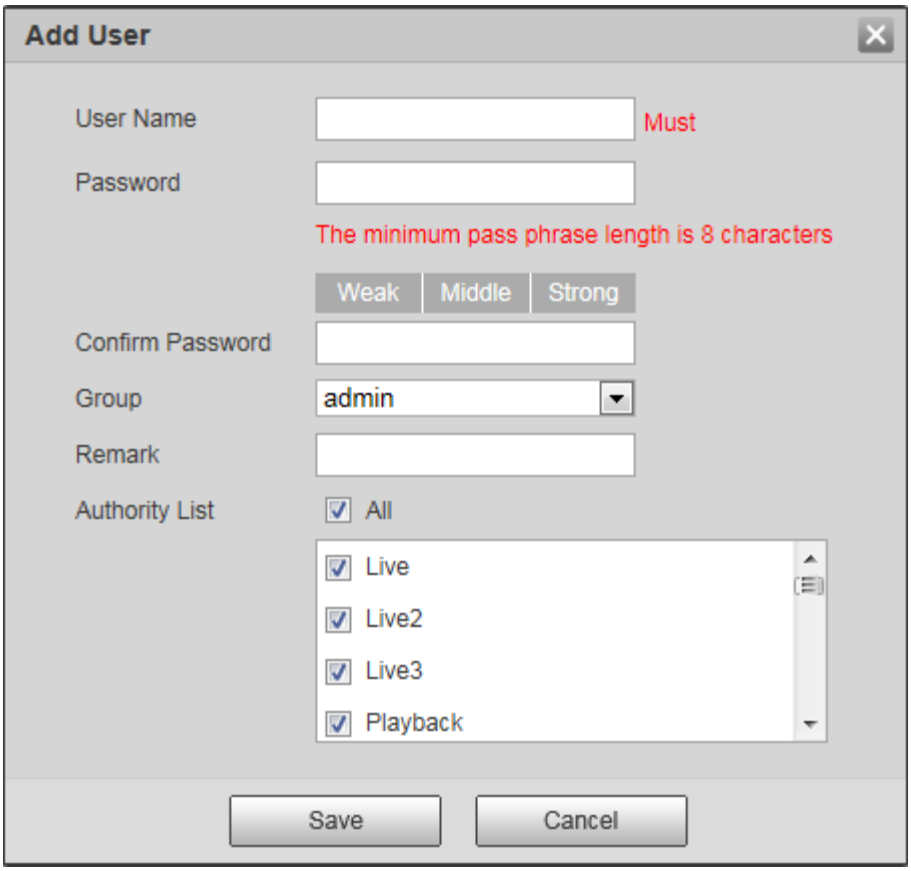


Figure 5-101

Step 3

It is to configure the parameters of user, please refer to Table 5-51 for more details.

Parameter	Note
User name	It is the unique name which is used to identify user. It can't be repeated.
Password Confirm Password	It is the password and confirm password of user. "Confirm Password" has to be the same as "Password".
Group	It is the group to which the users belong. Different groups have different authorities.
Remark	The description info of users.
Authority List	Check user authority according to the actual requirements. **Note** Users are recommended to make the authority of general user lower than that of the high users.

Table 5-51

Step 4

Click "Save" to complete adding.

The newly-added user will be displayed in the user list, which is shown in Figure 5-102.

Note

- Click after adding user, you can modify user password, group to which the user belongs, remark and authority; click to delete the added user, admin user can't be deleted.
- Click the corresponding of admin user and it can modify the password of admin user.

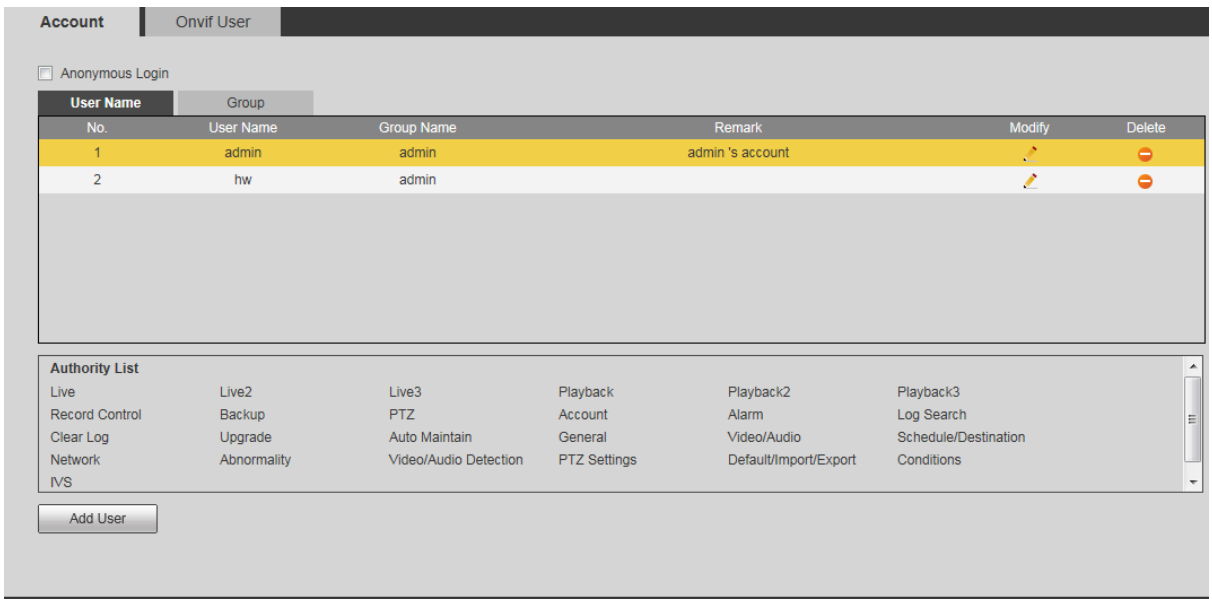


Figure 5-102

5.6.3 Add Onvif User

There is admin user by default for the system, you can add user. It can delete user, modify user password and so on after adding user.

Step 1

Select "Setup > System > Account > Onvif User" and the system will display the interface of "Onvif User", which is shown in Figure 5-103.

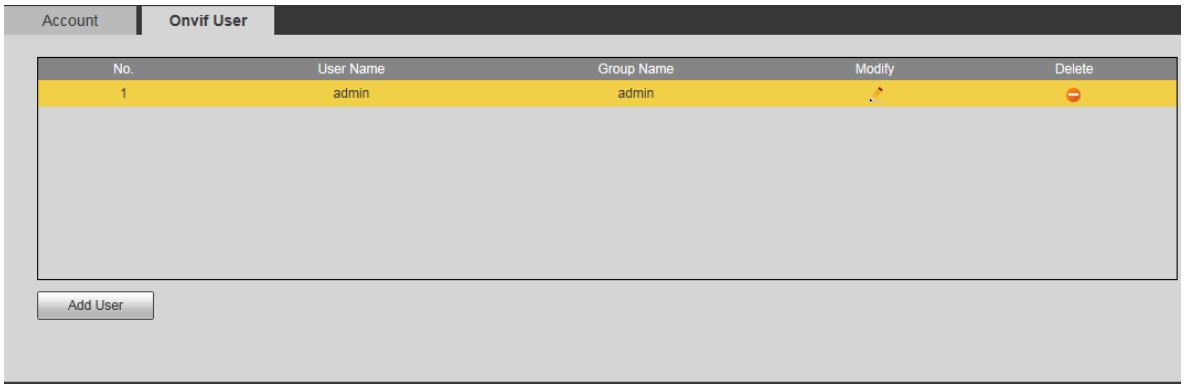


Figure 5-103

Step 2

Click "Add User" and the system will pop out the dialog box of "Add User", which is shwon in Figure 5-104.

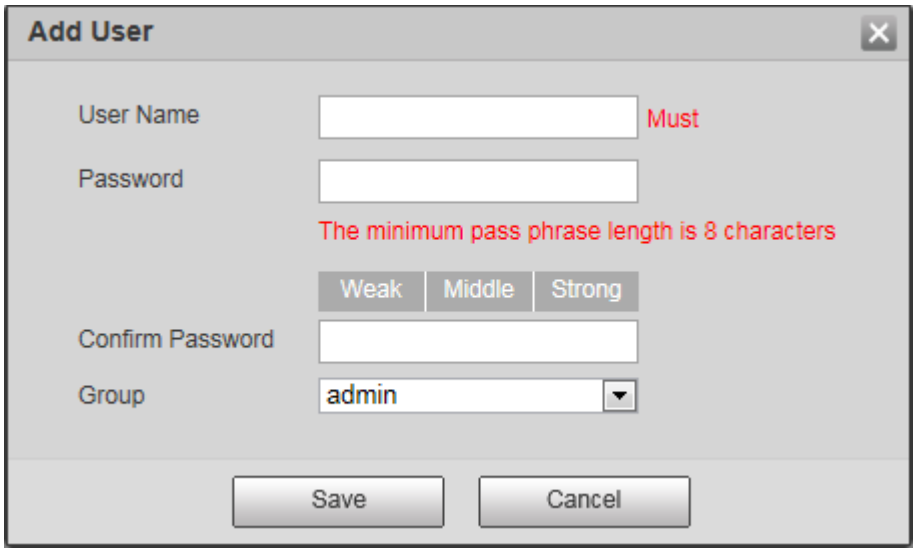


Figure 5-104

Step 3

Input user name, password and confirm password, and select group.

Group includes admin, operator and user for you to select according to the actual situation.

Step 4

Click "Save" to complete adding.

Note

- Click  after adding user, you can modify user password, group to which the user belongs, remark and authority; click  to delete the added user, admin user can't be deleted.
- Click the corresponding  of admin user and it can modify the password of admin user.

6 System Maintenance

6.1 Maintenance Requirements

It is recommended to implement system management, backup and maintenance according to the following operations in order to make sure the system is normal and it operates safely.

- Check monitoring image of the device regularly.
- Remove unused user and group regularly.
- Modify user password every three months.
- Check system log and analyze regularly, deal with abnormities in time.
- Back up system config regularly.
- Restart and delete old files regularly.
- Upgrade firmware in time.

6.2 Auto Maintenance

It is to set auto reboot time, manual reboot or auto delete file.

6.2.1 Auto Reboot

Step 1

Select "Setup > System > Auto Maintain" and the system will display the interface of "Auto Maintain", which is shown in Figure 6-1.

Figure 6-1

Step 2

Reboot the device.

- Auto reboot: Select "Auto Reboot" and set the time of rebooting system, click "Save".
- Manual reboot: Click "Manual Reboot" and the system will reboot immediately.

6.2.2 Delete Old Files

Delete the video or pictures stored in SD card, FTP or NAS server according to the time which has been set.

Step 1

Select "Setup > System > Auto Maintain" and the system will display the interface of "Auto Maintain", which is shown in Figure 6-2.

Figure 6-2

Step 2

Select "Auto Delete Old Files" and customize the period when it needs to delete files.

The time range is between 1 day to 31 days.

Step 3

Click "Save" to complete setting.

6.3 Backup and Recovery

6.3.1 Backup Device Config Info

It can export device config file and backup device config info via configuring import and export function.

Step 1

Select "Setup > System > Import/Export" and the system will display the interface of "Import/Export", which is shown in Figure 6-3.

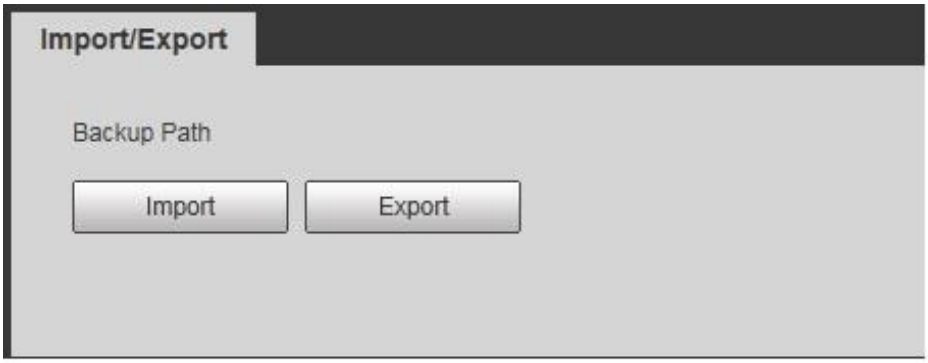


Figure 6-3

Step 2
Click "Import/Export" and select backup path.
The "Backup Path" will display export path after export is configured.

6.3.2 Recover Device Config Info

It can import config file and quickly configure device info or recover device config info via configuring import and export function.
Step 1
Select "Setup > System > Import/Export" and the system will display the interface of "Import/Export", which is shown in Figure 6-4.

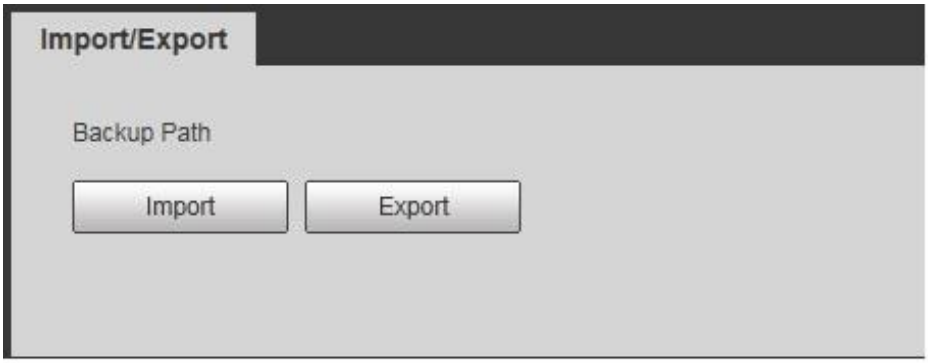


Figure 6-4

Step 2
Click "Export" to select config file.
"Backup Path" will display import path after configuring import.

6.3.3 Default

Caution

All the device configs will be restored to default except network IP address and user management, please operate carefully.

Select "Setup > System > Default" and the system will display the interface of "Default", which is shown in Figure 6-5.

Click "Default" to restore the device to default.

Figure 6-5

6.4 Upgrade

It is to upgrade the device firmware.

Note

It needs to reboot the device after upgrading wrong firmware file, otherwise, some module functions of the device may become abnormal.

Step 1

Select "Setup > System > Upgrade" and the system will display the interface of "Upgrade", which is shown in Figure 6-6.

Figure 6-6

Step 2

Click "Browse" to import upgrade file.

The upgrade file is a type of *.bin file.

Step 3

Click "Upgrade" and the system will begin to upgrade firmware.

6.5 Version

It is to check system harware characteristics, software version and WEB version etc.

Note

Different devices may have different version info, please refer to the actual interface for more details.

Select "Setup > System > Version" and the system will display the interface of "Version", which is shown in Figure 6-7.

Figure 6-7

6.6 Log

It is to check system operation, config operation, data operation, event operation, record operation, user management and clear log.

Step 1

Select "Setup > System > Log" and the system will display the interface of "Log", which is shown in Figure 6-8.

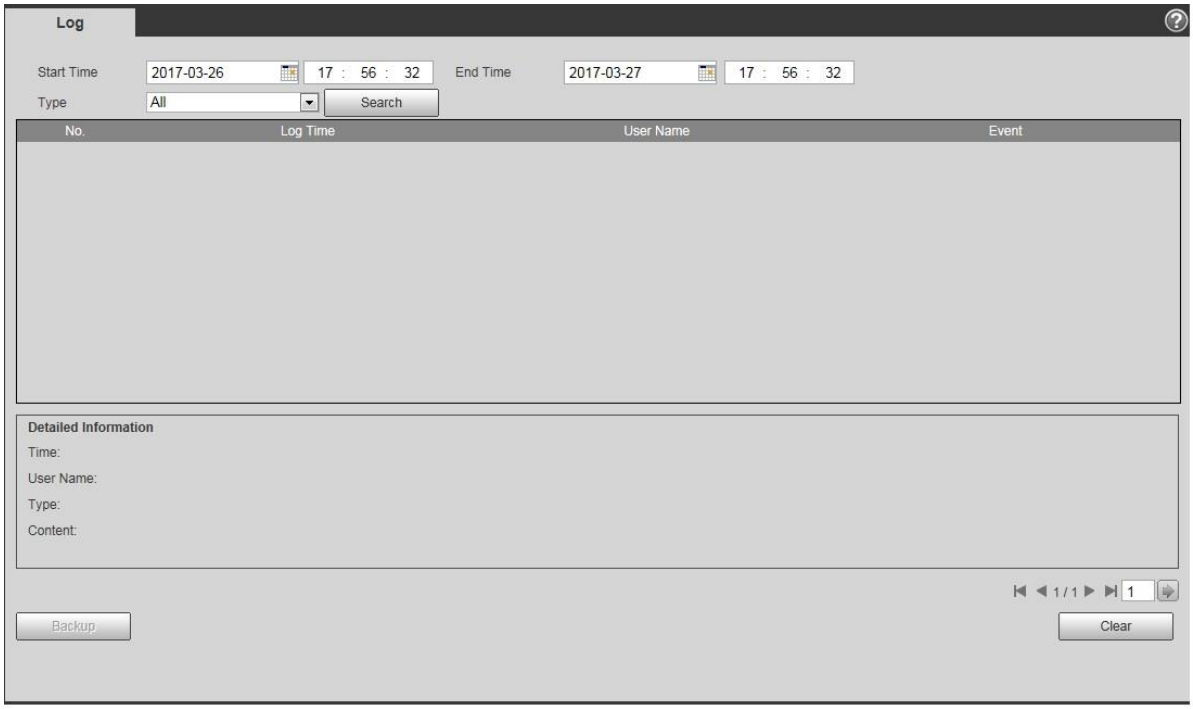


Figure 6-8

Step 2

Set "Start Time" and "End Time", and select log type.

- The earliest start time is Jan 1st 2000, and the latest end time is Dec 31st 2017.
- Log type includes system operation, config operation, data operation, event operation, record operation, user management and clear log.
  - ✧ System operation: it includes program start, abnormal exit, exit, application restart, close/restart device, system reboot, system upgrade.
  - ✧ Config operation: It includes save config, delete config file.
  - ✧ Data operation: It includes setting hardware type, clear data, hot plug, FTP status and record mode.
  - ✧ Event operation (it is to record video detection, intelligence, alarm and abnormity etc.): it includes event start, event end.
  - ✧ User management (it is to record the modification of user management and user login, logout): it includes login, logout, add user, delete user, modify user, add group, delete group and modify group.
  - ✧ Clear log: it is to clear log.

Step 3

Click "Search" and the system will display log info, which is shown in Figure 6-9.

- Click one piece of log info, you can check log detailed information in the area of "System Log".

- Click "backup" to back up the seached log info to local PC.
- Click "Clear" to clear all the log info on the device, please operate carefully.

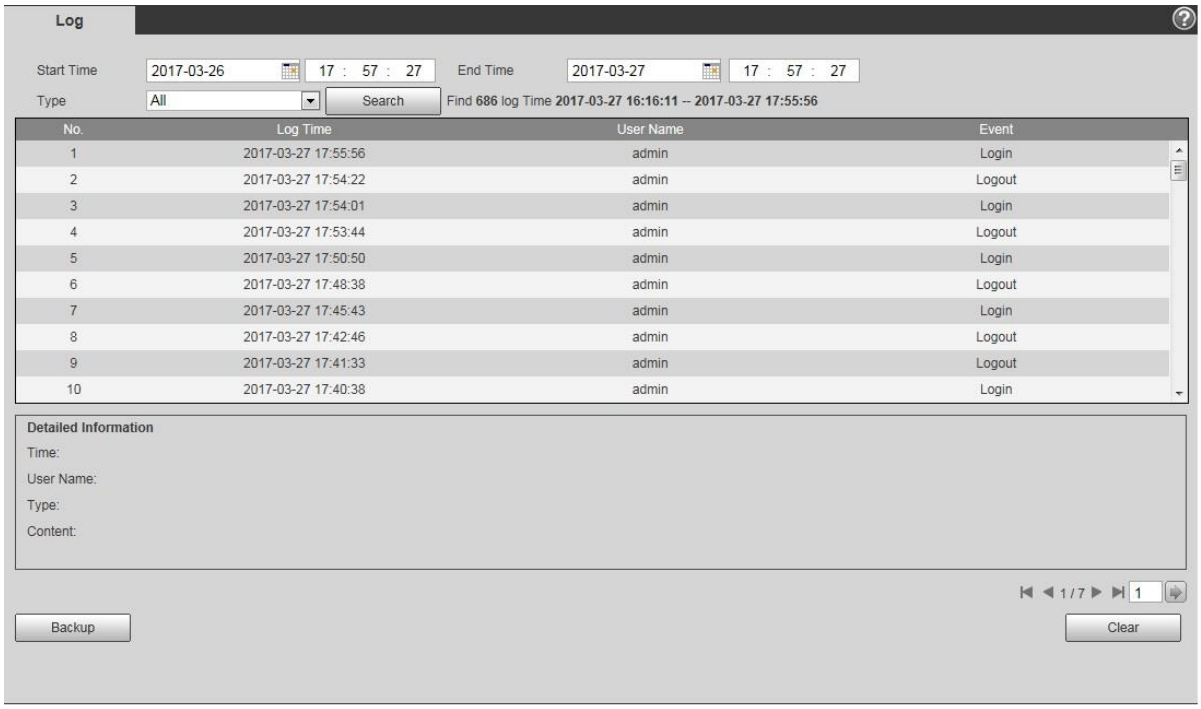


Figure 6-9

6.7 Online User

It is to check info of the users who has currently logged in the WEB.

Select "Setup > System > Online User" and the system will display the interface of "Online User", which is shown in Figure 6-10.

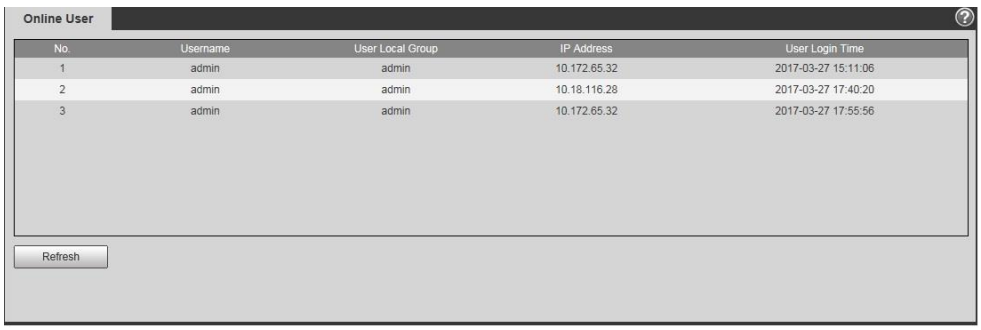


Figure 6-10

Note:

- This manual is for reference only. Slight difference may be found in user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks mentioned are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.

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