Figure 5-88

5.11.3.7 Plate Recognition

License plate recognition adopts video image recognition technology to extract the license plate number in video image and match it with the pre-set license plate number. After successful matching, the system performs alarm linkage action

5.11.3.7.1 Configuring Plate Recognition

You can set the different plate recognition detection rules and alarm linkage actions under different confitions (B/W list and regular)

Step 1   Select Setup > Event > ANPR.

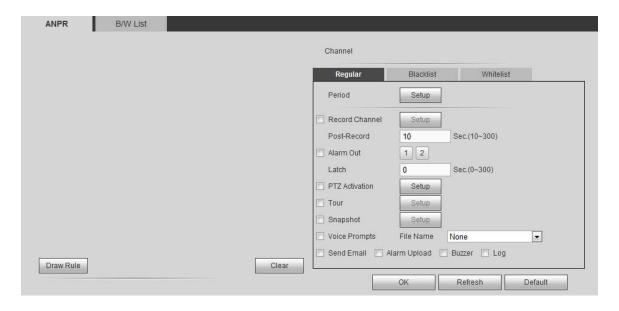The ANPR interface is displayed. See Figure 5-89.

Figure 5-89

Step 2   Select the Enable check box and choose the channel.

Step 3   Enter the Name and click Draw Rule to draw the rule region on the monitor screen.

Click Clear to cancel the drawing.

Step 4   Click the Regular, Whitelist or Blacklist tab according to actual needs. System displays the Regular tab by default.

📖 NOTE

You need to configure the B/W list before using the B/W alarm linkage. For details, see 4.7.7.2 B/W List.

- Regular: System activates alarm when any car plate is detected.
- Blacklist: System activates alarm only when plates in the black list is detected.
- Whitelist: System activates alarm only when plates in the white list is detected.

Step 5   Configure the parameters.

Step 6   Click OK to save the configuration.

5.11.3.7.2 B/W List

It is to set the blacklist and the whitelist. It includes adding, deleting, importing and exporting blacklist and whitelist.

After setting the blacklist and whitelist, in the plate snapshot list on the preview interface, the blacklist plate number is red, the whitelist plate number is green and the regular plate number is white.

Adding B/W List

Step 1   Select Setup > Event > ANPR > B/W List.

The B/W list is diaplayed. See Figure 5-90.

Figure 5-90

Step 2   Enter the plate number and selecy whitelist or blacklist in the drop-down list.

Step 3   Click Add to complete the registration.

Deleting B/W List

In the Type list, select whitelist, blacklist or all and click Search, system displays the detailed information. See Figure 5-91.

- Select the check box in front of the plate number and click Delete to delete the plate info in the list.

  You can also click ⊖ corresponding to the plate number to delete it.

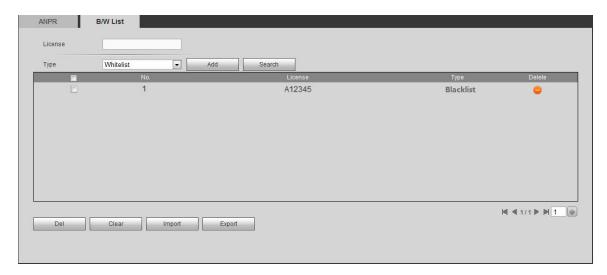- Click Clear to delete all the information in the B/W list.

Figure 5-91

Importing /Exporting B/W List

System supports to import B/W list from the peripheral USB device and export B/W list to the USB device.

System supports to import .csv files and .xlsx files, and the exported files are in the format of .csv or .backup.

● Importing B/W list: Click Import, select the file, and then click Open to import the file.

● Export B/W list: Click Export and the File Backup Encryption interface is displayed. See Figure 5-92. Enter the password and click OK. Select the save path and click Save.

Figure 5-92

📖 NOTE

File backup encryption is enabled by default.

● When file backup encryption is enabled, the extension name of the file is .backup.

● When file backup encryption is disabled, the extension name of the file is .csv. It might lead to data leakage.

5.11.3.8 Audio Detect (Optional)

System can generate an alarm once it detect the audio input is abnormal or audio volume changes.

From main menu->Setup->Event->Audio detect, you can see an interface shown as in Figure 5-93.

● Input abnormal: Check the box here, system can generate an alarm once the audio input is abnormal.

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- Intensity change: Check the box here, system can generate an alarm once the audio volume becomes strong.
- Sensitivity: It refers to the audio recognition sensitivity. The higher the value is, the higher the sensitivity is.
- Threshold: It is to set intensity change threshold. The smaller the value is, the higher the sensitivity is.

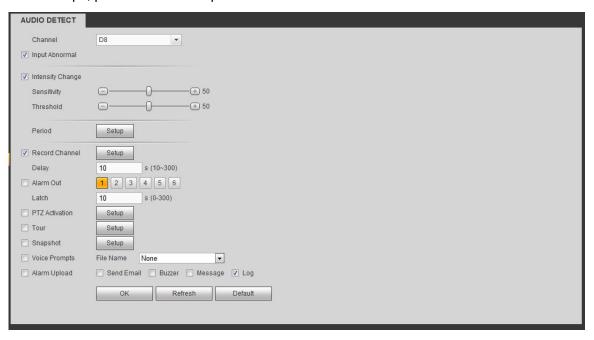For detailed setups, please refer to chapter 5.11.3.1.1 motion detect for detailed information.

Figure 5-93

5.11.3.9 Alarm

Before operation, please make sure you have properly connected alarm devices such as buzzer. The input mode includes local alarm and network alarm.

5.11.3.9.1 Local Alarm

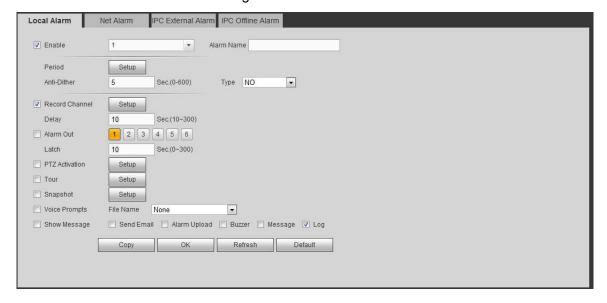The local alarm interface is shown as in Figure 5-94. It refers to alarm from the local device.
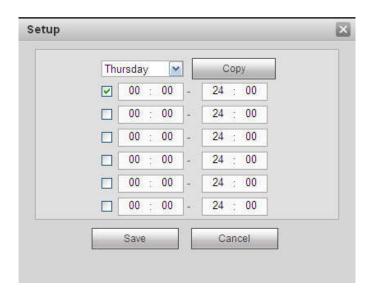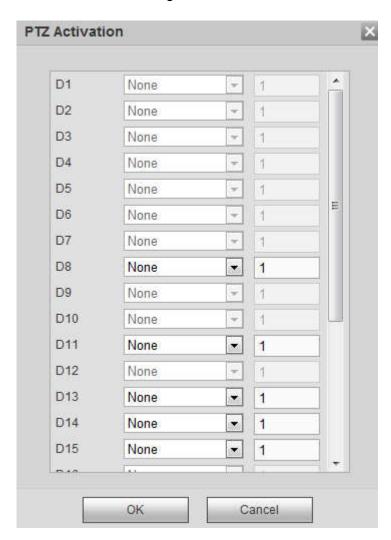

Figure 5-94

Figure 5-95

Figure 5-96

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	You need to check the box to enable this function.

Parameter	Function
	Please select a channel from the dropdown list.
Period	This function becomes activated in the specified periods.
	There are six periods in one day. Please draw a circle to enable corresponding period.
	Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week.
	Click OK button, system goes back to local alarm interface, please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.
Sensor type	There are two options: NO/NC.
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set alarm record period and go to Storage-> Schedule to set current channel as schedule record.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Alarm out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when an alarm occurs.
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Alarm upload	System can upload the alarm signal to the center (Including alarm center).
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Tour	You need to click setup button to select tour channel. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 5-64.
PTZ Activation	Here you can set PTZ movement when alarm occurs. Such as go to preset X. See Figure 5-96.
Snapshot	Click setup button to select snapshot channel. See Figure 5-65.

5.11.3.9.2 Net Alarm

The network alarm interface is shown as in Figure 5-97.

Network alarm refers to the alarm signal from the network. System does not anti-dither and sensor type setup. For setup information, please refer to chapter 5.11.3.9.1.

Figure 5-97

5.11.3.9.3 IPC external alarm

The IPC external alarm interface is shown as in Figure 5-98.

Network alarm refers to the alarm signal from the network. System does not anti-dither and sensor type setup. For setup information, please refer to chapter 5.11.3.9.1.
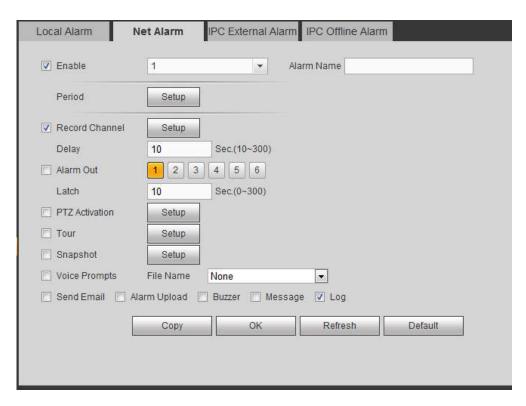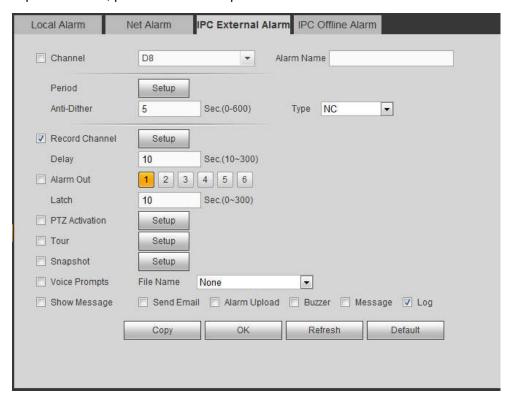

Figure 5-98

5.11.3.9.4 IPC Offline Alarm

The IPC offline alarm interface is shown as in Figure 5-99.

System can generate an alarm once the network camera is offline. For setup information, please refer to chapter 5.11.3.9.1.
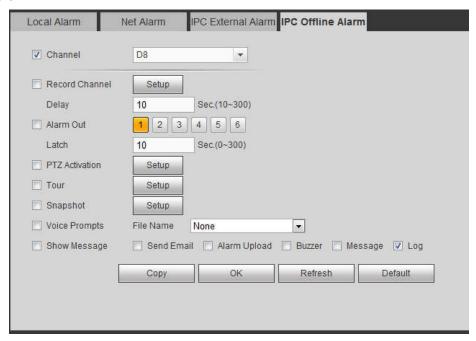

Figure 5-99

5.11.3.10 Abnormality

From main menu->Setup->Event->Abnormality, it includes four types: HDD/Network/User/Device. See Figure 5-100 through Figure 5-103.
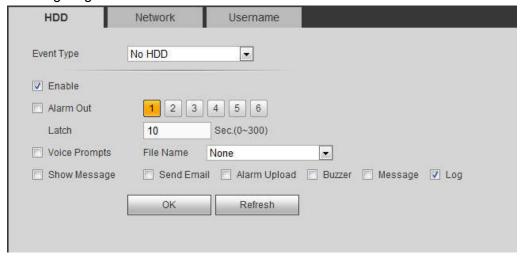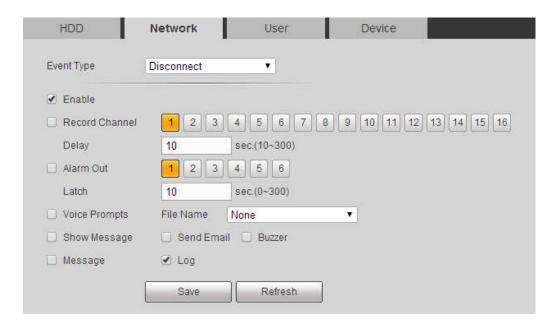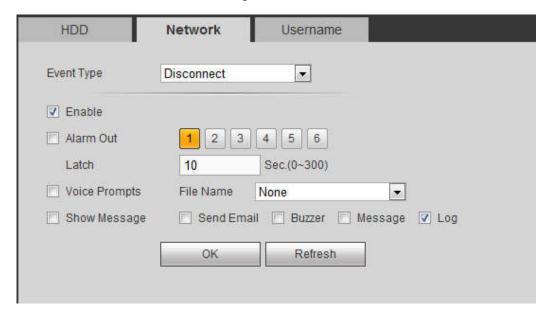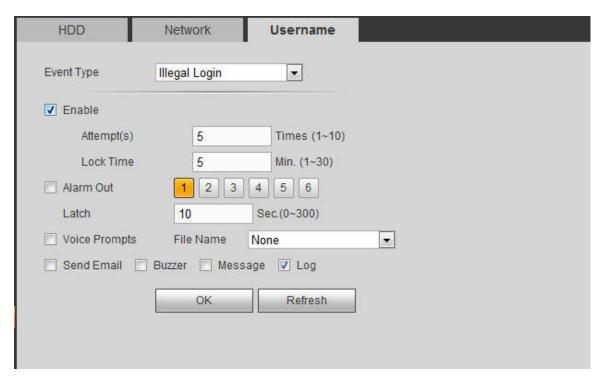

Figure 5-100

Figure 5-101

Figure 5-102

Figure 5-103

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	The abnormal events include: HDD: No disk, disk error, disk no space; ● Network: Net disconnection, IP conflict, MAC conflict. ● User: Illegal login. ● Device: Temperature is too high, fan speed is abnormal. Please note this function is for some series product only. ● You can set one or more items here. ● Less than: You can set the minimum percentage value here. The device can generate an alarm when capacity is not sufficient. This item is for disk no space type only.
Enable	Check the box here to enable selected function.
Alarm Out	Please select corresponding alarm output channel when an alarm occurs. You need to check the box to enable this function.
Latch	The alarm output can delay for the specified time after an alarm stops. The value ranges from 0s to 300s. The default setup is 10 seconds. The o second means there is no delaying time.
Attempt(s)	It is to set login attempt times. Once the login attempt exceeds the threshold you set here, current account will be locked. This function is for illegal login only.
Lock time	It is to set account lock time once its login attempt has exceeded the threshold you set. This function is for illegal login only.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.

Parameter	Function
Alarm upload	System can upload the alarm signal to the center (Including alarm center.
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Log	Check the box here, system can record the network event alarm log.

5.11.3.11 Alarm Out

The alarm output interface is shown as below. See Figure 5-104

Here you can set alarm output mode: auto/manual/stop.
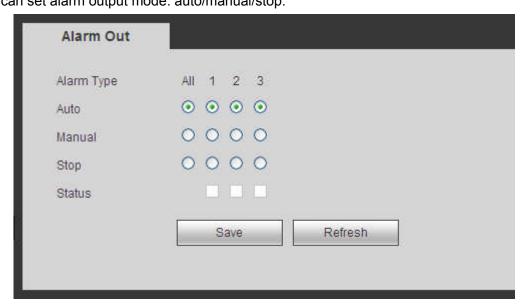

Figure 5-104

5.11.4 Storage

5.11.4.1 Basic

It is to manage HDD storage space.

Step 4   From main menu->Setup->Storage->Basic.
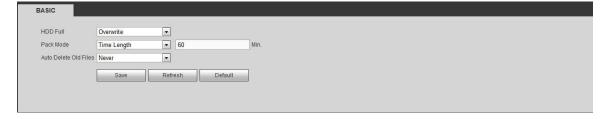
Enter Basic interface. See Figure 5-44.

Figure 5-105

Step 5   Set parameters.

Parameter	Function
HDD full	It is to select working mode when hard disk is full. There are two option stop recording or rewrite. ● Stop: If current HDD is full while there is no idle HDD, then system stops recording, ● Overwrite: If the current HDD is full while there is no idle HDD, then system overwrites the previous files.
Pack duration	It is to specify record duration. The max value is 120 minutes.
Auto delete old files	● Never: Do not auto delete old files. ● Customized: input customized period here, system can auto delete corresponding old files

5.11.4.2 Schedule

In this interfaces, you can add or remove the schedule record setup. See Figure 5-106.

There are four record modes: general (auto), motion detect, alarm and MD&alarm. There are six periods in one day.

You can view the current time period setup from the color bar.

● Green color stands for the general record/snapshot.

● Yellow color stands for the motion detect record/snapshot..

● Red color stands for the alarm record/snapshot.

● Blue color stands for MD&alarm record/snapshot.
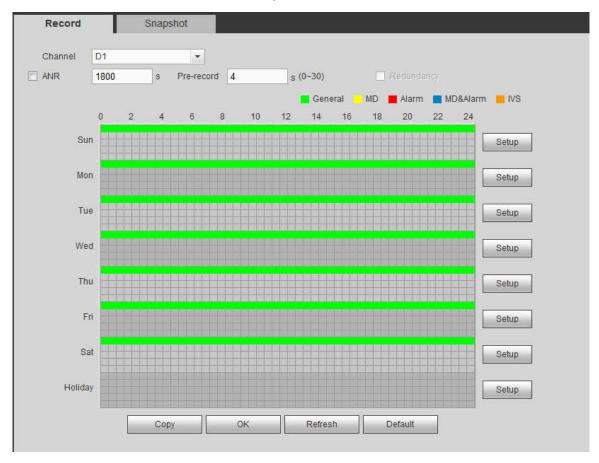
Figure 5-106
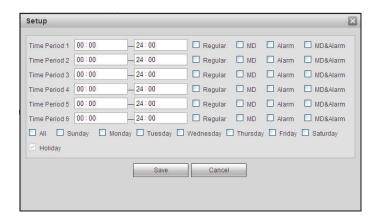
Figure 5-107

Figure 5-108

Please refer to the following sheet for detailed information.
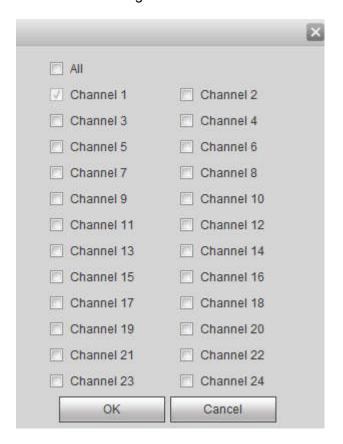
Parameter	Function
Channel	Please select a channel from the dropdown list.
Pre-record	Please input pre-record time here. The value ranges from 0 to 30.
Redundancy	Check the box here to enable redundancy function. **Please note this function is null if there is only one HDD.**
Snapshot	Check the box here to enable snapshot function.
Holiday	Check the box here to enable holiday function.
Setup	Click the Setup button, you can set record period. See Figure 5-107. There are six periods in one day. If you do not check the date at the

Parameter	Function
	bottom of the interface, current setup is for today only. Please click Save button and then exit.
Copy	Copy function allows you to copy one channel setup to another. After setting in channel, click Copy button, you can go to interface Figure 5-108. You can see current channel name is grey such as channel 1. Now you can select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.

5.11.4.3 HDD Manager

5.11.4.3.1 Local Storage

The local interface is shown as in Figure 5-109. Here you can see HDD information. You can also operate the read-only, read-write, redundancy (if there are more than on HDD) and format operation.
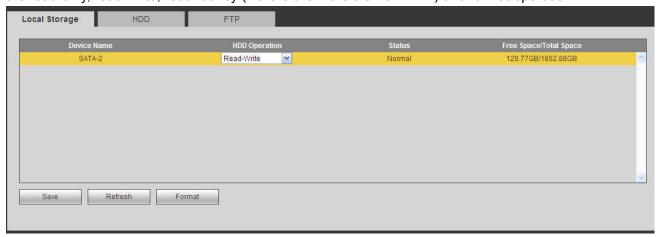

Figure 5-109

5.11.4.3.2 HDD

The HDD interface is to set HDD group. See Figure 5-110.
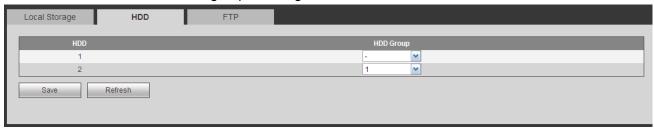

Figure 5-110

5.11.4.3.3 FTP

Configure FTP information on the FTP interface. See Figure 5-111.

Set the FTP as your remote storage location. System can save record file or snapshot picture to the FTP once the network is offline or malfunction.
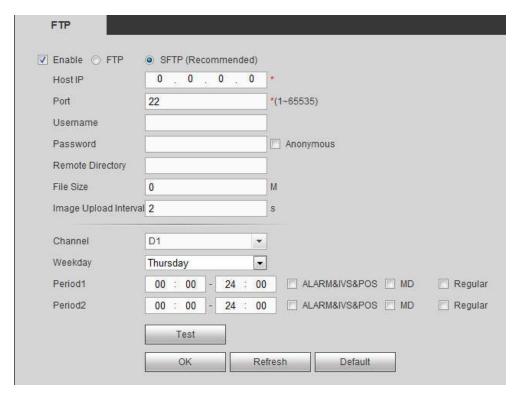
Figure 5-111

📖 NOTE

FTP transmits data with clear text mode and SFTP transmits data with encrypted mode. SFTP is recommended.

● Host IP: The host IP you have installed the FTP server.
● Port: The default SFTP port number is 22 and the default FTP port number is 21.
● User name/Password: The account for you to access the FTP server.
● Remote directory: The folder you created under the root path of the FTP according to the corresponding rule.
    ✧ If there is no remote directory, system can auto create different directories according to the IP, time and channel.
    ✧ If there is remote directory, system can create corresponding folder under the FTP root path and then create different folders according to IP address, time and channel.
● File length: File length is upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.
● Image upload interval: It is the image upload interval. If the image upload interval is larger than the image snapshot frequency, system just uploads the lasted image.
    ✧ If the image interval is 5 seconds and the snapshot frequency is 2 seconds, system will send out the latest image at the buffer at 5 seconds.
    ✧ If the image upload interval is smaller than the snapshot frequency, system will upload at the snapshot frequency. For example, if the image interval is 5 seconds and the snapshot frequency is 10 seconds, system will send out the image at 10 seconds.
    ✧ From main menu->Setting->Camera->Encode->Snapshot to set snapshot frequency.
● Channel: Select a channel from the dropdown list and then set week, period and record type.

- Week day/Period: Please select from the dropdown list and for each day, you can set two periods.
- Type: Please select uploaded record type (Alarm/intelligent/motion detect/regular). Please check the box to select upload type.

5.11.4.4 Record Control

The interface is shown as in Figure 5-112.

Figure 5-112

Please refer to the following sheet for detailed information.
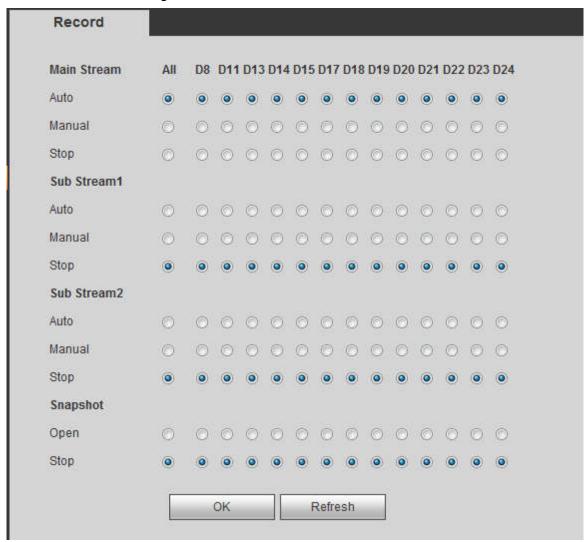
Parameter	Function
Channel	Here you can view channel number. The number displayed here is the max channel amount of your device.
Status	There are three statuses: schedule, manual and stop.
Schedule	System enables auto record function as you set in record schedule setup (general, motion detect and alarm).
Manual	It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup.

Stop	Stop current channel record no matter what period applied in the record setup.
Start all/ stop all	Check the corresponding All button, you can enable or disable all channels record.

5.11.4.5 RAID Manager

Important

Please make sure your purchased product support the RAID function, otherwise you cannot see the following interface.

RAID (redundant array of independent disks) is a data storage virtualization technology that combines multiple physical HDD components into a single logical unit for the purposes of data redundancy, performance improvement, or both.

📖Note

- RAID function is for some series product only. Slight difference may be found on the user interface.
- Right now, NVR supports RAID0, RAID1, RAID5, RAID6, and RAID 10. Local hotspare supports RAID1, RAID5, RAID6, and RAID10.
- Refer to the following table for detailed information.

RAID Type	HDD Amount
RAID0	At least 2 HDDs.
RAID1	Only 2 HDDs.
RAID5	At least 3 HDDs. Usually recommend the RAID5 consists of 4 to 6 HDDs.
RAID6	At least 4 HDDs.
RAID10	At least 4 HDDs.

5.11.4.5.1 RAID Config

It is for you to manage RAID HDD. It can display RAID name, type, free space, total space, status and etc. Here you can add/delete RAID HDD.
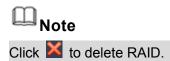
Click Add button to select RAID type and then select HDDs, click OK button to add. See Figure 5-113.

One click to create RAID

- Click it to automatically create RAID5.
- For create RAID function, you can select the physical HDD that does not included in the RAID group or the created disk array to create a RAID5. You can refer to the following situations:
- There is no RAID, no hotspare disk: System directly creates the RAID5 and creates one hotspare disk at the same time.
- There is no RAID, but there is a hotspare disk: System creates the RAID5 only. It uses previous hotspare disk.
- There is RAID: System cancel the previous RAID setup and then create the new RAID5. System creates the hotspare disk if there is no one. System uses previous hotspare disk if there is hotspare disk available.
- The background will format the virtual disk.

Create manually

Step 4   Select RAID type first and then follow the prompts to set HDD amount.

Step 5   Click Create Manually button, system pops up dialogue box to warning you it is going to clear all data.

Step 6   Click OK button to complete the operation.

Note

Click ✖ to delete RAID.
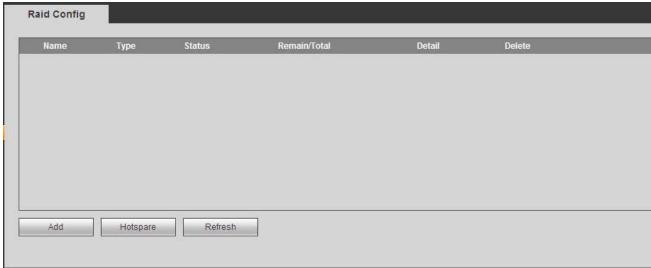
Figure 5-113

5.11.4.5.2 Hotspare disks

In Figure 5-113, click hotspare button, you can add the hot spare HDD. See Figure 5-114. The type includes two options:

● Global: It is global hotspare disk. When any RAID becomes degrading, it can replace and build the RAID.

● Local: It is local hotspare disk. When the specified RAID becomes degrading, it can replace and build the RAID.

Select a hot spare device and then click Delete button. Click Apply button to delete.

Figure 5-114

5.11.4.6 Storage

5.11.4.6.1 Main Stream

The main stream interface is shown as in Figure 5-115. Here you can set corresponding HDD group to save main stream.
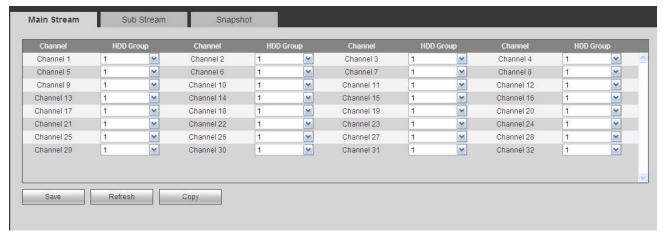
Figure 5-115

5.11.4.6.2 Sub Stream

The sub stream interface is shown as in Figure 5-116.

Here you can set corresponding HDD group to save sub stream.
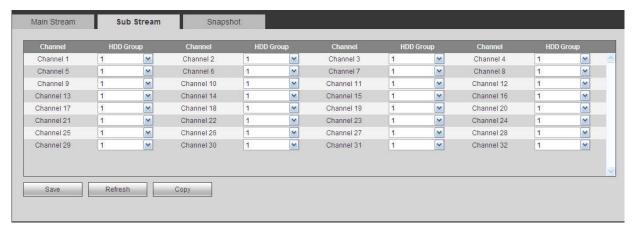
Figure 5-116

5.11.4.6.3 Snapshot

The snapshot interface is shown as in Figure 5-117. Here you can set corresponding HDD group to save snapshot picture.
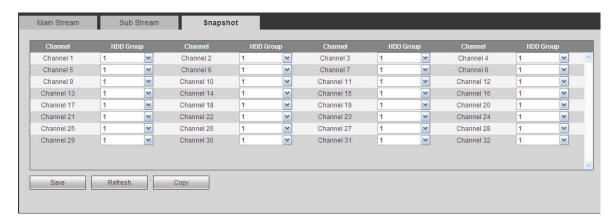
Figure 5-117

5.11.5 Setting

5.11.5.1 General

The general interface includes general, date/time and holiday setup.

5.11.5.1.1 General

The general interface is shown as in Figure 5-118.

Figure 5-118

Please refer to the following sheet for detailed information.
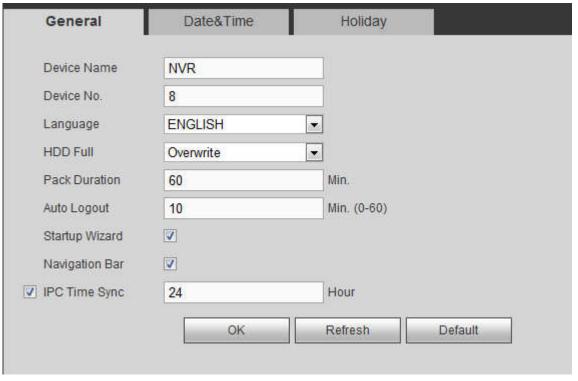
Parameter	Function
Device ID	It is to set device name.
Device No.	It is device channel number.
Language	You can select the language from the dropdown list. Please note the device needs to reboot to get the modification activated.

Video Standard	This is to display video standard such as PAL.
Auto logout	Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
IPC Time Sync	You can input an interval here to synchronize the NVR time and IPC time.
Navigation bar	Check the box here, system displays the navigation bar on the interface.

5.11.5.1.2 Date and time

The date and time interface is shown as in Figure 5-119

Figure 5-119

Please refer to the following sheet for detailed information.

Parameter	Function
Date format	Here you can select date format from the dropdown list.
Time Format	There are two options: 24-H and 12-H.
Time zone	The time zone of the device.
System time	It is to set system time. It becomes valid after you set.
Sync PC	You can click this button to save the system time as your PC current time.

DST	Here you can set day night save time begin time and end time. You can set according to the date format or according to the week format.
NTP	You can check the box to enable NTP function.
NTP server	You can set the time server address.
Port	It is to set the time server port.
Interval	It is to set the sync periods between the device and the time server.

5.11.5.1.3 Holiday Setup

Holiday setup interface is shown as in Figure 5-120.

Here you can click Add holidays box to add a new holiday and then click Save button to save.
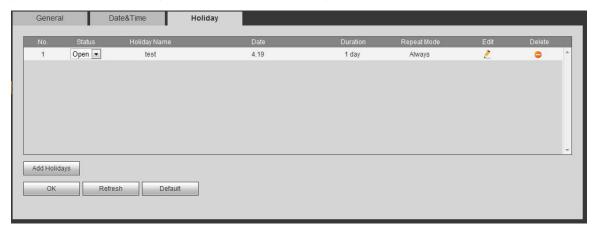

Figure 5-120

5.11.5.2 Display

Display interface includes GUI, TV adjust, Tour and Customized split.

5.11.5.2.1 Display

Here you can set background color and transparency level. See Figure 5-121.

Figure 5-121

Please refer to the following sheet for detailed information.

Parameter	Function
Resolution	There are four options: 1920×1080, 1280×1024(default), 1280×720, 1024×768. Please note the system needs to reboot to activate current setup.
Color mode	Please select from the dropdown list.
Transparency	Here is for you to adjust transparency. The value ranges from 128 to 255.
Time title/channel title	Check the box here, you can view system time and channel number on the monitor video.
Image enhance	Check the box; you can optimize the margin of the preview video.
Startup wizard	Once you check the box here, system will go to the startup wizard directly when the system restarts the next time. Otherwise, it will go to the login interface.
Navigation bar	Check the box here, system displays the navigation bar on the interface.
Original scale	Click the Set button to select a channel, it can restore original scale.
Auto logout	Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes. 0 means there is no standby time. After the auto logout, the user

	needs to input user name and password to login again.
Display intelligent rule(s)	Check the box to enable IVS function, system can display IVS rule on the preview interface.

5.11.5.2.2 Tour

The tour interface is shown as in Figure 5-122. Here you can set tour interval, split mode, motion detect tour and alarm tour mode.
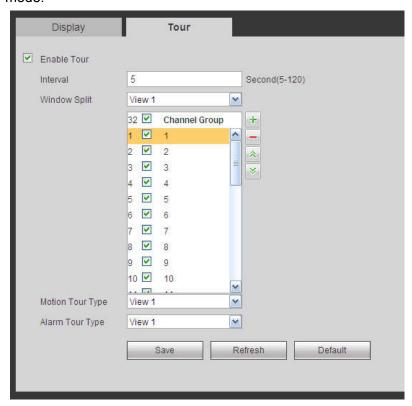
Figure 5-122

Please refer to the following sheet for detailed information.

Parameter	Function
Enable tour	Check the box here to enable tour function.
Interval	Here is for you to adjust transparency. The value ranges from 5 to 120s. The default setup is 5s.
Split	Here you can set window mode and channel group. System can support 1/4/8/9/16/25/36-window according to device channel amount.
Motion tour/Alarm tour	Here you can set motion detect tour/alarm tour window mode. System supports 1/8-window now.

5.11.5.2.3 Custom Split

From main menu->Setup->System->Display->Custom split, the interface is shown as in Figure 5-123. Here you can set customized split mode.

Note

- This function is for some series products. Please refer to the actual product for detailed information.

● Device max supports 5 customized videos.

Figure 5-123

Click and then click to select basic mode
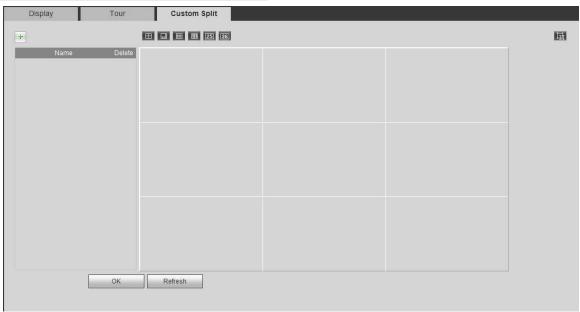
In regular mode, drag the mouse in the preview frame, you can merge several small windows to one window so that you can get you desired split mode.

After the setup, the selected window has the red frame.

Select the merging window, the frame is red; you can click to cancel the merge to restore regular mode.

Click OK to exit.

5.11.5.3 RS232

The RS232 interface is shown as in Figure 5-124.

Figure 5-124

Please refer to the following sheet for detailed information.
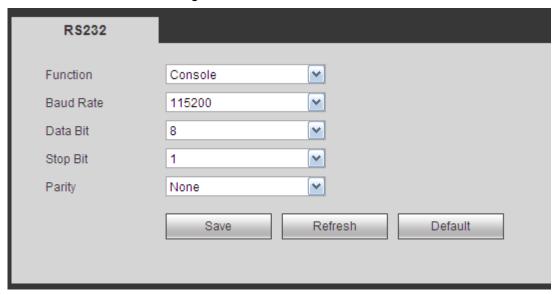
Parameter	Function
Protocol	Select the corresponding dome protocol. Default setup is console.
Baud Rate	Select the baud rate. Default setup is 115200.
Data Bit	The value ranges from 5 to 8. Default setup is 8.
Stop bit	There are two options: 1/2. Default setup is 1.
Parity	There are five options: none/odd/even/space/mark. Default setup is none.

5.11.5.4 PTZ

The PTZ interface is shown as in Figure 5-125 (Local) and Figure 5-126 (Remote).

Before setup, please check the following connections are right:

● PTZ and decoder connection is right. Decoder address setup is right.

● Decoder A (B) line connects with NVR A (B) line.

Click Save button after you complete setup, you can go back to the monitor interface to control speed dome.
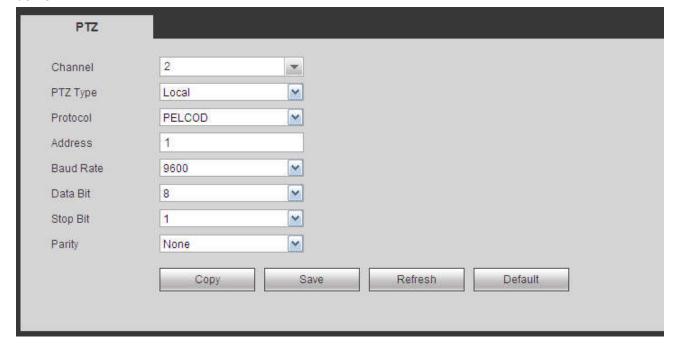
Figure 5-125

Figure 5-126

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Select speed dome connected channel.
PTZ Type	There are two options: local/remote. Please select remote type if you are connecting to the network PTZ. Please select local type if you are using RS485 to the PTZ camera.
Protocol	Select the corresponding dome protocol such as PELCOD.
Address	Set corresponding dome address. Default value is 1. **Please note your setup here shall comply with your dome address; otherwise you cannot control the speed dome.**
Baud Rate	Select the dome baud rate. Default setup is 9600.
Data Bit	The value ranges from 5 to 8. Default setup is 8. Please set according to the speed dome dial switch setup.
Stop bit	The value ranges from 1 to 2. Default setup is 1. Please set according to the speed dome dial switch setup.
Parity	The options include non/odd/even/space/null. Default setup is none. Please set according to the speed dome dial switch setup.

5.11.5.5 POS

Connect the NVR to the POS, it can receive the POS information and overlay on the corresponding record.

Note

POS info overlay and playback function is for 1-window only.

From main menu->Setting->System->POS, you can go to the following interface. See Figure 5-127.
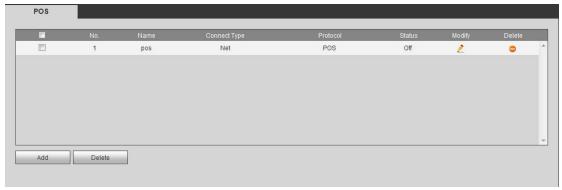
Figure 5-127

Click Add, you can see the following dialogue box. See Figure 5-128.

Figure 5-128

Check the box to enable POS function, Click Set button; you can see the following interface. See Figure 5-129.
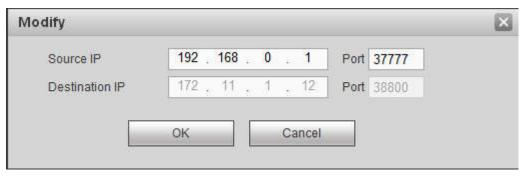
Figure 5-129

Set source IP and destination IP, and then click OK. System goes back to Figure 5-128.

● Source IP: POS device IP address.
● Destination IP: NVR IP address.

In Figure 5-128, click Channel Set button, select the channel you want to overlay POS information. Click OK button to complete the setup.

Tips

: Click it to delete POS setup.

: Click it to change setup information.

5.11.5.6 Voice

The audio function is to manage audio files and set schedule play function. It is to realize audio broadcast activation function.

5.11.5.6.1 File List

From main menu->Setup->System->Voice->File list, here you can add audio file, or delete audio file. See Figure 5-130.
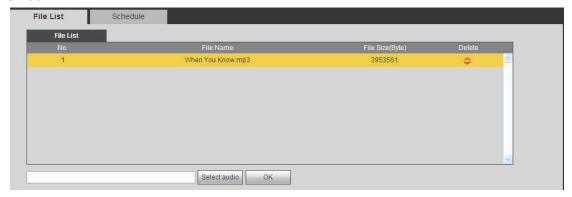
Figure 5-130

Click Add button, you can add audio file and import the audio file via the local computer. See Figure 5-131.
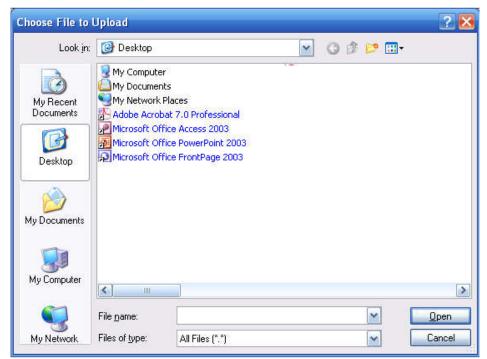
Figure 5-131

5.11.5.6.2 Schedule

It is to set schedule broadcast function. You can play the different audio files in the specified periods.

From main menu->Setup->System->Voice->.Schedule, you can see the following interface. See Figure 5-132.

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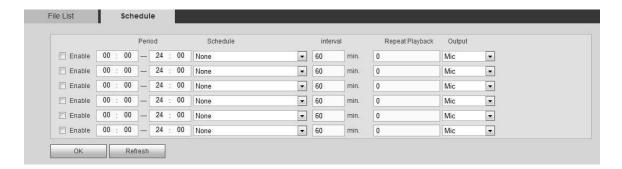
Figure 5-132

Please refer to the following sheet for detailed information.

Parameter	Function
Period	There are six periods. Check the box to enable current setup.
Repeat	It is to set audio file repeat times in the specified period.
Interval	It is the audio file repeated interval in the specified period.
Output port	There are two options: MIC (default)/audio. When reuse the MIC port and bidirectional talk port, the bidirectional port has the higher priority. Please note some series product does not support audio function.

📖 **Note**

- The audio file end time depends on the audio file size and the interval setup.
- Priority: Bidirectional talk>Event trigger alarm>Trial listening>Audio schedule broadcast.

5.11.5.7 Account

📖 **Note**

- For the user name, the string max length is 31-byte, and for the user group, the string max length is 15-byte. The user name can only contain English letters, numbers and "_"、"@"、".".
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. The user authorities shall be smaller than group authorities (The **admin** user authorities are set by default).
- For group or user management, there are two levels: admin and user. The user name shall be unique and one user shall only belong to one group.

5.11.5.7.1 User name

From main menu->Setup->System->Account->Account, enter account interface. See Figure 5-133.

Figure 5-133

Add user

It is to add a name to group and set the user rights.

Step 1 Click Add user button.
        Enter add user interface. See Figure 5-134.
Step 2 Here you can input the user name and password and then select one group for current user.
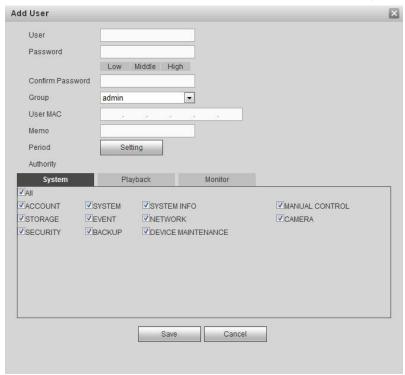
Figure 5-134

Step 3 Click the Set button after the period. It is to set valid period to use current account. See Figure 5-135.

Figure 5-135

- Click Setting to set the periods. Or you can draw on the interface directly. There are six periods in one day. Or you can input start time and end time directly.
- Check the box before the date, the settings are for the selected date(s).
- Check the box before the period1-6, it is to enable the period function.

Step 4   Click Save to complete the setup.

📖 Note

Please note the user rights shall not exceed the group right setup. For convenient setup, please make sure the general user has the lower rights setup than the admin.

Modify user

It is to modify the user property, belonging group, password and rights. See Figure 5-136.
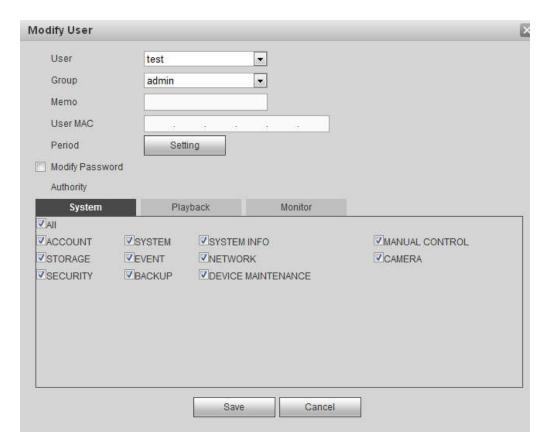
Figure 5-136

📖 **Note**

For admin, you can change the email information. See Figure 5-137.
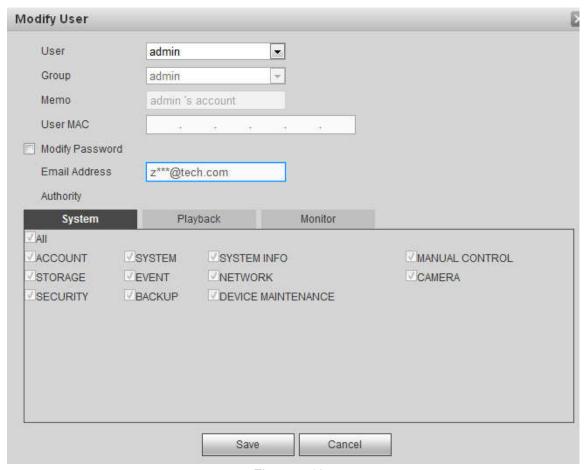
Figure 5-137

Modify password

It is to modify the user password.

Step 1   In Modify user interface, click Modify password box. See Figure 5-138.
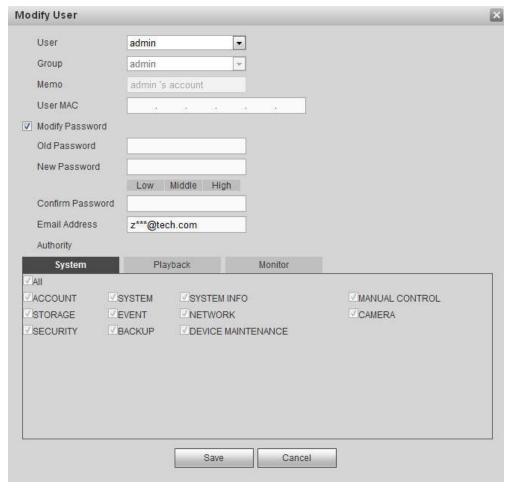
Figure 5-138

Step 2   Input old password, and then input new password and confirm.

Step 3   Click Save button.

📖 **Note**

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

⚠️ WARNING

STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

5.11.5.7.2 Group

It is to add/remove group, modify group password and etc.

From main menu->Setup->System->Account->Account.

Click Group tab, the interface is shown as in Figure 5-139.
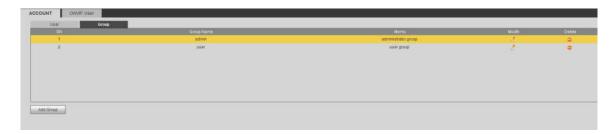
Figure 5-139

Add group

It is to add group and set its corresponding rights.

Step 1   Click Add group button. Enter add group interface. See Figure 5-140.
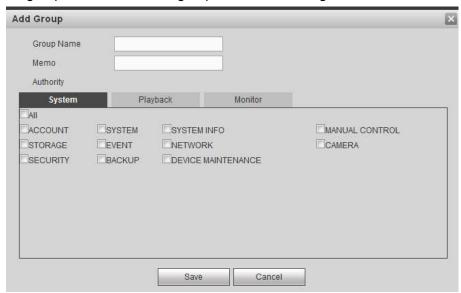
Figure 5-140

Step 2   Input the group name and then check the box to select the corresponding rights.   It includes:
system, playback, and monitor.

Step 3   Click Save button.

Modify group

Step 1   Select a group and then click. See Figure 5-141.
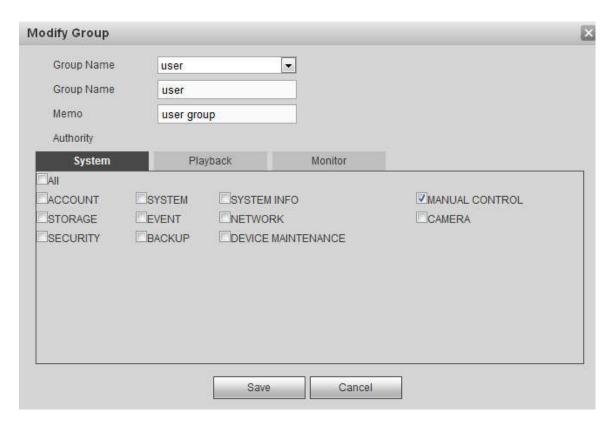
Figure 5-141

Step 2 Change corresponding information and then click Save button.

5.11.5.7.3 ONVIF User

When the camera from the third party is connected with the NVR via the ONVIF user, please use the verified ONVIF account to connect to the NVR.

Step 1 From main menu->Setting->System->Account->ONVIF User.

Enter ONVIF user interface. See the following figure.
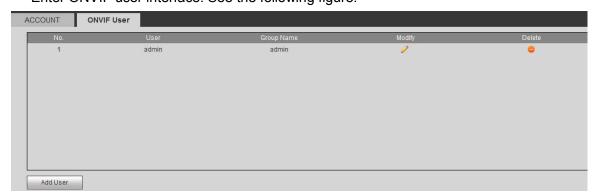
Figure 5-142

Step 2 Click Add user button.

Enter add user interface. See Figure 5-143.
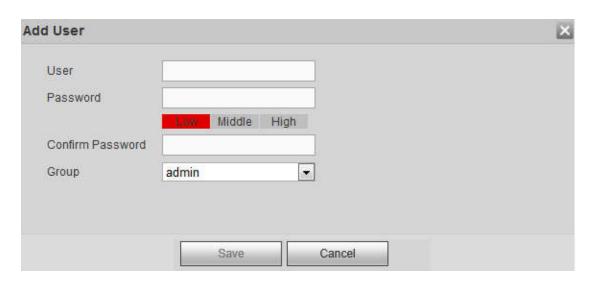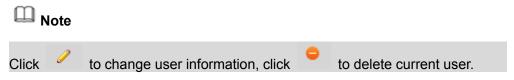
Figure 5-143

Step 3   Set user name, password and then select group from the dropdown list.
Step 4   Click Save to complete setup.

📖 **Note**

Click ✏ to change user information, click ⊖ to delete current user.

5.11.5.8 Security

To enhance device network security and protect device data, please set the access right of the IP host (IP host here refers to the IP PC or the server). After you enabled trusted sites function, only the IP listed below can access current NVR.

If you enable blocked sites function, the following listed IP addresses cannot access current NVR.

Step 1   From main menu->Setting->System->Security.
          Enter security interface. See Figure 5-144.
Step 2   Check the Enable box.
          Select trusted sites/block sites.
          ● Enable trusted site function and then add the whitelist.
          ● Enable blocked site function and then add the blacklist.
Step 3   Set parameters.
● Start address/end address: Select one type from the dropdown list, you can input IP address in the start address and end address. Now you can click Add IP address or Add IP section to add. System supports max 64 IP addresses.
    a) For the newly added IP address, it is in enable status by default. Remove the √ before the item, and then current item is not in the list.
    b) System max supports 64 items.
    c) Address column supports IPv4 or IPv6 format. If it is IPv6 address, system can optimize it. For example, system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa: aa: aa: aa.
    d) System automatically removes space if there is any space before or after the newly added IP address.
    e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.

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f) System may check newly added IP address exists or not. System does not add if input IP address does not exist.

- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 5-145. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null.

Step 4   Click Save to complete setup.

- If you enabled trusted sites, only the IP in the trusted sites list can access the device.
- If you enabled blocked sites, the IP in the blocked sites cannot access the device.
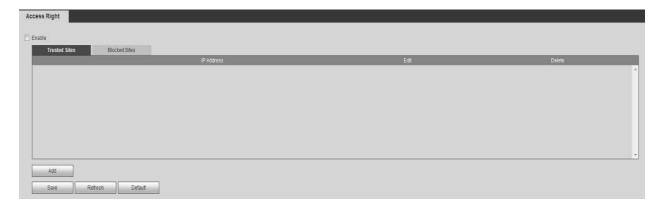
Figure 5-144
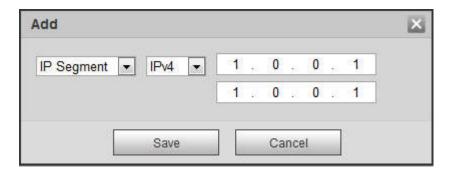
Figure 5-145

5.11.5.9 Auto maintain

The auto maintain interface is shown as in Figure 5-146.

Here you can select auto reboot and auto delete old files interval from the dropdown list.

If you want to use the auto delete old files function, you need to set the file period.

Click Manual reboot button, you can restart device manually.
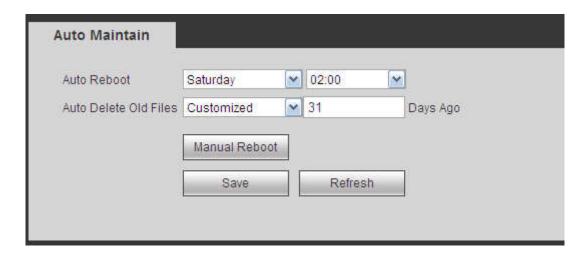
Figure 5-146

5.11.5.10　Import/Export

The interface is shown as in Figure 5-147. This interface is for you to export or import the configuration files.

Figure 5-147

Please refer to the following sheet for detailed information.

Parameter	Function
Browse	Click to select import file.
Import	It is to import the local setup files to the system.
Export	It is to export the corresponding WEB setup to your local PC.

5.11.5.11　Default

The default setup interface is shown as in Figure 5-148.

Here you can select Network/Event/Storage/Setting/Camera. Or you can check the All box to select all items.

Figure 5-148

5.11.5.12 Upgrade

⚠️ CAUTION

- During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.
- Improper upgrade program may result in device malfunction!

There are two upgrade modes: file upgrade and online upgrade.

5.11.5.12.1 File Upgrade

The upgrade interface is shown as in Figure 5-149.

Please select the upgrade file and then click the update button to begin update. Please note the file name shall be as *.bin.

Figure 5-149

5.11.5.12.2 Cloud Upgrade

When the NVR is online, you can use the cloud upgrade to update the firmware.

📖 **Note**

Make sure the NVR has properly connected to the network.

Version Detection

The version detection includes auto detection and manual detection. It displays current system version and application released date.

- Enable auto detection, NVR interacts with the cloud every day to detect if there is a new version available. When there is a new version, system marks a red point on the Upgrade tab.

📖 **Note**

To inform you upgrading firmware timely, we will collect your device information such as IP address,

device name, firmware version and serial number. The collected information is used for verifying device legality and pushing upgrade notice.

● Click manual detection to view the latest new version on the cloud.
    ➢ If current version is the latest one, system prompts that "It is the latest version".
    ➢ If there is new version available, system displays new version information such as release date and corresponding release note.

Upgrade System

Click Start to upgrade the system.

5.12 Information

5.12.1 Version

The version interface is shown as in Figure 5-150. Please note the following information for reference only.

Here you can view record channel, alarm input/output information, software version, release date and etc. When there is any new version, it prompts found new version. Click it, NVR goes to upgrade interface.

VERSION	
Device Type:	NVR
Record Channel:	24
Alarm In:	16
Alarm Out:	6
SN:	2J015E7YAZE4G2P
Web Version:	3.2.3.79489
Onvif Version:	2.4.1
System Version:	3.210.0003.0, Build Date: 2017-04-14

Figure 5-150

5.12.2 Log

Here you can view system log. See Figure 5-151.
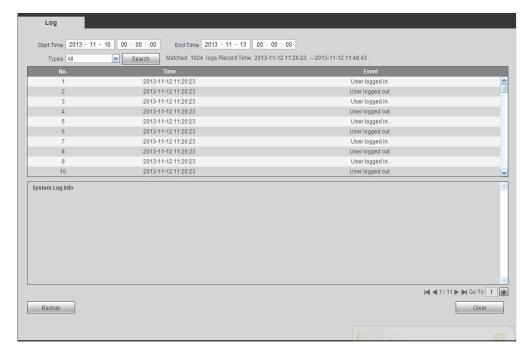
Figure 5-151

Please refer to the following sheet for log parameter information.

Parameter	Function
Type	Log types include: system operation, configuration operation, data operation, event operation, record operation, user management, log clear.
Start time	Set the start time of the requested log.
End time	Set the end time of the requested log.
Search	You can select log type from the drop down list and then click search button to view the list. You can click the stop button to terminate current search operation.
Detailed information	You can select one item to view the detailed information.
Clear	You can click this button to delete all displayed log files. Please note system does not support clear by type.
Backup	You can click this button to backup log files to current PC.

5.12.3 Online User

The online user interface is shown as in Figure 5-152.

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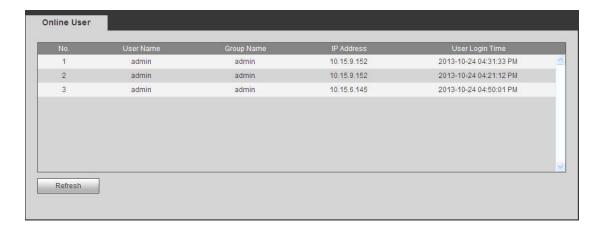
Figure 5-152

5.12.4 People Counting

From main menu->Info->People counting, the interface is shown as in Figure 5-153.
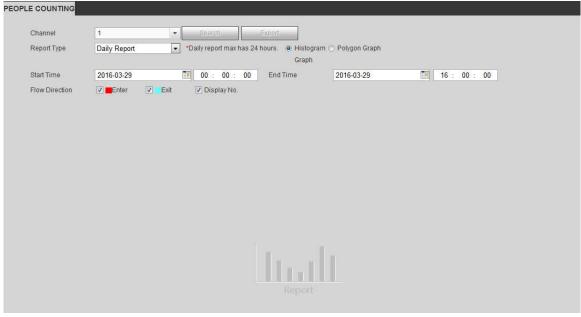
Figure 5-153

5.12.5 Heat Map

From main menu->Info->Heat Map, the interface is shown as in Figure 5-154.
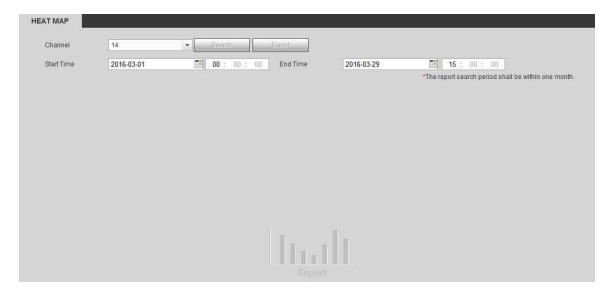
Figure 5-154

5.12.6 HDD

From main menu->Info->HDD, the HDD interface is shown as in Figure 5-155. Here you can view HDD information.
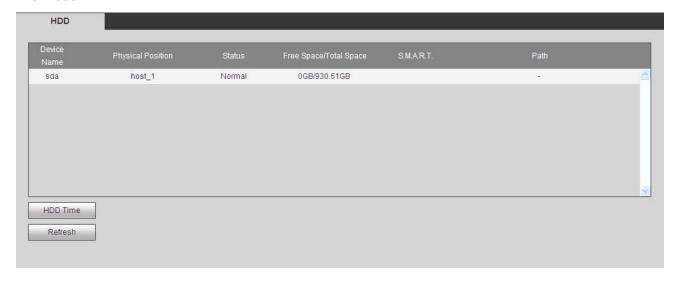
Figure 5-155

5.13 Playback

Click Playback button, you can see an interface is shown as in Figure 5-156.
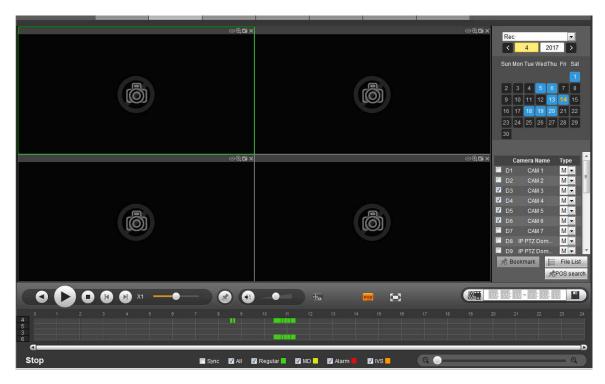
Figure 5-156

5.13.1 Search Record

Please set record type, record date, window display mode and channel name.

- Select Date

You can click the date on the right pane to select the date. The green highlighted date is system current date and the blue highlighted date means it has record files.

- Window Split

Select window split mode. Click [icon] to display in full screen. Click ESC button to exit. See Figure 5-157.

Figure 5-157

- Select Channel

1~4　means main stream and A1~A4 means sub stream.

- Select Record Type

Check the corresponding box to select record type. See Figure 5-158.

Figure 5-158

5.13.2 File List

Click File list button, you can see the corresponding files in the list. See Figure 5-159.

Figure 5-159

5.13.3 Playback

Select a file you want to play and then click Play button, system can begin playback. You can select to playback in full-screen. Please note for one channel, system cannot playback and download at the same time. You can use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play and etc. See Figure 5-160.

Figure 5-160

5.13.4 Download

Select the file(s) you want to download and then click download button, you can see an interface shown as in Figure 5-161. The Download button becomes Stop button and there is a process bar for your

reference. Please go to you default file saved path to view the files.
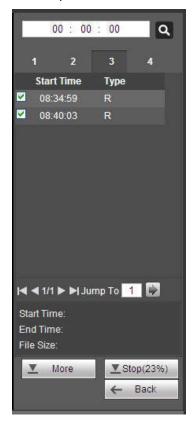
Figure 5-161

5.13.5 Load more

It is for you to search record or picture. You can select record channel, record type and record time to download. Or you can use watermark function to verify file.

5.13.5.1 Download By File

Select channel, record type, bit stream type and then input start time and end time. Click Search button, the download by file interface is shown as in Figure 5-162.
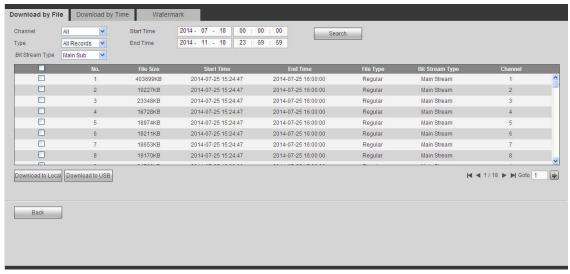
Figure 5-162

Check the file(s) you want to download and there are two options for you to save the file(s).

- Download to local

Click Download to local, system pops up the following interface for you to set record format and saved path. See Figure 5-163.

Figure 5-163

You can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

● Download to USB

Connect the corresponding p peripheral device, and then click Download to USB button, you can see the following interface. See Figure 5-164.
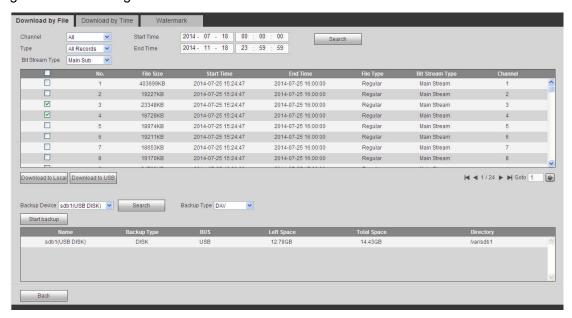
Figure 5-164

Select Backup device and backup type first and then click Start backup button.

After the download operation, you can see corresponding dialogue box.

5.13.5.2 Download by Time

Select channel, bit stream type, start time and end time.

Click Download to Local button, you can see download by time interface is shown as in Figure 5-165.
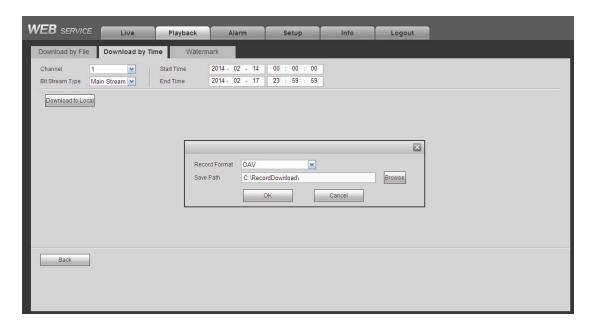
Figure 5-165

Set record format and saved path, you can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

5.13.5.3 Watermark

Watermark interface is shown as In Figure 5-166. Please select a file and then click Verify button to see the file has been tampered with or not
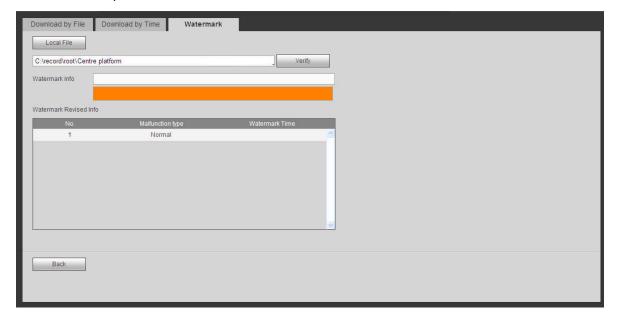
Figure 5-166

5.14 Smart Playback

It is to search and playback the IVS file, human face file and plate recognition record.

📖 **Note**

- There are two types to realize intelligent analytics function.
  - ✧ Smart network camera supports intelligent functions: Some smart camera supports the intelligent functions. For NVR, it just displays the intelligent alarm information from the smart network camera and set or playback the record file.
  - ✧ NVR supports intelligent functions: The connected network camera does not support intelligent video analytics function. The NVR supports the analytics function.
- This function is to playback the intelligent record file of the smart camera.

5.14.1 IVS (Behavior Analytics)

It is to search and play back the IVS record files.

Step1   Select Smart Playback-> IVS.

The IVS interface is displayed. See Figure 5-167.
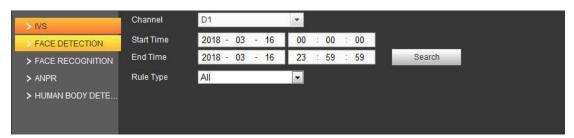
Figure 5-167

Step2   Select the Channel and choose Start Time and End Time.

Step3   Click Search.

The pictures meeting the conditions are displayed. See Figure 5-168.

Figure 5-168
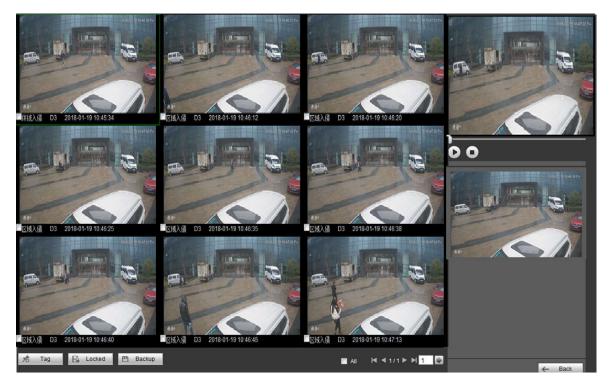
📖 NOTE

Click Delete on the main interface of Smart Playback to clear the set detect type, channel number, start time and end time.

Step4   Click the image and you can view the record file.

- Select a file and then click [💾 Backup], you can save current file to peripheral storage devices.

- Select a file and then click [🔒 Locked], you can lock current file in case it will be overwritten in the future

- Select a file and then click [🏷 Tag], you can mark the time of the detected event.

5.14.2 Plate Recognition

It is to search and playback the record file containing the plate number.

Step1 Select Smart Playback-> ANPR.
The ANPR interface is displayd. See Figure 5-169.
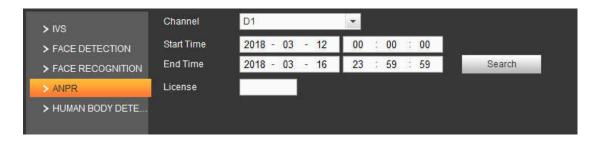
Figure 5-169

Step2 Select Channel, Start Time and End Time and set the license number.

📖 NOTE
- The system supports plate fuzzy search.
- All plates will be searched by default if the license number is not set.

Step3 Click Search.
The images meeting the conditions are displayed. See Figure 5-170.
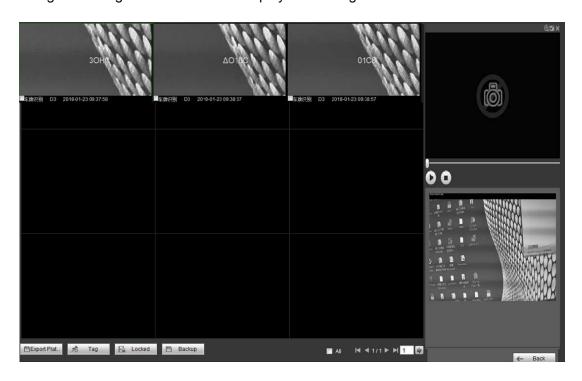
Figure 5-170

Step4   Click the image and you can view the record file.

- Click Export Plate to export the plate information to local.

- Select a file and then click 💾 Backup , you can save current file to peripheral storage devices.

- Select a file and then click 🔒 Locked , you can lock current file in case it will be overwritten in the future

- Select a file and then click 🏷 Tag , you can mark the time of the detected event.

5.14.3   Human Face

System can search the record containing human face and then replay it.

Important

Before you use this function, please make sure current channel has enabled human face detection function. Please refer to chapter 5.11.3.4 (Setup->Event->Face Detection) for detailed information.

Step1   Select Samrt Playback-> Face Detection.

The Face Detection interface is displayed. See Figure 5-171.
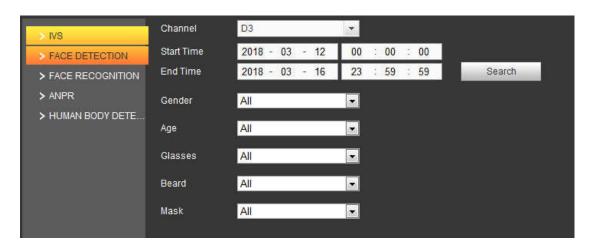
Figure 5-171

Step2   Select Channel, Start Time and End Time and set the filter conditions.

Step3   Click Search.

The images meeting the conditions are displayed. See Figure 5-172.

The following human faces have been modified for privacy reason. The actually snapshot images have high definition.

Figure 5-172

Step4   Click the image and you can view the record file.

- Select a file and then click [Backup], you can save current file to peripheral storage devices.

- Select a file and then click [Locked], you can lock current file in case it will be overwritten in the future

- Select a file and then click [Tag], you can mark the time of the detected event.

5.15 Alarm

Click alarm function, you can see an interface is shown as Figure 5-173.
Here you can set device alarm type and alarm sound setup (Please make sure you have enabled audio function of corresponding alarm events.).
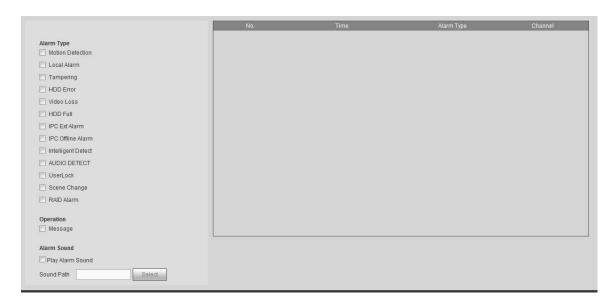
Figure 5-173

Please refer to the following sheet for detailed information.

Type	Parameter	Function
Alarm Type	Video loss	System alarms when video loss occurs.
	Motion detection	System alarms when motion detection alarm occurs.
	Tampering	System alarms when camera is viciously masking.
	Disk full	System alarms when disk is full.
	Disk error	System alarms when disk error occurs.
	External alarm	Alarm input device sends out alarm.
	IPC external alarm	It refers to the on-off signal from the network camera. It can activate the NVR local activation operation.
	IPC offline alarm	System can generate an alarm when the network camera and the NVR are disconnected.
	Intelligent detect	System alarms when IVS alarm occurs.
	Audio detect	System alarms when audio detect is abnormal.
Operation	Prompt	Check the box here, system can automatically pops up an alarm icon on the Alarm button in the main interface when there is an alarm.
Alarm Sound	Play alarm sound	System sends out alarm sound when an alarm occurs. You can specify as you wish.
	Sound path	Here you can specify alarm sound file.

5.16 Log out

Click log out button, system goes back to log in interface. See Figure 5-174.
You need to input user name and password to login again.

Figure 5-174

5.17 Un-install Web Control

You can use web un-install tool "uninstall web.bat" to un-install web control.

Please note, before you un-installation, please close all web pages, otherwise the un-installation might result in error

6 Glossary

- **DHCP:** DHCP (Dynamic Host Configuration Protocol) is a network protocol. It is one of the TCP/IP protocol cluster. It is principally used to assign temporary IP addresses to computers on a network.
- **DDNS:** DDNS (Dynamic Domain Name Server) is a service that maps Internet domain names to IP addresses. This service is useful to anyone who wants to operate a server (web server, mail server, ftp server and etc) connected to the internet with a dynamic IP or to someone who wants to connect to an office computer or server from a remote location with software.
- **eSATA**: eSATA(External Serial AT) is an interface that provides fast data transfer for external storage devices. It is the extension specifications of a SATA interface.
- **GPS:** GPS (Global Positioning System) is a satellite system, protected by the US military, safely orbiting thousands of kilometers above the earth.
- **PPPoE: PPPoE (**Point to Point Protocol over Ethernet) is a specification for connecting multiple computer users on an Ethernet local area network to a remote site. Now the popular mode is ADSL and it adopts PPPoE protocol.
- **Wi-Fi:** Wi-Fi is the name of a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections. The standard is for wireless local area networks (WLANs). It is like a common language that all the devices use to communicate to each other. It is actually IEEE802.11, a family of standard The IEEE (Institute of Electrical and Electronics Engineers Inc.)
- **3G:** 3G is the wireless network standard. It is called 3G because it is the third generation of cellular telecom standards. 3G is a faster network for phone and data transmission and speed Is over several hundred kbps. Now there are four standards: CDMA2000, WCDMA, TD-SCDMA and WiMAX.
- **Dual-stream:** The dual-stream technology adopts high-rate bit stream for local HD storage such as QCIF/CIF/2CIF/DCIF/4CIF encode and one low-rate bit stream for network transmission such as QCIF/CIF encode. It can balance the local storage and remote network transmission. The dual-stream can meet the difference band width requirements of the local transmission and the remote transmission. In this way, the local transmission using high-bit stream can achieve HD storage and the network transmission adopting low bit stream suitable for the fluency requirements of the 3G network such as WCDMA, EVDO, TD-SCDMA..
- **On-off value:** It is the non-consecutive signal sampling and output. It includes remote sampling and remote output. It has two statuses: 1/0.

7 FAQ

Questions	Solutions
NVR cannot boot up properly.	● Input power is not correct. ● Power connection is not correct. ● Power switch button is damaged. ● Program upgrade is wrong. ● HDD malfunction or something wrong with HDD ribbon. ● Seagate DB35.1, DB35.2, SV35 or Maxtor 17-g has compatibility problem. Please upgrade to the latest version to solve this problem. ● Front panel error. ● Main board is damaged.
NVR often automatically shuts down or stops running.	● Input voltage is not stable or it is too low. ● HDD malfunction or something wrong with the ribbon. ● Button power is not enough. ● Front video signal is not stable. ● Working environment is too harsh, too much dust. ● Hardware malfunction.
System cannot detect hard disk.	● HDD is broken. ● HDD ribbon is damaged. ● HDD cable connection is loose. ● Main board SATA port is broken.
There is no video output whether it is one-channel, multiple-channel or all-channel output.	● Program is not compatible. Please upgrade to the latest version. ● Brightness is 0. Please restore factory default setup. ● Check your screen saver. ● NVR hardware malfunctions.
I cannot search local records.	● HDD ribbon is damaged. ● HDD is broken. ● Upgraded program is not compatible. ● The recorded file has been overwritten. ● Record function has been disabled.
Video is distorted when searching local records.	● Video quality setup is too low. ● Program read error, bit data is too small. There is mosaic in the full screen. Please restart the NVR to solve this problem. ● HDD data ribbon error. ● HDD malfunction. ● NVR hardware malfunctions.
Time display is not correct.	● Setup is not correct ● Battery contact is not correct or voltage is too low. ● Crystal is broken.

Questions	Solutions
NVR cannot control PTZ.	● Front panel PTZ error ● PTZ decoder setup, connection or installation is not correct. ● Cable connection is not correct. ● PTZ setup is not correct. ● PTZ decoder and NVR protocol is not compatible. ● PTZ decoder and NVR address is not compatible. ● When there are several decoders, please add 120 Ohm between the PTZ decoder A/B cables furthest end to delete the reverberation or impedance matching. Otherwise the PTZ control is not stable. ● The distance is too far.
I cannot log in client-end or web.	● For Windows 98 or Windows ME user, please update your system to Windows 2000 sp4. Or you can install client-end software of lower version. Please note right now, our NVR is not compatible with Windows VISTA control. ● ActiveX control has been disabled. ● No dx8.1 or higher. Please upgrade display card driver. ● Network connection error. ● Network setup error. ● Password or user name is invalid. ● Client-end is not compatible with NVR program.
There is only mosaic no video when preview or playback video file remotely.	● Network fluency is not good. ● Client-end resources are limit. ● Current user has no right to monitor.
Network connection is not stable.	● Network is not stable. ● IP address conflict. ● MAC address conflict. ● PC or device network card is not good.
Burn error /USB back error.	● Burner and NVR are in the same data cable. ● System uses too much CPU resources. Please stop record first and then begin backup. ● Data amount exceeds backup device capacity. It may result in burner error. ● Backup device is not compatible. ● Backup device is damaged.
Keyboard cannot control NVR.	● NVR serial port setup is not correct ● Address is not correct ● When there are several switchers, power supply is not enough. ● Transmission distance is too far.

Questions	Solutions
Alarm signal cannot been disarmed.	● Alarm setup is not correct. ● Alarm output has been open manually. ● Input device error or connection is not correct. ● Some program versions may have this problem. Please upgrade your system.
Alarm function is null.	● Alarm setup is not correct. ● Alarm cable connection is not correct. ● Alarm input signal is not correct. ● There are two loops connect to one alarm device.
Record storage period is not enough.	● Camera quality is too low. Lens is dirty. Camera is installed against the light. Camera aperture setup is not correct. ● HDD capacity is not enough. ● HDD is damaged.
Cannot playback the downloaded file.	● There is no media player. ● No DXB8.1 or higher graphic acceleration software. ● There is no DivX503Bundle.exe control when you play the file transformed to AVI via media player. ● No DivX503Bundle.exe or ffdshow-2004 1012 .exe in Windows XP OS.
Forgot local menu operation password or network password	● Please contact your local service engineer or our sales person for help. We can guide you to solve this problem.
There is no video. The screen is in black.	● IPC IP address is not right. ● IPC port number is not right. ● IPC account (user name/password) is not right. ● IPC is offline.
The displayed video is not full in the monitor.	Please cheek current resolution setup. If the current setup is 1920*1080, then you need to set the monitor resolution as 1920*1080.
There is no HDMI output.	● Displayer is not in HDMI mode. ● HDMI cable connection is not right.
The video is not fluent when I view in multiple-channel mode from the client-end.	● The network bandwidth is not sufficient. The multiple-channel monitor operation needs at least 100M or higher. ● Your PC resources are not sufficient. For 16-ch remote monitor operation, the PC shall have the following environment: Quad Core, 2G or higher memory, independent displayer, display card memory 256M or higher.

Questions	Solutions
I can not connect to the IPC	- Please make sure the IPC has booted up. - IPC network connection is right and it is online - IPC IP is in the blacklist. - The device has connected to the too many IPC. It cannot transmit the video. - Check the IPC port value and the time zone is the same as the NVR. - Make sure current network environment is stable.
After I set the NVR resolution as 1080P, my monitor can not display.	Shut down the device and then reboot. When you reboot, please press the Fn button at the same time and then release after 5 seconds. You can restore NVR resolution to the default setup.

My admin account has been changed and I can not log in.	Use telnet and then input the following command:
	  cd /mnt/mtd/Config/
	  rm -rf group
	  rm -rf password
	Reboot the device to restore the default password.

After I login the Web , I can not find the remote interface to add the IPC.	Please clear the Web controls and load again.
There is IP and gateway, I can access the internet via the router. But I can not access the internet after I reboot the NVR.	Please use command PING to check you can connect to the gateway or not. Use telnet to access and then use command "ifconfig –a" to check device IP address. If you see the subnet mask and the gateway has changed after the reboot. Please upgrade the applications and set again.
I use the VGA montior.I want to know if I use the multple-window mode, I see the video from the main stream or the sub stream?	- For 32-channel series product, the 9/16-window is using the sub stream. - For 4/8/16 series product, system is using the main stream no matter you are in what display mode.

Daily Maintenance

- Please use the brush to clean the board, socket connector and the chassis regularly.
- The device shall be soundly earthed in case there is audio/video disturbance. Keep the device away from the static voltage or induced voltage.
- Please unplug the power cable before you remove the audio/video signal cable, RS232 or RS485 cable.
- Do not connect the TV to the local video output port (VOUT).It may result in video output circuit.
- Always shut down the device properly. Please use the shutdown function in the menu, or you can press the power button in the rear pane for at least three seconds to shut down the device.

Otherwise it may result in HDD malfunction.

- Please make sure the device is away from the direct sunlight or other heating sources. Please keep the sound ventilation.
- Please check and maintain the device regularly.

8   Appendix A HDD Capacity Calculation

Calculate total capacity needed by each device according to video recording (video recording type and video file storage time).

Step 1: According to Formula (1) to calculate storage capacity q_i that is the capacity of each channel needed for each hour, unit Mbyte.

$$q_i = d_i \div 8 \times 3600 \div 1024 \qquad (1)$$

In the formula: d_i means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage capacity m_i, which is storage of each channel needed unit Mbyte.

$$m_i = q_i \times h_i \times D_i \qquad (2)$$

In the formula:

h_i means the recording time for each day (hour)

D_i means number of days for which the video shall be kept

Step 3: According to Formula (3) to calculate total capacity (accumulation) q_T that is needed for all channels in the device during **scheduled video recording**.

$$q_T = \sum_{i=1}^{c} m_i \qquad (3)$$

In the formula: c means total number of channels in one device

Step 4: According to Formula (4) to calculate total capacity (accumulation) q_T that is needed for all channels in device during **alarm video recording (including motion detection)**.

$$q_T = \sum_{i=1}^{c} m_i \times a\% \qquad (4)$$

In the formula: *a%* means alarm occurrence rate

9 Appendix B Compatible Network Camera List

Please note all the models in the following list for reference only. For those products not included in the list, please contact your local retailer or technical supporting engineer for detailed information.

Manufacture	Model	Version	Video Encode	Audio/Video	Protocol
AXIS	P1346	5.40.9.2	H264	√	ONVIF/Private
	P3344/P3344-E	5.40.9.2	H264	√	ONVIF/Private
	P5512	—	H264	√	ONVIF/Private
	Q1604	5.40.3.2	H264	√	ONVIF/Private
	Q1604-E	5.40.9	H264	√	ONVIF/Private
	Q6034E	—	H264	√	ONVIF/Private
	Q6035	5.40.9	H264	√	ONVIF/Private
	Q1755	—	H264	√	ONVIF/Private
	M7001	—	H264	√	Private
	M3204	5.40.9.2	H264	√	Private
	P3367	HEAD LFP4_0130220	H264	√	ONVIF
	P5532-P	HEAD LFP4_0130220	H264	√	ONVIF
ACTi	ACM-3511	A1D-220-V3.12.15-AC	MPEG4	√	Private
	ACM-8221	A1D-220-V3.13.16-AC	MPEG4	√	Private
Arecont	AV1115	65246	H264	√	Private
	AV10005DN	65197	H264	√	Private
	AV2115DN	65246	H264	√	Private
	AV2515DN	65199	H264	√	Private
	AV2815	65197	H264	√	Private
	AV5115DN	65246	H264	√	Private
	AV8185DN	65197	H264	√	Private
Bosch	NBN-921-P	—	H264	√	ONVIF
	NBC-455-12P	—	H264	√	ONVIF
	VG5-825	9500453	H264	√	ONVIF
	NBN-832	66500500	H264	√	ONVIF
	VEZ-211-IWTEIVA	—	H264	√	ONVIF
	NBC-255-P	15500152	H264	√	ONVIF
	VIP-X1XF	—	H264	√	ONVIF
Brikcom	B0100	—	H264	√	ONVIF
	D100	—	H264	√	ONVIF
	GE-100-CB	—	H264	√	ONVIF
	FB-100A	v1.0.3.9	H264	√	ONVIF
	FD-100A	v1.0.3.3	H264	√	ONVIF

Manufacture	Model	Version	Video Encode	Audio/Video	Protocol
Cannon	VB-M400	—	H264	√	Private
CNB	MPix2.0DIR	XNETM1120111229	H264	√	ONVIF
	VIPBL1.3MIRVF	XNETM2100111229	H264	√	ONVIF
	IGC-2050F	XNETM2100111229	H264	√	ONVIF
CP PLUS	CP-NC9-K	6.E.2.7776	H264	√	ONVIF/Private
	CP-NC9W-K	6.E.2.7776	H264	√	Private
	CP-ND10-R	cp20111129ANS	H264	√	ONVIF
	CP-ND20-R	cp20111129ANS	H264	√	ONVIF
	CP-NS12W-CR	cp20110808NS	H264	√	ONVIF
	VS201	cp20111129NS	H264	√	ONVIF
	CP-NB20-R	cp20110808BNS	H264	√	ONVIF
	CP-NT20VL3-R	cp20110808BNS	H264	√	ONVIF
	CP-NS36W-AR	cp20110808NS	H264	√	ONVIF
	CP-ND20VL2-R	cp20110808BNS	H264	√	ONVIF
	CP-RNP-1820	cp20120821NSA	H264	√	Private
	CP-RNC-TP20FL3C	cp20120821NSA	H264	√	Private
	CP-RNP-12D	cp20120828ANS	H264	√	Private
	CP-RNC-DV10	cp20120821NSA	H264	√	Private
	CP-RNC-DP20FL2C	cp20120821NSA	H264	√	Private
Dynacolor	ICS-13	d20120214NS	H264	√	ONVIF/Private
	ICS-20W	vt20111123NSA	H264	√	ONVIF/Private
	NA222	—	H264	√	ONVIF
	MPC-IPVD-0313	k20111208ANS	H264	√	ONVIF/Private
	MPC-IPVD-0313AF	k20111208BNS	H264	√	ONVIF/Private
Honeywell	HIDC-1100PT	h.2.2.1824	H264	√	ONVIF
	HIDC-1100P	h.2.2.1824	H264	√	ONVIF

Manufacture	Model	Version	Video Encode	Audio/Video	Protocol
	HIDC-0100P	h.2.2.1824	H264	√	ONVIF
	HIDC-1300V	2.0.0.21	H264	√	ONVIF
	HICC-1300W	2.0.1.7	H264	√	ONVIF
	HICC-2300	2.0.0.21	H264	√	ONVIF
	HDZ20HDX	H20130114NSA	H264	√	ONVIF
LG	LW342-FP	—	H264	√	Private
	LNB5100	—	H264	√	ONVIF
Imatek	KNC-B5000	—	H264	√	Private
	KNC-B5162	—	H264	√	Private
	KNC-B2161	—	H264	√	Private
Panasonic	NP240/CH	—	MPEG4	√	Private
	WV-NP502	—	MPEG4	√	Private
	WV-SP102H	1.41	H264	√	ONVIF/Private
	WV-SP105H	—	H264	√	ONVIF/Private
	WV-SP302H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SP306H	1.4	H264、MPEG4	√	ONVIF/Private
	WV-SP508H	—	H264、MPEG4	√	ONVIF/Private
	WV-SP509H	—	H264、MPEG4	√	ONVIF/Private
	WV-SF332H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SW316H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SW355H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SW352H	—	H264、MPEG4	√	ONVIF/Private
	WV-SW152E	1.03	H264、MPEG4	√	ONVIF/Private
	WV-SW558H	—	H264、MPEG4	√	ONVIF/Private
	WV-SW559H	—	H264、MPEG4	√	ONVIF/Private
	WV-SP105H	1.03	H264、MPEG4	√	ONVIF/Private
	WV-SW155E	1.03	H264、MPEG4	√	ONVIF/Private
	WV-SF336H	1.44	H264、MPEG4	√	ONVIF/Private
	WV-SF332H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SF132E	1.03	H264、MPEG4	√	ONVIF/Private
	WV-SF135E	1.03	H264、MPEG4	√	ONVIF/Private
	WV-SF346H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SF342H	1.41	H264、MPEG4	√	ONVIF/Private
	WV-SC385H	1.08	H264、MPEG4	√	ONVIF/Private
	WV-SC386H	1.08	H264、MPEG4	√	ONVIF/Private
	WV-SP539	1.66	H264、MPEG4	√	ONVIF
	DG-SC385	1.66	H264、MPEG4	√	ONVIF
PELCO	IXSOLW	1.8.1-20110912-1.9082-A1.66117	H264	√	Private
	IDE20DN	1.7.41.9111-O3.6725	H264	√	Private

Manufacture	Model	Version	Video Encode	Audio/Video	Protocol
	D5118	1.7.8.9310-A1.5288	H264	√	Private
	IM10C10	1.6.13.9261-O2.4657	H264	√	Private
	DD4N-X	01.02.0015	MPEG4	√	Private
	DD423-X	01.02.0006	MPEG4	√	Private
	D5220	1.8.3-FC2-20120614-1.9320-A1.8035	H264	√	Private
Samsung	SNB-3000P	2.41	H264、MPEG4	√	ONVIF/Private
	SNP-3120	1.22_110120_1	H264、MPEG4	√	ONVIF/Private
	SNP-3370	1.21_110318	MPEG4	√	Private
	SNB-5000	2.10_111227	H264、MPEG4	√	ONVIF/Private
	SND-5080	—	H264、MPEG4	√	Private
	SNZ-5200	1.02_110512	H264、MPEG4	√	ONVIF/Private
	SNP-5200	1.04_110825	H264、MPEG4	√	ONVIF/Private
	SNB-7000	1.10_110819	H264	√	ONVIF/Private
	SNB-6004	V1.0.0	H264	√	ONVIF
Sony	SNC-DH110	1.50.00	H264	√	ONVIF/Private
	SNC-CH120	1.50.00	H264	√	ONVIF/Private
	SNC-CH135	1.73.01	H264	√	ONVIF/Private
	SNC-CH140	1.50.00	H264	√	ONVIF/Private
	SNC-CH210	1.73.00	H264	√	ONVIF/Private
	SNC-DH210	1.73.00	H264	√	ONVIF/Private
	SNC-DH240	1.50.00	H264	√	ONVIF/Private
	SNC-DH240-T	1.73.01	H264	√	ONVIF/Private
	SNC-CH260	1.74.01	H264	√	ONVIF/Private
	SNC-CH280	1.73.01	H264	√	ONVIF/Private
	SNC-RH-124	1.73.00	H264	√	ONVIF/Private
	SNC-RS46P	1.73.00	H264	√	ONVIF/Private
	SNC-ER550	1.74.01	H264	√	ONVIF/Private
	SNC-ER580	1.74.01	H264	√	ONVIF/Private
	SNC-ER580	1.78.00	H264	√	ONVIF
	SNC-VM631	1.4.0	H264	√	ONVIF
	WV-SP306	1.61.00	H264、MPEG4	√	SDK
	WV-SP306	1.61.00	H264	√	ONVIF
	SNC-VB600	1.5.0	H264	√	Private
	SNC-VM600	1.5.0	H264	√	Private
	SNC-VB630	1.5.0	H264	√	Private
	SNC-VM630	1.5.0	H264	√	Private
SANYO	VCC-HDN4000PC	—	H264	√	ONVIF

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