# Multi-spectral Thermal Camera Web3.0

# Operation Manual

**Version 1.0.0**

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**Important**

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

# 1 Network Config

## 1.1 Network Connection

There are mainly two connection modes between camera and computer, please refer to Figure 1-1 and Figure 1-2.




Figure 1-1

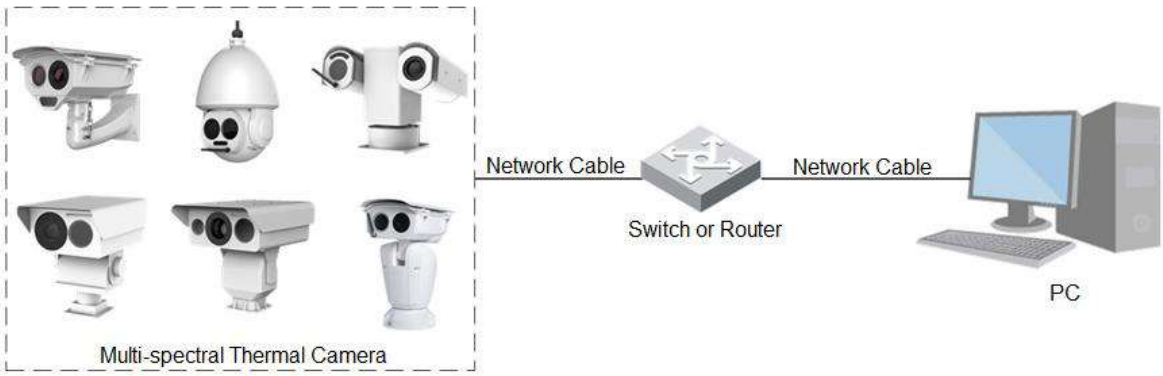



Figure 1-2

Before you get access to network camera via the Internet, first you need to acquire its IP address. User can use quick config tool to search IP of the network camera. Please refer to Quick Configuration Tool manual for more details.

## 1.2 WEB Interface Login

Step 1

Open IE and input the IP address of the camera in the address bar.

The system will display the “Login” interface after it is successfully connected, please refer to Figure 1-3 for more details.

**Note:**

The factory default IP address is: 192.168.1.108.




Figure 1-3

Step 2

Input user name and password, click “Login”. It will display the “Live” interface after successful login, which is shown in Figure 1-4.

**Note:**

- The factory default administrator username is admin and the password is admin. Please modify administrator password after you log in.
- The system will pop out the prompt box of “Modify Password” for the first login, please modify the administrator password in time and save it properly.
- The system will remind you to install plug-in for the first login, please save and install plug-in according to the prompt. It needs to log in again after plug-in installation is completed.
- Click the “Logout” on the top right corner of the interface to log out.
- There is slight difference about the function and interface between different devices, please refer to the actual interface for more details.

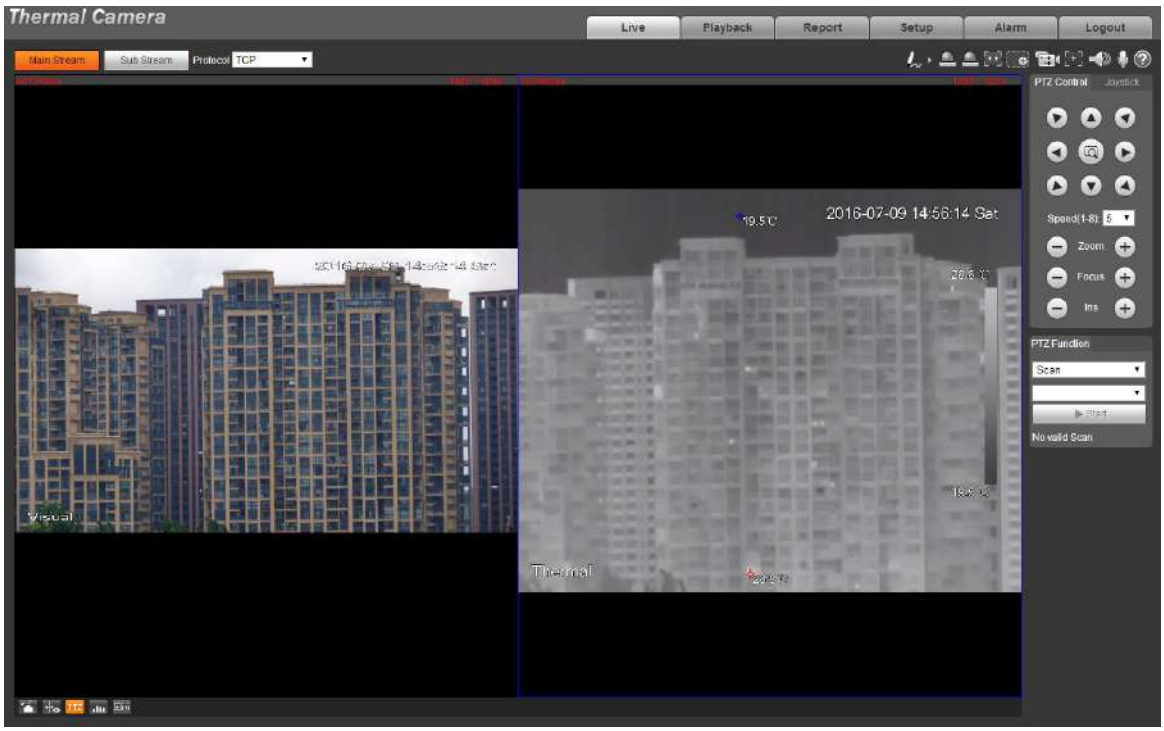

Thermal Camera
Live
Playback
Report
Setup
Alarm
Logout
Main Stream
Sub Stream
Protocol
TCP
PTZ Control
Joystick
Speed(1-8)
Zoom
Focus
Iris
PTZ Function
Scan
Start
No valid Scan
19.5℃
2016-07-09 14:56:14 Sat
Visual
Thermal

Figure 1-4

# 2 Live

You can implement a series of operations upon the realtime monitoring image in the “Live” interface, such as live, snapshot and record etc.

Click “Live” and the system will display the interface which is shown in Figure 2-1.

**Note:**

- There is some difference about the function and interface for different devices, please refer to the actual interface for more details.
- The live interface with a green box is the channel image which is currently chosen, therefore, all the operations are only valid to the currently chosen channel.
- Double click the image and the channel image will cover the whole video display area, double click again and the channel image will be displayed in full screen. Click the right mouse button to exit full screen.

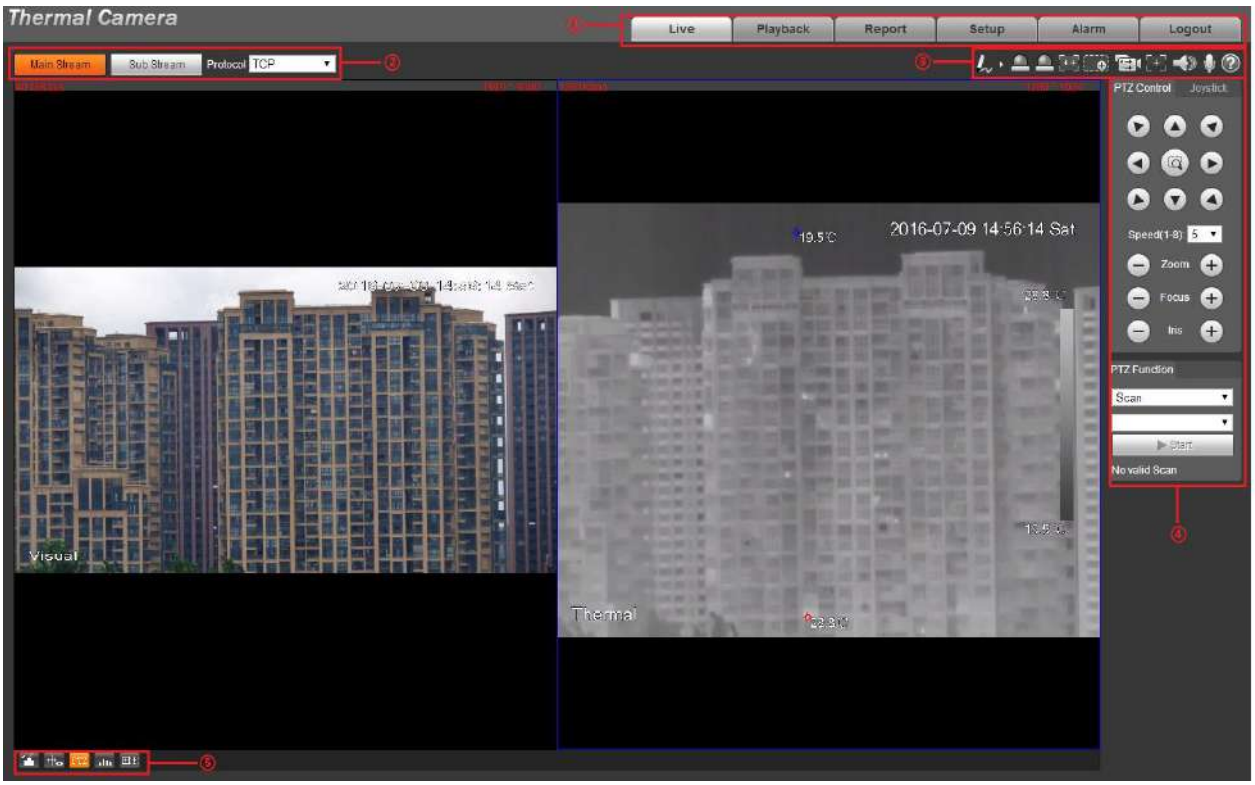



Figure 2-1

The live interface of WEB client includes four functions, which is shown in sheet 2-1.

| SN | Note |
|---|---|
| ① | System menu bar, click each module and enter the corresponding config interface. |
| ② | Encode setup bar, the description of each stream is as follows: |

| | |
|---|---|
| | ● Main Stream, big stream, high image definition, but it occupies big bandwidth, which can be applied for storage and monitoring.<br>● Sub Stream, smaller stream compared to main stream, smooth image, it covers small bandwidth,which can be applied to replace main stream for monitoring when network bandwidth is not enough.<br>● Protocol, network transmission protocol type, which supports TCP, UDP and multicast. |
| ③ | Video window function option bar, please refer to "2.1 Video Window Function Option" for more details. |
| ④ | PTZ control bar, please refer to "3. PTZ" for more details.<br>**Note:**<br>As for bullet PTZ control bar, it needs to click "PTZ module" to enter. |
| ⑤ | Video window adjustment bat, please refer to "2.2 Video Window Adjustment" for more details. |

Sheet 2-1

## 2.1 Video Window Function Option

The video window function option is shown in Figure 2-2.

**Note:**

There is slight difference about function and interface between different devices, please refer to the actual interface for more details.

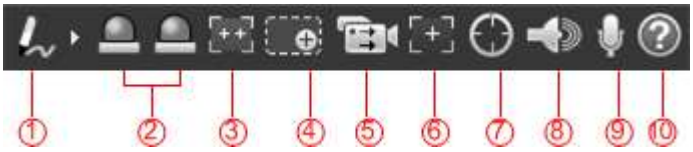



Figure 2-2

Please refer to sheet 2-2 for more details about the parameters.

| Parameter | Note |
|---|---|
| ① Remark | Click ▶ and select color, you can write remark in the live image.<br>There are three colors to be selected, which are green, blue and red, it is red by default.<br>**Note:**<br>It won't display remark in the record image. |
| ② Relay-out1<br>Relay-out2 | It is to display if there is alarm output.<br>● Red: It means outputting alarm.<br>● Gray: It means alarm is over.<br>Click the button to enable or disable alarm. |

| Parameter | Note |
|---|---|
| ③ Fixed Focus | Click the button and the visual can be adjusted to corresponding view angle according to the thermal zoom rate. |
| ④ Digital Zoom | ● Click the button to select digital zoom of visual or thermal, click the right mouse button to recover the original status.<br>● Click the button to zoom in or out the image size via rolling the mouse wheel. |
| ⑤ Record All | Click the button and it can record in both visual and thermal channel at the same time, the video is stored to the set storage path. Please refer to "6.1.2.5 Storage Path" for storage path setting.<br>**Note:**<br>If you want to playback either of the recorded video, it has to play both videos at the same time (visual and thermal). |
| ⑥ Easy Focus | Click the button and you can see two parameters of AF Peak and AF Max in the live video.<br>● AF Peak: The value realtime displays the eigenvalue of image resolution during focus.<br>● AF Max: The value means the best eigenvalue of image resolution.<br>The closer the AF Peak value and AF Max get, the better the effect becomes. |
| ⑦ Manual Track | Click the button and drag the left mouse button on the live interface and select the tracking target, then the system will auto track the selected target.<br>**Note:**<br>It needs to select tracking mode before using the function, please refer to "6.4.1.4 smart track" for more details. |
| ⑧ Audio | Click the button to enable or disable audio output of the monitoring interface.<br>**Note:**<br>The function is supported only by devices with audio function. |
| ⑨ Talk | Click the button and enable or disable talk function. Please turn off stereophonic mixing on the computer when enabling talk function.<br>**Note:**<br>The function is only supported by the devices with audio |
| ⑩ Help | It is to open help document. |

Sheet 2-2

## 2.2 Video window Adjustment

See Figure 2-3 and Figure 2-4 for the video window adjustment function.

**Note:**

Different devices may have difference about function, and there is some difference about interface, please refer to the actual interface for more details.

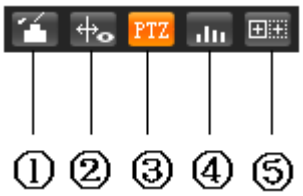



Figure 2-3

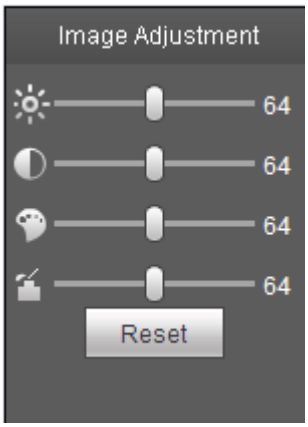



Figure 2-4

Please refer to the following sheet for detailed information.

| Parameter | Note |
| --- | --- |
| ① Image adjustment | Click image adjustment button, you can see the image adjustment interface on the right of preview interface, see Figure 2-4, click left mouse button to adjust image config.<br>: It is to adjust monitor video brightness.<br>: It is to adjust monitor video contrastness.<br>: It is to adjust monitor video hue.<br>: It is to adjust monitor video saturation.<br>: Restore brightness, contrastness, saturation and hue to system default setup.<br>Note:<br>● All the operations here apply to WEB end only.<br>● Please go to Setup->Camera->Conditions to adjust corresponding items. |
| ② Rules info | Click the button, it is to display intelligent rule on the preview page after enabled, it is enable by default. |
| ③ PTZ | Enable or disable PTZ interface. Click left mouse button to display or hide PTZ control interface. |
| ④ Realtime report | It is to enable or disable realtime report interface, it mainly records the temperature change of selected spot, line and area during appointed time period starting from the current time, see Figure 2-9 |
| ⑤ Ray axis correct | Enable or disable ray axis correct |

Sheet 2-3

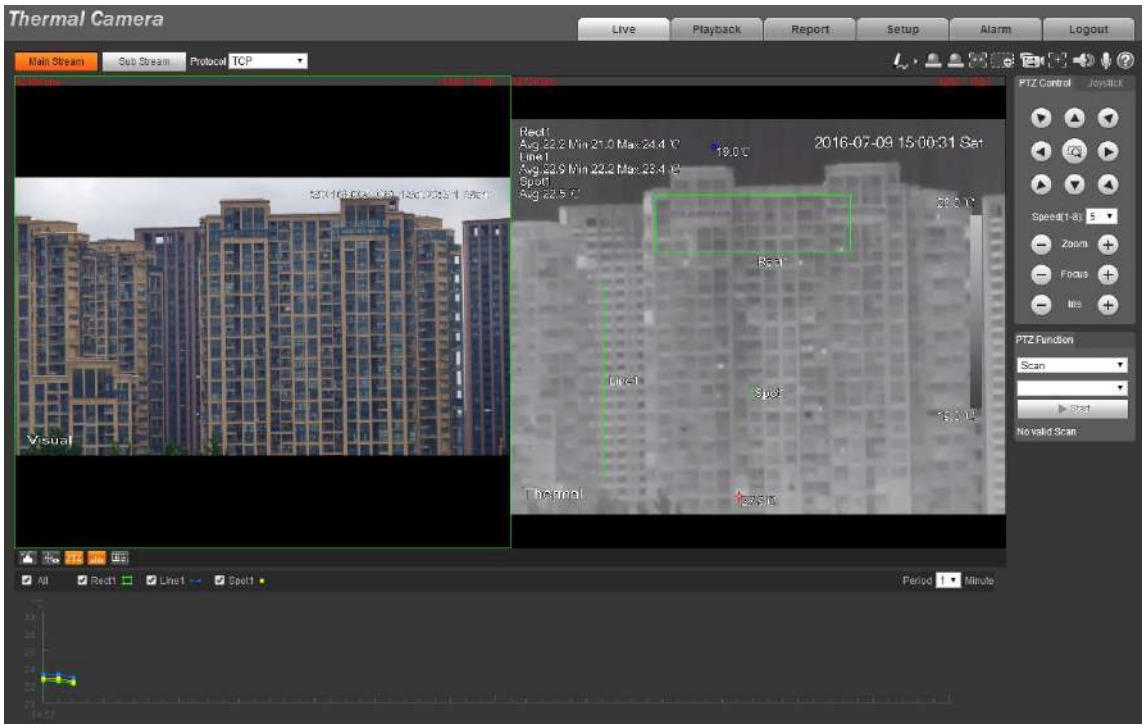



Figure 2-5

## 2.3 More Functions

The live interface also supports local record, capture and realtime spot temperature measurement.

### 2.3.1 Local Record and Capture

Move the mouse to the top right corner of the live interface, the system will display the icons of local record and capture, which is shown in Figure 2-6.




Figure 2-6

| Parameter | Note |
|---|---|
| Local record | Click the button to record video; store it in the storage path which has been set. Please refer to "6.1.2.5 Storage Path" for the setting of storage path. |
| Capture | Click the button to enable video capture function, the picture will be stored into the storage path which has been set. Please refer to "6.1.2.5 Storage Path" for the setting of storage path. |

Sheet 2-4

### 2.3.2 Realtime Spot Temperature Measurement

**Note:**

The function is available for the device which is equipped with temperature measurement, please refer to the actual interface for more details.

Move the mouse to any location on the live interface, and the system will display the realtime temperature of the location, which is shown in Figure 2-7.




Figure 2-7

### 2.3.3 Laser Ranging

**Note:**

The function is available for the device which is equipped with ranging function; please refer to the actual interface for more details.

Click “Start” and it will measure the distance between the camera and the image center (marked by red cross), which is shown in Figure 2-8.


Main Stream
Sub Stream
Protocol
TCP
PTZ Control
Joystick
Speed(1-8)
Zoom
Focus
Auto Focus
Laser
Start
Close
PTZ Function
Scan
Start
Visual
Thermal

Figure 2-8

# 3 PTZ

## 3.1 Bullet Camera

**Note:**

The PTZ setting of the bullet camera is used to control external PTZ device, please connect to external PTZ via RS485 port before using the function, otherwise the function will be invalid.

### 3.1.1 Setting Protocol

It needs to connect camera to external PTZ via setting protocol first when the bullet camera needs to control external PTZ.

Step 1

Select “Setup > System > PTZ Setting”. The system will display the interface of “PTZ Setting” ,which is shown in figure 3-1.

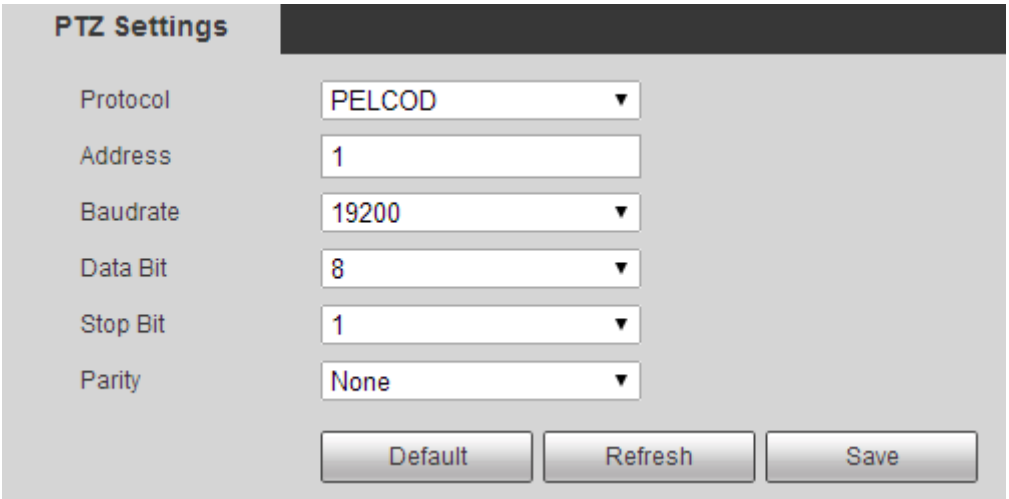



Figure 3-1

Step 2

Set the parameters of PTZ protocol, click “Save” to complete config. Please refer to sheet 3-1 for more details about the parameters.

| Parameter | Note |
|---|---|
| Protocol | Match the PTZ protocol |
| Address | It is set as corresponding device address.<br>Note:<br>The address has to be in accordance with that of external PTZ, otherwise it won't control external PTZ. |
| Baud Rate | It is to select baud rate used by device. |
| Data Bit | The default is 8. |
| Stop Bit | The default is 1. |
| Parity | The default is null. |

Sheet 3-1

### 3.1.2 Setting Function

**Note:**

- It has completed protocol setting. Please refer to "3.1.1 Setting Protocol" for more details of protocol setting.
- PTZ setting operates external PTZ, check the effect in the preview image of external PTZ but not in the preview image of bullet camera.
- The following functions are valid only when external PTZ is supported.

#### 3.1.2.1 **Scan**

Scan means the camera scanning from left limit to right limit with a certain speed.

Step 1

Click "PTZ" and select the rule as "Scan" in "PTZ Setting" area, which is shown in Figure 3-2.

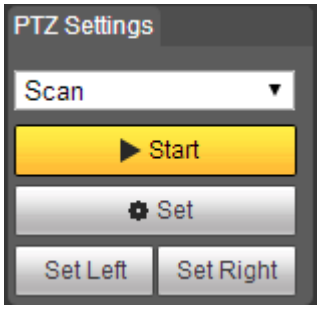



Figure 3-2

Step 2

Click "Set" button and the system will display the icon of 

.

Step 3

Move to the left limit via direction button, click "Set Left" to cnfirm the location of left limit.

Step 4

Move to the right limit via direction button, click "Set Right" to confirm the location of right limit.

So far, you have completed the path setting of scan.

3.1.2.2 **Preset**

Preset means the environment where the camera is located, it can quickly adjust PTZ and camera to the environment via calling preset.

Step 1

Click “PTZ” and select the rule as “Preset” in “PTZ Setting” area, which is shown in Figure 3-3.

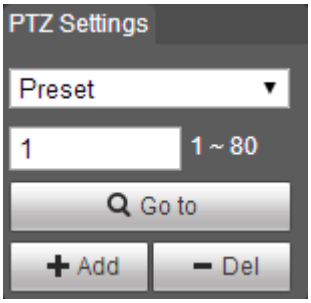



Figure 3-3

Step 2

Input preset value into the box of preset.

Step 3

Click “Go to” and the camera will move to the corresponding location of the preset.

Step 4

Move the camera to the needed location via direction button, enter the preset value into the box of preset.

Step 5

Click “Add” to set the next preset, the range of preset is related to the exact PTZ protocol.

3.1.2.3 **Tour**

Tour means auto movement according to the presets which have been set.

Step 1

Click “PTZ” and select the rule as “Tour” in the “PTZ Setting” area, which is shown in Figure 3-4.

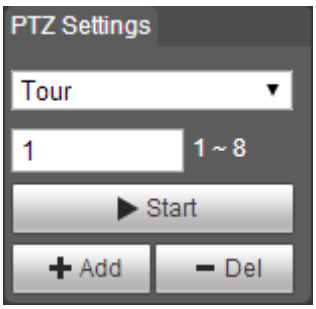



Figure 3-4

Step 2

Enter tour value in the box of tour.

Step 3
Click “Add” and the setting range is related to the exact PTZ protocol.
Stpe 4
Enter the preset value in the box of preset.
Step 5
Click “Add” to add a preset in the tour path. Click “Del” to delete the preset in the tour path.

**Note:**
It can add several presets and also can delete the presets which have already existed in the tour.

3.1.2.4 **Pattern**
Pattern can continuously record the camera operations implemented by users such as pan, tilt, zoom and preset etc. You can directly call the pattern path after it is recorded and saved.
Step 1
Click “PTZ” and select the rule as “Pattern” in “PTZ Setting”, which is shown in Figure 3-5.

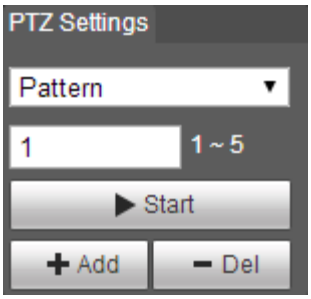
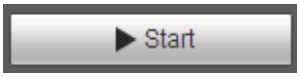


Figure 3-5

Step 2
Enter the pattern number in the box of pattern, click 

.
Step 3
Click 

to implement a series of operations such as zoom, focus, iris and direction etc.
Step 4
Click “Stop” to complete the setting of a pattern path.

3.1.2.5 **Assistant**
Step 1
Click “PTZ” and select the rule as “Assistant” in the “PTZ Setting” area, which is shown in Figure 3-6.

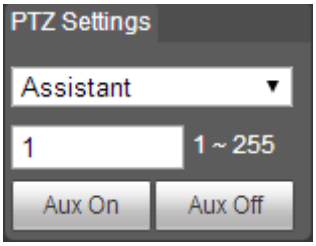



Figure 3-6

Step 2

Enter the value of assistant function in the box of assistant.

Step 3

Click “Aux On” to enable the corresponding assistant functions.

3.1.2.6 **Wiper**

Step 1

Click “PTZ” and select the rule as “Wiper” in the “PTZ Setting” area, which is shown in Figure 3-7.

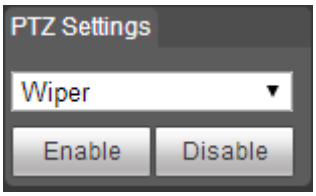



Figure 3-7

Step 2

Click “Enable” to enable wiper function.

### 3.1.3 PTZ Control

**Note:**

- Users need to complete “3.1.1 Setting Protocol” and “3.1.2 Setting Function” before using PTZ control.
- The PTZ control of bullet operates the external PTZ, you can check the result in the live interface of external PTZ but not in the live interface of the bullet.

Click “PTZ” and the PTZ control is on the right of “PTZ” interface, which is shown in Figure 3-8.

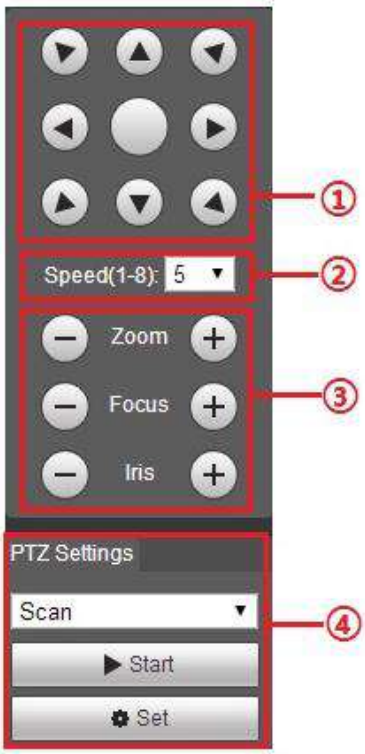



Figure 3-8

| Parameter | Note |
|---|---|
| ①Direction button | It supports 8 directions, which are up, down, left, right, upper left, upper right, lower left, lower right. |
| ②Speed | It is mainly used to operate speed, the longer the step is, the faster the Speed becomes. The speed is valid to PTZ direction control, zoom, focus And iris adjustment. |
| ③Zoom, Focus ,Iris | Click  and the cooresponding parameter becomes bigger,<br>Click  and the corresponding parameter becomes smaller. |
| ④PTZ Function | The supported PTZ functions include:<br>● Scan<br>Select scan number, click "Start" to make PTZ scan.<br>● Preset<br>Select preset number, click "Go to" and the camera moves to the corresponding location of the preset.<br>● Tour<br>Select tour number, click "Start" to begin tour.<br>● Pattern<br>Select pattern number, click "Start" to begin pattern.<br>● Assistant |

| Parameter | Note |
|---|---|
| | Reserve extended functions.<br>● Wiper<br>Click “Enable” to enable wiper function. |

Sheet 3-2

## 3.2 Speed Dome and PTZ

### 3.2.1 Setting Protocol

When external devices (such as NKB, NVR) want to control speed dome or PTZ devices, first it needs to make the external device connect to PTZ via setting protocol. Please select protocol according to the practical situation, please refer to “3.2.1.1 Network PTZ Setting” to config if it is to adopt network protocol, please refer to “3.2.1.2 Analog PTZ Setting” to config if it is to adopt analog protocol.

#### 3.2.1.1 **Network PTZ Setting**

Step 1

Select “Setup > PTZ Setup > Protocol > Network PTZ Setting”. The system will display the interface of “Network PTZ Setting”, which is shown in Figure 3-9.

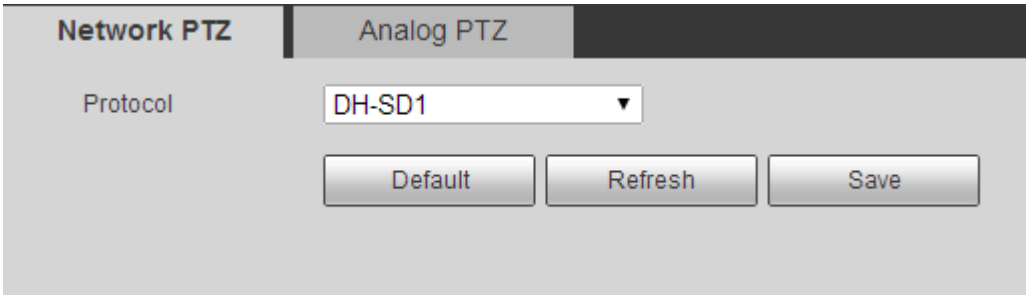



Figure 3-9

Step 2

Select protocol, click “Save” to complete config. Please refer to sheet 3-3 for more details.

| Parameter | Note |
|---|---|
| Protocol | Match the protocol of the connected device. |

Sheet 3-3

#### 3.2.1.2 **Analog PTZ Setting**

Step 1

Select “Setup > PTZ Setup > Protocol > Analog PTZ Setting”. The system will display the interface of “Analog PTZ Setting”, which is shown in Figure 3-10.

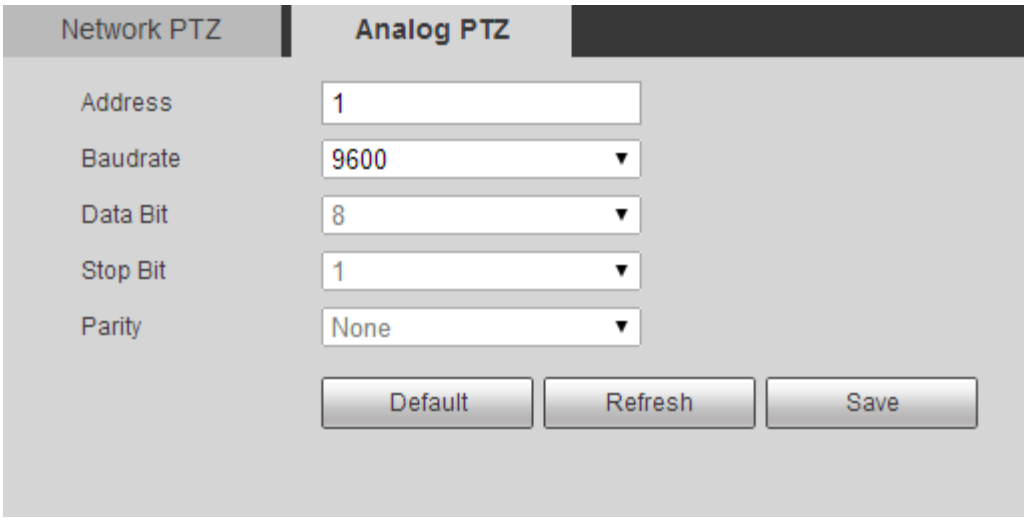



Figure 3-10

Step 2

Set the parameters of PTZ protocol, click “Save” to complete config. Please refer to sheet 3-4 for more details.

| Parameter | Note |
|---|---|
| Address | It is to set the corresponding device address.<br>**Note:**<br>If it is to connect to external keyboard and etc, then the address has to be in accordance with that of the keyboard, otherwise it will fail to control PTZ via external keyboard. |
| Baud rate | Select the baud rate used by device. |
| Data Bit | The default is 8. |
| Stop Bit | The default is 1. |
| Parity | The default is null. |

Sheet 3-4

### 3.2.2 Setting Function

**Note:**

Select “Setup > PTZ Setting > Function” and enter the interface of function setting, click  in the thermal monitoring image, then the image is switched to visual; click  in the visual monitoring image, then the image is switched to thermal.

#### 3.2.2.1 **Preset**

It is to quickly adjust the PTZ and camera to save location via calling preset.

Step 1

Select “Setup > PTZ Setting > Function > Preset”. The system will display the interface of “Preset”, which is shown in Figure 3-11.

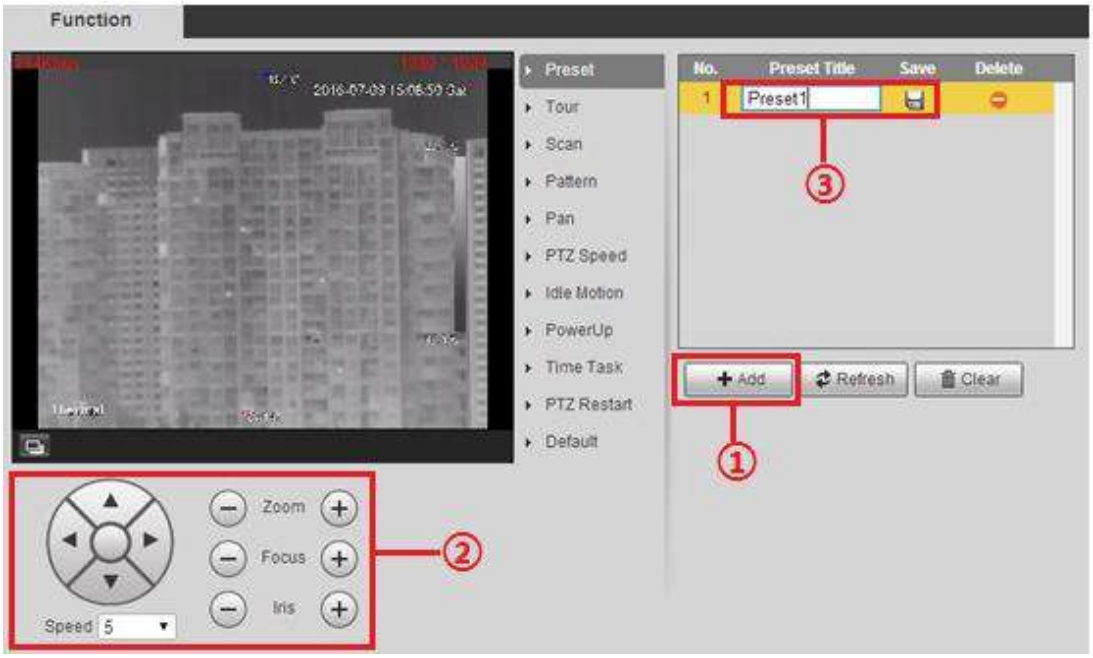



Figure 3-11

Step 2

Set preset.

1. Click “Add’” to add a new preset.
2. Control PTZ direction, zoom, focus and iris; adjust the camera to proper monitoring spot.
3. Double click the title of the added preset to modify the name, and click to save config.

**Note:**

- Click to delete config error or the preset which is no longer needed.
- Click “Clear” to delete all the added presets.

3.2.2.2 **Tour**

It means auto movement according to the preset which has been set. It has to complete preset setting before setting tour.

Step 1

Select “Setup > PTZ Setting > Function > Tour”. The system will display the interface of “tour”, which is shown in Figure 3-12.

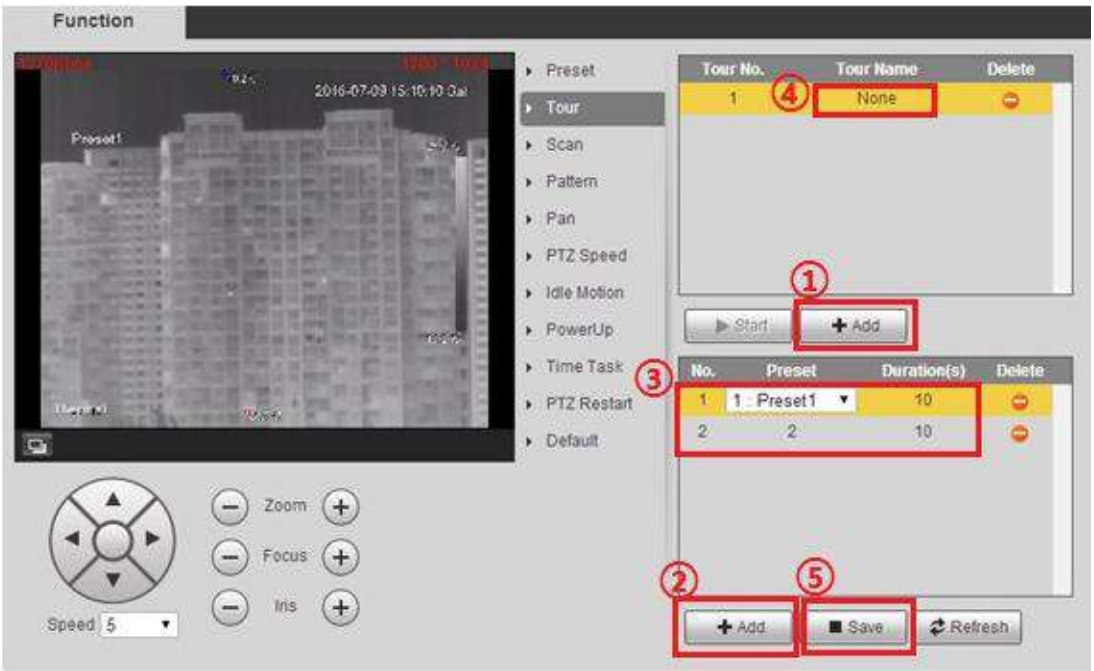



Figure 3-12

Step 2

Set tour.

1. Click “Add” to add a new tour.
2. Click “Add” to add preset. Click repeatedly to add several presets.
3. Double click to select preset, and double click to set duration.
4. Double click tour name and modify the name.
5. Click “Save” to save the config.

**Note:**

Click to delete corresponding tour and preset.

Step 3

Select tour, click “Start” to begin tour, the button is switched to “Stop”, click again to stop tour.

3.2.2.3 **Scan**

It means camera sanning within the range from left limit to right limit with a certain speed.

Step 1

Select “Setup > PTZ Setting > Function > Scan”. The system will display the interface of “Scan”, which is shown in Figure 3-13.

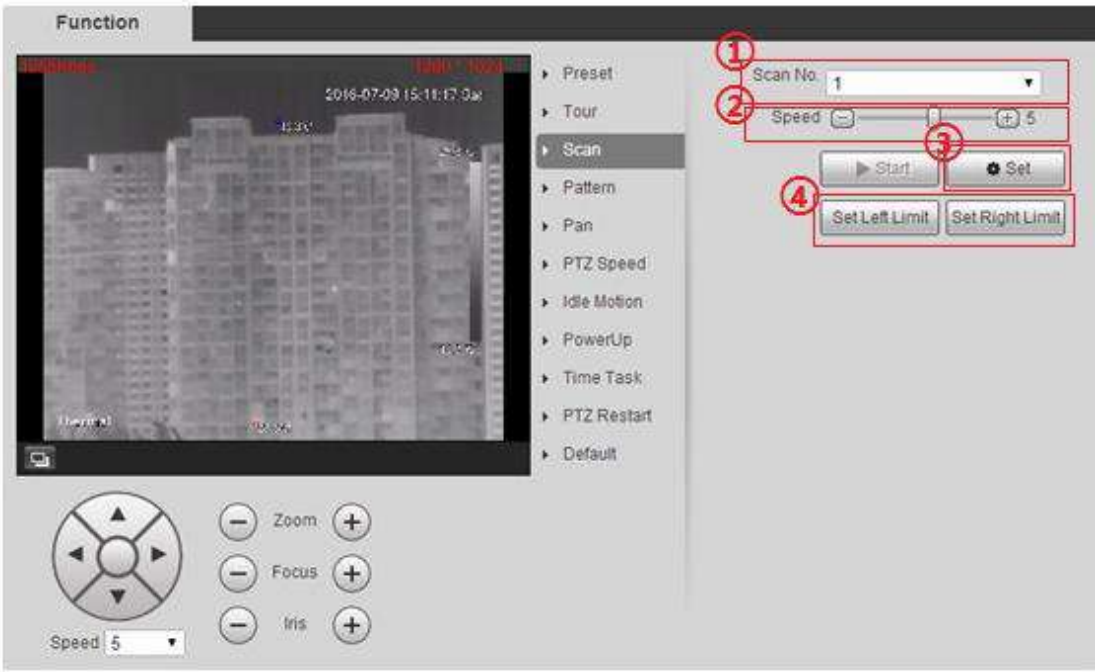



Figure 3-13

Step 2

Set scan.

1. Select scan number.
2. Set scan speed.
3. Click “Set” to export control button.
4. Export control button, adjust the camera to proper monitoring location, click “Set Left Limit”, continue to adjust the camera monitoring location, click “Set Right Limit” when it is in proper location.

Step 3

Click “Start’ to enable scan, the button is switched to “Stop”, click again to stop scan.

3.2.2.4 **Pattern**

It can continuously record the camera pan, tilt, zoom and preset call etc. You can directly call the pattern path after recording and saving is completed.

Step 1

Select “Setup > PTZ Setting > Function > Pattern”. The system will display the interface of “Pattern”, which is shown in Figure 3-14.

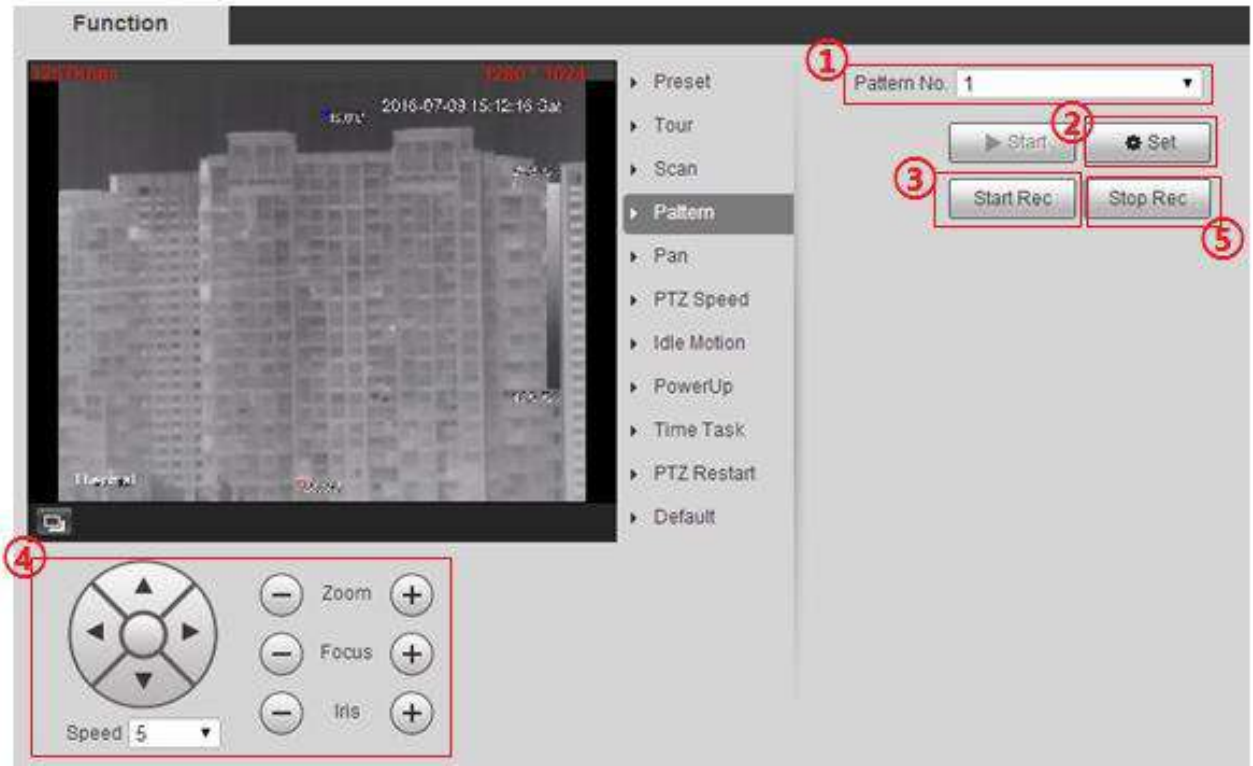



Figure 3-14

Step 2

Set pattern.

1. Select pattern number.
2. Click “Setup” to export config button.
3. Click “Start Rec” to record operations.
4. Implement a series of operations such as zoom, focus, iris and direction etc.
5. Click “Stop Rec” to stop record.

Step 3

Select pattern number, click “Start” to begin pattern, the button will be switched to “Stop”, click “Stop” again to stop pattern.

3.2.2.5 **Pan**

Pan means 360° endless rotation with a certain speed for the camera PTZ.

Step 1

Select “Setup > PTZ Setting > Function > Pan”. The system will display the interface of “Pan”, which is shown in Figure 3-15.

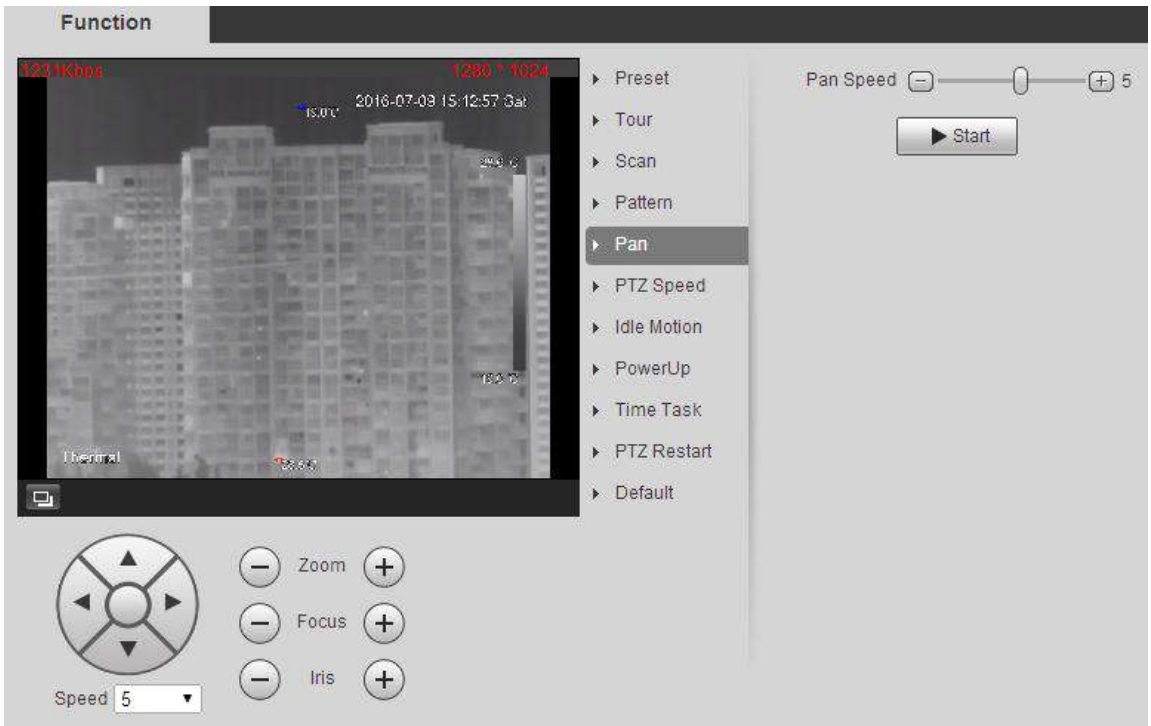



Figure 3-15

Step 2

Set rotation speed, click ‘Start” and the camera PTZ will start pan, the button will be switched to “Stop”, click again to stop pan.

3.2.2.6 **PTZ Speed**

PTZ speed means the rotation speed of the camera PTZ.

Step 1

Select “Setup > PTZ Setting > Function > PTZ Speed”. The system will display the interface of “PTZ Speed”, which is shown in Figure 3-16.

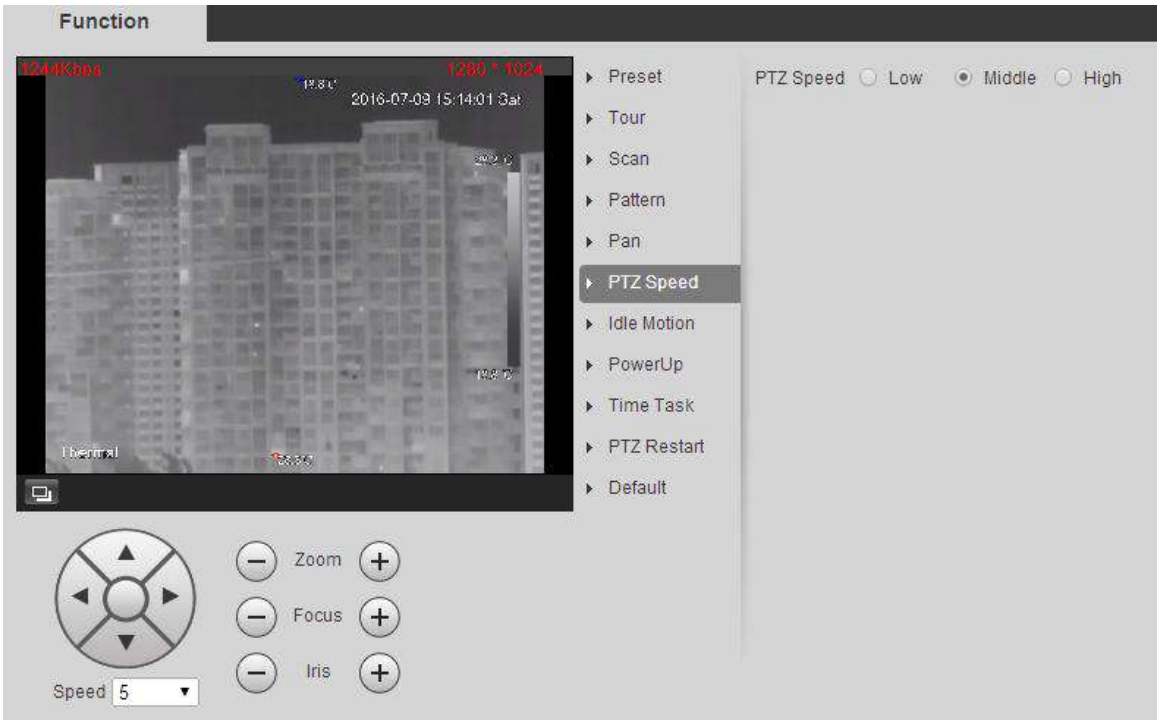



Figure 3-16

Step 2

Select PTZ speed, and complete config.

3.2.2.7 **Idle Motion**

Idle motion means the camera PTZ implements the action which was set in advance it receives no valid orders within the specified period. Please make sure the selected action has completed config before setting idle motion.

Step 1

Select “Setup > PTZ Setting > Function > Idle Motion”. The system will display the interface of “Idle Motion”, which is shown in Figure 3-17.

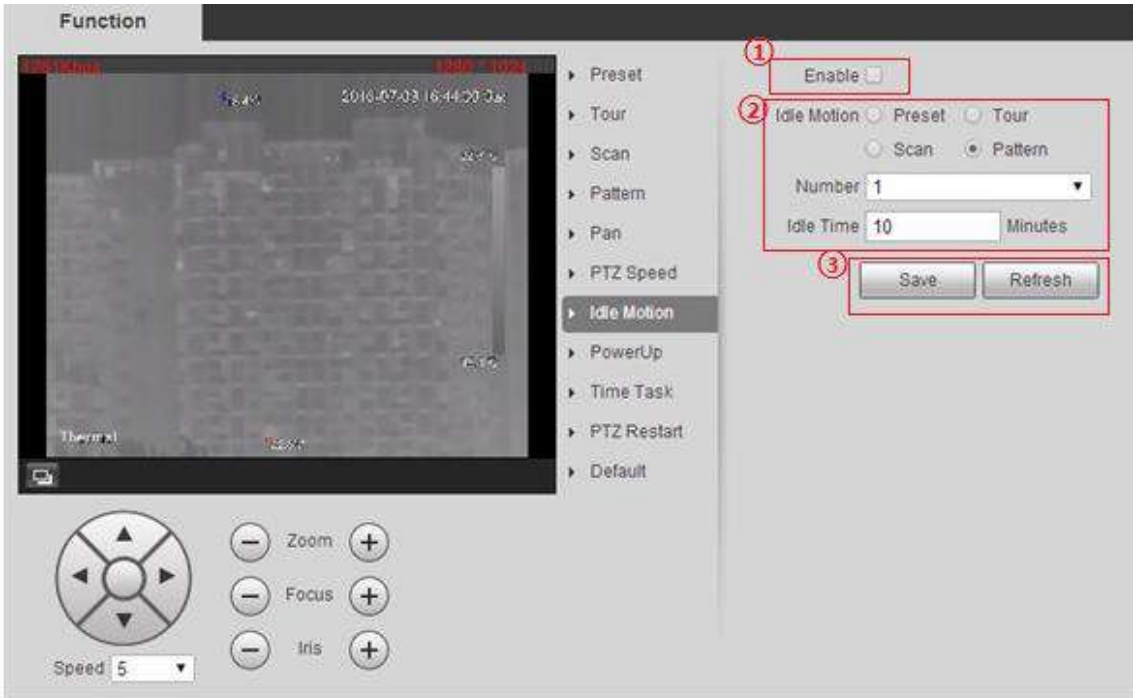



Figure 3-17

Step 2

Set idle motion.

1. Select “Enable”.
2. Select idle motion and its corresponding number, set idle time.
3. Click “Save” to complete setting.

3.2.2.8 **Power up**

It means the auto movement after the camera is powered up.

Step 1

Select “Setup > PTZ Setting > Function > Power up”. The system will display the interface of “Idle Motion”, which is shown in Figure 3-18.

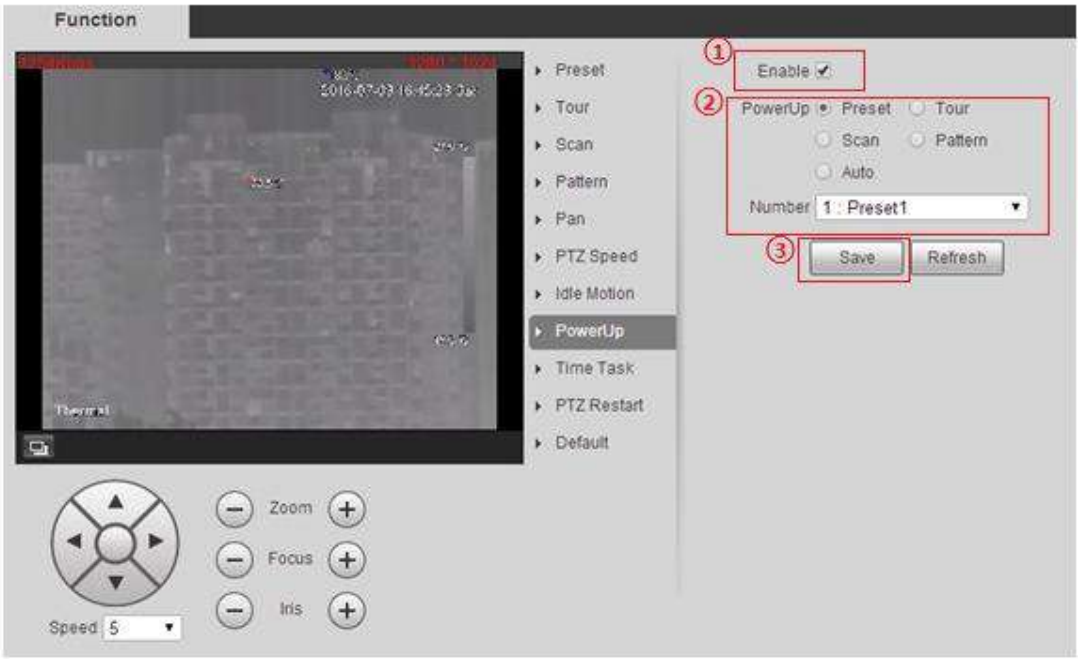



Figure 3-18

Step 2

Set powerup.

1. Select “Enable”.
2. Select idle motion and its corresponding number.

**Note:**

The system will operate the last motion before power off when selecting ‘Auto”.

3. Click ‘Save” to complete setting.

3.2.2.9 **Time Task**

It means implementing related actions within the specified period.

Step 1

Select “Setup > PTZ Setting > Function > Time Task”. The system will display the interface of “Time Task”, which is shown in Figure 3-19.

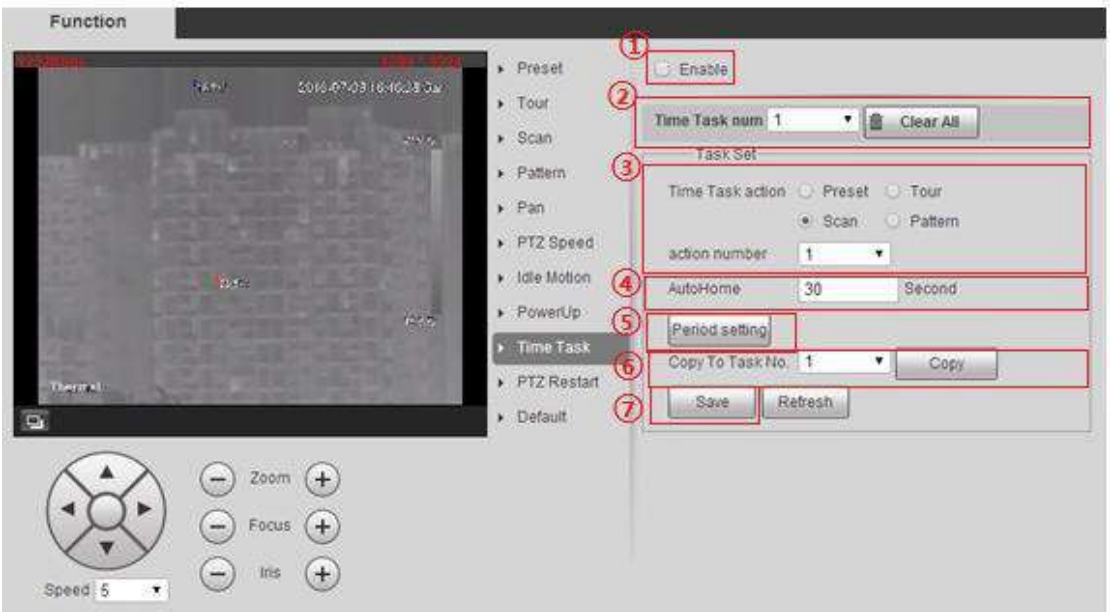



Figure 3-19

Step 2

Set time task.

1. Select “Enable”.
2. Select “Time task Number.”
3. Select “Time task action” and “Action number”.
4. Set the period of auto home.

The auto home period means the time needed for auto restore to time task when manually calling PTZ and interrupting time task.

5. Set period for time task.
6. Select new task number; click “Copy” to copy the time task information to its corresponding time task number.
7. Click ‘Save”.

### 3.2.2.10 **PTZ Restart**

Manually restart the PTZ

Step 1

Select “Setup > PTZ Setting > Function > PTZ Restart”. The system will display the interface of “PTZ Restart”, which is shown in Figure 3-20.




Figure 3-20

Step 2

Click “PTZ Restart” to restart the PTZ.

3.2.2.11 **Default**

**Attention:**

The function will delete all the configurations made by users, please confirm first and then operate.

Step 1

Select “Setup > PTZ Setting > Function > Default”. The system will display the interface of “Default”, which is shown in Figure 3-21.

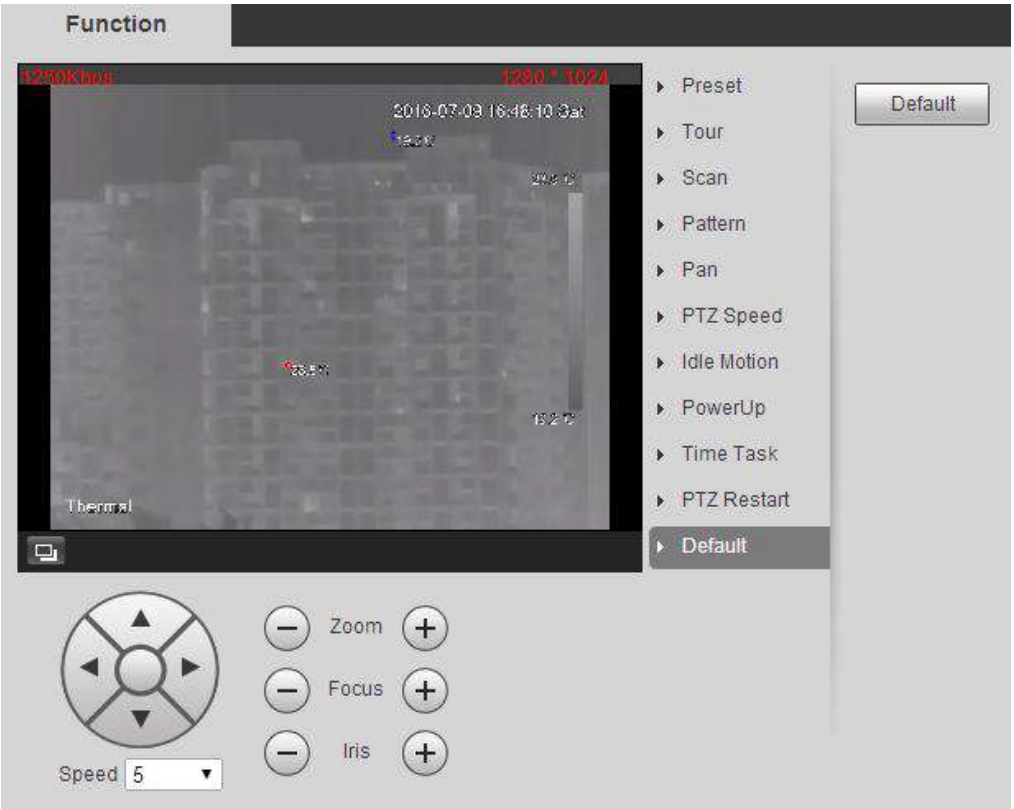



Figure 3-21

Step 2

Click “Default” and the PTZ will restore its default config.

### 3.2.3 PTZ Control

**Note:**

Users need to complete “3.2.1 Setting Protocol” and “3.2.2 Setting Function” before using PTZ control.

Click PTZ on the live interface to display the control panel of the PTZ, which is shown in Figure 3-22.

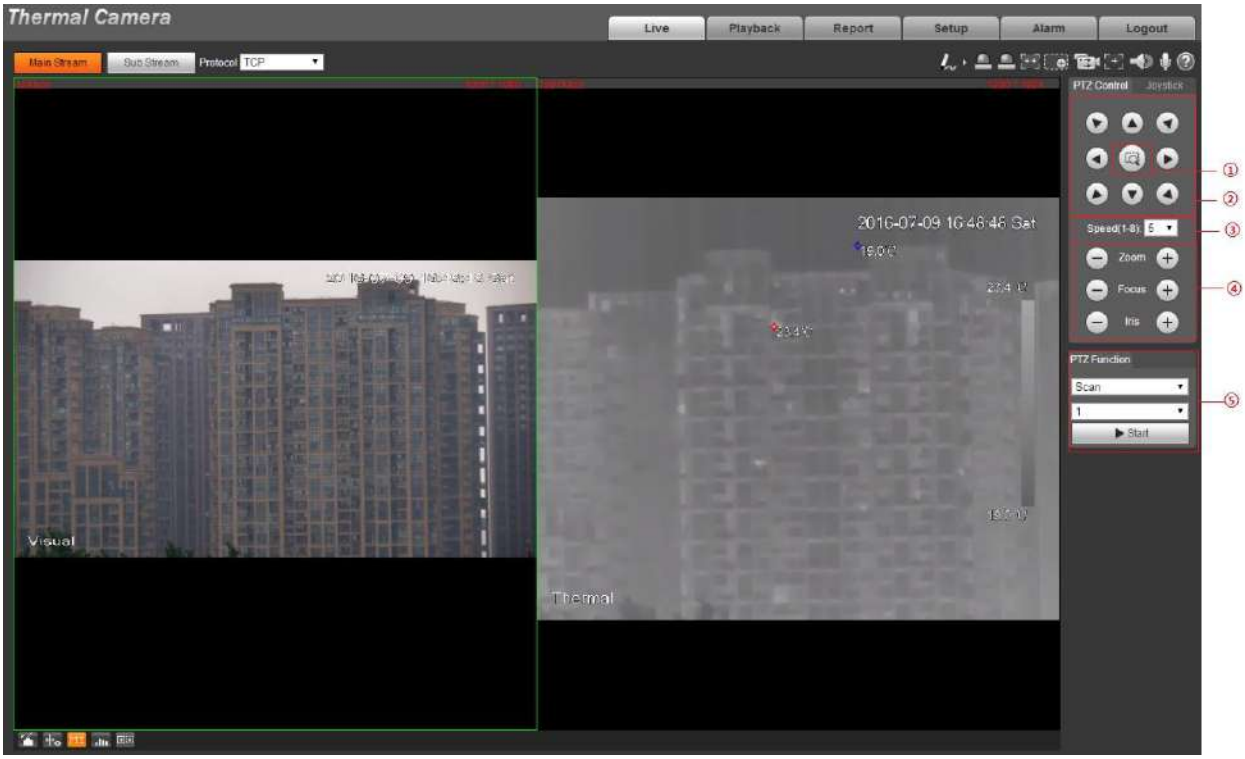



Figure 3-22

| Parameter | Note |
|---|---|
| ①Quick position | Quick position function. Use the mouse to draw a box in the monitoring image, and the PTZ will quickly rotate and zoom to the scene. |
| ②Direction button | Support 8 directions, which are up, down, left, right, upper left, upper right, lower left and lower right. |
| ③Speed | It is mainly used for speed operation, the bigger the speed is, the faster it becomes. The speed is valid to PTZ direction control, zoom, focus and iris adjustment. |
| ④Zoom, focus, iris | Click  and corresponding parameter value becomes bigger, click  and correspoding parameter value becomes smaller. |

| Parameter | Note |
| --- | --- |
| ⑤PTZ function | The supported PTZ functions include:<br>● Scan<br>Select scan number, click ‘‘Start’’ to make PTZ scan.<br>● Preset<br>Select preset number, click ‘‘Go to’’ and the camera moves to the corresponding location of the preset.<br>● Tour<br>Select tour number, click ‘‘Start’’ to begin tour.<br>● Pattern<br>Select pattern number, click ‘‘Start’’ to begin pattern.<br>● Assistant<br>Reserve extended functions.<br>● Wiper<br>Click ‘‘Enable’’ to enable wiper function.<br>● Quick position<br>Input the needed horizontal and vertical angle, click “Quick position” to accurately locate some spot. |

Sheet 3-5

# 4 Playback

It can playback the saved video or picture in the playback interface.

**Note:**

- It needs to refer to period setting of record and snapshot, storage mode and record control in “6.7 Storage Management”.
- Some devices may not have playback function, please refer to the actual interface.
- Different devices may have different functions and interfaces, please refer to the actual interface.

Click “Playback” and the system will display the interface of ‘Playback”, which is shown in Figure 4-1.

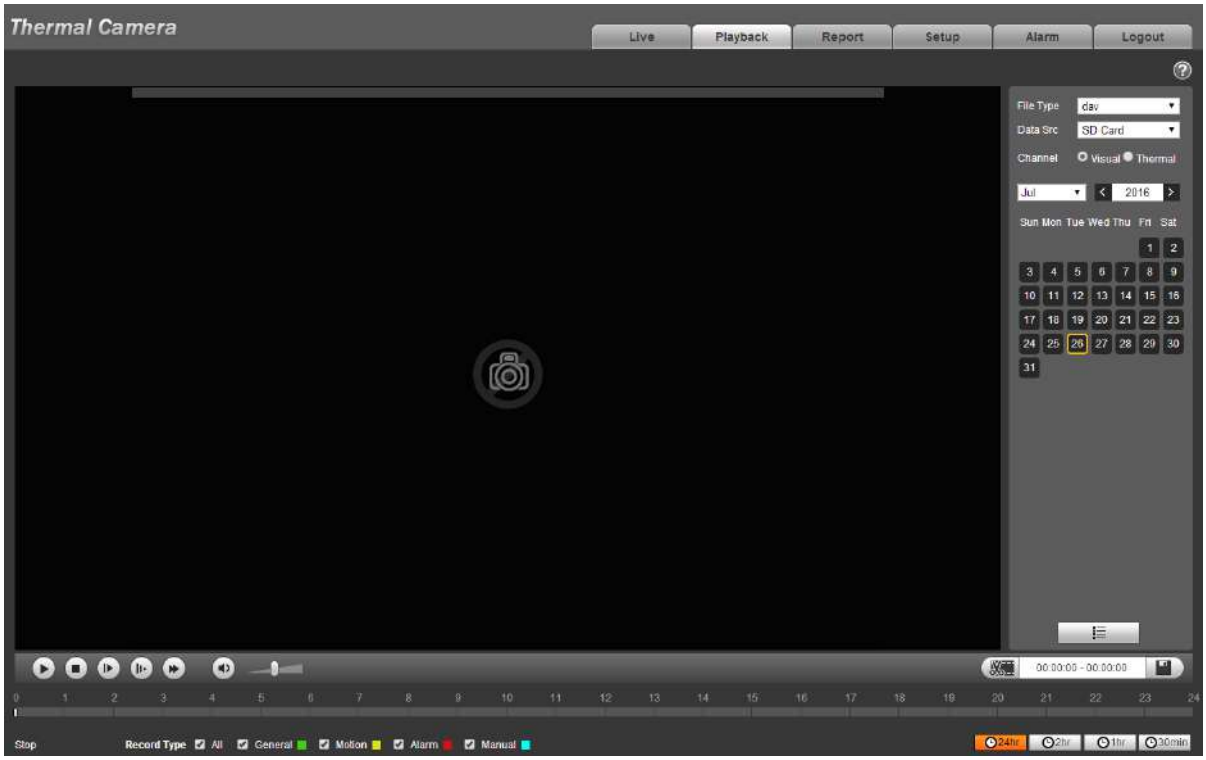



Figure 4-1

## 4.1 Video Playback

It is to play captured video according to the needs.

Select the file type as “dav” and the system will display the interface of video playback, which is shown in Figure 4-2.

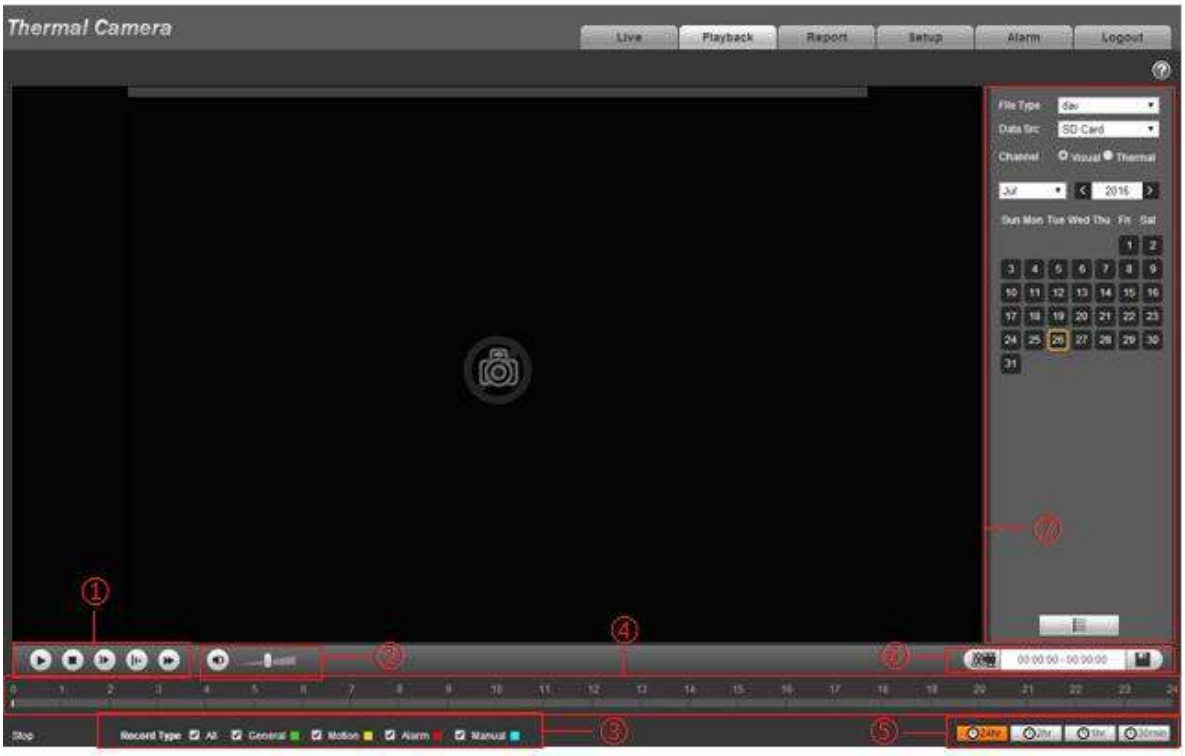



Figure 4-2

The video playback interface of WEB client includes six functions, which is shown in sheet 4-1.

| SN | Function | Note |
|---|---|---|
| ① | Play control | Play control button, please refer to “4.1.1 Play Control” for more details. |
| ② | Volume adjust | It is to control the volume during playback, which includes the following two statuses.<br>● , currently it is in a mute state.<br>● , currently it is in a volume play state, you can adjust the volume. |
| ③ | Record type | It includes four types which are general, motion, alarm and manual, you can select the record type to check according to needs. |
| ④ | Progress bar | It is to display the record type and its period.<br>Click some spot in the color area and it will playback from that time.<br>Different record types have different colors, please refer to the record type for more details. |

| | | |
|---|---|---|
| ⑤ | Progress bar time format | It includes four time formats which are  ,  ,   and  . Take   for example, it means the whole progress bar is 24 hours. |
| ⑥ | Video clip | Clip some piece of video and save it. Please refer to “4.1.3 Video Clip” for more details. |
| ⑦ | Playback file | Hear you can select file type, data source and record date etc. |

Sheet 4-1

### 4.1.1 Play Control Bar

The function of play is shown as in Figure 4-3.

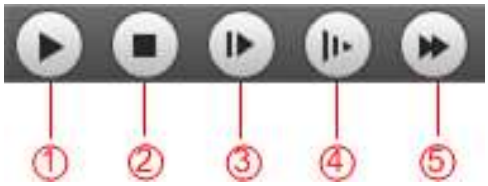



Figure 4-3

| Parameter | Function |
|---|---|
| ① Play | When you see this button, it means pause or not played record. Click this button, switch to normal play status. |
| ② Stop | Click this button to stop playing. |
| ③ Play by frame | Click this button to go to next frame.<br>**Note:**<br>You need to pause playback when you use this function. |
| ④ Slow | Click on this button to play slowly. |
| ⑤ Quick | Click on this button to play quickly. |

Sheet 4-2

### 4.1.2 Playback Video

Video playback may be different according to different data source. Data source is divided into SD card and local.

#### 4.1.2.1 **SD Card Video**

Step 1

Select the record type which is to be checked in “Record Type Select Bar”, which is shown in Figure 4-4.




Figure 4-4

Step 2

Select “File Type” as “dav” and select “Data Source” as “SD Card”, which is shown in Figure 4-5.

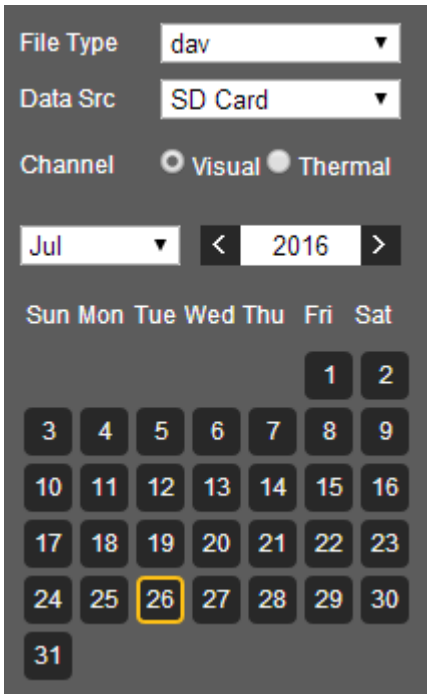



Figure 4-5

| Parameter | Function |
|---|---|
| File Type | File type includes following two types:<br>● “dav”, it means video playback.<br>● “jpg”, it means picture playback. |

Sheet 4-3

Step 3

Select “Channel” as “Visual” or “Thermal” according to needs.

Step 4

Select the year and month of the video to be checked, click the date in blue.

It will display the record file progress bar with color.

**Note:**

It displays the date with blue shading; it means there is record file for this date.

Different colors mean different record types on progress bar, please refer to Figure 4-4 for more details.

Step 5

Play recorded video

Click the . The system will play the record file of the selected date (according to time sequence)

Click some spot on the progress bar (area with color), which is shown in Figure 4-6. The system will play record file from that time.




Figure 4-6

Click file list option , the record file with selected date will be displayed in the list, double click the file in the list.

The system will play the file and meanwhile display the file size, start time and end time. Please refer to sheet 4-4 for more details.

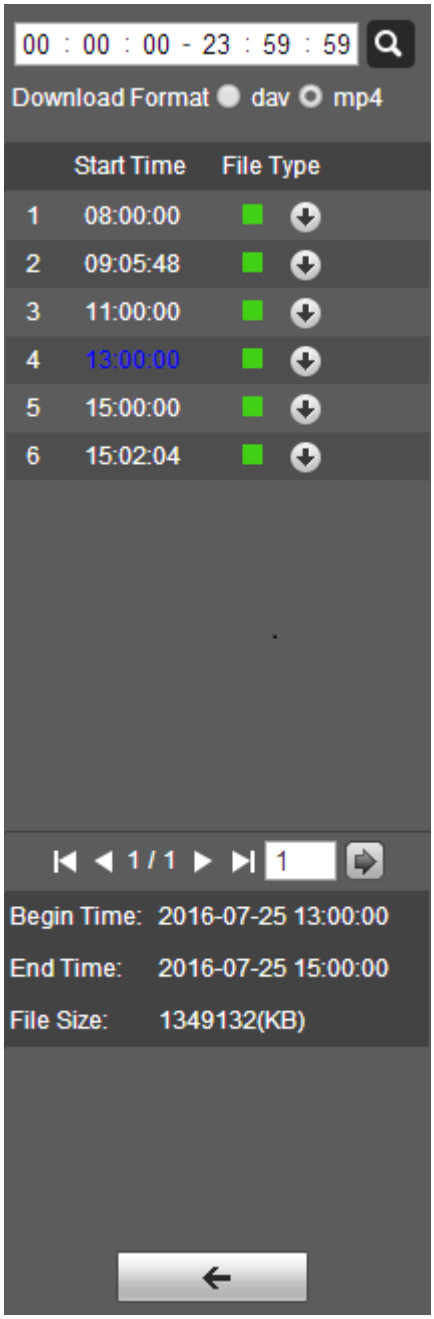



Figure 4-7

| Parameter | Function |
|---|---|
| Search | Enter start time and end time, click .<br>Search all the record files between start time and end time. |

| Parameter | Function |
| --- | --- |
| Download | Select “Record Type” as “dav” or “mp4”, click .<br>The file will be downloaded to the storage path which has been set. Please refer to “6.1.2.5 Storage Path” for more dedetails.<br>**Note:**<br>The system does not support download and playback of MP4 file at the same time. |
| Back | Click  to go back to calendar interface. |

Sheet 4-4

4.1.2.2 **Local Video**

Step 1

Select the record type which needs to be checked in “Record Type Column”, which is shown in Figure 4-8.

Step 2

Select “File Type” as “dav” and “Data Source” as “Local”.

The system will display the list of playback file, which is shown in Figure 4-8.




Figure 4-8

Step 3

Double click file name. The system will play the file, which is shown in Figure 4-9.




Figure 4-9

### 4.1.3 Video Clip

Clip some piece of video and save it to the storage path which has been set, which is shown in Figure 4-10.




Figure 4-10

Step 1

Select “Video Type” as “dav” or “mp4’.

Step 2

Click the start time of the clipped video on the progress bar, and then click  to start clip.

Step 3

Click the end tiem of the clipped video and click  to end clip.

Step 4

Click . The system will prompt that playback and download can’t be implemented at the same time, which is shown in Figure 4-11.

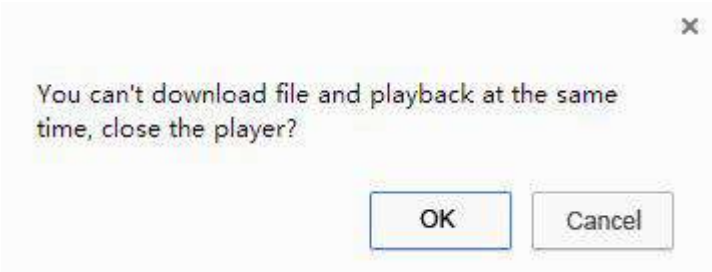



Figure 4-11

Step 5

Click “OK” and the system will close playback, save the clipped file into the storage path which has been set. Please refer to “6.1.2.5 Storage Path” for more details.

### 4.1.4 Assistant Function

Move the mouse to top right corner of the video during video playback, then it will display assistant function icon, which is shown in Figure 4-12.



Figure 4-12

| Parameter | Note |
|---|---|
| Local | Click the button to record video and save it into the storage path which has been set. Please refer to “6.1.2.5 Storage Path” for more details. |
| Snapshot | Click the button to take snapshot upon the playback video, the picture will be saved into the storage path which has been set. Please refer to “6.1.2.5 Storage Path” for more details. |

Sheet 4-5

## 4.2 Picture Playback

It is to search and play snapshot pictures according to the needs.

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

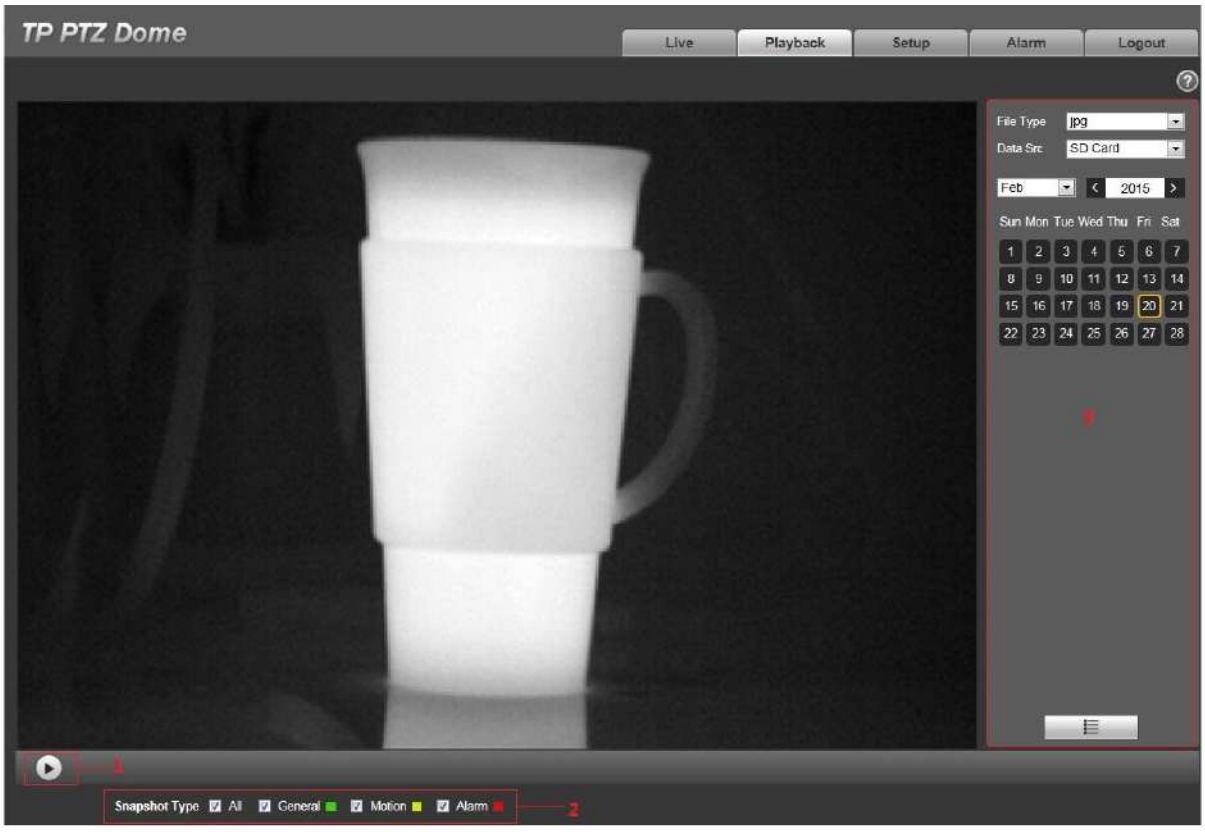



Figure 4-13

| SN | Function | Note |
|---|---|---|
| ① | Play control column | It includes the following two modes:<br>● , default state icon, it means pausing or not playing picture, click the button to play the pictures.<br>● , it means playing pictures; click the button to stop playing.<br>It can be mutually switched between two states. |
| ② | Snapshot type | It includes three types such as general, motion and alarm. You can check the snapshot type according to the needs. |
| ③ | Playback file column | Here you can select file type, snapshot date and etc. |

Sheet 4-6

Step 1

Select the snapshot type which needs to be checked in “Snapshot Type Column”, which is shown in Figure 4-14.

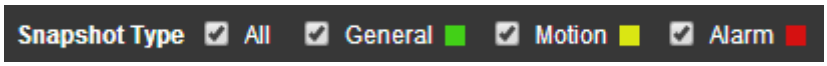



Figure 4-14

Step 2

Select “File Type” as “jpg”, which is shwon in Figure 4-15.

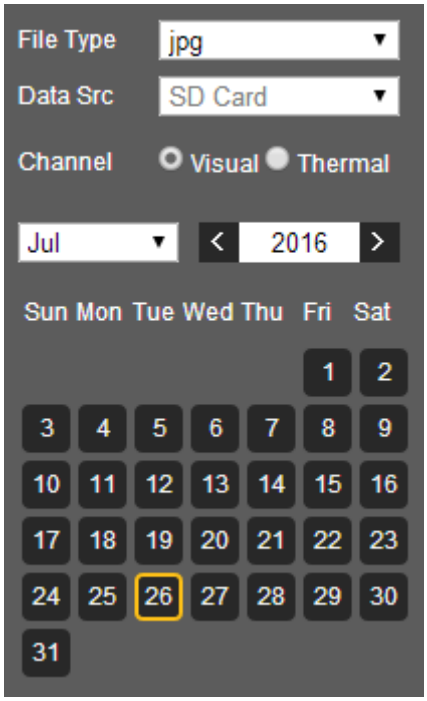



Figure 4-15

| Parameter | Note |
|---|---|
| File type | It includes two types which are shown as follows:<br>● “dav”, it means video playback.<br>● “jpg”, it means picture playback. |

Sheet 4-7

Step 3

Select “Channel” as “Visual” or “Thermal” according to the needs.

Step 4

Select the year and month of the video to be checked and the date with blue shading.

**Note:**

The date which displays blue shading means it has record file.

Step 5

Play picture

Click the . The system will play the pictures of the selected date (according to time sequence)

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

The system will play the double-clicked file.

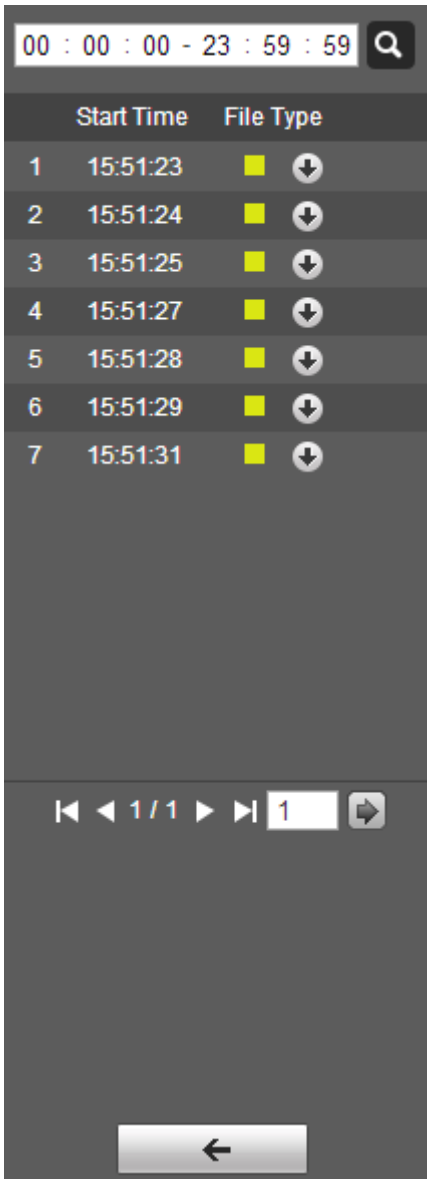



Figure 4-16

| Parameter | Function |
| --- | --- |
| Search | Enter start time and end time, click .<br>Search all the picture files between start time and end time. |
| Download | Click  to download file to local.<br>**Note:**<br>The download operations are different by using different browsers, please refer to the actual interface. |
| Back | Click  to go back to calendar interface. |

Sheet 4-8

# 5 Report

The preconditions to make report function valid are as follows:

- Users have set the rules of temperature measurement (including spot, line and area). Please refer to “6.6.1 Rule Setup” if the rules of temperature measurement are not set.
- The device has been inserted with SD card.

**Note:**

Some devices don’t have the function of report; please refer to the actual interface.

Step 1

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




Figure 5-1

Step 2

Set search condition, click “Search” and the system will display the searched temperature data, which is shown in Figure 5-2.

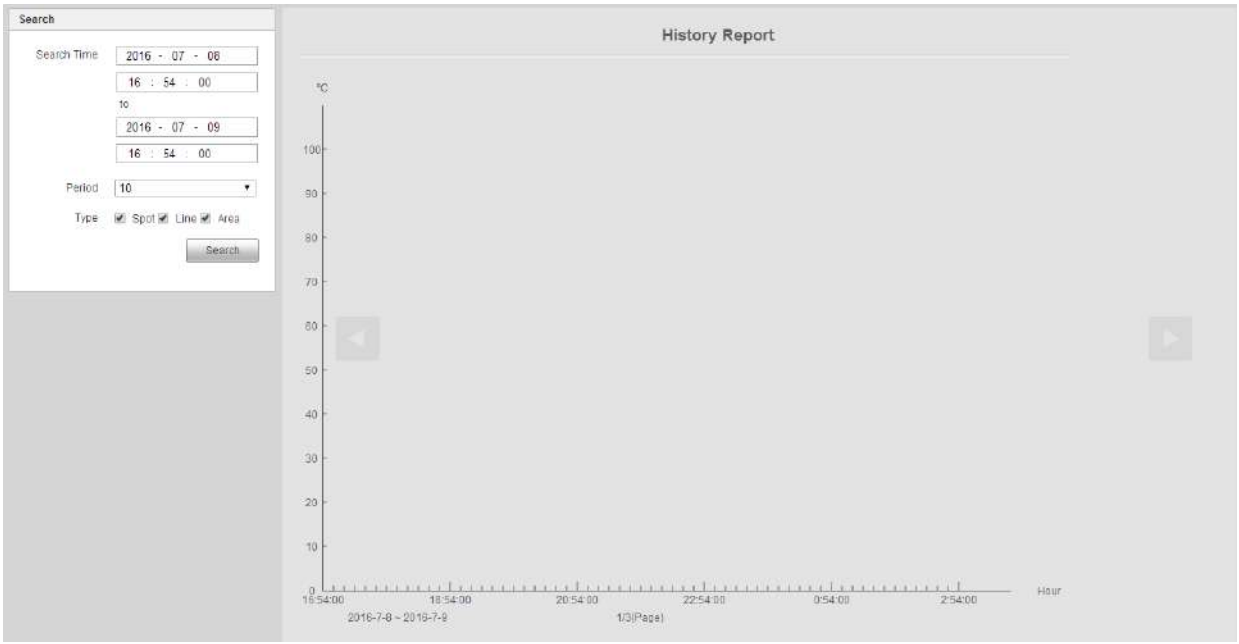

Search
Search Time
2016 - 07 - 08
16 : 54 : 00
to
2016 - 07 - 09
16 : 54 : 00
Period
10
Type
Spot
Line
Area
Search
History Report
°C
100
90
80
70
60
50
40
30
20
10
0
16:54:00
18:54:00
20:54:00
22:54:00
0:54:00
2:54:00
Hour
2016-7-8 ~ 2016-7-9
1/3(Page)

Figure 5-2

# 6 Setup

Web client setup interface supports Camera, Network, Peripheral, Smart Thermal, Event, Temperature, Storage, System and Information etc.

## 6.1 Camera

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

### 6.1.1 Conditions

6.1.1.1 **Visual**

The interface mainly sets the visual image condition of the camera; adjust the image parameter to realize optimal preview effect. The camera parameters are different due to different models; please refer to the actual model for parameter setup.

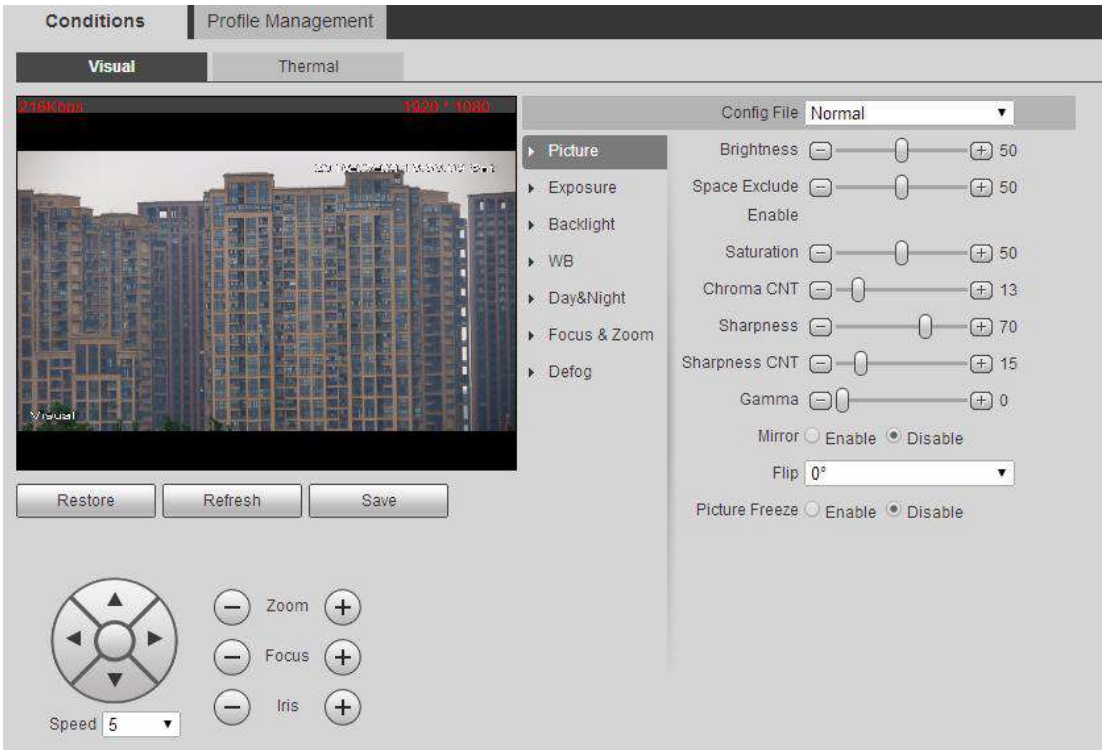



Figure 6-1

| Parameter | Note |
|---|---|
| Config file | It is to set the camera config mode, including normal, day and night. |
| Picture | It is to set the camera picture, including Brightness, Saturation, Chroma CNT, Gamma, Sharpness, Sharpness CNT and so on |

| Parameter | Note |
|---|---|
| Exposure | It is to set the camera exposure mode, including auto, manual, iris priority and shutter priority. |
| Backlight | It is to set the camera backlight mode, including WDR, HLC and BLC. |
| WB | It is to set the camera WB mode, including auto, manual, ATW, outdoor, indoor, outdoor auto, sodium lamp auto and sodium lamp. |
| Day & Night | It is to set the camera day & night mode, type includes electrical, ICR; mode includes auto, black & white, color and Photoresistance. |
| Focus & Zoom | It is to set the zoom and focus mode of camera lens, for zoom, it can set digital zoom and zoom speed, focus mode includes auto, manual and semi auto. |
| Defog | It is to set the picture defog mode, including Off and Auto. |
| Default | It is to restore the camera default setting. |

Sheet 6-1

**Picture**

Step 1

Click “Picture” and the system will display the interface of “Picture”, which is shown in Figure 6-2

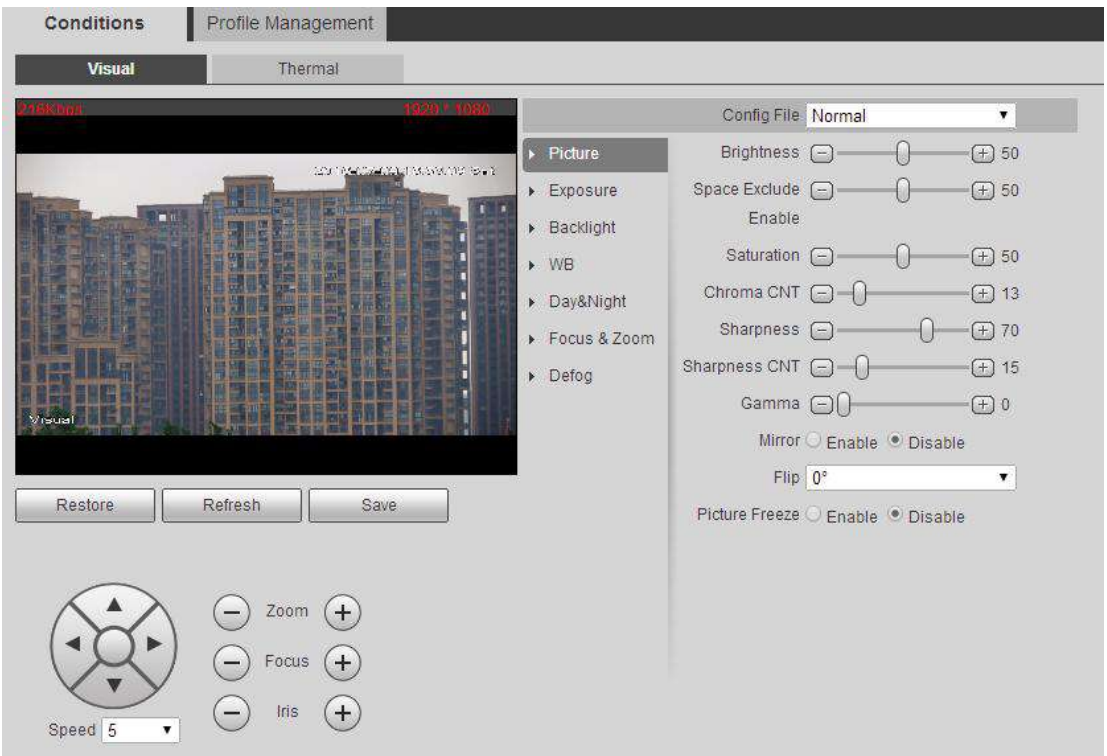



Figure 6-2

Step 2

Please configure each parameter info according to actual needs, please refer to sheet 6-2 for more details.

| Parameter | Note |
|---|---|
| Brightness | It is to set the image overall brightness, the bigger the value is, the brighter the image will become. |
| Saturation | It is to set image color purity, it appears brighter with higher purity, and it appears darker with lower purity. |
| Chroma CNT | It is to set the control degree of image color, the bigger the value is, the more obvious the control becomes. |
| Sharpness | It is to adjust the sharpness degree of image edge. The bigger the value is, the more obvious it becomes, it is opposite if the value is smaller. It may be easy for image to generate noise if the value is set too big. |
| Sharpness CNT Grade | It is to adjust the grade of sharpness control, the bigger the value is, the stronger the control becomes. |
| Gamma | It is to set the image gamma value. |
| Mirror | It is to set left and right flip of the image. |
| Flip | The function can be used to change the direction of video monitoring. You can select normal and inverted, it is normal by default. |
| Picture Freeze | The image will directly skip to the image when the preset is called, it won't display the image during PTZ rotation. |

Sheet 6-2

Step 3

Click “Save” to make the config valid.

**Exposure**

Step 1

Click “Exposure” and the system will display the interface of “Exposure”, which is shown in Figure 6-3.

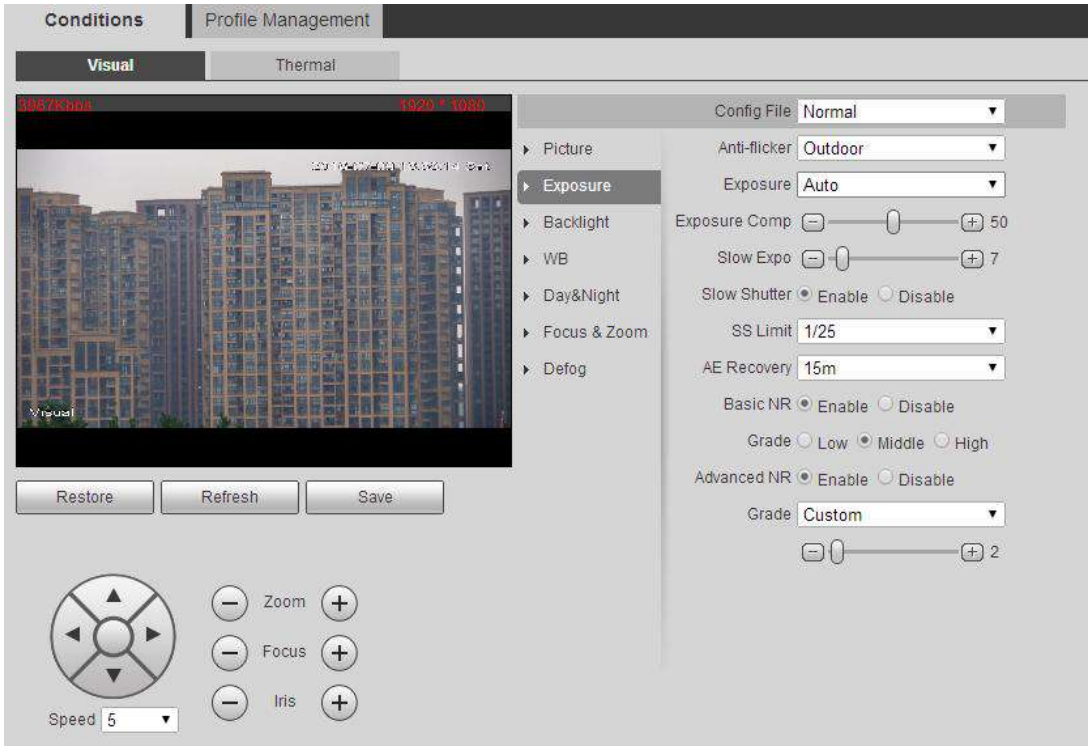



Figure 6-3

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-3 for more details.

| Parameter | Note |
|---|---|
| Anti-flicker | ● 50Hz：When AC power is 50Hz, according to the scene brightness, auto adjust exposure and ensure no cross stripe in the image.<br>● 60Hz：When AC power is 60Hz, according to the scene brightness, auto adjust exposure and ensure no cross stripe in the image.<br>● Outdoor: It can switch exposure mode under this mode, and realize the effect of corresponding exposure mode. |

| Parameter | Note |
|---|---|
| Exposure mode | It is to set the camera exposure mode, including auto/manual/iris priority/shutter priority, see the details below:<br>● In auto exposure mode, the image overall brightness can auto adjust within normal exposure range according to different scene brightness.<br>● In manual exposure mode, it can manually adjust gain value and shutter value, besides it supports long exposure as well.<br>● In iris priority mode, iris value is fixed, it can auto realize best brightness according to the mode that it drives exposure time first and followed by driving gain.<br>● In shutter priority mode, the image overall brightness can auto adjust within normal exposure range according to different scene brightness and adjustment shutter range by priority. If image brightness is still not proper, and meanwhile gain value has reached threshold, then auto adjust gain value again to make the image normal. |
| Exposure Comp | Adjust the image brightness via adjusting brightness value of exposure target, which is to apply to different scenes. |
| Slow Expo | It is to set the speed of exposure adjustment. |
| Gain upper limit | It is to limit the max gain of the camera. |
| Slow Shutter | In the low illuminance environment, it is to capture image via extending auto exposure time, which can effectively reduce image noise, however, it may generate smear for the mobile object; it is optional only in auto mode. |
| SS Limit | It is to limit the min shutter value of the camera. |
| AE Recovery | After manually adjusting "iris＋"or "iris－", recover back to the exposure mode before adjustment regularly. |
| Basic NR<br>Grade | It is used to restrain noise, the higher the level is, the smaller the noise becomes, and the image seems smooth than before. |
| Advanced NR<br>Grade | It is used to restrain noise, the higher the level is, the smaller the noise becomes, and it may generate smear for mobile objects. |

Sheet 6-3

Step 3

Click "Save" to make config valid.

**Backlight**

Step 1

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

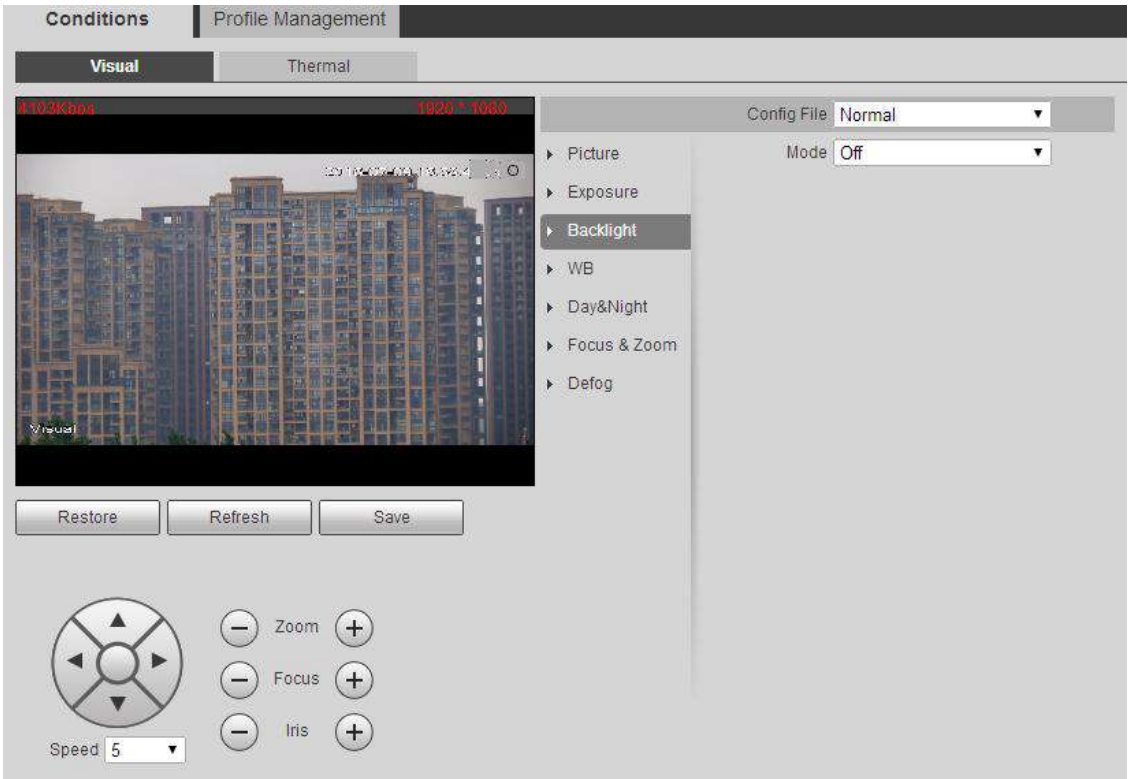



Figure 6-4

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-4 for more details.

| Parameter | Note |
|---|---|
| Mode | It supports four modes below:<br>● BLC<br>In the environment with intense contrast between bright and dark, such as backlighting environment, it will auto adjust image brightness to make the main image clear to see.<br>● HLC<br>It will auto adjust image brightness when there is quite intense light source in the image, which is to improve the image influence caused by overexposure.<br>● WDR<br>In the environment with intense contrast between bright and dark, auto adjust image contrastness to make both bright area and dark area clear to see.<br>● Self-adaptive<br>It can auto adjust image brightness according to environment, which is to make the main image clear to see. |

Sheet 6-4

Step 3

Click “Save” to make config valid.

**WB**

Step 1

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

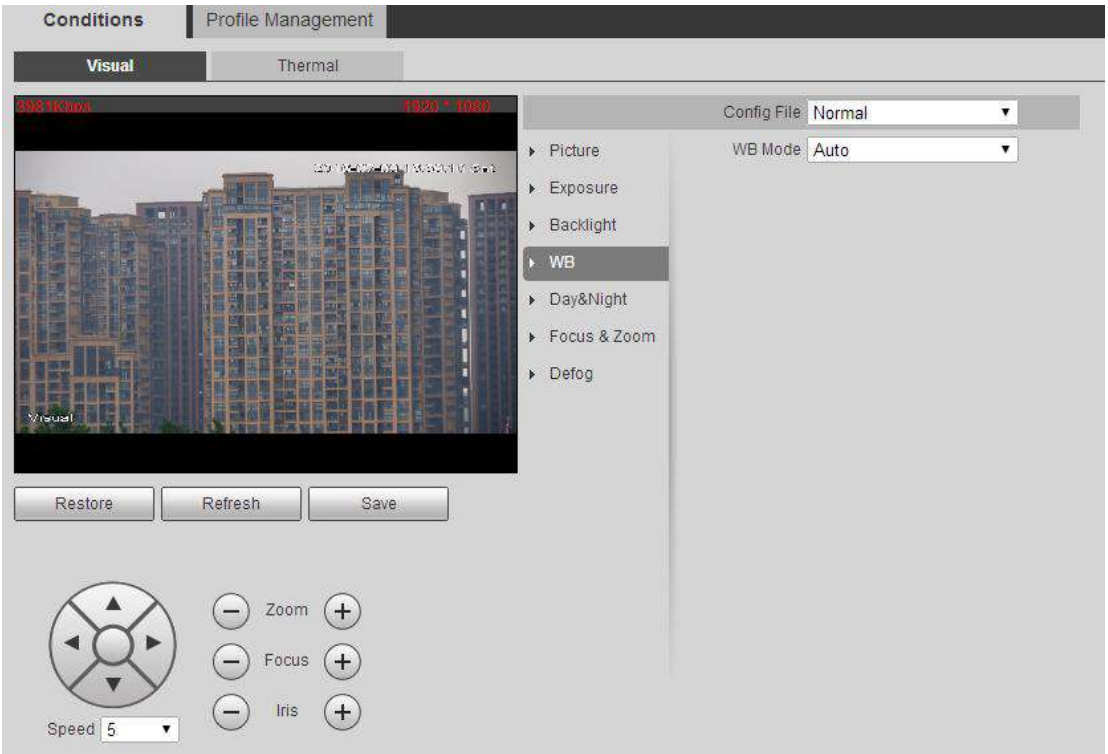



Figure 6-5

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-5 for more details.

| Parameter | Note |
|---|---|
| WB mode | ● It is to set the camera WB mode, which includes auto, manual, ATW, outdoor, indoor, outdoor auto, sodium lamp auto and sodium lamp.<br>● It can manually input red gain and blue gain value during manual mode. |

Sheet 6-5

Step 3

Click “Save” to make config valid.

**Day & Night**

Step 1

Click “Day&Night” and the system will display the interface of “Day&Night”, which is shown in Figure 6-6.

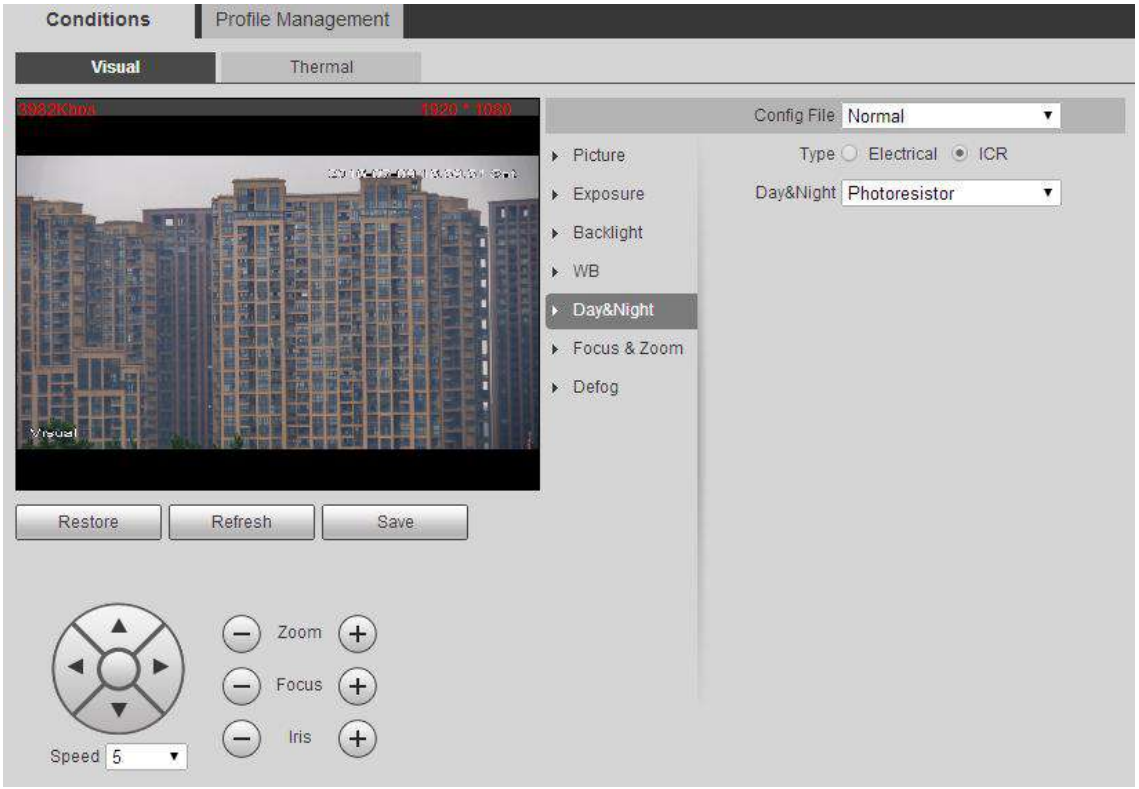



Figure 6-6

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-6 for more details.

| Parameter | Note |
|---|---|
| Type | It is to set the camera day & Night mode, including electrical and ICR. |
| Day&Night mode | It is to set the camera day & night mode, including black & white, color, auto and Photoresistance. |
| Sensitivity | It is to set the day & night sensitivity. |

Sheet 6-6

**Focus & Zoom**

Step 1

Click “Focus&Zoom” and the system will display the interface of “Focus&Zoom”, which is shown in Figure 6-7.

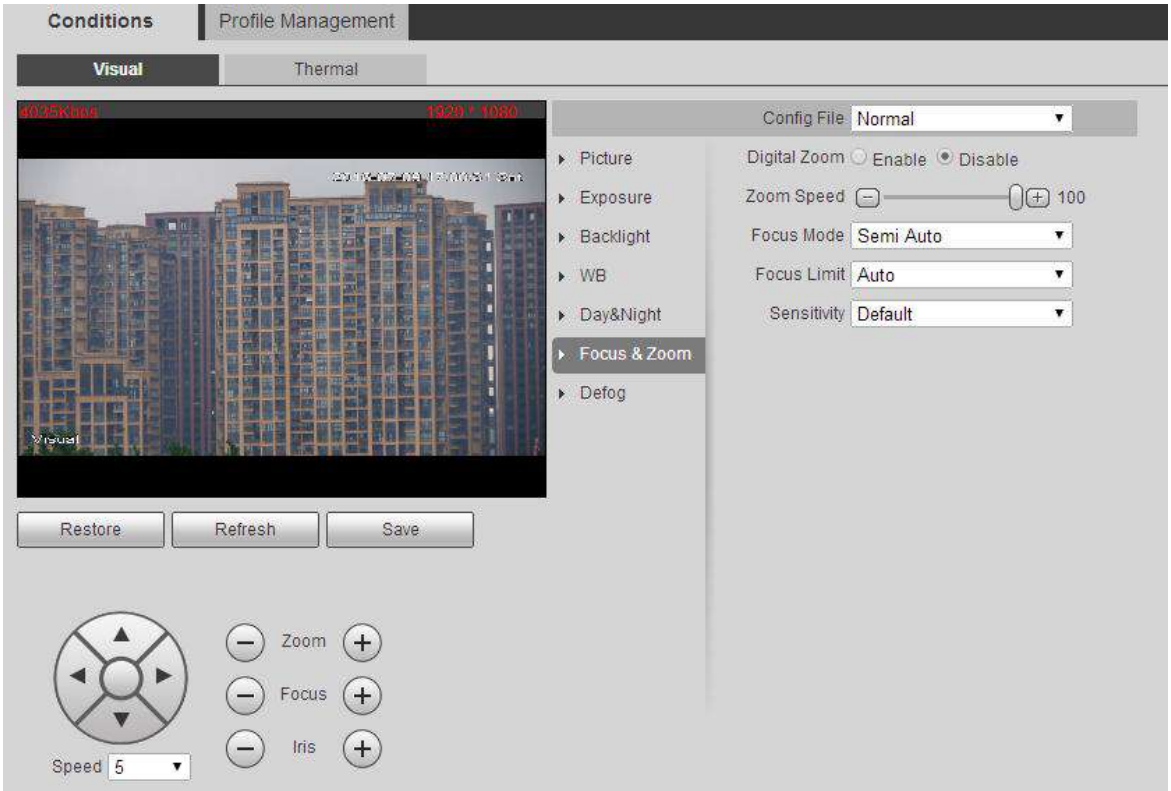



Figure 6-7

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-7 for more details.

| Parameter | Note |
|---|---|
| Digital zoom | Select it to enable digital zoom function. |
| Zoom speed | It is to set camera zoom speed, the bigger the value is, the faster the zoom speed will become. |
| Focus mode | It is to set camera focus mode, including auto, manual and semi auto.<br>Auto<br>Full auto mode, it will auto trigger focus if there is image moving or object changes and image becomes blurry in the scene.<br>Semi-auto<br>Manually trigger focus, including pressing focus button, zoom trigger focus, preset trigger focus, 3D position trigger focus and PTZ rotation trigger focus.<br>Manual<br>It the mode is selected as manual, then it won't manually focus; it needs to click  and  to manually focus to make the image clear. |

| | |
|---|---|
| Focus limit | It is to set the camera focus distance, and avoid focusing on the enclosure due to the too short focusing distance, meanwhile it can change focus speed via changing focusing distance. |
| Sensitivity | It is to set the camera focusing sensitivity, it is easier to trigger focus with higher sensitivity; on the contrary, and it will be harder to trigger focus with lower sensitivity. |

Sheet 6-7

Step 3

Click “Save” to make config valid.

**Defog**

Step 1

Click “Defog” and the system will display the interface of “Defog”, which is shown in Figure 6-8.

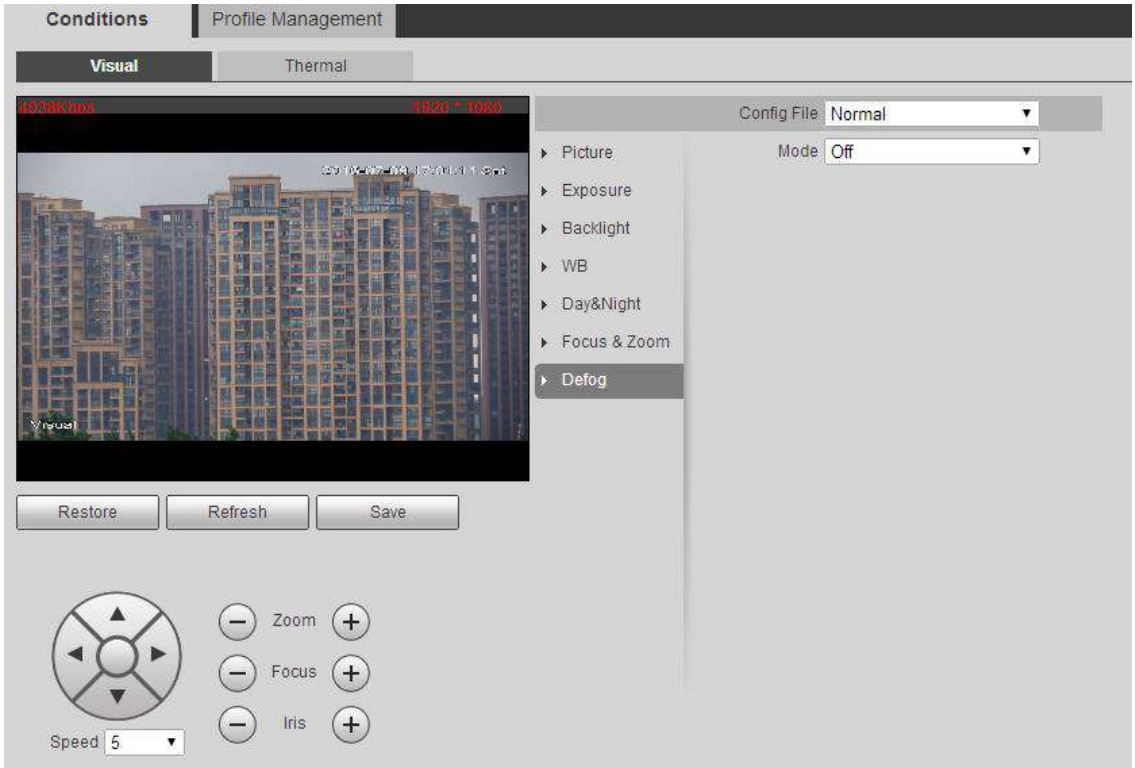



Figure 6-8

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-8 for more details.

| Parameter | Note |
|---|---|
| Mode | It is to set the camera defog mode, you can select Auto and Off. It is Off by default |
| Intensity | It is to set the camera defog intensity; you can select low, medium and high. It is medium by default. |

Sheet 6-8

### 6.1.1.2 **Thermal**

It can set indoor, outdoor and general scene, it can set and check config and effect in corresponding scene after selecting proper scene .

Step 1

Select “Setup > Camera > Conditions > Thermal” and the system will display the interface of “Thermal”, which is shown in Figure 6-9.

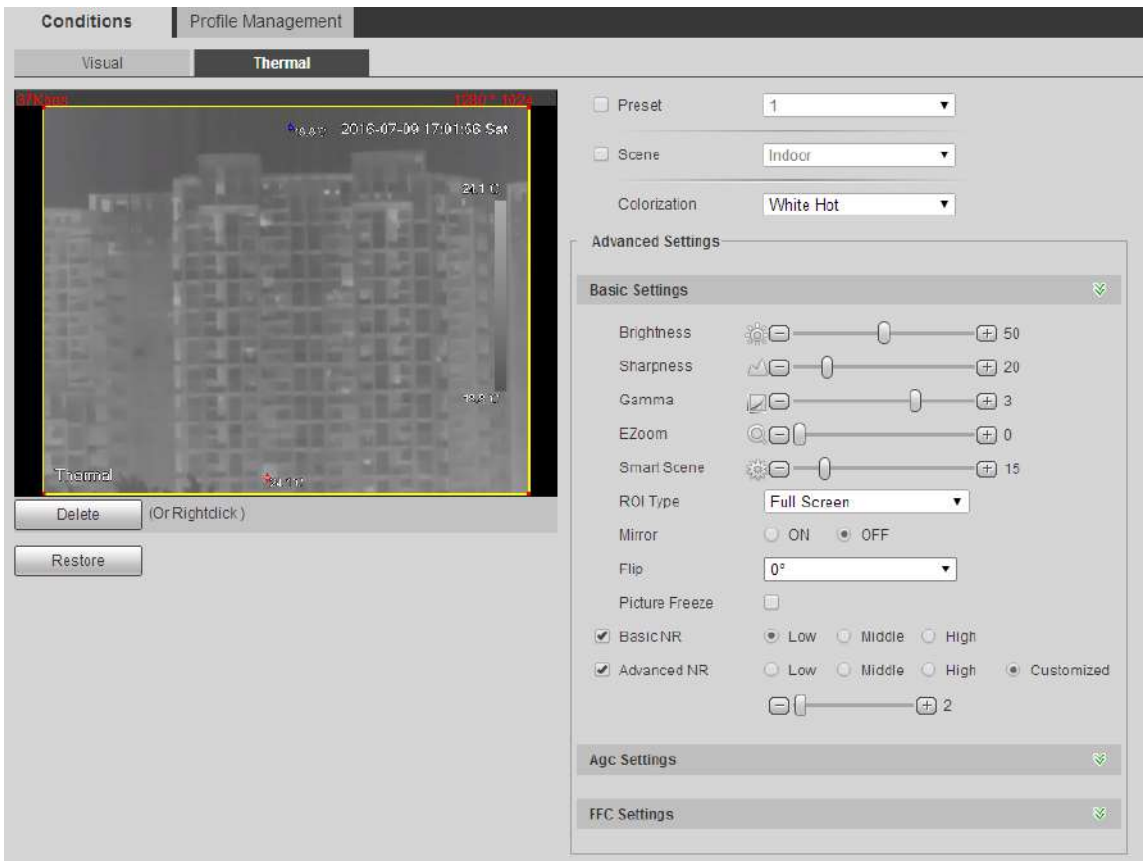



Figure 6-9

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-9 for more details.

| Parameter | Note |
|---|---|
| Preset | It is to select preset. |
| Scene | A package of video config parameter, which can be used for image optimization in different scenes. |

| Parameter | Note |
| --- | --- |
| Colorization | It is able to add color to the IR image, there are 14 colors to select:<br>White Hot:<br>In grayscale image, the place is brighter with higher temperature.<br>Black Hot：<br>In grayscale image, the place is brighter with lower temperature.<br>Fusion:<br>The color is concentrated within color range of purple-red-yellow; it becomes purpler with lower temperature, and yellower with higher temperature.<br>Rainbow:<br>The color is concentrated within color range of blue-green-red-yellow; it becomes bluer with lower temperature, and yellower with higher temperature.<br>Globow:<br>The color is concentrated within color range of red-yellow; it becomes redder with lower temperature and yellower with higher temperature.<br>Ironbow 1:<br>The color is concentrated within color range of blue-purple-red-yellow; it becomes bluer with lower temperature and yellower with higher temperature.<br>Ironbow 2:<br>Color distribution is close to Ironbow 1, but brightness is lower than Ironbow 1.<br>Sepia:<br>The main color is brown; the place with higher temperature becomes brighter.<br>Color 1:<br>The color is concentrated within color range of purple-red-yellow-green; it becomes purpler with lower temperature, and bluer with higher temperature.<br>Color 2:<br>The color is concentrated within color range of blue-red-yellow; it becomes bluer with lower temperature, and yellower with higher temperature.<br>Icefire:<br>The object with high temperature appears red in the color image, the object with low temperature show blue. Generally it can be used as warning mode.<br>Rain:<br>The color is concentrated within color range of purple-blue-green-yellow-red; it becomes purpler with lower temperature, and redder with higher temperature.<br>Red Hot:<br>The color is mainly wine red, the place with higher temperature becomes brighter.<br>Green hot:<br>The color is mainly aquamarine, the place with higher temperature becomes brighter.<br>The default is white hot. |

| Parameter | Note |
|---|---|
| Brightness | It is to adjust image overall brightness via linear adjustment mode. The larger the value is, the brighter the image becomes. Please note the video may become hazy if the value is too high.<br>The value ranges from 0 to 100. The recommended value ranges from 40 to 60. The default value is 50. |
| Sharpness | The value here is to adjust the edge of the video. The larger the value is, the clearer the edge is and vice versa. Please note there is noise if the value here is too high. The value ranges from -20 to 100. The recommended value ranges from 5 to 50. The default value is 10. |
| Gamma | It is to adjust the contrast of the scene. It will enhance the contrast of bright area for image (high temperature area) when the value is bigger than 0. It will enhance the contrast of dark area for the image when the value is smaller than 0. |
| EZoom | It can zoom in part of the area in the scene to get clear view. |
| Smart Scene | The temperature measurement information of the image can be well saved through smart scene function (for example, the gray scale gradient difference between two objects can represent the temperature difference between them). The image contrast will be weakened to some extent.<br>The value ranges from 0~100, default is 15. |
| ROI Type | It is able to select such modes as: center 25%, center 50%, center 75%, custom, full screen, ground, horizon and sky. The image brightness and definition within the selected ROI (regional image quality enhancement) become higher, but it appears correspondingly blurry within the non ROI area. |
| Mirror | It is to set left and right flip of the image. |
| Flip | The function can be used to change the direction of video monitoring. You can select normal and inverted, it is normal by default. |
| Picture freeze | The picture will directly display the preset when calling preset after the picture Freeze, besides, there is no rotation during the process. |
| Basic NR | It is used to restrain the noise, the higher the level is, the smaller the noise becomes, the picture seems blurrier than before. |
| Grade | |
| Advanced NR | It is used to restrain the noise, the higher the level is, the smaller the noise becomes, it may generate smear for moving object. |
| Grade | |

| Parameter | Note |
|---|---|
| AGC | It is to set the image auto gain, ranging from 0～255. |
| AGC Max Gain | It is to the image max gain, ranging from 0～255. The bigger the value is, the bigger the image contrastness becomes, but with bigger noise. |
| AGC Plateau | It is to set the image AGC Plateau, ranging from 0～255. |
| Gain Mode | It can select three modes: low temperature, high temperature and auto, it is low temperature by default. Under auto mode, it can set threshold of switching low to high temperature, low temperature area percentage, threshold of switching high to low temperature, high temperature area percentage.<br>• In low temperature mode, when the temperature exceeds ‘‘threshold of switching low temperature to high temperature’’, and the pixel that temperature exceeds the threshold is greater than ‘‘low temperature area percentage, then it will switch to high temperature mode.<br>• In high temperature mode, when temperature is lower than ‘‘the threshold of switching high temperature to low temperature’’, and the pixel that temperature is lower than threshold is greater than ‘‘high temperature area percentage’’, then it will auto switch low temperature mode.<br>• Set rule: the temperature threshold of switching low to high temperature needs to be higher than that of switching high to low temperature, the sum of two area percentage needs to be bigger than 100. |
| FFC Mode | Auto: it means that the thermal shutter is regularly corrected according to the switch cycle which is set by users. |
| FFC Switch Cycle | It means how much time it takes to implement shutter correction for once, it is valid only when FFC mode is auto. |
| Shutter Correction | Click it to trigger shutter correction for once. |

**Note:**

Click “Default” to restore “camera condition” back to initial state.

6.1.1.3 **Profile Management**

There are three types of profile management which are “Normal”, “Full Time” and “Schedule”.

Step 1

Select “Setup > Camera > Conditions > Profile Management” and the system will display the interface of “Profile Management”, which is shown in Figure 6-10.

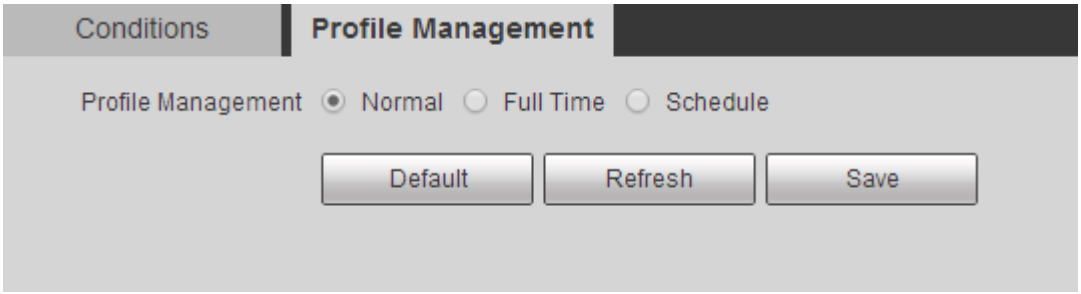



Figure 6-10

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-10 for more details.

| Parameter | Note |
|---|---|
| Profile Management | It includes three types below:<br>Normal<br>The video will be monitored according to the normal config of the camera when selecting “Normal”.<br>Full Time<br>When selecting “Full Time”, it can set day or night mode and video monitoring will be implemented according to the day or night mode of the camera config<br>Schedule<br>When selecting “Schedule”, it can select a period of time as day config and another period of time as night config. For example it can set day config from 6:00 to 18:00 next day, and it can set night config from 18:00 to 5:00 next day.<br>**Note:**<br>Please refer to “6.1.1.1 Visual” for checking and making config file. |

Sheet 6-10

### 6.1.2 Video

It needs to set the video, snapshot, overlay, ROI and path of the camera.

6.1.2.1 **Video**

**Note:**

Video config can be divided into thermal and visual, the config method for both is similar. Here we take visual config as an example to introduce operation steps.

Step 1

Select “Setup > Camera > Video > Video Stream” and the system will display the interface of “Visual”, which is shown in Figure 6-11.

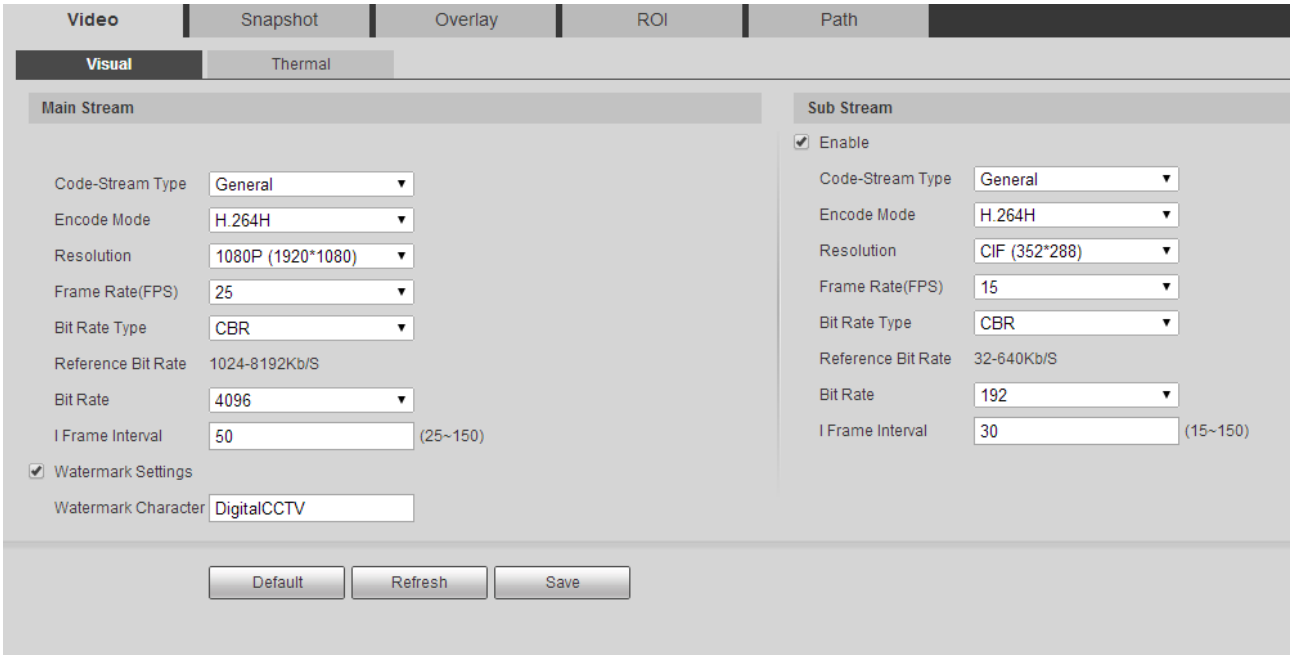



Figure 6-11

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-11 for more details.

| Parameter | Note |
|---|---|
| Code-Stream Type | • ACF means using different fps to record. Use high fps rate for important event while using low fps rate for scheduled event. The frame rate of dynamic detection video and alarm video can be set separately.<br>• Main stream includes general, motion and alarm stream, sub stream only supports general stream. Select different code stream for different record events. |
| Encode Mode | • It can select H.264B, H.264, H.264H, MJPEG encode<br>• H.264B: baseline profile encoding mode.<br>• H.264：Main Profile encoding mode.<br>• H.264H：High Profile encoding mode.<br>• MJPEG: In this encode mode, the video needs large bit stream value to guarantee the video definition. You can use the max bit stream value in the recommended bit to get the better video output effect. |
| Resolution | There are several types of resolutions. For each resolution, the recommended bit stream value is different. |
| FPS | PAL: 1～25f/s，NTSC: 1～30f/s..<br>The frame rate may vary due to different resolutions. |

| Parameter | Note |
|---|---|
| Bit Rate Type | There are two options: VBR and CBR.<br>• You can set video quality only in VBR mode rather than CBR.<br>• Under MJPEG mode, only CBR is available for bit stream control mode. |
| Reference Bit Rate | Recommend users to set a reasonable bit rate value range according to the resolution and frame rate they have set. |
| Bit Rate | • In VBR, the bit rate here is the max value. In CBR, the value is fixed.<br>• Refer to “Reference Bit Rate”, which can provide the best reference range. |
| I Frame Interval | Here you can set the P frame amount between two I frames, the range can be changed according to the frame rate, the max is 150, and the recommended value is 2 X of frame rate. |
| Watermark Setting | • By calibrating watermark, to see if video is modified. Select Watermark function. Default watermark is Digital CCTV.<br>• Watermark character can only be number, letter, _, - within 128 characters. |
| Watermark Character | |

Sheet 6-11

Step 3

Click “Save” to make config valid.

6.1.2.2 **Snapshot**

**Note:**

Snapshot can be divided into two parts of config which are visual and thermal; the config method of both is similar. Here we take visual as an example to introduce operation steps.

Step 1

Select “Setup > Camera > Video > Snapshot”. The system will display the interface of “Visual”, which is shown in Figure 6-12.

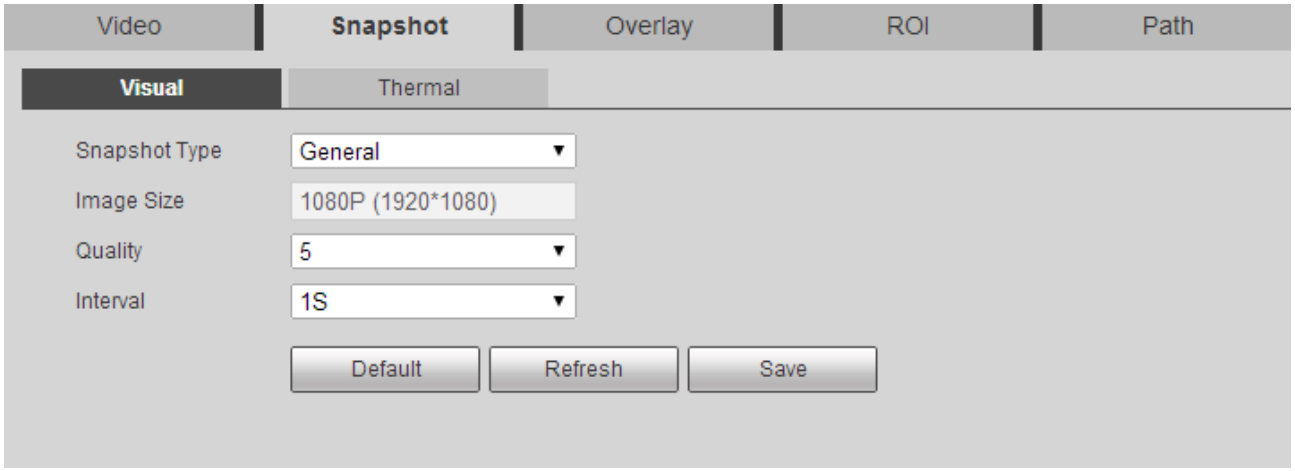



Figure 6-12

Step 2

Please configure info of each parameter according to actual needs; please refer to sheet 6-12 for more details.

| Parameter | Function |
|---|---|
| Snapshot type | There are two modes: General and Event.<br>● General: to snapshot in the area set by the schedule.<br>● Event: to snapshot after triggering motion detect and local alarm, |
| 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 to select. Level 6 is the best. |
| Interval | It is to set snapshot frequency. The value ranges from 1s to 7s, customized. |

Figure 6-12

Step 3

Click “Save” to make the config valid.

6.1.2.3 **Video Overlay**

**Note:**

Video overlay can be divided into two parts of config which are visual and thermal; the config method of both is similar. Here we take visual as an example to introduce operation steps.

Step 1

Select “Setup > Camera > Video > Overlay >Visual > Privacy Masking”. The system will display the interface of “Privacy Masking”, which is shown in Figure 6-13.

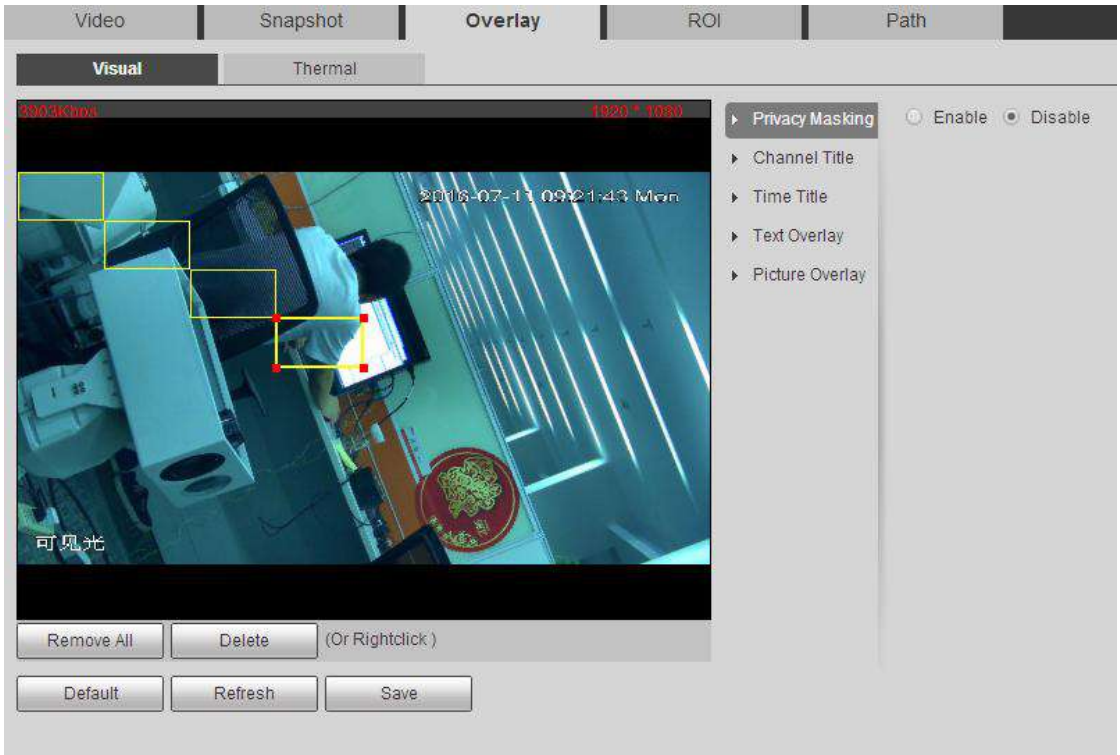



Figure 6-13

Step 2

Select “Enable”.

Step 3

Press the left mouse button and drag a rectangular box.

Note:

It can draw max 4 boxes.

Step 4

Click “Save” to make setting valid.

**Channel Title**

Select “Setup > Camera > Video > Overlay >Visual > Channel Title”. The system will display the interface of “Channel Title”, which is shown in Figure 6-14.

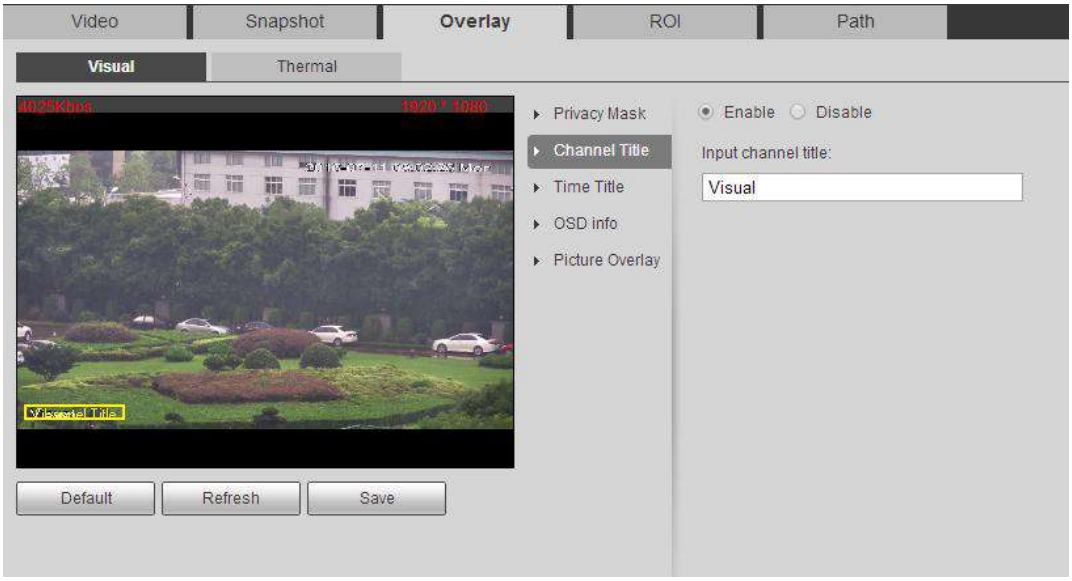



Figure 6-14

Step 2

Select “Enable” and input channel title.

Step 3

Drag the channel title (yellow box) to proper location on the preview image.

Step 4

Click “Save” to make settings valid.

**Time Title**

Select “Setup > Camera > Video > Overlay >Visual >Time Title”. The system will display the interface of “Time Title”, which is shown in Figure 6-15.

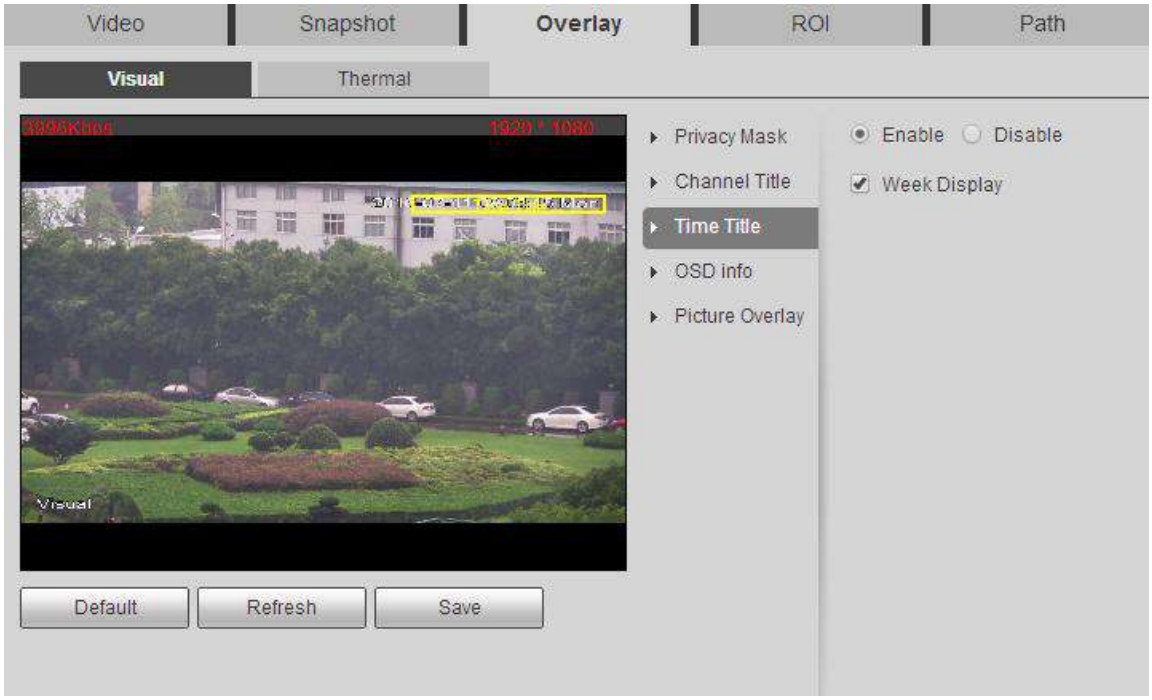



Figure 6-15

Step 2

Select “Enable”.

Step 3

Select “Week Display” (Optional).

Step 4

Drag time title (yellow box) to proper location on the preview image.

Step 5

Click “Save” to make settings valid.

**Text Overlay**

**Note:**

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

Step 1

Select “Setup > Camera > Video > Overlay >Visual >Text Overlay”. The system will display the interface of “Text Overlay”, which is shown in Figure 6-16.

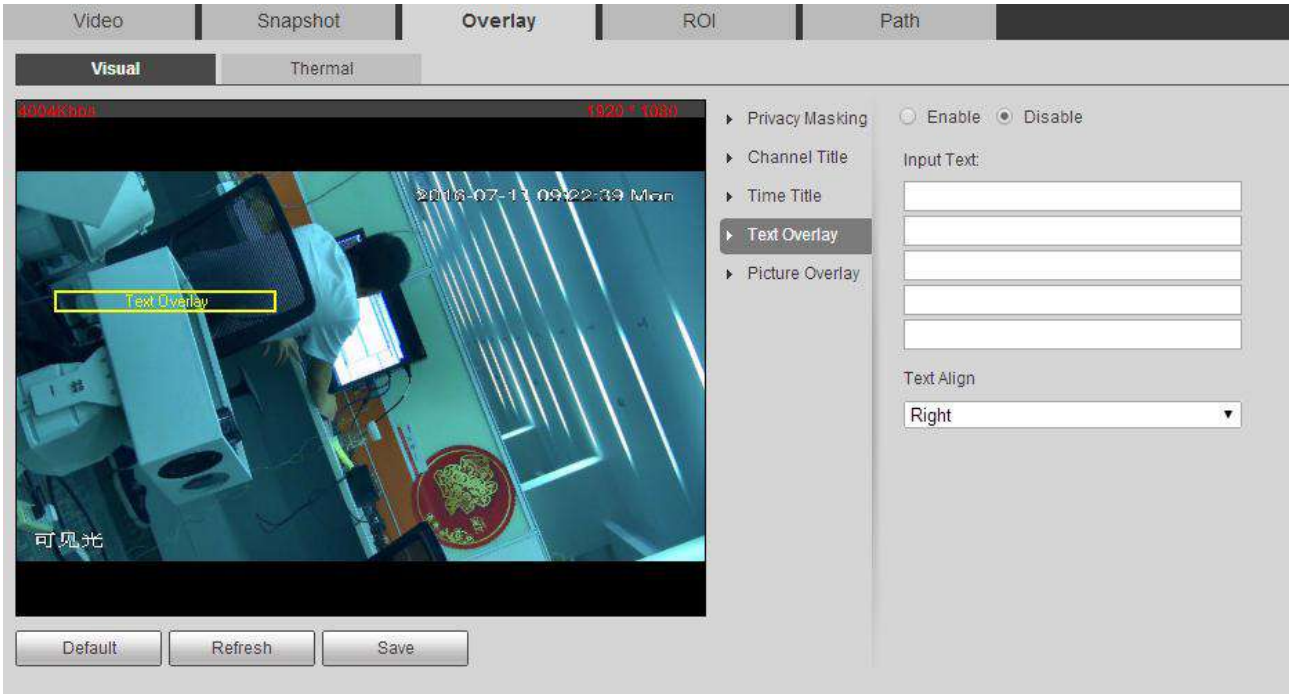



Figure 6-16

Step 2

Select “Enable”, input text and select alignment mode.

Step 3

Drag text (yellow box) to proper location on the preview image.

Step 4

Click “Save” to make settings valid.

**Picture Overlay**

**Note:**

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

Step 1

Select “Setup > Camera > Video > Overlay >Visual >Picture Overlay”. The system will display the interface of “Picture Overlay”, which is shown in Figure 6-17.

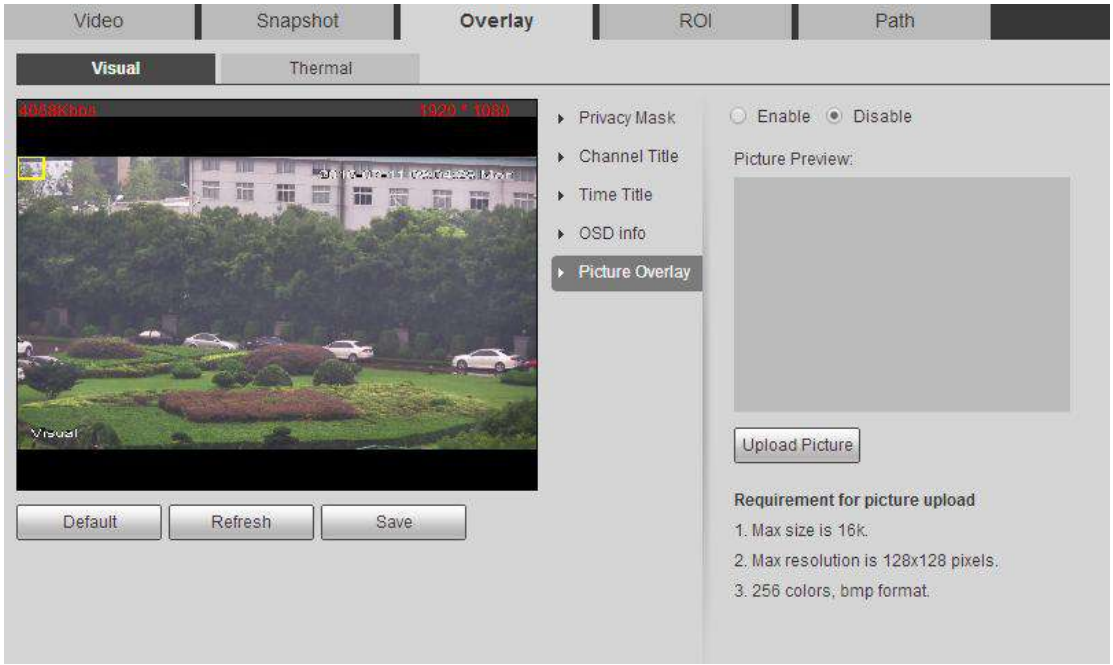



Figure 6-17

Step 2

Select “Enable”.

Step 3

Click “Upload Picture” to select picture.

Step 4

Drag picture (yellow box) to proper location on the preview image.

Step 5

Click “Save” to make settings valid.

**Privacy Mask**

Step 1

Select “Setup > Camera > Video > Overlay > Privacy Mask”. The system will display the interface of “Privacy Mask”, which is shown in Figure 6-18.

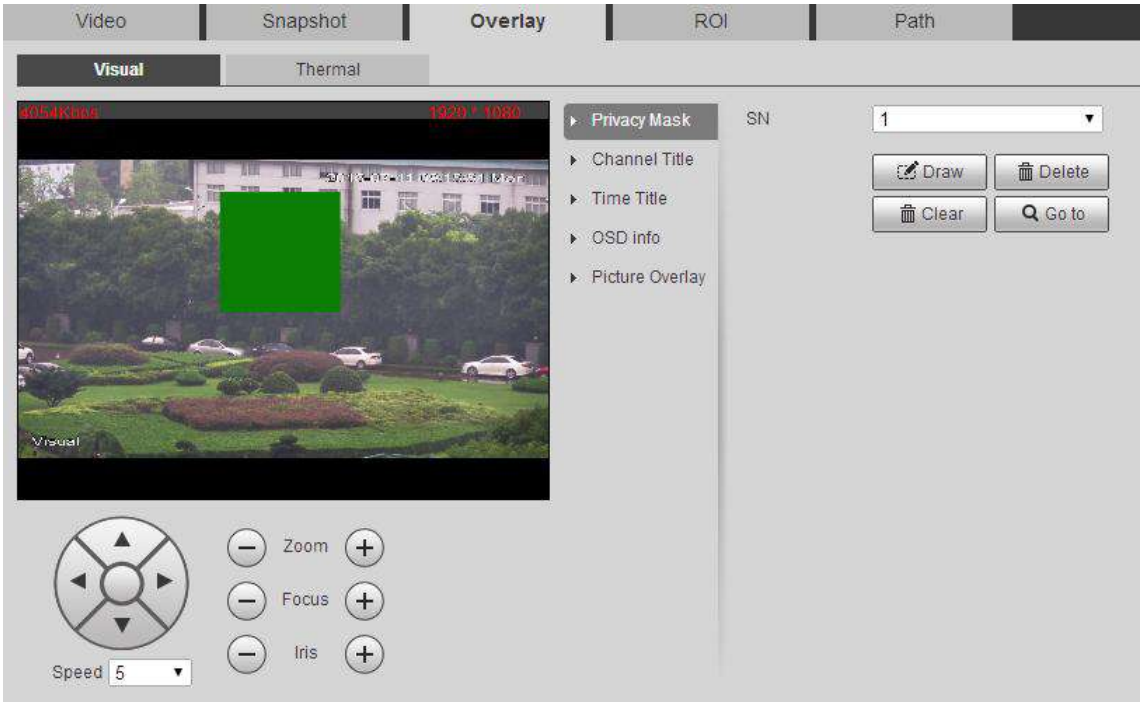



Figure 6-18

Step 2

Select “SN” of privacy mask.

Step 3

Adjust the preview image to proper location.

Step 4

Click “Draw” and press left mouse button to drag rectangular box in the preview image.

**OSD Info**

Step 1

Select “Setup > Camera > Video > Overlay > OSD Info”. The system will display the interface of “OSD Info”, which is shown in Figure 6-19.

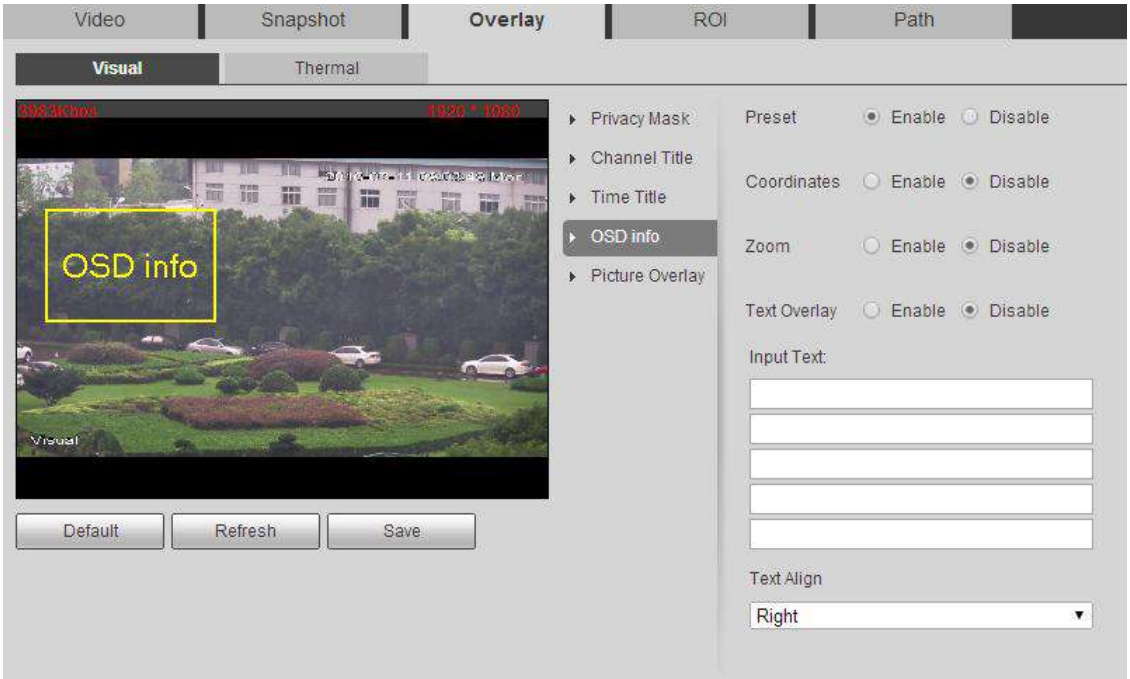
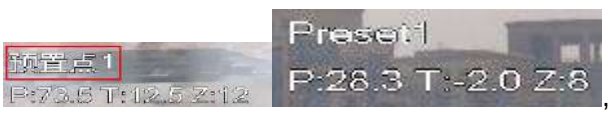
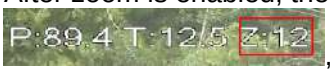



Figure 6-19

Step 2

It is to set parameters, please refer to sheet 6-13 for more details.

| Parameter | Note |
|---|---|
| Preset | After preset is enabled, it will switch to the preset which has been set in the preview image, it will display preset info, such as   , the info will disappear after 3 seconds. |
| PTZ Coordinates | It will display current PTZ coordinates info after it is enabled. |
| Zoom | After zoom is enabled, the interface will display zoom info, such as   , which means 12x zoom rate. |
| Text Overlay | It will display the input text info after selecting ‘‘Text Overlay’’. |
| Input Text | |
| Text Align | It is to display text align info. |

Sheet 6-13

Step 3

Click “Save” to make config valid.

6.1.2.4 **ROI**

**Note:**

Video stream can be divided into two parts of config which are visual and thermal; the config method of both is similar. Here we take visual as an example to introduce operation steps.

Step 1

Select “Setup > Camera > Video >ROI”. The system will display the interface of “ROI”, which is shown in Figure 6-20.

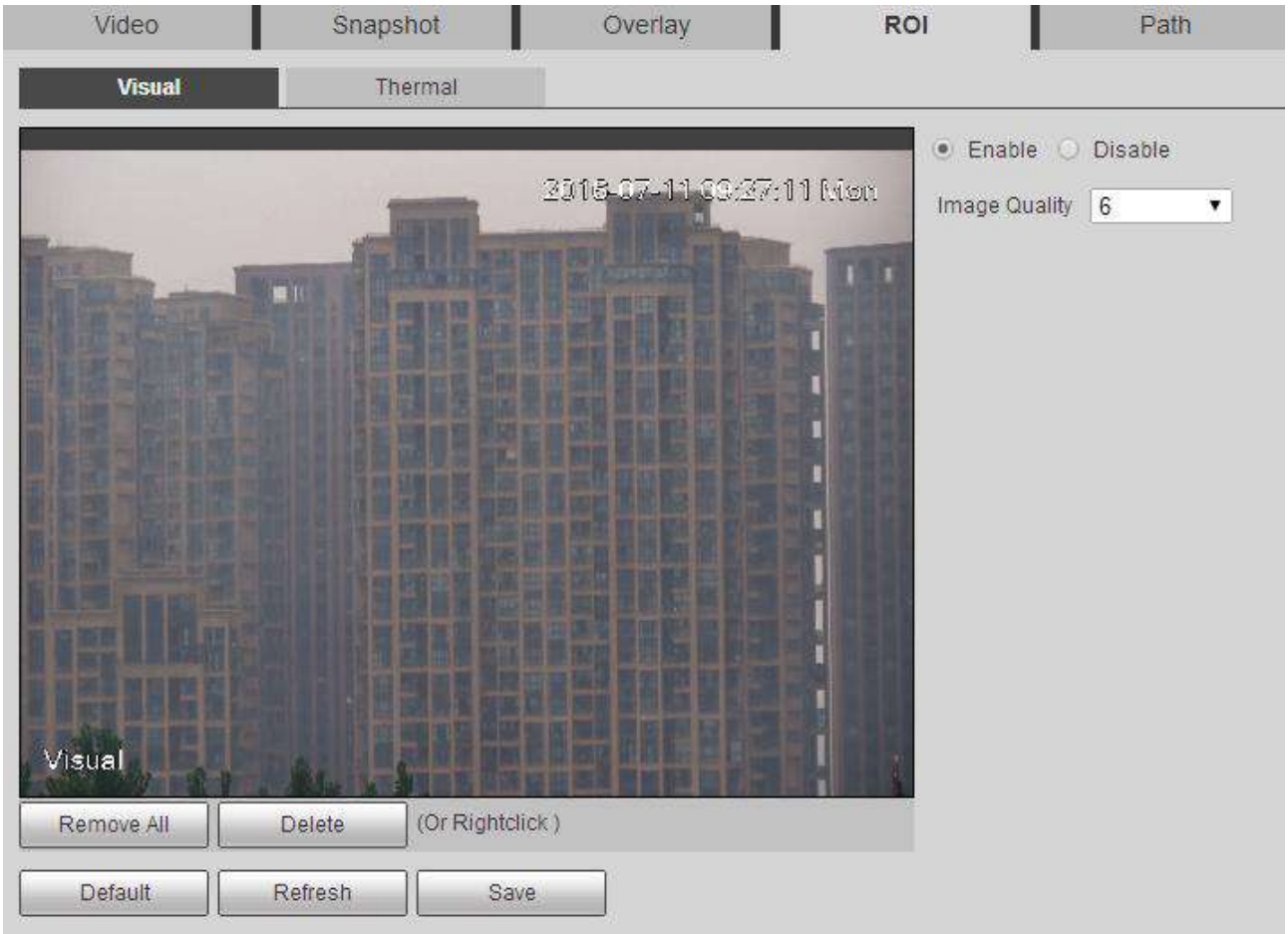



Figure 6-20

Step 2

Select “Enable” to enable ROI function.

Step 3

Press the left mouse button to draw an area in the video image. It can set max four areas.

Click “Delete” to delete the corresponding area.

Click Remove All” to remove all the areas.

Step 4

Set the image quality of corresponding ROI.

Step 5 Click “Save” to make config valid.

6.1.2.5 **Path**

The storage path is linked to snapshot and record in the preview interface, which can set the storage path of live snapshot and live record respectively.

The storage path is linked to snapshot, download and clip in the playback interface, which can set the storage path of playback snapshot, playback download and video clip respectively.

Step 1

Select “Setup > Camera > Video >Path”. The system will display the interface of “Path”, which is shown in Figure 6-21.

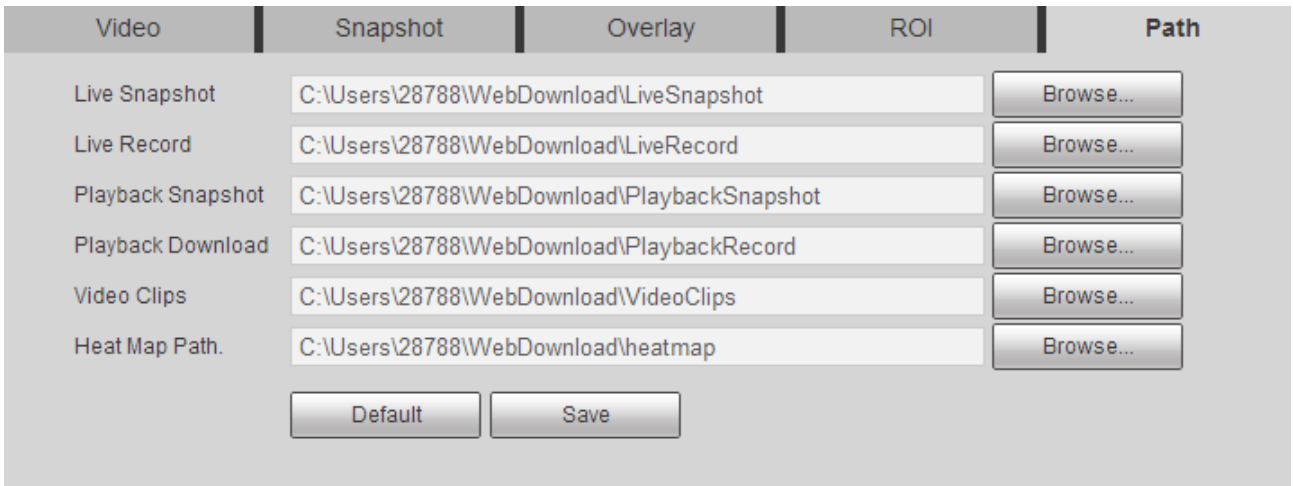



Figure 6-21

Step 2

Set corresponding storage path respectively, please refer to sheet 6-14 for default path.

| Parameter | Note |
|---|---|
| Live Snapshot | Default storage path C:\Documents and Settings\Administrator\WebDownload\LiveSnapshot。 |
| Live Record | Default storage path C:\Documents and Settings\Administrator\WebDownload\LiveRecord。 |
| Playback Snapshot | Default storage path C:\Documents and Settings\Administrator\WebDownload\PlaybackSnapshot。 |
| Playback Download | Default storage path C:\Documents and Settings\Administrator\WebDownload\PlaybackRecord。 |
| Video Clips | Default storage path C:\Documents and Settings\Administrator\WebDownload\VideoClips。 |
| Heat Map Path | Default storage path |

| Parameter | Note |
|---|---|
| | C:\Documents and Settings\Administrator\WebDownload\heatmap。 |

Sheet 6-14

**Note:**

The Administrator appeared in default path is the account to log in PC.

Step 3

Click “Save” to make config valid.

### 6.1.3 Audio

Step 1

Select “Setup > Camera > Audio”. The system will display the interface of “Audio”, which is shown in Figure 6-22.

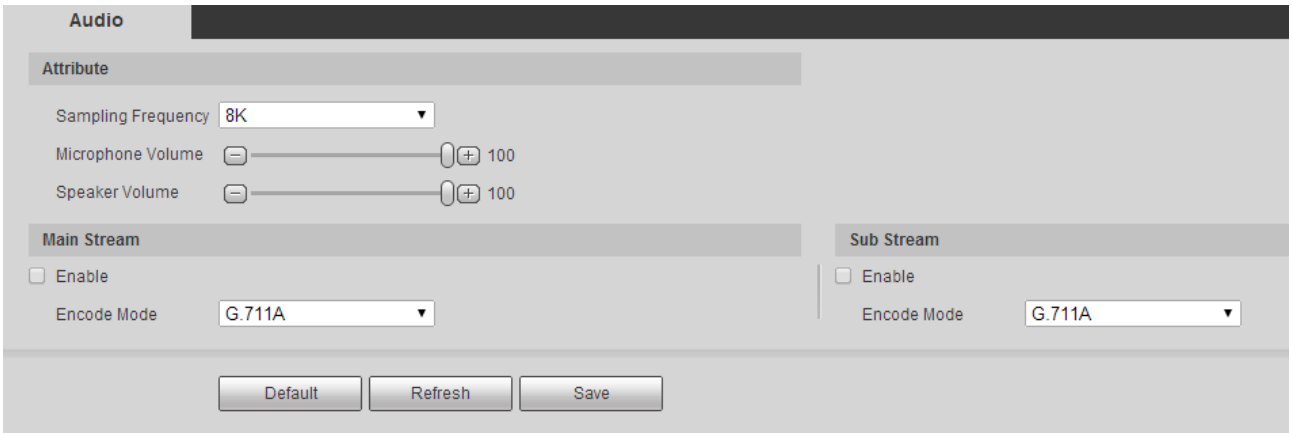



Figure 6-22

Step 2

Configure info of each parameter according to the actual needs, please refer to sheet 6-15 for more details.

| Parameter | Function |
|---|---|
| Sampling Frequency | It includes two sampling frequencies: 8K and 16K. |
| Microphone Volume | It is to set microphone volume. |
| Speaker Volume | It is to set speaker volume. |
| Audio enable | • Check “Enable”: the stream is A/V composite stream, otherwise it contains video image only.<br>• Audio is available only when video function is enabled. |

| | |
|---|---|
| Encode mode | The audio encode mode includes G.711A and G.711Mu.<br>The default is G.711A.<br>**Note:**<br>The audio encode mode set here can make both audio stream and talk valid at the same time. |

Sheet 6-15

Step 3

Click ‘Save” to make config valid.

## 6.2 Network

### 6.2.1 TCP/IP

You need to configure the IP address and DNS server of the camera, and make sure it can be intercommunicated with other devices in the networking.

Step 1

Select “Setup > Network > TCP/IP” in the system menu and the system will display the interface of “TCP/IP”, which is shown in Figure 6-23.

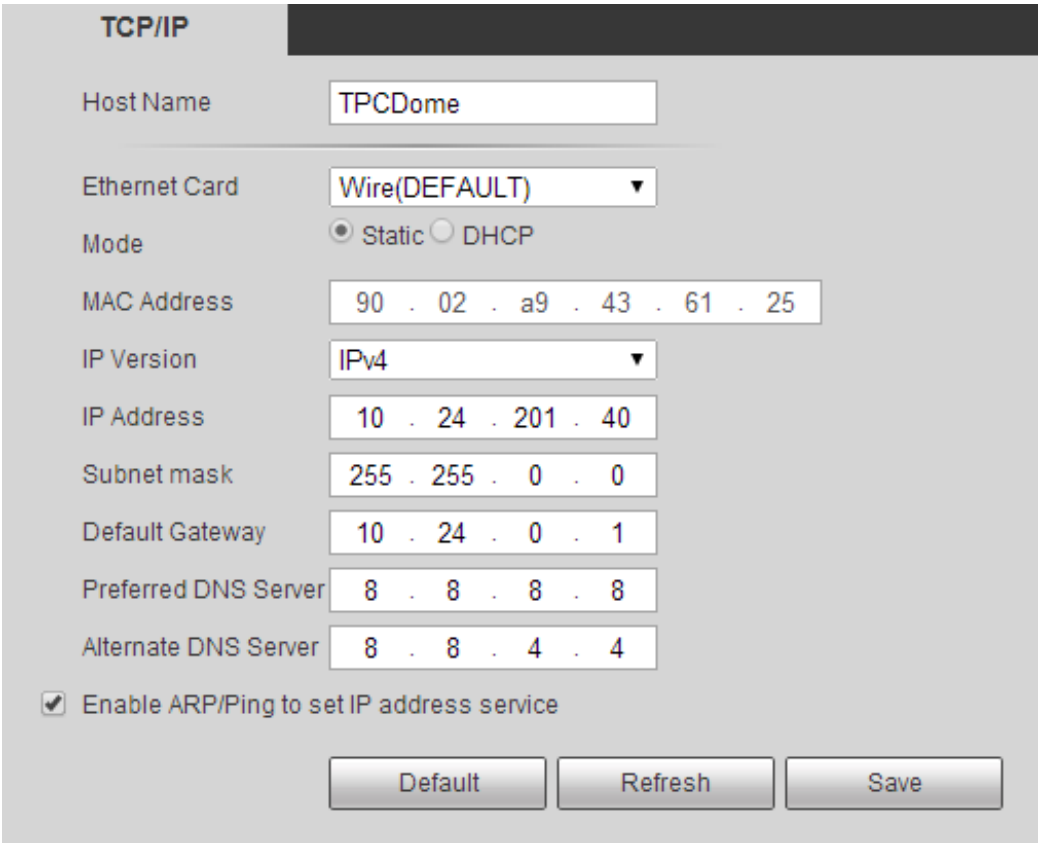



Figure 6-23

Step 2

It is to configure the parameter of TCP/IP, please refer to sheet 6-16 for more details.

<table>
<tr><th>Parameter</th><th colspan="2">Function</th></tr>
<tr><td>Host Name</td><td colspan="2">It is to set the name of current host device. It supports max 15 characters.</td></tr>
<tr><td>Ethernet Card</td><td colspan="2">Please select the Ethernet card to be configured. Default is wired.<br>Note:<br>You can modify the default Ethernet card if there is more than one card. It needs to reboot the device to activate the new setup once you modify the default setup.</td></tr>
<tr><td>Mode</td><td colspan="2">There are two modes: static mode and the DHCP mode. Select DHCP mode, it will auto search IP, and at this moment you cannot set IP/subnet mask/gateway; Select static mode, you need to manually set IP/subnet mask/gateway.</td></tr>
<tr><td>Mac Address</td><td colspan="2">It is to display Mac address of the device.</td></tr>
<tr><td>IP Version</td><td colspan="2">It is to select IP version. IPV4 or IPV6. Currently both of IP addressed are supported, and you have access to them.</td></tr>
<tr><td>IP Address</td><td colspan="2">Input corresponding numbers to modify IP address.</td></tr>
<tr><td>Subnet Mask</td><td colspan="2">It is to set according to actual situation, the prefix of subnet is number, input 1~255, the prefix of subnet identifies a specific network link; generally it includes a layering structure.<br>Note:<br>The device will make legal inspection to all the IPv6 addresses, make sure the IP address and default gateway have to be in the same segment, which means the field of specific length of subnet prefix has to be the same to pass inspection.</td></tr>
<tr><td>Default Gateway</td><td>It is to set according to actual situation, make sure it is in the same segment with IP address.</td><td rowspan="3">Note:<br>There is no default gateway for IPv6 version. For preferred DNS and alternate DNS, input 128 bit, it can’t be null.</td></tr>
<tr><td>Preferred DNS Server</td><td>DNS server IP address.</td></tr>
<tr><td>Alternate DNS Server</td><td>Alternate IP address of DNS server</td></tr>
</table>

| | |
|---|---|
| Enable ARP/Ping to set IP address service | You can use ARP/Ping command to modify or set the device IP address if you know the device MAC address after it is enabled.<br>When the function is enabled by default, it can set device IP via ping package with specific length within 2 minutes during device reboot, the service will be closed after two minutes, and the service will be closed immediately after successfully setting IP. Ping package can't set IP when the function is not enabled. |

Sheet 6-16

Step 3

Click "Save" to make config valid.

**An example of setting device IP via ARP/Ping**

Step 1

Acquire unoccupied IP address, it needs to make sure the device and PC in the same LAN.

Step 2

Acquire physical address of the device from device label.

Step 3

Input following commands on the computer.

| System | Command |
|---|---|
| Windows syntax | Arp -s <IP Address> <MAC><br>Ping -l 480 -t < IP Address ><br>Example:<br>Arp -s 192.168.0.125 11-40-8c-18-10-11<br>Ping -l 480 -t 192.168.0.125 |
| UNIX/Linux/Mac syntax | Arp -s <IP Address> <MAC><br>Ping -s 480 < IP Address ><br>Example:<br>Arp -s 192.168.0.125 11-40-8c-18-10-11<br>Ping -s 480 192.168.0.125 |
| Win7 syntax | netsh i i show in<br>netsh -c "i i" add neighbors Idx <IP Address> <MAC><br>ping -l 480 -t < IP Address ><br>Example:<br>netsh i i show in<br>netsh -c "i i" add neighbors 12 192.168.0.125 11-40-8c-18-10-11<br>ping -l 480 -t 192.168.0.125 |

Sheet 6-17

Step 4

Cut off the power and reboot the device or reboot the device via network.

Step 5

The setting is successful when there is similar info of "Reply from 192.168.0.125…" which is output from computer command line. You can close the command line.

Step 6

Input http://<IP address> in the browser to visit

### 6.2.2 Connection

#### 6.2.2.1 **Connection**

Here you can configure max connection port quantity and each port value in this interface.

Step 1

Select “Setup > Network > Connection > Connection” and the system will display the interface of “Connection”, which is shown in Figure 6-24.

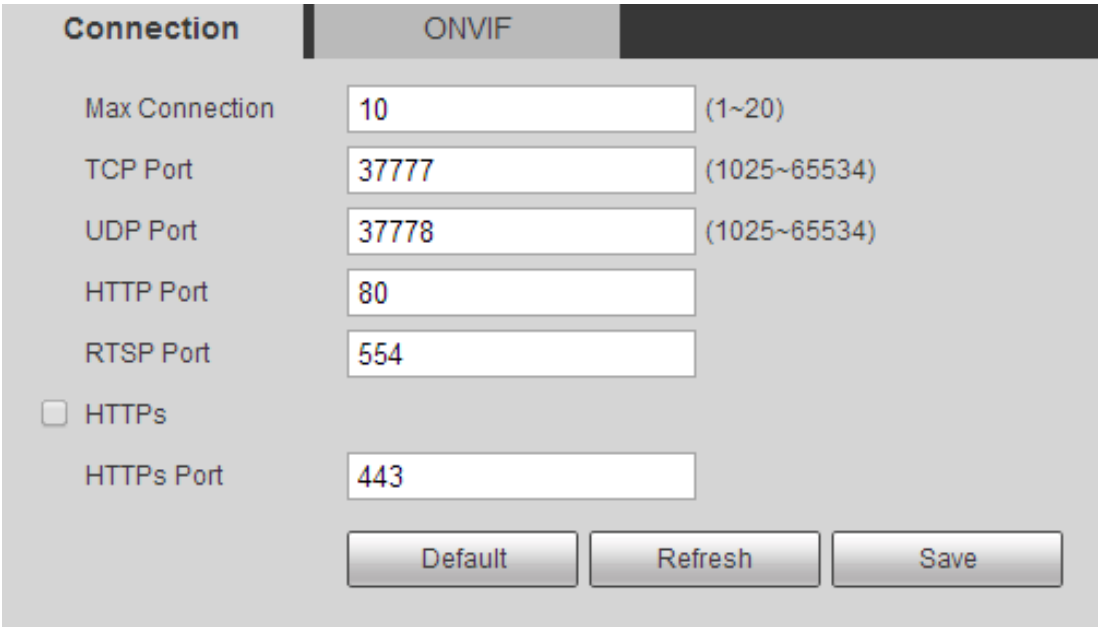



Figure 6-24

Step 2

It is to configure the value of each port, please refer to sheet 6-18 for more details.

| Parameter | Function |
|---|---|
| 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.<br>● 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.<br>● User uses BlackBerry need to set encode mode to H.264B, resolution to CIF and turn off audio.<br>URL format is:<br>rtsp://username:password@ip:port/cam/realmonitor?channel=1&subtype=0<br>username/password/IP and port.<br>The IP is device IP and the port default value is 554. You can leave it in blank if it is the default value.<br>Follow standard RTP protocol and when encode mode is MJPEG; the max resolution only supports 2040*2040. |
| 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. |

Sheet 6-18

**Note:**

Except “Max Connection”, it needs to reboot the device to make it valid after modifying other parameter settings.

### 6.2.2.2 **ONVIF**

ONVIF（Open Network Video Interface Forum），this standard describes network video mode, interface, data type and data interaction mode. ONVIF Standard’s aim is to achieve a network video frame agreement and makes the network video products (including video front-end, video equipment, etc.) from different manufacturers completely compatible.

Step 1

Select “Setup > Network > Connection > ONVIF” and the system will display the interface of “ONVIF”, which is shown in Figure 6-25.

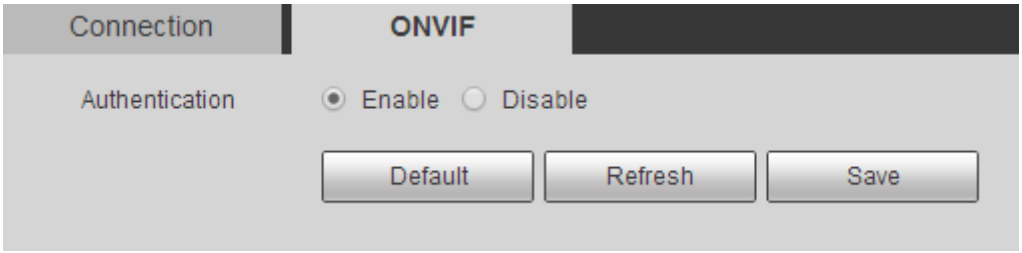



Figure 6-25

Step 2

Set “Authentication” as “Enable”.

Step 3

Click “Save” to make config valid.

### 6.2.3 PPPoE

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

Step 1

Select “Setup > Network > PPPoE” and the system will display the interface of “PPPoE”, which is shown in Figure 6-26.

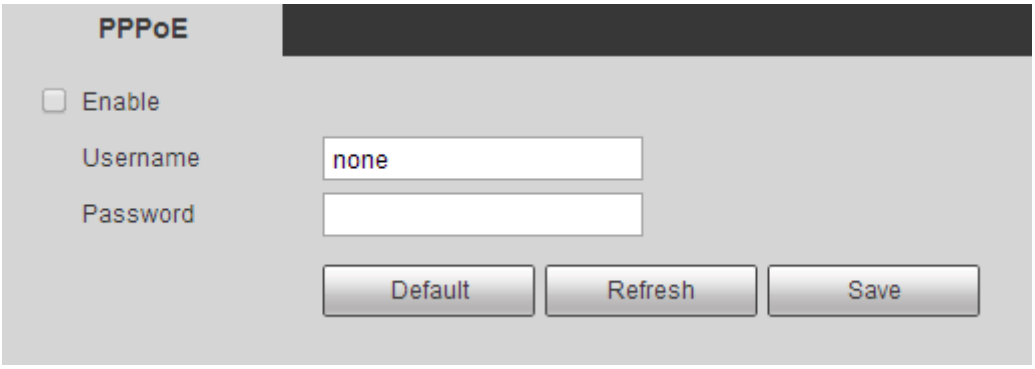



Figure 6-26

Step 2

Select “Enable”, input PPPoE user name and password.

Step 3

Click “Save” to make config valid.

The system will prompt that it is successfully saved and realtime display the acquired IP address of public network, which is shown in Figure 6-27. Users can get access to device via the IP address.

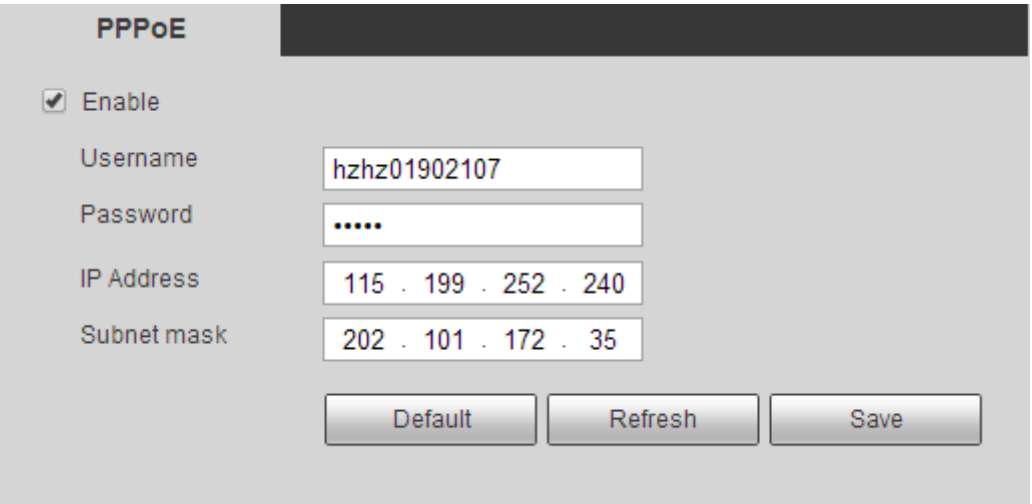



Figure 6-27

### 6.2.4 DDNS

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

**Note:**

- Please confirm if the device supports the type of DNS server before configuration and log in the website of DDNS service provider in the WAN PC to register domain name and so on.
  - It doesn't need to register domain name if the DDNS type is Private DDNS or Quick DDNS.
  - It needs to log in corresponding DDNS website to register user name, password, and domain name etc if the DDNS type is other types.
- After users successfully register and log in DDNS website, it can check all the info of connected devices under this registered user.

Step 1

Select "Setup > Network > DDNS" and the system will display the interface of "DDNS", which is shown in Figure 6-28.

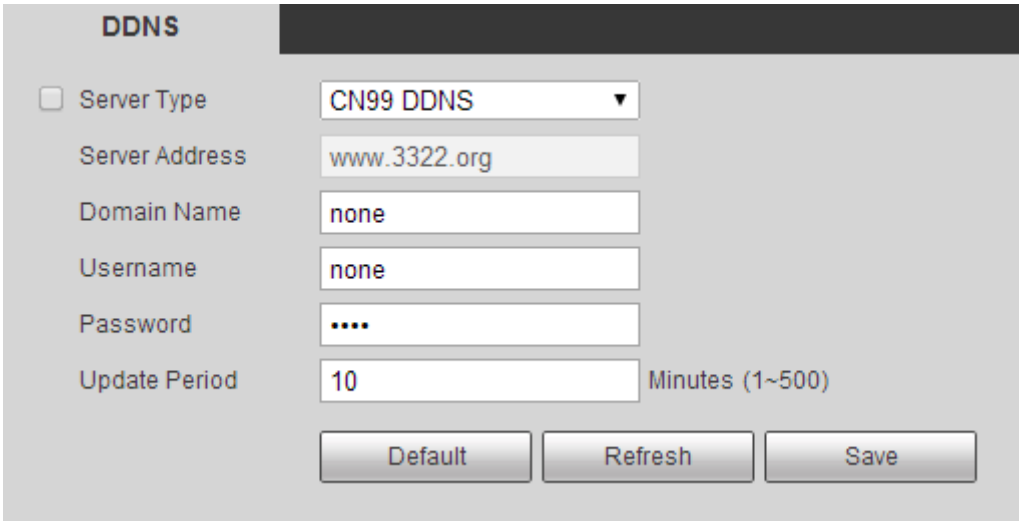



Figure 6-28

Step 2

Select “Server Type” and configure relevant parameters of DDNS according to actual situation.

If it is to select DDNS type as “QUICK DDNS”, please refer to sheet 6-19 for more details about DDNS config parameters.

| Parameter | Function |
|---|---|
| Server Address | The “Server Address” of QUICK DDNS has been configured by default, it doesn’t have to modify. |
| Mode | Default is auto, you can choose manual |
| Domain Name | The config has been completed by default, it doesn’t have to modify. |
| Test | It is used to test if the domain name is available. The parameter exists only when selecting “Mode” as “Manual”. |
| Username | The username you input to log in the server, optional. |

Sheet 6-19

1. Click “Test” after filling in, you can confirm if the domain name is successfully registered.
   Please implement step 2 if it is successful; if not, please check if the info of domain name is correct and clear the cache of browser.
2. Click “Save”.
3. Input complete domain name into the browser and press “Enter” button.
   It means config is successful if it can display the device WEB interface; if not, then it means config falied, please configure it again.
   Please refer to sheet 6-20 for configuring DDNS parameter if it is to select DDNS as other types.

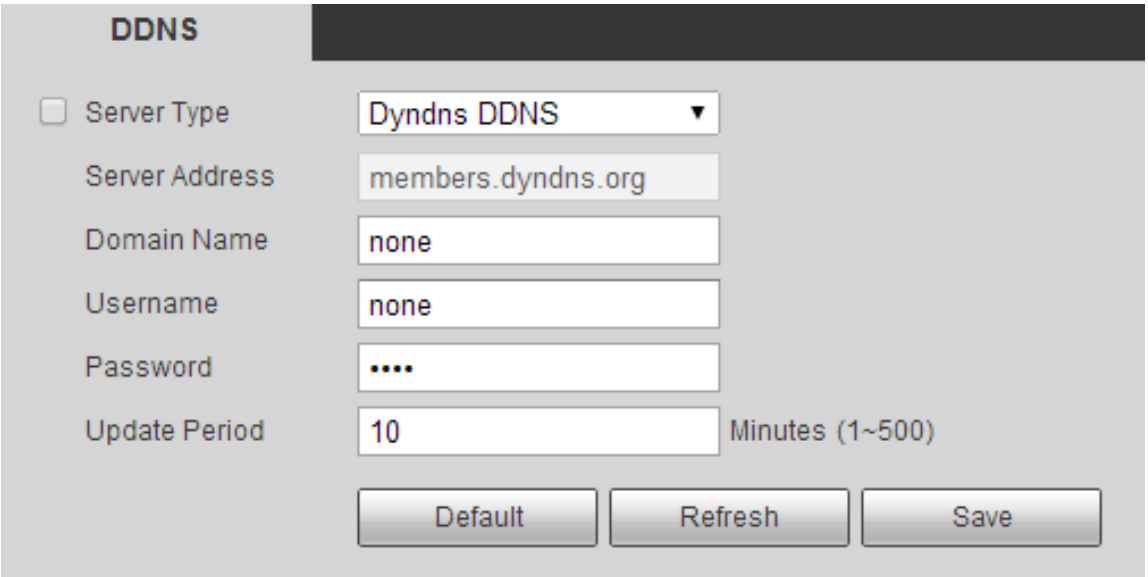



Figure 6-29

| Parameter | Function |
|---|---|
| DDNS Type | The following is the name and address of DDNS server provider, the corresponding relationship is as follows:<br>● Dyndns DDNS address：members.dyndns.org<br>● NO-IP DDNS address：dynupdate.no-ip.com<br>● CN99 DDNS address：members.3322.org<br>PRIVATE DDNS address：www.privateddns.com, for private DDNS server, its port number can be configured according to actual situation; it can realize device access with the form of domain name + port number. |
| Server Address | |
| Domain Name | It is the domain name which is registered by users on the website of DDNS service provider. |
| Username | Input the user name and password acquired from the DDNS service provider. Users need to register account on the website of DDNS server provider (including user name and password) |
| Password | |
| Update Period | After the update of designated DDNS is enabled, it will launch the interval of update request regularly, the unit is minute. |

Sheet 6-20

1. Click “Save” after filling in.
2. Input domain name into the browser of PC and press “Enter” button.
   It means config is successful if it can display the device WEB interface; if not, then it means config falied.

### 6.2.5 IP filter

It can set the users who can have access to the device via IP Filter.

- White list: Only the IP/MAC of users is in the white list, then can it have access to the device, otherwise it won't have access to the device.
- Black list: When the IP/MAC of users is in the black list, then other users can have access to the device except the users on the black list.
- It can only create white list or black list; you can't create both black list and white list at the same time.
- Users are not allowed to set the device IP/MAC as white list.
- MAC verification is valid only when the device IP and the IP of user PC are in the same LAN.

**Note:**

- MAC verification can only be limited according to the router MAC during the access of WAN.
- White list

Step 1

Select "Setup > Network >IP Filter" and the system will display the interface of "IP Filter", which is shown in Figure 6-30.




Figure 6-30

Step 2

Check corresponding box to enable white list or black list.

- Add the IP/MAC of user into the white list.

1. Click "Add IP/MAC" and the system will pop up a dialogue box of "Add IP/MAC".
2. Configure IP address info, click "Save". Please refer to sheet 6-21 for more parameter details.

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

Sheet 6-21

3. Select “White List” and click “Save”.
   Use the IP in white list to log in device WEB interface, it can successfully log in the device.

- Add the IP/MAC of user into black list.

1. Click “Add IP/MAC”.
   The system will pop up a dialogue box of “Add IP/MAC”.
2. Configure IP address info, click “Save”. Please refer to sheet 6-21 for more details.
3. Select “Black List” and click “Save”.
   Use the IP in the black list to log in the device WEB interface. The system will prompt that it has been added into the black list, so it failed to log in.

### 6.2.6 SMTP （E-mail)

By setting SMPT (E-mail), it will immediately send e-mail when alarm, video detection and abnormity happen.

When alarm, video detection and abnormity are triggered, it will send the Email to the server of addressee via SMPT server. The receiver can log in the server to receive email.

Step 1

Select “Setup > Network >SMPT” and the system will display the interface of “SMPT”, which is shown in Figure 6-31.

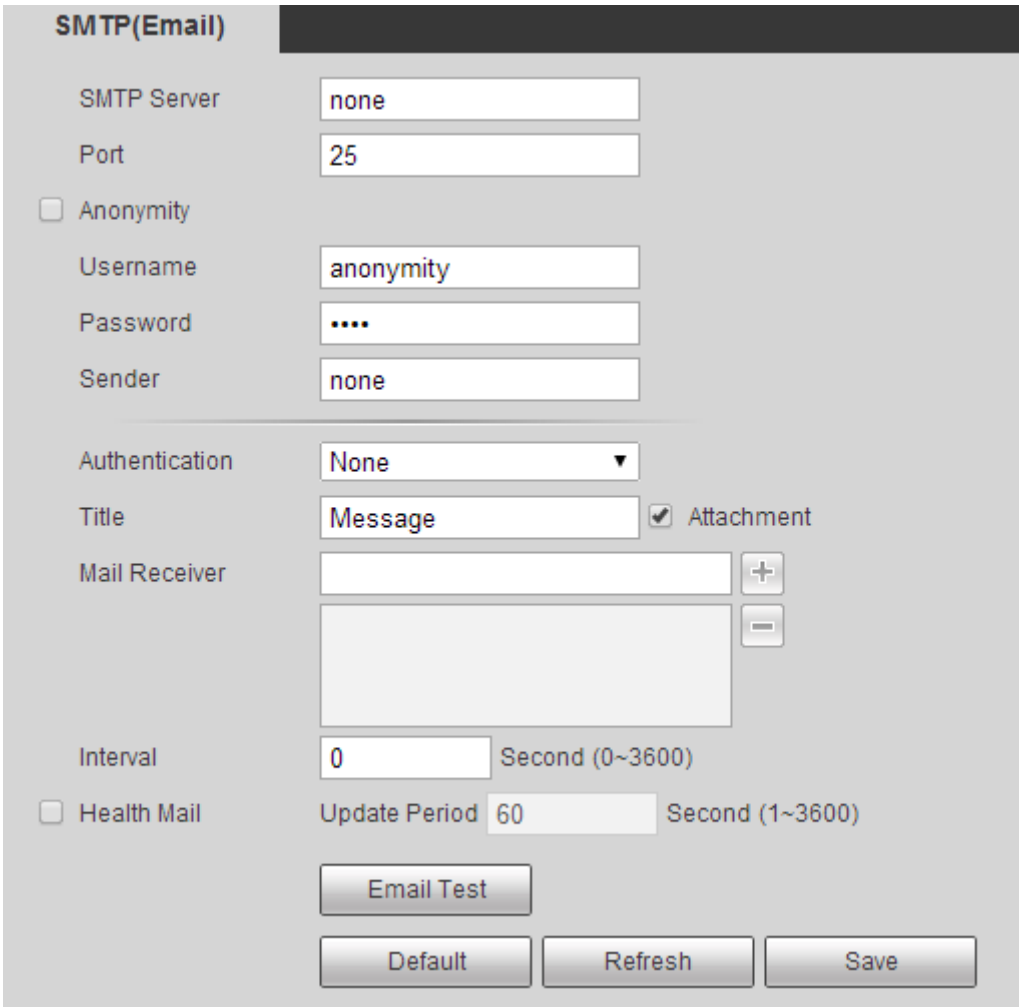



Figure 6-31

Step 2

Configure info of each parameter according to the actual needs, please refer to sheet 6-22 for more details.

| Parameter | Function |
|---|---|
| SMTP Server | Input server address and then enable this function. |
| Port | Default value is 25. You can modify it if necessary. |
| 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. |

| Parameter | Function |
|---|---|
| Sender | Sender email address. |
| Authentication (Encryption mode) | You can select SSL, TLS or none. |
| Title (Subject) | Input email subject here. |
| 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.<br>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 a email once to test the connection is OK or not .Before the email test, please save the email setup information. |

Sheet 6-22

Step 3

Click “Save” to make config valid.

### 6.2.7 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. See Figure 6-36.

In the Windows OS, From Start->Control Panel->Add or remove programs. Click the “Add/Remove Windows Components” and then select the “Network Services” from the Windows Components Wizard. Click the Details button and then check the “Internet Gateway Device Discovery and Control client” and “UPnP User Interface”. Please click OK to begin installation.

Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the network camera can auto detect it via the “My Network Places”.

Under manual mode, you can modify external port. Under auto mode, select idle port for auto port mapping without user modification.

The operation steps of configuring UPnP are as follows:

Step 1

Select “Setup > Network >UPnP” and the system will display the interface of “UPnP”, which is shown in Figure 6-32.

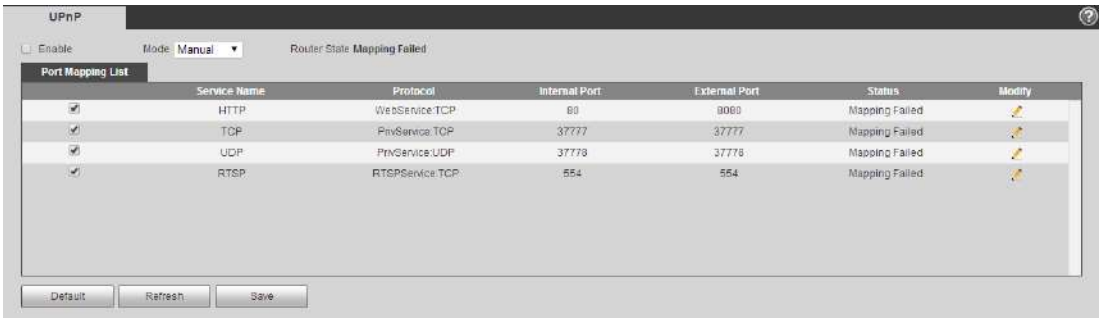



Figure 6-32

Step 2

Ckeck the box to enable UPnP function.

Step 3

Select mode.

UPnP is divided into two mapping modes which are auto and manual. As for manual mapping mode, it allows users to modify external ports, as for auto mapping mode, it selects unoccupied port to complete port mirroring, users don’t have to modify mapping.

Step 4

Click “Save” to make config valid.

### 6.2.8 SNMP

The SNMP allows the communication between the network management work station software and the proxy of the managed device. Please install the software such as MG MibBrowser 8.0c software or establish the SNMP service before you use this function. You need to reboot the device to activate the new setup.

Step 1

Select “Setup > Network >SNMP” and the system will display the interface of “SNMP”, which is shown in Figure 6-33 and Figure 6-34.

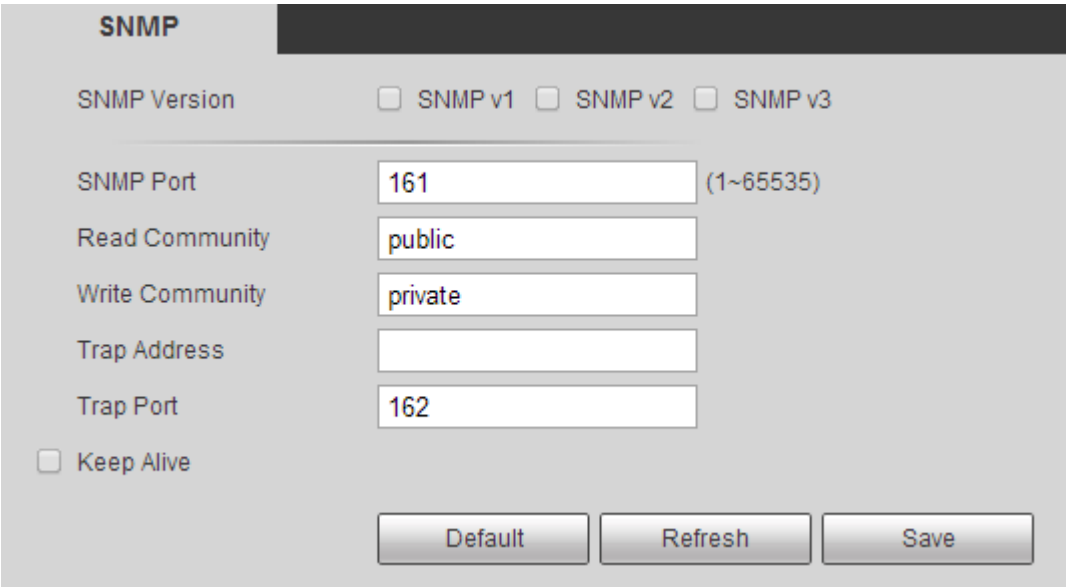

SNMP
SNMP Version
SNMP v1
SNMP v2
SNMP v3
SNMP Port
161
(1~65535)
Read Community
public
Write Community
private
Trap Address
Trap Port
162
Keep Alive
Default
Refresh
Save

Figure 6-33

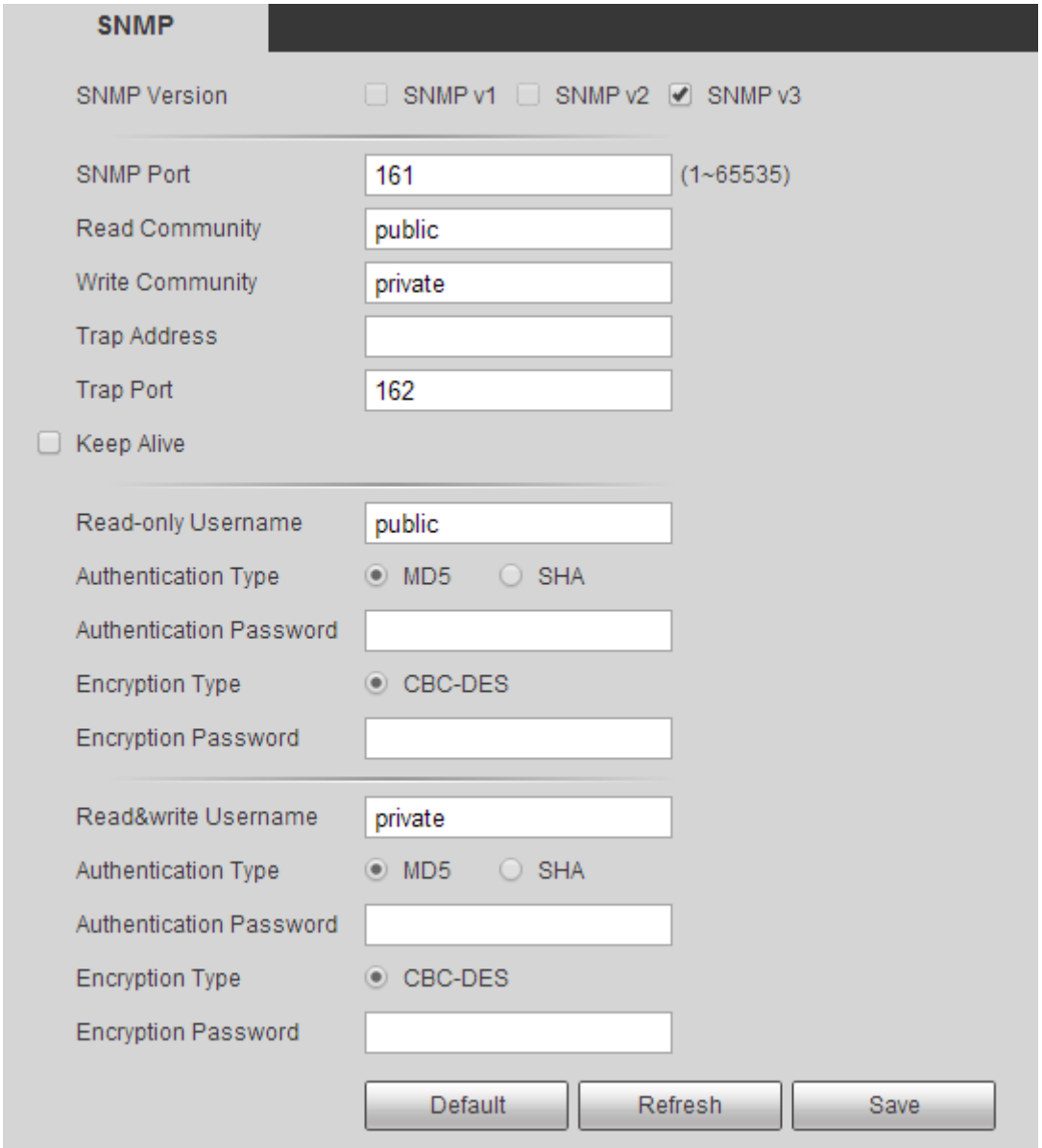



Figure 6-34

Step 2

Configure info of each parameter according to the actual needs, please refer to sheet 6-23 for more details.

| Parameter | Function |
|---|---|
| SNMP Version | ● Check SNMP v1, device only process v1 info.<br>● Check SNMP v2, device only process v2 info.<br>● 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.<br>Note: Only number, letter, _, and – supported. |
| Write community | Read/write access to all SNMP targets, default is private.<br>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 Address | Address where to send Trap message. |
| Trap Port | Port which send Trap message, default is 162, range 1~65535. |
| Read-only username | It is public by default.<br>Note:<br>The name can only be made up by number, letter and underline. |
| Read/write username | It is private by default.<br>Note:<br>The name can only be made up by number, letter and underline. |
| Authentication Type | It can select MD5 or SHA, it is MD5 by default. |
| Authentication Password | The password length is no less than 8 characters. |
| Encryption Type | It is CBC-DES by default. |
| Encryption Password | The password length is no less than 8 characters. |

Sheet 6-23

Step 3
Click “Save” to make config valid.

### 6.2.9 Bonjour

Bonjour is based on the multicast DNS service from the Apple. The Bonjour device can automatically broadcast its service information and listen to the service information from other device.
You can use the browse of the Bonjour service in the same LAN to search the network camera device and then access if you do not know the network camera information such as IP address.
You can view the server name when the network camera is detected by the Bonjour. Please note the safari browse support this function. Click the “Display All Bookmarks: and open the Bonjour, system can auto detect the network camera of the Bonjour function in the LAN.
Step 1
Select “Setup > Network >Bonjour” and the system will display the interface of “Bonjour”, which is shown in Figure 6-35.

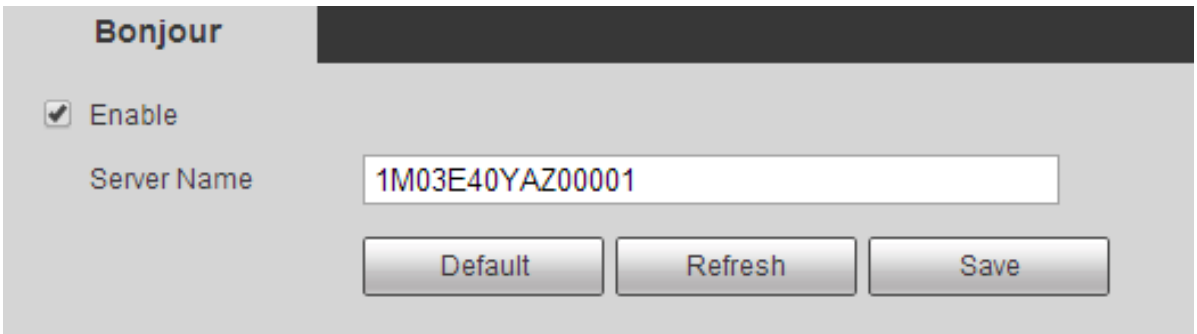



Figure 6-35

Step 2
Select “Enable” to set server name.
Step 3
Click “Save” to make config valid.
As for the operating system and client which support Bonjour, the steps of visiting WEB interface of network camera via Safari browser are shown as follows:
Step 1
Click “Display All Bookmarks” of the Safari browser.
Step 2
Open “Bonjour” to auto detect the network cameras which have enabled Bonjour function in the LAN, click to visit corresponding WEB page.

### 6.2.10 Multicast

Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host

can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.

**Note:**

- Open preview, streaming media protocol, select multicast, and monitor via multicast format.
- Here you can set multicast address and port. You also need to go to Live interface to set the protocol as Multicast.

Step 1

Select “Setup > Network >Multicast” and the system will display the interface of “Bonjour”, which is shown in Figure 6-36.

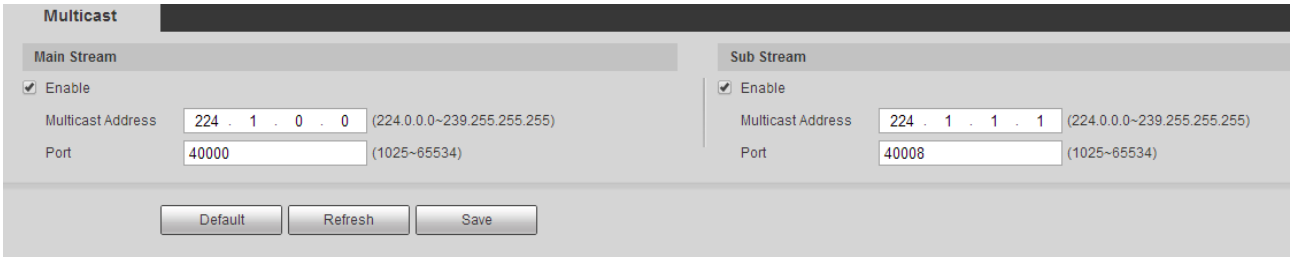



Figure 6-36

Step 2

Select “Enable” to enable multicast.

Step 3

Input multicast address and port.

The range of multicast IP address is limited while multicast port number is not limited, which is shown in Figure 6-37.

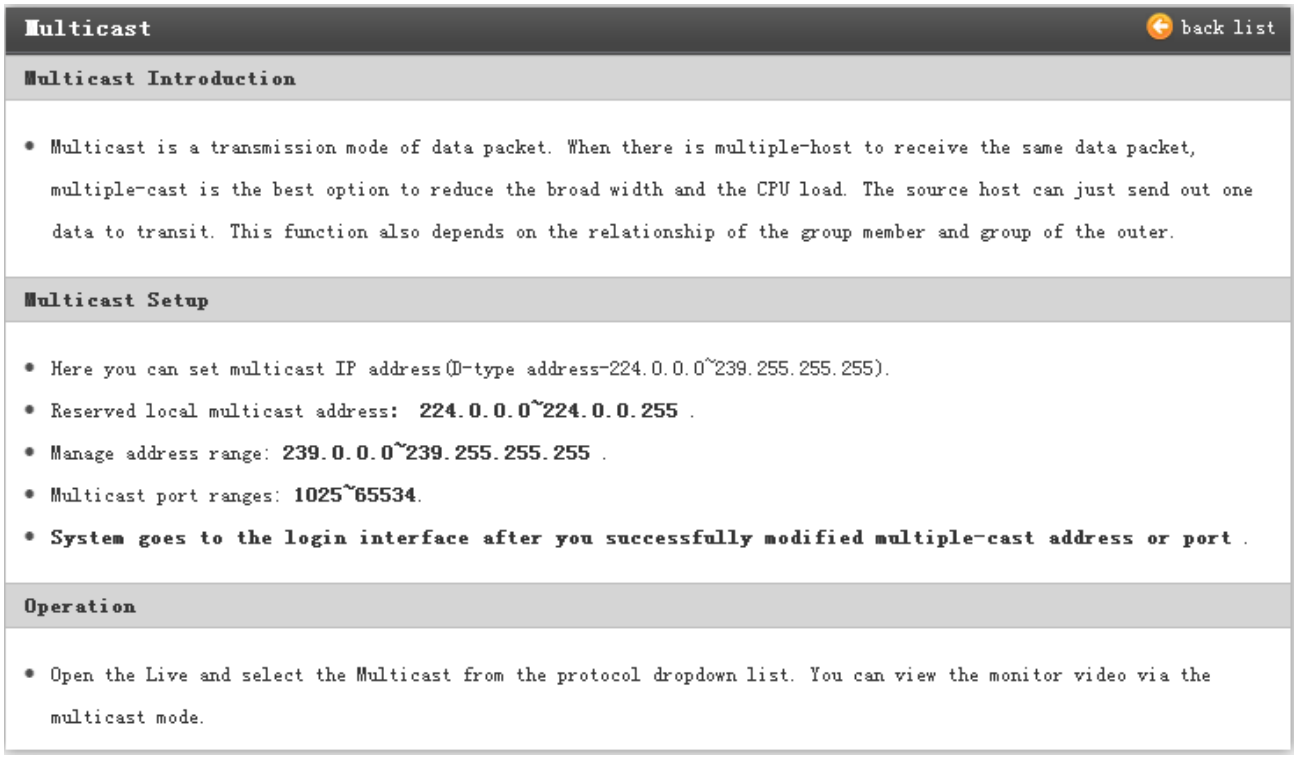



Figure 6-37

All the other addresses can be used except the addresses above with specific meaning, which is shown in Figure 6-38.

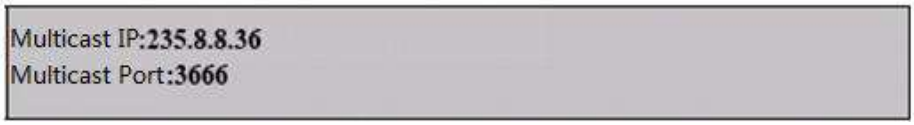



Figure 6-38

Step 4

Click “Save” to make config valid.

### 6.2.11 802.1x

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 “Setup > Network >802.1x” and the system will display the interface of “802.1x”, which is shown in Figure 6-39.

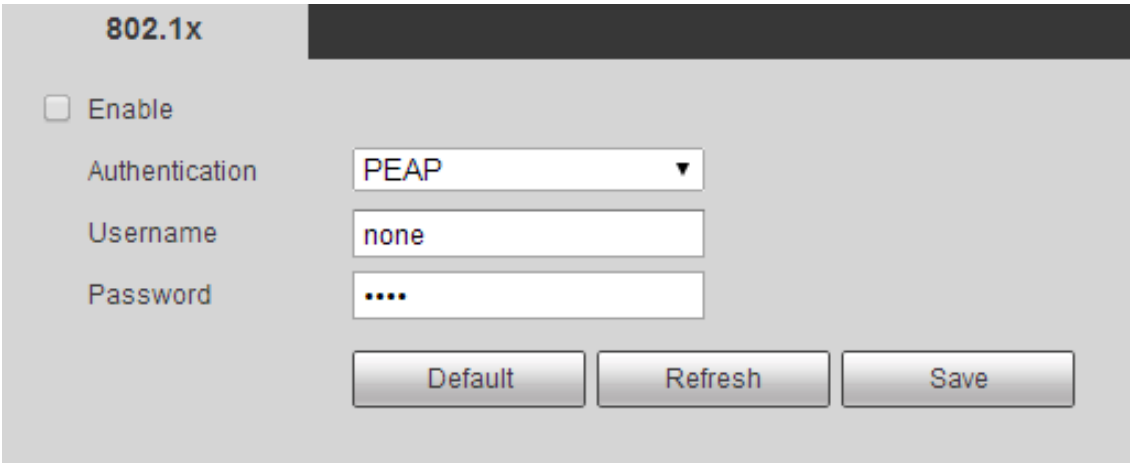



Figure 6-39

Step 2

Select “Enable” to enable 802.1x function.

Step 3

Select authentication mode, set username and password; please refer to sheet 6-24 for more details.

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

Sheet 6-24

Step 4

Click “Save” to make config valid.

### 6.2.12 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, reduce the loss of the data packet and anti-dither to enhance the quality.

We can set the DSCP (Differentiated Services Code Point) of the IP to distinguish the data packet so that the router or the hub can provide different services for various data packets. It can select the different queues according to the priority (64 different priority levels) of the packets and select the bandwidth of the each queue. Level 0 is the lowest, and level 63 is the highest. It can also discard at the different ratio when the broad bandwidth is jammed.

Step 1

Select “Setup > Network >QoS” and the system will display the interface of “QoS”, which is shown in Figure 6-40.

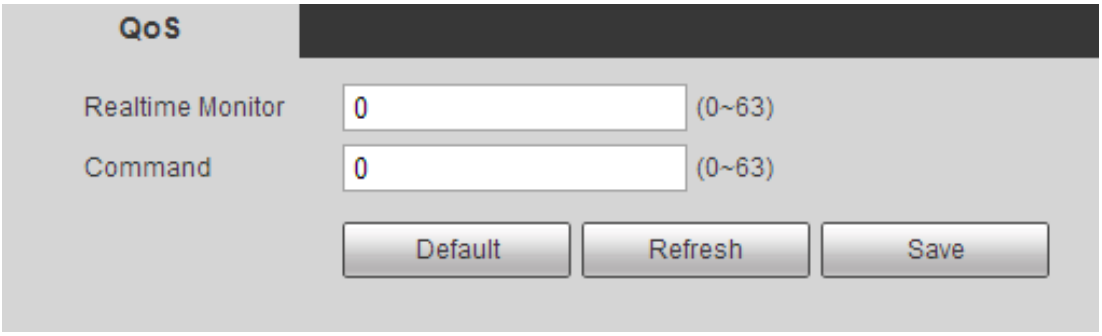



Figure 6-40

Step 2

It is to set realtime monitor and command, please refer to sheet 6-25 for more details.

| Parameter | Function |
|---|---|
| Real-time monitor | It is the data packet of network video monitoring; the value ranges from 0 to 63. |
| Command | It is the non-monitoring data packets which implement config and query etc to the device, the value ranges from 0 to 63. |

Sheet 6-25

## 6.3 Peripheral

**Note:**

Different devices support different peripheral devices, please refer to the actual interface for more details.

### 6.3.1 IR Light

Step 1

Select “Setup > Peripheral > IR Light” in the system menu and the system will display the interface of “IR Light”, which is shown in Figure 6-41.

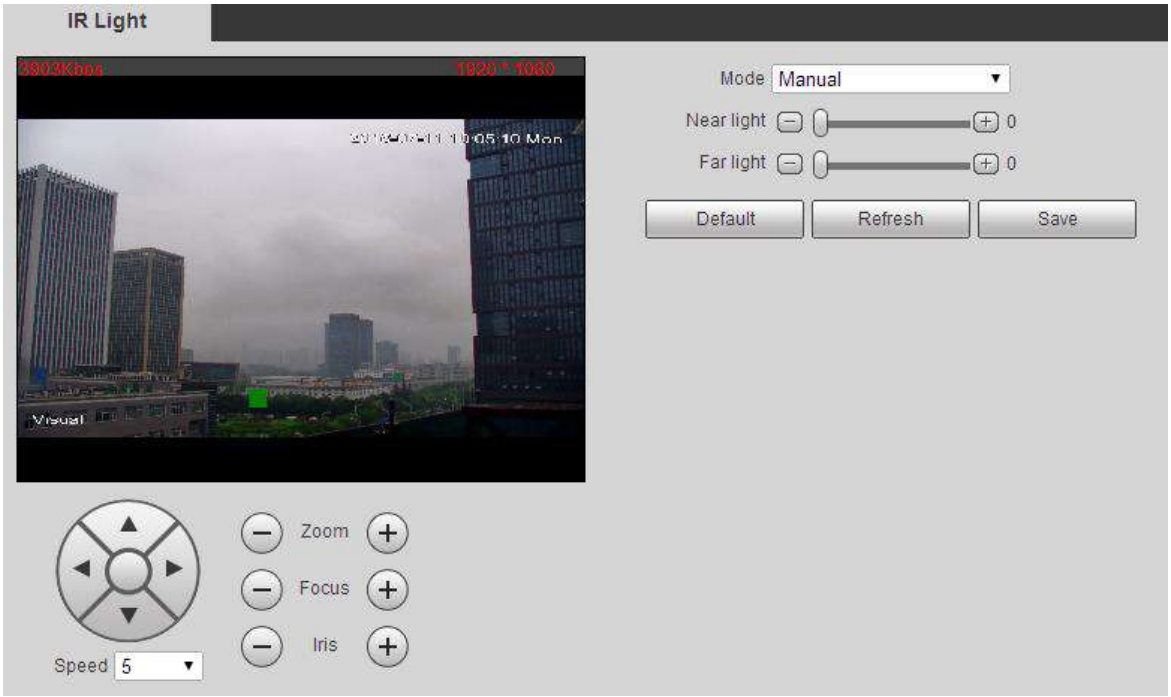



Figure 6-41

Step 2

It is to configure IR light parameter, please refer to sheet 6-26.

| Parameter | Note |
|---|---|
| Mode | It includes auto and manual.<br>● When it is set as “Manual”, you can manually adjust the brightness of near light and far light.<br>● When it is set as “Auto”, it can auto adjust the brightness of near and far light according to the visual scene. |

Sheet 6-26

Step 3

Click “Save” to make config valid.

### 6.3.2 Wiper

Step 1

Select “Setup > Peripheral > Wiper” in the system menu and the system will display the interface of “Wiper”, which is shown in Figure 6-42.

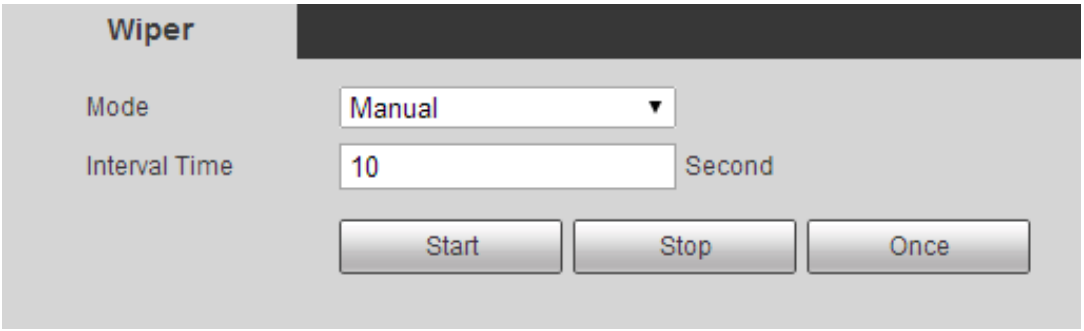



Figure 6-42

Step 2

It is to configure parameter, please refer to sheet 6-27 for more details.

| Parameter | Note |
|---|---|
| Mode | It is to set wiper mode, you can select timing and manual, it is timing by default.<br>● Timing mode, it needs to set the period of wiper operation.<br>● Manual mode, it needs to manually operate to enable wiper. |
| Interval Time | It is the interval from wiper stops to wiper enables. |
| Start | In manual mode:<br>● Click “Start” and the wiper will operate regularly according to the interval which has been set.<br>● Click “Stop” and the wiper stops.<br>● Click “Once” and the wiper operates for once. |
| Stop | |
| Once | |
| Period | In timing mode, select “Period” to set the period of enabling wiper in timing mode. |

Sheet 6-27

Step 3

Click “Save” to make config valid.

### 6.3.3 Fan

Step 1

Select “Setup > Peripheral > Fan” in the system menu and the system will display the interface of “Fan”, which is shown in Figure 6-43.

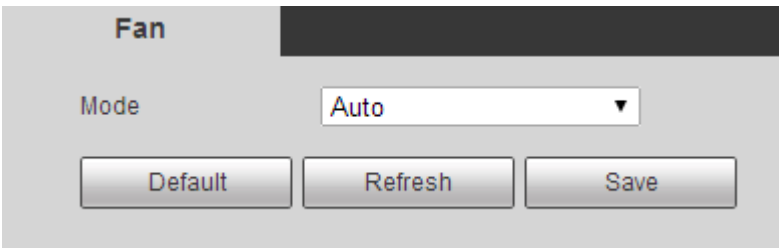



Figure 6-43

Step 2

Configure parameters; please refer to sheet 6-28 for more details.

| Parameter | Note |
|---|---|
| Mode | It is to set fan mode, you can select auto and manual.<br>In manual mode, it needs to select “Enable” to enable fan. |

Sheet 6-28

Step 3

Click “Save” to make config valid.

### 6.3.4 Heater

Step 1

Select “Setup > Peripheral > Heater” in the system menu and the system will display the interface of “Heater”, which is shown in Figure 6-44.

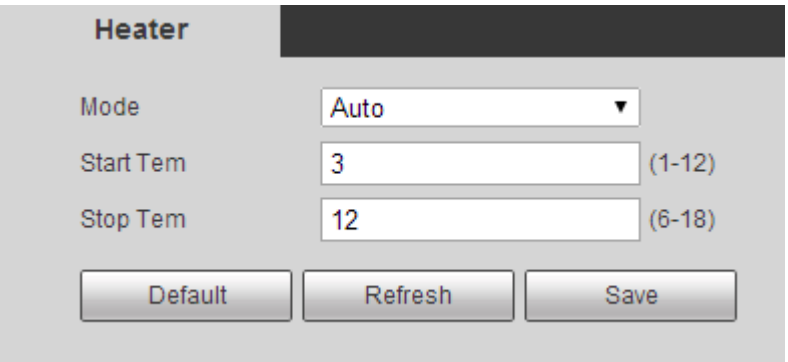



Figure 6-44

Step 2

It is to configure parameters, please refer to sheet 6-29 for more details.

| Parameter | Note |
|---|---|
| Mode | The mode includes auto and manual.<br>● When it is in auto mode, it needs to set “Start Temp” and “Stop Temp”.<br>● When it is on auto mode, it needs to select “Enable” to enable heater. |

Sheet 6-29

Step 3

Click “Save” to save the config.

## 6.4 Smart Thermal

**Note:**

- Different devices may have different functions, please refer to the actual interface for more details.
- It is mutually exclusive among IVS, face detection and fire warning of visual.

### 6.4.1 IVS Analyse

#### 6.4.1.1 **Basic Requirements of Scene Selection**

- The total proportion of the target shall not exceed 10% of the image.
- The target size in the image can't be less than 10 pixel ×10 pixel, the size of abandoned target can't be less than 15 pixel × 15 pixel (CIF image); The height and width of the target can't exceed 1/3 of the image; it is recommended that the target height is about 10% of the image height.
- The difference of brightness value between target and background can't be less than 10 gray levels.
- Make sure the target appears at least over 2 seconds continuously in the field; the movement distance has to be bigger than the width of the target itself and makes sure it is no less than 15 pixels (CIF image).
- Try to lower the complexity of the monitoring scene analysis if it is possible; it is not advised to use IVS functions in the environment where the targets are dense and light change is very frequent.
- Try to keep away from the areas such as glass, ground reflected light, water surface, branch, shadow, mosquito disturbance and etc; try to keep away from the backlight scene to avoid direct light.

#### 6.4.1.2 **Rule Config**

Rule config includes two parts of rule config in both visual and thermal image. The application and config method of both are similar. Here it is to take visual rule config as an example to introduce.

**Note:**

The hybrid thermal bullet doesn't support preset, please ignore the preset selection step during rule config.

The modes of entering rule config for different devices are different, please refer to the actual interface for more details, and select one of the following modes to enter.

- Select "Setup > Smart Thermal >IVS Analyse" and the system will display the interface of "IVS Analyse", which is shown in Figure 6-45.
- Select "Setup > Event > IVS Analyse", the system will display the interface of "IVS Analyse", which is shown in Figure 6-45.

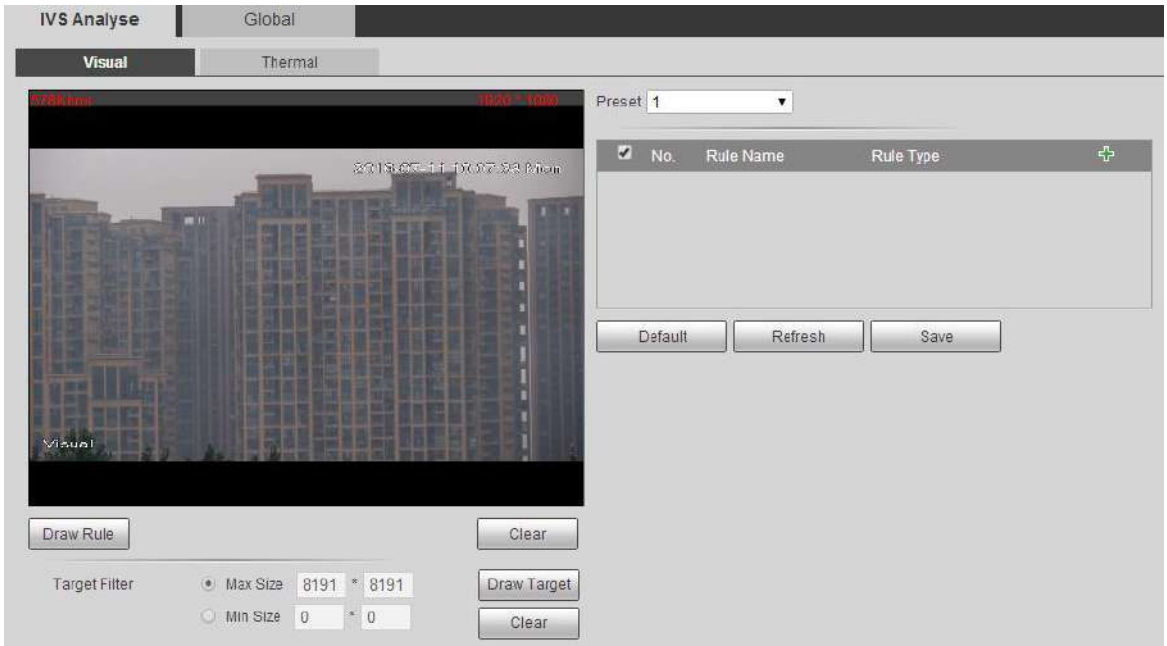



Figure 6-45

**Note:**

The speed dome enters the interface of “IVS Analyse”, lock function can be auto enabled, the lock time is 180s, during this period, and all other control modes are invalid except manual control upon PTZ. You can manually click “Unlock” to unlock.

**Tripwire**

It will trigger alarm when the target crosses the warning line according to the movement direction which has been set.

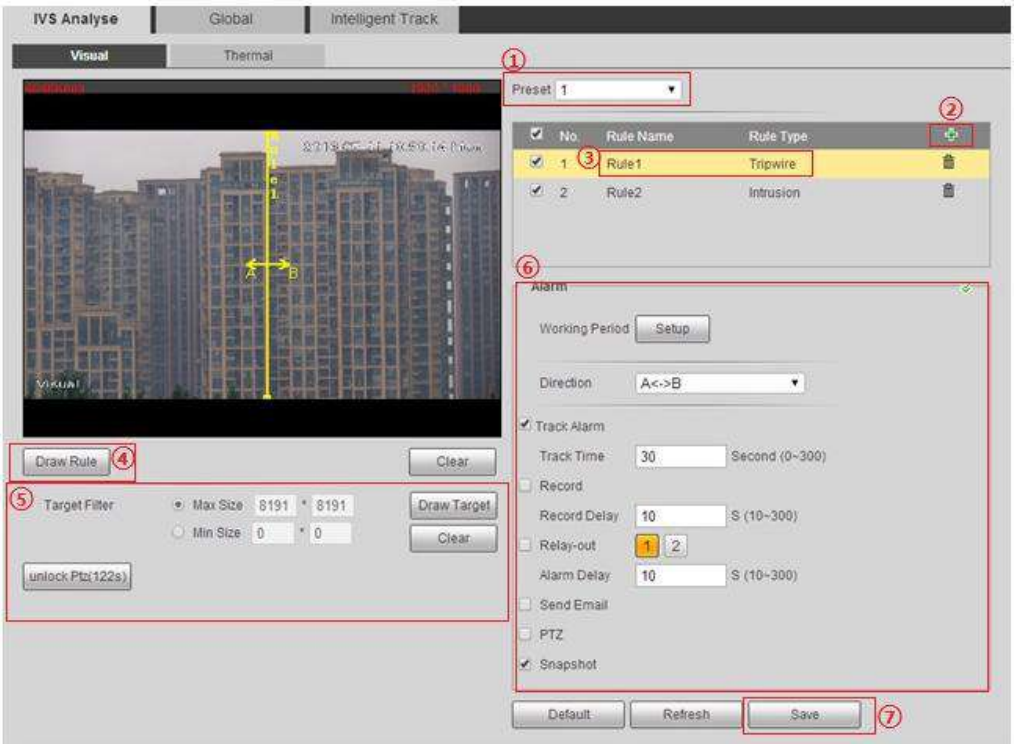



Figure 6-46

Step 1

Select “Preset” and the camera will move to the corresponding location of the preset.

Step 2

Click to add rule.

Step 3

Double click the new rule to modify “Rule Name” and “Rule Type”.

Step 4

Click “Draw Rule”, press the left mouse button to draw rule in the monitoring image, click right mouse button to finish drawing rule.

**Note:**

Click “Clear” to delete the tripwire which has been drawn when it is in the state of drawing rules.

Step 5

Select max or min size, click “Draw Target” and drag any angle of the filtering frame to zoom in or out to proper size of the filtering frame.

**Note:**

- It will trigger alarm only when the size of target which crosses tripwire is between two filtering frames
- In the state of drawing rules, select “Max Size” or “Min Size”, click “Clear” to delete the corresponding rectangular frame.

Step 6

It is to set parameters, please refer to sheet 6-30 for more details.

| Parameter | Note |
|---|---|
| Working Period | It is to set working period and enable alarm within the time range which has been set, please refer to “Working Period Setup” for more details. |
| Direction | It is to select tripwire direction, you can select A->B、B->A、A<->B |
| Alarm Track | Select ‘‘Alarm Track’’ and it will auto track when there is human or object triggering intelligent rules.<br>**Note:**<br>Please select track mode before using the function, please refer to ‘‘6.4.1.4 Intelligent Track’’ for more details. |
| Track Time | It means the time of auto track after track is enabled when alarm is triggered. |
| Record | The system will auto record when motion detection alarm occurs.<br>**Note:**<br>● Please refer to ‘‘6.1.2.5 Storage path’’ for storage location query and setting of record file.<br>● The system record needs to meet the two following conditions when motion detection alarm occurs:<br>✧ Motion detection has been enabled, please refer to ‘‘6.7.1.2 Record Plan’ for more details.<br>✧ Auto record has been set, please refer to ‘‘6.7.3 record Control’’ for more details. |
| Record Delay | It can continue to record a period of time after motion detection alarm is over. |
| Relay-out | Connect alarm devices to relay-out port (such as light, alarm whistle and so on), the system will transmit alarm info to alarm devices when motion detection alarm happens. |
| Alarm Delay | It can continue to alarm for a period of time after motion detection alarm is over. |
| Send Email | It will send email to designated mailbox to remind alarm when motion detection alarm happens.<br>**Note:**<br>Email can be successfully sent after setting Email, please refer to “6.2.6 SMPT (E-mail)” for more details. |

| Parameter | Note |
|---|---|
| PTZ | When motion detection alarm happens, the video monitoring image is linked and moves to the selected preset, tour or pattern.<br>**Note:**<br>PTZ linkage can be valid after completing PTZ setting, please refer to “3 PTZ” for more details. |
| Snapshot | It is to trigger to capture the picture of selected channel when motion detection alarm happens.<br>**Note:**<br>● Motion detection snapshot has been enabled, please refer to “6.7.1.2 Record Plan” for more details.<br>● Please refer to “6.1.2.5 Storage Path” for storage location query and setting of snapshot. |

Sheet 6-30

Step 7 Click “Save” to make config valid.

**Intrusion**

It will trigger alarm when the target enters, leaves or appears in the area.

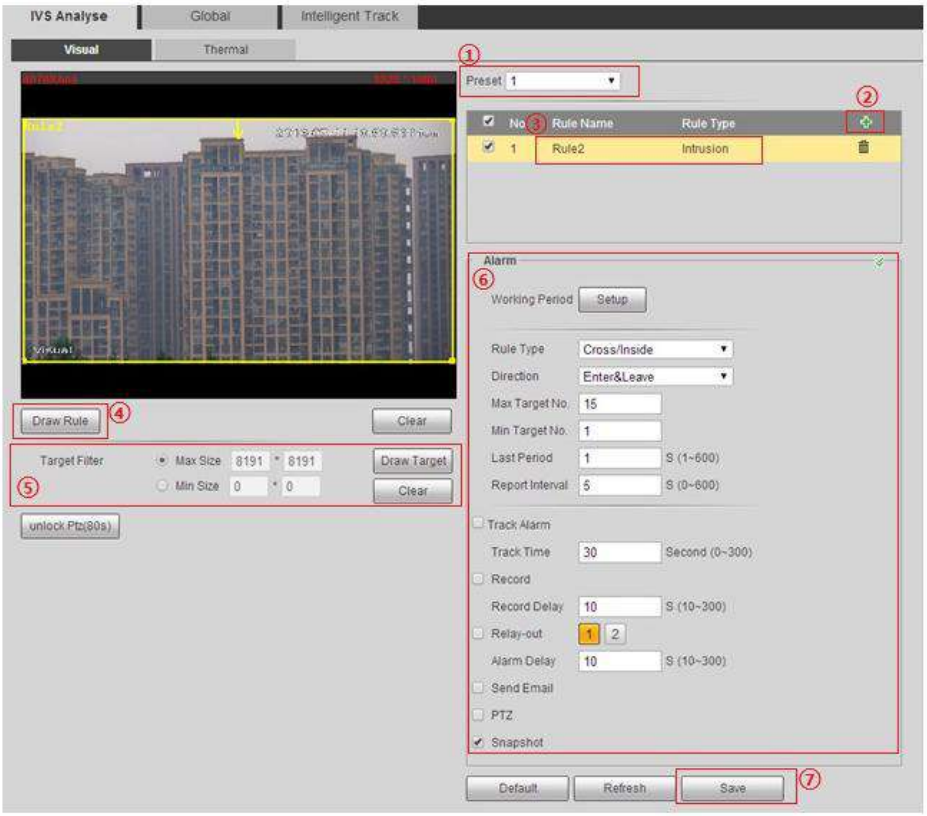



Figure 6-47

Step 1

Select “Preset” and the camera will quickly move to the corresponding location of the preset.

Step 2

Click to add rule.

Step 3

Double click the new rule to modify “Rule Name” and “Rule Type”.

Step 4

Click “Draw Rule”, draw monitoring area in the monitoring image, click right mouse button to finish drawing area.

**Note:**

- It needs some time and space from when the target appears to when it is confirmed, so it needs to leave some space when drawing warning area, so do not draw the area near obstacle.
- In the state of drawing rule, click “Clear” to delete the monitoring area which has been drawn.

Step 5

Select max or min size, click “Draw Target’ and drag any angle of the filtering frame to zoom in or out to proper size of the filtering frame.

**Note:**

- It will trigger alarm only when the size of target which crosses tripwire is between two filtering frames
- In the state of drawing rules, select “Max Size” or “Min Size”, click “Clear” to delete the corresponding rectangular frame.

Step 6

It is to set alarm parameters, please refer to sheet 6-30 and sheet 6-31 for more parameter details.

| Parameter | Note |
|---|---|
| Rule Type | It is to set the rule of intrusion, you can select inside/cross and cross/inside. |
| Direction | It is to set ‘‘Rule Type’’ including crossing area, it needs to set the direction of crossing area, you can select enter, leave and enter&leave. |
| Max Target No. | It is to set ‘‘Rule Type’’ including inside area, it is to set the max target number which is to trigger alarm in the area, it won’t trigger alarm when the target number is more than the max target number which has been set in the area. |
| Min Target No. | It is to set ‘‘Rule Type’’ including inside area, it is to set the Min target number which is to trigger alarm in the area, it won’t trigger alarm when the target number is less than the Min target number which has been set in the area. |
| Last Period | It is to set ‘‘Rule Type’’ including inside area, it is to set the time from when the target appears in the area to when it triggers alarm. |
| Report Interval | It is to set ‘‘Rule Type’’ including inside area, it is to set the interval of alarm, and it means alarm for once when it is 0. |

Sheet 6-31

Step 7

Click “Save” to make config valid.

**Abandoned Object Detection**

It will trigger alarm when the object is placed in the detection area and exceeds the time which has been set.

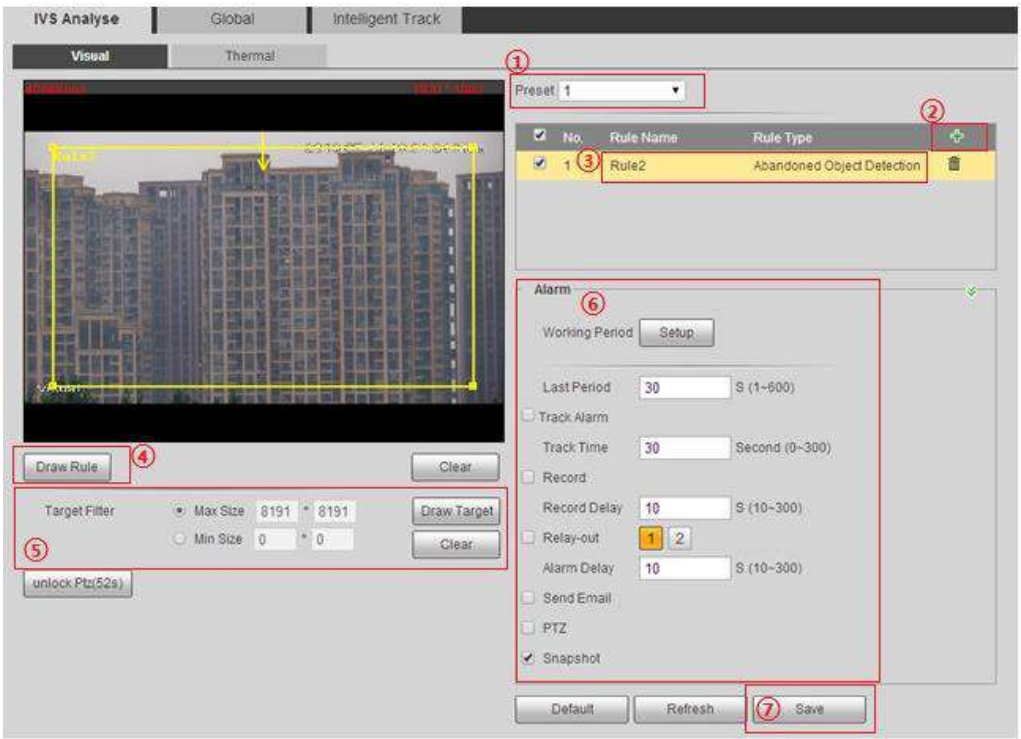



Figure 6-48

Step 1

Select “preset” and the camera will quickly move to the corresponding location of the preset.

Step 2

Click to add rule.

Step 3

Double click new rules to modify “Rule Name” and “Rule Type”.

Step 4

Click “Draw Rule”, draw monitoring area in the monitoring image, click right mouse button to finish drawing area.

**Note:**

- It also triggers alarm as abandoned object if there is pedestrian or vehicle staying still for too long. In order to filter this kind of alarm, generally the abandoned object is smaller than people and vehicle.
- In the state of drawing rule, click “Clear” to delete the monitoring area which has been drawn.

Step 5

Select max or min size, click “Draw Target’ and drag  any angle of the filtering frame to zoom in or out to proper size of the filtering frame.

**Note:**

- It will trigger alarm only when the size of target which crosses tripwire is between two filtering frames
- In the state of drawing rules, select “Max Size” or “Min Size”, click “Clear” to delete the corresponding rectangular frame.

Step 6

It is to set parameter, “Last Period” means the time from when the target is placed into the detection area to when it triggers alarm, please refer to sheet 6-31 for more parameter details.

Step 7

Click “Save” to make config valid.

**Missing Object Detection**

It will trigger alarm when the target is taken away from the detection area and it exceeds the time which has been set.

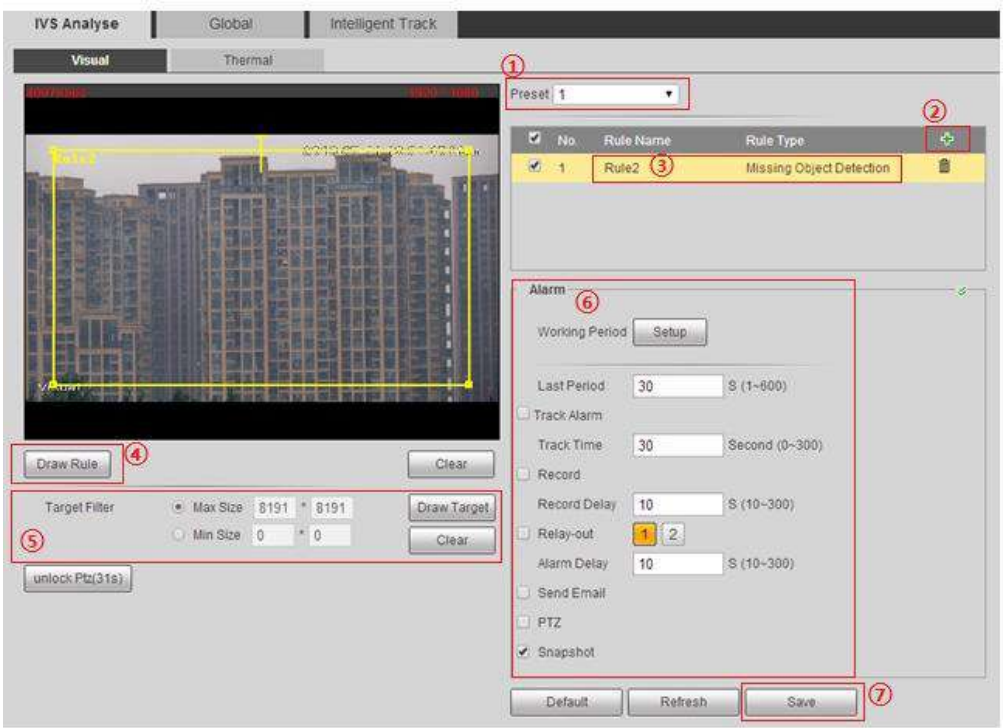



Figure 6-49

Step 1

Select “preset” and the camera will quickly move to the corresponding location of the preset.

Step 2

Click  to add rule.

Step 3

Double click new rules to modify “Rule Name” and “Rule Type”.

Step 4

Click “Draw Rule”, draw monitoring area in the monitoring image, click right mouse button to finish drawing area.

**Note:**

- In the state of drawing rule, click “Clear” to delete the monitoring area which has been drawn.

Step 5

Select max or min size, click “Draw Target’ and drag any angle of the filtering frame to zoom in or out to proper size of the filtering frame.

**Note:**

- It will trigger alarm only when the size of missing target is between two filtering frames
- In the state of drawing rules, select “Max Size” or “Min Size”, click “Clear” to delete the corresponding rectangular frame.

Step 6

It is to set parameter, “Last Period” means the shortest time from when the target is taken away from the detection area to when it triggers alarm, please refer to sheet 6-31 for more parameter details.

Step 7

Click “Save” to make config valid.

**Global Config**

**Note:**

- Global config is divided into two parts which are visible and thermal; the config method of both is similar. Here it is to take visual as an example to introduce the operations steps.
- The hybrid bullet doesn’t support preset, please neglect the step of preset selection during config.

Step 1

Select “Setup > Event > Global > Thermal”. The system will display the config interface of “Thermal”. The camera will quickly move to the corresponding location of the preset.

Step 2

Configure the global parameters.

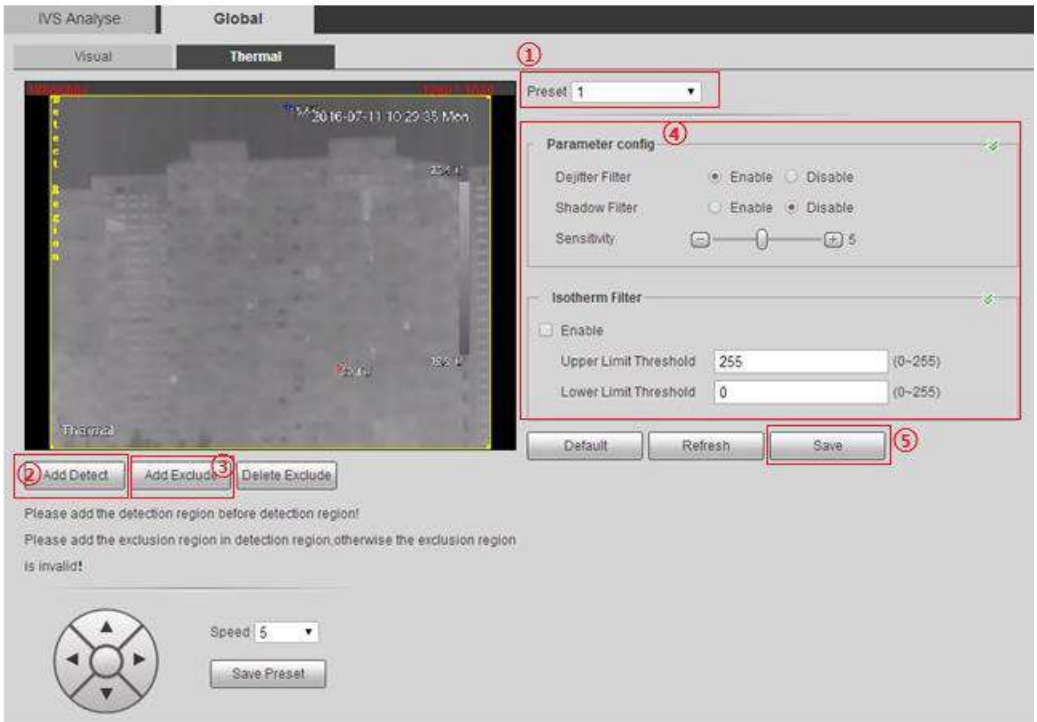



Figure 6-50

1. Select “Preset” and the camera will quickly move to the corresponding location of the preset.
2. Click “Add Detect” to draw detection area on the monitoring image, click right mouse button to finish drawing.

   **Note:**

   Click “Add Detect” to draw area again.
3. Click “Add Exclude” to exclude area in the detection area, click right mouse button to finish drawing.

   **Note:**

   - Click “Delete Exclude” to delete the excluded areas which are not needed.
   - It is only valid for the excluded areas which are drawn in the detection area.
   - It supports to draw several excluded areas.
4. It is to set parameters, please refer to sheet 6-32.

| Parameter | Note |
|---|---|
| Dejitter Filter | It is enabled by default, it implements some restrain upon random disturbance. |
| Shadow Filter | It is disabled by default. It will enable the function in the scene with shadow, which is to make target box only contain the target itself (exclude shadow), the target with several scenes connected can be detected and provide more accurate location of initial target to tracking. The negative side of the function is that if the some part of the target is similar to the shadow, which will be judged as shadow and excluded. |

| Parameter | Note |
|---|---|
| Sensitivity | It can set 1~10, it is 5 by default. The bigger the value is, the easier it becomes to trigger for the target with low contrast and small target, the higher the false detection is. |
| Isotherm Filter | After the function is enabled, it can reduce the false alarm caused by water ripple in the water surface scene of thermal channel. Both ‘‘Upper Limit Threshold’’ and ‘‘Lower Limit Threshold’’ need to be adjusted according to different scenes.<br>**Note:**<br>This parameter config is not available for visual global. |

Sheet 6-32

Step 3

Click “Save” to make config valid.

**Intelligent Track**

Step 1

Select “Setup > Event > Intelligent Track” and the system will display the interface of “Intelligent track”.

Step 2

Select track mode according to your needs, which is shown in Figure 6-51.

**Note:**

The screenshot below is an example of selecting “Track Mode” as “Period Auto”.

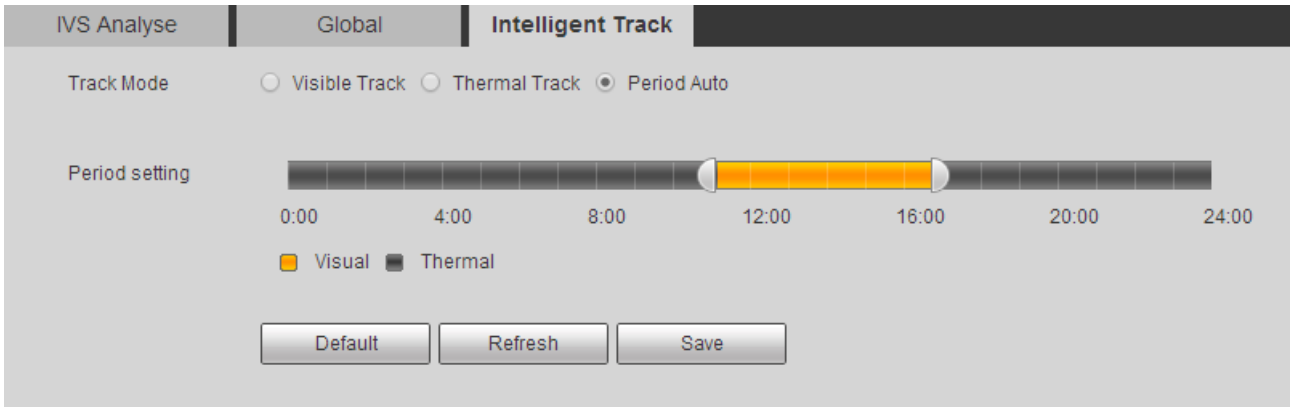



Figure 6-51

Please refer to sheet 6-33 for more details about parameters.

| Parameter | Note |
|---|---|
| Track Mode | There are three track modes:<br>● Visible Track<br>It always tracks in the visual channel.<br>● Thermal Track<br>● It always tracks in the thermal channel.<br>● Period Auto<br>It is to select corresponding channel to track according to the period set by users. |

Sheet 6-33

Step 3

Click “Save” to make config valid.

### 6.4.2 Face Detection

It will trigger alarm when human face is detected in the monitoring image.

Step 1

Select “Setup > Smart Thermal” > Face Detect” and the system will display the interface of “Face Detect”.

Step 2

It is to configure the rue of face detect.




Figure 6-52

1. Select max size or min size, click “Draw Target” and drag any angle of the filter box to zoom in or out to adjust the filter box to proper size.

   Note:

   It will trigger alarm only when the human face is detected between two filter boxes.

In the state of drawing, select “max size” or “min size”, click “Clear” to delete the corresponding rectangular box.

2. It is to set parameters, please refer to sheet 6-30 and sheet 6-34.

| Parameter | Note |
|---|---|
| Enable Face Detect | Click it to enable face detect. |
| Enable Temperature Measurement Link | After the function is enabled, temperature will be displayed on the human face in the image, meanwhile it is also display on the face snapshot.<br>The temperature display will become red when the face temperature exceeds the threshold which has been set. |
| Temperature Threshold | |
| Enable Face Enhancement | After the function is enabled, the detected face becomes clearer. |
| Alarm Face Amount | It will trigger alarm when the number of detected face reaches or exceeds the quantity which has been set. |

Sheet 6-34

Step 3

Click “Save” to make config valid.

### 6.4.3 Fire Warning

It will trigger alarm when the system is judged as fire warning.

**Visual**

Step 1

Select “Setup > Smart Thermal > Fire Warning > Visual” and the system will display the interface of “Visual”.

Step 2

It is to configure the rules of fire warning.




Figure 6-53

1. Select “Preset” and the camera will quickly move to the corresponding location of the preset.
2. Click “Draw Rule” to draw monitoring area in the monitoring image.
3. Select max or min size, click “Draw target” and drag any angle of the filtering box to zoom in or out to adjust the filtering box to proper size.
   Note:
   It will trigger alarm only when the detected fire is between two filtering boxes.
   In the state of drawing, select “Max Size” or “Min Size”, click “Clear” to delete corresponding rectangular box.
4. Enable fire warning and set parameters, please refer to sheet 6-30 for more details.
5. Click “Save” to make config valid.

**Thermal**

Step 1

Enter thermal fire warning setting interface.

Different devices have different modes to enter the interface, please refer to the actual interface, and please select one of the following modes to enter the interface.

- Select “Setup > Smart Thermal > Fire Warning > Thermal” and the system will display the interface of “Thermal”.
- Select “Setup > Event > Fire Warning” and the system will display the interface of “Fire Warning”.

Step 2

It is to configure the rules of fire warning.

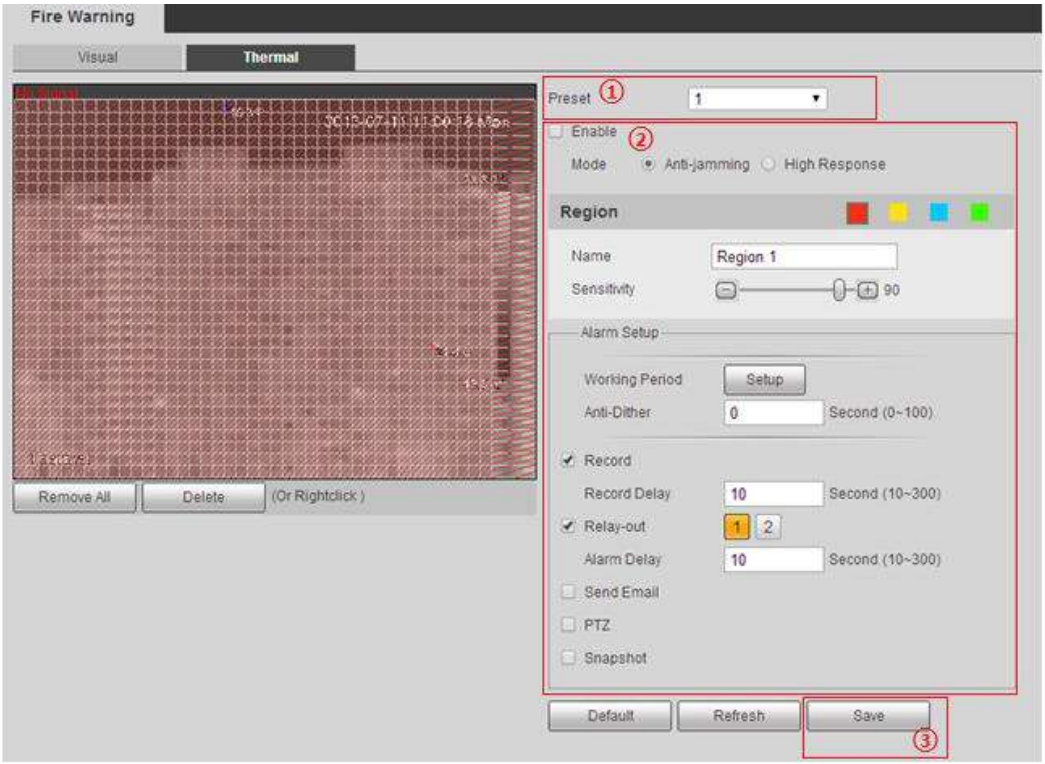



Figure 6-54

1. Select “Preset” and the camera will quickly move to the corresponding location of the preset.
2. It is to set parameters, please refer to sheet 6-30 and sheet 6-35.

| Parameter | Note |
|---|---|
| Enable | Select “Enable” to enable the function of fire warning. |
| Mode | It is to select the modes of fire warning; you can select “Anti-jamming” and “High Response”. |
| Region | <br>1. Click the color above to select region type, different colors represent different areas.<br>2. Press the left mouse button to drag detection area in the monitoring image.<br>Note:<br>You can draw several detection areas till it covers the whole monitoring screen. |
| Name | The default name is Region 1, Region 2, Region 3 and Region 4. It |

| Parameter | Note |
|---|---|
| | supports customized as well. |
| Sensitivity | It is to set the alarm sensitivity. The higher the sensitivity is, the easier it becomes to generate alarm, but it may generate false alarm. |

Sheet 6-35

### 6.4.4 Cold Hot Spot Follow

After the function is enabled, it will display two spots in the picture which are highest temperature and lowest temperature, which can be distinguished via color.

Step 1

Select “Setup > Smart Thermal > Cold Hot Spot Follow” and the system will display the interface of ‘Cold Hot Spot Follow”.

Step 2

It is to configure the rules of cold hot spot follow.

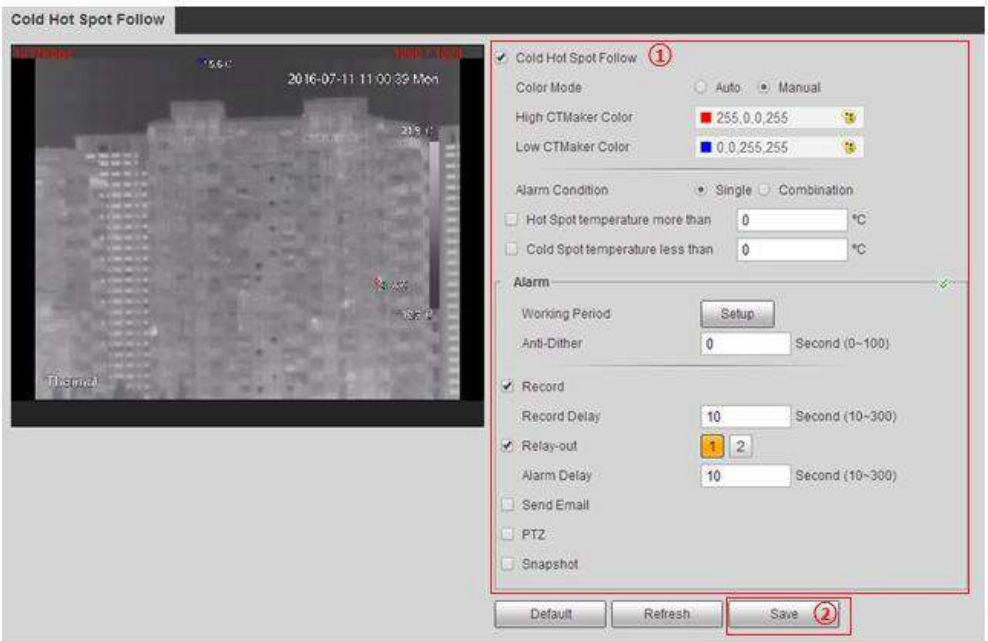



Figure 6-55

Step 3

It is to set parameters, please refer to sheet 6-30 and sheet 6-36 for more details.

| Parameter | Note |
|---|---|
| Enable | Click it to enable the function of cold hot spot follow. |
| Color Mode | ● Auto: select the color of high and low temperature spot according to |

| Parameter | Note |
| --- | --- |
| | the current image.<br>● Manual: users can set the color of high and low temperature by themselves. |
| Alarm Condition | ● Single<br>When you select “Hot spot temperature more than”, it means it will trigger alarm when the temperature is higher than the temperature which has been set.<br>When you select “Cold spot temperature less than”, it means it will trigger alarm when the temperature is less than the temperature which has been set.<br>If you select both at the same time, it means it will trigger alarm if it can meet either.<br>● Combination<br>It will trigger alarm when the highest temperature is higher than the temperature set by users and lowest temperature is lower than the temperature set by users. |
| PTZ | When alarm happens, the video monitoring image link will switch to the selected preset, tour and pattern or hybrid linkage.<br>Hybrid link is valid only it is within the time of link schedule; please refer to “6.4.6 Link Schedule”.<br>Note:<br>The PTZ link is valid after PTZ setting is completed, please refer to “3 PTZ” for more details. |

Sheet 6-36

Step 4

Click “Save” to make config valid. Please see Figure 6-56 for more details after config is valid.




Figure 6-56

**Note:**

Some devices fail to display the temperature of hot and cold spot.

### 6.4.5 Pic in Pic

The function of pic in pic is to overlay a thermal image on the visual image.

Step 1

Select “Setup > Smart thermal > Pic in Pic” and the system will display the interface of “Pic in Pic”.

Step 2

Select “Enable Pic in Pic”, click blue box in the monitoring image, use mouse to move the location of thermal image or drag the four corners of the box to change the size of thermal image.

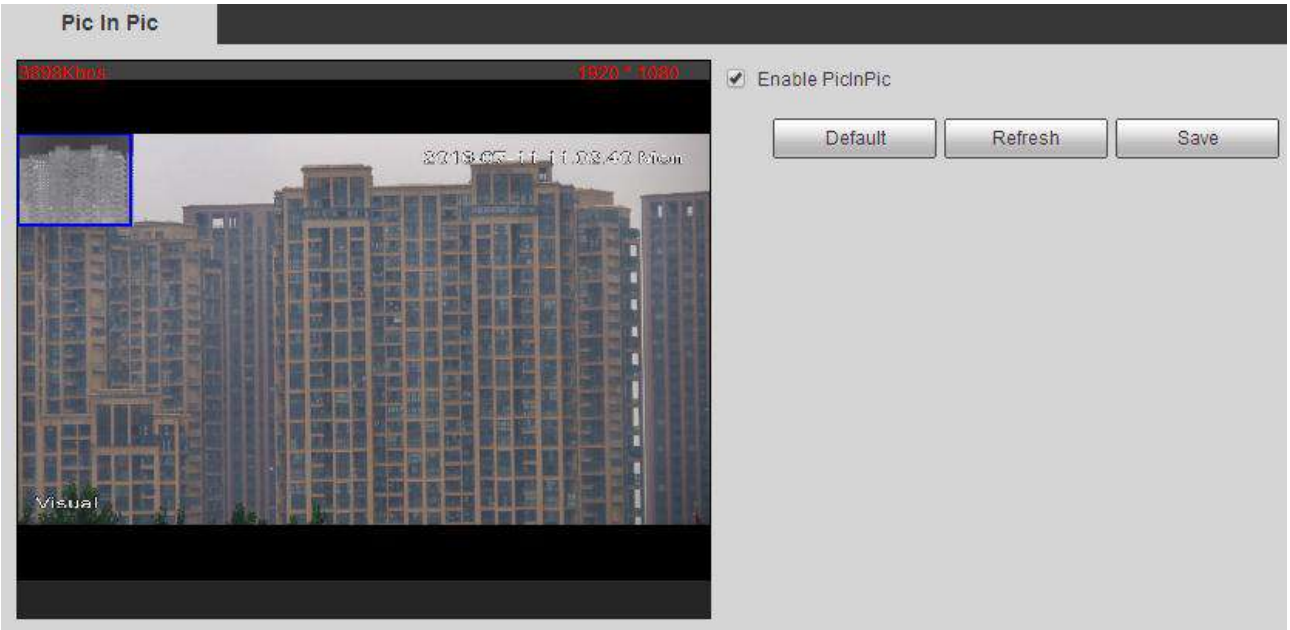



Figure 6-57

Step 3

Click “Save” to make config valid.

### 6.4.6 Link Schedule

Link schedule is valid to hybrid link of PTZ link during cold hot spot follow.

Step 1

Select “Setup > Smart Thermal > Link Schedule” and the system will display the interface of “Link Schedule”, which is shown in Figure 6-58.

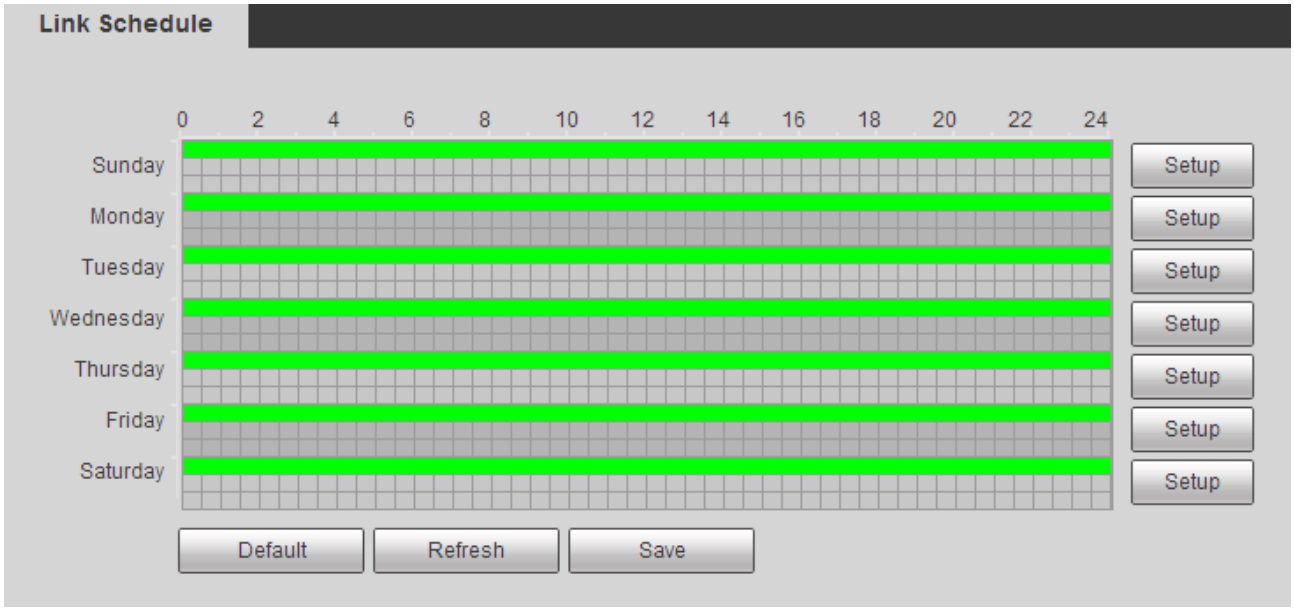



Figure 6-58

Step 2

Click “Setup” and the system will display the interface of “Setup”, which is shown in Figure 6-59.

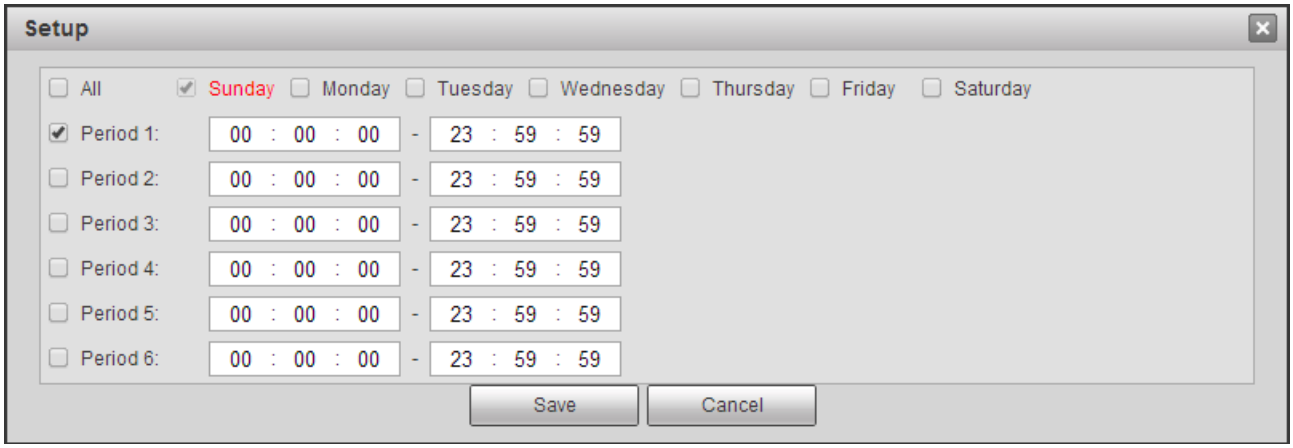



Figure 6-59

Step 3

Select week, set period and click “Save”.

Step 4

Click “Save” to make config valid.

## 6.5 Event

### 6.5.1 Video Detect

Video detect adopts the technology of computer vision and image processing, deals with the video image collected by camera, acquire realtime, dynamic info and implement signal control and info release etc.

6.5.1.1 **Motion Detect**

It will trigger alarm when it detects that there is moving target reaches the sensitivity which has been set. Here we take visual channel as an example to introduce the config of motion detect, which can be reference for the config of thermal channel.

Step 1

Select “Setup > Event > Video Detect > Motion Detect” and the system will display the interface of “Motion Detect”, which is shown in Figure 6-60.

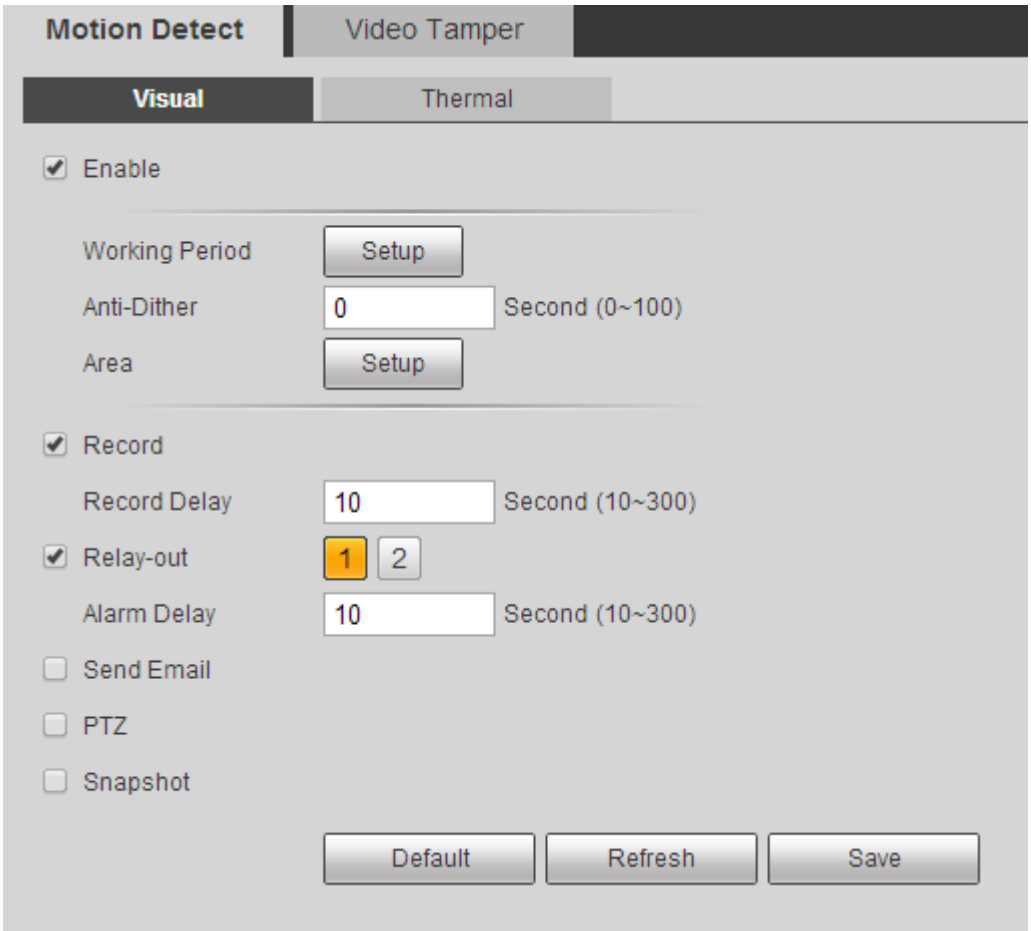



Figure 6-60

Step 2

It is to set parameters, please refer to sheet 6-37 for more details.

| Parameter | Note |
|---|---|
| Enable | You need to check the box to enable motion detection function. |
| Working Period | ● It is to set the alarm period, it can enable alarm event only in the set time range.<br>● There are six periods every day for setup and you must check box in front of each period to enable it.<br>● Select days (Sunday by default, if select all the week, then it means applying the setup into the whole week; you can also check the box in front of the day and make setting for some days separately).<br>● Click “OK” button after completing setup, go back to motion detect setting page, click “OK” button to finish working period setup of motion detect<br>**Note:**<br>Period setup can be done by dragging mouse while not releasing left mouse. |
| Anti-dither | System only memorizes one event during the anti-dither period. The value ranges from 0s to 100s. |
| Area | Click “Setup” button to enter the interface, you can set the effective area of motion detect according to the actual situation and set its sensitivity and area threshold (The higher the sensitivity is, the easier to trigger motion detect; the smaller the area, the easier to trigger motion detect.) The default covers all regions. You must click on save before enabling your setup. |
| Record | Check it and so when alarm occurs, system will auto record.<br>**Note:**<br>● Please refer to “6.1.2.5 Storage path” for storage location query and setting of recorded file.<br>● When motion detect alarm happens, system record needs to satisfy the following two conditions:<br>✧ Motion detect record has been enabled, please refer to “6.7.1.2 Record Plan” for more details.<br>✧ Auto record has been set, please refer to “6.7.3 Record Control” for more details. |
| Record Delay | System can delay the alarm record for specified time after alarm ended. The value ranges from 10s to 300s. |
| Relay out | Connect alarm devices to relay-out port (such as light, alarm whistle and so on), the system will transmit alarm info to alarm devices when motion detection alarm happens. |
| Alarm Delay | System can delay the alarm output for specified time after alarm ended. The value ranges from 10s to 300s. |

| Parameter | Note |
|---|---|
| Send Email | It will send email to designated mailbox to remind alarm when motion detection alarm happens.<br>**Note:**<br>Email can be successfully sent after setting Email, please refer to “6.2.6 SMPT (E-mail)” for more details. |
| PTZ | When motion detect alarm occurs, video monitoring image will switch to the selected preset, tour or pattern.<br>**Note:**<br>The PTZ link is valid after completing PTZ setting, please refer to “3 PTZ” for more details. |
| Snapshot | When motion detect alarm occurs, it will trigger to snapshot the picture of selected channel.<br>**Note:**<br>● Motion detect snapshot has been enabled, please refer to “6.7.1.2 Record Plan” for more details.<br>● Please refer to “6.1.2.5 Storage Path” for query and setting of snapshot storage location. |
| Refresh | Click the button and the system will display the config data which is saved last time. |
| Default | Click the button and the config data of motion detect will be restored to factory default. |

Sheet 6-37

**Set Working Period**

Step 1

Click the “Setup” on the right of “Working Period’ and the system will display the interface of working period setup, which is shown in Figure 6-61.

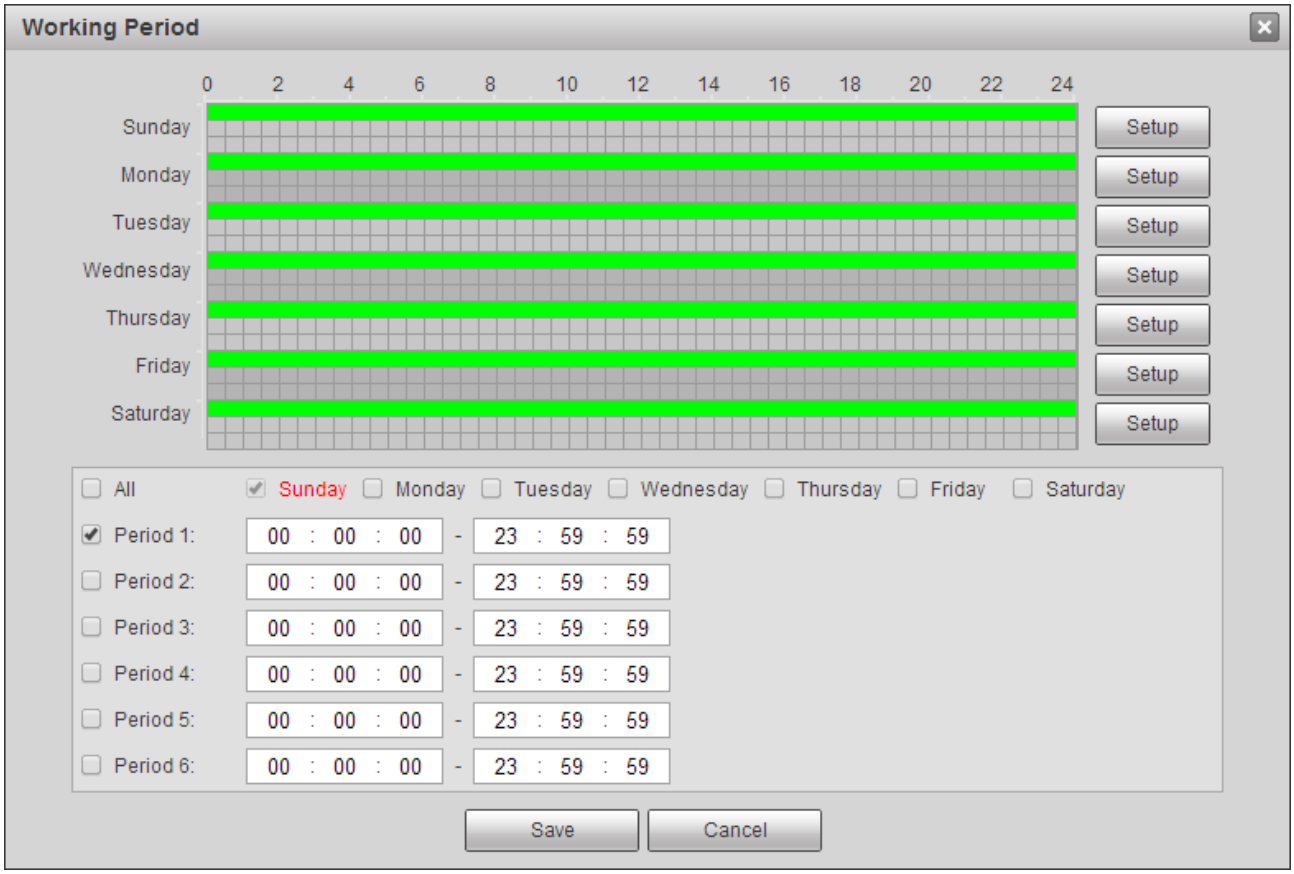



Figure 6-61

Step 2

Set alarm period.

Method 1: Press the left mouse button to drag on the interface to set.

Method 2: Select week and period at the bottom of the interface and input time, there are totally six periods to be set.

Step 3

Click “Save”.

**Set Area**

Step 1

Click the “Setup” on the right of “Area” and the system will display the interface of “Area Setting” ,which is shown in Figure 6-62.

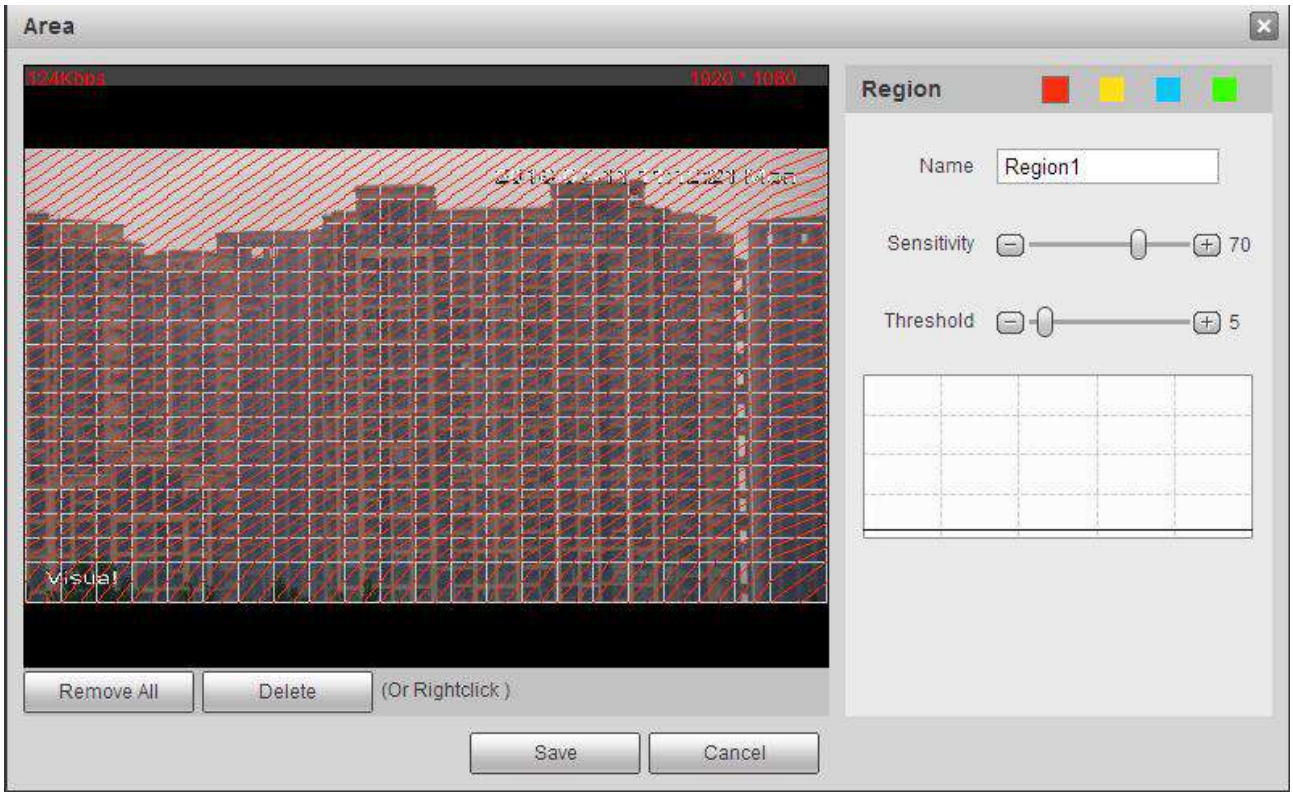



Figure 6-62

Step 2

Select a region in “Area”, different regions are distinguished by color.

Step 3

Press the left mouse button to draw a detection area in the monitoring image.

**Note:**

You can draw several detection areas until it covers the whole monitoring screen.

Step 4

It is to modify region name, set sensitivity and threshold, please refer to sheet 6-38 for more details.

| Parameter | Note |
|---|---|
| Name | It is to modify the region name, which is used to identify different regions. |
| Sensitivity | The bigger the sensitivity is, the easier it becomes to trigger motion detect, but meanwhile it increases false alarm rate, it is advised to use default value. |
| Threshold | It will trigger alarm when the target covers a higher percentage of the detection area than the value which has been set. For example, set threshold as 10, the moving target covers more than 10% of the total detection area, and then it will trigger alarm.<br>The bigger the threshold is, the more difficult it is to trigger motion detection. |

Sheet 6-38

Step 5

Click “Save” to make settings valid.

6.5.1.2 **Video tamper**

Step 1

Select “Setup > Event > Video Detect > Video Tamper” and the system will display the interface of “Video Tamper”, which is shown in Figure 6-63.

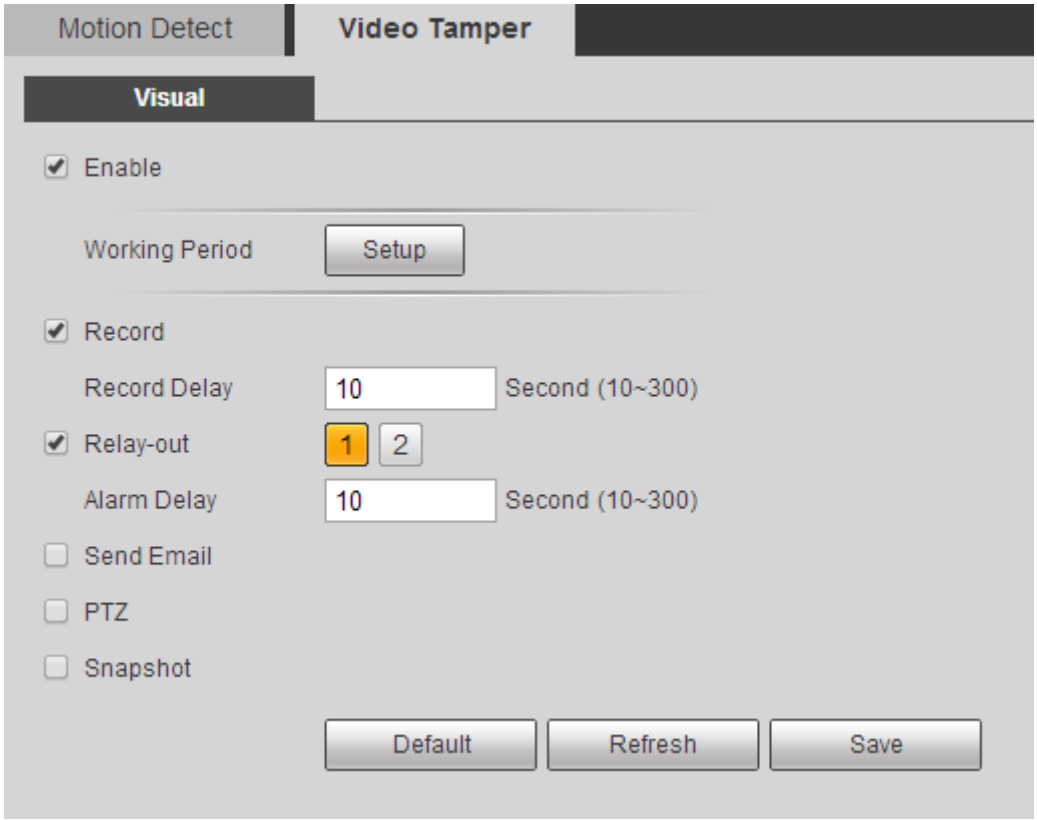



Figure 6-63

Step 2

Select “Enable” to configure each parameter info according to the actual needs, please refer to sheet 6-37 for more details.

Step 3

Click “Save” to make config valid.

## 6.5.2 Temperature Alarm

**Note:**

Some devices don’t support temperature alarm function, please refer to the actual interface.

The precondition of realizing temperature alarm is to complete temperature measurement rule setting, please refer to “6.6.1 Rule Setting” for more details.

Step 1

Select “Setup > Event > Temperature Alarm” and the system will display the interface of “Temperature Alarm”, which is shown in Figure 6-64.

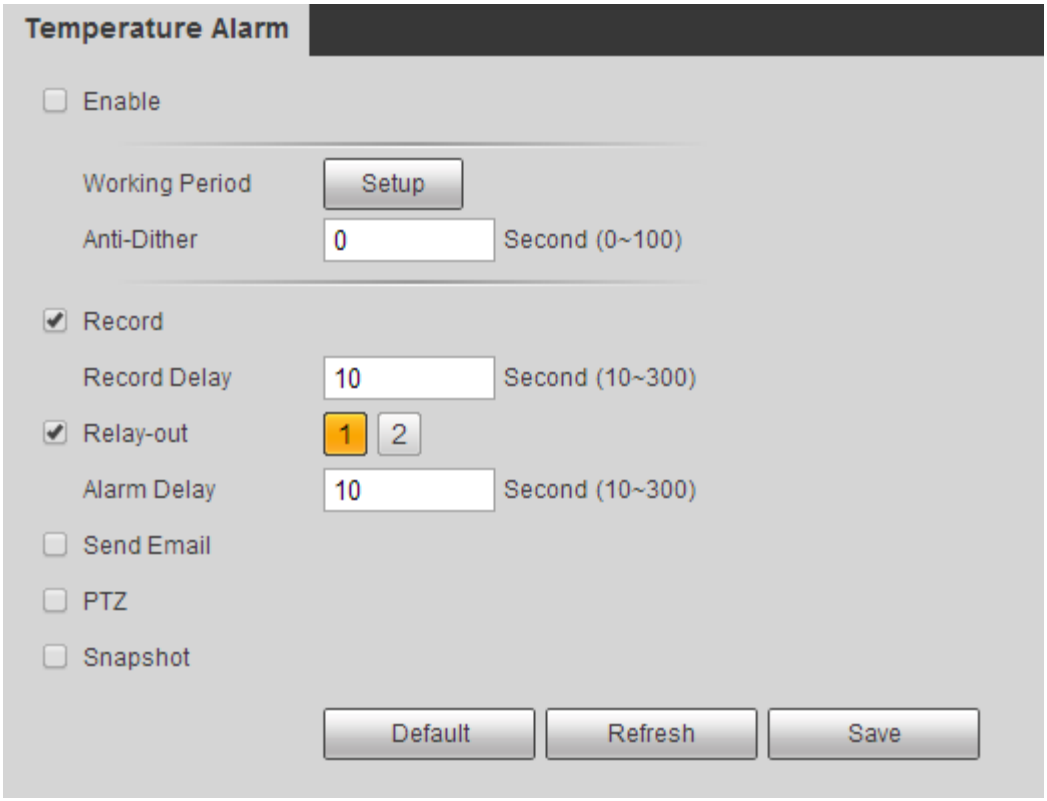



Figure 6-64

Step 2

Select “Enable” to configure each parameter info according to the actual interface, please refer to sheet 6-37 for more details.

Step 3

Click “Save” to make config valid.

### 6.5.3 Alarm Setting

Step 1

Select “Setup > Event > Alarm” and the system will display the interface of “Alarm”, which is shown in Figure 6-65.

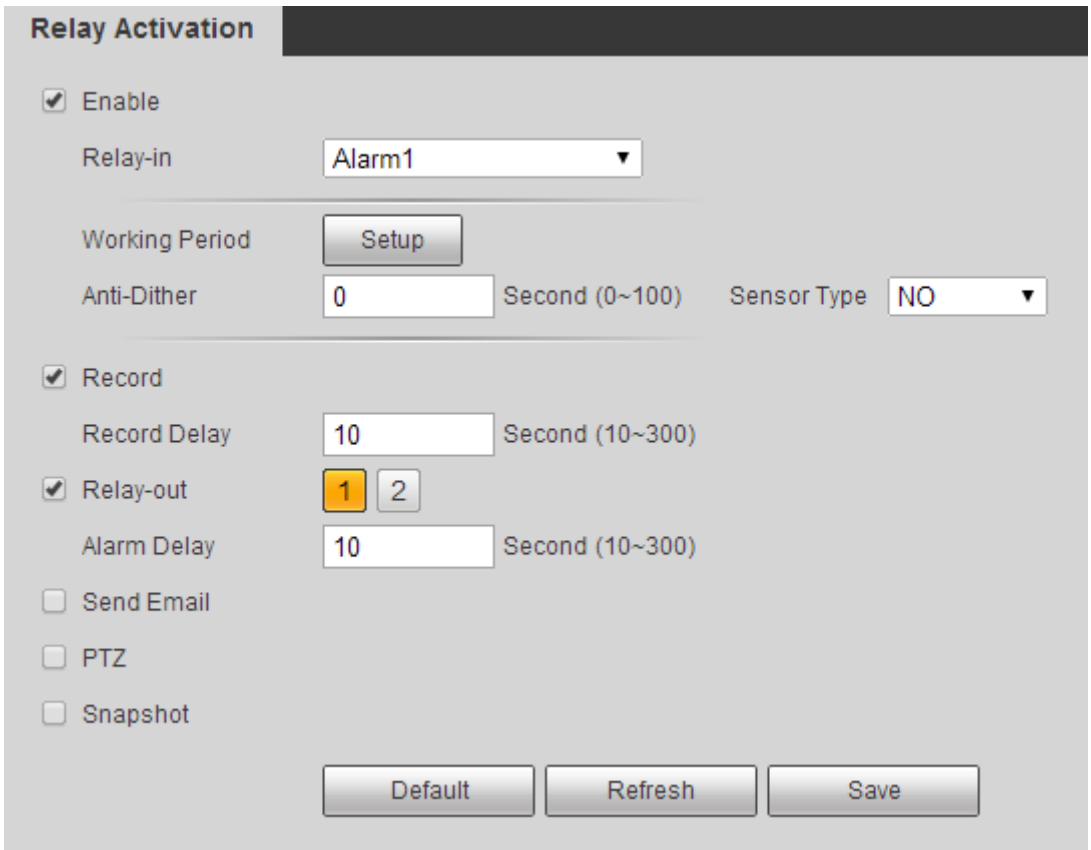



Figure 6-65

Step 2

It is to configure each parameter info according to the actual needs, please refer to sheet 6-37 and sheet 6-39 for more details.

| Parameter | Note |
|---|---|
| Enable | It is the enable switch of relay activation. |
| Relay-in | The bigger the sensitivity is, the easier it becomes to trigger motion detect, but meanwhile it increases false alarm rate, it is advised to use default value. |
| Sensor Type | Please select No and NC according to the type of access sensor. |

Sheet 6-39

Step 3

Click “Save” to make config valid.

### 6.5.4 Abnormity

Abnormity includes No SD Card, Capacity Warning, SD Card Error, Disconnection, IP Conflict and Illegal Access.

**Note:**

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

6.5.4.1 **SD Card Abnormity**

Step 1

Select “Setup > Event > Abnormity > SD Card Abnormity” and the system will display the interface of “SD Card Abnormity”, which is shown in Figure 6-66.

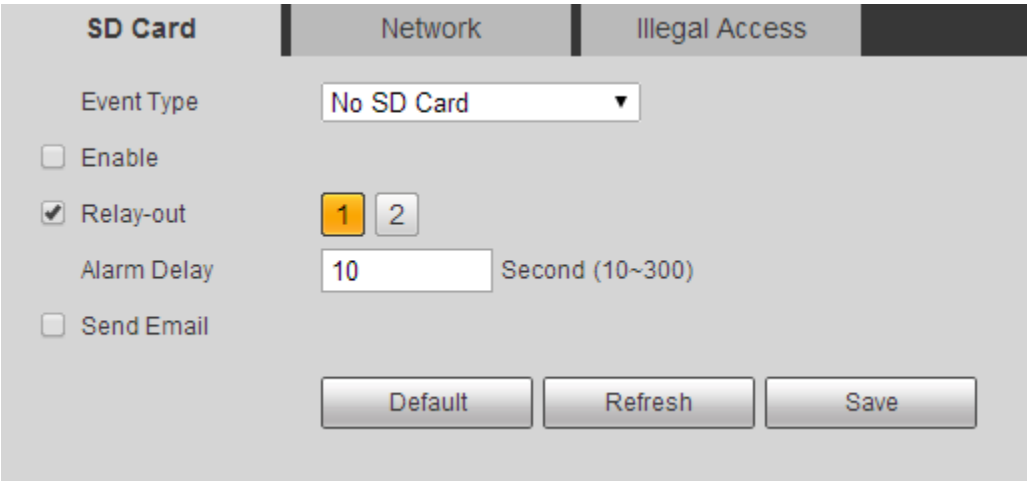



Figure 6-66

Step 2

Configure each parameter info according to the actual needs, please refer to sheet 6-37 and sheet 6-40 for more details.

| Parameter | Function |
|---|---|
| Event Type | SD card abnormity includes: No SD card, SD card capacity warning, and SD card error. |
| Enable | Click it to trigger alarm when SD card is abnormal. |
| SD Card Capacity Limit | User can set SD card capacity that is left free. When SD card space left is smaller than this limit, alarm occurs.<br>**Note:**<br>It needs to set when the “Event Type” is set as “Capacity Warning”. |

Sheet 6-40

Step 3

Click “Save” to complete config.

6.5.4.2 **Network Abnormity**

Step 1

Select “Setup > Event > Abnormity > Network” and the system will display the interface of “Network”, which is shown in Figure 6-67.

**Note:**

The figure is an example of “Event Type” which is set as “Disconnection”.

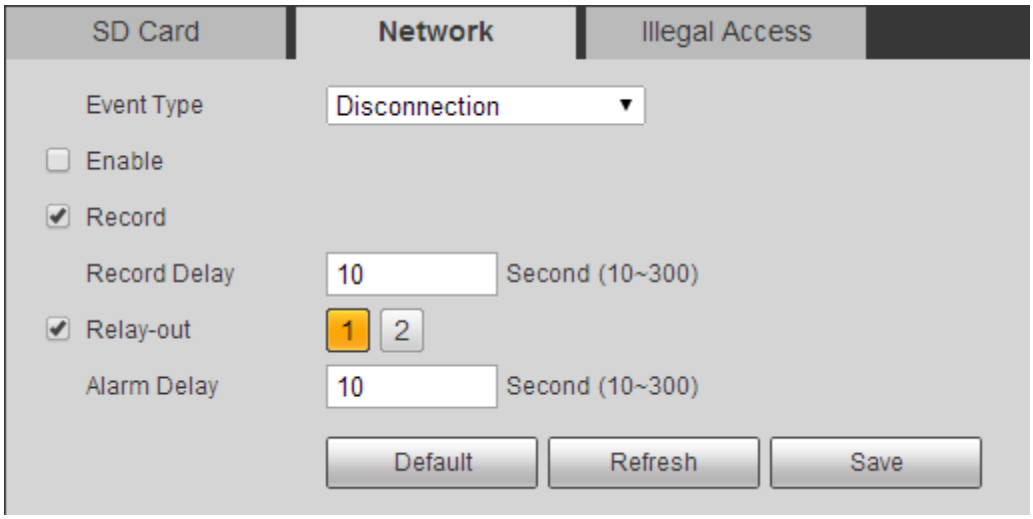



Figure 6-67

Step 2

It is to configure parameter info according to actual needs, please refer to sheet 6-37 and sheet 6-41.

| Parameter | Note |
|---|---|
| Event Type | It includes disconnection and IP conflict. |
| Enable | Select “Enable” and it will trigger alarm when network is abnormal. |

Sheet 6-41

Step 3

Click “Save” to make config valid.

6.5.4.3 **Illegal Access**

When the login password has been wrong for certain times, it will trigger alarm of illegal access.

Step 1

Select “Setup > Event > Abnormity > Illegal Access” and the system will display the interface of “Illegal Access”, which is shown in Figure 6-68.

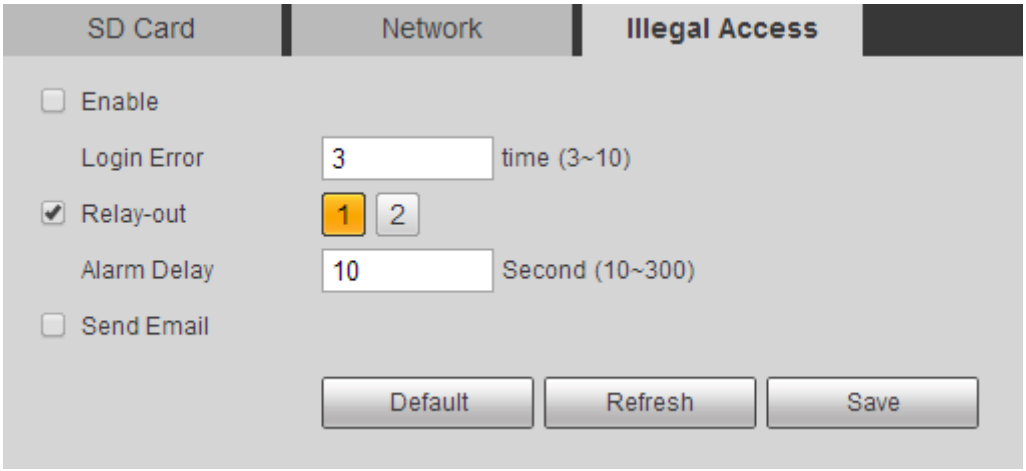



Figure 6-68

Step 2

It is to configure parameter info according to the actual needs, please refer to sheet 6-37 and sheet 6-42 for more details.

| Parameter | Note |
|---|---|
| Enable | Select “Enable” and it will trigger alarm when illegal access occurs. |
| Login Error | After entering the wrong password for certain times, it will trigger alarm of illegal access, and then the account is locked. |

Sheet 6-42

Step 3

Click “Save” to make config valid.

## 6.6 Temperature

**Note:**

Some devices don’t support temperature measurement function, please refer to the actual interface.

### 6.6.1 Rule

6.6.1.1 Parameter Config

Step 1

Select “Setup > Temperature > Rule” and the system will display the interface of “Rule”, which is shown in Figure 6-69.




Figure 6-69

Step 2

Click “Parameter Config” to enter the setting interface.

Step 3

It is to configure rule and parameter, which is shown in Figure 6-70.

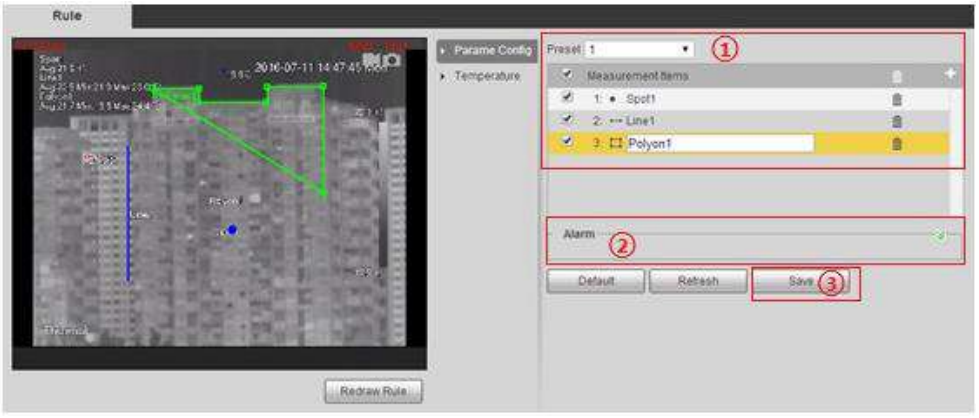



Figure 6-70

1. Click ✚ to add measurement items.
2. Double click new rule to modify the name of measurement item.
3. Press the left mouse button to draw rules on the monitoring image, click right mouse button to end drawing.

   **Note:**

   Select the drawn rule, click “Redraw Rule” to delete the rule and draw it again.
4. It is to set alarm parameters, please refer to sheet 6-43 for more details.

| Parameter | Note |
|---|---|
| Open Local Config | Check it to enable local config function. |
| Target radiation coefficient | It is to set the target emissivity, 0~1 optional. |
| Target distance | It is to set the distance between camera and target, 0～1000m optional. |
| Target reflection temperature | It is to set the target temperature, 0～550℃optional. |
| Relay out | Check it to enable relay out function. |
| Alarm result | It is to set the temperature value mode of triggering alarm.<br>● Spot: optional value<br>● Line: able to select max, min and average.<br>● Area: able to select max, min, average, standard and middle |
| Alarm condition | It is to set alarm condition, optional below, match and above. |
| Alarm threshold temperature | It is to set the threshold temperature of triggering alarm, 0～550℃optional. |
| Temperature error | It is to set temperature error, 0～10℃optional. |
| Temperature duration | It will trigger alarm when the temperature is above the alarm threshold temperature and exceed the set duration temperature. Temperature duration 0～1000s optional. |

Sheet 6-43

Step 3

Click “Save” to make config valid.

6.6.1.2 **Temperature Contrast**

Temperature contrast function means comparing the temperature of selected spot, line or area and display the result on the preview interface.

**Note:**

It can configure temperature contrast after completing config of at least two rules.

Step 1

Select “Setup > Temperature > Rule” and the system will display the interface of “Rule”, which is shown in Figure 6-71.

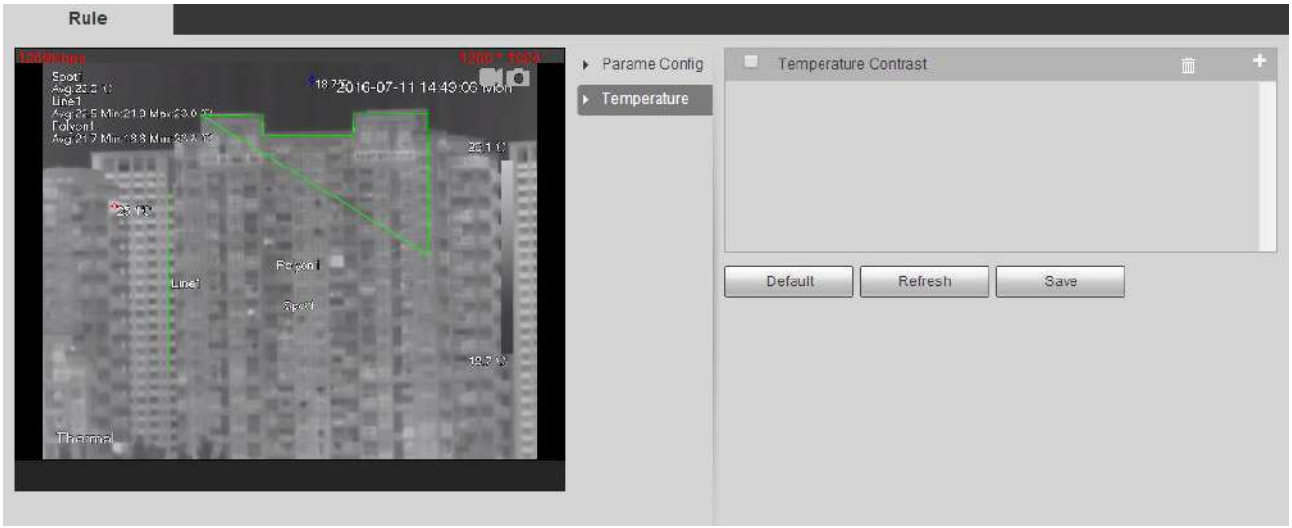



Figure 6-71

Step 2

Click “Temperature Contrast” to enter the setting interface.

Step 3

It is to configure rule and parameter, which is shown in Figure 6-72.

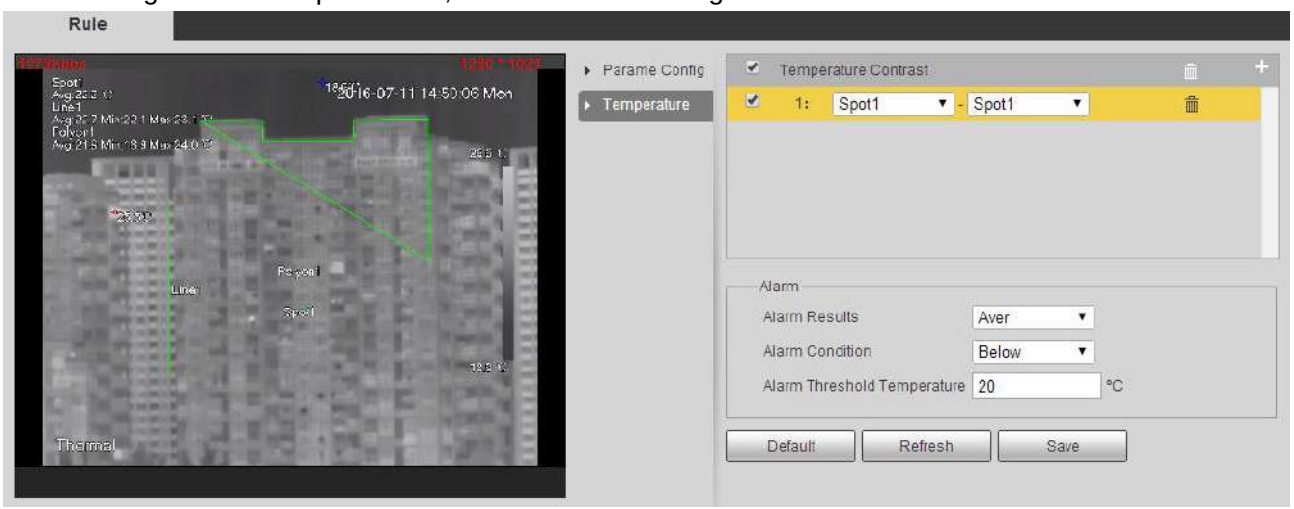



Figure 6-72

1. Click to add contrast record.
2. Double click new contrast record to select contrast target.
3. It is to set alarm parameters, please refer to sheet 6-44 for more details.

| Parameter | Note |
| --- | --- |
| Alarm Results | ● Average: it means average temperature contrast between two rules.<br>● Max: it means max temperature contrast between two rules.<br>● Min: it means min temperature contrast between two rules. |
| Alarm Conditions | It is to set alarm condition, which includes below, match and above. |
| Alarm Threshold Temperature | It is to set the threshold temperature of triggering alarm, you can select 0~550℃. |

Sheet 6-44

### 6.6.2 Global

It can enable temperature switch, isotherm and color code.

- After the temperature switch is enabled, the temperature rule is valid and the interface will display the temperature rule which has been set.
- Isotherm is mainly used to highlight the object in the image with high brightness, take medium temperature as basic, both max and min temperature are fluctuation range, it is expressed by bright color if it exceeds min temperature, the area which is lower than min temperature displays black and white.
- Color code is located on the right of the preview interface, which is used to display the color change from the highest temperature to the lowest temperature.

Step 1

Select "Setup > Temperature > Global" and the system will display the interface of "Global", which is shown in Figure 6-73.

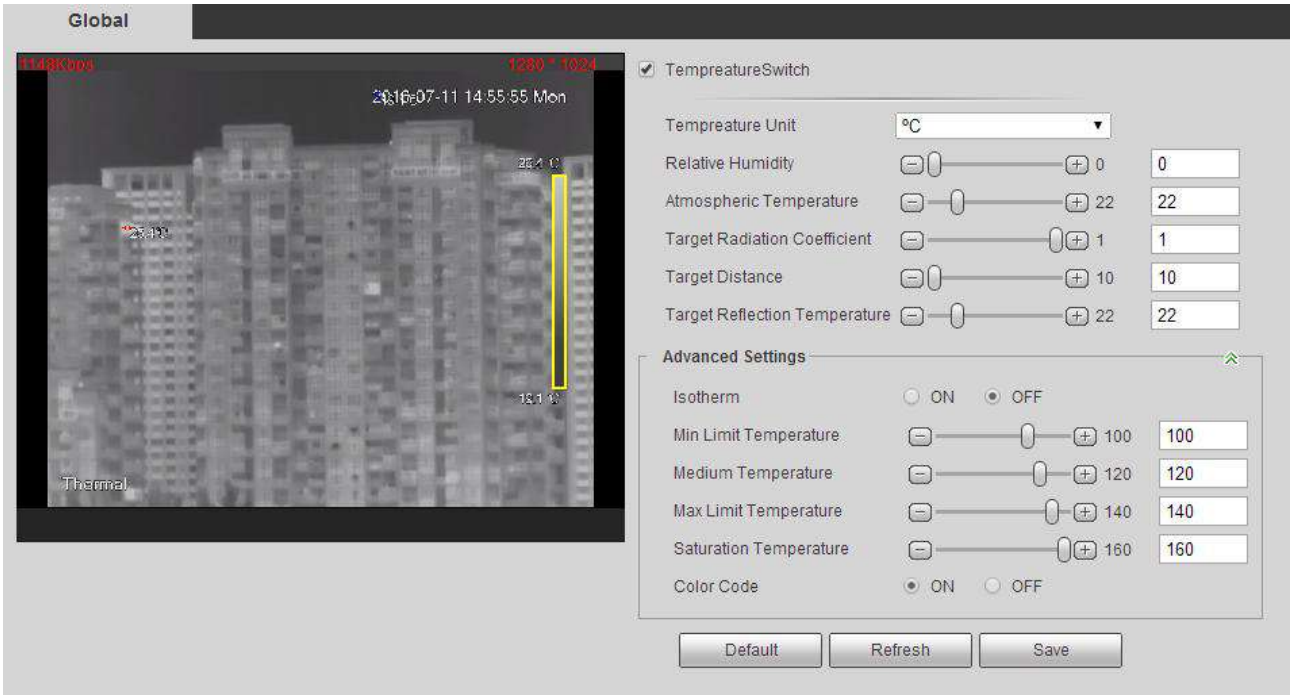



Figure 6-73

Step 2

Click "Thermal" to enter the setting interface.

Step 3

It is to set alarm parameters, please refer to sheet 6-45 for more details.

| Parameter | Note |
|---|---|
| Temperature Switch | Check it to enable temperature switch function. |
| Temperature Unit | It is to set the displayed temperature unit, and F optional. |
| Relative Humidity | It is to set the environment relative humidity, 0～100 optional. |
| Atmospheric Temperature | It is to set environmental temperature, 0～100 optional. |
| Physical Radiation Coefficient | It is to set physical radiation coefficient, 0～1 optional. |
| Object Distance | It is to set physical distance, 0～100 optional. |
| Object reflection Temperature | It is to set the object reflective temperature, 0～100 optional. |
| Isotherm | It is to select if enable isotherm function. |

| Parameter | Note | |
|---|---|---|
| Min Temperature | It is to set min temperature.<br>● When gain mode is low temperature mode, it is -40℃～160℃ optional.<br>● When gain mode is high temperature mode, it is -40℃~600℃. | **Note:**<br>Min temperature<=medi temperature<=Max temperature<=saturation temperature |
| Medium temperature | It is to set medium temperature.<br>● When gain mode is low temperature mode, it is -40℃～160℃ optional.<br>● When gain mode is high temperature mode, it is -40℃~600℃. | |
| Max Temperature | It is to set max temperature.<br>● When gain mode is low temperature mode, it is -40℃～160℃ optional.<br>● When gain mode is high temperature mode, it is -40℃~600℃. | |
| Saturation Temperature | It is to set saturation temperature.<br>● When gain mode is low temperature mode, it is -40℃～160℃.<br>● When gain mode is high temperature mode, it is -40℃~600℃. | |
| Color Code | It is to select if it is to enable color code. | |

Figure 6-45

Step 4

Click “Save” to make config valid.

After the config is valid, the result figures are shown in Figure 6-74, Figure 6-75 and Figure 6-76.

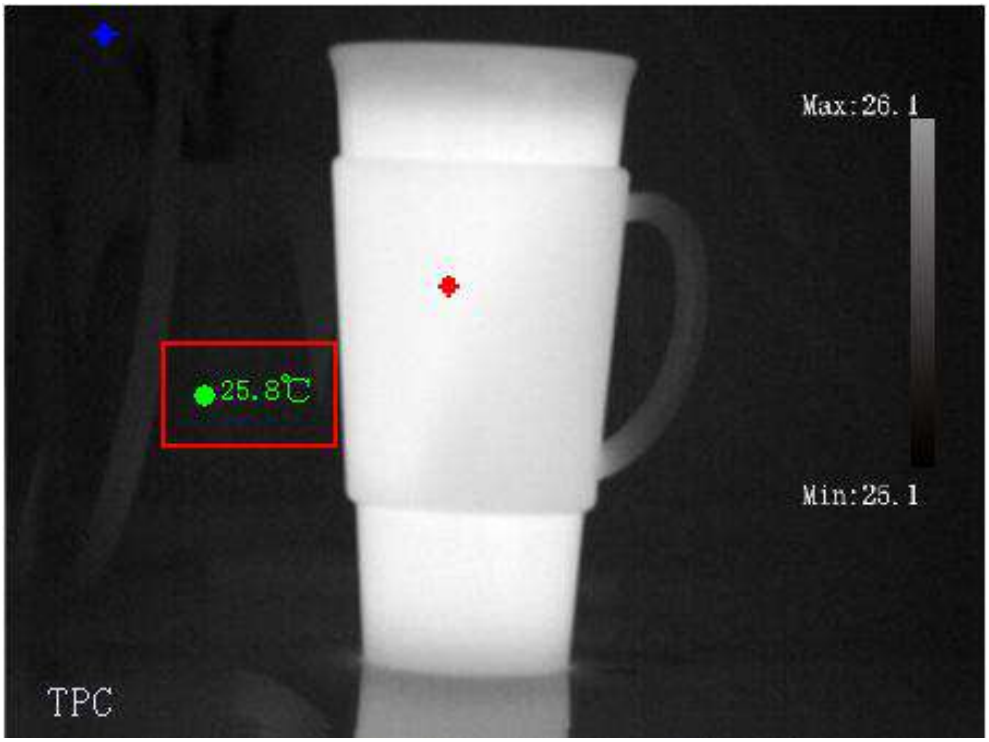



Figure 6-74




Figure 6-75

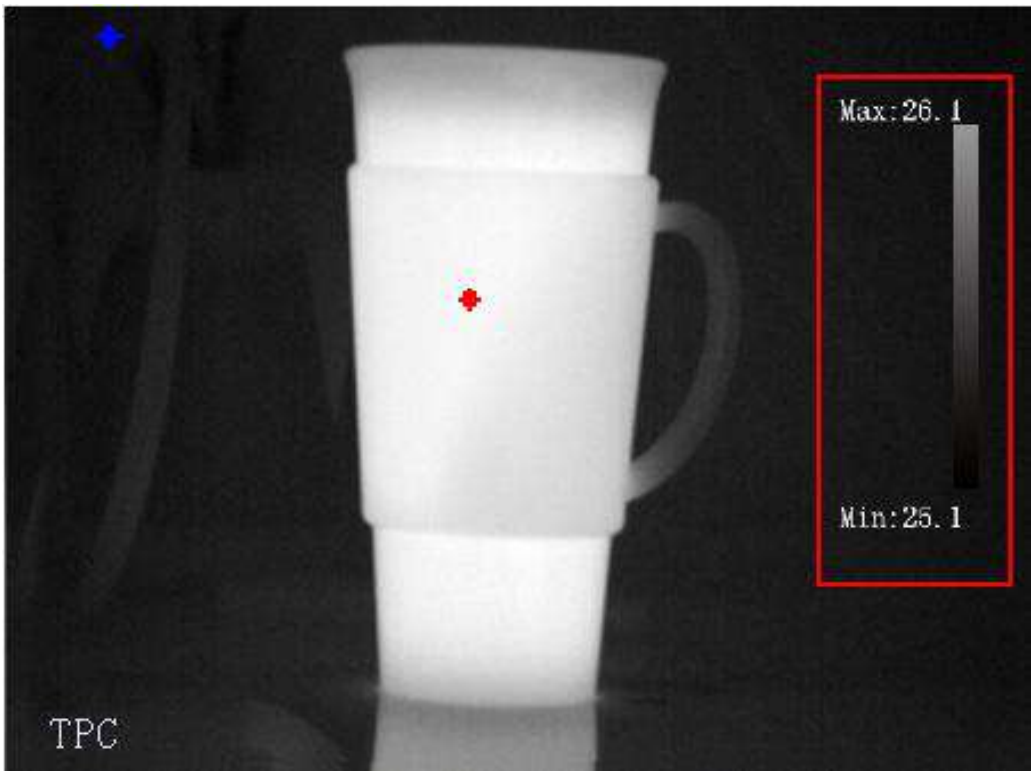



Figure 6-76

### 6.6.3 Heatmap

Heatmap is used to acquire the temperature value of each pixel on the thermal image, which can be analyzed via heatmap tool.

Step 1

Select “Setup > Temperature > Heatmap” and the system will display the interface of “Heatmap”, which is shown in Figure 6-77.

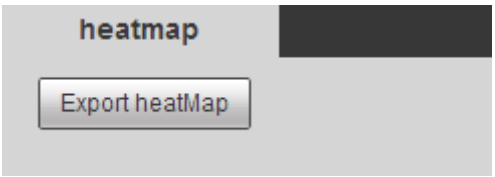



Figure 6-77

Step 2

Click “Export Heatmap” to export heatmap.

## 6.7 Storage Management

### 6.7.1 Schedule

Before schedule setup, user must set record mode is auto or manual.

**Note:**

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

Select “Setup > Storage Management > Schedule” to enter the config interface of “Schedule”, which is shown in Figure 6-78.

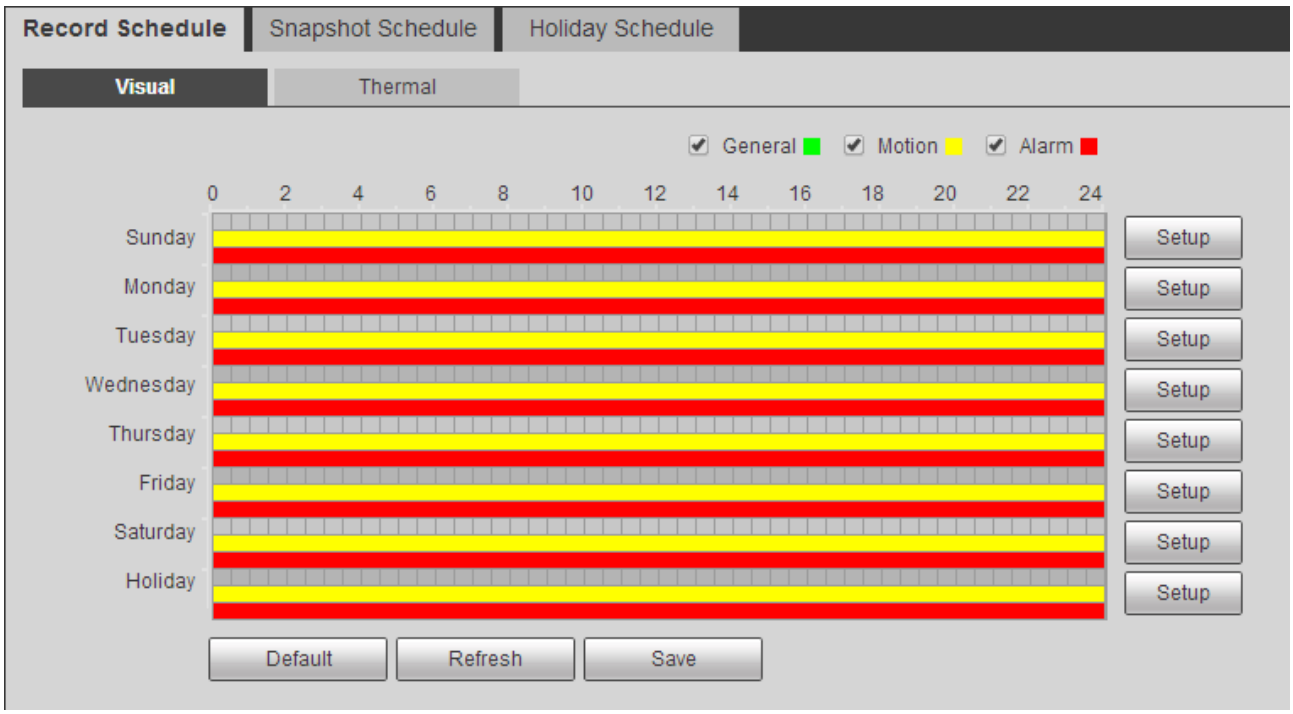



Figure 6-78

#### 6.7.1.1 **Record Schedule**

**Note:**

Record schedule is divided into two parts of config which are visual and thermal, both config methods are similar. Here we take thermal config as an example to introduce operation steps.

Step 1

Select “Record Schedule > Thermal” and the system will display the interface of “Thermal”, which is shown in Figure 6-79.

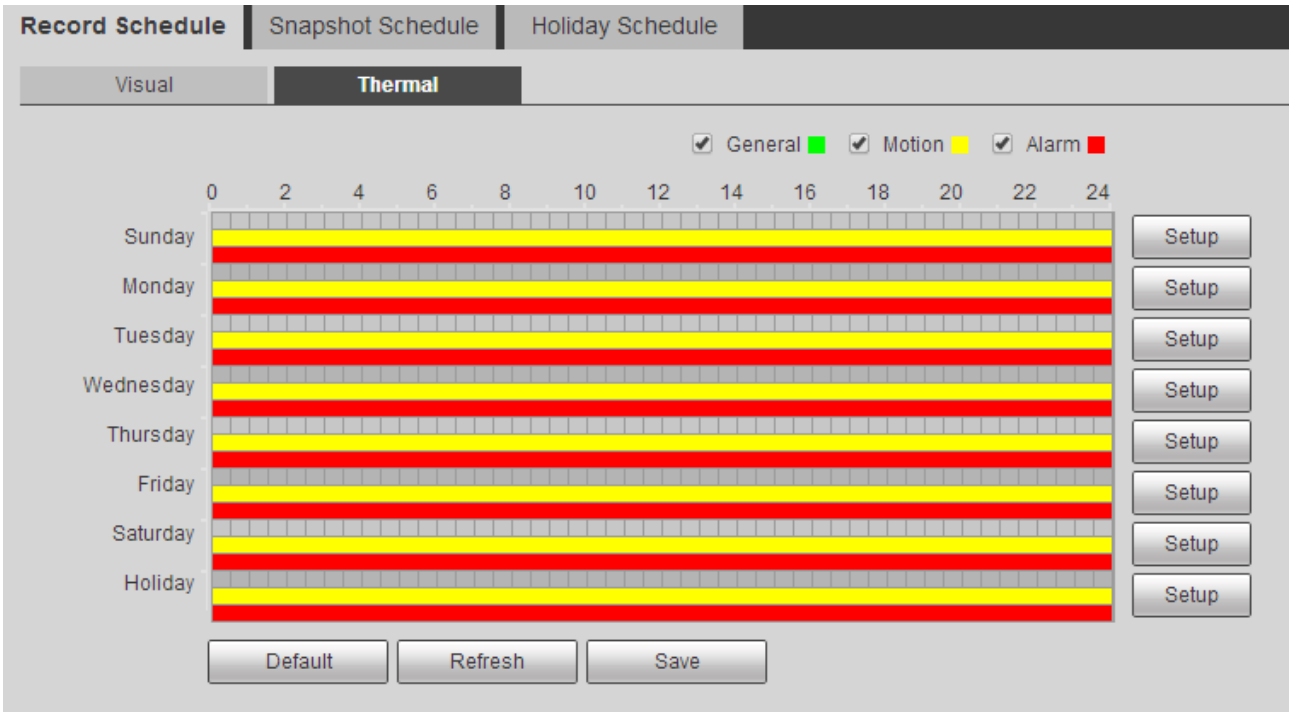



Figure 6-79

Step 2

Select record time from “Monday to Sunday”, click “setup” on the right of the interface and the system will display the interface of “Setup”, which is shown in Figure 6-80.

- It is to set record period according to your needs, there are six periods available every day.
- You can select or cancel record schedule. Record schedule includes: General, Motion and Alarm.

Green: it means general record.

Yellow: it means motion record.

Red: it means alarm record.

**Note:**

You can also set period by pressing the left mouse button and dragging directly in the “Record Schedule” interface.

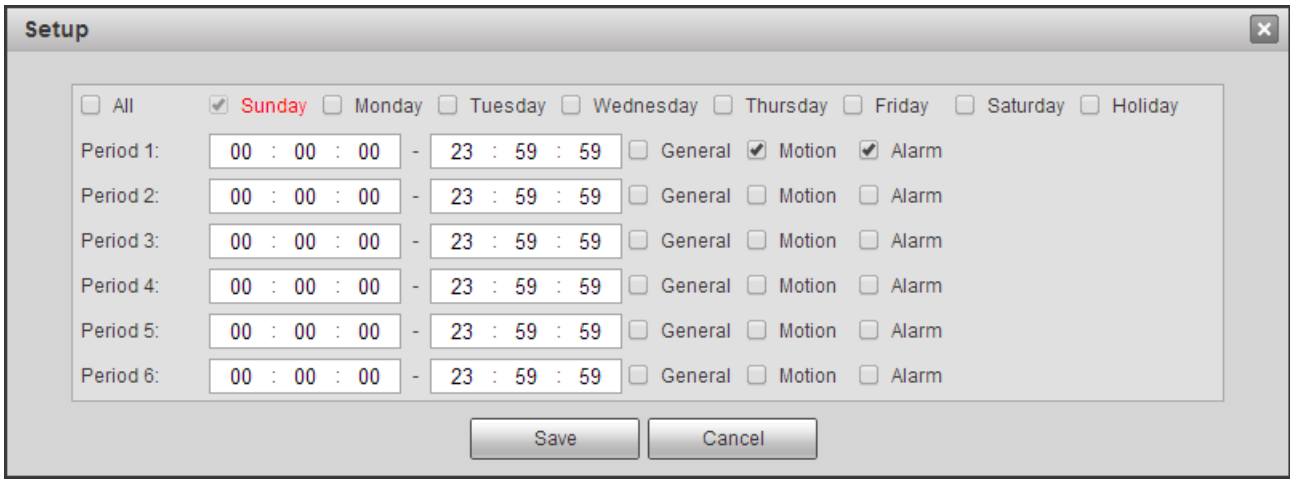



Figure 6-80

Step 3

Click “Save” and the system will return to the interface of “Record Schedule”, which is shown in Figure 6-81, the area with color means that period has been set in the area.

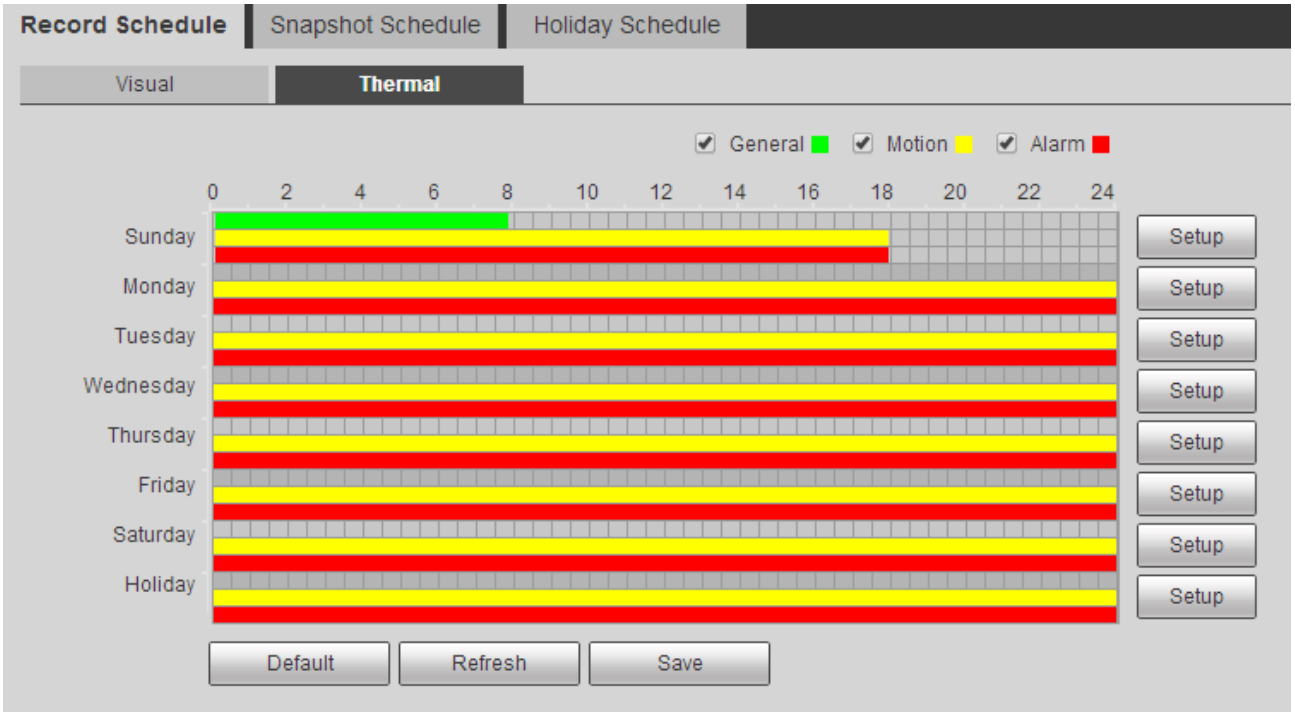



Figure 6-81

Step 4

Click “Save” and the system will display “Successfully Saved”, then the setting of record schedule is completed.

6.7.1.2 **Snapshot Schedule**

Snapshot schedule is divided into two parts of config which are visual and thermal, both config methods are similar. Here we take thermal config as an example to introduce operation steps.

Step 1

Select “Snapshot Schedule > Thermal” and the system will display the interface of “Thermal”, which is shown in Figure 6-82.

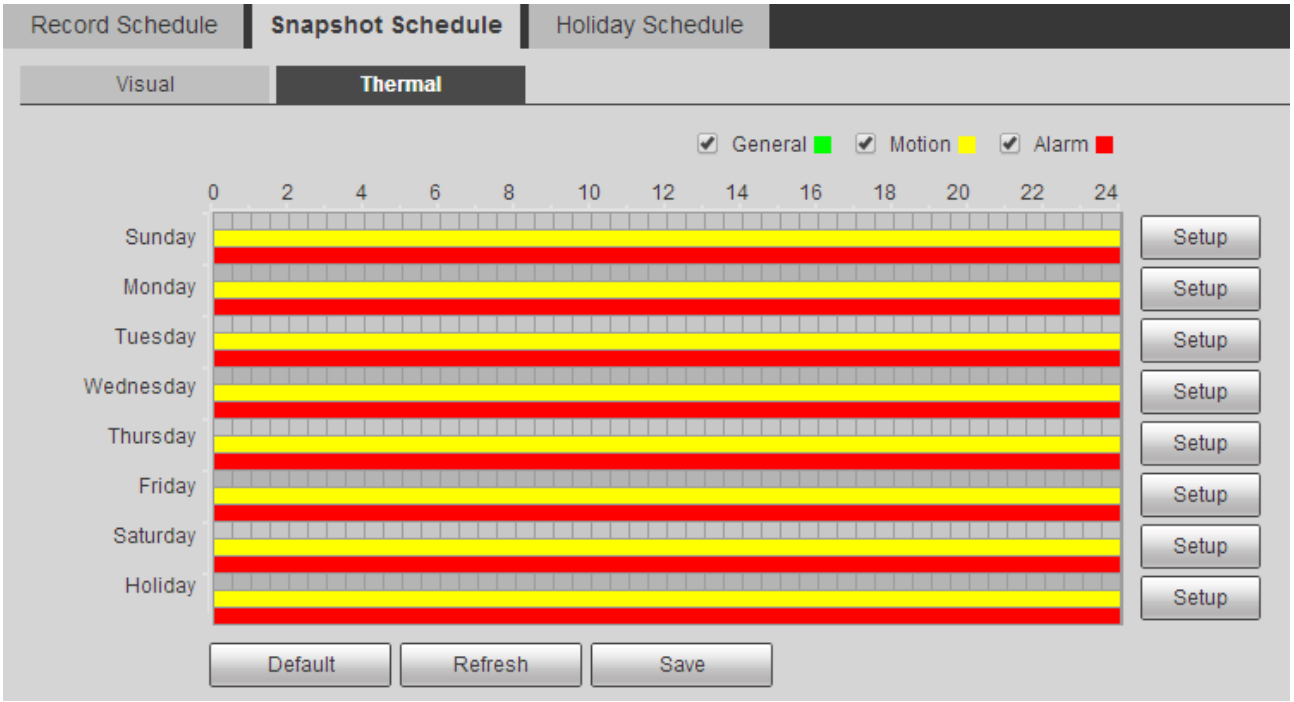



Figure 6-82

Step 2

Select snapshot time from “Monday to Sunday”, click “setup” on the right of the interface and the system will display the interface of “Setup”, which is shown in Figure 6-83.

- It is to set snapshot period according to your needs, there are six periods available every day.
- You can select or cancel snapshot schedule. Snapshot schedule includes: General, Motion and Alarm.

Green: it means general snapshot.

Yellow: it means motion snapshot.

Red: it means alarm snapshot.

**Note:**

You can also set period by pressing the left mouse button and dragging directly in the “Record Schedule” interface.

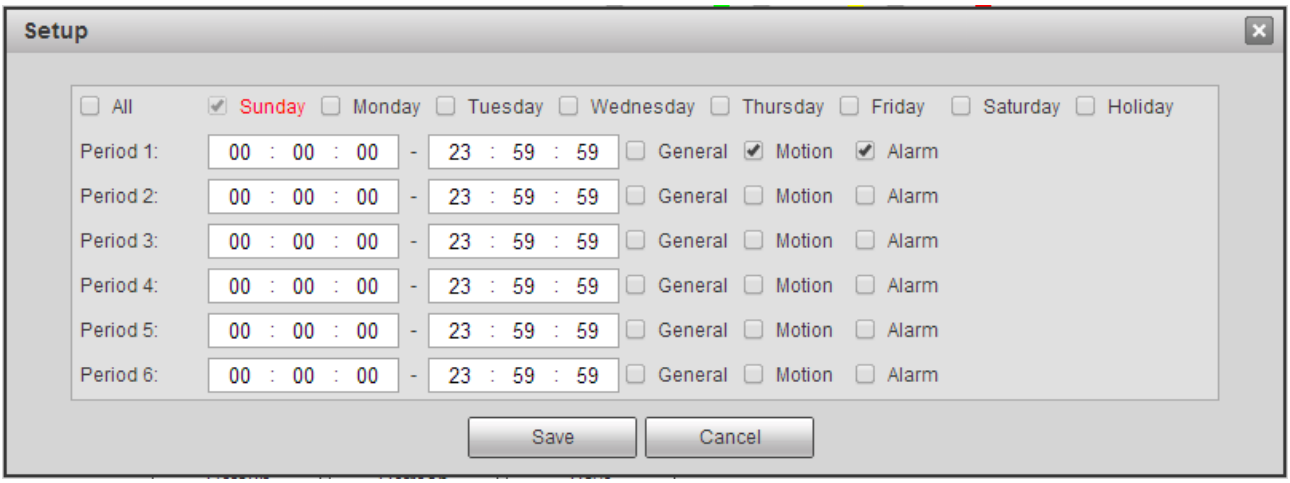



Figure 6-83

Step 3

Click “Save” and the system will return to the interface of “Snapshot Schedule”, which is shown in Figure 6-84, the area with color means that period has been set in the area.

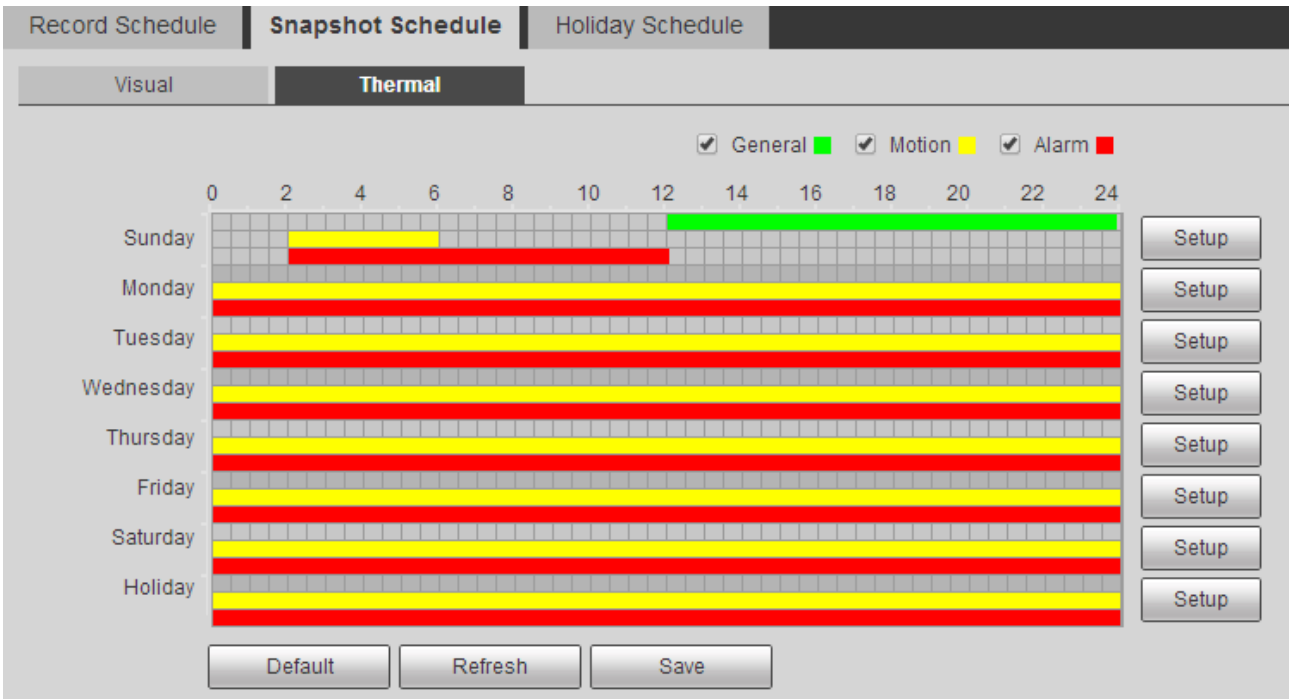



Figure 6-84

Step 4

Click “Save” and the system will display “Successfully Saved”, then the setting of snapshot schedule is completed.

6.7.1.3 **Holiday Schedule**

In the holiday schedule, it can set specific date as holiday, when the record and snapshot in the holiday schedule are enabled, the specific date which is set in the holiday schedule will record and snapshot according to the holiday period.

Step 1

Click “Holiday Schedule” and the system will display the interface of “Holiday Schedule’, which is shown in Figure 6-85.

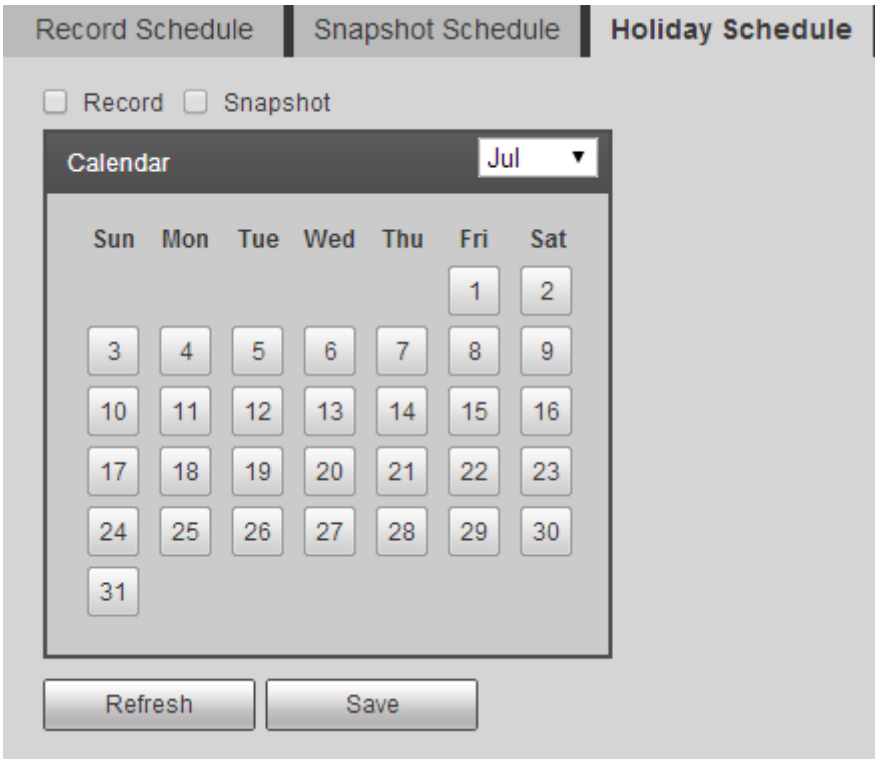



Figure 6-85

Step 2

Select the date which needs to be set as holiday. The selected date will be displayed with yellow shading.

Step 3

Select “Record” or “Snapshot” and click “Save”. The system will prompt “Successfully Saved”.

Step 4

In the interface of “Record Schedule/Snapshot Schedule”, set the record schedule or snapshot schedule of the holiday. Please refer to “6.7.1.1 Record Schedule” and “6.7.1.2 Snapshot Schedule” for more details.

## 6.7.2 Destination

6.7.2.1 Path

Path can config record and snapshot storage path. There are three options: Local SD card, 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:**

The device which supports SD card is equipped with the function of “Local”, the device which fails to support SD card doesn’t display “Local”.

Step 1

Select “Setup > Storage > Destination > Path” and the system will display the interface of “Path”, which is shown in Figure 6-86.

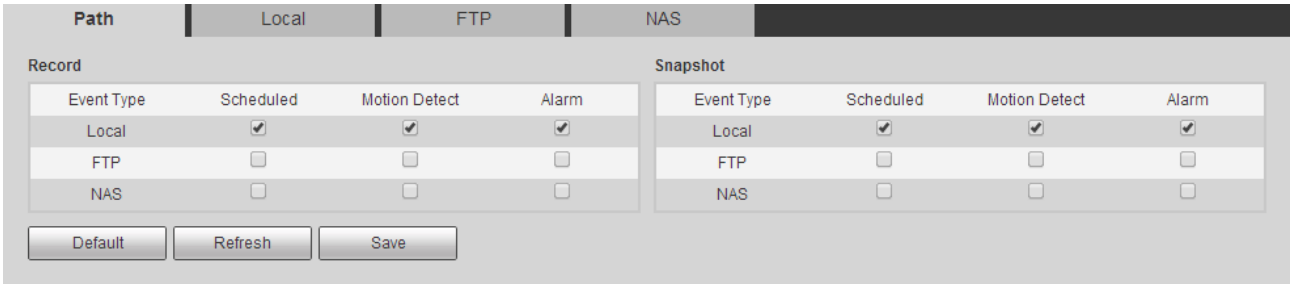



Figure 6-86

Step 2

Select corresponding event type and storage mode according to the actual needs.

| Parameter | Function |
|---|---|
| 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. |

Sheet 6-46

Step 3

Click “Save” to make config valid.

6.7.2.2 **Local**

Local storage list only displays various info of SD card, which can implement operations like read only, read-write, hot swap and format.

Select “Setup > Storage > Destination > Local” and the system will display the interface of “Local”, which is shown in Figure 6-87.

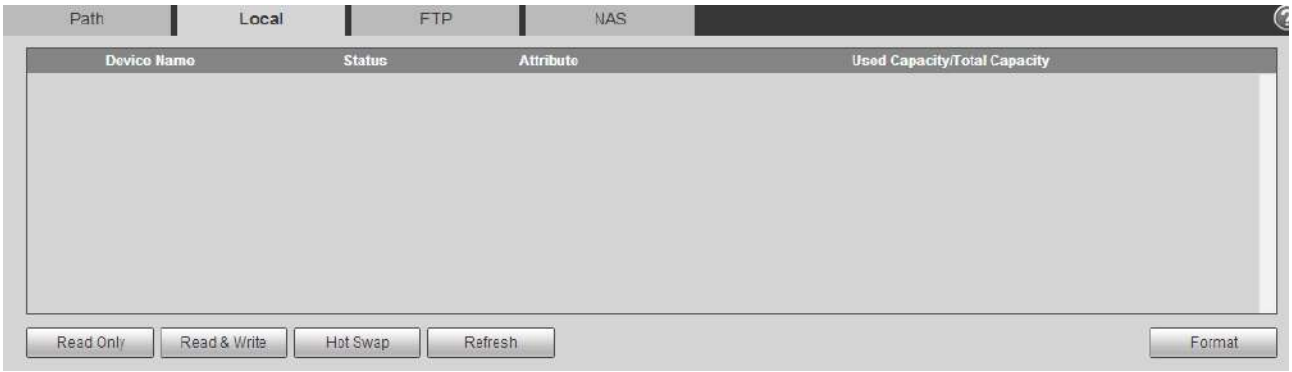



Figure 6-87

- Click “Read only” and you can set the SD card as read-only.
- Click “Read-write” and you can set the SD card as read-write.
- Click “Hot swap” and you can hot swap the SD card.
- Click “Format” and you can format the SD card.

6.7.2.3 **FTP**

FTP function can be enabled when path selects FTP storage mode. When network disconnection occurs or there is malfunction. Emergency storage can save the needed record/snapshot picture to the local SD card.

Step 1

Select “Setup > Storage > Destination > FTP” and the system will display the interface of “FTP”, which is shown in Figure 6-88.

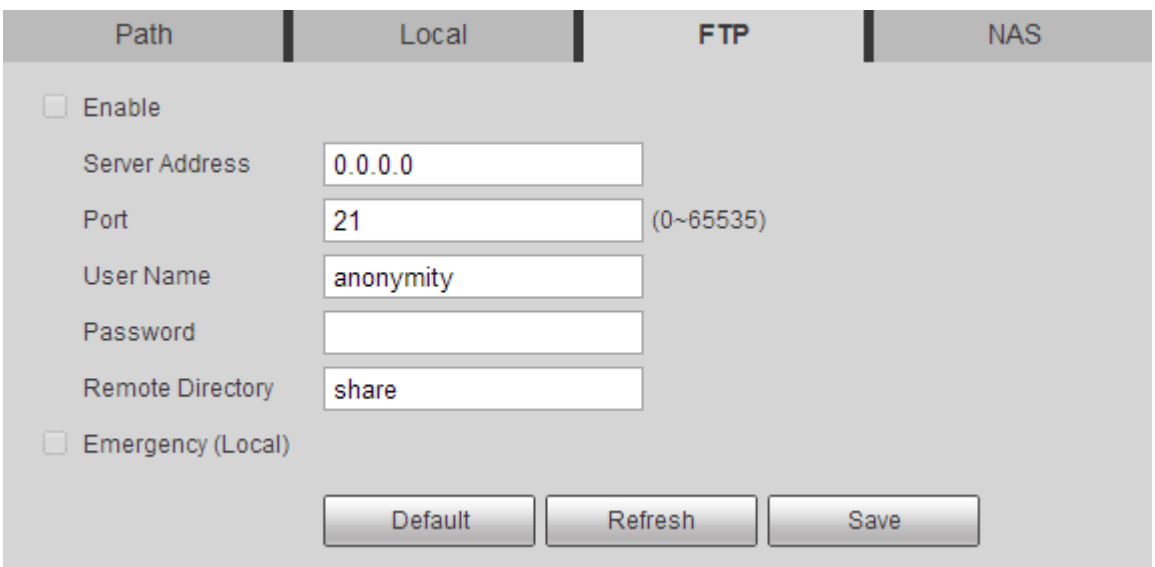



Figure 6-88

Step 2

Configure parameter info according to the actual needs; please refer to sheet 6-47 for more parameter details.

| Parameter | Note |
|---|---|
| Enable FTP | Select “Enable” to enable FTP function. |
| Server address | FTP server address. |
| Port | FTP server port. |
| User Name | It is the user name which is used to log in FTP server. |
| Password | It is the password which is used to log in FTP server. |
| Remote Directory | It is the directory which is stored to the FTP server. |
| Emergency (Local) | Select “Emergency Local” and it will store to the local SD card when there is FTP storage abnormity. |

Sheet 6-47

Step 3

Click “Save” to make config valid.

### 6.7.2.4 **NAS**

NAS function can be enabled when path selects NAS storage mode. After selecting NAS storage, you can store the file into the NAS server.

Step 1

Select “Setup > Storage > Destination > NAS” and the system will display the interface of “NAS”, which is shown in Figure 6-89.

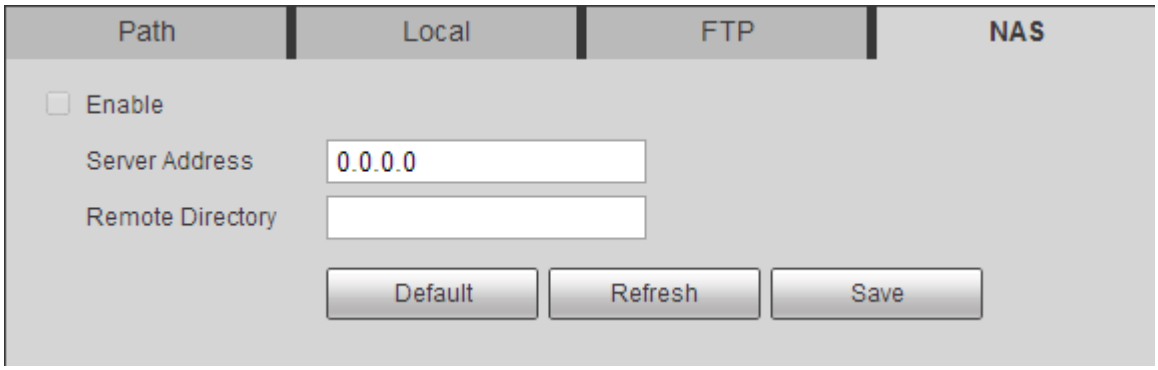



Figure 6-89

Step 2

Configure parameter info according to the actual needs, please refer to sheet 6-48 for more parameter details.

| Parameter | Function |
|---|---|
| Enable NAS | Select ‘Enable” to enable NAS function. |
| Server Address | NAS server address. |
| Remote Directory | Store it to the directory of NAS server. |

Sheet 6-48

Step 3

Click “Save” to make config valid.

### 6.7.3 Record control

Step 1

Select “Setup > Storage > Record Control” and the system will display the interface of “Record Control”, which is shown in Figure 6-90.

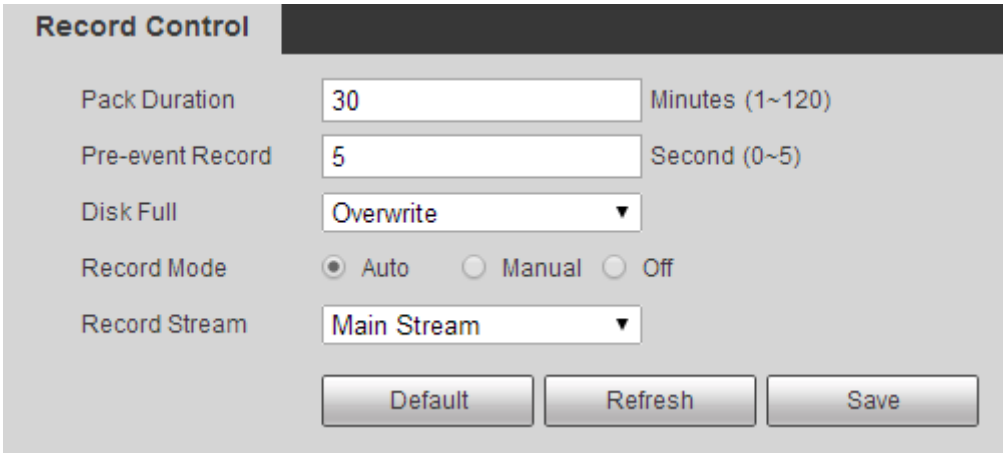



Figure 6-90

Step 2

Configure parameter info according to the actual needs, which is shown in Sheet 6-49.

| Parameter | Function |
|---|---|
| Pack Duration | Here you can select file size within 1min~120min. Default setup is 30 minutes. |

| | |
|---|---|
| Pre-event Record | Please input pre-event record time, for example, when you input 5, the system will read the video of the first 5 seconds and copy it into the file after alarm occurs.<br>**Note:**<br>Configure pre-event record time, when alarm record or motion detection occurs, if there is no record, system will record the preceding n seconds video and copy it into the record file. |
| Disk Full | There are two options: stop recording or overwrite the previous files when HDD is full.<br>● Stop: Current working HDD is overwriting or current HDD is full, it will stop record.<br>● Overwrite: Current working HDD is full; it will overwrite the previous file. |
| Record mode | There are three modes: Auto/Manual/Off. Select manual mode to start recording, it will record within the schedule when it selects auto mode. |
| Record stream | You can select main stream and sub stream. |

Sheet 6-49

# 6.8 System

## 6.8.1 General

### 6.8.1.1 **General**

Step 1

Select “Setup > System > General > General” and the system will display the interface of “General”, which is shown in Figure 6-91.

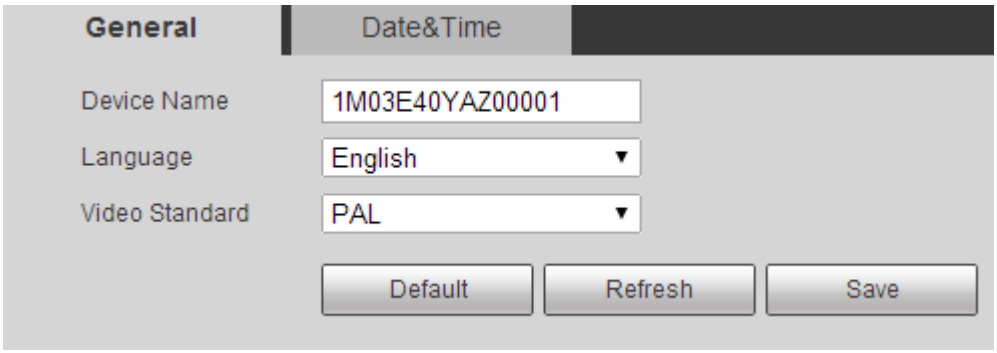



Figure 6-91

Step 2

It is to configure parameter info according to the actual needs, please refer to sheet 6-50 for more details about parameters.

| Parameter | Function |
|---|---|
| Device Name | It is to set device name.<br>**Note**:<br>Different devices have different names. |
| Language | You can select the language which needs to be displayed. |
| Video Standard | It is to display the video standard of the device, such as PAL. |

Sheet 6-50

6.8.1.2 **Date&Time**

Step 1

Select “Setup > System > general > Date&Time” and the system will display the interface of “Date&Time”, which is shown in Figure 6-92.

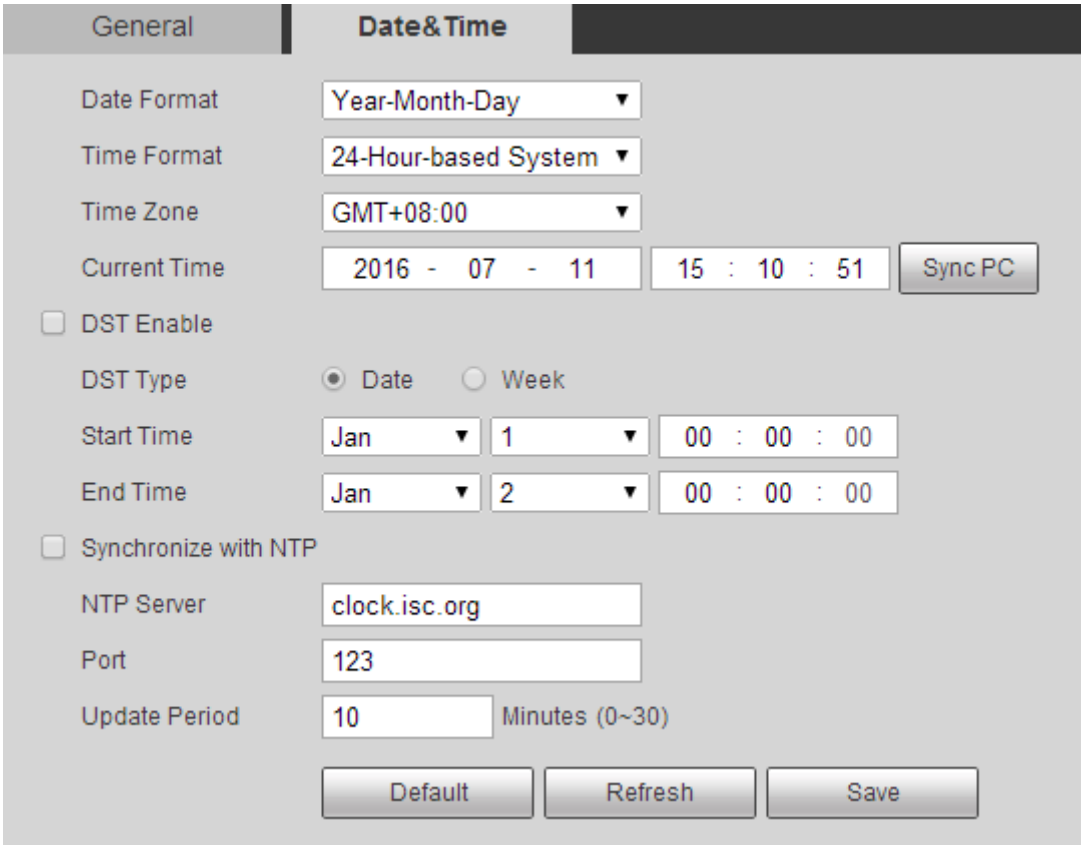



Figure 6-92

Step 2

Configure parameter info according to the actual needs, please refer to the sheet 6-51.

| Parameter | Function |
|---|---|
| Date format | Select the corresponding date display format which needs to be displayed. |
| Time Format | Select corresponding time format which needs to be displayed. |
| Time zone | The time zone of the device. |
| Current time | It is to set system time. It becomes valid after you set. |
| DST | Here you can set the begin time and end time of DST. You can also set according to the date format or according to the week format. |
| NTP Setting | It is to set if it is to enable the function of network time sync. |
| NTP server | You can set the address of time server. |
| Port | It is to set the port number of time server. |
| Update period | It is to set the sync periods between the device and the time server. |

Sheet 6-51

Step 3

Click “Save” to make config valid.

### 6.8.2 Account

It can implement account management operation only when users management authority is available to the users.

- For the characters in the following user name or the user group name, system max supports 15-digits. The valid string includes: letter, number, and underline.
- Password can be set with 0~32 characters in number and letter only. User can not only modify his or her own password but also the password of other users.
- 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.
- Current logged-in user cannot modify his own right.
- There is one default user called admin during initialization. Admin belongs to high authority user when it is shipped out of the factory.

#### 6.8.2.1 **Username**

In “Setup > System > Account > Account > User”, you can implement several operations such as anonymous login enable, add user, delete user and modify user password etc.

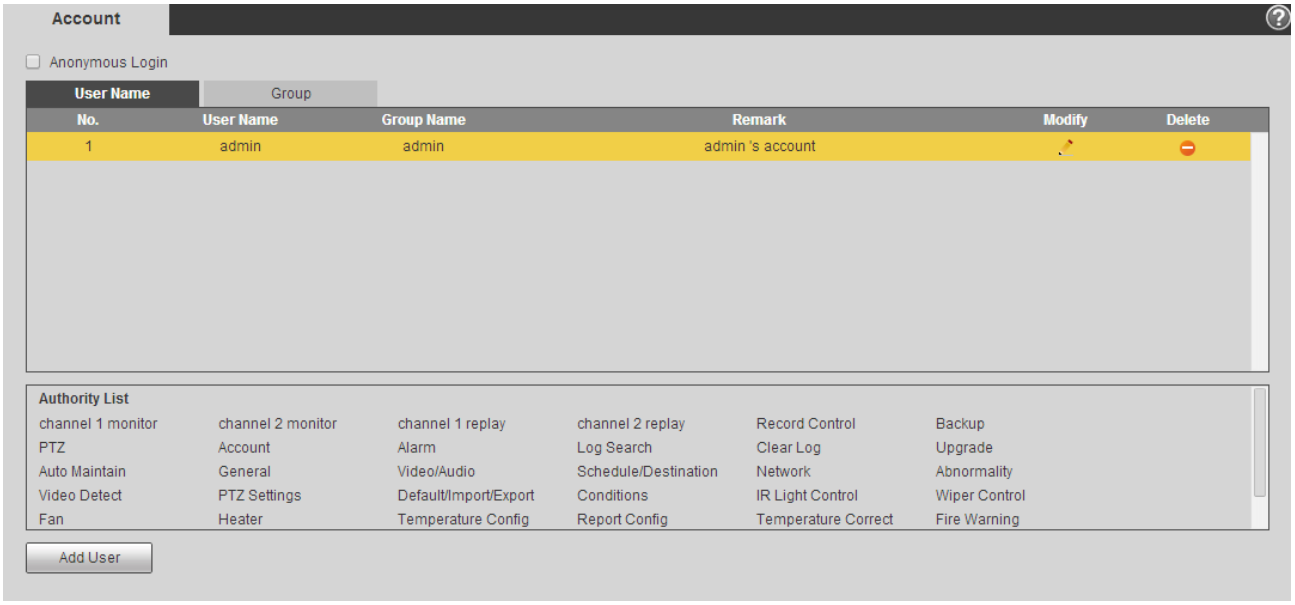



Figure 6-93

**Anonymous login**

Select anonymous login, input IP address without password of user name and you can log in the device with anonymity mode, as for the user of anonymous login only has the preview right of the list. In the state of anonymous login, click “Log out” to use other users to log in the device.

**Add user**

Add users in group and set authority control of the user.

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

Step 1

Click “Add user” and the system will display the interface of “Add user”, which is shown in Figure 6-94.

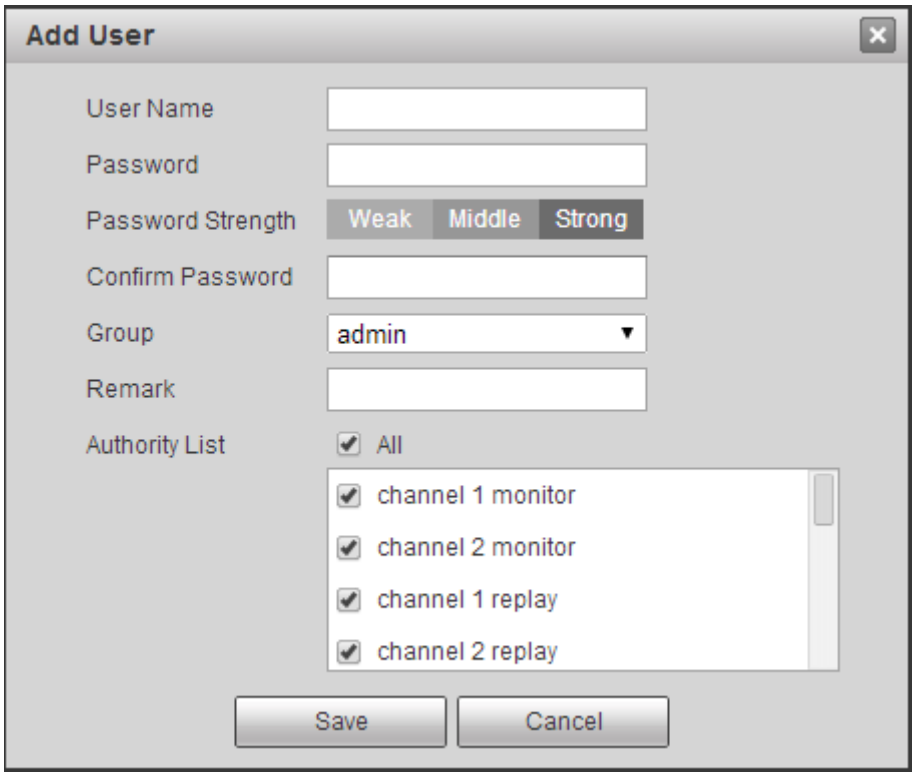



Figure 6-93

Step 2

Input user name and password, select group and authority.

**Note:**

- Once the group is selected, then the user's authority is only the subset of the group, which can't exceed the authority attribute of the group.
- In order to make user management convenient, the user is recommended to define the authority of general user lower than advanced user.

**Modify user**

Step 1

Click the  of the corresponding user which needs to be modified. The system will display the interface of "Modify User", which is shown in Figure 6-94.

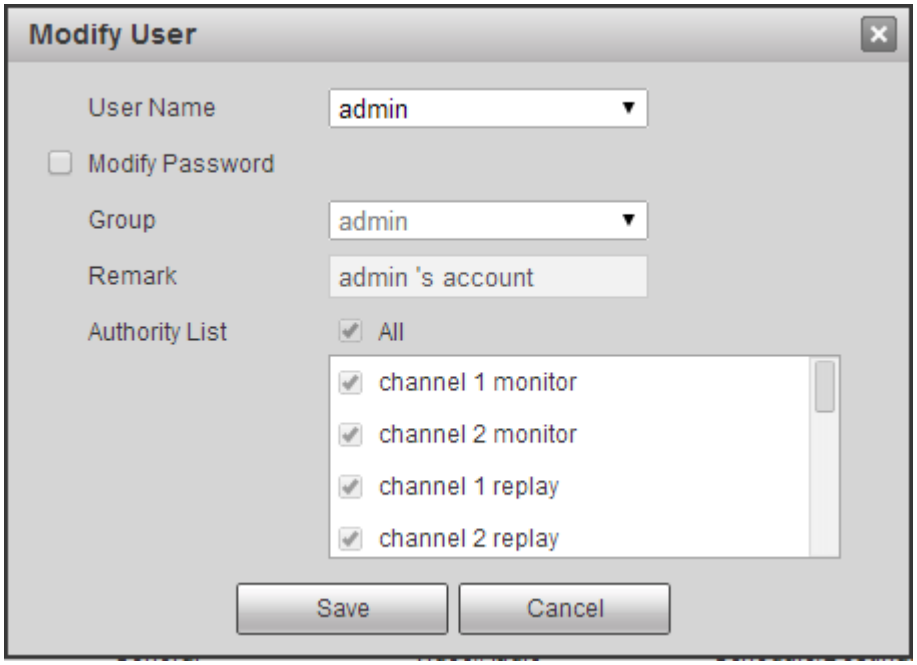



Figure 6-94

Step 2

Modify user info according to the actual needs.

Step 3

Click “Save”.

**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”.

**Delete user**

Click the of corresponding user which needs to be deleted, and then it will delete the user.

6.8.2.2 **Group**

In “Setup > System > Account > Account > Group”, you can implement several operations such as add group, delete group, modify group password and so on.

Please refer to “6.8.2.1 User” for more details about operations.

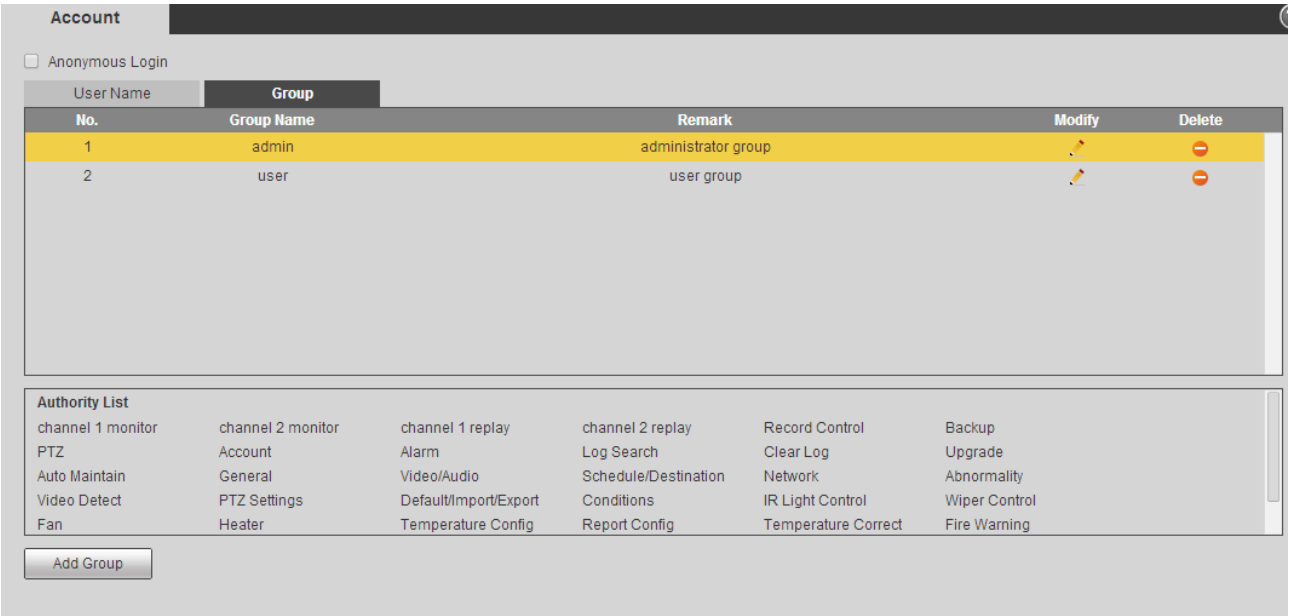



Figure 6-95

### 6.8.3 Default

**Attention:**

Except network IP address, user management and so on, other configurations of the device will be restored to default, please operate carefully.

In “Setup > System > Default”, click “Default” to restore default of the device.

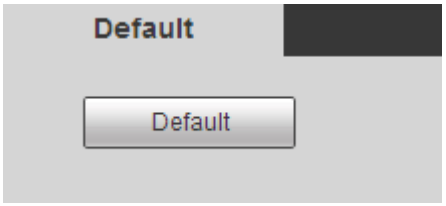



Figure 6-96

### 6.8.4 Import & Export

When the config method is the same for several devices, it can realize quick config of several devices or restore device config via import and export of config file.

#### 6.8.4.1 **Export Config**

Back up the device config to local in the form of backup.

Step 1

Select “Setup > System > Import & Export”. The system will display the interface of “Import & Export”, which is shown in Figure 6-97.

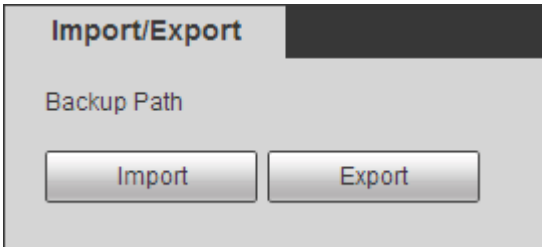



Figure 6-97

Step 2

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

6.8.4.2 **Import Config**

It is to quickly configure device via importing .backup file. It is mainly used to restore device config to backup node or quickly configure device.

Step 1

Select “Setup > System > Import & Export”. The system will display the interface of “Import & Export’, which is shown in Figure 6-98.

Step 2

Click “Import” to select config file and import it into the system.

### 6.8.5 Auto Maintenance

Here users can auto reboot the system or auto delete file, it needs to set period and time to auto reboot the system, it is 02:00 every Tuesday by default. It needs to set the period of the file if it needs to auto delete the old files; it is to delete the files within some certain period.

Step 1

Select “Setup > System > Auto Maintenance”. The system will display the interface of “Auto maintenance”, which is shown in Figure 6-98.

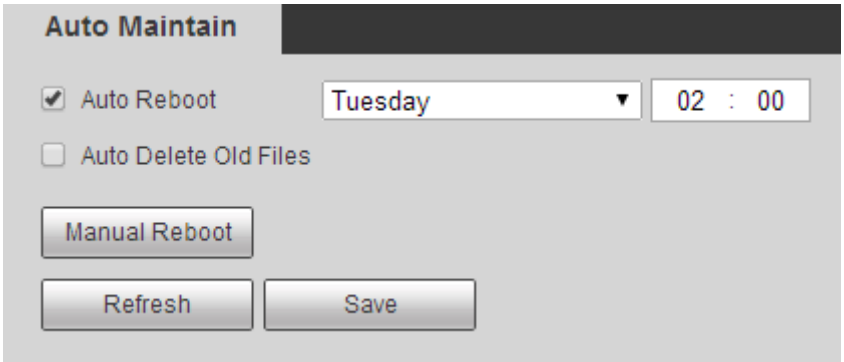



Figure 6-98

Step 2

It is to configure parameter info according to actual needs, please refer to sheet 6-52 for more details.

| Parameter | Function |
|---|---|
| Auto Reboot | Click it and set auto reboot time. |
| Auto Delete Old Files | Click it and you can customize period, the range is within 1~31 days. |

Sheet 6-52

Step 3

Click “Save” to make config valid.

### 6.8.6 Upgrade

You can implement the operation of firmware upgrade in “Setup > System > Upgrade”.

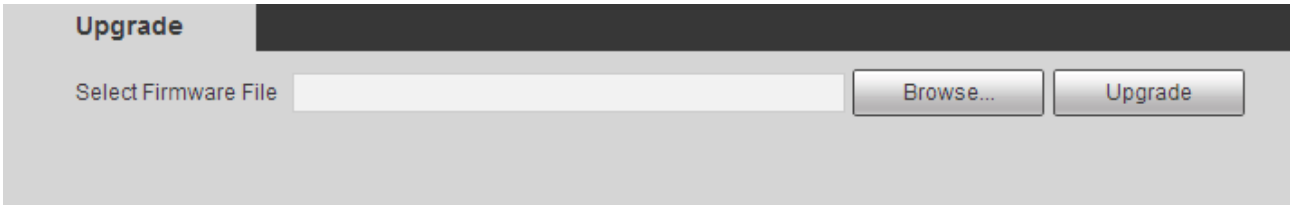



Figure 6-99

During firmware upgrade, click “Browse” to select upgrade file and click “Upgrade” to realize firmware upgrade. The upgrade file is in the form of “*.bin”.

**Note:**

It needs to reboot the device when upgrade file is wrong, otherwise some of device module functions will be closed.

## 6.9 Information

### 6.9.1 Version

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

You can check the version info of current WEB in “Setup > System > Version”, which is shown in Figure 6-100.

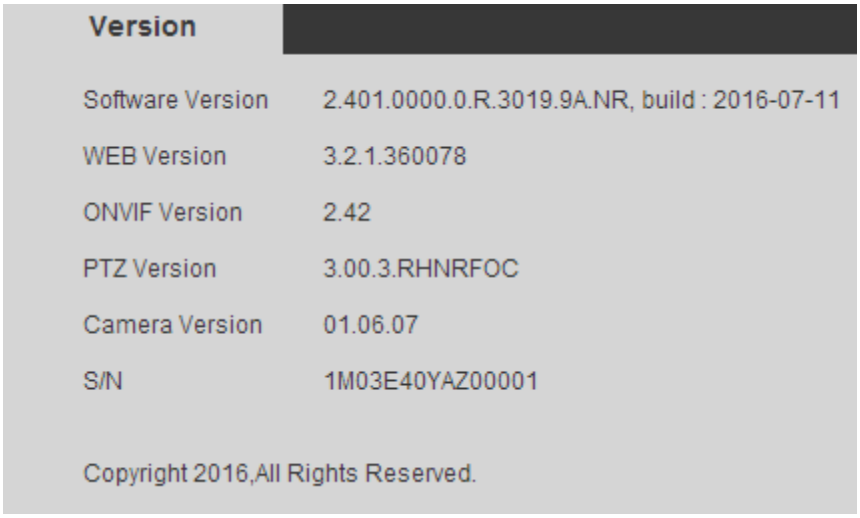



Figure 6-100

### 6.9.2 Log

In “Setup > System > Log”, you can check the device operation info implemented by users, and some other system info, which is shown in Figure 6-101.

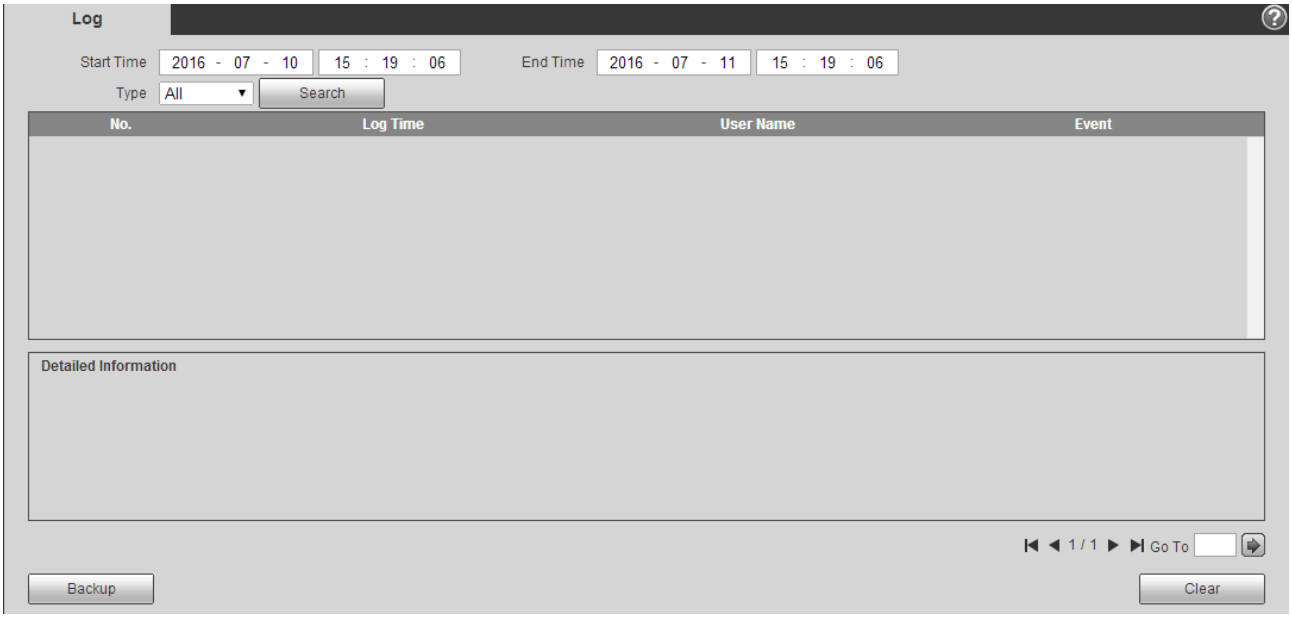



Figure 6-101

Please refer to sheet 6-53 for more details about system log.

| Parameter | Function |
|---|---|
| Start time | It is the start time of searching log. (The earliest time is 2000/1/1) |
| End time | It is the end time of searching log. (The latest time is 2037/12/31) |

| Parameter | Function |
|---|---|
| Type | It includes system operation, config operation, data management, alarm event, record operation, users management and log clear. |
| Search | First it is to set the begin time and end time of the log which needs to be searched, and select log type, click “Search” and display the search results; click “Stop” to pause log search and display the searched results and period area. |
| Log information | Click log record to display the detailed info of the log. |
| Clear | You can click this button to delete all displayed log files. Please note system does not support log clear by type. |
| Backup | You can click this button to backup log files to current PC. |

Sheet 6-53

The exact meaning of different log types is shown as below:

- System operation: it includes application program enable, abnormal exit, exit, application program reboot, close/reboot device, system reboot and system upgrade.
- Config operation: It includes save config, delete config file.
- Data operation: It includes setting hard drive type, clear data, hot swap, FTP state and record mode.
- Event operation (it is to record video detection, intelligent, alarm, abnormity and other events): It includes event start and event end.
- Record operation: It includes file access, file access error and file query.
- User management (it is to record the modification of user management and user login, logout): It includes login, logout, add user, delete user, modify user, add group, delete group and modify group.
- Clear log: clear log.

### 6.9.3 Online User

In “Setup > System > Online user”, you can check the user info of the current WEB, which is shown in Figure 6-102.

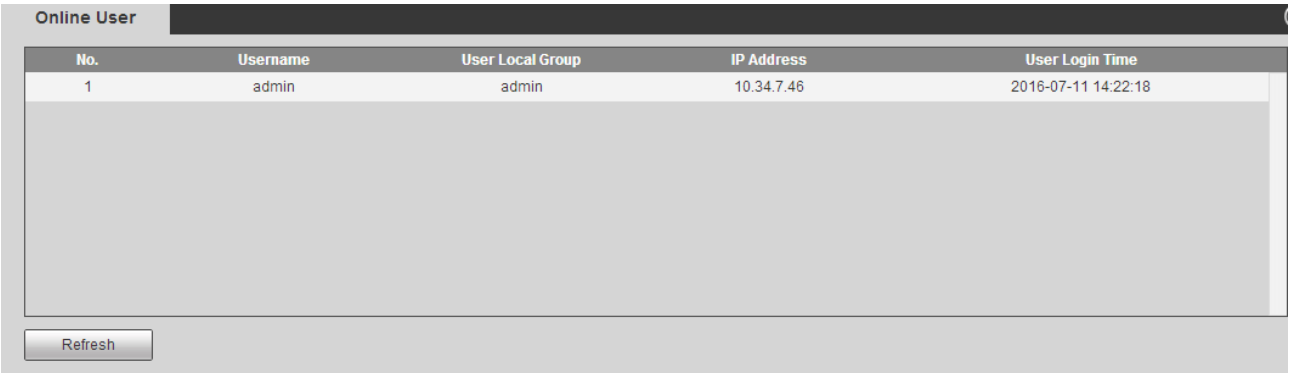

Online User
No.
Username
User Local Group
IP Address
User Login Time
1
admin
admin
10.34.7.46
2016-07-11 14:22:18
Refresh

Figure 6-102

# 7 Alarm

Alarm module is used to subscribe alarm events; it will record the alarm info in the right column when it triggers the alarm event which has been subscribed by users.

**Note:**

Different devices have different functions, besides, there is slight difference between interfaces, please refer to the actual interface for more details.

Step 1

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

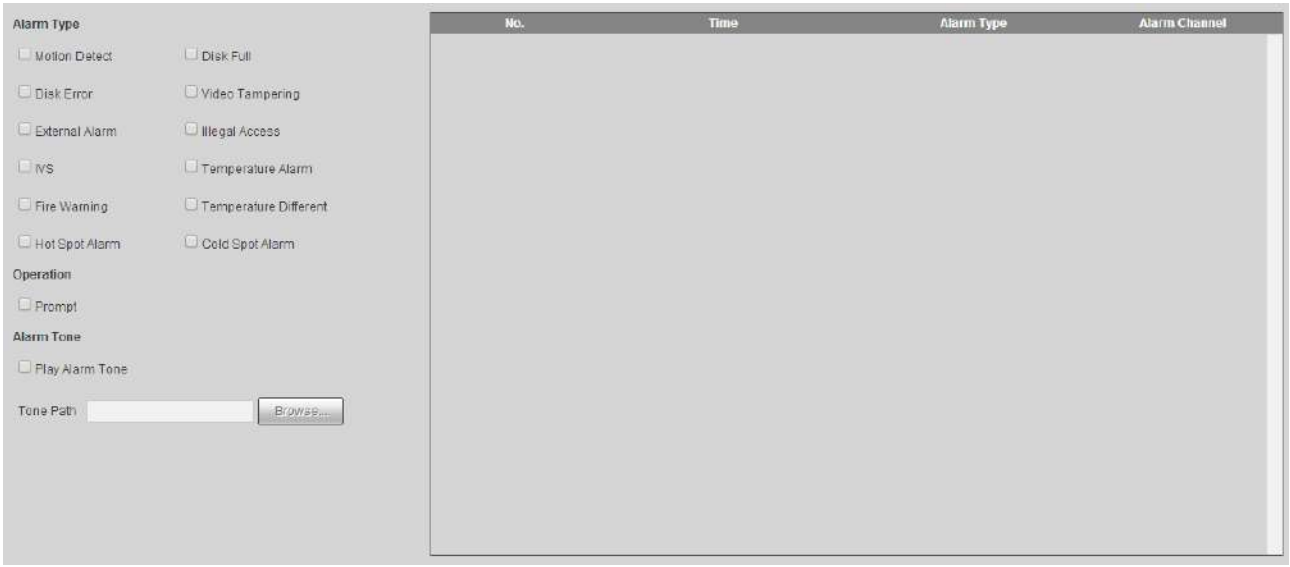



Figure 7-1

Step 2

Select alarm type according to actual needs and set if it is to enable “Prompt” and set alarm tone, please refer to sheet 7-1 for more details.

| Type | Parameter | Function |
|---|---|---|
| Operation | Prompt | After selecting “Prompt”, it is not the alarm interface; it will generate the icon of  on the “Alarm” column of the mainmenu column when it triggers the subscribed alarm event, besides, it will auto record the alarm info. The icon will disappear after users click alarm menu column.<br>**Note:**<br>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 | Select “Play Alarm Tone” and select the audio file path to be played in the audio path column, when the subscribed alarm event is triggered, it will play the selected audio file to prompt there is alarm event triggered. |
| | Tone Path | It is to customize the storage path of alarm tone. |

Sheet 7-1

# 8 Logout

Click logout button, system goes back to login interface. See Figure 8-1.




Figure 8-1

**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.**