Dahua Network Speed Dome & PTZ Camera
Web3.0 Operation Manual

Version 1.1.0

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

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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

Mandatory actions to be taken towards cybersecurity

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.

Privacy Protection Notice

As the device user or data controller, you might collect personal data of other 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 prevail.
- 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 manual, CD-ROM, QR code or our official website. If there is inconsistency between paper 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 Manual (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 Network Config

1.1 Network Connection

There are mainly two connection modes between network speed dome and PC. See Figure 1-1 and Figure 1-2.

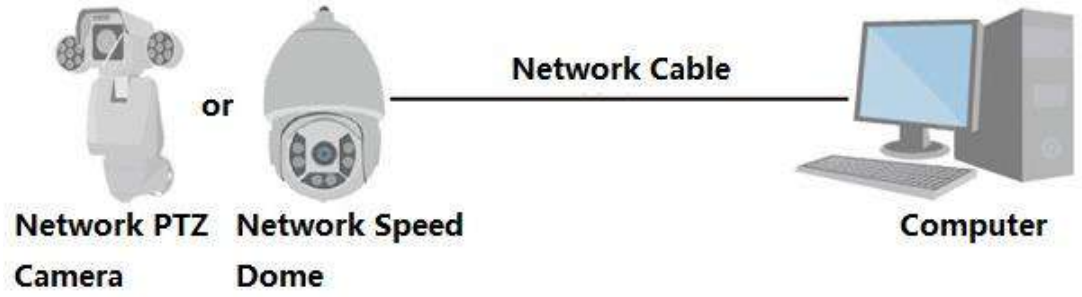


Figure 1-1

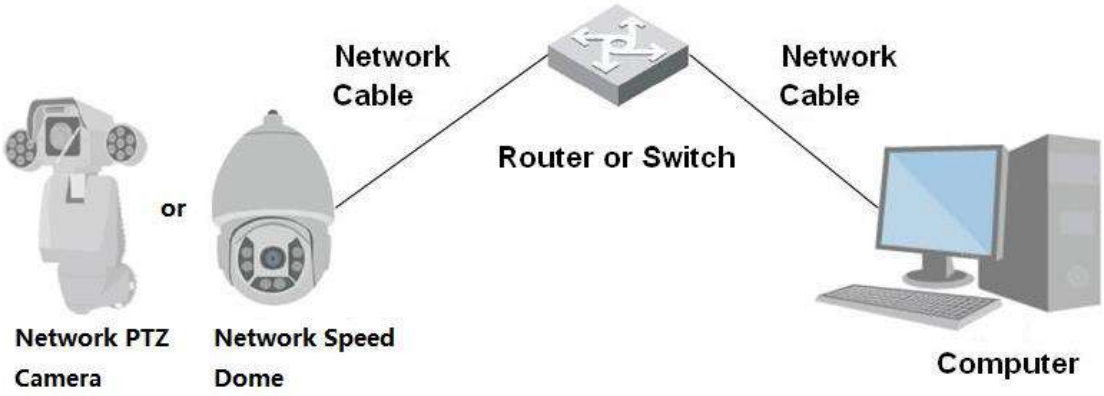


Figure 1-2

Note:

- The models presented in the figure are for reference only.
- In order to describe operation steps more conveniently, both network speed dome and network PTZ camera will be called “Camera” hereinafter.

The IP address of all the intelligent speed domes is 192.168.1.108 by default when they are delivered out of factory; it needs to plan available IP segment reasonably according to practical network environment in order to make intelligent speed domes get access to network smoothly. Users can modify IP address via quick config tool in the disk, please refer to Quick Configuration Tool User manual for more details.

1.2 Log in WEB Interface

1.2.1 Device Initialization

It needs to implement initialization upon the device if it is used for the first time; the steps are shown as follows:

Step 1

Open IE browser, input IP address of network speed dome in the address bar and press Enter button. The system will display the interface which is shown in Figure 1-5 after it is successfully connected.

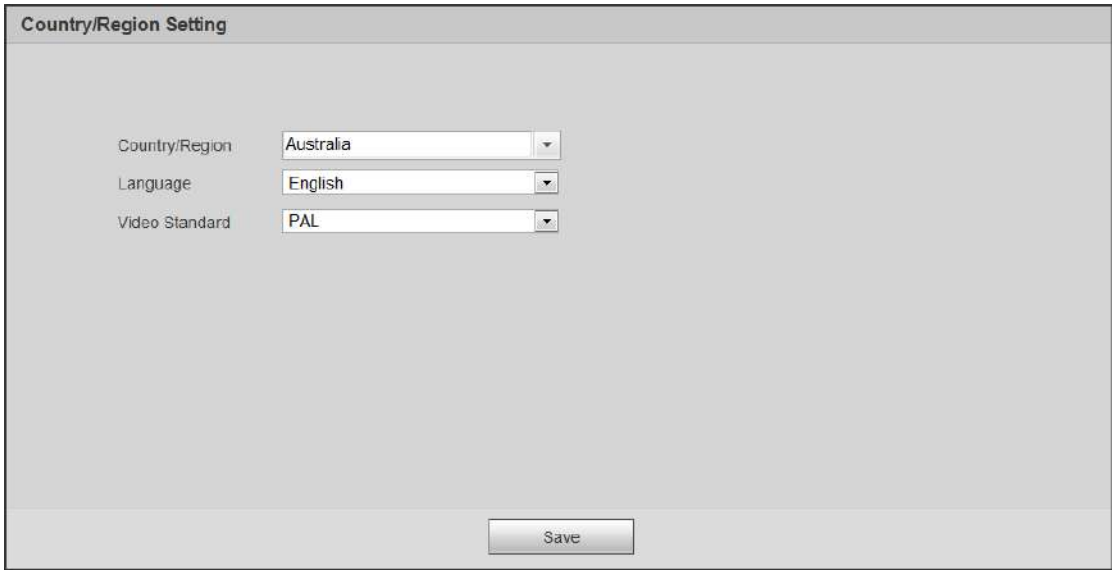


Figure 1-3

Step 2

Click **Save**, and the **Time Zone Setting** interface is displayed.

Configure time parameters. See Figure 1-4.

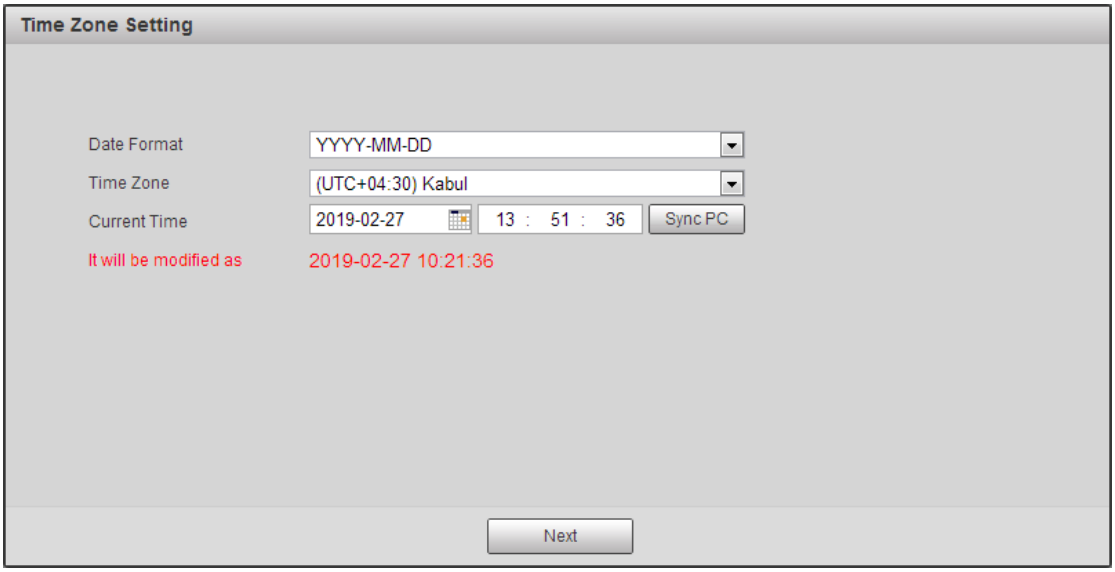


Figure 1-4

Step 3

Click **Next**.

The **Device Initialization** interface is displayed.

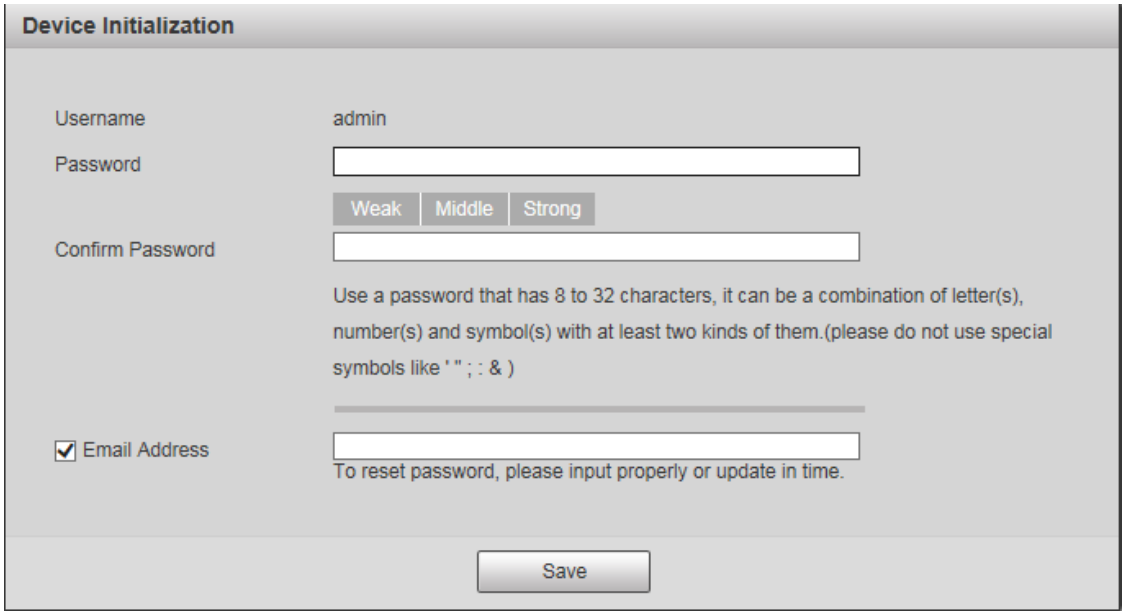


Figure 1-5

Note

Email address function is enabled by default; you can select to disable the function according to the actual requirement.

Step 4

Enter password, confirm your password.

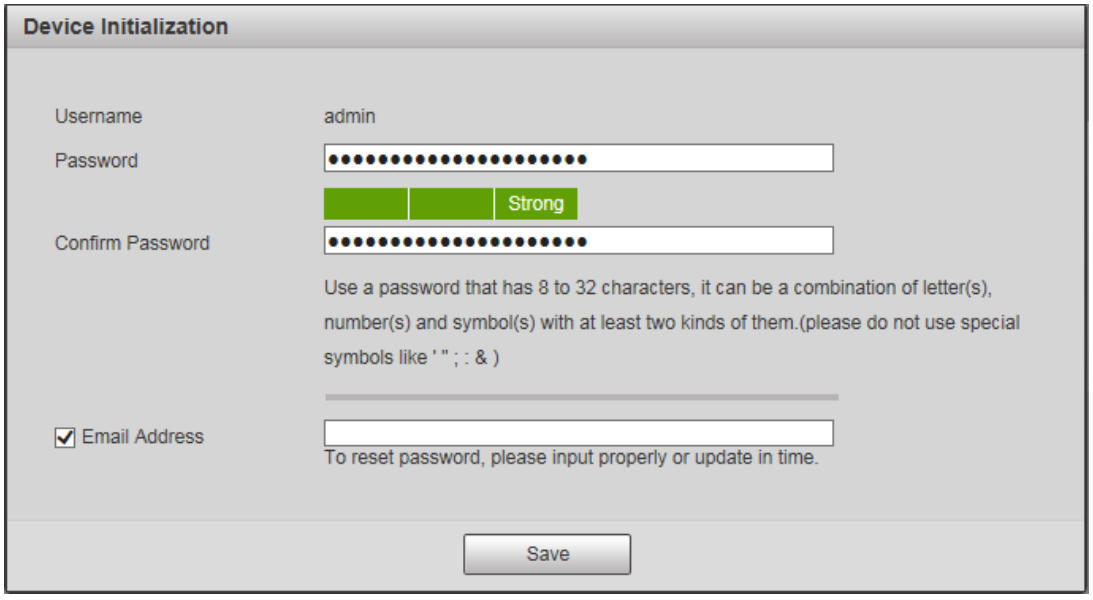


Figure 1-6

Note

The password can be set as 8 to 32 nonblank characters, which can be made up of upper case, lower case, number and special character (except “‘”, “"”, “;”, “:”and“&”), and it has to contain at least two types of characters. Make sure the new password is in accordance with the confirm password. Please set the password with high security according to the password intensity prompt.

Step 5

Set the email address which is used to reset password. The config interface is shown in Figure 1-7.

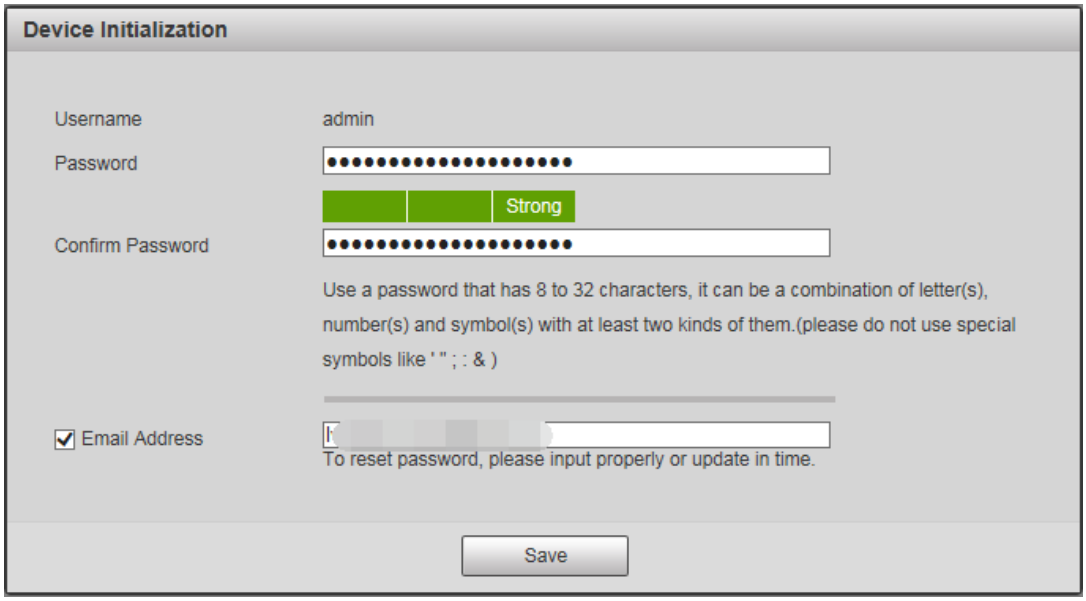


Figure 1-7

Step 6

Click **Save** and the **End-User License Agreement** interface is shown in Figure 1-8.

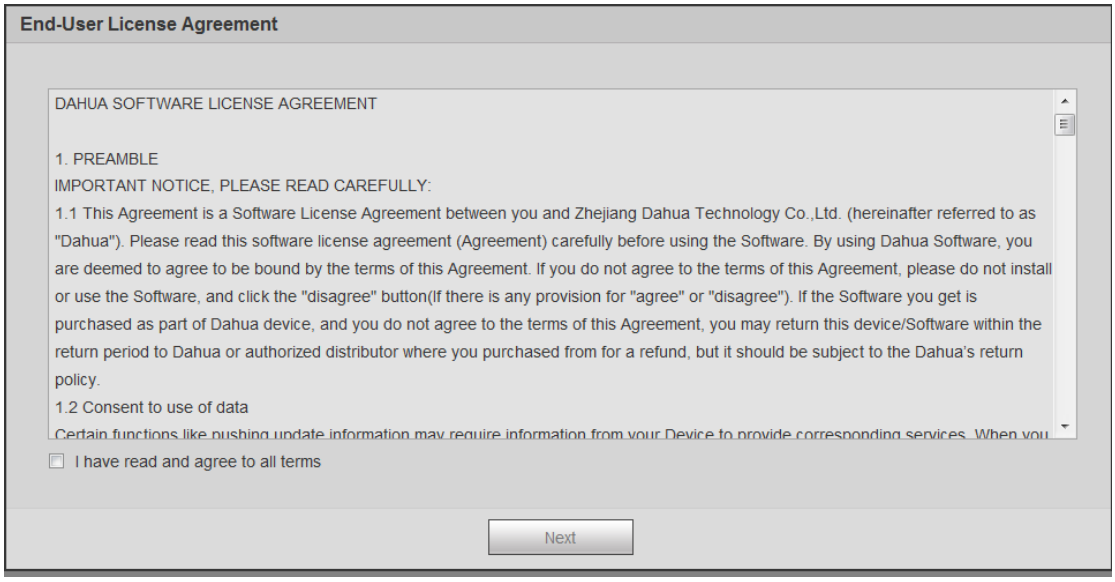


Figure 1-8

Step 7

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

The **P2P** interface is displayed.



Figure 1-9

Step 8

This is to register your device to P2P, select according to actual requirement, and then click **Next**. The **Online Upgrade** interface is displayed.

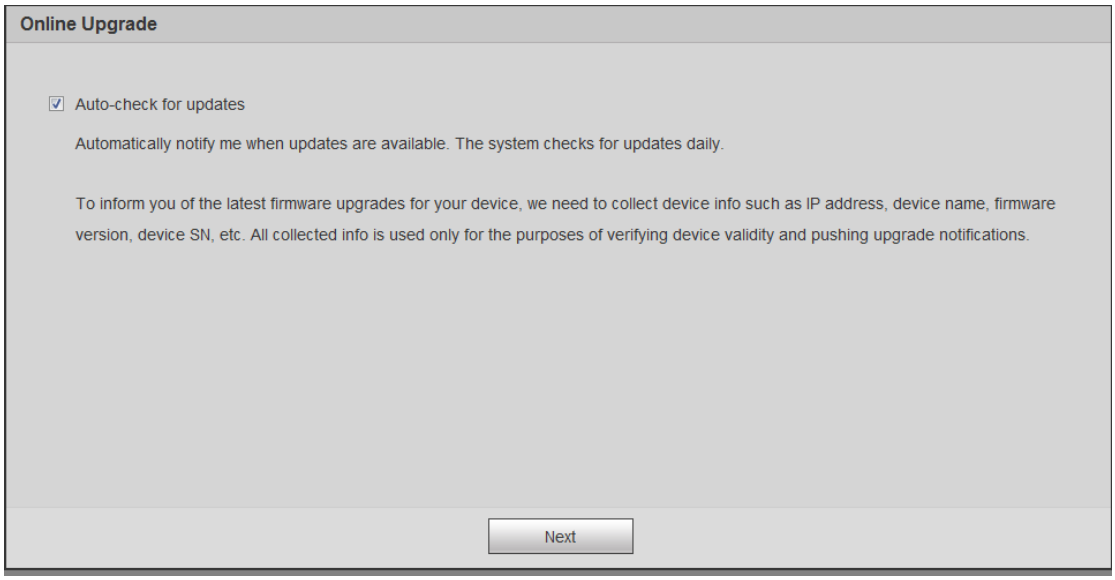


Figure 1-10

Step 9

Select **Auto-check for updates** according to actual requirement.

This will enable the system to check for upgrade once a day automatically. There will be system notice if any upgrade is available.

Step 10

Click **Next**, and the login interface is displayed.



Figure 1-3

1.2.2 First Time Login

You need to download and install the plug-in for the first time login.

Step 1

Enter the user name and the password, and click Login.

Note

- If you enter the wrong password for certain times, the account will be locked for a certain period of time. After the locked time, you can login the web interface again.
- You can set the allowed wrong password times and the locked time in “4.4.7.3 Illegal Access”.

Step 2

Download and install the plug-in according to the prompt after login the web interface.

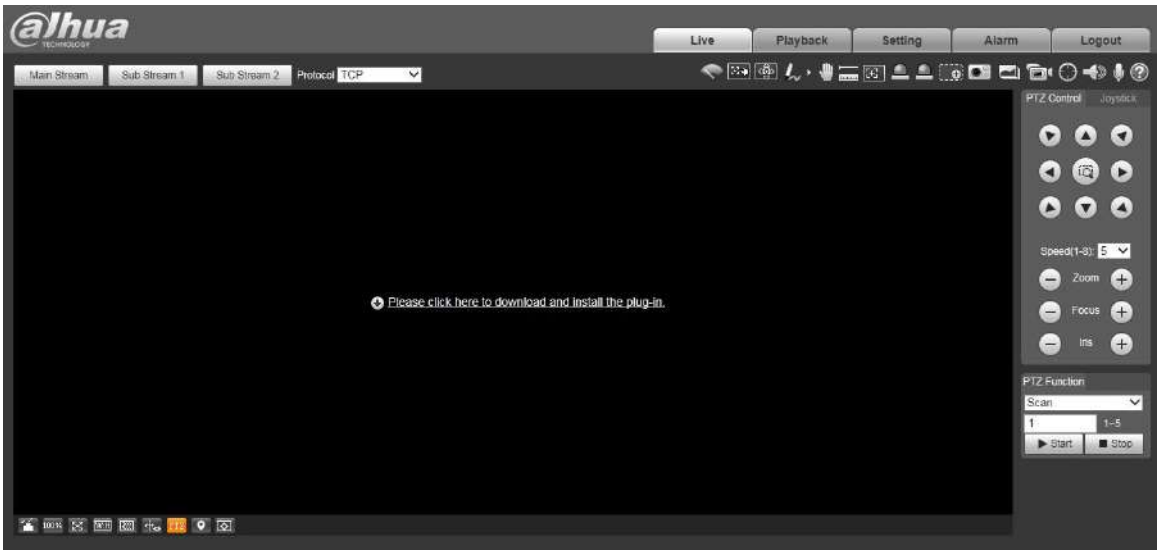


Figure 1-4

Step 2

After the plug-in is installed, the web interface refreshed automatically, and the video is display in Live interface in Figure 1-5.

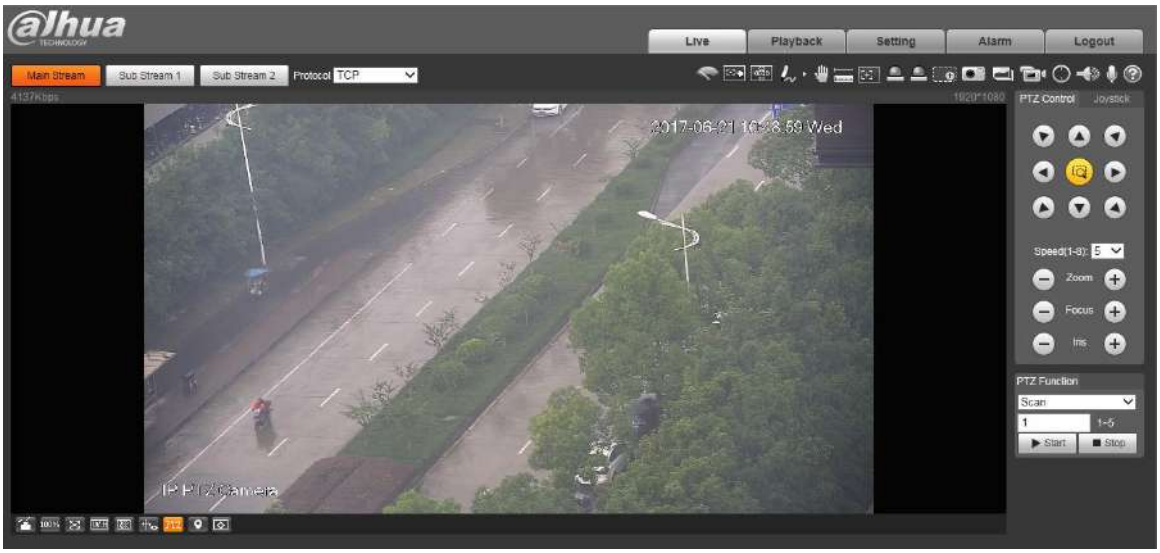


Figure 1-5

Note

The Live interface shown in the Manual is for reference only. The actual view shall prevail.

1.2.3 Device Login

Step 1

Open IE browser and input IP address of network speed dome in the address bar, then press "**Enter**". It will display the interface shown in Figure 1-6 after it is successfully connected.



Figure 1-6

Step 2

Please input your username and password, and then click "**Login**" to enter WEB operation interface.

Note

- If you enter the wrong password for certain times, the account will be locked for a certain period of time. After the locked time, you can login the web interface again.
- You can set the allowed wrong password times and the locked time in "4.4.7.3 Illegal Access".

Step 3

Download and install the plug-in according to the prompt after login the web interface. After the plug-in is installed, the web interface refreshed automatically, and the video is display in Live interface.

1.2.4 Forget Password

Step 1

Click “Forget Password?” and the system will display the interface of Prompt, which is shown in Figure 1-7.

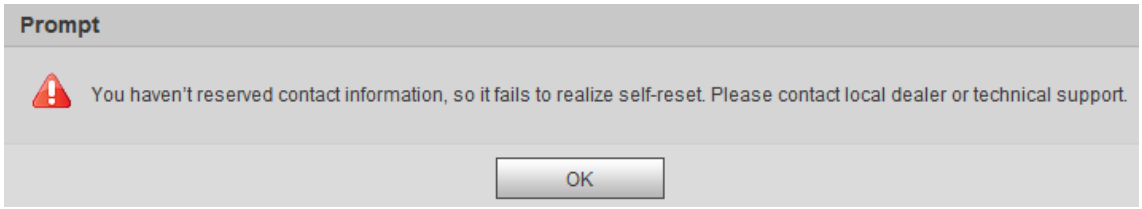


Figure 1-7

Step 2

Click **OK** to reset the password. Scan the QR code according to the instructions.

Note

If you click **OK**, your information including phone number, MAC address, device serial, and so on might be collected.



Figure 1-8

Step 3

Input security code and then click **Next**. The system will display the interface of “Reset Password”, which is shown in Figure 1-9.

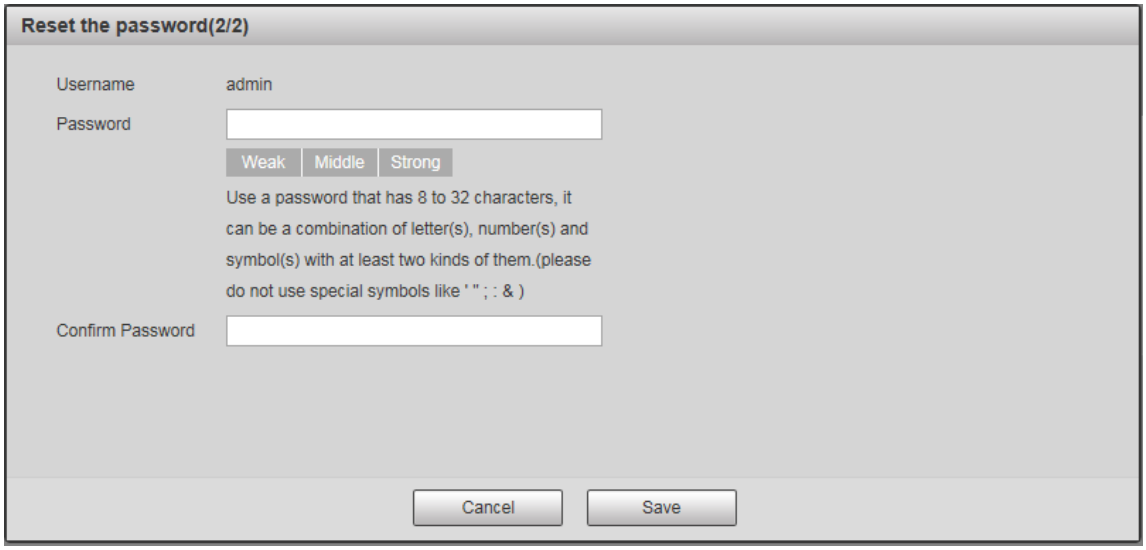


Figure 1-9

Step 4

Set the password of admin user again.

Step 5

Click **Save** to finish configuration.

2 Live

Users can implement several operations on the “Live” interface upon the real-time monitoring image, such as live, snapshot, record and etc.; you can also implement simple PTZ operation.

Click “Live” to display “Live” interface which is shown in Figure 2-1.

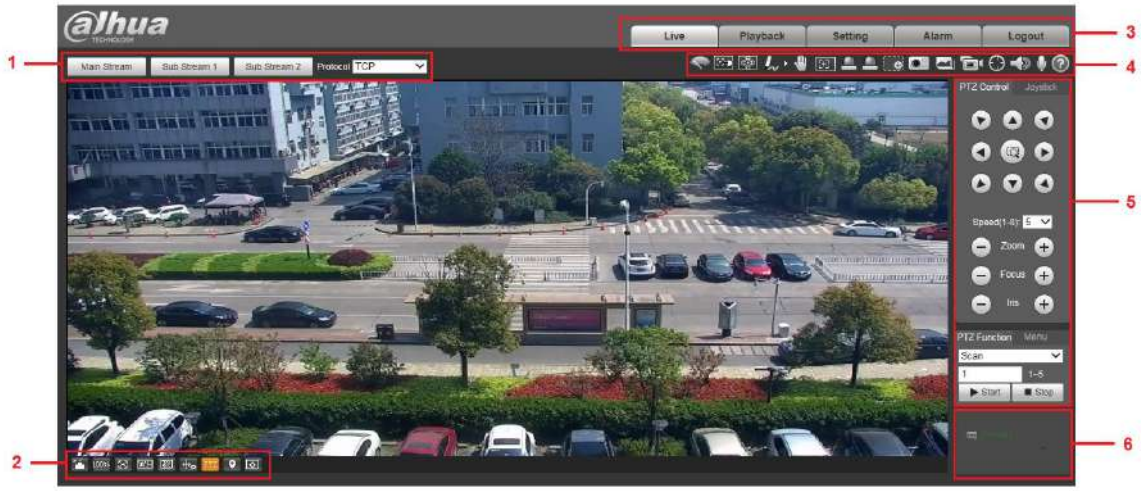


Figure 2-1

No.	Description
①	Encode setting column
②	Video window adjust column
③	System menu column
④	Video window function option column
⑤	PTZ config column

⑥	PTZ status column

Table 2-1

2.1 Stream & Protocol Settings

Note

Some models don’t support two sub streams.

The encode settings interface is shown as in Figure 2-2.

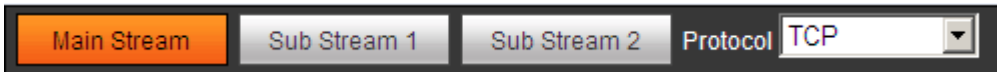


Figure 2-2

Please refer to Table 2-2 for detailed information.

Parameter	Description
Main stream	Streaming media protocol connection, under main stream config, monitor video or not. Generally for storage and monitor.
Sub (Extra) stream 1	Streaming media protocol connection, under sub stream 1 config, monitor video or not. When network bandwidth is insufficient, it substitutes main stream for monitoring.
Sub (Extra) stream 2	Streaming media protocol connection, under sub stream 2 config, monitor video or not. When network bandwidth is insufficient, it substitutes main stream for monitoring.
Protocol	You can select stream media protocol from the dropdown list. There are four options: TCP/UDP/RTP Multicast/DHTS

Table 2-2

2.1.1 Video Window Adjustment



Figure 2-3

Parameter	Description
1. Image Adjustment	Click the icon of Image Adjustment, and the Image Adjustment interface is displayed on the right of the live interface. You can adjust image brightness, contrast, hue, and saturation.
2. Full Screen	Click the icon of Full Screed to enter full screen mode, and you can double-click or press Esc to exit.
3. Fluency	Click the icon of Fluency, and select the fluency as Realtime, Normal, or Fluency. By default, it is Normal.
4. Rules Info	Click the icon of Rules Info, and select Enable or Disable. If you select Enable, the intelligent rules will be displayed on the Live interface. By default, it is enabled.
5. PTZ	Click the icon of PTZ to display/hide the PTZ configuration window on the Live interface.
6. Anti-aliasing	Click the icon of Anti-aliasing, and you can enable the anti-aliasing function for thumbnail live view.

Parameter	Description
	Note The anti-aliasing is off by default.
7. Face	Click the icon, face comparison results and face image information will be displayed.
8. Video Structuralization	Click the icon, motor vehicles, non-motor vehicles, and drivers' information will be displayed.
9. 1 Split	Click the icon, select Panorama Camera or Detail Camera, you will see the video captured by the camera you selected.
10. 2 Splits	Click the icon, and then you can see videos captured by the Panorama Camera or Detail Camera at the same time.
11. 4 Splits	Click the icon, the screen will be split into four screens.
12. PicinPic	Click the icon, and then you can select PicinPic mode. ● PicinPic1: Panorama Camera video is displayed in the main window, and the Detail Camera video is displayed in the subsidiary window. ● PicinPic2: Detail Camera video is displayed in the main window, and the Panorama Camera video is displayed in the subsidiary window.

Table 2-3

Image Adjustment

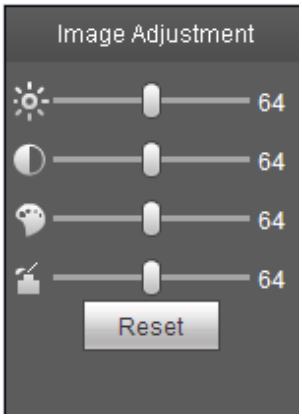


Figure 2-4

Parameter	Description
	It is to adjust monitoring image brightness.
	It is to adjust monitoring image contrast.
	It is to adjust monitoring image hue.
	It is to adjust monitoring image saturation.
	Restore brightness, contrast, saturation and hue to system default settings.

Table 2-4

Note

The function can only be used to adjust the brightness, contrast, hue and saturation of the monitoring

image in WEB client. It needs to go to “Setting > Camera > Conditions” to set the brightness, contrast, hue and saturation of the device.

Face

Human face snapshots and face attributes are displayed at the right side of the Face interface, and the face comparison results are displayed at the left side of the Face interface.

- Face comparison results: face snapshots, face images in the database, and similarity are displayed. Click images, detailed information of the person will be displayed.
- Face snapshots and face attributes: face snapshots, gender, age, expressions, and more will be displayed.

Video Structuralization

You need to enable video structuralization. See “4.4.3 Smart Plan”.

Motor vehicle information (car plate, plate number, color, car brand, and more) is displayed on the right; people and their non-motor vehicle information (snapshot time, gender, glasses or not, skin color, vehicle type, vehicle color, and more) is displayed at the bottom.

People and their non-vehicle snapshots can be displayed in single window, two splits, four split, and PicinPic mode.

Single window

You can switch between panorama camera and detail camera.

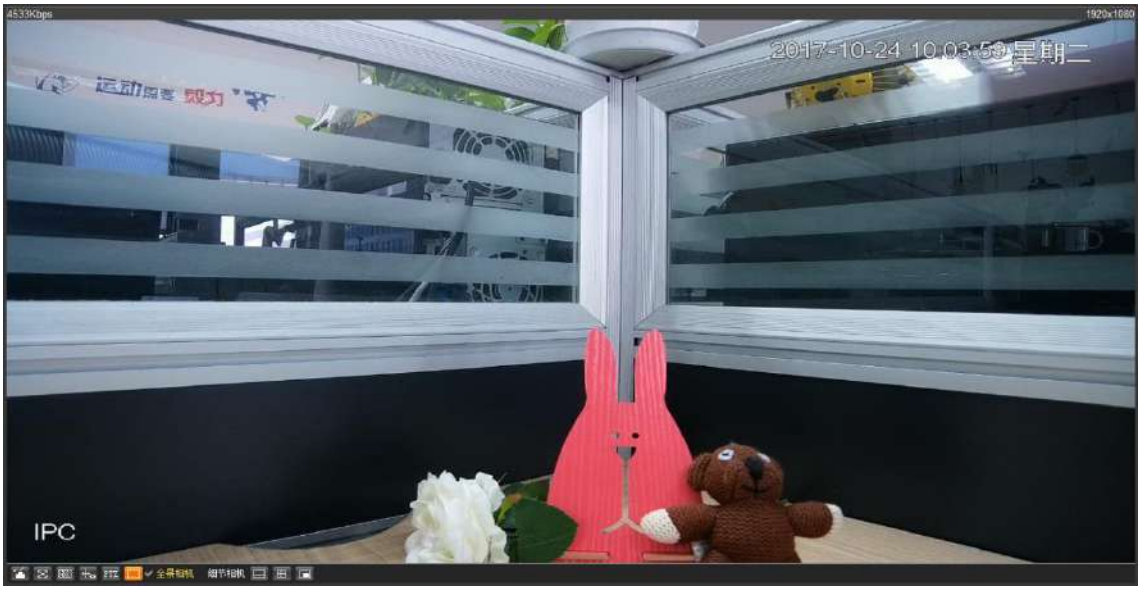


Figure 2-5

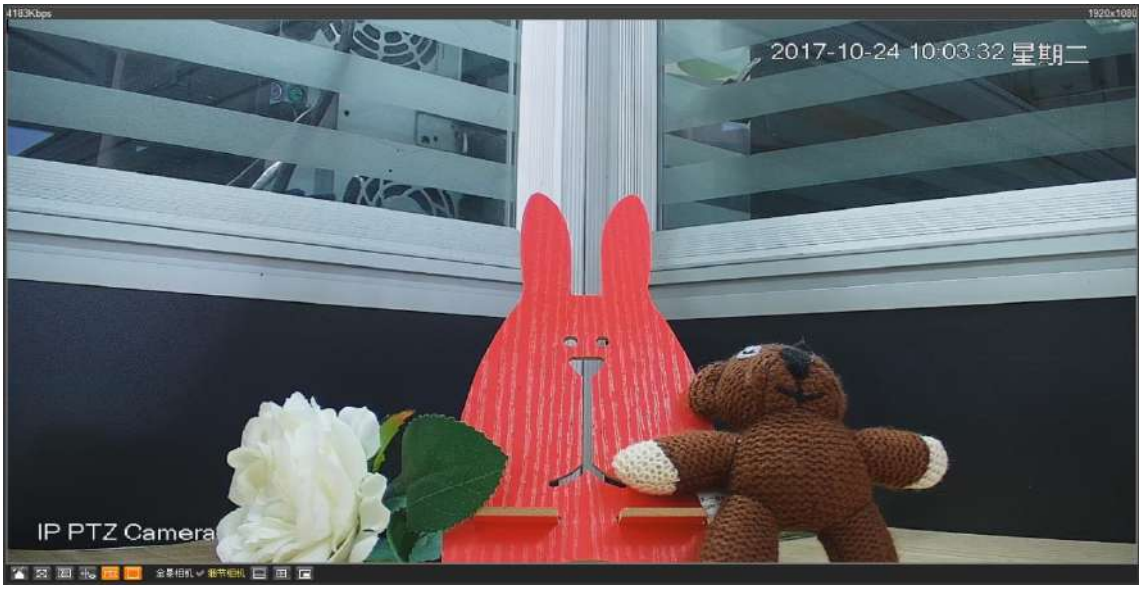


Figure 2-6

Two splits

In this mode, panorama camera video and detail camera video can be watched at the same time.

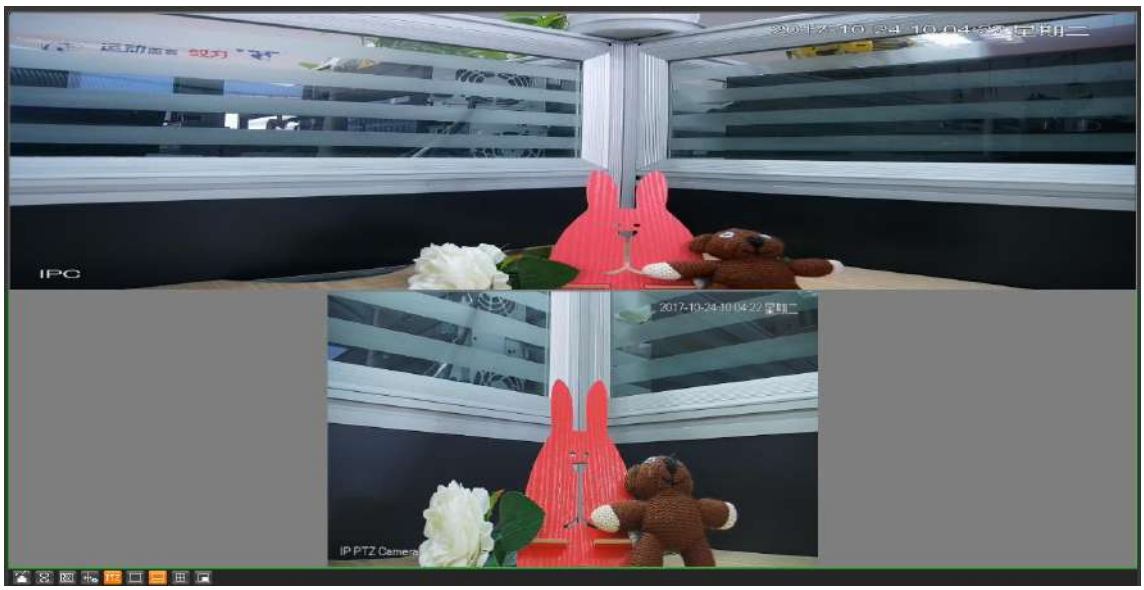


Figure 2-7

Four Splits

You can adjust positions of each split by pressing the left mouse button and dragging.



Figure 2-8

PicinPic

Panorama camera video and detail camera video are displayed at the same window. You can adjust the size of the smaller window by dragging the four corners of the window.



Figure 2-9

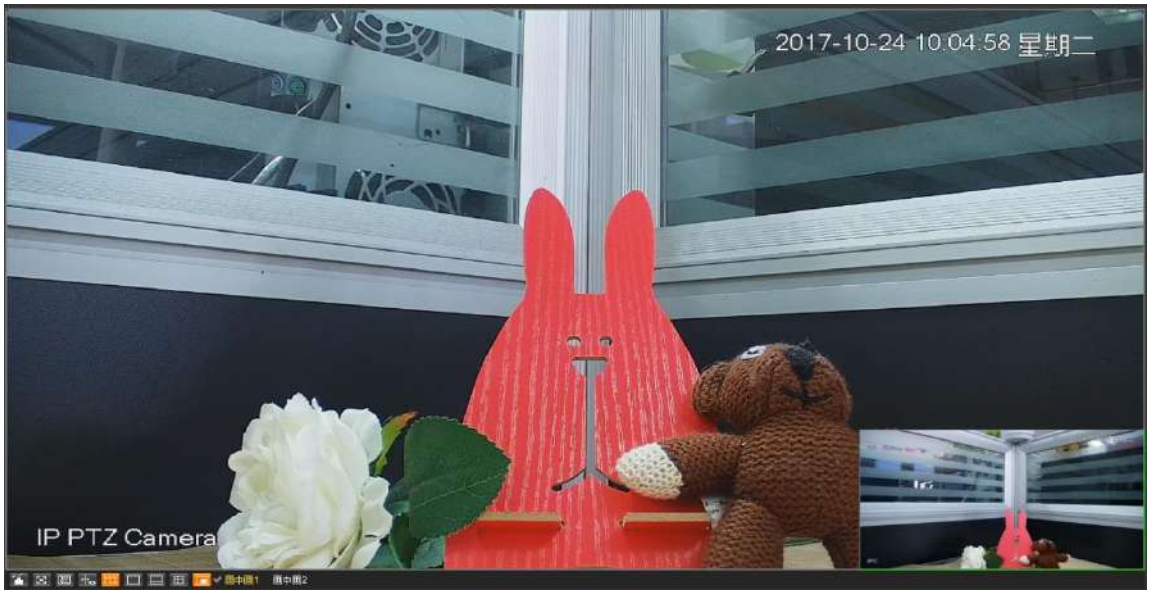


Figure 2-10

2.1.2 System Menu

Click each item to enter corresponding interface.



Figure 2-11

2.1.3 Video Window Function Option



Figure 2-12

Please refer to the following sheet for detailed information.

Parameter	Description
1. Manual positioning	Click the button, draw an area on the video by the mouse, speed dome will collect information of the area. This function is only effective when detailed camera is used.
2. Regional focus	Click the button, draw an area on the video by the mouse, speed dome will focus on the area automatically. This function is only effective when detailed camera is used.
3. Gesture Control	When the video is in the original status, click it you can select any zone to zoom in. In the non-original status, you can drag the zoom-in zone in specified range. Right click mouse to restore previous status. Click it; you can use the middle button of the mouse to zoom in/out the video size.
4. Alarm output	Click this button, alarms will be triggered. This function.

5. Regional Focus	Click the icon of Regional Focus, and draw a box in the live view image. The Camera can focus automatically in the area of the box.
6. Snapshot	Click the icon, you can capture the picture of live image. The pictures are saved in the path of Live Snapshot configured in “4.1.2.5 Path”.
7. Triple Snapshot	Click the icon of Triple Snapshot, three pictures are captured at1f/s. The pictures are saved in the path of Live Snapshot configured in “4.1.2.5 Path”.
8. Record	Click the button, you can record videos and save.
9. Audio	Click the icon of Audio to enable or disable audio output of the monitoring stream. You need to enable audio at Setting > Camera > Audio first.
10. Talk	Click the icon of Talk to enable or disable intercom.

Table 2-5

2.1.4 PTZ Config

You can control PTZ via PTZ control or virtual joystick; also you can enable the functions of preset positions, scan and etc. in the PTZ setting area.

PTZ Control

Note

Users have to set PTZ protocol first before using PTZ control, please refer to “Setting > PTZ Settings > Protocol” for more details.

Please refer to Figure 2-5 for the interface of PTZ control, refer to Table 2-6 for more details about parameters.

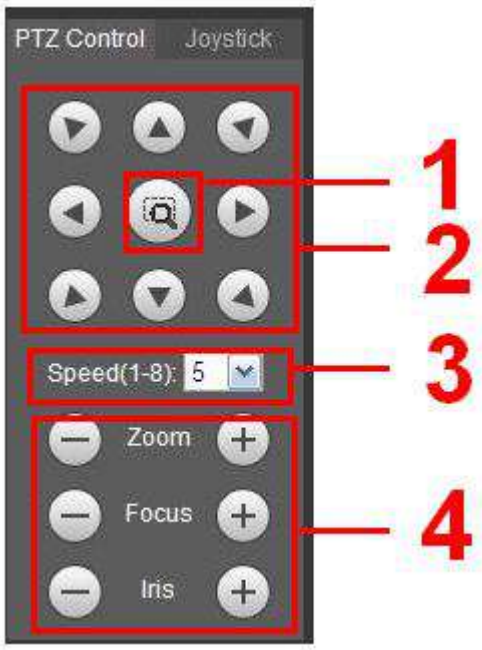


Figure 2-5

Parameter	Description
1	Use mouse to draw a box in monitoring video, PTZ will rotate, focus and quickly position the scene.
2	PTZ supports eight directions: left/right/up/down/upper left/upper right/bottom left/bottom right.
3	It controls rotation speed. The longer the step length, the higher the speed. Step length control PTZ, zoom, focus and iris.
4	Zoom/focus/iris: Click  to increase value and click  to decrease value. **Note:** Some cameras don't support iris, please refer to the actual devices for details.

Table 2-6

Joystick

The virtual joystick interface is shown as below. See Figure 2-6.

This function allows you to control the button in then center to simulate the joystick operation. You can use it to control device movement.



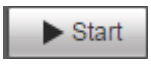
Figure 2-6

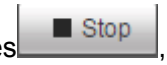
The setting method of speed, zoom, focus and iris is the same as that of the PTZ control.

PTZ Function

Note

Refer to "4.3 PTZ Setting" for details.

The PTZ can support various functions. Click 

to start some certain PTZ function, and at this moment the "Start/Stop" button becomes 

, click the button to stop the PTZ function. The

config interface is shown in Figure 2-7; please refer to Table 2-7 for more details about each function.

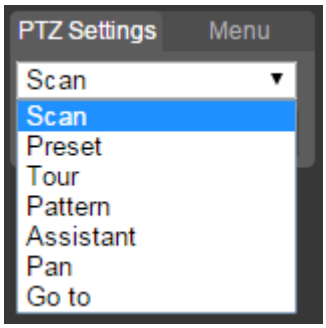


Figure 2-7

Please refer to the following sheet for PTZ settings information.

Parameter	Description
Scan	Select Scan from the dropdown list, click Start button, you can begin scan operation. Default SN is 1.
Preset	Input the preset value and then click View button, the camera turns to the corresponding position of the preset.
Tour	Select Tour from the dropdown list and then click Start button, you can begin tour.
Pattern	You can select Pattern from the dropdown list and then click Start button to begin PTZ movement.
Assistant	Reserve extended function, it can support special requirements. **Note** It is recommended to enable the function with the guidance of professional staff if necessary; otherwise it may cause some unexpected problems.
Pan	Select Pan from the dropdown list and then click “Start” button and it can realize horizontal rotation of the PTZ.
Go to	● It is the accurate positioning function. Please input corresponding horizontal angle, vertical angle and zoom speed and then click “Go to” button to go to a specified position. ● One unit of the horizontal angle or vertical angle stands for 0.1 degree.

Table 2-7

Menu

The menu interface is shown in Figure 2-8; please refer to Table 2-8 for more details about parameters.



Figure 2-8

Parameter	Description
Direction button	Up and down buttons are used to select parameters, left and right buttons are used to select parameter value.
OK	Click it to confirm.
Open	Open OSD menu.
Close	Click it to close menu.

Table 2-8

Click **Open** to enable menu function, then you can see the OSD menu in the monitoring image, which is shown in Figure 2-9.



Figure 2-9

Here you can set the following items:
Camera: please refer to “4.1 Camera”.
PTZ: please refer to “4.3 PTZ Setting”.
System: Please refer to “4.6 System”.
You can modify the location of OSD menu in “4.1.2.3 Overlay”.

Device list

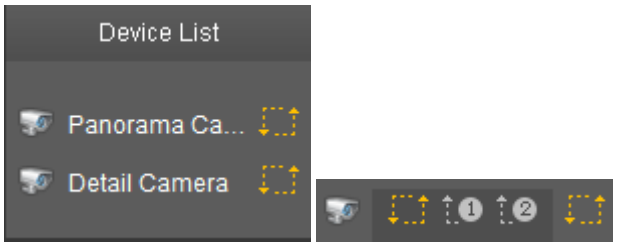


Figure 2-18

Click , you can switch streams.  is sub stream 1, and  is substream 2.

Click stream icon, if the icon is yellow, the stream is enabled; click the icon again, the icon is grey, and the stream is disabled.

3 Playback

You can playback saved videos or pictures in the “Playback” interface.

Note

It needs to set record, snapshot period, storage method, record control and other parameters in “4.5 Storage” before implementing playback operation.

Click “Playback” item, and the system will display “Playback” interface, which is shown in Figure 3-1.

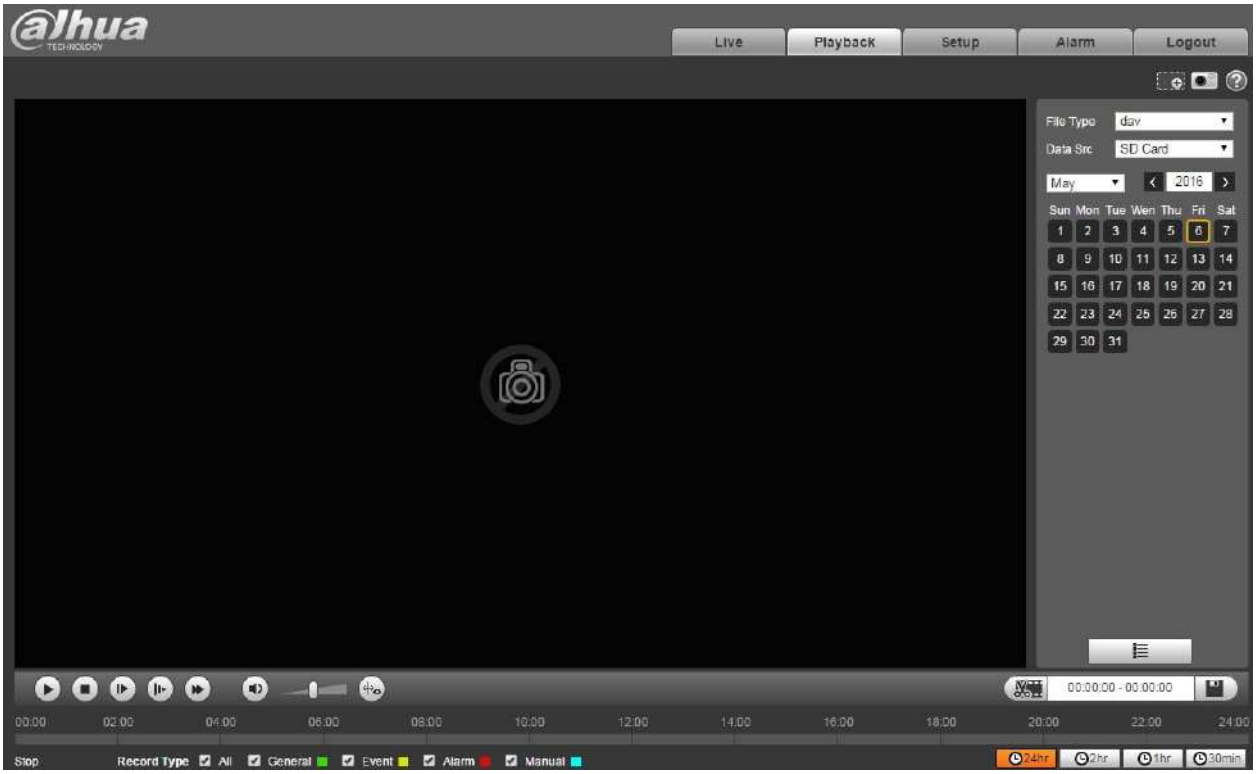


Figure 3-1

3.1 Video Playback

Select file type as “dav” and the system will display the interface which is shown in Figure 3-2. Refer to Table 3-1 for more details about parameters.

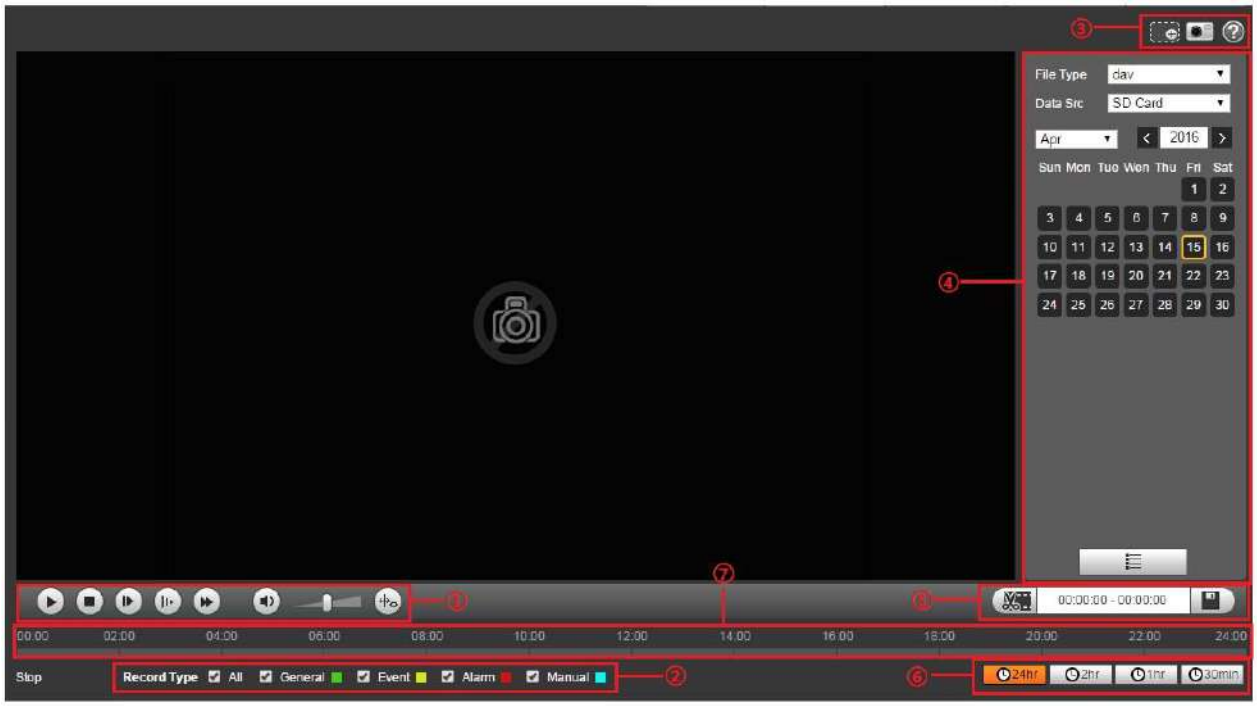


Figure 3-2

No.	Description
1	Play function column
2	Record type column
3	Assistant function column
4	Playback file column
5	Playback clip column
6	Progress bar time format column
7	Progress bar

Table 3-1

3.1.1 Play Function

Play function column is shown in Figure 3-3, refer to Table 3-2 for more details about parameters.



Figure 3-3

Parameter	Description
① Play	When you see this button, it means pausing or not playing record. Click this button and switch to normal play status.
② Stop	Click this button to stop playing video.
③ Next frame	Click this button to go to next frame. **Note** You shall pause playback when you use this function.
④ Slow	Click this button to play slowly.
⑤ Fast	Click this button to play fast.
⑥ Mute	When this button displays, it means audio is silent. Click this button to switch back to normal.
⑦ Volume	Left click mouse to adjust volume.
⑧ Rules info	Click the button to display intelligent rules after enabling playback video.

Table 3-2

3.1.2 Record Type

Check record file type, the only selected file will be displayed in progress bar and file list. See Figure 3-4.



Figure 3-4

3.1.3 Assistant Function

Video playback assistant function is shown in Figure 3-5.

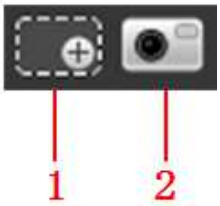


Figure 3-5

Parameter	Description
1. Digital Zoom	● Click it, you can zoom in any area when then playback video is in original status. In non-original status, you can zoom in specified zone, Right click mouse to restore its original size. ● Click this button; you can scroll to zoom in/out video.
2. Snapshot	Click this button; you can take snapshot over the video under playback status. Snapshot will be saved to path in “4.1.2.5 Path”.

Table 3-3

3.1.4 Playback File

In calendar, the date with blue shading means the current date having video record or snapshot file. See Figure 3-6.

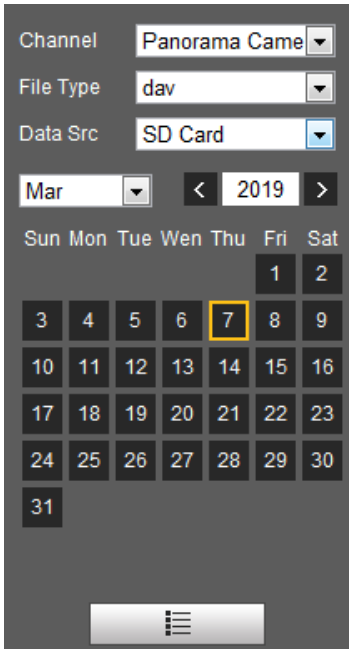


Figure 3-6

Parameter	Description
Channel	There are three options: Panorama Camera and Detail Camera.
File Type	● Select “dav” and it means record video playback. ● Select “jpg” and it means picture playback.
Data Source	It is SD card by default.

Parameter	Description
	File list. Click the icon, the video files of the selected date will be displayed in the list.

Table 3-4

File list

To configure the function, do the following:

Step 1

Click the date with blue shading, and record file progress bar with different colors is displayed on the time axis.

Note

Green represents general video, yellow represents event video, red represents alarm video, and blue represents manual video.

Step 2

Click on certain time on progress bar, playback starts from this time. See Figure 3-7.

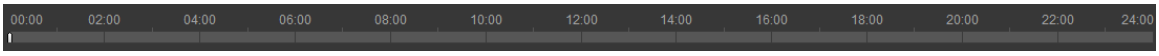


Figure 3-7

Step 3

Click , and the video files of the selected date will be displayed in the list. See Figure 3-8.

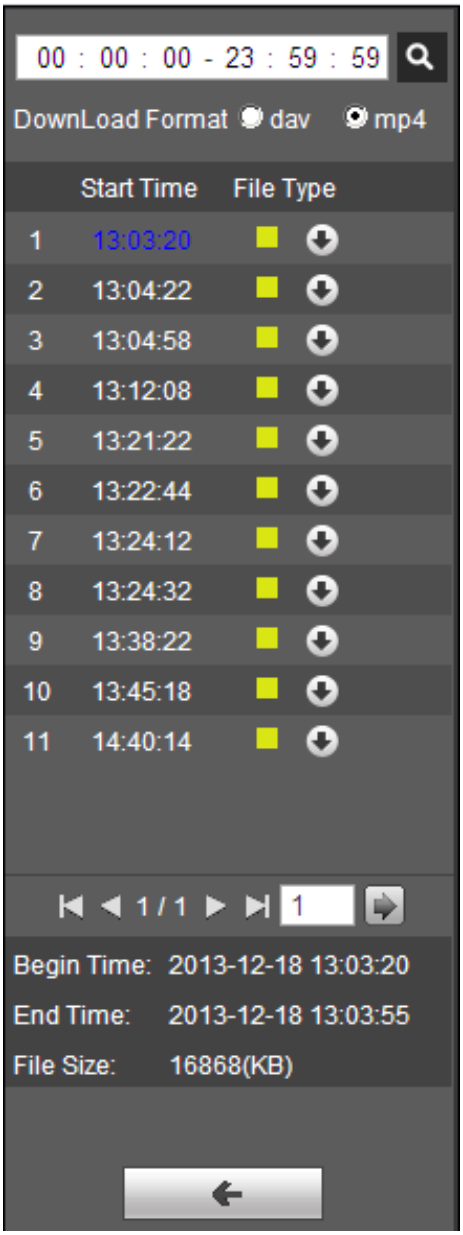


Figure 3-8

Parameter	Description
	Search all the video files between the entered starting time and ending time.
Download Format	Two types: dav and mp4.

Parameter	Description
	● If the video file is dav. format, click Download to download the files locally. ● If the video file is mp4 format, click Download to download the files to the path of Playback Download in “4.1.2.5 Path”. **Note** Downloading and playing mp4 video file at the same time is not supported.
	Click to go back to the calendar interface. And you can select the date again.

Table 3-5

3.1.5 Playback Clip

Note

The record file which is being playbacked will pause automatically when using playback clip function, which means that playback clip and playback can’t be implemented at the same time.

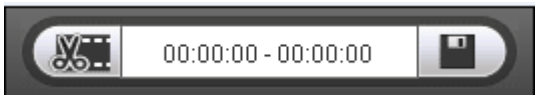


Figure 3-9

Step 1

Click start time to clip on time axis. This time must be within progress bar range.

Step 2

Move mouse above the clip icon , and “Select Start Time” will show up in the lower right corner.

Step 3

Click clip icon  and complete the setting of start time for playback clip.

Step 4

Click end time of playback clip on time axis, and the time must be within progress bar range.

Step 5

Move mouse above clip icon , and “Select End Time” will show up in the lower right corner.

Step 6

Click clip icon , and complete the setting of end time of playback clip.

Step 7

Click Save to save the file in the path of “Playback Clip” set in in “4.1.2.5 Path”.

3.1.6 Progress Bar Time Format



Figure 3-7

Parameter	Description
 24 hours	Click it and the progress bar will display in 24-hour mode.
 2 hours	Click it and the progress bar will display 2 hours of the video.
 1 hour	Click it and the progress bar will display 1 hour of the video.
 30 min	Click it and the progress bar will display 30 minutes of the video.

3.2 Picture Playback

Select file type as “jpg” and the system will display the interface shown in Figure 3-8.

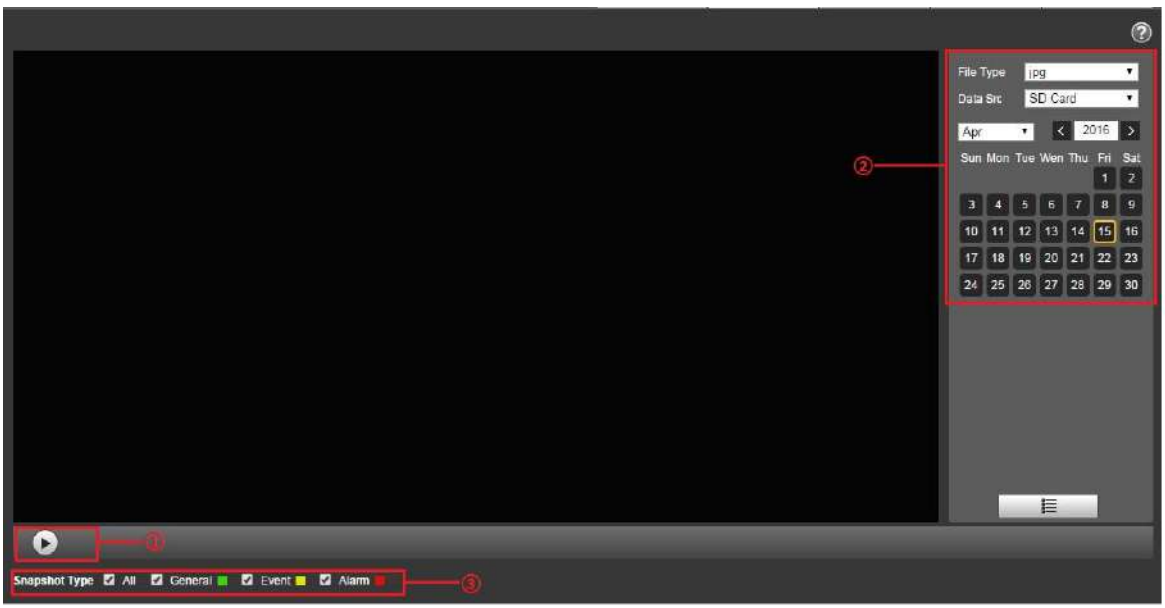


Figure 3-8

No.	Description
1	Play function column
2	Playback file column
3	Snapshot type column

Table 3-6

3.2.1 Play Function

The play button is shown as below. See Figure 3-9.



Figure 3-9

Default icon is , and it means pauseing or not playing picture.

- Click play button to switch to normal play status. Icon becomes .
- Click it to pause and switch it to pause status.

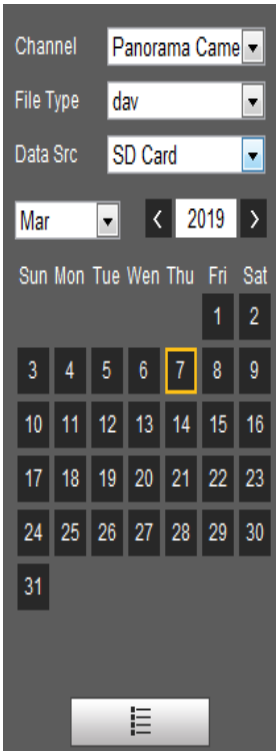
3.2.2 Playback File

Step 1

Click file list , ans the selected snapshot file will be displayed in the list.

Parameter	Description
File Type	• Select dav for video playback. • Select jpg for picture playback.
Data Source	The data source is SD card by default.
	Download in batch. Click the icon and you can select the picture files of certain types within the certain time periods to download in batch. See “3.2.2 Playback File”.
	File list. Click the icon, the picture files of the selected date will be displayed in the list.

Table 3-7



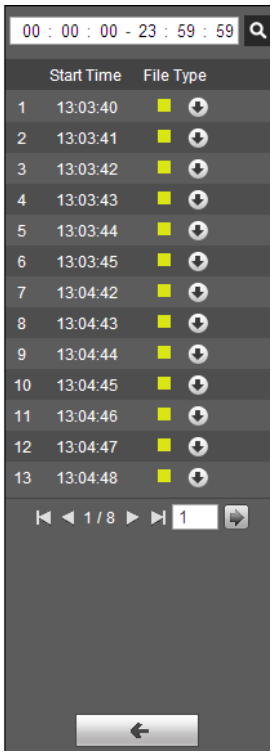


Figure 3-13 Figure 3-14

Step 2

Double click file in list to playback this snapshot.

Please refer to the following sheet for detailed information.

Parameter	Description
	It means all snapshot files within the start time and end time of selected date.
	Click download button to download snapshot file to local.
	Click back button to return to calendar interface and re-select time to operate.

Table 3-8

3.2.3 Snapshot Type

It will only display the selected type of file in the list after checking the snapshot type. It can also select the snapshot type to be displayed via the drop-down box above the file list.

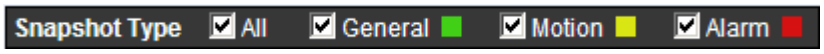


Figure 3-15

4 Setting

You need to set the camera, video and audio conditions of the network intelligent speed dome in order to guarantee normal monitoring of the device.

4.1 Camera

4.1.1 Conditions

4.1.1.1 Picture

Step 1

Select “Setting > Camera > Conditions > Image”. The system displays the interface of “Picture” which is shown in Figure 4-1.

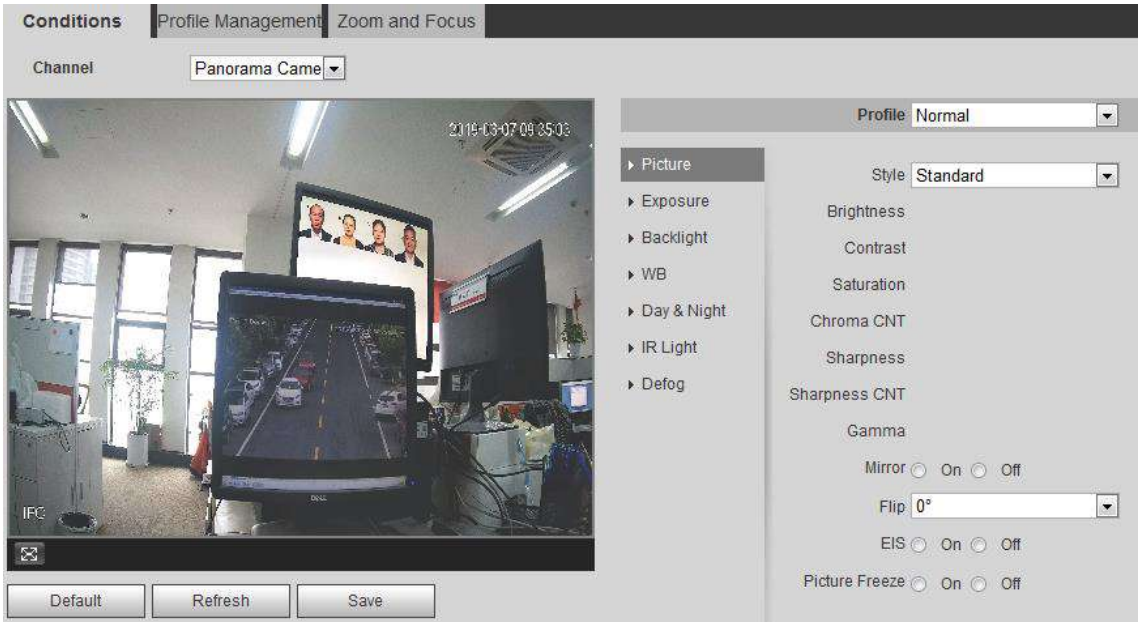


Figure 4-1

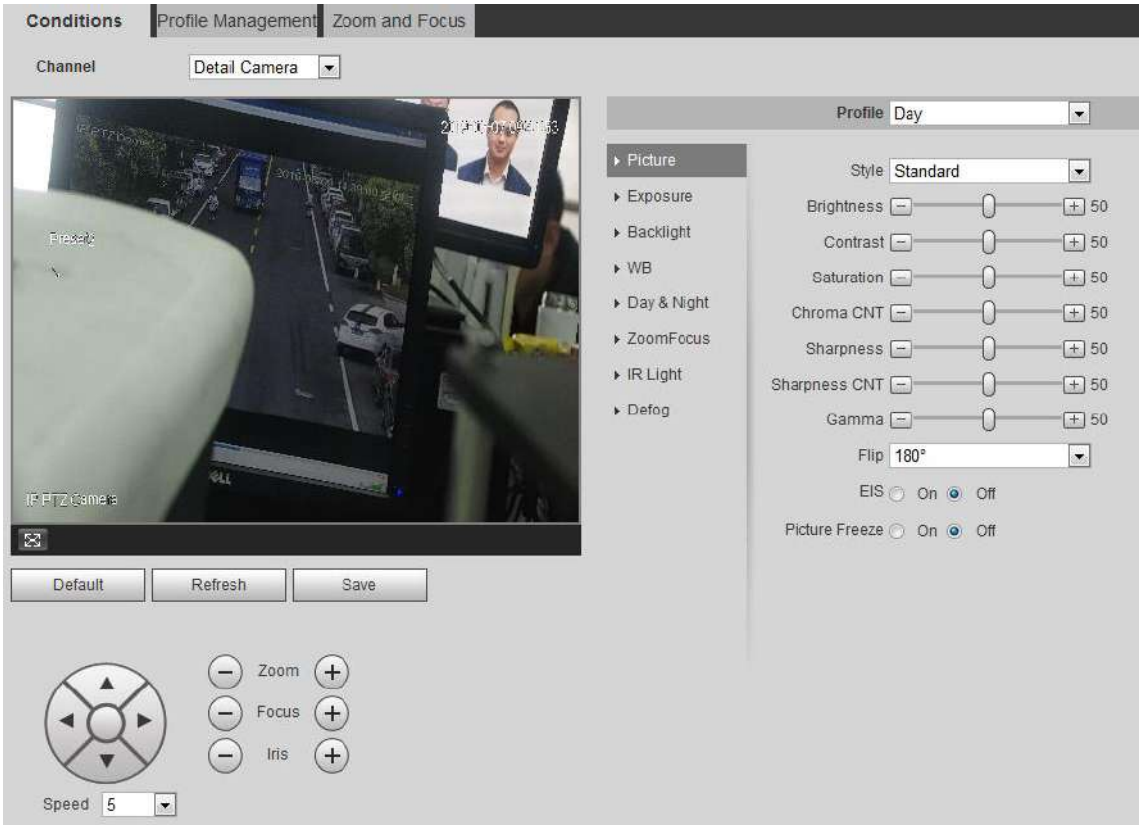


Figure 4-2

Step 2

Configure parameter info according to the actual needs; see Table 4-1 for more details.

Parameter	Description
Profile	You can select Normal, Day, or Night mode, and view the configuration and the effect of the selected mode.
Style	You can select Soft, Standard, or Vivid for the style. It is Standard by default.
Brightness	Set the overall brightness of image. The larger the brightness value is, the brighter the image will be. The value ranges from 0 to 100.
Contrast	Set the brightness contrast of image. The larger the contrast value is, the larger the brightness contrast will be. The value ranges from 0 to 100.
Saturation	Set the image color purity. The higher the purity is, the brighter the color will be. The value causes no influence to the overall brightness of the image. The value ranges from 0 to 100.
Chroma CNT	Set the image color suppression level. The larger the chroma CNT value is, the stronger the suppression will be. The value ranges from 0 to 100.
Sharpness	Set the sharpness of picture edges. The larger the sharpness value is, the more obvious the edge will be. The value ranges from 0 to 100. The image is likely to generate noise more easily if the value is set too big.
Sharpness CNT	Set the sharpness suppression level. The larger the sharpness CNT value is, the stronger the suppression will be. The value ranges from 0 to 100.

Parameter	Description
Gamma	Adjust the image brightness and improves the image dynamic range in a non-linear way. The larger the value is, the brighter the image will be. The value ranges from 0 to 100.
Flip	Select the display direction of the monitoring image. Select the display direction of the monitoring image. It is 0° by default.
EIS	Electronic Image Stabilization function is realized through image difference comparison algorithm, which can effectively solve the problem of image dithering during application and make the HD image clearer. It is Off by default.
Picture Freeze	If you select On to enable the function, it directly displays the preset when calling preset.

Table 4-1

Step 3

Click **Save** to finish configuration.

4.1.1.2 Exposure

Step 1

Select “Setting > Camera > Conditions > Exposure”.

The system displays “Exposure” interface, which is shown from Figure 4-3 to Figure 4-4.

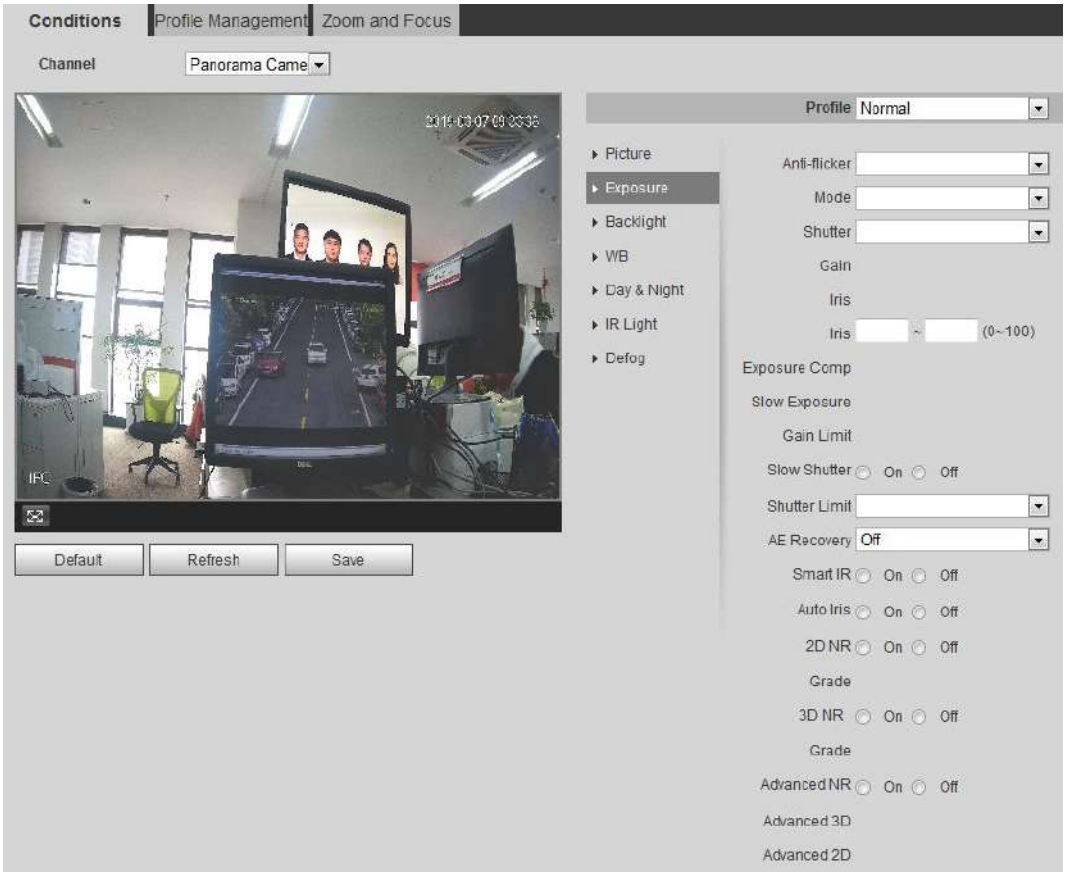

Conditions
Profile Management
Zoom and Focus
Channel
Panorama Came
Profile
Normal
Picture
Exposure
Backlight
WB
Day & Night
IR Light
Defog
Anti-flicker
Mode
Shutter
Gain
Iris
Iris
(0~100)
Exposure Comp
Slow Exposure
Gain Limit
Slow Shutter
On
Off
Shutter Limit
AE Recovery
Off
Smart IR
On
Off
Auto Iris
On
Off
2D NR
On
Off
Grade
3D NR
On
Off
Grade
Advanced NR
On
Off
Advanced 3D
Advanced 2D
Default
Refresh
Save

Figure 4-3

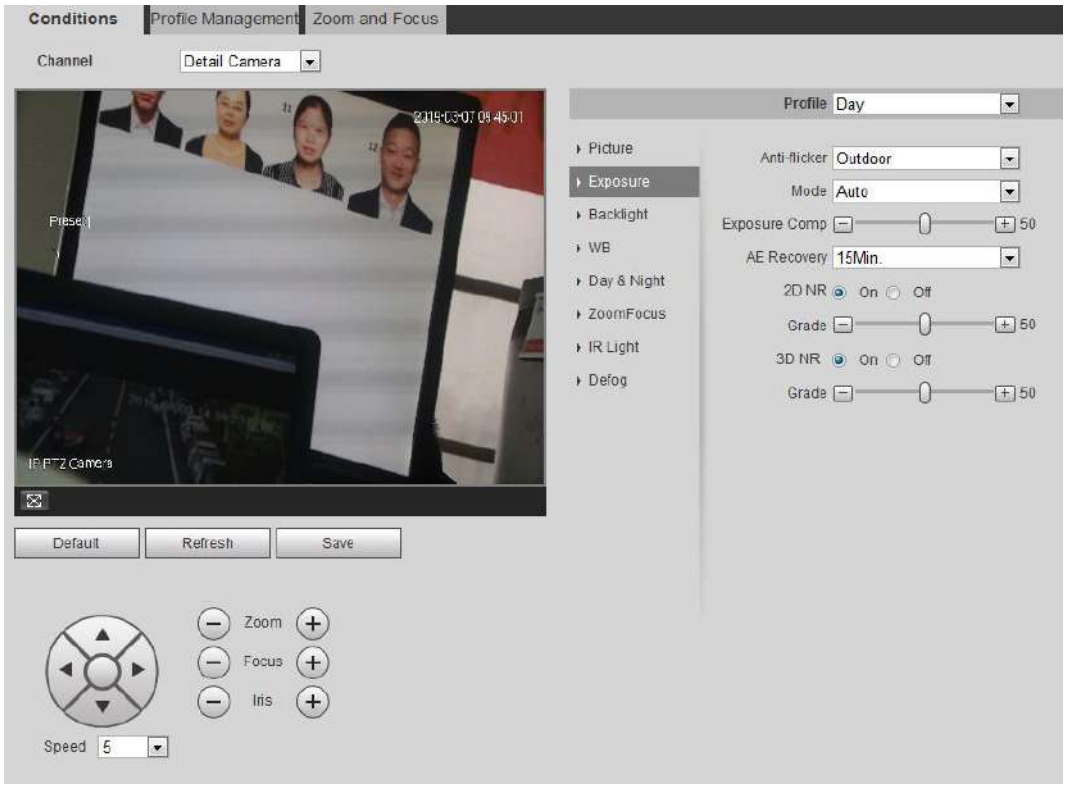


Figure 4-4

Step 2

Configure parameter info according to actual needs; see Table 4-2 for more details.

Parameter	Description
Anti-flicker	It can select 50Hz, 60Hz or outdoor. ● 50Hz: When AC is 50Hz, it can adjust exposure automatically according to scene brightness, make sure there is no cross stripes in the image. ● 60Hz: When AC is 60Hz, it can adjust exposure automatically according to scene brightness, make sure there is no cross stripes in the image.

Parameter	Description
Mode	It is to set camera exposure mode. It includes: auto/manual/aperture priority/shutter priority/gain priority. The default is auto mode. ● For the auto exposure mode, the image overall brightness will auto adjust according to different scene brightness in the normal exposure range. ● For manual exposure mode, it can manually adjust gain value and shutter value; it supports long exposure. ● For aperture priority mode, fixed aperture is the set value, it can auto realize best brightness according to priority drive exposure time to drive gain mode. ● For shutter priority mode, the image overall brightness can auto adjust according to the adjustment shutter range priority according to different scene brightness in normal exposure range. If the image brightness is still improper and gain has reached upper and lower limit of the range, then it can auto adjust gain value again to make image normal. ● For gain priority mode, it can manually adjust gain value and exposure compensation value.
Gain Range	It is to set the gain value of exposure; the range is from 0 to 100.
Shutter	It is to adjust shutter time. The bigger the shutter value is, the darker the image becomes; otherwise it becomes brighter.
Shutter Range	It is to set the camera exposure time, the range is from 0 to 1000, the unit is ms.
Iris	It is to set the camera light quantity. The bigger the iris is, the brighter the image becomes, and otherwise it becomes darker.
Exposure Comp	It is to set the value of exposure compensation; value range is from 0 to 100.
Slow Exposure	It is to set the exposure adjustment speed; the value range is from 0 to 100.
Gain limit	It is to set the gain upper limit of exposure, the value range is from 0 to 100.
Slow Shutter	It can capture image via extending auto exposure time in the low illuminance environment, which can effectively reduce image noise, but it may generate smear for moving objects.
Shutter limit	It is to restrict the min shutter value of the camera.
Auto exposure recovery	After manually adjusting “Iris + or Iris –”, it will recover to the exposure mode before adjustment regularly.
2D NR	The threshold is used to suppress noise, the higher the level is, the smaller the noise becomes, and the image appears more blurry then before.
3D NR	The value is used to suppress noise, the higher the level is, the smaller the noise becomes and the image seems more blurry than before.
Grade	It is to set the NR value range, which is from 0 to 100. The bigger the value is, the higher the NR level becomes.
Advanced NR	It can realize noise suppression effect via 3D and 2D video filtering method.
Advanced 3D	It is to set 3D grade, the value range is from 0 to 100.
Advanced 2D	It is to set 2D grade, the value range is from 0 to 100.

Table 4-2

Step 3

Click **Save** to finish configuration.

4.1.1.3 Backlight

Note

It fails to set backlight function when “Defog” is enabled, there will be prompt on the WEB interface.

The function is used to adjust the backlight compensation mode of the monitoring image. The config steps are shown as follows:

Step 1

Select “Setting > Camera > Condition > Backlight” and the system will display the interface of “Backlight”, which is shown in Figure 4-5.



Figure 4-5

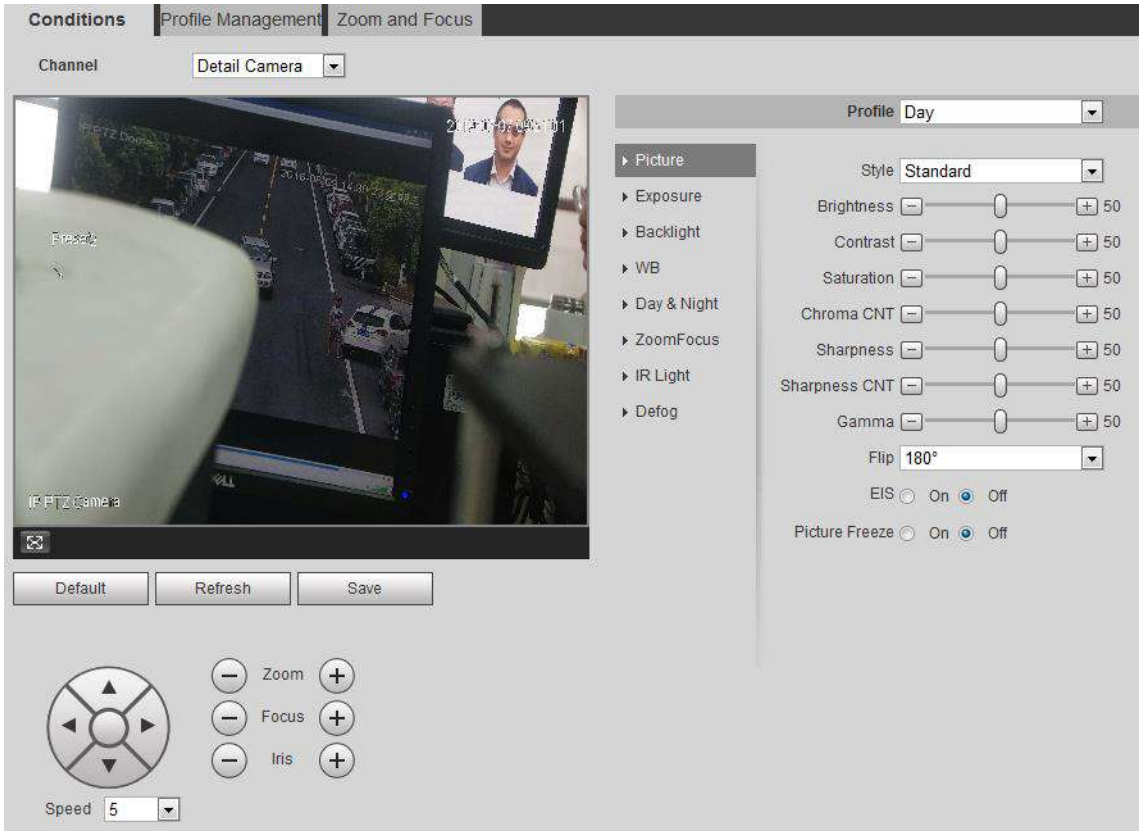


Figure 4-6

Step 2

Select backlight mode

- Off: Backlight mode is disabled.
- BLC: In BLC mode, the Camera gets clear image of the dark area on the target when shooting against light.
- WDR: In WDR mode, the Camera constrains over bright area and compensates dark area to improve the image clarity.
- HLC: In HLC mode, the Camera dims strong light, and it works well for taking pictures of human face and car plate detail under extreme low illumination. It is applicable to the entrance of toll station or parking lot.

Step 3

Click **Save** to finish configuration.

Note

Other backlight mode config will not be valid when the Mode is selected as “Off”.

4.1.1.4 White Balance

White balance is used to restore white objects, after setting white balance mode; it can make the white object display white status in different environments.

Step 1

Select “Setting > Camera > Conditions > WB”.

The system displays the interface of “WB”, which is shown in Figure 4-7.

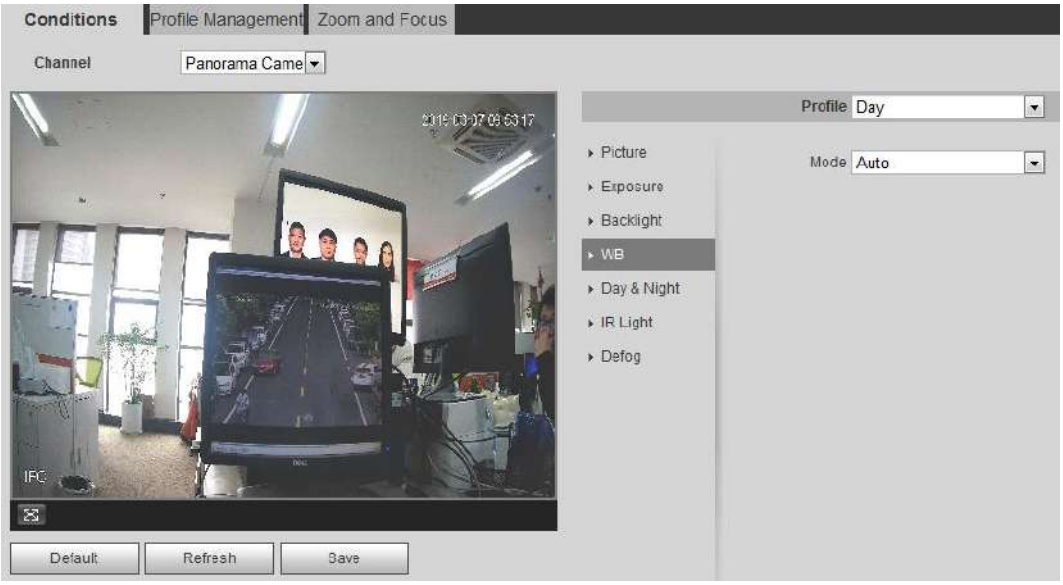


Figure 4-7

Step 2

Select “WB” mode.

As for WB mode, it can select auto, indoor, outdoor, ATW, manual, sodium lamp, natural and street lamp. It is “Auto” by default.

Step 3

Click **Save** to finish configuration.

4.1.1.5 Day & Night

Note

It fails to set defog function after enabling “Day/Night” function, there will be prompt on the WEB interface.

The function can be used to set the conversion between color mode and B/W mode, which can effectively guarantee that it can still monitor clear image even in dark environment for the intelligent

speed dome. The config steps are shown as follows.

Step 1

Select “Setting > Camera > Conditions > Day & Night”.

The system displays the interface of “Day & Night” mode, which is shown in Figure 4-8.



Figure 4-8

Step 2

Configure parameter info according to the actual needs; refer to Table 4-3 for more details.

Parameter	Description
Profile	There are three options: Auto, Day, and Night.
Mode	It is to set image color and b/w mode, which is not influenced by the selection of config profile. It is auto mode by default. • Color: The camera will only output color image. • Auto: It can select to output color or black & white image according to the environment adaptation. • Black & White: The camera will only output black & white image.
Sensitivity	It is used to adjust the sensitivity of switch between color and black & white. It can select low, middle and high, it is middle by default. **Note** It can set sensitivity only when day/night mode is auto.
Delay	It is used to adjust the delay value of switch between color and black & white. The value range is 2s to 10s. **Note** It can set delay only when the day/night mode is auto.

Table 4-3

Step 3

Click **Save** to finish configuration.

4.1.1.6 Zoom & Focus

Digital zoom means zooming in part of the image, the bigger it zooms in, the more blurry it becomes.

Step 1

Select “Setting > Camera > Conditions > Focus & Zoom”.

The system displays the interface of “Focus & Zoom”, which is shown in Figure 4-9.

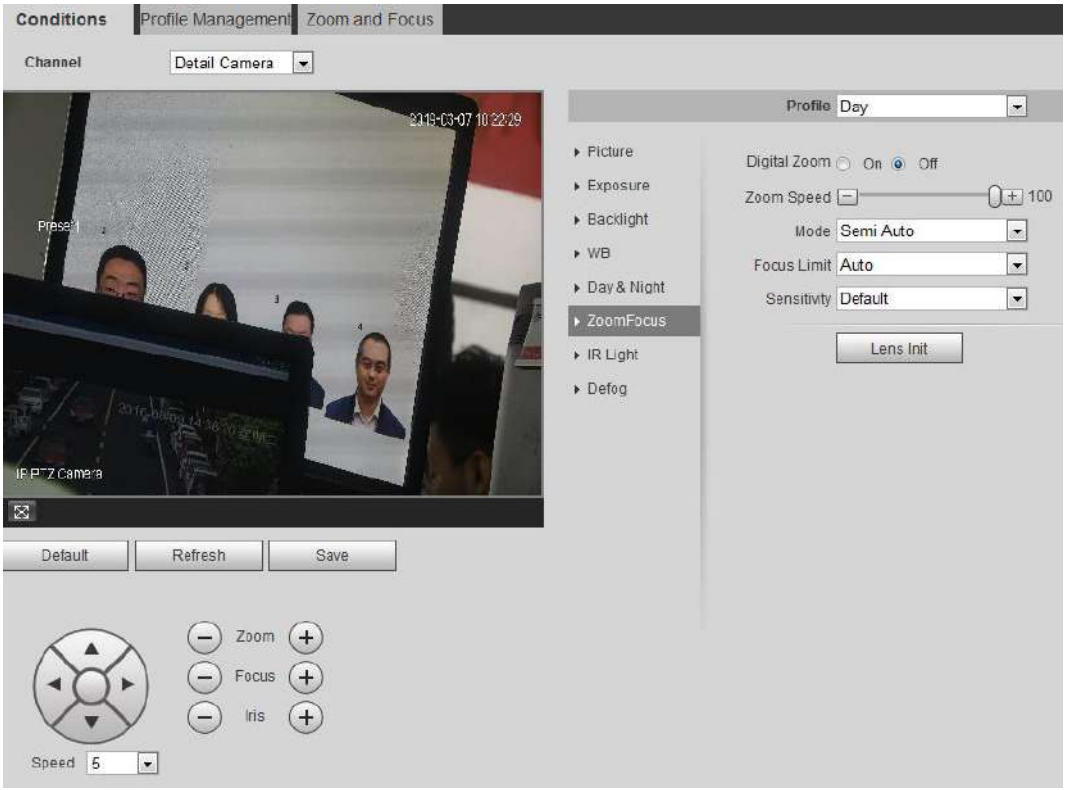


Figure 4-9

Step 2

Configure parameter info according to the actual needs; please refer to Table 4-4.

Parameter	Description
Digital zoom	It is used to set if it is to enable digital zoom function, it is off by default.
Zoom speed	It is to set camera zoom speed, the bigger the value is, the faster the zoom speed becomes.

Parameter	Description
Mode	It is to control the trigger mode of focus, you can select semi-auto, manual and auto. ● Semi auto: it will actively trigger focus when detecting zoom, ICR switch and etc. ● Auto: It will actively trigger focus when detecting scene change and zoom, ICR switch and etc. ● Manual: The users can adjust focus location by themselves; the device won't trigger focus actively.
Focus limit	It is to set the nearest distance of focus, and focus on the object beyond the distance, the auto option will make it select proper nearest distance automatically according to the different zoom value.
Sensitivity	It is to set the steady ability or anti-interference capability of focus, the lower the value is, the steadier it becomes, the higher the value is, the stronger the anti-interference capability becomes.
AF tracking	The image becomes relatively clear during zoom if the function is enabled. If the function is disabled, then the zoom speed becomes relatively fast during zoom.
Lens initialization	Click the button and it will implement lens initialization automatically, at this moment, it will realize correction of zoom and focus for the camera.

Table 4-4

Step 3

Click **Save** to finish configuration.

4.1.1.7 IR Light

Currently, common compensation lights include IR light, white light and laser light, different models support different types of compensation lights with different config interfaces. Please refer to actual config interface for more details. It is to introduce the config modes of several compensation lights in this chapter.

IR light/White light

Different types of compensation lights use the following conditions:

- When Day/Night mode is switched to "B/W", the monitoring image becomes black and white, and at this moment the IR light is enabled.
- When Day/Night mode is switched to "Color", the monitoring image becomes color, and at this moment the white light is enabled.
- When Day/Night mode is switched to "Auto", the color of monitoring image is switched according to the environmental brightness, the compensation light changes according to the monitoring image; The IR light is enabled in B/W mode, white light is enabled in color mode.

Note

- Some models are equipped with photoresistance. IR/white light will be enabled automatically when

the environmental brightness is too low.

- It is to take IR light as an example to introduce the parameters and functions of config interface.

The config steps of IR light/white light are shown as follows:

Step 1

Select “Setting > Camera > Conditions > IR Light”.

The system displays the interface of “IR Light”, which is shown in Figure 4-10.

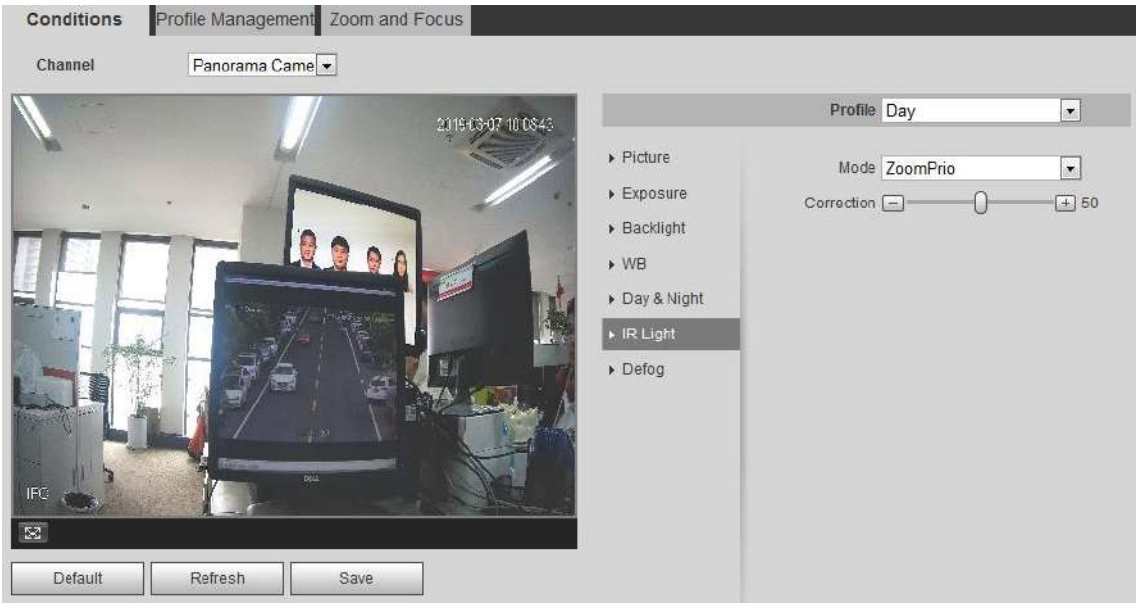


Figure 4-10

Step 2

Configure parameter info according to the actual needs, please refer to Table 4-5 for more details.

Parameter	Description
Mode	It is used to set the mode of IR light, you can select zoom priority, SmartIR, manual and off ● Zoom priority: It can auto adjust the brightness of IR light according to the actual zoom rate. ● SmartIR: The device can control IR light brightness according to the actual zoom rate and overexposure. ● Manual: It is to set the brightness value of IR light manually. ● Off: It is to disable compensation light. **Note** Only IR light supports SmartIR mode.
Light compensation	It is used to compensate the brightness of IR light; the value range is from 0 to 100.
Near light	It is used to set the brightness of near light; the value range is from 0 to 100.
Far light	It is used to set the brightness value of far light; the range is from 0 to 100.

Table 4-5

Step 3

Click **Save** to finish configuration.

4.1.1.8 Defog

Note

It fails to set defog function after enabling “Backlight” function, there will be prompt on the WEB interface.

The image quality may become weak if the camera is in the environment with fog or haze, the image can realize auto correction in the auto mode; it can also select different intensity manually according to the fog concentration, which is to adjust the image definition.

Step 1

Select “Setting > Camera > Conditions > Defog”.

The system displays the interface of “Defog”..



Figure 4-2

Step 2

It is to configure parameter info according to actual needs, please refer to Table 4-6 for more details.

Parameter	Description
Mode	It is used to set the defog mode, it can select auto, manual and off. It is “Off” by default. **Note** ● For the devices which support optical defog. Optical defog and electronic defog realize self-adaptive switch according to algorithm.

Parameter	Description
	● For the devices which support optical defog. Electronic defog is enabled by default in off mode.

Table 4-6

Step 3

Click **Save** to finish configuration.

4.1.1.9 Profile Management

It can select three modes of profile management, such as normal, full time and schedule.

- When it selects “Normal”, the video will be monitored according to the normal config of the camera.

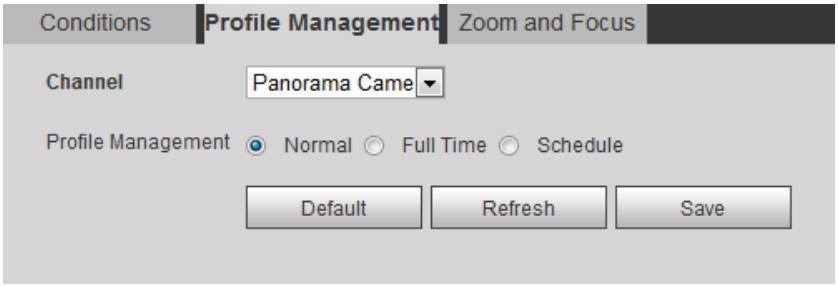


Figure 4-3

- When it selects “Full time”, it can select day or night, which is corresponding to the config file of the camera conditions for day or night.

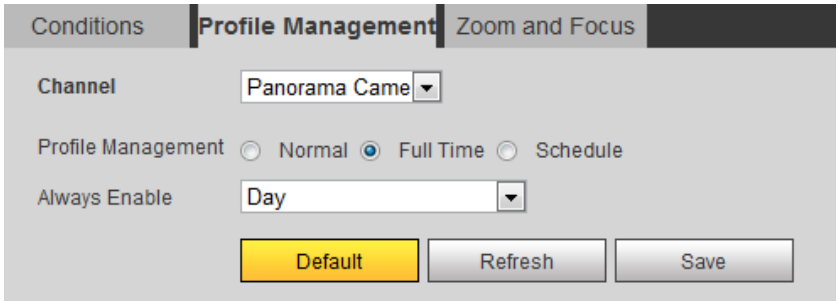


Figure 4-4

- When it selects “Schedule”, you can select one period as day config, the other period as night config. If the config profile management is displayed according to schedule, you can set 0:00 to 12:00 as day config, and 12:00 to 24:00 as night config.

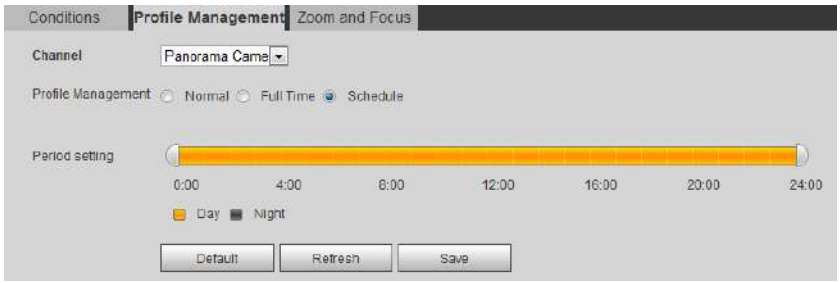


Figure 4-5

4.1.2 Video

It is to set video, snapshot, overlay, ROI, and path.

4.1.2.1 Video

It is to set video stream of the monitoring image. The config steps are shown as follows;

Step 1

Select “Setting > Camera > Video > Video”.

The system displays the interface of “Video stream”, which is shown in Figure 4-15.

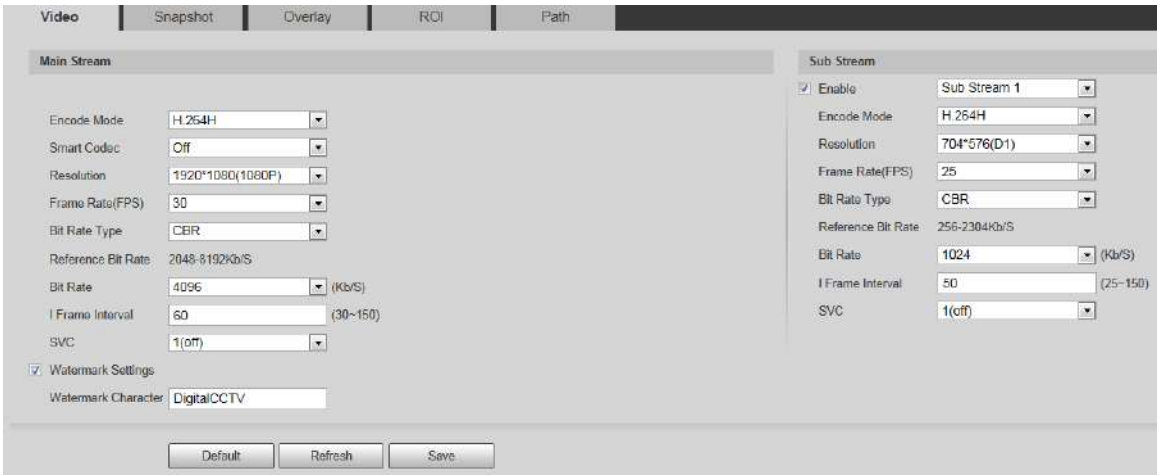


Figure 4-15

Note

- Different device video may have different config interface, please refer to the actual interface for more details.
- Different video streams may be corresponding to different default value, please refer to the actual

interface for more details.

Step 2

Configure parameter info according to the actual needs, please refer to Table 4-7 for more details.

Parameter	Description
Sub Stream Enable	Please check the box here to enable extra stream function. This function is enabled by default.
Encode mode	There are seven options: H.264, H.264H, H.264B, H.265, MJPEG and MPEG4. ● H.264: Main Profile encode mode. ● H.264H: High Profile encode mode. ● H.264B: Baseline Profile encode mode. ● H.265: Main Profile encode mode. ● MJPEG: In this encode mode, the video needs to enlarge 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.
Smart Codec	It can set smart codes as on or off.
Resolution	There are multiple resolution types. You can select from the dropdown list. For each resolution, the recommended bit stream value is different.
Frame Rate (FPS)	PAL: 1～25f/s，NTSC: 1～50f/s.. The frame rate may vary due to different resolutions.
Bit Rate Type	There are two options: VBR and CBR. ● Please note, you can set video quality in VBR mode. ● In MJPEG encode mode, only CBR is available.
Reference Bit Rate	Recommend a reasonable bit rate value range according to the resolution and frame rate you have set.
Bit Rate	● In VBR, the bit rate here is the max value. In CBR, the value is fixed. ● Refer to “Reference Bit Rate”, bit rate value can provide best reference range.
I Frame interval	Here you can set the P frame amount between two I frames, the range varies according to the frame rate, the max is 150, it is recommended to set twice as big as the frame rate.
SVC	Frame rate can realize layered coding, it is a scalable encoding mode in time domain, and it is 1 by default, which is not layered. It can set 2, 3, layer coding setting.

Parameter	Description
Watermark Settings	By calibrating watermark, to see if video is modified. Select Watermark function. Default watermark is Digital CCTV. Watermark character can only be number, letter, _, - within 128 characters.

Table 4-7

Step 3

Click **Save** to finish configuration.

4.1.2.2 Snapshot

It is to set the stream info of snapshot. The config steps are shown as follows:

Step 1

Select “Setting > Camera > Video > Snapshot” and the system will display the interface of “Snapshot”, which is shown in Figure 4-16.

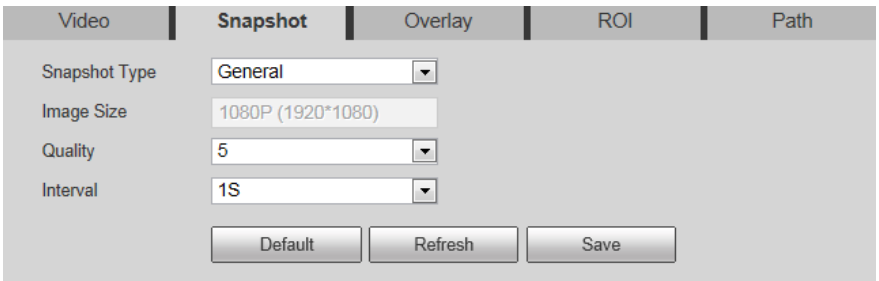


Figure 4-16

Step 2

Configure parameter info according to the actual needs; please refer to Table 4-8 for more details.

Parameter	Description
Snapshot type	It includes General and Event.
Image size	It is the same with the resolution of snapshot (main stream or sub stream).
Quality	It is to set the image quality. There are six levels from 1 to 6.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s or customized.

Table 4-8

Step 3

Click **Save** to finish configuration.

4.1.2.3 Overlay

It is to set the info which is to be overlaid on the monitoring image. The config steps are shown as follows:

Step 1

Select “Setting > Camera > Video > Overlay” and the system will display the interface of “Overlay”.

Step 2

It is to configure video overlay info according to actual needs. The config interface is shown from Figure 4-17 to Figure 4-6. Refer to Table 4-9 for more details.



Figure 4-17

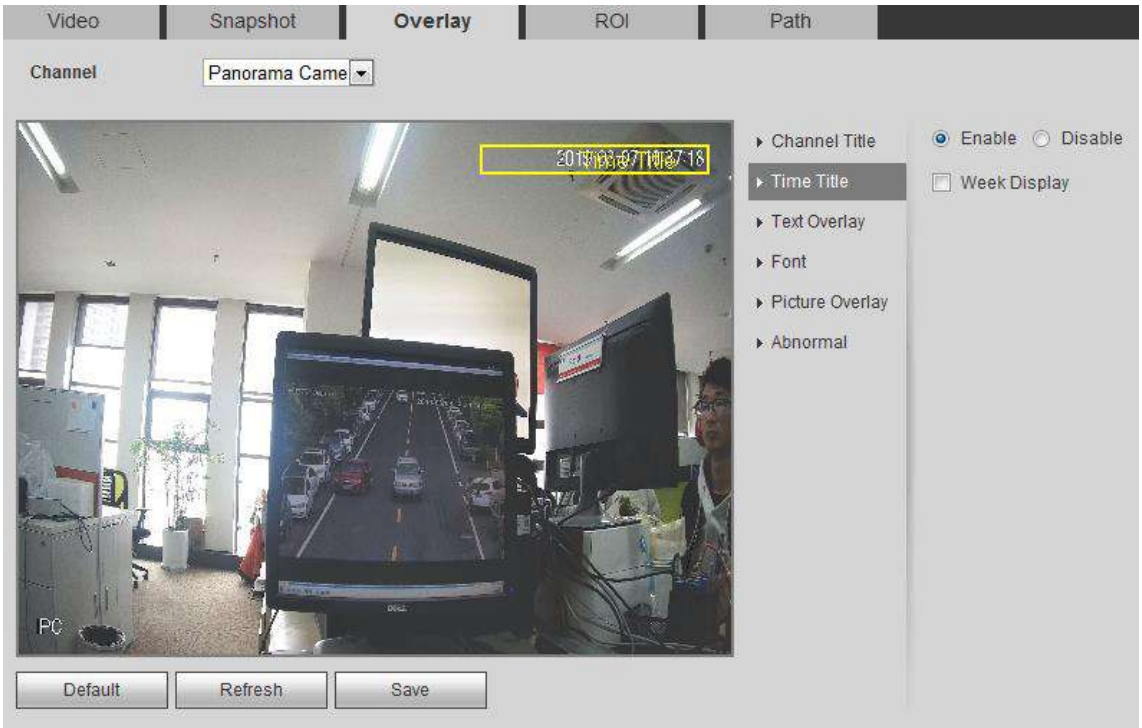


Figure 4-18

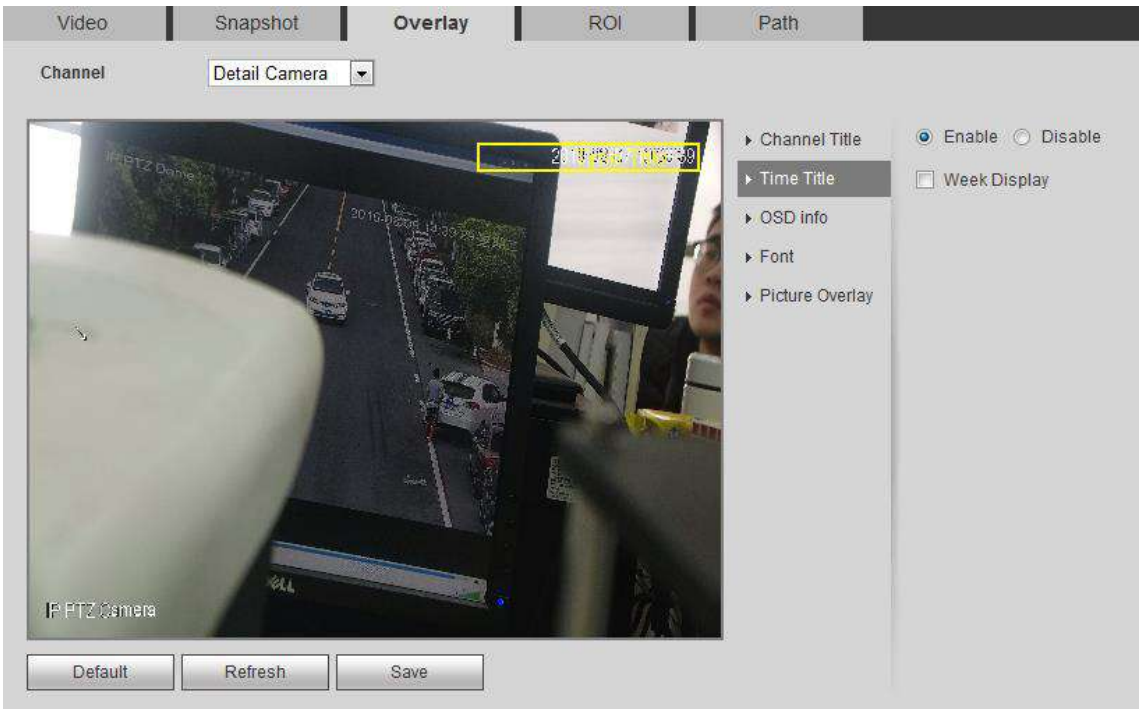


Figure 4-19

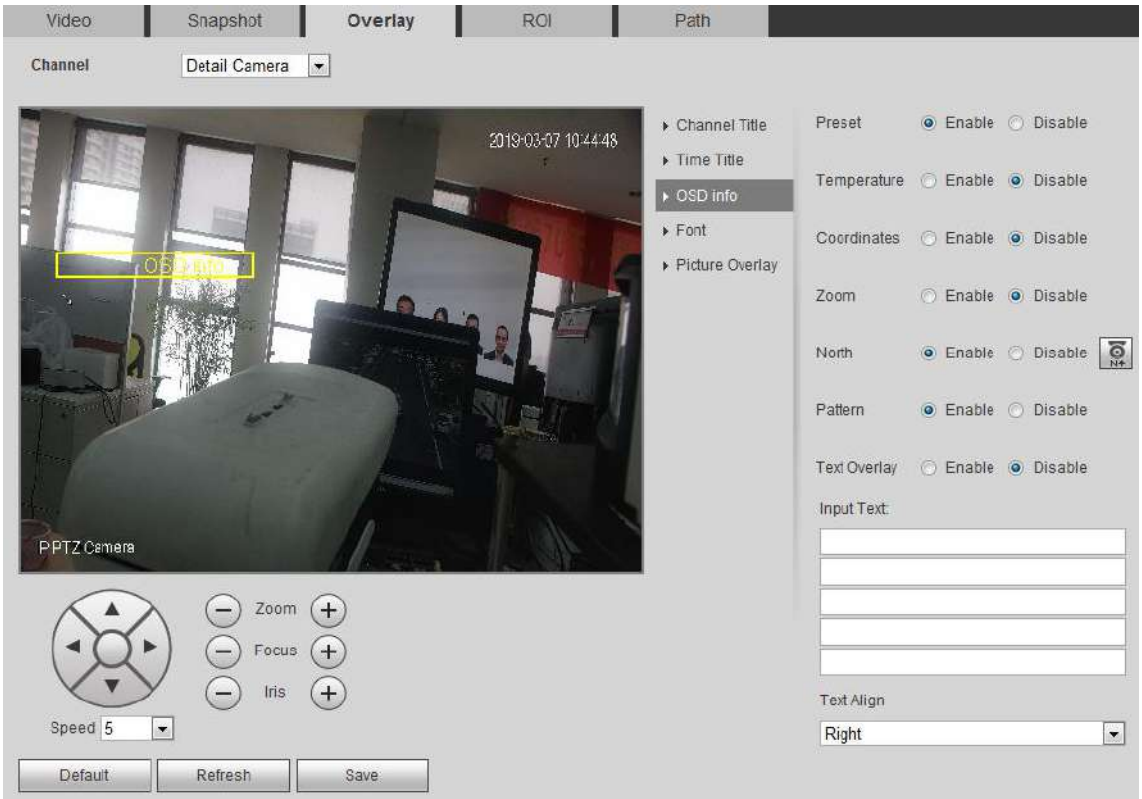


Figure 4-20

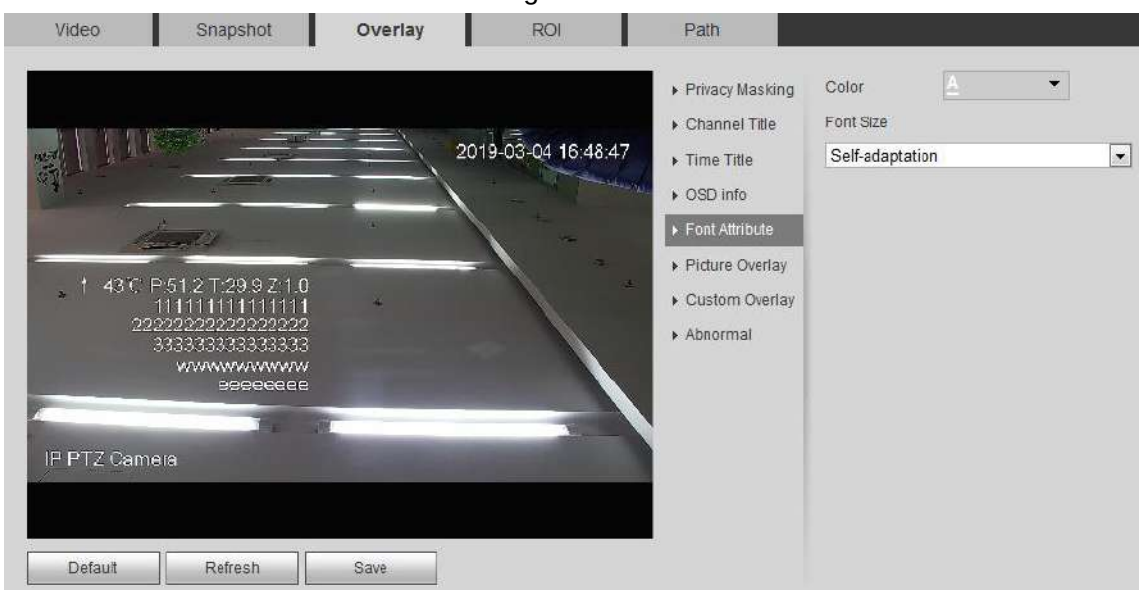


Figure 4-21

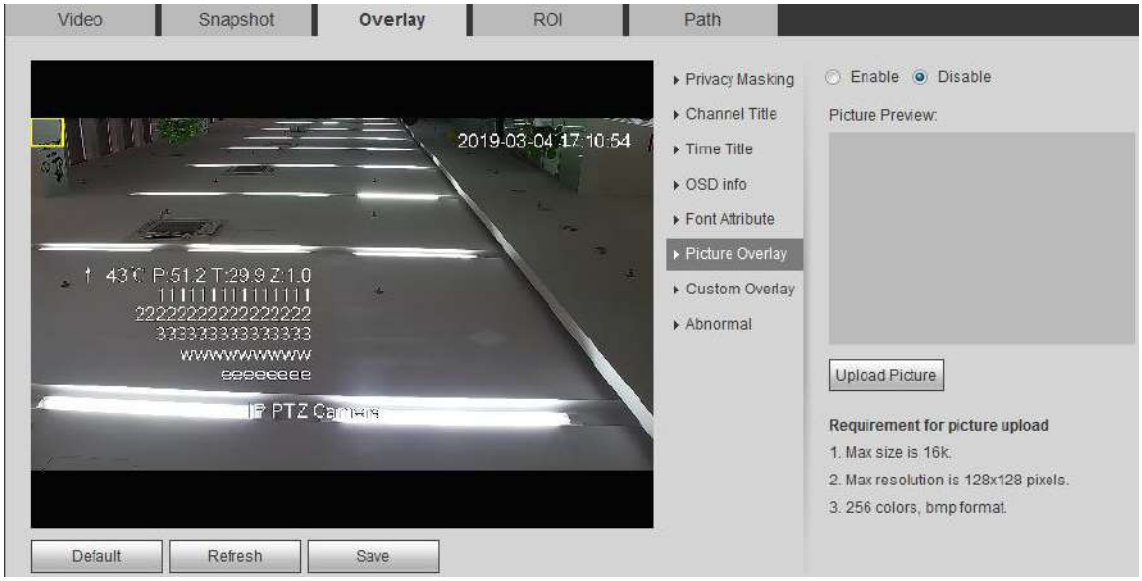


Figure 4-22

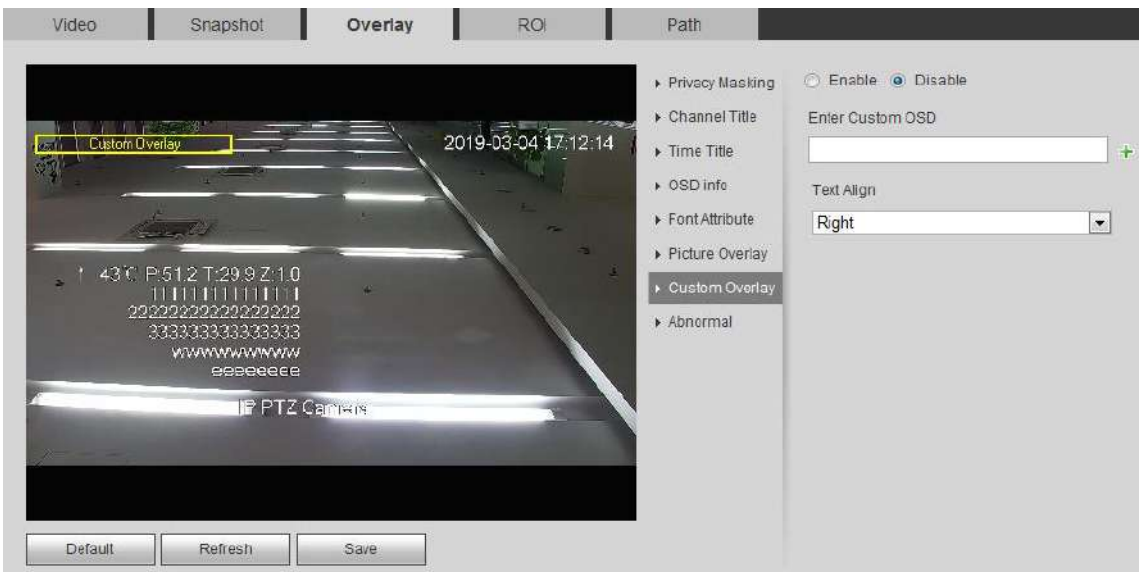


Figure 4-6

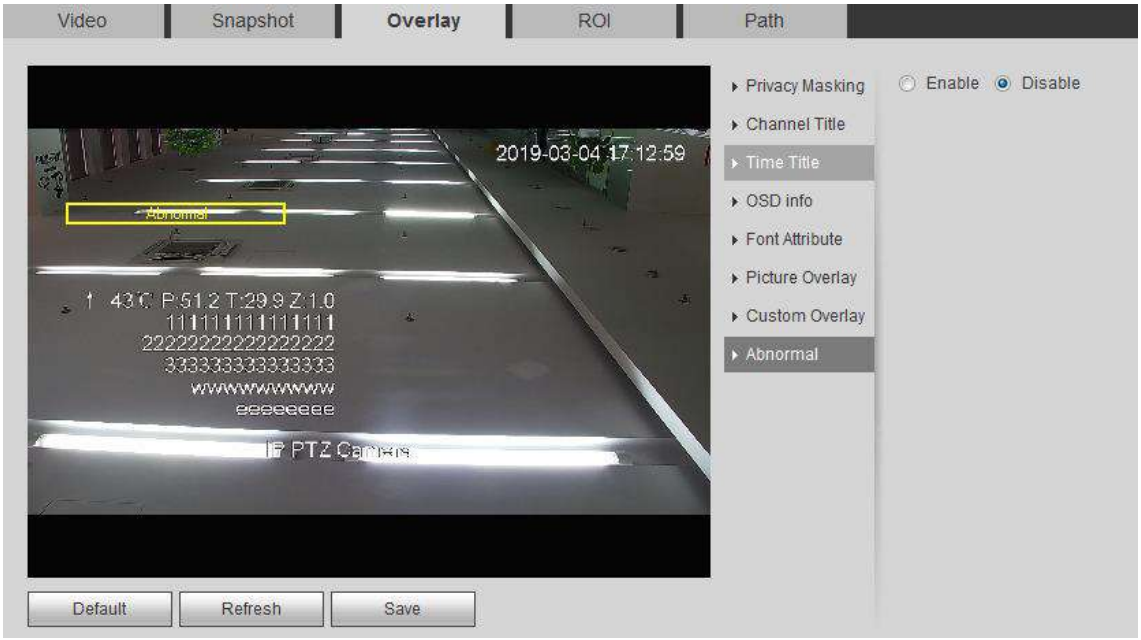


Figure 4-24

Parameter	Description
Privacy Masking	● Click “Draw” to draw privacy mask in the image preview area. ● Click “Delete” to delete corresponding privacy mask. ● Click “Clear” to clear all the privacy mask areas. ● Set “Privacy Mask SN”, click “Go to” to check the corresponding privacy mask area of the “Privacy Mask SN”.
Channel Title	● Check “Enable” to display channel title in the video monitoring window; check “Disable” not to display. ● You can use the mouse to drag the channel tile to adjust the position of channel title. ● Click + behind the Input Channel Title box, and a new input box will be displayed.
Time Title	● Check “Enable” to display time title in the video monitoring window; check “Disable” not to display. ● You can drag “Time Title” box to adjust the position of time title. ● Check “Display Week” to display week info on the time title.

OSD Info	● Check the corresponding “Enable” button, and it will display preset, temperature, PTZ coordinates, zoom, north and text overlay in the video monitoring window; check corresponding “Disable “button and it won’t display. ● Click “Set North” to set the current location as north. ● You can adjust preset, temperature, PTZ coordinates, zoom, north and text overlay via dragging “OSD Info” box. Alignment include align left and align right. ● Click + once, and a new input text box will be increased.
Font Attribute	● Click the **Color** drop-down dialog box, and then you can select color for content you input in the **Input Text** box on the **OSD info** interface. ● Click the **Font Size** drop-down box, and you can set font size for the content you input in the **Input Text** box on the **OSD info** interface. **Note** The content you input will be displayed on the screen.
Picture Overlay	● You can enable this function to display overlay picture. Click disable to turn it off. ● Click Upload Picture to overlay local picture into monitoring window. You can drag the yellow box to move it. **Note** You cannot enable OSD info and picture overlay at the same time.
Custom Overlay	Enable the **Custom Overlay**, drag the yellow box to the position where you want texts displayed over the video. Enter information into the **Enter Custom OSD** box, click **Save**, and then the information you entered will be displayed.
Abnormal	It is to set if it will display abnormity in the monitoring picture.

Table 4-9

Step 3

Click **Save** to finish configuration.

4.1.2.4 ROI

Note

Some devices do not support ROI.

You can set the key monitoring area as the ROI and set image quality upon the area. The config steps are shown as follows.

Step 1

Select “Setting > Camera > Video > ROI”.

The system will display the interface of “ROI”, which is shown in Figure 4-7.

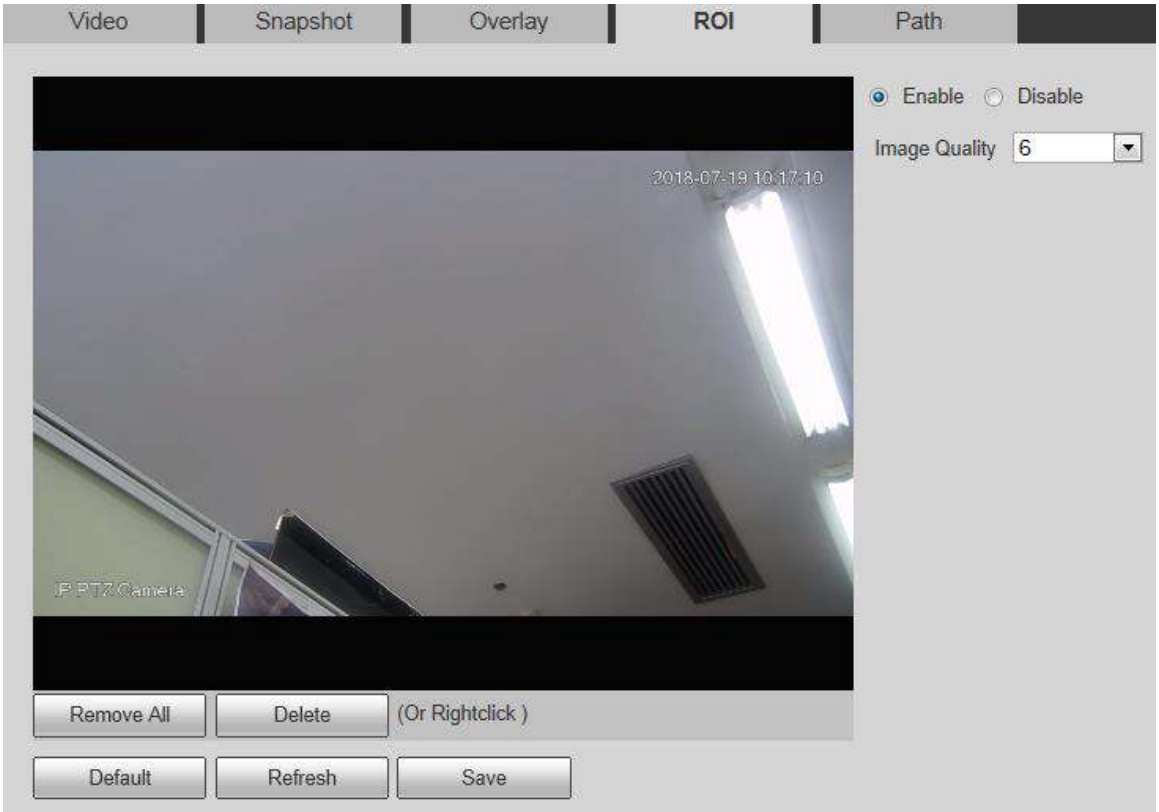


Figure 4-7

Step 2

Select **Enable** to enable ROI function.

Step 3

Press the left mouse button and draw area on the monitoring image. It can set max 4 areas.

- Click **Delete** or press right mouse button to delete corresponding area.
- Click **Remove all** to remove all the areas.

Step 4

Set the image quality of the corresponding ROI.

Step 5

Click **Save** to finish configuration.

4.1.2.5 Path

The storage path is activated with snapshot and record in the live interface, which can set the storage path of monitoring snapshot and monitoring record respectively.

The storage path is activated with snapshot, download and clip in the playback interface, which can set

the storage path of playback snapshot, record download and playback clip respectively.

Step 1

Select “Setting > Camera > Video > Path”.

The system will display the interface of “Storage Path”, which is shown in Figure 4-26.

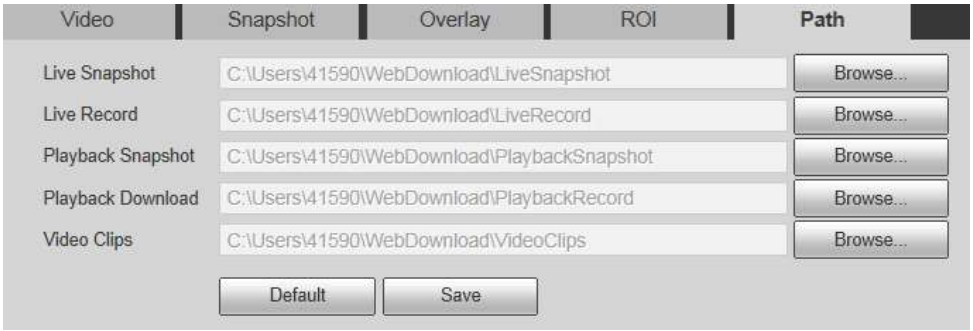


Figure 4-26

Step 2

Set the corresponding storage path.

- The default live snapshot path: C:\Users\admin\WEBDownload\LiveSnapshot.
- The default live record path: C:\Users\admin\WEBDownload\LiveRecord.
- The default playback snapshot path: C:\Users\admin\WEBDownload\PlaybackSnapshot.
- The default playback download path: C:\Users\admin\WEBDownload\PlaybackRecord.
- The default playback clip path: C:\Users\admin\WEBDownload\VideoClips.

Note

Admin is locally logged in PC account.

Step 3

Click **Save** to finish configuration.

4.1.3 Audio

Note

Some models don’t support audio function.

It is to set the audio parameters of the device. The config steps are shown as follows:

Step 1

Select “Setting > Camera > Audio”.

The system will display the interface of Audio, which is shown in Figure 4-27.

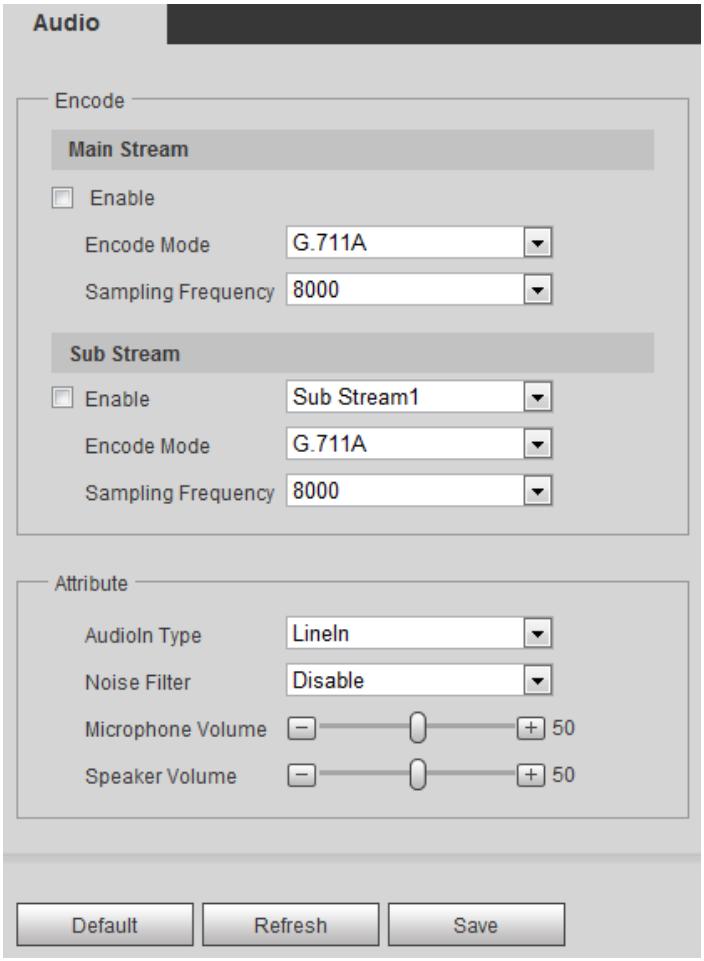


Figure 4-27

Step 2

Please configure info of each parameter according to the actual needs, refer to Table 4-10 for more details.

Parameter	Description
Audio enable	Select the audio channel number which needs to be enabled: the stream is A/V composite stream; otherwise it only contains video only. **Note** Audio can be enabled only when video is enabled.

Encode mode	Select the encode mode from the drop-down list. The default is G.711A. **Note** The audio encode mode which is set here can make both audio stream and bidirectional talk valid at the same time.
Sampling frequency	The sampling frequency can be 8K, 16K, 32K, 48K, and 64K. the Default value is 16K.
Audio in type	It is to set audio input type, it is LineIn by default.
Noise filter	It is to set if it is to enable noise filter function, it is enabled by default.
NR (Noise Reduction Level)	Adjust the noise reduction level. It ranges from 1 to 100. **Note** The parameter takes effect when Noise Filter is enabled.
Microphone volume	It is to adjust the volume of the microphone; the value range is from 0 to 100. **Note** The function is only supported by some models.
Speaker volume	It is to adjust the volume of the speaker; the value range is from 0 to 100. **Note** The function is only supported by some models.

Table 4-10

Step 3

Click **Save** to finish configuration.

4.2 Network

4.2.1 TCP/IP

You need to configure the IP address and DNS server of the intelligent speed dome, make sure it can be mutually connected to other devices in the networking.

Note

- Please confirm the intelligent speed dome has connected to network correctly before setting network parameters.
- Please distribute IP address of the same network segment if there is no router in the network.

- It needs to set corresponding gateway and subnet mask if there is no router in the network.

Step 1

Select “Setting > Network > TCP/IP”.

The system displays the interface of “TCP/IP”, which is shown in Figure 4-28.

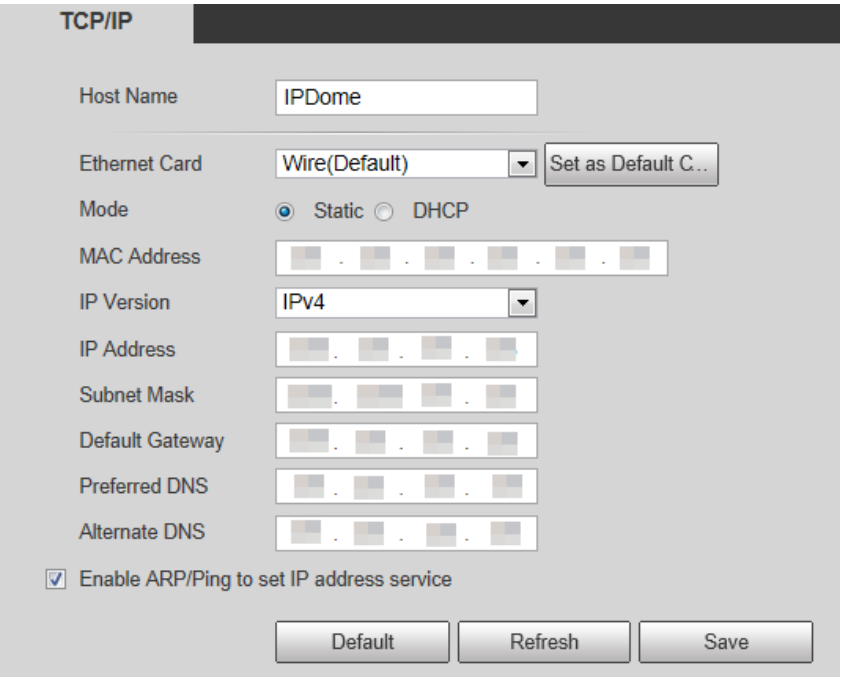


Figure 4-28

Step 2

Configure TCP/IP parameter, refer to Table 4-11.

Parameter	Description
Host Name	You can set host name with numbers, letters, Chinese characters, or symbols.
Ethernet Card	Please select the Ethernet port. Default is wired. Please note you can modify the default Ethernet card if there is more than one card. . Please note the device needs to reboot to activate the new settings once you modify the default settings.
Mode	There are two modes: static mode and the DHCP mode. Select DHCP mode, it auto searches IP, and you cannot set IP/subnet mask/gateway. Select static mode, you must manually set IP/subnet mask/gateway.
Mac Address	It is to display device Mac address.

IP Version	It is to select IP version. IPV4 or IPV6. You can access the IP address of these two versions.	
IP Address	Please use the keyboard to input the corresponding number to modify the IP address and then set the corresponding subnet mask and the default gateway.	
Subnet mask	It has to set according to the actual situation, the prefix of subnet is number, input from 1 to 255, the prefix of subnet identifies a specific network link, and usually it includes a layering structure.	
Default gateway	Make sure it has to be in the same segment with IP address according to the actual situation.	**Note** It inputs 128 bit for IP address, default gateway, preferred DNS, alternate DNS of IPv6 version, it can't be null.
Preferred DNS	DNS server IP address.	
Alternate DNS	Alternate IP address of DNS server.	
Enable ARP/Ping to set device IP address service.	Check, 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.	

Table 4-11

Step 3

Click **Save** to finish configuration.

An example of setting device IP via ARP/Ping

Step 1

Get an unoccupied IP address, and make sure the device and PC are in the same LAN.

Step 2

Get the physical address of the device from the label.

Step 3

Input the following commands in the PC.

Parameter	Description
Windows syntax	Arp -s <IP Address> <MAC> Ping -l 480 -t < IP Address > Example: Arp -s 192.168.0.125 11-40-8c-18-10-11

Parameter	Description
	Ping -l 480 -t 192.168.0.125
UNIX/Linux/Mac syntax	Arp -s <IP Address> <MAC> Ping -s 480 < IP Address > Example: Arp -s 192.168.0.125 11-40-8c-18-10-11 Ping -s 480 192.168.0.125
Win7 syntax	netsh i i show in netsh -c “i i” add neighbors Idx <IP Address> <MAC> ping -l 480 -t < IP Address > Example: netsh i i show in netsh -c “i i” add neighbors 12 192.168.0.125 11-40-8c-18-10-11 ping -l 480 -t 192.168.0.125

Table 4-12

Step 4

Power off and reboot the device or reboot the device via network.

Step 5

Check the similar info like “Reply from 192.168.0.125…” from the PC command line, then it can set successfully; you can close the command line.

Step 6

Open the browser and then input http://<IP address>. Click the Enter button, you can access now.

4.2.2 Port

You can configure the device with max connection port and each port value on this interface.

Step 1

Select “Setting > Network > Port > Port”.

The system will display the interface of “Connection”, which is shown in Figure 4-29.

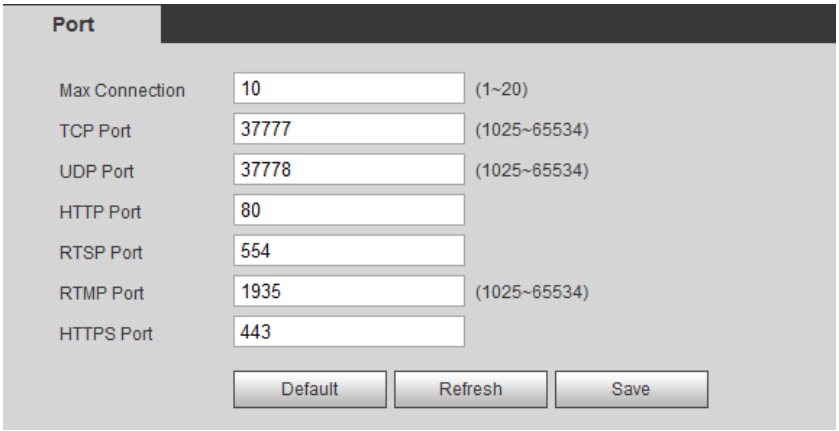


Figure 4-29

Step 2

Configure each port value of the device; refer to Table 4-13 for more details.

Parameter	Description
Max connection	It is the max Web connection for the same device. The value ranges from 1 to 20. Default connection amount is 10.
TCP port	Port range is 1025~65534. The default value is 37777. You can input the actual port number if necessary.
UDP port	Port range is 1025~65534. The default value is 37778. You can input the actual port number if necessary.
HTTP port	Port range is 1025~65524. The default value is 80. You can input the actual port number if necessary.

RTSP port	● The default value is 554. Please leave blank if use default. User uses QuickTime or VLC can play the following formats. BlackBerry can play too. ● Real-time monitoring URL format, please require real-time RTSP media server, require channel no., bit stream type in URL. You may need username and password. ● User uses BlackBerry need to set encode mode to H.264B, resolution to CIF and turn off audio. URL format is: rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0 username/password/IP and port. The IP is device IP and the port default value is 554. You can leave it in blank if it is the default value. Follow standard RTP protocol and when encode mode is MJPEG; the max resolution only supports 2040*2040.
RTMP port	RTMP is a TCP-based protocol which maintains persistent connections and allows low-latency communication.
HTTPs Enable	Check HTTPs enable, login as https://ip:port.Protect data. Default port is https://ip . It is disabled by default.
HTTPs Port	HTTPs communication port, range is 1025~65534, default is 443.

Table 4-13

Note

Except “max connection”, it needs to reboot the device to make it valid after modifying other parameter config.

Step 3

Click **Save** to finish configuration.

4.2.3 PPPoE

It can set up network connection via enabling PPPoE (Point-to-Point Protocol over Ethernet) dial mode; the device will acquire a dynamic IP address of WAN. Please gain the PPPoE username and password provided by ISP (Internet service provider).

Step 1

Select “Setting > Network > PPPoE”.

The system will display the interface of “PPPoE”, which is shown in Figure 4-8.

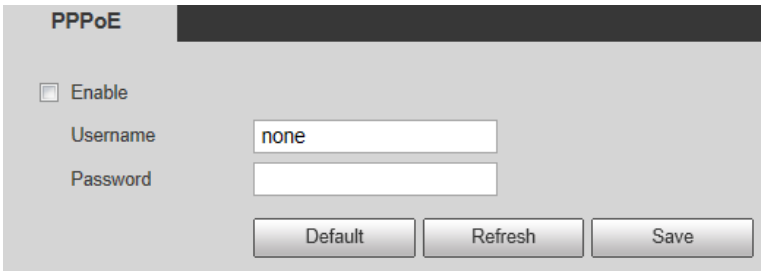


Figure 4-8

Step 2

Check **Enable** and input PPPoE username and password.

Step 3

Click **Save** to finish configuration.

The system will prompt that it has been successfully saved and real-time display the acquired IP address of WAN, which is shown in Figure 4-9, users can visit the device via the IP address.



Figure 4-9

4.2.4 DDNS

DDNS (Dynamic Domain Name Server) can be used to update the relationship between domain name on the DNS server and IP address dynamically in the situation where the device IP address changes frequently, which is to guarantee the users to visit device via domain name.

Note

- The third-party server might collect the information of you device if DDNS is enabled.
- Users can check info of all the connected devices after they successfully registered in DDNS website and logged in.

Step 1

Select “Setting > Network > DDNS”.

The system will display the interface of “DDNS”, which is shown in Figure 4-10.

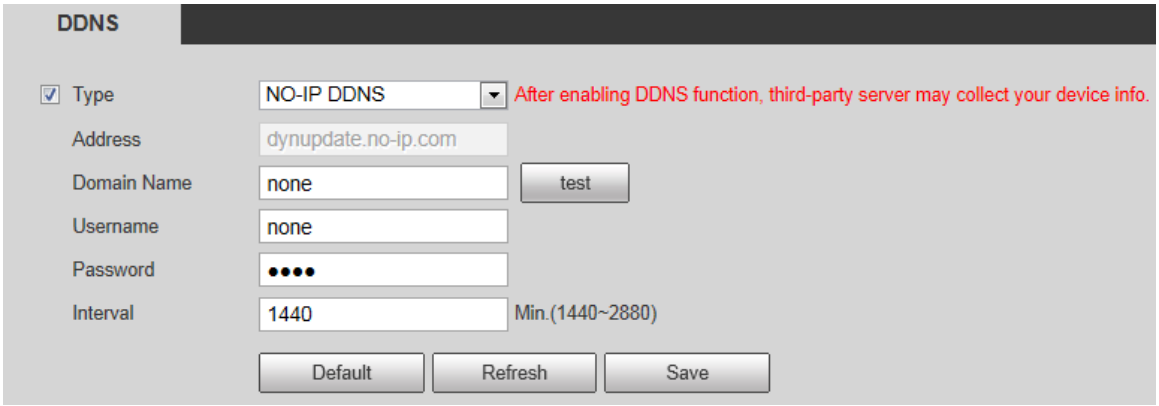


Figure 4-10

Step 2

Check “Server Type” and configure relevant parameter of DDNS according to the actual situation.

Parameter	Description
Server Type	DDNS server IP address. ● CN99DDNS Server address: www.3322.org ● NO-IPDDNS Server address: dynupdate.no-ip.com ● DyndnsDDNS Server address: members.dyndns.org
Server Address	
Domain Name	It is “MAC address. quickddns.com” by default in both auto and manual mode, users can set prefix by themselves.
Test	It is to test if the domain name is available. The parameter appears only when selecting “Mode” as “Manual”.
Username	Input the username and password which are acquired from DDNS server provider. The users need to register account on the website of DDNS server provider (including username and password)
Password	
Interval	After the designated DDNS is updated and enabled, it will launch the interval of update requirement regularly, the unit is minute.

Table 4-14

1. After filling in the interface, click “Test” to confirm if the domain name can be successfully registered. If it is successful, please continue to 2, if not, please check if the domain name info is correct and clear browser cache.
2. Click **Save**.

3. Input complete domain name in the PC browser and press enter.
   It means successful config if it can display the device WEB interface; it means config failure if it fails to display the interface, please configure again.

4.2.5 SMTP (e-mail)

By setting SMPT, it will send email immediately when alarm, video detection and abnormity happen. When alarm, video detection and abnormity trigger, it can send email to the server of the receiver via SMPT server. The receiver can receive the email when logging in the server.

Step 1

Select “Setting > Network > SMPT”.

The system will display the interface of “SMPT”, which is shown in Figure 4-11.

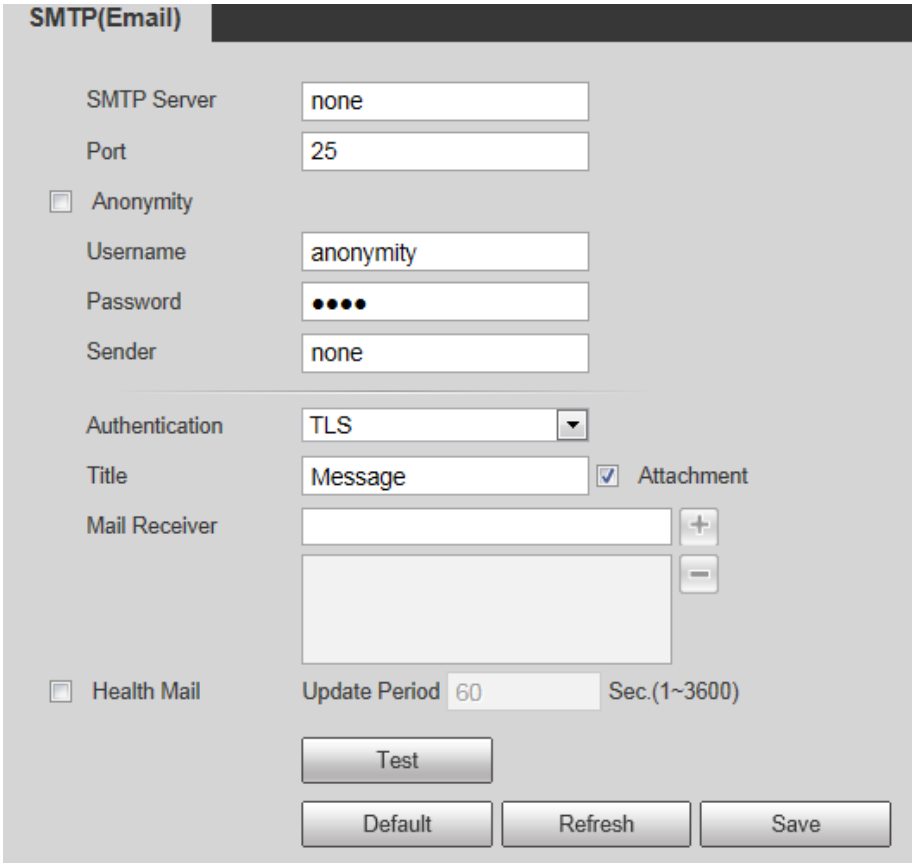


Figure 4-11

Step 2

Configure info of each parameter according to the actual needs.

Parameter	Description
SMTP Server	Conform to SMTP protocol; send the IP address of email server.
Port	Conform to SMTP protocol; send the port number of email server, it is 25 by default.
Anonymity	For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name, password and the sender information.
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	You can select SSL, TLS or none. **Note** It is TLS by default.
Title	Email title, and it can be customized.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Mail receiver	Input receiver email address here. Max three addresses.
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.
Health mail enable	Please check the box here to enable this function.
Email test	The system will automatically sent out an email once to test the connection is OK or not .Before the email test, please save the email settings information.

Table 4-15

4.2.6 UPnP

It allows you to establish the mapping relationship between the LAN and the public network.

Here you can also add, modify or remove UPnP item. For UPnP on different routers, you must disable UPnP function.

Enable UPnP, network cameras support UPnP protocol. In Windows Xp or Windows Vista system, if system UPnP is enabled, then the network camera can auto search it in the network neighborhood of Windows.

Please refer to the following steps to install UPnP network service in the Windows system:

Step 1

Open control panel, and select “Add or Remove Programs”.

Step 2

Click the “Add/Remove Windows Components”

Step 3

Select the “Network Services” from the Windows Components Wizard. Click the Details button

Step 4

Check the “Internet Gateway Device Discovery and Control client” and “UPnP User Interface”. Please click OK to begin installation.

The operation steps of UPnP config is shown as follows:

Step 1

Select “Setting > Network > UPnP”.

The system will display the interface of “UPnP”, which is shown in Figure 4-12.

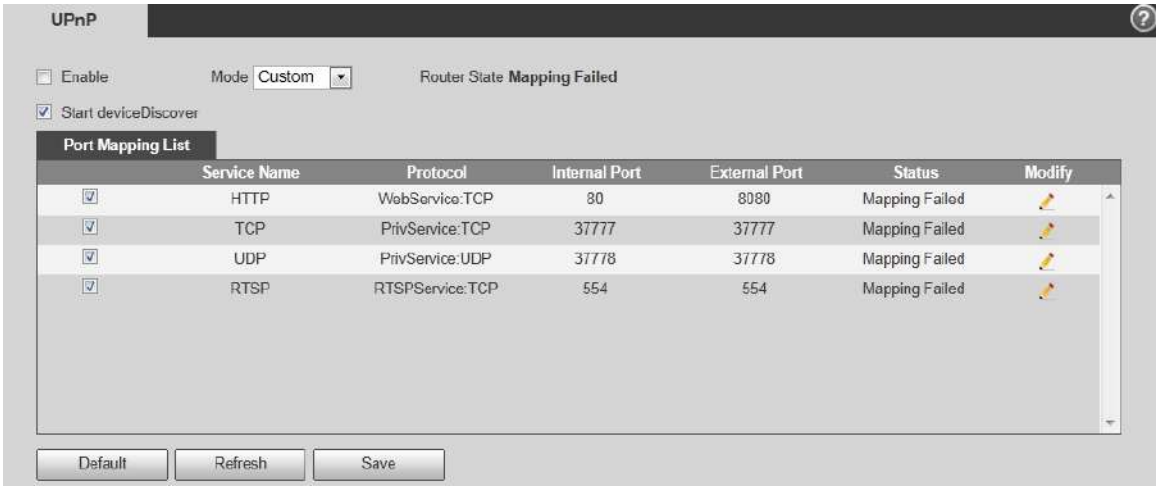


Figure 4-12

Step 2

Check the box and enable UPnP function.

Step 3

Selection mode

There are two mapping modes for UPnP which are auto and manual. As for manual mapping mode, it allows users to modify external port; as for auto mapping mode, it completes port mapping automatically without occupying the port, and users don’t need to modify mapping.

Step 4

Click **Save** to finish configuration.

4.2.7 SNMP

The SNMP (Simple Network Management Protocol) provides framework of bottom-layer network management for network management system. It can control SNMP function in the network service setting. It can gain the relevant config info after connecting to device via relevant software tool. It needs to satisfy the following conditions if it is to use SNMP function:

- Install SNMP device monitoring and management tool, such as MIB Builder and MG-SOFT MIB Browser.
- Get two MIB documents which are corresponding to the current version from technical personnel.

Step 1

Select “Setting > Network > UPnP”.

The system will display the interface of “SNMP”, which is shown in Figure 4-13 and Figure 4-36

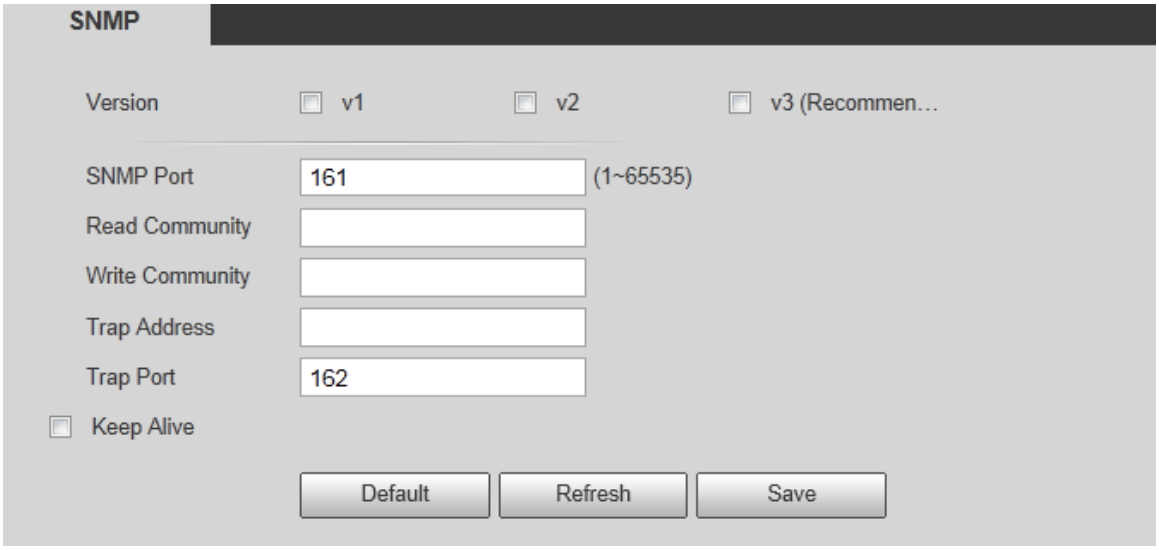


Figure 4-13

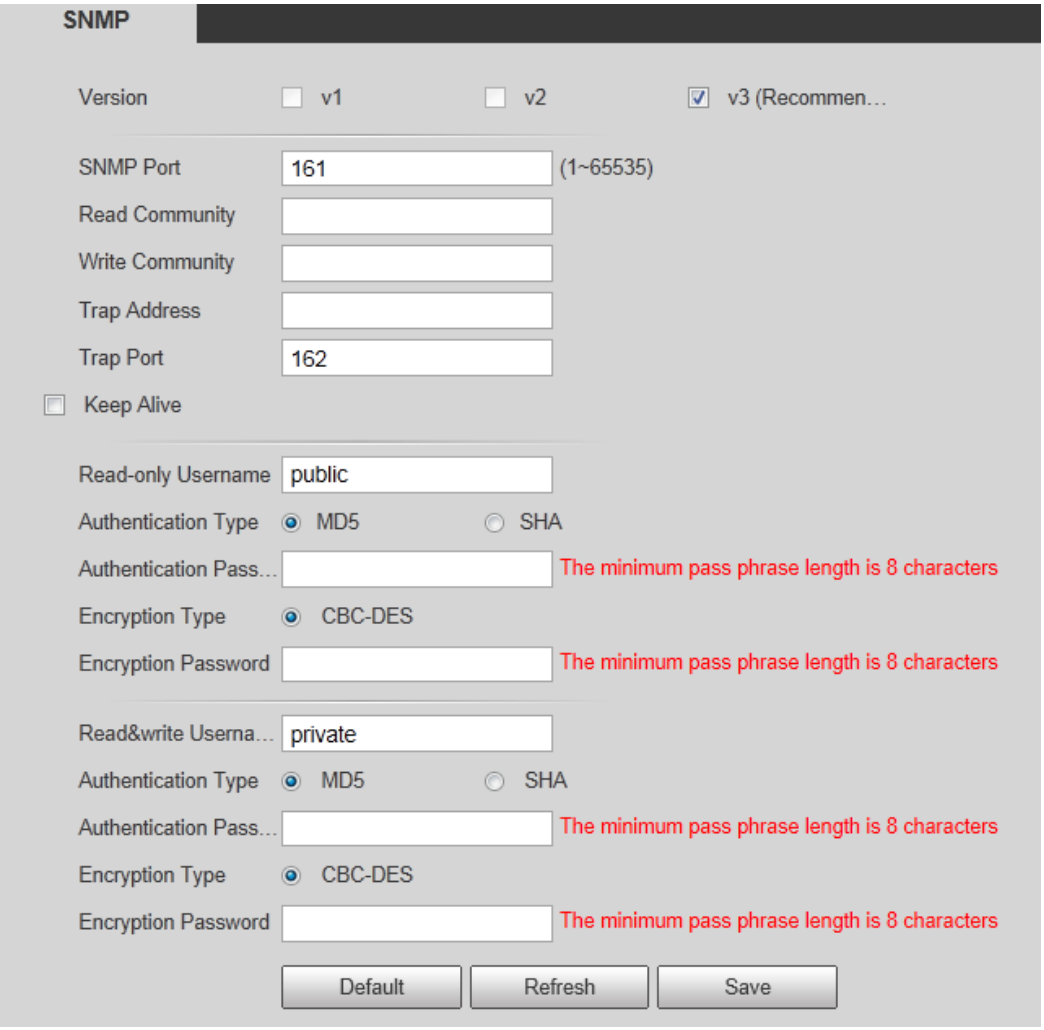


Figure 4-36

Step 2

Configure info of each parameter according to the actual needs.

Parameter	Description
SNMP Version	● Check SNMP v1, device can only process v1 info. **Note** If you select v1 and click **Save**, the prompt "SNMP V1 may has risk. Are you sure to enable now?" will pop up. ● Check SNMP v2, device can only process v2 info. **Note** If you select v2 and click **Save**, the prompt "SNMP V2 may has risk. Are you sure to enable now?" will pop up. ● Check SNMP v1 and v2, device can process v1 and v2 info. If you select v1 and v2 and click **Save**, the prompt "SNMP V1, V2 may has risk. Are you sure to enable now?" will pop up. ● Check SNMP v3, can set username, password and encryption method. Server calibrate corresponding username, password and encryption method too access device and v1/v2 are unavailable.
SNMP port	The listening port of the proxy program of the device. It is a UDP port not a TCP port. The value ranges from 1 to 65535. The default value is 161
Community	It is a string, as command between management and proxy, , defining a proxy, and a manager's authentication.
Read community	Read-only access to all SNMP targets, default is public. **Note** Only number, letter, _, and – supported.
Write community	Read/write access to all SNMP targets, default is private. **Note** Only number, letter, _, and – supported.
Trap address	The destination address of the Trap information from the proxy program of the device.
Trap	SNMP trap is a proxy message sent to admin as important event notice or status change.
Trap Port	Port which send Trap message, default is 162, range 1 to 65535.
Read-only Username	Default is public. **Note** Name only can be number, letter and underline.
Read/Write Username	Default is private. **Note** Name only can be number, letter and underline.
Authentication	You may select MD5 or SHA, default is MD5.

Parameter	Description
Authentication Password	Password not less than 8 characters.
Encryption	Default is CBC-DES.
Encryption Password	Password not less than 8 characters.

Table 4-16

Step 3

Click **Save** to finish configuration.

4.2.8 Bonjour

Bonjour, known as zero config networking, can auto discover the PC, device and service on the IP network. Bonjour uses the IP protocol with industrial standard to allow the device to discover each other automatically without inputting IP address or configuring DNS server.

After Bonjour function is enabled, the network cameras will be auto detected in the operating system and client which support Bonjour. When the network camera is auto detected by Bonjour, it will display the “Server Name” which is configured by users.

Step 1

Select “Setting > Network > Bonjour”.

The system will display the interface of “Bonjour”, which is shown in Figure 4-37.

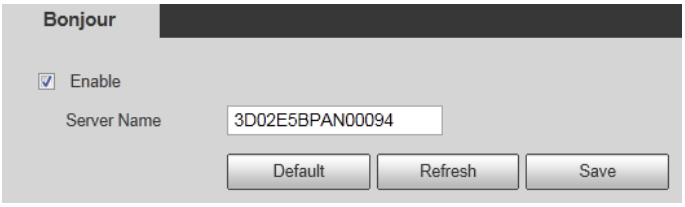


Figure 4-37

Step 2

Check **Enable** to set server name.

Step 3

Click **Save** to complete PPPoE config.

In the operating system and client which support Bonjour, it can visit network camera WEN interface via Safari browser, the steps are as follows:

Step 1

Click Safari browser Display All Bookmarks.

Step 2

Open Bonjour, and it can auto detect the network camera which enables Bonjour function in the LAN.

Step 3

Click it to visit corresponding WEB page.

4.2.9 Multicast

Preview video image via network device visit, it will fail to preview video image if it exceeds the visit upper limit of the device, at this moment you can solve the problem by adopting multicast protocol visit via setting multicast IP to the device. Two multicast protocols are supported: RTP and TS.

4.2.9.1 RTP

Step 1

Select “Setting > Network > Multicast > RTP”.

The system will display the interface of RTP, which is shown in Figure 4-38.

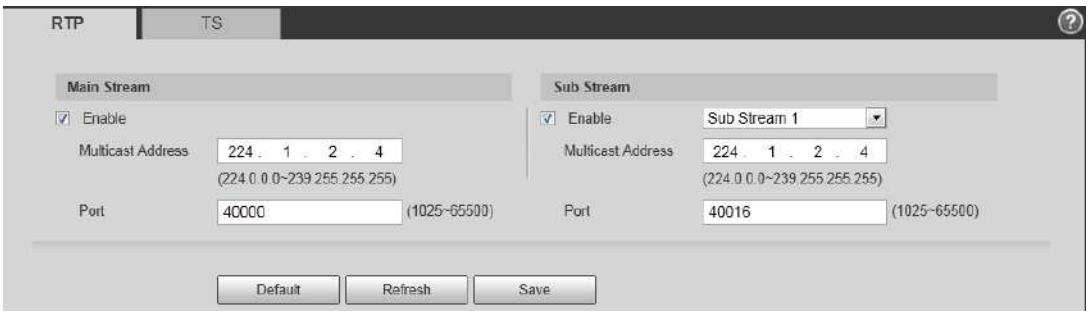


Figure 4-38

Step 2

Check **Enable** to enable main stream or sub stream multicast, and select the sub stream from the drop-down list if you enable sub stream multicast.

Step 3

Input multicast address and port.

Step 4

Click **Save** to finish configuration.

4.2.9.2 TS

Step 1

Select “Setting > Network > Multicast > TS”.

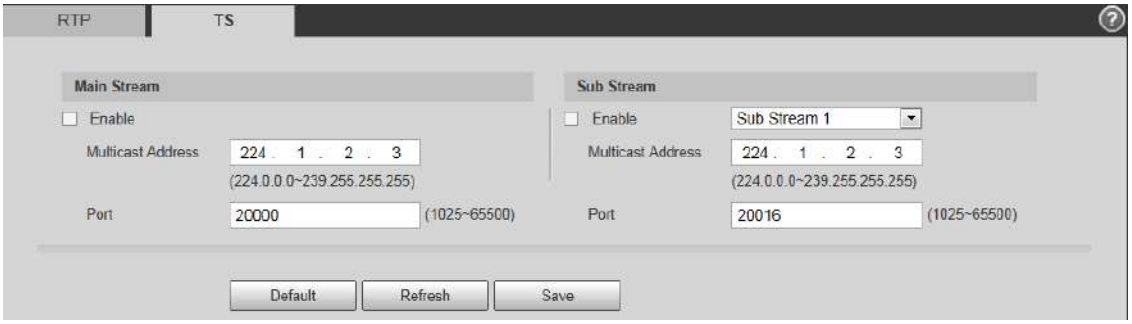


Figure 4-39

Step 2

Check **Enable** to enable main stream or sub stream multicast, and select the sub stream from the drop-down list if you enable sub stream multicast.

Step 3

Input multicast address and port.

Step 4

Click **Save** to finish configuration.

4.2.10 802.1x

802.1x (port based network access control protocol) supports manual selection of authentication method to control if device connected to LAN can join the LAN. It well supports authentication, charging, safety and management requirement of network.

Step 1

Select “Setting > Network > 802.1x”.

The system will display the interface of 802.1x, which is shown in Figure 4-14.

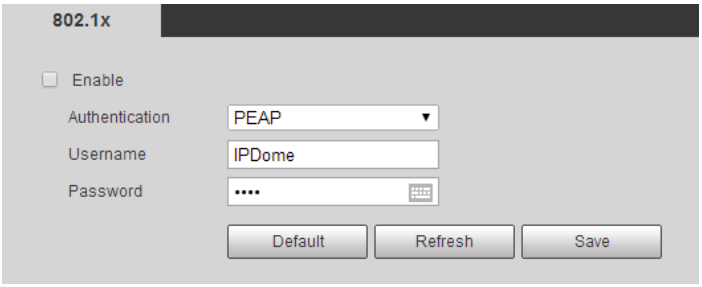


Figure 4-14

Step 2

Check **Enable** to enable 802.1x.

Step 3

Select authentication mode, set username and password.

Please refer to Table 4-17 for detailed information.

Parameter	Description
Authentication	PEAP (protected EAP protocol).
Username	It needs the username to login, which is authenticated by the server.
Password	Please input password here.

Table 4-17

Step 4

Click **Save** to finish configuration.

4.2.11 QoS

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 jam.

Step 1

Select “Setting > Network > QoS”.

The system will display the interface of QoS, which is shown in Figure 4-15.

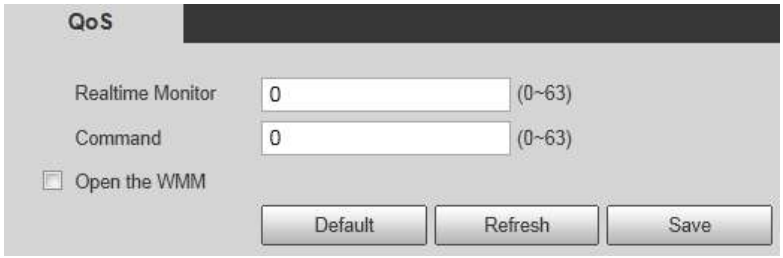


Figure 4-15

Step 2

Set realtime monitor and operation command.

Please refer to the following sheet for detailed information.

Parameter	Description
Realtime monitor	Data packet of network video monitoring, the value ranges from 0 to 63.
Command	Configure or inquire non-monitoring data packet for the device, the value ranges from 0 to 63.

Table 4-18

Step 3

Click **Save** to finish configuration.

4.2.12 Access Platform

4.2.12.1 P2P

P2P is a private network traversal technology which enables user to manage devices easily without requiring DDNS, port mapping or transit server.

Scan the QR code with your smart phone, and then you can add and manage more devices on your mobile client.

Step 1

Select “Setting > Network > Access Platform > P2P”.

The system will display the interface of P2P.



Figure 4-16

Note

- P2P is enabled by default. You can manage the devices remotely.
- When P2P is enabled and the device is connected to the network, the status is displayed as online. We might collect the information including IP address, MAC address, device name, device serial No., and so on. The information collected is for remote accessing only. If you not agree with this, you can uncheck **Enable**.

Step 2

Log in mobile phone client and tap **Device management**.

Step 3

Tap the "+" on the upper right corner.

Step 4

Scan the QR code on the P2P interface.

Step 5

Follow the instructions to finish the settings.

4.2.12.2 ONVIF

The ONVIF authentication is On by default, which allows the network video products (including video recording device and other recording devices) from other manufacturers to connect to your device.

Note

ONVIF is enabled by default.

Step 1

Select "Setting > Network > Access Platform > ONVIF".

The system will display the interface of ONVIF.



Figure 4-17

Step 2

Select ON at Authentication.

Step 3

Click **Save** to finish configuration.

4.3 PTZ Setting

4.3.1 Protocol

4.3.1.1 Network PTZ

Step 1

Select “Setting > PTZ Setting > Protocol > Network PTZ”.

The system will display the interface of Network PTZ, which is shown in Figure 4-18.

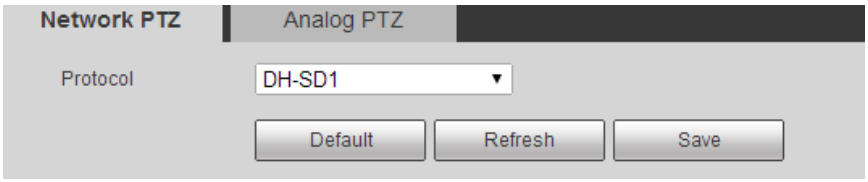


Figure 4-18

Step 2

Set PTZ protocol.

Step 3

Click **Save** to finish configuration.

4.3.1.2 Analog PTZ

Step 1

Select “Setting > PTZ Setting > Protocol > Analog PTZ”.

The system will display the interface of Analog PTZ, which is shown in Figure 4-19.

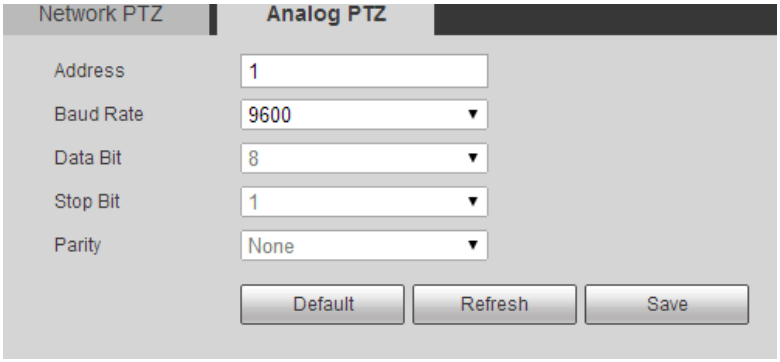


Figure 4-19

Note

Some models don't support analog PTZ function.

Step 2

Configure info of each parameter according to the actual needs; refer to Table 4-19 for more details.

Parameter	Description
Address	It is to set corresponding device address. **Note:** Make sure the address is the same as that of the device; otherwise it will fail to control the device.
Baud Rate	It is to select the baud rate used by the device.
Data Bit	It is 8 by default.
Stop Bit	It is 1 by default.
Parity	It is none by default.

Table 4-19

Step 3

Click **Save** to finish configuration.

4.3.2 Function

4.3.2.1 Preset

Preset means the current environment in which the camera is located, users can adjust the PTZ and camera to the environment quickly via calling preset.

Step 1

Select "Setting > PTZ Setting > Function > Preset".

The system will display the interface of "Preset", which is shown in Figure 4-46.

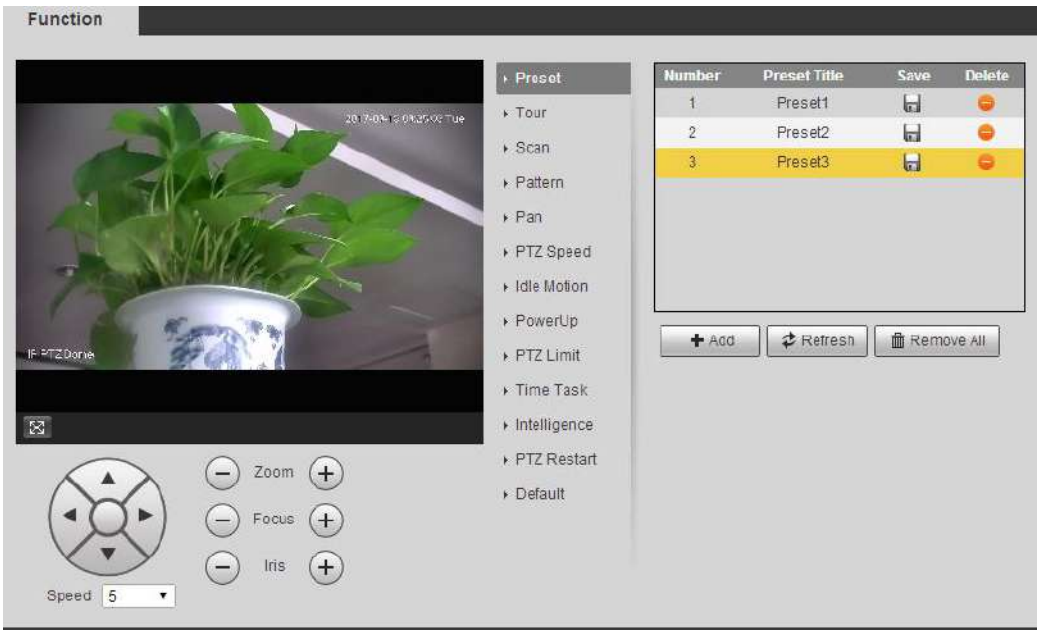


Figure 4-46

Step 2

In the lower left corner of the config interface, click direction button, and to adjust PTZ direction, zoom, focus and iris size, adjust the camera to a proper monitoring location.

Step 3

Click “Add”. It will add the location as preset in the list, and it will be displayed in the preset list.

Step 4

Click to save the preset.

Step 5

Implement relevant operation upon the preset.

- Double click “Preset title” to modify the title to be displayed on the monitoring screen for the preset.
- Click to delete the preset.
- Click “Clear” to remove all the preset.

4.3.2.2 Tour

Tour can realize auto movement according to the set preset.

Note

It needs to set several presets in advance.

Step 1

Select “Setting > PTZ Setting > Function > Tour”.

The system will display the interface of “Tour”, which is shown in Figure 4-47.



Figure 4-47

Step 2

Select the tour mode. Original Path and Shortest Path are selectable. It is Original Path by default.

- Original Path: Tours in the order you add the presets.
- Shortest Path: Starts from the preset with largest horizontal zoom value and vertical zoom value and all the presets are included.

Step 3

Click “Add” which is located on the upper right corner of the interface, and then it will add tour path.

Step 4

Click “Add” which is located on the lower right corner, and then it will add several presets.

Step 5

Implement relevant operation upon the tour.

- Double click “Tour Name” to modify the name of the tour.
- Double click “Duration” to set duration for each preset.
- Double click Speed to adjust the tour speed. The value ranges from 1 to 10, and it is 7 by default. The larger the value is, the faster it will be.

Step 6

Click “Start” to start tour.

Note

The device will stop tour if PTZ is operated during tour.

4.3.2.3 Scan

Scan means the speed dome scanning back and forth within the left and right limit with a certain speed.

Step 1

Select “Setting > PTZ Setting > Function > Scan”.

The system will display the interface of “Scan”, which is shown in Figure 4-48.

Step 2

Click Scan No.

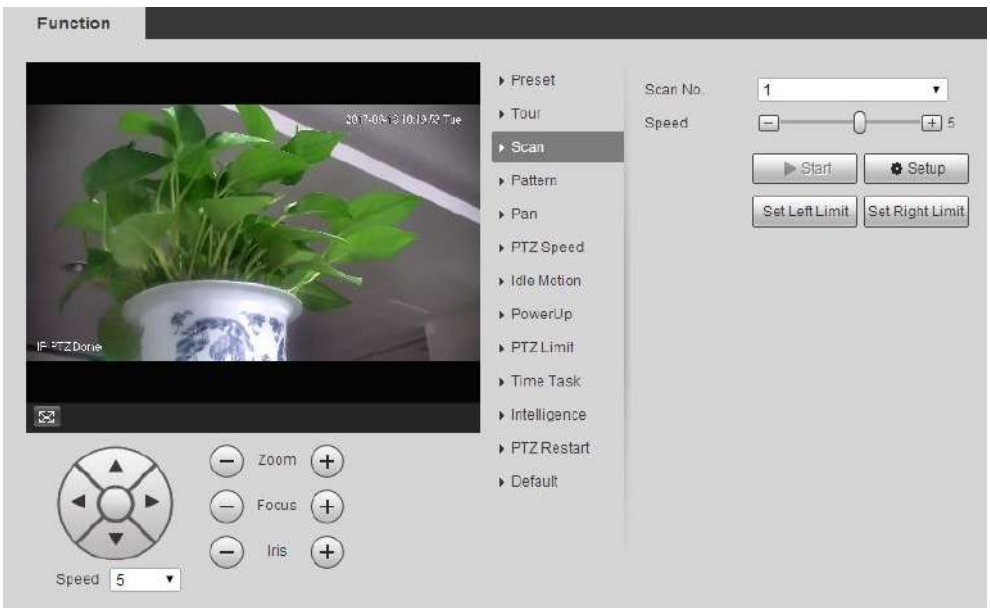


Figure 4-48

Step 3

Drag Speed bar and set scan speed.

Step 4

Click “Setting”, adjust the camera direction to make it reach proper location.

Step 5

Click “Set Left/Right Limit” to set the location as the “Left/Right Limit” of the camera.

Step 6

Click “Start” to start scan.

Step 7

Click “Stop” to stop scan.

4.3.2.4 Pattern

Pattern can continuously record the operations implemented upon the device, such as pan, tilt, zoom, call preset and etc. You can directly call the pattern after it is saved completely.

Step 1

Select “Setting > PTZ Setting > Function > Pattern”.

The system will display the interface of “Pattern”, which is shown in Figure 4-49.



Figure 4-49

Step 2

Select Pattern No.

Step 3

Click “Setting” and click “Start Rec’, operate the PTZ according to the actual needs.

Step 4

Click “Stop Rec” to complete recording.

Step 5

Click “Start” to start pattern.

Step 6

Click “Stop” to stop pattern.

4.3.2.5 Pan

Pan means the speed dome rotating continuously 360°horizontally with a certain speed.

Step 1

Select “Setting > PTZ Setting > Function > Pan”.

The system will display the interface of “Pan”, which is shown in Figure 4-50.



Figure 4-50

Step 2

Drag speed bar and set “Pan Speed”

Step 3

Click “Start” to make the PTZ rotate horizontally with the speed you just set.

Step 4

Click “Stop” to stop pan.

4.3.2.6 PTZ speed

PTZ speed means the rotation speed of the device.

Step 1

Select “Setting > PTZ Setting > Function > PTZ Speed”.

The system will display the interface of “PTZ Speed”, which is shown in Figure 4-20.



Figure 4-20

Step 2

Select “PTZ speed”, it is “Middle” by default.

The system will make the PTZ rotate with the speed you just set.

4.3.2.7 Idle Motion

Idle motion means the device implementing the behavior which is set in advance when it is not receiving any valid command within the set time.

Note

It needs to set preset, tour, scan and pattern in advance.

Step 1

Select “Setting > PTZ Setting > Function > Idle Motion”.

The system will display the interface of “Idle Motion”, which is shown in Figure 4-21.

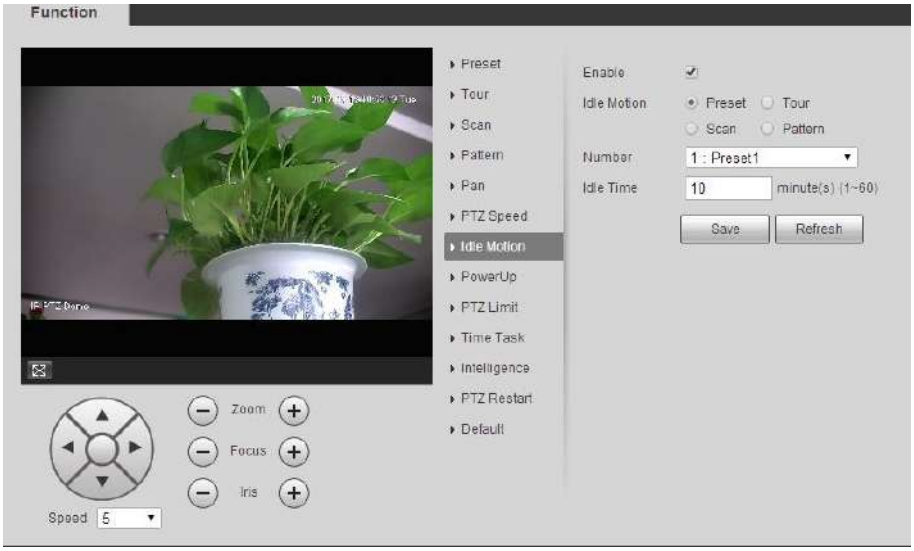


Figure 4-21

Step 2

Select “Enable” to enable idle motion function.

Step 3

Select types of idle motion, which are preset, tour, scan or pattern.

Step 4

Select the number of idle motion.

Step 5

Set the idle time of the selected motion.

Step 6

Click **Save** to finish configuration.

4.3.2.8 Power Up

It means the motion which is auto operated by the device after it is powered up.

Note

It needs to set preset, tour, scan and pattern in advance.

Step 1

Select “Setting > PTZ Setting > Function > Power up”, which is shown in Figure 4-22.



Figure 4-22

Step 2

Select “Enable” to enable PowerUp functions.

Step 3

Select the types of PowerUp; you can select preset, tour, scan, pattern or auto.

Note

The system will implement the last action before the camera’s power is cut off when selecting “Auto”.

Step 4

Select the number of action type.

Step 5

Click **Save** to finish configuration.

4.3.2.9 PTZ Limit

PTZ limit function is used to set the movement area of the device, which makes the device move within area.

Step 1

Select “Setting > PTZ Setting > Function > PTZ Limit”.

The system will display the interface of “PTZ Limit”, which is shown in Figure 4-23.

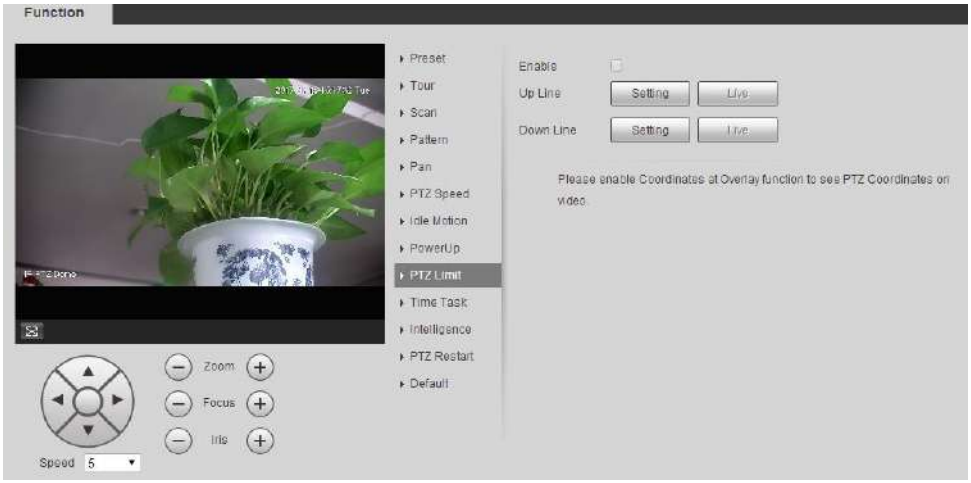


Figure 4-23

Step 2

Select “Enable” to enable PTZ Limit function.

Step 3

Control camera direction; click “Setting” to set up line.

Step 4

Control camera direction; click “Setting” to set down line.

Step 5

Click “Live” to preview the up line and down line which is already set.

4.3.2.10 Time Task

Time task is to implement relevant movements within the set period.

Note

It needs to set preset, tour, scan and pattern in advance.

Step 1

Select “Setting > PTZ Setting > Function > Time Task”.

The system will display the interface of “Time Task”, which is shown in Figure 4-24.

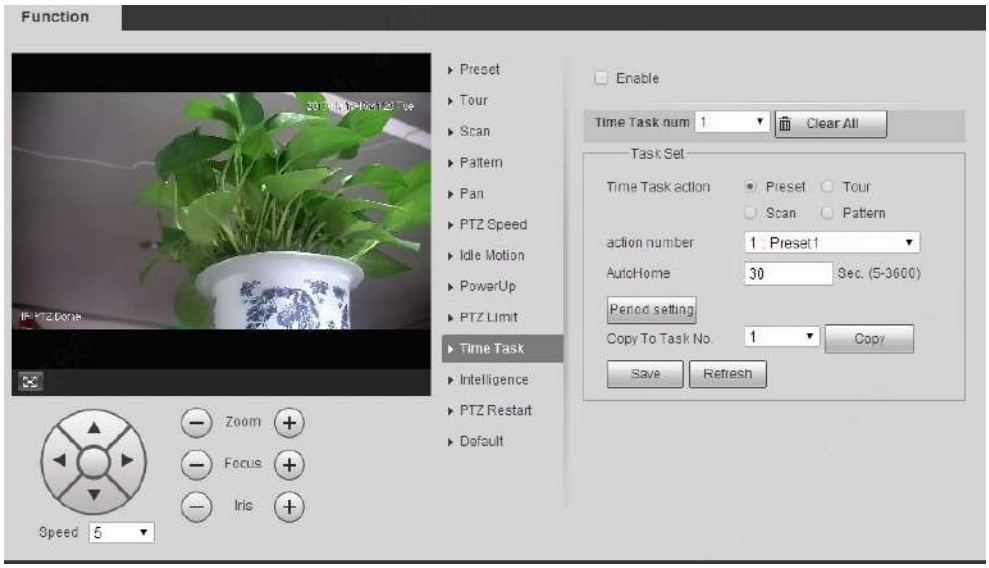


Figure 4-24

Step 2

Select “Enable” to enable the function of time task.

Step 3

It is to set the number of time task.

Note

Click “Clear All” to delete all the time tasks which have been set.

Step 4

Select time take action, you can select preset, tour, scan or pattern.

Step 5

Select action number.

Step 6

Set the time of auto home.

Note

Auto home time means the time it needs to take to auto recover time task when manually calling PTZ and interrupting time task.

Step 7

Click “Period Setting” to set the period of implementing time task.

Step 8

Click “Copy” and select task number, then you can copy it to the task whose number has been selected.

Step 9

Click ‘Save” to complete config.

4.3.2.11 Intelligence

It is to set the tracking duration of the camera. The config steps are shown as follows:

Step 1

Select “Setting > PTZ > Function > Intelligence” and the system will display the interface of “Intelligence”, which is shown in Figure 4-56.

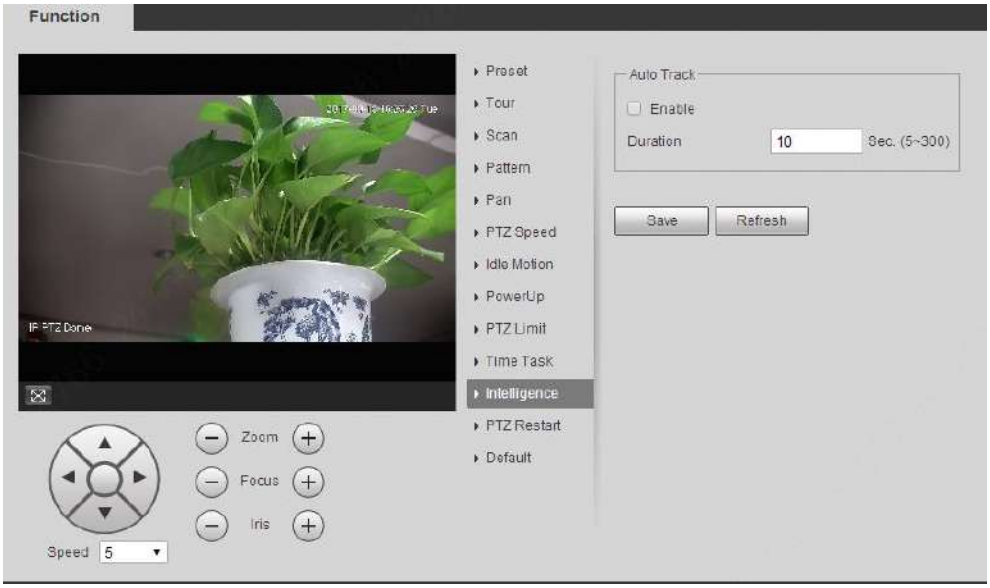


Figure 4-56

Step 2

Select “Enable” to enable auto tracking function.

Step 3

Input the duration of auto tracking.

Step 4

Click **Save** to finish configuration.

4.3.2.12 PTZ Restart

Step 1

Select “Setting > PTZ Setting > Function > PTZ Restart”.

The system will display the interface of “PTZ Restart”, which is shown in Figure 4-57.



Figure 4-57

Step 2

Click “PTZ Restart” and the system will restart PTZ.

4.3.2.13 Default

The function can recover default settings of the PTZ. The config steps are shown as follows:

Note

The function will delete all the PTZ config made by users, please operate after confirmation.

Step 1

Select “Setting > PTZ Setting > Function > Default”.

The system will display the interface of “Default”, which is shown in Figure 4-58.



Figure 4-58

Step 2

Click “Default” to recover all the default settings.

4.3.3 Calibration Config

4.3.3.1 Calibration Config

After you have calibrated panorama camera and detail camera, the two cameras can work collaboratively. You can watch the overall of the place you marked through the panorama camera, and watch details of the place you marked through the detail camera. See .

There are two calibrating methods: Manual and Auto.

- Manual: Select the same point at the panorama camera window and detail camera window, and then you can watch overall and detail of the place you marked.
- Auto: The system selects the places (applicable when you do not want to watch specific places) automatically.

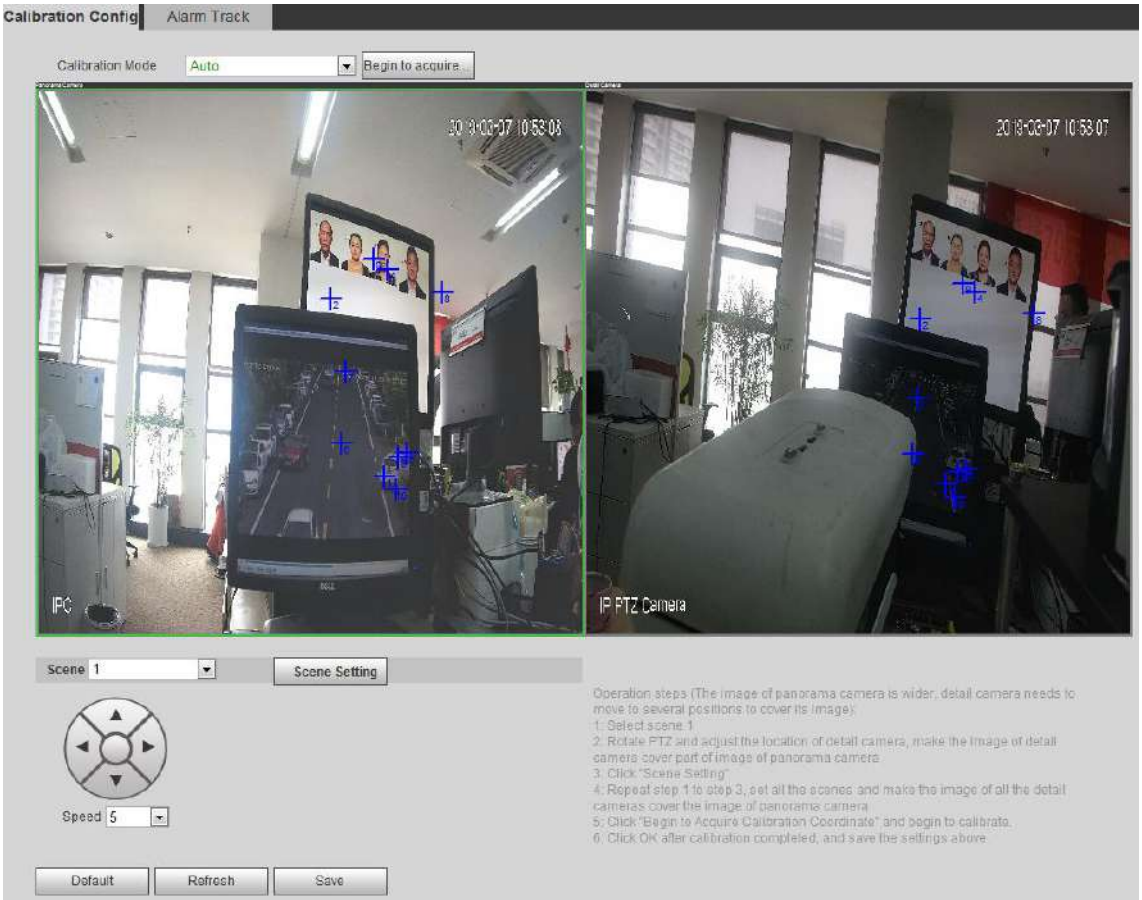


Figure 4-59

Manual

The configuration steps are as follows:

Step 1

Select “Setting > PTZ Setting > Calibration Config > Calibration Config”.

The Calibration Config interface is displayed.

Step 2

Select Manual in on the Calibration Mode drop-down list.

Step 3

Select a scene, and move the detail camera to appropriate position.

Step 4

Click the Begin to acquire…to start calibration.

Step 5

After you have clicked , select the same place at the panorama camera window and detail camera window.

Two crosses are considered as one set of calibration point.

Note

- The quantity of calibration points must be within the range of 4 to 10 sets. The recommended quantity is 6 sets.
- It is recommended that you set calibration points from far distance to close distance counterclockwise or clockwise.
- Places with distinct position characteristics are recommended.

Step 6

After you have finished selecting calibration points, click Stop Acquiring… to save the configuration.

4.3.3.2 Alarm Track

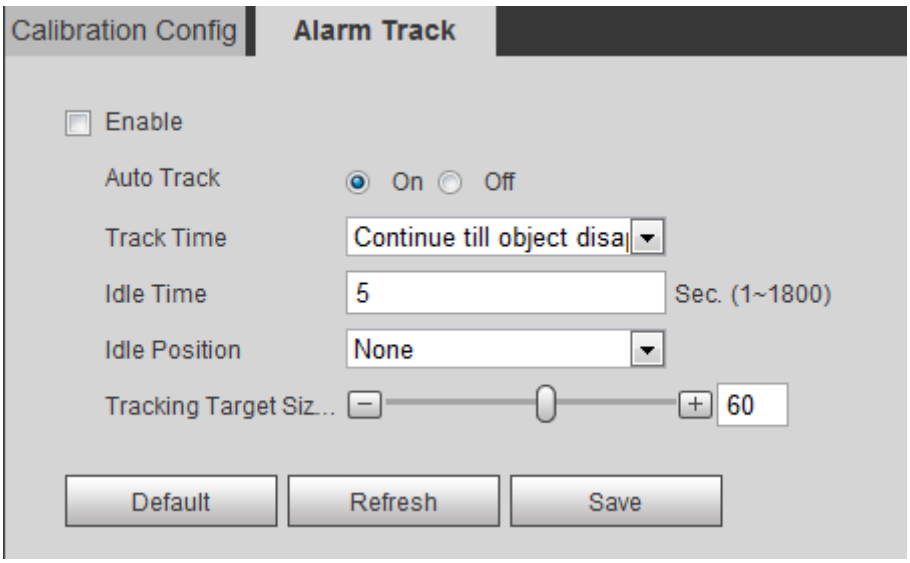


Figure 4-60

4.4 Event

4.4.1 Video Detection

Video detection includes motion detection, video tamper and scene changing. The config steps are shown as follows.

4.4.1.1 Motion Detection

Step 1

Select “Setting > Event > Video Detection > Motion Detection”.

The system will display the interface of “Motion Detect”, which is shown in Figure 4-25.

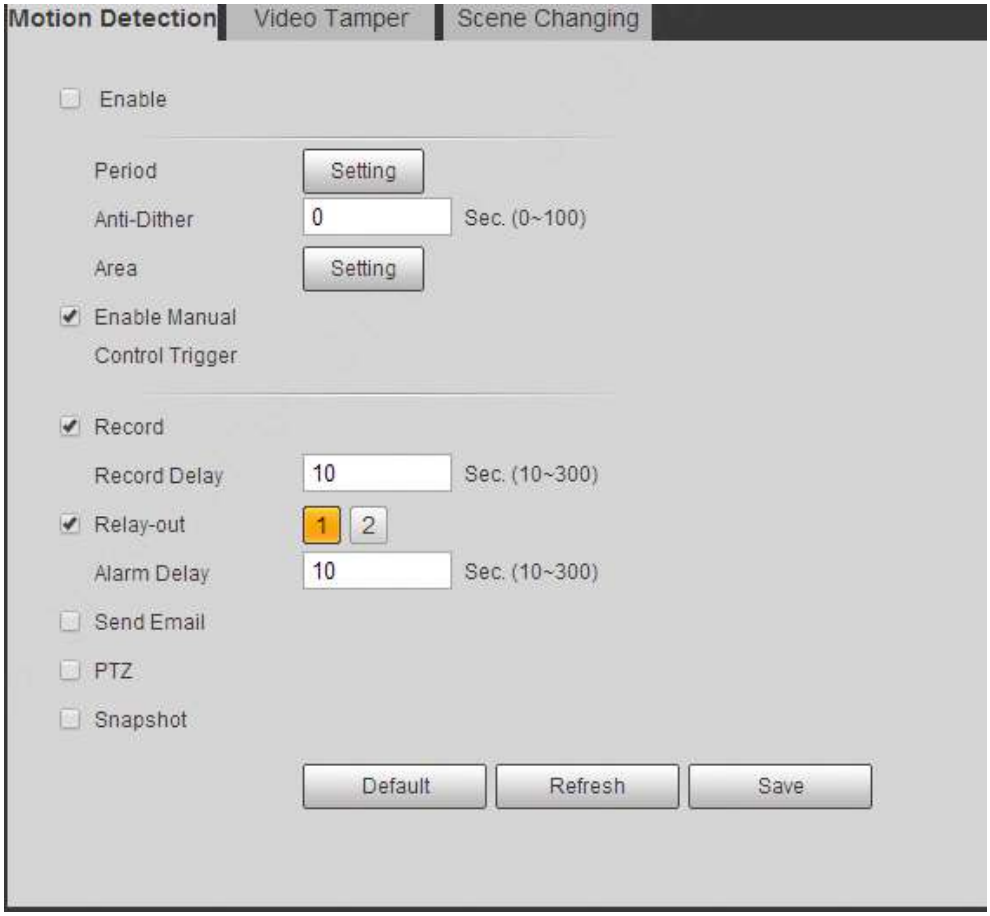


Figure 4-25

Step 2

Click **Enable** and configure info of each parameter according to the actual needs.

- Set working period.

Click “Setting”, and it will display the interface of working period in Figure 4-26.

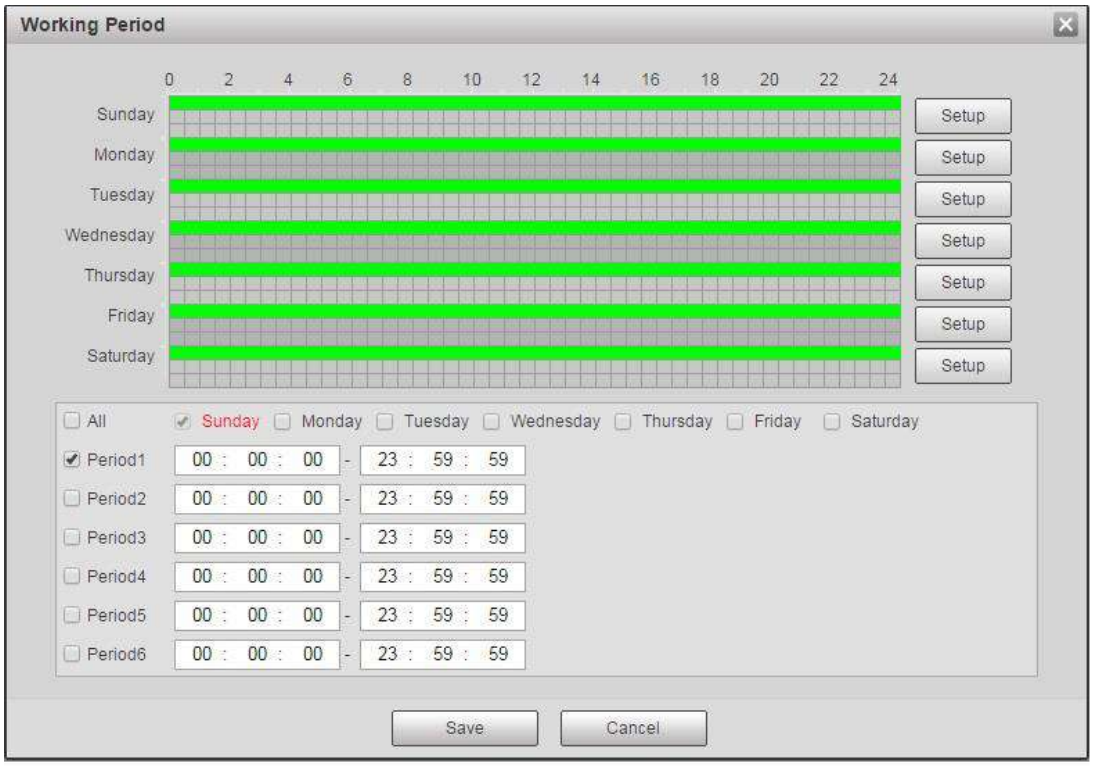


Figure 4-26

- Set alarm period, it can enable alarm event within the range of set period.
- There are totally six periods to set every day, click the check box in front of the period, and then the period can be valid.
- Select week number (default is Sunday, if users select the whole week, it means setting can be applied to the whole week; users can also select the check box in front of the day to make separate setting for some days).
- Click **Save** after settings, return to motion detect page.

Note

You can also set working period via pressing left mouse button and dragging it on the setting interface.

- Set area

Click “Setting” and you can set area in the interface shown in Figure 4-27.

Different colors represent different areas. Each area can set different detection zones. Detection zone can be irregular and discontinuous.

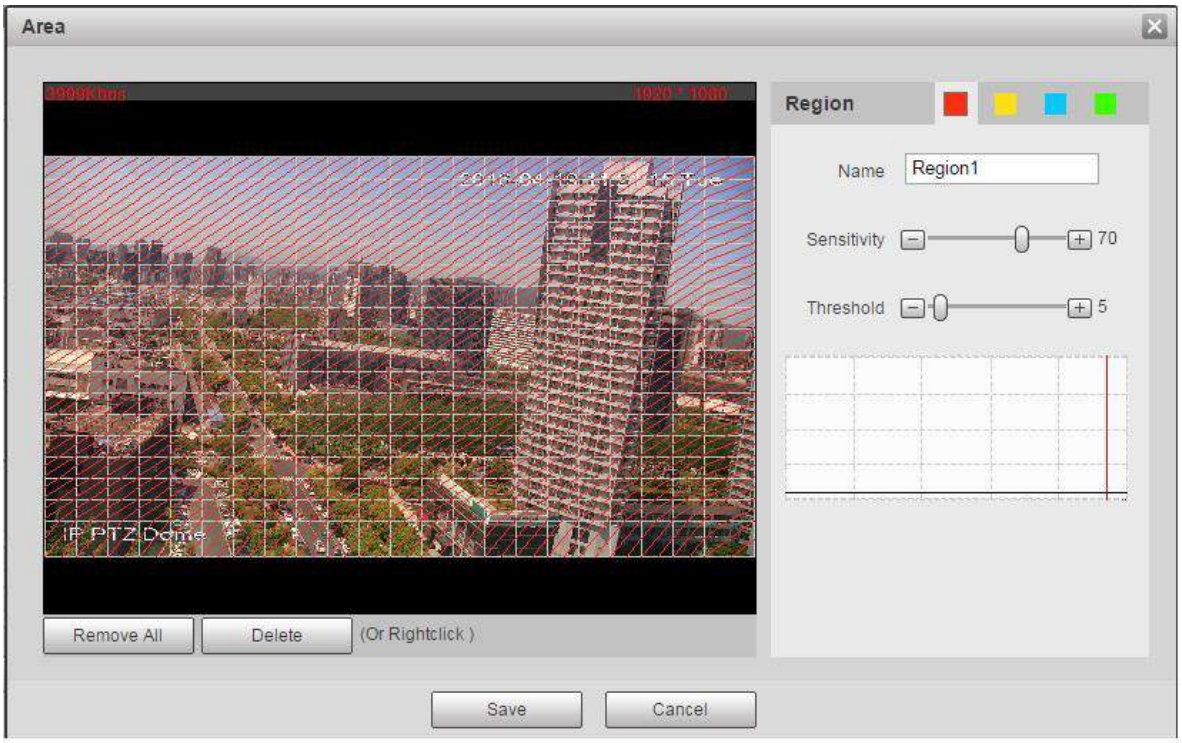


Figure 4-27

Parameter	Description
Name	Default area name includes Region 1, Region 2, Region 3, Region 4 and custom.
Sensitivity	It is sensitivity of brightness as motion detection is more possible to be trigger with high sensitivity. You can set up to four areas. The range is 0~100. The recommenced value is 30~70.
Area threshold	It is to check target object area related to detection area. The lower the area threshold, the easier to trigger motion detection. You can set up to four areas. The range is 0~100. The recommenced value is 1~10.
Waveform	Red means motion detection is triggered. Green means motion detection is not triggered.
Delete all	Clear all areas.
Delete	Delete selected area.

Table 4-20

- Other parameters

Parameter	Description
Anti-dither	System only memorizes one event during the anti-dither period. The unit is second, the value ranges from 0s to 100s.
Manual Control Excluded	Click it and it will generate motion detection event when excluding manual control, which can reduce the false alarm rate of motion detection event.
Record	Check it and so when alarm occurs, system will auto record. You shall set record period in Storage>Schedule and select auto record in record control interface.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Relay out	Check it to enable alarm activation output port, it can activate corresponding alarm output device when alarm occurs.
Alarm delay	It means alarm delays a period of time to stop after alarm ends, the unit is second, and the value ranges from 10s to 300s.
Send Email	If you enabled this function, System can send out email to alert y when alarm occurs. User can set email address in Network>SMTP.
PTZ	● Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm. ● The event type includes: preset, tour and pattern.
Snapshot	You need to check the box here so that system can backup moti detection snapshot file. You shall set snapshot period Storage>Schedule.

Table 4-21

Step 3

Click **Save** to finish configuration.

4.4.1.2 Video Tamper

Step 1

Select “Setting > Event > Video Detect > Video Tamper”.

The system will display the interface of “Video Tamper”, which is shown in Figure 4-28.

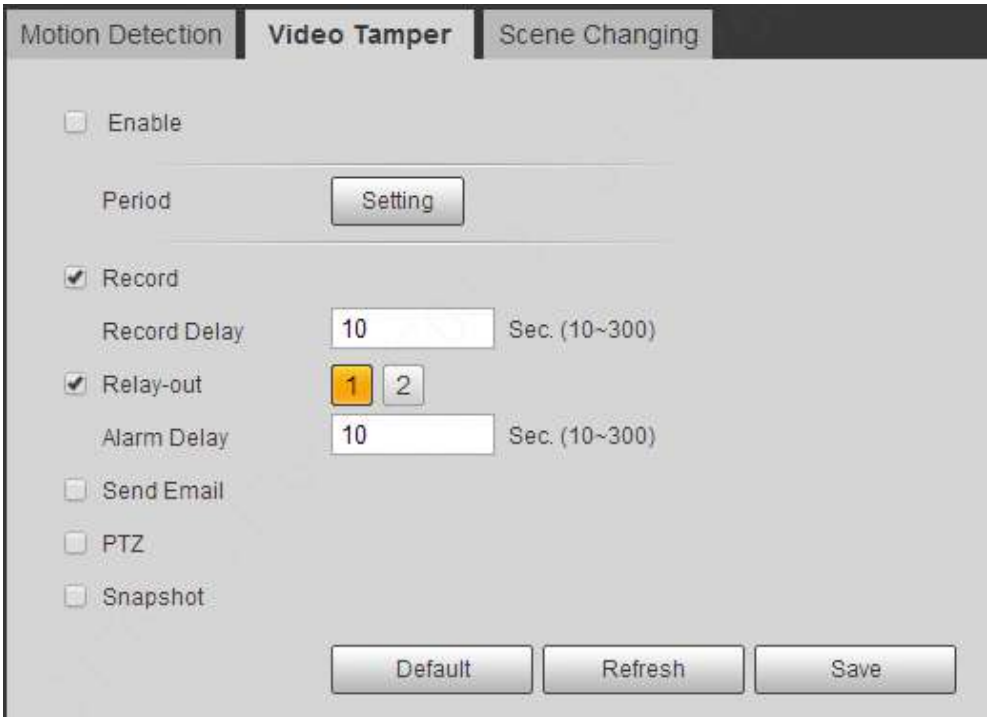


Figure 4-28

Step 2

Click **Enable** and configure info of each parameter according to the actual needs.

Note

Please refer to “4.4.1.1 Motion Detection” for more details about parameter config.

Step 3

Click **Save** to finish configuration.

4.4.1.3 Scene Changing

Step 1

Select “Setting > Event > Video Detection > Scene Changing”. The system will display the interface of “Scene Changing”, which is shown in Figure 4-29.

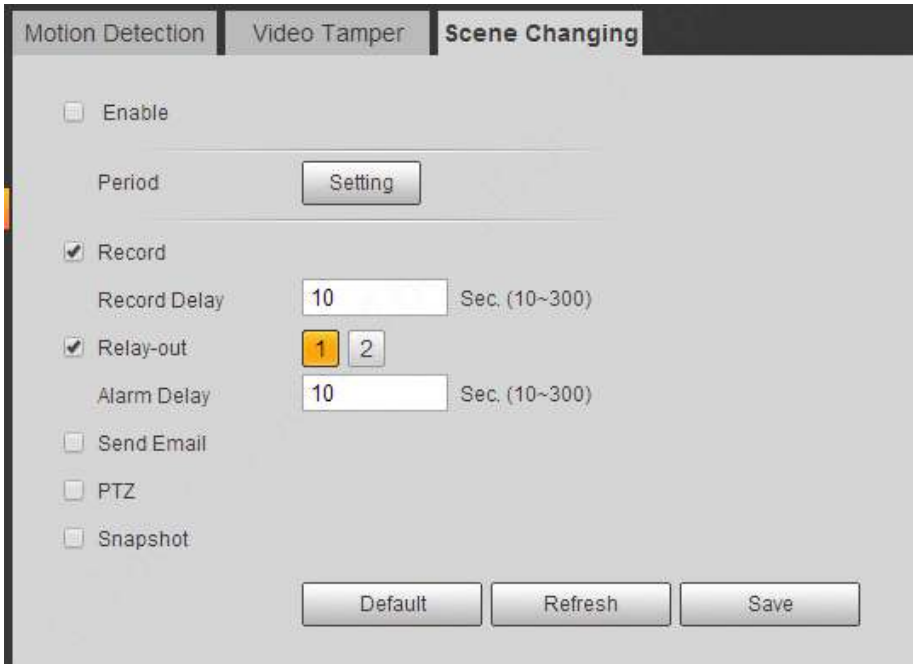


Figure 4-29

Step 2

Click **Enable** and then configure parameter info according to the actual requirements.

Note

Please refer to “4.4.1.1 Motion Detection” for more details about parameter config.

Step 3

Click **Save** to finish configuration.

4.4.2 Audio Detection

Step 1

Select “Setting > Event > Audio Detection”.

The system will display the interface of Audio Detection, which is shown in Figure 4-30.

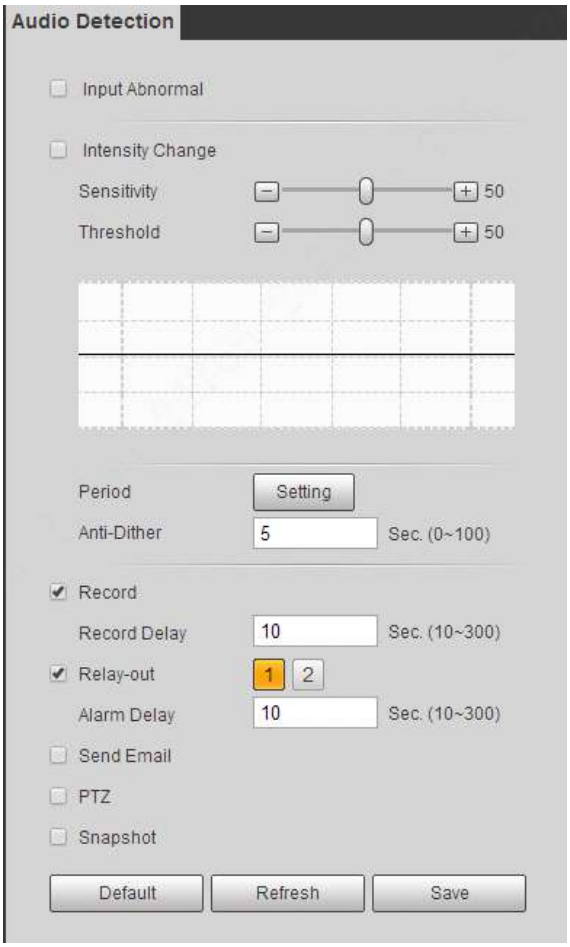


Figure 4-30

Step 2

Configure info of each parameter according to the actual needs; please refer to the following sheet for more details.

Parameter	Description
Enable Input Abnormal	Check **Enable Input Abnormal** and it will activate alarm when detecting audio input abnormal.
Enable Intensity Change	Check **Enable Intensity Change** and it will activate alarm when detecting audio intensity change surpass threshold.
Sensitivity	Levels range from1 to 100 and adjustable, the smaller the value, it means the input sound volume change surpassing continuous environment volume and it can be judged as audio abnormal, users can adjust according to the actual environment testing.

Parameter	Description
Threshold	Levels range from 1 to 100 and adjustable, which is used to set filtered environment sound intensity. If the environment noise is bigger, users need to set the value higher. Besides, users can adjust it according to the actual environment testing.

Table 4-22

Note

Please refer to “4.4.1.1 Motion Detection” for more details about parameter config.

Step 3

Click **Save** to finish configuration.

4.4.3 Smart Plan

Statistics intelligent functions such as heat map, people counting can’t coexist with the intelligent functions related to preset, it needs users to select first. Each preset can set different intelligent function, the corresponding setting can be valid only when it selects exact intelligent function.

Note

- It needs to set preset in advance, please refer to “4.3.2.1 Preset” for setting method.
- Heat map and preset are added plans, which can’t be enabled at the same time.

Step 1

Select “ Setting > Event > Smart Plan”. The system will display the interface of Smart Plan, which is shown in Figure 4-31.

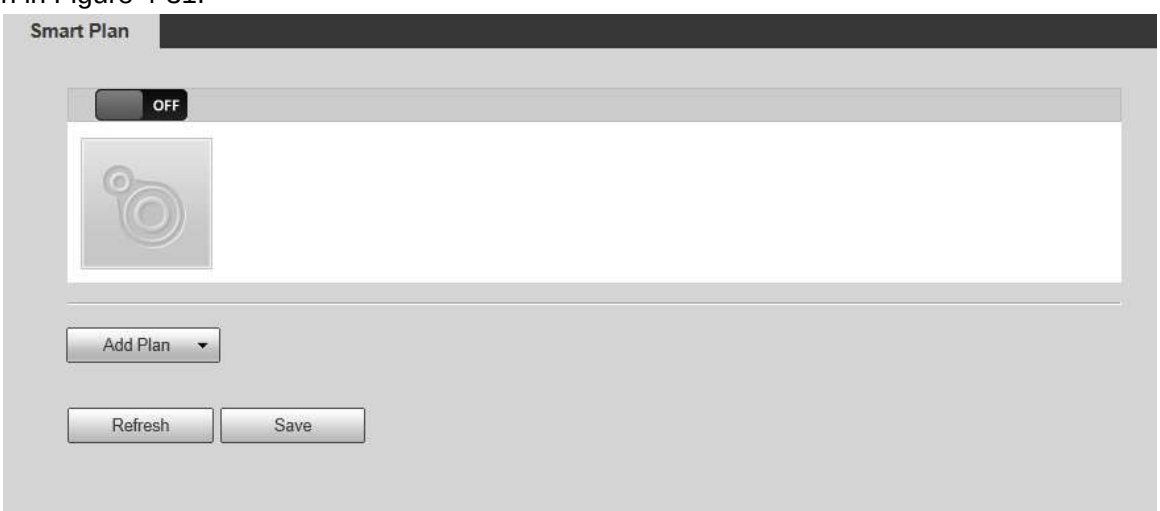


Figure 4-31

Step 2

Enable corresponding intelligent functions according to the requirements.

- Enable heat map or face detection function.

1. Click the sliding block in 

to enable the function switch.
2. Click heat map or face detection function to enable corresponding intelligent functions. The selected intelligent function appears to be bright, click it to cancel the selected intelligent function.

- Enable IVS, face detection function.

1. Select preset in the “Add Plan”. The system will display corresponding plan of the preset.
2. Click IVS, face detection to enable corresponding functions.

Step 3

The selected intelligent function appears to be bright, and you can click it to cancel the function.

4.4.4 Deep IVS

Basic requirements for scene selection:

- The size of the target shall not exceed 10% of the image size.
- The target size in the image shall not be less than 10 pixel ×10 pixel, the size of abandoned target shall not be less than 15 pixel ×15 pixel (CIF image); the width and height of targets shall be less than one third of the width and height of the image; it is recommended that the target height shall be around 10% of the image height.
- The difference between target brightness value and background brightness value shall not be less than 10 gray levels.
- Guarantee that the target stays in field of vision for at least 2 seconds, the movement distance exceeds the width of the target and the target is no less than 15 pixels (CIF image).
- It is not recommended to use intelligent video surveillance function in scenes where targets are very crowded and ambient light changes frequently.
- Do not choose places with large area of glass, ground reflection, water, branches, shadows, mosquito infestation and backlight.

Note

- You have to set preset positions in advance, please refer to “4.3.2.1 Preset” for more details.
- Heat map and intelligent function added by preset can’t be enabled at the same time.

Step 1

Select “Setting > Event > IVS”.

The “IVS” interface is displayed, see Figure 4-69.

Step 2

Select preset positions that you want to set smart rules.

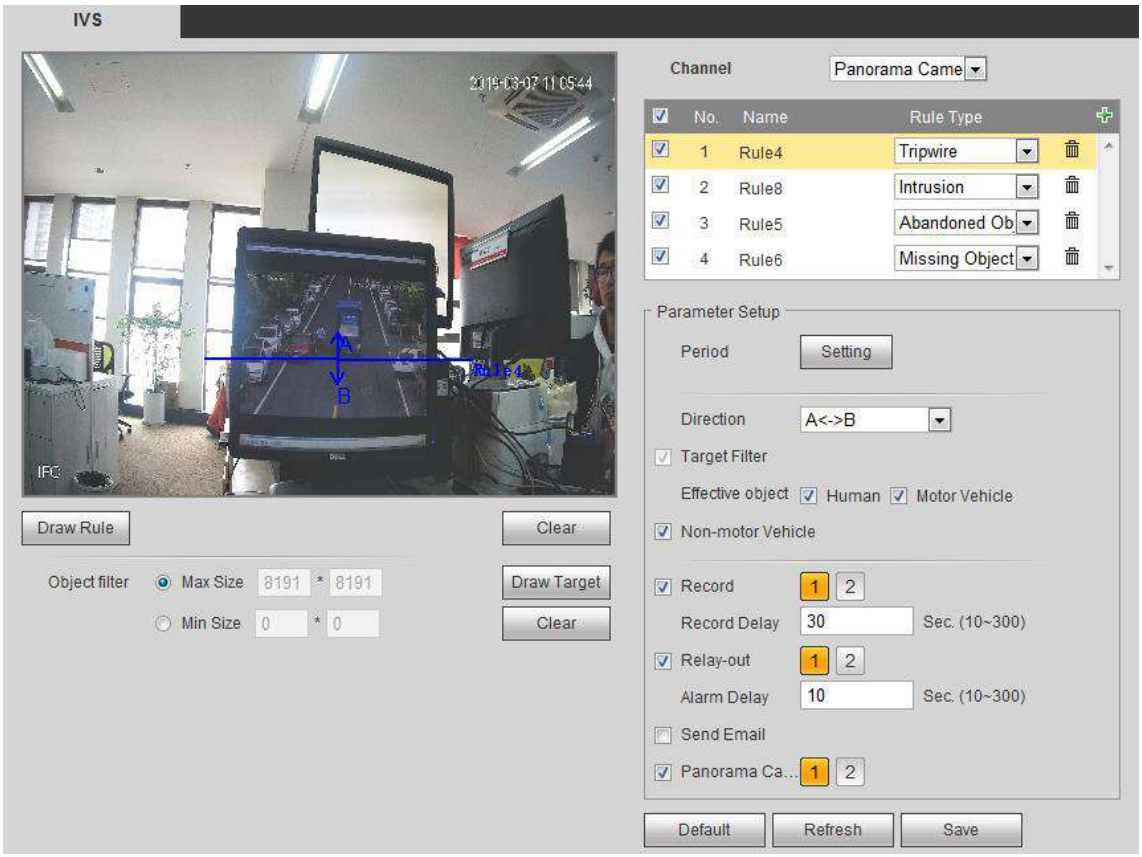


Figure 4-69

Step 3

Click  to add intelligent rules.

Note

- Double click “Rule Type” to modify rule types.
- When in rule configuration interface, the lock function is enabled automatically, the locking time is 180 seconds. In this period, you can only control the speed dome manually. You can click “Unlock” to unlock it.

Step 4

Click **Save**, and the configuration is finished.

4.4.4.1 Tripwire

- When an object crosses the warning line, an alarm will be triggered.
- Do not draw the warning line near other objects, because the speed dome needs some

time to detect targets when they appear.

- Applicable scene: places where targets are sparse, for example areas without security guards.

Note

Click **Clear** on the right of Draw Rule to clear all the rules you draw.

For details of parameters about drawing rules, see Table 4-23.

Parameter	Description
Max Size	You can set the maximum and minimum object size range, out of which, objects will be filtered out.
Min Size	
Lock/Unlock	When you enter the rule configuration interface, the locking function is enabled automatically, which means when you enter the rule configuration interface, the PTZ will not rotate until 180s has passed. Click “Unlock”, and you can unlock it, which means after you unlock it, even if you are on the rule configuration interface, the PTZ can still rotate.

Table 4-24

Step 3

Set parameters according to your requirements. For details, see Table 4-25.

Parameter	Description
Period	**Note** Set alarm period, it can enable alarm event within the range of set period. Click “Setting” to pop out setting interface of “Working Period”. ● You can input time number value or press the left mouse button, and drag on the setting interface directly. ● There are totally six periods to set every day, click the check box in front of the period, and then the period can be valid. ● Select week number (default is Sunday, if users select the whole week, it means setting can be applied to the whole week; users can also select the check box in front of the day to make separate setting for some days). Click **Save** after settings completed, return to rule config setting interface, click **Save** to complete period setting of tripwire.
Direction	When the rule type is Cross Fence Detection, you can select from which direction people cross the fence an alarm will be triggered.
Alarm Track	Check it and it will generate alarm track when targets trigger intelligent rules.
Track Time	It is to set the time of track time.

Parameter	Description
Object filter	There are three effective objects: human, motor vehicle, and non-motor vehicle. Only items you have selected can be detected.
Record	Check it and so when alarm occurs, system will auto record. You shall set record period of alarm in “Storage>Schedule” and select auto record in record control interface.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Relay-out	Check it to enable alarm activation output port, it 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, the unit is second, and the value ranges from 10s to 300s.
Send Email	Check it and the system can send out email to inform users when alarm occurs. User can set email address in “Network > SMTP (email)”.
Snapshot	Check it and the system can realize alarm snapshot automatically when alarm occurs, meanwhile it needs to set snapshot period of alarm in “ Storage > Schedule”.

Table 4-25

Step 4

Click **Save** to finish configuration.

4.4.4.2 Cross Fence Detection

The triggering of cross fence alarm is like a person step over two warning lines one after the other. Requirements of setting fences are as follows:

- Fences with holes are not recommended.
- The height of fences must be similar to general adult height.

When the center of the rectangle crosses the line that you drew, the cross-fence alarm will be triggered.

Note

Click **Clear** on the right of Draw Rule, and you can clear the rules you drew.

Parameter	Description
Direction	You can select A→B, B→A, and A↔B, which means when people cross the fence from A to B, B to A, or from A to B and from B to A, an alarm will be triggered.

Table 4-26

4.4.4.3 Intrusion

Intrusion includes cross area and in area functions.

- Crossing area means that it will trigger alarm when target entering or leaving area.
- In area function means that it will trigger alarm when certain amount of target appears in the designated area within specific time. In area function is only responsible for the statistics of the target quantity in the detection area without considering whether the target is the same or not.
- As for the report interval of the in area function, the system can detect if the same event will occur within the interval after triggering the first alarm, the alarm counter will clear itself if no same event occurs during the period.

As it is similar to the warning line, it also needs to leave some movement space for the target out of the area line if it is to detect enter and leave events

Application scene: It can only be applied to the scene where the target is sparse and it is basically mutually blocked between targets, such as the perimeter protection area without security guard.

Configure parameter info according to the actual needs. Please refer to Table 4-26 for more details.

Parameter	Description
Action	It is to set the actions of intrusion, you can select appear and cross.
Direction	It is to set the direction of cross area, you can select enter, leave, enter & leave.

Table 4-26

Please refer to “4.4.4.1 Tripwire
” for more details about other parameters.

4.4.4.4 Abandoned Object

- It means triggering alarm when the abandoned object exceeds the time set by users in the monitoring scene.
- Abandoned and missing object detection can be confusing in a situation where foreground and background is both very complex.
- It will trigger alarm when pedestrians or vehicles stay still for a long time, which is considered as abandoned object. In order to filter this kind of alarm, generally the abandoned object is smaller than person and vehicle; therefore it can filter person and vehicle via setting filter size. Besides, it can avoid false alarm of short stay for people via extending alarm time.
- Application scene: It can be applied to the scene where the target sparse and there is no obvious and frequent light change. As for the scene with high target density and frequent blocking, alarm leakage will increase; as for the scene with more people to stay, false

alarm will increase. As for the detection area, it is required to be simple; it can't be applied to complicated areas.

4.4.4.5 Fast-Moving

- It means it will trigger alarm after the target in the scene is taken and exceeds a certain period of time.
- The system will make statistics for the still areas in the foreground area, and distinguish whether it is missing object or abandoned object according to the similarity between foreground and background, it will trigger alarm when it exceeds the time set by users.
- It may cause mistake when distinguishing abandoned object from missing object when both foreground and background are very complex.
- Application scene: It can be applied to the scene where the target sparse and there is no obvious and frequent light change. As for the scene with high target density and frequent blocking, alarm leakage will increase; as for the scene with more people to stay, false alarm will increase. As for the detection area, it is required to be simple; it can't be applied to complicated areas.

4.4.4.6 Parking Detection

The speed dome system will detect and make judgments to see whether targets are static or not. Alarms will be triggered when the time of being static exceeds the threshold.
The configuration steps are as follows.

4.4.4.7 Crowd Gathering Estimation

- When crowd gathering occurs, alarms will be triggered.
- Applicable scenes: squares, government gates, entrance and exit of bus or train stations.
- Scenes not applicable: Places where speed domes can only be installed at low height; where the image of a single person is out of proportion to the whole monitoring image; where are crowded with visual obstructions.

For details of parameters about drawing rules, see Table 4-27.

Parameter	Description
Duration	You can set the shortest time from when targets appear to when alarms are triggered.
Sensitivity	You can set the sensitivity to trigger alarms. There are 10 options and the default value is 5.
Mini Gathering Area	Click **Draw Rule**, and you can draw the minimum gathering area. When the

Parameter	Description
	number of people in a certain area exceeds the number of people in the mini gathering area, an alarm will be triggered. Click **Clear**, the area you drew will be deleted.

Table 4-28

4.4.4.8 Missing Object

- Missing object means that when objects in an area are missing for a certain period of time, alarms will be triggered.
- The system conducts statistical analysis on the static area in the foreground, and then tells whether objects were moved or left behind. If the period of objects that are missing or left behind exceeds the time you set, alarms will be triggered.
- Applicable scenes: Places where targets are sparse and without frequently changing ambient light. At places with large gathering crowd, and places where patterns and signs on the road are complicated, false alarm rate will increase.

4.4.4.9 Loitering Detection

When targets are moving in the area and the moving time exceeds the duration you set, alarms will be triggered. The detection will not work out on static objects.

4.4.5 Video Structuralization

The speed dome can take snapshots of motor vehicles, non-motor vehicles, human bodies, and human faces and extract their attributes. You need to select a channel and add scene types depending on target types you need to monitor, and then the snapshots and attributes will be displayed.

4.4.5.1 Scene Setting

There are three scenes: People, Motor Vehicle, and Non-Motor Vehicle.

- People: In this scene, only human body snapshots and human face snapshots will be taken.
- Motor Vehicle: In this scene, only motor vehicle snapshots will be taken.
- Non-Motor Vehicle: In this scene, only non-motor vehicle snapshots will be taken.

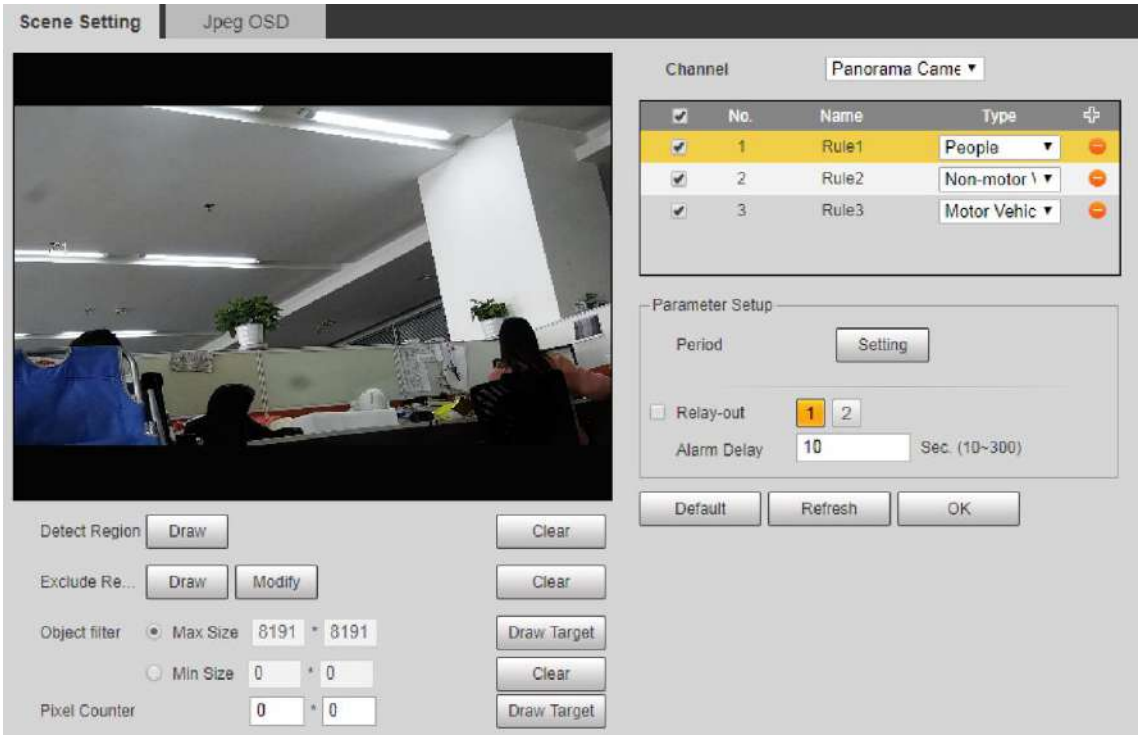


Figure 4-70

Step 1

Select “Setting > Event > Video Structuralization > Scene Setting”.

The Scene Setting interface is displayed.

Step 2

Select a channel.

Step 3

(Only for Detail Camera) Click the Preset drop-down box, and then select an IVS plan.

Step 4

Click to add a rule, and then select a scene.

Step 5

Modify parameters.

Note

- Double click name, and you can modify rule name.
- Click the Type drop-down list, and then you can select among the three scene: People, Vehicle, and Non-Motor Vehicle.
- Click , and then you can delete a rule.

Step 6

Configure parameters. Refer to “4.4.1.1 Motion Detection”.

Step 7

Click OK to finish the configuration.

4.4.5.2 Jpeg OSD

You can put human attributes (gender, top color, top type, bottom color, bottom type, backpack, and hat), motor vehicle attributes (car type, car color, plate color, sun shield, safety belt, smoking status, calling status, vehicle pedant, and inspection sticker), and non-motor vehicle attributes (car type, car color, cycling number, top color and top type) at the snapshots.

Step 1

Select “Setting > Event > Video Structuralization > Jpeg OSD”.

The Jepg OSD interface is displayed.

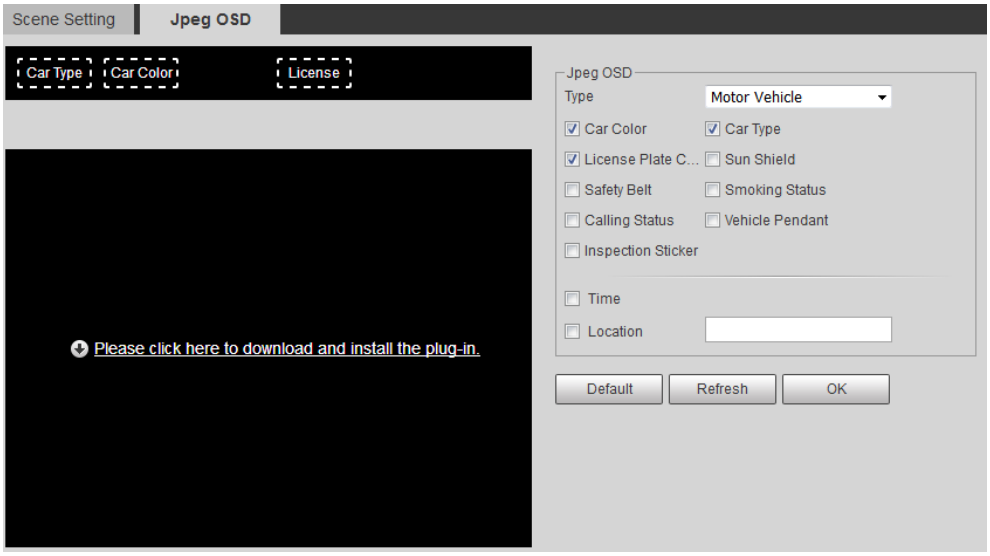


Figure 4-71

Step 2

Click the Type drop-down list, and select among Human Body, Motor Vehicle, and Non-motor Vehicle.

Step 3

Select the attributes depending on your needs.

And then the attributes you selected will be displayed at the snapshots.

Step 4

Click OK to finish the configuration.

4.4.6 Alarm

Step 1

Select “Setting > Event > Alarm”.

The system will display the interface of Alarm, which is shown in Figure 4-32.

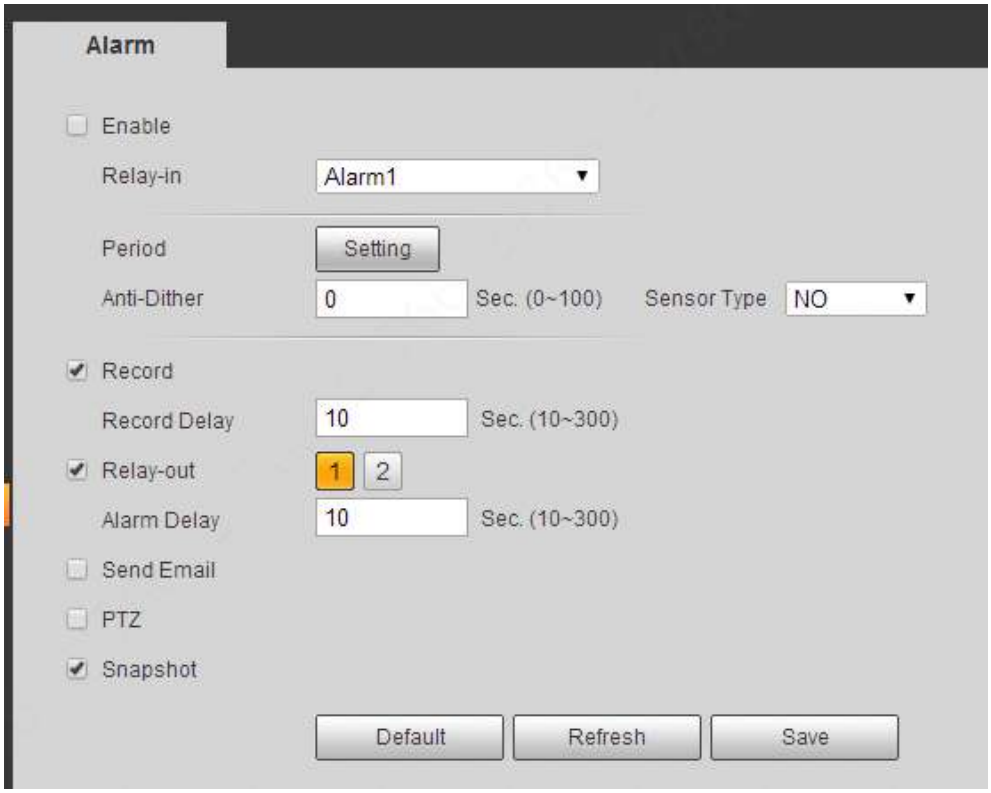


Figure 4-32

Step 2

Configure info of each parameter according to the actual needs; refer to Table 4-29 for more details.

Parameter	Description
Enable	After enabled, relay activation will work.
Relay-in	Select relay-in.
Sensor type	There are two options: NO/NC. Switch from NO to NC means enabling alarm; Switch from NC to NO means disabling alarm.

Table 4-29

Note

Please refer to “4.4.1.1 Motion Detection” for description of other parameters.

Step 3

Click **Save** to finish configuration.

4.4.7 Abnormity

Abnormality includes six alarm events which are no SD card, capacity warning, SD card error, disconnection, IP conflict and illegal access.

4.4.7.1 SD Card

Step 1

Select “Setting > Event > Abnormity > SD Card”.

The system will display the interface of SD Card, which is shown from Figure 4-33 to Figure 4-75.

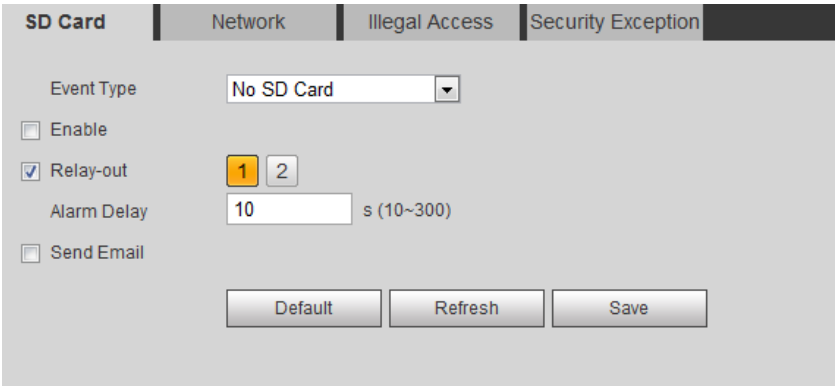


Figure 4-33

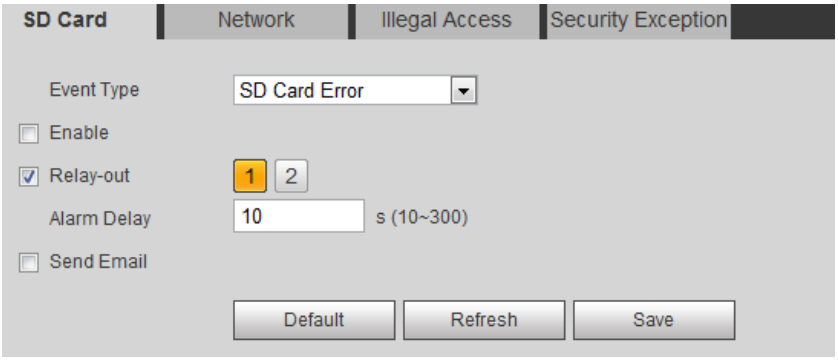


Figure 4-74

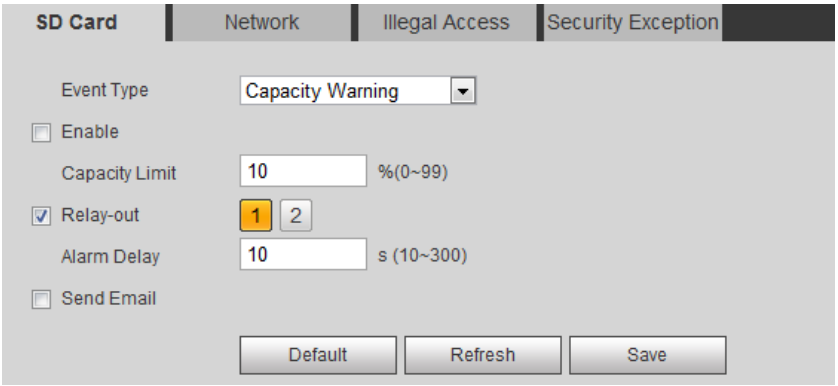


Figure 4-75

Step 2

Configure info of each parameter according to the actual needs; refer to Table 4-30 for more details.

Parameter	Description
Enable	Check to alarm when SD card is abnormal.
SD Card Capacity Lower Limit	User can set SD card capacity percentage which is left. When SD card space left is smaller than this, alarm occurs.

Table 4-30

Note

Please refer to “4.4.1.1 Motion Detection” for description of other parameters.

Step 3

Click **Save** to finish configuration.

4.4.7.2 Network

Step 1

Select “Setting > Event > Abnormity > Network”.

The system will display the interface of Network, which is shown in Figure 4- and Figure 4-77.

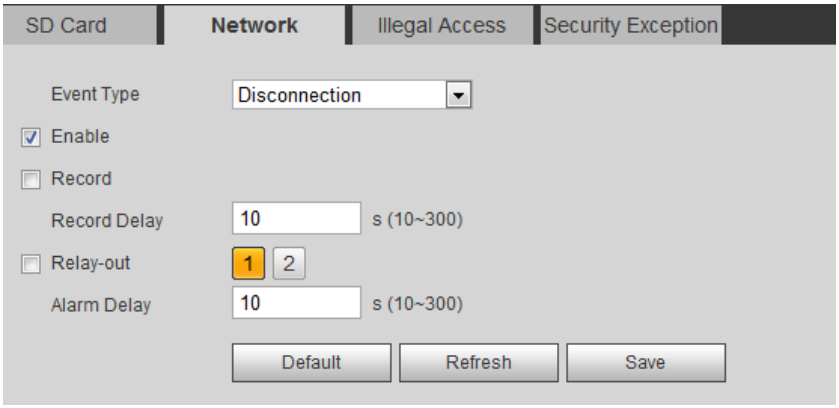


Figure 4-76

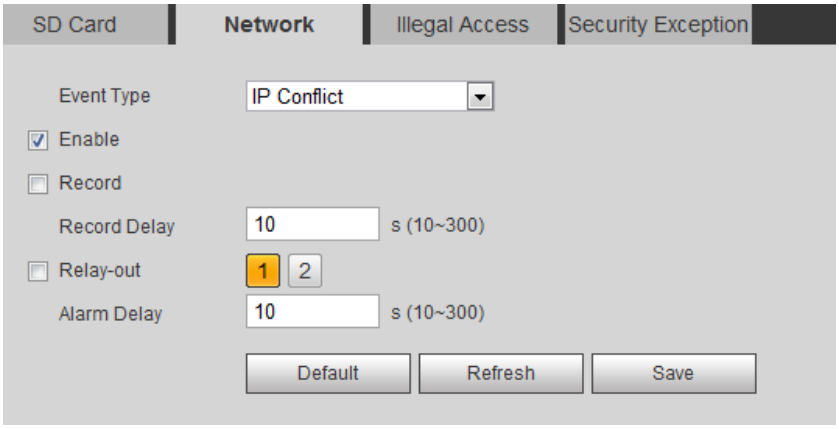


Figure 4-77

Step 2

Configure info of each parameter according to the actual needs; refer to Table 4-31 for more details.

Parameter	Description
Enable	Click it to enable network abnormity alarm.

Table 4-31

Note

Please refer to “4.4.1.1 Motion Detection” for description of other parameters.

Step 3

Click **Save** to finish configuration.

4.4.7.3 Illegal Access

When the login password error reaches a certain number of times, it will generate illegal access alarm.

Step 1

Select “Setting > Event > Abnormity > Illegal Access”.

The system will display the interface of Illegal Access, which is shown in Figure 4-78.



Figure 4-78

Step 2

Configure info of each parameter according to the actual needs; refer to Table 4-32 for more details.

Parameter	Description
Enable	Click it to enable illegal access alarm.
Login error	It will trigger alarm of illegal access after entering wrong password for some certain times, and the account will be locked.

Table 4-32

Note

Please refer to “4.4.1.1 Motion Detection” for description of other parameters.

Step 3

Click **Save** to finish configuration.

4.5 Storage

Here you can set schedule, storage mode, and record control.

4.5.1 Schedule

Before schedule settings, user must set record mode in record control as auto status.

Note

If record mode in record control is off, then device will not record or snapshot according to the schedule.

4.5.1.1 Record

Step 1

Select “Setting > Storage > Schedule > Record”.

The system will display the interface of Record, which is shown in Figure 4-79.



Figure 4-79

Step 2

From Monday to Sunday select record time, click Setting on the right. See Figure 4-34 for more details.

- Set period according to actual needs. There are six periods available each day.
- By checking or cancel, you can add or delete three types of record schedule: General, Motion, and Alarm.

Note

Period settings can be done by dragging in record schedule interface while not releasing left mouse.

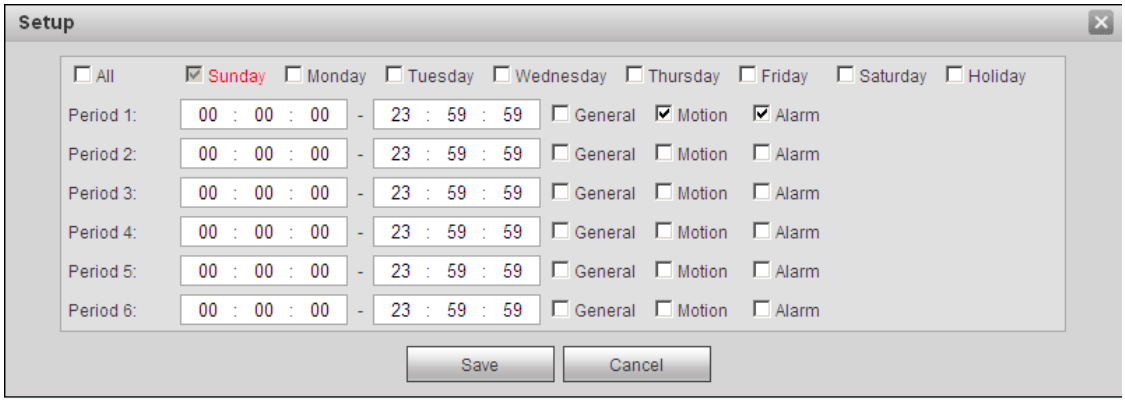


Figure 4-34

Step 3

Click **Save**, return to record schedule interface. See Figure 4-35.

- Green color stands for the general record.
- Yellow color stands for the motion detect record.
- Red color stands for the alarm record.

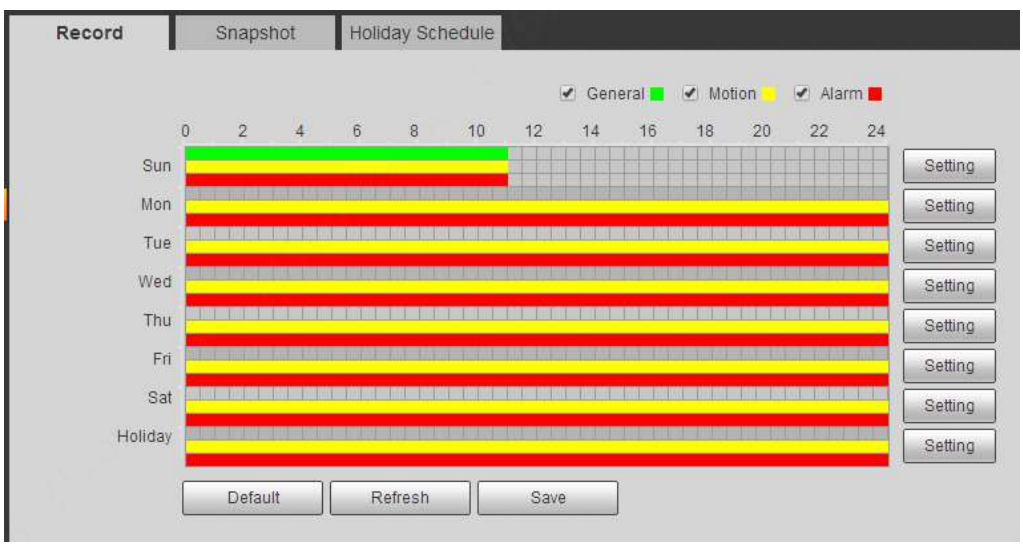


Figure 4-35

Step 4

Click **Save** on the Record interface, the system prompts “Successfully Saved”, and the record schedule is completed.

4.5.1.2 Snapshot

Step 1

Select “Setting > Storage > Schedule > Snapshot”.

The system will display the interface of Snapshot, which is shown in Figure 4-36.

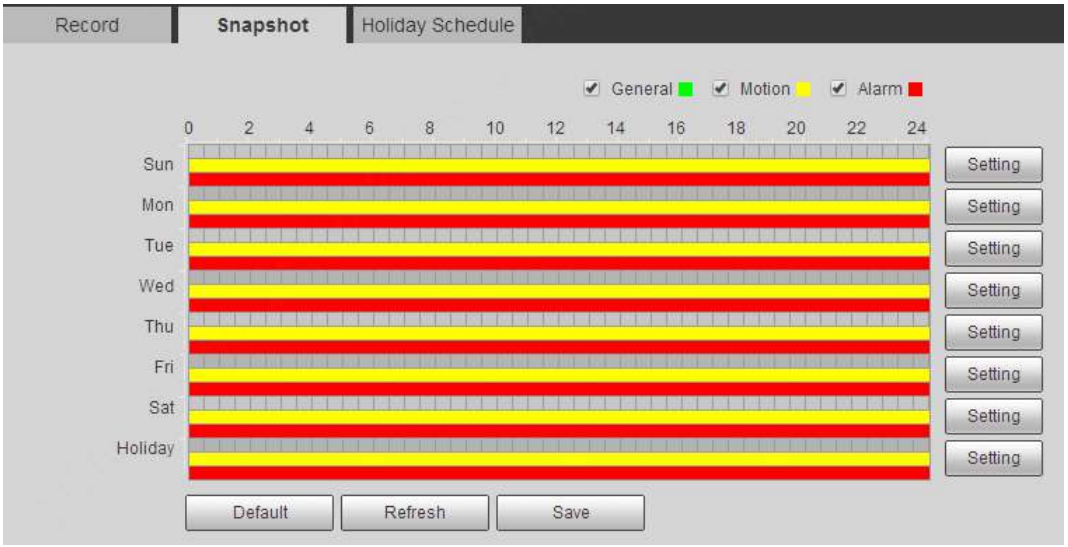


Figure 4-36

Step 2

Set the snapshot period according to step 2 and 3 of “4.5.1.1 Record”.

Step 3

Click **Save** and the system will prompt “Successfully Saved’, then snapshot schedule is completed.

4.5.1.3 Holiday Schedule

Holiday schedule can set specific date as holiday.

Step 1

Select “Setting > Storage > Schedule > Holiday Schedule”.

The system will display the interface of Holiday Schedule, which is shown in Figure 4-37.

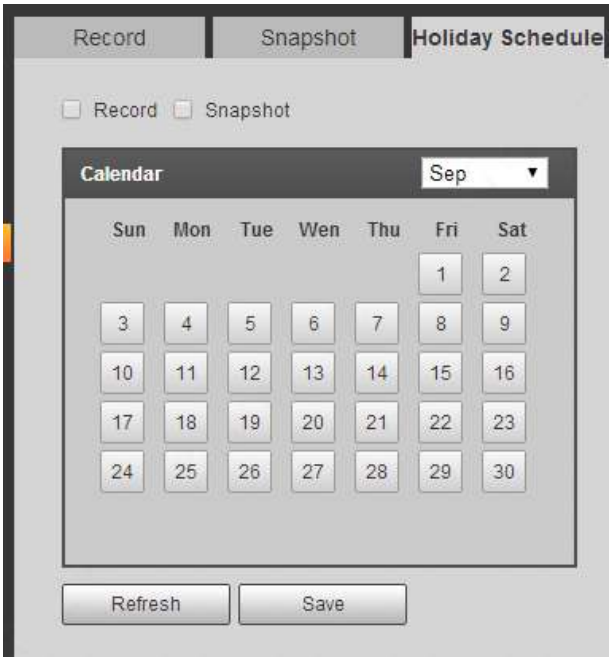


Figure 4-37

Step 2

Select from record and snapshot.

Step 3

Select the days you need to set as holiday.

Those days with yellow color indicates they were set as holidays.

Step 5

Click **Save** to finish configuration.

4.5.2 Destination

4.5.2.1 Path

Path can configure storage path of device record and snapshot. There are three options: Local, FTP and NAS. You can only select one mode. System can save according to the event types. It is corresponding to the three modes (general/motion/alarm) in the schedule interface. Please check the box to enable the save functions.

Note

Only some devices support NAS storage, please refer to the actual device.

Step 1

Select “Setting > Storage > Destination > Path”.

The system will display the interface of Path, which is shown in Figure 4-84.

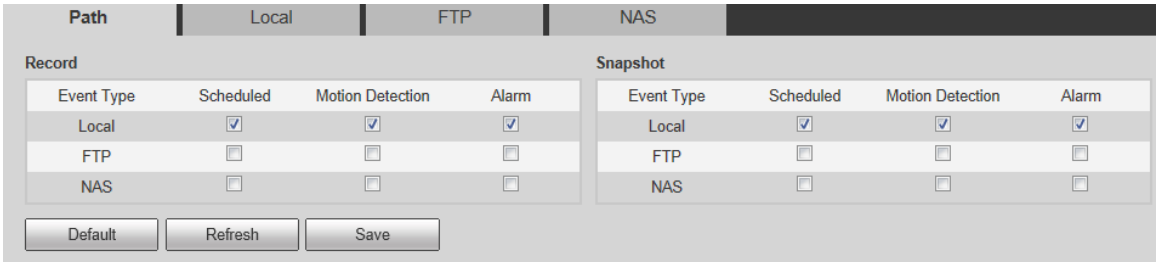


Figure 4-84

Step 2

Configure info of each parameter according to the actual needs; please refer to Table 4-33 for more details.

Parameter	Description
Event Type	It includes: scheduled, motion detect and alarm.
Local	It is saved in the SD card.
FTP	It is saved in the FTP server.
NAS	It is saved in NAS server.

Table 4-33

4.5.2.2 Local

Here it can display kinds of information of local SD card in the local storage list. You can also realize several operations such as read-only, read & write, hot swap and format.

Select “Setting > Storage > Destination > Local”, the system will display the interface of Local shown in Figure 4-84.

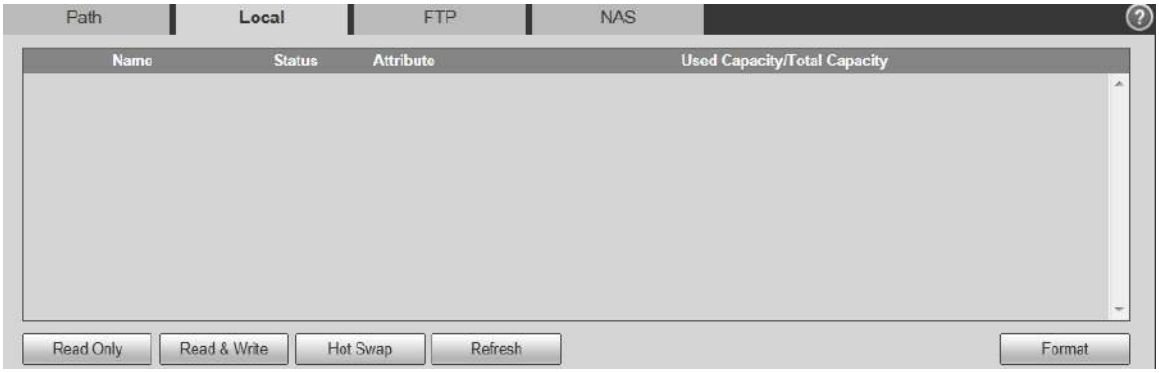


Figure 4-85

- Click “Read only” to set the SD card as read only.
- Click “Read & Write” to set the SD card as read & write.
- Click “Hot Swap” to realize hot swap upon the SD card.
- Click “Format” to realize formatting upon the SD card.

4.5.2.3 FTP

You need to check the box to enable the FTP function. When network disconnect occurred or there is malfunction, emergency storage can save the record/snapshot to the local SD card.

Step 1

Select “Setting > Storage > Destination > FTP”, the system will display the interface of “FTP” shown in Figure 4-86.

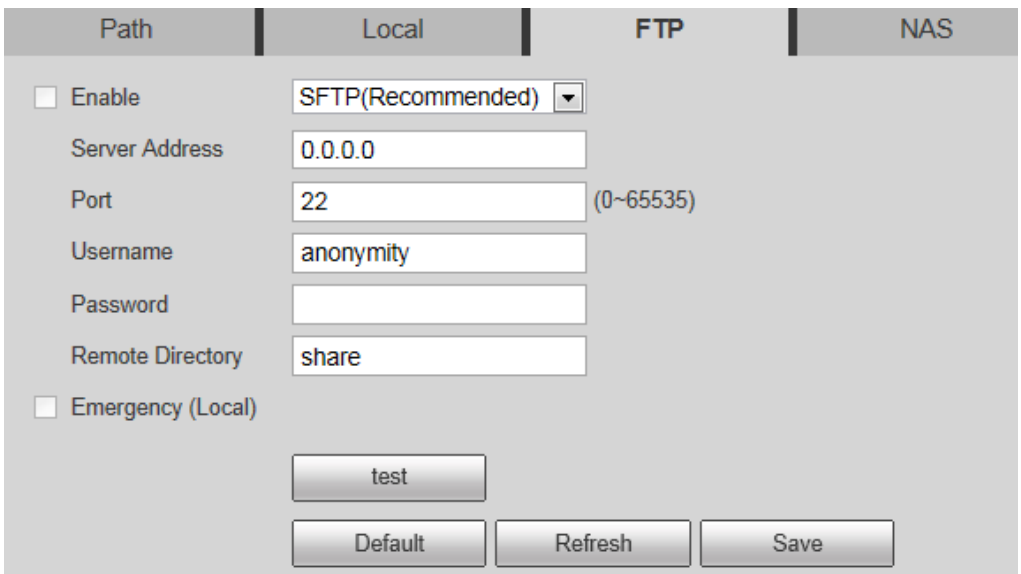


Figure 4-86

Step 2

Select **Enable** to enable FTP function, and select the FTP type from the drop-down list.

Note

- FTP may have risk. Be careful to enable FTP.
- SFTP is recommended for network security.

Step 3

Configure info of each parameter according to the actual needs; please refer to Table 4-34 for more details.

Parameter	Description
Enable FTP	Click it to enable FTP function
Server Address	FTP server address
Port	FTP server port
User name	User name used to log in FTP server.
Password	Password used to log in FTP server.
Remote Directory	Store it to the directory of FTP server.
Emergency (Local)	Click it and it will store to local SD card when FTP storage abnormity occurs.
Test	Click the button to test if FTP server can be connected.

Table 4-34

Step 3

Click **Save** to finish configuration.

4.5.2.4 NAS

When it selects NAS storage mode, NAS function can be enabled. You can store file to NAS server when selecting NAS storage.

Step 1

Select “Setting > Storage > Destination > NAS”, the system will display the interface of “NAS” shown in Figure 4-87.

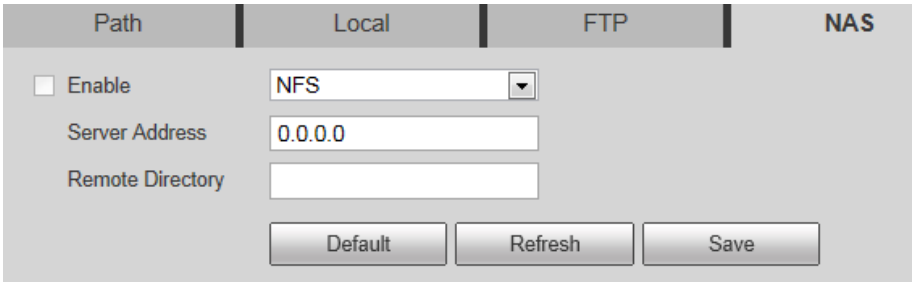


Figure 4-87

Step 2

Configure info of each parameter according to the actual needs; please refer to Table 4-35 for more details.

Parameter	Description
Enable NAS	Check the check box to enable NAS function, and select the protocol from the drop-down list. NFS and SMB are selectable.
Server Address	NAS server address.
Remote Directory	Store it to the directory of the NAS server.

Table 4-35

Step 3

Click **Save** to finish configuration.

4.5.3 Record Control

Step 1

Select “Setting > Storage > Record Control”, the system will display the interface of Record Control shown in Figure 4-88.

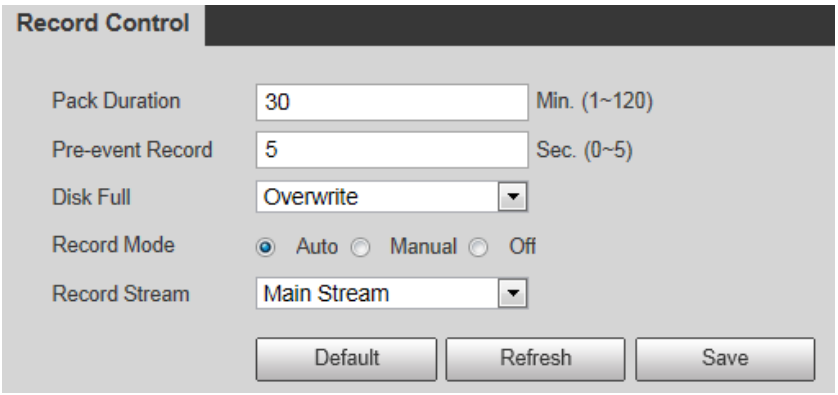


Figure 4-88

Step 2

Configure info of each parameter according to the actual needs; please refer to the following sheet for more details.

Parameter	Description
Pack Duration	It is to set the pack duration of each record file; it is 30 mins by default.
Pre-event Record	It is to set pre-event record time. For example, when it inputs 5, then the system will read the record video of first 5 seconds of the internal storage and record it into the file. **Note** Configure pre-event record time, when alarm record or motion detection record occurs, if there is no record, system will record the preceding n seconds video data into the record file.
Disk Full	There are two options: stop recording or overwrite the previous files when HDD is full. ● Stop: Current working HDD is overwriting or current HDD is full, it will stop record. ● Overwrite: Current working HDD is full; it will overwrite the previous file.
Record mode	There are three modes: Auto/manual/close. It starts recording when selecting manual mode, it records within the range of schedule when selecting auto mode.
Record stream	There are two options: main stream and sub stream.

Table 4-36

Step 3

Click **Save** to finish configuration.

4.6 System

4.6.1 General

4.6.1.1 General

Step 1

Select “Setting > System > General”, the system will display the interface of General shown in Figure 4-89.

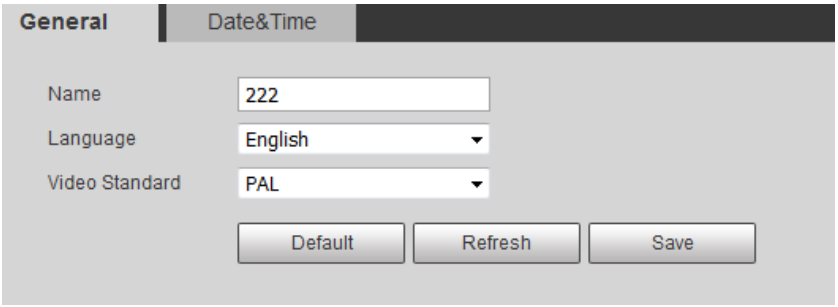


Figure 4-89

Step 2

Configure info of each parameter according to the actual needs; please refer to Table 4-37 for more details.

Parameter	Description
Device Name	It is to set device name. **Note** Different devices may have different names.
Language	You can select the language from the dropdown list. There are 14 options: English, Italian, Spanish, Russian, French, German, Portuguese, Polish, Korean, Persian, Czech, Dutch, Arabic, and European Spanish.
Video Standard	It is to display the video format of device, such as 50Hz.

Table 4-37

Step 3

Click **Save** to finish configuration.

4.6.1.2 Date & Time

Step 1

Select “Setting > System > General > Date & Time”, the system will display the interface of Date & Time shown in Figure 4-38.

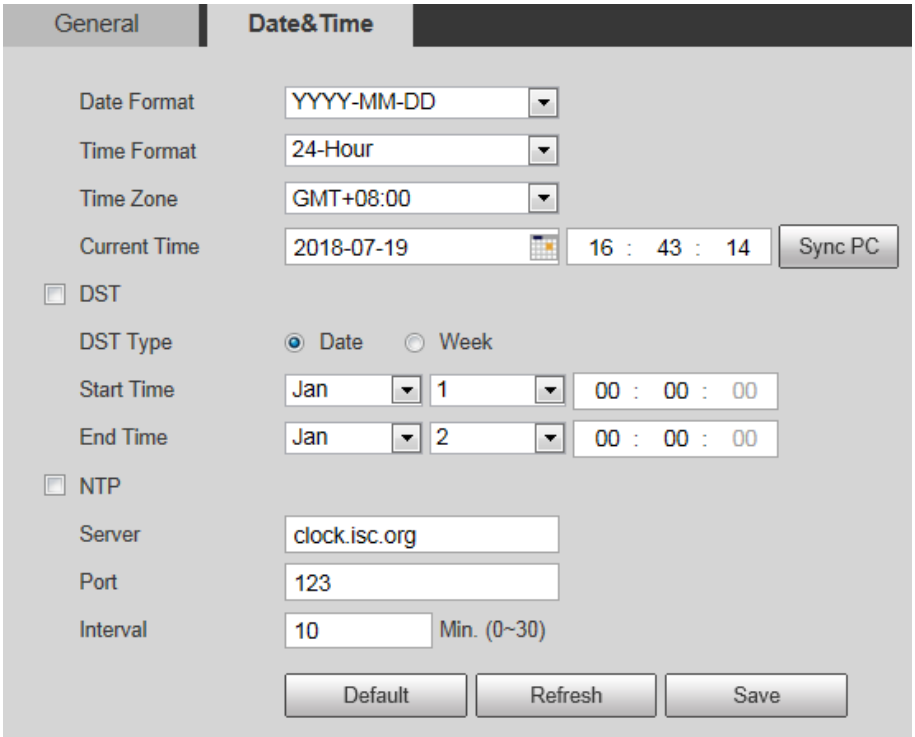


Figure 4-38

Step 2

Configure info of each parameter according to the actual needs; please refer to Table 4-38 for more details.

Parameter	Description
Date format	Here you can select date format from the dropdown list.
Time Format	Here you can select the corresponding time format which needs to be displayed.
Time zone	The time zone of the device.
System time	It is to set system time. It becomes valid after you set.
DST	Here you can set begin time and end time of DST. You can set according to the date format or according to the week format.
NTP	You can check the box to enable network time sync function
NTP server	You can set the address of time serve.
Port	It is to set the port of time server.

Update period	It is to set the sync interval between the device and the time server.

Table 4-38

Step 3

Click **Save** to finish configuration.

4.6.2 Account

4.6.2.1 Account

Only when users have the right of account management then can it realize account management operation.

- For the character in the following user name or the user group name, system max supports 15-digits. The valid string includes: character, number, and underline.
- Password can be 0 to 32 characters in number and letter only. User can modify other user's password.
- The user amount is 18 and the group amount is 8 when the device is shipped out of the factory.
- User management adopts group/user modes. The user name and the group name shall be unique. One user shall be included in only one group.
- Currently logged in user cannot change his/her own right.
- There is one default user admin during initialization. Admin belongs to high right user by default when it is out of factory.

4.6.2.1.1 User Name

You can enable anonymity login, add/remove user and modify user name and etc. in "Setting > System > Account > Account > User name. See Figure 4-39.

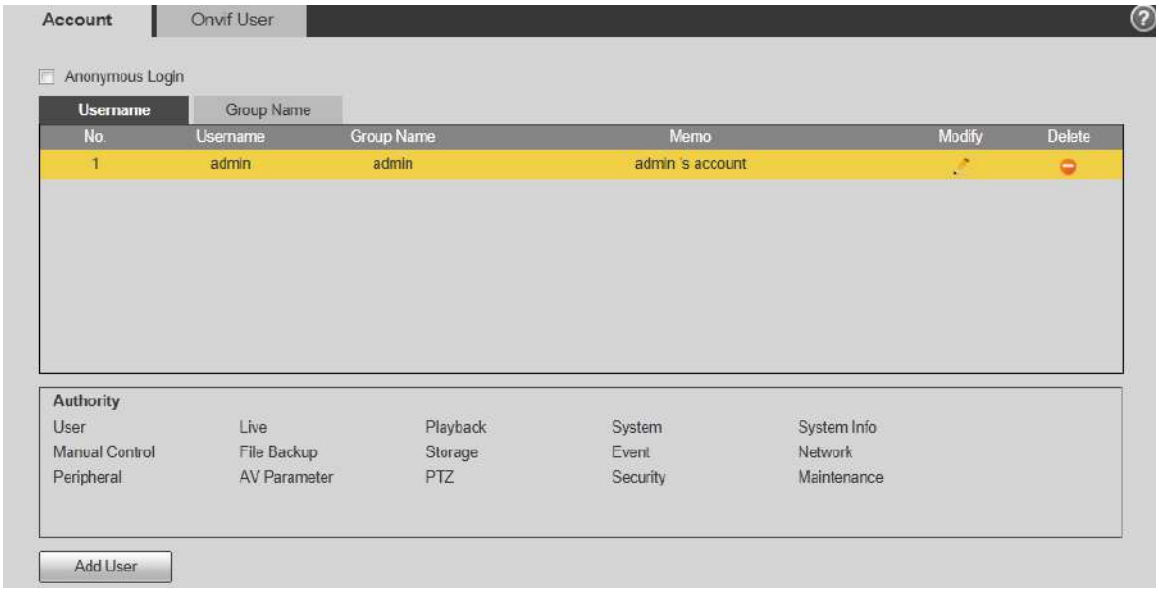


Figure 4-39

Note

The version info and other icons in the live interface except alarm have no right control temporarily.

Anonymous login: Enable “Anonymity Login”, and input IP. No username or password is required, you can log in by anonymity (with limited rights). You can click logout to use other users to log in the device.

Add user

It is to add user in group and set the right control of the user.

The highest right user admin can’t be deleted by default.

Step 1

Click **Add User** and the system will pop out the interface of Add User, which is shown in Figure 4-40.



Figure 4-40

Step 2

Enter user name and password, select group and check authority list.

Note

- Once the group is selected, then the user right can only be subset of the group which can't surpass the right of the group.
- Users are recommended to make it lower than senior users when defining general users in order to make user management convenient.

Step 3

Click **Save** to finish configuration.

Modify user

Step 1

Click the icon which is corresponding to the users which needs to be modified.

The system will pop out the interface of "Modify User".

Click **Operation Permission** and **Restricted Login**, you can set operation permission and login restriction for the user you are to modify. .

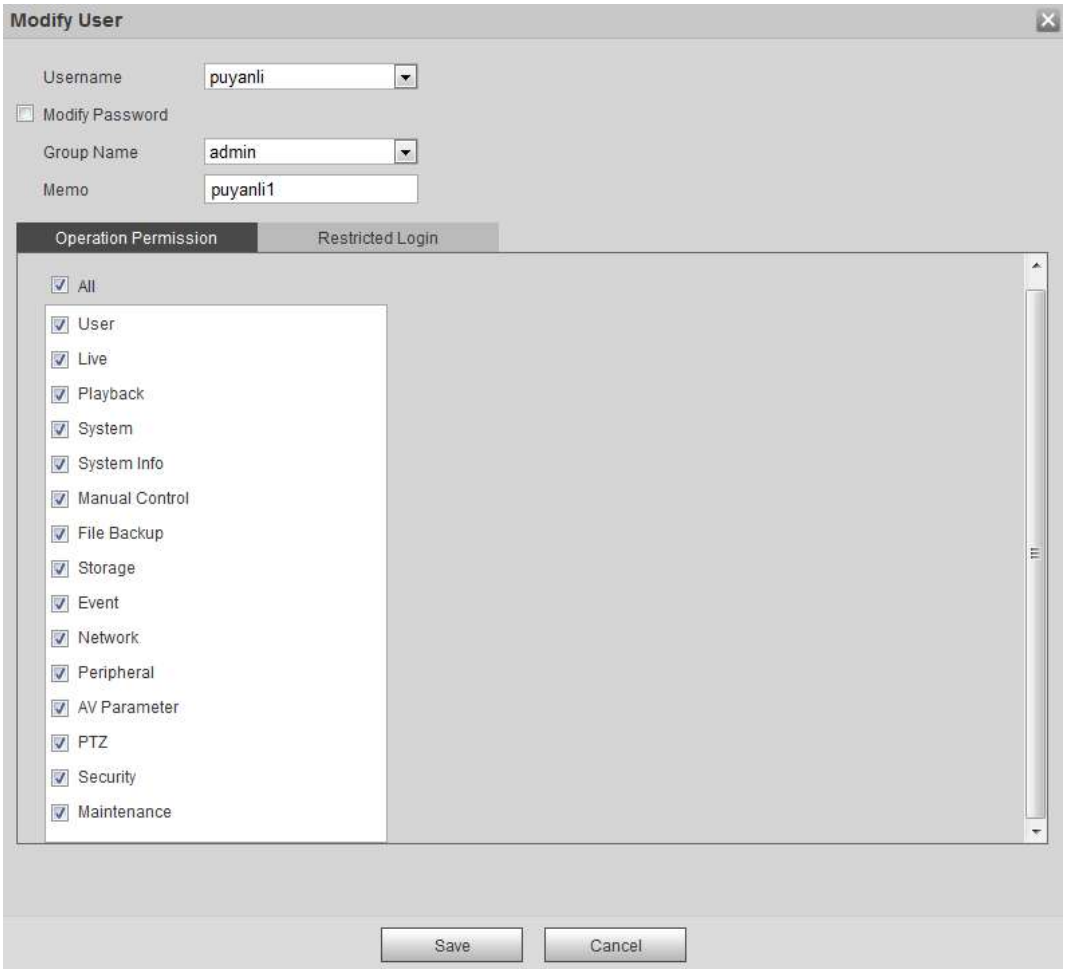


Figure 4-93

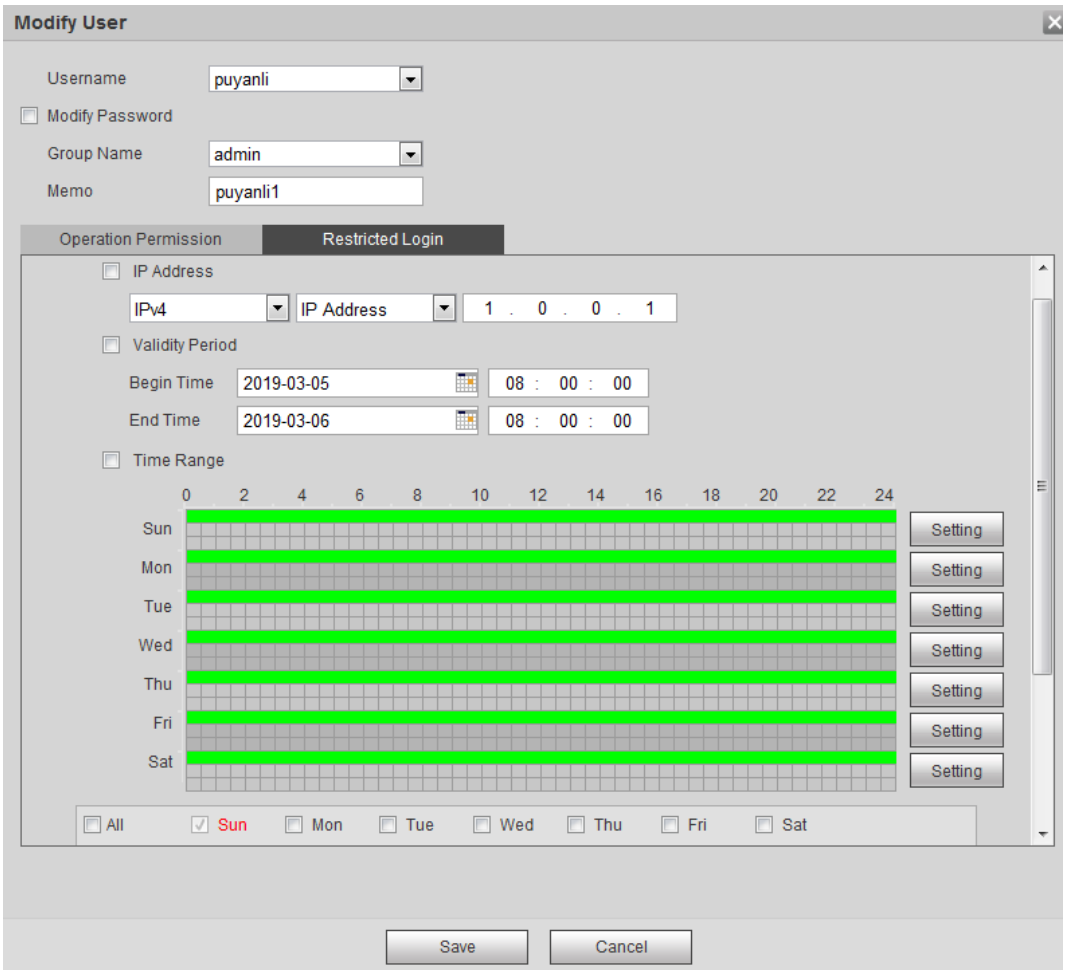


Figure 4-94

Step 2

Modify the user information according to actual needs.

Step 3

Click **Save** to finish configuration.

Modify password

Step 1

Select the check box of Modify Password.

Step 2

Input old password, input new password and confirm it.

Step 3

Click **Save** to finish configuration.

Delete User

Click the icon of corresponding user which needs to be deleted, and then you can delete the user.

4.6.2.1.2 Group

You can realize add group, delete group, modify password and other operations in “Setting > System > Account > Group”. You can refer to Figure 4-95 for more details.

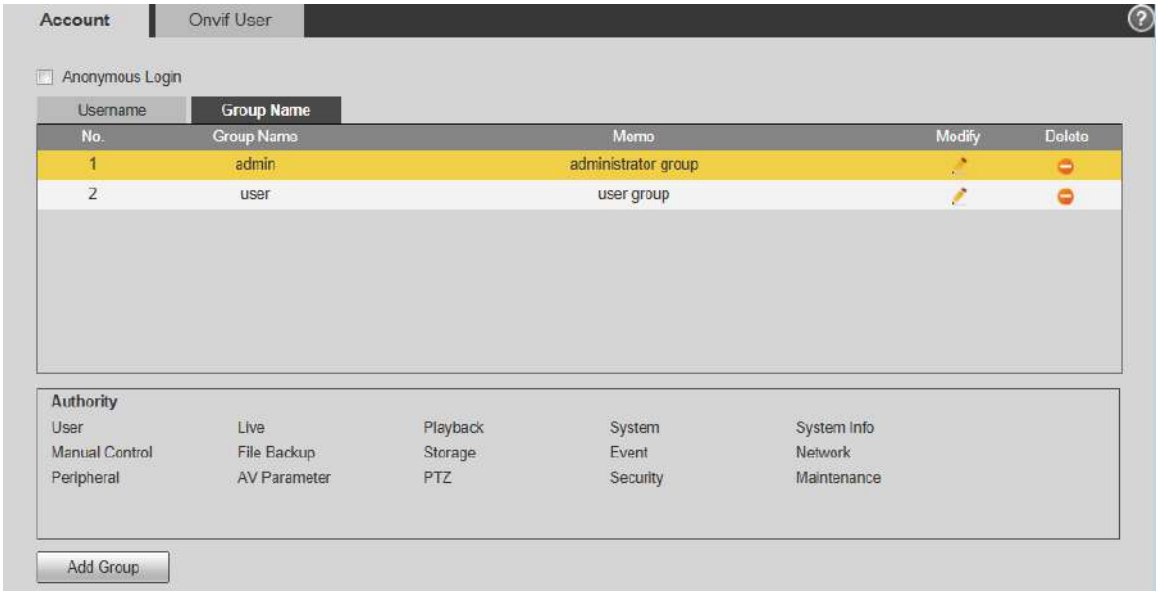


Figure 4-95

Add Group:
Please refer to “4.6.2.1.1 User Name” for more details.
Modify Group
Please refer to “4.6.2.1.1 User Name” for more details.
Delete Group
Please refer to “4.6.2.1.1 User Name” for more details.

4.6.2.2 ONVIF User

Users can add Onvif user on the WEB interface, it can also modify the users which have existed.
Step 1
Select “Setting > System > Account > ONVIF User” and the system will display the interface of “ONVIF User”, which is shown in Figure 4-96.

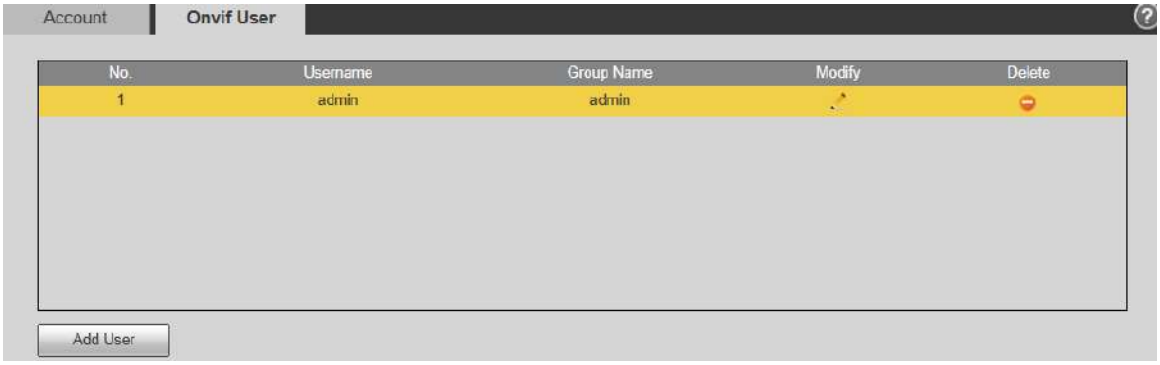


Figure 4-96

Step 2

Click **Add User** and the system will pop out the interface of Add User, which is shown in Figure 4-97 .



Figure 4-97

Step 3

Set username, password and select group.

Step 4

Click **Save**.

Click  to modify the user's information.

4.6.3 Security

4.6.3.1 RSTP Authentication

It can set the authorize mode of media stream.

Step 1

Select " Setting > System > Security > RSTP Authentication" and the system will display the interface of "RSTP Authentication", which is shown in Figure 4-98.

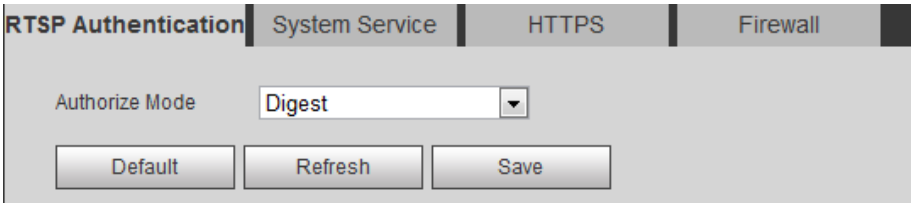


Figure 4-98

Step 2

Select authorize mode. Digest, Basic and None are selectable. It is Digest by default.

Note

- Click **Default** and the authorize mode will be selected as Digest automatically.
- If you select None and click **Save**, the prompt "Non-authentication mode may have risk. Are you sure to enable it?" will pop up to remind you about the risk. Be careful to select None.
- If you select Basic and click **Save**, the prompt "Basic authentication mode may have risk. Are you sure to enable it?" will pop up to remind you about the risk. Be careful to select Basic.

4.6.3.2 System Service

Set the system service for system security.

Step 1

Select " Setting > System > Security > System Service" and the system will display the interface of System Service.

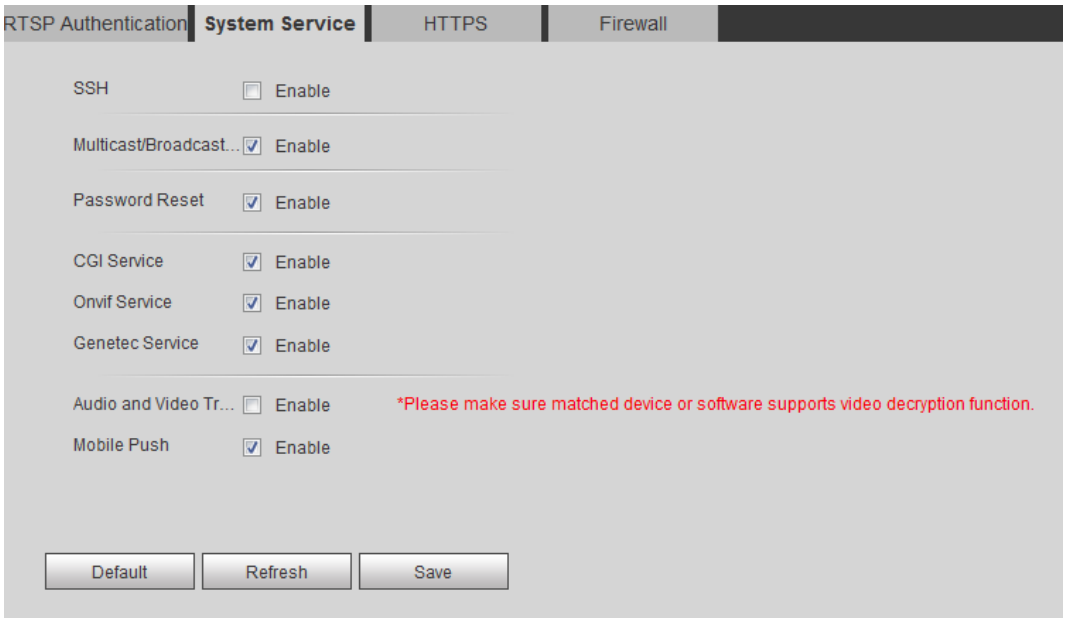


Figure 4-99

Step 2

Configure the parameter of system service.

Parameter	Description
SSH	SSH is not enabled by default. You can select the check box to enable SSH for security management.
Multicast/Broadcast Search	If the function is enabled and when several users are viewing the live image through network at the same time, multicast/broadcast protocol is adopted to search the device.
Password Reset	The function is enabled by default. You can reset the password if you forget the password. **Note** If you disable the function, you can only restore the device to factory default through hardware restore and then reset the password.
CGI Service	CGI service is enabled by default. **Note** ● When CGI service is enabled: If https is enabled, CGI can only communicate with the device through https. If https is disabled, CGI can only communicate with the device through http. ● When CGI is disabled, visiting the device through CGI is not supported.

Onvif Service	Onvif service is enabled by default. **Note** ● When Onvif service is enabled: If https is enabled, Onvif can only communicate with the device through https. If https is disabled, Onvif can only communicate with the device through http. ● When Onvif is disabled, visiting the device through Onvif is not supported.
Genetec Service	Genetec service is enabled by default. **Note** ● When Genetec service is enabled: If https is enabled, Genetec can only communicate with the device through https. If https is disabled, Genetec can only communicate with the device through http. ● When Genetec is disabled, visiting the device through Genetec is not supported.
Audio and Video Transmission Encrytion	You can select the check box to enable the audio and video transmission encryption function. **Note** ● If you enable the function, make sure the matched device and software support decryption function. ● Encryption function is not supported when transmitting audio and video date between the speed dome and the third party platform and device. To ensure data security, we highly recommend you disable CGI service, Onvif service, and genetec service.
Mobile Push	Mobile push function is enabled by default. If the function is enabled, the alarm capture can be sent from the speed dome to the mobile phone. **Note** If you disable the function, the speed dome cannot send the alarm, picture, and video record to the mobile phone.

Table 4-39

4.6.3.3 HTTPS

Create certificate or upload the authenticated certificate, and then you can connect through HTTPS with your PC. The HTTPS can protect page authenticity on all types of websites; secure accounts; and keep user communications, identity, and web browsing private.

Step 1

Create certificate or upload the authenticated certificate

- If you select **Create certificate**, follow the steps below.

1) Select “Setting > System > Security > HTTPS”. The HTTPS interface is displayed.

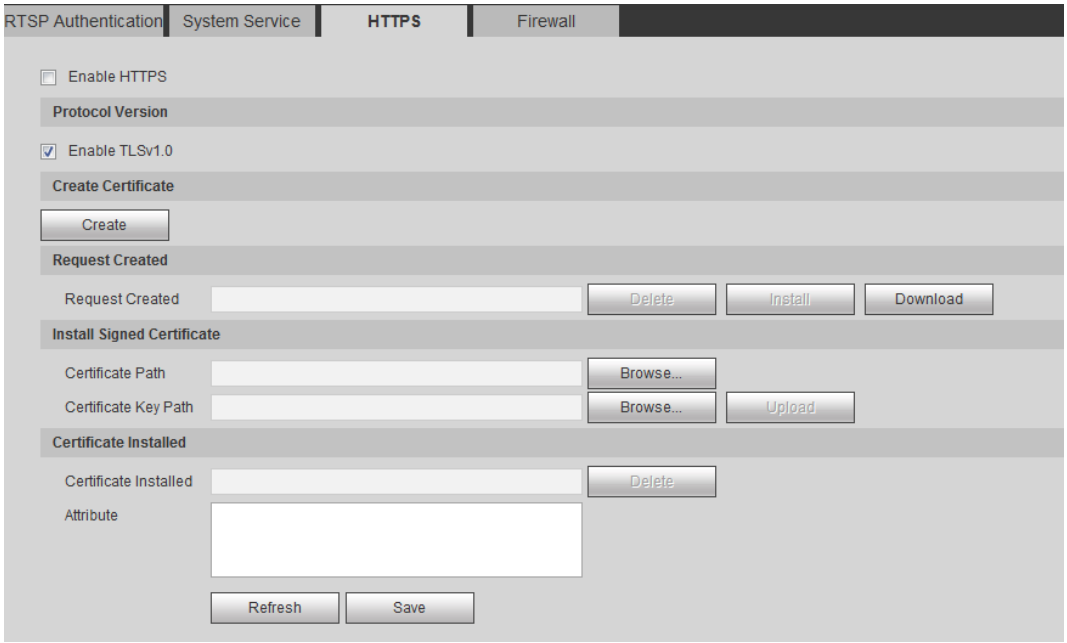


Figure 4-41

Note

TLSv1.0 is enabled by default.

2) Click **Create**. The HTTPS dialog box is displayed.

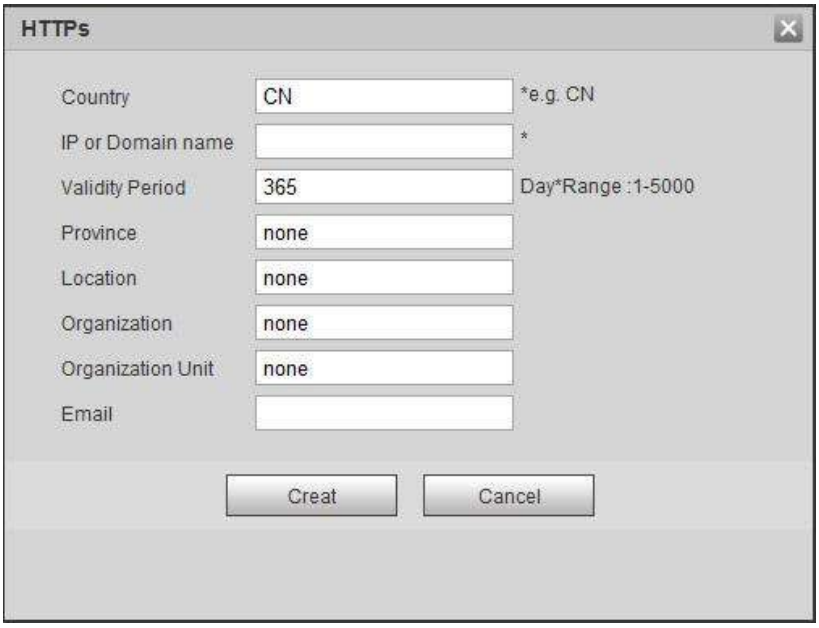


Figure 4-42

3) Enter the required information and then click **Create**. If the operation is correct, then the Create successful prompt is displayed.

Note

The entered “IP or domain name” must be the same as the IP or domain name of the device.

4) Click “Install”.

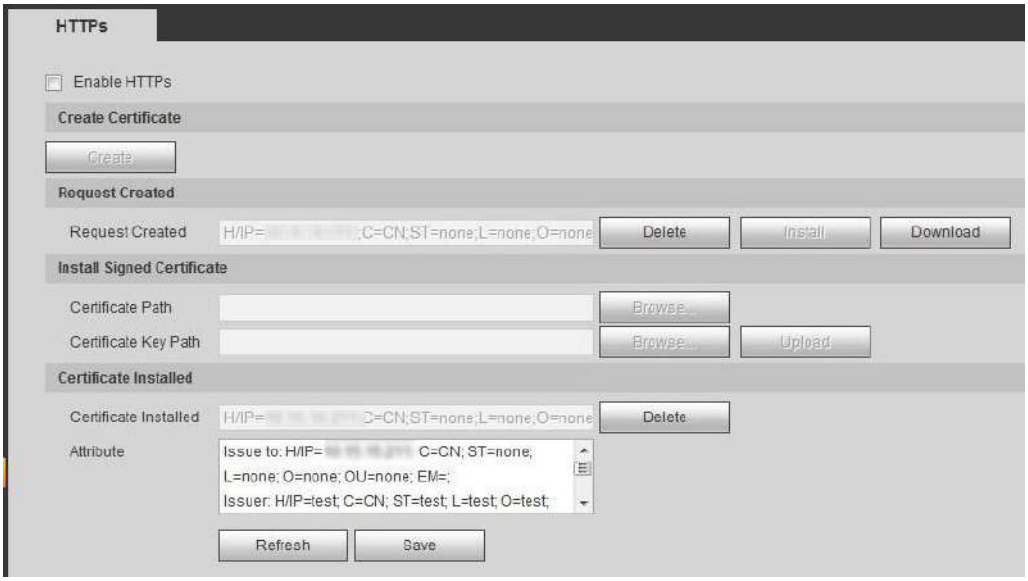


Figure 4-43

5) Click **Download** to download root certificate. The Save as dialog box is displayed.

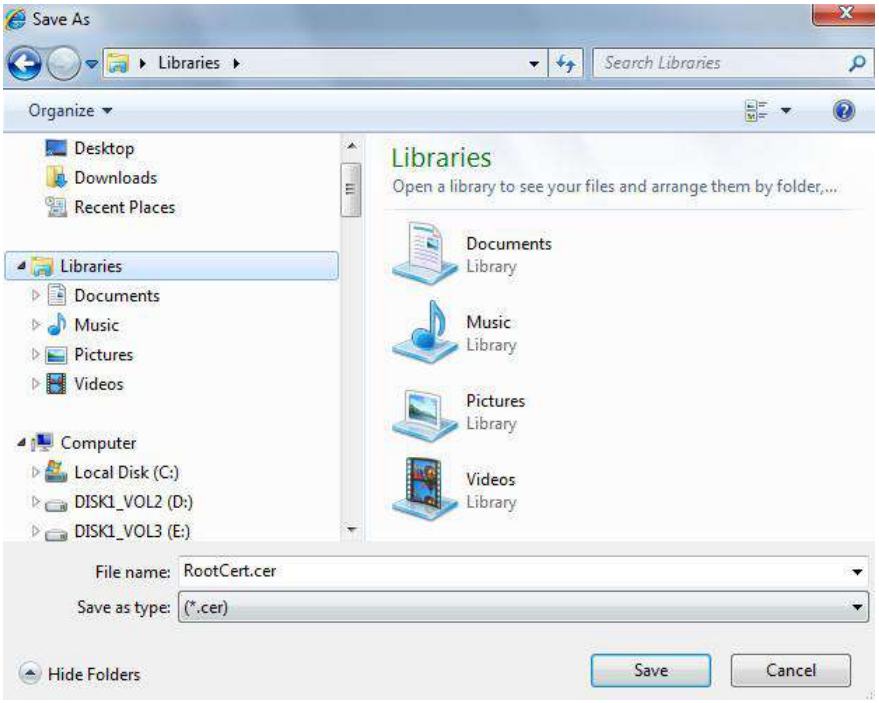


Figure 4-44

6) Select storage path, and then click **Save**.
7) Double-click the “RootCert.cer” icon. The Certificate interface is displayed.

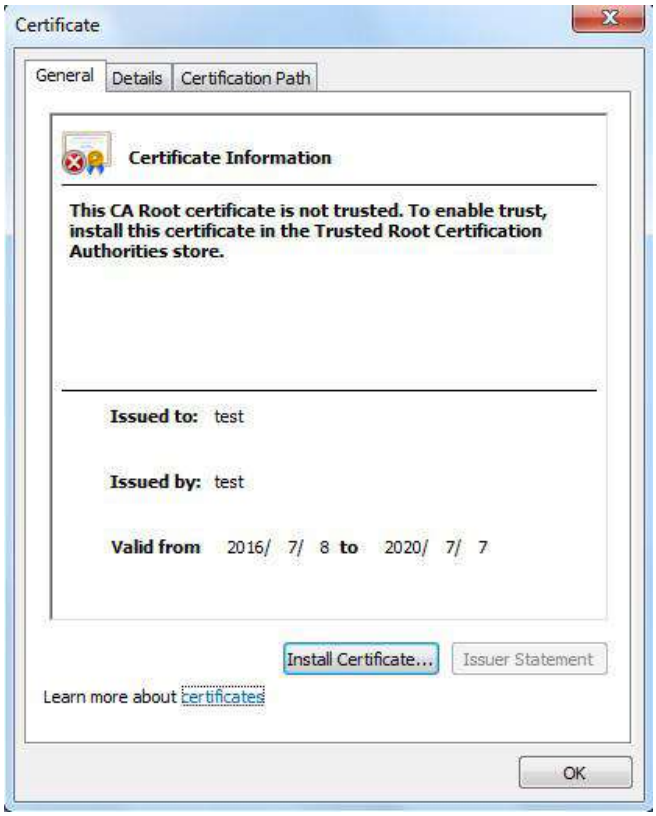


Figure 4-45

8) Click Install Certificate. The **Certificate import wizard** interface is displayed.



Figure 4-46

9) Click **Next**. Select **Trusted Root Certification Authorities**.

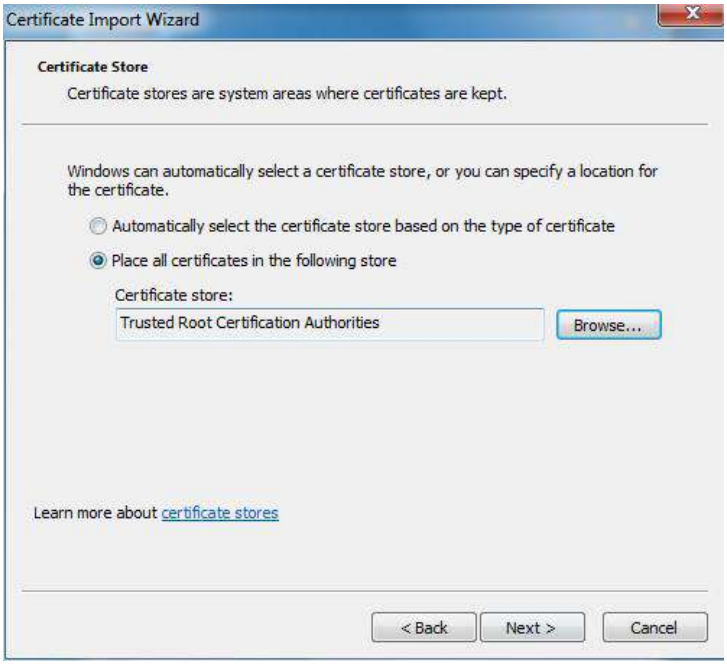


Figure 4-47

10) Click **Next**. The Completing the Certificate Import Wizard interface is displayed.

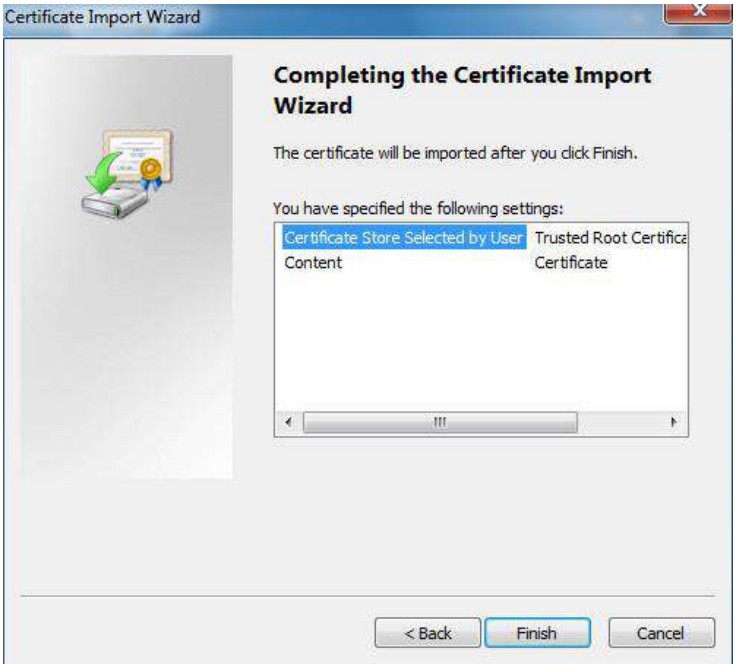


Figure 4-48

11) Click **Finish**. The Security Warning dialog box is displayed.

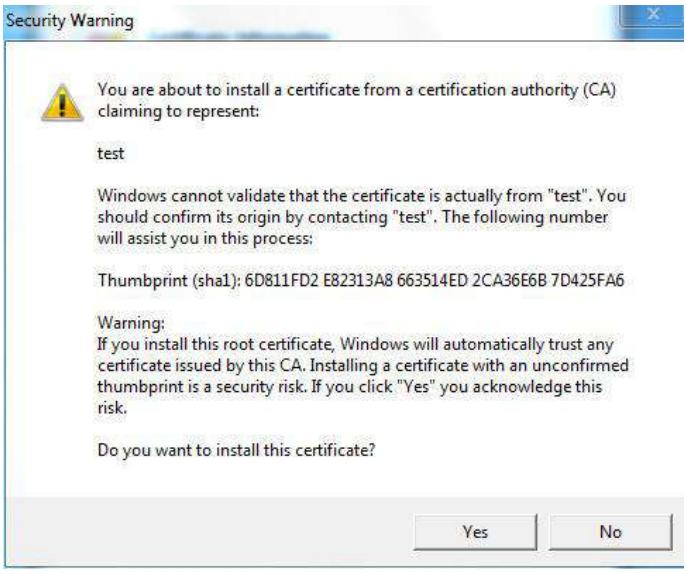


Figure 4-49

12) Click **Yes**. The **The import was successful** dialog box is displayed. Click **OK** to finish download.



Figure 4-50

- If you select **install signed certificate**, follow the steps below.
  1) Select “Setting > System > Security > HTTPS”. The HTTPS interface is displayed.

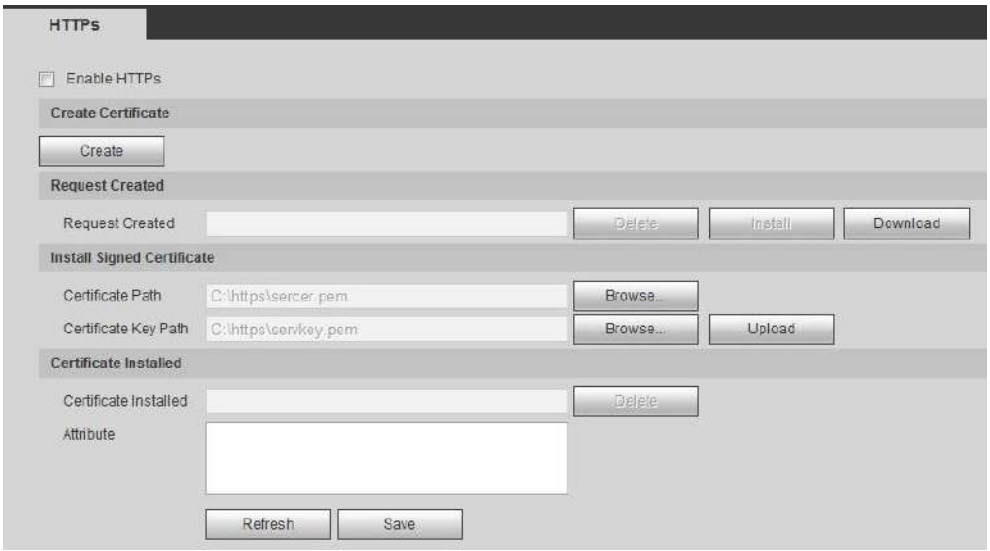


Figure 4-51

2) Click “**Browse**” to upload the signed certificate and certificate key, and then, click “upload”.
3) To install the root certificate, see the 5) to 12) in “Create certificate”

Step 2

Click **Enable HTTPS**, and then click **OK**. The Reboot interface is displayed.



Figure 4-52

Open web browser, and enter https://xx.xx.xx.xx in the address bar, the log in interface is displayed; if certificate is not installed, the certificate error notice is displayed.



Figure 4-53

Note

If https is enabled, you cannot visit the device through http. It will switch to https if you visit through http.

4.6.3.4 Fire Wall

Step 1

Select " Setting > System > Security > System Service" and the system will display the interface of System Service.

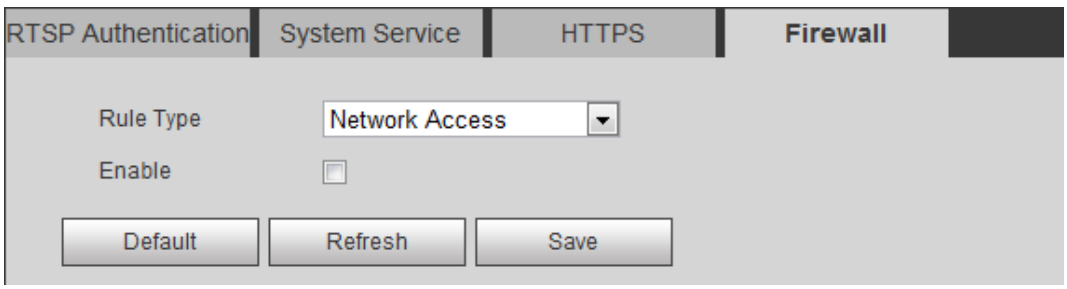


Figure 4-54

Parameter	Description
Rule Type	There are three options: Network Access, PING Prohibited, and Prevent Semijoin. You need to enter: Network Access, PING Prohibited, Prevent Semijoin.

Table 4-40

Step 2

Select Enable, and then the Add IP/MAC interface is displayed. See Figure 4-114.

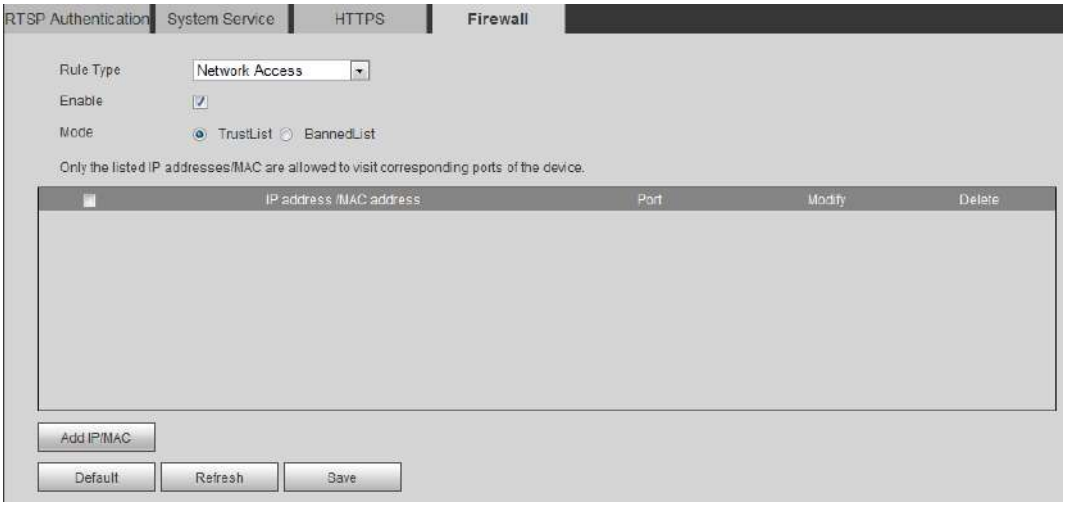


Figure 4-114

Step 3

Click Add IP/MAC, and then the Add IP/MAC interface is displayed. See Figure 4-115.

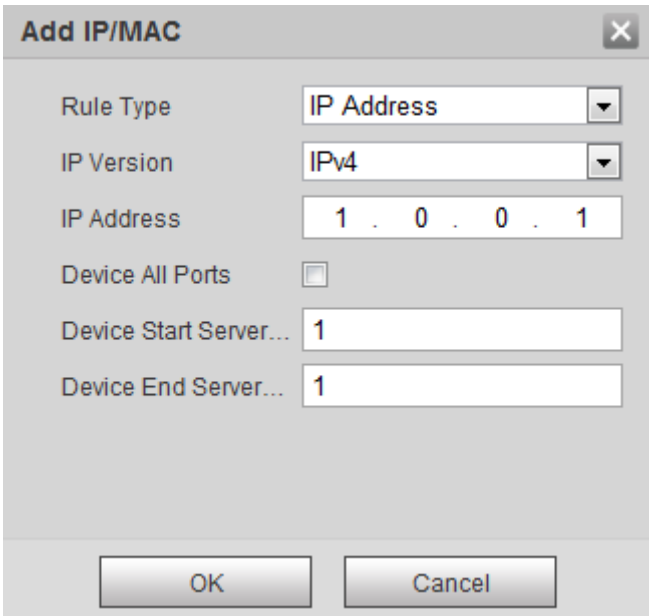


Figure 4-115

Parameter	Description
Rule Type	There are three options: Network Access, PING Prohibited, and Prevent Semijoin. You need to enter IP Address, IP Segment, MAC Address, and All IP Addresses.
IP Version	There are two options: IPv4 and IPv6.
Device Start Server Port	Enter according to your needs.
Device End Server Port	Enter according to your needs.

Table 4-41

Step 4

Set Rule Type, IP Version, and IP Address,

Step 5

Click **OK**.

Step 6

Select “Trusted Sites”, and then the Trusted Sites function is enabled.

Step 7

Click **Save** to finish configuration.

Only the IP hosts in the trusted sites list can log in the web interface.

4.6.4 Peripheral

Note

Only some models support peripheral management, please refer to the actual device for more details.

4.6.4.1 Wiper

You can make settings for wiper.

Step 1

Select “Setting > System > Peripheral > Wiper”.

The system will display the interface of “Wiper” which is shown in Figure 4-55 to Figure 4-56.

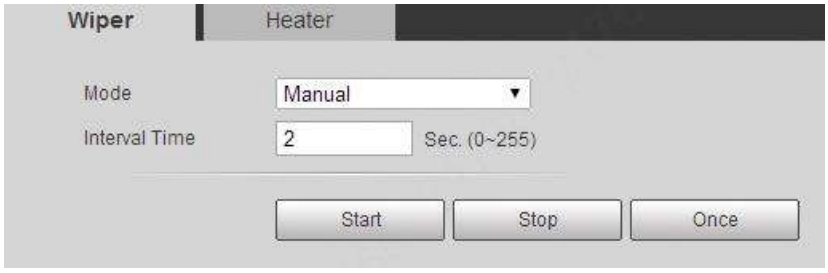


Figure 4-55



Figure 4-56

Step 2

Configure info of each parameter according to the actual needs. Refer to Table 4-42 for more details.

Parameter	Description
Mode	It is to set wiper mode, you can select manual and auto. ● In manual mode, it needs to enable wiper by manual operation. ● In auto mode, it is to enable wiper automatically.
Interval Time	It is the interval from when the wiper stops to when the wiper is enabled.
Start, Stop, Once	In manual mode: ● Click “Start”, and the wiper operates regularly according to the interval which has been set. ● Click “Stop”, and the wiper stops. ● Click “Once” and the wiper operates once.

Table 4-42

Step 3

Click **Save** to finish configuration.

4.6.4.2 Heater

Go to “Setting > System > Peripheral >Heater” and the config interface is shown in Figure 4-57.

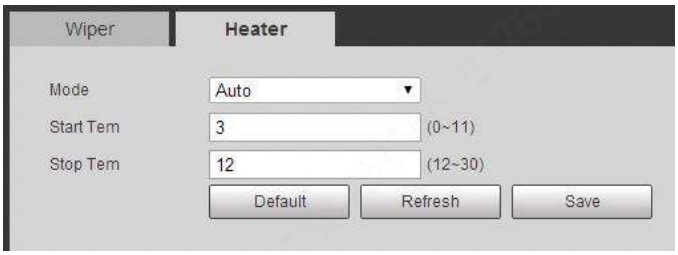


Figure 4-57

4.6.5 Default

Note

Caution, this function would restore the device to default configuration.

The Default interface only appears when users on the Group list login the web.

Go to “Setting > System > Default” and click “Default” to restore some device settings back to default. The config interface is shown in Figure 4-58.

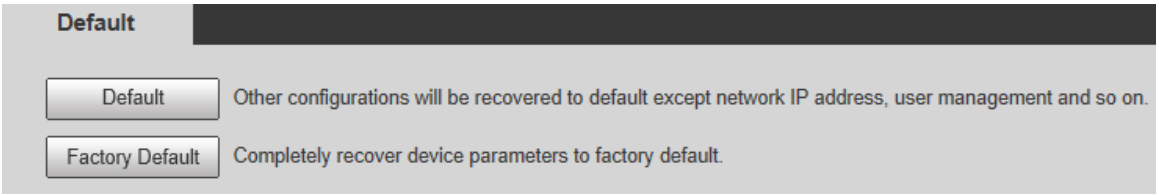


Figure 4-58

You can select default mode according to the actual needs.

- Default: Config (except network IP address, user management info and so on) default.
- Factory default: The function is equivalent to the reset button of the speed dome. It can help to restore all the config info to factory default, the device IP address will be restored to default IP address as well. After clicking “Factory Default”, it needs to input the password of admin user on the interface. It can restore the device after the system judges that the password is correct.

4.6.6 Import/Export

It can realize quick config of several devices via configuring file import and export when the config method of several devices is the same.

Step 1

Select “Setting > System > Import Export” on the WEB end of some device.

The system will display the interface of “Import & Export”, which is shown in Figure 4-59.

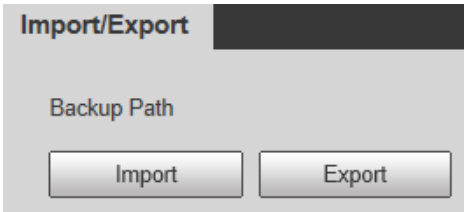


Figure 4-59

Step 2

Click “Export” to export the config file (.backup file) to local.

Step 3

Click “Import” on the “Import & Export” interface of the WEB end of the device to be configured, and import the file into the system. So far the device config is completed.

4.6.7 Auto Maintain

Users can set auto reboot system or auto delete file, it needs to set period and time for auto reboot system. It needs to set the period of the file if it needs to auto delete old files, and delete the file within

the specific period.

Step 1

Select “Setting > System > Auto Maintain”.

The system will display the interface of “Auto Maintain” in Figure 4-60.

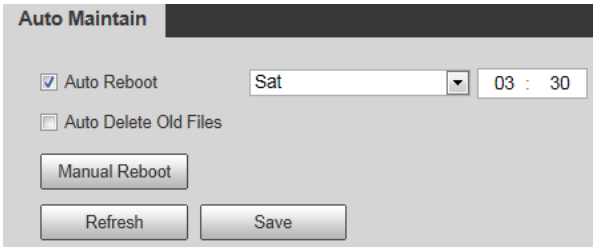


Figure 4-60

Step 2

Configure the info of each parameter according to the actual needs; please refer to Table 4-43 for more details.

Parameter	Function
Auto Reboot	Check it and set auto reboot time.
Auto Delete Old Files	Check it and you can customize period, the range of period is from 1 to 31 days. **Note** If you select Auto Delete Old Files and click **Save**, the prompt “The deleted files cannot be recovered. Are you sure to enable this function now?” will pop up.

Table 4-43

Step 3

Click **Save** to finish configuration.

4.6.8 Upgrade

You can realize upgrade operation in “Setting > System > Upgrade”. See Figure 4-61 for more details.

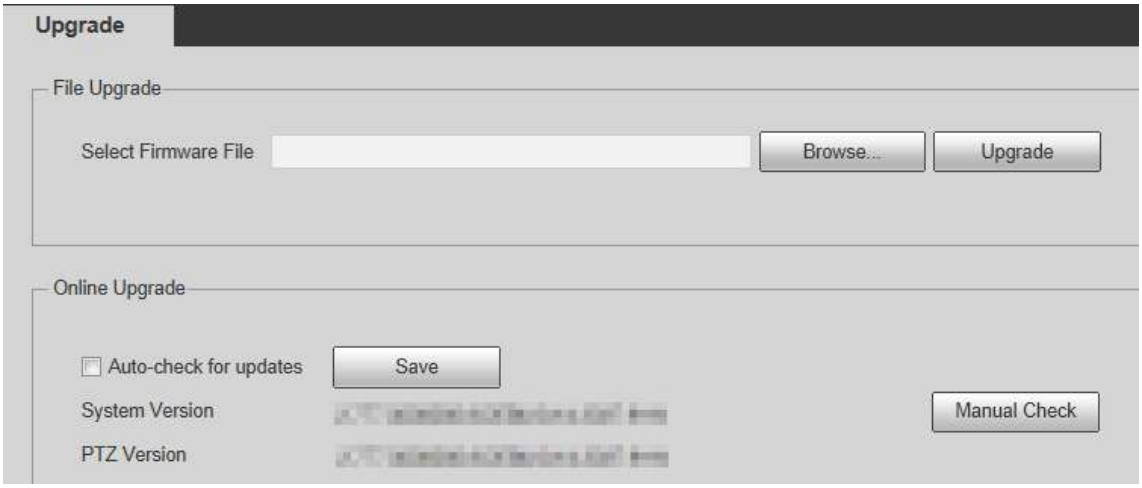


Figure 4-61

Click “Browse” and select upgrade file, click “Upgrade” to realize firmware upgrade. The upgrade file is “*.bin” file.

Note

It needs to reboot the device when upgrading wrong files; otherwise some module functions of the device will be disabled.

4.7 Information

The system supports checking system version, online users, log and etc.

4.7.1 Version

Here you can view system hardware features, software version, release date and etc. Please note the following information is for reference only.

Select “Setting > Information > Version”. See Figure 4-62.



Figure 4-62

4.7.2 Log

4.7.2.1 Log

In “Setting > Information > Log > Log”, you can check the device operation info implemented by users and some system info, see Figure 4-63 for more details.

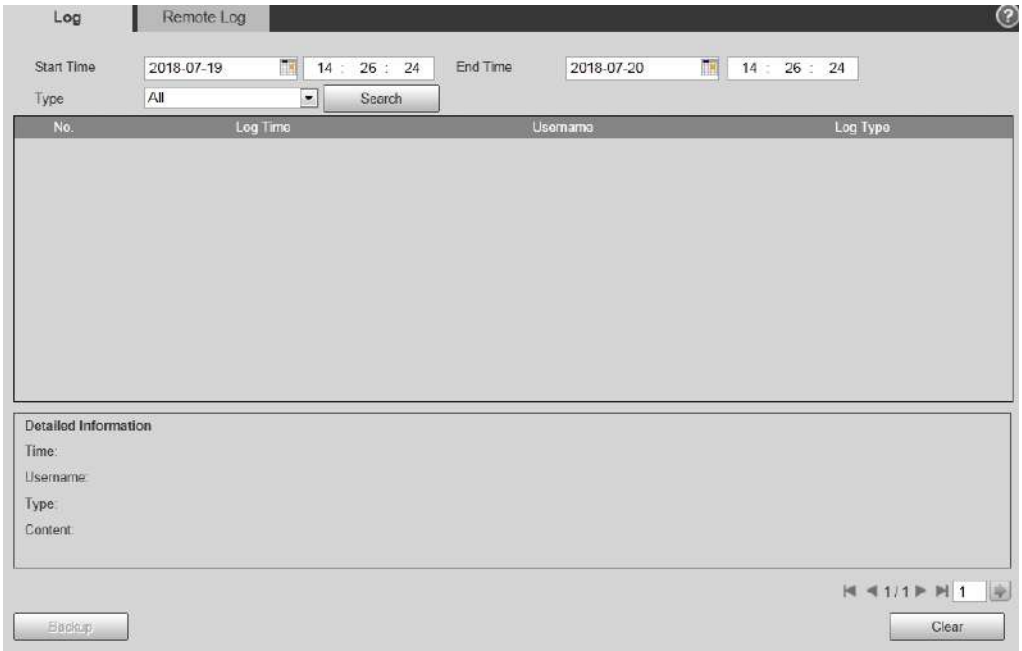


Figure 4-63

Please refer to Table 4-44 for log parameter information.

Parameter	Description
Start time	Set the start time of the requested log. (The earliest time is 2000/1/1)
End time	Set the end time of the requested log. (The latest time is 2037/12/31)
Type	Log type consists of All, System, Setting, Data, Event, Record, Account, Clear Log, and Security.
Search	First it needs to set start time and end time of the log to be searched, and select log type, click “Search”, it will display search bars dynamically; click “Stop” to pause log search, and it will display the searched bars and period area.
Log information	Click log record and it will display the detailed info of the log.
Clear	It is to clear all the log info on the device, but it fails to support classified clearance of log info.
Backup	You can click this button to backup system log files which is searched to current PC.

Table 4-44

Specific meaning included by different log types:

- System: includes program launch, force exit, exit, program reboot, device turn off/reboot, system reboot and system upgrade.
- Setting: includes save configuration and delete configuration file.
- Data: includes configure disk type, erase data, hot swap, FTP state and record mode.
- Event (Records events such as video detection, smart plan, alarm and abnormality): includes event start and event end.
- Record: includes file access, file access error and file search.
- Account: includes log in, log out, add user, delete user, modify user, add group, delete group and modify group.
- Clear log: It is to clear log.
- Security: includes password reset and IP filter.

4.7.2.2 Remote Log

You can upload the log information to the log server.

Step 1

Select “Setting > Information > Log > Remote Log”.

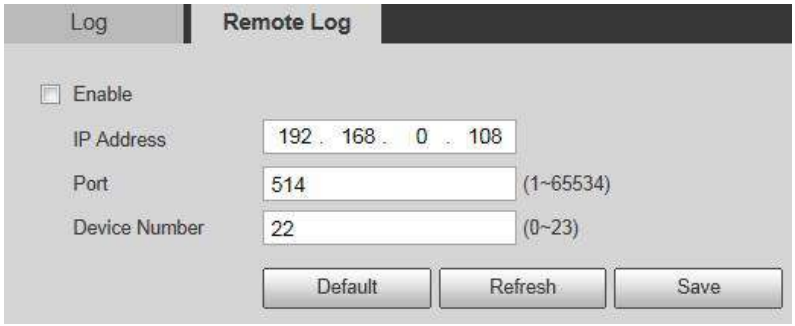


Figure 4-64

Step 2

Select **Enable** to enable the remote log function.

Step 3

Set the IP address, port, and device number.

Step 4

Click **Save** to finish configuration.

Note

You can click **Default** to restore the settings.

4.7.3 Online User

You can check the user info on the current WEB in “Setting > Information > Online User”. See Figure 4-65.

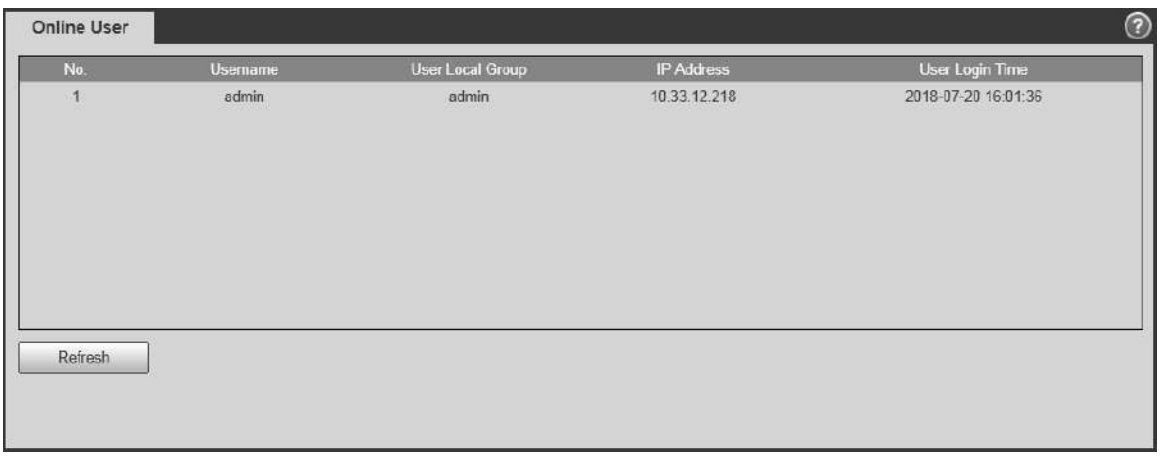


Figure 4-65

4.7.4 Life Statistics

Go to “Setting > Information > Life Statistics” and check running status of the device. The interface is shown in Figure 4-66.

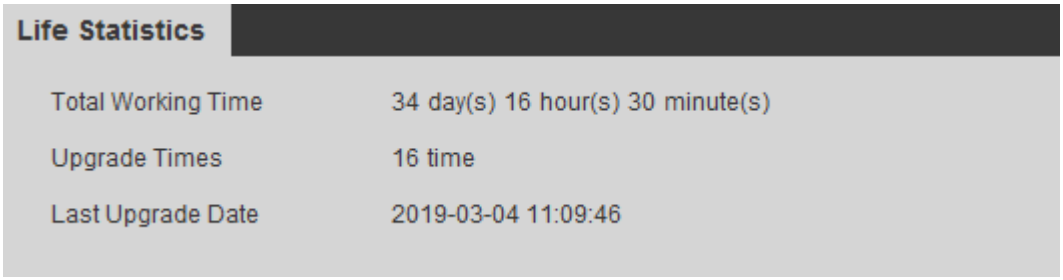


Figure 4-66

5 Alarm

The alarm module mainly provides users with alarm events to subscribe; it will record the alarm info in the right column when it triggers the alarm event which has been subscribed by users.

Step 1

Click “Alarm” and the system will display the interface of “Alarm”, which is shown in Figure 5-1.

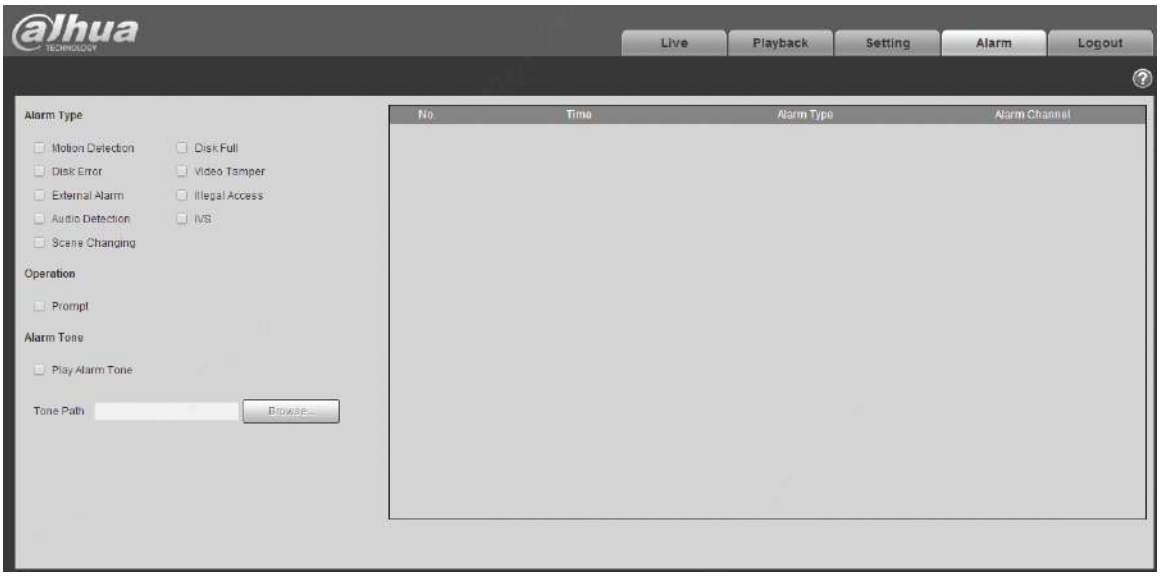


Figure 5-1

Step 2

Configure info of each parameter according to the actual needs; please refer to Table 5-1 for more details.

Parameter	Function	Description
Alarm type	Motion detection	System records alarm when motion detection alarm occurs,
	Disk full	System records alarm when disk is full.
	Disk error	System records an alarm when HDD malfunctions.
	Video tamper	System records alarm when camera is viciously masked.
	External alarm	System records alarm when alarm inputs the device.
	Illegal access	System records alarm when there is unauthorized access.
	Audio detection	System records alarm when audio detection occurs.
	IVS	System records alarm when intelligent config occurs
	Scene changing	System records alarm when scene changing is triggered.
Operation	Prompt	When alarm is triggered, there will be an  in main menu of alarm interface and system automatically records alarm info. The icon disappears when user click alarm menu bar. **Note** If alarm interface is displayed, when alarm is triggered, there will be no image prompt, but alarm record will be in list on the right.
Alarm Tone	Play Alarm Tone	When alarm occurs, system auto generates alarm audio. The audio supports customized settings.
	Tone Path	Here you can specify alarm sound file.

Table 5-1

6 Log out

Click log out button, system goes back to log in interface. See Figure 6-1.



Figure 6-1

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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