

WATCHNET INC ENMR2 MANUAL

1 Local Basic Operation

1.1 Boot up and Shutdown

1.1.1 Boot up



Caution

Before the boot up, please make sure:

- For device security, please connect the NVR to the power adapter first and then connect the device to the power socket.
- The rated input voltage matches the device power on-off button. Please make sure the power wire connection is OK. Then click the power on-off button.
- Always use the stable current, if necessary UPS is a best alternative measure.

Please follow the steps listed below to boot up the device.

- Connect the device to the monitor and then connect a mouse.
- Connect power cable.
- Click the power button at the front or rear panel and then boot up the device. After device booted up, the system is in multiple-channel display mode by default.

1.1.2 Shutdown

Note

- When you see corresponding dialogue box “System is shutting down...” Do not click power on-off button directly.
- Do not unplug the power cable or click power on-off button to shutdown device directly when device is running (especially when it is recording.)

There are three ways for you to log out.

- a) Main menu (**RECOMMENDED**)

From Main Menu->Shutdown, select shutdown from the list.

- b) From power on-off button on the front panel or remote control

Press the power on-off button on the NVR front panel or remote control for more than 3 seconds to shutdown the device.

- c) From power on-off button on the rear panel.

1.2 Device Initialization

The device will go through Initialization after powering up for the first time where it will ask you to set up your admin password (System default account).



Note

For your device's safety, please keep your login password well after the initialization steps, and change the password regularly.

Steps:

Step 1 Boot up device. Device displays device initialization interface. See *Figure 4.1*

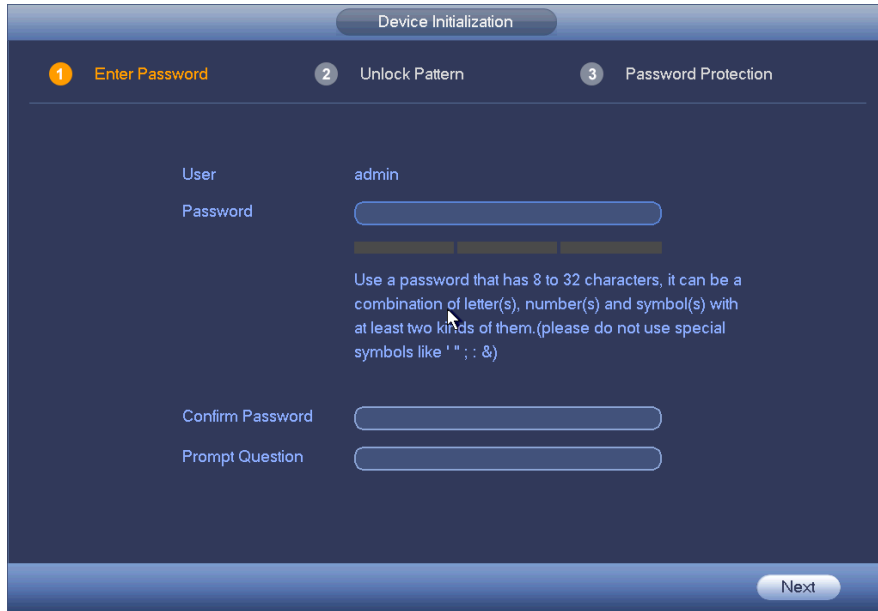



Figure 1.1

Step 2 Set login password of admin.

- User name: The default user name is admin.
- Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding “”,””,“,”,“.”,”&”) . The password shall contain at least two categories. Usually we recommend the strong password.
- Prompt question: If you set the prompt question here. On the login interface, click , device can display the corresponding prompt question for you to remind the password.



WARNING

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

Step 3 Click Next.

Device goes to unlock pattern interface. See *Figure 4.2*

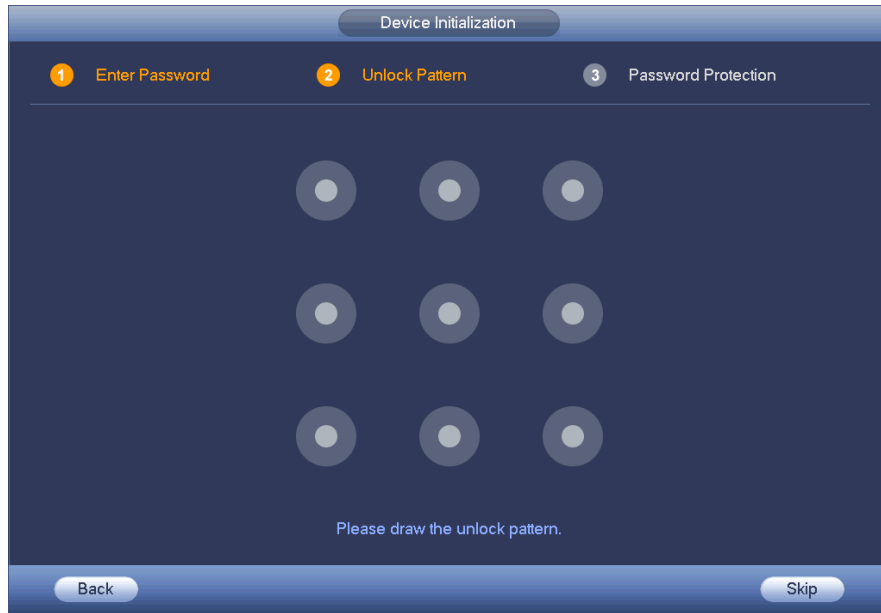


Figure 1.2

Step 4 Set unlock pattern.

After setting unlock pattern, the device goes to password protection interface. See *Figure 4.3*

 **Note**

- The unlock pattern will contain at least 4 grids.
- Device adopts unlock pattern to login by default if you have set a pattern here. If there is no unlock pattern, please input the password the next time you log in.
- Click Skip if there is no need to set unlock pattern.



Figure 1.3

Step 5 Set security questions.



Note

- After setting the security questions here, you can use the email you input here or answer the security questions to reset admin password. Refer to chapter 5.12.4 **Error! Reference source not found.** Reset password for detailed information.
 - Cancel the email or security questions box and then click Next button to skip this step.
- **Email:** Input an email address for reset password purpose. In case you forgot password in the future, input the security code you got on the assigned email to reset the password of admin. If you have not input email here or you need to update the email information, please go to the **main menu->Setting->System->Account** to set.
 - **Security question:** Set security questions and corresponding answers. Properly answer the questions to reset admin password. In case you have not input security question here or you need to update the security question information, please go to the **main menu->Setting->System->Account** to set.

Step 6 Click OK to complete the device initialization setup. Device goes to startup wizard interface.

1.3 Startup Wizard

Startup Wizard will follow after initializing your device. If you should device to skip this wizard, you will still be able to go through the same settings at a time of your choosing.



Note

- Check the box Startup button here, system goes to startup wizard again the next time it boots up.
- Cancel the Startup button, system goes to the login interface directly the next time it boots up.
- Otherwise, proceed with the following startup steps.

Step 1 – Smart Add Function

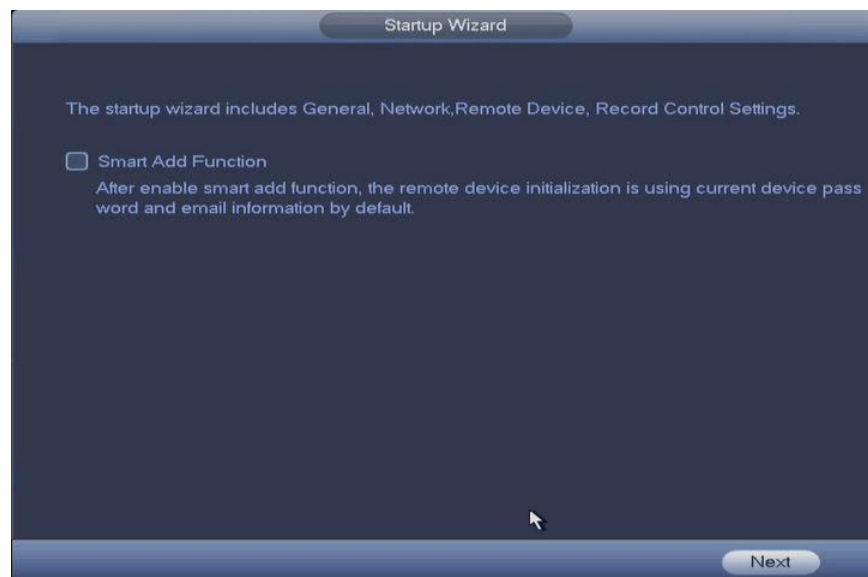


Figure 1.4

The first window of the wizard allows you to enable the **Smart Add Function** (Fig 4.4). Checking the box will allow you to automatically search for available cameras in your network. Click Next. *Go to Step 9 for more information about the Smart Add Function.*

Step 2 - General



Figure 4.5

Aside from the startup wizard you will be able to access the general settings from **Main menu->System->Setting->General**



Figure 4.6

Parameter settings for General interface (Fig 4.5)

- **Device ID:** Input a name for the device.
- **Device No:** Set device number
- **Language:** System supports various languages: Chinese (simplified), Chinese (Traditional), English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)
- **Instant replay:** It is to set playback time you can view in the preview interface. The value ranges from 5 to 60 minutes.
- **Auto logout:** Set a timer for automatic logout in between idle times. Value ranges from 0 to 60 minutes.
- **Monitor channels when logout:** Set the channels that is viewable when no account is logged in to the system. Check the box to activate and uncheck to deactivate. When a channel is removed from the list, you will need to login to view the corresponding video. (See Fig 4.6)
- **IPC Time Sync:** Input a refresh interval value to synchronize the DVR time and IPC time.
- **Mouse sensitivity:** You can set double click speed via dragging the slide bard. Click the Default button to restore default setup.

Step 3 – Date and Time

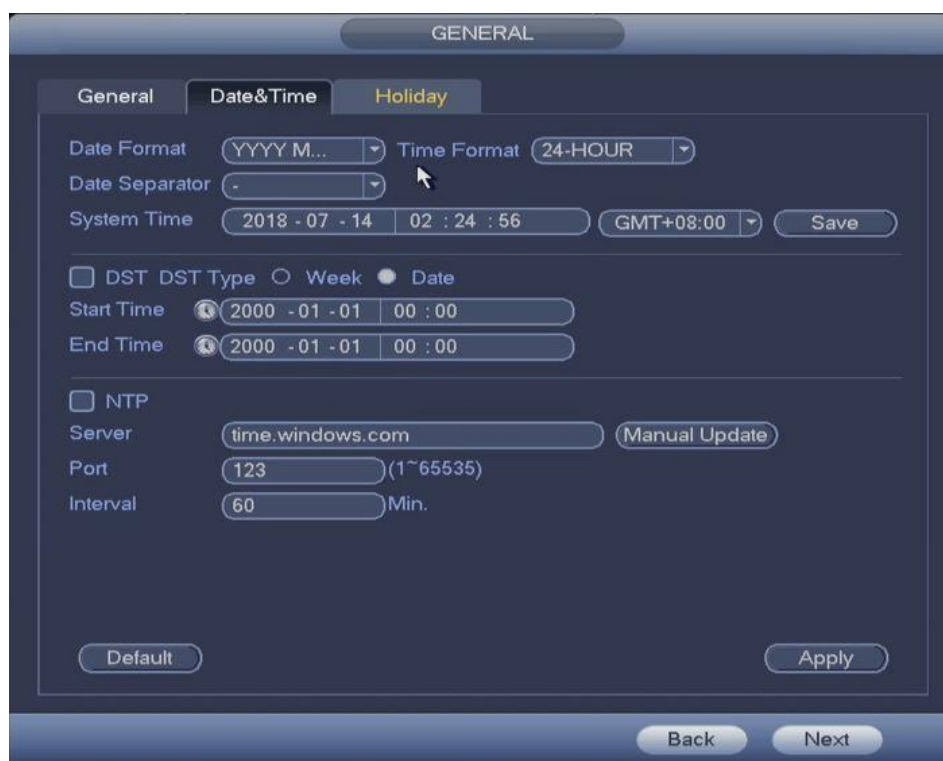


Figure 4.7

Parameter Settings for Date and Time interface (Fig 4.7)

- **Date format:** There are three types: YYYY-MM-DD: MM-DD-YYYY or DD-MM-YYYY.
- **Time Format:** Set the viewing format for time. (12-hour/24-hour)
- **Date separator:** There are three denotations to separate date: dot, beeline and solidus.

- **System Time:** Manually enter the device's system time and corresponding time zone. Click save to apply.
 - **DST:** Set the Daylight Savings start and end time. You can choose to go by week or date.
 - **NTP:** Set NTP server information. Check the NTP box to enable this function.
 - **Server:** Input the server IP or domain of the NTP server you wish to connect to.
 - **Manual update:** Click manual update to sync the DVR time with the NTP server manually.
 - **Port:** System supports TCP transmissions only. The port value is 123.
 - **Interval:** Set the sync time refresh interval between the DVR and the NTP server. The value ranges from 0 to 65535 minutes.
- Click **Default** to restore to factory settings or **Apply** to save your configuration. Click Next to proceed.

Step 4 – Holiday

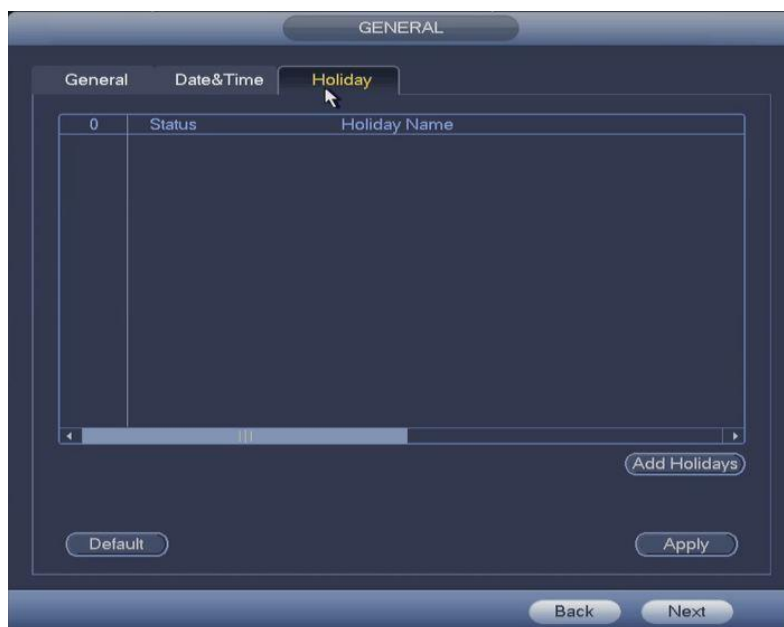


Figure 4.8

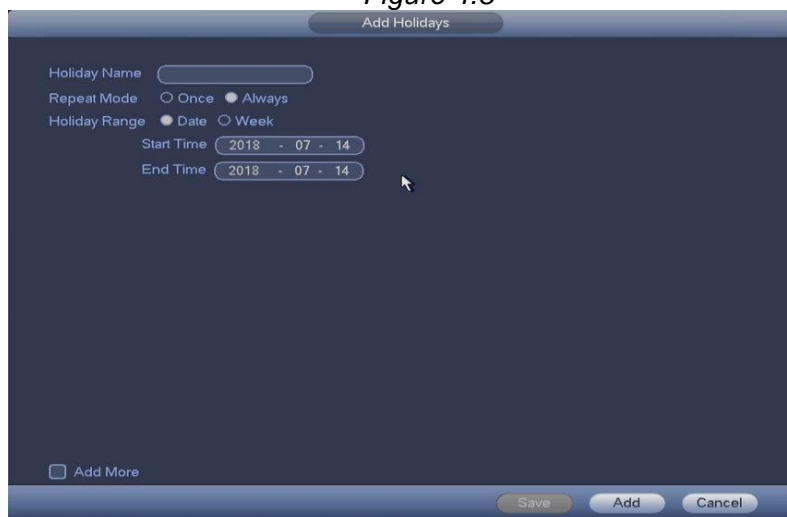


Figure 4.9

Holiday Interface Setup (Fig 4.8)

- Click the **Add Holidays** button to enter the new holiday interface setup. (Fig 4.9)
- Input the holiday(s) name, repeat mode and holiday range (Can be set to a specific date or a whole week.)
- Click the Add more box at the bottom left to add more holidays without leaving the interface.
- If the Add more box is unchecked, clicking the Add button will put you back the main Holiday interface. (Fig 4.8)
- Click **Default** to restore to factory settings or **Apply** to save your configuration. Click Next to proceed.

Step 5 – TCP/IP

The screenshot shows the TCP/IP configuration screen. At the top, there is a title bar labeled "TCP/IP". Below it is a table with the following columns: Ethernet Card, IP Address, Net Mode, NIC Member, Edit, and Unbond. The table contains one row: Ethernet Port1, 192.168.10.66, Single NIC, 1, and an edit icon. Below the table, there are several configuration fields: IP Address: 192.168.10.66, Default Gateway: 192.168.10.1, MTU: 1500, MAC Address: 88:23:64:11:9d:a1, Subnet Mask: 255.255.255.0, Mode: STATIC. There are also dropdown menus for IP Version (set to IPv4), Preferred DNS (8.8.8.8), Alternate DNS (8.8.4.4), and Default Card (Ethernet Port1). At the bottom, there are "Back" and "Next" buttons.

Ethernet Card	IP Address	Net Mode	NIC Member	Edit	Unbond
Ethernet Port1	192.168.10.66	Single NIC	1		

IP Address: 192.168.10.66 Default Gateway: 192.168.10.1 MTU: 1500
MAC Address: 88:23:64:11:9d:a1 Subnet Mask: 255.255.255.0 Mode: STATIC

IP Version: IPv4
Preferred DNS: 8 . 8 . 8 . 8
Alternate DNS: 8 . 8 . 4 . 4
Default Card: Ethernet Port1

Back Next

Figure 4.10



Note

Some models will have multiple Ethernet Cards listed here. Each card will need to be configured individually.

Parameter Settings for TCP/IP interface. (Fig 4.10)

- **IP Version:** Set your ip version to IPv4 or IPv6.
- **Preferred/Alternate DNS:** Set your DNS server(s) ip address. Otherwise, keep the default values 8.8.8.8 and 8.8.4.4 and proceed.
- **Default Card (optional):** Select the default network card you device will be using.
- Click the **Edit** button next to each card to proceed. (Fig 4.10)

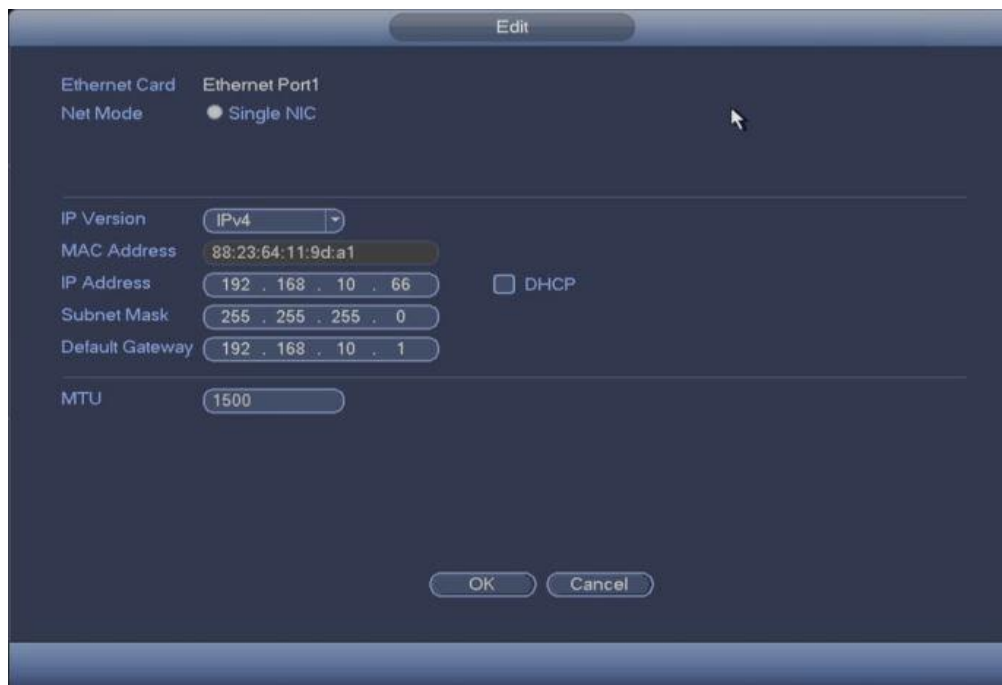


Figure 4.11

- **IP Version:** Set your ip version to IPv4 or IPv6.
- **DHCP:** Check the DHCP box to automatically fill up your network parameters. Leave it unchecked to manually enter your network settings. You need to disable DHCP function to view current IP information. Please note that when PPPoE is operating, you cannot modify IP/Subnet mask /Gateway.
- **IP Address:** Set the ip address of the NVR (Make sure it corresponds to your internal network's IP addressing scheme).
- **Subnet Mask:** Enter your network's subnet configuration. Make sure your IP address falls under the same subnet.
- **Default gateway:** Input the default gateway address (usually the router IP). Please note system needs to check the validity of all IPv6 addresses. Make sure the IP address and the default gateway are in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- **MTU:** Set your network adapter's MTU value of the. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. Before the modification, you can check the MTU of the gateway; the MTU of the DVR should be the same as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only.

- ✧ **1500:** Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.
- ✧ **1492:** Recommend value for PPPoE.

- ◇ **1468**: Recommend value for DHCP.
- ◇ **1450**: Recommend value for VPN.
- Click **OK** to finish configuration. Then click Next in the main TCP/IP window to proceed.

More about network settings in Chapter 5.9.1

Step 6 – P2P



Figure 4.12

- Click the Enable box to enable P2P on the system. This would allow you to use P2P to remote in to the device. A Connect Success Status message indicates a successful Network Connection.
- Leave it unchecked otherwise. Click Next to proceed. **More on this feature in Chapter 5.9.12**

Step 7 – Smart Add Setup (Optional)



Note

This part will only appear if you enabled Smart Add from Step 1. Skip to Step 8 if you did not enable Smart Add.



Figure 4.13

- Click the **Next** button to start automatically adding IPCs in your network. (Fig 4.13)
- If multiple IP segments are detected in the network, a pop-up window will come up for you to confirm. (Fig 4.14)

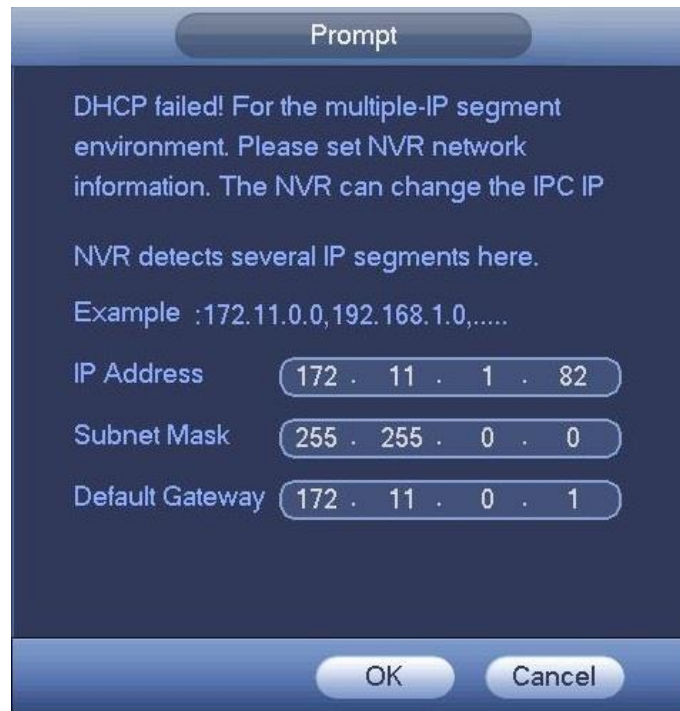


Figure 4.14

- Click **OK** and wait for the process to finish. If your network settings were correct, you will get a success message along with a list of all the IPCs that were automatically added. (Fig 4.15 and Fig 4.16)



Figure 4.15



Figure 4.16

- Click **Yes** on the message box and hit Next to go to the next step.

Step 8 - Schedule

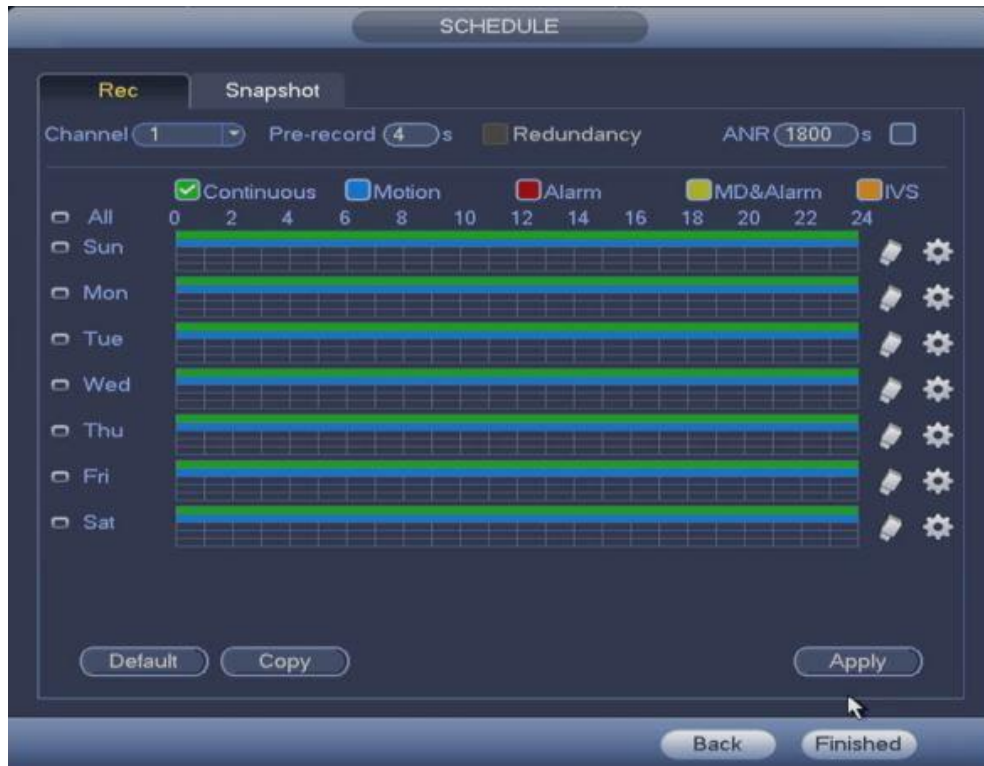


Figure 4.17

Setting up the recording schedule for your device (Fig 4.17)

- Select the Channel you wish to configure.
- Set up pre-record value. Ranges from 1 to 30 seconds depending on the bit stream.
- Check the appropriate Capture type. You can select multiple types at once. (Fig 4.18)



Figure 4.18

- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording schedule and capture type. You can also click the eraser icon to completely remove any chosen entries.
- You can also lock on multiple days you wish to edit at the same time by clicking on the icon to the left of each day. The icon will turn into to show which ones you are currently locked on to.
Refer to Figure 4.19 for a sample set up.

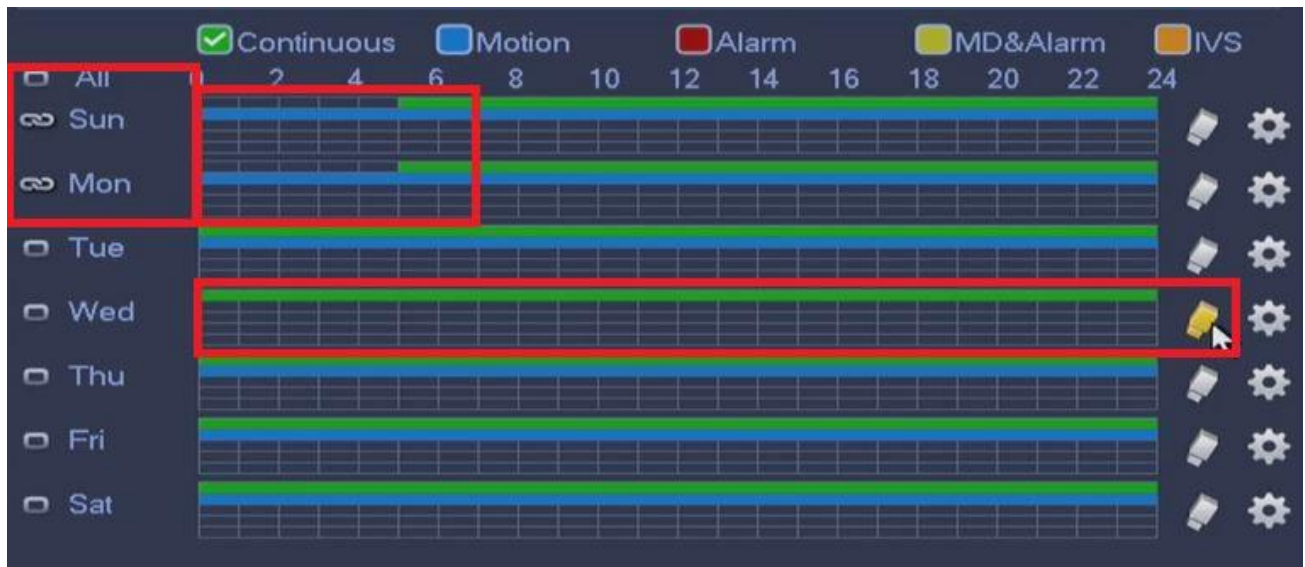


Figure 4.19

Setting the Schedule using Period Menu


- Alternatively, you can click on one of the gear icons  at the end of each day. This would open the period menu. (Fig 4.20)



Figure 4.20

- Set the different periods of the day. The periods need to be set up incrementally starting from the top. Refer to Fig 4.21 for a sample setup.



Figure 4.21

- Check the day(s) you want to copy this set up to. Checking the All box will select all the days. Click the OK button when done. (Fig 4.22)

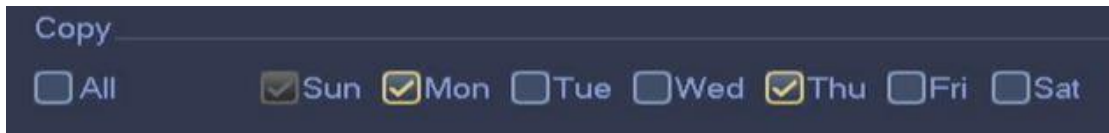


Figure 4.22

- Back in the main Schedule menu (Fig 4.17), click the Copy button to select channels that will have the same schedule as the current channel that you are editing. (Fig 4.23)



Figure 4.23

- Hit Apply to save the changes and go to Step 9 (Optional). Otherwise, click Finished to end the Startup Wizard.



Note

If you should choose to skip the Startup Wizard altogether, you will be given the option to go through the wizard upon your next reboot. Simply click Yes on the prompt. Otherwise click No to opt out of the option. (Fig 4.24).



Figure 4.24

Step 9 – Snapshot (Optional) Follow Step 8 to configure the Snapshot Schedule as they have the same interface.

2 Menu Settings and Navigation

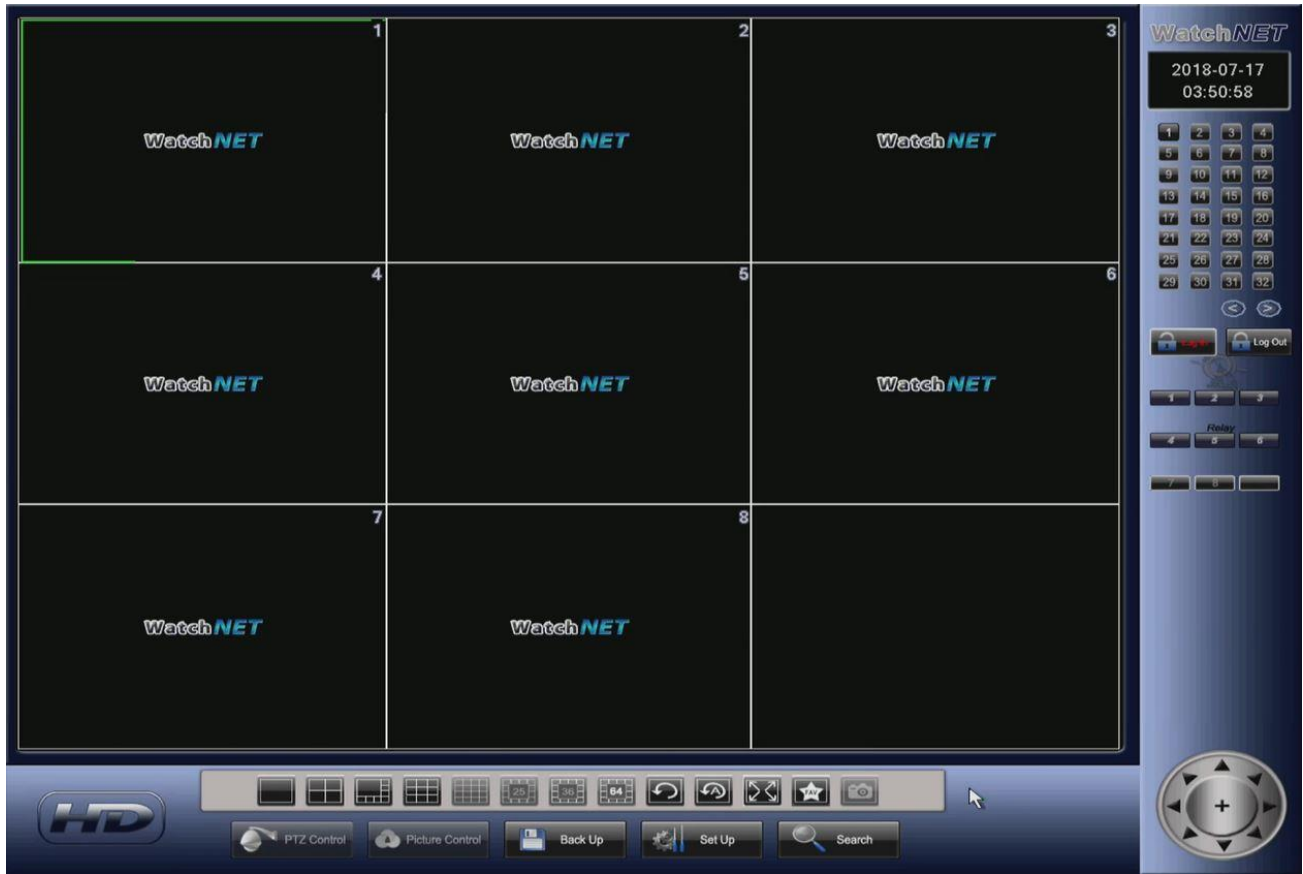








Figure 5.1








5.1 Main Screen/Preview Interface

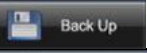
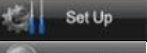







Figure 5.2

The first section of the main screen contains the controls for the different view types that are available for the model of your system. This would range from single view to 64 view. (Fig 5.2)

	Single View	Switch the selected channel to single camera display.
	Four View	Switch to four camera display.
	Eight View	Switch to eight camera display.
	Nine View	Switch to nine camera display.
	16 View	Switch to sixteen camera display.
	25 View	Switch to 25 camera display.

	36 View	Switch to 36 camera display.
	64 View	Switch to 64 camera display.
	Cycle Display	Cycle the display to the next available display.
	Tour	Toggle the Tour Autoplay feature ON or OFF
	Full Screen	Puts the selected camera/channel to full screen mode. Left click on the screen to cancel.
	Favorites	Add the current view to favorites folder for later viewing.
	Snapshot	Take a snapshot from the selected channel.

	Back Up	Enter the Back Up Menu (<i>Refer to Chapter 5.5.1</i>)
	Set Up	Enter the Main Menu (<i>Refer to Chapter 5.2</i>)
	Search	Enter the Playbak Menu (<i>Refer to Chapter 5.3.1</i>)
	Picture Control	Configure selected camera's, display settings (<i>Refer to Chapter 5.8.5</i>)

<p>The current system time and date. This can be configured by going to Setup > Main Menu > Setting > System > General > Date & Time</p>	 <p><i>Figure 5.2b</i></p>
<p>The numbers at the top right corner of the main screen allows the user to instantly switch to all the available displays within each camera view.</p>	 <p><i>Figure 5.2c</i></p>
<p>The system login control buttons. Click Log In to sign in and Click Log Out to sign out.</p>	 <p><i>Figure 5.2d</i></p>

5.1.1 PTZ Control Menu


From the main screen, click the  button to enter the PTZ pop-up menu. (Fig 5.6)



Figure 5.3

	<p>Directional control. The SIT button at the center of the wheel will let you use the Trace button so you could control the PTZ using your mouse. Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust the section size. The dragged zone supports 4X to 16X speeds. It can realize PTZ automatically. The smaller the zone you drag, the higher the speed.</p>
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	Trace Button	Control the PTZ movement with mouse.
Speed 5	Speed Control	Change the movement speed of the PTZ.
	Zoom Control	Control the zoom feature
	Focus Control	Control the focus feature
	Iris Control	Control the iris feature










Click on the  right arrow (fig 5.3) to expand and view more advanced options for the camera (fig 5.3b).



Figure 5.3b

No.	1	Function ID Selector	Select the ID of a preset, tour etc.
		Preset Button	Turn on specified preset ID
		Auto Pan Button	Turn on auto pan
		Tour Button	Turn on specified tour ID
		Flip Button	Toggle Flip
		Pattern Button	Turn on specified pattern ID
		Reset Button	Reset the the camera position
		Autoscan Button	Turn on autoscan

Clicking on the  button will bring up the Aux pop-up menu (*fig 5.4*).

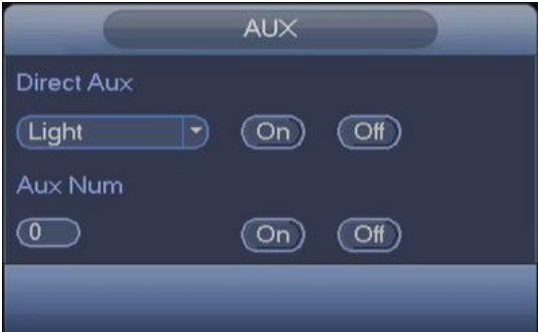



Figure 5.4

Clicking on the  button allows you to access a camera's on screen menu. (Does not apply to IP cameras)




Figure 5.5


Clicking on the  button will bring up the PTZ aux config menu. This will allow you to set up your presets, tours, patterns, and camera borders as shown below.



Figure 5.6a



Figure 5.6b



Figure 5.6c



Figure 5.6d

I. Preset Setup (fig 5.6a)

A preset represents a specified camera display position that the user had specified. Setting a preset would allow you to be able to automatically have the camera go into a set position without having to use the directional buttons. With just a click of a button, your PTZ camera will move into place to display the area that you would like to view from that location.

Adding

- Using the directional wheel, move your camera to the position you would like to save.
- To add this position as a preset, click on the to enter the ID number for this preset. (max 255 presets)
- Click on the button to save it.
- Repeat the process to add more presets.

Deleting

- To delete an existing preset, click on the to select the ID number of the preset you would like to delete.
- Click the button to remove the specified preset from your library.
- Repeat the process to delete more presets.

II. Tour Setup (fig 5.6b)

Adding

- Set a new Tour ID by entering the number you want in the field.

- To add a preset position, enter the the preset number in the **Preset (255)** field. These are the presets that you had set up in the Preset interface.
- Click on the **Add Preset** button to add the specified preset to the tour.
- Repeat the process to add more presets to the tour.

Deleting

- To delete an existing tour, click on the **Patrol No. 1** to select the ID number of the tour you would like to delete.
- Click the **Del Tour** button to remove the specified tour from your library.
- Repeat the process to delete more tours.

Deleting a preset from a tour

- To delete a preset from an existing tour, click on the **Patrol No. 1** to select the ID number of the tour you would like to modify.
- Click the **Preset (255)** button to enter the preset number you would like to remove from the specified patrol id.
- Click the **Del Preset** button to remove the specified preset from the specified tour/patrol id.
- Repeat the process to delete more presets from the specified tour/patrol id.

III. Pattern Setup (fig.5.6c)

Adding

- Enter the new pattern's ID in the **Pattern (255)** field.
- Click the **Start** button to start programming.
- Using the directional wheel, move your camera in to position following the on screen prompts.
- Click on the **End** button when you're done.
- Repeat the process to add more patterns.

IV. Border Setup (fig.5.6d)


Setting the borders

- Using the directional wheel, move your camera in to position where you want the display border to be.
- Click on the **Left** button when satisfied with your leftmost border position.
- Click on the **Right** button when satisfied with your rightmost border position.


V. Call Functions (fig.5.3b)

Call Preset




In *fig. 3b*, input preset value in the function id field and click the  button to call the preset. Click it again to stop the call.

Call Pattern

In *fig. 5.3b*, input pattern value in the function id field and click the  button to call the pattern. Click it again to stop the call.


Call Tour

In *fig. 5.3b*, input tour value and click the  button to call the tour. Click it again to stop the call.

Call Scan

In *fig. 5.3b*, input Scan value and click the  button to call the tour. Click it again to stop call.

Rotate


In *fig. 5.3b*, click the  to enable the camera to rotate. The system supports preset, tour, pattern, scan, rotate, light and etc functions.



Note:

Preset, tour and pattern all need the value to be the control parameters. You can define it as you require. You need to refer to your camera user's manual for Aux definition. In some cases, it can be used for special process.

Aux

Click the  button to enter the aux interface. The options here are defined by the protocol. The aux number corresponds to the aux on-off button of the decoder. See **Error! Reference source not found.**

2.1.2 Preview Options

Select a channel from the preview screen. If you hover your mouse close to top-middle section of the screen, you will find a small pop-up menu. See *figures 7a and 7b*



Figure 5.7a

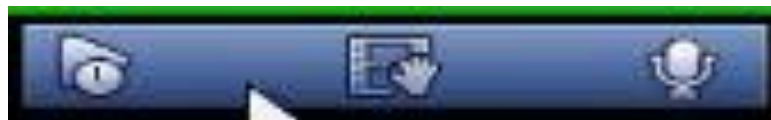



Figure 5.7b

	Instant Playback	Allows you to do a playback of the last 5-60 minutes of recording from the selected channel. You can modify this value from the Main Menu->Setting->System->General->Instant Playback
	Realtime Backup	Allows you to manually backup the video from the time you turn this function on. Click again to end realtime backup.
	Audio Talk	Allows you to use a mic accessory on the NVR to do announcements/speak through the speaker on the specified channel.
	Screen Lock	Hover your mouse to the bottom right corner of the display to bring up the screen lock box. Turning this on will lock the current channel in the view screen lock was enabled from..

5.2 Main Menu

From the Preview interface, click the  button to enter the Main Menu. This interface contains all the functional menus for your NVR. See *fig 5.8*

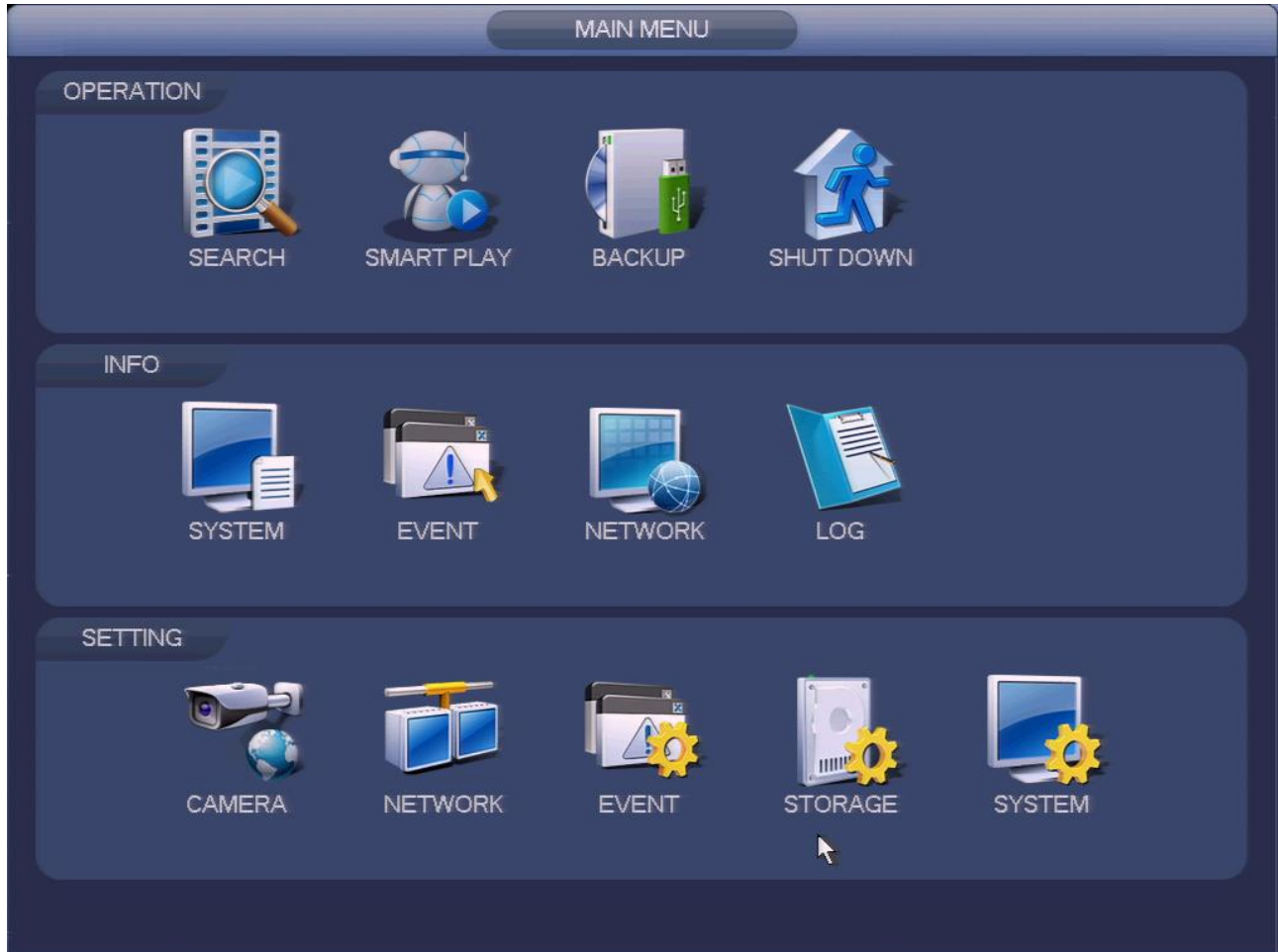


Figure 5.8

5.3 Operation - Playback and Search



Figure 5.9

5.3.1 Search Interface

You can enter the search menu by clicking on the  button from the main screen (fig 5.1) or by going to **Setup > Main Menu > Operation > Search**. (fig 5.9)

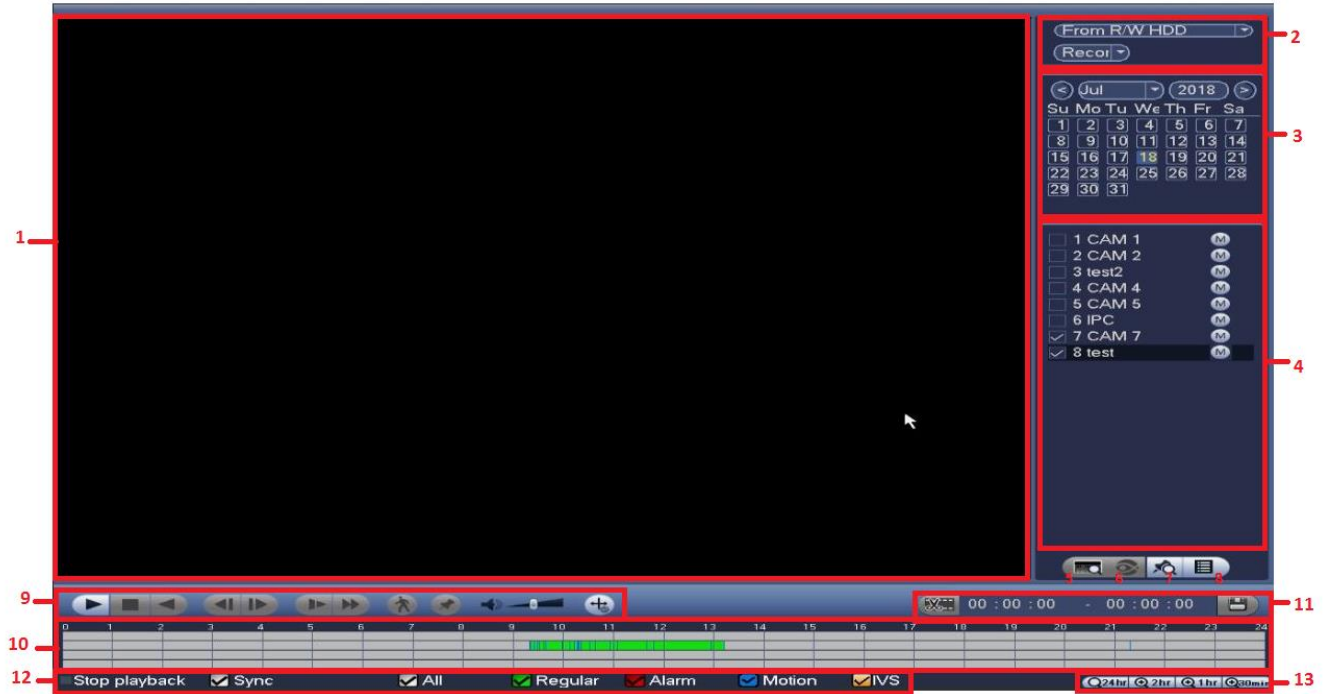

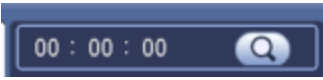

















Figure 5.10

Please refer to the following sheet for more information.

SN	Name	Function
1	Display window	<ul style="list-style-type: none"> ● Display area for recorded videos or images. ● Supports 1/4/9/16-window playback.
2	Search type	<ul style="list-style-type: none"> ● Switch between Video or Pictures record types. ● Switch playback source. Read-write HDD or from peripheral devices. ● Connect your external storage device before you select peripheral device as the source. You can view all the recorded files from the root directory of the peripheral device. Click the Browse button to select the file(s) you want to play.
3	Calendar	<ul style="list-style-type: none"> ● A blue-highlighted date means there are saved pictures or videos on that day. Otherwise, there are no recordings on that day. ● In any play mode, click the date you want to see, you will see the corresponding record file in the time bar.

4	Channel selection pane.	<ul style="list-style-type: none"> ● Select the channel you wish to get recordings from. ● The time bar will change accordingly once you have made your channel/camera selection.
5	POS Search	The card number search. Only available in some product series.
6	Face list	Only available in 1-channel playback mode. Clicking it, will filter all human faces from the file and generate a human face list. Double clicking the file will begin playback of the record or image with the corresponding human face.
7	Bookmark Manager	Clicking this function will bring up the Marks Manager. Refer to Chapter 5.3.1.2
8	File List switch button	<ul style="list-style-type: none"> ● Click the  File list button to view the picture/record file list of the specified day. ● The file list will display the first channel of the record file. ● The system can display a maximum of 128 files at a time. Use the ◀ and ▶ or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback. ● You can click the time stamp in the list to begin accurate search. ● File type: R—regular record; A—external alarm record; M—Motion detect record. <div data-bbox="818 1100 1138 1178" style="text-align: center;">  </div> <ul style="list-style-type: none"> ● Lock file: Click the file you want to lock and click the button  to lock. The file you locked will not be overwritten. ● Search locked file: Click the button  to view the locked file. ● Return: Click button , system goes back to the calendar and channel setup interface. <i>Please note that the file that is in the process of writing or overwriting cannot be locked.</i>
9	Playback control pane.	<div data-bbox="467 1633 526 1665" style="text-align: center;">▶ / </div> <p>Play/Pause There are three ways for you to begin playback.</p> <ul style="list-style-type: none"> ● The play button ● Double click a valid period from the time bar. ● Double click the item in the file list. <p>In slow play mode, click it to switch between play/pause.</p>
		<div data-bbox="467 1759 488 1787" style="text-align: center;">■</div> <p>Stop</p>
		<div data-bbox="467 1818 488 1850" style="text-align: center;">◀</div> <p>Backwards play In normal play mode, left click the button, the file begins backward play. Click it again to pause current play.</p>

			In backward play mode, click ►/ to restore normal play.
			In playback mode, click it to play the next or the previous section . You can click continuously when you are watching the files from the same channel. In normal play mode, when you pause current play, you can click ◀ and ▶ to begin frame by frame playback. In frame by frame playback mode, click ►/ to restore normal playback.
			Slow play In playback mode, click it to realize various slow play modes such as slow play 1, slow play 2, and etc.
			Fast forward In playback mode, click to realize various fast play modes such as fast play 1, fast play 2 and etc.
			Note: The software version has an effect on the actual play speed.
			Smart search (Refer to Chapter 5.3.3 for a more detailed guide)
			Mark button Please note this function is for some series products only. Please make sure there is a mark button in the playback control pane. You can refer to chapter 0 for detailed information.
			Playback volume
			Show IVS features
10	Time bar		<ul style="list-style-type: none"> ● Displays the selected record type and its period defined by user. ● Only in 4-window playback mode will there be corresponding channel time bars. There is only 1 time bar in other window playback modes. ● Use the mouse to click on the point from the colored zone in the time bar to begin playback in that time. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file. ● The types of recorded files on the time bar are color-coded. Green for Regular records. Red for Alarm records. Blue for Motion Detect records.
11	Time bar unit		<ul style="list-style-type: none"> ● The options include: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can accurately set the time in the time bar to playback the record. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file. <p>Backup Function:</p> <ul style="list-style-type: none"> ● Select the file(s) you want to backup from the file list by checking the box on the target files from the list. ● Click the  button to bring up the backup menu. The system supports


		<p>customized path setup. After selecting or creating a folder, click the Backup button to begin the backup operation. The record file(s) will be saved in the specified folder.</p> <ul style="list-style-type: none"> ● Alternatively, click the Remove button to delete all selected files. The system can display up to 32 files from one channel. ● Follow the same steps after you do a clip  on a record file. ● You will not be able to do a back up if another back up is already in progress. <p>Video Clip Function:</p> <ul style="list-style-type: none"> ● Play the file you want to edit and then click the  button to create a video clip from the selected file. Check the corresponding slide bars in the time bar of the corresponding channel. You can adjust the slide bar or input a specific time to set the file end time. ● When you're set, you can click the  button again to edit the second period. You will see the slide bar restored to its previous position. ● Click  button after clipping to save the current contents to a new file. ● You can clip for one channel or multiple channels. The multiple-channel click operation is similar with the one-channel operation. <p>Please note:</p> <ul style="list-style-type: none"> ● Only 1024 files max can be backed up at the same time. ● You can not operate the clip operation if there is any file(s) that had been checked in the file list.
12	Record type	In any play mode, the time bar will change when you modify the search type.
13	Toggle time interval	You can select to change the time bar to either 24HR, 2HR, 1HR or 30min time intervals.
Other Functions		
14	Other channel synchronization switch to play when playback	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.
15	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. You can right click mouse to exit.
16	Manually switch channel when playback	During the file playback process, you can switch to other channel via the dropdown list or rolling the mouse. This function is null if there is no record file or system is in smart search process.




Note:

All the operations here (such as playback speed, channel, time and progress) have a relationship with hardware version. Some NVR series do not support some functions or playback speeds.

5.3.1.1 Accurate Time Playback

Select records for the specified day then click the  to go to the file list interface. You can input a time at the top right corner to search records by time. See image on the left side from *figure 5.11*.

For example, input 11:00.00 and then click the Search  button. You will be able to view all the record files after 11:00.00 (The records include current time.). See *image on the right side figure 5.11*. Double click a file to start playback.



Note

- After you've searched files, the system will implement accurate playback once you click Play for the first time.
- The system does not support accurate playback for picture.
- The system supports synchronized playback and asynchronous playback. The synchronized playback supports all channels and asynchronous playback only supports accurate playback of currently selected channel.

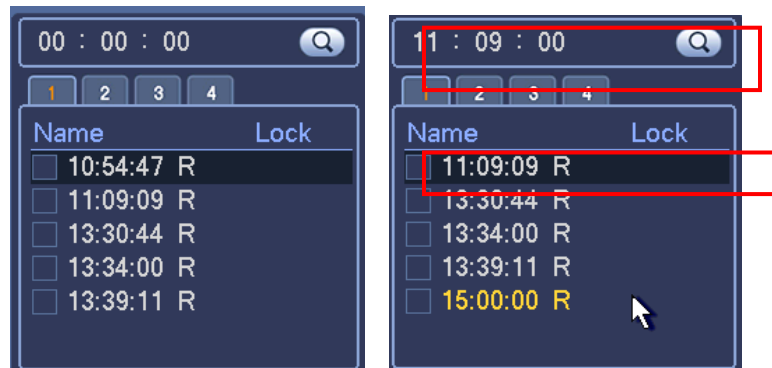



Figure 5.11

5.3.1.2 Mark Playback

Please make sure you purchased a device which supports this function. You can only use this function if you can see the mark playback icon on the Search interface (Fig. 5.10).

On video playback mode, you can mark the record where there is important information. After playback, you can use the time or the mark's key words to search for corresponding records to play. This makes it easier to get important video information from the records.

- **Add Mark** When the system is currently playing a recording, click the Mark button (). This will bring up the Add mark pop-up. See *Figure 5.12*

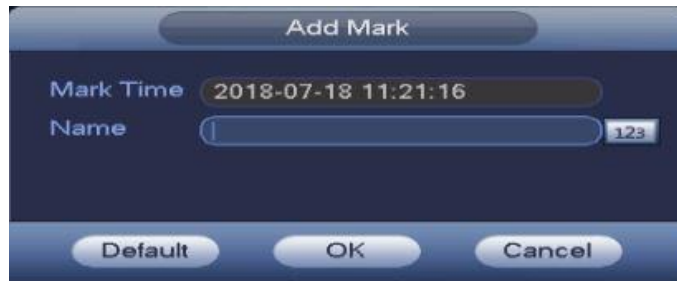



Figure 5.12

- **Playback Mark:** During 1-window playback mode, click the  mark file list button from Figure 5.10 to enter the Marks Manager interface. Double click on a marked file to begin playback from the marked time.
- **Play before mark time:** You can set this option to begin playback from a defined timestamp.

 **Note**

Usually, the system can playback previous N seconds record if there is a record file of such kind present. Otherwise, the system will playback from the previous X seconds when there is a record file of such kind present.


- **Mark Manager:** Click the  button on the Search interface (Fig 5.10) to enter the Mark Manager interface. See fig 5.13



Figure 5.13

The system can manage all the marked record information of the current channel by default. You can view all marked information of the current channel by time.

- **Modify:** Double click a marked file to bring up the change mark name dialogue box.
- **Delete:** Highlight the file you want to remove and click **Del** to remove it form the library.


Note

- After opening the marks management interface, the system needs to pause the current playback. It will resume playback after you've exited the mark management interface.
- If the marked file you want to playback has been removed, playback will begin from the first file in the list.

2.1.2 Picture Playback

- On the main Search interface (*fig 5.10*) select **PIC** as your record type in the top right pane marked as '2' in the controls sheet. Enter a **Playback Interval** value when it comes up.
- Check the channel(s) you want to get recorded images from and select the file you want to view from the list.
- Please note that most options are unavailable in Picture Playback. Refer to Chapter 5.3.1 for more details.

5.3.3 Smart Search

During a playback session, select a channel then click the  button while the recording is playing. The system will begin smart search mode. System supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Drag the mouse cursor to select the grids/cells you want smart search to detect movements from. See *fig 5.14*

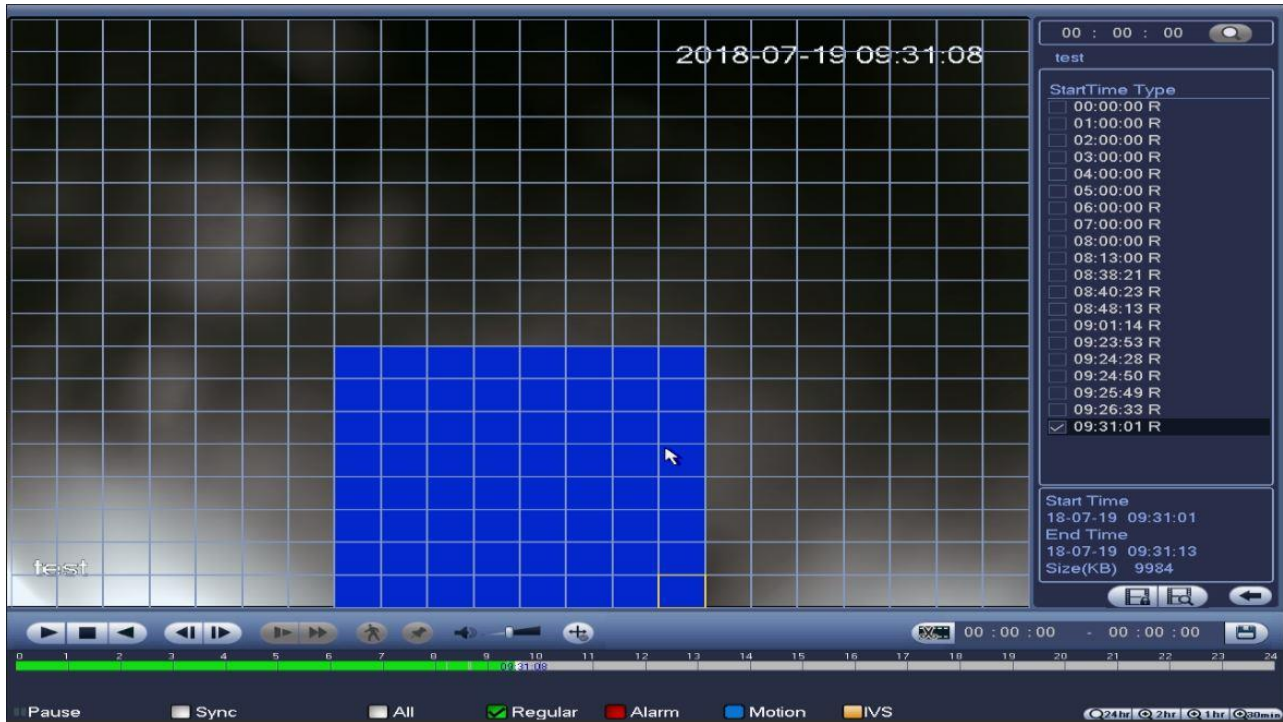



Figure 5.14

Click the  button again to end the smart search playback. The video will now skip to time stamps where there was movement in the selected areas.



Important

- The system does not support motion detect zone setup during the full-screen mode.
- During a multiple-channel playback, the system will stop the playback from the rest of the channels if you implement one-channel smart search.

5.4 Operation - Smart Play



Figure 5.15

This menu is intended for the search and playback of IVS functions like face detection and behavioral analysis records.



Note

- There are two types to realize intelligent analytics function.
- ◇ **Smart network camera that supports intelligent functions:** Some smart cameras support the intelligent functions. The NVR 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.

5.4.1 Behavior Analysis

Step 1 Enter the Smart Play interface by going to **Main menu->Operation->Smart Play**. See *Fig 5.16*

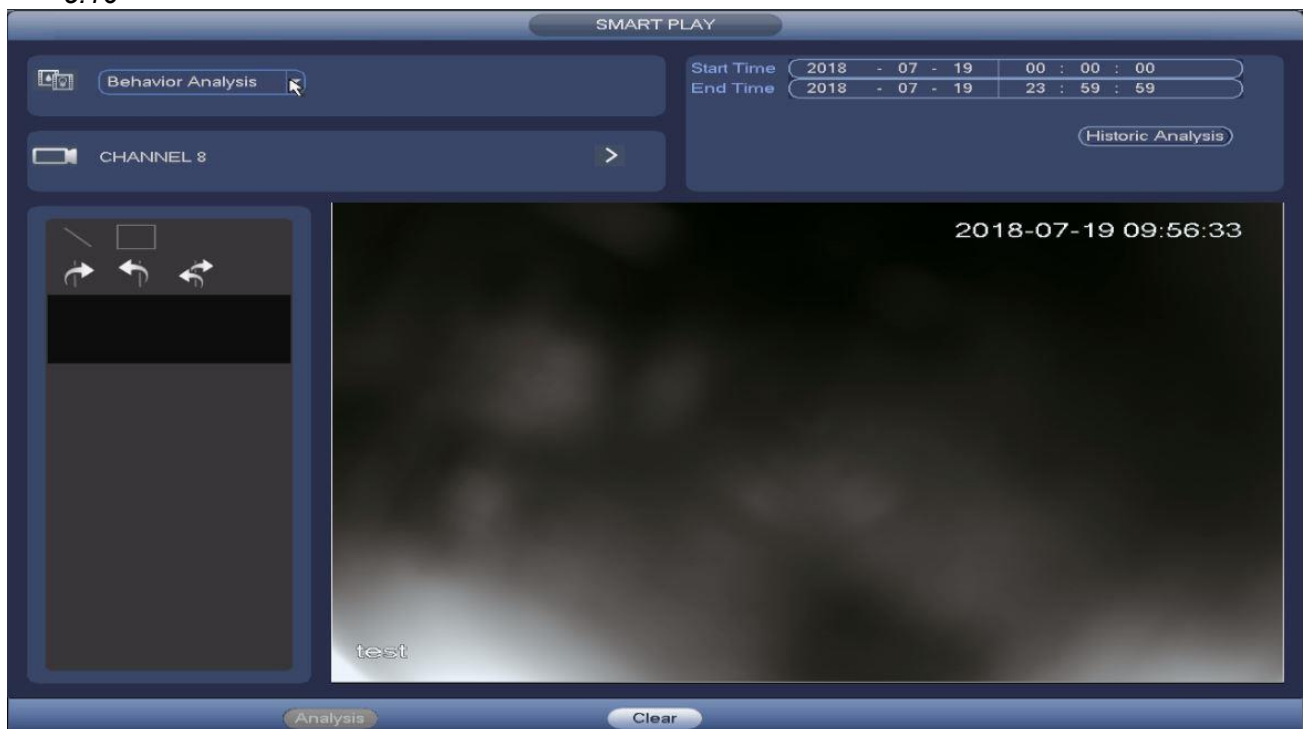


Figure 5.16

Step 2 Select behavior analysis as detection type.

Step 3 Select a channel from the channel selection interface. See *Figure 5.16b*



Note The IVS function is for one-channel mode only.



Figure 5.16b

Step 4 Select a channel number and then click **OK**.

Step 5 Set a start time and end time.

Step 6 Click on **Historic Analysis**. The device will display the corresponding image(s). *Figure 5.16c*

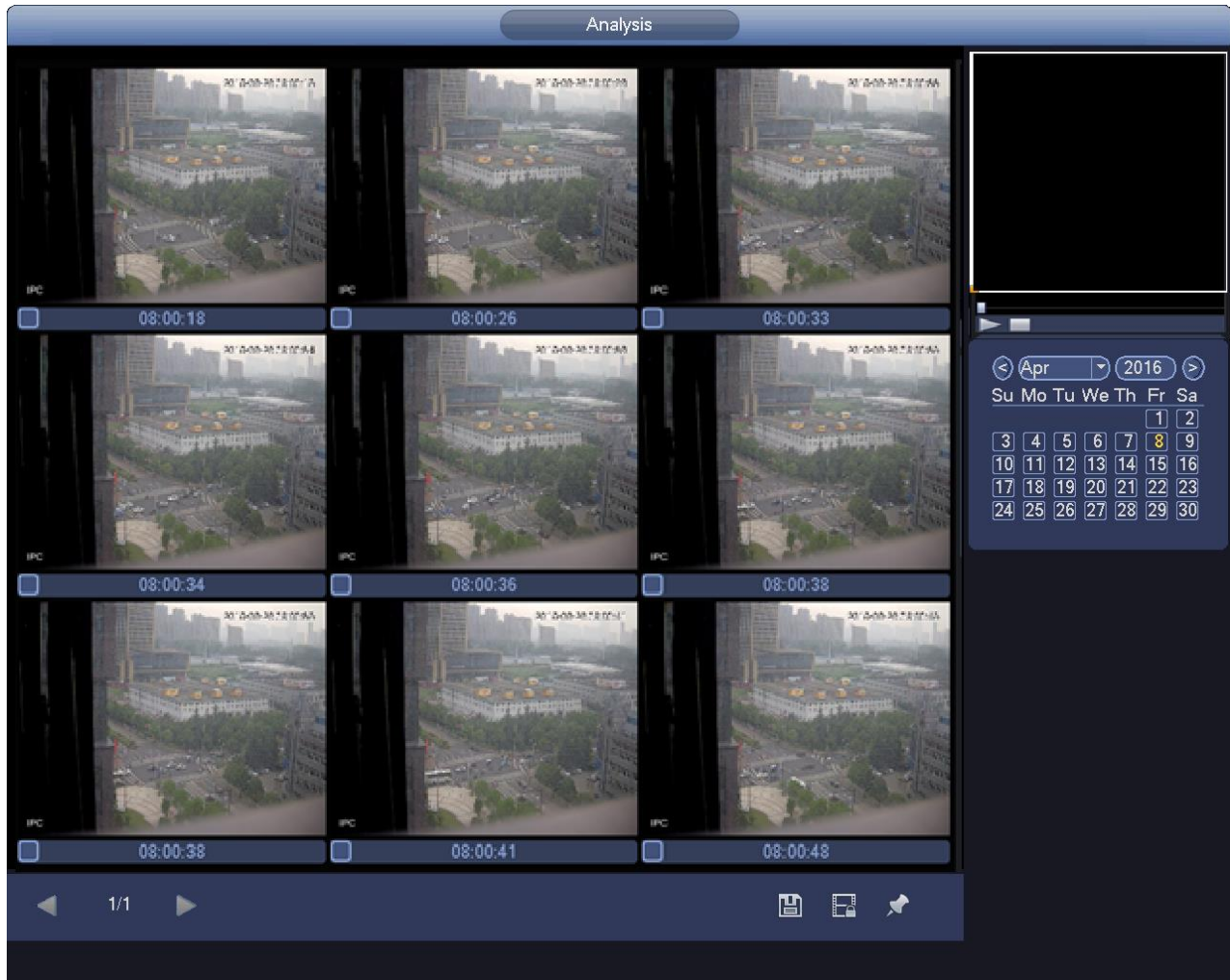





Figure 5.16c

Step 7 Click the image to view the recorded file.

- After selecting the file, click the  button. This will store the file on your peripheral device for later viewing.
- Select a file and then click the  button to lock the current file to avoid overwriting it in the future.
- Select a file and then click the  button to mark the time of the detected event.

5.4.2 Search Human Face (Optional)

Function for searching and playback of human face records.

Step 1 Go to the Smart Play interface by going to **Main Menu->Operation->Smart Play**.

Step 2 Select detection type as face detection. See *Figure 5.17*

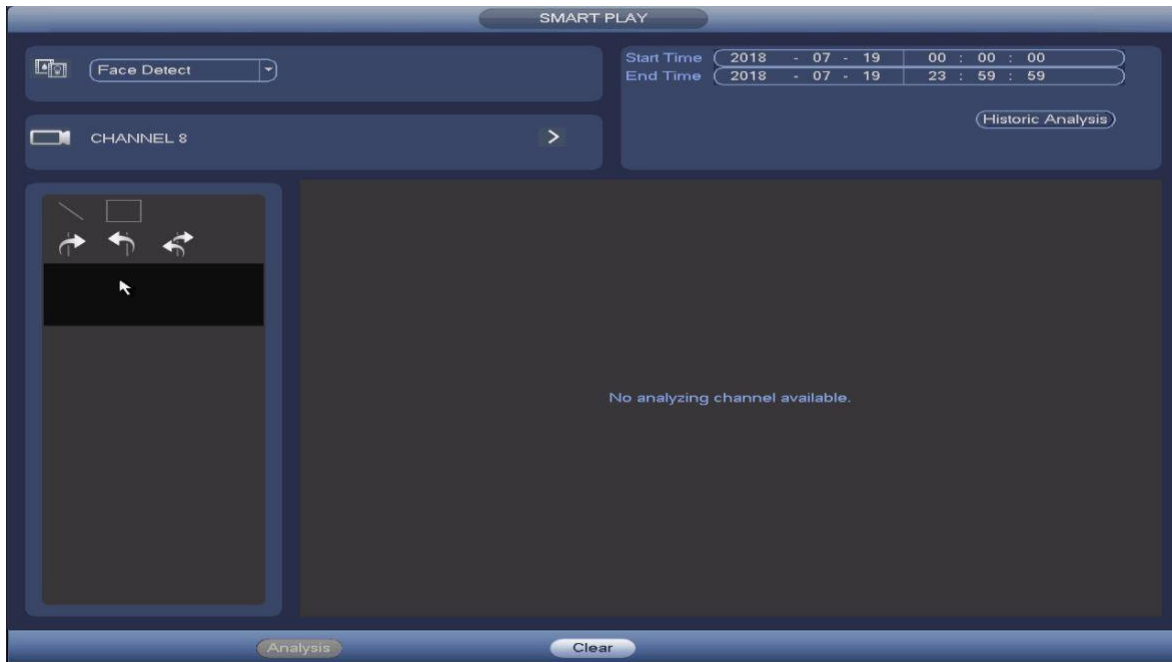


Figure 5.17

Step 3 Set the channel, start time and end time.

Step 4 Click **Historic analysis**. The Device will display the captured human face image. See *Fig 5.17b*



Note

The following human face has been modified for privacy reasons. The actual snapshot image has high definition.

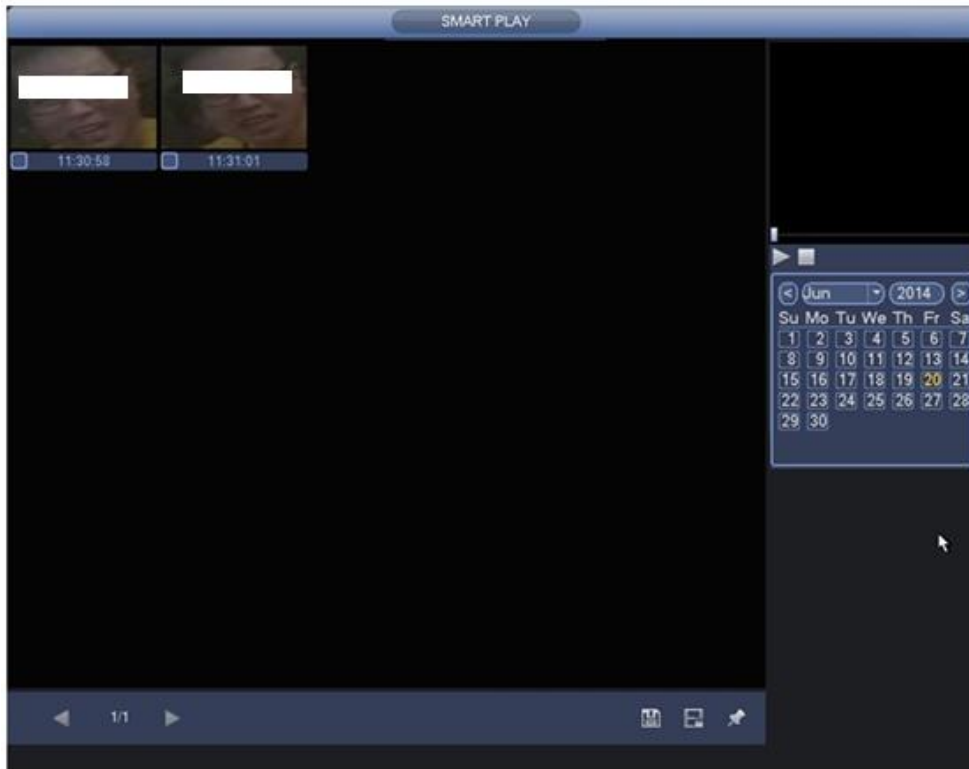





Figure 5.17b

Step 5 Click the image to view the record file.

- Select a file then click the  button to save the current file to your peripheral storage device.
- Select a file then click the  button to lock the current file to avoid overwriting it in the future
- Select a file then click the  button to mark the time of the detected event.

5.5 Operation – Backup

5.5.1 File Backup



Figure 5.18

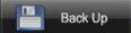
You can access the Backup menu from **Main Menu > Operation > Backup** or by clicking the  button from the main screen. In this interface, you can backup recorded files to a USB device. Fig 5.19



Figure 5.19

- Connect the USB burner, USB device, portable HDD, etc. to any of the USB ports found on the NVR.
- Click on the **Browse** button to enter the Browse interface. (fig 5.19b)



Note

You can click on the **Refresh** from the Browse interface to refresh the contents of your device.

You can click on the **Format** from the Browse interface to format your USB device. Our NVRs require FAT32 format to be able to read USB devices. Please note that formatting will completely erase all the files in that storage device.

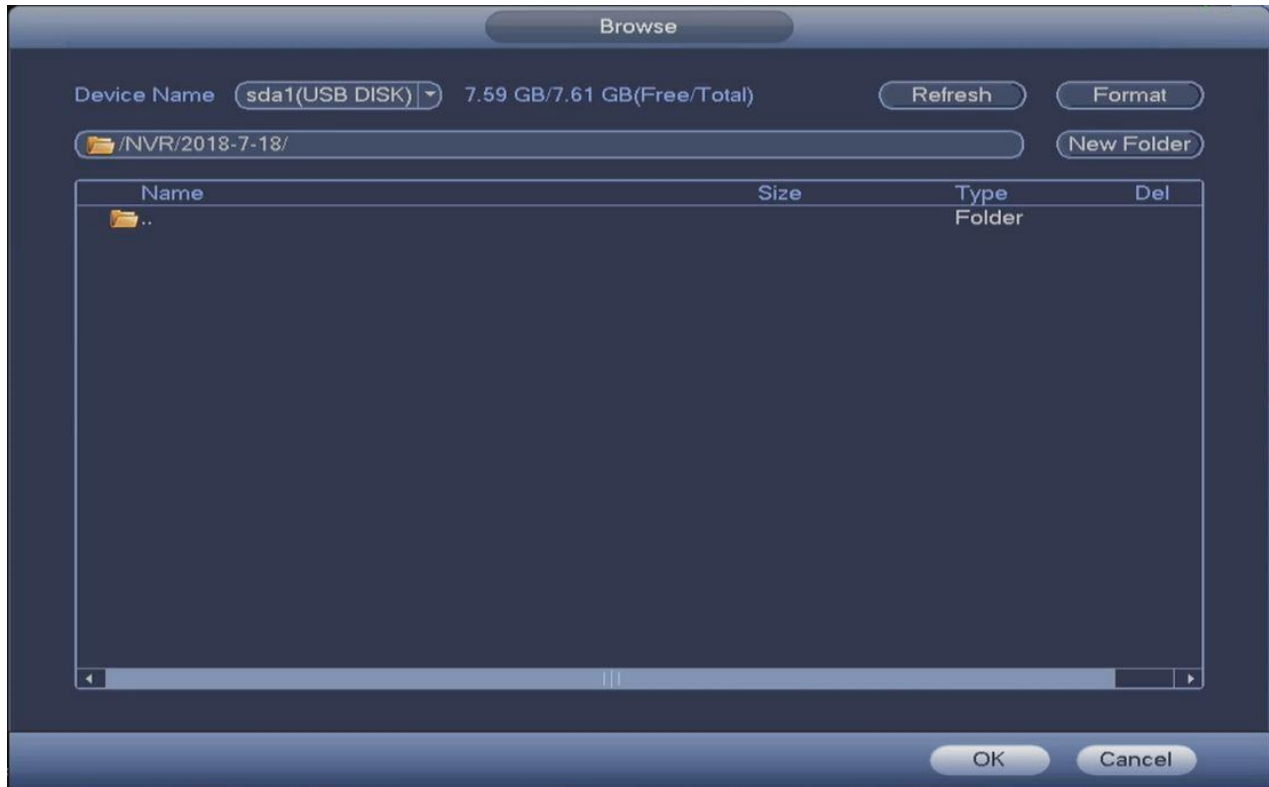


Figure 5.19b

- Set the recording type (All, Regular, motion etc.) **Type** All
- Set the recording quality (Main Stream/Sub Stream) **Main Stream**
- Select the channels to grab recordings from. **Record CH** 1
- Set the start/end time and date from where you want to get records from.
- Set the File Format (DAV, ASF)
- Click the **Add** button to begin the search according to your filters. All matched files will be listed in the bottom panel. Alternatively, click **Remove** to remove any files matching your filters.

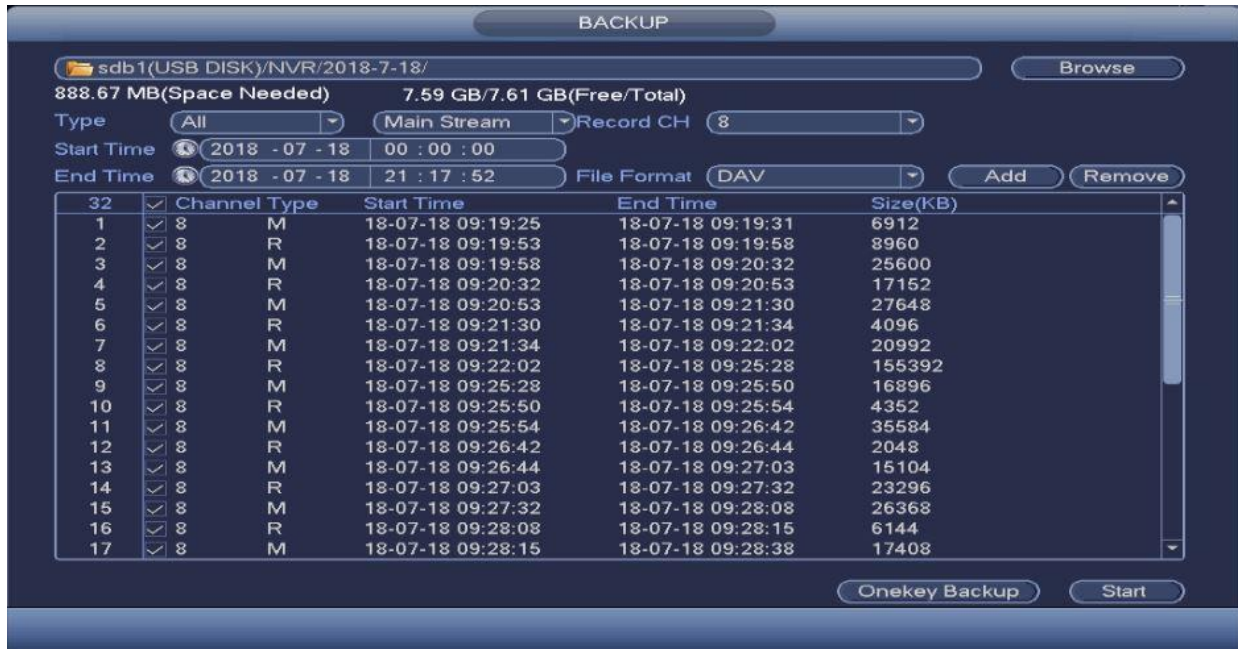


Figure 5.19c

- The system will only backup files with a before the channel name. After checking the boxes of the files you wish to back up, click on the **Start** button to begin the back up process.

Note

- You can also click on the **Onekey Backup** button to automatically select all the files and begin backing up right away. *Fig 5.19c*
- Please note that the max **number** of files that can be backed up at one time is **1024**. Hence, multiple backups may be required. (E.g. Full records backup)

- A status bar will appear at the bottom of the screen showing the status of the backup including the time remaining in the process. There will also be a stop button if you should decide to end the session. *fig 5.19d*



Figure 5.19d

- When the system completes backup, a dialogue box will pop up to confirm a successful backup. Click OK to finish. *Fig 5.19e*



Figure 5.19e

- Click backup button, system begins burning. At the same time, the backup button becomes stop

button. You can view the remaining time and process bar at the left bottom.



Note

- The file name format usually is: Channel number+Record type+Time. In the file name, the YDM format is Y+M+D+H+M+S. File extension name is .dav.
- A player will automatically be saved along with the backed up files. Look for file name SmartPlayer.exe. This would allow you to view the videos on your computer right away.

5.5.2 Import/Export

This function allows you to import/export your current current system configuration to a storage device. To begin the process, go to **Main menu->Setting->System->Import/Export**. Fig 5.20

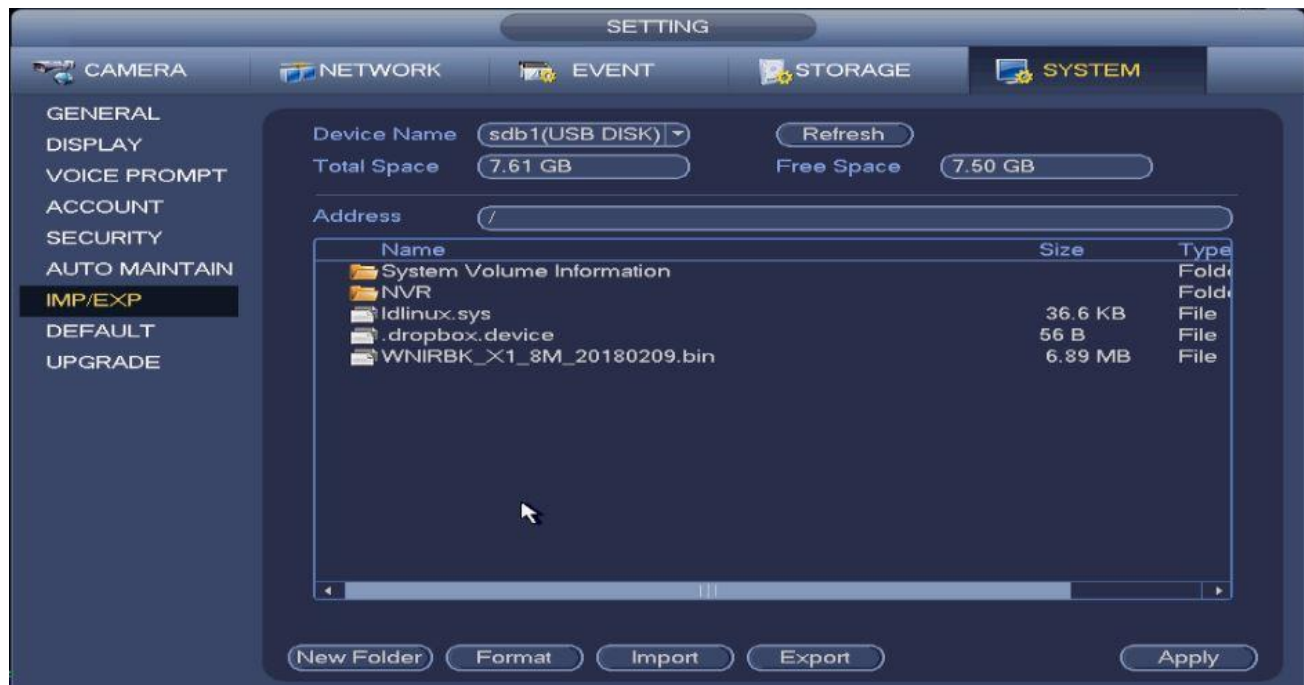


Figure 5.20

- **New Folder:** Click to create a new folder in the specified storage device.
- **Format:** Click to format the specified storage device if needed. Our system requires FAT32.
- **Import:** Click to import the configuration files from the peripheral device to the system. You need to select a folder first. You will see a dialogue box asking you to select a folder if you are selecting a file. A dialogue box will pop up if there are no configuration files under current folder. Configuration folders are named as "Config_NVR_XXXXXXXXXX". After a successful import, system needs to reboot to activate the new setup.
- **Export:** Click the Export button, to store your configuration files to the specified storage device.



Note

- The system can not open the config backup interface, if there is a backup operation running in the background.

- The system refreshes device when you go to the config backup every time and sets the current directory as the root directory of the peripheral device.
- If you go to the configuration backup interface first before inserting the peripheral device, please click the refresh button to see the newly added device.

5.5.3 Backup Log

- a) Back up system logs by going to **Main Menu > Info > Log**. See *figure 5.21*.

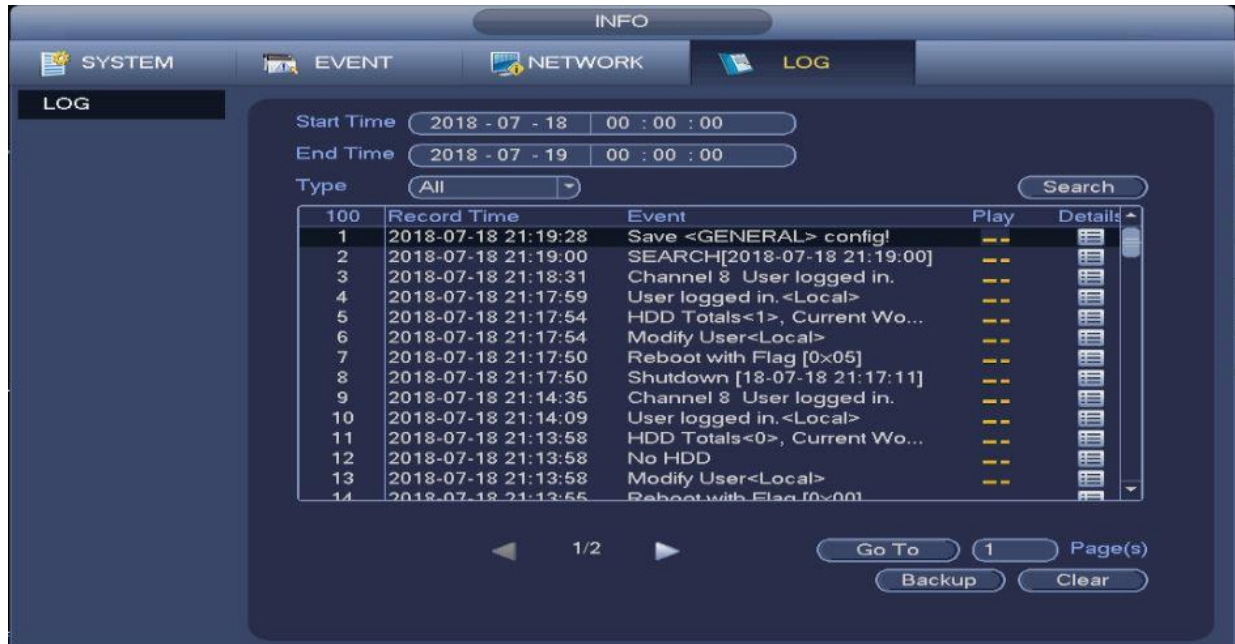


Figure 5.21

- b) Select the log type and set start time/end time, then click the Search button. You will see the log times and event accompanying information. Click the [Details] button to view a more details about selected log.
- c) Select log items you want to save then click the **Backup** button. You will be able to select a folder to save them. Click **Start** on the new window to start the backup. You will see a dialogue box confirming a successful backup afterwards.

5.5.4 USB Device Auto Pop-up

Alternatively when you insert a USB device, the system can automatically detect it and come up with the following dialogue box. It allows you to conveniently backup files, logs, and configurations as well as update your system. See *figure 5.22*.



Figure 5.22

 **Note**

Please refer to [chapter 5.5.1 file backup](#), [chapter 5.5.3 backup log](#), [chapter 5.5.2 import/export](#), and [chapter 5.3.1 search](#) for more detailed information about each function.

5.6 Operation – Shutdown



Figure 5.23

The shutdown menu allows you to shutdown the system properly, logout from your account or power cycle the system. You can find this menu from the **Main Menu->Operation->Shutdown**. See [fig 5.24](#)



Figure 5.24

5.7 System Information

5.7.1 System Info



Figure 5.25

5.7.1.1 Version

You can find your system version from **Main Menu > Info > System > Version**. You can find information about your system in this interface. See fig 5.26



Figure 5.26

5.7.1.2 BPS

You can find information about the current video bit rates and resolutions of each channel in the system in this interface. **Main Menu->Info->System->BPS** See Fig 5.27

The screenshot shows the 'INFO' tab selected in the top navigation bar. The left sidebar has 'SYSTEM' selected, and 'BPS' is highlighted under the 'RECORD' section. The main area displays a table with the following data:

Channel	Resolution	Kb/S	Wave
1	--	0	
2	1280*960	4075	
3	1280*960	4075	
4	1280*960	4075	
5	1280*960	4075	
6	1280*960	4075	
7	1280*960	4075	
8	1280*960	4075	
9	--	0	
10	--	0	
11	--	0	
12	--	0	
13	1280*960	3970	
14	--	0	

Figure 5.27

5.7.1.3 Record

This interface shows you information about the times when your system was recording. **Main Menu->Info->System->Record** See Fig 5.28

The screenshot shows the 'INFO' tab selected in the top navigation bar. The left sidebar has 'SYSTEM' selected, and 'RECORD' is highlighted under the 'RECORD' section. The main area displays a table with the following data:

	Device Name	Start Time	End Time
All		2018-07-18 09:19:25	2018-07-19 12:23:04
1*	sda	2018-07-18 21:18:32	2018-07-18 21:19:28
	sda	2018-07-18 09:19:25	2018-07-19 12:23:04

Figure 5.28

5.7.1.4 HDD

This interface shows you information about your onboard HDD's. This includes the name, physical position, type, space, health, status and SMART info of the hardrive. **Main Menu->Info->System->HDD** See *Fig 5.29*

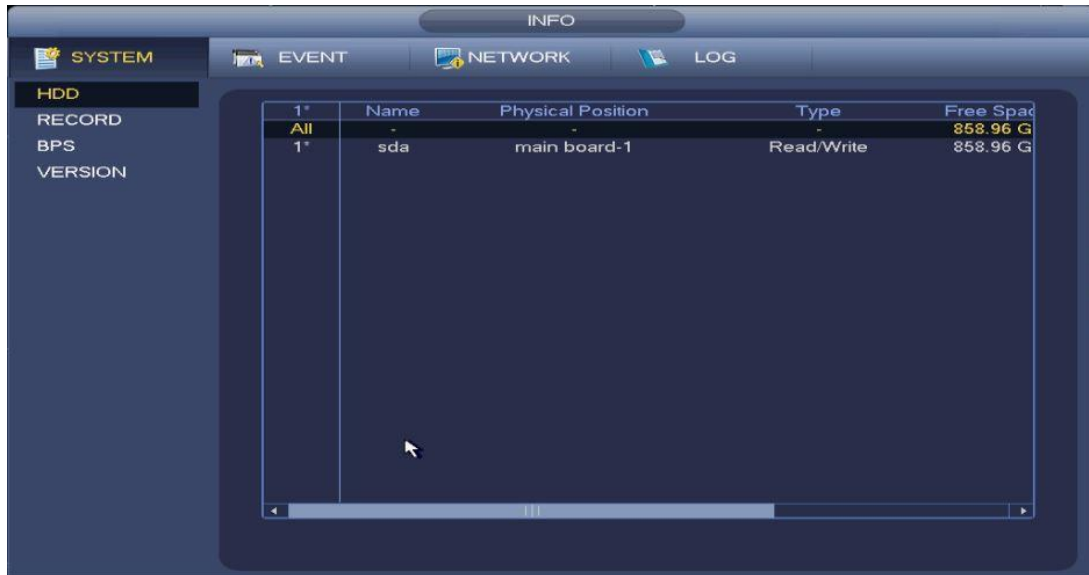


Figure 5.29



Note

A "o" symbol means current HDD is normal and a "-" symbol means there is no HDD.

If a disk is damaged, the system will display a "?" symbol or error message. **Please remove the broken hard disk before you add a new one.** In *figure 5.29*, double click a HDD device to view its S.M.A.R.T info as shown in *fig 5.29b*.

Smart Info

Port 5
 Modle ST2000VX000-1CU164
 Serial No. W1E54HJW
 Status Error

Describe:

Smart ID	Attribute	Threshold	Value	Worst	Status
1	Read Error Rate	6	120	99	OK
3	Spin Up Time	0	97	96	OK
4	Start/Stop Count	20	100	100	OK
5	Reallocated Sector Count	10	100	100	OK
7	Seek Error Rate	30	59	55	OK
9	Power On Hours Count	0	100	100	OK
10	Spin-up Retry Count	97	100	100	OK
12	Power On/Off Count	20	100	100	OK
184	Unkown Attribute	99	100	100	OK
187	Reported Uncorrect	0	100	100	OK
188	Unkown Attribute	0	100	100	OK
189	High Fly Writes	0	96	96	OK
190	Airflow Temperature Cel	45	61	43	Error
191	G-Sense Error Rate	0	100	100	OK
192	Power-Off Retract Cycle	0	100	100	OK
193	Load/Unload Cycle Count	0	100	100	OK

Figure 5.29b

5.7.2 Events Info



Figure 5.30

5.7.2.1 Events

This interface shows you information on the latest system events. **Main Menu->Info->Event** Fig 5.31



Figure 5.31

5.7.2.2 People Counting

This interface shows you information about the people counting feature which is only applicable to some camera models. **Main Menu->Info->Event->People Counting** Fig 5.32

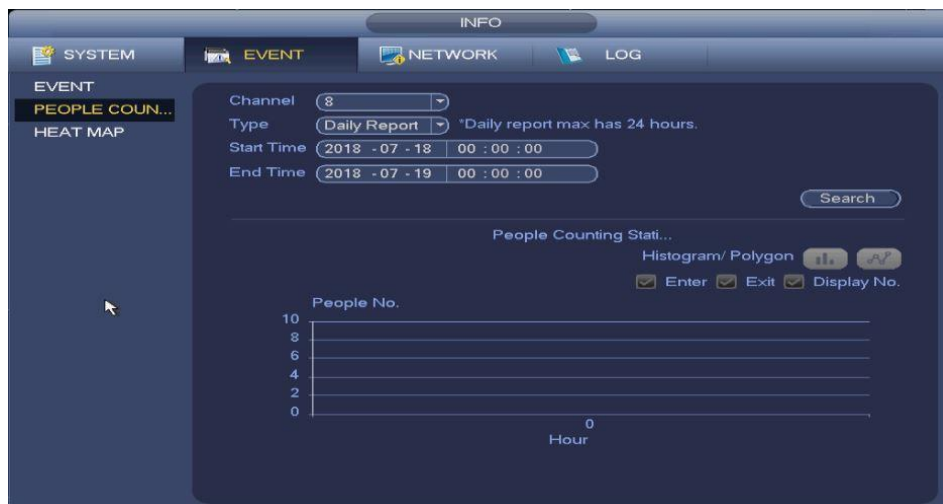


Figure 5.32

5.7.2.3 Heat Map

This interface shows you information about the heat map feature which is only applicable to some camera models. **Main Menu->Info->Event->Heat Map** Fig 5.33

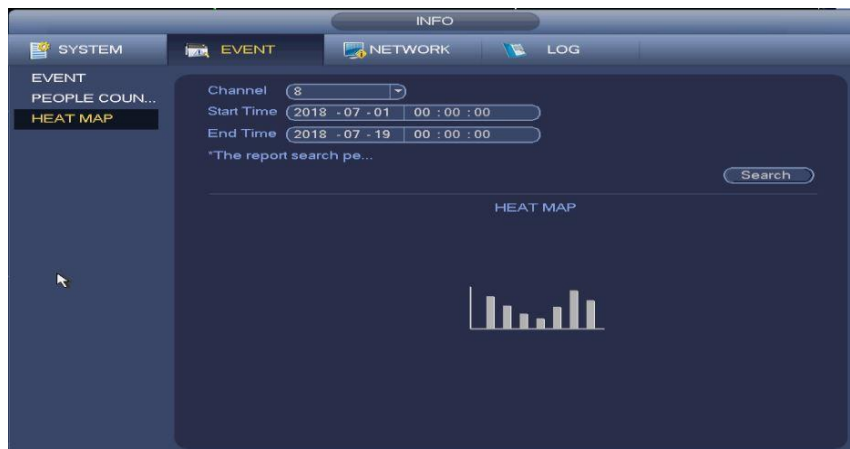


Figure 5.33

5.7.3 Network Info



Figure 5.34

5.7.3.1 Online Users

This interface allows you to manage online users connected to your NVR. **Main Menu->Info->Network->Online Users** See Fig 5.35

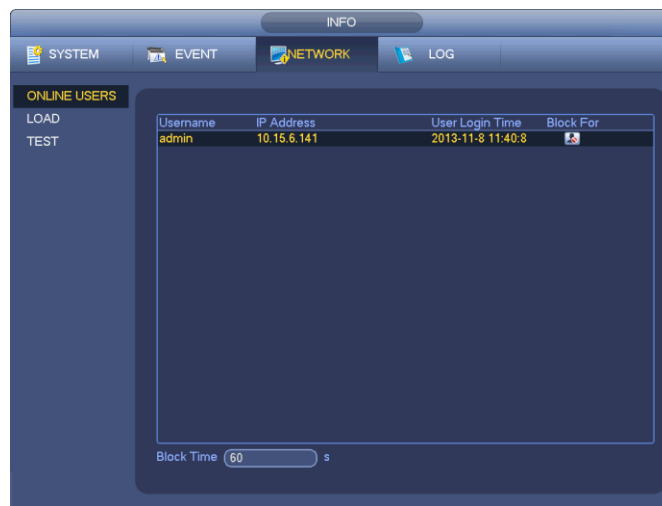


Figure 5.35

You can click button to disconnect or block a user if you have the proper system rights. The system detects all connected user sessions by refreshing the list automatically every five seconds.

5.7.3.2 Network Load

This interface shows you information about the network adapters in your system. **MainMenu->Info->Network->Load** See Fig 5.36



Figure 5.36

5.7.3.3 Network Test

This interface allows you to test your system's network connectivity. **MainMenu->Info->Network->Test** Fig 5.37

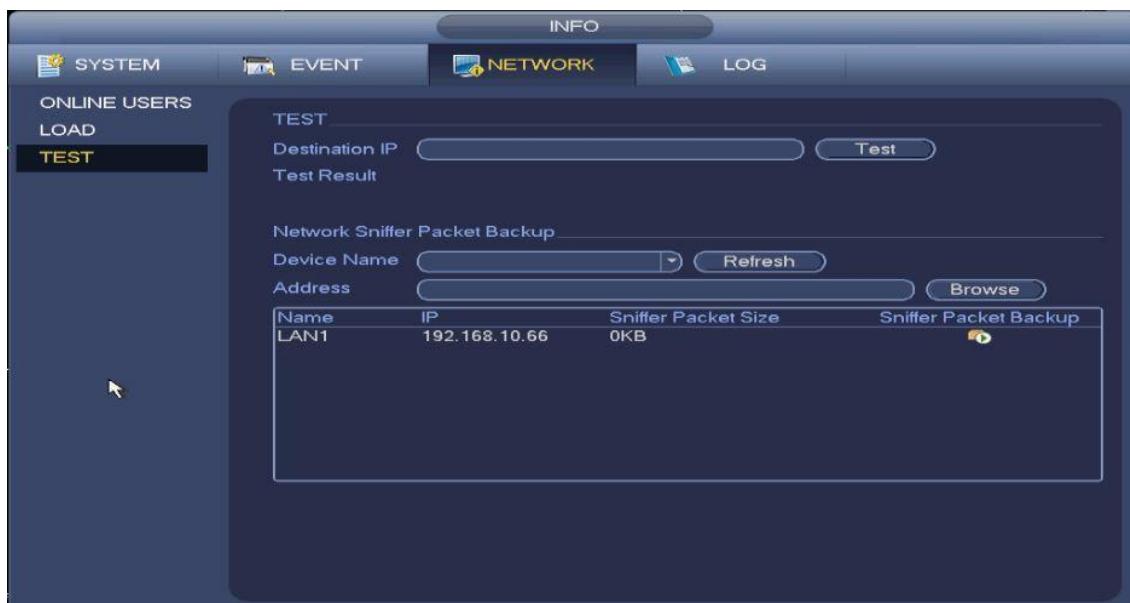


Figure 5.37

- **Destination IP:** Please input a valid IPV4 address or domain name in your network.
- **Test:** Click to test your connection with the destination IP address. The test results can display the average delay and packet loss rate on the connection. A message will come up to summarize your connection's health: OK, BAD or NO CONNECTION
- **Network Sniffer backup:** Please insert a USB2.0 device and click the **Refresh** button to populate the list. Select the peripheral device you want and click the **Browse** button to select the save path. The steps here are the same for file backup operation. You can view all connected network adapter names (including Ethernet, PPPoE, WIFI, and 3G).

Example Scenario:

- Click the associated button to begin the Sniffer. Please note that the system cannot do a Sniffer on several network adapters at the same time.
- After the Sniffer begins, try access the NVR by login in via WEB or other network operations that would involve connections on the system.
- Go back to the Sniffer interface to click the stop Sniffer button when you're done. The system will save the packets to the specified path. The file will be named as "Network adapter name+time".
- You can then use a software such as Wireshark to open the packets on the PC to diagnose issues with the system's connection as needed.

5.7.4 Log Info

This interface allows you to view back up all types of logs that are stored within the system. You can reach the Logs interface by going to **Main Menu > Info > Log**. See fig 5.38

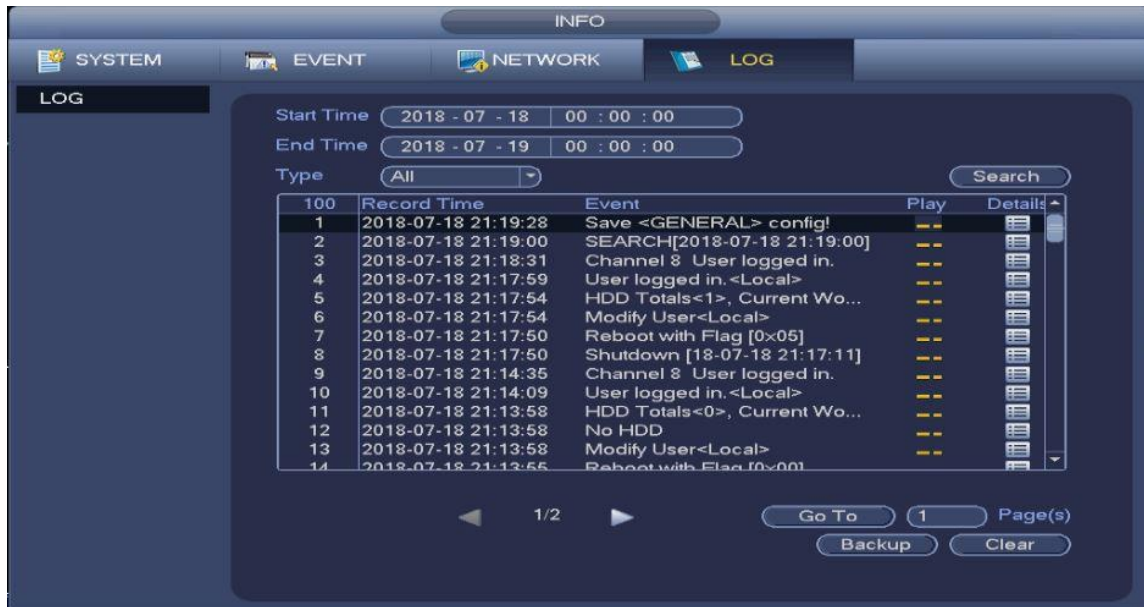


Figure 5.38

- Select the start time, end time and search type and click the **search** button. All specified log files will be listed in the bottom panel.



Figure 5.38b

Note

You can click on the [Details] button for a more a more detailed description of the selected log. *Fig 5.28b*
For more information about backing up logs, go to Chapter 5.5.3

5.8 Camera Settings



Figure 5.39

5.8.1 Camera Registration

This interface allows you to manage, add, configure and upgrade cameras in your network. To access this menu, go to **Main Menu > Setting > Registration**. Fig 5.40



Figure 5.40

5.8.1.1 Adding Cameras using Device Search

- Step 1** Click on the **Device Search** button. This will autopopulate the the list box with all available/reachable devices in the network. Fig 5.40
- Step 2** Check the box of the camera(s) that you want and click the **Add** button to add it to the **Added Device** list.
- Step 3** If you wish to do a more refined device search, you can set up filters to narrow down the list

of possible devices. Your options are as listed below.

IP A...	Search Type	<ul style="list-style-type: none"> Choose between IP or MAC searches Enter a keyword on the search box and click Search.
Filter Null	Device Type	Choose the type of device to include in the search. IPC, NVR etc.

5.8.1.2 Manually adding Cameras

Step 1 If you know the camera's information already, you may opt for adding them manually instead. From the main registration interface, click on the **Manual Add** button to bring up the **Manual Add** interface. *Fig 5.41*


Figure 5.41

Step 2 Enter the required device information. Use the table below for guidance.

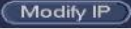
Parameters for adding a camera in the network.	
Channel	Enter the channel number you wish to add the device to.
Manufacturer	Select the device's manufacturer.
CAM NAME	Choose a name for the camera
IP Address	Enter the known IP address of the device.
TCP Port	Enter the TCP port of the device. (4000 by default)
Username	Enter the known username on the device
Password	Enter the known password for the device
Parameters for adding a camera from another NVR	
<i>Leave these values on default if you're adding a standalone camera.</i>	
Channel No.	Enter the channel number you wish to add the device to.
Remote Channel No.	Enter the channel number of the camera on the remote NVR.
Decode Buffer	Enter a buffer value for the remote connection.

Step 3 Click the Apply button and click OK to finish the setup. The manually added device will automatically appear on the **Added Device** list.

5.8.1.3 Changing Camera IP Setting

Step 1 From the main registration interface, click the  button on the device that you wish to modify to enter the change IP interface. See *Fig 5.42*

 **Note**

Check the box before several cameras and click on the  to change the IP addresses of multiple cameras at the same time.



1	Serial No.	IP Address
1		192.168.10.38

Figure 5.42

Step 2 Select the IP mode.

If you checked DHCP, there would be no need to enter the IP address, subnet mask, and default gateway. The device automatically allocates an IP address to the camera.

If you selected Static, manually input the IP address, subnet mask, default gateway and incremental value for the camera.

 **Note**

If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.

If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation

according to the incremental value

Step 3 Input remote device user name and password.

Step 4 Click OK button to save settings.

After the changing operation, search again, device displays new IP address.



Note

When change IP addresses of several devices at the same time, make sure the cameras user name and passwords are the same.

5.8.1.4 IP Export

The system can export the **Added Device** list to your local USB device.

Step 1 Insert the USB device and then click the **Export** button from the main registration interface to enter the following interface. See *Fig 5.43*

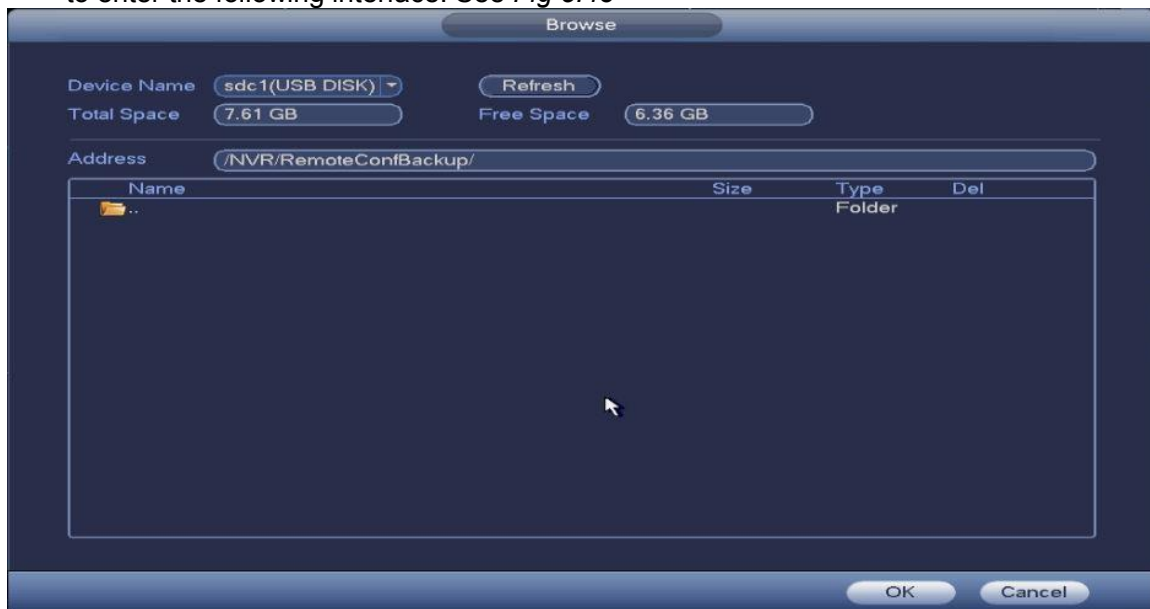


Figure 5.43

Step 2 Select the directory address and then click the OK button.

Step 3 A dialogue box will pop up to confirm a successful export. Click the OK button to exit.



Note

The exported file extension name is .CVS. This file information includes the IP address, port, remote channel number, manufacturer, user name and password.

5.8.1.5 IP Import

Step 1 From the main registration interface, click the **Import** button to enter the following interface. See *Fig 5.43*.

Step 2 Select the import file and then click the OK button. System pops up a dialogue box to

remind you successfully imported.

Step 3 Click **OK** button to exit.



Note

If the imported IP has conflicted with current added device, a dialogue box will pop up to remind you. You have two options:



Important

- You can edit the exported .CVS file. Do not change the file format; otherwise it may result in import failure.
- Does not support customized protocol import and export.
- The import and export device shall have the same language format.

Step 4 Click the **OK** button, the system will now use the imported setup instead.

5.8.1.6 Remote Device Initialization

This feature will allow you to change a remote device's login password and IP address.



Note

- When connecting a camera to the device via PoE port, device automatically initializes the camera. The camera adopts device current password and email information by default.
- When connecting a camera to the device via PoE port, the device may fail to initialize the camera. Please go to the Registration interface to initialize the camera.

Step 1 Enter the Registration interface from **Main Menu->Setting->Camera->Registration**.

Step 2 Click Device Search to populate the list box and then click the Uninitial... box. This will clear the list of devices that are NOT uninitialized.

Step 3 Select a camera to be initialized and then click the button.
This will bring up the password setup interface. See *fig 5.44a* and *fig 5.44b*

Enter Password

Using current device password and email info.

Next

Figure 5.44a

Enter Password

Using current device password and email info.

Username admin

Password

It is 8 to 32-digit containing letter(s), number(s),symbol(s). It contains at least two types.

Confirm Password

Next

Figure 5.44b

Step 4 Set the camera password.

You can either:

- **Use the NVR's password and email:** Check the box to use the NVR's current admin account and email information. There is no need to set a password and email. Skip to step 7.

OR

- **Create a User name/password:** The user name is **admin**. 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's own safety, please create a strong password of your own choosing. We recommend changing your password periodically especially in high security network systems.

Step 5 Click **Next** button. This will bring up the email interface. See *Figure 5.44c*.

Figure 5.44c

Step 6 Set the email information.

Email: Input an email address for password reset purposes.



Note

Uncheck the box then click Next or Skip if you do not want to input any email information here.

Step 7 Click the Next button to enter the Change IP address interface. See *Figure 5.44d*.

Modify IP

Checked Device No.: 1

DHCP

STATIC

IP Address Incremental Value

Subnet Mask

Default Gateway

1	Serial No.	IP Address
1	1D004B0YAZ00003	192.168.1.108

Back Next Skip

Figure 5.44d

Step 8 Set the camera IP address

Check DHCP, there is no need to input IP address, subnet mask, and default gateway. Device automatically allocates the IP address to the camera.

Check Static, and then input IP address, subnet mask, default gateway and incremental value.



Note

- If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.
- If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value

Step 9 Click the **Next** button to begin device initialization. See Figure 5.44e.

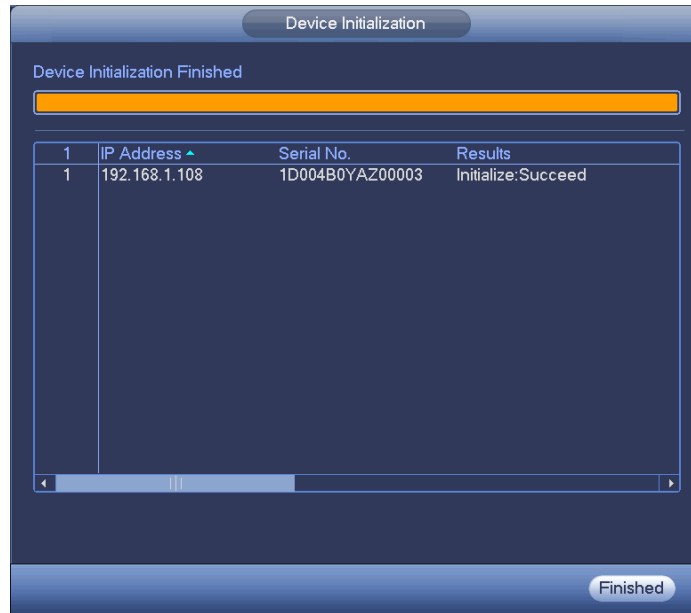





Figure 5.44e

Step 10 Click **Finish** to complete the setup.

5.8.2 Device Status

This interface allows you to view the IPC status of the corresponding channel such as motion detect, video loss, tampering, alarm, etc. See *Figure 5.45*

- **IPC status:** : Front-end does not support. : Front-end supports. : There is alarm event from current front-end.
- **Connection status:** : Connection succeeded. : Connection failed.
- **Refresh:** Click it to get latest front-end channel status.

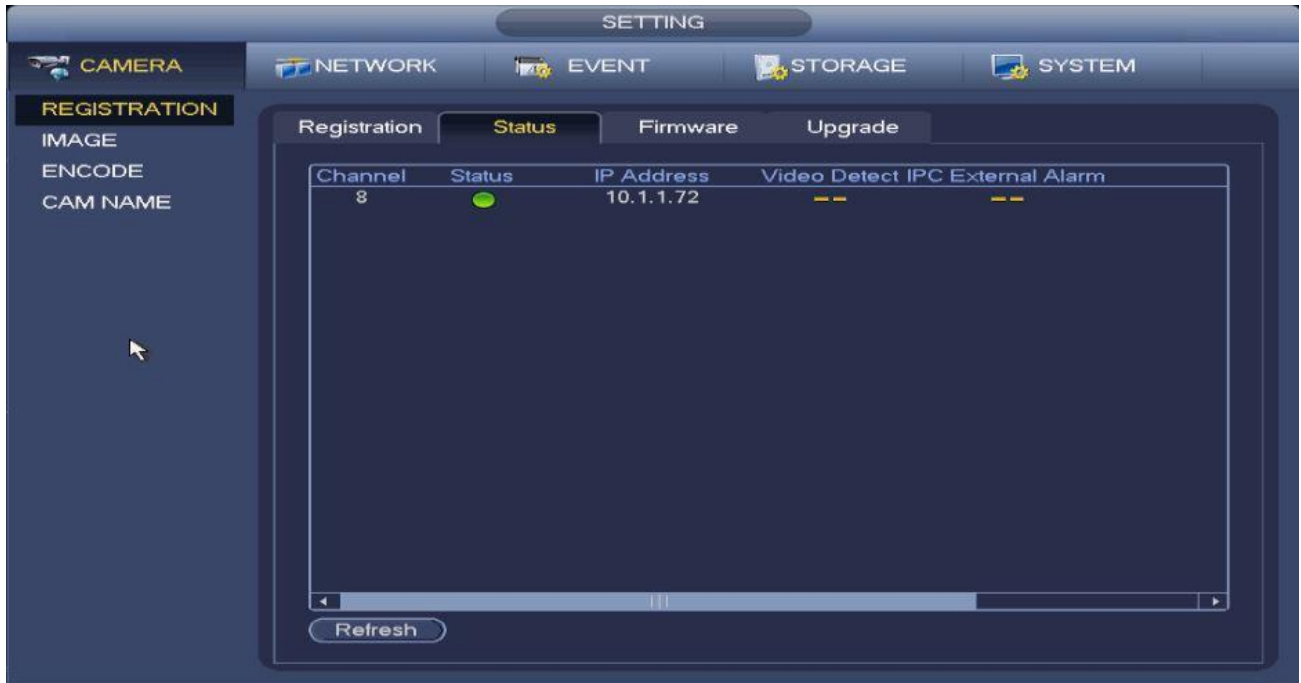


Figure 5.45

5.8.3 Firmware

This interface allows you to view channel, IP address, manufacturer, type, system version, SN, video input, audio input, external alar, etc of your cameras. See *fig 5.46*

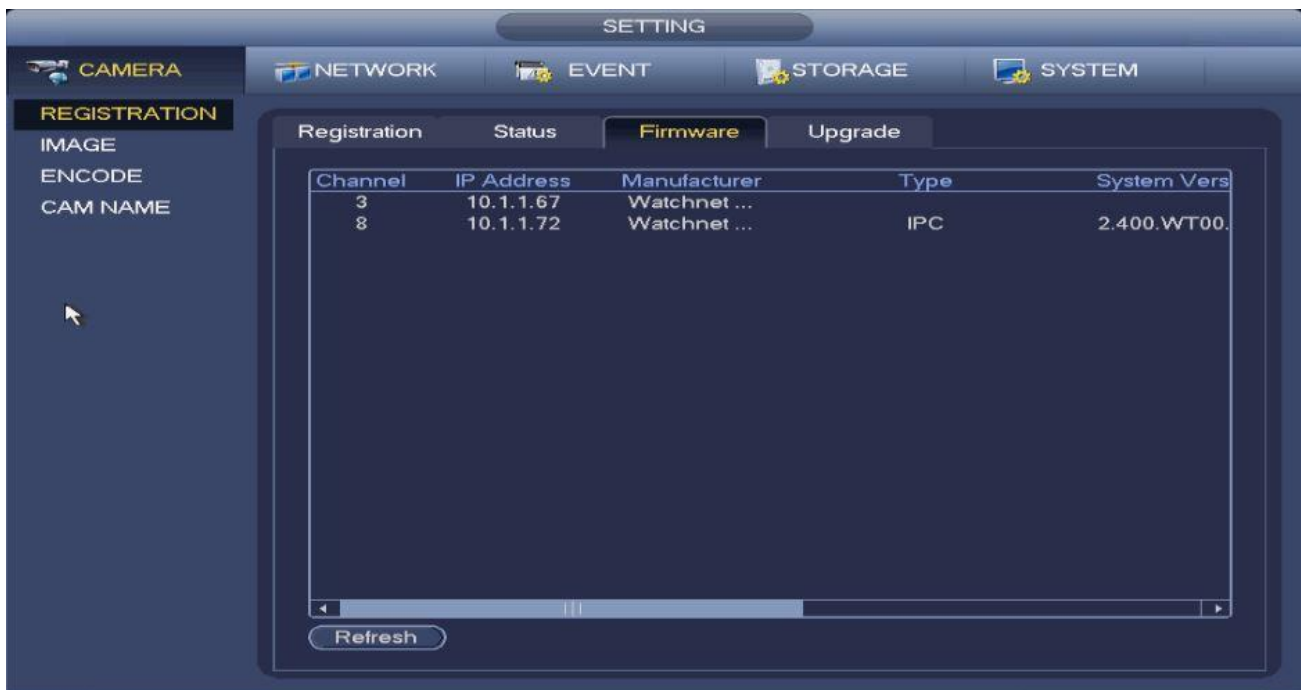


Figure 5.46

5.8.4 Camera Upgrade

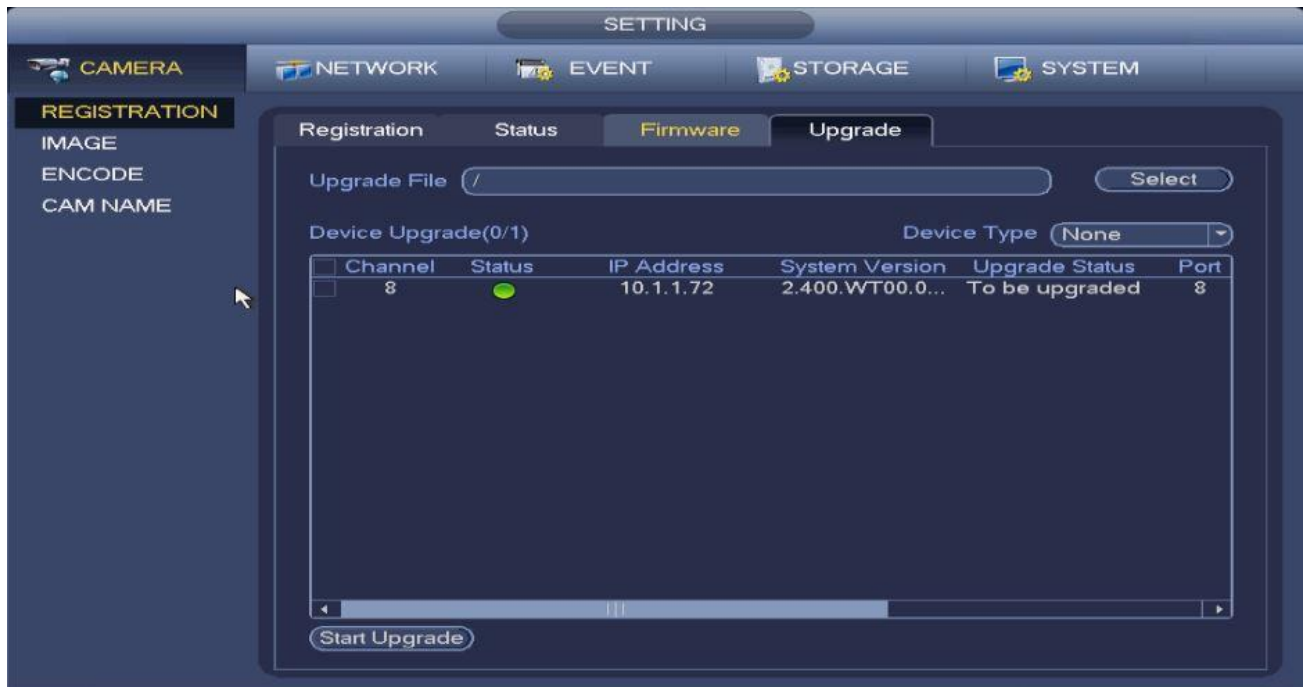


Figure 5.47

This interface allows you to upgrade your IP cameras. You can reach this interface from the **Main Menu->Setting->Camera->Upgrade**. See *Figure 5.47*



Note

At the moment, the NVR can upgrade an IPC via a USB device or the WEB. You can upgrade 8 network cameras of the same model (or Supported NVR) at the same time.

- Click the **Browse** button and select the upgrade file from specified location.
- Select the channel to upgrade and click **Start Upgrade**.
- A dialogue will appear to confirm a successful upgrade.

5.8.5 Image

This interface allows you to configure the display settings of your cameras. You can reach the Image interface from **Main Menu > Settings > Camera > Image**. See *fig 5.48*

Navigation and Controls:

- **Channel:** Selects a channel from the dropdown list.
- **Brightness:** Adjusts the monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number is, the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

- **Contrast:** Adjusts the monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
- **Saturation:** Adjusts the channel window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the strong the color will be. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
- **Sharpness:** Adjusts the channel window sharpness. The value ranges from 0 to 100. The default value is 50. The larger the number is, the stronger/noisier the picture will be. This value helps in getting objects in the video to be more outlined and focused. Please note that if the value is too high, the picture make become too noisy/grainy.
- **Gamma:** Adjust the channel window's gamma value. The value ranges from 0 to 100. The default value is 50. The larger the number is, the darker and more contrasted the displayed image will be. This is often used to complement your brightness settings.
- **Mirror:** To switch the video's up and bottom limit. This function is disabled by default.
- **Flip:** To switch the video's left and right limit. This function is disabled by default.
- **BLC:** It includes several options: BLC/WDR/HLC/STOP
 - ✧ **BLC:** The device auto exposes according to the environment's situation so that the darkest area of the video is cleared
 - ✧ **WDR:** The WDR scene funtion can lower the brightly lit sections and enhance the brightness of the low light sections. This will allow you to view the opposing sections as one smooth image. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, the system may lose several seconds of recorded video.
 - ✧ **HLC:** After enabling the HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.
 - ✧ **OFF:** This will disable the BLC function. Please note this function is disabled by default.
- **3D NR:** Toggles the 3D noise reduction function on or off. This helps reduce the image noisiness in the specified channel.
- **Profile:** This option sets the white balance. Its general effect is towards the hue of the video. This function is on by default. You can select different scene modes such as auto, sunny, cloudy, home, office, and night to adjust the video to the best quality.
 - ✧ **Auto:** The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.
 - ✧ **Sunny:** The threshold of the white balance is in the sunny mode.
 - ✧ **Night:** The threshold of the white balance is in the night mode.
 - ✧ **Customized:** You can set the gain of the red/blue channel. The value ranges from 0 to 100.
- **Day/night:** Used to set the device to color or B/W mode. The default setup is auto.

- ✧ **Color:** Turns on color display mode.
- ✧ **Auto:** Automatically switches between modes depending on the current environmental luminosity. (The general brightness of the video or if there is IR light or not.)
- ✧ **B/W:** Turns on black and white mode.
- ✧ **Sensor:** Used when there is a peripheral connected that has IR light.
Please note that only some IR series products support sensor input function.



Figure 5.48

5.8.6 Encode

5.8.6.1 Encode Settings

This interface allows you to set IPC encode mode, resolution, bit stream type, etc. You can reach these settings from **Main Menu->Setting->Encode**. See fig 5.49

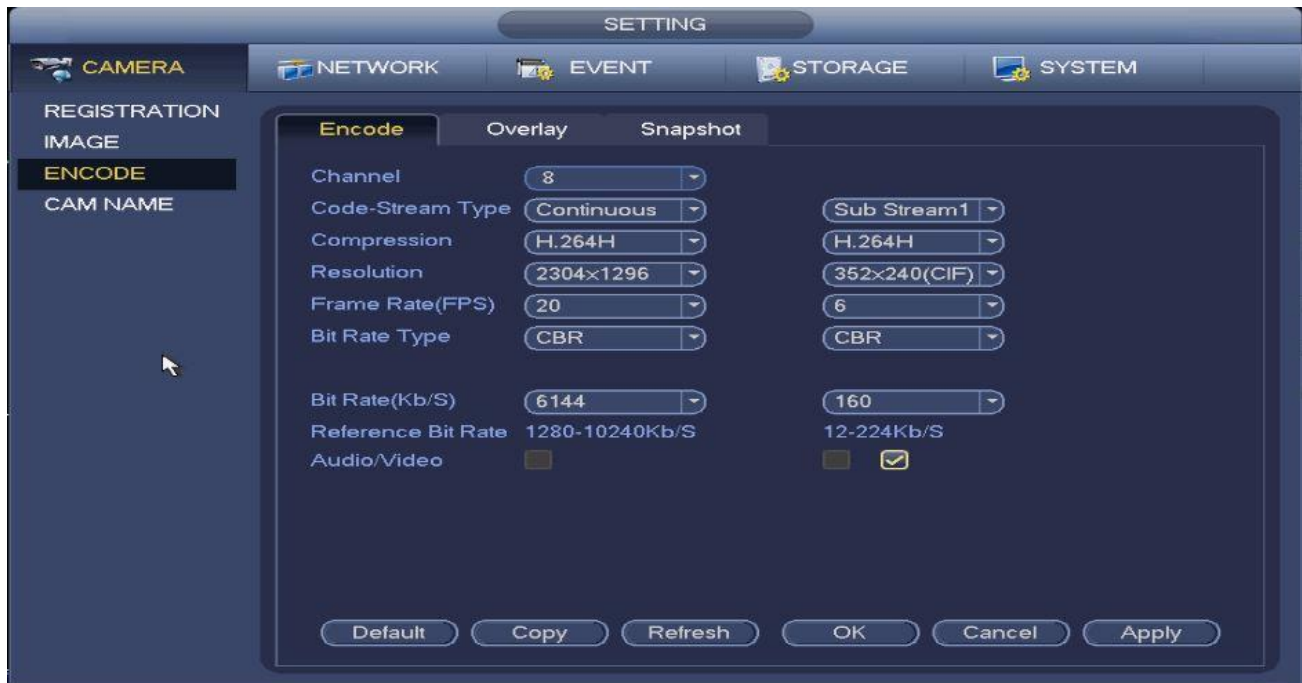


Figure 5.49

Navigation and Controls:

- **Channel:** Selects the channel to be modified.
- **Code-Stream Type:** Selects the recording type. There are three options: continuous, MD or alarm. You can set individual encode parameters for each recording type.
- **Compression:** The system supports H.264, MPEG4, MJPEG and etc.
- **Resolution:** The mainstream resolution type is the IPC's encoding config. Generally, you can choose from D1/720P/1080P. For some product series, the main stream supports 2048x1536 (3M) ,1920x1080 (1080P) , 1280x1024 (SxGA) , 1280x960 (1.3M) ,1280x720 (720P) ,704x576 (D1) and the sub stream supports 704x576 (D1) ,352x288 (CIF) .
- **Frame rate:** Ranges from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
- **Bit rate type:** The system supports two types: CBR and VBR. You can set the video quality in VBR mode.
- **Quality:** There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- **Audio/Video:** You can enable or disable the video/audio function. Please note that once you enable audio function for one channel, the system may enable the audio function for the rest of the channels by default.
- **Copy:** After completing setup, you can click the **Copy** button to copy your current channel setup to other channel(s). See *Figure 5.49b*. The current channel that you are on will be grey. Please check the number(s) to select the channel(s) or select ALL. Click the **OK** button respectively to complete the setup.
- Please note that once you check the All box, you will set the same encode setup for all channels Including Audio/video option.



Figure 5.49b



Note:

There are two columns in this interface. Remember that the left side is for modifying the settings for the main stream and right side is for modifying the sub stream. There are two sub streams available.

5.8.6.2 Overlay

This interface allows you to add an overlay on your channels. You can reach this interface from **Main Menu->Setting->Camera->Encode**. See fig 5.50

- **Preview/monitor:** The cover area has two types. Preview and Monitor. Preview means the privacy mask zone cannot be viewed by user when system is in preview status. Monitor means the privacy mask zone cannot be view by the user when system is in monitor status.
- **Time display:** You can select system displays time or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- **Channel display:** You can select system displays channel number or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.

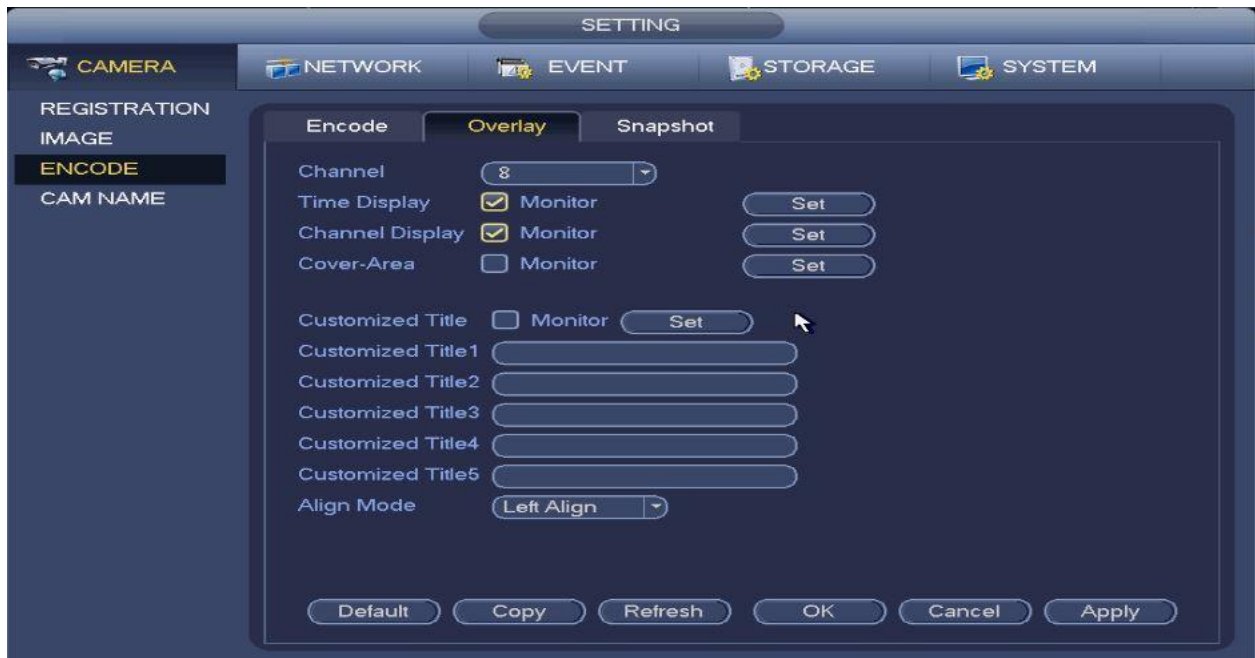


Figure 5.50

- **Cover area:** You can cover areas in the channel screen. You can have up to four covered areas in a channel. You can set them up by turning on the monitor box for **Cover-Area**. Select the number of covers you wish to implement and click set to adjust the cover sizes and location on the screen.

Refer to *fig 5.50b* and *fig 5.50c* for a sample setup.



Figure 5.50b

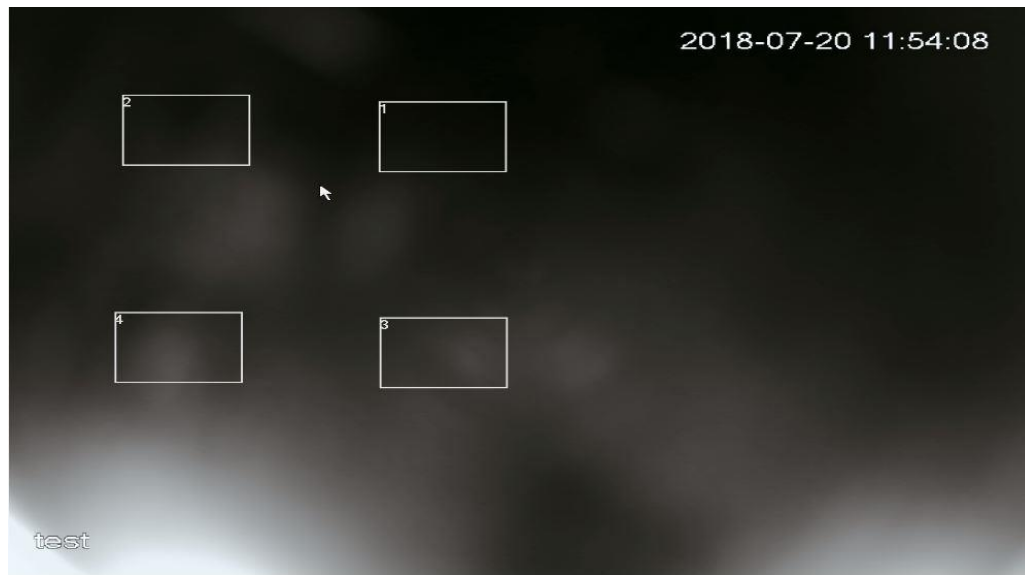


Figure 5.50c

- **Customized Title:** You can add up to five customized titles to add more description to the channel's display as needed. You can also select its align mode. See *fig 5.50d*

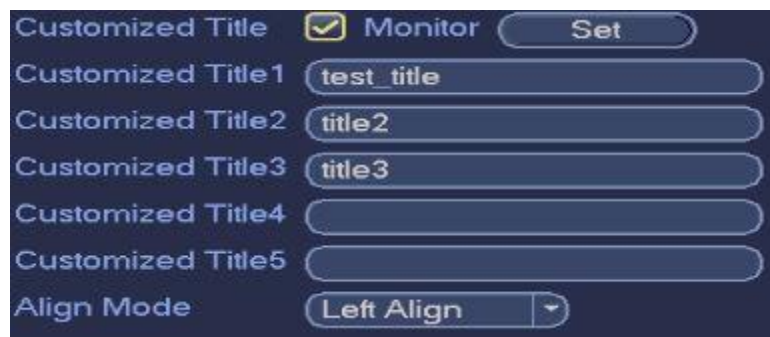


Figure 5.50d

- **Align Mode:** Sets the screen alignment of your titles.
- Click the **Copy** button to copy your configuration to other channels
- Click the **Apply** button to save your configuration

5.8.6.3 Snapshot

In this interface, you will be able to set the snapshot mode, picture size, quality and frequency of the recorded images. **Main Menu->Setting->Camera->Encode->Snapshot.** See *fig 5.51*

- **Snapshot mode:** There are two modes: timing and trigger. If you set it to timing mode, you will need to set the snapshot frequency. If you set the mode to trigger, you will need to set the snapshot activation operation.
- **Image size:** Set the snapshot picture size here.
- **Image quality:** Set the snapshot quality here. The value ranges from 1 to 6.
- **Interval:** You can set the timing (schedule) snapshot interval here.



Figure 5.51

Note

You can click the copy button on the **Overlay and Encode** interfaces to copy your settings to other channels. Click default to restore the specified interface to factory settings. *fig 5.51b*



Figure 5.51b

5.8.7 Cam Name Settings

In this interface, you will be able to set the camera names for each channel. The max for characters per name is 31. You can reach this menu from **Main menu->Setting->Camera-Channel Name**. See *fig 5.52*.

Please note that you can only modify the channel name of a connected network camera.



Figure 5.52

5.9 Network Settings



Figure 5.53

5.9.1 TCP/IP

This interface allows you to modify and configure your system's TCP/IP settings. You can reach this menu from **MainMenu->Setting->Network->TCP/IP**. See *fig 5.53*

A device with a single network adapter interface is shown in *fig 5.54a* and a device with a dual network adapter interface is shown in *fig 5.54b*. Refer to the image that applies to you.

Navigation and Controls:

- **Network Mode:** Includes multiple access, fault tolerance, and load balancing
 - a. **Multiple-address mode:** eth0 and eth1 operate separately. You can use the services such as HTTP, RTP service via eth0 or the eth1. Usually you need to set one default card (default setup is eth0) to request the auto network service from the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.
 - b. **Network fault-tolerance:** In this mode, device uses bond0 to communicate with the external devices. You can focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card). System can enable alternate card when the master card is malfunction. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
 - c. **Load balance:** In this mode, device uses bond0 to communicate with the external device. The eth0 and eth1 are both working now and bearing the network load. Their network load are general the same. The system is shown as offline once these two cards are both offline. Please note these two cards shall be in the same LAN.
- **Default Network Card:** Please select eth0/eth1/bond0(optional) after enable multiple-access function
- **Main Network Card:** Please select eth0/eth1 (optional).after enable multiple access function.



Note:

The dual-Ethernet port series support the above three configurations and supports functions such as multiple-access, fault-tolerance and load balancing.

- **IP Version:** There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and you can access via them.
- **Preferred DNS server:** DNS server IP address.
- **Alternate DNS server:** DNS server alternate address.
- **Transfer mode:** Here you can select the priority between fluency/video qualities.
- **LAN download:** System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.
- **LAN download:** System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.




Figure 5.54a



Figure 5.54b

Edit Card Mode: (Click the  button next to each card to go into edit mode.) fig 5.55



The screenshot shows a network configuration window titled "Edit" for "Ethernet Port1". The "Net Mode" is set to "Single NIC". The configuration fields are as follows:

Field	Value	Options
IP Version	IPv4	Dropdown menu
MAC Address	88:23:64:11:9d:a1	Text field
IP Address	192 . 168 . 10 . 66	Text field, <input type="checkbox"/> DHCP
Subnet Mask	255 . 255 . 255 . 0	Text field
Default Gateway	192 . 168 . 10 . 1	Text field
MTU	1500	Text field

Buttons: OK, Cancel

Figure 5.55

- **IP Version:** Set your ip version to IPv4 or IPv6.
- **DHCP:** Check the DHCP box to automatically fill up your network parameters. Leave it unchecked to manually enter your network settings. You need to disable DHCP function to view current IP information. Please note that when PPPoE is operating, you cannot modify IP/Subnet mask /Gateway.
- **IP Address:** Set the ip address of the NVR (Make sure it corresponds to your internal network's IP addressing scheme).
- **Subnet Mask:** Enter your network's subnet configuration. Make sure your IP address falls under the same subnet.
- **Default gateway:** Input the default gateway address (usually the router IP). Please note system needs to check the validity of all IPv6 addresses. Make sure the IP address and the default gateway are in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- **MTU:** Set your network adapter's MTU value of the. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or you can click Cancel button to terminate current modification. Before the modification, you can check the MTU of the gateway; the MTU of the DVR should be the same as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only.

- ✧ **1500**: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.
- ✧ **1492**: Recommend value for PPPoE.
- ✧ **1468**: Recommend value for DHCP.
- ✧ **1450**: Recommend value for VPN.

After completing your setup, click the **OK** button to return to the previous menu. Then click the **Apply** button to save your settings.

5.9.2 Port

This interface allows you to modify the system's communication ports. See *fig 5.56*

- **Max connection**: system support maximal 128 users. 0 means there is no connection limit.
- **TCP port**: Default value is 37777.
- **UDP port**: Default value is 37778.
- **HTTP port**: Default value is 80.
- **RTSP port**: Default value is 554.
- **HTTPS port**: Default value is 443. Check enable to use.



Important:

The system needs to reboot after you've changed and saved any setup on any of the above four ports. Please make sure the port values do not conflict with other services in your network.



Figure 5.56

5.9.3 PPPoE

This interface allows you to enable and setup PPPoE. See fig 5.57

To set this up, you will need to provide the “**PPPoE name**” and “**PPPoE password**” you get from your **ISP (Internet service provider)**. Click **Apply** afterwards and restart your NVR to activate the configuration. After rebooting, the NVR will connect to the internet automatically. The IP in the PPPoE is the NVR dynamic value. You can access this IP to visit the unit.



Figure 5.57

5.9.4 DDNS Setup

This interface allows you to enable and configure DDNS on your system. This feature will allow you to access your system remotely via a PC or a mobile device (*only applicable to Android and iOS*). See fig 5.58 for a sample setup.

Configuring DDNS:

- Select the **DDNS Type**. The options are DVRID, NO-IP DDNS and DynDNS DDNS.
- Enter the DDNS server's **Host IP**. We offer free DDNS hosting via **DVRID.com**
- Enter a valid **Domain Name**. You will be using the domain name to access your NVR remotely using DDNS.
- Enter a valid **User Name** from the DDNS server.
- Enter a valid **Password** for the DDNS server account.
- Enter an **Interval** value. This will be the timer in between connection refreshes to the DDNS server.
- **Enable** DDNS. Hit **Apply** to save.

 **Note:**

- You will need to do **Portforwarding** on your router as well.
- You will need to open TCP Port 4000 and HTTP Port 80 or open the applicable port numbers if you've changed these values in the **PORT** interface.
- All DDNS types can be enabled at the same time.
- Private DDNS function will work with special DDNS server and special Professional Surveillance Software (PSS).



Figure 5.58

5.9.4.1 Registering an account in DVRID.COM

- Go to <http://www.dvrId.com> to register an account. Fig 5.59a

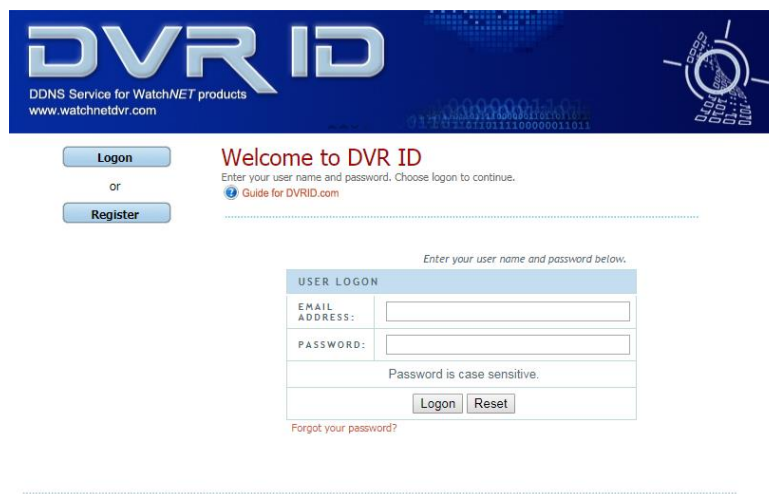


Figure 5.59a

- After creating an account, proceed with creating your new domain for your NVR. Fig 5.59b

Figure 5.59b

- In the **Domain Name Creation** screen, enter any name of your choosing excluding spaces and special characters. Enter the **HTTP** port number (80 by default) as per your configuration on your NVR.
- Enter the full **MAC Address or Serial Number** from your NVR and click on **Request Domain**.
- Enter your newly created domain information in the **DDNS** Setup screen in your NVR. *Fig 5.58*

5.9.5 UPnP

The UPnP protocol establishes a mapping relationship between the LAN and the WAN. Please input the **router IP** address in the **LAN IP** field from your **TCP/IP Gateway settings** (see *fig 5.55*). See *fig 5.60a* for the UPnP interface.



Important

Do not connect the switch to the PoE port, otherwise the connection may fail!

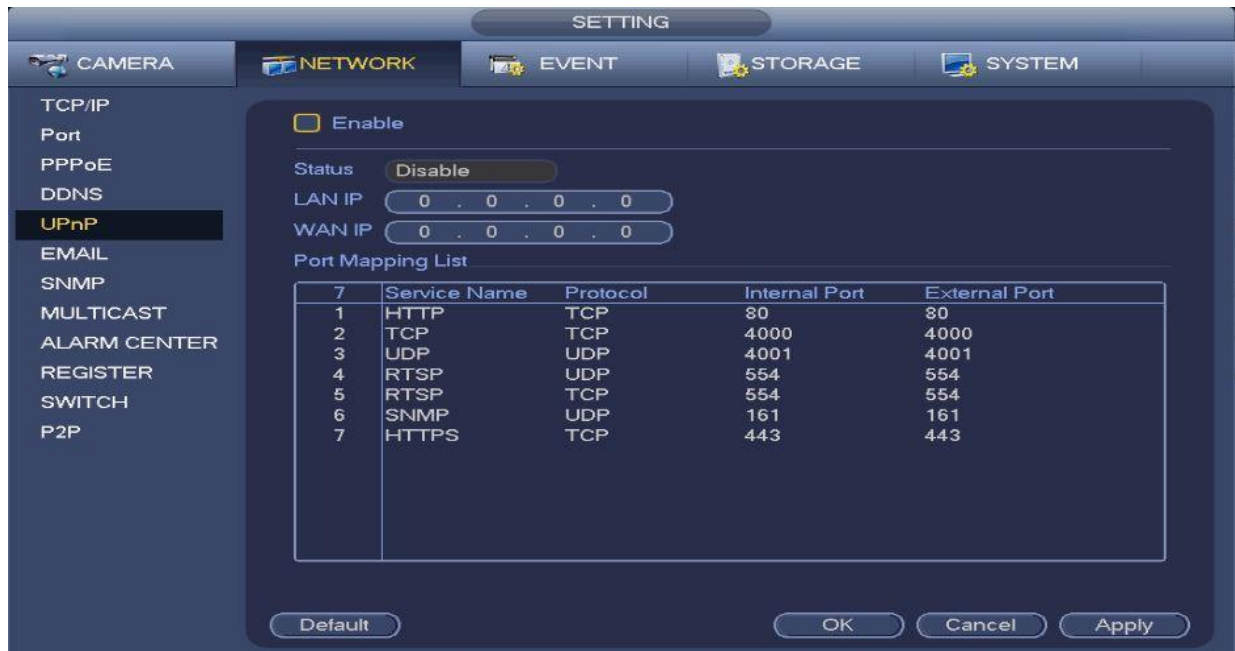


Figure 5.60a

- **Enable:** Turn the UPnP function of the device on or off.
- **Status:** When the UPnP is offline, it shows as “Disable”. When the UPnP works it shows “Success”
- **LAN IP:** It is the router’s IP in the LAN.
- **WAN IP:** It is the router’s IP in the WAN.
- **Default:** Restores the UPnP port settings to default.
- **Port Mapping list:** The port mapping list here is the one to one relationship with the router’s port mapping settings. Double click on the service to modify the specified port settings. Fig 5.60b



Figure 5.60b

- ✧ **Service name:** Defined by user.
- ✧ **Protocol:** Protocol type

- ✧ **Internal port:** Port that has been mapped in the router.
- ✧ **External port:** Port that has been mapped locally.



Important:

When you are setting the router's external port, please use ports 1024 to 5000. Do not use well-known ports like ports 1 to 255 and system ports 256 to 1023 to avoid conflict.

For TCP and UDP, please make sure the internal port and external port are the same to guarantee a proper data transmission.

5.9.6 Email

This interface allows you to configure your email for NVR event notifications. *Fig 5.61*

Figure 5.61

Parameters and Controls:

- **SMTP Server:** Input your email service's SMTP server IP in this field.
- **Port:** Input the corresponding SMTP server port.
- **User:** Enter a valid email address.
- **Password:** Enter the corresponding valid email password.
- **Receiver:** Input the receiver(s) email address here. System can support 3 mailboxes max. System automatically filters same addresses if you input the same receiver repeatedly.
- **Sender:** Input the sender's email address.
- **Subject:** Input the email/notification title. System supports English and Arabic numbers. Max 32-digits.

- **Encryption Type:** Choose the encryption method. SSL or TLS
- **Interval:** Input the send interval range from 0 to 3600 seconds. 0 means there is no interval. System can send out email notifications as regularly as you set in this parameter.
- **Health Enable:** Please check the box here to enable this function. This function allows the system to send out the test email to check the connection is OK or not.
- Click the **Test button** to test your configuration. You should get a dialogue box pop up to confirm a successful configuration. You should also receive a test email in the process.



Note:

The system will not send out the email immediately when an event occurs. When an alarm, motion detection or abnormality event occurs, the system will send out the email according to the interval you specified. This function is very useful when there are too many emails activated by events, which may result in heavy stress to the email server.

5.9.7 SNMP

SNMP is an abbreviation of **Simple Network Management Protocol**. It provides the basic network management frame of the network management system. The SNMP is widely used in many environments. It is used in many network devices, softwares and systems. See *fig 5.62*



Figure 5.62

After enabling SNMP, use the corresponding software tool (MIB Builder and MG-SOFT MIB Browser). You still need two MIB file: BASE-SNMP-MIB, NVR-SNMP-MIB) to connect to the device. You can get the corresponding device configuration information after a successfully connection.

Please follow the steps listed below to configure.

- In *fig 5.62*, check the box to enable the SNMP function. Input the IP address of the PC than is running the software in the Trap address. You can use the default setup for the rest of the parameters.
- Compile the above mentioned MIB files via the software MIB Builder.
- Run the MG-SOFT MIB Browser to load the file from the previous step to the software.
- Input the device IP you want to manage in the MG-SOFT MIB Browser. Set the corresponding version for your future reference.
- Open the tree list on the MG-SOFT MIB Browser; you can get the device configuration. You will be able to see how many video channels, audio channels, application version, etc. your system has.



Note

Port conflict occurs when the SNMP and Trap ports are the same.

5.9.8 Multicast

This interface will allow you to set up Multicast as shown in *fig 5.63*.



Figure 5.63

Please refer to the following guide for detailed information about setting multicast groups.

- **IP multiple cast group address**

- 224.0.0.0-239.255.255.255
 - “D” address space

- **The higher four-bit of the first byte = 1110**

- **Reserved local multiple cast group address:**

- 224.0.0.0-224.0.0.255
 - TTL=1 When sending out telegraph

Example:

- 224.0.0.1 All systems in the sub-net
 - 224.0.0.2 All routers in the sub-net
 - 224.0.0.4 DVMRP router
 - 224.0.0.5 OSPF router
 - 224.0.0.13 PIMv2 router

- **Administrative scoped addressees**

- 239.0.0.0-239.255.255.255
 - Private address space
 - Like the single broadcast address of RFC1918 this can not be used in Internet transmission
 - Used for multiple cast broadcast in limited space.

You can use any addresses with the exception of the special values as described above.

Example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

After logging in to the Web, the Web will automatically get multicast address and add it to the multicast groups. You can enable the real-time monitor function to view. Please note that the multicast function applies to special series only.

5.9.9 Alarm Centre

This interface is reserved for you to develop. See *Figure 5.64*



Figure 5.64

5.9.10 Register

This function allows the device to auto register to the proxy you specified. In this way, you can use the client-end to access the NVR via the proxy. The proxy here has a switch function. In the network service, the device supports the server address of IPv4 or domain. **Main Menu->Setting->Network->Register**



Figure 5.65

Please follow the steps listed below to use this function:

- Set the proxy server address, port, and sub-device name at the device-end. Enable the register

function to allow the device to auto register to the proxy server.



Important

Do not use the device's default ports like the TCP port number.

- The proxy server software was developed from the **SDK**. Please open the software and input the global setup. Make sure that the auto connection port here is the same as the port you set in the previous step.
- Now you can add device. Please do not use a default port number such as the TCP port in the port mapping menu. The device ID here shall be the same with the ID you input in *figure 5.65*. Click the **Add** button to complete the setup.
- Now you can boot up the proxy server. When you see the network status is Y, it means your registration is OK. You can view the proxy server when the device is online.



Important

The server IP address can also be a domain instead. But you need to register a domain name before you run the proxy device server.

5.9.11 SWITCH

This interface allows you to set up the network parameters of the POE switch at the back of the NVR. See *fig 5.66*

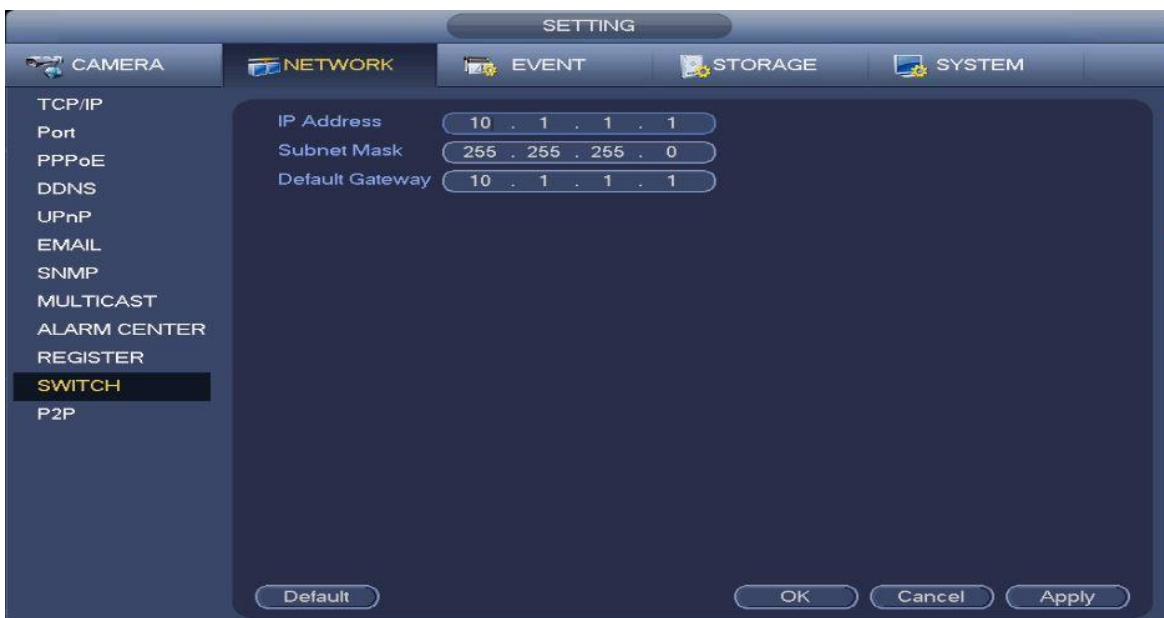


Figure 5.66

5.9.12 P2P

Enabling P2P allows you to remote in to your NVR via your system's serial number. **Main Menu->Setting->Network->P2P** See *fig 5.66*

To use this function, you will need to download our **MVS Lite/MVS Pro** phone apps (Android and iOS only), or our **CMS/VMS** for PC and MAC.

Make sure the status says “**Connect Success**” before attempting to remote in to the NVR.

Click **Apply** and **Save** when done.



Figure 5.66

5.9.13 Phone App Configuration

In this chapter, we will go over configuring your phone app to connect to your NVR. Please note that our apps only support **Android and iOS devices**.

Start by downloading and installing **MVS Lite or MVS Pro** in **Google Play** or the **App Store**. To make sure you are downloading the correct apps, look for these icons in your appropriate app stores. The developer would be **Videon**.

Watchnet Smartphone Apps



MVS Pro



MVS Lite

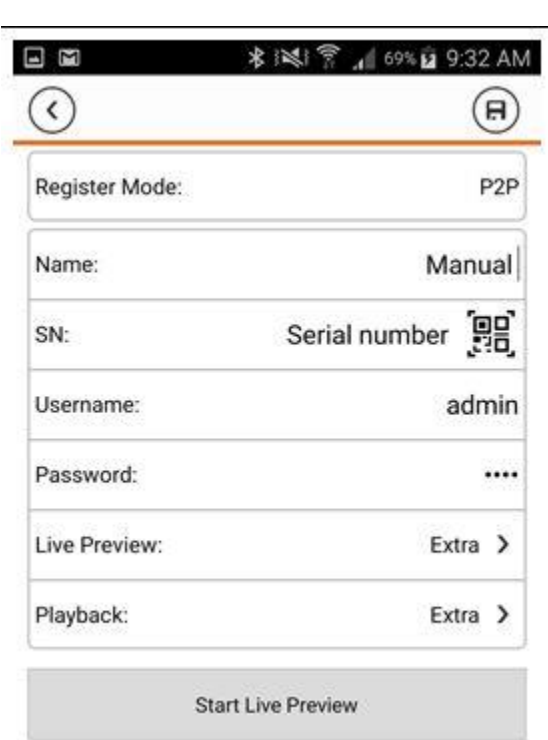


<p>1. Press the button.</p>	<p>2. Press the button.</p> <p>3. Select your Register Mode</p>

Note

This guide is based from the MVS Lite version. The Pro version has some very minor difference in the interface.

There are multiple ways to remote in to your NVR using your Phone. **Follow the column below that**

matches your configuration preference.

P2P	IP ADDRESS/DDNS
 <p>The screenshot shows the P2P configuration screen on a mobile device. The status bar at the top shows 69% battery and 9:32 AM. The screen has a back arrow on the left and a home icon on the right. The configuration fields are: Register Mode: P2P; Name: Manual; SN: Serial number (with a QR code icon); Username: admin; Password: ****; Live Preview: Extra >; Playback: Extra >. A 'Start Live Preview' button is at the bottom.</p>	 <p>The screenshot shows the IP ADDRESS/DDNS configuration screen on a mobile device. The status bar at the top shows 69% battery and 9:33 AM. The screen has a back arrow on the left and a home icon on the right. The configuration fields are: Register Mode: IP/Domain; Name: Manual; Address: domain or ip address; Port: 4000; Username: admin; Password: ****; Live Preview: Extra >; Playback: Extra >. A 'Start Live Preview' button is at the bottom.</p>
<p>NAME: Enter any name you want for the NVR.</p>	<p>NAME: Enter any name you want for the NVR.</p>
<p>SN: Press the  icon to switch your phone to Scanner view and Scan the QR code found under your NVR's P2P settings. Fig 5.66. You can also enter your serial number manually.</p>	<p>ADDRESS: Enter your Public IP address or DDNS address (e.g. example.dvrid.com). You can also enter your internal IP address for internal viewing.</p>
<p>USERNAME: Enter a valid NVR username.</p>	<p>PORT: Enter the TCP Port according to your NVR configuration. System default is 4000.</p>
<p>PASSWORD: Enter a valid NVR password</p>	<p>USERNAME: Enter a valid NVR username.</p>
	<p>PASSWORD: Enter a valid NVR password</p>
<p>LIVE PREVIEW: Keep it on Extra Setting.</p>	<p>LIVE PREVIEW: Keep it on Extra Setting.</p>
<p>PLAYBACK: Keep it on Extra Setting.</p>	<p>PLAYBACK: Keep it on Extra Setting.</p>
<p>Press START LIVE PREVIEW</p>	

 **Note:**

For more information about the different options and controls, please refer to the in-app help menu and manual found in your phone application.

5.10 Events Settings



Figure 5.67

5.10.1 Video Detection

You can reach this menu from the **MainMenu->Setting->Event->Video Detection**

5.10.1.1 Motion Detect

This interface will allow you to configure motion detection for your system. *Fig 5.68a*



Figure 5.68a

Parameters and Settings:

- **Channel:** Select a channel from the dropdown list to set the motion detect function.
- **Enable:** Check this box to enable the motion detect function for the selected channel.
- **Region:** Click the **Set** button to enter the **Region Configuration** interface as shown in *fig 5.68b*.

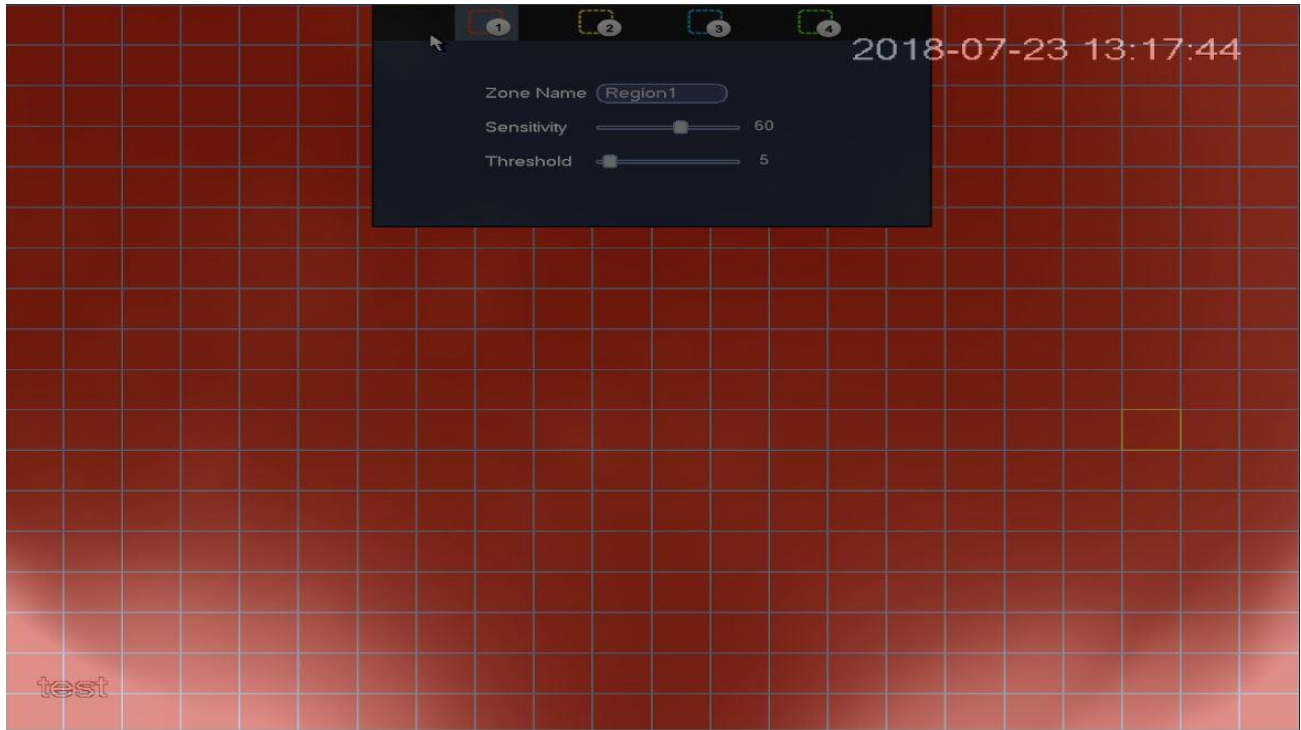


Figure 5.68b

- Select the tiles by clicking or dragging your mouse on where you want the motion detect to occur. The red colored tiles will be the motiodetect zones and the clear ones will be ignored. You can set four zones per channel. **Hover your mouse close to the top of the screen to bring up the zone menu.** Fig 5.68c

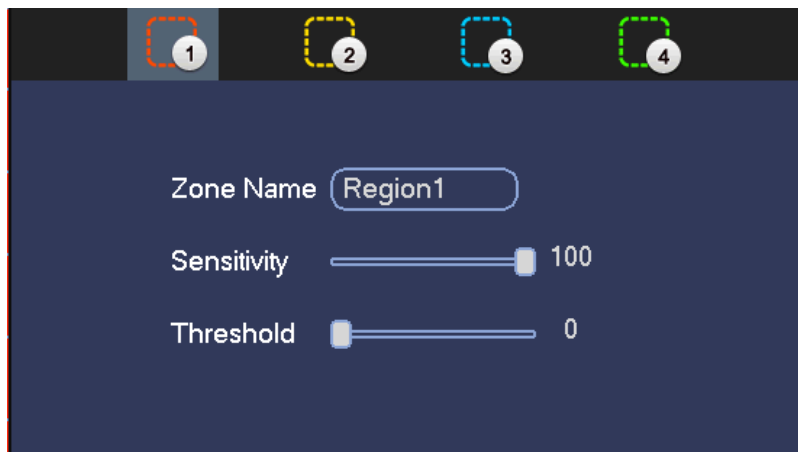


Figure 5.68c

- You can configure the individual sensitivity and threshold on each zone. Each zone is color-coded.
- The **Sensitivity** value refers to how sensitive the motion detect trigger will be.
 - The **Threshold** value refers to how large the object(s) will be for the motion trigger to activate. The lower the threshold the smaller the object(s) the sensor will detect.
 - Right click to exit **Region Configuration** mode.

- **Period:** Click the **Set** button to enter the period interface as seen in *fig 5.68d*. You can set the motion detect period here. The system will only enable motion detection in the specified periods. The system can support up to 6 periods a day.

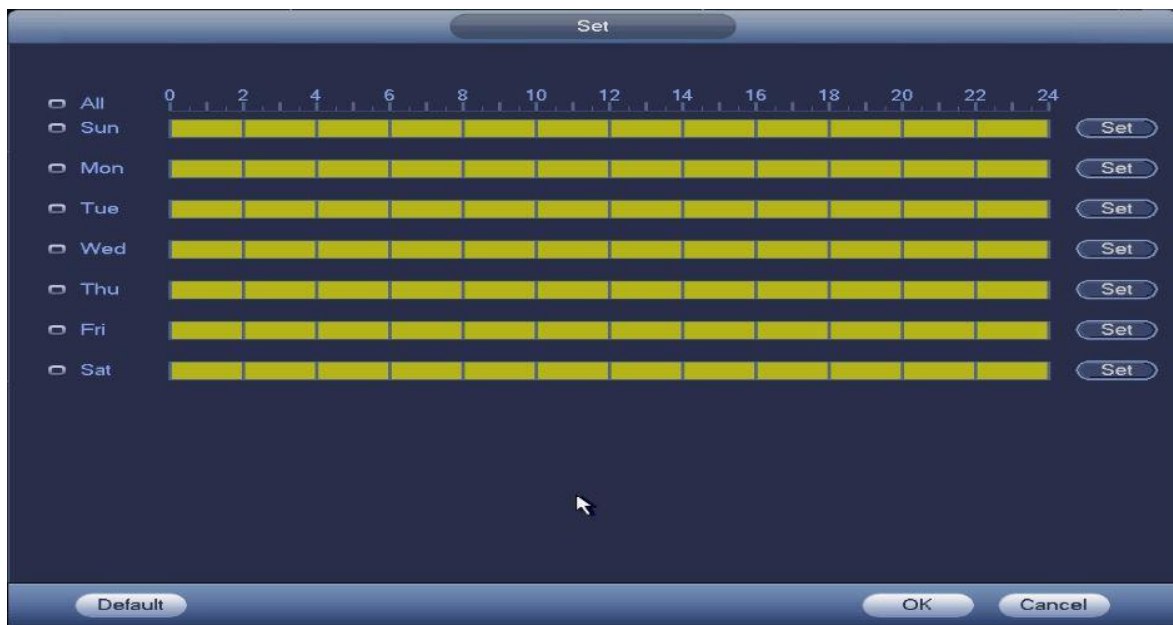




Figure 5.68d

- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording
- You can also lock on multiple days you wish to edit at the same time by clicking on the  icon to the left of each day. The icon will turn into  to show which ones you are currently locked on to.
- Alternatively you can click the **Set** button at the end of each day to select a specified period(s) from a list instead. Under the **Copy** option, you could select the days you want to apply the same period(s) to. Click **OK** to exit. *Fig 5.68e*

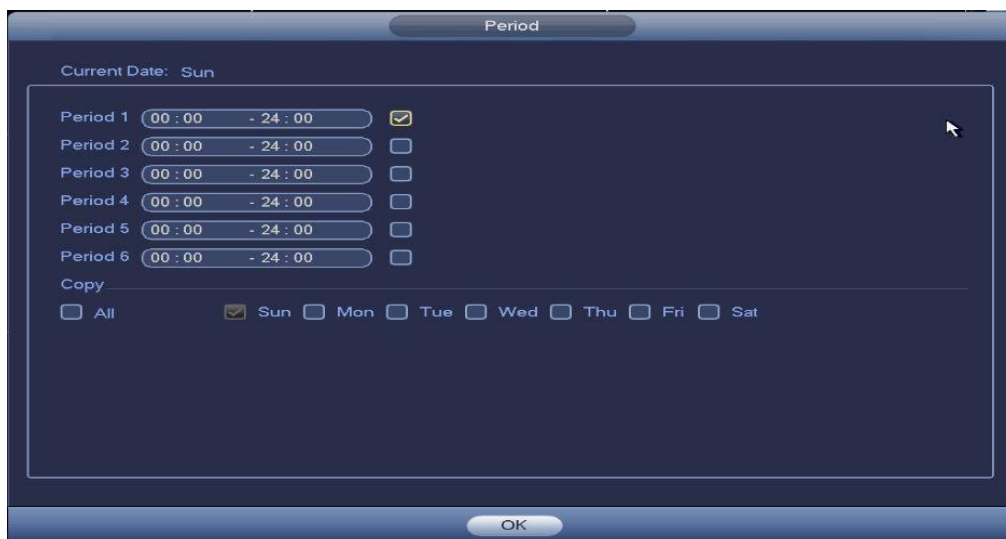


Figure 5.68e

- **Anti-dither:** Configure anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the system will wait for the next alarm signal before it triggers again. This will keep the system from triggering constantly within a short amount of time. During the alarm process, the alarm signal can begin an anti-dither time (waiting time) to check if system detects the same local alarm again. If the next alarm falls under the anti-dither time, the screen prompts, alarm uploads, emails, etc. will not be activated. It will only activate again if the anti-dither value had expired. The value here does not include the latch time.

Example:

- You've set the anti-dither time to 10 seconds.
 - The alarm got triggered and will remain triggered for the next 10 seconds.
 - During this process, if the system detects another local alarm signal within those 10 seconds, the buzzer, tour, PTZ activation, snapshot, record channel will refresh and trigger for another 10 seconds.
 - However, the screen prompts, alarm upload, or emails however will not be activated again. Only after the 10-second anti-dither time had expired without any more alarm signals will the system reset and trigger for the next events.
- **Show message:** The system can bring up a pop up message to alarm you of an event if you enabled this function.
 - **Alarm upload:** The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
 - **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 5.9.6](#) for this to work.
 - **Record channel:** Select the recording channel(s) for specified camera. Please make sure you have set MD record in Schedule interface (Main Menu->Setting->Storage) and schedule record in manual record interface (Main Menu->Setting->Storage->Record)
 - **PTZ activation:** Click **Set** button to enter the ptz activation interface as seen in *fig 5.68f*.



Figure 5.68f

Enabling PTZ activation will allow the system to activate PTZ cameras when motion had been detected. Select the presets for the selected PTZ camera(s) to control how they are going to move during the motion trigger. Click **OK** to exit.

- **Post Record:** The system will keep recording according to your setting here after a detected motion had passed. The value ranges from 10s to 300s.
- **Tour:** Enabling tour will allow the system to go on tour according to the channels you have selected whenever a motion event occurs.
- **Snapshot:** Enabling snapshot will allow the system to take pictures from the channels you have selected whenever a motion event occurs.
- **Log:** Enabling log will allow the system to save the motion events in the system logs.
- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.

Click the **Apply** button to save the changes after your configuration.



Note:

In motion detection mode, you cannot use the copy/paste option since the videos in each channel may not be the same.

5.10.1.2 Video Loss

This function allows you to be informed when there is a total loss of video function from a specified channel(s). You can enable the alarm output channel to show a message to notify you. Refer to *fig 5.69* for the Video Loss interface.



Figure 5.69

Tips:

You can enable preset/tour/pattern activation operation when video loss occurs. Please refer to **Chapter 5.10.1.1 Motion Detect** for detailed information.



Note:

- In Detect interface, copy/paste function is only valid for the same type, which means you cannot copy a channel setup in video loss mode to tampering mode.
- About Default function. Since detection channel and detection type may not be the same, system can only restore default setup of current detect type. For example, if you click the Default button at the tampering interface, you can only restore the default tampering setup. It will not default the other detect types.
- The system only enables video loss function during the period you set here. It is null for motion detect or video loss type.

5.10.1.3 Tampering

This function allows you to be informed when possible tampering occurs in the specified channel. Like when someone purposely masks the lens, or if the output video is in one-color due to possible changes in the environment's lighting. The system can alert you to guarantee video continuity.

Main Menu->Setting->Event->Tampering See *Figure 5.70*.

You can refer to [Chapter 5.10.1.1 Motion Detect](#) for detailed information on each option.



Note:

You can enable preset/tour/pattern activation operation when tampering occurs. The period you've set here only applies to tampering and will not affect the other detection functions.

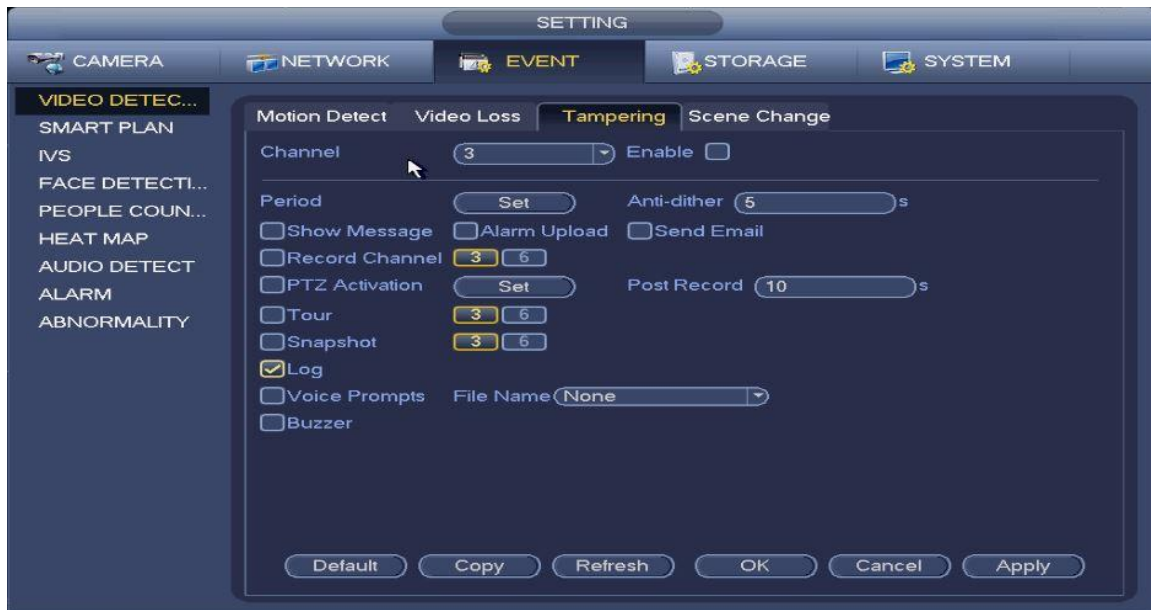


Figure 5.70

5.10.1.4 Scene Change

When the system detects a suspicious scene change, the system can generate an alarm. Refer to

Figure 5.71 for the interface.

Please refer to **Chapter 5.10.1.1 Motion Detect** for more detailed information on each option.



Figure 5.71

5.10.2 Smart Plan

This interface allows you to set Smart plan presets for your smart network cameras. The intelligent rules include human face detection, behavior analytics and people counting. You can find this interface from the **Main Menu->Setting->Event->Smart Plan** as shown in fig. 5.72a.



Figure 5.72a

The smart plan feature is only for smart network cameras. If you do not set a rule here, you cannot use the intelligent functions in IVS (Chapter 5.10.3), Face detection (Chapter 5.10.4) and

People counting (Chapter 5.10.5) when you are connecting to a smart network camera.

There are two scenarios 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.

Select a channel number and a preset then click **Add** afterwards. Please refer to the preset list on *fig. 5.72b*



Figure 5.72b



Note

Some smart cameras do not need to add the preset. Please refer to the actual product for detailed information.

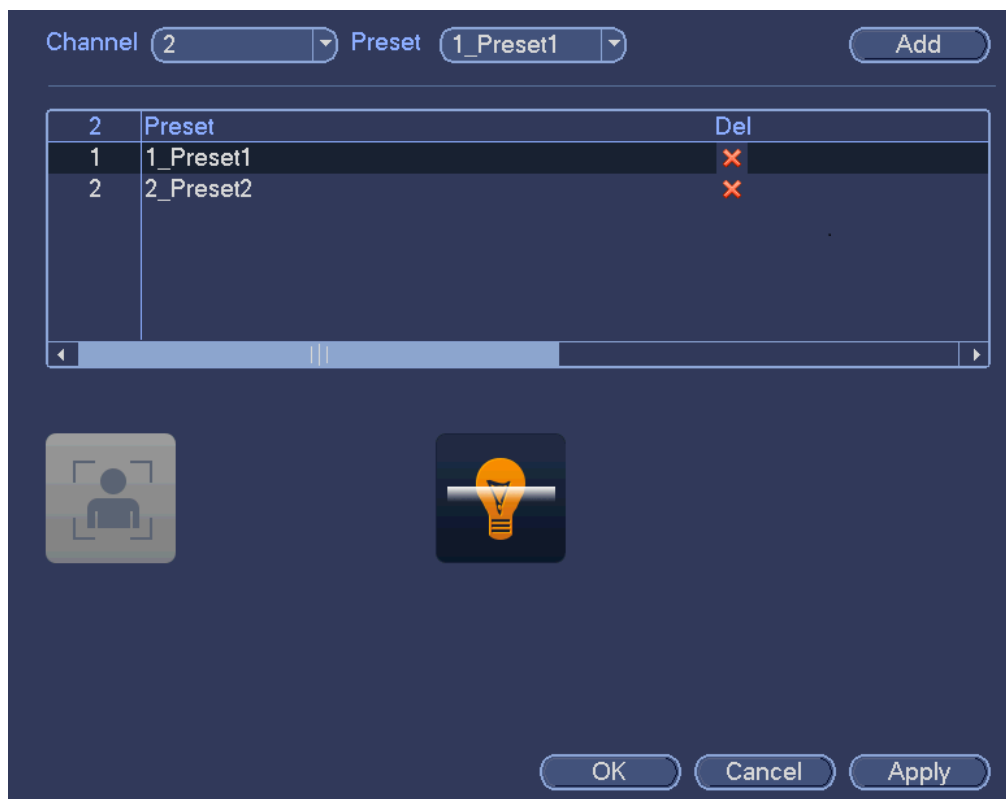


Figure 5.72c

Select a smart plan from the dropdown list and click the corresponding intelligent plan icon. See *fig. 5.72c*.



Note

- The NVR supports general behavior analytics (IVS), human face detection, heat map, and people counting. Different network camera supports different smart plans. Please refer to the actual product for detailed information.
- The general behavior analytics (IVS) and human face detection function cannot be valid at the same time. For example, when add the IVS plan to the preset 1, the human face detection icon becomes grey.

Click **OK** to complete the setup.

5.10.3 IVS

This interface allows you to add IVS functions to the specified channel(s). *Fig 5.73a*

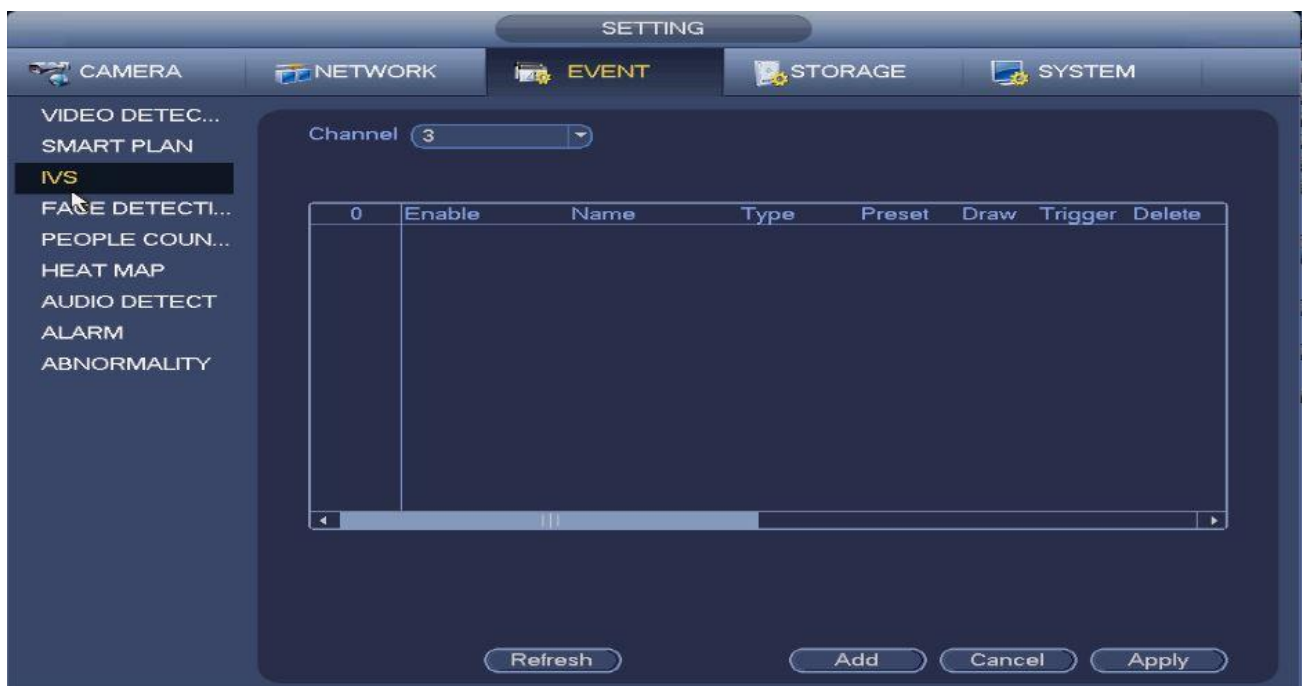


Figure 5.73a



CAUTION

- The IVS function is optional.
- Different products support different IVS functions. Please refer to your purchased product's actual interface for more detailed information.
- Disable the Add IP channel function if you want to use the IVS function.
- Once any object violates the rule, the DVR can trigger an alarm and alert you

Step 1 From the **Main Menu->Setting->Event->IVS**. Enter the IVS interface. See *Figure 5.73a*

Step 2 Select a channel from the dropdown list.

Step 3 Click the **Add** button to add a rule and select a rule type from the dropdown list.

Step 4 Set the corresponding parameter. (Preset, Draw, Trigger)

Step 5 Check the box to enable the current rule.

Step 6 Click **Apply** to complete setup. Refer to *Figure 5.73b* for a sample setup.



Figure 5.73b

5.10.4 Face Detection

This interface allows you to enable Face Detection from selected camera. The face detection feature can generate system alarms when a face is detected. You can find this interface from the **Main Menu->Setting->Event->Face Detection** as seen on *fig 5.74*.

- **Face ROI:** Checking this box will allow the system to enhance the human face display pane.
- **Log:** Checking this box will allow the system to record face detection logs.

You can refer to **Chapter 5.10.1.1 Motion Detect** for detailed information on each option. Hit **Apply** to save your configuration.



Figure 5.74

5.10.5 People Counting

This interface allows you to enable People Counting on the selected camera(s) which calculates the number of people in a specified entry/exit zone. The system will generate an alarm upon reaching the set threshold.

You can find this interface from the **Main Menu->Setting->Event->People Counting** as seen on *fig. 5.75*.



Figure 5.75

Parameters and Controls:

- **Enable:** Checking the box will enable the People Counting function.
- **Rule setup:** Clicking the **Set** button will allow you to setup people counting zones, names, and directions (entry/exit).
- **OSD overlay:** Checking the box will allow you to view the people counter on the surveillance video.
- **Entry No:** For setting the people entry threshold. The system can generate an alarm once the counter has exceeded the threshold.
- **Exit No:** For setting the people exit threshold. The system can generate an alarm once the amount has exceeded the threshold.
- **Stranded No:** For setting the max number of people allowed to stay in the specified zone. The system can generate an alarm once the amount has exceeded the threshold.

You can refer to [Chapter 5.10.1.1 Motion Detect](#) for detailed information on each option. Hit **Apply** to save your configuration.

You can find the people counting statistics report from **Main Menu->Info->Event->People counting**. Refer to Chapter 5.7.2.2.

5.10.6 Heat Map

This interface allows you to enable Heat Map for the selected channel which will detect an active objects state in the specified region. You can find this interface from the **Main Menu->Setting->Event->Heat Map** as seen on *fig. 5.76*.

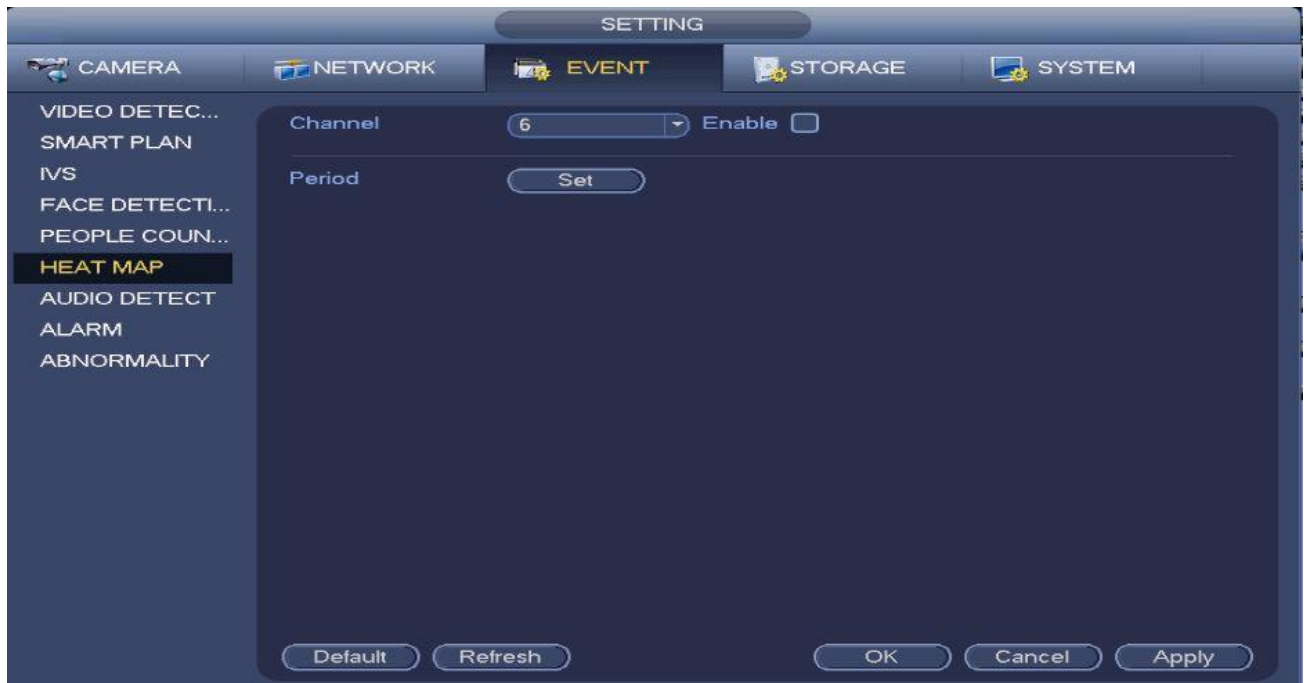


Figure 5.76

Select a channel number and then check the box to enable the function. Click the **Set** button to setup your heat map schedule. See fig 5.76b

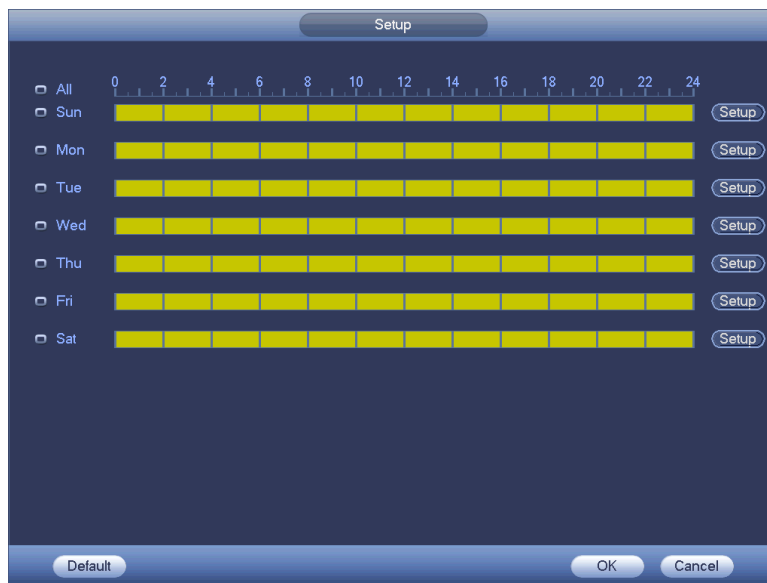


Figure 5.76b

You can refer to [Chapter 5.10.1.1 Motion Detect](#) for detailed information on each period option. Hit **OK** to exit the schedule window and click **Apply** to save your configuration.

You can find the heat map reports from the **Main Menu->Info->Event->Heat Map**. Refer to [Chapter 5.7.2.3 Heat map Info](#).

5.10.7 Audio Detect

This interface allows you to enable audio Detect for the selected channel. *Fig. 5.77*



Figure 5.77

The system can generate an alarm when it detects any abnormal audio input or volume changes. You can find this interface from the **MainMenu->Setting->Event->Audio Detect**.

Parameters and Controls:

- **Input abnormal:** Checking the box will allow the system to generate an alarm when there is an abnormal audio input.
- **Intensity change:** Checking the box will allow the system to generate an alarm once the audio volume becomes too strong.
- **Sensitivity:** It refers to the audio recognition sensitivity. The higher the value is, the higher the sensitivity will be.
- **Threshold:** For setting the intensity change threshold. The smaller the value is, the higher the sensitivity will be.
- **Log:** Checking the box will allow the system to store audio alarm logs.

Please refer to **Chapter 5.10.1.1 Motion Detect** for more detailed information on each option.

5.10.8 Alarm

This interface allows you to enable and configure the alarm settings for selected channels. *Fig. 5.78*
You can find the Alarm interface from the **Main Menu->Setting->Event->Alarm**.

There are two channel alarm types. See *fig 5.78* and *fig 5.78b*

- **IPC external alarm:** The on-off alarm signal from the front-end device and can activate the local HNVR.

- **IPC offline alarm:** Once you select this item, system can generate an alarm when the front-end IPC disconnects with the local HNVR. The alarm can activate record, PTZ, snap and etc. The alarm can last until the IPC and the HNVR connection resumes.



Figure 5.78



Figure 5.78b



Important

- If it is your first time to boot up the device, the disconnection status of the front-end network camera will not be regarded as offline. After one successful connection, all the disconnection events will be regarded as IPC offline event.
- When IPC offline alarm occurs, the record and snapshot function of digital channel is null.

Parameters and Controls:

- **Channel:** For selecting the channel you wish to configure.
- **Enable:** Toggle the alarm function on or off.
- **Type:** Select the type of device. Normally Open or Normally Close
- **Period:** Click the **Set** button to configure the time periods when the alarm is active. You can set up to 6 periods per channel. *Fig 5.78c*



Figure 5.78c




- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording schedule. You can also click the  eraser icon to completely remove any chosen entries.
- You can also lock on multiple days you wish to edit at the same time by clicking on the  icon to the left of each day. The icon will turn into  to show which ones you are currently locked on to.
- Alternatively you can click the **Set** button at the end of each day to select a specified period(s) from a list instead. Under the **Copy** option, you could select the days you want to apply the same period(s) to. Click **OK** to exit. *Fig 5.78d*



Figure 5.78d

- **Anti-dither:** Configure anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the system will wait for the next alarm signal before it triggers again. This will keep the system from triggering constantly within a short amount of time. During the alarm process, the alarm signal can begin an anti-dither time (waiting time) to check if system detects the same local alarm again. If the next alarm falls under the anti-dither time, the screen prompts, alarm uploads, emails, etc. will not be activated. It will only activate again if the anti-dither value had expired. The value here does not include the latch time.

Example:

- You set the anti-dither time to 10 seconds.
- The alarm got triggered and will remain triggered for the next 10 seconds.
- During this process, if the system detects another local alarm signal within those 10 seconds, the buzzer, tour, PTZ activation, snapshot, record channel will refresh and trigger for another 10 seconds.
- However, the screen prompts, alarm upload, or emails however will not be activated again. Only after the 10-second anti-dither time had expired without any more alarm signals will the system reset and trigger for the next events.
- **Show message:** The system can bring up a pop up message when an alarm gets triggered.
- **Alarm upload:** The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 5.9.6](#) for this to work.
- **Record channel:** Selects the recording channel(s) for the specified camera(s). Please make sure you have set Alarm record in the Schedule interface (Main Menu->Setting->Storage->Schedule)
- **PTZ activation:** Click the **Set** button to enter the ptz activation interface as seen in *fig 5.78e*.



Figure 5.78e

Enabling PTZ activation will allow the system to activate PTZ cameras when an alarm had been triggered. Select the presets for the selected PTZ camera(s) to control how they are going to move during the alarm. Click **OK** to exit.

- **Post Record:** The system will keep recording according to your setting here after a triggered alarm had passed. The value ranges from 10s to 300s.
- **Tour:** Enabling tour will allow the system to go on tour according to the channels you have selected whenever an alarm event occurs.
- **Snapshot:** Enabling snapshot will allow the system to take pictures from the channels you have selected whenever an alarm event occurs.
- **Log:** Enabling log will allow the system to save the Alarm events in the system logs.
- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when an alarm event occurs.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when an alarm occurs.
- **Copy:** Click this option to copy your onfiguration to other channels

Click the **Apply** button to save the changes after your configuration.

5.10.9 Abnormality

5.10.9.1 HDD

This interface allows you to enable and configure local harddrive abnormality detection features. *Fig. 5.79*



Figure 5.79

- **Event Type:** Select the type of abnormality. (No HDD, HDD Error, No Space)
- **Enable:** Toggles the event type ON/OFF.
- **Less Than:** Only available under No Space type. Set the trigger HDD space percentage.
- **Show message:** The system can bring up a pop up message to alarm you of an event if you enabled this function.
- **Alarm upload:** The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 5.9.6](#) for this to work.
- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.
- **Log:** Enabling log will allow the system to save the HDD events in the system logs.
- Click the **Apply** button to save the changes after your configuration.

5.10.9.2 Network

This interface allows you to enable and configure local network abnormality detection. *Fig 5.80*



Figure 5.80

- **Event Type:** Select the type of abnormality. (Disconnect, IP Conflict, MAC Conflict)
- **Enable:** Toggles the event type ON/OFF.
- **Show message:** The system can bring up a pop up message to alarm you of an event if you enabled this function.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 5.9.6](#) for this to work.
- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.
- **Log:** Enabling log will allow the system to save the Network events in the system logs.
- Click the **Apply** button to save the changes after your configuration.

5.10.9.3 User Name

This interface allows you to enable and configure system login abnormality detection. *Fig 5.81*



Figure 5.81

- **Event Type:** Select the type of abnormality. (Illegal Login)
- **Enable:** Toggles the event type ON/OFF.
- **Attempt(s):** Set the number of login attempts before an account gets locked out.
- **Lock Time:** Set the duration of the account lock status.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 5.9.6](#) for this to work.
- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.
- **Log:** Enabling log will allow the system to save the Network events in the system logs.
- Click the **Apply** button to save the changes after your configuration.

5.11 Storage Settings



Figure 5.82

5.11.1 Basic

This interface allows you to configure basic Storage options. **Main Menu->Settings->Storage->Basic**

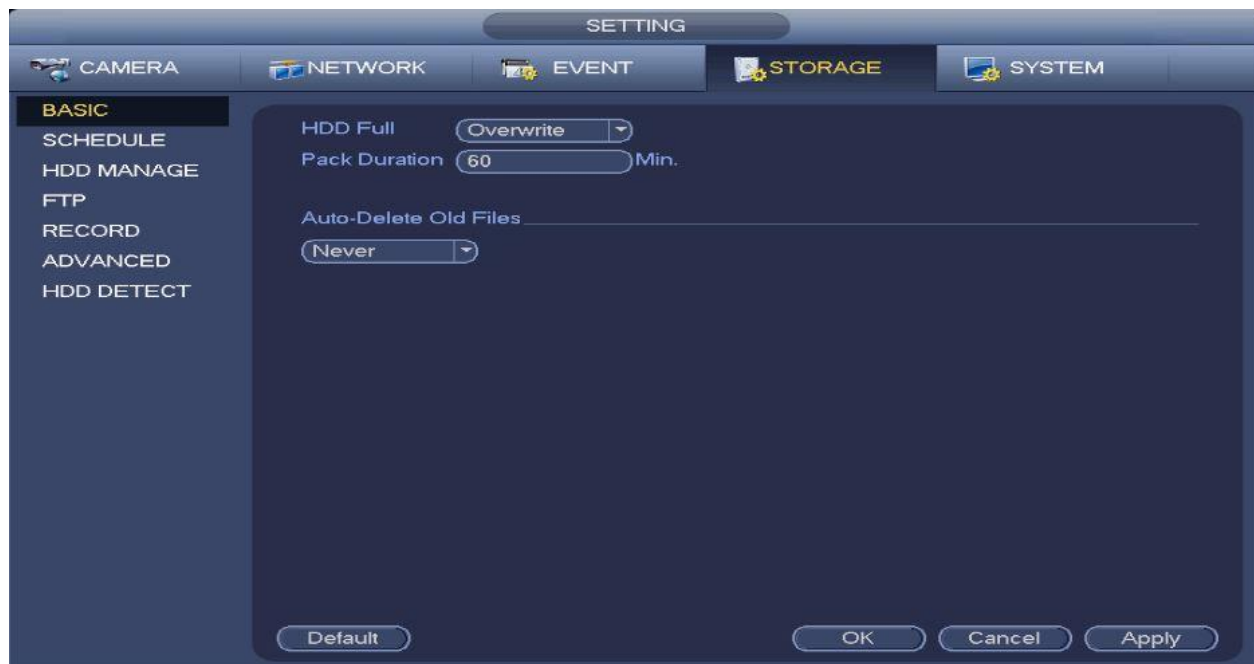


Figure 5.83

Parameters and Settings:

- **HDD Full:** Selects what your onboard storage would do when it gets full. You can choose between Overwrite or Stop Record.
- **Pack Duration:** Ranges from 1 to 120 Min.
- **Auto-Delete Old Files:** Auto-deletes old files that the user had defined. It is set to **Never** by default. Select **Customized** to enter the age of the files to be discarded. The range is from 1 to 255 days ago.
- Click the **Apply** button to finish setup.

5.11.2 Schedule

This interface allows you to configure the recording schedule and types for your recorder. **Go to Chapter 4.3 Step 8** for more information.

5.11.2.1 Rec

This interface allows you to configure the recording schedule and method for your system. You can choose between regular continuous, motion detect, alarm, IVS, or a mixture of types according to your preference. **Main Menu->Setting->Storage->Schedule->Rec** See figure 5.84



Figure 5.84

5.11.2.2 Snapshot

This interface allows you to configure the image capturing schedule and method for your system.

You can choose between regular continuous, motion detect, alarm, IVS, or a mixture of types according to your preference. **Main Menu->Setting->Storage->Schedule->Snapshot** See figure 5.85



Figure 5.85

5.11.3 HDD Manage

This interface allows you to manage your onboard HDDs. You will be able to change the HDD type and group in this menu. You can also find the **Format** option here if you should require doing so on one of your onboard storage devices. **Main Menu->Setting->Storage->HDD Manage** See figure 5.86

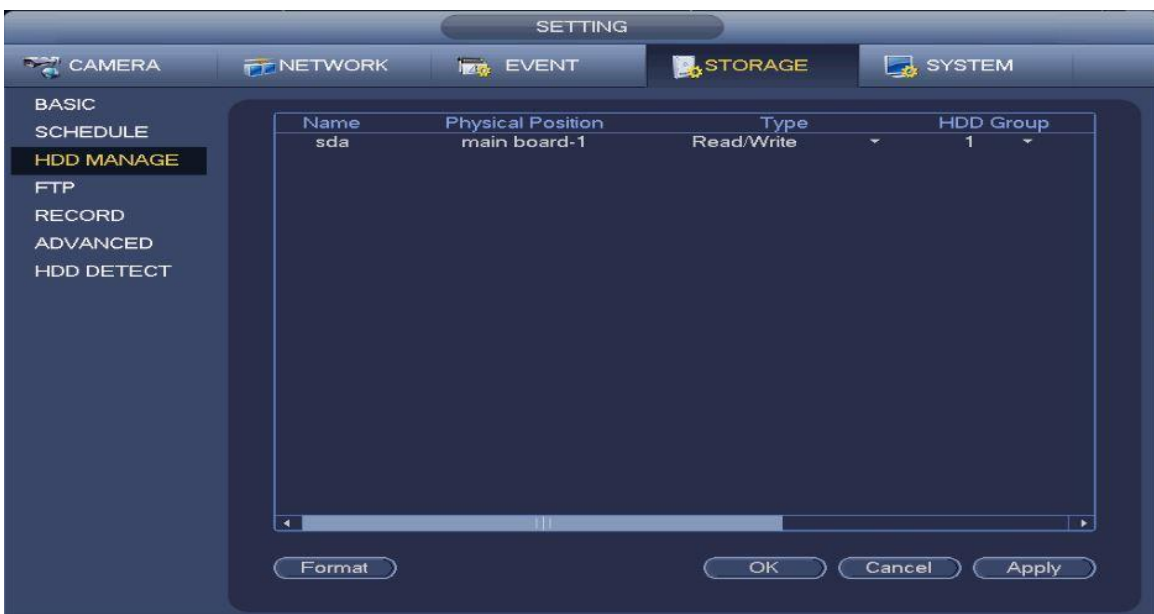


Figure 5.86

Aside from the general health and accumulated/remaining space on your HDDs, you can also set the HDD Group and type for the specified HDD.

Click **Apply** to save your changes.

5.11.3.1 HDD Formatting

Highlight the HDD that you want and click on the **Format** button.

Please note that **formatting a drive will erase any files saved in the storage device.**

You will not be able to manage external harddrives or flash drives in this menu. Refer to [Chapter 5.5 Backup](#) for formatting external storage.

5.11.4 FTP

This interface allows you to enable and configure FTP for your NVR to backup your videos and images over the network. You can access this interface via the **Main Menu->Setting->Storage->FTP** as seen on *fig. 5.87*

The screenshot shows the 'SETTING' menu with the 'STORAGE' tab selected. The 'FTP' option is highlighted in the left sidebar. The main configuration area includes the following fields and options:

- Type: Video
- Enable:
- Host IP: 0 . 0 . 0 . 0
- Port: 21 (1~65535)
- User: [text input]
- Password: [text input]
- Anonymous:
- Remote Directory: [text input]
- File Length: 0 M
- Image Upload Interval: 2 s
- Channel: 1
- Weekday: Mon
- Time Period 1: 00 : 00 - 24 : 00
- Time Period 2: 00 : 00 - 24 : 00
- ALARM&IVS:
- Motion:
- Continuous:
- Buttons: Default, OK, Cancel, Apply

Figure 5.87



Note

For the FTP user, make sure the destination FTP Folder has the proper rights to allow writing. Otherwise system would not be able to access the folder. Before the operation, please download or purchase an FTP service tool and install on the PC.

Step 1 Set parameters.

- **Type:** Choose which files to upload. (Videos, Snapshots or Both)

- **Host IP:** Enter the host IP of the FTP Server you have installed.
- **Host port:** Enter the communication port as per your settings. The default setup is 21.
- **User name/Password:** Enter a valid FTP Server account and password.
- **Anonymous:** Enable if you want to use an anonymous connection if your server permits it.

- **Remote directory:** Enter the network folder path you created under the root path of the FTP Server according to the corresponding rules.
 - ✧ If there is no remote directory, system will auto create different directories according to the IP, time and channel of the files.
 - ✧ If there is a remote directory, the system can create corresponding folders under the FTP root path and then create different folders according to the IP address, time and channel of the files.

- **File length:** Enter the max file size/length to limit how big the files to be uploaded will be. If the value here is larger than the actual file, the system will upload the entire file. If the setup value here is smaller than the actual file, the system will only upload the set value size and will ignore the rest of the file. If the value is set to 0, all files will be transferred regardless of size.

- **Image upload interval:** Set the interval inbetween image uploads.
 - ✧ If the image interval is 5 seconds and the snapshot frequency is 2 seconds, the system will send out the latest image with a 5 second buffer.
 - ✧ 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. You can set the Snapshot frequency from **Main Menu->Setting->Camera->Encode->Snapshot**

- **Channel:** Select the channel you would like to configure FTP on. Each channel needs to be configured manually. Otherwise, select the all option to apply settings to every channel.
- **Week day/Period:** Select the day(s) and time period(s) for the transfers.
- **Record Type:** Select record types that you would like to upload (Alarm/intelligent/motion detect/regular).

Step 2 Click the **Test** button. A dialogue box will come up to confirm a successful FTP connection.

Step 3 Click **Apply** to complete the setup.

5.11.5 Record

This interface allows you to set recording channels to auto, manual or off. You can access this interface from the **Main Menu->Setting->Storage->Record** as seen on *fig. 5.88*



Figure 5.88

- Set all applicable channels and channel types to **Auto** to record videos and images automatically.
- Set all applicable channels and channel types to **Manual** to record videos and images manually via an auxiliary device.
- Set all applicable channels and channel types to **OFF** to stop all recordings from the specified channels.
- Click **Apply** to save your configuration.

5.11.6 Advanced

This interface allows you to further configure advanced recording options for your onboard HDDs. You can access this interface from the **Main Menu->Setting->Storage->Advanced** as see on *fig. 5.89*



Figure 5.89



CAUTION

HDD group and quota mode cannot be valid at the same time. System needs to restart once you change the mode here.

- **Set All Channels:** Select the HDD Group ID and click the **All** button to implement the setting to all channels
- **HDD Group:** Select the HDD Group ID manually on each channel.
- You can modify your HDD Group IDs from the **HDD Manage** menu. Please refer to [Chapter 5.11.3](#)
- Go over each tab (Main Stream, Sub Stream, Snapshot) to modify the groupings as per your needs.
- Click **Apply** or to complete setup.

5.11.7 HDD Detect

5.11.7.1 Manual Detect

This interface allows you to manually monitor the health of your onboard HDDs. You can access this interface via the **Main Menu->Setting->Storage->HDD Detect** as seen on [fig. 5.90](#)

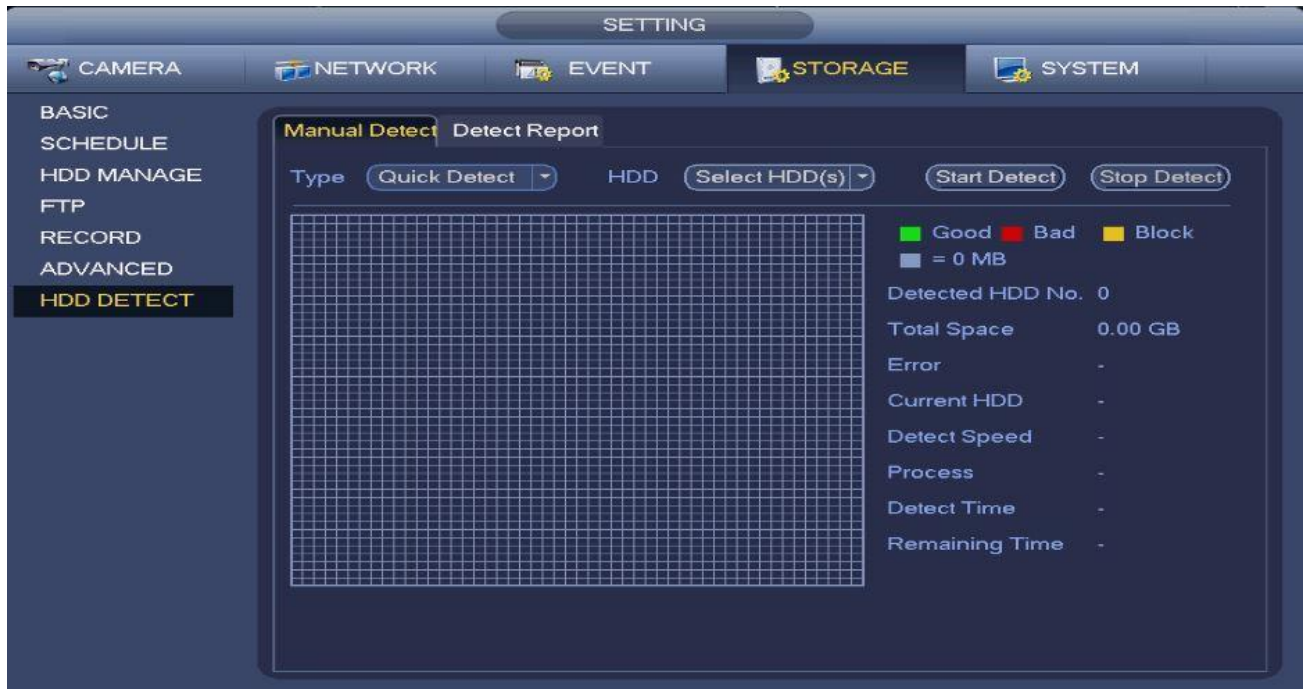


Figure 5.90

- Select the **Type** of detection you would like to run (Quick Detect or Global Detect).
- Select the **HDD(s)** you would like to scan.
- Click the **Start Detect** button to start the process. All the values will automatically be filled up.
Fig.
- Click the **Stop Detect** button to stop the process.

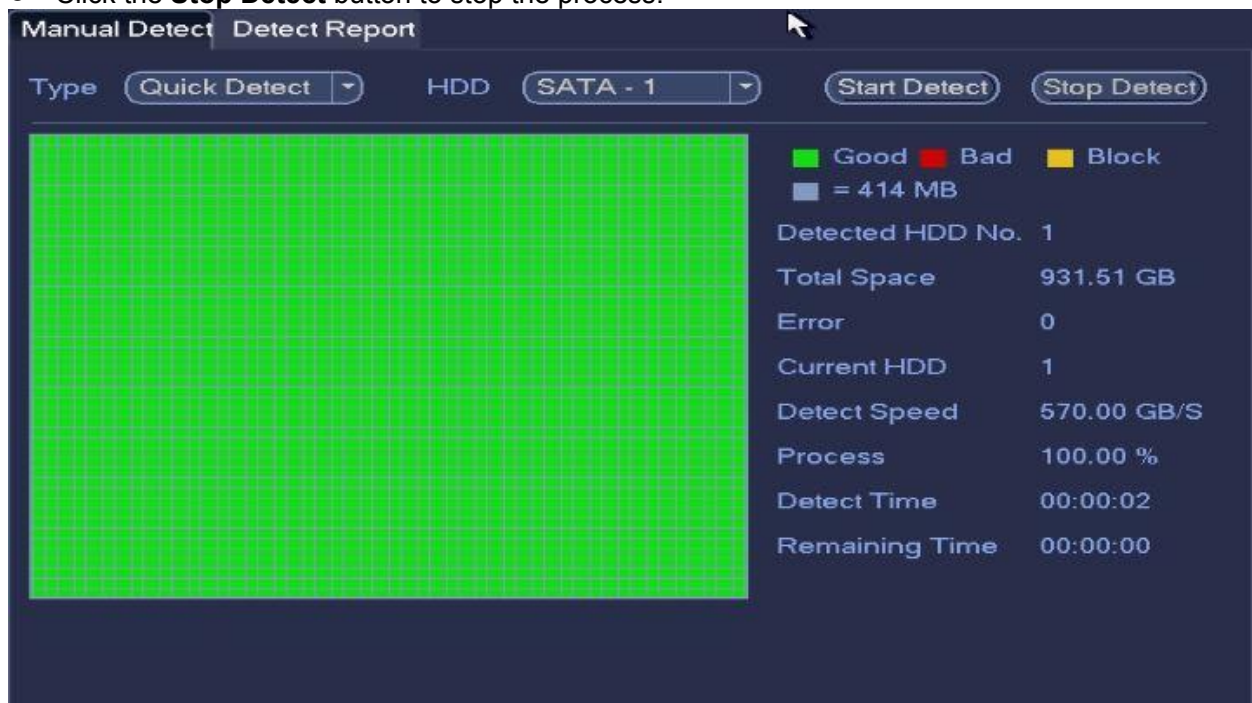


Figure 5.90

5.11.7.2 Detect Report

This interface allows you to bring up detailed reports about your onboard HDDs after going through the manual detection process. See *figure 5.91*

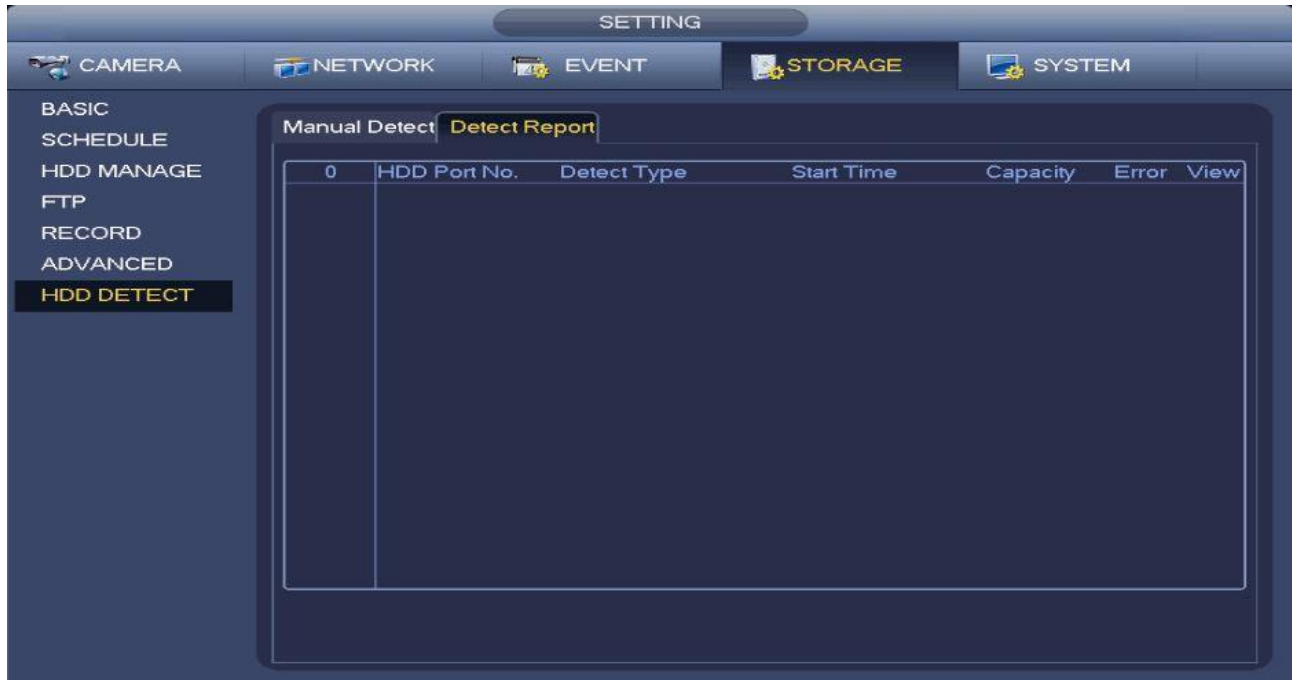


Figure 5.91

After running a HDD detection process, the detect report panel will show you the detected devices along with detailed information. See *Figure 5.91b*

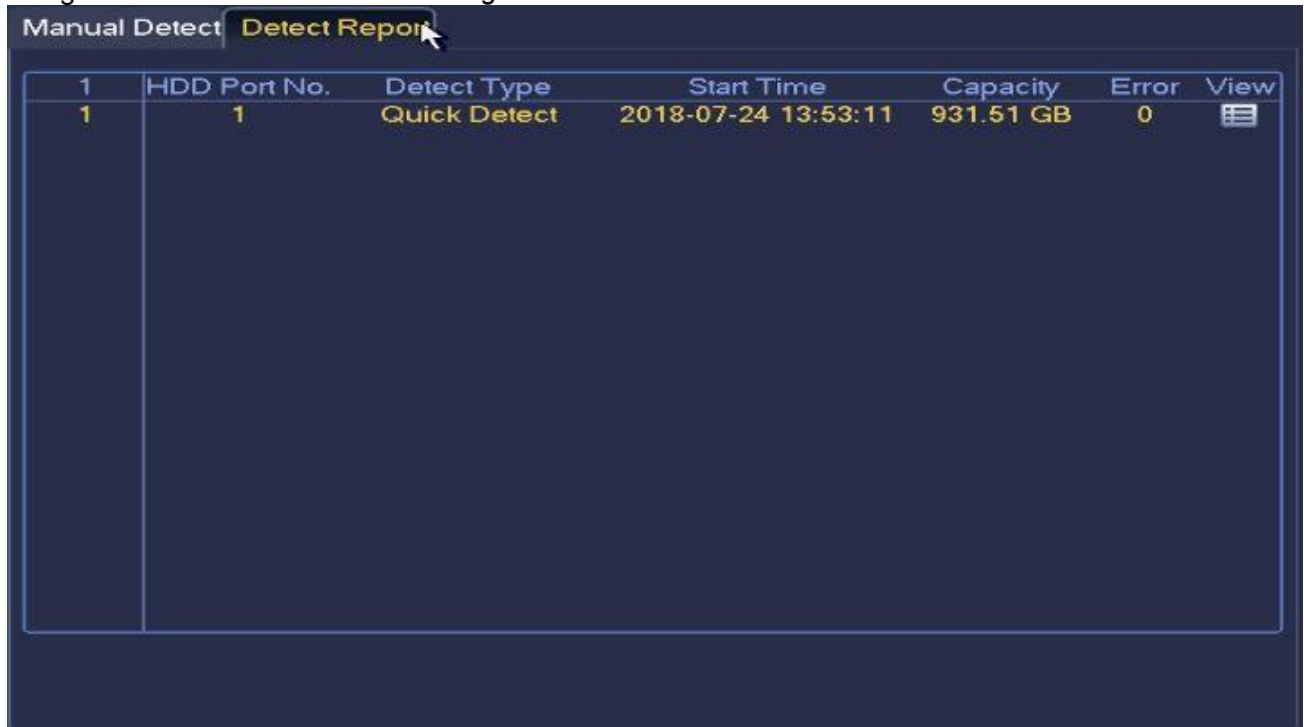


Figure 5.91b

You can double click on the desired entry or click on the view button to bring up the Details interface. See Figure 5.91c



Figure 5.91c

Right click to exit the interface.

5.12 System Settings



Figure 5.92

5.12.1 General

In this interface, you will be able to the basic information and settings for your system. Please refer to **Chapter 4.3 Step 2 General** for a more detailed guide. You can access this interface from the **Main Menu->Setting->System->General**.



Figure 5.93

5.12.1.1 Date and Time

In this interface, you will be able to set the date and time settings for your system. Please refer to [Chapter 4.3 Step 3 Date and Time](#) for a more detailed guide. You can access this interface from the **Main Menu->Setting->System->General->Date and Time**.



Figure 5.94

5.12.1.2 Holiday

In this interface, you will be able to the holiday settings for your system. Please refer to **Chapter 4.3 Step 4 Holiday** for a more detailed guide. You can find this interface from the **Main Menu->Setting->System->General->Holiday**.

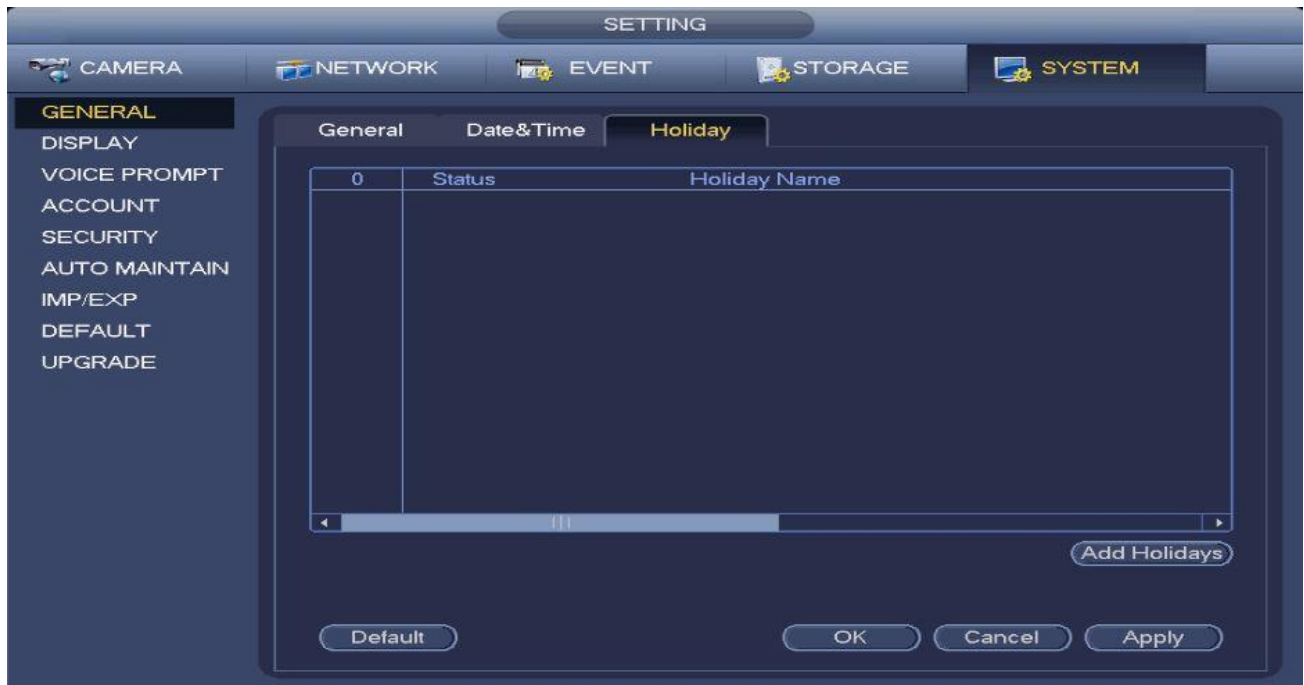


Figure 5.95

5.12.2 Display

To access the Display interface go to **Main Menu->Setting->System->Display**. You can change your monitor display and main screen display settings in this section. See *figure 5.96*



Note:

Your configuration here **does not affect the record file and playback video properties.**



Figure 5.96

Parameter Settings:

- **Transparency:** Adjusts the transparency of the display items like time and channel. The value ranges from 128 to 255.
- **Time display:** Toggles the time display ON/OFF when doing playback.
- **Channel display:** Toggles the channel display ON/OFF when doing playback.
- **Image enhance:** Enabling will optimize the margin of the preview video.
- **IVS Rule:** Enabling will follow the display settings from your IVS.
- **Original scale:** Restores the display to original scale.
- **Resolution:** Changes the display resolution on your monitor. There are five options: 1280×1024 (Default), 1280×720, 1920×1080, 1024×768 and 3840×2160. Please note the system needs to reboot to activate current setup. **Please note 3840×2160 is for some series only.**
- **Motion Display:** Enabling will toggle the Motion Detect Sensor indicator ON/OFF from the preview.
- **Interface memory:** Enabling will save your display settings in case a power failure occurs.
- Click the **Apply** button to save your changes or click the **Default** button to restore to factory settings.

5.12.2.1 Tour

To access the tour interface go to **Main Menu->Setting->System->Display->Tour**. You can enable and configure your tour settings in this menu. When set, you will be able to run the tour function to automatically browse through all your cameras. You can not configure your individual camera tour options here. See figure 5.97



Figure 5.97

Parameter Settings:

- **Video Detect:** Sets the view type for motion detect tours. The system supports 1/8-window tour. Please note that you will need to go to the **Main Menu->Setting->Event->Video Detect->Motion Detect** to enable the tour function for video detect.
- **Alarm:** Sets the view type for alarm triggered tours. The system supports 1/8-window tour. Please note that you will need to go to the **Main Menu->Setting->Event->Alarm** to enable tour function for Alarm.
- **Enable tour:** Toggles the general tour function ON/OFF. The general tour supports all types of window split mode.
- **Interval:** Sets the interval time when switching to the next view during tour mode. The value ranges from 1-120 seconds.
- **Window Split:** Allows you to select which cameras or group of cameras will show in each View split during Tour mode.
- Click the **Add** button to add new cameras/group of cameras to a Window Split View.
- Click the **Del** button after highlighting a camera/group of cameras to remove them from a Window Split View.
- Click the **Move Up** and **Move Down** buttons to change the order of the devices in the Windows Split View during tour mode.
- Click **Apply** to save your changes or **Default** to restore to factory settings.

5.12.3 Voice Prompt

The Account menu allows you to configure, manage and control user accounts in your system. You can reach this interface from the **Main Menu->Setting->System->Voice Prompt**.

5.12.3.1 File Manage

This interface allows you to add and manage your audio files for voice prompt. You can find this interface from the **Main Menu->Setting->System->Voice Prompt->File Manage**. See figure 5.98

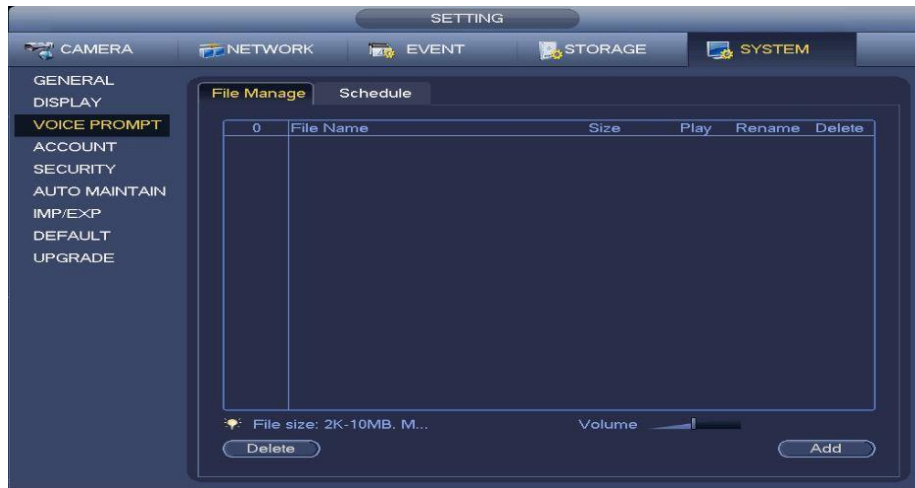


Figure 5.98

Click on the **Add** button to import files from your USB device and click **Delete** to remove an audio file from the list.

5.12.3.2 Schedule

This interface allows you to add and modify the time periods when voice prompt is active. You can find this interface from the **Main Menu->Setting->System->Voice Prompt->Schedule**. See figure 5.99



Figure 5.99

5.12.4 Account

The Account menu allows you to configure, manage and control user accounts in your system. You can reach this interface from the **Main Menu->Setting->System->Account**.

5.12.4.1 User Account Management

In this interface, you will be able to create and modify User Accounts for your system. You can reach this interface from the **Main Menu->Setting->System->Account->User**. See figure 5.100



Important: Please follow these rules when creating and modifying accounts:

- For the user account name and the user group, the string max length is 6-byte. The name string can only include these valid characters: Letter, Number, Underscore, Substraction Sign and Dot.
- The user name and group name can consist of eight bytes. A name can only be used once
- Hidden user “default” is for system interior use only and can not be deleted. When there is no login user, hidden user “default” automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
- A user should belong to a group. A User Right can not exceed Group Right.

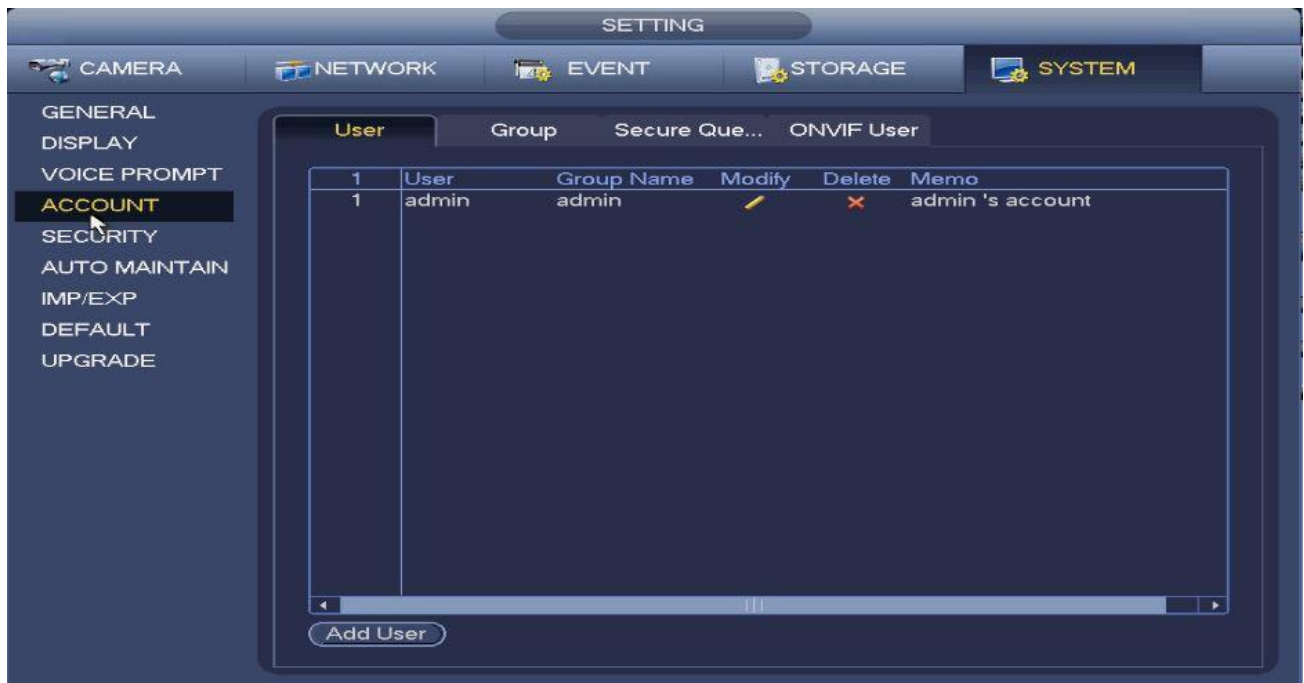


Figure 5.100

Creating User Accounts:

Step 1: Click on the **Add User** button to bring up the new user interface.



Figure 5.100b

Step 2: Select the Group the user will belong to.

Step 3: Select the user authority when logged in to the system. Refer to figures 5.100c-1 to 3



Figure 5.100c-1



Figure 5.100c-2



Figure 5.100c-3

Step 4: Click the **Save** button to finish your user setup.

Modifying an Existing user Account:



Click the  button on the account you wish to modify to bring up the account modification interface. You can click the  icon on the account to delete it.



Figure 5.100d

You can choose to enable the **Unlock Pattern** option so that instead of the password, you will be asked for an unlocked pattern instead. Please note that this is **only for the default admin account**.


To modify the pattern, click on the  button next to the Unlock Pattern option. This will bring up the modify pattern interface.



Figure 5.100e

You can also modify the current authority/rights of the user you are currently modifying. Refer to figures 5.100c-1 to 3

Click the **Save** button to finish your user setup.

5.12.4.2 Group Account Management

In this interface you will be able to create and modify new group memberships for your system. You can reach this menu from the **Main Menu->Setting->System->Account->Group**.



Figure 101



Important: Please follow these rules when creating and modifying accounts:

- For the user account name and the user group, the string max length is 6-byte. The name string can only include these valid characters: Letter, Number, Underscore, Substraction Sign and Dot.
- The user name and group name can consist of eight bytes. A name can only be used once
- Hidden user “default” is for system interior use only and can not be deleted. When there is no login user, hidden user “default” automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
- A user should belong to a group. A User Right can not exceed Group Right.

Creating a Group Account

Step 1: Click on the **Add Group** button to bring up the new user interface.



Figure 101b

Step 2: Input a name for the new Group

Step 3: Select the group authority when logged in to the system. Refer to figures 5.100c-1 to 3

Step 4: Click the **Save** button to finish your user setup.

Modifying an existing Group



Click the  button on the account you wish to modify to bring up the account modification interface. You can click the  icon on the account to delete it.



Figure 101c

Change the group name and membership as needed. You can also modify the current authority/rights of the user you are currently modifying. Refer to *figures 5.100c-1 to 3*

Click the **Save** button to finish your user setup.

5.12.4.3 Security Questions

In this interface, you will be able to set up and modify your **default ADMIN account's** security questionnaire. You will not be able to add secure question to other accounts. You can find this interface from the **Main Menu->Setting->System->Account->Secure Questions**. See *figure 5.102*



Figure 5.102

5.12.4.3 Onvif User Account Management

In this interface, you will be able to set up and modify ONVIF User accounts from your system. You can reach this menu from the **Main Menu->Setting->System->Account->ONVIF User**. See *figure 5.103*



Figure 5.103



Important: Please follow these rules when creating and modifying accounts:

- For the user account name and the user group, the string max length is 6-byte. The name string can only include these valid characters: Letter, Number, Underscore, Substraction Sign and Dot.
- The user name and group name can consist of eight bytes. A name can only be used once
- Hidden user “default” is for system interior use only and can not be deleted. When there is no login user, hidden user “default” automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
- A user should belong to a group. A User Right can not exceed Group Right.

Creating an ONVIF Account

Step 1: Click on the **Add User** button to bring up the new user interface. See figure 5.103b

Figure 5.103b

Step 2: Input a name for the new ONVIF User

Step 3: Select the group membership when logged in to the system.

Step 4: Click the **Save** button to finish your user setup.

Modifying an existing ONVIF Account



Click the  button on the account you wish to modify to bring up the account modification interface. You can click the  icon on the account to delete it. See figure 5.103c

Figure 5.103c

Click the **Save** button to finish your user setup.

5.12.5 Security

5.12.5.1 IP Filter

This interface allows you to enhance your device's network security by providing an IP Filter to either block or allow connections from user-defined sources.

Step 1 Go to the **MainMenu->Setting->System->Security** to enter the security interface. See **Error! Reference source not found. 5.104.**



Figure 5.104

Step 2 Check the Enable box on the function(s) you wish to implement.

- Enable trusted site function to add sources to the whitelist.
- Enable blocked site function to add sources to the blacklist.

Step 3 Parameter Settings

- **Add:** Click to bring up the Add interface and Select a type from the dropdown list: IP Address, IP Section or MAC Address. Enter the desired address in the field. See figure 5.104b.
 - Newly added IP addresses are in enabled status by default. Remove the \checkmark before the item to remove them from the list.
 - The system supports up to 64 items.
 - The address column supports IPv4 or IPv6 formats. If it is an IPv6 address, the system can optimize it. For example, the system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa: aa: aa: aa.
 - The system automatically removes spaces before or after newly added IP addresses.
 - The system only checks start address if you add an IP address. The system will check both start address and end address if you add an IP section. The end address should

- not be larger than the start address.
- The system will check if the newly added IP address already exists or not. The system does not add that IP address if does not exist.



Figure 5.104b

- **Delete:** Click to remove a specified item.
- **Edit:** Click it to edit start address and end address. See figure 5.104c. The system will check the IP address validity after the edit operation and implement IPv6 optimization when necessary.

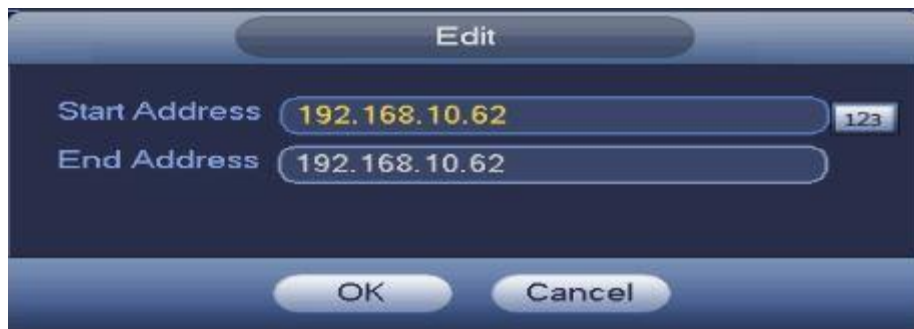


Figure 5.104c

- **Default:** Restores all your settings to default under the IP Filter interface.

Step 4 Click Apply or 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.

5.12.6 Auto Maintain

In this interface, you will be able to set a power-cycle schedule for your device. Auto Reboot is set to Never by default. You can set it to auto-reboot on any day of the week according to the time you are going to set. Click **Apply** to save your settings.

Main Menu->Setting->System->Auto Maintain See figure 5.105

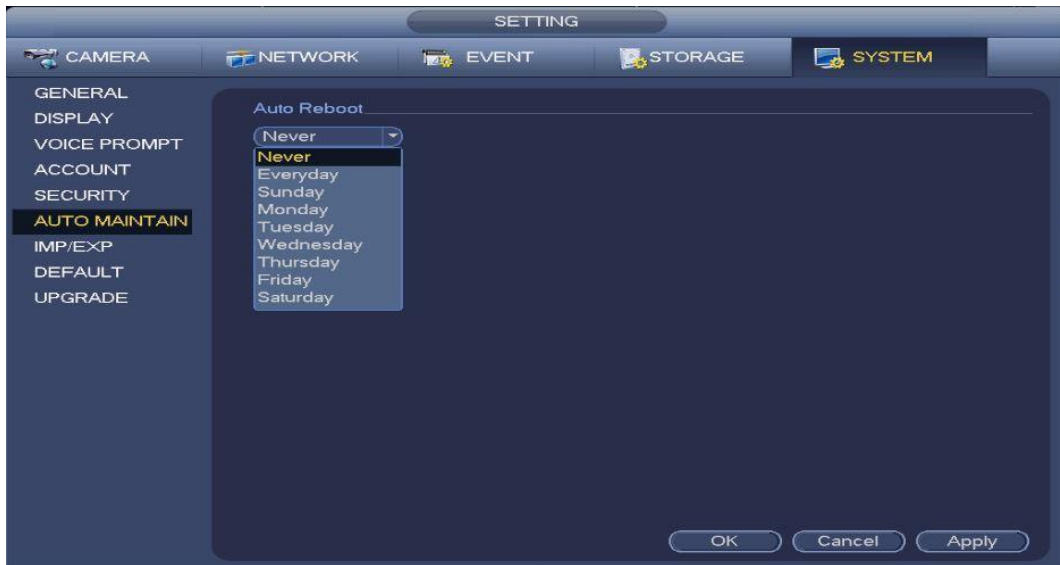


Figure 5.105

5.12.7 IMPORT/EXPORT

This function allows you to import/export your current current system configuration to a storage device. To begin the process, go to **Main menu->Setting->System->Import/Export**.

Please refer to [Chapter 5.5.2: Import/Export](#) for a detailed guide on this topic.

5.12.8 Default

You can restore your system to its factory settings through this interface. You can reach this menu from the **Main menu->Setting->System->Default**. See *figure 5.106*

Check the appropriate box to restore them to their original factory settings. Your options

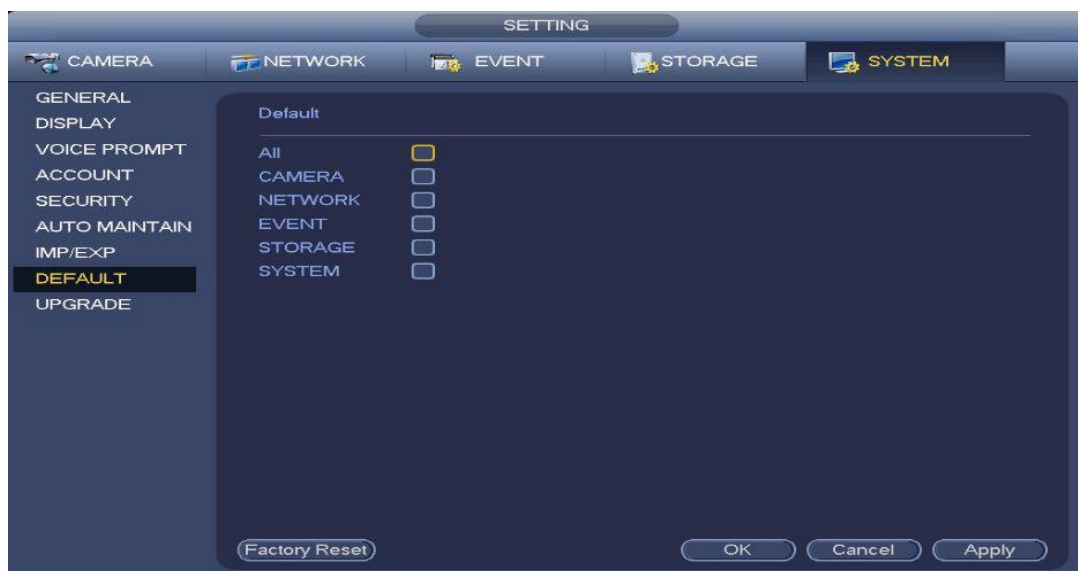


Figure 5.106



Warning!

After you use the default function some, if not all of your customized setup may be lost forever. Please choose carefully.

5.12.9 Upgrade

In this interface you will be able to upgrade your system Bios. You can reach this menu from the **Main Menu->Setting->Info->Upgrade**. See *figure 5.107*

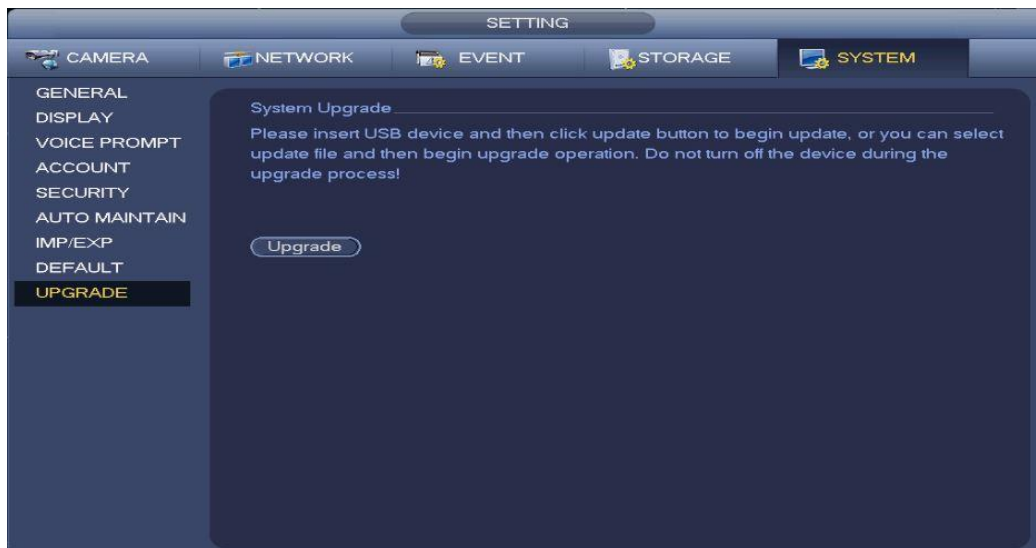


Figure 5.107



Figure 5.107b

- Insert the USB device and browse to the folder where the bios **BIN** file is.
- Click the **Start** button after locating and selecting the **.bin** file. *Figure 5.107b*
- A dialogue box should come up to confirm a successful upgrade.

6 Web Operation

6.1 General Introduction

The web interface provides channel monitor menu tree, search, alarm setup, system setup, PTZ control and monitor window and etc.



Important

The following operation is based on an 8-channel series device.

6.1.1 Preparation

Before logging in, please make sure:

- There is a consistent network connection.
- The NVR's and PC's network configurations have been properly setup. Please refer to your network setup (**Main Menu->Setting->Network**).
- Check the connection between the PC and the NVR. You can use the **Network test** operation from the NVR (Chapter 5.7.3.3) or by opening a **command prompt from the PC** and "ping" the NVR IP address to verify your connection. Usually the return TTL value should be less than 255.

About the PoE address setup, operation and allocation:

1) Insert PoE

After you insert PoE, device may try to set a corresponding IP address of the Switch network adapter. First, system tries to set via arp ping. It then uses DHCP if it finds the DHCP is enabled. After successfully set IP address, system may use Switch to send out broadcast, system considers the connection is OK when there is any response. Now system is trying to login the newly found IPC. Now please check the interface, you can see the corresponding digital channel is active now. You can see a small PoE icon at the top left corner. You can see the PoE channel, PoE port information and etc from the connection list of the remote device interface (Chapter 0). For the IP search list, you need to click the IP search to display or refresh.

2) Remove PoE

After you removed PoE, you can see the corresponding digital channel becomes idle (disable). On the remote device interface, it is removed from the connected list. For the IP search list, you need to click the IP search to refresh.

3) After you insert PoE, system follows the principles listed below to map channel.

- a) If it is your first time to insert PoE, system can map it to the first idle channel. After map, the channel can memorize the MAC address of the IPC. It is a <Channel>---<IPC mac> map. If current channel does not connect to other device, system can memorize current MAC address, otherwise it can refresh to the newly added device and memorize the <PoE port>--<Channel>.
- b) If it is your second time to insert the PoE, system can check the saved MAC address according to <Channel>---<IPC mac> map to make sure current IPC has connected or not. If system finds the previous information and the channel is idle, system can map it to the previously used channel. Otherwise system goes to the next step.

- c) Thirdly, according to the <PoE port>---<Channel> map, system can know the previous mapping channel of current PoE port. System can select current channel if it is free. Otherwise, it goes to the next step:
- d) Fourthly, system goes to find the first idle channel it can get.

Generally speaking, once you insert PoE, system follow the steps listed above to find the channel available.

4) When you insert PoE, all channels are in use now.

System can pop up a dialogue box for you to select a channel to overwrite. The title of the pop-up interface is the name of the current operation PoE port. In this interface, All PoE channel become grey and can not select.

6.1.2 Log in

- Open your Internet Explorer and enter your NVR's IP address. (Default IP is 192.168.1.108) See *figure 6.1*



Figure 6.1

- Click **Install** on the pop up message that comes up asking you to install the web plugin. *Figure 6.1b*
- Click **Run** to start the quick plugin installation. *Figure 6.1c*
- You may also get other pop-up messages. Click **Allow** on those prompts.

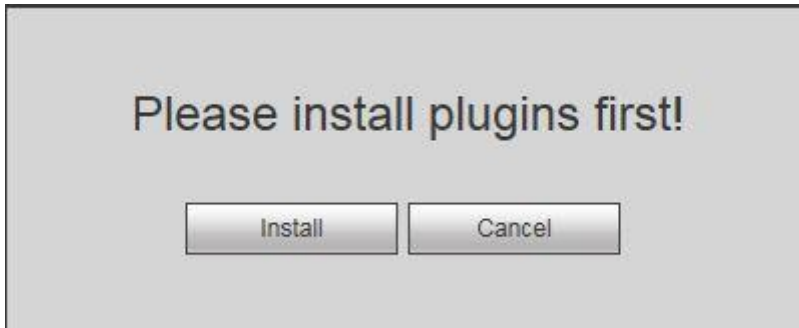


Figure 6.1b



Figure 6.1c

- Add the NVR's IP address to compatibility view settings on Internet Explorer. You can reach this menu by clicking on the gear icon at the top right corner of IE or by going through IE's tools menu. *Figure 6.1d*

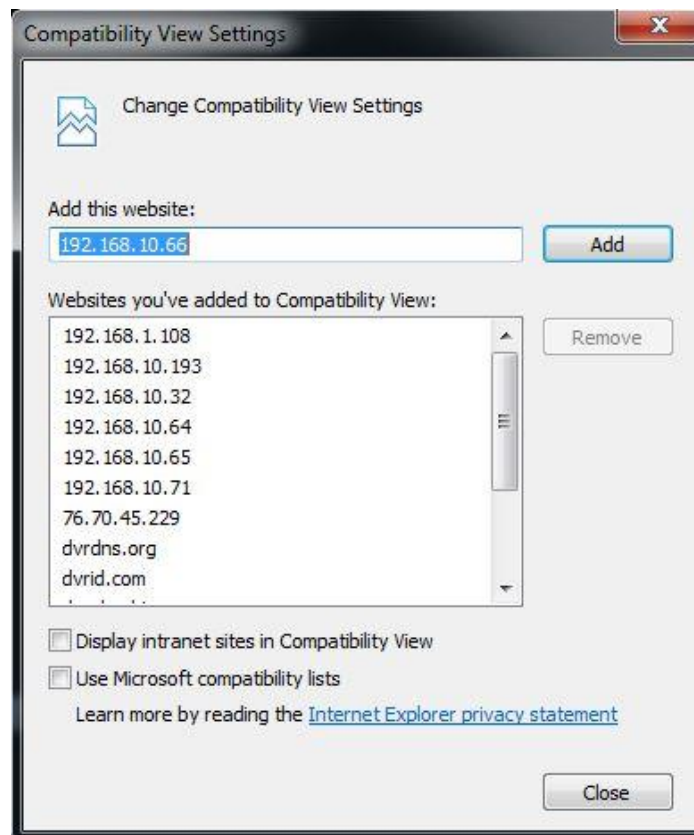


Figure 6.1d

- Click **Add** to add the IP to the compatibility list. You can add more IP addresses if necessary.
- If you can't download the ActiveX file, please modify your settings as follows. See *Figure 6.1e*

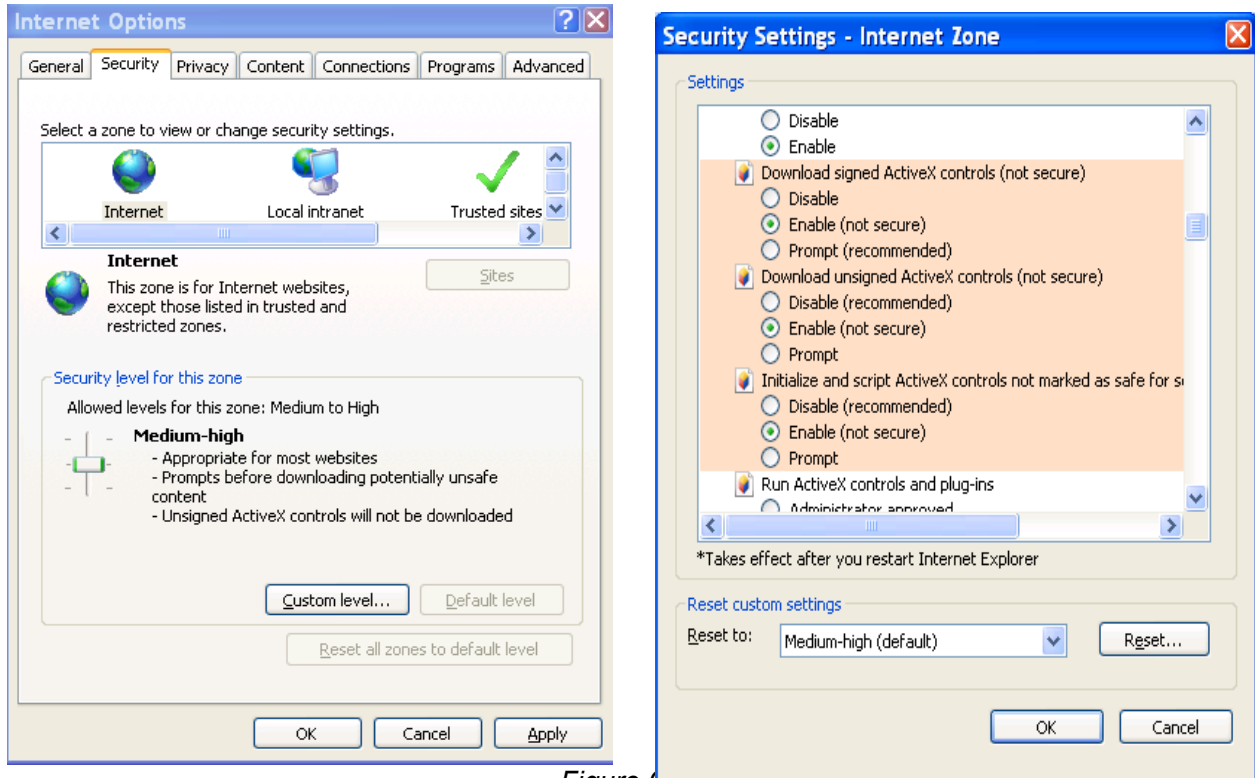


Figure 6.1e

- Proceed with the installation afterwards.
- Enter your NVR's user name and password to log in.



Note:

For security purposes, please modify your password after you first login.
 Default factory name is **admin** and password is **1234**

6.2 LAN Mode/Preview Screen

This chapter will walk you through all the options available for you in the LAN mode's main interface screen as shown in *figure 6.2*. Please refer to the functions and sections description list for more information about each option.

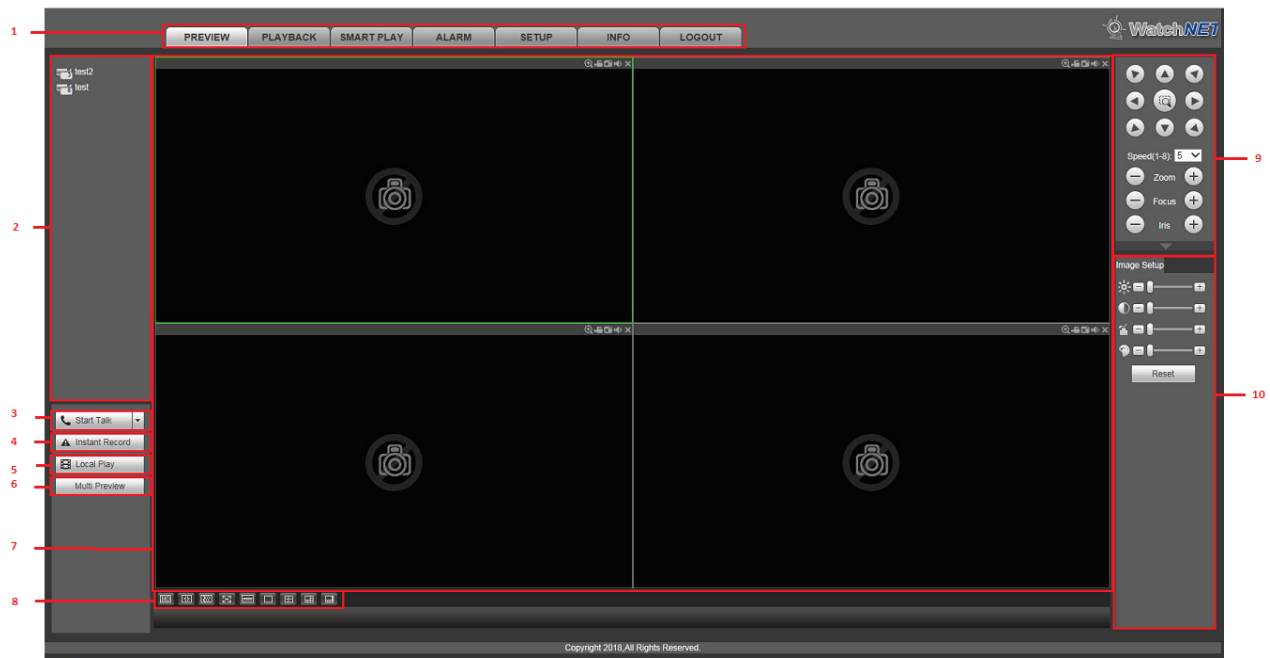


Figure 6.2

- **Section 1:** There are six menus that you could reach from the main screen. Preview (chapter 6.3), Playback (chapter 0), Smartplay (Chapter **Error! Reference source not found.**), Alarm (chapter 0), Setup (chapter 0), Info (chapter 0) and Logout (chapter 0).
- **Section 2:** The channel list panel contains all the cameras currently connected to your system. You can switch the between stream types by clicking on the small arrow located to the right of each channel. *Figure 6.2b*

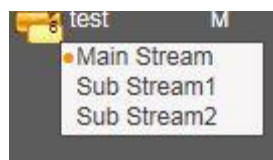


Figure 6.2b

- **Section 3:** You can click this button to enable audio talk. Click **▼** to select bidirectional talk mode. There are four options: DEFAULT, G711a, G711u and PCM. See **Error! Reference source not found.** *Figure 6.2c.* After you enable the bidirectional talk, the **Start talk** button becomes **End Talk button** and becomes yellow. Please note that if the audio input port from the device to the client-end is using the first channel audio input port. During the bidirectional talk process, system will not encode the audio data from the 1-channel.

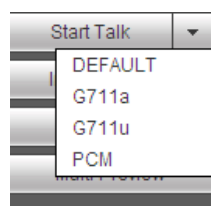


Figure 6.2c

- **Section 4:** Instant record button. Click it and the button becomes yellow prompting the system to begin manual record. See figure 6.2d. Click it again and system will revert to previous record mode.












Figure 6.2d

- **Section 5:** Local play button. You can play saved record files from your PC on the web interface (Extension name is dav). When you click the local play button, you will get a Windows pop-up where you will be able to select the file(s) location in your PC that you want to play.
- **Section 6:** Zero-channel encoding. Please refer to chapter 0 for detailed information.
- **Section 7:** Channel Preview panel. Allows you to view selected channels.
- **Section 8:** Channel control panel. From the left to the right ,you can see video quality/shrink screen/fluency/ full screen/1-window/4-window/6-window/8-window/9-window/13-window/16-window/20-window/25-window/36-window.. You can set video fluency and real-time feature priority.



Figure 6.2e

	Video Quality	Toggles the output video quality
	Shrink Screen	Toggles the output video size.
	Fluency	Toggles the output video fluency level.
	Full Screen	Switches preview display to full screen.
		
	One View	Switches display to one view
	Four View	Switches display to four view
	Six View	Switches display to six camera view
	Eight View	Switches display to eight camera view



Note:

There will be more view options in the section 8 panel on other device models.

- **Section 9:** PTZ operation panel. Please refer to chapter 0 for detailed information.
- **Section 10:** Image setup panel. Please refer to chapter 0 for detailed information.

6.3 Real-time Monitor/Channel Options

On the top left corner of a selected channel, you can view the device's IP(172.11.10.11), channel

number(1), network monitor bit stream(2202Kbps) and stream type(M=main stream, S=sub stream).
See *Figure 6.2f*

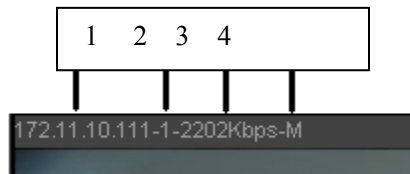


Figure 6.2f

On the top right corner, there are six unction buttons. See *Figure 6.2g*.

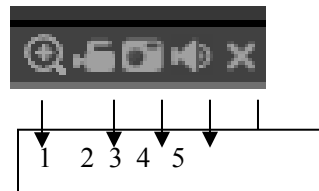




Figure 6.2g

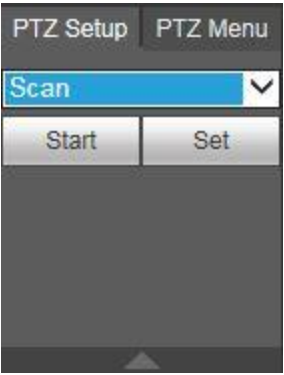
- **1: Digital zoom:** Clicking this button will allow you to zoom in to a specific spot in the slected channel. You can do so by dragging the mouse in the zone to zoom in. Right clicking the mouse will restore the channel's original display.
- **2: Local record.** Clicking this will allow you to do a local record on the pc. This option will be highlighted when it is active. Click again to deselect. You can go to the system folder RecordDownload to view the recorded file.
- **3: Snapshot picture:** Clicking this button will allow you to take snapshots from the selected live channel. All images are memorized in the system client folder PictureDownload (default).
- **4: Audio :** Clicking this button will toggle the audio on or off. (The will not affect the PC's audio setup)
- **5: Close video:** Closes the selected channel.

6.4 PTZ



Before PTZ operation, please make sure you have properly set the PTZ protocol on the NVR. (Please refer to [Chapter 5.1.1](#)).

PTZ Panel	Controls	Description
-----------	----------	-------------

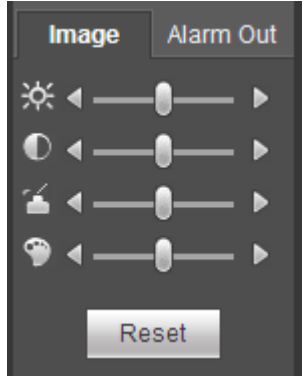

 <p>The PTZ control panel features a 3x3 grid of directional buttons (up, down, left, right, center), a speed selector (Speed(1-8): 5), and four pairs of buttons for Zoom, Focus, and Iris, each with a minus and plus sign. An expand menu button is located at the bottom.</p>	<p>PTZ Directional Controls & 3D Intelligent Positioning key</p>	<p>Controls the movement of the PTZ camera. Click the  button to enter 3D Intelligent mode to control the camera with your mouse.</p>
	<p>PTZ Speed Button</p>	<p>Controls the movement speed of the PTZ Camera</p>
	<p>PTZ Zoom Button</p>	<p>Controls the Zoom function of the PTZ Camera</p>
	<p>PTZ Focus Button</p>	<p>Controls the Focus function of the PTZ Camera</p>
	<p>PTZ Iris Button</p>	<p>Controls the Iris function of the PTZ Camera</p>
	<p>Expand Menu</p>	<p>Opens the PTZ Setup/PTZ Menu Interface</p>

 <p>The PTZ Setup interface shows a dropdown menu with 'Scan' selected, 'Start' and 'Set' buttons, and a large empty area for configuration.</p>	<h2>PTZ Setup</h2>
Parameter	Function
Scan	<ul style="list-style-type: none"> ● Select Scan from the dropdown list. ● Click Set button, you can set scan left and right limit. ● Use direction buttons to move the camera to you desired location and then click left limit button. Then move the camera again and then click right limit button to set a right limit.
Preset	<ul style="list-style-type: none"> ● Select Preset from the dropdown list. ● Turn the camera to the corresponding position and Input the preset value. Click Add button to add a preset.
Tour	<ul style="list-style-type: none"> ● Select Tour from the dropdown list. ● Input preset value in the column. Click Add preset button, you have added one preset in the tour. ● Repeat the above procedures you can add more presets in one tour. ● Or you can click delete preset button to remove one preset from the tour.
Pattern	<ul style="list-style-type: none"> ● Select Pattern from the dropdown list. ● You can input pattern value and then click Start button to begin PTZ movement such as zoom, focus, iris, direction and etc. Then you can click Add button to set one pattern.
Aux	<ul style="list-style-type: none"> ● Please input the corresponding aux value here. ● You can select one option and then click AUX on or AUX off button.

Light and wiper	You can turn on or turn off the light/wiper.
-----------------	--

PTZ MENU	Control	Function
	Directional Arrows	Controls the On-screen camera Menu.
	ON Button	Turns on the On-screen camera Menu.
	OFF Button	Turns off the On-screen camera Menu.
	OK Button	Confirms actions in the On-screen camera Menu.
<p> Note: Not all cameras have an onscreen camera menu.</p>		

6.5 Image/Alarm-out

Image Control Panel	Alarm Out Control Panel
	
<p>You can adjust its brightness, contrast, hue and saturation. (Current channel border becomes green). Or you can click Reset button to restore system default setup.</p>	<p>You can enable or disable the alarm signal of the corresponding port.</p>

6.6 Zero-channel Encode

Select a window and then click Multi Preview button, the interface is shown as below. See figure 6.3

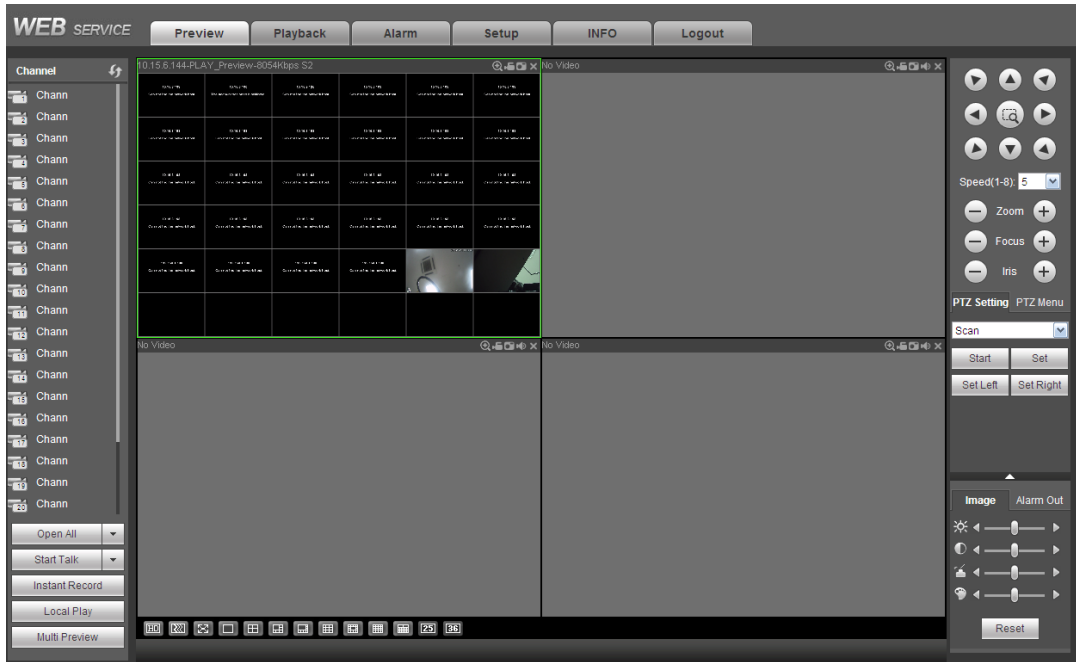


Figure 6.3

6.7 WAN Login

In WAN mode, after you logged in, the interface is shown as below. See figure 6.4



Figure 6.4

Please refer to the following contents for LAN and WAN login difference:

- 1) In the WAN mode, system opens the main stream of the first channel to monitor by default. The open/close button on the left pane is null.
- 2) You can select different channels and different monitor modes at the bottom of the interface. See *figure 6.4b*

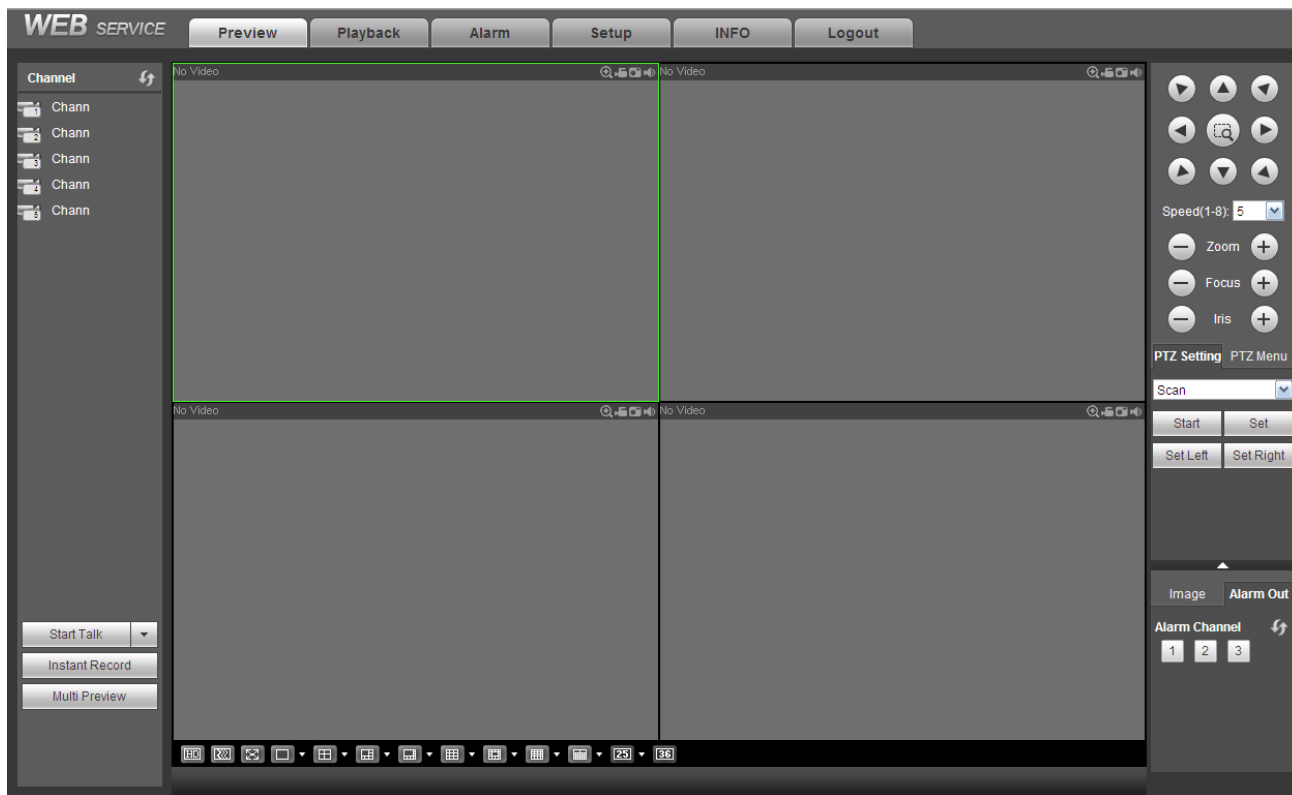


Figure 6.4b



Important

The window display mode and the channel number are by default. For example, for the 16-channel, the max window split mode is 16.

3) Multiple-channel monitor, system adopts extra stream to monitor by default. Double click one channel, system switches to single channel and system uses main stream to monitor. You can view there are two icons at the left top corner of the channel number for you reference. M stands for main stream. S stands for sub stream (extra stream).

4) If you login via the WAN mode, system does not support alarm activation to open the video function in the Alarm setup interface.



Important

- For multiple-channel monitor mode, system adopts extra stream to monitor by default. You can not modify manually. All channels are trying to synchronize. Please note the synchronization effect still depends on your network environments.
- For bandwidth consideration, system can not support monitor and playback at the same time. System auto closes monitor or playback interface when you are searching setup in the configuration interface. It is to enhance search speed.

6.8 Playback

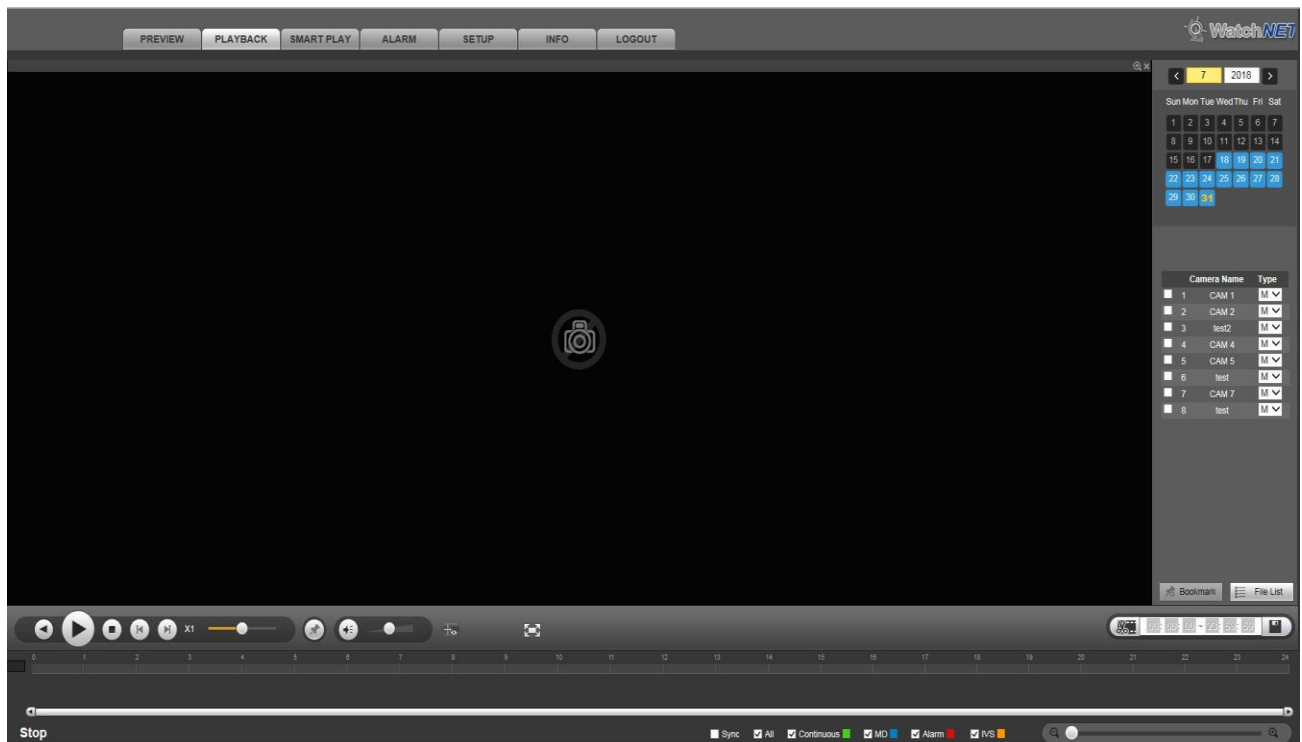


Figure 6.5

6.8.1 Search Record

- **Date Selection:** Click a date on the calendar panel. The blue-highlighted days means there are records in those dates. The day turns yellow upon selection. See *figure 6.5b*

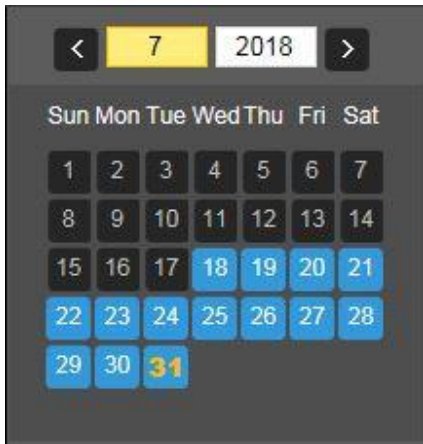


Figure 6.5b

	Camera Name	Type
<input type="checkbox"/>	1 CAM 1	M ▼
<input type="checkbox"/>	2 CAM 2	M ▼
<input type="checkbox"/>	3 test2	M ▼
<input type="checkbox"/>	4 CAM 4	M ▼
<input type="checkbox"/>	5 CAM 5	M ▼
<input type="checkbox"/>	6 test	M ▼
<input type="checkbox"/>	7 CAM 7	M ▼
<input type="checkbox"/>	8 test	M ▼

Figure 6.5c

- **Channel/Stream Type Selection:** Check the appropriate box(es) that you would like to get recordings from. Select the type of stream that the recordings will be compiled as (Main Stream or Substream). See figure 6.5c
- **Record Type:** Check the corresponding box to select record type. (All, Continuous, Motion Detect, Alarm, IVS) Figure 6.5d



Figure 6.5d

- **Progress Bar:** Click on a time stamp in the progress bar to start playing from that junction. See Fig 6.5e



Figure 6.5e

- **Progress Bar Slider:** Control the time interval measures on your progress bar using the slider. See figure 6.5f













Figure 6.5f

- **Playback Controls:** Control your playback using the playback control panel. See figure 6.5g




Figure 6.5g

Controls	Functions
-----------------	------------------

	Backwards Play	Reverse playback button
	Play	Start playback button
	Stop	Stop playback button
	Previous	Go to previous playbackj time stamp button
	Next	Skip to next playback time stamp button
	Playback Speed	Playback speed control
	Bookmark	Playback bookmark button
	Playback Volume	Playback volume control
	IVS	Playback interlligent function toggle
	Fullscreen	Switch playback window to fullscreen button

6.8.2 Bookmark

- Click on the  button at any time during your playback to mark that point in the recording. You can name that bookmark via the bookmark pop-up. See *figure 6.6*

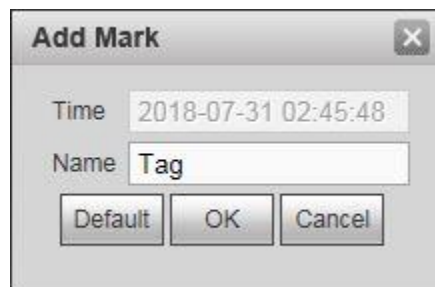
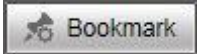


Figure 6.6

- Click on the  button to open the bookmark list. You can start your playbacks from

these bookmarked times.

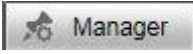
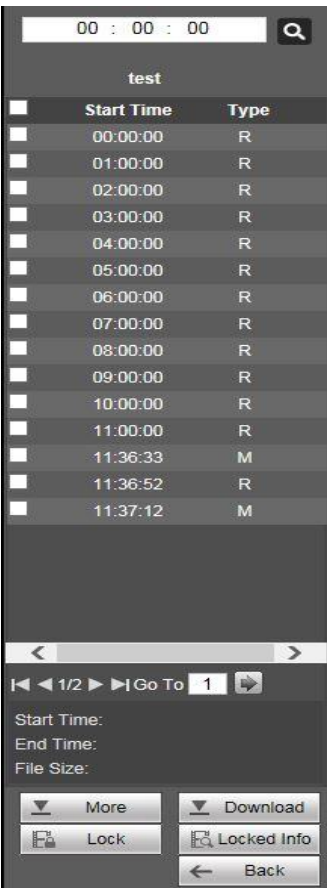
- Click on the  button to open bookmark manager. You can organize or delete marks in this interface. See *figure 6.6b*




Figure 6.6b

6.8.3 File List



Start Time	Type
00:00:00	R
01:00:00	R
02:00:00	R
03:00:00	R
04:00:00	R
05:00:00	R
06:00:00	R
07:00:00	R
08:00:00	R
09:00:00	R
10:00:00	R
11:00:00	R
11:36:33	M
11:36:52	R
11:37:12	M

- Click the **File List** button to open the file list panel. This interface contains all the record files in your system. *Figure 6.7*
- It shows you the time stamps and record types of the files.
R = Regular M = Motion A = Alarm
- You can filter the list by typing a start time in the search filter box.



- Click the **Lock** button to lock a file. This will keep the file from being edited or removed. You can click the **Locked Info** button to open the Locked File Manager.
- Click the **More** button to enter the file download interface. Click the **Download** button to save the selected recordings to the specified path.
- Click the **Back** button to return to calendar/channel list view.


Figure 6.7

6.8.4 Fisheye Playback De-Warp

Note

Some series product supports de-warp function.

When playing fisheye channel record file, it can de-warp.

In 1-window playback mode, click the  at the top right corner, system pops up installation mode and display mode interface. Select the corresponding mode, it can display the dewarp video. Please refer to Fisheye de-warp in chapter **Error! Reference source not found.** for detailed information.

6.8.5 Download

Select the file(s) you want to download then click download button. The Download button becomes a Stop button with the download progress. The file(s) will be saved in the path you have specified in the Download by File Interface. See *figure 6.8*

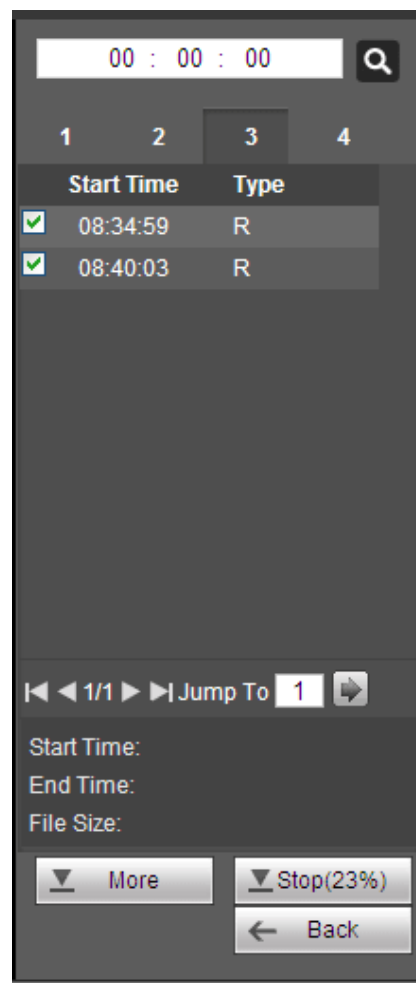


Figure 6.8

6.8.6 Load more

Download By File

Select channel, record type, bit stream type and then input start time and end time. Click the **Search** button to enter the **download by file** interface as shown in *figure 6.9*.

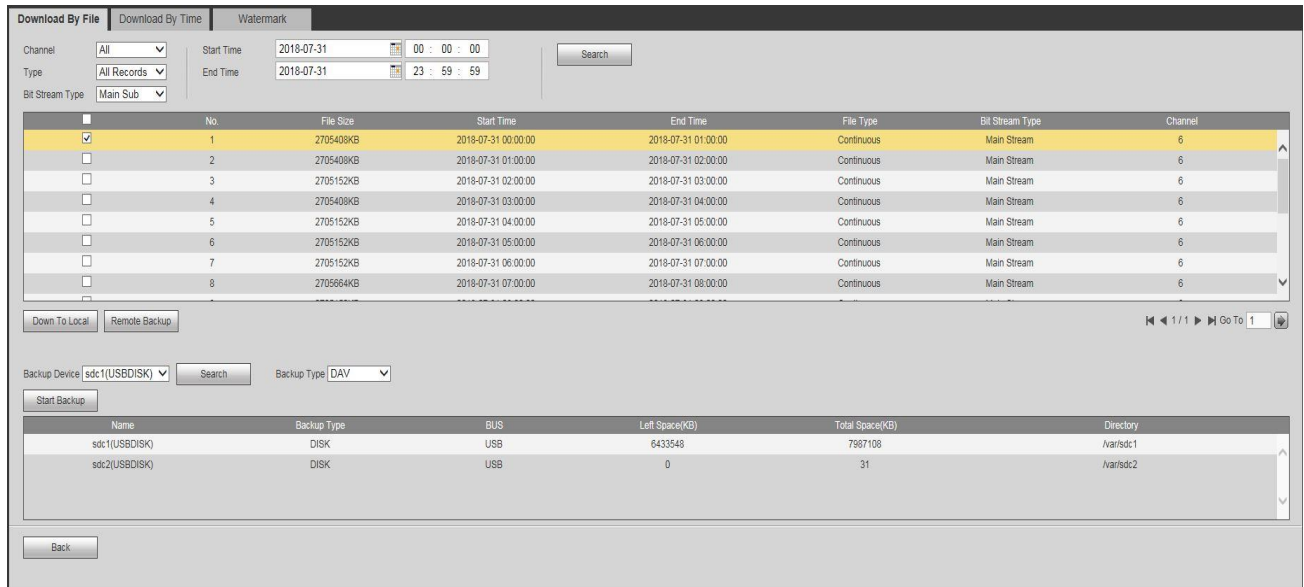


Figure 6.9

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 6.9b*

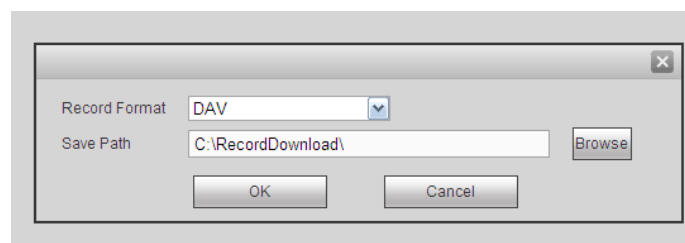


Figure 6.9b

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

- **Remote Backup:** Click the **Remote Backup** button to download your files the USB device currently connected to your NVR. Select the backup file type then click the **Start Backup** button to start the transfer. A dialogue box will pop-up to confirm a successful backup.

Download by Time

Select the channel, bit stream type, start time and end time. Click the **Down to Local** button to start the download process. See *figure 6.10*

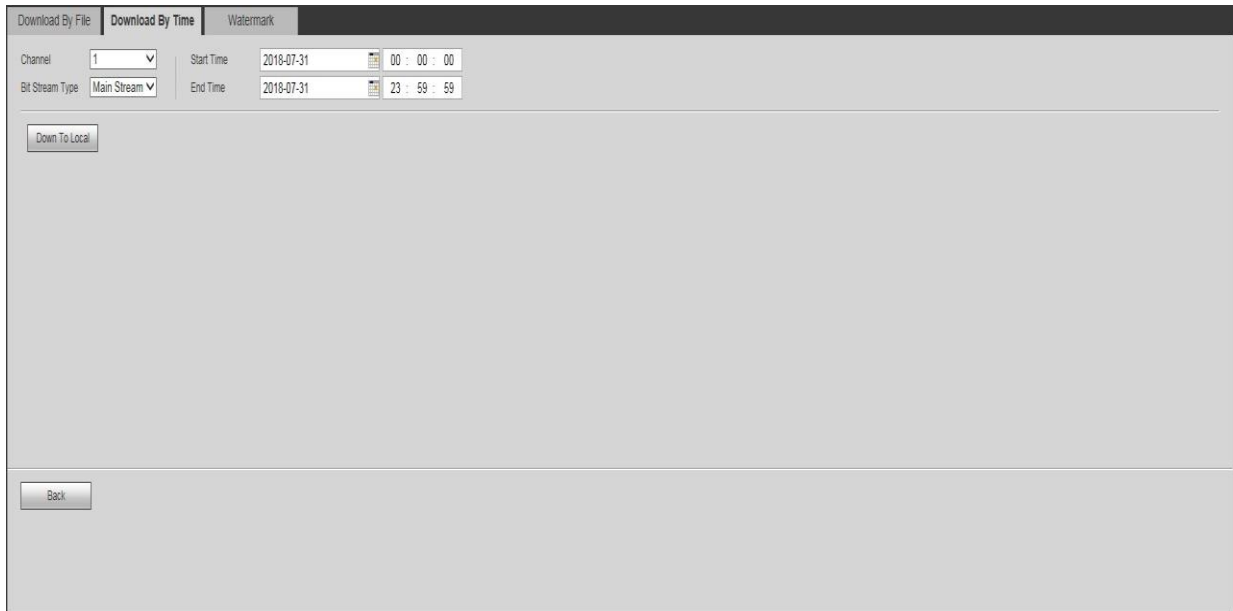


Figure 6.10

A pop-up dialogue box should come up after a successful download operation.

Watermark

Click the **Local File** button to select the files you want to verify. Click the **Verify** button to start the watermark process which would detect if a file has been tampered with or not. See figure 6.11

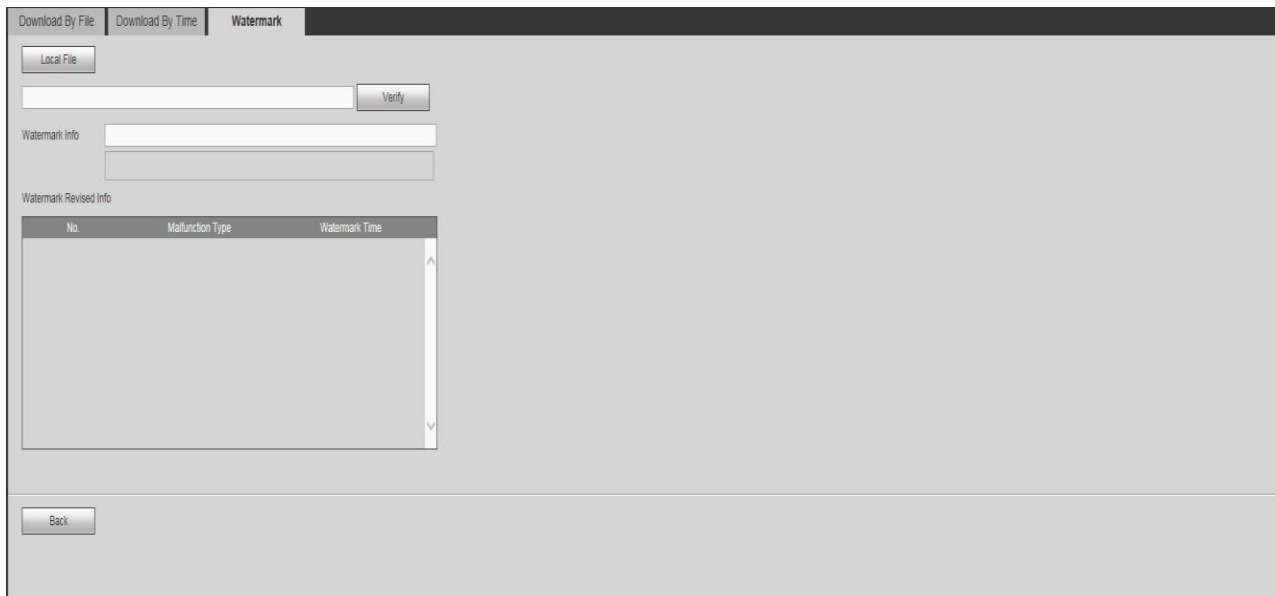


Figure 6.11

6.9 Smart Play

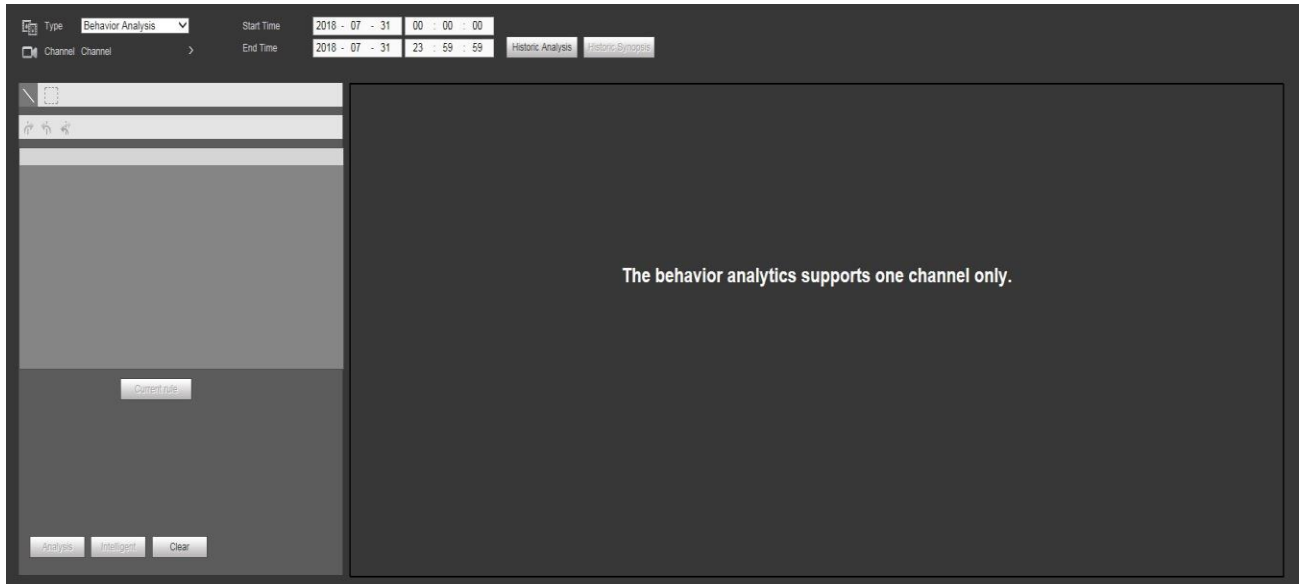


Figure 6.12

This interface allows you to do a playback of a device's intelligent function. See figure 6.12 for the interface. Please refer to **Chapter 5.4: Smart Play** for more information about this subject.

6.10 Alarm

This interface allows you to manage and set external alarm devices. You can set the device's alarm type and alarm sound setup in this interface as shown in Figure 6.13. (Please make sure you have enabled the audio function of the corresponding alarm events).

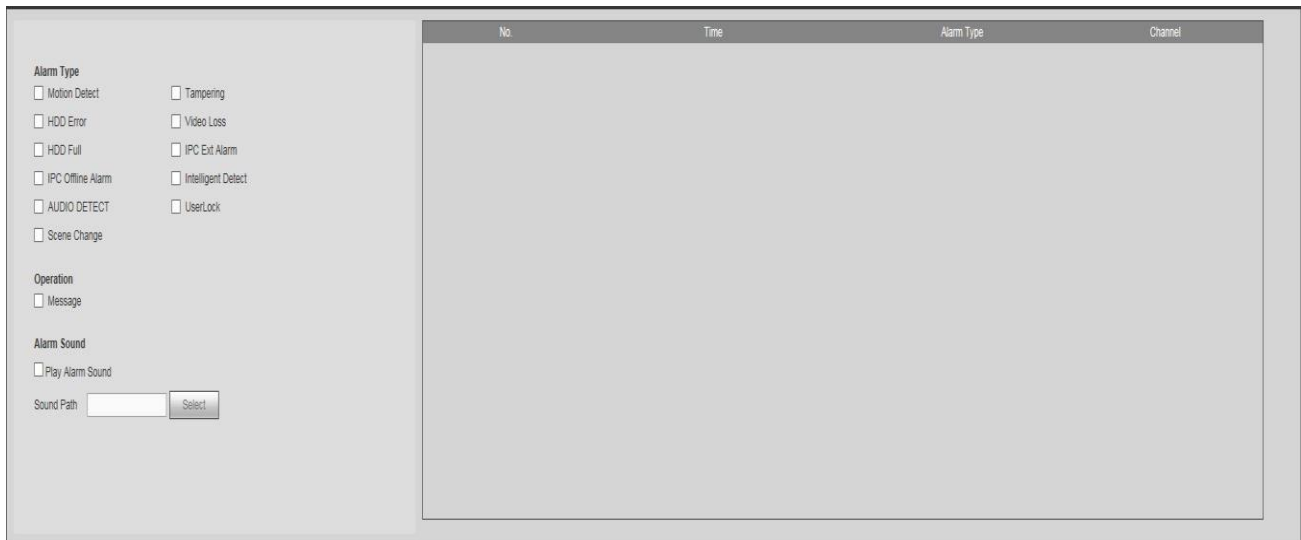


Figure 6.13

Parameters and Settings:

Type	Parameter	Function
------	-----------	----------

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.
Operation	Message	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.

6.11 Setup

6.11.1 Image Setup

This interface contains all the remote management options for all the cameras currently connected to your NVR system. You can find this interface from the Setup menu as see in *Figure 6.14*

6.11.1.1 Registration

This interface allows you to search, add or remove cameras within your network. You will also be able to modify the network settings of your remote devices as well as initialization tools. Please refer to *Figure 6.14* and its accompanying parameter and functions list for a detailed navigation guide.

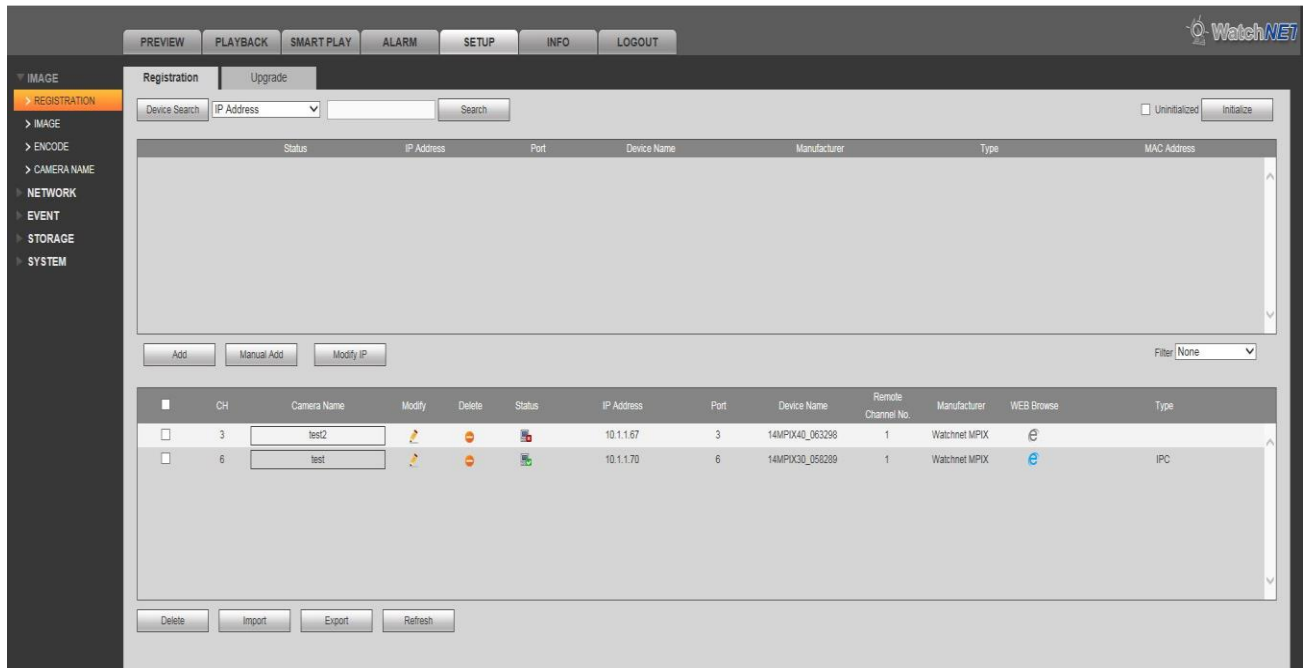







Figure 6.14

Parameter	Function
Device search	Click the Device search button to automatically the search for devices within your network. You can search via IP or MAC.
Add	Select a device in the list and then click Add button to add it to added devices list.
Modify IP	Select the devices on the searched list and click modify IP to change their IP manually.
Modify	Click  on any device in the Added device list to modify their corresponding channel setup.
Delete	Click  on a camera to delete the remote connection of the corresponding channel. Alternatively, you can check the box of the device you want to remove and click the delete button instead.
Connection status	 : Connection succeeded.  : Connection failed.
Import	Click to import a saved remote device configuration file from the PC.
Export	Click to export your current remote device configuration to the computer.
Refresh	Click to refresh the added device list information.

Parameter	Function
Manual Add	<p>Click to manually add remote devices. This will bring up the Manual add interface as shown in <i>Figure 6.14b</i>.</p> <p> Note:</p> <ul style="list-style-type: none"> ● System supports manufacturers such as Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, Dahua and Onvif standard protocol. ● If you do not input an IP address here, the system uses default IP 192.168.0.0 and will not connect. ● You can only connect to 1 device at a time.

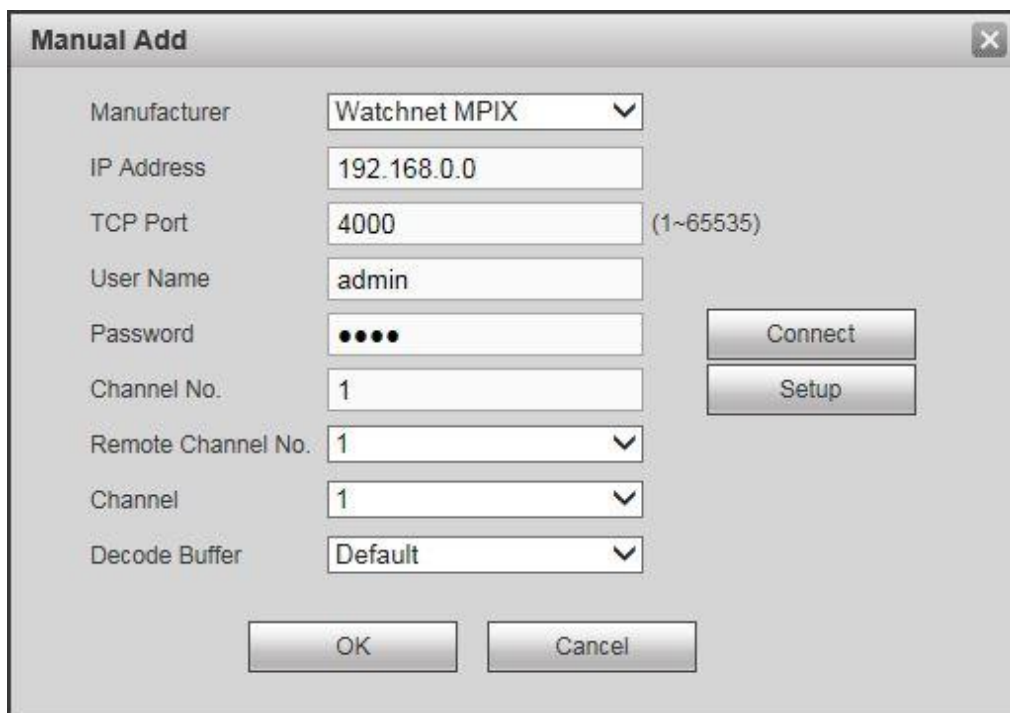


Figure 6.14b

6.11.1.2 Upgrade

This interface allows you to remotely upgrade the selected camera's firmware. Click the **Browse** button to select the upgrade file then click the **Start Update** button to begin updating. Please note the file will have a *.bin extension. See *figure 6.15*



Important

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

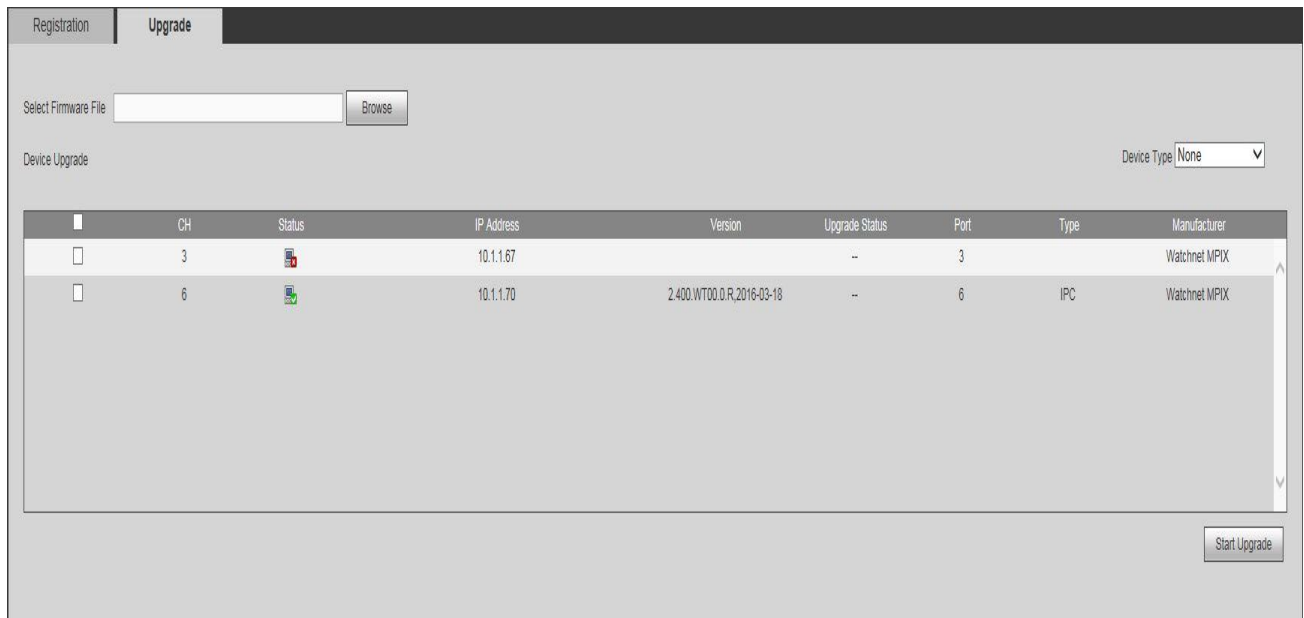


Figure 6.15

6.11.1.3 Image



Note

There may be some slight differences in available options according to the model of the camera.

This interface allows you to configure the display properties of your cameras. The changes you make here will be implemented right away to the target channel. See *figure 6.16*

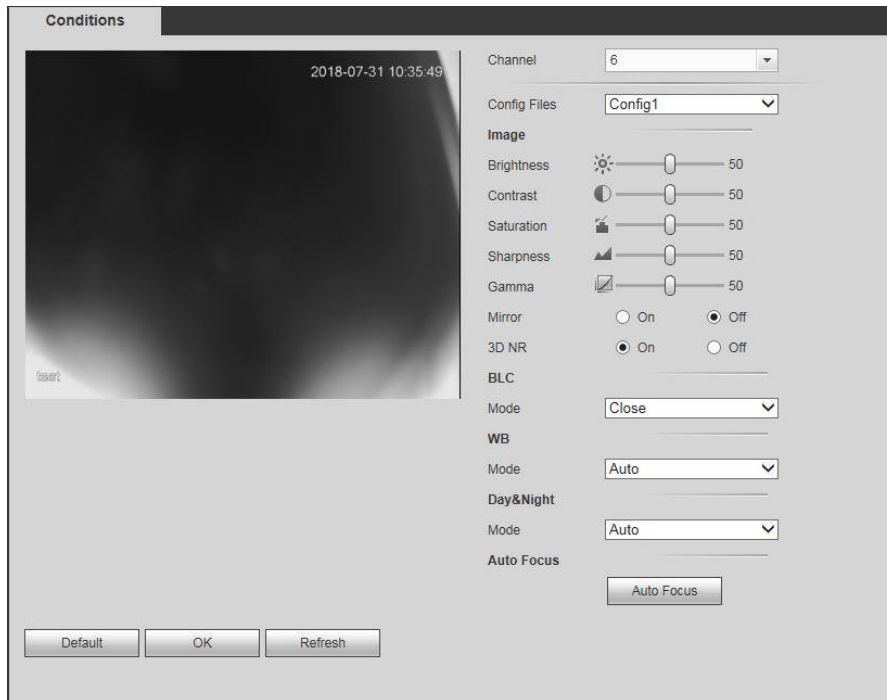


Figure 6.16

Parameter	Function
Channel	Selects a channel from the dropdown list.
Brightness	Adjusts the monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number is, the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.
Contrast	Adjusts the monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
Saturation	Adjusts the channel window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the strong the color will be. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.

Sharpness	Adjusts the channel window sharpness. The value ranges from 0 to 100. The default value is 50. The larger the number is, the stronger/noisier the picture will be. This value helps in getting objects in the video to be more outlined and focused. Please note that if the value is too high, the picture make become too noisy/grainy.	
Gamma	Adjust the channel window's gamma value. The value ranges from 0 to 100. The default value is 50. The larger the number is, the darker and more contrasted the displayed image will be. This is often used to complement your brightness settings.	
Mirror	To switch the video's up and bottom limit. This function is disabled by default.	
3D NR	Toggles the 3D noise reduction function on or off. This helps reduce the image noisiness in the specified channel.	
BLC Mode	BLC	The device auto exposures according to the environments situation so that the darkest area of the video is cleared
	WDR	For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that you can view these two sections clearly at the same time. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.
	HLC	After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.
	Off	It is to disable the BLC function. Please note this function is disabled by default.
White Balance	This option sets the white balance. Its general effect is towards the hue of the video. This function is on by default. You can select different scene modes su as auto, sunny, cloudy, home, office, and night to adjust the video to the best quality. <ul style="list-style-type: none"> ✧ Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper. ✧ Sunny: The threshold of the white balance is in the sunny mode. ✧ Night: The threshold of the white balance is in the night mode. ✧ Customized: You can set the gain of the red/blue channel. The value ranges from 0 to 100. 	
Day/Night	Used to set the device to color or B/W mode. The default setup is auto. <ul style="list-style-type: none"> ✧ Color: Turns on color display mode. ✧ Auto: Automatically switches between modes depending on the current environmental luminosity. (The general brightness of the video or if there IR light or not.) ✧ B/W: Turns on black and white mode. ✧ Sensor: Used when there is a peripheral connected that has IR light. Please note that only some IR series products support sensor input function. 	

Auto Focus	Toggles the auto focus function ON or OFF
------------	---

6.11.1.4 Encode

Encode

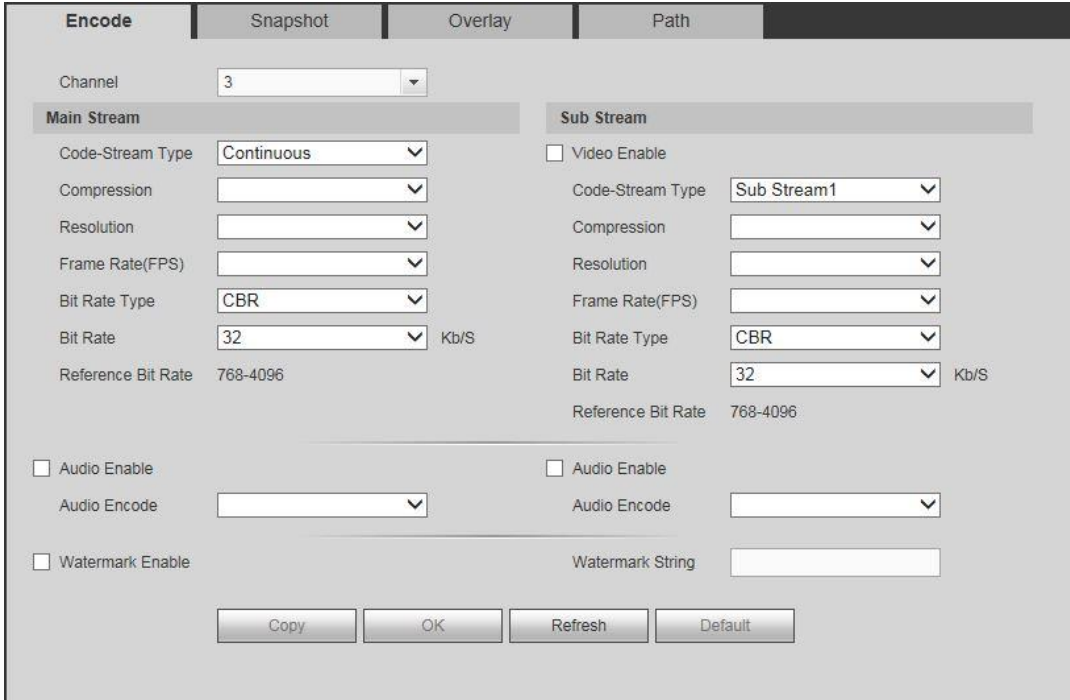


Figure 6.17

Please refer to the following sheet for more detailed information about each option:

Parameter	Function
Channel	Click to select the channel to configure.
Video enable	Check the box to enable sub stream on the selected channel.
Code stream type	<ul style="list-style-type: none"> ● It includes main stream, motion stream and alarm stream. You can select different encode frame rates form different recorded events. ● System supports active control frame function (ACF). It allows you to record in different frame rates. ● For example, you can use high frame rate to record important events, record scheduled event in lower frame rate and it allows you to set different frame rates for motion detection record and alarm record.

Compression	The main bit stream supports H.264. The extra stream supports H.264, MJPG.
Resolution	The resolution here refers to the capability of the network camera.
Frame Rate	PAL: 1~25f/s; NTSC: 1~30f/s.
Bit Rate	<ul style="list-style-type: none"> ● Main stream: You can set bit rate here to change video quality. The large the bit rate is, the better the quality is. Please refer to recommend bit rate for the detailed information. ● Extra stream: In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value. The value is null in VBR mode.
Reference bit rate	Recommended bit rate value according to the resolution and frame rate you have set.
I Frame	Here you can set the P frame amount between two I frames. The value ranges from 1 to 150. Default value is 50. Recommended value is frame rate *2.
Audio Enable	Enables audio on the selected channel.
Watermark enable	<p>This function allows you to verify the video is tampered or not.</p> <p>Here you can select watermark bit stream, watermark mode and watermark character. Default character is DigitalCCTV. The max length is 85-digit. The character can only include number, character and underline.</p>

Snapshot

This interface allows you to configure the snapshot feature on the selected channel. See *figure 6.18*

Encode	Snapshot	Overlay	Path
Channel	3		
Mode	Timing		
Image Size			
Image Quality	6(Best)		
Interval			
OK		Refresh	

Figure 6.18

Please refer to the following sheet for more detailed information about each option:

Parameter	Function
Snapshot type	<p>There are two modes: Regular (schedule) and Trigger.</p> <ul style="list-style-type: none"> ● Regular snapshot is valid during the specified period you set. ● Trigger snapshot only is valid when motion detect alarm, tampering alarm or local activation alarm occurs.
Image size	It is the same with the resolution of the main stream.
Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s. Or you can set customized value. The max setup is 3600s/picture.
Copy	Click it; you can copy current channel setup to other channel(s).

Video Overlay

This interface allows you to set and configure different types of overlay on the selected channel. See Figure 5.19

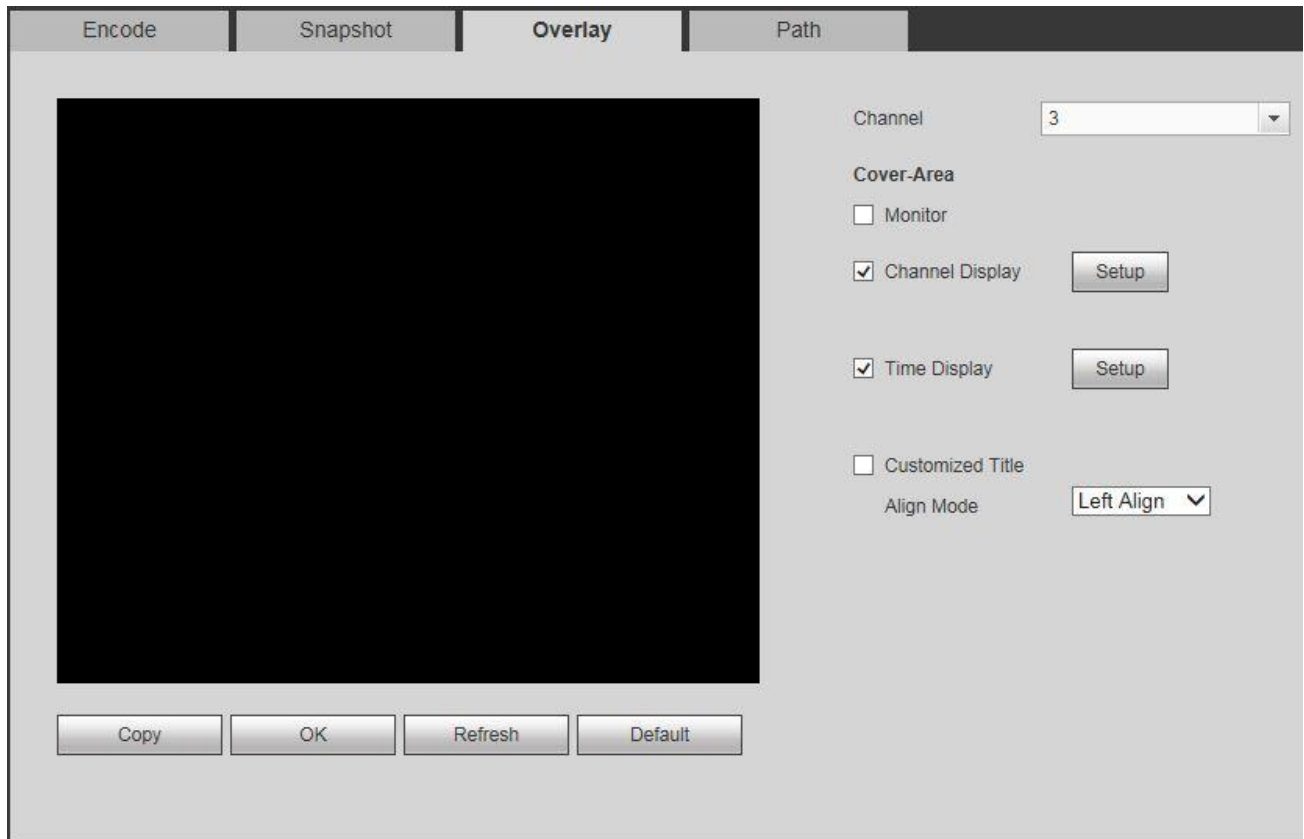


Figure 5.19

Please refer to the following sheet for more detailed information about each option:

Parameter	Function
Cover-area	Check Preview or Monitor first. Click Set button, you can privacy mask the specified video in the preview or monitor video. System max supports 4 privacy mask zones.
Time Title	You can enable this function so that system overlays time information in video window. You can use the mouse to drag the time title position. You can view time title on the live video of the WEB or the playback video.
Channel Title	You can enable this function so that system overlays channel information in video window. You can use the mouse to drag the channel title position. You can view channel title on the live video of the WEB or the playback video.

Path

This interface allows you to set a path for saving the snapshots and manual records you do from the preview screen. Please refer to **Chapter 6.3**.

Click the **Browse** button to set the path or manually type in the path yourself. Click the **Save** button

to save your configuration. See *Figure 5.20*

The screenshot shows a software interface with a dark header bar containing four tabs: 'Encode', 'Snapshot', 'Overlay', and 'Path'. The 'Path' tab is selected. Below the tabs, there are two rows of input fields. The first row is labeled 'Snapshot Path' and contains a text box with 'C:\PictureDownload' and a 'Browse' button. The second row is labeled 'Record Path' and contains a text box with 'C:\RecordDownload' and a 'Browse' button. At the bottom of the interface, there are two buttons: 'Save' and 'Default'.

Figure 5.20

6.11.1.5 Camera Name

In this interface, you will be able to set each individual channel's name. See *figure 6.21*

The screenshot shows a software interface titled 'Camera Name'. It features a grid of 32 channels, each with a label and a text input field. The channels are arranged in 8 rows and 4 columns. The first four columns are labeled 'Channel 1' through 'Channel 4', and the last four columns are labeled 'Channel 5' through 'Channel 8'. Each channel's name is displayed in its respective text box. At the bottom of the interface, there are three buttons: 'Save', 'Refresh', and 'Default'.

Channel	Channel Name
Channel 1	CAM 1
Channel 2	CAM 2
Channel 3	CAM 3
Channel 4	CAM 4
Channel 5	CAM 5
Channel 6	CAM 6
Channel 7	CAM 7
Channel 8	CAM 8
Channel 9	CAM 9
Channel 10	CAM 10
Channel 11	CAM 11
Channel 12	CAM 12
Channel 13	CAM 13
Channel 14	CAM 14
Channel 15	CAM 15
Channel 16	CAM 16
Channel 17	CAM 17
Channel 18	CAM 18
Channel 19	CAM 24
Channel 20	CAM 20
Channel 21	CAM 21
Channel 22	CAM 22
Channel 23	CAM 23
Channel 24	CAM 24
Channel 25	CAM 25
Channel 26	CAM 26
Channel 27	CAM 27
Channel 28	CAM 28
Channel 29	CAM 29
Channel 30	CAM 30
Channel 31	CAM 31
Channel 32	CAM 32

Figure 6.21

6.11.2 Network Setup

This menu contains all the network management and configuration options for your system including

ip configuration, remote connection setup and notifications, etc. You can find this interface from the **SETUP** menu.

6.11.2.1 TCP/IP

This interface allows you to configure your system's basic TCP/IP configuration. See *figure 6.22*

The screenshot displays the TCP/IP configuration interface. At the top, there is a table with the following columns: Ethernet Card, IP Address, Network Mode, NIC Member, Edit, and Unbond. The table contains one entry: Ethernet Port1, 192.168.10.66, Single NIC, 1. Below the table, there are configuration fields for IP Address (192.168.10.66), Default Gateway (192.168.10.1), MTU (1500), MAC Address (88:23:64:11:9d:a1), Subnet Mask (255.255.255.0), and Mode (STATIC). At the bottom, there are dropdown menus for IP Version (IPv4), Preferred DNS (8.8.8.8), Alternate DNS (8.8.4.4), and Default Card (Ethernet Port1). There are also buttons for OK, Refresh, and Default.

Ethernet Card	IP Address	Network Mode	NIC Member	Edit	Unbond
Ethernet Port1	192.168.10.66	Single NIC	1		


IP Address: 192.168.10.66 Default Gateway: 192.168.10.1 MTU: 1500
MAC Address: 88:23:64:11:9d:a1 Subnet Mask: 255.255.255.0 Mode: STATIC

IP Version: IPv4
Preferred DNS: 8 . 8 . 8 . 8
Alternate DNS: 8 . 8 . 4 . 4
Default Card: Ethernet Port1

OK Refresh Default

Figure 6.22

Figure 6.22b

Click the  button to enter the edit interface for the selected NIC card.

Please refer to the following sheet for more detailed information on each option:

Parameter	Function
Mode	<p>There are two modes: Static and DHCP</p> <ul style="list-style-type: none"> ● Setting the mode to DHCP will allow the system to automatically get its IP configuration from your DHCP server. You will not be able to edit anything when you set it to DHCP. ● Setting the mode to Static will allow you to manually enter the IP configuration for your system. ● If you switch from DHCP mode to the static mode, you will need to reset the IP parameters. ● IP/submask/gateway and DHCP are read-only when the PPPoE dial is set to OK.
Mac Address	Displays the network MAC address.
IP Version	Select IP Version. You can choose IPV4 or IPV6
IP Address	Automatically or manually enter an IP address for the system.
Preferred DNS	DNS server IP address.
Alternate DNS	Alternate DNS IP address.

<p>For IPv6 IP address, default gateway, preferred DNS and alternate DNS, the input value should be 128-digits. It cannot be left blank.</p>	
MTU	System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

6.11.2.2 Port

This interface allows you to set and configure your system's configuration ports. See *figure 6.23*

Please refer to the following sheet for more detailed information about each option:

Parameter	Function
Max connection	It is the max Web connection for the same device. The value ranges from 1 to 120. The default setup is 120.
TCP port	The default value is 37777. You can input the actual port number if necessary.
UDP port	The default value is 37778. You can input the actual port number if necessary.
HTTP port	The default value is 80. You can input the actual port number if necessary.
HTTPS	The default value is 443. You can input the actual port number if necessary.
RTSP port	The default value is 554.

Port	HTTPS	
Max Connection	<input type="text" value="128"/>	(1~128)
TCP Port	<input type="text" value="4000"/>	(1025~65535)
UDP Port	<input type="text" value="4001"/>	(1025~65535)
HTTP Port	<input type="text" value="80"/>	(1~65535)
HTTPS Port	<input type="text" value="443"/>	(1~65535) <input type="checkbox"/> Enable
RTSP Port	<input type="text" value="554"/>	(1~65535)
RTSP Format	rtsp://<User Name>:<Password>@<IP Address>:<Port>/cam/realmonitor?channel=1&subtype=0 channel: Channel, 1-8; subtype: Code-Stream Type, Main Stream 0, Sub Stream 1.	
<input type="button" value="OK"/> <input type="button" value="Refresh"/> <input type="button" value="Default"/>		

Figure 6.23

6.11.2.3 HTTPS

In this interface, you can configure HTTPS on your system to guarantee communication data security. This reliable and stable technology can secure the user's information security and device safety. See *Figure 6.23b*

Note

- You need to implement server certificate again if you have changed device IP.
- You need to download root certificate if it is your first time to use HTTPS on current PC.

Port	HTTPS	
<input type="button" value="Create Server Certificate"/> <input type="button" value="Download Root Certificate"/>		

Figure 6.24

6.11.2.4 PPPoE

In this interface, you will be able to set up PPPoE for your system. See *figure 6.25*

Input the PPPoE user name and password that you got from the ISP (internet service provider) and enable the PPPoE function. Save your current setup and reboot the system to activate the function.

**Note:**

You need to use previous IP address in the LAN to login the device. Please go to the IP address item to via the device current device information. You can access the client-end via this new address.

The screenshot shows a web-based configuration page for PPPoE. At the top left, there is a tab labeled 'PPPoE'. Below it, there is a sidebar with a checked checkbox labeled 'Enable'. The main content area contains three input fields: 'User Name', 'Password', and 'IP Address'. The 'IP Address' field is split into two rows of dotted boxes, each containing '0 . 0 . 0 . 0'. At the bottom of the form, there are three buttons: 'Save', 'Refresh', and 'Default'.

Figure 6.25

6.11.2.5 DDNS

This interface allows you to enable and configure DDNS on your system. This feature will allow you to access your system remotely via a PC or a mobile device (*only applicable to Android and iOS*). See Figure 6.26

Configuring DDNS:

- Select the **DDNS Type**. The options are DVRID, NO-IP DDNS and DynDNS DDNS.
- Enter the DDNS server's **Host IP**. *We offer free DDNS hosting via **DVRID.com***
- Enter a valid **Domain Name**. You will be using the domain name to access your NVR remotely using DDNS.
- Enter a valid **User Name** from the DDNS server.
- Enter a valid **Password** for the DDNS server account.
- Enter an **Interval** value. This will be the timer in between connection refreshes to the DDNS server.
- **Enable** DDNS. Hit **OK** to save.

**Note:**

- You will need to do **Portforwarding** on your router as well.
- You will need to open TCP Port 4000 and HTTP Port 80 or open the applicable port numbers if you've changed these values in the **PORT** interface.

- All DDNS types can be enabled at the same time.
- Private DDNS function will work with special DDNS server and special Professional Surveillance Software (PSS).
- Please refer to **Chapter 5.9.4.1: DVRID SETUP** for information about setting up DDNS service with our DVRID server.

DDNS

Enable

DDNS Type:

Host IP:

Domain Name:

User Name:

Password:

Interval: Min. (5~1092)

Figure 6.26

6.11.2.6 Email

This interface allows you to set up the email function on the system to be used for notifications. See *figure 6.27 for a sample setup*.

Email

Enable

SMTP Server:

Port: (1~65535)

Anonymous

User Name:

Password:

Sender:

Encryption Type:

Subject: Attachment

Receiver:

Interval: Sec. (0~3600)

Health Enable: Min. (30~1440)

Figure 6.27

Please refer to the following sheet for more detailed information:

Parameter	Function
Enable	Check this box to enable the email function.
SMTP Server	Input your SMTP server address.
Port	Default value is 25. You can modify this value if necessary depending on your SMTP server setup.
Anonymity	If you server supports anonymous connections, you can enable this option. This will allow you to login anonymously. You do not need to input the user name,

Parameter	Function
	password and the sender information if this option is turned on.
User Name	Enter a valid email address based on your SMTP server.
Password	Enter a valid password for your email.
Sender	Enter a valid sender email address.
Authentication (Encryption mode)	Select your encryption type. You can choose SSL, TLS or None
Subject	Input an email subject here.
Attachment	When enabled, the system can send out email notifications along with a snapshot of the applicable event.
Receiver	Input receiver email address(es) here. Max three addresses. Supports SSL and TLS mailboxes.
Interval	Input the send interval range from 0 to 3600 seconds. 0 means there is no interval. System can send out email notifications as regularly as you set in this parameter. This function is very useful when there are too many emails activated by events in the system which may result in heavy traffic for the email server.
Health mail enable	Check to enable the Health function
Update period (interval)	This function allows the system to send out test emails to monitor the stability of the email connection. Check the box to enable this function and set the corresponding refresh interval. The value ranges from 30 minutes to 1440 minutes. The system will send out test emails as regularly as you set here.
Email test	Click this button to do send a test email to confirm proper configuration.

6.11.2.7: UPnP

The UPnP protocol establishes a mapping relationship between the LAN and the WAN. Please input the **router IP** address in the **LAN IP** field from your **TCP/IP Gateway settings** (see *fig 6.22b*). See *fig 6.28* for the UPnP interface.

- 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 NVR can auto detect it via the “My Network Places”

No.	Service Name	Protocol	Internal Port	External Port	Modify
1	HTTP	TCP	80	80	
2	TCP	TCP	4000	4000	
3	UDP	UDP	4001	4001	
4	RTSP	UDP	554	554	
5	RTSP	TCP	554	554	
6	SNMP	UDP	161	161	
7	HTTPS	TCP	443	443	

Figure 6.28

- **Enable/Disable:** Turn the UPNP function of the device on or off.
- **Status:** When the UPNP is offline, it shows as “Disable”. When the UPNP works it shows “Success”
- **LAN IP:** It is the router’s IP in the LAN.
- **WAN IP:** It is the router’s IP in the WAN.
- **Default:** Restores the UPNP port settings to default.
- **Refresh:** Refreshes the page to update the information on your screen.
- **Port Mapping list:** The port mapping list here is the one to one relationship with the router’s port mapping settings. Double click on the service to modify the specified port settings. *Fig 5.60b*
 - ◇ **Service name:** Defined by user.
 - ◇ **Protocol:** Protocol type
 - ◇ **Internal port:** Port that has been mapped in the router.
 - ◇ **External port:** Port that has been mapped locally.
- Click the **Modify** icon on the appropriate port to make changes.



Important:

When you are setting the router’s external port, please use ports 1024 to 5000. Do not use well-known ports like ports 1 to 255 and system ports 256 to 1023 to avoid conflict.

For TCP and UDP, please make sure the internal port and external port are the same to guarantee a proper data transmission.

6.11.2.8 SNMP

SNMP allows the communication between the network management work station software and the proxy of the managed device. It is reserved for 3rd party developers. See figure 6.29

The image shows a configuration window titled "SNMP". At the top left, there is a checkbox labeled "Enable" which is currently unchecked. Below it, there is a "Version" section with two radio buttons: "V1" (selected) and "V2" (unchecked). The main configuration area contains several text input fields: "SNMP Port" with the value "161" and a range indicator "(1-65535)"; "Read Community" (empty); "Write Community" (empty); "Trap Address" (empty); and "Trap Port" with the value "162" and a range indicator "(1-65535)". At the bottom of the window, there are three buttons: "OK", "Refresh", and "Default".

Figure 6.29

Please refer to the following sheet for more detailed information:

Parameter	Function
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
Read Community	It is a string. It is a command between the manage process and the proxy process. It defines the authentication, access control and the management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read all the objects the SNMP supports in the specified name. The default setup is public.

Parameter	Function
Write Community	<p>It is a string. It is a command between the manage process and the proxy process. It defines the authentication, access control and the management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same.</p> <p>The read community will read/write/access all the objects the SNMP supports in the specified name. The default setup is write.</p>
Trap address	The destination address of the Trap from the proxy program of the device.
Trap port	The destination port of the Trap from the proxy program of the device. It is for the information exchange between the gateway device and the client-end PC in the LAN. It is a non-protocol connection port. It has no effect on the network applications. It is a UDP port not TCP port. The value ranges from 1 to 165535. The default value is 162.
SNMP version	<ul style="list-style-type: none"> ● Check V1, system only processes the information of V1. ● Check V2, system only processes the information of V2.

6.11.2.9 Multicast

Multicast is a transmission mode of data packets. When there are multiple hosts to receive the same data packet, multicast is the best option to reduce the broad width and the CPU load. The source host can just send out one stream of data to transit. This function also depends on the relationship of the group member and external group. *See figure 6.30*

Multicast

Enable

IP Address: (224.0.0.0~239.255.255.255)

Port: (1025~65500)

Save Refresh Default

Figure 6.30

6.11.2.10 Register

This function allows the device to automatically register to the proxy you've specified. In this way, you can use the client-end to access the NVR via the proxy. The proxy here has a switch function. In the network service, the device supports the server address of IPv4 or domain.

To use this function, set the proxy server address, port, and sub-device name at the device-end. Check the box to enable auto-registry. See *figure 6.31*



The screenshot shows a web-based configuration interface titled "REGISTER". At the top left, there is a checkbox labeled "Enable" which is currently unchecked. Below this, there are three input fields: "Host IP" with the value "1 . 0 . 0 . 1", "Port" with the value "8000" and a range indicator "(1~65535)", and "Sub-device ID" with the value "0". At the bottom of the form, there are three buttons: "OK", "Refresh", and "Default".

Figure 6.31

6.11.2.11 Alarm Centre

This interface is reserved for you to develop. The system can upload alarm signals to the alarm center when a local alarm occurs. See *figure 6.32*

Before you use alarm center, please set the necessary server information. When an alarm occurs, the system can send out data as the protocol defines, so the client-end can get the data.

Alarm Centre

Enable

Protocol Type: ALARM CENTER

Host IP: 20 . 2 . 12 . 27

Port: 1

Self-report Time: Everyday at 08:00

Save Refresh Default

Figure 6.32

6.11.2.12 P2P

Enabling P2P allows you to remote in to your NVR via your system's serial number. See figure 6.33

To use this function, you will need to download our **MVS Lite/MVS Pro** phone apps (Android and iOS only), or our **CMS/VMS** for PC and MAC.

Make sure the status says "**Connect Success**" before attempting to remote in to the NVR.

Click **Apply** and **Save** when done.



Figure 6.33

Please refer to [Chapter 5.9.13: Phone App Configuration](#) on how to configure your phone to use this feature.

6.11.2.13 Switch

This interface allows you to set up the network parameters of the POE switch at the back of the NVR. See [fig 6.34](#)

Switch

IP Address: 10 . 1 . 1 . 1

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 10 . 1 . 1 . 1

OK Refresh Default

Figure 6.34

6.11.3 Event

This menu contains all the options, configurations and management tools for handling events on your system.

6.11.3.1 Video detection

I. Motion Detect

Motion Detect | Video Loss | Tampering | Scene Change

Enable Channel: 3

Period: Setup

Anti-dither: Sec.(0-600)

Region: Setup

Record Channel: Setup

Post Record: Sec.(10~300)

PTZ Activation: Setup

Tour: Setup

Snapshot: Setup

Voice Prompts: File Name: None

Show Message: Send Email Alarm Upload Buzzer Log

Copy OK Refresh Default

Figure 6.35

This interface allows you to configure Motion Detect for your NVR system. See figure 6.35

Parameters and Settings:

- **Enable:** Check this box to enable the motion detect function for the selected channel.
- **Channel:** Select a channel from the dropdown list to set the motion detect function.

- **Period:** Click the **Setup** button to enter the period interface as seen in *fig 6.35b*. You can set the motion detect period here. The system will only enable motion detection in the specified periods. The system can support up to 6 periods a day.

The screenshot shows a window titled "Set" with a 24-hour grid for each day of the week. A yellow bar highlights the period from 00:00 to 24:00 for Wednesday. Below the grid, there are checkboxes for "All" and each day of the week, with "Wednesday" selected. There are also six "Period" settings, each with a checkbox and a time range (00:00 - 24:00). The "Period 1" checkbox is checked. At the bottom, there are "OK" and "Cancel" buttons.

Figure 6.35b

- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording schedule.
- Alternatively you can click the **Set** button at the end of each day to select a specified period(s) from a list instead. Under the **Copy** option, you could select the days you want to apply the same period(s) to. Click **OK** to exit.
- **Anti-dither:** Configure anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the system will wait for the next alarm signal before it triggers again. This will keep the system from triggering constantly within a short amount of time. During the alarm process, the alarm signal can begin an anti-dither time (waiting time) to check if system detects the same local alarm again. If the next alarm falls under the anti-dither time, the screen prompts, alarm uploads, emails, etc. will not be activated. It will only activate again if the anti-dither value had expired. The value here does not include the latch time.

Example:

- You've set the anti-dither time to 10 seconds.
- The alarm got triggered and will remain triggered for the next 10 seconds.

- During this process, if the system detects another local alarm signal within those 10 seconds, the buzzer, tour, PTZ activation, snapshot, record channel will refresh and trigger for another 10 seconds.
- However, the screen prompts, alarm upload, or emails however will not be activated again. Only after the 10-second anti-dither time had expired without any more alarm signals will the system reset and trigger for the next events.
- **Record channel:** Select the recording channel(s) for specified camera. Please make sure you have set MD record in Schedule interface (Main Menu->Setting->Storage) and schedule record in manual record interface (Main Menu->Setting->Storage->Record)
- **Region:** Click the **OK** button to enter the **Region Configuration** interface as shown in **fig 6.35c**.

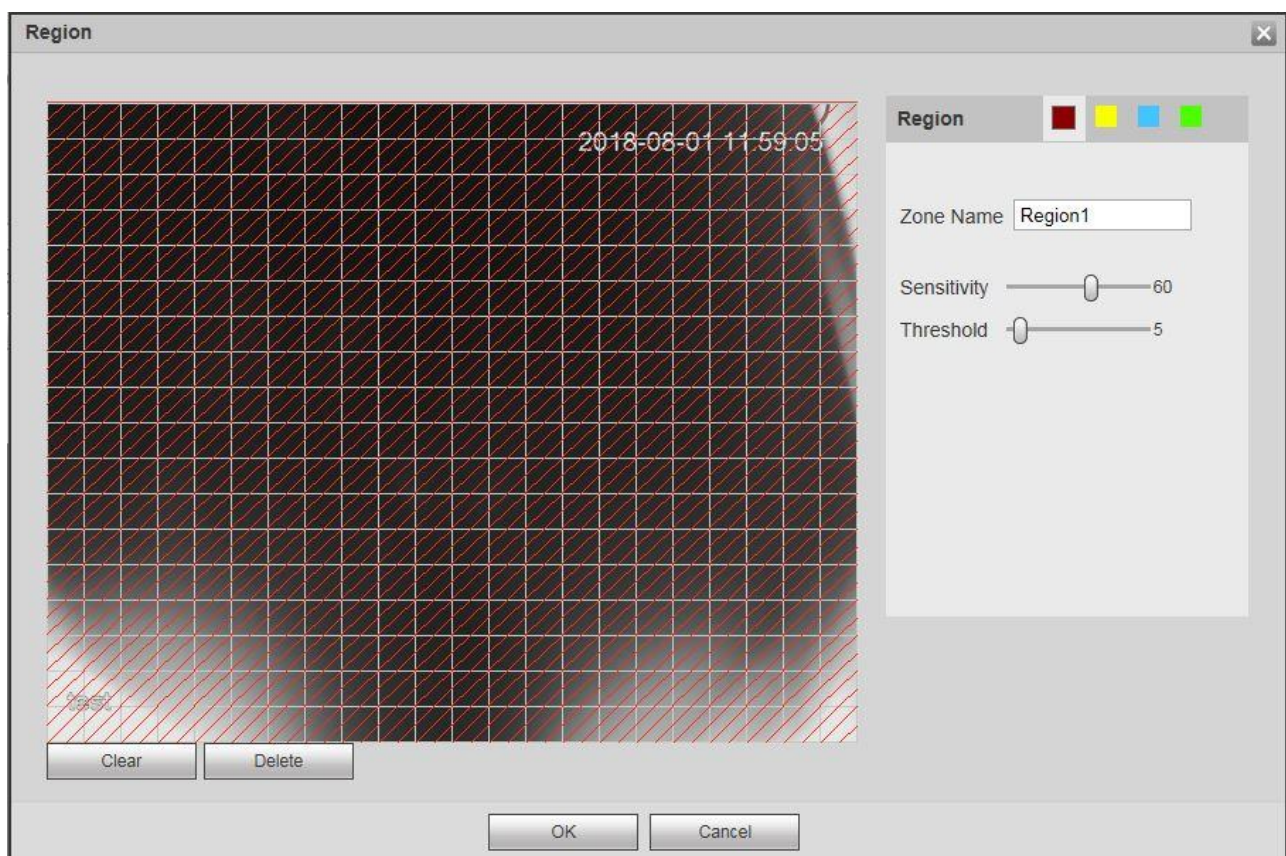


Figure 6.35c

You can configure the individual sensitivity and threshold on each zone. Each zone is color-coded.

- The **Sensitivity** value refers to how sensitive the motion detect trigger will be.
- The **Threshold** value refers to how large the object(s) will be for the motion trigger to activate. The lower the threshold the smaller the object(s) the sensor will detect.
- Click **OK** to exit the interface.

Post Record: The system will keep recording according to your setting here after a detected motion had passed. The value ranges from 10s to 300s.

- **PTZ activation:** Click **Setup** button to enter the ptz activation interface as seen in *fig 6.35d*.

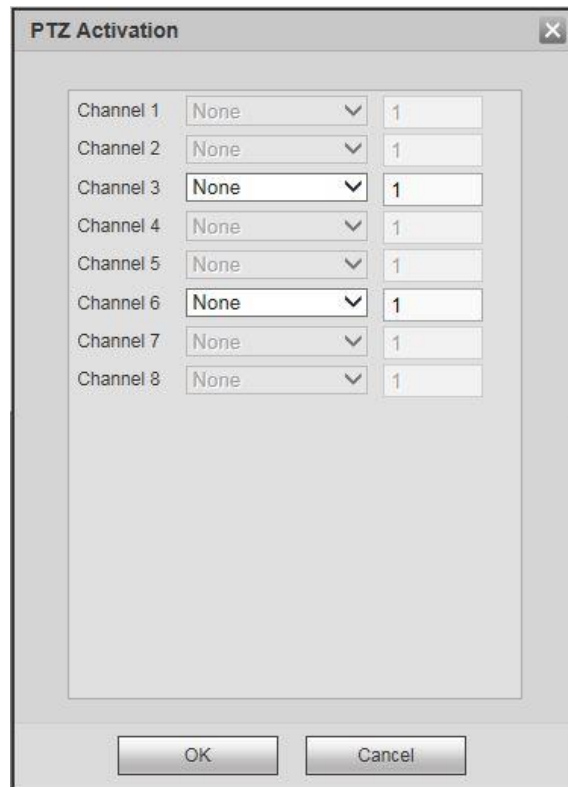


Figure 6.35d

Enabling PTZ activation will allow the system to activate PTZ cameras when motion had been detected. Select the presets for the selected PTZ camera(s) to control how they are going to move during the motion trigger. Click **OK** to exit.

- **Tour:** Enabling tour will allow the system to go on tour according to the channels you have selected whenever a motion event occurs. *Figure 6.35e*

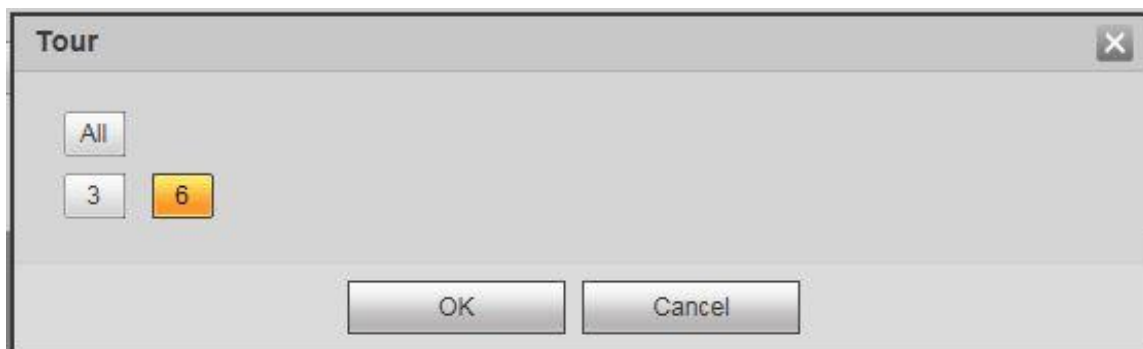


Figure 6.35e

- **Snapshot:** Enabling snapshot will allow the system to take pictures from the channels you have selected whenever a motion event occurs. *Figure 6.35f*

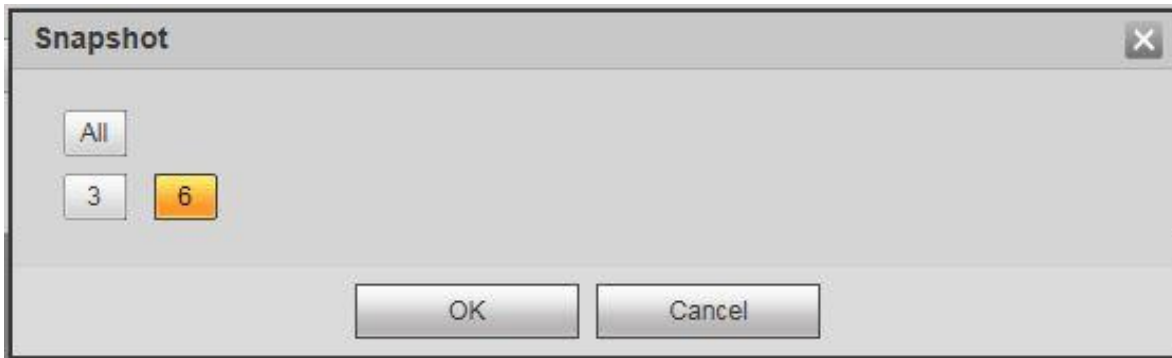


Figure 6.35f

- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Show message:** The system can bring up a pop up message to alarm you of an event if you enabled this function.
- **Alarm upload:** The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 6.8.2.6](#) for this to work.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.
- **Log:** Enabling log will allow the system to save the motion events in the system logs.

II. Video Loss

This function allows you to be informed when there is a total loss of video function from a specified channel(s). You can enable the alarm output channel to show a message to notify you. Refer to *fig 5.69* for the Video Loss interface. For the rest of the setups, please refer to **[Chapter 6.3.1 – I: Motion Detect](#)** for more detailed information.

Motion Detect	Video Loss	Tampering	Scene Change
<input type="checkbox"/> Enable	3		
Period	<input type="button" value="Setup"/>		
<input type="checkbox"/> Record Channel	<input type="button" value="Setup"/>		
Post Record	10	Sec.(10~300)	
<input type="checkbox"/> PTZ Activation	<input type="button" value="Setup"/>		
<input type="checkbox"/> Tour	<input type="button" value="Setup"/>		
<input type="checkbox"/> Snapshot	<input type="button" value="Setup"/>		
<input type="checkbox"/> Voice Prompts	File Name	None	
<input type="checkbox"/> Show Message	<input type="checkbox"/> Send Email	<input type="checkbox"/> Alarm Upload	<input type="checkbox"/> Buzzer <input checked="" type="checkbox"/> Log
<input type="button" value="Copy"/> <input type="button" value="OK"/> <input type="button" value="Refresh"/> <input type="button" value="Default"/>			

Figure 6.36

III. Tampering

This function allows you to be informed when possible tampering occurs in the specified channel. Like when someone purposely masks the lens, or if the output video is in one-color due to possible changes in the environment's lighting. The system can alert you to guarantee video continuity. *Figure 6.37*

Motion Detect	Video Loss	Tampering	Scene Change
<input type="checkbox"/> Enable	3		
Period	Setup		
<input type="checkbox"/> Record Channel	Setup		
Post Record	10	Sec.(10~300)	
<input type="checkbox"/> PTZ Activation	Setup		
<input type="checkbox"/> Tour	Setup		
<input type="checkbox"/> Snapshot	Setup		
<input type="checkbox"/> Voice Prompts	File Name	None	
<input type="checkbox"/> Show Message	<input type="checkbox"/> Send Email	<input type="checkbox"/> Alarm Upload	<input type="checkbox"/> Buzzer <input checked="" type="checkbox"/> Log
Copy		OK	Refresh
Default			

Figure 6.37

For the rest of the setups, please refer to [Chapter 6.3.1 – I: Motion Detect](#) for more detailed information.

IV. Scene Change

When the system detects a suspicious scene change, the system can generate an alarm. Refer to [Figure 6.38](#) for the interface. For the rest of the setups, please refer to [Chapter 6.3.1 – I: Motion Detect](#) for more detailed information.

Motion Detect	Video Loss	Tampering	Scene Change
<input type="checkbox"/> Enable	3 <input type="button" value="v"/>		
Period	<input type="button" value="Setup"/>		
<input checked="" type="checkbox"/> Record Channel	<input type="button" value="Setup"/>		
Post Record	10	Sec.(10~300)	
<input type="checkbox"/> PTZ Activation	<input type="button" value="Setup"/>		
<input type="checkbox"/> Tour	<input type="button" value="Setup"/>		
<input checked="" type="checkbox"/> Snapshot	<input type="button" value="Setup"/>		
<input type="checkbox"/> Voice Prompts	File Name	None <input type="button" value="v"/>	
<input type="checkbox"/> Send Email	<input type="checkbox"/> Alarm Upload	<input type="checkbox"/> Buzzer	<input type="checkbox"/> Message <input checked="" type="checkbox"/> Log
<input type="button" value="OK"/> <input type="button" value="Refresh"/> <input type="button" value="Default"/>			

Figure 6.38

6.11.3.2 Smart Plan

This interface allows you to set Smart plan presets for your smart network cameras. The intelligent rules include human face detection, behavior analytics and people counting. *Figure 6.39*

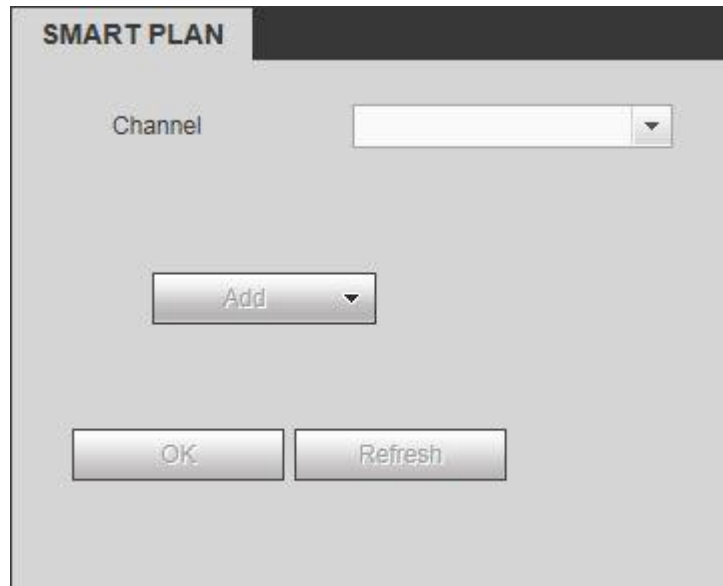


Figure 6.39

The smart plan feature is only for smart network cameras. If you do not set a rule here, you cannot use the intelligent functions in IVS (Chapter 6.8.3.3), Face detection (Chapter 6.8.3.4) and People counting (Chapter 6.8.3.5) when you are connecting to a smart network camera.

There are two scenarios 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.



Note

Some smart cameras do not need to add the preset. Please refer to the actual product for detailed information. Refer to **Chapter 5.10.2** for more information about this feature.

6.11.3.3 IVS



Note

At the moment, the IVS function max supports 10 rules.

When an object violates the user-defined rule(s), the DVR can trigger an alarm and alert you about the specified alarm mode. See *Figure 6.40*

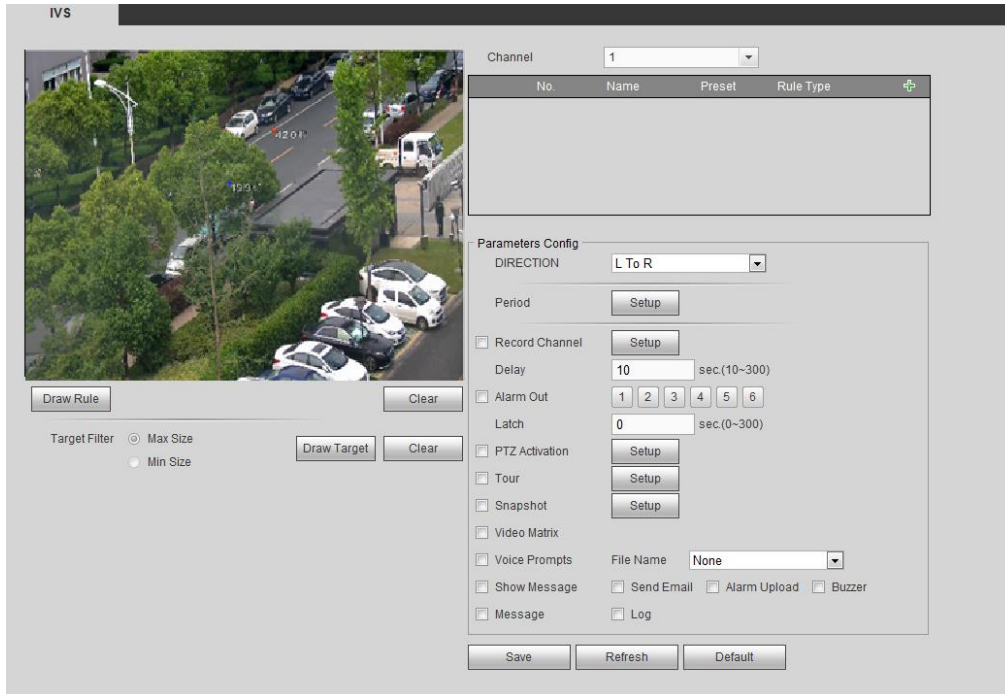



Figure 6.40

Please follow the steps listed below:

Step 1 Please select a channel from the dropdown list.

Step 2 Click the  button then select a rule.

Step 3 Set the rule type and its corresponding parameters.

Step 4 Check the box to enable the rule.

Step 5 Click the **OK** button to save current setup.


I. IVS-Tripwire

The system generates an alarm once an object crosses the tripwire in the user-defined area. Please set according to your actual situation.



Note

- The tripwire function is only applicable if your connected network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.

Step 1 In the **IVS Interface**, click the  button to add a rule and select the rule type as Tripwire. Double-click to change the rule name if you want

Step 2 Check the Tripwire box to enable tripwire function. See *Figure 6.41*

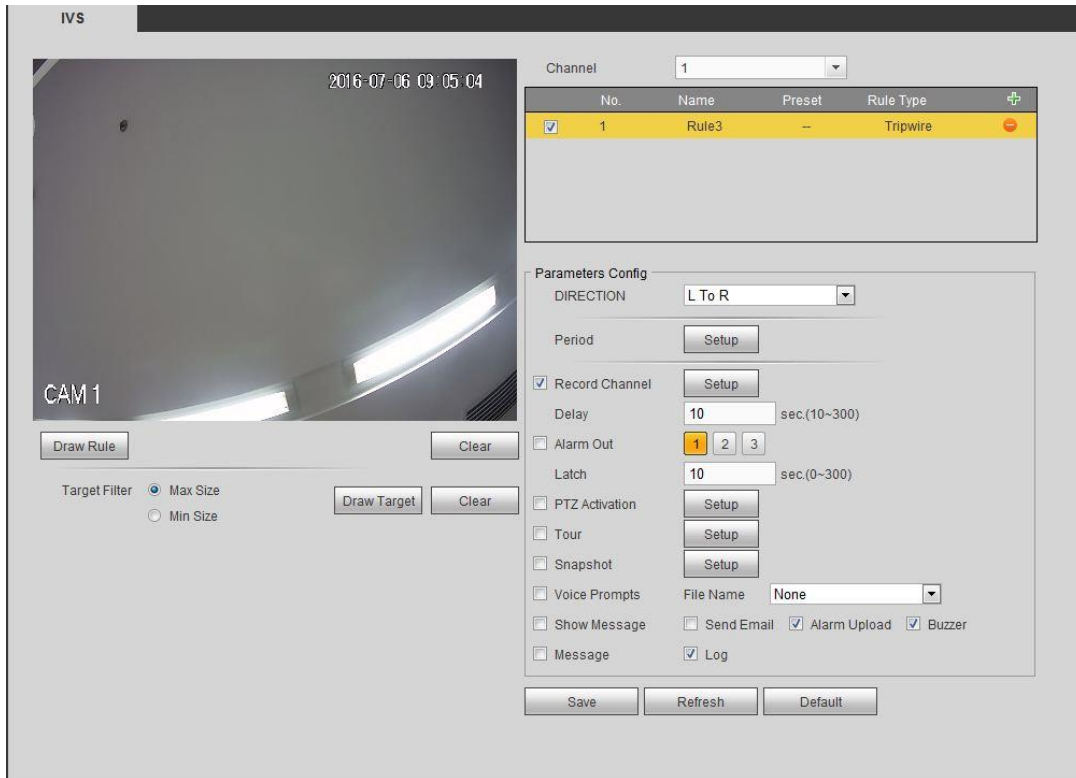


Figure 6.41

Step 3 Click the **Draw Rule** button then use your left click to draw a tripwire. Right click to complete your setup. See *Figure 6.41b*



Note

The tripwire can be a direct line, curve or polygon. Click the **Clear** button to delete the tripwire.

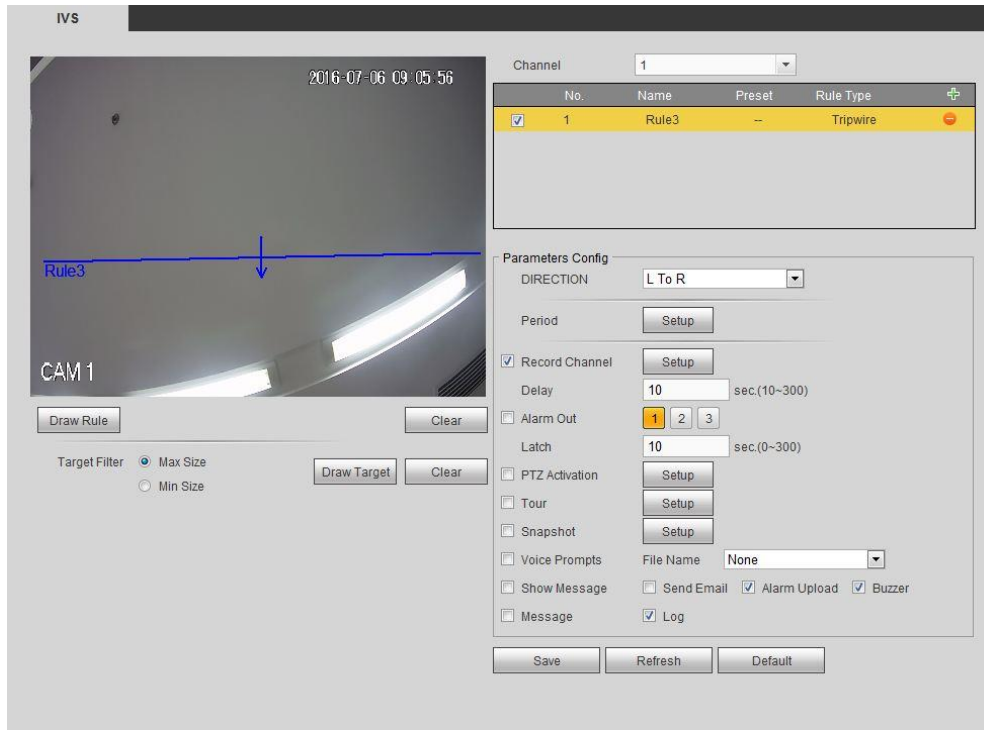


Figure 6.41b

- Step 4** Set object filter. When an object is smaller than the min size or larger than the max size, the alarm will not trigger.
1. After drawing the rule, set max size and min size.
 2. Click Draw target to draw the rectangle zone.



Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line then use your mouse to adjust.

Step 5 Set _____ parameters.

Parameter	Function
Direction	Tripwire direction includes: A→B, B→A, A↔B.
Period	Set tripwire valid period. The system generates an alarm during the specified period. You can refer to Chapter 6.8.3.1 – I Motion Detect Detect for detailed information about each option.

Step 6 Click **Save** to complete the setup.


II. IVS-Intrusion (Cross warning zone)

This function allows the system to detect any object entering or exiting the user-defined zone. Please set according to your actual situation.



Note:

- The intrusion function is only applicable if your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.

Step 1 From the **IVS Interface**, click the  button to add a rule. Select the rule type as intrusion. Double-click to change the Rule's name if you want.

Step 2 Check the box to enable the Intrusion function. See *Figure 6.42*

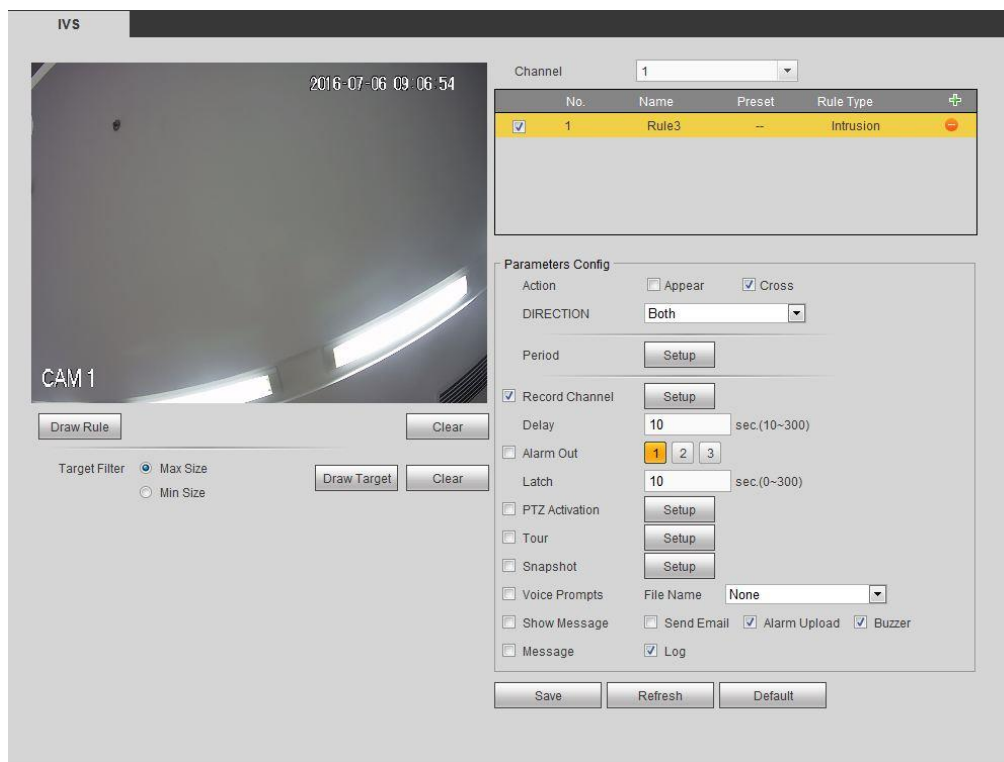


Figure 6.42

Step 3 Click the **Draw rule** button then use your left click to draw an intrusion rule. Right click the mouse to complete. See *Figure 6.42b*

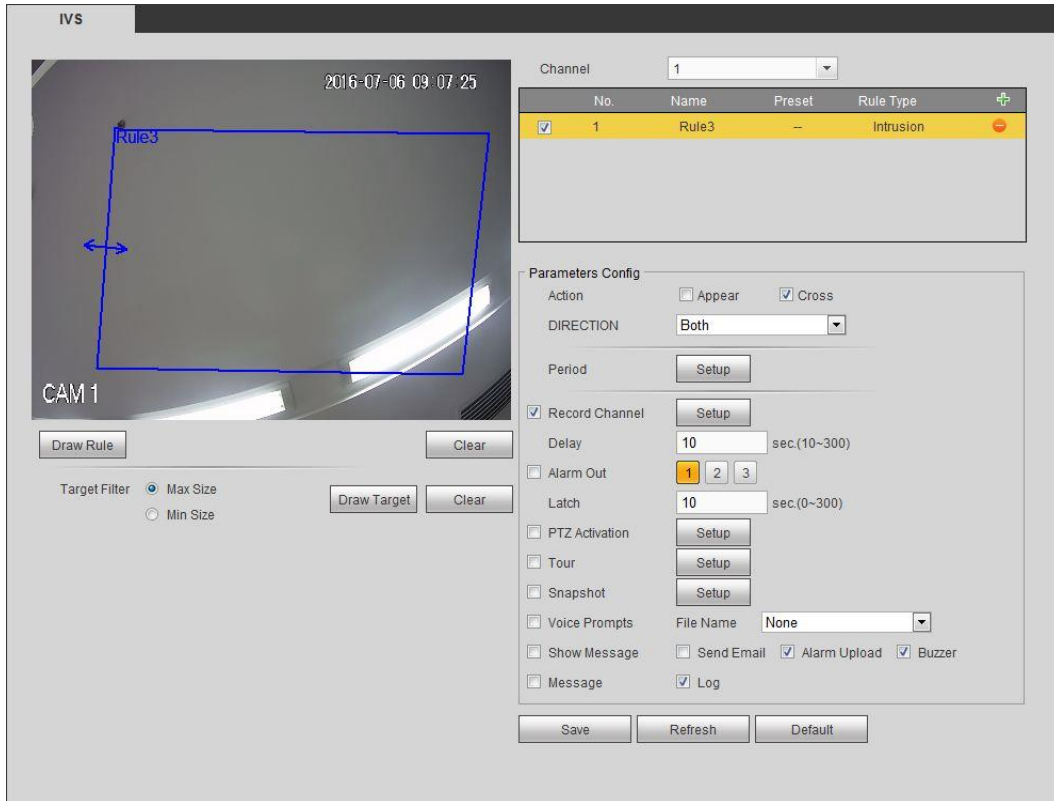


Figure 6.42b

- Step 4** Set Object Filter. If an object is smaller than the min size or larger than the max size, the alarm will not trigger.
1. After drawing the rule, set max size and min size.
 2. Click the **Draw target button** to draw the rectangle zone.



Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line then use your mouse to adjust.

- Step 5** Set parameters.

Parameter	Function
Action	For setting the intrusion mode: <ul style="list-style-type: none"> ● Cross: It includes enter the warning zone, leave the warning zone or cross the warning zone. ● Appear: An object falling from nowhere (such as from the sky). It may not fully enter the warning zone.
Direction	When the action mode is cross, there are three options: A->B, B->A, both. The system can generate an alarm if any object enters/exits (Or both) the zone.

Parameter	Function
Period	Sets tripwire valid period. The system generates an alarm during the specified period. You can refer to Chapter 6.8.3.1 – I Motion Detect Detect for detailed information about each option.

Step 6 Click the **Save** button to complete setup.


III. IVS-Abandoned Object Detect

This function allows the system to detect any abandoned objects in the user-specified area and time.



Note:

- The abandoned object detection function is only applicable if your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.

Step 1 From the **IVS Interface**, click the  button to add a rule. Select the rule type as **abandoned object detection**. Double click to change the rule name if you want to.

Step 2 Check the box to enable the abandoned object detection function. See *Figure 6.43*

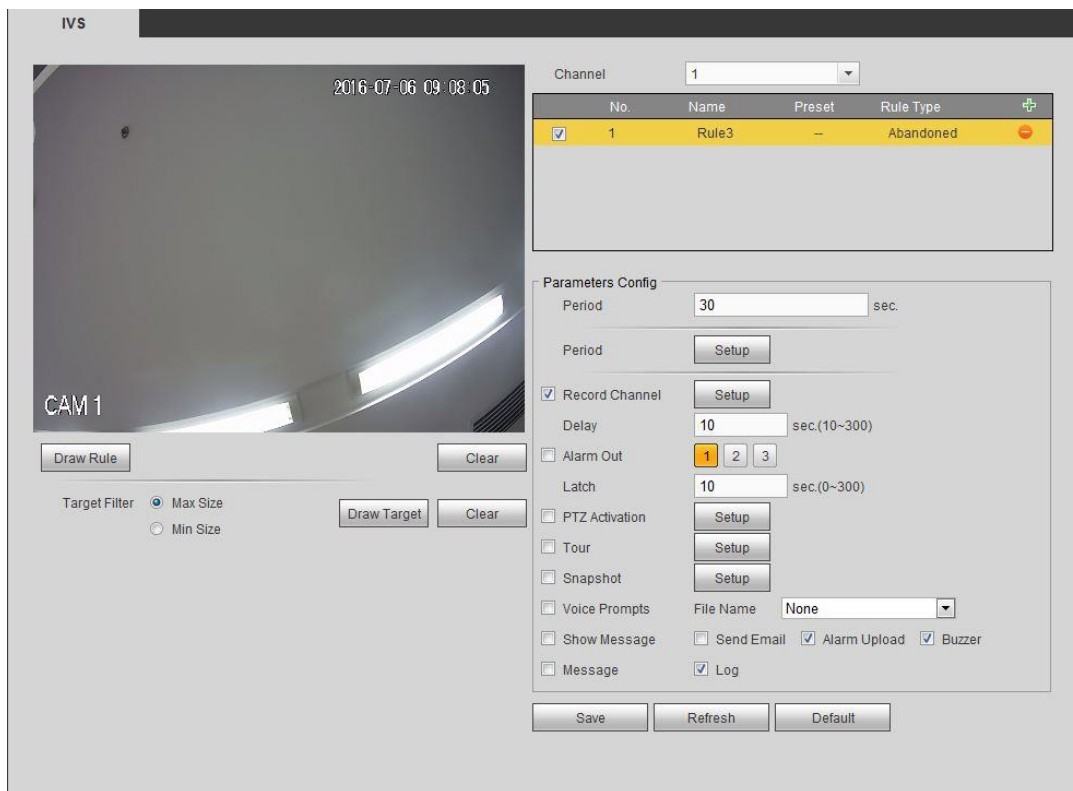


Figure 6.43

Step 3 Click **Draw rule** to draw the rule. See *Figure 6.43b*. Left click to draw a a rectangle, you can right click mouse when done.

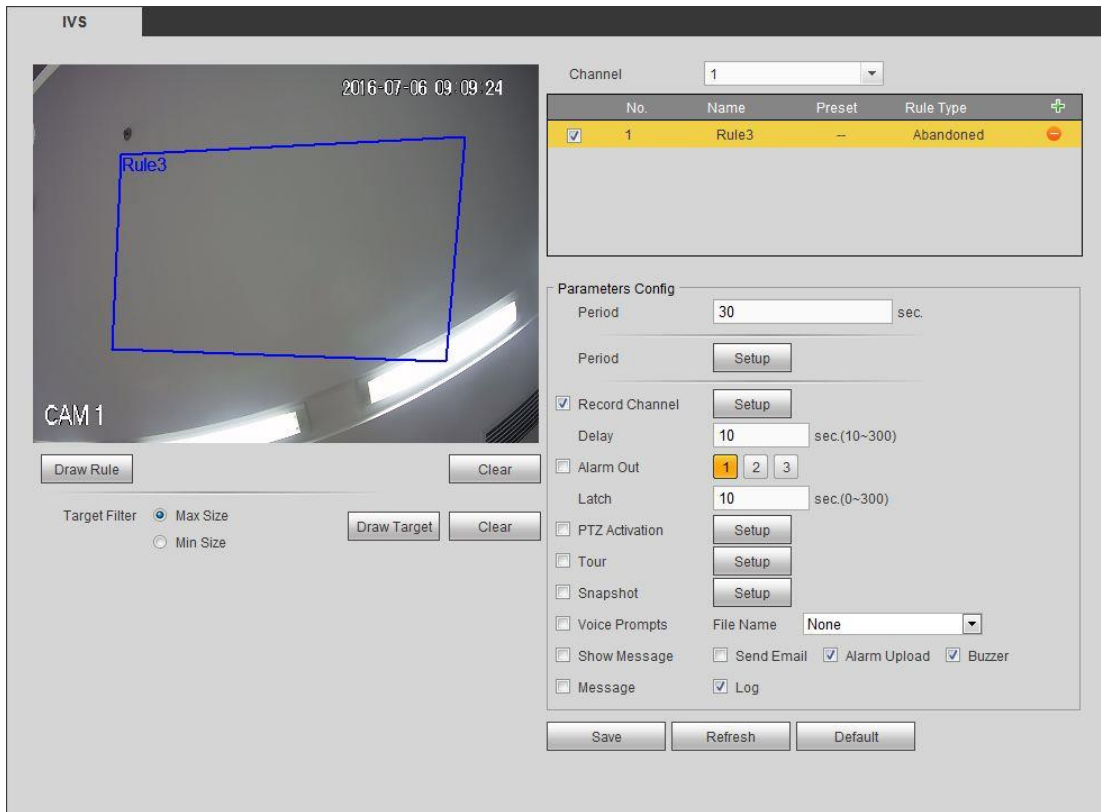


Figure 6.43b

Step 4 Set Object Filter. If an object is smaller than the min size or larger than the max size, there is no alarm.

1. After drawing the rule, set max size and min size.
2. Click **Draw target** to draw the rectangle zone.



Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

Step 5 Set parameters.

Parameter	Function
Lasting Period	It refers to the time an object is still in the zone.
Period	Sets detect valid period. The system generates an alarm during the specified period. You can refer to <u>Chapter 6.8.3.1 – I Motion Detect Detect</u> for detailed information about each option.

Step 6 Click Save to complete setup.

IV. IVS-Missing Object Detect

This function allows the system to detect any abandoned objects in the surveillance area during the specified time.

- System supports customized area shape and amount.
- Supports period setup.
- Supports objects filter function.



Note:

- The missing object detection function is only applicable if your network camera or your DVR supports this function.
- If you want to use the IVS function of the network camera, please make sure your connected network camera supports this function.

Step 1 From the **IVS Interface**, click the  button to add a rule and select the rule type as missing object detection. You can double-click to change the rule's name if you want to.

Step 2 Check the missing object detection to enable missing object detection function. See *Figure 6.44*

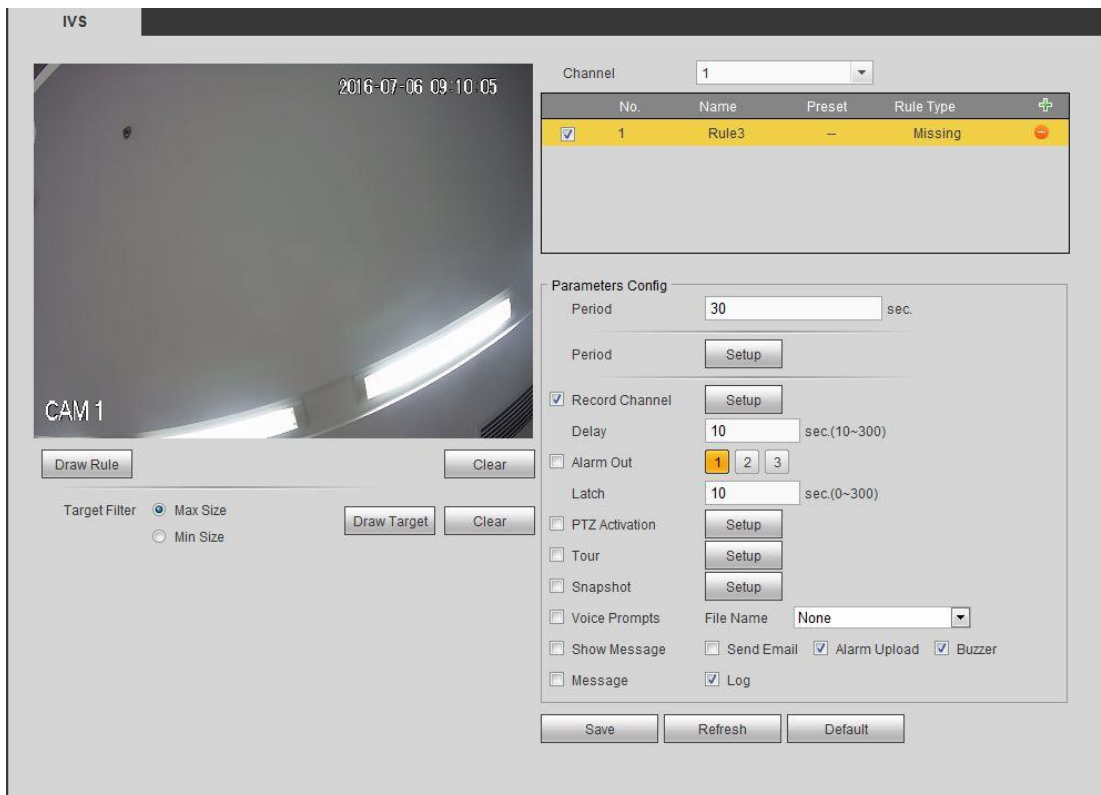


Figure 6.44

Step 3 Click the **Draw rule** button and then left click mouse to draw a zone. Right click to

complete. See *Figure 6.44b*

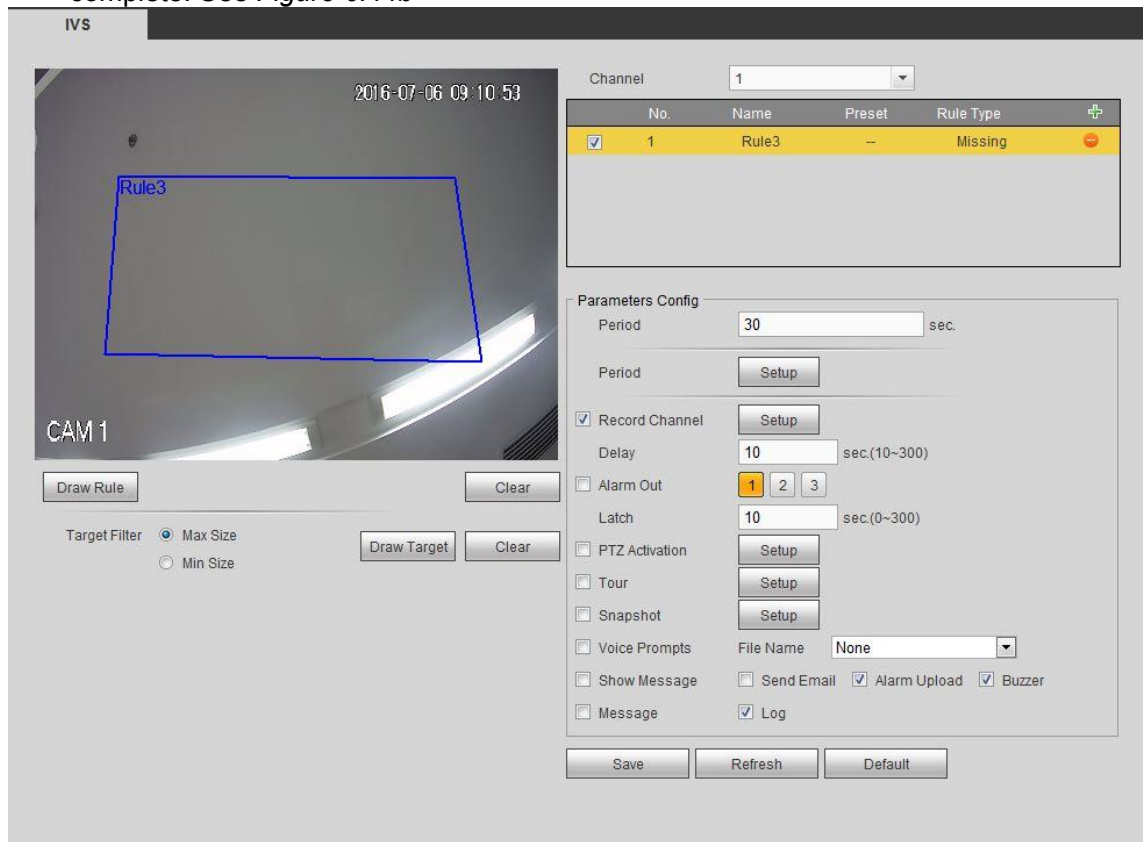


Figure 6.44b

- Step 4** Set Object Filter. If an object is smaller than the min size or larger than the max size, there is no alarm.
1. After drawing the rule, set max size and min size.
 2. Click the **Draw target** button to draw the rectangular zone.



Note

- Each rule can set two sizes (min size/max size). Please make sure the max size is larger than the min size.
- The default max size is the full screen, you can select the blue line and then use mouse to adjust.

- Step 5** Set parameters.

Parameter	Function
Lasting Period	It refers to the time an object is still in the zone.
Period	Sets tripwire valid period. The system generates an alarm during the specified period. You can refer to Chapter 6.8.3.1 – I Motion Detect Detect for detailed information about each option.

Step 6 Click Save to complete setup.

6.11.3.4 Face Detection

Note

The face detection function is optional. The intelligence function and the human face detection can not be valid at the same time.

When the camera detects a human face, the system can draw a rectangle around the human face and generate an alarm. See *Figure 6.45*

- Enable Face ROI: Check the box to allow the system to enhance the human face display pane.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.

You can refer to [Chapter 6.8.3.1 – I Motion Detect Detect](#) for detailed information about each option.

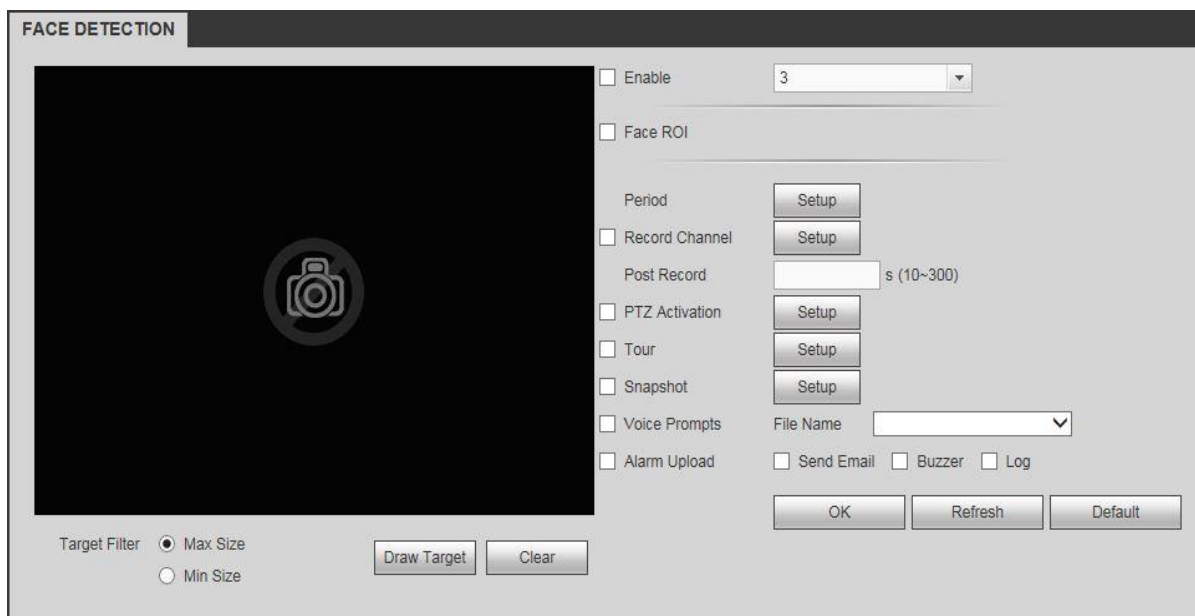


Figure 6.45

6.11.3.5 People Counting

This interface allows you to enable People Counting on the selected camera(s) which calculates the number of people in a specified entry/exit zone. The system will generate an alarm upon reaching the set threshold. See *Figure 6.46*

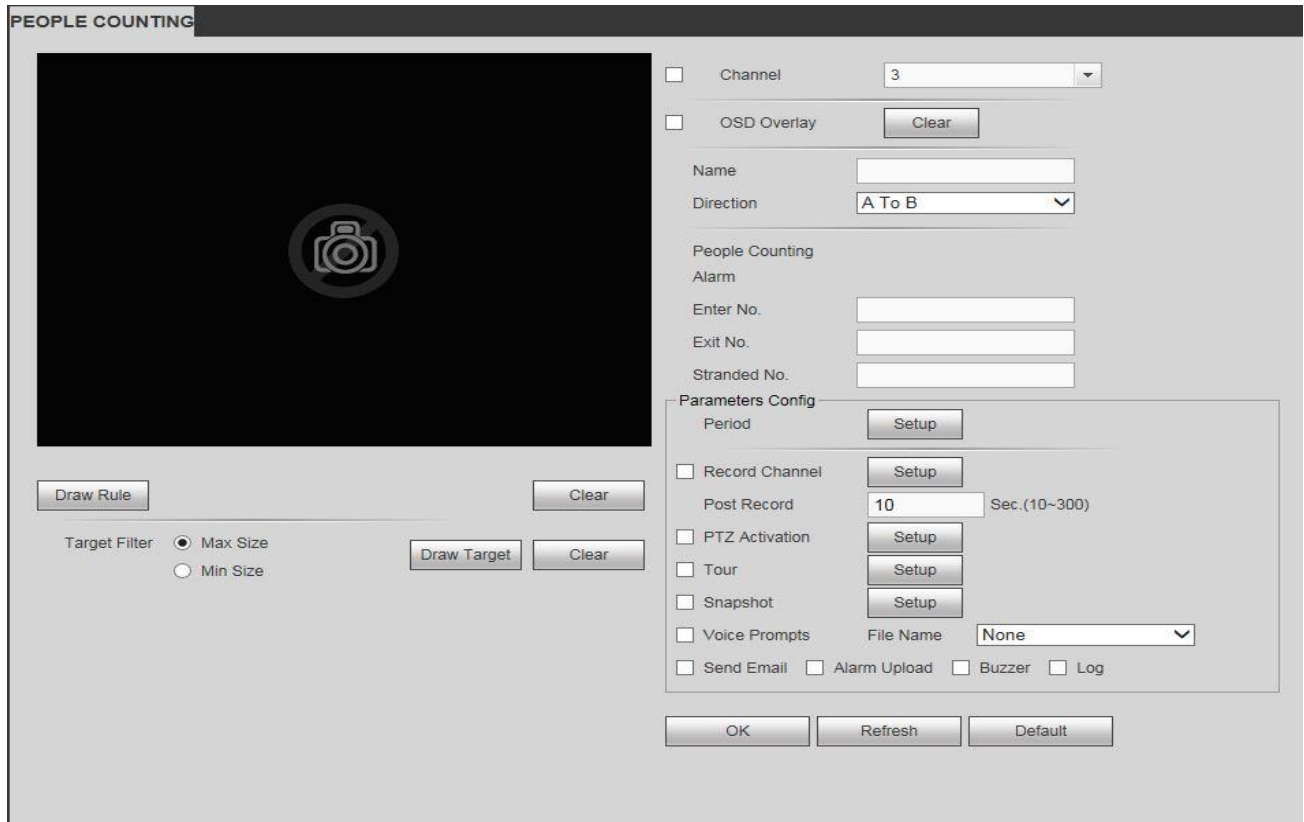


Figure 6.46

- **Enable:** Checking the box on the specified channel will enable the People Counting function.
- **Draw Rule:** Clicking the button will allow you to setup people counting zones, names, and directions (entry/exit).
- **OSD overlay:** Checking the box will allow you to view the people counter on the surveillance video.
- **Entry No:** For setting the people entry threshold. The system can generate an alarm once the counter has exceeded the threshold.
- **Exit No:** For setting the people exit threshold. The system can generate an alarm once the amount has exceeded the threshold.
- **Stranded No:** For setting the max number of people allowed to stay in the specified zone. The system can generate an alarm once the amount has exceeded the threshold.

You can refer to [Chapter 6.8.3.1 – I Motion Detect Detect](#) for detailed information about each option.

6.11.3.6 Heat Map

This interface allows you to enable Heat Map for the selected channel which will detect an active objects state in the specified region. See Figure 6.47

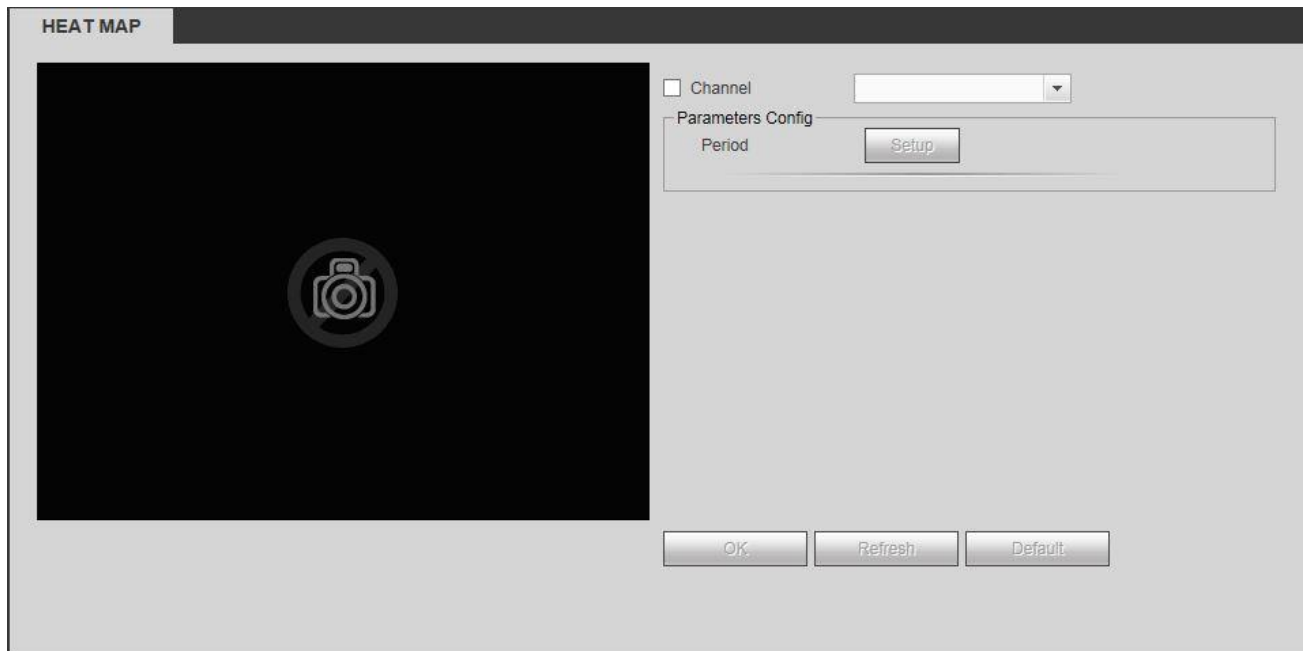


Figure 6.47

You can refer to [Chapter 6.8.3.1 – I Motion Detect Detect](#) for detailed information about each option.

6.11.3.7 Audio Detect

The system can generate an alarm when it detects any abnormal audio input or volume changes. See [Figure 6.48](#)

Figure 6.48

- **Input abnormal:** Checking the box will allow the system to generate an alarm when there is an abnormal audio input.
- **Intensity change:** Checking the box will allow the system to generate an alarm once the audio volume becomes too strong.
- **Sensitivity:** It refers to the audio recognition sensitivity. The higher the value is, the higher the sensitivity will be.
- **Threshold:** For setting the intensity change threshold. The smaller the value is, the higher the sensitivity will be.
- **Log:** Checking the box will allow the system to store audio alarm logs.

You can refer to [Chapter 6.8.3.1 – I Motion Detect Detect](#) for detailed information about each option.

6.11.3.8 Alarm

This interface allows you to enable and configure the alarm settings for selected channels.

There are two channel alarm types. See *figures 6.49 and 6.49b*

- **IPC external alarm:** The on-off alarm signal from the front-end device and can activate the local HNVR.
- **IPC offline alarm:** Once you select this item, system can generate an alarm when the front-end IPC disconnects with the local HNVR. The alarm can activate record, PTZ, snap and etc. The alarm can last until the IPC and the HNVR connection resumes.

IPC External Alarm | IPC Offline Alarm

Channel Alarm Name

Period

Anti-dither Sec.(0-600) Type

Record Channel

Post Record Sec.(10~300)

PTZ Activation

Tour

Snapshot

Voice Prompts File Name

Show Message Send Email Alarm Upload Buzzer Log

Figure 6.49

IPC External Alarm | IPC Offline Alarm

Channel

Record Channel

Post Record Sec.(10~300)

PTZ Activation

Tour

Snapshot

Voice Prompts File Name

Show Message Send Email Alarm Upload Buzzer Log

Figure 6.49b



Important

- If it is your first time to boot up the device, the disconnection status of the front-end network camera will not be regarded as offline. After one successful connection, all the disconnection events will be regarded as IPC offline event.
- When IPC offline alarm occurs, the record and snapshot function of digital channel is null.

- **Enable:** Check this box to enable the motion detect function for the selected channel.
- **Channel:** Select a channel from the dropdown list to set the motion detect function.
- **Period:** Click the **Setup** button to enter the period interface as seen in *fig 6.35b*. You can set the motion detect period here. The system will only enable motion detection in the specified periods. The system can support up to 6 periods a day.

The 'Set' dialog box is used to configure motion detection periods. It features a 24-hour grid for each day of the week (Sunday through Saturday). The 'Wednesday' checkbox is selected in the 'All' section. The 'Period 1' checkbox is checked, and its time range is set to 00:00 - 24:00. The 'OK' and 'Cancel' buttons are at the bottom.

Figure 6.35b

- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording schedule.
- Alternatively you can click the **Set** button at the end of each day to select a specified period(s) from a list instead. Under the **Copy** option, you could select the days you want to

apply the same period(s) to. Click **OK** to exit.

- **Anti-dither:** Configure anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the system will wait for the next alarm signal before it triggers again. This will keep the system from triggering constantly within a short amount of time. During the alarm process, the alarm signal can begin an anti-dither time (waiting time) to check if system detects the same local alarm again. If the next alarm falls under the anti-dither time, the screen prompts, alarm uploads, emails, etc. will not be activated. It will only activate again if the anti-dither value had expired. The value here does not include the latch time.

Example:

- You've set the anti-dither time to 10 seconds.
 - The alarm got triggered and will remain triggered for the next 10 seconds.
 - During this process, if the system detects another local alarm signal within those 10 seconds, the buzzer, tour, PTZ activation, snapshot, record channel will refresh and trigger for another 10 seconds.
 - However, the screen prompts, alarm upload, or emails however will not be activated again. Only after the 10-second anti-dither time had expired without any more alarm signals will the system reset and trigger for the next events.
- **Record channel:** Select the recording channel(s) for specified camera. Please make sure you have set MD record in Schedule interface (Main Menu->Setting->Storage) and schedule record in manual record interface (Main Menu->Setting->Storage->Record)
 - **Post Record:** The system will keep recording according to your setting here after a detected motion had passed. The value ranges from 10s to 300s.
 - **PTZ activation:** Click **Setup** button to enter the ptz activation interface as seen in *fig 6.35d*.

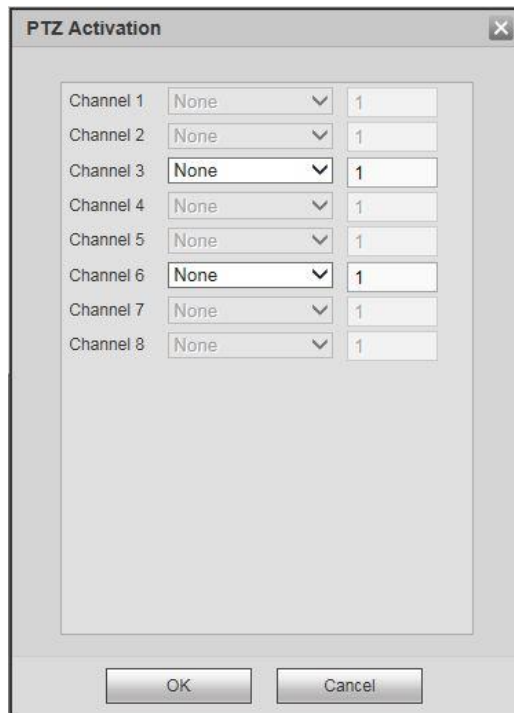


Figure 6.35d

Enabling PTZ activation will allow the system to activate PTZ cameras when motion had been detected. Select the presets for the selected PTZ camera(s) to control how they are going to move during the motion trigger. Click **OK** to exit.

- **Tour:** Enabling tour will allow the system to go on tour according to the channels you have selected whenever a motion event occurs. *Figure 6.35e*

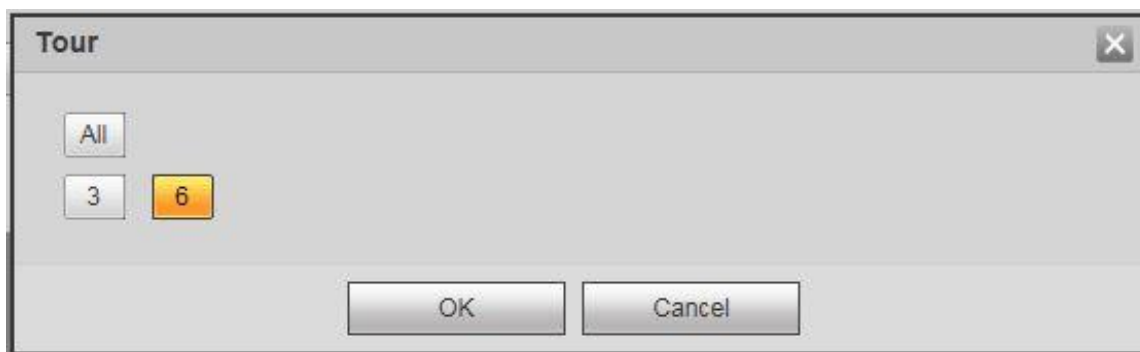


Figure 6.35e

- **Snapshot:** Enabling snapshot will allow the system to take pictures from the channels you have selected whenever a motion event occurs. *Figure 6.35f*

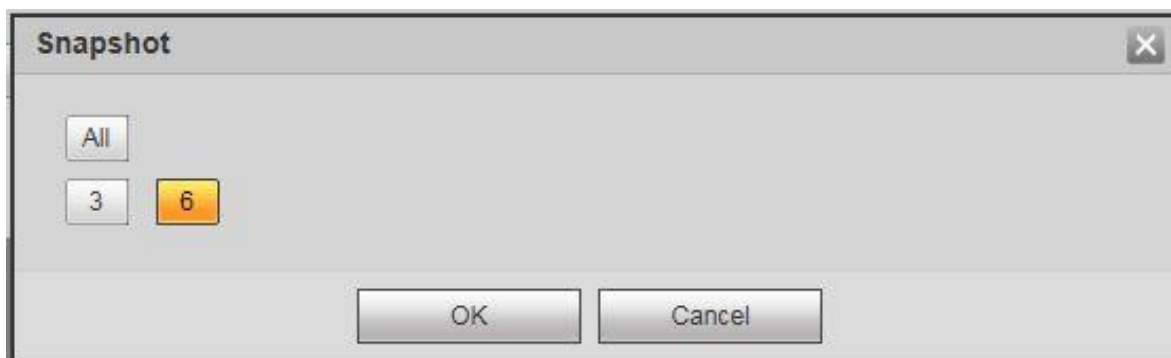


Figure 6.35f

- **Voice Prompts:** Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
- **Show message:** The system can bring up a pop up message to alarm you of an event if you enabled this function.
- **Alarm upload:** The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
- **Send email:** The system can send out email alerts when an alarm occurs. You will need to configure your **EMAIL** settings in [Chapter 6.8.2.6](#) for this to work.
- **Buzzer:** Enabling buzzer will allow the system to trigger beeps when motion occurs.
- **Log:** Enabling log will allow the system to save the motion events in the system logs.

Click the **OK** button to save the changes after your configuration.

6.11.3.9 Abnormality

This interface allows you to enable and configure local harddrive, network and user access abnormality detection features. See Figures 6.36 to 6.36c

Figure 6.36

Figure 6.36b

Figure 6.36c

Please refer to the following sheet for detailed information about each option:

Common Parameters	Function
Event Type	Select the type of abnormality to enable and configure.
Enable	Toggles the event type ON/OFF.
Voice Prompts	Enabling voice prompts will allow you to select a voice/audio alert to trigger when a motion event occurs.
Send Email	The system can send out email alerts when an alarm occurs. You will need to configure your EMAIL settings in Chapter 5.8.2.6 for this to work.

Common Parameters	Function
Buzzer	Enabling buzzer will allow the system to trigger beeps when motion occurs.
Log	Enabling log will allow the system to save the abnormality events in the system logs.
Show Message	The system can bring up a pop up message to alarm you of an event if you enabled this function.
HDD Parameters	
Alarm upload	The system can upload the alarm signal to the network (including alarm center) if you enabled current function.
Less Than	Only available under No Space type. Set the trigger HDD space percentage.
Username Parameters	
Attempt(s)	Set the duration of the account lock status.
Lock Time	Set the number of login attempts before an account gets locked out

6.11.4 Storage

This menu contains all the management and configuration settings interfaces for your system's Storage.

6.11.4.1 Basic

This interface allows you to configure basic Storage options. *Figure 6.37*

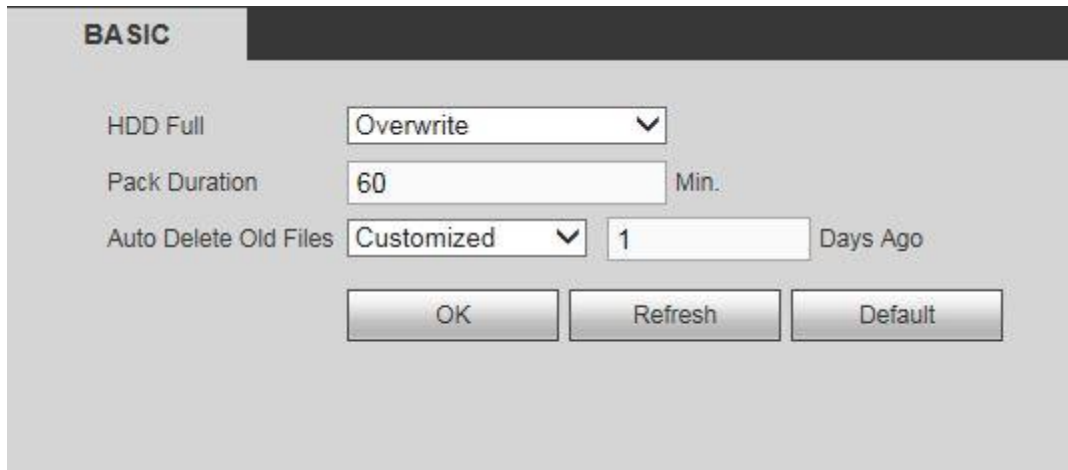


Figure 6.37

Parameters and Settings:

- **HDD Full:** Selects what your onboard storage would do when it gets full. You can choose between Overwrite or Stop Record.
- **Pack Duration:** Ranges from 1 to 120 Min.
- **Auto-Delete Old Files:** Auto-deletes old files that the user had defined. It is set to **Never** by default. Select **Customized** to enter the age of the files to be discarded. The range is from 1 to 255 days ago.
- Click the **OK** button to finish setup.

6.11.4.2 Schedule

This interface allows you to configure the recording schedule and method for your system. You can choose between regular continuous, motion detect, alarm, IVS, or a mixture of types according to your preference. You could set the video and image recording schedule of your system.

There are five record modes: general (auto), motion detect, alarm, MD&alarm and IVS. There are six periods in one day. Each record mode are color-coded. See *figure 6.38* and *figure 6.38b*

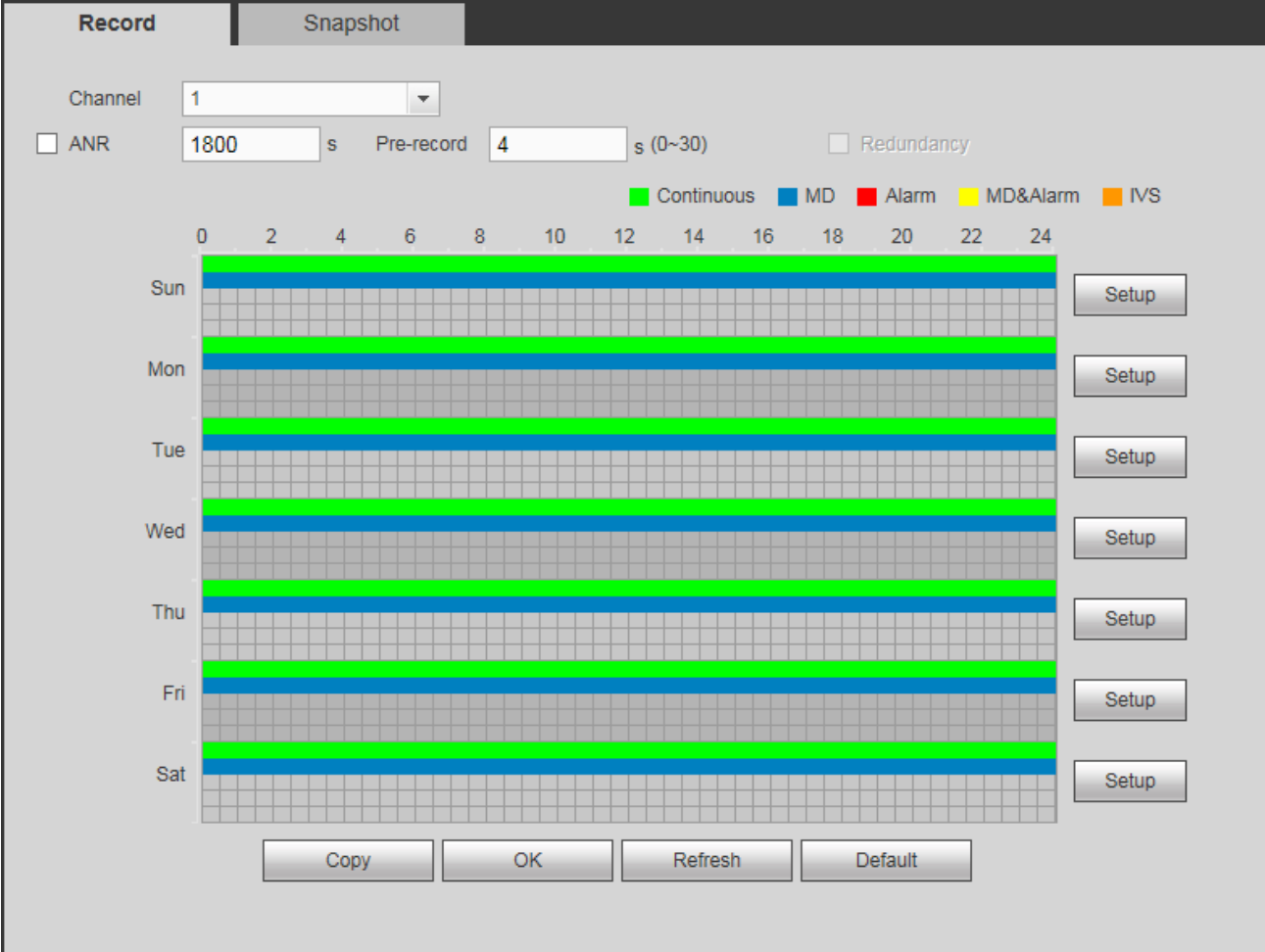


Figure 6.38

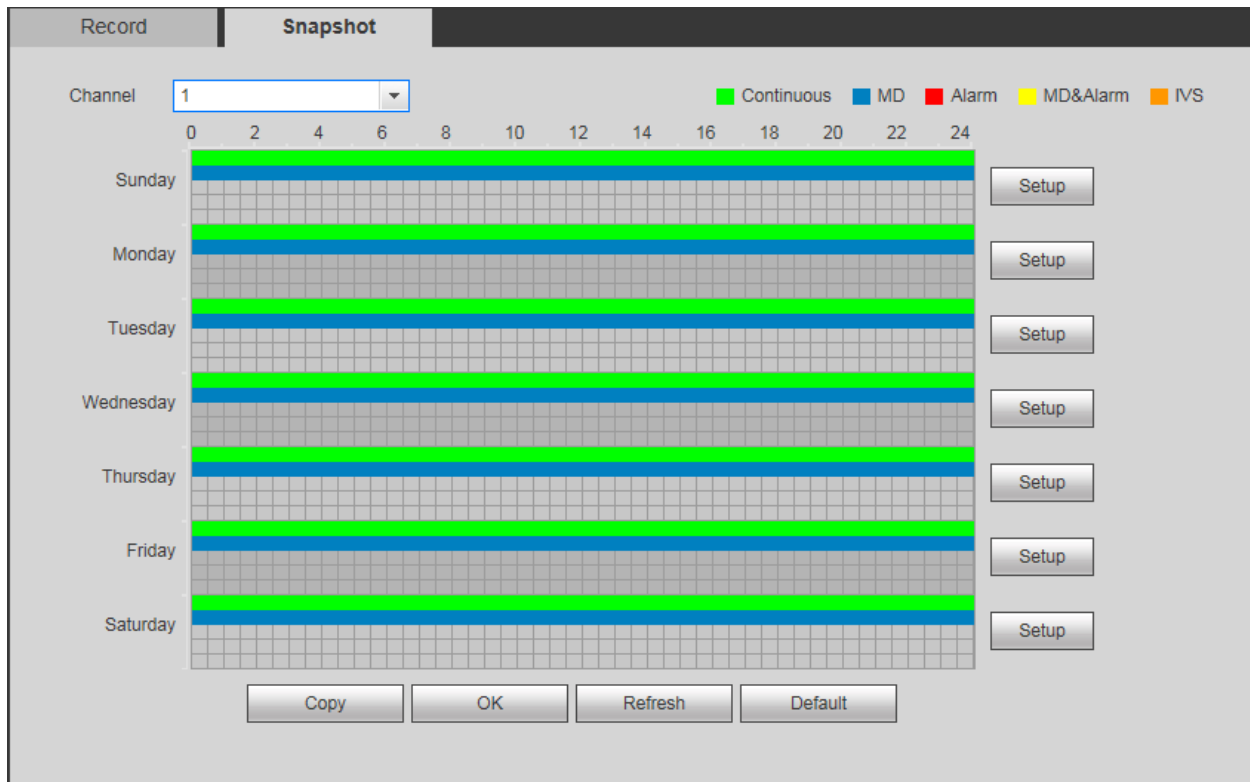


Figure 6.38b

Setting up the Recording Schedule *Figure 6.38*

- Select the Channel you wish to configure.
- Set up pre-record value. Ranges from 1 to 30 seconds depending on the bit stream.
- Check the appropriate Capture type.
- Drag on the appropriate grid to manually paint or erase the tiles according to your preferred recording schedule and capture type. Alternatively, you can click on appropriate channel **SETUP** button to open the periods setup menu instead. *Figure 6.38c*

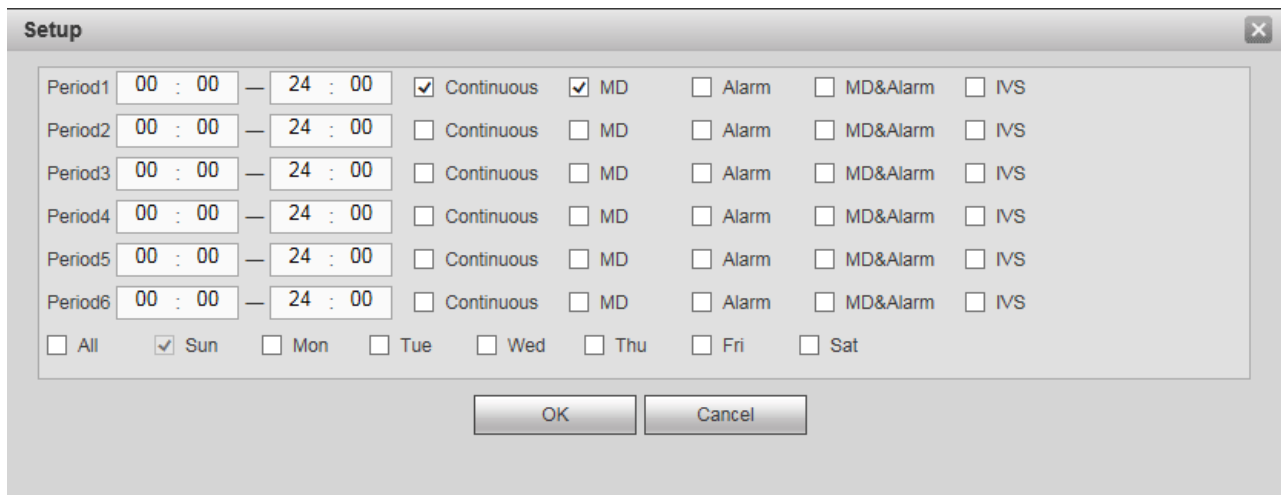


Figure 6.38c

- Set the different periods of the day. The periods need to be set up incrementally starting from the top.
- Check the day(s) you want to set this up to. Checking the All box will select all the days. Click the OK button when done.
- Back in the main Schedule menu (*Fig 4.17*), click the Copy button to select channels that will have the same schedule as the current channel that you are editing. (*Fig 4.23*)

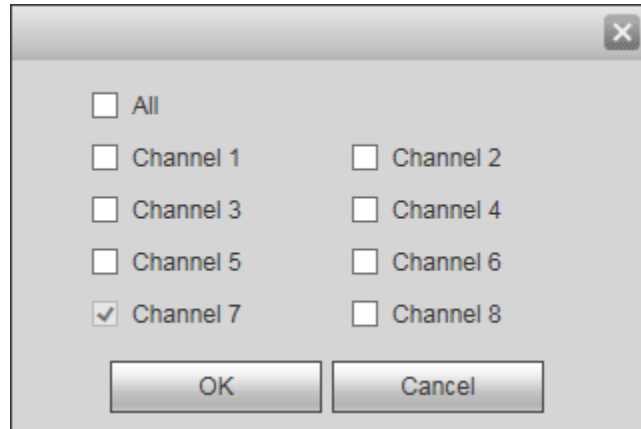


Figure 6.38d

- Hit **OK** to save the changes and follow the same steps to configure snapshot schedule.

6.11.4.3 HDD Manage

This interface allows you to manage your onboard HDDs. You will be able to change the HDD type and group in this menu. You can also find the **Format** option here if you should require doing so on one of your onboard storage devices. Aside from the general health and accumulated/remaining space on your HDDs, you can also set the HDD Group and type for the specified HDD. *Figure 6.39*

Click **OK** to save your changes.

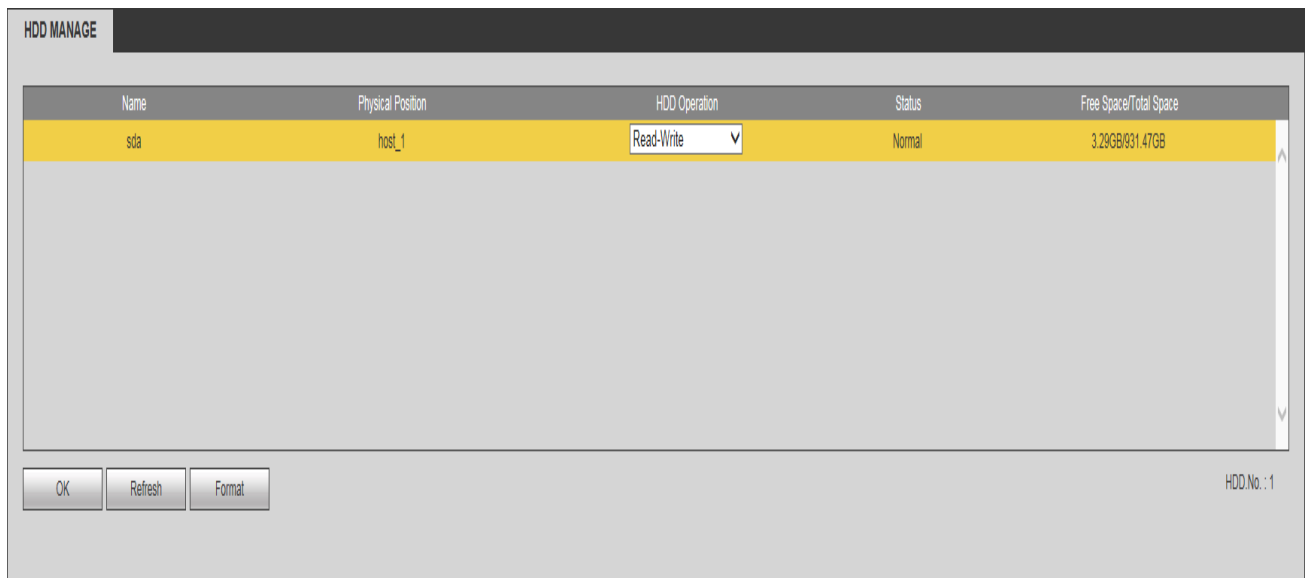


Figure 6.39

6.11.4.4 FTP

This interface allows you to enable and configure FTP for your NVR to backup your videos and images over the network. *Figure 6.40*

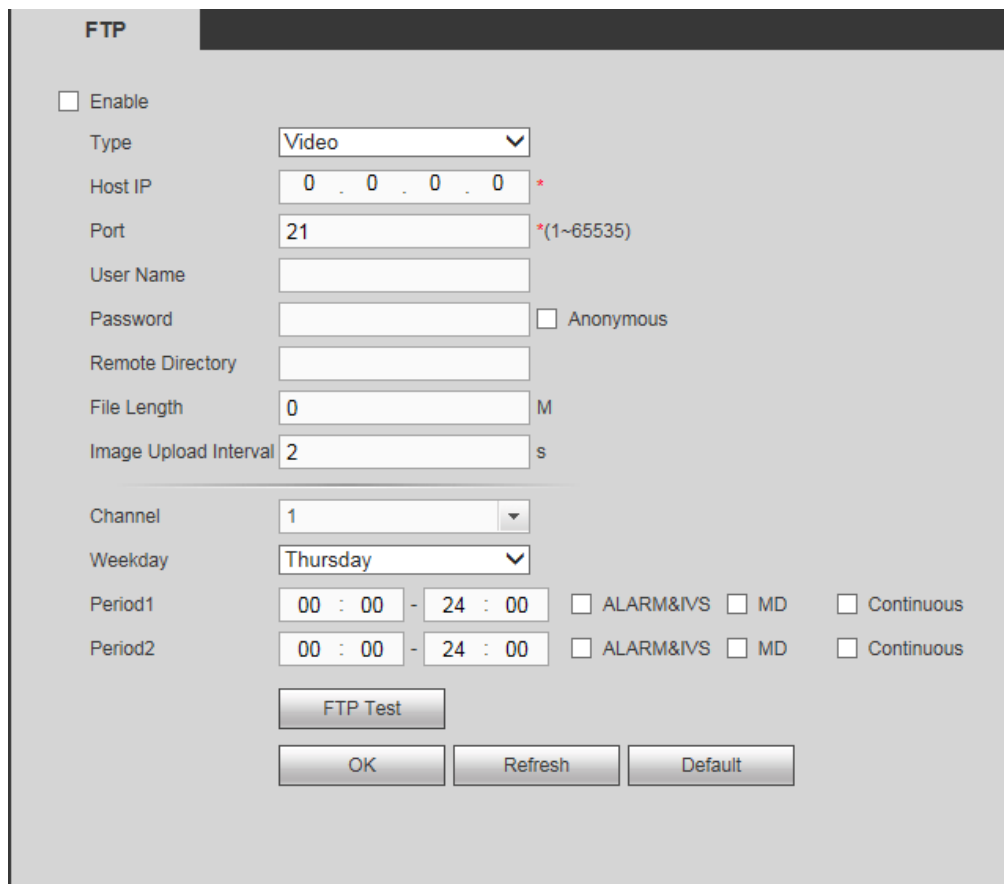


Figure 6.40



Note

For the FTP user, make sure the destination FTP Folder has the proper rights to allow writing. Otherwise system would not be able to access the folder. Before the operation, please download or purchase an FTP service tool and install on the PC.

Step1 Set parameters.

- **Type:** Choose which files to upload. (Videos, Snapshots or Both)
- **Host IP:** Enter the host IP of the FTP Server you have installed.
- **Port:** Enter the communication port as per your settings. The default setup is 21.
- **User name/Password:** Enter a valid FTP Server account and password.
- **Anonymous:** Enable if you want to use an anonymous connection if your server permits it.

- **Remote directory:** Enter the network folder path you created under the root path of the FTP Server according to the corresponding rules.
 - ◇ If there is no remote directory, system will auto create different directories according to the IP, time and channel of the files.
 - ◇ If there is a remote directory, the system can create corresponding folders under the FTP root path and then create different folders according to the IP address, time and channel of the files.

- **File length:** Enter the max file size/length to limit how big the files to be uploaded will be. If the value here is larger than the actual file, the system will upload the entire file. If the setup value here is smaller than the actual file, the system will only upload the set value size and will ignore the rest of the file. If the value is set to 0, all files will be transferred regardless of size.

- **Image upload interval:** Set the interval inbetween image uploads.
 - ◇ If the image interval is 5 seconds and the snapshot frequency is 2 seconds, the system will send out the latest image with a 5 second buffer.
 - ◇ 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. You can set the Snapshot frequency from **Main Menu->Setting->Camera->Encode->Snapshot**

- **Channel:** Select the channel you would like to configure FTP on. Each channel needs to be configured manually. Otherwise, select the all option to apply settings to every channel.
- **Week day/Period:** Select the day(s) and time period(s) for the transfers.
- **Record Type:** Select record types that you would like to upload (Alarm/intelligent/motion detect/regular).

Step 2 Click the **FTP Test** button. A dialogue box will come up to confirm a successful FTP connection.

Step 3 Click **Apply** to complete the setup.

6.11.4.5 Record Control

This interface allows you to set recording channels to auto, manual or off. See *Figure 6.41*

- Set all applicable channels and channel types to **Auto** to record videos and images automatically.
- Set all applicable channels and channel types to **Manual** to record videos and images manually via an auxillary device.
- Set all applicable channels and channel types to **OFF** to stop all recordings from the specified channels.
- Click **OK** to save your configuration.

The screenshot shows a configuration window titled "Record". It is organized into three main sections: "Main Stream", "Sub Stream", and "Snapshot". Each section has three rows of radio buttons representing different recording modes: "Auto", "Manual", and "Stop". The columns represent 16 channels, labeled "All", "1" through "16". In the "Main Stream" section, the "Auto" mode is selected for all channels. In the "Sub Stream" section, the "Stop" mode is selected for all channels. In the "Snapshot" section, the "Stop" mode is selected for all channels. At the bottom of the window are two buttons: "OK" and "Refresh".

	All	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Main Stream																	
Auto	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Manual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sub Stream																	
Auto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stop	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Snapshot																	
Open	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stop	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

Figure 6.41

6.11.4.6 Advanced

HDD

This interface allows you to further configure advanced recording options for your onboard HDDs. It is for setting HDD group, and the HDD group setup for main stream, sub stream and snapshot operations. See *figure*

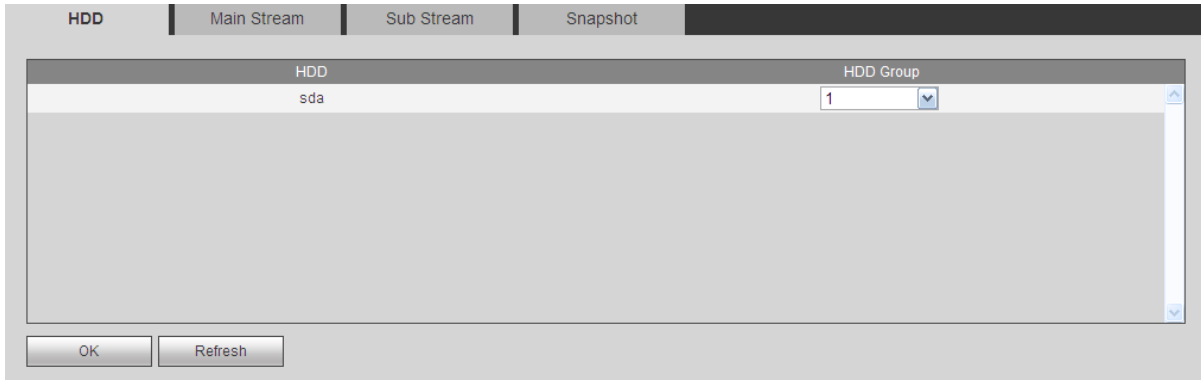


Figure 6.42

Step 1 Set a HDD group for current HDD.

Click **OK**. The Device begins to reboot.

Step 2 After setting the HDD group, click main stream/sub stream/snapshot tab to allocate each channels's main stream, sub stream, snapshot image to different HDD groups. See figures 6.42b, 6.42c and 6.42d for each interface.

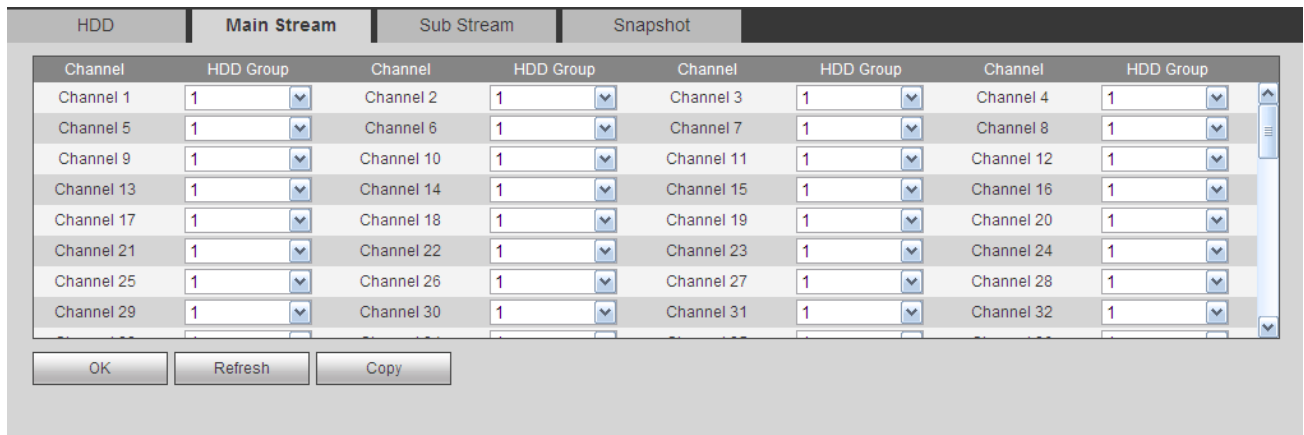


Figure 6.42b

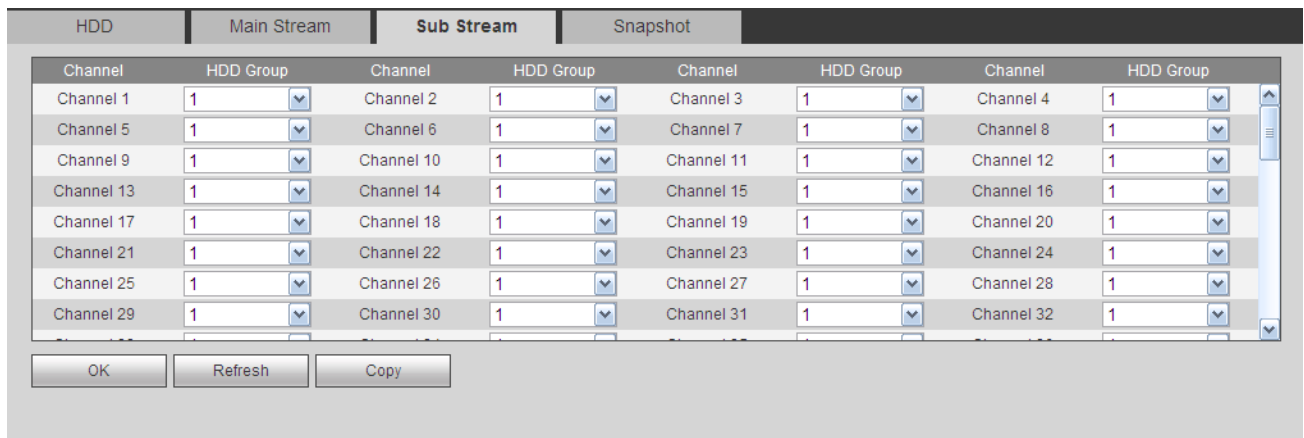


Figure 6.42c

HDD		Main Stream		Sub Stream		Snapshot	
Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
Channel 1	1	Channel 2	1	Channel 3	1	Channel 4	1
Channel 5	1	Channel 6	1	Channel 7	1	Channel 8	1
Channel 9	1	Channel 10	1	Channel 11	1	Channel 12	1
Channel 13	1	Channel 14	1	Channel 15	1	Channel 16	1
Channel 17	1	Channel 18	1	Channel 19	1	Channel 20	1
Channel 21	1	Channel 22	1	Channel 23	1	Channel 24	1
Channel 25	1	Channel 26	1	Channel 27	1	Channel 28	1
Channel 29	1	Channel 30	1	Channel 31	1	Channel 32	1

OK Refresh Copy

Figure 6.42d

Step 3 Click **OK** to complete the setup.

6.11.5 System

6.11.5.1 General

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

I. General

In this interface, you will be able to the basic information and settings for your system. *Figure 6.43*

General		Date&Time		Holiday	
Device Name	NVR				
Device No.	1				
Language	ENGLISH				
Auto Logout	10	Min. (0-60)			
<input checked="" type="checkbox"/> IPC Time Sync	24	Hour			
		OK		Refresh	
				Default	

Figure 6.43

Please refer to the following sheet for detailed information about each option:

Parameter	Function
Device ID	Set up the NVR's name
Device No.	Set up the NVR's device ID.
Language	Change the system's language. Please note the device needs to reboot to get this modification activated.
Auto Logout	Set a timer for automatic logout in between idle times. Value ranges from 0 to 60 minutes.
IPC Time Sync	Set up the refresh interval value to sync the NVR with the IPCs.
Default	Restore the settings to factory. This option will only apply to general settings.

II. Date and time

In this interface, you will be able to set the date and time settings for your system. *See figure 6.44.*

General	Date&Time	Holiday
Date Format	YYYY MM DD	
Time Format	24-HOUR	
Date Separator	-	
Time Zone	GMT-04:00	
System Time	2018 - 08 - 02	10 : 47 : 22
		<input type="button" value="Sync PC"/>
<input type="checkbox"/> DST		
DST Type	<input checked="" type="radio"/> Date <input type="radio"/> Week	
Begin Time	2000 - 01 - 01	00 : 00
End Time	2000 - 01 - 01	00 : 00
<input type="checkbox"/> NTP		
Server	time.windows.com	<input type="button" value="Manual Update"/>
Port	123	(1~65535)
Interval	60	Min. (1~65535)
<input type="button" value="OK"/> <input type="button" value="Refresh"/> <input type="button" value="Default"/>		

Figure 6.44

Please refer to the following sheet for detailed information:

Parameter	Function
Date format	Select the date display format from the dropdown list.
Time Format	Select the time display format from the dropdown list.
Date Seprator	Select the date display separator symbol from the dropdown list.
Time zone	Select the system time zone.
System time	Enter the system's time manually.
Sync PC	Automatically sync your system's time with your PC.
DST	Set the Daylight Savings start and end times if applicable.

NTP	Enable the NTP function
NTP server	Set the NTP server address if the NTP option is enabled.
Manual Update	Click to sync the DVR time with the NTP server manually.
Port	Set time server port.
Interval	Set the sync time refresh interval between the DVR and the NTP server. The value ranges from 0 to 65535 minutes.
Default	Restore settings to factory. This option only applies to date and time settings.

III. Holiday Setup

In this interface, you will be able to the holiday settings for your system. See *figure 6.45*

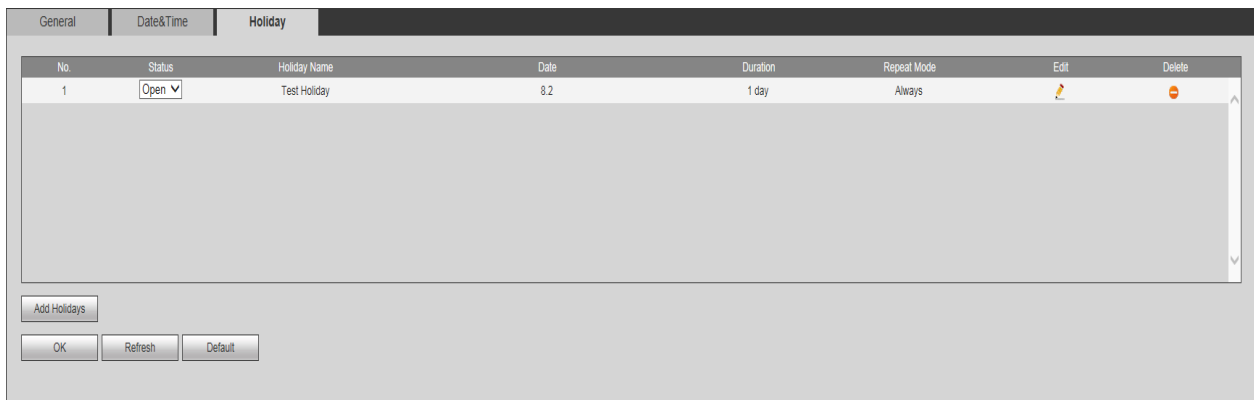


Figure 6.45

- Click the **Add Holidays** button to enter the new holiday interface setup. (*Figure 6.45b*)

Figure 6.45b

- Input the holiday(s) name, repeat mode and holiday range (Can be set to a specific date or a whole week.)
- Click the **OK** button to put you back to the main Holiday interface.
- Click **Default** to restore to factory settings or **OK** to save your configuration.

6.11.5.2 Display

This interface contains all your system's display options and configuration interfaces. Please note that the configurations here only apply to the main system interface and will not affect individual channels.

I. Display

You can change your monitor display and main screen display settings in this section. See figure 6.46

Figure 6.46

Please refer to the following sheet for detailed information about each option:

Parameter	Function
Resolution	Changes the display resolution on your monitor. There are five options: 1280×1024 (Default), 1280×720, 1920×1080, 1024×768 and 3840×2160. Please note the system needs to reboot to activate current setup. Please note 3840×2160 is for some series only.
Transparency	Adjusts the transparency of the display items like time and channel. The value ranges from 128 to 255.
Time Display Channel Display	Toggles the time and channel displays on the main screen ON or OFF
Image enhance	Optimizes the margin of the preview video
IVS Rule	Follows the display settings from your IVS rules.
Original Scale	Restores the display to original settings.

- Click the **OK** button to save your changes or click the **Default** button to restore to factory settings.

II. Tour

You can enable and configure your tour settings in this menu. When set, you will be able to run the tour function to automatically browse through all your cameras. See *figure 6.47*

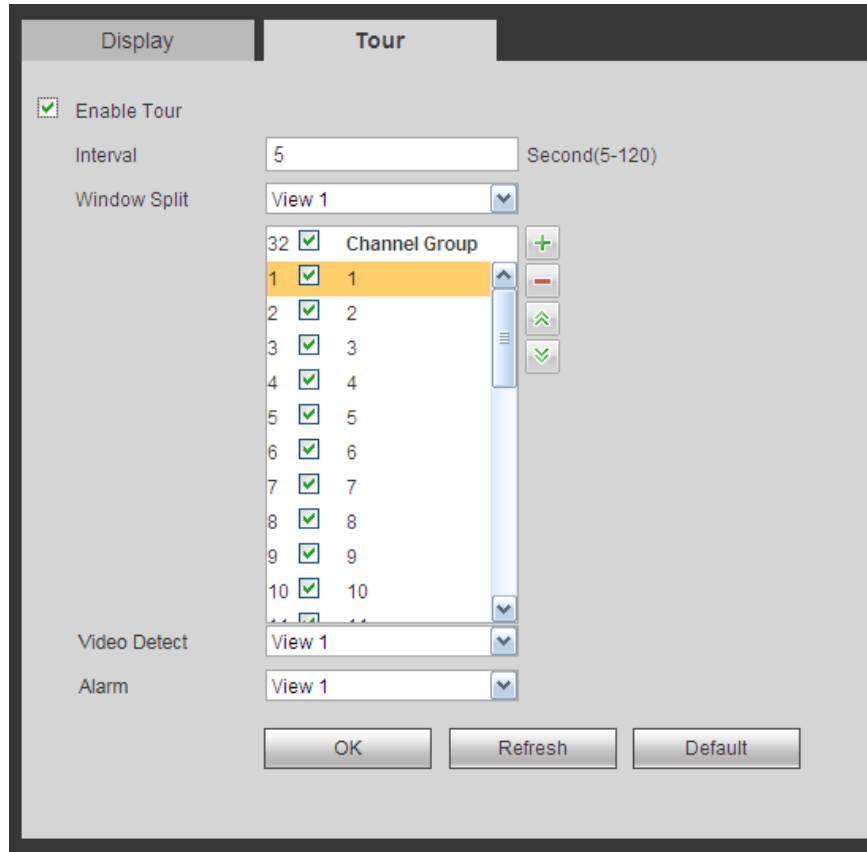


Figure 6.47

Please refer to the following sheet for detailed information about each option:

Parameter	Function
Enable tour	Toggles the general tour function ON/OFF. The general tour supports all types of window split mode.
Interval	Sets the interval time when switching to the next view during tour mode. The value ranges from 1-120 seconds.
Window Split	Allows you to select which cameras or group of cameras will show in each View split during Tour mode.
Video Detect Tour	Sets the view type for motion detect tours. The system supports 1/8-window tour. Please note that you will need to enable this function manually in the Motion Detect interface. Refer to Chapter 6.8.3 for more information.
Alarm Tour	Sets the view type for alarm triggered tours. The system supports 1/8-window tour. Please note that you will need to enable this function manually in the Alarm interface. Refer to Chapter 6.8.3 for more information.

- Click **OK** to save your changes or **Default** to restore to factory settings.

6.11.5.3 Voice Prompt (Optional)

This interface contains options and settings for managing adding audio files for voice prompt.

I. File List

This interface allows you to add and manage your audio files for voice prompt. See figure 6.48

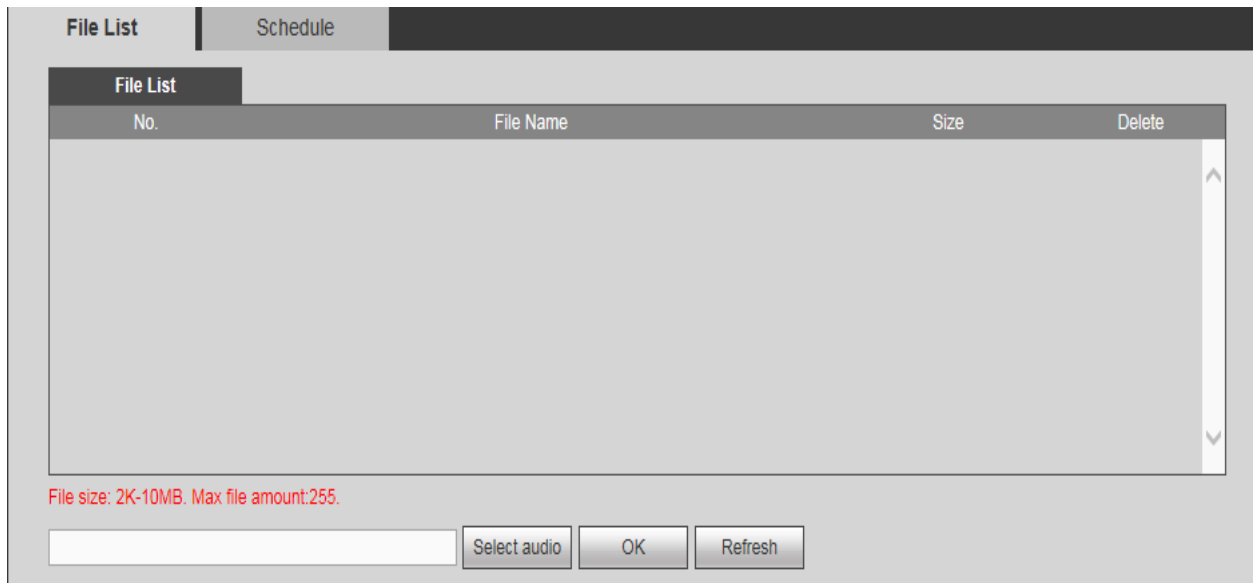


Figure 6.48

Click on the **Select Audio** button to import files from your Local Computer and click **Delete** to remove an audio file from the list.

II. Schedule

This interface allows you to add and modify the time periods when voice prompt is active. See figure 6.49

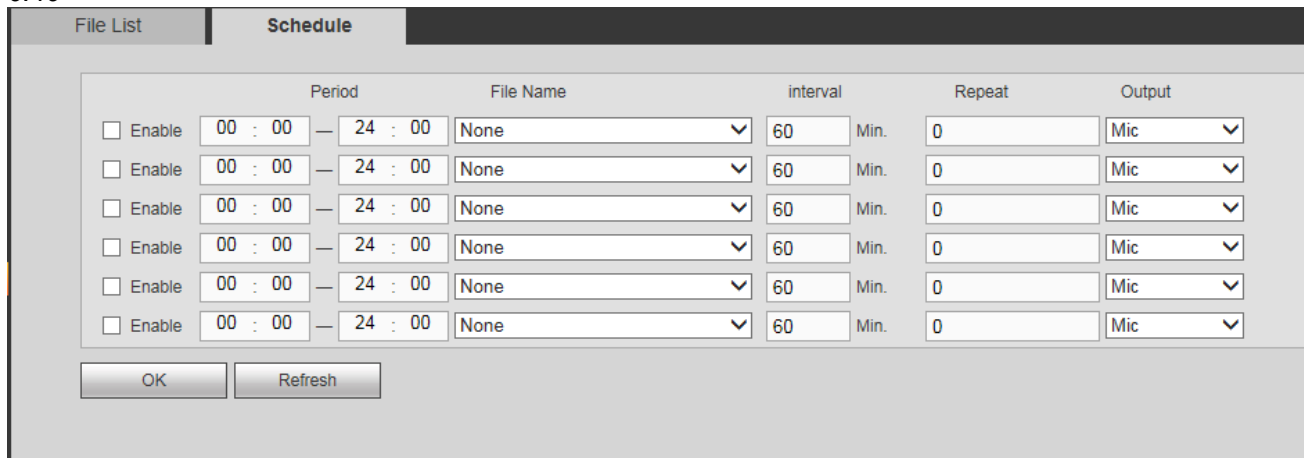


Figure 6.49

- Set the period times where the voice prompts will be active.
- Select the audio files from your file list.
- Set the interval in between prompts and repetition.
- Select the output device.
- Click **OK** when done.

6.11.5.4 Account

This interface contains all the options and configuration settings for managing all the user accounts and groups in your system. See *figure 6.50*

Please read the following guidelines before setting up or configuring accounts.



Important:

- The max characters that the system allows in a username or group is **six (6)**. There can be no spaces in the front or at the end of the string. Only letters, numbers, underscore, minus and dot can be used in the name.
- A name can only be used once.
- The user amount default setup is 64 and the group amount default setup is 20.
- The factory default setup includes two levels: user and admin. You can set the group accounts then set the rights for each respective user in the corresponding groups.
- User management adopts group/user modes.
- The user name and the group name have to be unique.
- Each user needs to be in a group and can only belong to one group.
- The hidden user “default” is for system use only and can not be logged in to or deleted. When there are no login users, the hidden user “default” automatically logs in. You can manage the available channels that are on display when no account is logged in to the system by modifying its monitor rights. (Only applicable on some models)

I. User name

In this interface, you will be able to create and modify User Accounts for your system. See *figure 6.50*

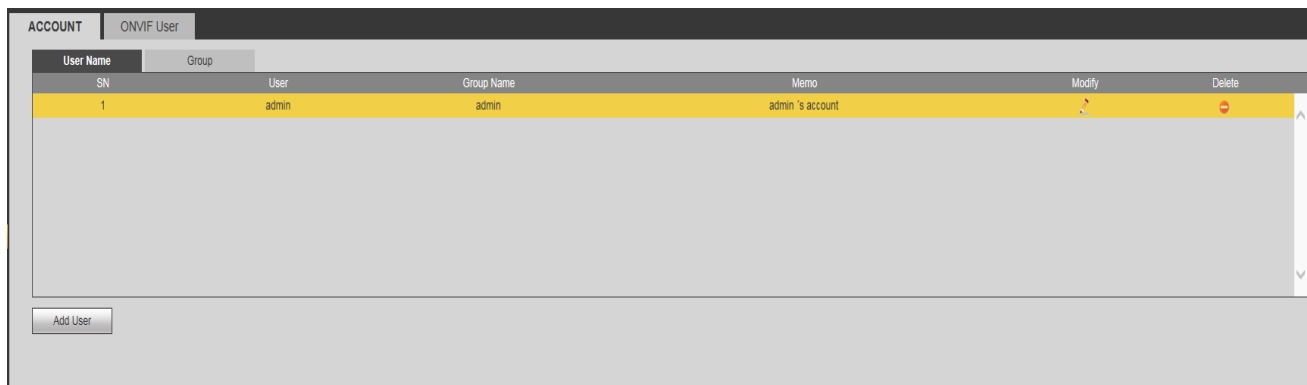


Figure 6.50

- Click the **Add User** button to enter the add user interface. Please create the user following the guidelines that have been highlighted in the beginning of this chapter. See *figure 6.50b*

Add User

User

Password

Low Middle High

Confirm Password

Group ▼

Memo

Authority


System Playback Monitor

All

<input checked="" type="checkbox"/> ACCOUNT	<input checked="" type="checkbox"/> SYSTEM	<input checked="" type="checkbox"/> SYSTEM INFO	<input checked="" type="checkbox"/> MANUAL
<input checked="" type="checkbox"/> File Backup	<input checked="" type="checkbox"/> STORAGE	<input checked="" type="checkbox"/> EVENT	<input checked="" type="checkbox"/> NETWORK
<input checked="" type="checkbox"/> CAMERA	<input checked="" type="checkbox"/> SECURITY	<input checked="" type="checkbox"/> Device Maintenance	

OK Cancel

Figure 6.50b

- Click the  button to modify a user account. Please modify the account following the guidelines that have been highlighted at the beginning of this chapter. See *figure 6.50c*

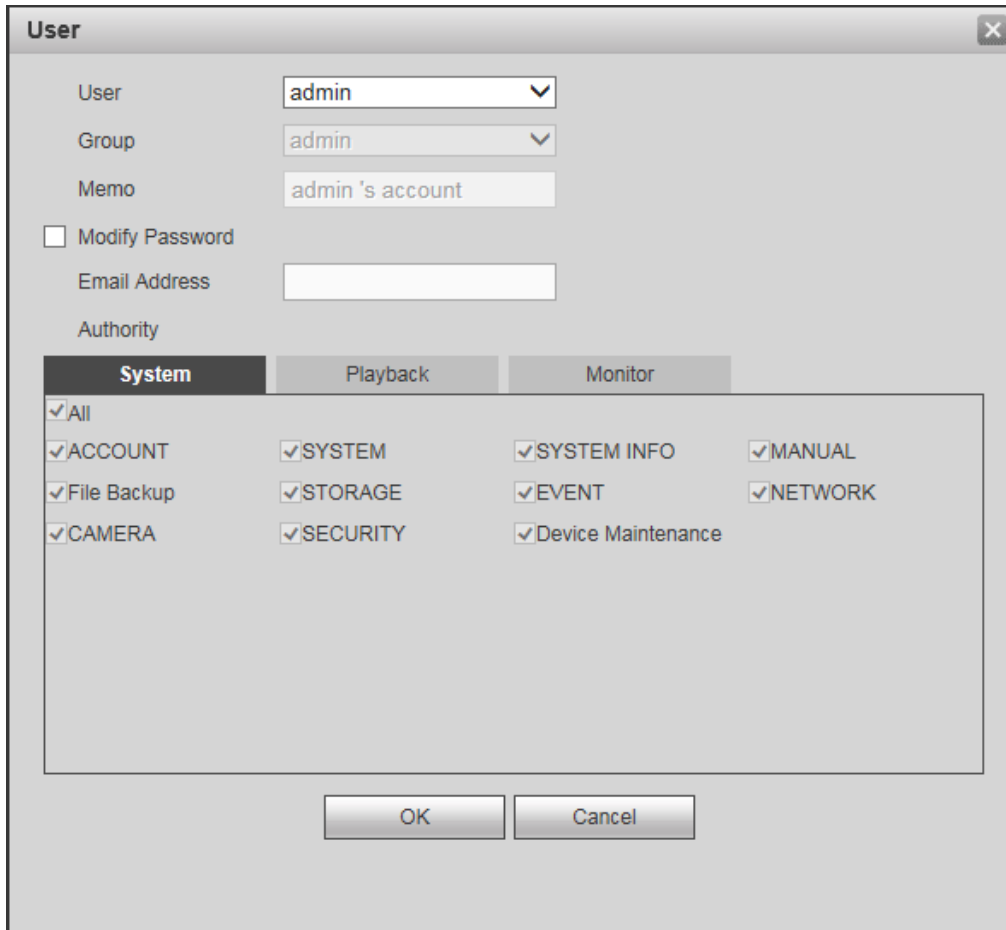


Figure 6.50c

- Click the  button to delete an account

II. Group

In this interface you will be able to create and modify new group memberships for your system. See *figure 6.51*.

- Click the **Add Group** button to enter the add group interface. Please create the group following the guidelines that have been highlighted in the beginning of this chapter. See *figure 6.51b*

ACCOUNT		ONVIF User		
User Name	Group			
SN	Group Name	Memo	Modify	Delete
1	admin	administrator group		
2	user	user group		

Add Group

Figure 6.51

- Click the button to modify a group account. Please modify the account following the guidelines that have been highlighted at the beginning of this chapter. See figure 6.50c

Add Group

Group Name

Memo

Authority

System	Playback	Monitor	
<input type="checkbox"/> All			
<input type="checkbox"/> Device Maintenance	<input type="checkbox"/> File Backup	<input type="checkbox"/> SECURITY	<input type="checkbox"/> CAMERA
<input type="checkbox"/> NETWORK	<input type="checkbox"/> EVENT	<input type="checkbox"/> STORAGE	<input checked="" type="checkbox"/> MANUAL
<input type="checkbox"/> SYSTEM INFO	<input type="checkbox"/> SYSTEM	<input type="checkbox"/> ACCOUNT	

Figure 6.51b

- Click the button to modify a group account. Please modify the account following the guidelines that have been highlighted at the beginning of this chapter. See figure 6.51c

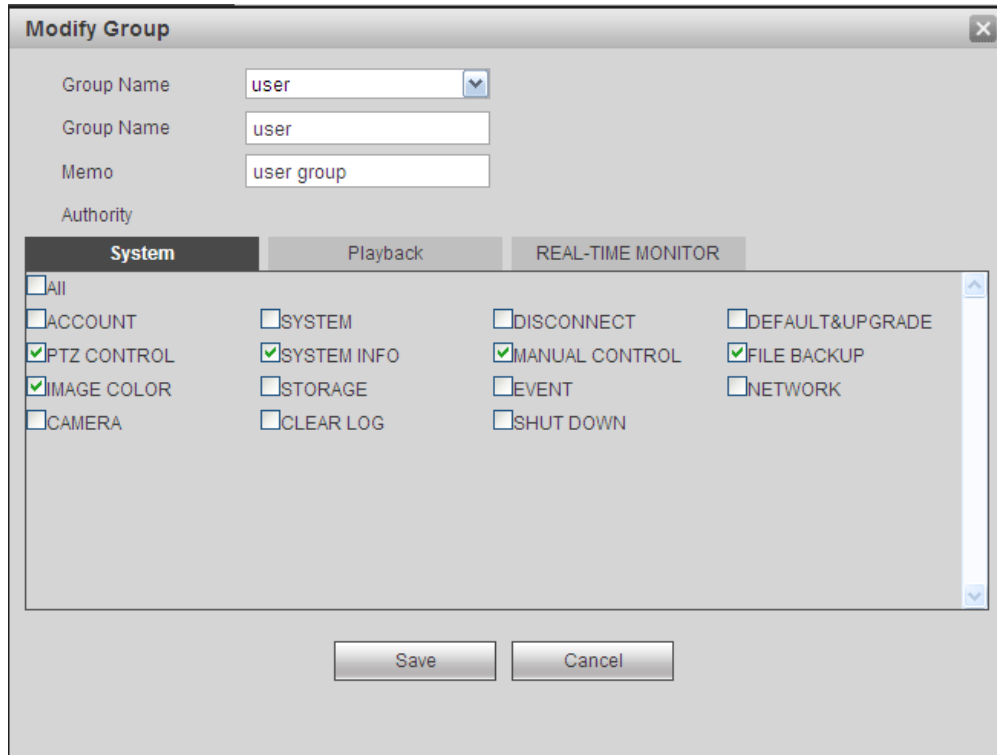


Figure 6.51c

- Click the  button to delete an account

III. Onvif User

In this interface, you will be able to set up and modify ONVIF User accounts from your system. See *figure 6.52*

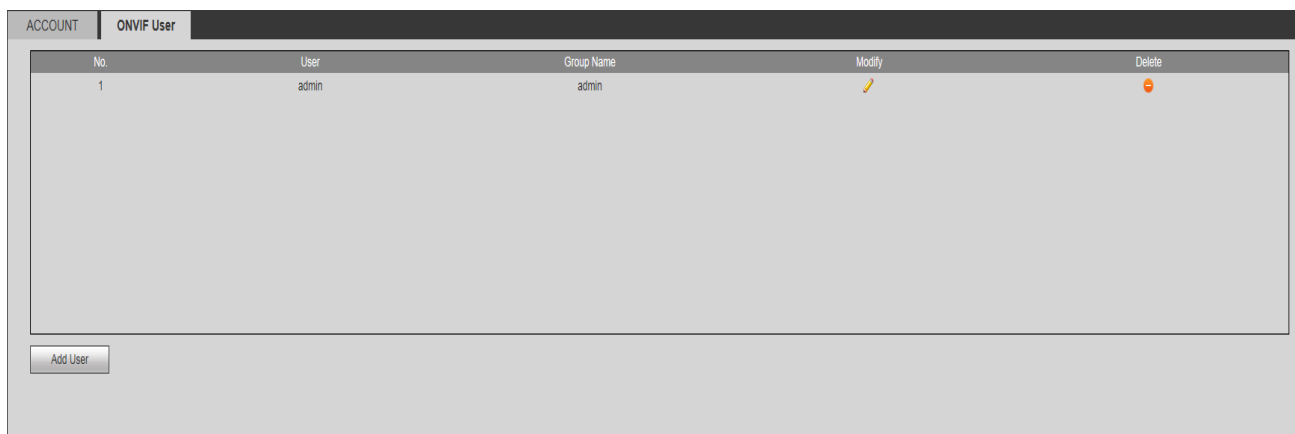


Figure 6.52

- Click the **Add User** button to enter the add user interface. Please create the user following the guidelines that have been highlighted in the beginning of this chapter. See *figure 6.52b*

Add User

User

Password


Low Middle High

Confirm Password

Group ▼

OK Cancel

Figure 6.52b

- Click the  button to modify a group account. Please modify the account following the guidelines that have been highlighted at the beginning of this chapter. See *figure 6.52c*

User

User ▼

Group ▼

Modify Password

OK Cancel

Figure 6.52c

- Click the  button to delete an account

6.11.5.5 Security

This interface allows you to enhance your device's network security by providing an IP Filter to either block or allow connections from user-defined sources.

IP Filter

Check the Enable box on the function(s) you wish to implement. See *Figure 6.53 and 6.53b*

- Enable trusted site function to add sources to the whitelist.
- Enable blocked site function to add sources to the blacklist.



Figure 6.53



Figure 6.53b

- Click the **ADD** button to bring up the add interface. See figure 6.53c

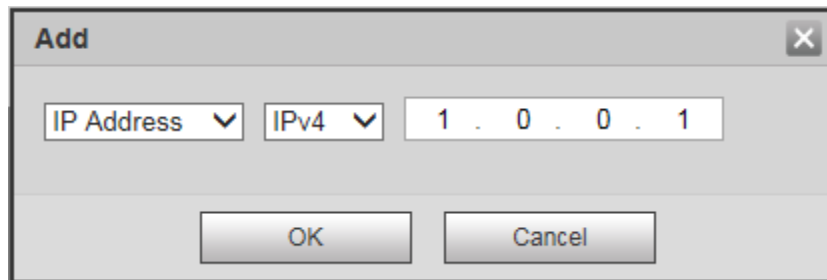


Figure 6.53c

- Enter the IP address you wish to add to either lists and click **OK**.

6.11.5.6 Auto maintenance

In this interface, you will be able to set a power-cycle schedule for your device. Auto Reboot is set to Never by default. You can set it to auto-reboot on any day of the week according to the time you are going to set. Click **OK** to save your settings. You can also click **Manual Reboot** to remotely restart your NVR. See figure 6.54

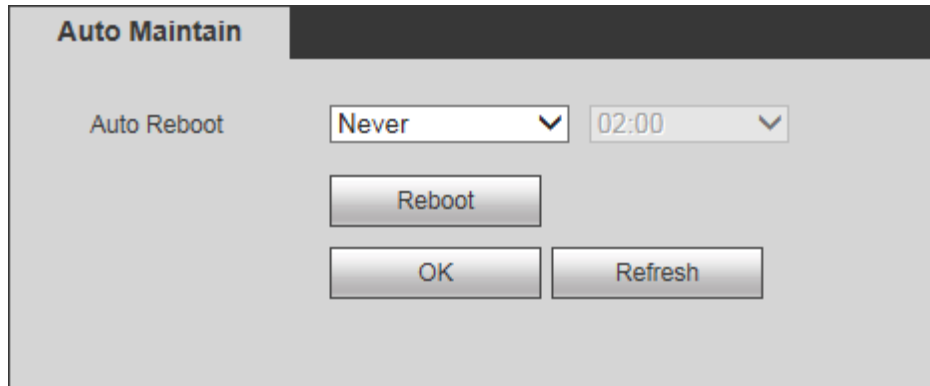


Figure 6.54

6.11.5.7 Import/Export

This function allows you to import/export your current current system configuration to a storage device. See figure 6.55



Figure 6.55

Please refer to the following sheet for detailed information:

Parameter	Function
Browse	Click to select import file.
Config Import	Import your local configuration files from specified location.
Config Export	Export your local configuration files to specified location.

6.11.5.8 Default

You can restore the specified settings or your entire system to its factory settings through this interface. See figure 6.56

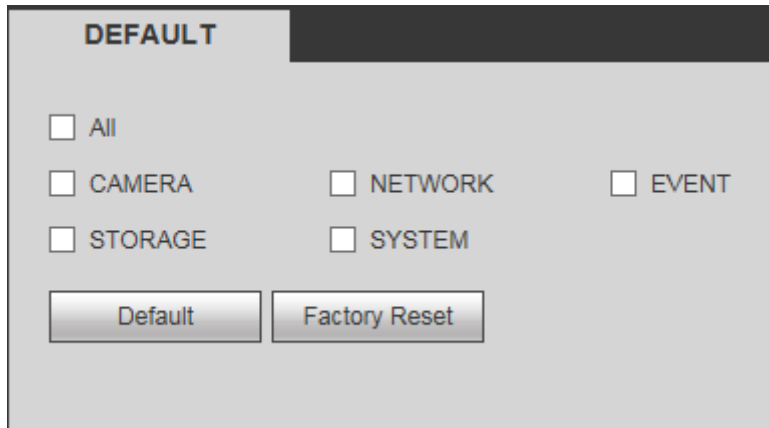


Figure 6.56

Check all the boxes of the settings you want to modify and click the **Default** button to restore them to their original set up. Click **Factory Reset** to restore your entire system to its factory settings.



Warning!

After you use the default function some, if not all of your customized setup may be lost forever. Please choose carefully.

6.11.5.9 Upgrade

In this interface you will be able to upgrade your system Bios. See *figure 6.57*

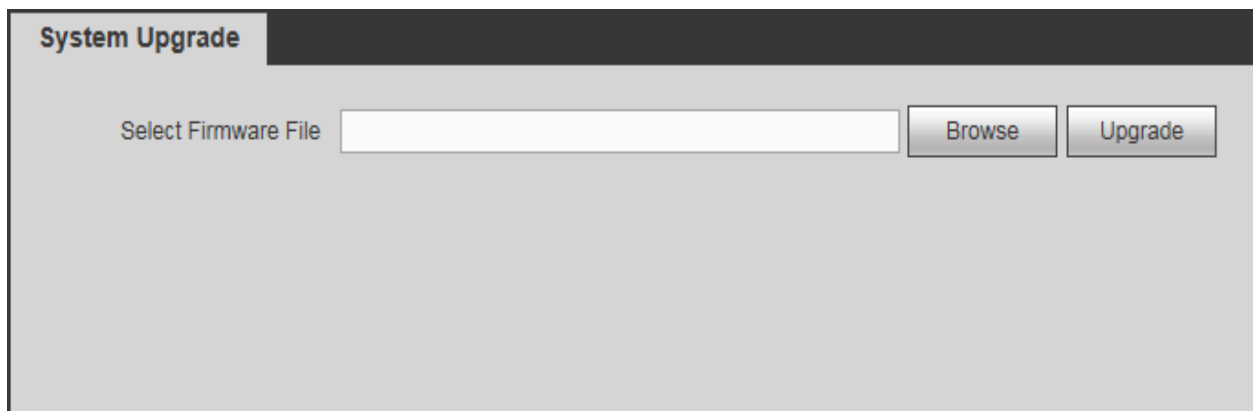


Figure 6.57

- Click the **Browse** button to locate the folder where the bios **BIN** file is.
- Click the **Start** button after locating and selecting the **.bin** file.
- A process bar will appear in the screen to show the progress of the upgrade. A message at the end will confirm if the process had been successful.

6.12 Info

This menu contains all your system logs and information.

6.12.1 Version

You can find information about your system in this interface. See *fig 6.58*

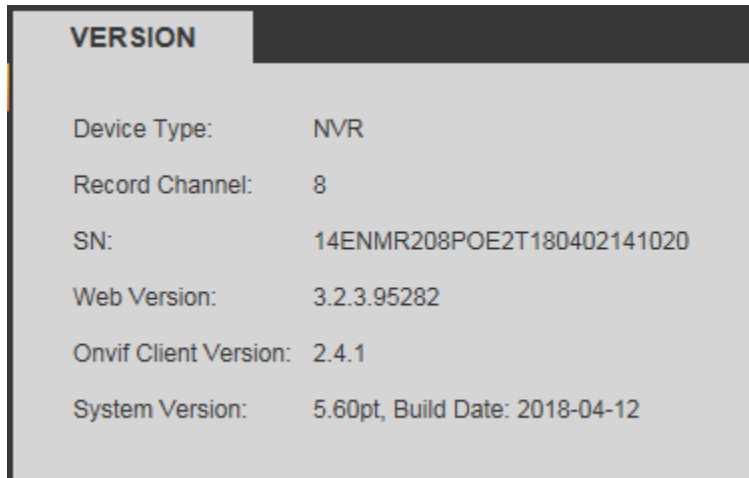


Figure 6.58

6.12.2 Log

This interface allows you to view or back up all types of logs that are stored within the system. See *figure 6.59*

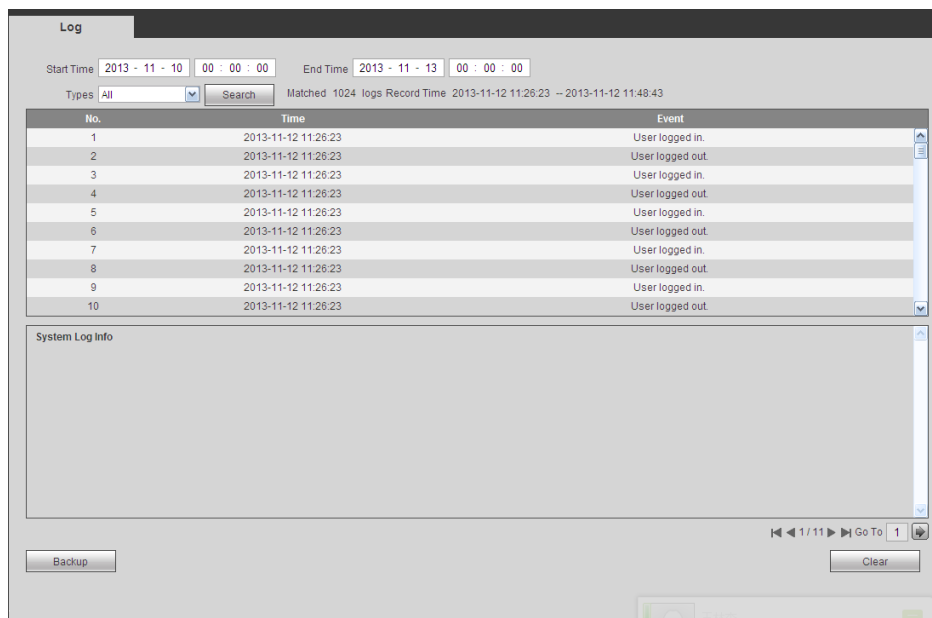


Figure 6.59

Please refer to the following sheet for detailed information about each option:

Parameter	Function
Type	Log types include: system operation, configuration operation, storage, alarm, record operation, account, playback and connection logs. You can select Clear Log to clear your system of log files.
Start time	Set the start time of the requested log.
End time	Set the end time of the requested log.
Search	Searches for logs according to user-defined filters.
Detailed information	You can select one item to view the detailed information.
Clear	Deletes all displayed log files.
Backup	Starts the backup process for your system log files to specified location.

6.12.3 Online User

This interface allows you to manage online users connected to your NVR. See *figure 6.60*

No.	User Name	Group Name	IP Address	User Login Time
1	admin	admin	10.15.9.152	2013-10-24 04:31:33 PM
2	admin	admin	10.15.9.152	2013-10-24 04:21:12 PM
3	admin	admin	10.15.6.145	2013-10-24 04:50:01 PM

Refresh

Figure 6.61

6.12.4 People Counting

This interface shows you information about the people counting feature which is only applicable to some camera models. See *figure 6.62*

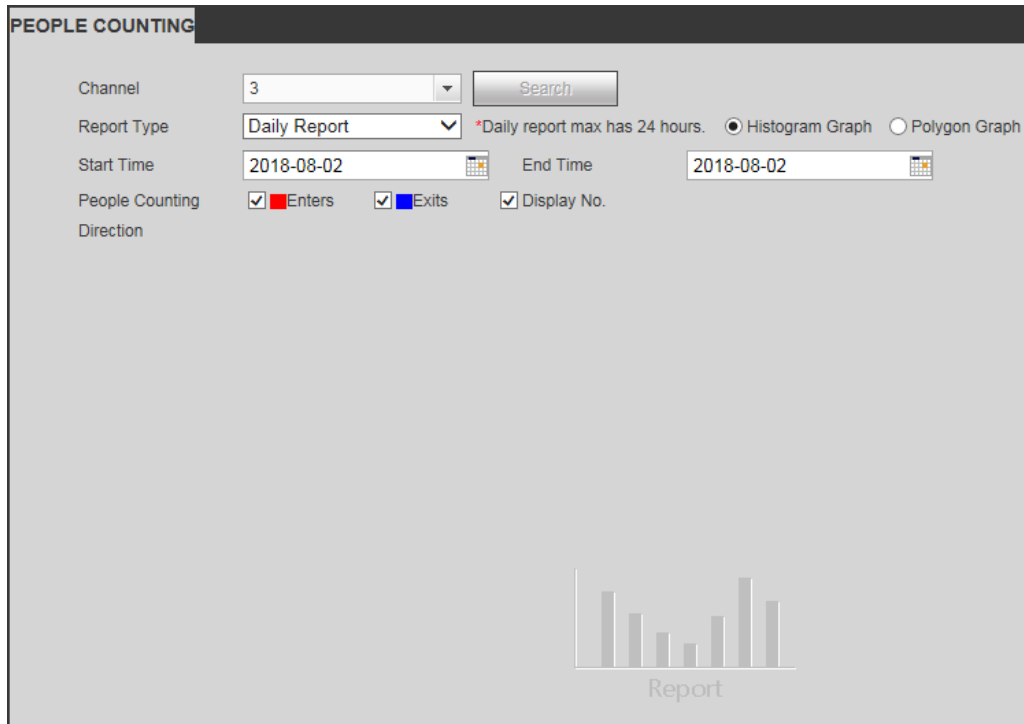


Figure 6.62

6.12.5 Heat Map

This interface shows you information about the Heat Map feature which is only applicable to some camera models. See figure 6.63

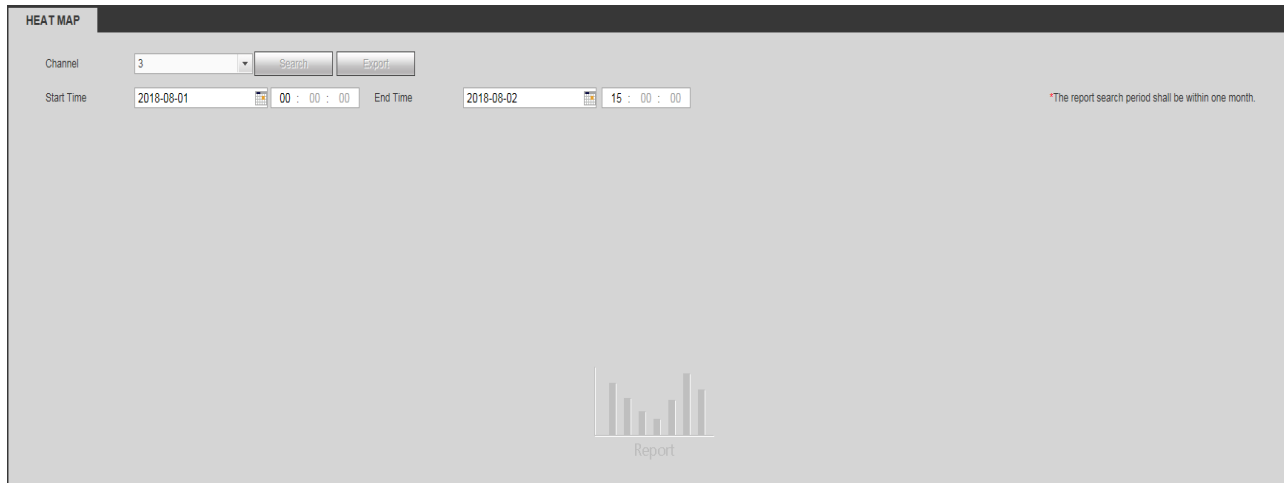


Figure 6.63

6.12.6 HDD

This interface shows you information about your onboard HDD's. This includes the name, physical position, type, space, health, status and SMART info of the harddrive. See figure 6.64

No.	Device Name	Physical Position	Status	Free Space/Total Space	SMART	Path
1*	sda	main board_1	Normal	0GB/931.47GB		-

HDD Time Refresh

Figure 6.64

Click the **HDD Time** button to enter the HDD Time Interface which shows you all the times when hardrive was recording something.

Device Name	Start Time	End Time
sda	2018-07-29 14:19:18	2018-08-02 10:54:36
	2018-07-25 20:07:24	2018-07-29 14:19:18
	2018-07-22 01:55:31	2018-07-25 20:07:24
	2018-08-02 10:54:36	2018-08-02 15:07:28
	2018-07-18 13:29:29	2018-07-22 01:55:31

Figure 6.64b

6.13 Log out

Clicking the **LOG OUT** button will log you out of the web interface and back to the main log in screen.

WatchNET

User Name: Login

Password: Cancel Forgot password?

LAN WAN Digital Remote Monitoring

Figure 6.65

7 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.
- **WIFI:** 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 hundreds 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.