Network Video Recorders

User Manual

V3.04

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About this Manual

Copyright Statement

Thank you for purchasing our product. Contact your local dealer if you have any questions or feedback. No part of this manual may be copied, reproduced, translated, or distributed in any form or by any means without prior consent in writing from our company.

Disclaimer

Due to such reasons as product version upgrade or regulatory requirement of relevant regions, this manual will be periodically updated.

This manual is only for informational purpose, and all statements, information, and recommendations in this manual are presented without warranty.

The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.

Safety Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
₩NOTE!	Indicates useful or supplemental information about the use of product.
	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.

1 Local Operations

This chapter introduces operation methods and matters needing attention on the local interface.

1.1 Before You Begin

- Please be aware that functions may vary with NVR model.
- The figures in this manual are for illustration purpose only and may vary with NVR model.
- The parameters that are grayed out on the local interface cannot be edited. The parameters and values displayed may vary with NVR model and version.

1.2 Local Operations

This section introduces mouse operations and front panel buttons.

You can refer to Initial Configuration and complete a quick configuration.

Note: Unless otherwise specified, all operations described in this manual are performed with a mouse by the right hand.

Mouse Operations

Table 1-1: Mouse Operations

Name	Operation	Description
Left button	Click	 Select or confirm an item. Select to edit digits, symbols, uppercase or lowercase letters in a field.
	Double-click	Switch single window or multi-window in live view.
	Drag	Draw or move a rectangle on the screen.Sort windows in a multi-window layout.
Right button	Click	 Show the shortcut menu. Exit digital zoom. Exit the current window when Cancel or Exit is displayed.
Scroll wheel	Scroll up	 Scroll up a list, window, or scroll bar. Zoom in on the screen when digital zoom is enabled.
	Scroll down	 Scroll down a list, window, or scroll bar. Zoom out on the screen when digital zoom is enabled.
	Long press	Restore to the lowest resolution.

Front Panel Buttons

The front panel buttons may vary with NVR model.

Table 1-2: Front Panel Buttons 1

Button	Description
	Display the main menu.
O	Switch to the next tab on the screen or switch the input method.

Button	Description
FI	Auxiliary function button.
9	Exit the current window.
	 Direction button: Switch windows or menu items; or control rotation direction of a PTZ camera when the PTZ toolbar is closed. PTZ stands for pan, tilt, and zoom. (a) / (b): Rewind or forward 30 seconds in full screen. (a) / (c): Variable-speed forward or rewind in full screen. Confirm an operation, or start/pause the playback.
	Startup: Press and hold the button for 1 to 2 seconds.
	Note: This button only supports shutdown for certain devices. Please connect the device to power to start it up.
	 Shutdown: Press and hold the button for 3 seconds until you hear a beep, then hold for 2 seconds until an on-screen message appears, and then click Yes to shut down the device.

Table 1-3: Front Panel Buttons 2

Button	Description
	Enter 1; or display the main menu.
	Enter 2, A, B, or C; or start instant playback.
80 3 mm	Enter 3, D, E, or F; or start manual recording.
PIZ 4 cm	Enter 4, G, H, or I; or enter the PTZ control interface.
	Enter 5, J, K, or L; or switch the screen layout in live view or playback mode.
	Enter 6, M, N, or O; or enable or disable arming.
	Enter 7, P, Q, R, or S; or take a snapshot.
	Enter 8, T, U, or V.
() wxrs	Enter 9, W, X, Y, or Z.
	Enter 0 or a space.

Button	Description
	Delete.
	Switch the input method.
F1	Auxiliary function button.
9	Exit the current window.
0	Switch to the next tab.
	 △/▽/▷/<: Switch windows or menu items; or control rotation directions of a PTZ camera when the PTZ toolbar is closed. PTZ stands for pan, tilt, and zoom.
	• [K]/[]: Rewind or forward 30 seconds in full screen.
	• DV/CC: Variable-speed forward or rewind in full screen.
	• Confirm an operation, or start/pause the playback.
	Startup: Press and hold the button for 1 to 2 seconds.
	Note: This button only supports shutdown for certain devices. Please connect the device to power to start it up.
	• Shutdown: Press and hold the button for 3 seconds until you hear a beep, then hold for 2 seconds until an on-screen message appears, and then click Yes to shut down the device.

2 Initial Configuration

This chapter describes the initial configuration of the NVR.

2.1 Preparation

• Make sure that at least one monitor is correctly connected to the VGA or HDMI interface on the rear panel of the NVR, otherwise, you cannot view the local interface.

Note: If no images are displayed after the NVR is powered on, it may be because the monitor does not support the current output resolution of the NVR. Please press and hold the scroll wheel of the mouse to restore to the lowest resolution.

• Make sure that the hard disk(s) are correctly installed. For detailed installation steps, please refer to the quick guide shipped with the NVR.

2.2 Login

Device Login

- 1. The **Language Selection** page appears after the NVR starts up. Set the area, language, and video standard based on the actual situation. The video standard can be changed in **Basic Configuration** later.
 - PAL: 50Hz
 - NTSC: 60Hz

Note: The video standard is automatically generated according to the default standard of the selected area. You can also change it as needed.

Language Selection		
Area	Please select ~	
Language	English ~	
Video Standard	PAL ~	

2. On the Login page, select the default user (admin), enter the default password (123456), and then click Login.

Login	×
admin 🗸	
Remember Password	
Login	
Forgot Password?	
Unlock Pattern	

Note: If you enable Remember Password, the username and password will be automatically filled in the next time.

3. Click **Yes** in the pop-up window to change the password into a strong one.

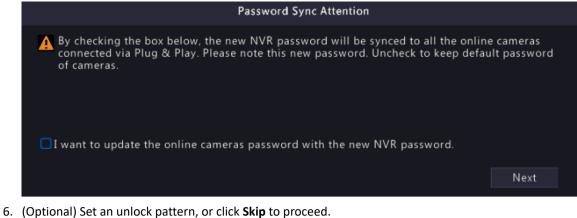
	Login	4 Star I I	
Please change the default password.	Change now?		
	Yes	No	(A).
	165	 NU	
.85			

4. On the **Change Password** page, enter the old password, new password, and confirm the new password. You may check **Email** to enter your email address, and then click **OK**.

	Change Password		
Username	admin		
Old Password	aunin		
Password		Weak	
Confirm		WEak	
🗹 Email			
		Apply	
		Арріу	

🛃 Note:

- Use the default username and password (admin/123456) to log in for the first time. After login, you have to change the password, and use the new password to log in the next time.
- For security, you are strongly recommended to set a strong password with at least 9 characters including all three elements: letter, digit, and special character.
- It is recommended to enter your email address in case you need to reset the password. You may also enter it when you need to retrieve the password. See Reset Password for details.
- 5. The **Password Sync Attention** dialog box appears. Select the checkbox below as needed, and then the new NVR password will be synced to all the online cameras via Plug & Play.



(Optional) Set an unlock pattern, or click Skip to proce
Set Pattern
Please draw unlock pattern.
$\bigcirc \bigcirc \bigcirc$
$\bigcirc \bigcirc \bigcirc$
\bigcirc \bigcirc \bigcirc
Don't show again Skip

Note:

- You can set the unlock pattern later at anytime or disable it under Menu > System > User.
- If an unlock pattern is set, it will replace the password at login.

Reset Password

1. If you forgot the admin password or want to reset the password, click **Forgot Password** on the login page.

Login	×
admin 🗸	
الالالا وتكاكل المتحد المتعال	
Remember Password	
Login	
Forgot Password?	
Unlock Pattern	

2. (Skip this step if you have already entered your email address) Enter your email address so as to receive the security code, that is, the temporary password.

Set Retrieve Mode					
Email					
Please enter your email address	used to reset password				
	Next	Cancel			
	Next	Cancel			

3. Follow the instructions on the screen to obtain the security code.

	Retrieve Password
Serial No.	219
Email	117
Security Code	
	Please scan the QR code to obtain the security code: Scan with your app For admin only OK Back

Note: The app may vary with NVR model.

- 4. Enter the security code received from the email address, and click **OK**.
- 5. Enter the password, confirm the password, and then click **OK** to reset the password.

Change Password				
Username	admin			
Password				
		Weak		
Confirm				
1-32 characters.A strong password is recommended: at least 9 characters including letters, digits and special characters				
Note: If NVR is added to managing platform, you also need to edit the password on the platform.				
		ОК		

6. Use the new password to log in again.

2.3 Wizard

The wizard page appears after you login. Follow the wizard to complete the most basic setup, or click **Exit** to skip this step.

Note: You can also go to **Menu > System > General > Basic Setup** to set the basic parameters.

1. Enable or disable the wizard as needed and then click **Next** or click **2**.

Image: Constraint of the second se	
Wizard Time TCP/IP IP Camera	
그는 그는 것 같아요. 이 집에 무너 같은 것 같아. 그는 것 같아요.	
Next Exit	

2. Set the time parameters, including time zone, date format, time format, and system time, and then click **Next**.

		Wizard			
	2				
QR Code	Time	TCP/	/IP	IP Cam	era
Time Zo	one	(UTC+08:00) Beijing, Ho	na Kona.Urun 🗸		
Date Fo		YYYY-MM-DD	~		
Time Fc	ormat	24-hour			
System	Time	2022-08-16 21:21:59			
		Pr	evious	Next	Exit

3. Configure TCP/IP. Select the working mode and NIC. Check **Enable DHCP** to automatically obtain the IP address, subnet mask and IP default gateway. You can also enter the information manually. Then, click **Next**.

		Wizard		
	2_	3		
QR Code	Time	TCP/IP		IP Camera
	Working Mode	Multi-address		
	Select NIC	NIC1		
	Enable DHCP			
	IP Address	206 . 2 . 2 . 62		
	Subnet Mask	255 . 255 . 255 . 0		
	IP Default Gateway	206 . 2 . 2 . 1		
	Default Route	NIC1		
		Previous	Nex	t Exit

4. Add IP devices. Select the IP devices to add in the discovered device list, and click Add.

				Wizard						
	1		_ 2 -		3			4		
	Wizard		Time		TCP/IP			IP Can	nera	
	itch to H.265 n to Smart Encodi Off		O Basic	O Advanced						
Select	IP Addr.	Status	Qty	Device Model		Protocol	Port	Manu	facturer	Serial No.
	192.168.1.32		1	DS-2CD50		ONVIF	80			DS-2CD50
2	203.1.8.11			IPC324ER3		ONVIF	80	UNI		210235C2
3	203.1.8.167			IPC322SR3		ONVIF		UNI		210235C2
4	206.0.0.127			HIC5631-L		ONVIF		UNI		210235C1
5	206.0.0.130			HIC3531-IR@D		ONVIF	80	UNI		210235C2
Disc	overed Device(s):158, Ad	Ided Devicel	(s):6							
					Previo			ОК		

Note:

- To add IP devices through PoE ports, see Option 6: Connect via Cable in Add IPC for details.
- The added IP devices can go online and start live view only if the password is still the default password. If the password has been changed, you need to enter the correct password for the camera to go online or set the default password for the camera. See Default Password for details.
- If the desired IP device is not in the device list, you may add it in a preview page or under Menu > Camera > Camera > Camera. See Channel Management for details.
- 5. Click OK.

3 Live View

This chapter introduces the live view page, including window toolbar, screen toolbar, shortcut menu, digital zoom, sequence operation, etc.

Note: The operations may vary with NVR model.

3.1 Live View Status

The following icons are used to indicate alarms, recording status, and audio status in a live view window.

Icon	Description
	Tampering
222222	Recording
₽	Two-way audio
(ب)	Alarm

Table 3-1: Live View Window Icons

3.2 Window Toolbar

Click a window to display the window toolbar for quick configuration.

Table 3-2: Window Toolbar

Button	Name	Description	
<Ô>	PTZ Control	 Available for PTZ cameras only. Click to display the PTZ control window. You can also configure PTZ under Menu > Camera > PTZ. See PTZ Configuration for details. 	

Button	Name	Description		
Ø	Fisheye Mode	Set the mount mode and display mode for fisheye cameras. This button appears only for fisheye cameras.		
<u>ل</u> ھ	Local Recording	Record live video in the window to the hard disk. Click 📷 to stop recording.		
		Note: Similar to manual recording, local recording is a scheduled recording and has higher priority over other video recording schedules. You can play the local recording in normal mode.		
6	Instant Playback	Click to play the video recorded during the past 5 minutes.		
,	Digital Zoom	Zoom in on an area of interest in the window. See Digital Zoom for details.		
٢	Image Settings	• Click to set the image mode and parameters so as to get optimal images in the window.		
		 You can also edit image settings under Menu > Camera > Image > Image Settings. See Image Enhancement for details. 		
Ô	Take Snapshot	Click to take a snapshot. The window borders will flash white. You may view and back up snapshots under Menu > Backup > Image .		
OSD	OSD	Click to set OSD.		
		 You can also set OSD under Menu > Camera > OSD. See Display Configuration for details. 		
Ŷ	Two-way Audio	Start two-way audio with the camera. The sound volume is adjustable. Click to stop.		
		Note: Correct audio input and output (AUDIO IN/OUT) connections between NVR and IPC are required.		
ц)×	Turn Audio On	Click to turn on audio. The sound volume is adjustable. Click () to turn off audio.		
		Note: When you turn on audio in the current window, audio of the previous window is turned off.		
Ì	Quick IPC Disarming	The icon () appears when an alarm occurs. If the alarm comes from a		
		connected IPC, you can click 👔 to cancel the action(s) configured for the IPC.		
	Camera Info	Hover over the button to view the bit rate of the current window; click the button to view the camera information, change the user name or password.		

Button	Name	Description		
•	AcuSearch	Note: Before use, go to Menu > VCA > Analyzer Config, and set the analyzer mode to AcuSearch/AcuTrack.		
		<text></text>		

Digital Zoom

Zoom in on an area of images in a window for details.

- $^{\mbox{1.}}$ On the preview page, click the window, and then click on the window toolbar. 2022-08-09 20:

2. Move your mouse to the area you want to zoom in on, then use your scroll wheel to zoom in. The enlarged image is as follows.



3. Right-click to exit zoom.

3.3 Screen Toolbar

Move your mouse to the bottom of the preview page to display the screen toolbar. Click 🚮 to lock the toolbar.

Button	Description		
^	Click to select menu, playback, logout, restart, shutdown.		
\blacksquare	Select the screen layout, including single window and 4/6/8/9/16/25/36 windows.		
	Previous or next screen.		
ତ ହ	Start or stop sequence. See Sequence for details.		
<u>م</u>	Click to go to the Playback page.		
0	Click to go to the Face Recognition page.		
	Click to go to the Vehicle Recognition page.		
ବ୍ୟ	Switch to multi-sensor preview mode. See Multi-Sensor Preview for details.		
0	Note: This function is only available for dual-channel cameras.		
€£®_	Click to go to the Epidemic Control page. For temperature measurement results, see Thermal Imaging for details.		
₽¢	Tap to choose 👰 or 🛒 , and select an IP speaker for two-way audio or		
	broadcast. See Two-Way Audio and Broadcast of IP Speaker for details.		
	Click to display the cloud service window. You may scan the QR code and download an app to manage your NVR.		
	Note: This function is only available to certain NVR models.		

Table 3-3: Screen Toolbar

Button	Description
	Click to view camera information, including camera status and alarm status.
\triangle	Click to view NVR alarm and camera alarm.
20:31	Show device time. Hover over the button to view the date; click to edit time settings.
ත් ස	Lock/hide the screen toolbar.
$\overline{\mathfrak{S}}$	Click to go to the Smart U page.

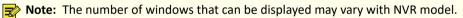
Sequence

Use sequence when you want to view live videos from different cameras at the same time and ensure the image clarity. The function requires you to configure the screen layout, windows, linked cameras, and the sequence interval.

The following example describes how to configure sequence for five cameras based on a 4-window screen layout.

1. On the preview page, right-click and select **Multi-Window > 4 Windows**.





2. Click on the screen toolbar to start sequence.

The system starts to display images of four cameras in four windows on the first screen, and then display the fifth camera's image on the second screen after the set interval.



Note: The default sequence interval is 8 seconds. You can set it under Menu > System > Preview. See Preview Configuration for details.

3. Click \bigotimes to stop sequence.

Face Recognition

To view face snapshot records, you need to configure Face List, Face Comparison, and Face Detection first.

1. Click i on the screen toolbar.

On this page, you can view the historical face comparison records on the left, and view face snapshots, snapshot details, and prompt message on the right. 1 view is displayed by default, and you can switch to 4 or 9 views to view more face snapshots.



2. Click or, configure face recognition parameters, and then click OK.

	Configuration		
Page Name	Face recognition		
Match Message	Show	\bigcirc Hide	
materi message	Welcome		
Unregister Message	Show	\bigcirc Hide	
	Stranger		
		ОК	Cancel

Item	Description	
Page Name	The default is face recognition. Set it as needed.	
Match Message	If the face has a match in the face library, the default match message Welcome appears. You can customize the message as needed. Click Hide , the page will not show the match message.	
Unregister Message	If the face does not have a match in the face library, the default message Stranger appears. You can customize the message as needed. Click Hide , the page will not show the message.	

3. Click \square to exit the face recognition page.

Vehicle Recognition

To view vehicle snapshot records, you need to configure Plate List and Plate Comparison first.

1. Click (a) on the screen toolbar, and then you can view pass-through records, vehicle snapshot information,



2. Click to exit the vehicle recognition page.

Multi-Sensor Preview

This function is only available to dual-channel cameras that support Panoramic Linkage.



Button	Description	
Ð	Drag to zoom. Drag to select a specific area in the left panoramic image and then the corresponding area will be linked and magnified in the right close-up image.	
	Track manually. After configuring detection rules for Smart Intrusion Prevention functions, when the camera detects moving objects (motor vehicle/non-motor vehicle/pedestrian) in the detection area, you can click the bounding box in the left window to zoom in on and track the object in the right window.	

Button	Description		
	Note: To use this function, enable Panoramic Linkage on the Trigger Actions page of smart intrusion prevention functions. See Camera Linkage for details.		
ଶା	Click to link. Click anywhere in the left panoramic image, and then the right close-up image will move to the corresponding position.		
ô	PTZ configuration. Configure and control PTZ cameras.		
	Note: To use this function, the channel 2 should be a PTZ camera. See PTZ Configuration for details.		
<	Previous screen.		
>	Next screen.		
\ominus	Exit the multi-sensor preview.		

Two-Way Audio and Broadcast of IP Speaker

Please add IP speakers first. See IP Speaker for details. The two-way audio and broadcast cannot be enabled at the same time.

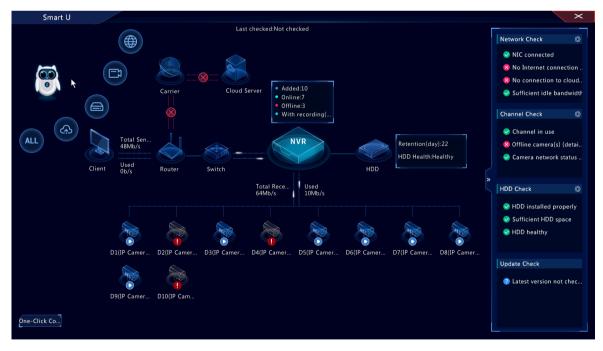
lcon	Description		
(Q)	Select an IP speaker, and click Start Two-Way Audio . The two-way audio of the previous channel is automatically turned off when you turn on the two-way audio of the other channel.		
	Two-Way Audio		
	Select Channel S1(IP Speaker 1) ~		
	Start Two- Way Au Close		

Icon	Description		
€)÷	Select an IP speaker, click Start Voice Broadcast , and the icon status changes to		
		Broadcast	
	Channel	Address	Status
	S1(IP Speaker 1)	172.20.213.212	N
	☐ S2(IP Speaker 2)	172.20.214.163	i¶:
		Sta	rt Voice Broad Close

Note: The two-way audio or broadcast will be turned off when you exit the preview page or click Stop Two-Way Audio or Stop Voice Broadcast in the pop-up window. They cannot be turned off if you only close the pop-up window.

Smart U

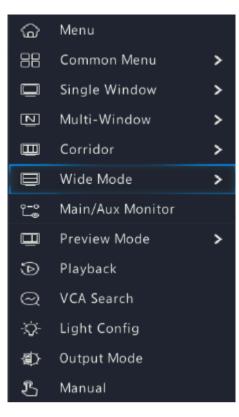
Display the current network diagram, and detect the network, channels, hark disks, and version update in real time.



Icon/Button	Name	Description	
	Detect network	Click to start detecting, and the detection results will be displayed in the right pop-up window. Click 👸 to enter	
	Detect channels	the details page.	
	Detect hard disks	• 📀 : Normal.	
<u></u>	Detect version update	• X : Abnormal. Click the detection item, and the reason for the anomaly is displayed in the pop-up	
ALL	Detect all items above	window.	
		 To be detected. It means that the hard disk or version is to be detected. 	
		Note: The network detection and channel detection are automatically triggered by the system.	
		• D: Packet loss prompt. Click the detection item, and the packet loss rate is displayed in the pop-up window.	
\otimes	Connection failed	Click the icon, and the details are displayed in the pop-up window.	
	IPC online, no recording	Click to play live video.	
	IPC online, with recordings		
	IPC offline	Hover over the icon to view the offline reason.	
	IPC not added	/	
One-Click Co	One-click collection	Click to go to the One-Click Collection page.	

3.4 Shortcut Menu

A shortcut menu as shown below appears when you right-click in a window.



Shortcut Menu

Table 3-4: Shortcut Menu

Item	Description
Menu	Display the main menu.
Common Menu	Go to the Camera, Network Config, and Backup page.
Single Window	Switch to single window.
Multi-Window	Select the screen layout, including 4/6/8/9/16/25/36 windows.
Corridor	Display video images in corridor mode. You can set the number of windows from the Preview Windows drop-down list under Menu > System > Preview . See Preview Configuration for details.
	■ Note:
	 To display images in corridor mode, make sure the camera is installed correctly (rotated 90° clockwise or counterclockwise), and then set the Image Rotation parameter under Menu > Camera > Image to rotate images accordingly.
	When a channel is in corridor mode, all the operations (such as digital zoom and drawing motion detection area) are performed in corridor mode.
Wide mode	Switch to the wide mode. Support the screen layout of 2/3/6/7/8/9/12 windows.
Main/Aux Monitor	Switch live video from different video outputs. Press and hold the right mouse button to switch between main monitor and auxiliary monitor.
Playback	Play the video of the current day for the camera linked to the current window. You can also choose to play videos from other days as needed.
Preview Mode	Switch between Normal and Smart. The default is Normal mode.
VCA Search	Search the VCA snapshots and recordings on the Search page.
Light Config	Set image parameters for the selected camera, including image enhancement, smart illumination, exposure, white balance, and advanced configuration. See Image Settings for details.

Item	Description
Output Mode	Choose a video output mode, including standard, soft, bright, vivid, and custom. Brightness, saturation, and other parameters are also configurable.
Manual	Manual settings include manual recording, manual snapshot, manual alarm, buzzer, and let through manually. See Manual Operations for details.

Manual Operations

Manual operations include manual recording, manual snapshot, manual alarm, buzzer, and let through manually.

Manual Recording

Note: Similar to local recording is on the screen toolbar, manual recording is a scheduled recording and has higher priority over other recording schedules. You can play manual recordings in normal mode.

1. Right-click and select Manual > Manual Recording.

		Manual		
Manual Recording				
Select	Camera Name D01		Status	
D2	400W		Stop	
D3	N5		Stop	
🗖 D4	N3		Stop	
🗖 D5	2.241		Stop	
🗖 D6	247		Stop	
🗖 D7	2.5		Stop	
D8	N5		Stop	
	NIF.		- C+	
		Start	Stop	Exit

- 2. Start or stop manual recording.
 - Start recording: Select the desired camera(s) and then click Start.
 - Stop recording: Select the camera(s) being recorded and then click Stop.

Manual Snapshot

1. Right-click and select Manual > Manual Snapshot.

		Manual		
Manual Recording	Manual Snapshot Manual Alarm			
Manual Recording	Manual Shapshot Manual Alarm			
Select	Camera		Status	
🗆 D1	D01		🥏 Start	
🗖 D2	400W		Stop	
D3	N5		Stop	
🗖 D4	N3		Stop	
🗆 D5	2.241		Stop	
🗖 D6	247		Stop	
🗆 D7	N52.5		Stop	
🗖 D8	N5SMD		Stop	
			- C+	
		Start	Stop	Exit

- 2. Start or stop manual snapshot.
 - Start snapshot: Select the desired camera(s) and then click **Start**.

• Stop snapshot: Select the camera(s) that has enabled snapshot, and click Stop.

Manual Alarm

Right-click and select **Manual > Manual Alarm**. You can trigger or clear an alarm output manually. See Manual Alarm for details.

Buzzer

Right-click and select Manual > Buzzer. You can stop the buzzer manually. See Buzzer for details.

Let Through Manually

If a license plate not match alarm occurs and the IPC cannot lift the barrier automatically, you can trigger the IPC to lift the barrier manually on the NVR side as needed.

式 Note:

- This function requires you to configure plate not match alarm first. See Plate Comparison for details.
- This function is available to cameras that support controlling barrier gates.

1. Right-click and select Manual > Let Through Manually.

	Manual									
		Manual Alarm Buzzer <mark>Let Through</mark>	n Manually							
No.	Camera ID	Camera Name	Let Through Manually							
1	D1	D115	Ē							
2	D2	D118	<u>F</u>							
3	D3	01	F							
4	D4	02	F							
5	D7	07	F							
	D9	09	Ē							
7	D10	22207	F							
8	D12	157-SP51	F							
			Cancel							

^{2.} Click the corresponding and trigger the camera to lift the barrier.

4 Channel Configuration

Configure IPC, encoding, audio, snapshot, OSD, image, privacy mask, and PTZ parameters.

Note: The IP devices mentioned in this manual mainly refer to IP cameras (or network cameras).

4.1 Channel Management

Manage IP cameras.

😴 Note:

- Before you start, make sure the IP cameras are connected to your NVR via network.
- An IP camera should be connected to one NVR only. An IP camera managed by multiple NVRs may cause unwanted issues.

4.1.1 IPC Configuration

Add and manage IP cameras.

```
Go to Menu > Camera > Camera > Camera.
```

Note: The third-party cameras cannot be added to the NVR via the private protocol.

💠 🛛 Add All	+ Custom Add	Ū	Delete	e O Refresh		•	Show	IPC P	Pas		More		
Camera	Address	Status	Protocol	Model	Ope	rate				IPC Pa	ssword		
D1(IP Camera 01)	172.20.212.133	lacksquare	Private		Ū	Ø			¢				
D2(IP Camera 02)	172.20.212.131		Private										
D3(IP Camera 03)	172.20.212.132		Private										
D4(IP Camera 04)	172.20.212.95		ONVIF										
🗋 D5(IP Camera 05)	172.20.212.124		ONVIF										
	172.20.212.61		ONVIF		+		٢						
	172.20.212.87		ONVIF	100.011.0001	+		٢						
	172.20.212.129		ONVIF		+		٢						
	172.20.212.130		Private	10.000.000.0000	+		٢						
	172.20.212.134		Private		+		٢						
	172.20.212.135		Private		+		٢						
	172.20.212.140		Private		+		٢						
	172.20.212.141		Private	10.000 (0.000 (0.000)	+		٢						
	172.20.212.145		ONVIF	1000000000	+		٢						
	172.20.212.151		ONVIF	-	+		٢						
Discovered Device(s):27,	Added Device(s):5;1	dle Rece	eive Bandwi	dth: 320Mbps									
Auto Switch to H.26	55 Auto Swit	ch to Sm	art Encodir	ng ●Off ○Ba	sic		0 a	dvan	ced			Exit	

Add IPC

The system automatically searches for IP cameras and lists the discovered. Click **Refresh**, the system refreshes the list and IPC status. Choose a way to add IPCs.

- Option 1: Custom Add
 - 1. Click Custom Add.

			Add IP Camer	3			
No.	IP Address	Status	s Qty	Model			
1	206.3.0.9	\otimes	1	IPC2M65-IRS-PF36-DF			
2	206.3.0.10	\otimes	1	IPC1465-FIN-PARCHIO-V1-DT			
3	206.3.0.11		1	IP CONSIGN-ADF288MC-ID			
4	206.3.0.22	()	1	IPC3425-183-HUPP48-C-DT			
5	206.3.0.24		1	PC3N5-IR9-PF36-DT			
6	206.3.0.27		1	IPC2425-IR3-HUPINO-C-01			
Add Mo	de	IP	9 Address				
Protoco	bl	U	niview		~		
IP Addr	ess		206.3	. 0 . 9			
Port		80	D				
Userna	me	ac	dmin				
Passwo	rd	**	******				
Total Camera Number			1				

2. In the window displayed, enter the IPC's IP address and complete other settings, then click **OK**. You may check the camera's status.

- Camera online.
- Camera offline. Point to the icon to view the failure information.
- ① : The camera is added to another NVR.
- 3. Repeat the above steps to add other IPCs.
- Option 2: Search Segment
 - 1. Click ... More , and select Search Segment.
 - 2. Enter the start and end IP addresses, and click Search. The discovered IP devices are listed.

Start IP	206	2	2	1
End IP	206	2	2	255

- Select the desired camera, click I to add it to the NVR.
- Option 3: Add All

Click Add All to add all the discovered IPCs (if not exceeding the upper limit).

Note: If the camera's login password has been changed and it not its default password, you can change the default password to be the same as the current login password, and then the camera can go online. See Default Password for details.

Option 4: Click +

Click 🕂 to add the camera directly.

Note: If the camera's login password has been changed and it not its default password, you can change the default password to be the same as the current login password, and then the camera can go online. See Default Password for details.

Option 5: Add from the Preview Window

Note: This option is not applicable to NVRs with PoE ports.

- 1. On the preview page, click 🔐 in a window to enter the Add IP Camera page.
- 2. Select the desired IP camera and then click OK.
- Option 6: Connect via Cable
 - 1. Connect an IP camera to a PoE port or a switching port of the NVR with a network cable. The connected camera will be added to the NVR automatically.
 - 2. Check the camera status under Menu > Camera > Camera > Camera.

😴 Note:

- This option is only applicable to NVRs with PoE ports, and the added camera cannot be deleted.
- If you want to add an IPC that is not connected to the NVR with a network cable, click *Plug-and-Play* to Manual, and complete other parameters.
- For NVR with PoE ports only, appears under **Status** if the power output from a PoE port is below or above the rated power of the connected camera.
- Option 7: Add from Another Network

Use this option when the NVR and the IP camera are connected to different routers. Make sure the NVR can access the camera via the camera's public IP address and mapped port number.

R

Note: First you need to enable port mapping under **Setup** > **Network** > **Basic Config** > **Port Mapping** on the IP camera's Web interface.

- 1. Click Custom Add.
- 2. Choose a way to add IP cameras.
 - IP Address
 - (1) On the IP camera's Web interface, go to **Setup** > **Network** > **Basic Config** > **Port Mapping**, and obtain the IP address (public IP) and external port number.
 - (2) On the NVR's local interface, select a protocol, enter the obtained IP address and port, and then enter the username and password.
 - (3) Click OK.

Note: GB28181 protocol is not supported.

- Domain Name
 - (1) On the IP camera's Web interface, go to Setup > Network > DDNS, enable DDNS, set the DDNS type to DynDNS or NO-IP, set a domain name, and get the server address. Enter the domain name that you have signed up on the DNS website, enter the username and password, and then click Save.
 - (2) On the NVR's local interface, select a protocol, enter the obtained domain name, and enter the username and password. The port is the IP camera's external port.
 - (3) Click OK.

式 Note:

- If the protocol is set to Custom, the port is the mapped external RTSP port of the IP camera.
- Do not add an IP camera to an NVR using different methods (e.g., IP and DDNS) at the same time.
- When an IP camera is added by DDNS, domain name, or IP (public IP+public port) and it is not connected to the same router as the NVR, the alarm is configurable but the alarm push is not available.
- WebSocket
 - (1) On the NVR's local interface, enter the channel ID, username, and password.
 - (2) On the IP camera's Web interface, go to Setup > Network > Platform Access > Websocket. Enable Websocket, enter the destination IP address, destination port, device ID, and authentication key, and then click Save.
 - (3) Click OK.

式 Note:

- The channel ID and password on the NVR should be the same as the device ID and login password on the IP camera.
- The destination address, destination port, and authentication key on the IP camera correspond to the IP addresses, port, and login password on the NVR.
- Option 8: Use Custom Protocol

🔁 Note:

- Use this option when the IP camera supports the standard RTSP.
- Only live and recorded video streams are available from the camera added in this way. Configuration operations are not supported.
- 1. Go to Menu > Camera > Camera > Camera.
- 2. Click Custom Add. Select Custom from the Protocol drop-down list.

		Ado	IP Came	ra	
No.	IP Address	Status	Qty	Model	
1	205.1.1.162	\oslash	1	87-85314-84892-8	
2	206.2.2.5	\otimes	1	PC-5362-PL00P-983	M28-P
3	206.2.2.6	\bigotimes	1	PC-5162-(80)0P-(83	-1428-7
4	206.2.2.7	\otimes	1	PCINTER-SPEND	
5	206.2.2.9	\oslash	1	PC-5H2-8600P-983	0.035-1
6	206.2.2.10		1	IPC2123583-PP40-C	
Add N	lode	IP Ac	ldress		~
Proto	col	Cust	om	✓ Custom1	~
IP Ad	dress	205	. 1	. 1 . 162	
Port					
Usern	ame	admi			
Passw	/ord	****			3e#
Total	Camera Number	1			
		Search		ОК	Cancel

3. Click Protocol.

	Protocol								
C									
Custom	Custom1		~						
Protocol Name	Custom1								
Port	7891								
Transfer Protocol	UDP		~						
Enable Main Stream									
Resource Path	rtsp:// <ip>:<port>/ hj</port></ip>	t							
Enable Sub Stream	0								
Resource Path	rtsp:// <ip>:<port>/</port></ip>								
Example : rtsp:// <ip address="">:<port< td=""><td>number>/<resource p<="" td=""><td>ath>;</td><td></td></resource></td></port<></ip>	number>/ <resource p<="" td=""><td>ath>;</td><td></td></resource>	ath>;							
One channel: rtsp://192.168.0.1:554/unicast/c1/s0/l	ive								
rtsp://192.168.0.1:554/unicast/c1/s0/live Multi-channel: rtsp://192.168.0.1:554/unicast/c[%C]/s0/live Add selected camera ID rtsp://192.168.0.1:554/unicast/c[%C+1]/s0/live Add selected camera ID+1 rtsp://192.168.0.1:554/unicast/c[%C+1]/s0/live Add selected camera ID-1 [%C±N]: %C means the remote camera ID selected, N means offset									
		ОК	Cancel						

4. Set the protocol name, enter the RTSP port number, transmission protocol, resource paths, etc., and then click **OK**.

Note: Contact the camera manufacturer for resource paths of main stream and sub stream.

- 5. Enter the IP address, username, and password, and then click **OK**. Check status in the camera list.
- Option 9: Add by Importing File
 - For first-time NVR users: Please insert a USB drive (purchased separately) into the device first.

1. Click ... More and choose **Export**. Select an export path in the directory list and click **Backup**. A .CSV file will be then generated in the selected directory.

式 Note:

- For the PoE NVR: The default information of each channel is displayed in the file. You may edit the information as needed.
- For the non-PoE NVR: There are only table headers in the file. You need to manually fill in the channel information.
- 2. Remove the USB drive from the device and insert it into the PC. Open the exported .CSV file, enter or edit the information as needed, and then save it.

Note: The contents for some fields are as follows:

- Add Mode: Plug-and-Play/IP Address/EZDDNS/Domain Name
- Protocol: Private/ONVIF/GB28181/Custom
- Transport Protocol: UDP/TCP
- PTZ: Auto/Support/Not Support
- 3. Insert the USB drive back into the device. Click ... More and choose Import. Select the .CSV file in the directory list.
- When transferring data from an old NVR to a new one: Click More and choose Import. Select the .CSV file exported from the old NVR in the directory list, and click Import.

Note: If the IPC fails to get online, please check whether the information in the .CSV file is correct.

Export IP Camera List

Click <u>More</u> and choose **Export**. Select the export path in the directory list and click **Backup**. A .CSV file will be then generated in the selected directory, indicating that the IP camera list has been successfully exported.

Edit IP Camera

Option 1

Select the target camera and click 📶. Edit the settings as needed, and then click **OK**.

				Modify	IP Camera				
	No.	IP Address	Sta	tus	Qty	Model			
	1	206.3.0.9	\odot		1	PCMC RS-PFM-D	л		
	2	206.3.0.10	Ø		1	PC2A65-FW-PARCP	al-at-at-		
		206.3.0.11	♥						
	3	206.3.0.11			1	PC361558-A09280	ac-10		
	4	206.3.0.22	(j)		1	IPC3405-003-44.0914	10-2-8		
	5	206.3.0.24			1	IPC2445-889-8536-0	л		
	6	206.3.0.27			1	IPC2425-IP3-HUPP4	0-C-DT		
	Add Mod	le		IP Addr	ess		~		
	Protocol		Uniview 🗸						
	IP Addre	ss		206		0.103			
	Port			80					
	Usernam	e		admin					
	Password	d		******	**		* *		
	Total Ca	mera Number		1					
		ocol S	earc	:h		ок	Cancel		
> Note	e:								

• To change the IP camera connected to the channel, you can edit the IP channel related parameters (except IP address), or directly click another camera in the list above.

• The configuration items may vary with IPC model.

Option 2

1. If the username and password input for an IPC is incorrect, the live view window will show the cause, and you can change the username and password in the live view window.

Camera Offline (Incorrect username or password)

2. Click 💋, and modify username or password.

	Modify IP Camera	
Camera ID	D1(HDIPCAM)	
IP Address	210 . 2 . 216 . 100	
Connection Status	Online	
Username	admin	
Password	**************************************	
	OK Cancel	

^{3.} Click **OK** and then check the status of camera. (S) means the camera is online.

Delete IP Camera

You can delete IP camera(s) one by one or in batches.

- **Note:** Cameras corresponding to PoE ports or switching ports cannot be deleted.
- Select a camera to be deleted, click 📷, and click **OK** in the pop-up window.
- Select cameras to be deleted, click **Delete**, and click **OK** in the pop-up window.

Network Configuration

Select the camera, and click . Edit the IP address, IPv4 subnet mask, IPv4 default gateway for the camera. Click **Apply**.

	Net Config						
Network							
Camera ID	D1(HDIPCAM)						
IP address	210 _ 2 _	216 .	100				
IPv4 Subnet Mask	255 _ 255 _	192 _	0				
IPv4 Default Gateway	210 . 2 .	192 .	1				
(Note: This operation will change network set	ttings for the camera.)						
				Cancel			

Note: I indicates the camera does not support changing network settings.

IPC Password

Show or hide the login password of connected IPCs.

1.	Click 👁 Show IPC Pas								
	Authentication								
	Confirm		**						
		Apply	Exit						

2. On the Authentication page, enter the login password of the admin user.

式 Note:

- Only admin can set to display or hide IPC password.
- Click we to display the password in clear text.
- 3. Click Apply.
 - If the password is correct, it will automatically return to the IPC configuration page, and IPC password will be displayed in clear text.

🕹 🛛 Add All	+ Custom Add	Ū	Delete	Ø Refresh	Hide IPC Pas محمد	s More
Camera	Address	Status	Protocol	Model	Operate	IPC Password
D1(IP Camera 01)	172.20.212.135		Private	IPC323258-A02K-I0	📋 🗹 🕸 🗏 (🗘 admin123.
D2(88)	172.20.212.151		Private			🗘 admin123.
	172.20.212.85	()	ONVIF	NVS-IDT-CAMERA	+ - 🔕 🗉	
h						

Note: Click ---- Hide IPC Pass... to hide IPC passwords.

If the password is incorrect, a message will appear, and the IPC password will not be displayed.

More Info

•

Select the channel, and click into view the detailed information, including remote camera ID, manufacturer, and port number.



Change Window Position

Use this function to change window position of channels on the preview page, without changing the channel ID, IP address, and display order in the channel list. Choose a way to change window position.

- On the multi-window preview page, drag a window to another window to swap their positions.
- On the **Preview Configuration** page under **Menu** > **System** > **Preview**, change window positions on the preview page. See Preview Configuration for details.

Sort Camera

Use this function to change a camera IP bound to a channel. This will not only change the camera's position in the camera list, but also change the position of the camera's live view window. The following example describes how to switch camera 1 and camera 4.

😴 Note:

- This function is not available to NVRs with PoE ports or switching ports.
- This section describes how to sort cameras on an NVR with more than 32 channels. For NVRs with 32 channels or less, you can sort cameras by dragging the mouse.
- 1. Click --- More , and select Sort Camera.

				Sort Camera		
Bound			Unbound			
□Camera ☑1	Address 206.2.2.250	Camera Name D01	🗌 Camera	Address	Camera Name	
2	206.2.2.41	400W				
3	206.2.2.50	N5				
4	206.2.2.249	N3				
5	206.2.2.241	2.241 🗕				
6	206.2.2.247	247				
07	206.2.2.5	N52.5				
8	206.2.2.57	N5SMD				
9	206.2.2.7	N52.7				
10	206.2.2.9	N52.9				
11	205.1.1.162	IP Camera 11				
12	206.2.2.11	N52.11				
13	206.2.2.12	N52.12				
14	206.2.2.13	N52.13				
15	206.2.2.14	N32.14				
16	206.2.2.15	N32.15				
C 17	206 2 2 16					
						Apply Exit

2. In the left list, select the check box for camera 1 and click . Then camera 1 with IP 206.2.2.250 now appears in the right list. Perform the same operations to camera 4.

Bound				Unbound			
Camera	Address	Camera Name		Camera	Address	Camera Name	
					206.2.2.250	D01	
2	206.2.2.41	400W		2	206.2.2.249	N3	
3	206.2.2.50	N5					
4							
□ 5	206.2.2.241	2.241					
6	206.2.2.247	247					
7	206.2.2.5	N52.5					No.
8	206.2.2.57	N5SMD					
9	206.2.2.7	N52.7					
10	206.2.2.9	N52.9	+				

3. In the right list, select the camera 4 with IP 206.2.2.249 and click . Then camera 4 appears at the previous line of camera 1 in the list. Perform the same operations to camera 1, so camera 1 appears at the previous line of camera 4 in the list.

Bound				Unbound			
Camera	Address	Camera Name		Camera	Address	Camera Name	
	206.2.2.249						~ ~
□ 2	206.2.2.41	400W					
□ 3	206.2.2.50	N52.50					
₩ 4	206.2.2.250	D01					
□ 5	206.2.2.241	2.241	-				
6	206.2.2.247	247					
07	206.2.2.5	N52.5					
8	206.2.2.57	N5SMD					
9	206.2.2.7	N52.7					
10	206.2.2.9	N52.9					

4. Click **Apply**. IPs of camera 1 and camera 4 are swapped, and the position of preview window will also be swapped. Repeat the above steps to sort other cameras.

😴 Note:

- Click or to move up or move down the current highlighted camera (not the selected camera).
- To move a camera left, select a corresponding check box in the left list first; otherwise the camera will be inserted to the first blank line.
- The settings cannot be saved when the right list is not empty. You need to clear the list first.

Batch Change Password

When multiple IPCs are not added successfully due to incorrect password, and if the login passwords of these cameras are the same, use this function to change the passwords in batches.

😴 Note:

- This function only changes the password used to add cameras. It does not change the cameras' login password.
- This function is only applicable for IPCs with the same login password. If one of the cameras still fails to be added after you change the password, it means the camera's login password is different, and you need to change the password separately.
- 1. Select the cameras with the same password. Click --- More , and select Batch Edit Password.

	Password	
Password		246
Confirm		~
	ОК	Cancel

2. Enter the new password and confirm the password.

3. Click OK.

Default Password

The default password is used to add the camera. The original default password is the same as the camera's default login password.

If the camera's login password has been changed and is not its default password, the camera will not be able to go online after being added to the NVR. You can enable **Default Password**, and change the default password to be the same as the camera's current login password before adding the camera. You may also click it to change the password to the camera's current login password after adding the camera.

😴 Note: This function is available to add IPC in Wizard, and Option 3: Add All or Option 4: Click 👫 in Add IPC.

Other Operations

Item	Description				
Auto Switch to H.265	When enabled, the NVR automatically chooses H.265 for a newly added camera.				
	🛃 Note:				
	 Every time a camera is added to the NVR, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline. This function is enabled by default on some NVR models. 				
Auto Switch to Smart Encoding	Select Basic or Advanced , then the NVR automatically chooses basic Smart Encoding mode or advanced Smart Encoding mode for a newly added camera.				
	■ Note:				
	 Every time a camera is added to the NVR, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline. 				
	This function is enabled by default on some NVR models.				
Refresh	Click Refresh to check the camera status.				
Live View	Click 💽 to play live video of the camera.				

4.1.2 Fisheye Configuration

Set the mounting mode and display mode for fisheye cameras. Fisheye configuration is supported only by certain fisheye cameras.

Note: Before using this function, make sure that a fisheye camera has been mounted and that the camera has been added to your NVR.

Configuration

Configure the following parameters after the fisheye camera is installed.

1. Go to Menu > Camera > Camera > Fisheye.

Fisheye Advand					
		A	Philippine Manda	Model	Edit
IP Address 206.3.0.38	Mount Ceiling	Angle of View(°)	Fisheye Mode	IPC814SR-DVSPF16	
206.3.0.38	Celling			IPC8145K-DV5PF16	
Exit					

2. Select the fisheye camera and click

	Fisheye	
IP Address	206 . 3 . 0 . 38	
Mount	Ceiling ~	
	Apply Exit	

3. Set the parameters as needed.

Item	Description
Mount	Select the mounting mode, including ceiling mount, wall mount, and desktop mount. If you change how the fisheye camera is installed, change its mounting mode so as to display proper images.
Angle of View (°)	Set the viewing angle of the fisheye camera.
Fisheye Mode	The display mode of the current camera in the live view window. Set it as needed.

4. Click Apply.

Dewarping

Fisheye cameras provide large wide-angle views, but the image captured is distorted. You may adjust the output image by correcting the shooting angle of the fisheye.

Note: Dewarping is available in live view and playback (in normal and corridor playback modes). The operations are similar. The following describes dewarping in live view.

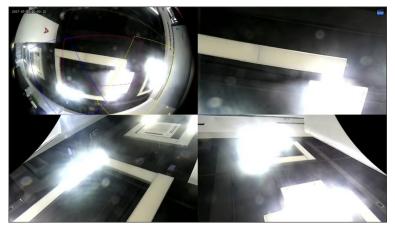
1. On the preview page, click $\cancel{10}$ on the window. The figure as shown below appears.



2. Set the mounting mode and display mode.

Mount	Display Mode	Description
Ceiling Mount		360° panoramic original image
Desktop Mount		360° panoramic + 1PTZ
	11	180° panoramic
	C	Fisheye + 3PTZ
	O	Fisheye + 4PTZ
	360° panoramic	360° panoramic + 6PTZ
	Q-	Fisheye + 8PTZ
Wall Mount		360° panoramic original image
	20	Panoramic
	20	Panoramic + 3PTZ
	29	Panoramic + 4PTZ
	D C	Panoramic + 8PTZ

3. Dewarping operations: Take Ceiling Mount and Fisheye+3PTZ as an example.



• Drag the mouse to rotate the image or use the scroll wheel to zoom in or out on a PTZ image. A box appears on the fisheye image as the image rotates, and as you drag the box or move the scroll wheel on the fisheye image, the corresponding PTZ image rotates or zooms in or out as well.

4.1.3 Advanced Functions

Change the password of online IP cameras or restore factory default settings for cameras.

Note: Changing camera password is available for cameras connected via the private protocol.

Camera I	D Camera Name	Protocol	Model	Change Password	Default
🗆 D1	D01	Uniview .	HICTINET (EH+ FIE-KA		Φ
🗆 D2	400W	Uniview	P CARNER X00UP -YC		
D3	N5	Uniview	PC-882-860-822-F		¢
🗖 D4			POILS FRAMEWER DE		
🗆 D5	2.241	Solden .	PICIDIE-WHI-AUPCINE-B-OT		
🗖 D6	247		PC-MA2 BOPMA KS		
🗆 D7	N52.5	Uniview	PC-6362-3F0 OP-975-M28-P		
🗖 D8	N5SMD	Uninters	PC-BUS-INIPADC-DD-P40-AT		
D9	N52.7	ONVIF	PCH38-938-A1		Φ
D10	N52.9	ONVIF	PC-082-08(09-08-009-0		
D12	N52.11	ONVIF	PEDMIKI-DUVIHO		Φ
D13	N52.12	ONVIF	IPC-5382-8F8/OP-083-M38-P		
Exit					

Change Camera Password

You can change password of camera(s) one by one or in batches.

1. Select a camera and click **[7]**, or select the target cameras and click **Batch Change Password**.

	Pa	ssword		
Password			240	
Confirm			~ *	
Use Administrator Password				
		OK	Cancel	

2. Enter the new password and confirm the password.

Note: Select Use Admin Password, the camera's password is changed to the admin password of the NVR, and cannot be edited.

3. Click **OK**. Check if the password is successfully changed.

Restore Default Settings

Select the camera, click . A message indicating camera restart appears, click **OK** and then the camera's default settings will be restored.

4.1.4 Camera Type

You can change the camera type to analog or digital. This function is only available for hybrid NVRs.

Change Camera Type

Change camera type to analog or digital.

1. Go to Menu > Camera > Camera > Camera Type.

Camera ID	☑ Analog	Digital
		Ο
		Ο
4		
Apply Exit		

- 2. Select the camera you want to change and choose the desired type.
- 3. Click Apply, then a message indicating device restart appears.
- 4. Click Yes. The camera type will be changed after the NVR restarts.

Add Analog Camera

Analog cameras can be added to hybrid NVRs only.

- 1. Connect the camera to the video output interface of the NVR via a coaxial cable, and connect the camera to power. The camera will be added to the NVR.
- 2. Check the camera status on the preview page.

4.2 Audio & Video

Configure encoding and audio parameters.

4.2.1 Encoding Settings

Configure storage mode, capture mode, stream type, etc.

😴 Note:

- The configuration items may vary with IPC models or versions.
- Some functions may be unavailable if the IPC version is too low. In this case, you need to upgrade the IPC first.
- 1. Go to Menu > Camera > Audio & Video > Encoding.

Encoding				
Select Camera	D1(D1157)			
Storage Mode	Main and Third Stream			
Capture Mode	2688*1520@25			
Capture Mode	2008-1520@25 Main Stream	Sub Stream	Third Stream	
Stream Type	Normal	Network Transmission	Network Transmission	
Video Compression	H265	H265	H265	
Resolution	2688*1520	720*576(D1)	352*288(CIF)	
Bitrate Type				
Bit Rate(Kbps)	Custom ~ 2176	256	128	
fps	25	25	25	
Image Quality		0	 0	
I Frame Interval				
Smoothing		•		
Smart Encoding	Advanced Mode	Advanced Mode	Advanced Mode	
Сору	Apply Exit			

- 2. Select the camera from the drop-down list.
- 3. Choose a storage mode, including main stream, sub stream, main and sub stream, main and third stream, sub and third stream. The default is main and third stream. Only certain NVR models support all the five modes.

The storage mode determines the recording format (HD or SD). It may affect the clarity and output mode of the recording. Set the storage mode as needed by referring to the table below.

Storage Mode	HD Streaming	SD Streaming
Main stream	Main stream	No video or image
Sub stream	Sub stream	No video or image
Main + sub stream	Main stream	Sub stream
Main + third stream	Main stream	Third stream
Sub + third stream	Sub stream	Third stream

Table 4-1: Storage Mode

- 4. Set the capture mode, that is, combinations of resolution and frame rate. This parameter is configurable only when the camera is connected to the NVR via the private protocol.
- 5. Set the encoding parameters for different streams.

Item	Description
Stream Type	Main stream: Select Schedule or Event.
	Schedule: Set encoding parameters for scheduled recordings.
	 Event: Set encoding parameters for events such as motion detection and alarm input.
	• Sub stream: Set encoding parameters for low resolution videos intended for network transmission.
Video Compression	Choose H264 or H265. The supported video compression may vary with IPC model.
Resolution	The number of pixels in a frame.
Bitrate Type	• VBR: Variable Bit Rate (VBR) is used to keep the quality of video streams as constant as possible by varying the bit rate.
	• CBR: Constant Bit Rate (CBR) is used to keep a specific bit rate by varying the quality of video streams.
Bit Rate(Kbps)	The number of bits transferred per second. Select a value from the drop-down list, or select Custom to set a value as needed.
Frame Rate(fps)	The number of frames per second.
Image Quality	This parameter is configurable when Bitrate Type is set to VBR . 1 to 9 levels are available.
l Frame Interval	The number of frames between two adjacent I frames.
Smoothing	Use the slider to control the sudden change of bit rate.
Smart Encoding	Select the Smart Encoding mode, including basic mode and advanced mode. You can also close the Smart Encoding. The advanced mode achieves higher compression ratios.

6. (Optional) To apply the settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.

式 Note:

- When you copy **Storage Mode** to other camera(s), if the target camera does not support the storage mode, the operation will fail.
- When you copy Video Compression and Smart Encoding to other camera(s), Bit Rate will be selected automatically because video compression adjusts bit rate automatically.
- Some parameters cannot be selected at the same time.
- 7. Click Apply.

4.2.2 Audio Configuration

Configure audio input and audio output of the IPCs.

1. Go to Menu > Camera > Audio & Video > Audio.

Audio			
	Select Camera		
	Audio Input		
	🗹 Audio Input		
	Access Mode		
	Input Volume		
	Audio Compres	sion	
	Sampling Rate(KHz)	
	□ Noise Suppre	ssion	
	🗹 Audio Channe	el 1	
	🗌 Audio Channe	el 2	
	Audio Output		
	Сору		Exit

- 2. Select the desired camera from the drop-down list.
- 3. Configure audio input parameters.

Item	Description			
Audio Input	Check 💽 to enable audio input.			
Access Mode	 Select the access method according to the IPC's audio interface, including Line, Mic, and RS485. Line-in: The IPC is connected to a sound pickup by a 3.5mm audio cable. Mic-in: The IPC is connected to a microphone. RS485: The IPC is connected to a sound pickup by a RS485 cable. You need to set the port mode to sound pickup on the IPC's web interface. See <i>Network Camera User Manual</i> for details. Note: Only certain brands of sound pickups are supported by IPCs. Contact technical support for details. 			
Input Volume	Drag the slider to adjust the audio input volume.			
Audio Compression	Select the audio compression, including G.711A, G.711U, AAC-LC. The supported audio compression may vary with IPC model.			
Sampling Rate(KHz)	 Select the sampling rate based on the audio compression. For AAC-LC, select 8 KHz, 16 KHz, or 48KHz. For G.711A or G.711U, select 8KHz or 16KHz. 			
Noise Suppression	Select 💽 to enable noise suppression.			
Audio Channel 1/Audio Channel 2	Select solution of the select the access mode from the drop-down list.			
	Note: Only certain dual-channel IPCs support two audio channels, but the two audio channels cannot be enabled at the same time.			

4. Configure audio output parameters. Only certain IPC models support audio output.

Item	Description
Audio Output	Select the audio output mode.
	Speaker: The default mode.
	Line: An external speaker or earphone is required.
Output Volume	Drag the slider to adjust the audio output volume.

- 5. (Optional) To apply the audio settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.
- 6. Click Apply.

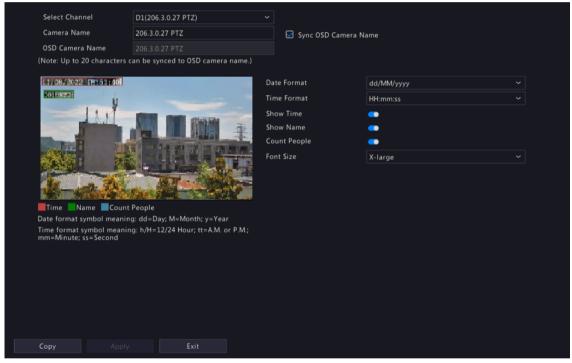
4.3 Display Configuration

Configure OSD characters, image parameters, and privacy mask.

4.3.1 OSD Configuration

Configure the characters overlaid on the preview (live view) window.

1. Go to Menu > Camera > Configuration > OSD.



- 2. Select the desired channel from the drop-down list.
- 3. Set the OSD parameters.

Item	Description		
Camera Name	The name of the selected camera. You may customize the camera name as needed.		
Sync OSD Camera Name	Sync OSD Camera Name is enabled by default, thus the OSD camera name is synchronized with the camera name automatically.		
	 Note: Up to 20 characters can be synced to OSD camera name. If the camera name exceeds 20 characters, only the first 20 characters will be displayed. If Sync OSD Camera Name is disabled, after the camera name is changed, the new name will not be synced to OSD camera name. 		

Item	Description		
OSD Camera Name	The camera name displayed on the video image. OSD camera name is same as the camera name by default. You can customize the OSD camera name after disabling Sync OSD Camera Name . Up to 20 characters are allowed.		
Date Format	Select the date format from the drop-down list.		
Time Format	Select the time format from the drop-down list.		
Show Time	When enabled, the camera time is displayed on the left side of video image.		
Show Name	When enabled, the OSD camera name is displayed on the video image.		
Count People	When enabled, people counting statistics are displayed on the video image, including the number of people entered and exited. This function requires you to configure People Flow Counting first.		
Font Size	Select the front size from the drop-down list, including X-large, large, medium, and small.		
Font Color	Select the front color from the drop-down list.		

- 4. (Optional) To apply the same OSD settings to other cameras, click **Copy** and select the desired camera(s).
- 5. Click Apply.

4.3.2 OSD Content

Configure other characters overlaid on the preview (live view) window.

1. Go to Menu > Camera > Configuration > Content.

Select Chanr	D1(IP	Camera 01)				
		/	/ •	OSD1	123456789	
			M 🚥	OSD2		
ALC: NO		Same The La	•	OSD3		
	A WEI		•	OSD4		
	The second	· · · · ·		OSD5		
11			1			
	A Land		1			
Note: The OSI	D name allows 1-60 o	characters and is case-ser	nsitive.			
Apply	Exit					

2. Select a channel.

3. Enable OSD(s), and configure OSD name.

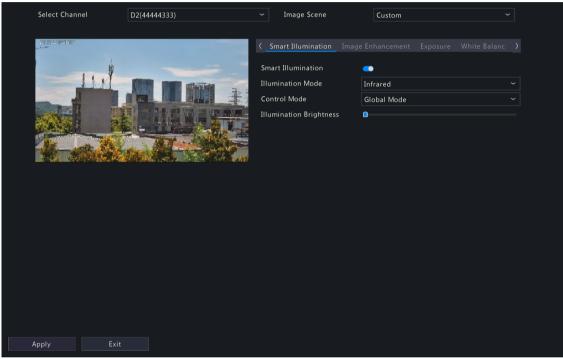
🔁 Note:

- The number of OSDs may vary with IPC model.
- The OSD name allows 60 characters and is case-sensitive.
- 4. Click Apply
- 5. (Optional) To adjust the font size and color, go to OSD Configuration.

4.3.3 Image Settings

Adjust image settings to get optimal images.

1. Go to Menu > Camera > Configuration > Image.



- 2. Select the desired channel.
- 3. Select the image scene you want to use.

The IP camera provides several predefined scene modes for different application scenarios. When you select a scene, the parameters will be automatically set, you can also adjust the parameters as needed.

- Indoor: Recommended for indoor scenes.
- Common: Recommended for outdoor scenes.
- Starlight: Recommended for low light conditions.
- Test: Recommended for test scenes.
- Road Highlight Compensation/Park Highlight Compensation: Recommended for capturing vehicle license plates on roads or in parks.
- WDR: Recommended for scenes with high-contrast lighting, such as window, corridor, front door or other scenes that are bright outside but dim inside.
- Custom: Set a scene as needed.
- 4. Configure the parameters under the tabs in this page.

式 Note:

- Only certain IPCs support scene selection, and the image parameters may vary with IPC model.
- The default settings are scene-adaptive. Use default settings unless modification is necessary. To restore default settings under all the tabs, click **Default** in the lower left corner. This function is available only when the camera is connected to the NVR via the private protocol.
- Image settings apply to both live and recorded videos.

Image Enhancement

Click the Image Enhancement tab, and set the parameters.



Item	Description				
Brightness	The overall lightness or darkness of the image.				
Saturation	The intensity or vividness of colors in the image.				
Contrast	The difference between the lightest and darkest tones in the image.				
Sharpness	The contrast between the edges of an object in the image.				
Noise Reduction	Reduce noises in images, while it may cause image blur or smearing.				
Image Rotation	The rotation of the image.				
	Normal: Displays images without rotation.				
	Flip Horizontal: Displays images flipped horizontally.				
	Flip Vertical: Displays images flipped vertically.				
	• 180°: Displays images flipped vertically and horizontally.				
	 90° CW: Displays images in corridor format. The camera must be installed correctly (rotated 90° clockwise). 				
	• 90° CCW: Displays images in corridor format. The camera must be installed correctly (rotated 90° counterclockwise).				
Splice Distance	Adjust splice distance to display splicing image for the dual-lens camera with single channel. The larger the distance, the more natural the splicing effect, thus avoiding video stuttering or image ghosting. The NVR can obtain the current splice distance automatically. Drag the slider to set it as needed.				
	■ Note:				
	• This item appears only for dual-lens cameras that support this function.				
	 Configure the splice distance for the dual-lens camera according to the installation scene so as to achieve the best splicing effect. 				

Exposure

Click the **Exposure** tab, and set the parameters.

Exposure Mode	Indoor 60Hz	~
Shutter(s)	1/50	
Gain(dB)	0	
Slow Shutter		
Slowest Shutter	1/12	~
Compensation	0	
Linear Stripe Suppression		
Day/Night Mode	Automatic	~
Day/Night Sensitivity	Ultra-low	~
Day/Night Switching(s)	3	
WDR	Automatic	~
WDR Level		
WDR On Sensitivity	0	
WDR Off Sensitivity		

Item	Description				
Exposure Mode	Select the correct exposure mode to achieve the desired exposure effect.				
	• Automatic: The camera automatically sets the exposure parameters according to the scene.				
	Custom: User can set exposure parameters as needed.				
	 Shutter Priority: The camera adjusts shutter as priority to adjust the image quality. 				
	• Indoor 50Hz: Reduce stripes by adjusting the exposure time.				
	😴 Note:				
	 Stripe effect: The high-contrast condition in an image caused by uneven light energy received by the sensor. 				
	 Using this mode in brighter environments aids in adjusting the stripe effect in the image with linear stripe suppression. 				
	• Indoor 60Hz: Reduce stripes by adjusting the exposure time.				
	Note: Using this mode in brighter environments aids in adjusting the stripe effect in the image with linear stripe suppression.				
	Manual: Fine-tune image quality by setting shutter, gain, and iris manually.				
	Low Motion Blur: Control the minimum shutter to reduce motion blur.				
Shutter(s)	Shutter is used to control the amount of light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly.				
	This parameter is configurable when Exposure Mode is set to Manual , Shutter Priority , or Custom .				
	Note: If Slow Shutter is disabled, the reciprocal of the shutter speed must be greater than the frame rate.				
Gain(dB)	Control image signals so that the camera can output standard video signals in different light conditions.				
	This parameter is configurable when Exposure Mode is set to Manual or Custom.				

Item	Description
Slow Shutter	Select 💽 to enable slow shutter. When enabled, the camera improves image brightness in low light conditions.
Slowest Shutter	When enabled, you can set the slowest shutter speed for the camera during exposure.
Compensation	Adjust the compensation value as required to achieve the desired image effect.
Day/Night Mode	 Automatic: The camera automatically switches between night mode and day mode according to the ambient lighting condition to output optimum images. Day: The camera outputs high-quality images in daylight conditions. Night: The camera outputs high-quality images in low light conditions.
Day/Night Sensitivity	Light threshold for switching between day mode and night mode. Ultra-low, low, medium, and high are available. A higher sensitivity level means that the camera is more sensitive to the change of light and is therefore more easily to switch between day mode and night mode.
	This parameter is configurable when Day/Night Mode is set to Automatic .
Day/Night Switching(s)	Set the length of time before the camera switches between day mode and night mode after the switching conditions are met.
	This parameter is configurable when Day/Night Mode is set to Automatic .
WDR	Suitable for high-contract scenes. WDR can balance the brightness in the bright area and dark area, and provide clear image with more details.
	 On/Off: User needs to identify WDR scenes, and manually enable or disable WDR as needed.
	• Smart (Automatic): The device can automatically identify typical WDR scenes, and then enable or disable WDR.
	Note: When WDR is enabled, some other functions may not be supported. Refer to the actual interface for details.
WDR Level	Adjust the WDR level to improve image quality when WDR is enabled.
	Note: In the case of low contrast, it is recommended to disable WDR or use level 1 to 6. Level 7 or higher is recommended if there is a high contrast between the bright and dark areas in the scene.
WDR On/Off Sensitivity	When WDR is set to Automatic , adjust the parameter to change the WDR switching sensitivity.
Metering Control	Perform luminance statistics on the images captured by the device, automatically adjust the exposure value, and output properly exposed images with optimal brightness. The default is the Center-Weighted Average Metering , you may configure this according to the actual scene.
	Center-Weighted Average Metering: Measure light mainly in the central part of the image.
	• Evaluative Metering: Measure light in the specified area of the image,
	• Face Metering: Adjust image quality in poor lighting or back lighting conditions by controlling the brightness of captured faces in face scenes.
	• Spot Metering: Similar to the evaluative metering. However, it cannot increase the brightness of the image.
	Note: This parameter is configurable when Exposure Mode is not set to Manual.

Item	Description
Linear Stripe Suppression	Adjust the linear stripes in the image.
	Range: 1 to 9, the default is 5. The greater the value, the more obvious the linear stripe suppression effect is, but it may cause overexposure in the image. Please configure this according to the actual scene.
	 Note: This parameter is configurable when Exposure Mode is set to Indoor 50Hz or Indoor 60Hz.

Smart Illumination

Click the **Smart Illumination** tab, and set the parameters.

Smart Illumination	••	
Illumination Mode	Infrared	~
Control Mode	Global Mode	~
Illumination Brightness	•	

Item	Description
Smart Illumination	Enable Smart Illumination.
Illumination Mode	Select the illumination mode from the drop-down list.
	Infrared: The camera uses infrared light illumination.
	White Light: The camera uses white light illumination.
	• Dual Light: The camera adjusts the white light or infrared automatically according to the current lighting condition.
Control Mode	Select the control mode from the drop-down list.
	 Global Mode: The camera automatically adjusts illumination brightness and exposure to achieve the balanced image effect.
	Overexposure Restrain: The camera automatically adjusts illumination brightness and exposure to avoid regional overexposure.
	Manual: Control the brightness of illumination manually.
Illumination Brightness	Drag the slider to adjust the illumination brightness. This parameter is configurable when Control Mode is set to Manual . The greater the value, the higher the intensity (0 is off).

White Balance

Click the White Balance tab, and set the parameters.

ltom	Description	
Blue Offset		
Red Offset	•	
White Balance	Automatic	~

Item	Description
White Balance	Adjust the red and blue gains of the image to remove unrealistic color casts.

Item	Description
	• Auto: The camera automatically adjusts the red and blue gains according to the lighting condition (the color tends to be blue).
	• Fine Tune: Adjust the red or blue offsets manually.
	Outdoor: Suitable for outdoor scenes where the color temperature varies widely.
	• Sodium Lamp: The camera automatically adjusts red and blue gains according to the lighting condition (the color tends to be red).
	Locked: Lock the current color temperature to avoid change.
Red Offset	Adjust the red offset manually.
Blue Offset	Adjust the blue offset manually.

Advanced Settings

Click the **Advanced** tab, and set the parameters.

Defog	Close	~
Defog Intensity	0	

Item	Description
Defog	Enable/disable defog from the drop-down list. Defog is used to improve image visibility in foggy, hazy and other low-visibility scenes.
Defog Intensity	When defog is enabled, you can adjust the defog intensity. In a heavy-fog environment, the higher the defog level, the clearer the image. In a fog-free or light-fog environment, there is not much difference between levels 1 to 9.
	Note: Optical defog is available only for certain IPC models. When the defog intensity is set to 6 or higher, optical defog automatically turns on in thick fog, and images change to black and white.

4.3.4 Privacy Mask

Privacy mask is used to cover certain areas on the image for privacy, for example, ATM keyboard. When a PTZ camera rotates and zooms, the privacy mask moves and zooms with the camera and the masked area is always covered.

1. Go to Menu > Camera > Configuration > Privacy Mask.

Select Channel	D1(IP Camera 01)		🌑 🛛 Enable Priva	cy Mask		
			Add Area	ū	Clear All	
ų.		No.		Redraw		Clear
IN		a —				
LAND P						
Merror R.	the states					
		18				
(Note: Up to 4 area(s) all	owed.)					
Apply Ex						

- 2. Select the desired channel from the drop-down list.
- 3. Enable privacy mask.
- 4. Click 2, and then use the mouse to specify a rectangle area on the left-side image. The number of areas supported varies with NVR model. Some NVRs support 4 areas and some support 8 areas.

	nel [D1(IP Camera ()1)	~ C E	Enable Privacy Mask		
anna ann an a				🖉 Add Ar	rea 🔟 Cle	ar All	
			_	No.	Redraw	Clear	
-		-		1		Ш.	
and the second				2			
	1000.00 . CO		V.	3		盙	
CAN		_		4		Ш	
No.	with Sta						
				1964			
(Note: Up to 4	area(s) allowed	I.)		54			
(Note: Up to 4	area(s) allowed	H.)		1			
(Note: Up to 4	area(s) allowed	H.)					
(Note: Up to 4	area(s) allowed	H.)					
(Note: Up to 4	area(s) allowed	L.)		57 			
(Note: Up to 4	area(s) allowed	.)		57 1			
(Note: Up to 4	area(s) allowed			57 1			
(Note: Up to 4	area(s) allowed	1.)		57 1			
(Note: Up to 4	area(s) allowed	j.)		574 			

- Adjust the size and position of the mask: Point to a handle of the mask and drag to resize it. Point to any position of the mask and drag it to the desired position.
- Redraw: Click 🗾 to clear all the existing area(s) and draw an area again.
- Delete: Select the mask and click 📷; Or click 📷 to delete all the masks.
- 5. Click Apply.

4.4 PTZ Configuration

Configure and control PTZ cameras.

Note:

- This function is only available for PTZ cameras.
- The PTZ parameters may vary with IPC model.
- PTZ (pan, tilt and zoom) control is applicable to PTZ cameras only and may vary depending on the functions and protocols supported by the PTZ cameras. Refer to PTZ camera specifications for details.

PTZ Control Mode

DVRs support two control modes, including **Coaxial** or **Serial Port**. Choose the control mode before using PTZ function.

- 1. Go to Menu > Camera > PTZ.
- 2. Choose a control mode according to camera connection method, and complete other settings.

Configure PTZ

Option 1: Enter Menu

- 1. Go to Menu > Camera > PTZ.
- 2. Select the target PTZ camera.

No. Preset Name Edit Call Delete 001 Preset001 002 Preset002 003 Preset003 004 Preset004 Preset Patrol Recorded Patrol Auto Guard Preset Patrol 1 Preset Patrol 1 - + Add KeyP To Delete All + Move Up + Move Do KeyPoint Preset Duration Speed Modify Delete	Selec	t Camera	D2						
001 Preset001 □ - - 002 Preset002 □ - - 003 Preset003 □ - - 004 Preset004 □ - - Preset004 □ - - - Preset Patrol Recorded Patrol Auto Guard - Preset Patrol 1 ▼ ▶ P □ + Add KeyP □ Delete All ↑ Move Up ↓ Move Do KeyPoint Preset Duration Speed Modify Delete					No.	Preset Name	Edit	Call	Delete
003 Preset003 □ □ □ 004 Preset004 □ □ □ Preset Patrol Recorded Patrol Auto Guard Preset Patrol Recorded Patrol Auto Guard Preset Patrol Recorded Patrol Auto Guard Preset Patrol Nove Up Move Up + Add KeyP IDelete All ↑ + Add KeyP IDelete All ↑ Move Up ↓ Move Up + Add KeyP IDelete All ↑ Move Up ↓ Move Up ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓				1					
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $		г ^	- +	Zoom —					
		< 🗆	> +	Focus —	KeyPo	int Preset	Duration Sp	beed Mo	dify Delete
PTZ Speed		L ¥	- +	Iris —					
		PTZ Speed		-0					

3. Set the parameters. See below for details.

Option 2: Use PTZ Toolbar

^{1.} On the preview page, select the target window, and click $\frac{1}{1}$ on the window toolbar.



- 2. The PTZ control window appears. You can control the PTZ camera as needed.
- 3. Click PTZ Configuration, and set the parameters.

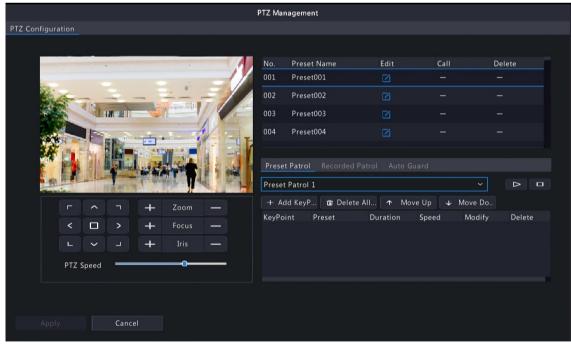


Table 4-2: PTZ Control Window Buttons

Button	Description
「	Control the rotation direction of the PTZ camera; release PTZ control.
+ Zoom + Focus + Iris	 Zoom in or out on images. Note: You can also zoom in or out using the scroll wheel on your mouse. Focus far or near for clear images. Increase or reduce the amount of light that enters the lens of the camera. Control the rotation speed of the camera. 1-9 are available. 1 means
PTZ Speed Contraction Contract	the slowest, and 9 means the fastest.
PTZ Configuration	Click to display the PTZ Configuration page.
	 Turn on/off the light. Turn on/off the wiper. Turn on 3D positioning. Turn on/off the heater. Turn on/off the snow removal. Turn on/off PTZ shortcut operations. Image: Note: Make sure that the 3D positioning, heater and snow removal functions are supported by the camera before using. Use 3D positioning to zoom in or out. Dragging from top down zooms in. Dragging the other way zooms out.
Preset/ Preset Patrol/Recorded Patrol/ Auto Guard	• For detailed information, see Preset, Preset Patrol, Recorded Patrol, and Auto Guard respectively.
	 Call a preset: Click , and the PTZ camera goes to the preset position. Delete a preset: Click to delete the preset. Note: and are displayed for saved presets only.
	Start or stop preset patrol.

OSD Menu

Configure analog cameras on DVRs. This function is only available for DVRs.

- ^{1.} On the preview window of an analog camera, click $\textcircled{\circ}$ on the window toolbar.
- 2. Click OSD Menu.
- 3. Click or camera settings window, and set the parameters.
- 4. Click ____ to save the settings, and then choose Exit button to close the window.

Preset

A preset position (preset for short) is a saved view used to quickly steer the PTZ camera to a specific position.

- Add a Preset
 - 1. Use the PTZ direction buttons to steer the PTZ camera to the desired position.
 - 2. Select a preset number not in use, and click *m* to edit the preset name.

	Edit Preset Name								
	Preset Name Preset001								
	Note: Editting a preset name will save the current position as the preset								
			ОК	Cancel					
3. (3. Click OK to save. Repeat the above steps to add all the presets.								
	No. Preset Name	Edit	Call	Delete					

NO.	Preset Name	Edit	Call	Delete
001	Preset001	Ø		Ш́
002	Preset002	Ø	-	-
003	Preset003	Ø	-	-
004	Preset004		-	-

Call a Preset

In the preset list, select the preset to call and click 💦. Then the camera rotates to the preset position.

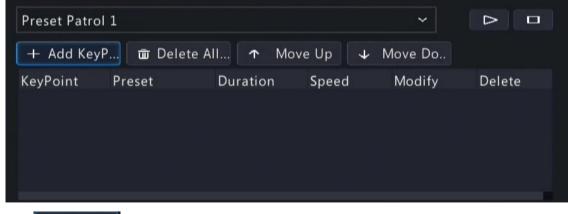
Delete a Preset

In the preset list, select the preset you want to delete, and then click

Preset Patrol

Set a preset patrol route so the PTZ camera can patrol by presets (go from one preset to the next in the specified order).

- Add Preset Route
 - 1. Click Preset Patrol, and select a patrol route.



2. Click + Add KeyP...... The figure as shown below appears.

Preset Configuration						
Preset	001(Preset001) ~					
Duration	10					
PTZ Speed	5 ~					
	OK Cancel					

3. Complete the parameters, and click **OK**.

Item	Description
Preset	Set the length of time the camera stays at the preset after performing the patrol. See Preset for setting preset.
Duration(s)	Set the time the camera stays at the preset after the patrol is performed. The valid range is from 120 to 1800 seconds. The default is 10s.
Speed	Set the rotation speed. 1 means the slowest, 9 means the fastest. The default is 5.

4. Repeat the above steps to add more routes.

Note: Up to 4 patrol routes are allowed for each PTZ camera. Up to 8 presets (keypoints) are allowed for each patrol route.

Call a Preset

Select a preset patrol in the list, click **begin to start the preset patrol**. To stop, click **begin to**

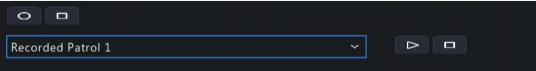
Preset Patrol	1			~	
+ Add KeyP	👼 Delete A	II 🛧 Mov	e Up 🛛 🕹	Move Do	
KeyPoint	Preset	Duration	Speed	Modify	Delete
1	001(Preset001)	122s	5	Ø	Ш́.
2	001(Preset001)	103s	5	ß	血

- Other Operations
 - Edit: Click 🗹 to edit the preset patrol parameters.
 - Delete: Click mit to delete a keypoint; Click mit Delete All... to delete all keypoints.
 - Move Up/Move Down: Click 🛧 Move Up / 🗸 Move Do.. to adjust the sequence of these presets.

Recorded Patrol

Record a patrol route so the PTZ camera can patrol according to the recorded patrol.

- Add a Recorded Patrol
 - 1. On the **Recorded Patrol** tab, select a patrol route.
 - 2. Click o to start recording. Steer the camera to the desired direction, adjust the zoom, focus, iris as needed during the process.



- 3. Click 🗖 to stop recording.
- 4. Click Apply.
- Call a Recorded Patrol

Click \triangleright to start the recorded patrol. Click \Box to stop the recorded patrol.

Auto Guard

Configure auto guard so the PTZ camera automatically performs the specified action (e.g., going to a preset or starting a patrol) after being idle (no user operation) for a certain length of time.

Note: Before use, you need to add a preset or a patrol route.

- 1. On the Auto Guard tab, select the Enable check box to enable auto guard.
- 2. Set the parameters.

Item	Description			
Idle State(s)	Set the idle duration for the camera to start auto guard. 1 to 3600 seconds are available. The default is 60s.			
Mode	Select preset or patrol route.			
Preset/Patrol	Select a preset number or patrol route number.			

3. Click Apply.

4.5 Panoramic Linkage

Configure panoramic linkage for cameras that support the function.

Enable Panoramic Linkage

- 1. Go to Menu > Camera > Panoramic Linkage.
- 2. Select the camera that supports panoramic linkage.

Current Camera	D3(03)		
🗆 Panoramic Linkage			
	Panoramic I		Close-up Im
+	+	+	
+			+
+ + +			
Auto Calibr			「 ^ 」 + Zoom — く ロ > + Focus —
No. Coordinates	PTZ Latitude an		L + Iris -
1 1791 * 546	15350 * 4273		
2 5125 * 546	15714 * 4888		PTZ Speed
3 8458 * 546	15611 * 4879		
4 1791 * 3879	15785 * 5108		
5 5125 * 3879	16435 * 4888		
6 8458 * 3879	16204 * 4897		

3. Enable Panoramic Linkage.

Configure Panoramic Linkage

Parameter	Description				
Auto Calibration	Calibrate in close-up image and panoramic image to ensure accurate panoramic linkage.				
	 Click Auto Calibration, and then manually calibrate the center of panoramic image and close-up image. 				
	2. Click Next to complete the calibration.				
Manual Calibration	After completing auto calibration, you can manually adjust the coordinate.				
	 Click any coordinate from the list, the close-up image will move to the corresponding coordinate. 				
	2. Adjust the coordinate image by using the PTZ control panel.				
	3. Click 📑 to save the calibration.				
「 ^	Control the rotation direction of the PTZ camera; release PTZ control.				
🕂 Zoom —	Zoom in or out on images.				
+ Focus —	Note: You can also zoom in or out using the scroll wheel on your mouse.				
+ Iris —	Focus far or near for clear images.				
	 Increase or reduce the amount of light that enters the lens of the camera. 				
PTZ Speed	Control the rotation speed of the camera. 1-9 are available. 1 means the slowest, and 9 means the fastest.				

5 Search

Search for and back up recordings and snapshots based on event, object, and statistical funcitons.

Note: The search and backup functions may vary with device models.

5.1 Recording Backup

Recording backup refers to backing up videos stored on the NVR's hard disk to a USB storage device. It has the following conditions:

- The USB storage device has been formatted to FAT32 or NTFS.
- Backup permission is required.
- The recording to back up is stored on a hard disk of the NVR.
- The storage device is connected correctly to the NVR.

😴 Note:

- Recordings are backed up as .mp4 files by default.
- You can back up recordings in HD or SD mode.

Normal Video Backup

Normal video backup refers to backing up scheduled recording, manual recording, and event-triggered recording.

1. Go to Menu > Search > Video > Recording.

2. Select the desired camera(s). All cameras are selected by default.

Select (Channel	All	
Start Ti	me	2023-09-27 00:00:00	
End Tim	ne	2023-09-27 23:59:59	
Туре		All	
Event T	уре		
VCA Ty	pe		
File Typ	e	All	
Clarity		HD	
Search	Exit		
Search	Exit		

- 3. Set search conditions, including the start time, end time, recording type, event type, VCA type, file type, and clarity (HD or SD).
- 4. Click **Search**. Search results are displayed. The image from the first search result is displayed on the right side. Click or play the video.

		Search	n Results	
🗆 Camera ID	Time		Size	
D2(IPC O2)	2024-07-01 09:15:42		77KB	
D2(IPC 02)	2024-07-01 09:15:47		77KB	
D2(IPC O2)	2024-07-01 09:15:52		77КВ	
D2(IPC O2)	2024-07-01 09:15:57		71KB	
D2(IPC O2)	2024-07-01 09:16:02		75KB	
D2(IPC 02)	2024-07-01 09:16:07		78KB	
D2(IPC O2)	2024-07-01 09:16:12		77KB	
D2(IPC 02)	2024-07-01 09:16:17		77KB	
D2(IPC O2)	2024-07-01 09:16:22		78KB	Resolution: 1920 x 1080
D2(IPC O2)	2024-07-01 09:16:27		79KB	
D2(IPC 02)	2024-07-01 09:16:32		79KB	
D2(IPC O2)	2024-07-01 09:16:37		82KB	
D2(IPC 02)	2024-07-01 09:16:42		75KB	
D2(IPC O2)	2024-07-01 09:16:47		79KB	
D2(IPC 02)	2024-07-01 09:16:52		77KB	
D2(IPC 02)	2024-07-01 09:16:57		79KB	
	TO TE OF TO TO TO TO TO		7040	
Total: 1024 Page:1/11		« <		·
Space required: 0 KB				Backup All Backup Cancel

- 5. Choose a way to back up recording(s) as needed.
 - Select the recording(s) you want to back up, and then click **Backup**.
 - Or click **Backup All** to back up all the recordings in the list.

	Ва	ckup		
Partition Location	USB-sdz4 /			Refresh
	Size	Туре	Modify Time	Delete
🛅 Previous Level		dir	2022-08-15 04:34:04	
📩 backup		dir	2022-08-11 14:56:47	Ē
📩 CaptureReport		dir	2022-07-26 20:09:20	Ш.
Free	59921MB			
Total	59999MB			
New Folder		Format	Backup	Cancel

6. Select the partition and storage path, and then click **Backup**. You can also create a new folder for the recording(s) by clicking **New Folder**.

😴 Note:

- Click **Format** to format the USB device. A USB device with more than 2TB capacity can only be formatted to NTFS, with 2TB or less capacity can be formatted to NTFS or FAT32. Only certain NVRs can format a USB device with more than 2TB capacity.
- During backup, a progress bar is displayed to indicate the progress (e.g., Exporting X/Y), where X indicates the current number being backed up, and Y indicates the total number of recordings. To stop the backup, click **Cancel**.
- A backup file is named in this format: Camera ID_S recording start time_E recording end time.file extension. For example, D1-S20220823000400_E20220823003148.mp4, where S means the start time, and E means the end time.

5.2 Image Backup

Image backup refers to backing up images stored on the NVR's hard disk to a USB storage device.

Note: The default format of image backup is *.JPG.

Normal Snapshot Backup

Normal snapshot backup refers to backing up scheduled snapshot, manual snapshot, and event-triggered snapshot.

1. Go to Menu > Search > Picture > Snapshot Backup.

Select Chan	nel All		
Start Time		-09-27 00:00:00	
End Time	2023	-09-27 23:59:59	
Image Type	All		
Search	Exit		

- 2. Select the desired camera(s). All cameras are selected by default.
- 3. Set search conditions, including the image type, start time, and end time.
- 4. Click **Search**. Search results are displayed. The image displayed on the right is from the first result in the list by default.

		Search Results	
Camera ID	Time 2024-07-01 09:15:42	Size 77KB	
D2(IPC 02)	2024-07-01 09:15:47	77КВ	
D2(IPC 02)	2024-07-01 09:15:52	77КВ	
D2(IPC 02)	2024-07-01 09:15:57	71KB	
D2(IPC 02)	2024-07-01 09:16:02	75KB	
D2(IPC 02)	2024-07-01 09:16:07	78КВ	
D2(IPC 02)	2024-07-01 09:16:12	77КВ	
D2(IPC 02)	2024-07-01 09:16:17	77КВ	
D2(IPC 02)	2024-07-01 09:16:22	78KB	Resolution: 1920 × 1080
D2(IPC 02)	2024-07-01 09:16:27	79КВ	
D2(IPC 02)	2024-07-01 09:16:32	79КВ	
D2(IPC 02)	2024-07-01 09:16:37	82KB	
D2(IPC 02)	2024-07-01 09:16:42	75КВ	
D2(IPC 02)	2024-07-01 09:16:47	79КВ	
D2(IPC 02)	2024-07-01 09:16:52	77КВ	
D2(IPC 02)	2024-07-01 09:16:57	79КВ	
	2024 07 01 00.17.02		
Total: 1024 Page:1/11		\ll \checkmark \gg 1 \rightarrow	
Space required: 0 KB			Backup All Backup C

- Note: The image resolution depends on the resolution from the output interface and the number of windows displayed when the snapshot is taken.
- 5. Choose a way to back up image(s) as needed.
 - Select the desired image(s) you want to back up, and then click Backup.
 - Or click **Backup All** to back up all the images in the list.
- 6. Select the partition and storage path, click **Backup**. Then the images are backed up to the specified path on the storage device. You can also create a new folder for the image(s) by clicking **New Folder**.

5.3 Event

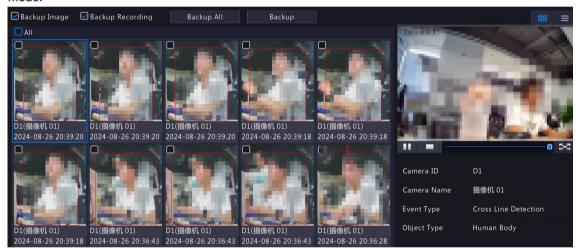
Smart Event

Back up images and recordings triggered by smart event alarms.

- 1. Go to Menu > Search > Event > Event Search.
- 2. Set search conditions.

Parameter	Description		
Select Channel	Select the channel(s) to search.		
Start/End Time	Specify the time period to search.		
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.		
Event Type	Select Smart Event.		
Smart Event Type	Select the smart event type: All, Cross Line Detection, Intrusion Detection, Enter Area, Leave Area, and Ultra Motion Detection.		

3. Click **Search**. The search results are shown in tile mode set by default. You may click to list mode.



- Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
- Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen. See search results of Motor Vehicle Search for details.
- 4. Select Backup or Backup All. See for details.

Basic Event

Back up images and recordings triggered by basic event alarms.

- 1. Go to Menu > Search > Event > Event Search.
- 2. Set search conditions.

Parameter	Description
Select Channel	Select the channel(s) to search.
Start/End Time	Specify the time period to search.
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.
Event Type	Select Basic Event.

Parameter	Description
Basic Event Type	Select the basic event type: All, Motion Detection, Video Loss, Audio Detection, People Present Alarm, Human Body Detection, Doorbell Call, People Present Minor Alarm, People Present Major Alarm, and People Present Critical Alarm.

3. Click Search.

	Sea	rch Results		
Camera ID Time	Event Type	Status		
D2(IP Camera 2023-09-27 14:54:1114:54:31	Motion	\mathbf{O}		
D2(IP Camera 2023-09-27 14:55:0114:55:21	Motion	\odot		Sec. 1
D2(IP Camera 2023-09-27 14:56:3314:57:23	Motion	$\mathbf{\mathfrak{S}}$	_	- C
D2(IP Camera 2023-09-27 14:57:2514:57:44	Motion	\mathbf{O}		
D2(IP Camera 2023-09-27 14:59:3814:59:58	Motion	\mathbf{O}		
D2(IP Camera 2023-09-27 15:00:5415:01:14	Motion	\mathbf{O}	1000	
D2(IP Camera 2023-09-27 15:01:1815:01:38	Motion	\odot		
D2(IP Camera 2023-09-27 15:01:5715:02:17	Motion	•		
Total: 8 Page:1/1	« < >	· ≫ 1 →		

- The image from the first search result is displayed on the right side. Click 🕥 to play the video.
- 4. Back up search results. See Back up search results for details.

5.4 Object

Search for images based on various objects, including person, motor vehicle, and non-motor vehicle.

5.4.1 Person Search

Search for images based on human body events, face snapshots and face comparison results.

5.4.1.1 Human Body Search

Search for images based on human body events.

1. Go to Menu > Search > Object > Person > Human Body Search.

Select Channel	All	Event Type	All	
Start Time	2023-08-17 00:00:00	End Time	2023-08-17 23:59:59	
✓ Basic Attributes				
Gender	All	Age	AII	
Mask	All	Hairstyle	All	
Bag	All	Direction	AII	
Upper Garment Length	All	Lower Garment Length	All	
Upper Garment Color	All	Lower Garment Color	All	
Search Exit				

2. Set search conditions.

Parameter	Description
Select Channel	Select the channel(s) to search.
Event Type	Select the event type: All, Cross Line Detection, Intrusion Detection, Enter Area, Leave Area, Multi-Target Detection, Traffic Monitoring, Ultra Motion Detection, etc.
Start/End Time	Specify the time period to search.
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.
Gender	Select the gender: All, Male, or Female.
Age	Select the age: All, Childhood, Teenager, Youth, Middle Age, or Senior.
Mask	Select the mask: All, No Mask, or With Mask.
Hairstyle	Select the hairstyle: All, Long Hair, or Short Hair.
Bag	Select the bag: All, No Bag, Handbag, or Backpack.
Direction	Select the direction: All, Motionless, Upward, Downward, Leftward, Rightward, Top Left, Bottom Left, Top Right, or Bottom Right.
Upper Garment Length	Select the upper garment length: All, Short Sleeve, or Long Sleeve.
Lower Garment Length	Select the lower garment length: All, Shorts, or Trousers.

- 3. Click **Search**. The search results are shown in tile mode see by default. You may click to switch to list mode.
 - Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
 - Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen.
 - You can click **All Attributes** to view detailed human body attributes.
- 4. Back up search results. See Back up search results for details.

5.4.1.2 Face Snapshot Search

Search for face snapshots.

Search Face Snapshots

1. Go to Menu > Search > Object > Person > Face Snapshot Search.

ce Snapshot Search Face	Comparison Search	
Select Camera	All	
Gender	All	
Age	All	
Glasses	All	
Start Time	2023-02-22 00:00:00	
End Time	2023-02-22 23:59:59	
Search Exit		

2. Set search conditions.

Parameter	Description		
Select Camera	Select the camera(s) to search.		
Gender	Select the gender: All, Male, or Female.		
Age	Select the age: All, Childhood, Teenager, Youth, Middle Age, or Senior.		
Glasses	Select the glasses status: All, No Glasses, or With Glasses.		
Start/End Time	Specify the time period to search for face snapshots.		
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.		

- 3. Click **Search**. The search results are shown in tile mode by default. You may click \equiv to switch to list mode.
 - Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
 - Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen.

Other Operations

Operation	Description		
Backup/Backup All	 Enable Backup Image or/and Backup Recording as needed. By default, they are both enabled. 		
	• Backup Image: Back up the selected image(s) to an external device.		
	 Backup Recording: Back up the 15s video of the selected image(s) to an external device. 		

Operation	Description
	2. Select Backup or Backup All.
	 Backup: Back up specified search results. Select the search result(s) you want to back up and click Backup.
	Backup All: Back up all search results. Click Backup All.
Export Results	1. Enable Backup Image or/and Backup Recording as needed, and click Export Results.
	2. Select the export partition and click Export Results to export the search results to an external storage device.

5.4.1.3 Face Comparison Search

Search for face comparison results.

1. Go to Menu > Search > Object > Person > Face Comparison Search.

	th Face Compar	rison Search				
Colort Com						
Select Came	era	All				
Alarm Type		Face Match				
Name						
Matching Ra	ange(%)	1	100			
ID No.						
Start Time		2023-02-22 00:00:00				
End Time		2023-02-22 23:59:59				
(Note: Use a	n asterisk (*) to re	present one or more cha	aracters.)			
Search	Exit					

2. Set search conditions.

Parameter	Description		
Select Camera	Select the camera(s) to search.		
Alarm Type	Select the alarm type: Face Match or Face Not Match.		
Name	Enter the name you want to search.		
Matching Range(%)	The similarity between the captured faces and the face images in face lists, ranging from 1% to 100%. The higher the similarity, the more accurate the face comparison. Set it as needed.		
ID No.	Enter the ID number you want to search.		
Start/End Time	Specify the time period to search for face snapshots.		
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.		

3. Click **Search**. The search results are shown in tile mode by default. You may click = to switch to list mode.

- Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
- Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen.
- 4. Back up search results.
 - (1) Enable Backup Image or/and Backup Recording as needed. By default, they are both enabled.
 - Backup Image: Back up the selected image(s) to an external device.
 - Backup Recording: Back up the 15s video of the selected image(s) to an external device.
 - (2) Select Backup or Backup All.
 - Backup: Back up specified search results. Select the search result(s) you want to back up and click **Backup**.
 - Backup All: Back up all search results. Click **Backup All**.

5.4.2 Motor Vehicle Search

Search for images based on motor vehicle monitoring events.

1. Go to Menu > Search > Object > Motor Vehicle > Motor Vehicle Search.

Motor \	Vehicle Search				
	Select Camera	All	Event Type	All	
	Start Time		End Time	2023-02-22 23:59:59	
	✓ Basic Attributes				
	Vehicle Type	All	Plate Type	All	
	Vehicle Color	All	Plate Color	All	
	Vehicle brand	All	Plate No.		
	Direction	All			
	(Note: Use an asterisk (*, characters.)) to represent one or more			
	Search Exit				
	EXIL				

2. Set search conditions.

Parameter	Description	
Select Camera	Select the camera(s) to search.	
Event Type Select the event type: All, Cross Line Detection, Intrusion Detection, Enter Area, Leave Area, Multi-Target Detection, Traffic Monitoring, Ultra Motion Detection, Plate Comparison, etc.		
Start/End Time	Specify the time period to search.	
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.	
Vehicle Type	Select the vehicle type to search.	
Plate Type	Select the plate type to search.	

Parameter	Description
Vehicle Color	Select the vehicle color to search.
Plate Color	Select the plate color to search.
Vehicle Brand Select the vehicle brand to search.	
Plate No.	Enter the plate number to search.
Direction Select the direction: All, Motionless, Upward, Downward, Leftw Rightward, Top Left, Bottom Left, Top Right, or Bottom Right.	
Plate Comparison	Select the plate comparison type: All, Match, or Not Match.
	Note: This parameter appears when Event Type is Plate Comparison .

- 3. Click **Search**. The search results are shown in tile mode search by default. You may click to list mode.
 - Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
 - Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen.
 - You can click **All Attributes** to view detailed motor vehicle attributes.
- 4. Back up search results. See Back up search results for details.
- 5. To export the search results as a .CSV file, click **Export Results**.

1	No.	Camera ID	Camera Name	Time	Plate No.	Plate Color	Vehicle Color
2	1	D1	D18Plate22247	2022-08-05 16:02:59	0585686	Blue	Other
3	2	D2	D19Plate2	2022-08-05 16:02:40	VT4541.3	Blue	White
4	3	D3	D20Plate22249	2022-08-05 16:00:39	A435485	Green	White
5	4	D4	D21Plate22250	2022-08-05 15:58:13	3425454	Blue	Black
6							
7							
8							
9							
10							
11			•				
12							
13							
14							
15							
16							
17							
4	plate	202208121052	38 (+)			: •	

5.4.3 Non-Motor Vehicle Search

Search for images based on non-motor vehicle events.

1. Go to Menu > Search > Object > Non-Motor Vehicle > Non-Motor Vehicle Search.

Non-M	Non-Motor Vehicle Search					
	Select Camera	All ~		Event Type	AII	
	Start Time	2023-02-22 00:00:00 ~		End Time	2023-02-22 23:59:59	
	✓ Basic Attributes					
	Non-Motor Vehicle T	All 🗸		Direction	All	
	Gender	All ~		Age	All	
	Upper Garment Length	All ~				
	Search Exit					

2. Set search conditions.

Parameter	Description
Select Camera	Select the camera(s) to search.
Event Type	Select the event type: All, Cross Line Detection, Intrusion Detection, Enter Area, Leave Area, Multi-Target Detection, Traffic Monitoring, Ultra Motion Detection, Plate Comparison, etc.
Start/End Time	Specify the time period to search.
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.
Non-Motor Vehicle Type	Select the non-motor vehicle type: All, Bicycle, 3-wheel Vehicle, Motorcycle, Electric Moped, or 2-wheel Vehicle.
Direction	Select the direction: All, Motionless, Upward, Downward, Leftward, Rightward, Top Left, Bottom Left, Top Right, or Bottom Right.
Gender	Select the gender: All, Male or Female.
Age	Select the age: All, Childhood, Teenager, Youth, Middle Age, or Senior.
Upper Garment Length	Select the upper garment length worn by drivers: All, Short Sleeve, or Long Sleeve.

- 3. Click **Search**. The search results are shown in tile mode by default. You may click = to switch to list mode.
 - Click any image to view the 15s video (10s before and 5s after the snapshot time) and detailed information about it.
 - Double-click an image on the left to magnify it; double-click the recording on the right to play it in full screen.
 - You can click **All Attributes** to view detailed non-motor vehicle attributes (human body attributes will be shown when event type is multi-target detection).
- 4. Select **Backup** or **Backup All**. See Backup or Backup All for details.

5.5 Statistics

5.5.1 People Counting Report

Search for people counting data. You can view daily/weekly/monthly/yearly people counting reports, the number of people entering and/or leaving a certain area or scene during a specified time period.

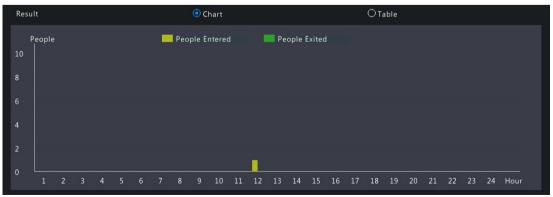
1. Go to Menu > Search > Statistics > People Counting Report.

People C	ountir	g Rep	ort																						
	C	iting T						amera								Osa									
								amera	1							US	ene								
		t Cam					AII																		
	Cour	ting T	уре				Tota																		
	Repo	rt Typ	е				Dail	y													Count				
	Stati	stical 1	Time					2022			10				.7		10					Bac	kup		
	Resu	lt					⊙ ci	hart								OTable									
	P	eople				Peoj	ple Er	ntered			Pe	ople	Exited	I											
								10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Hour		
	Exit																								

2. Set search conditions.

Parameter	Description
Counting Type	Count people flow data according to the camera or scene.
Select Camera/Scene Select	 Camera: Select the camera(s) to search. Scene: Select the scene to search. Please configure scene information first, see People Present Alarm for details.
Counting Type	Select the counting type to search: Total, People Entered, or People Exited.
Report Type	Select the report type to view: Hourly, Daily, Weekly, Monthly, or Yearly.
Statistical Time	Select the time to count.

- 3. Select to create the report as a chart or a table.
 - Chart



• Table

Result		🔘 Chart	Table	
Camera ID	Statistical Time	People Entered	People Exited	
D58	11:00-12:00			

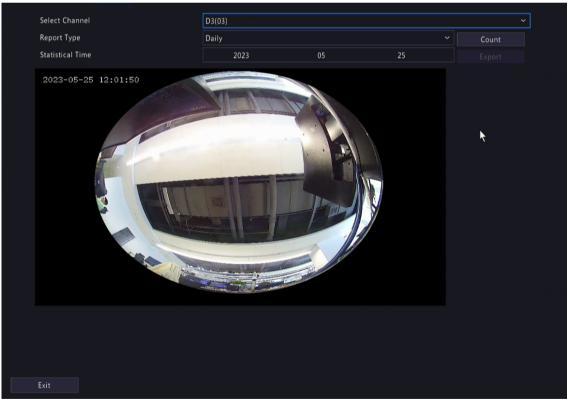
4. Click **Backup** to export the report to an external storage device as a .CSV file. The content of the file exported from a report in chart or table format is the same. Take the exported results of daily report as an example:

Camera ID	Camera Name	Statistical Time	People Entered	People Exited
D4	N5	11:00-12:00	12	11
D4	N5	12:00-13:00	15	7
D4	N5	13:00-14:00	4	4
D4	N5	14:00-15:00	7	2

5.5.2 Heat Map

The heat map function is used with a fisheye camera to monitor people counting in supermarkets or shops. You can view the heat map formed by the people flow statistics of a specified channel during a specified time period, which can help you plan accordingly, and improve service, operational efficiency and profitability.

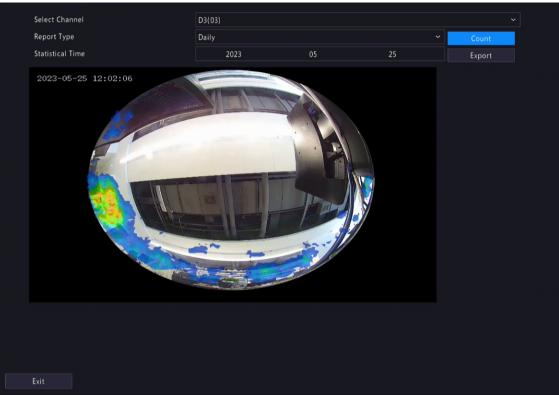
1. Go to Menu > Search > Statistics > Heat Map.



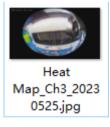
2. Set search conditions.

Parameter	Description
Select Channel	Select the channel to count heat data.
Report Type	Select the report type to view: Daily, Weekly, Monthly, or Yearly.
Statistical Time	Select a statistical period.

3. Click **Count** to view the result.



4. Click **Export** to export the heat map image to an external storage device as a .jpg file. The exported file is an image, regardless of the report type. Take the exported result of daily report as an example:



5.6 Others

Search for recordings based on alarm input, tags search, POS search, people present alarm, people present minor alarm, people present major alarm, and people present critical alarm.

Object Person	Video	Other Search		
Event Start Time 2024-04-02 00:00:00 Event End Time 2024-04-02 23:59:59 Object		Search In	Alarm Input	
Dbject Person Motor Vehicle Statistics Dthers	Picture	Start Time	2024-04-02 00:00:00	
Imput Name D Imput Name D Person - - - - - - - - - - - - - - </td <td>Event</td> <td>End Time</td> <td>2024-04-02 23:59:59</td> <td></td>	Event	End Time	2024-04-02 23:59:59	
Imput Name D Imput Name D Person - - - - - - - - - - - - - - </th <th>Object by</th> <th></th> <th></th> <th></th>	Object by			
Image: Control of the second of the secon	object 🗸	Select	Input Alarm ID	
Mon - Motor Vehicle A < - 3 A < - 4 Statistics A < - 5 A < - 6 Others A < - 7 A < - 9 A < - 10 A < - 11 	Person		A<-1	
Image:	Mana a Malatata		A<-2	
Statistics A<-5	Motor venicle	D	A<-3	
Statistics A<-6	Non-Motor Vehic	D	A<-4	
Image: Align of the second s	Statistics		A<-5	
A<-9 A<-10 A<-11			A<-6	
A<-9	Others		A<-7	
A<-10 A<-11			A<-8	
A<-11			A<-9	
			A<-10	
□ A<-12		D	A<-11	
			A<-12	
		Search	Exit	

6 VCA

Configure VCA (Video Content Analysis), analyzer, face library, work clothes library, plate list, and VCA search.

6.1 VCA Configuration

VCA includes face recognition, smart intrusion prevention, behavior analysis, object detection, exception detection & statistics, temperature detection, and people counting. You can monitor people flow, roads, and moving objects by configuring VCA. The VCA functions and parameters may vary with NVR model.

Note: VCA functions are not available if there is no disk in slot 1.

1. Go to Menu > VCA > VCA Config.

226.19)	Face Comparison		
٥			
٨			
		٢	
Side Analysis	Camera Side An ONVR S	Side Analysis	
tion 💮	🔲 🗙 Traffic Monitoring		
	Camera Side An ONVR S		
Ø	🗵 🔼 No Helmet Detection	٨	🗹 👚 No Work Clothes Detect 🚳
Side Analysis	Camera Side An ONVR S	Side Analysis	Camera Side An ONVR Side Analysis
٥	Rat Detection	Ø	🖂 💼 No Chef Hat Detection 🛛 🚳
Side Analysis	Camera Side An ONVR S	Side Analysis	Camera Side An ONVR Side Analysis
	Side Analysis	Side Analysis Camera Side An NVR S	Side Analysis Camera Side An NVR Side Analysis Image: Comparison of the state of the stat

- 2. Select a channel.
- 3. Select the check box for the VCA function to be enabled, and choose to implement this function on the camera side or the NVR side.

- Camera Side Analysis: The VCA function is implemented by the camera.
- NVR Side Analysis: The VCA function is implemented by the NVR.

式 Note:

- For some VCA functions, the camera side supports more parameters than the NVR side.
- Before you enable camera side analysis, make sure the camera is connected via the private protocol.
- VCA functions that are not supported by the camera or NVR are grayed out.
- VCA functions on the NVR side is subject to device capabilities. For more information, go to Menu > VCA > Analyzer Config.
- VCA function is grayed out when the NVR-side analyzer capability reaches the upper limit. You can
 hover over the function to view the details, and disable certain types of functions to free up some of
 the analyzer's capacity.
- When the camera goes online for the first time, the system will automatically sync camera-side configuration and enabled/disabled state to the NVR side; When the camera goes online again, the system will automatically sync camera-side configuration to the NVR side, however, the enabled/ disabled state will not be synced.
- When the camera goes online, if the channel enabled/disabled state on the IPC is not consistent with the NVR, and the NVR-side analysis is enabled while the camera-side analysis is disabled, then a prompt will appear and ask if you want to sync NVR enabled/disabled state to the IPC.
- 4. Click on to configure the function.

6.1.1 Face Recognition

Face recognition includes face detection and face comparison.

6.1.1.1 Face Detection

Face detection detects and captures faces in a specified detection area.

Note: The functions and parameters supported by camera side analysis and NVR side analysis are different.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Face Detection and click on to configure it.

	Face Detection		
	urrent Camera etection Area	D1 Full Screen	O Specify Area
(No	ete: Maxi. Points:6, Mini. Points:3) te: Double click to finish.	Image: Provide the second s	
Арр	bly Exit		

- 4. Set the detection area. Only 1 detection area is allowed.
 - Full Screen: Detects all faces in the live video.
 - Specify Area: Detects faces in a specified area of the live video. Select **Specify Area**, click *2*, then the full screen will be displayed and a default detection box appears. You can adjust the position of the area or draw an area as needed. Right-click to exit the full screen.

	🖉 Draw Area	
	Face Detection Sensitivity	
	Trigger Actions	٥
	Arming Schedule	٥
	Advanced	٥
(Note: Maxi. Points:6, Mini. Points:3) (Note: Double click to finish.)		

- Adjust the position of the area. Point to a border of the area and drag it to the desired position.
- Draw an area. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
- 5. Set the face detection sensitivity by dragging the slider. The higher the sensitivity, the more likely a face will be detected. The lower the sensitivity, the less likely a side face or blurring face will be detected.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. Click or right to Advanced, configure the parameters as needed, and then click OK.

	Advanced											
Min. Pupillary Distance(px)	64											
Number of Snapshots	5											
Enable Face Selection	<u> </u>											
Face Selection Mode	Quality Priority		~									
Number of Selected Photos	1											
Note: Minimum pupillary distance ran	ge: 32px-240px											
			Cancel									
On certain NVRs, the Advanced page shows as follows:												
Advanced												
Min. Pupillary Distance(px)	60											
Number of Snapshots												
Note: Minimum pupillary distance ran	ge: 20px-150px											
			Cancel									

Parameter	Description										
Min. Pupillary Distance(px)	The minimum distance (measured in pixels) between two pupils. Faces with pupillary distance smaller than the value will not be captured.										
	Note: The default value varies by image resolution, and the valid range varies by NVR model.										
Number of Snapshots	The number of snapshots to be captured when the detection rule is triggered. Range: 1 to 30. Default: 5.										
Enable Face Selection	Select whether to select face snapshots to report.										
Face Selection Mode	• Quality Priority: Set the Number of Selected Photos , then the NVR selects the specified number of snapshots with the best quality from all the snapshots captured when a face is detected to report.										
	• Speed Priority: Set the Number of Selected Photos and Selection Timeout , then the NVR selects the specified number of snapshots from the moment that a face is detected till Selection Timeout is up to report. Range: 1 to 1800.										
	Face Selection ModeSpeed PriorityNumber of Selected Photos1Selection Timeout(s)5										
	 Periodic Selection: Set the Selection Interval, for example, 600ms, then the NVR selects a face snapshot every 600ms to report. 										
	Face Selection Mode Periodic Selection Selection Interval(100ms) 5										
	• Quick Report: A face snapshot that exceeds the set score will be reported, and a higher quality snapshot will be reported to replace the previous one. The number of face snapshots is 1 by default and cannot be modified.										
	Face Selection Mode Quick Report ~ Number of Selected Photos 1										
	Note: Minimum pupillary distance range: 20px-150px										
	Note: Only the NVR-side face detection supports quick report.										
Number of Selected Photos	The number of face snapshots to be selected. Range: 1 to 3. This parameter is set to 1 by default and cannot be modified on certain models.										
Max/Min Face Width(px)	The NVR only captures faces within Min. Face Width and Max. Face Width . Range: 20 to 500.										

8. Click Apply.

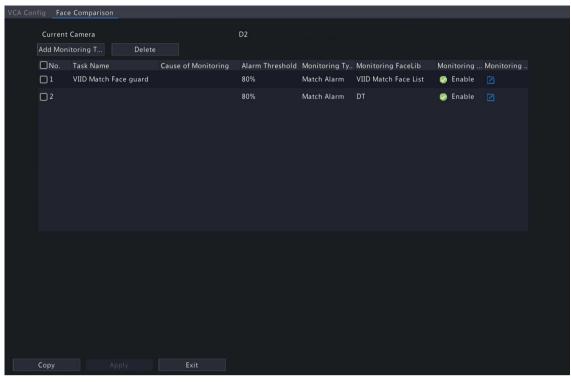
6.1.1.2 Face Comparison

Face comparison compares captured faces with face images in face libraries (also called face list). To use face comparison, you need to enable face detection first.

Note: The functions and parameters supported by camera side analysis and NVR side analysis are different.

Configure Monitoring Task

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Face Comparison and click in to configure it.



- 4. Configure monitoring tasks. A monitoring task of "DefaultList 80% Match Alarm" is enabled by default. You can click **Z** to modify it, or click **Add Monitoring Task** to add more.
 - (1) Click Add Monitoring Task.

	Add Monitoring Task																			
Task Name																				
	Enable								•											
Cause of Monitoring																				
Monitoring List										DefaultList									ce List	
				_	0															
	Monitori	ng Type							Matc	h Aları	n									
< Mo	nitoring So	hedule					Not M						rm Souni						larm Reci	
Мо	n	0	2	4	6	8	10) :	12	14	16	18	20	22	24		Edit			
Tue																	Arme			
We																	Disar	ming		
Thu Fri																				
Sat																				
Sur																				
Hol	iday	0	2	4	6	8	10) :	12	14	16	18	20	22	24					
																	ЭК		Canc	al
																	5K-		Calle	

(2) Complete the monitoring task settings.

Parameter	Description				
Task Name	ter a name for the monitoring task.				
Enable	nable/disable the monitoring task.				
Cause of Monitoring	Enter the cause of the monitoring task.				
Monitoring List	Select a face list from the Monitoring List drop-down list or click Add Face List to create a face list to monitor.				
Alarm Threshold	Set the alarm threshold by dragging the slider. The NVR takes snapshots when the similarity between a detected face and a face image in the monitoring list reaches the threshold. Default: 80.				

Parameter	Description					
	The higher the alarm threshold, the more accurate the matching result.					
Monitoring Type	Select the monitoring type.					
	 Match Alarm: A match alarm occurs when the similarity between a detected face and a face image in the monitoring list reaches the alarm threshold. 					
	• Not Match Alarm: A not match alarm occurs when the similarity between a detected face and a face image in the monitoring list fails to reach the alarm threshold.					
	All: An alarm occurs when a face is detected.					
Monitoring Schedule	Set the monitoring schedule. See Recording Schedule for details.					
Match Trigger Action	Set the actions to be triggered by a match alarm. See Alarm-triggered Actions for details.					
Not Match Trigger Action	Set the actions to be triggered by a not match alarm. See Alarm-triggered Actions for details.					
Match Alarm Sound	Set the IP speaker alarm sound to be triggered when a captured face matches a face image in the monitoring list. See IP Speaker Alarm Sound for details.					
Not Match Alarm Sound	Set the IP speaker alarm sound to be triggered when a captured face does not match any face image in the monitoring list. See IP Speaker Alarm Sound for details.					
Match Alarm Recipient	Choose the recipient(s), and then the NVR sends an email with alarm information to the selected email address(es) when a captured face matches a face image in the monitoring list. Please set the recipient information in Email. Up to 6 recipients are allowed.					
Not Match Alarm Recipient	Choose the recipient(s), and then the NVR sends an email with alarm information to the selected email address(es) when a captured face does not match any face image in the monitoring list. Please set the recipient information in Email. Up to 6 recipients are allowed.					

(3) Click OK.

5. (Optional) To apply the monitoring tasks to other cameras, click **Copy**, select the desired monitoring task(s) and camera(s), and then click **OK**.

6. Click Apply.

View Library Sync Status

This function is only available to cameras with face recognition support and camera side analysis enabled. Library sync indicates the sync of face libraries from NVR to IPC. After IPC receives a face list, it can compare the captured faces with the face images in the face list and upload the comparison results to NVR.

Click **Library sync state** to view the sync status of face lists and faces in the face lists from NVR to IPC. You may manually synchronize the face lists in **Not Started** state.

- View faces by status: Select a state from the Sync Status drop-down list to view faces in this state.
- Manually sync face lists: Select the face list to be synced and click **Manual sync**. If a face in a face list is not synced successfully, you can manually sync the face list.

Other Operations

Operation	Description			
Delete	Delete the selected monitoring task(s).			
Enable/disable the monitoring task.				

Operation	Description
	Edit the monitoring task.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Face Recognition for details.

6.1.2 Smart Intrusion Prevention

Smart intrusion prevention includes cross line detection, intrusion detection, enter area, and leave area.

6.1.2.1 Cross Line Detection

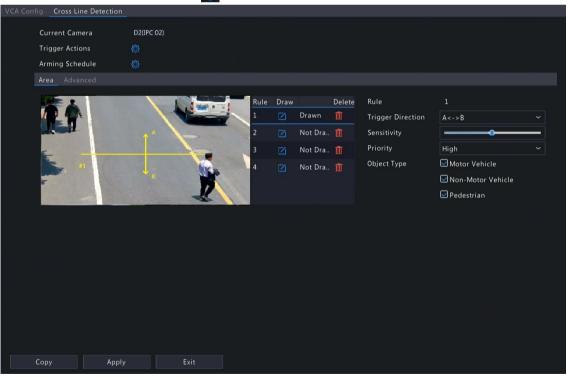
Cross line detection detects objects crossing a user-specified virtual line in a specified direction. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

😴 Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Cross Line Detection

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Cross Line Detection and click on to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Line	Select Rule 1, click , and the full screen is displayed. Click on the image and drag to draw a detection line. The line defaults to A<->B direction. You can modify it as needed. Right-click to exit the full screen.

Parameter	Description							
Trigger Direction	Select the direction from which the object crosses the line to trigger an alarm.							
	• A->B: A cross line alarm occurs when an object crossing the line from A to B is detected.							
	• B->A: A cross line alarm occurs when an object crossing the line from B to A is detected.							
	 A<->B (default): A cross line alarm occurs when an object crossing the line from A to B or from B to A is detected. 							
Sensitivity	Set the sensitivity by dragging the slider.							
	The higher the sensitivity, the more likely cross line behaviors will be detected, but the false alarm rate will increase.							
Priority	Select the priority of the detection rule, including High , Medium , and Low .							
	The NVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the NVR detects the rule with higher priority.							
Object Type	Select the object(s) to be detected, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.							

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.

VCA Config Cross Line Detection	
Current Camera	D2(IPC 02)
Trigger Actions	Ø
Arming Schedule	Ø
Area Advanced	
	Object Size Draw Max. Size Min. Size Motor Vehicle 🗹 10000 * 10000 105 * 186
	Non-Motor Vehicle 🗹 10000 * 10000 105 * 186
-	Pedestrian 🗹 10000 * 10000 105 * 186
valid range for max, and	min. sizes is 1-9999 (assume the image size is 10000x10000).
Copy Appl	Exit

- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

😴 Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.

- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Smart Intrusion Prevention for details.

6.1.2.2 Intrusion Detection

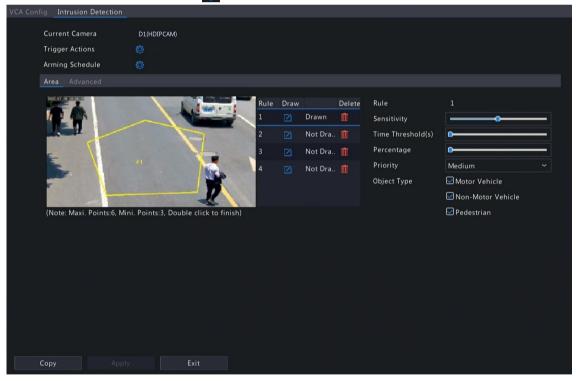
Intrusion detection detects objects entering a user-specified area and staying for a preset time. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Intrusion Detection

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Intrusion Detection and click 🐻 to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description					
Detection Area	Select Rule 1, click 🏹, and the full screen is displayed, then draw a detection area.					
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.					

Parameter	Description						
	Note: For a rule in Drawn state, you can click it to redraw a detection area. To delete a detection area, click .						
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely intrusion behaviors will be detected, but the false alarm rate will increase.						
Time Threshold(s)	Set the time threshold by dragging the slider. If an object stays in the detection area for the set time, an intrusion alarm will be triggered.						
Percentage	Set the percentage by dragging the slider. If the proportion of the object size to the detection area size reaches the set value, an intrusion alarm will be triggered.						
Priority	Select the priority of the detection rule, including High , Medium , and Low . The NVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the NVR detects the rule with higher priority.						
Object Type	Select the object(s) to be detected, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.						

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.

VCA Config Intr	rusion Detection							
Trigger	: Camera Actions Schedule	D1(HDIPCAM)						
Area	Advanced							
	*			Object Size Motor Vehicle	Draw	Max. Size 9999 * 9999	Min. Size 20 * 20	
	1			Non-Motor Vehicle		9999 * 9999	20 * 20	
-				Pedestrian	Ø	9999 * 9999	20 * 20	
			1					
Valid r	ange for max. and i	nin. sizes is 1-9	999 (assume the imag	ge size is 10000x10000).			
Сору	Apply		Exit					

- (1) Select an object type and click A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.

- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Smart Intrusion Prevention for details.

6.1.2.3 Enter Area Detection

Enter area detection detects objects entering a user-specified area. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

😴 Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Enter Area Detection

1. Go to Menu > VCA > VCA Config.

- 2. Select a camera.
- 3. Select Enter Area and click 🐻 to configure it.

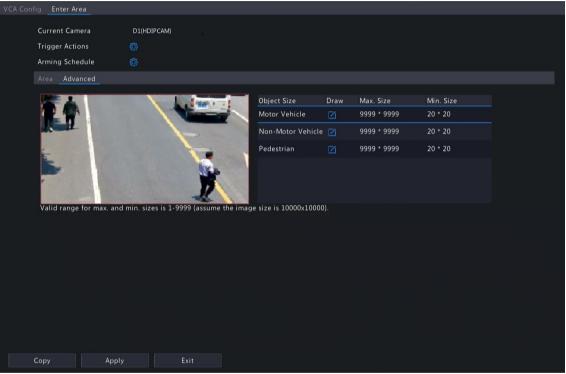
fig Enter Area								
Current Camera	D1(HDIPCAM)							
Trigger Actions	0							
Arming Schedule	Ø							
Area Advanced								
		Rule	Draw		Delete	Rule		
		1	Ø	Drawn	<u>ش</u>	Sensitivity		
		2		Not Dra		Priority	Medium 🖌	
		3		Not Dra		Object Type	Motor Vehicle	
	#1	4		Not Dra			Non-Motor Vehicle	
							🗹 Pedestrian	
-	×							
(Note: Maxi. Points:6, Min	i. Points:3, Double click to finish)							
Copy Apply	Exit							

4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click 🗾, and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.

Parameter	Description
	Note: For a rule in Drawn state, you can click it to redraw a detection area. To delete a detection area, click .
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely entry behaviors will be detected, but the false alarm rate will increase.
Priority	Select the priority of the detection rule, including High , Medium , and Low . The NVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the NVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.



- (1) Select an object type and click Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Smart Intrusion Prevention for details.

6.1.2.4 Leave Area Detection

Leave area detection detects objects leaving a user-specified area. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

😴 Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Leave Area Detection

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Leave Area and click of to configure it.

VCA Config Leave Area						
Current Camera Trigger Actions Arming Schedule	D1(HDIPCAM)					
Area Advanced						
		Rule 1 2 3 4	Draw 2 2 2 2 2	Drawn Not Dra Not Dra Not Dra	Rule Sensitivity Priority Object Type	1 Medium ~ Motor Vehicle Non-Motor Vehicle Pedestrian
(Note: Maxi. Points:6, Mi	ni. Points:3, Double click to	finish)				
Сору Аррі	y Exit					

4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click Z, and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.
	Note: For a rule in Drawn state, you can click for redraw a detection area. To delete a detection area, click for a click for a detection area, click for a detection area.
Sensitivity	Set the sensitivity by dragging the slider.

Parameter	Description
	The higher the sensitivity, the more likely leaving behaviors will be detected, but the false alarm rate will increase.
Priority	Select the priority of the detection rule, including High , Medium , and Low .
	The NVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the NVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.

VCA Config Leave Area						
Current Camera	D1(HDIPCAM)					
Trigger Actions Arming Schedule	© ©					
Area Advanced						
2.4		Object Size Motor Vehicle	Draw	Max. Size 9999 * 9999	Min. Size 20 * 20	
Real	-	Non-Motor Vehicle		9999 * 9999	20 * 20	
in the second		Pedestrian		9999 * 9999	20 * 20	
	X					
Valid range for max. and	min. sizes is 1-9999 (assume the imag	e size is 10000x1000(D).			
Сору Арріу	Exit					

- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

😴 Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Smart Intrusion Prevention for details.

6.1.3 Object Detection

Object detection detects certain objects in the specified area. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

6.1.3.1 Traffic Monitoring

Receive traffic monitoring alarm for IPCs.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Check limit to enable Traffic Monitoring, then the NVR will receive an alarm form IPCs. If unchecked, the alarm will not be received.

※ 说明: Please log in to the Web interface of IPC to configure traffic monitoring function. See Network Camera User Manual for details.

6.1.4 Exception Detection & Statistics

Exception detection and statistics includes defocus detection, scene change, object removed, and object left behind detection.

6.1.4.1 Defocus Detection

Defocus detection detects lens defocus. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Defocus Detection and click on to configure it.

VCA Confi	ig Defocus Detection								
	Current Camera	D1							
		Ø							
	Arming Schedule	Ø							
	Sensitivity	0							
A	spply Exit								

- 4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 5. Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely defocus will be detected, but the false alarm rate will increase.
- 6. Click Apply.

6.1.4.2 Scene Change Detection

Scene change detection detects the change of surveillance scene caused by external factors such as intentional camera movement. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Scene Change Detection and click in to configure it.

VCA Config Scene Change Detection			
Current Camera		D1	
Trigger Actions		Ô	
Arming Schedule		Ô	
Sensitivity	Ŀ		
Apply Exit			

- 4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 5. Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely scene change behaviors will be detected, but the false alarm rate will increase.
- 6. Click Apply.

6.1.4.3 Object Removed Detection

Object removed detection detects objects removed from a user-specified area for a preset time. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Object Removed** and click **o** to configure it.

VCA Config Object Removed					
Current Camera D1					
	Trigger Actions		Ø		
	Arming Schedule		Ø		
	Rule	Draw		Delete	
		🗹 Drav	vn	İ	
		🗹 Not	Drawn		
		🗹 Not	Drawn		
		🗹 Not	Drawn		
(Note: Maxi. Points:6, Mini. Points:3) (Note: Double click to finish.)	Rule				
	Sensitivity			0	
	Time Threshold(s)		•		
Apply Exit					

4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click Z, and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.
	Note: For a rule in Drawn state, you can click it to redraw a detection area. To delete a detection area, click it.
Sensitivity	Set the sensitivity by dragging the slider.
	The higher the sensitivity, the more likely object removal behaviors will be detected, but the false alarm rate will increase.
Time Threshold(s)	Set the time threshold by dragging the slider.
	If an object is removed from the detection area for the set time, an alarm will be triggered.

- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

6.1.4.4 Object Left Behind Detection

Object left behind detection detects objects left behind in a user-specified area for a preset time. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Object Left Behind** and click **on figure** it.

VCA Config Object Left Behind					
Current Camera D1					
	Trigger Actions		Ø		
	Arming Schedule		Ø		
	Rule	Draw		Delete	
	1	🗹 Dra	awn	1	
		🗹 No	t Drawn		
		🗹 No	t Drawn		
		🗹 No	t Drawn		
(Note: Maxi. Points:6, Mini. Points:3) (Note: Double click to finish.)	Rule				
	Sensitivity		-	-0	
	Time Threshold(s)		•		
Apply Exit					

4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click Z, and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.
	Note: For a rule in Drawn state, you can click for redraw a detection area. To delete a detection area, click for a click for a detection area, click for a detection area.
Sensitivity	Set the sensitivity by dragging the slider.
	The higher the sensitivity, the more likely object left behind behaviors will be detected, but the false alarm rate will increase.
Time Threshold(s)	Set the time threshold by dragging the slider.
	If an object is left behind in the detection area for the set time, an alarm will be triggered.

- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

6.1.4.5 Auto Tracking

Auto tracking detects moving objects in the live video and tracks the first object detected.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Auto Tracking and click on to configure it.

VCA Co	nfig _/	Auto T	racking	1											
VCA Config Auto Tracking Current Camera				D2				Trigger Actic Arming Sche Tracking Mor Tracking Tim Zoom	dule de	Image: Second system Panoramic 30 Auto					
		Г < С Sp	 • • • eed 		+++++	Zoom Focus Iris									
				Exit											

4. Set the tracking parameters.

Parameter	Description									
Tracking Area	In the PTZ operation area, use the PTZ control buttons to adjust the tracking area, including shooting angle, zoom, focus, iris and rotation speed.									
	Г ^ ¬ + Zoom									
	< 🗆 > 🕂 Focus —									
	∟ ~ ⊐ + Iris									
	Speed									
Tracking Mode	Panoramic: Continuously tracks objects that appear in the tracking area until they disappear from the tracking area.									
Tracking Timeout(s)	Set the maximum tracking time. The device stops tracking when the object disappears or the set time is up. Range: 1 to 300. Default: 30.									
Zoom	Select the tracking zoom ratio: Auto or Current Zoom . The default is Auto .									
	 Auto: Automatically adjusts the zoom ratio according to the tracking distance, focusing more on the object behavior. 									
	• Current Zoom: Keeps the zoom ratio when the object is tracked, focusing more on the whole monitoring scene.									

- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

6.1.5 Temperature Detection

Temperature detection includes fire detection, smoking detection, temperature detection, smoke and fire detection.

6.1.5.1 Fire Detection

Receive fire detection alarm information from IPCs. If the IPC detects a fire or other high temperature in a specified area, it will take snapshots and report an alarm to NVR.

Note: This function requires the camera support (camera-side analysis).

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Fire Detection** and click **(19)** to configure it.

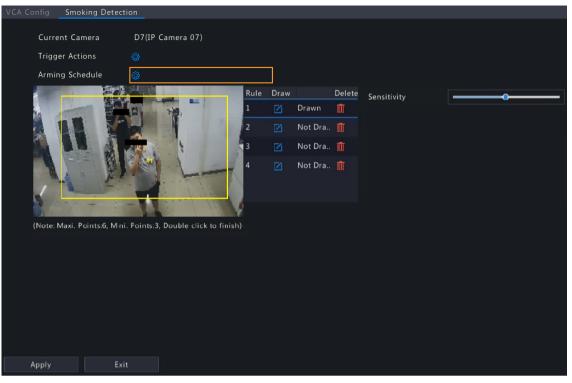
VCA Config Fire Detection	n
Current Camera	D7(IP Camera 07)
Trigger Actions	
Arming Schedule	
	Exit

4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.

6.1.5.2 Smoking Detection

Smoking detection detects people smoking in a specified area in live video. The NVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Smoking Detection** and click **on the select sel**



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click Z, and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click .
Sensitivity	Set the sensitivity by dragging the slider.
	The higher the sensitivity, the more likely smoking behaviors will be detected, but the false alarm rate will increase.

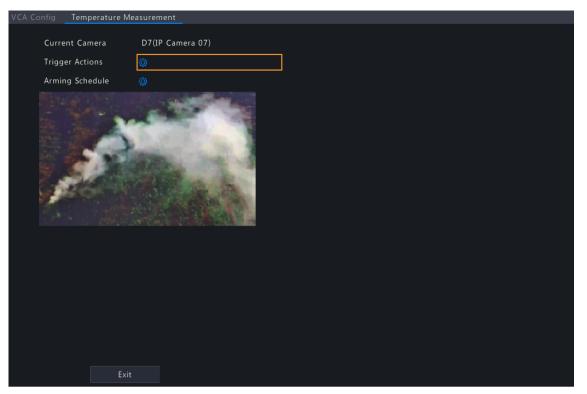
- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

6.1.5.3 Temperature Measurement

Receive temperature measurement alarm information from IPCs. The IPC detects the temperature of objects in a specified area, and it will take snapshots and report an alarm to NVR when the detection rule is triggered.

Note: This function requires the camera support (camera-side analysis).

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Temperature Measurement and click in to configure it.



4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.

6.1.6 People Counting

People counting includes people flow counting and crowd density monitoring.

6.1.6.1 People Flow Counting

People flow counting counts people passing a specified tripwire in a user-defined area.

Configure People Flow Counting

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **People Flow Counting** and click **(1)** to configure it.

4. Set the people flow counting rule.

Parameter	Description
Draw Area	Click <i>C</i> to enter the full screen and then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.
Draw Tripwire	Click <i>C</i> to enter the full screen and then draw a tripwire. Only 1 tripwire is allowed. Right-click to exit the full screen.
Direction of arrow	Set the entry direction.
	• A- >B: A to B is entry, B to A is exit.
	• B- >A: B to A is entry, A to B is exit.
Counting Type	Select the counting type: Total , People Entered , or People Exited . Total is the default counting type.
	• Total: Displays the number of people entering and leaving the detection area.
	• People Entered: Displays the number of people entering the detection area. An entry is counted as a person crosses the tripwire in the direction of the arrow and passes through the detection area.
	• People Exited: Displays the number of people leaving the detection area. An exit is counted as an object crosses the tripwire in the opposite direction of the arrow and passes through the detection area.
	♂ Note:
	 Before use, you need to enable people counting OSD under Menu > Camera > OSD.
	• People that loiter in the detection area, cross the tripwire only, or cross the detection area only are not counted.
Report Interval(s)	Set the time interval for reporting people flow statistics. Default: 60. Range: 1 to 60.

Parameter	Description
	The NVR reports people flow statistics to the uplink platform at set intervals. The uplink platform must subscribe to the function to receive the statistics.
Enable Clear by Schedule	Select the Enable Clear by Schedule check box and set the time to clear people counting statistics.
Clear At	The clearing time defaults to 00:00:00. You can modify it as needed. The NVR will clear people counting statistics on the OSD at the set time everyday. This operation does not affect statistics and data reporting.
Clear Counting Result	Click to clear people counting statistics displayed on the live video immediately. This operation only affect the people counting OSD and does not affect statistics and data reporting.

- To be alerted when the number of people in the detection area exceeds a certain number, you can enable and configure People Present Alarm under Menu > Alarm > People Present Alarm. See People Present Alarm for details.
- 6. Click Apply.

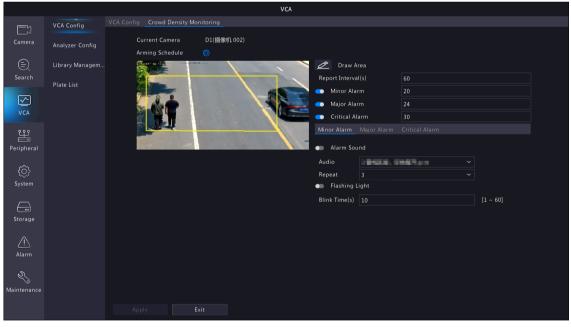
View Real-time Statistics

Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time people statistics are shown on the right. See People Flow Counting for details.

6.1.6.2 Crowd Density Monitoring

Crowd density monitoring monitors the number of people in a specified area and triggers an alarm if the number exceeds the set alarm threshold.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Crowd Density Monitoring and click on to configure it.



4. Set the crowd density monitoring rule.

Parameter	Description
Detection Area	A detection box is displayed in the left preview window by default. You can adjust the position of it or draw an area as needed. Only 1 detection area is allowed.
	 Adjust the position of the default detection area: Point to a border of the area and drag it to the desired position.

Parameter	Description							
	• Draw an area: Click Z, and the full screen is displayed. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right-click to exit the full screen.							
Report Interval(s)	Set the time interval for reporting crowd density statistics. Default: 60. Range: 1 to 60.							
	The device reports crowd density statistics to the uplink platform at set intervals. The uplink platform must subscribe to the function to receive the statistics.							
Minor Alarm	A minor alarm is triggered when the number of people in the specified area reaches the set value.							
	Select the Minor Alarm check box and set the number of people to trigger minor alarms. Range: 1 to 40.							
Major Alarm	A major alarm is triggered when the number of people in the specified area reaches the set value. The value of major alarm must be greater than that of minor alarm.							
	Select the Major Alarm check box and set the number of people to trigger major alarms. Range: 1 to 40.							
Critical Alarm	A critical alarm is triggered when the number of people in the specified area reaches the set value. The value of critical alarm must be greater than that of major alarm.							
	Select the Critical Alarm check box and set the number of people to trigger critical alarms. Range: 1 to 40.							

- 5. Enter the **Minor Alarm**, **Major Alarm**, and **Critical Alarm** tabs, and set the alarm sound and flashing light respectively.
 - Alarm Sound: Enable **Alarm Sound**, and set the audio file and the number of times the audio file to be played by the camera when an alarm occurs.
 - Flashing Light: Enable **Flashing Light**, and set the duration that the illuminator flashes when an alarm occurs.
- 6. Set the arming schedule. See Arming Schedule for details.
- 7. Click Apply.

6.1.7 Plate Detection

Configure plate detection and plate comparison.

6.1.7.1 Plate Detection

Detect license plates in the live video and take snapshots.

Note: This function is only available to the camera side analysis.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Plate Detection to enable this function.

6.1.7.2 Plate Comparison

Configure vehicle monitoring tasks so that the NVR can report alarms according to the matching result of the captured plate numbers and the plate numbers in plate lists. To use plate comparison function, enable Plate Detection or Configure VIID Local first.

🗾 Note:

- This function is only available to the NVR side analysis.
- To configure plate list and plate library, see Plate List for details.

Note: This function is only available to the NVR side analysis.

1. Go to Menu > VCA > VCA Config.

- 2. Select a camera.
- 3. Select Plate Comparison and click on to configure it.

Add Monitoring T	. Delete					
🗆 Serial No.	Task Name	Cause of Monitoring	Monitoring List	Monitoring Channels	Monitoring Ch	Edit
	1	1	DefaultList		🥏 Enable	

4. Click Add Monitoring Task.

								ļ	Add Mor	itoring	Task						
	Task Nar	ne															
	Enable							_									
	Cause of	f Monito	oring														
	Monitori	ng List						Defa	aultList								
	Monitori	ng Type						Mat	ch Alarn	n							
く Mon	itoring S	chedule						h Trigg									
Mon		0	2	4	6	8	10	12	14	16	18	20	22	24	Edit		
Tue															Armed		
Wed															Disarming		
Thu																	
Fri																	
Sat																	
Sun																	
Holi	day	0	2	4	6	8	10	12	14	16	18	20	22	24			
(Note	: Click a d																
)K	Exi	t

5. Complete the monitoring task settings.

Parameter	Description
Task Name	Enter a name for the monitoring task.
Enable	Enable/disable the monitoring task.
Cause of Monitoring	Enter the cause of the monitoring task.
Monitoring Channels	Select the channel(s) to monitor.
Monitoring List	Select the plate list to monitor. Only 1 plate list is allowed.

Parameter	Description
Monitoring Schedule	Set the monitoring schedule as needed. See Recording Schedule for details.
Match Trigger Action	Set the action(s) to be triggered when a captured plate number matches a plate number in the monitoring list. See Alarm-triggered Actions for details.
Not Match Trigger Action	Set the action(s) to be triggered when a captured plate number does not match any plate number in the monitoring list. See Alarm-triggered Actions for details.
Match Alarm Sound	Set the IP speaker alarm sound to be triggered when a captured plate number matches a plate number in the monitoring list. See IP Speaker Alarm Sound for details.
Not Match Alarm Sound	Set the IP speaker alarm sound to be triggered when a captured plate number does not match any plate number in the monitoring list. See IP Speaker Alarm Sound for details.
Match Alarm Recipient	Choose the recipient(s), and then the NVR sends an email with alarm information to the selected email address(es) when a captured plate number matches a plate number in the monitoring list. Please set the recipient information in Email. Up to 6 recipients are allowed.
Not Match Alarm Recipient	Choose the recipient(s), and then the NVR sends an email with alarm information to the selected email address(es) when a captured plate number does not match any plate number in the monitoring list. Please set the recipient information in Email. Up to 6 recipients are allowed.

6. Click **OK**.

Other Operations

Operation	Description
Delete	Delete the selected monitoring task(s).
•/ •	Enable/disable the monitoring task.
	Edit the monitoring task.

6.1.8 Alarm-triggered Actions

Configure actions to be triggered when an alarm occurs to alert user or the specified people.

Click or right to Trigger Actions, set the actions, and then click OK.

Note: The actions supported may vary with NVR model and VCA function.

Some actions are detailed below.

Trigger Actions										
Buzzer Pop-up Window Push Alarm										
Recording Alar										
		A □ D2(IPC O	2) D3(IPC03)	□ D4(IPCO4)	D5(IPC05)	D8(IPC08)	D10(IPC10))		
						ОК		Cancel		

Buzzer

The NVR makes a buzzing sound when an alarm occurs.

Pop-up Window

An alarm message pops up when an alarm occurs.

Push Alarm

An alarm information will be pushed to the upper platform when an alarm occurs.

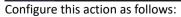
Recording

The NVR records video from the selected camera when an alarm occurs.

IP Speaker Alarm Sound

Click the **IP Speaker Alarm Sound** tab, and configure the audio to be played by an IP speaker when an alarm occurs.

	Trigger Actions										
Buzzer Pop-up Win Push Alarm											
	Alarm Sound Goto Prese										
Type j	IP Speaker 🗸 🗸										
	Device Name	Audio		Repeat		Edit					
🗌 S1	IP Speaker 1	autotest-dontdel.wav				🗹 Edit					
					ОК	Cancel					



1. Click **[27**], and configure the alarm sound and repeat mode as needed.

	Alarm Sound	
Alarm Sound	cfginfo.wav	~
Repeat	3	
	ОК	Cancel
	ОК	Cancel

2. Select the desired IP speaker(s), enable alarm sound, and click **OK**.

Goto Preset

A PTZ camera moves to a preset position when an alarm occurs.

	Trigger Actio	ons	
Buzzer Pop-up Window Push Alarm			
Recording Goto Preset Preview Alarm			
Camera	Preset	Edit	Delete
		Ŭ	ti in the second
			Ē
			ά .
			İ
			₫.
			İ
		Ø	İ
		Apply OK	Cancel

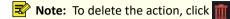


1.	Click 🗾.		
		Preset	
	Camera Preset		~
		ок с	ancel

2. Select the camera to perform this action and select the preset you want the camera to go to when an alarm occurs.

Note: Before use, you need to configure presets on the PTZ camera. See Network Camera User Manual for details.

3. Click **OK**.



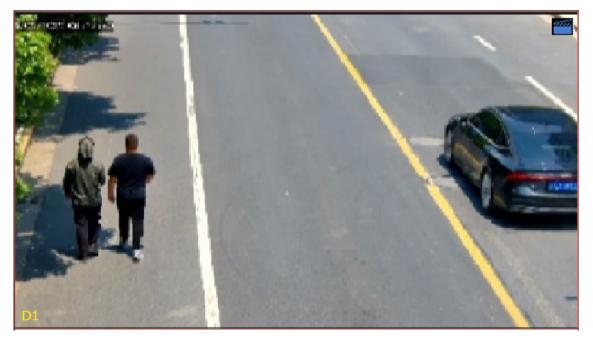
Preview

The NVR plays the live video of the specified camera(s) when an alarm occurs. To perform this action, you need to configure **Max. Alarm-Triggered Live View Windows** (1/4/9 available) under **Menu > System > Preview**.

	Trigger Actions								
Buzzer Pop-up Window Push Alarm									
	ound Goto Preset	Preview Alarm							
All	D1(HDIPCA., (□ D2(IPC 02)	D3(IPC03)	D4(IPC04)	D5(IPCO5)	D8(IPC08)	D10(IPC10)		
					Apply		ОК	Cancel	

The live view page displayed in the event of alarms varies depending on the number of linked cameras and the number of alarm-triggered live view windows. When an alarm occurs, the live view page shows the live video from the linked camera(s) with a red frame; when the alarm ends, the live view page returns to the original state.

• When Max. Alarm-Triggered Live View Windows is set to 1 Window, the live view page plays live video in one window. If more than one camera is linked, the live video switches at 5s.

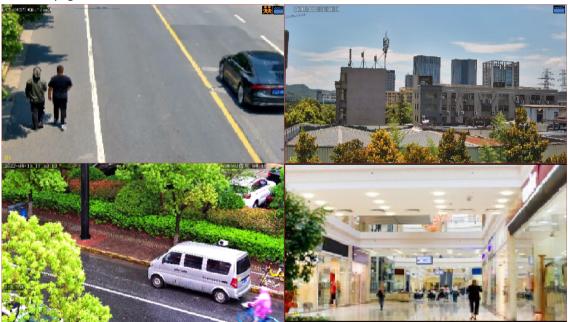


• When Max. Alarm-Triggered Live View Windows is set to 4 Windows, the live view page plays the live video of each camera in 4-split mode. If more than 4 cameras are linked, the live video switches at 5s.

Live view page with 3 cameras linked:



Live view page with 5 cameras linked:





• When Max. Alarm-Triggered Live View Windows is set to 9 Windows, the live view page plays the live video of each camera in 9-split mode. If more than 9 cameras are linked, the live video switches at 5s.

Alarm Output

A third-party device is triggered to raise an alarm when it receives an alarm output by the NVR.

			Tri	gger Actions				
Buzzer Pop-up Window								
Push Alarm			Ø					
		Preview Alarm Ou	i tput Send Email					
□ AII	□Local->1 □Local->8	Local->2	□ Local->3	□ Local->4	C Local->5	□Local->6	Local->7	
						ОК		Cancel

Camera Alarm Sound

The selected camera plays an audio alarm when an alarm occurs. This action is only available to cameras that support alarm sound, and the day/night mode is available on certain cameras only.

		Trigger #	Actions		
Buzzer Pop-up Window Push Alarm					
			Camera Alarm Sound		
Alarm Sound Select Mode	Day/Night Mode	🗹 Custom	Mode		
Select day	Mon				
	Start Time	End Time	Audio	Repeat	
	00 \$ 00 \$	23 🗘 59		× 3 ~	
	00 \$ 00 \$	00 \$ 00	\$ 1.	× 3 ~	
	00 \$ 00 \$	00 \$ 00	↓ 1.	× 3 ~	
	00 \$ 00 \$	00 \$ 00	↓ 1.	× 3 ~	
Copy To 🗌 All	Mon Tue	🗌 Wed 🛛 (🗆 Thu 🛛 Fri	🗆 Sat 🛛 Sun	
			Apply	OK	Cancel

Configure this action as follows:

1. Select the **Alarm Sound** check box, select the alarm mode, and configure other parameters as needed.

Mode	Description										
Day/Night Mode	Select the day and time (day/night) during which alarm sound is enabled.										
Custom Mode	Select the day a	nd time (start/	end ti	me) in wl	nich	alarm sound is	enablec	l.			
	🗹 Alarm Sound										
	Select Mode	Day/Night Mo	de	Custor	n Moo	de					
	Select day	Mon									
		Start Time		End Time		Audio	Repeat				
		00 \$ 00	С 0	0 \$ 00	¢	1.You are in the , ~	3	~			
		00 \$ 00	<u></u> О	0 \$ 00	¢	1.You are in the 🖓 🗠	3	~			
		00 \$ 00	С 0	0 \$ 00	Ŷ	1.You are in the 🖓 🗠	3	~			
		00 \$ 00	<u></u> 0	0 \$ 00	Ŷ	1.You are in the i \sim	3	~			
	Copy To 🗌 All	🗌 Mon 🛛	Tue	Wed	Пι	hu 🗆 Fri 🕻	Sat	🗆 Sun			
Audio	 Note: Up to 4 time periods are allowed per day, and the time periods cannot overlap. Select the audio file to be played by the camera when an alarm occurs. By default, 										
	13 audio files are available. You can configure the audio files on the camera's Web interface.										
	Note: The number of built-in audio files varies depending on the camera model, and up to 5 audio files are allowed on certain models.										
Repeat	Set the number 50.	of times the a	udio fi	le to be p	laye	ed when an alar	m occur	s. Range: 1 to			

- 2. (Optional) To apply the same settings to other days, select the desired day(s) after Copy To.
- 3. Click **OK**.

Camera Flashing Light

The illuminator of the selected camera flashes for a certain length of time when an alarm occurs. This action is only available to cameras that support flashing light, and the day/night mode is available on certain cameras only.

,			Trigger .	Actions		
	Buzzer Pop-up Window Push Alarm					
					Camera Flashing Light	
	Flashing Light Select Mode	Day/Night Mode	🖌 Custom	Mode		
	Blink Time(s)	10		[5 ~ 60]		
	Select day	Mon				
		Start Time	End Time			
		00 \$ 00 \$	23 🗘 59	Ş		
		00 \$ 00 \$	00 \$ 00	Ŷ		
		00 \$ 00 \$	00 \$ 00	÷		
		00 \$ 00 \$	00 \$ 00	Ŷ		
	Copy To 🗌 All	Mon 🛛 Tue	Wed	🗆 Thu 🛛 Fr	🗆 Sat 🛛 Sun	
					ОК	Cancel

Configure this action as follows:

1. Select the **Flashing Light** check box, select the alarm mode, and configure other parameters as needed.

Mode	Description	Description						
Day/Night Mode	Select the day and time (day/night) during which flashing light is enabled.							
	Note: The camera automatically switches to day or night mode according to the ambient lighting. See Network Camera User Manual for details.							
Custom Mode	Select the day and	d time (start/e	end time) in which f	lashing light is enabled.				
	✓ Flashing Light Select Mode	Day/Night Mod	de 🛛 Custom Mod	e				
	Blink Time(s)	10 [5 ~ 60]						
	Select day	Mon						
		Start Time	End Time					
		00 \$ 00	℃ 00 ℃ 00 ℃					
		00 \$ 00	℃ 00 ℃ 00 ℃					
		00 🗘 00	℃ 00 ℃ 00 ℃					
		00 \$ 00	€ 00 € 00 €					
	Сору То 🗌 All	🗆 Mon 🛛	Tue 🛛 Wed 🗆 Tł	nu 🗆 Fr 🗆 Sat 🗆 Sun				
	Note: Up to overlap.	4 time periods	are allowed per da	ay, and the time periods cannot				
Blink Time(s)	Set the duration t	hat the illumi	nator flashes when	an alarm occurs.				

2. (Optional) To apply the same settings to other days, select the desired day(s) after **Copy To**.

3. Click **OK**.

Snapshot

The NVR triggers the linked camera to capture a snapshot when an alarm occurs.

			Trigger Actio	ns			
Buzzer Pop-up Window Push Alarm							
		rm Output Snaps	hot Send Email				
All	□ D1(HDIPCA □ D2(IPC O2) D3(IPC03)	D4(IPC04)	D5(IPC05)	D8(IPC08)	D10(IPC10)	
						ОК	Cancel

Note: This action is only available to certain alarm functions such as motion detection and human body detection, and is not available to VCA functions.

Send Email

The NVR sends an email with alarm information to the specified email address(es) when an alarm occurs. Please set the recipient information in Email. Up to 6 recipients are allowed.

			Trigger	Actions		
Buzzer Pop-up Wi Push Alarm						
			Send Email			
	Reci	pient			Recipient Address	
	Reci	pient1			wangtest@mmitest.com	
	Reci	pient2			22@1.com	
	Reci	pient3			3@3.com	
	Reci	pient4			4@4.com	
	Reci	pient5			5@5.com	
	Reci	pient6			6@6.com	
					ОК	Cancel

HTTP

The third-party platform can receive alarm and video loss information via the HTTP protocol. This linkage action is available to smart intrusion prevention, alarm input, motion detection, ultra motion detection, tampering detection, and video loss.

URL format example: Http://platform address to receive alarm message/alarm channel (customizable)/alarm type (customizable)

Note: Please configure the function on the NVR's web interface.

Camera Linkage

Click the **Camera Linkage** tab, select **Panoramic Linkage**, and then the panoramic camera will link to a PTZ camera when an alarm occurs.

			Trigge	er Actions			
Buzzer Pop-up Win Push Alarm							
				Camera Linkage			
□ Panoran	nic Linkage						
					ОК	Cancel	

6.1.9 Arming Schedule

Configure an arming schedule to determine when the NVR receives alarms and performs predefined alarm-triggered actions.

				Arming !	Schedule					
Current Ca	imera			D1(HDIPCAN	1)					
Select day				Mon						
No.					Start Tim	e		End Time	9	
1				00	¢	00	24	\$	00 🗘	
2				00	\$	00 :	00	¢	00 🗘	
3				00	\$	00	00	\$	00 🗘	
4				00	\$	00 :	00	\$	00 🗘	
Сору То	□ Ali	□ Mon	□ Tue	□ Wed	□ Thu	□Fri	🗆 Sət	🗆 Sun	Holiday	
							ОК		Cancel	

Click or right to Arming Schedule, configure the schedule as needed, and then click OK.

On certain NVRs, the **Arming Schedule** page shows as follows:

				Arming	Schedule						
Current Ca	amera			D1(HDIPCAN	Л)						
Select day				Mon							
No.					Start Tin	ne			End Time	e	
1				00	¢	00	¢	24	¢	00	Ĵ
2				00	\$	00	\$	00	\$	00	0
3				00	÷	00	\$	00	\$	00	¢
4				00	\$	00	\$	00	\$	00	¢
5				00	\$	00	\$	00	\$	00	Ĵ
6				00	\$	00	¢	00	0	00	Ĵ
7				00	¢	00	\$	00	¢	00	Ĵ
8				00	Ŷ	00	÷	00	÷	00	÷
Сору То		🗌 Mon	🗆 Tue	🗆 Wed	🗆 Thu	🗆 Fri		🗆 Sat	🗌 Sun		Holiday
				Aj	oply			OK		Car	ncel

😴 Note:

- Up to 4 or 8 time periods are allowed per day, and the time periods cannot overlap.
- (Optional) To apply the same schedule to other days, select the desired day(s) after **Copy To**.
- The number of arming time periods available varies by function.
- If a SIP camera is connected to the NVR and configured with camera side analysis of Intrusion Detection, Cross Line Detection, Enter Area, Leave Area, or Human Body Detection, the arming schedule configured for these functions on the NVR will be synchronized to the camera.

6.2 Analyzer Configuration

View the analyzer usage and change the analysis mode.

Analyzer is a smart chip used to process face recognition, smart intrusion prevention, behavior analysis, ultra motion detection, people counting, AcuSearch/Track, etc. The analyzer capacity varies by NVR model, which requires you to allocate channels appropriately.

- 1. Go to Menu > VCA > Analyzer Config.
- 2. View the analyzer's capacity usage. The analyzer's capacity can be represented by the number of video streams or image streams it can analyze.

The following table describes the detailed analyzer capacity usage strategy.

Туре	Usage	Description					
Video stream analysis (NVR-side function)	10% (for each function)	Enabling each function in this category for a channel will consume 10% capacity: rat detection, fight detection, fall detection, no work clothes detection, no reflective clothing detection, smoke and fire detection, people flow counting, and mixed-traffic detection.					
		For example, if you enable rat detection and fight detection for a channel; that's two functions, and it will consume 20% capacity.					
Video stream analysis (NVR-side function)	10% (for each analysis model)	Enabling any or all functoins of a category for a channel will consume 10% capacity.					
		 Category 1: No mask detection, no helmet detection, smoking detection, calling detection, no chef hat detection, and sleep on duty detection. 					

Туре	Usage	Description
		• Category 2: Cross line detection, intrusion detection, enter area, leave area, absence detection, climbing detection, and long stay detection.
		• Category 3: Face detection and face comparison (NVR-side analysis).
		For example, if you enable no mask detection and no helmet detection for a channel, which belong to one category (category 1), and it will consume 10% capacity; if you enable no mask detection, no helmet detection, cross line detection, and climbing detection, which belong to one category (category 1 and 2), and it will consume 20% capacity.
Image stream analysis (only for camera-side face recognition)	5%	 Only camera-side face detection will consume the capacity of image stream analysis. When the analyzer has sufficient capacity, enabling camera-side face detection for a channel will consume 5% capacity.
		• When the analyzer has insufficient capacity, camera-side face detection can be enabled, but it does not consume analyzer capacity. At the same time, other camera-side functions except the face comparison can be enabled and configured, as they does not consume analyzer capacity and their data are analyzed and reported from the corresponding IPC.

Takes analyzer 1 as an example. The analyzer 1 has been used for 2 video stream channels, which consumes 20% capacity, and can be still used for 8 video stream channels or 16 image stream channels. The **VCA Config** page shows the enabled functions.

ice Recognition+Smart Intru 🗸

Capacity for Image Streams:18

ce Recognition+Smart Intru ~ Capacity for Video Streams:9

Capacity for Image Streams:18

2

	Mixed Mode(Face Recognition+Smart Intru ~		Mixed Mode(Fa
	Remaining VCA Capacity for Video Streams:8		Remaining VCA
Analyzer 1:Working	Open Channel:D1 D5	Analyzer 2:Working	Open Channel:
	Remaining VCA Capacity for Image Streams:16		Remaining VCA
	Open Channel:		Open Channel:
Usage:20%		Usage:10%	
(Mixed Mode(Face Recognition+Smart Intru ~	()	Mixed Mode(Fa
•••	Remaining VCA Capacity for Video Streams:9		Remaining VCA
Analyzer 3:Working	Open Channel:D3	Analyzer 4:Working	Open Channel:
	Remaining VCA Capacity for Image Streams:18		Remaining VCA
	Open Channel:		Open Channel:
Usage:10%		Usage:10%	

6.3 Library Management

Manage face library and work clothes library.

6.3.1 Face List

Configure face lists for face comparison.

Configure Face List

1. Go to Menu > VCA > Library Management > Face List.



2. Configure face lists. A face list is created by default. Up to 128 face lists are allowed.

Parameter	Description						
+	(1) Click 🕂 to add a face list.						
	Add Facelist						
	Name						
	Set as Dynamic Library						
	OK Cancel						
	(2) Enter the list name.						
	(3) (Optional) Select the Set as Dynamic Library check box to set the face list as a dynamic list. The captured face images that do not match any face image in face lists will be automatically added to the dynamic list.						
	■ Note:						
	 If there is no dynamic face list, you can add a new face list and set it as a dynamic list. You can only configure a dynamic list while adding a face list. 						
	• Only 1 dynamic list is allowed. To change the dynamic list, you need to delete the original dynamic list and add a new one.						
	(4) Click OK .						
Ī	Delete the selected face list(s).						
	Note: Deleting a face list will also delete its related historical alarm records. Please handle with caution.						
⊠ /−	Click 🗹 to edit the face list. You can only edit the list name. 🔤 indicates that the face list cannot be edited.						
	indicates that the face list is a dynamic list. indicates that the face list is not a dynamic list.						
Ø/Ø	Click of / to enable/disable Auto Snapshot to Library.						

3. Import face images. You can import one by one or in batches.

- Import one by one
 - (1) Click Add.

	Add Face Info				
	Face Info				
	Face Library	~			
	Name	De5111			
	Gender (0-Female 1-Male 2-U	Unknown			
	Date of Birth	2022	08	11	
	Nationality				
	Province				
	City				
	ID Type	ID Card			
Select Image	ID No.:				
Selectimage					
			ОК	Cance	

- (2) Click **Select Image** to import the desired face image.
- (3) Complete the face information including face library, name, gender, date of birth, nationality, province, city, ID type, and ID number.
- (4) Click OK.
- Import in batches
 - (1) Click Export Template.
 - (2) Select the location to save the template and click **Backup**.

Note: You can export the template to an external storage device (connect a storage device to the NVR) or a PC (log in to the NVR's web interface, go to Smart > List Management > Face List, click DefaultList, and then click Export Template).

- (3) Complete the template with reference to the import guide.
- (4) Click Import, select the template, and click Import.

	Im	port		
Partition Location	USB-sdz4 /		~	Refresh
	Size	Туре	Modify Time	Delete
🛅 Previous Level		dir	2022-08-11 14:50:56	
🚞 backup		dir	2022-08-11 14:56:47	Ē
🚞 CaptureReport		dir	2022-07-26 20:09:20	
Free	59921MB			
Total	59999MB			
New Folder		Format	Import	Cancel



Other Operations

Parameter	Description		
Search	1. Set search conditions.		
	Status All Y Name: Y Search Reset		

Parameter	Description
	Select the modeling state: All, Modeled, Modeling Failed, Modeling, or Not Modeled.
	• Select Name or ID No. and enter the name or ID number to search.
	2. Click Search.
	3. To clear the search conditions, click Reset .
Edit	Select a face image and click Edit to modify its information.
Model	Model face images in Not Modeled or Modeling Failed status.
Export Selected	Export the selected face image(s).
Export All	Export all face images in the selected face list.

6.3.2 Work Clothes Library

Import work clothes images so the NVR can compare the detected clothes with the images in the work clothes library.

- 1. Go to Menu > VCA > Library Management > Work Clothes Library.
- 2. Set work clothes library.

Parameter	Description
+	(1) Click 🕂 to add a work clothes library.
	(2) Enter the library name.
	(3) Click OK .
	Note: Up to 8 work clothes libraries are allowed, and up to 50 images can be added to each library. Importing images captured from different angles can improve the detection accuracy.
Ū	Click 🔟 to delete the selected library.
	Note: Deleting the library will disable the No Work Clothes Detection function of the library.
	Click 🗹 to edit the library name.

3. Click Add to import work clothes images.

6.4 Plate List

Configure plate lists for vehicle monitoring.

Configure Plate List

1. Go to Menu > VCA > Plate List.

+Add	🧻 Delete	Add	Delete	Delete All	Batch Imp	Export Sel	Export All	Export Te	Refresh
Name	Edit	□No.		Plate No.		Modify		Delete	
DefaultList				Z2334					
		Total: 1 Page	:1/1				≪ <	> >>	

2. Configure plate lists. A plate list is created by default. You can add more as needed.

Parameter	Description		
Add	Click 🛖, enter the list name, and click OK .		
		Name	
	Name		
		OK Cancel	
Delete	Select the list(s) you want to delete and click		
Edit	Click 🗾 to modify the list name.		

- 3. Add plate numbers. You can add one by one or in batches.
 - Add one by one
 - (1) Click Add.

	Add Plate Inf	fo	
Plate No.			
		ОК	Cancel

- (2) Enter the plate number.
- (3) Click OK.
- Add in batches by importing a file
 - (1) Click Export Template.
 - (2) Select the location to save the template and click **Backup**.

Note: You can export the template to an external storage device (connect a storage device to the NVR) or a PC (log in to the NVR's web interface, go to Smart > Vehicle Control > Plate List, click DefaultList, and then click Export Template).

- (3) Complete the template with reference to the import guide.
- (4) Click Batch Import, select the template, and click Import.

	Im	port		
Partition Location	USB-sdz4 /			Refresh
	Size	Туре	Modify Time	Delete
🛅 Previous Level		dir	2022-08-11 14:50:56	
🚞 backup		dir	2022-08-11 14:56:47	₫.
🚞 CaptureReport		dir	2022-07-26 20:09:20	
Free	59921MB			
Total	59999MB			
New Folder		Format	Import	Cancel

Note: A progress bar is displayed during import. The import result will be displayed when the progress bar shows 100%.

Other Operations

Parameter	Description
1	Delete a specific plate number.
Delete	Delete selected plate number(s).
Delete All	Delete all plate numbers in the selected plate list.
	Modify the plate number.
Export Selected	Export the selected plate number(s).
Export All	Export all plate numbers in the selected plate list.
Refresh	Refresh the plate list.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time vehicle snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Vehicle Monitoring for details.

6.5 Smart Preview

View real-time snapshots and statistics of VCA functions on the live view page, including motor vehicle, non-motor vehicle, human body, face and people flow counting.

Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are displayed on the right.

Preview Interface

Icon	Description
⊠ 🛱 🗹 ୧୫ 🖂 🕺 🖂	Select the object type(s) for which you want to view real-time snapshots.
	$$ means the motor vehicle, $\overbrace{66}$ means the non-motor vehicle, $\overbrace{7}$ means the
	human body, and 🔀 means the face.

Icon	Description
@	Click to enter the Smart Display Configuration page, on which two tabs are displayed: Alarm Subscription and Attribute Display Config.
	• Alarm Subscription tab: You can subscribe to various alarms at the same time. If you want to view real-time alarm information on smart preview page, please configure VCA functions of of the corresponding alarm(s). For details, please refer to VCA Configuration.
	 Attribute Display Config tab: You can configure human body attributes, motor vehicle attributes, and non-motor vehicle attributes, and up to 3 items can be selected for each attribute type. By default, the first 3 items of human body attributes and non-motor vehicle attributes are selected; and vehicle color, vehicle brand, and vehicle type of motor vehicle attributes are selected. The attribute configuration is only available to mixed-traffic detection and road monitoring alarms(excluding motor vehicles).
	Smart Display Configuration Alarm Subscription <u>Attribute Display Config</u>
	Human Body Attributes
	Gender ⊠Age ⊠Mask ⊟Hairstyle
	Bag Direction Upper Garment Length Lower Garment Length
	Non-Motor Vehicle Attributes
	Non-Motor Vehicle Type Direction Gender
	Upper Garment Length
	Motor Vehicle Attributes
	☑ Plate No. ☑ Plate Color ☑ Vehicle Color ☑ Vehicle Type Only mixed-traffic detection and traffic monitoring support attribute configuration (excluding motor vehicles). Up to 3 items can be selected for each type of attribute. If a face snapshot exists, only the first two selected items of each type OK Cancel Image: Control of the selected items of each type of attribute configuration (excluding motor vehicles). Up to 3 items can be selected for each type of attribute. If a face snapshot exists, only the first two selected items of each type Image: OK Cancel Image: Control of the selected state of the selected items of each attribute Image: Control of the selected state of the selected items of each type Image: Control of the selected state of the selected items of each attribute Image: Control of the selected state of the selected items of each attribute
	type will be displayed on the smart preview page.
	 Face is not enabled/face is enabled but not recognized: Mixed-Traff 02 11:31:48 Non-Motor 3-wheel Ve Downward Male
	Face is enabled and recognized:
	 O2 Non-Motor 11:31:08 Mixed-Traff Downward 2-wheel Ve

Icon	Description
\oslash	Open the Event page.
S	Open the VCA Config page.
ക	Clear real-time snapshots displayed on the live view page. Search records and statistics are not affected.

6.5.1 Face Recognition

View face snapshots, face snapshot information, and face matching/mismatching information.

Туре	Description
Not Match Face Info	1. Select a mismatched face snapshot.
	2. Click on the snapshot to view more details. Substitution Substitution
Face Snapshot Info	 Select a face snapshot. Click on the snapshot to view more details.
Match Face Info	 Select a matched face snapshot. The left image is the captured image, and the right image is the face image in the face list. Click on the snapshot to view more details.

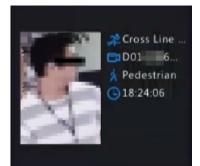
Rote:

- In the **View Details** dialog box, a 15s video (10s before and 5s after the snapshot time) is automatically played on the left, and the snapshot and its detailed information are displayed on the right.
- You can click + under a face snapshot or click Add to Face Library in the details page of a face snapshot to add the snapshot to the face list, and click **Q** to search face images in face lists by this snapshot.

6.5.2 Smart Intrusion Prevention

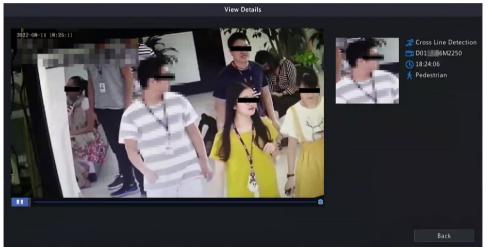
View real-time snapshots of smart intrusion prevention functions including cross line detection, intrusion detection, enter area detection, and leave area detection.

1. Select a snapshot.



2. Click on the snapshot to view more details.

In the **View Details** dialog box, a 15s video (10s before and 5s after the snapshot time) is automatically played on the left, and the snapshot and its detailed information including event type, camera name, time, and object type are displayed on the right.



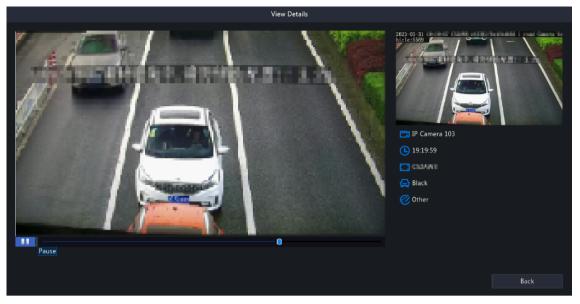
6.5.3 Vehicle Monitoring

View vehicle monitoring information, vehicle snapshot information, and license plate matching/mismatching information.

1. Select a vehicle snapshot.



2. Click on the snapshot to view more details.



In the **View Details** dialog box, a 15s video (10s before and 5s after the snapshot time) is automatically played on the left, and the snapshot and its detailed information including camera name, time, license plate number, vehicle color, and plate color are displayed on the right.

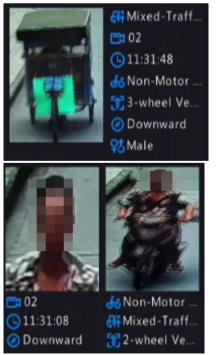
6.5.4 Object Detection

View real-time snapshots of object detection functions including multi-target detection and road monitoring.

The following takes the multi-target detection as an example.

6.5.4.1 Multi-Target Detection

View real-time snapshots and detailed attributes of multi-target detection, and the object types captured include motor vehicle, non-motor vehicle, human body, and face. The displayed attributes can be customized. Please refer to ShowTime Attr Config for details.



Note: When a face is recognized, the smart preview page will display a close-up image of the face and an image of the captured object.

6.5.5 People Flow Counting

Select a scene and view real-time people flow statistics including the number of people entering/leaving/ currently allowed/present.

The green icon under **People Present Alarm** means the number of people present in the detection area does not exceed the set threshold. If the icon is red, it means the number of people present in the detection area exceeds the set threshold.

Preview People Flow	
Scene1 ~	
People Present Alarm	
People Entered	
0	
People Exited	
0	
Inside	
More Allowed	

7 Peripheral Management

Manage the external devices connected to the NVR.

Note: This function is only available to certain NVR models.

7.1 IP Speaker

Manage IP speakers.

7.1.1 IP Speaker

Add and manage IP speakers.

Go to Menu > Peripheral > IP Speaker.

4	Add All	+ Custom Add	Ū	Delete	Ø	Refresh	¢	Start Broadcast		
) Camer		Address	Port	Status		Manufactur		Model	Operat	e
	Speaker 1)	172.20.213.10	80	(B)		IPSpeaker		IP Speaker	Ø	

Add IP Speaker

The system automatically searches for IP speakers and lists the discovered. Click **Refresh**, and the system refreshes the list and IP speaker status. Two methods are available to add IP speakers:

- Option 1: Custom Add
 - 1. Click Custom Add.

	Add IP Speaker	
IP Address		
Port	80	
Username		
Password		¢
	ОК	Cancel

- 2. Enter the device information, click **OK**, and then check the device status.
 - 🚯: IP speaker online.
 - IP speaker offline. Point to the icon to view the reason for the failure.
- Option 2: Add All

Click Add All to add all the discovered IP speakers (if not exceeding the upper limit).

Edit IP Speaker



	Edit IP Speaker
Camera Name	IP Speaker 1
IP Address	172 . 20 . 212 . 203
Port	80
Username	admin
Password	tm1234 💿
	OK Cancel

Two-Way Audio

The NVR supports two-way audio with one IP speaker. Click 😃 beside the IP speaker to start two-way audio.

Audio Broadcast

The NVR supports audio broadcast with multiple IP speakers. Select the IP speaker(s), and click Start Broadcast to start audio broadcast.

Note: Please connect an external microphone to the NVR before you use the two-way audio and audio broadcast.

Delete IP Speaker

7.1.2 Audio File Configuration

Configure the audio file to be played by an IP speaker when an alarm occurs. See IP Speaker Alarm Sound for details.

Go to Menu > Peripheral > IP Speaker > Audio File.

Note: You can also configure the audio file on the Web interface of the IP speaker.

IP Speaker	S2(IP Speaker 2) 🗸 🗸				
Audio File	Import Audio File				
	Note: The remaining file upload capac	-:	4D: +-+-11: 100 ft		
Volume	Low		High	70	
No.	Audio	Play	Stop	Operate	
	Please be aware! You are in the monitored area				
2	Startup Sound.mp3(default)	\mathbf{igstar}			
	Test Sound.mp3(default)	lacksquare			
4	1234.mp3	\mathbf{igstar}			
					▶
					1
					Exit
					Exit

Add Audio File

- 1. Select an IP speaker, and click Import Audio File.
- 2. Select the desired audio file, and click Import.

	Imp	port		
Partition Location	NAS-1 /			Refresh
Name	Size	Туре	Modify Time	Delete
🛅 Previous Level		dir	2024-01-17 15:50:40	
<u>i 1111</u>		dir	2023-12-06 16:02:20	Ш.
🚞 usb		dir	2024-01-16 16:50:49	<u>ш</u>
🚞 audio		dir	2024-01-11 17:10:23	±.
📄 verified.mp3	8.9KB	file	2017-08-28 16:01:59	ά i
2222		dir	2024-01-16 15:05:39	Ш.
🚞 ko		dir	2024-01-17 11:21:22	Ш.
Free Total	1345103MB 5622156MB			
			Impo	Cancel

Default Audio File

The system audio file stored in the NVR at the factory.

Note:

- Only certain IP speakers have default audio files. Please refer to the actual interface.
- The default audio files cannot be deleted.

Adjust Volume

Drag the slider to adjust the audio volume of the IP speaker as needed.

Test Audio

Test the audio to be played by the IP speaker at the configured volume.

- Click () to start playing the audio.
- Click () to stop playing the audio.

Delete Audio File

Select the audio file you want to delete, and click 📺

7.2 POS Configuration

Overlay transaction information to live and recorded videos for check and audit.

POS configuration includes POS OSD Configuration and POS Configuration. After the configuration is completed, POS information will be displayed on both live and recorded videos, and POS recordings can be retrieved for playback.

7.2.1 POS OSD Configuration

Configure POS OSD parameters.

1. Go to Menu > Peripheral > POS > POS OSD.

Enable POS OSD		
Position	Left	~
Duration(s)	5 🗌 Auto	0
Font	Medium 🖌 🖌	

- 2. Select Enable POS OSD.
- 3. Configure the parameters.

Parameter	Description
Position	POS OSD position.
	• Left: In the upper-left corner of the image.
	Center: In the middle of the image.
	• Right: In the upper-right corner of the image.
Duration(s)	Length of time that POS OSD is displayed on live and recorded video images. Default: 5s. Max. 120s.
Auto	Displays POS OSD according to the POS data duration obtained based on Time Start Identifier and Time End Identifier. For Time Start Identifier and Time End Identifier, see also POS Configuration.
Font	Font size and color of POS OSD. Font sizes include X-large, Large, Medium, and Small.

4. Click OK.

7.2.2 POS Configuration

Add POS and configure POS protocols.

1. Go to Menu > Peripheral > POS > POS.

No.	Name	Status	Protocol	Connection	Camera	Edit	Delete
Add	De	lete	Enable	Stop			

2. Click Add.

			Add/Mc	odify			
	Name		POS				
	Enable						
	Protocol					~	
	Set Protocol		Ø				
	Connection		Network				
	Set Connection		Ø				
_	Camera						
	All	☑ D1(IPC01) ☑ ☑ D21(IPC21)	D2(IPC02)	□ D17(IPC17)	□ D18(IPC18)	□ D19(IPC19)	
				A	pply	Exit	

3. Configure the parameters.

Parameter	Description
Name	Set a name that is easy to recognize. The POS name must be unique.
Enable	The new POS is enabled by default. You may clear the checkbox to disable the POS, and enable it on the POS page at any time.
Protocol	• General: The POS is directly connected to the NVR.
	Note: Choose this option with caution. POS connection may fail due to different protocols of different POS machine vendors.
	• AVE: The POS machine transmits data to the AVE device, and the AVE device connects to the NVR.
	Note: AVE is a device that supports multiple POS protocols. It integrates POS data in different formats and converts them into data transmittable via TCP/UDP.

Parameter	Description					
	Only applicable to the General protocol. Click S. The start identifier, end identifier, and line delimiter must be converted into hexadecimal values using Notepad+ before being entered.					
	• Start Identifier: (Optional) The NVR starts receiving POS data from the start identifier.					
	• Stop Identifier: (Optional) The NVR stops receiving POS data at the received stop identifier.					
	• Line Delimiter: (Optional) The NVR inserts a line break into POS data at the line delimiter.					
	• Ignore Characters: (Optional) The NVR displays ignored POS data as *.					
	• Time Start Identifier: (Optional) Start time of POS data.					
	• Time End Identifier: (Optional) End time of POS data.					
Set Connection	Transmission protocols include TCP and UDP. Transaction data are sent to the NVR via TCP or UDP.					
	Local Receiving Port: Port that the NVR uses to receive data. Set an unused port.					
	Source IPv4 Address: IP address that the POS machine uses to send data.					
	Source Port: Port that the POS machine uses to send data.					
	Destination IPv4 Address: Not required. Address that the NVR uses to forward the received POS data.					
	Destination Port: Not required. Port that the NVR uses to forward the received POS data.					
	Timeout: Time that the NVR receives POS data before it stops.					
	Default: 5s. Range: 1-3600s.					
	If a stop identifier is configured, the NVR stops receiving POS data at the stop identifier; if no stop identifier is configured, the NVR stops receiving POS data when the timeout expires. The AVE protocol does not involve start and stop identifiers. Therefore, it is necessary to configure a timeout for the NVR to stop receiving POS data and to display POS information. If no timeout is configured, the NVR does not stop receiving POS data, and POS information cannot be displayed.					
Camera	Choose the camera to which you want to overlay POS data.					

4. Click **OK**.

🛃 No.	Name	Status	Protocol	Connection	Camera	Edit	Delete
1	POS1	Enabled	POS	Network	D1		Ē
A	dd	Delete	Enable	St	an		

- Click 🔯 to edit the POS.
- Click 📷 to delete the POS.
- Click **Disable** to disable the POS.

7.3 Radar Configuration

Add, modify, or delete radar devices on the NVR.

😴 Note:

- Up to 20 radar devices are allowed.
- NVR can receive realtime people counting data from the radar devices, and then transfer the data to UCS if connected to the cloud. However, it does not store and search data.

Add Radar

1. Go to Menu > Peripheral > Radar.

+ Add Radar	💼 Delete Radar	Ø	Refresh					
Radar Name	Address	Port	Status	Protocol	Model	Delete	Modify	Vendor
	172.20.213.15	80		Private	RND322	Ū	Z	1004076

2. Click Add Radar, and then configure radar parameters.

	Add Radar
Address Port Username Password	 80 ОК Сапсе!
Parameter	Description
Address	IP address of the radar device.
Port	80 by default.

Username used to log in to the radar device. Password used to log in to the radar device.

3. Click OK.

Modify Radar

Username

Password

Click i to modify the radar information.

Edit Radar									
Address	172 . 20 . 213 . 15								
Port	80								
Username	admin								
Password	******								
	OK Cancel								

Delete Radar

You can delete radar device(s) one by one or in batches.

- Delete one by one: Select a radar device to be deleted, and then click
- Delete in batches: Select radar devices to be deleted, click **Delete Radar**, and then click **OK**.

Refresh

Click Refresh to show the latest radar list.

8 System Configuration

This chapter describes how to configure the system parameters.

8.1 General Configuration

Configure device basic information, time display mode, DST, time synchronization mode, and holidays.

8.1.1 Basic Configuration

Configure the basic information of the system.

1. Go to Menu > System > General > Basic Setup.

De	evice Name	The second secon			
De	evice ID	1			
De	evice Language	English ~			
Vie	deo Standard	PAL ~			
Au	ıto Logout(min)	5 ~			
Ins	stant Playback(min)	5			
Mo	ouse Pointer Speed				
					
-	Enable Password Prote	ection			
•	Enable Startup Wizard		Wizard		
•	Intelligent Mark				
	Exit				

2. Configure the basic parameters.

Parameter	Description
Device Name	The default name is the NVR model. You can change it as needed.
Device ID	Used to distinguish devices if you have more than one device. You can change it as needed.
Device Language	Choose the system language. The system will restart after you change the system language.
Video Standard	Choose a video standard, and then the device may automatically adjust the capture mode of the connected cameras.
	• PAL: 50Hz
	• NTSC: 60Hz
Auto Logout(min)	If you are not on the live view page and don't perform any operation, you will log out automatically when the set time is over, and the live view page will be displayed.
	Default: 5 minutes. You can change it as needed.
Instant Playback (min)	Set the instant playback time. Default: 5 minutes.
Mouse Pointer Speed	Drag the slider to adjust the speed (left to right: slow to fast).
Enable Password Protection	When the auto logout time is over, the user needs to enter the login password in order to access the main menu.
	This feature is enabled by default.
	Note: Only admin can change the setting.
Enable Startup Wizard	Startup wizard appears when the NVR starts up for the first time. When enabled, the startup wizard appears every time the device starts up. You may click Wizard to set wizard on the Menu page.
Intelligent Mark	When enabled, smart detection rules will be displayed on the live video, or smart detection objects will be marked, and the corresponding smart data will be displayed. Smart rules are yellow detection boxes or detection lines. Detection boxes have two colors with different meaning as described below:
	Green: Data have changed but didn't trigger the rules.
	• Red: Data in the area have triggered the rules configured for the VCA alarm and a VCA alarm has occurred.
	Note: Some smart functions do not support this feature.

3. Click Apply.

8.1.2 Time Configuration

Configure the time format and update method.

Note: If the device's battery is low, the following message will appear on the screen: Device time error. Please replace the button battery on the motherboard and reset the time.

Basic Time Config

Go to **Menu** > **System** > **General** > **Time**. Choose the time zone, date, and time format as needed.

Time Zone	(UTC-08:00) Pacific Standard Time(Lo	~
Date Format	YYYY-MM-DD	~
Time Format	24-hour	~
System Time	2023-09-25 19:08:32	~
Time Sync Mode	Disable Sync	~

System Time

- Set the system time manually.
- Select the sync mode from the drop-down list, and then the system time will be updated based on the set mode. It is **Disable Sync** by default.

Sync Mode	Description							
Sync with NTP Server	The system time will be synced from the NTP server. Configure parameters below as needed.							
	Time Sync Mode	Sync with NTP Server	~					
	NTP Server Address	172.20.212.80						
	NTP Port	123						
	Update Interval	10m	~					
Sync with Cloud Server	The system time will be sync enable P2P first.	ed from the Cloud server.	To use this function,					

8.1.3 DST

Configure DST.

1. Go to Menu > System > General > DST.

💿 DST								
Start Time	Mar	~	2nd	~	Sun	~	2	$\hat{}$
End Time	Nov	~	1st	~	Sun	~	2	¢
DST Bias	60 mins							~

- 2. Enable DST.
- 3. Configure the parameters.
- 4. Click Apply.

8.1.4 Camera Time Synchronization

When Sync Camera Time is enabled, the NVR syncs time to the connected cameras regularly.

This feature is enabled by default.

Note:

- Time sync occurs when a camera goes online for the first time.
- If Sync Camera Time is enabled, time sync occurs every 30 minutes.

1. Go to Menu > System > General > Time Sync.



- 2. Enable/disable this feature as needed.
- 3. Click Apply.

8.1.5 Holiday Configuration

Configure special time periods as holidays for use in recording schedules.

1. Go to Menu > System > General > Holiday.

No.	Status	Holiday Name	9	Start Time	End Time	Repeat	Configure	Delete
							Ad	d
Enable	Disable		Exit					

2. Click Add in the lower-right corner.

	He	olida	ау			
Holiday Name						
Status	🗹 Enable				🗖 Disable	
Repeat	No No				Yes	
Mode	🛃 By Day				🗌 By Week	
Start Time	2022		08 ~	06		
End Time	2022		08 ~	06		
					ОК	Cancel

3. Configure the parameters.

Parameter	Description
Holiday Name	Set a meaningful and easy-to-remember holiday name.
Status	The new holiday is enabled by default. If you want to disable it, select Disable .

Parameter	Description
Repeat	 No: The holiday is effective once only in the specified year. Specify a year for the holiday. Yes: The holiday is effective every year.
Mode	 By Day: Set the holiday in the specified format: year/month/day. By Week: Set the holiday in the specified format: year/month/week/day of the week.
Start Time/End Time	Set according to the specified format.

4. Click Apply.

5. Click **OK**.

🗹 No.	Status	Holiday Name	Start Time	End Time	Repeat	Configure	Delete
V 1	🥏 Enabled	Holiday	2022YearJul 1st Wed	2022YearJul 4th Wed	No	Ô	Ē
						,	Add
Enable	Disab	le Exit					

- Click on to edit the current holiday.
- Click m to delete a holiday. Deleting a holiday will not delete the relevant recordings.
- Click **Disable** to disable the holiday.

8.2 Preview Configuration

Configure the screen display and preferred stream type for preview.

8.2.1 Preview Configuration

Configure the basic preview parameters and display mode.

Go to Menu > System > Preview > Preview.

Video Output Resolution Preview Wind	dows	HDMI/VGA 1920*1080/60H Wide 3 Windov Preview Windo	vs		Max. Alarm-Triggere Enable Sequenc Sequence Interval(se	e	W	
Display Ratio		Original						
Camera ID 🥑 D1	Camera Na 01	me						2
 D2 D3 	44444333 IP Camera (03						
 D4 D5 	IP Camera (IP+Camera				D1	世		
 D6 D7 	N5 IP Camera (07		2 D2			3 D3 Ū	
🥏 D8	111			DZ			03	
					< 1/3			
	Exit							

Basic Preview Configuration

Parameter	Description								
Video Output	Outputs the system display to an external display device. Choose an output port.								
	Note: The NVR provides three output ports (VGA, HDMI1/HDMI2, BNC) and can output the system display to three displays simultaneously for independent operations. The actual port types available may vary with device.								
Resolution	The resolution includes the display format and refresh rate. The display format refers to the number of pixels that can be displayed on the screen, for example, 1920x1080, 1280x720, 1280x1024, etc. More pixels displayed means higher image quality. The refresh rate can be 60Hz, 50Hz, 25Hz, etc. Choose an option that best fits your needs.								
Preview Windows	Displays images in the desired window layout. Choose an option from the list, or click an icon to choose the layout.								
Max. Alarm-Triggered Live View Windows	Three options: 1/4/9 windows. See Preview for more information.								
Enable Sequence	Enable sequence. See Sequence for more information.								
Sequence Interval(sec)	Set the sequence interval time. Default: 8 seconds.								
Display Camera No. in Preview Windows	When enabled, camera IDs will be displayed in live view windows. This feature is enabled by default.								

Screen Configuration

By default, camera IDs correspond to live view windows: D1 to window 1, D2 to window 2, and so on. You can change the correspondence relationship as follows. The example below shows how to switch D1 and D2.

- Note: You may also drag an image on the live view page to swap windows, and then view the changed window-channel binding relationship on this page. But this method requires the Configure permission, and it cannot switch windows that are not on the same screen.
- 1. Click window 1 on the right side. Window 1 is selected.

Video Output	HDMI1/VGA/BN	С		Max. Alarm-Triggered	Li 1 Windo	ww ~
Resolution	1920*1080/60H	z(1080P)		🗢 Enable Sequence		
Preview Windows	4 Windows			Sequence Interval(see	2) 8	
Camera ID Na 🥑 D1 01	ime					
🥏 D2 N5			1 N D1	一世		2 D2 11
			3			4
			None	Ū		None 🔟
				< 1/4	>	

2. Click D2 on the left-side channel list. Now window 1 shows D2, and window 2 shows None.

1920*1080/6 s 4 Windows	OHz(1080P)		🗢 Enable Se	000000	
s 4 Windows				equence	
			Sequence Int	erval(sec) 8	
ame					
1	-	1			2
		D2	Ū		None 🔟
		3			4
		None	Ū		None 🔟
			<	1/4	>
	1			1 C C C C C C C C C C C C C C C C C C C	

Note: On the left-side channel list, **o** is empty for D1, which means the channel is not bound to any window.

3. Click window 2 on the right side. Window 2 is selected.

Video Output		HDMI1/VGA/BN	IC				Max.	Alarm	Trigger	ed Li	. 1 Win	dow 🗸	
Resolution		1920*1080/60H	z(1080P)				Enable	Sequence				
Preview Wind	lows	4 Windows					Sequ	ience I	nterval(sec)	8		
Camera ID 🍈 D1	Name 01												
🥏 D2	N5					1						2	
					D2		Ū					None 🔟	
												▶	
												4	
					Nc	one	Ū					None 🔟	
								<	1/4	4	>		

4. Click D1 on the left-side channel list. Now window 2 shows D1, which means D1 and D2 have switched windows with each other.

Video Output Resolution		HDMI1/VGA/B)					-Triggei Sequen		. 1 Wi	ndow ~
Preview Wind	dows	4 Windows				Sequ	ience I	nterval(sec)	8	
Camera ID	Name		\blacksquare								
🥏 D1	01				\square				┅Ш		2
🤣 D2	N5			D2		Ū					D1 🔟
				No	3 ine	Ū					4 None 🔟
							<	1/	4	>	

5. Click Apply.

8.2.2 Advanced Configuration

1. Go to Menu > System > Preview > Advanced.

-	Sub Stream First
When	selected, the sub stream is used for live view in a multi-window layout

- 2. Enable Sub Stream First.
- 3. Click Apply.

8.3 Network Configuration

Configure the network parameters of the NVR, such as IP address.

Note: The default IP address of network interface 1 is 192.168.1.30, and that of network interface 2 is 192.168.2.30.

8.3.1 Basic Configuration

Configure the network, mobile app, DDNS, email, etc.

8.3.1.1 Network Configuration

Configure IP address and other network parameters of the NVR.

1. Go to Menu > System > Network > Basic > Network.

Select NIC	NIC1						~
Enable DHCP							
IPv4 Address	172		20		212	101	
IPv4 Subnet Mask	255		255		255	0	
IPv4 Default Gateway	172		20		212	1	
IPv6 Mode	Route	r Ao	dverti	iser	nent		~
IPv6 Address	fe80::0	5ef1	l:7eff	:fe§	əc:b8d		
IPv6 Prefix Length	64						
IPv6 Default Gateway							
MAC Address	6c:f1:	7e:	9c:b8	:d6			
MTU	1500						
Preferred DNS Server	8		8		8	8	
Alternate DNS Server	8		8		4	4	
PoE NIC IP Addr.	173		16		0	199	

2. Choose a working mode. Only multi-NIC NVRs support these three working modes.

Working Mode	Description
Multi-address	Two NICs work independently. You need to configure the NICs separately.
Load Balance	Two NICs use the same IP address and work together to share the sending and receiving bandwidth.
Net Fault-tolerance	Two NICs use the same IP address, and if the primary NIC fails, the standby NIC takes over seamlessly to ensure uninterrupted network connection.

Note: Switching working modes with 802.1x and ARP protection enabled will disable 802.1x and ARP protection.

3. Configure the network parameters according to the actual network environment.

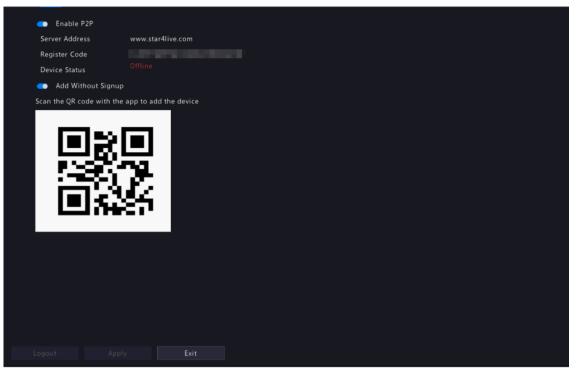
😴 Note:

- For a multi-NIC NVR, you can choose an NIC as the default route. When the NVR connects to an external network, data will be forwarded via the default route.
- For an NVR with PoE ports, you can configure an IPv4 address for the internal NIC.
- The MTU must be in the range of [576-1500]. To use IPv6, you must set MTU within [1280-1500], and make sure the IPv6 addresses of the NVR and PC are connected. To use functions such as live view, playback, make sure IPv4 addresses of the NVR and PC are also connected.
- 4. Click Apply.

8.3.1.2 P2P

With P2P you can manage and operate the NVR remotely on a mobile phone.

1. Go to Menu > System > Network > Basic > P2P. P2P is disabled by default.



- 2. Choose a way to add the NVR to cloud:
 - App: Download and install the Guard Viewer app, and then scan the QR code using the app to add the NVR.
 - Website: Go to star4live.com and follow instructions to add the NVR.
- 3. (Optional) Enable Snapshot Upload, and the NVR will upload images to cloud.
- 4. Click Apply.
- 5. Check the device status. If online, the current username will be displayed. If offline, the common cause will be displayed, and troubleshoot accordingly.

Note: You may also check the device status on the cloud website (star4live.com).

6. (Optional) To delete the NVR from cloud, click Logout.

8.3.1.3 DDNS

Configure DDNS so you can access the NVR on the LAN from the Internet by visiting a fixed domain name instead of the changing IP addresses.

Note: You can open the NVR's Web page by visiting http://server address/NVR's domain name using a Web browser.

1. Go to Menu > System > Network > Basic > DDNS.

Enable DDNS					
DDNS Type	Dyr	DNS		```	•
Server Address	me	mbers.dynd	ns.org		
Port	80				
Domain Name					
Username					
Password				\$	*
Confirm				\$	*
	Apply		Exit		

- 2. Enable DDNS, choose a DDNS type, and configure the parameters.
 - DynDNS/No-IP: Third-party DDNS service provider. Enter the domain name and username/password that you acquired from your DDNS service provider.
 - Domain name: Domain name assigned by your DDNS service provider.
 - Username and password: The corresponding username/password for your DDNS account.
 - MyDDNS: Enter a domain name, and then click Test to check its validity.
- 3. Click Apply.

8.3.1.4 Email

Configure email so the NVR can send alarm information to specified users through email when an alarm occurs.

Note: Select the **Send Email** checkbox on the **Trigger Actions** page before you start configuration.

1. Go to Menu > System > Network > Basic > Email.

Enable Server Authent	ication	
Username		
Password		**
SMTP Server		
SMTP Port	25	
Enable TLS/SSL (If TLS,	/SSL is enabled, use 25 first, and 587/46	5 as an alternative.)
Sender		
Sender's Address		
Select Recipient	Recipient 1	~
Recipient		Ξ.
Recipient Address		
Arming Schedule	Ø	_
💽 Attach Image		
Snapshot Interval	25	•
Test Apply	Exit	

2. Configure the parameters.

Parameter	Description				
Enable Server Authentication	SMTP server authentication, when enabled, can enhance email security. This feature is disabled by default. To enable it, you need to enter the correct username and password.				
Username/Password	Username and password of the SMTP server. Usually it is the username and password of the email box.				
SMTP Server	SMTP server address.				
SMTP Port	Default: 25. Range: [1-65535].				
Enable TLS/SSL	When enabled, communication security will be improved by encrypting emails via TLS or SSL. This feature requires the SMTP server to support TLS/SSL.				
	Note: After TLS/SSL is enabled, if email sending via port 25 failed, try 587 or 465.				
Sender Sender's name.					
Sender's Address	Sender's email address, which can the same as the recipient's address.				
Select Recipient	Choose a recipient from the list and then complete the recipient information. Up to 6 recipients are allowed.				
	Note: Select Send Email, user can receive the corresponding alarm.				
Recipient	Recipient's name.				
Recipient Address	Recipient's email address.				
Arming Schedule	Click to configure an arming schedule. See Arming Schedule.				
Attach Image	When enabled, the NVR will send an email attached with alarm information and snapshot(s) every a snapshot interval when an alarm occurs.				

Parameter	Description
	When disabled, the NVR will send only an email with alarm information when an alarm occurs.
	Note: This function is only available to certain devices.
Snapshot Interval	Options are 2s (default), 3s, 4s, and 5s.

3. Click **Test**. The system will check the recipient address by sending it a test email. in the **Status** column means the test succeeded and the email address is valid.

			Recipient Address Test			
No.	Recipient	Recipient Address		Status	Description	
	hh	test02@test.com		Ø		
					ОК	

4. Click Apply.

8.3.2 Platform Configuration

Configure an upper platform for the NVR.

8.3.2.1 SNMP

The NVR can use SNMP to interconnect with the upper platform and transfer certain configuration information.

- 1. Go to Menu > System > Network > Platform > SNMP.
- 2. Enable SNMP.

🛑 Enable	SNMP		
SNMP Type		SNMPv2	
Read Comm	unity Name	public	
Write Comm	unity Name	private	
Trap Commu	unity Name	private	
Trap Server	Address		
Trap Port			
SNMP Port			
Apply	Exit		

- 3. Choose an SNMP type and configure the parameters.
 - SNMPv2:

Set the read community name and write community name for the platform to read NVR data.

Read Community Name public Write Community Name private Trap Community Name private Trap Server Address . Trap Port 162	🔵 Enable SNMP						
Write Community Name private Trap Community Name private Trap Server Address . Trap Port 162	SNMP Type	SNMPv2 ~					
Trap Community Name private Trap Server Address . Trap Port 162	Read Community Name	public					
Trap Server Address Trap Port 162	Write Community Name	private					
Trap Port 162	Trap Community Name	private					
	Trap Server Address						
SNMP Port 161	Trap Port	162					
101	SNMP Port	161					

• SNMPv3:

Set authentication password and encryption password. The authentication password is used by the platform to access the NVR. The encryption password is used to encrypt data sent from the NVR to the platform.

💿 Enable SNMP				
SNMP Type	SNMPv3 ~			
Username	admin			
Encryption	MD5			
Authentication Password				
Confirm				
Encryption	DES			
Encryption Password				
Confirm				
Trap Community Name	private			
Trap Server Address				
Trap Port	162			
SNMP Port	161			
8-32 characters including uppercase and lowercase letters, digits,				

8-32 characters including uppercase and lowercase letters, digits, underscores, hyphens and @.

4. Click Apply.

8.3.2.2 Alarm Service

Configure an upper server to receive alarms and images from the NVR.

1. Go to Menu > System > Network > Platform > Alarm Service.

🔵 Enable A	larm Service		
Server Addres	ss www.	.com	
Server Port	445		
	Exit		

- 2. Enable alarm service.
- 3. Configure the parameters.

Parameter	Description
Server Address	Upper server's IP address or domain name.
Server Port	Upper server's port number.

Note: This configuration only enables the sending of alarm-related packets to the alarm host. The specific alarm methods on the alarm host need to be configured separately.

4. Click Apply.

8.3.2.3 Configure VIID Local

Configure VIID local settings so the NVR can monitor vehicles and upload vehicle information to the upper platform.

1. Go to Menu > System > Network > Platform > Video&Image Database Local.

MP Alarm Service Configu	re VIID Local Cor	figure VIID Server					
Local ID	340	20000001200000001					
Local Port	507	3					
Camera ID	Camera ID		Device Type		Configure	Status	Advanced
D1(IP Camera 01)	3402000000121	2128001	License Plate	Recognition	Ø	Offline	Ø
D2(IP Camera 02)			License Plate	Recognition	0	Offline	0
D3(IP Camera 03)			License Plate	Recognition	©	Offline	Ø
D4(IP Camera 04)			License Plate	Recognition	0	Offline	Ø
D5(IP Camera 05)			License Plate	Recognition	Ø	Offline	@
D6(IP Camera 06)			License Plate	Recognition	Ø	Offline	Ø
D7(IP Camera 07)			License Plate	Recognition	©	Offline	©
D8(IP Camera 08)			License Plate	Recognition	Ø	Offline	0
D9(IP Camera 09)			License Plate	Recognition	0	Offline	(2)
D10(IP Camera 10)			License Plate	Recognition	0	Offline	0
D11(IP Camera 11)			License Plate	Recognition	Ø	Offline	Ø
D12(IP Camera 12)			License Plate	Recognition	Ø	Offline	Ø
Refresh		Exit					

- 2. The local ID and local port use the default settings by default.
- 3. Choose a camera, click in under **Configure**, and then configure the parameters.

	Configure	VIID Channel				
Camera ID	D1(IP	Camera 01)				
Channel ID	34020	3402000001212128001				
Device Type	Licens	License Plate Recognition \sim				
Арр	ly	Exit				

Parameter	Description
Camera ID	Used for connecting the IP device.
	Camera IDs consist of VIID-conformant codes and are differentiated by device type and usage. Camera IDs are assigned by the upper platform.
Device Type	Divided into two types by usage:
	 License plate recognition: Usually installed on road checkpoints to capture license plates of passing vehicles.
	Collection device: Used to capture faces or plates.

4. Choose a camera, click on under **Advanced**, and then configure the parameters.

	Advanced	
Longitude		
Latitude		
Administrative Div		
Location		
Checkpoint Put in	2106-02-07 14:28:15	~
Checkpoint Type	Other	~
Checkpoint Usage	Other	~
Checkpoint Lanes		
Authority Code		

Parameter	Description
Longitude	Longitude of the region where the IP device is located (-180,180).
Latitude	Latitude of the region where the IP device is located (-90,90).
Administrative Division Code	Administrative division code of the region where the IP device is installed.
Location	Location of the IP device. Max 256 characters, allows uppercase and lowercase letters, digits, underscores, and hyphens.
Checkpoint Put into Use	Time when the camera was put into use.
Checkpoint Type	Choose the actual checkpoint type of the IP device.
Checkpoint Usage	Choose the usage of the IP device.
Checkpoint Lanes	Number of lanes monitored by the IP device.
Authority Code	Organization code of the IP device.

5. Click Apply.

8.3.2.4 Configure VIID Server

Configure the VIID server so the NVR can upload face and plate information to the upper VIID platform.

1. Go to Menu > System > Network > Platform > Video&Image Database Server.

2. Enable video&image database server.

💿 Enable Video&Image D	atabase	Server		
Server Address				
Server Port	55001			
Username	admin			
Password				*
Upload Feature Value	-			
Upload Original Image	•			
Upload Face Image	-			

3. Configure server parameters.

Parameter	Description
Server Address	VIID platform's IP address.
Server Port	VIID platform's port number.
Username	Username of the VIID platform.
Password	Password of the VIID platform.
Upload Feature Value	When enabled, the NVR will upload feature information of the captured faces or plates to the upper platform.
Upload Original Image	When enabled, the NVR will upload original images of the captured faces or plates to the upper platform. This feature is enabled by default.
Upload Face Image	When enabled, the NVR will upload small face images to the upper platform.

4. Click Apply.

8.3.3 Advanced Configuration

Configure PPPoE, ports, port mapping, multicast, and FTP.

8.3.3.1 PPPoE

Use Point to Point Protocol over Ethernet (PPPoE) to connect the NVR to network.

1. Go to Menu > System > Network > Advanced > PPPoE.

l	💿 Enable	PPPoE	
	Username		
	Password		
	IP Info		
	Address		
	Subnet Masi	k	
	Gateway		
	Apply	Exit	
_	- 111-2		

- 2. Enable PPPoE.
- 3. Enter the username and password provided by the Internet Service Provider (ISP). IP information is displayed when dial-up succeeds.

Note: For a multi-NIC device, dial-up shall be performed on the NIC that is configured as the default route.

4. Click Apply.

8.3.3.2 Port

Configure HTTP, HTTPS, RTSP, WebSocket, WebSocket Media Stream, HTTP redirect port, and RTSP redirect port.

1. Go to Menu > System > Network > Advanced > Port.

Port Port Mapping Mu	
HTTP Port	80
HTTPS Port	443
RTSP Port	554
	rtsp:// <ip>:<port>/unicast/c<channel number="">/s<stream type="">/live</stream></channel></port></ip>
RTSP URL Format	<channel number="">:1-n</channel>
	<stream type="">:0(main stream) or 1(sub stream)</stream>
WebSocket Port	7766
WebSocket Media Strea	50554
HTTP Redirect Port	8081
RTSP Redirect Port	8082
Note: HTTP Redirect Port	and RTSP Redirect Port are used to access an IP camera in a WAN.
Apply Exit	

2. Configure the ports.

Note:

- The port range is 1-65535, among which, ports 21, 23, 2000, 3702 and 60000 are reserved for other purposes. Duplicate ports are not allowed.
- The upper platform can access the live video of a camera using the displayed RTSP URL.
- 3. Click Apply.

8.3.3.3 Port Mapping

Configure port mapping so client computers can access the NVR on the LAN across the Internet.

- 1. Go to Menu > System > Network > Advanced > Port Mapping.
- 2. Port mapping is enabled by default. You can choose a mapping mode, UPnP or manual port mapping.

UPnP

UPnP is short for Universal Plug and Play. UPnP-enabled network address translation (NAT) can perform automatic port mapping to enable client computers to access the NVR on the LAN from the Internet.

Note: This function requires router support. You need to enable UPnP on the router before starting configuration on the NVR.

1. Choose the **UPnP** mapping mode.

	Port Port Mapping Mult								
	Enable Port Mapping								
		UPnP OManual							
		Auto							
				HTTP Redirect					
	RTSP Port			RTSP Redirect	Port				
	HTTPS Port								
	WebSocket Port								
	WebSocket Media Strea								
	Note: HTTP Redirect Port an	nd RTSP Redirect Port are use	n IP camera in a	WAN.					
	Port Type	External IP Address	External Port		Internal Port		UPnP Status		
	HTTP Port	N/A	80	80			Inactive		
	RTSP Port	N/A	554		554		Inactive		
	HTTPS Port	N/A	443		443		Inactive		
	WebSocket Port	N/A	7766		7766		Inactive		
	WebSocket Media Stream	N/A	50554		50554		Inactive		
	HTTP Redirect Port	N/A	8081		8081		Inactive		
	RTSP Redirect Port	N/A	8082		8082		Inactive		
F	Refresh Apply	Exit							

- 2. Choose a mode from the UPnP Mapping list:
 - Auto: The NVR automatically assigns external port numbers, which are usually the same as the internal port numbers.
 - Specify ports: User specifies ports within the range of [1-65535].

Note:

- Auto is recommended. Port conflict may occur when external ports are specified manually.
- For a multi-NIC NVR, port mapping shall be performed on the NIC that is configured as the default route.
- 3. Click Refresh, and check whether Active is displayed in the UPnP Status column.
- 4. Click Apply.

Manual

If the router does not support UPnP, you have to configure internal and external ports manually.



- Make sure the ports configured on the NVR are consistent with that configured on the router.
- For some routers, the NVR's external and internal ports must be the same, and they also must be the same as the ports on the router.

1. Choose the Manual mapping mode.

PPPoE Port Port Mapping Mi				
Enable Port Mapping				
Mapping Mode	, O UPnP 💿 Manual			
HTTP Port		HTTP Redirect Port	8081	
	80			
RTSP Port	554	RTSP Redirect Port	8082	
HTTPS Port	443			
WebSocket Port	7766			
WebSocket Media Strea	50554			
Note: HTTP Redirect Port	and RTSP Redirect Port are used to access	an IP camera in a WAN.		
Refresh Apply	y Exit			

- 2. Set the external ports manually.
- 3. Click Apply.

Note: After port mapping is configured, you can open the Web interface using the following address: *Router's WAN IP:external HTTP port*. For example, the router's external IP address is 10.2.2.10, and the external HTTP port is 82, then enter http://10.2.2.10:82 in the Web browser's address bar.

8.3.3.4 Multicast

When the number of users accessing the Web client has reached the upper limit and live video is unavailable, you can use multicast to solve this issue.

1. Go to Menu > System > Network > Advanced > Multicast.

🛑 Enable I	Multicast	 	
Multicast IP		0.	
Port			
	Exit		

- 2. Enable multicast, enter the multicast IP address and port number.
- 3. Click Apply.
- 4. Log in to the Web interface, go to **Setup** > **Client**, set **Live View Protocol** to **Multicast**. Now live view is available through multicast.

Display Ratio	ull
Video Mode	luency Priority
Video File Size	GB V
Save File To	Browse Open Fold
	CP
	Aulticast)On ●Off

Note:

- IP multicast addresses are class-D addresses. 224.0.1.0 238.255.255 can be used on the Internet.
- In the range of 224.0.0.0 239.255.255.255, some are reserved for special uses, for example, 224.0.0.0 244.0.0.255 can only be used on the LAN, where packets with these addresses will not be forwarded by a router; 224.0.0.1 is used by all the hosts on the subnet; 224.0.0.2 is used by all the routers on the subnet; 224.0.0.5 is used by OSPF routers; 224.0.0.13 is used by PIMv2 routers; and 239.0.0.0 239.255.255.255 are private addresses (e.g., 192.168.x.x).

8.3.3.5 FTP

Configure FTP so the NVR can upload images to the FTP server.

😴 Note:

- This feature is only available to certain NVRs.
- To use this feature, you need to deploy an FTP server first.
- After the FTP server is enabled and connected, the NVR can automatically upload images to the FTP server.

1. Go to Menu > System > Network > Advanced > FTP.

-		
Enable FTP		
Server		
IP Address		
Port	21	
💿 Anonymous		
Username		
Password		b a6
Remote Directory		
Upload Interval(s)	30	
Range(s)	5~600	Test
Schedule		
Camera	D1	
Upload Schedule		
Сору		
Apply Exit		
Apply Exit		

- 2. Enable FTP.
- 3. Configure server parameters. Click **Test** to test the connection between the NVR and the FTP server.

Parameter	Description				
IP Address	FTP server address.				
Port	The default is 21. You can set a different port as needed.				
Anonymous	When enabled, the NVR will connect to the FTP server as anonymous user without username/password required.				
Username	Username used to access the FTP server.				
Password	Password used to access the FTP server.				
Remote Directory	Input the remote directory in the correct format (abc/efg/xyz), and the system will create folders level by level accordingly under the root directory, and then create different folders based on IP, time, and channel.				
	Sote:				
	 For example, if the remote directory is abc, then the created folder is FTP > abc > 206.2.5.8 > 2022-10-08 > D5. If the remote directory is abc/efg/ xyz, then the created folder is FTP > abc efg > xyz > 206.2.5.8 > 2022-10-08 > D5. 				
	 If the remote directory is empty, the system will create folders under the root directory based on IP, time, and channel, for example, FTP > 206.2.5.8 > 2022-10-08 > D5. 				
Upload Interval(s)	The NVR uploads images captured within the set periods to the FTP server at the set interval. The default is 30s. You can alter the setting as needed.				
Range(s)	Show the range of image upload interval: [5-600]s				

- 4. Set an upload schedule.
 - (1) Choose a camera from the list.
 - (2) Click pehind **Upload Schedule**, configure time periods during which the camera will upload images of the desired type(s). Click **OK**.

		Uploa	d Schedule				
Select day	Mon ~		Normal	Event	Motion	Alarm	Video Loss
Period 1	00 00 00 24	≎ 00 ≎			D	O	0
Period 2	00 \$ 00 \$ 00	≎ 00 ≎					
Сору То	🗋 Ali 🛛 🖓 Mo	n 🗌 Tue	Wed	D Thu O	🗆 Fri K	Sat	□ Sun ancel

😴 Note:

- Two image upload periods are allowed each day, and the periods must not overlap.
- To apply the schedule to other days, select **All** or days and then click **OK**.
- 5. (Optional) To apply the current upload schedule to other cameras, click is behind **Copy**, select cameras, and then click **OK**.

				Сору					
All	D1 D8 D15 D22 D29 D36 D43 D51	D2 D9 D16 D23 D30 D37 D45 D52	D3 D10 D17 D24 D31 D38 D46 D53	D4 D11 D18 D25 D32 D39 D47 D54	D5 D12 D19 D26 D33 D40 D48 D55	D6 D13 D20 D34 D34 D41 D49 D56 D56	D7 D14 D21 D28 D35 D42 D50 D57		
						ОК		Cancel	

6. Click Apply.

8.3.4 Wireless Local Area Network

Plug in a USB wireless network interface card and connect the NVR to the hotspot of a wireless router.

1. Go to Menu > System > Network > WLAN.

SSID	www		i de la companya de la companya de la companya de la companya de la companya de la companya de la companya de l
IP Address			
Subnet Mask			
Default Gateway			
Signal Strength	<u></u>		
Connection Status	Not Connected		
	SSID	Details	
Signal Strength	IPCWIFIE		
* ((r	IPCWiFi92		
(ie	CMW		
(in-	IPCWiFi5008P01D1512B5008P01		
(îr.	TPGuest_7D2F		
((te	IPCWiFi5008P01D1512B5008P01D151		
(i	IPCWiFi5008P01D1512B5008P01D151		
(iņ	midea_ca_0669		
(îr	IPCWiFi5008P01D1512B5008P01D151		
((i-			
(i-	jn1905028_06927		
Refresh	Exit		

- 2. Click **Refresh** to refresh the wireless hotspot list.
- 3. Choose the desired hotspot and then click \swarrow to connect it.

8.3.5 Wi-Fi AP

Only Wi-Fi Kit NVR models support this function.

8.3.5.1 Wi-Fi AP

The IPC and NVR have been paired before leaving factory, and the IPC will be automatically added to the NVR after power-on. However, if the user manually changed one of the parameters and caused any inconsistent parameter between the two, the IPC cannot be added automatically, and pairing is needed.

There are four methods to pair.

One-click pair (if you have a network cable)

- 1. Connect the camera to the switch via a network cable, and connect the switch to the NVR.
- 2. Power on the camera.
- 3. On the NVR's local interface, choose Menu > System > Network > Wi-Fi AP > Wi-Fi AP.

Wi-Fi AP												
	SSID Passwo Region Channe	ord el ess NIC IP P		NVRF0C814581 34567890 MKK Other 172 . 16 172 . 16		1 100	v uto					
	No.	Camera ID	Status	IP		Model			MAC	Address	Signal Strength	
		D1	Added	172.16.0.1			Alamine of			2:23:75:86:65	\$	
1	Note: Fo	ollow local la	ws and r	egulations gove	rning Wi-Fi	usage to	choose regi	on.				
Re	efresh	QR	Code Pa	air One (Click Pair				Exit			

4. Click One-Click Pair, and wait for successful pair within five minutes after the camera is powered on.

Scan code using the camera:

- 1. On the NVR's local interface, choose Menu > Network > Wi-Fi AP > Wi-Fi AP.
- 2. Click QR Code Pair and use the camera to read the QR Code to pair.



Pair manually (if you have a network cable)

Log in to the IPC's web interface. On the Wi-Fi configuration page, fill in the NVR's SSID and password.

SSID	IVAL RESIGNEEDCS		
Password	•••••	••••	
Encryption	None	•	
Authentication	WPA-PSK WPA2-PSK	-	
Obtain IP Address	DHCP	-	

8.3.5.2 Wi-Fi Cascade

1. Click Menu > System > Network > Wi-Fi AP > Wi-Fi Cascade.

Wi-Fi AP Wi-Fi Cascade				
		Camera D1(IP Camera 01)	RSSI 62	
		D2(IP Camera 02)		
	Г <mark>СНТ</mark>	D3(IP Camera 03)		
	CH2	D4(IP Camera 04)		
NVR	CH3 CH4			
Wi-Fi Online	Wi-Fi Unconfigurable Offline			
Help	Refresh Apply Exit			

- 2. When long-distance transmission or IPC needs to transmit across the wall, the IPC can be dragged, connected to another IPC, and then connected to the NVR by cascading.
- 3. (Optional) Click Help to view the detailed instruction.

Instr	uction	×
CH1232 1 1 4 5 CH3 1 CH3 1 CH3 1	Drag channel to marked position to change cascade mode: Position 1: to add at tail; Position 2: to insert; Position 3: to exchange with another channel; Position 4: to juxtapose with another channel; Position 5: to connect to NVR;	

4. Click **Apply** to save the configuration.

8.4 User Configuration

Users are entities that manage and operate the system. A user type is a set of operation permissions. After a user type is assigned to a user, the user has all the permissions defined in the type.

The system supports fou	r user types:
-------------------------	---------------

User Type	Description
admin	The default super administrator, which has the maximum permissions. The initial password is 123456 .
	Note: Only admin can add or delete users and edit other users' permissions.

User Type	Description
default	The default reserved user, which cannot be added or deleted, only has live view and two-way audio permissions by default, and can be configured by admin only.
	Note: If the default user is forbidden to use live view and two-way audio on a camera, the camera will be locked when no user is logged in, and ■ is displayed in the corresponding window. By default, the default user can only view live video on the local interface without logging in.
Operator	By default, an operator has basic permissions and camera permissions.
Guest	By default, a guest only has camera permissions.

Go to Menu > System > User.

Username	User Type	Edit	Delete	
admin	Administrator	Ø		
default	Local Preview User			
Note: By default, the default user can	only view live video on the local interface w	vithout logging in.		

Add User

1. Click Add.

		Modify	/Add User	
Username				
User Type		Operato	r	~
Password			W	eak
Confirm				
Pattern		Enab	le Unlock Pattern	(J10)
platform.	to managing pl	atform, y	ou also need to edit the password on the	
Basic Permissions				
🗹 Configure	🗹 Upgrade		🗹 View and Export L 🔽 Restart	
Smart Permissions				
🗹 Preview				
Camera Permissions				
Select Permission			Select Camera	
Live View			☑ D1	
Control PTZ			✓ D2	
Playback			✓ D3	
Manual Recording on	NVR		✓ D4	
			Amely	:.
			Apply Ex	π

2. Configure the parameters. Enter the username, password, choose a user type, enable/disable unlock pattern, and choose permissions.

Item	Description
Username	Set a username as you need. Cannot be empty or include Chinese characters.
Password/Confirm	Set a strong password.
Pattern	To enable the unlock pattern, select the checkbox. Click 🥕 , and then follow on-screen instructions to set a pattern.
Basic Permissions/Smart Permissions	Select the permissions you want to assign to the user.

3. Click **OK**.

Delete User

- 1. On the **User** page, select the user you want to delete.
- 2. Click f. A confirmation message appears.
- 3. Click Yes.

Edit User

- 1. On the User page, select the user you want to edit.
- 2. Click Z, enter the password.

	Change Password	
Username	admin	
Change Password		
Password		፠
Confirm		፠
Sync to Camera	Change Online Private Protocol Camera Pass	
Pattern	🗹 Enable Unlock Pattern	()®
Phone		
	tform, you also need to edit the password on the	
platform.		

- 3. Edit the user type, password, or permissions.
- 4. Click **OK**.

8.5 Security Configuration

Security configuration includes IP address filtering, Onvif authentication, 802.1x, ARP protection, watermark, and secure password.

8.5.1 IP Address Filtering

IP address filtering can ensure only certain source IP addresses can be used to access the NVR's web interface.

1. Go to Menu > System > Security > IP Address Filtering.

•	෩ Enable If	P Address Filte	ering				
	End IP						
		Start IP		End IP	Edit	Delete	
		Exit					

- 2. Enable IP address filtering.
- 3. Configure the parameters.

Parameter	Description
Control Type	Blocklist: Access is forbidden if the IP is on the blocklist.

Parameter	Description
	Allowlist: Access is allowed only when the IP is on the allowlist. If Allowlist is selected but is empty, remote access will be forbidden.
Start IP/End IP	Enter the start and end IP addresses. If you want to add only one IP address, enter it in the Start IP field.

4. Click Add.

8.5.2 ONVIF Authentication

When Onvif authentication is enabled, a username and password will be required to access the NVR via Onvif.

This feature is enabled by default. Go to Menu > System > Security > ONVIF Auth.

🔵 Enable Authenticat	ion	
Note: If enabled, a usern	ame and password will be require	ed for access by ONVIF.

8.5.3 802.1x

802.1X can prevent unauthenticated devices from accessing the local area network.

🗾 Note:

- Only some NVRs support this function.
- You need to configure and enable this function on the network switch first.
- For multi-NIC devices, this feature will be disabled automatically if you change the NIC's working mode.
- 1. Go to Menu > System > Security > 802.1x.

Select NIC	NIC1	~
Configure 802.1x		
Protocol	EAP-MD5	
EAPOL Version	1	~
Username	admin	
Password	*****	₩

- 2. Choose the NIC. Skip this step if the device has only one NIC.
- 3. Enable Configure 802.1x.
- 4. Configure the parameters.

Parameter	Description
Protocol	Default: EAP-MD5.
EAPOL Version	Choose 1 or 2 . It must be the same version configured on the network switch.
Username/Password	Must be the username and password configured on the network switch.

5. Click Apply.

8.5.4 ARP Protection

The Address Resolution Protocol (ARP) dynamically maps an IP address to a MAC address. In a local area network, ARP is necessary for devices to communicate with each other through MAC addresses. ARP attacks exploit ARP vulnerabilities to forge IP addresses and MAC addresses. ARP protection can bind the gateway's IP address and an MAC address to prevent ARP spoofing.



Note: For multi-NIC devices, this feature will be disabled automatically if you change the NIC's working mode. For information about changing the working mode, see Network Configuration.

1. Go to Menu > System > Security > ARP Protection.

Select NIC	NIC1						~
Enable ARP Protection							
Gateway	172 .	20		212			
Gateway MAC Address	Custom		~	00:00	0:00:	00:00:00)

- 2. Choose the NIC. Skip this step if the device only has one NIC.
- 3. Enable ARP protection.
- 4. Configure the parameters.

Parameter	Description
Gateway	Gateway you have configured in Menu > Network > Basic > Network .
Gateway MAC Address	Custom: Enter the gateway's physical address in the network switch.
	Auto: Automatically obtains the gateway's physical address in the network switch.

5. Click Apply.

8.5.5 Watermark

Use the watermark function to encrypt custom information into video contents to prevent video tampering.

1. Go to Menu > System > Security > Watermark.

Select Channel	D3(IP Camera 03)	
on Enable Watermark		
Watermark Content		
Note: When enabled, wate video on the player that co		w or playback. To view watermark content, please download and play the

- 2. Choose the channel, and enable watermark.
- 3. Enter the watermark contents.
- 4. Click Apply.

8.5.6 Secure Password

Secure password specifies application ranges of strong and weak passwords in different password modes. Secure password is divided into two password modes: friendly password and enhanced password.

Note: Only admin can change the setting.

1. Go to Menu > System > Security > Secure Password.

```
Secure Password I Friendly Password C Enhanced Password
Friendly Password: You must log in with a strong password except in the same network segment or three private network segments (10.0.0/8, 172.16.0.0/12, 192.168.0.0/24).
Enhanced Password: You must log in with a strong password.
```

- 2. Choose whether to enable the Enhanced Password mode. The default is Friendly Password.
 - Friendly Password: In this mode, a strong password is required except when the PC client is in the same network segment as the NVR or in one of the three private network segments (10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/24).
 - Enhanced Password:

In this mode, the system prompts user to set a strong password if the current password is weak. Also, only strong passwords can be set for new users: At least 9 characters long, and include all three types: letters, digits, and special characters.

3. Click Apply.

8.6 Advanced

Configure other items, including serial port, hot spare, and unit.

8.6.1 Serial Port

Configure serial port parameters to connect a keyboard. The serial port settings configured on the NVR must match the serial port settings on the keyboard.

1. Go to Menu > System > Advanced > Serial.

Serial No.	1	~
Туре	RS485	
Baud Rate	9600	~
Data Bit	8	~
Stop Bit	1	~
Check Bit	None	~
Port Usage	Keyboard	~

2. Configure the parameters.

Parameter	Description
Serial No.	Choose the serial port ID. The number of serial ports available may vary with device.
Туре	Currently only RS485 is available.
Baud Rate	Data transmission speed (unit: bits per second). The greater the value, the faster the transmission speed, and the shorter the transmission distance. Usually the default value is used.
Data Bit	The actual number of data bits in a data packet. Usually the default value is used.
Stop Bit	Indicates the end of a unit of transmission. Usually the default value is used.
Check Bit	Used to check whether the received data bits are erroneous. Choose Odd, Even, or None (default) as needed.
Port Usage	Keyboard.

3. Click Apply.

8.6.2 Hot Spare

When one of multiple working NVRs failed, the hot spare takes over to replace the faulty one. When the faulty NVR recovered, it takes over the hot spare, and the hot spare transfers data stored during the downtime back to the recovered NVR to ensure reliable and uninterrupted data storage.

Go to Menu > System > Advanced > Hot Spare.

Normal Mode

On the NVR to be used as a working device, perform the steps to add a hot spare:

1. Click Custom Add.

- 2. Add a hot spare. You can enter the IP of the hot spare manually or search the network segment. The steps are similar to the steps described in Add IPC.
- 3. Click **Exit** to return to the **Hot Spare** page to complete the setup.

Hot Spare Mode

On the NVR to be used as the hot spare, perform the steps:

- 1. Go to Menu > System > Advanced > Hot Spare.
- 2. Select the Hot Spare mode.

Working Mode	○ Normal	Hot Spare
Working Device List		
IP Address	Connection Stat	us Working Status

😴 Note:

- Switching the working mode will restart the device. After the device is restarted, some of its parameters will change.
- After a working device is switched to a hot spare, some of its functions are unavailable, and some of its parameters are restored to the default settings.
- If multiple NVRs fail simultaneously, only one can be replaced by the hot spare; the rest wait for backup.

8.6.3 Unit

Configure the temperature unit.

1. Go to Menu > System > Advanced > Unit.

Temperature	☑ Celsius(℃)	☐ Fahrenheit(°F)

2. Choose a temperature unit, including Celsius(°C) and Fahrenheit(°F).

3. Click Apply.

9 Storage

Configure disk storage parameters.

You can configure the storage mode under Camera > Audio & Video > Encoding.

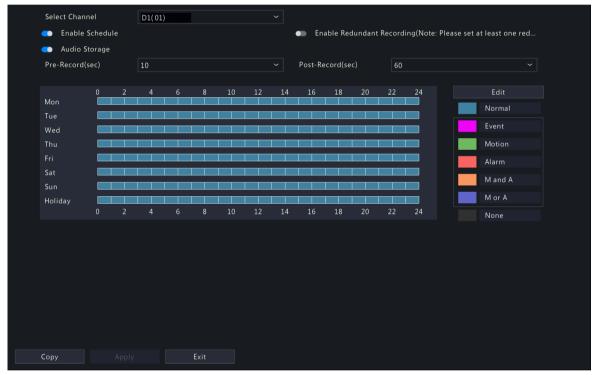
Note: The device uses hard disks to store data, and the hard disks need to be formatted; otherwise, data storage function will be unavailable or affected. A message will alert you if there is no hard disk or any hard disk unformatted.

9.1 Recording Schedule

Make a recording schedule.

A 24/7 normal recording schedule is enabled by default. You can modify the schedule by drawing or editing as needed.

Go to **Menu** > **Storage** > **Recording Schedule**. Select the camera for which you want to make a recording schedule.



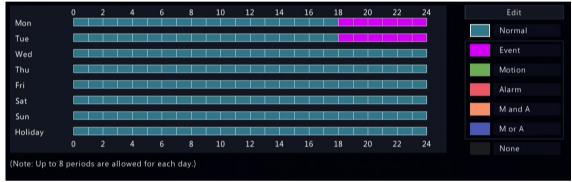
Draw a Schedule

1. Select a recording type.

											Normal
											Event
											Motion
											Alarm
											M and A
											M or A
4	6	8	10	12	14	16	18	20	22	24	None
	4	4 6							4 6 8 10 12 14 16 18 20		

Recording Type	Description
Normal	Records video during specified time periods.
Event	Records video in the event of an event-triggered alarm.
Motion	Records video in the event of motion.
Alarm	Records video in the event of alarm input. Configure Alarm Input first before making an alarm schedule.
M and A	Records video when motion and alarm input occur simultaneously.
M or A	Records video when motion or alarm input occurs.
None	No recording schedule.

2. Drag on the time schedule to specify time periods for the recording type. The figure below shows a recording schedule with event recording from 18:00 to 24:00 on Monday and Tuesday, and normal recording during the rest of the time.



3. Click Apply.

Edit a Schedule

1. Click Edit.

								E	dit				
	S	elect	Day					Monday					~
AII D	Day							Туре			lormal		
00	< >	00	$\langle \rangle$	18	$\langle \rangle$	00	$\langle \rangle$	Туре		٢	lormal		~
18	$\langle \rangle$	00	$\hat{}$	24	$\langle \rangle$	00	$\hat{}$	Туре		E	vent		~
00	< >	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		٢	lormal		~
00	< >	00	$\hat{}$	00	$\langle \rangle$	00	$\hat{}$	Туре		٢	lormal		~
00	<	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		٢	lormal		~
00	< >	00	$\hat{}$	00	$\langle \rangle$	00	$\hat{}$	Туре		٢	lormal		~
00	< >	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		٢	lormal		~
00	< >	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		٢	lormal		~
Сору	То		ΔA	11		lon	Пι	ue 🗌 Wed	🗌 Thu	🗆 Fr	ri 🗌 Sat	🗆 Sun	Holiday
										0	К	Ca	ancel

2. Select a day.

Monday	~
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Holiday	

Note: Before you select **Holiday**, go to **System** > **Time** > **Holiday** and complete the holiday settings.

3. Clear the **All Day** check box. As a 24/7 normal recording schedule is enabled by default, you cannot modify the schedule unless **All Day** is unchecked.

	S	elect	Day					Monday			~
All D	ay							Туре		Normal	
00	$\langle \rangle$	00	$\langle \rangle$	18	$\langle \rangle$	00	$\langle \rangle$	Туре		Normal	
18	$\hat{}$	00	$\hat{}$	24	$\hat{}$	00	¢	Туре		Event	
00	$\hat{}$	00	¢	00	$\hat{}$	00	¢	Туре		Normal	
00	$\langle \rangle$	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		Normal	
00	$\langle \rangle$	00	$\hat{}$	00	$\langle \rangle$	00	$\hat{}$	Туре		Normal	
00	$\langle \rangle$	00	$\hat{}$	00	$\hat{}$	00	$\hat{}$	Туре		Normal	
00	$\langle \rangle$	00	$\hat{}$	00	$\hat{}$	00	¢	Туре		Normal	
00	$\langle \rangle$	00	$\hat{}$	00	\Rightarrow	00	¢	Type		Normal	
ору Т	Го		A	11		lon	Пτ	ue 🗌 Wed	Thu	Fri 🗌 Sat 🗌 Su	un 🗌 Holiday
										ОК	Cancel

- 5. To apply the same settings to other days, select the desired day(s) after **Copy To**.
- 6. Click **OK**.

	0	2	4	6	8	10	12	14	16	18	20	22	24	Edit
Mon														Normal
Tue														Norman
Wed														Event
Thu														Motion
Fri														Alarm
Sat														
Sun														M and A
Holiday														M or A
	0	2	4	6	8	10	12	14	16	18	20	22	24	None

7. Click Apply.

Other Settings

Item	Description
Pre-Record	The duration of video to be recorded before an alarm. The default value is 10s.
Post-Record	The duration of video to be recorded after an alarm. The default value is 60s.
Enable Redundant Recording	Recording backup, stores recorded videos to redundant disks synchronously to prevent video loss in case of read/write disk failure. You need to configure at least one redundant disk before enabling redundant recording. See Disk Management for details.
Audio Storage	Set whether to record audio. Audio is not recorded by default.

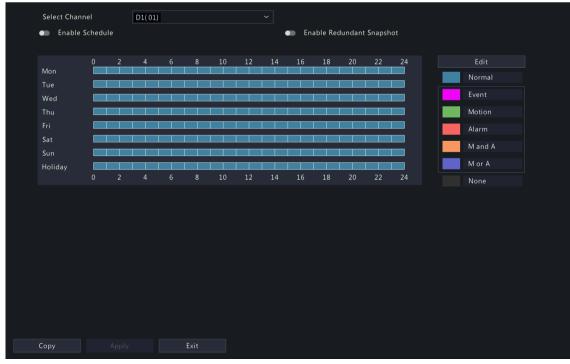
9.2 Snapshot Schedule

Configure snapshot schedule and snapshot type.

9.2.1 Configure Snapshot Schedule

Make a snapshot schedule.

1. Go to Menu > Storage > Snapshot Schedule > Configure Snapshot Schedule.



- 2. Select the camera for which you want to make a snapshot schedule.
- 3. Enable schedule.

4. Set the snapshot schedule. See Draw a Schedule and Edit a Schedule.

Snapshot Type	Description
Normal	Captures images during specified time periods.
Event	Captures images in the event of an event-triggered alarm.
Motion	Captures images in the event of motion.
Alarm	Captures images in the event of alarm input. Configure Alarm Input first before making an alarm schedule.
M and A	Captures images when motion and alarm input occur simultaneously.
M or A	Captures images when motion or alarm input occurs.
None	No snapshot schedule.

5. Click Apply.

Other Settings

Item	Description
Enable Redundant Snapshot	Snapshot backup, stores snapshots to redundant disks synchronously to prevent snapshot loss in case of read/write disk failure. You need to configure at least one redundant disk before enabling redundant snapshot. See Disk Management for details.
	Note: A redundant disk can be used for both recording backup and snapshot backup.

9.2.2 Snapshot Type

Configure snapshot parameters.

1. Go to Menu > Storage > Snapshot Schedule > Snapshot Type.

Snapshot Type					
Select Cam	era		D1(IP Camera 01)		
Snapshot T	уре				
Resolution			704*576(4CIF)	704*576(4CIF)	
Image Qual	ity		Medium	High	
Snapshot Ir	nterval		5s		
Сору		Exit			
copy	, appro	ent			

2. Select the camera and set the parameters as needed.

Item	Description
Snapshot Type	Supports scheduled snapshot and event-triggered snapshot. You need set image quality and snapshot interval for them respectively.

Item	Description
	Schedule: A snapshot is taken according to the set schedule.
	• Event: A snapshot is triggered by an event such as alarm input and motion detection alarm. Manual snapshots are event-triggered snapshots.
Resolution	The number of pixels in a frame. Only certain NVRs support setting resolution.
Image Quality	Set the snapshot quality. High, medium, or low are available.
Snapshot Interval	Select the time interval between two snapshots from the drop-down list.

- 3. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired camera(s).
- 4. Click Apply.

9.3 Array

Configure RAID (Redundant Arrays of Independent Disks) to improve disk read/write efficiency and data security.

Note:

- RAID is only available on certain models, and the RAID types supported may vary with NVR model.
- Cannot create a RAID with local disks and disks in an expansion enclosure at the time.
- NAS and eSATA disks cannot be used to create arrays.

Currently 7 RAID types are supported: RAID 0, RAID 1, RAID 5, RAID 6, RAID 10, RAID 50 and RAID 60. The number of disks available to create different RAID arrays varies depending on the number of disks equipped with the device. See the table below for details.

RAID Type	Number of Disks
RAID 0	2 to 8
RAID 1	2
RAID 5	3 to 8
RAID 6	4 to 8
RAID 10	4 to 16 (must be an integer multiple of 2)
RAID 50	6 to 16
RAID 60	8 to 16

Note: The number of disks listed in the table below does not include global hot spare disks.

Before array configuration, enable RAID as follows:

1. Go to Menu > Storage > Array.

2. Select the **Open RAID** check box and click **Yes** in the pop-up dialog box.

Automatically Create an Array

Quickly create an array with one click.

1. Go to Menu > Storage > Array > Physical Disk.

Physical Disl						
🗆 Disk No.	Capacity(GB)	Home Device	Туре	Array	Status:	Hot Spare
□ 1	9293.75	Local Disk	Common Disk		Normal	Ø
2	9293.75	Local Disk	Common Disk		Normal	Ø
3	9293.75	Local Disk	Common Disk		Normal	Ø
4	9293.75	Local Disk	Common Disk		Normal	Ø
5	3705.77	Local Disk	Common Disk		Normal	
6	3705.77	Local Disk	Common Disk		Normal	Ø
7	3705.77	Local Disk	Common Disk		Normal	Ø
8	3705.77	Local Disk	Common Disk		Normal	Ø
9	9293.75	Local Disk	Common Disk		Normal	Ø
				One-Cli	ck Create	Create

2. Click **One-Click Create**, then the system automatically completes array creation based on the number of available disks.

Number of Disks Available	RAID Type
2	RAID 1
≥3	RAID 5 If there are 4 or more disks available, a global hot spare disk will be created automatically.
	Note: A global hot spare disk can automatically replace a failed disk in any RAID array to ensure stable array operation.

3. A message appears to prompt you the creation result. Click **OK** to complete the creation. Check the created array under the **Array** tab.

🗹 Open	Open RAID								
	ıl Disk <mark>Arra</mark>	у							
No.	Name	Total(GB)	Status	Туре	Disks	Hot Spare Disk	Rebuild	Delete	Task
1	ARRAY1	25937.79	Normal	RAID 5	1,2,3,4,5,6,8,9			Ш.	None
	ARRAY2	22232.39	Normal	RAID 5	10,11,12,13,14,15			<u>آ</u>	None
	ARRAY3	59525.50	Normal	RAID 5	1-1,1-3,1-4,1-6,1	1-2		Ē	None
4	ARRAY4	44644.13	Normal	RAID 5	1-8,1-13,1-14,1-19	5 1-2		<u>ш</u>	None
Note: S	ome recordir	ngs will be lost af	ter a quick rebuild.						

Manually Create an Array

Manually create a desired array. Take RAID 50 as an example.



- To avoid wasting disk resources, please make sure all disks are used to create arrays. Disks that are not used to create arrays are unusable.
- No global hot spare disk will be created automatically if you create arrays manually. To ensure successful automatic array rebuilding and stable system operation, it is recommended to set a global hot spare disk.
- The capacity of the global hot spare disk must not be less than that of the smallest disk in the array.
- 1. Go to Menu > Storage > Array > Physical Disk.
- 2. (Optional) Select a disk and click **[2]** to set it as a hot spare disk.

Note: If there are multiple arrays and you require highly stable arrays, you can configure multiple global hot spare disks. When multiple arrays degrade, the global hot spare disks are used to rebuild them in order of disk number. However, too many global hot spare disks may cause waste of disk resources, so please set them as required.

Physical Disl						
🗌 Disk No.	Capacity(GB)	Home Device	Туре	Array	Status:	Hot Spare
1	9293.75	Local Disk	Common Disk		Normal	
2	9293.75	Local Disk	Common Disk		Normal	Ø
3	9293.75	Local Disk	Common Disk		Normal	Ø
4	9293.75	Local Disk	Common Disk		Normal	Ø
5	3705.77	Local Disk	Common Disk		Normal	
6	3705.77	Local Disk	Common Disk		Normal	Ø
7	3705.77	Local Disk	Common Disk		Normal	Ø
8	3705.77	Local Disk	Common Disk		Normal	Ø
□ 9	9293.75	Local Disk	Hot Spare Disk		Normal	Ш.

3. Click Create.

		Creat	e Array					
	Name	ARRAY1						
	Туре	RAID 50						~
1	Initialization Type							
I	Number of Sub-array Disks	3						~
I	Note: The total number of selected d	isks mus	t be an ir	nteger mi	ultiple of	sub-arra	ay disks	
I	Local Disk	 ✓ 1 ○ 8 ○ 14 	 2 9 15 	 ☑ 3 ☑ 10 ☑ 16 	₩4 □11	✓ 5 □ 12	₩6 □13	
I	Disk Enclosure1	□ 1 □ 13	3 14	☐ 4 ☐ 15	6	7	8	
Ar	rray Capacity (Estimated):14823.09GE	}						
				Apply			Cancel	

- 4. Enter the array name and select the **RAID 50** type.
- 5. Select the number of sub-array disks.

Note: This parameter is only available to RAID 50 and RAID 60 due to different array creation principles. For example, RAID 50 is a combination of RAID 5 and RAID 0, and RAID 5 is the sub-array of it.

Туре	Number of Sub-array Disks	Number of Disks Required
RAID 50	3 to 8	An integer multiple of the number of sub- array disks. RAID 50 requires at least 6 disks.
RAID 60	4 to 8	An integer multiple of the number of sub- array disks. RAID 60 requires at least 8 disks.

6. Click **OK**. Check the created array under the **Array** tab.

Rebuild an Array

An array is in one of three states: Normal, Degraded, and Damaged. You can maintain disks in time by checking the disk status to take advantage of the disk array and ensure the security and reliability of data storage.

Note: To be alerted when an array is degraded or damaged, you can configure alarm-triggered actions under Menu > Alarm > Alert.

Array Status	Description
Normal	The array is functional.
Damaged	The number of physical disks lost exceeds the allowable limit for this type of array and the lost disks cannot be rebuilt.
Degraded	A state between Normal and Damaged.

Go to Menu	> Storage	> Array > Array.
------------	-----------	------------------

Note: For example, in a RAID 5 array with 4 disks, the array is in Degraded state when 1 disk is lost, and in Damaged state when 2 disks are lost.

Automatically Rebuild an Array

A degraded array can be automatically rebuilt in ten minutes if a global hot spare disk is available and the capacity of the global hot spare disk is not less than that of the smallest disk in the array.

Note: After rebuilding, replace the failed disk in time and set the replaced disk as a global hot spare to ensure the stable operation of the array. See Manually Rebuild an Array for details.

Manually Rebuild an Array

A degraded array can only be rebuilt manually if no global hot spare disk is available.

Note: Before you start, check if there is an available physical disk. If no, you need to replace the failed disk.

- 1. Go to Menu > Storage > Array > Array.
- 2. Select the array to be rebuilt and click Z.

	Rebuild Array				
Rebuild Mode	Normal	~			
Name	ARRAY1				
Туре	RAID 50				
Disks	1,2,3,5,6,7,8				
Local Disk	9 □ 10 □ 11 □ 12 14 □ 15 □ 16	13			
Note:Some recordings will be changed at any time during re	ost after a quick rebuild. Rebuild mo uilding	de can be			
	Apply	Cancel			

- 3. Select the rebuild mode and local disk. The **Quick** rebuild mode takes less time than the **Normal** rebuild mode, but may result in data loss. Please select with caution.
- 4. Click Apply.

Delete an Array

Deleting an array will erase all data stored on it. Please handle with caution.

- 1. Go to Menu > Storage > Array > Array.
- 2. Click 📺 for the array you want to delete. A confirmation message appears. Click **Yes** to confirm the deletion.

9.4 Disk Management

Configure disk usage and property, add external disks, and format disks.

Note:

- Before you start, make sure all disks are installed properly.
- Only admin can format disks and configure the disk property.

Go to Menu > Storage > Hard Disk.

🗌 No.	Total(GB)	Free(GB)	Status	Туре	Usage	Property	Configure	Operate
□ 1	9293.75	9164.25	Normal	Local Disk	Recording/Snapshot	Read/Write	@	
2	9293.75	9164.25	Normal	Local Disk	Recording/Snapshot	Read/Write	Ø	
3	9293.75	9292.50	Normal	Local Disk	Recording/Snapshot	Read/Write	٩	
4	9293.75	9292.50	Normal	Local Disk	Recording/Snapshot	Read/Write	@	
5	3705.77	3704.50	Normal	Local Disk	Recording/Snapshot	Read/Write	٩	
6	3705.77	3704.50	Normal	Local Disk	Recording/Snapshot	Read/Write	@	
7	3705.77	3704.50	Normal	Local Disk	Recording/Snapshot	Read/Write	@	
8	3705.77	3704.50	Normal	Local Disk	Recording/Snapshot	Read/Write	@	
1-7	14881.75	14880.50	Normal	Disk Enclosur	Recording/Snapshot	Read/Write	٩	
1-8	14881.75	14880.50	Normal	Disk Enclosur	Recording/Snapshot	Read/Write	@	
🗌 NAS-1	14828.29	14812.92	Normal	NAS	Backup pshot		٥	
🗌 eSATA-1	3726.02	3634.25	Normal	eSATA	Recording/Snapshot	Read/Write	٥	•
Current Stor	age Policy:Overwr	ite; Estimated Reco	ording Days:Calculat	ingPlease wait				

Configure the Disk Usage and Property

1. Click of for the disk to edit.

	Edit	
No.		
Туре	Local	
Usage	Recording/Snapshot ~	1
Property	Read/Write ~	
	OK Back	
	Dack	

2. Select the usage and property. You can only configure the usage of NAS and eSATA.

Usage	Description
Recording/Snapshot	Used to automatically store recordings or snapshots.

Usage	Description
Backup	Used to manually back up device related files, such as recordings/snapshots, logs, configuration information, etc.
Property	Description
Read/Write	The disk supports recording/snapshot storage, recording playback and snapshot retrieval.
Read Only	The disk only supports recording playback and snapshot retrieval, and does not support recording/snapshot storage.
Redundant	Recordings and snapshots are saved to read/write disks and redundant disks simultaneously.
	Note: To view recordings and snapshots on a redundant disk, you need to change the disk property to Read Only.

3. Click **OK**.

Add an External Disk

You can add external disks to the device, including NAS, eSATA, and disk enclosure. eSATA disks and disk enclosures are automatically added when connected to the device. The following describes how to add a NAS.

- 1. Click Add. The Add Extended Disk page appears.
- 2. Select a protocol, and configure parameters.
 - NFS: Used to add NAS servers to the LAN.

Enter the NAS server address and directory (a folder path where the NAS server store videos and images).

	Add Extended Disk	
Usage	Recording/Snapshot	~
Туре	NAS	~
Protocol	NFS	~
Server Address		
Directory		
	Add	Back

• SMB/CIFS: Used to add NAS servers to the public network for security. Enter the NAS server address, directory, username, and password.

Lusage Recording/Snapshot ~ Type NAS ~ Protocol SMB/CIFS ~ Server Address			
Type NAS ~ Protocol SMB/CIFS ~ Server Address Directory Username Password Server Address Directory Username Directory Di		Add Extended Disk	
Type NAS ~ Protocol SMB/CIFS ~ Server Address Directory Username Password Server Address Directory Username Directory Di			
Protocol SMB/CIFS Server Address Directory Username Password			~
Server Address Directory Username Password	Туре	NAS	~
Directory Username Password	Protocol	SMB/CIFS	~
Username Password	Server Address		
Password	Directory		
	Username		
Add Back	Password		
Add Back			
		Add Ba	ick

Note:

- Before use, make sure that the NAS server supports SMB/CIFS protocol and has enabled UPnP, or the ports 445 and 139 have been mapped manually on the router.
- A domain name is allowed for the server address if the NAS domain name resolution is available.

3. Click Add.

Format a Disk

Formatting a disk will erase all data stored on it. Please handle with caution.

- 1. Select the disk you want to format.
- 2. Click Format.
- 3. A confirmation message appears.
 - Local disk: Click Yes.
 - External disk: Select the files you want to format.

Other Operations

Click —/ (to unmount/mount an eSATA disk.

9.5 Disk Group

You can group disks and allocate a disk group for videos and images from a specified camera to meet the different storage duration requirements of cameras. Different arrays can be assigned to different disk groups. See Space Allocation for details.

😴 Note:

- Redundant disks cannot be assigned to any disk group.
- Disk group information will be initialized if any disk in the group is formatted.
- 1. Go to Menu > Storage > Disk Group.
- 2. Enable disk group.

	Enable Disk Group		•						
		Disk List							
		No.	Total(GB)	Free(GB)	Status	Туре	Property	Disk Group	
			0.00	0.00	No Disk	Local Disk			
			3726.02	0.00	Normal	Local Disk	Read/Write	🛛 Disk Group 1	
3.	Click	71.							
			Disk Gr	oup					
	Disk Group		Disk Gr	oup 1		~			
					Apply			Back	

- 4. Select a disk group for the disk.
- 5. Click Apply.

9.6 Space Allocation

Allocate storage space for videos and images from a specified camera.

1. Go to Menu > Storage > Allocate Space.

Select Camera	D1(01)
Used Recording Space(G	
	0
Select Group	Disk Group 1
Disk Capacity	3705 GB free of 3705 GB
Group Capacity	3705 GB free of 3705 GB
Max Recording Space(GB)	0
Max Image Space(GB)	0
Copy Apply	Exit

2. Select a camera, select a disk group for storage by the camera, and allocate storage space for videos and images from this camera on the disk group.

Space Type	Description		
Recording Space	Used to store first stream videos, smart snapshots, POS data, people flow data, and heat map images.		
	Note: First stream video:		
	 If the Storage Mode is set to Main and Sub Stream or Main and Third Stream, the first stream is the main stream. 		
	• If the Storage Mode is set to Sub and Third Stream , the first stream is the sub stream.		
Image Space	Used to store common snapshots, such as snapshots captured by schedule or manually.		

3. Click Apply.

4. (Optional) Click Copy to apply the same settings to other camera(s).

9.7 Advanced Settings

Configure the storage policy when the storage is full.

1. Go to Menu > Storage > Advanced.

When HDD Full	 Overwrite 	⊖ Stop

2. Select whether to overwrite the existing data or stop storage when the storage is full.

When HDD Full	Description			
Overwrite	The disk space is divided into allocated space and remaining space according to whether the disk is used for storage by cameras.			
	• If a camera is not allocated storage space, it will use the remaining disk space, and its oldest data will be overwritten when the remaining space is used up.			
	Note: As the remaining disk space is variable and older recordings may be overwritten due to insufficient storage space, please allocate storage space with caution. For example, on a device with 20G disk capacity and two cameras, if camera 1 is allocated 10G, camera 2 will use the remaining 10G if it is not allocated storage space. In this case, you can view the last 5 days of recordings from camera 2. However, if you add a new camera to the device, there will be less storage space available to camera 2, and fewer days of recordings can be viewed.			
	• If a camera is allocated storage space, its oldest data will be overwritten when the allocated space is used up.			
Stop	This option is only effective to cameras that have been allocated storage space. When enabled, if the allocated space of a camera is used up, new recordings/ snapshots will not be saved.			

10 Alarm Configuration

Set alarm rules and alarm-triggered actions so as to alert users when an alarm occurs.

10.1 Motion Detection

Motion detection detects motions in specified grids on the image. An alarm is reported when detection rules are triggered.

Note: The parameter may vary with NVR model.

- 1. Go to Menu > Alarm > Motion > Motion Detection.
- 2. Select the desired camera, and enable motion detection.
- 3. Select the detection mode: Motion or Ultra Motion Detection.

Motion Alarm

Motion detection detects motions in specified grids on the image. An alarm is reported when detection rules are triggered.

1. Select the detection mode as Motion.

Select Camera	D3(IP Camera 03)		
Enable	•		
Detection Mode	Motion	OUItra Motion Detection	
Trigger Actions			
Arming Schedule			
		Sensit Full Screen Clear All	
Copy Apply	Exit		

- 2. Set the detection area. The default is the full screen. You can adjust grid detection areas as needed.
 - To erase grids, click or drag on grid areas.
 - To redraw grids, click **Clear All**, and then click or drag on blank areas to draw grids.
 - To detect the full screen, click Full Screen.

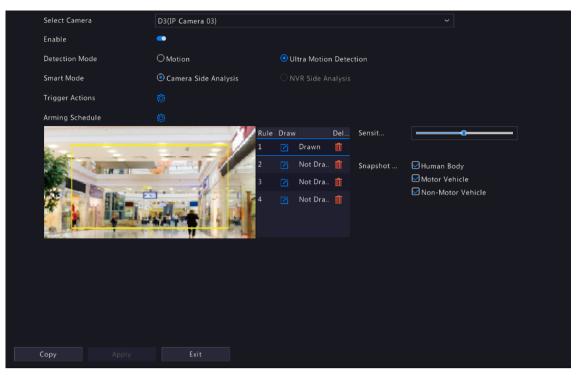
Note: When a moving object is detected, the grids where the object appears on the left-side image are filled by **1**.

- 3. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the more likely small motions will be detected, and the more likely false alarms will occur. Set based on the scene and your actual needs.
- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).
- 6. Click Apply.

Ultra Motion Detection

Ultra motion detection detects motions in specified grids on the image, and judges that the motion object is human body, motor vehicle or non-motor vehicle. An alarm is reported when detection rules are triggered.

1. Select the detection mode as **Ultra Motion Detection**.



- 2. Select the smart mode, and choose whether to implement this function on the camera side or the NVR side.
- 3. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

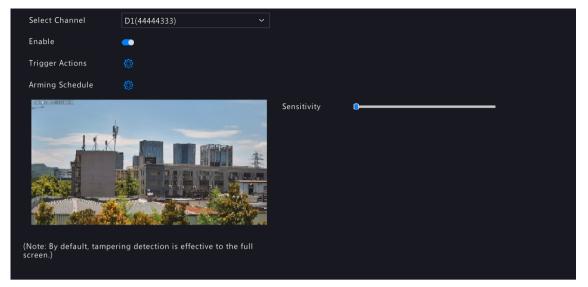
Parameter	Description
Detection Area	Select Rule 1, click and the full screen is displayed, then draw a detection area.
	Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Right- click to exit the full screen.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click .
Sensitivity	Set the sensitivity by dragging the slider.
	The higher the sensitivity, the more likely motion behaviors will be detected, but the false alarm rate will increase.
Min. Alarm Interval(s)	Set the minimum alarm intervals by dragging the slider.
Snapshot Type	Select the object(s) to be detected, including Human Body, Motor Vehicle and Non-Motor Vehicle.

- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding it to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).
- 6. Click Apply.

10.2 Tampering Detection

Tampering detection detects live video tampering. An alarm is reported when detection rules are triggered.

1. Go to Menu > Alarm > Tampering.



- 2. Select the desired channel, and enable tampering detection. The tampering detection area is the full screen by default and cannot be edited.
- 3. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the higher the detection rate, and the higher the false alarm rate. Set based on the scene and your actual needs.
- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).
- 6. Click Apply.

10.3 Human Body Detection

Human body detection detects humans in a specified area. An alarm is reported when the detection rule is triggered.

1. Go to Menu > Alarm > Human Body Detection.

Enable	Select Channel	D2(IP+Camera+10) ~			
Arming Schedule © Rule Drawn Delete 1 C Drawn Rule 1 Image: Compare the second se	Enable	•			
Rule Draw Delete 1 I Drawn Rule 1 I	Trigger Actions	Ø			
1 ☑ Drawn III Rule 1	Arming Schedule	©			
Rule 1			Rule	Draw	Delete
				Drawn	
			Rule Sensitivity	1	- }

- 2. Select the desired channel, and enable human body detection.
- 3. Set the detection rule. Only 1 detection rule is allowed.

Click and the full screen is displayed. Drag in the preview window to draw a rectangular detection area. Only 1 detection area is allowed. Right-click to exit the full screen.

Note: To redraw the detection area, select the set rule, and click 📶. To delete the detection area, click

- 4. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the more likely humans will be detected, and the more likely false alarms will occur. Set based on the scene and your actual needs.
- 5. Set the alarm-triggered actions and arming schedule. Click the corresponding it to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 6. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).
- 7. Click Apply.

10.4 Video Loss

A video loss alarm is reported when the NVR loses video signals from a camera.

1. Go to Menu > Alarm > Video Loss.

/ideo Loss				
	Camera ID	Alarm Status	Trigger Actions	Arming Schedule
	D1(HDIPCAM)	🥪 Enable	0	©
	D2(IPC O2)	🤣 Enable	0	Ø
	D3(IPC03)	🥪 Enable	0	Ø
	D4(IPC04)	🤣 Enable	0	Ø
	D5(IPC05)	🥪 Enable	Ø	Ø
	D8(IPC08)	🥪 Enable	0	0
	D10(IPC10)	🥪 Enable	0	Ø
	Copy Exit			

- 2. Video loss alarm is enabled by default. To disable video loss alarm for a channel, click , which then changes to .
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.

10.5 Alarm Input and Output

Configure alarm input and alarm output.

10.5.1 Alarm Input

Configure the alarm mode, arming schedule, and alarm-triggered actions for external alarm input devices.

The external alarm input devices include devices connected to the ALARM IN interfaces on the NVR and the ALARM IN interfaces on the cameras. For example, access control devices.

1. Go to Menu > Alarm > Input/Output > Alarm Input.

larm Input Alarm Outpu	t						
No.	Alarm Input Name.	Alarm Status	Alarm Type	Edit	Trigger Actions	Arming Schedule	Disarm by Switch
Local<-1	A<-1	Enable	N.O.	Ø	Ø	0	•
Local<-2	A<-2	Disable	N.O.		0	0	
Local<-3	A<-3	Disable	N.O.	Ø	@	0	
Local<-4	A<-4	Disable	N.O.		Ø	0	
Local<-5	A<-5	Disable	N.O.		Ø	0	
Local<-6	A<-6	Disable	N.O.		Ø	@	
Local <-7	A<-7	Disable	N.O.		Ø	Ø	
Local <-8	A<-8	Disable	N.O.		Ø	٢	
Local <-9	A<-9	Disable	N.O.		Ø	Ø	
Local <-10	A<-10	Disable	N.O.		0	0	
Local<-11	A<-11	Disable	N.O.	Ø	Ø	0	
Local<-12	A<-12	Disable	N.O.		0	0	
Сору		Exit					

- 2. Select the alarm input channel to be set.
 - Local < -1: Local refers to the ALARM IN interfaces on the NVR, 1 means the first ALARM IN interface. Likewise, Local <-2 means the second ALARM IN interface on the NVR. The number of ALARM IN interfaces may vary with NVR model. See the device datasheet for specifications.
 - D < -1: D refers to channels, the number means channel ID. D< -1 means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 1. Likewise, D < -2 means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 2. The number is not displayed if the camera has no ALARM IN interface.
- 3. Click 📝 to configure alarm input parameters. After configuration, click **OK**.

	Alarm Input	
Alarm Input	🗹 Enable	
Alarm Input Name.	A<-1	
Alarm Type	N.C.	~
	ОК	Cancel

Item	Description
Alarm Input	Select Enable to enable the alarm input.
Alarm Input Name	The default name is the alarm input number. You may rename it as needed.
Alarm Type	 This item is applicable when Alarm Input is enabled. The default is N.O N.O.: Choose this option if the alarm input device is normally closed. The device opens the circuit to input an alarm, triggers the NVR to open the alarm circuit and report an alarm.
	• N.C.: Choose this option if the alarm input device is normally opened. The device closes the circuit to input an alarm, triggers the NVR to close the alarm circuit and report an alarm.

4. (Optional) Set one-key disarming.

- (1) To enable one-key disarm, select **one** in the **Disarm by Switch** column. When enabled, the configured actions will not be triggered when Local < -1 reports alarms.
- (2) To apply one-key disarming to other channel(s), click in the Linked Channel column, select the desired channel(s) or All, and then click Apply.
- 5. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 6. (Optional) To apply the alarm input parameters to other cameras, click **Copy**, and select the desired channel(s) or **Copy To**, and then click **OK**.
- 7. Click Apply.

10.5.2 Alarm Output

Configure the alarm mode and arming schedule for external alarm output devices.

The external alarm output devices include devices connected to the ALARM OUT interfaces on the NVR and the ALARM OUT interfaces on the cameras, such as alarm light and alarm bell.

1. Go to Menu > Alarm > Input/Output > Alarm Output.

Alarm Output				
Alarm Output No.	Default Status	Delay	Edit	Arming Schedule
Local->1	N.O.	30(s)	Ø	Ø
Local->2	N.O.	30(s)		Ø
Local->3	N.O.	30(s)	Z	Ø
Local->4	N.O.	30(s)		Ø
Local->5	N.O.	30(s)		0
Local->6	N.O.	30(s)		Ø
Local->7	N.O.	30(s)	Ø	Ø
Local->8	N.O.	30(s)		Ø
D4(摄像机 04)->1	N.O.	30(s)		Ø
Сору	Apply Exit			

- 2. Select the alarm output channel to be set.
 - Local->1: A refers to the ALARM OUT interfaces on the NVR, 1 means the first ALARM OUT interface.
 Local->2 means the second ALARM OUT interface on the NVR, and so on. The number of ALARM OUT interfaces may vary with NVR model. See the device datasheet for specifications.
 - D->1: D refers to channels, the number means channel ID. D->1 means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 1. Likewise, D->2 means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 2. The number is not displayed if the camera has no ALARM OUT interface.
- 3. Click 📝 to configure alarm output parameters. After configuration, Click **OK**.

	Alarm Output		
Default Status	N.O.		~
Alarm Duration	Custom	○ Maximum	
Delay(s)	30		
Relay Mode	Bistable		~
		ОК	Cancel

Item	Description				
Default Status	 Select the default status from the drop-down list. The default is N.O N.O.: Choose this option if the external device is normally open. N.C.: Choose this option if the external device is normally closed. 				
Alarm Duration/Delay(s)	 Set the alarm duration, that is, the length of time that an output alarm las after the alarm is ended. Custom: When enabled, you can set the length of time as needed. After alarm is cleared on the NVR, the third-party alarm device continues alar till the end of the set duration. Maximum: When enabled, you cannot set the delay period. The third-alarm device continues alarm until you clear it manually. 				
Relay Mode	 Set the relay mode, including monostable and bistable. The default is bistable. Note: Set relay mode to better adapt to third-party alarm devices such as alarm lights. Please set the relay mode according to the trigger mode of the third-party alarm device. 				
	 Monostable: The circuit can only remain in one stable state. When a trigger pulse is applied, the circuit switches to another state, and then automatically switches back to the original stable state. The circuit will repeat the same actions when the next trigger pulse arrives. 				
	• Bistable: The circuit can remain in two stable states. When a trigger pulse is applied, the circuit switches to another state, and remains in this state after the trigger pulse is removed. When the next trigger pulse is applied, the circuit switches back to the other stable state and remains in that state.				

- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding it to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the alarm output parameters to other cameras, click **Copy**, and select the desired channel(s) or **Copy To**, and then click **OK**.
- 6. Click Apply.

10.6 Thermal Imaging

This function measures body temperature based on infrared imaging, and is suitable for high traffic areas such as hospitals, stations, and shopping malls.

- Note: To use this function, please enable face detection in the visible light channel first. To perform face recognition, please enable face comparison at the same time. See Face Detection and Face Comparison for details.
- 1. Add a thermal imaging camera.
 - (1) Go to Menu > Camera > Camera > Camera.
 - (2) Click Custom Add to go to the Add IP Camera page.

		Ado	IP Came	ra	
	IP Address	Status	Qty	Model	
	205.1.1.162	\otimes	1	67-8334-Mp2-8	
	206.2.2.5	\otimes		PC 5363-059-09-00-668	i.
	206.2.2.6	\otimes		PC-SN1-(8007-91-009-	
	206.2.2.7	\otimes		IPC3823U8-5728-41	
	206.2.2.9	\otimes		PT-1102-0400P-043-408-	
	206.2.2.10			IPC2133583-P940-C	
Add M Protoc IP Add Port Usern Passw Total 0	iress ame	IP Ad 205 80 admi 1	. 1 n	. 1 . 162	
		Search			Cancel

- (3) Set the add mode to **IP Address**, select a protocol, enter the IP address, port, username, and password. There are 2 channels in total, including a visible light channel and an infrared light channel.
- 2. Configure thermal imaging parameters.
 - (1) Go to Menu > Alarm > Thermal Imaging > Body Temperature Measurement.
 - (2) Select the infrared light channel, and enable Body Temperature Measurement.

Select Camera		D6(IP (Camera 06)	~		
Body Temperat	ure Measurement					
Measurement N	lode	Measu	re Internal Temperature			
Alarm Threshol	d(30°C~45°C)	37.3				
2020-11-19 14:06	150		Black Body Temperature(Correction Temperature(Environment Temperature)	10°C~10°C)	36.0 0.0 25.0	
	• •		Draw Black Body Position	Draw	Del	lete
					1	
	body temperature measurement, you nee ure temperature alarm parameters, you ni				je first.	
ОК	Cancel					

Note: To use this function, please enable face detection first. See Face Detection for details.

(3) Set the black body position. Click it to enter the full screen, and then drag to draw a bounding box on the image. Right-click to exit the full screen.

Note: The size of the box should be the same as that of the highlighted part of the black body, otherwise measurement results may be affected.

(4) Set the relevant parameters.

Item	Description
Measurement Mode	 Measure Internal Temperature: Calculated from the measured body surface temperature by formulas.
	• Measure Body Surface Temperature: Measured directly by the thermal imaging camera.
Alarm Threshold (30°C~45°C)	An alarm occurs when the measured temperature exceeds the threshold. The default is the normal body temperature of 37.3 °C.
Black Body Temperature (-40°C~150°C)	Set the same temperature as the black body temperature. 36 °C is recommended. For more information, refer to the camera's site survey and commissioning guide.

Item	Description
Correction Temperature (-10°C~10°C)	Correct temperature measurement errors. Devices have been calibrated before leaving the factory. You do not need to set the correction temperature. If in harsh conditions, such as high or low temperature, you may configure it according to the camera's site survey and commissioning guide.
Environment Temperature (-40°C~100°C)	The environment temperature of the camera will affect the temperature measurement results. The higher the environment temperature, the higher the measurement result. The system can calculate the actual temperature automatically based on the entered environment temperature. 25°C is recommended.

(5) Set alarm-triggered actions in the **Temperature Alarm** page. See Temperature Alarm for details.

(6) Click **OK**.

3. View temperature measurement results.

On the preview page, click control page on the screen toolbar to go to the **Epidemic Control** page. Then you can view the detailed information, including counting statistics, live video, realtime data, and history data.



10.7 Temperature Alarm

An alarm occurs when the abnormal body temperature is detected.

😴 Note:

- This function is only available for thermal imaging cameras.
- Before using this function, please enable body temperature measurement on the **Temperature Measurement** page first. See Thermal Imaging for details.
- 1. Go to Menu > Alarm > Temperature Alarm > Body Temperature Alarm.

Select Camera	DI	~
Abnormal Body Temperature Alarm	Ø	
Trigger Actions		
Arming Schedule		
Note:To configure temperature measurement para	meters, you need to go to Thermal Imaging page.	

- 2. Select the infrared light channel, and enable Abnormal Body Temperature Alarm.
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding it to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. Click **OK**.

10.8 Alert

Configure alert actions for device abnormal events. The NVR reports an alarm when an event occurs.

1. Go to Menu > Alarm > Alert.

Alert Type Send Email		IP Conflict	~
Buzzer		•	
Pop-up Window		•••	
Push Alarm			
Alarm Output		IIA	
Select			Alarm Output No.
			Local->1
			Local->2
D			Local->3
D			Local->4
D			Local->5
D			Local->6
D			Local->7
D			Local->8
Apply	Exit		
, 1940	Exit		

- 2. Select an alert type from the drop-down list.
 - IP Conflict: IP cameras use the same IP address on the network.
 - Network Disconnected: The NVR is disconnected from the network.
 - Disk Offline: No disk or a disk is not properly connected.
 - High CPU Temperature: The CPU temperature of the NVR is too high.
 - High Motherboard Temperature: The motherboard temperature of the NVR is too high.
 - Disk Abnormal: A disk is in position but cannot work normally.
 - Illegal Access: Incorrect username/password.
 - Hard Disk Space Low: The disk space is about to use up.
 - Hard Disk Full: The disk space has been used up.
 - Array Damaged: The number of lost physical disks in an RAID exceeds the limit.
 - Array Degraded: Some physical disks are lost in an RAID but the number of the lost disks is still below the limit.
 - Recording/Snapshot Abnormal: Videos/snapshots cannot be stored normally because the disk is offline or abnormal.
- 3. Set the alert actions, including buzzer, sending email, and pop-up window. See Alarm-triggered Actions for details.
- 4. Set the alarm output channel(s). You may enable All, or select specified alarm output channel(s).
- 5. Click Apply.
- 6. Repeat the above operations to configure alert actions for other events.

10.9 Audio Detection

Audio detection detects input audio signals. An alarm is reported when an exception is detected. Make sure an audio collection device (e.g. sound pickup) is connected, and audio detection is enabled. See Audio Configuration for details.

1. Go to Menu > Alarm > Audio Detection.

Select Channel	D5(IP+Camera+10) ~
Enable	•
Trigger Actions	
Arming Schedule	
Detection Type	Sudden Rise 🗸 🗸
Difference	_
Apply Exit	

- 2. Select the desired channel, and enable audio detection.
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding it to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. Set audio detection rules.

 value. Sudden Fall: An alarm occurs when the fall of volume exceeds the set Sudden Change: An alarm occurs when the rise or fall of volume exceeds the set value. 						
Detection Type	Select an audio detection type from the drop-down list.					
	Sudden lise. All dialli occurs when the lise of volume exceeds the set					
	• Sudden Fall: An alarm occurs when the fall of volume exceeds the set value.					
	• Sudden Change: An alarm occurs when the rise or fall of volume exceeds the set value.					
	• Threshold: An alarm occurs when the volume exceeds the set threshold.					
Difference/Threshold	Drag the slider to adjust the difference and threshold.					
	• The difference between two sound volumes. An alarm occurs when the rise or fall of volume exceeds the difference (range: 0-400). This item is applicable when the detection type is Sudden Rise , Sudden Fall , or Sudden Change .					
	• Threshold: The limit value of volume. An alarm occurs when the detected volume exceeds the set value (range: 0-400). This item is applicable when the detection type is Threshold .					

5. Click Apply.

10.10 Buzzer

Configure the alarm duration of the buzzer on the NVR.

1. Go to Menu > Alarm > Buzzer.

Buzzer				
	Alarm Duration	OMaximum	Ocustom	
	Custom Duration(sec)	1		
	Apply Exit			

- 2. Set the alarm duration. The default is 30s.
 - Maximum: When enabled, you cannot set the alarm duration. When an alarm occurs, the buzzer will alarm continuously until the alarm ends.
 - Custom: When enabled, you can set how long the buzzer will alarm after it is triggered. The valid range is from 1 to 600(s). When an alarm occurs, the buzzer will alarm continuously within the alarm duration, and stop automatically if the alarm ends first within the duration.

Note: To stop a buzzer alarm manually, right-click in the preview window, select **Manual** > **Buzzer**. See Buzzer for details.

3. Click Apply.

10.11 People Present Alarm

An alarm occurs when the number of people present in a specified area exceeds the set threshold.

Note: To use this function, make sure that people flow counting is supported by the camera and is enabled on the VCA page. See People Flow Counting for details.

Configure People Present Alarm

1. Go to Menu > Alarm > People Present Alarm.

Select Scene	1	
Scene Name	Scene1	
Enable People Present Alarm	•	
Arming Schedule		
Select Channel		
People Present Alarm Threshold		
Number of People for Minor Alarm	100	🐼 Trigger Actions
Number of People for Major Alarm	200	🔅 Trigger Actions
Number of People for Critical Alarm	300	🔅 Trigger Actions
Clear Counting Result		
Manual Reset		•
Auto Reset	By Day	
	01:00	0
Apply Exit		

2. Configure parameters.

Parameter	Description
Select Scene	Select a scene and set scene information respectively. Up to 4 scenes are allowed.
Scene Name	The 4 scenes are named as Scene 1, Scene 2, Scene 3, and Scene 4 by default. You can also customize scene name.
Enable People Present Alarm	Enable people present alarm.
Arming Schedule	Click or right to Arming Schedule and configure it as needed. See Arming Schedule for details.
Select Channel	<text></text>
People Present Alarm Threshold	The maximum number of people allowed in the monitored area. An alarm occurs when the number of people present exceeds the threshold. The valid range is from 1 to 100,000.
	 Number of People for Minor Alarm: Set the number, and click is to set Alarm-triggered Actions.

Parameter	Description
	Number of People for Major Alarm: Set the number, which must be greater than the number of people for minor alarm, and then click to set Alarm-triggered Actions.
	 Number of People for Critical Alarm: Set the number, which must be greater than the number of people for major alarm, and then click to set Alarm-triggered Actions.

- 3. Set the time to clear people counting data. The NVR will clear people counting statistics on the OSD at the set time. This operation does not affect statistics and data reporting.
 - (1) The initial number of people in scene is 0 by default. You can enable **Manual Reset**, and set the number as needed.
 - (2) When **Manual Reset** is disabled, you can set the auto reset strategy. It can be set by day, week, and month.
- 4. Click Apply.

View Data

On the preview page, select **People Flow Counting** from the drop-down list in the upper right corner, then you can view the number of people entered, exited, and present.



10.12 One-Key Disarming

Cancel alarm-triggered actions of NVRs or IPCs with one click.

1. Go to Menu > Alarm > One-Key Disarming.

One-Key Disarming				
Disarming Mode	O Off			
	• Disarm by Schedule	\$		
	O Disarm Once			
Disarm Actions				
	🗹 Buzzer	🗹 Send Email	🗹 Pop-up Window	🗹 Preview
	🗆 Push Alarm	🗹 Alarm Sound	🗹 Alarm Light	🗹 Alarm Output 🛛 🗔
Select Channel	All			
Apply Exit				

- 2. Select a disarming mode and configure parameters.
 - Off: Disarming is disabled.
 - Disarm by Schedule: The device is disarmed during specific time periods per week.

Disarming Mode	Off			
	Oisarm by Schedule	¢		
	O Disarm Once			
Disarm Actions				
	🗹 Buzzer	🗹 Send Email	☑ Pop-up Window	✓ Preview
	🗆 Push Alarm	🗹 Alarm Sound	🗹 Alarm Light	🗹 Alarm Output 🛛 🚳
Select Channel	All			

(1) Click i right to **Disarm by Schedule**, and set the disarming periods. Click **OK** to return to the **One-Key Disarming** page.

				Disarming	Schedu	le					
Select	: day			Mon							
No.				S	Start Tir	me			End Ti	ime	
1				00	^	00	Ŷ	24	Ŷ	00	
2				00	\$ \$	00	~ ~	00	^ ~	00	`
3				00	^ ~	00	Ŷ	00	^ ~	00	
4				00		00		00		00	
Сору То		Mon	□ Tue	□Wed	□ Thu) Fri	🗆 Sat	□ S1	un 🗍	Holiday
								ОК		Can	cel
Note:											
	o 4 disarmi	ng period	s during	g one dav	are al	lowe	d.				

• To apply the same disarming schedule to other days, select **All** or the intended day(s), and click **OK**.

(2) Select actions to be disarmed. The default is all actions. See Alarm-triggered Actions for details.

• Disarm Once: The device is disarmed during a specified time period.

Disarming Mode	Ooff					
	O Disarm by Schedule					
	Disarm Once					
Disarming Time	2023-09-21 15:12:35		То	2023-09-21 23:12:35		
Disarm						
	🖌 Buzzer	🗹 Send Em	ail	Pop-up Window	🗹 Preview	
	Dush Alarm	🗹 Alarm So	und	🖌 Alarm Light	🗹 Alarm Output	
Select Channel	AII					

(1) Select **Disarm Once**, and set the disarming start time and end time.

(2) Select actions to be disarmed. The default is all actions. See Alarm-triggered Actions for details.

3. Click Apply.

10.13 Manual Alarm

Trigger or clear an alarm output manually.

Note: Manual alarm has the highest priority.

Manual Alarm

1. Right-click and select Manual > Manual Alarm.

	Manual		
Manual Recording Manual Snapshot Manual Alarm Buzzer Let Throug	gh Manually		
Select		Trigger	
Local->1		🔵 No	
□ Local->2		🔘 No	
Local->3		🔘 No	
🗌 Local->4		🔘 No	
🗌 Local->5		🔘 No	
🗌 Local->6		No	
🗌 Local->7		🔵 No	
Local->8		🔵 No	
「 つ <i>ʌ/頃/</i> 偽初 ʌʌ) 、1		🗖 N.a	
	Trigger	Clear	Exit

- 2. Trigger or clear alarm(s) manually.
 - Trigger: Select the channel(s) to be triggered and click Trigger, and then of changes to .
 - Clear: Select the channel(s) to be cleared and click Clear, and then O changes to .

Buzzer

1. Right-click and select Manual > Buzzer.

		Manual				
11						
Manual Recording		Buzzer				
Device Name				Device Sta	atus	
🔲 Buzzer				🔵 Stop		
			S	top	E	

2. To stop the buzzer, select the buzzer (in Started status) and then click Stop.

11 System Maintenance

View system operation status to ensure stable system operation.

11.1 System Info

View the basic information and operation status of the device.

11.1.1 Basic Info

View the basic information of the device, including NVR model, firmware version, build date, etc.

1. Go to Menu > Maintenance > System Info > Basic Info. View the basic information of the device.



Parameter	Description
Model	NVR model.
Product Configuration	Product configuration, which can be the maximum number of channels or product series, for example, 128 means up to 128 cameras can be connected; 8-X means X Series and can connect up to 8 cameras.
Serial No.	Serial number.
Firmware Version	Firmware version of the NVR.
Build Date	Release date of the current firmware version.
Operation Time	Length of time the NVR has been operating since the latest startup.

2. Scan the P2P QR code to download the app for device management.

3. Scan the serial number QR code to view the device information.

11.1.2 Camera Status

View camera status information.

Go to **Menu** > **Maintenance** > **System Info** > **Camera**. View camera information including name, online/offline status, event type and status.

Basic Info	Camera Recor	rding Online User Disk Slo	ot Status				
Can	mera ID	Camera Name	Status	Motion	Tampering	Video Loss	Audio
D1		D016M2250	Online	Triggered	Off	On	Off
D2		400W	Online	On	Off	On	Off
D3		N5	Online	Triggered	Off	On	Off
D4		N3	Online	Triggered	Off	On	Off
D5		2.241	Online	Triggered	Off	On	Off
D6		247	Online	Triggered	Off	On	Off
D7		N5(2.5)	Online	Triggered	Off	On	Off
D8		N5SMD	Online	Triggered	Off	On	Off
D9		N5(2.7)	Online	On	Off	On	Off
D10		N5(2.9)	Online	On	Off	On	Off
D11	Ĺ	D1822247	Online	Triggered	Off	On	Off
D12	2	N5(2.11)	Online	On	Off	On	Off
Exit	t						

11.1.3 Recording Status

View the recording status and encoding parameters of the connected cameras.

Go to **Menu** > **Maintenance** > **System Info** > **Recording**. View recording information including recording type, recording status, diagnosis, and encoding parameters.

Camera IDCamera NameTypeStatusDiagnosisStream TypeFrame Rat Bit Rate(K ResolutionD1D16M22S0EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Third 3017101920X1080D4N3EventOngoingNormalMain and Third 1220302880X1620D52.241EventOngoingNormalMain and Third 3015221920X1080D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5MDEventOngoingNormalMain and Third 306491920X1080D9N5(2.5)EventOngoingNormalMain and Third 3024622304X1296D10N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D11D182247EventOngoingNormalMain and Third 3024621920X1080D12N5(1.1)NormalOngoingNormalMain and Third 3024622304X1296D14D182247EventOngoingNormalMain and Third 3026781920X1080D12N5(2.1)Normal <th>D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080</th> <th>D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080</th> <th>D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080</th> <th>Basi</th> <th>ic Info</th> <th>o Camera</th> <th>Recording Online Use</th> <th>er Disk Slo</th> <th>ot Status</th> <th></th> <th></th> <th></th> <th></th> <th></th>	D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080	D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080	D1D016M2250EventOngoingNormalMain and Third 3020061920X1080D2400WNormalOngoingNormalMain and Sub S 3037691920X1080D3N5(2.50)EventOngoingNormalMain and Sub S 3037691920X1080D4N3EventOngoingNormalMain and Third 3017101920X1080D52.241EventOngoingNormalMain and Third 2542112880X1620D6247EventOngoingNormalMain and Third 3015221920X1080D7N5(2.5)EventOngoingNormalMain and Third 306491920X1080D8N5SMDEventOngoingNormalMain and Third 306491920X1080D9N5(2.7)NormalOngoingNormalMain and Third 3024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11J1822247EventOngoingNormalMain and Third 302431920X1080	Basi	ic Info	o Camera	Recording Online Use	er Disk Slo	ot Status					
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D8N5SMDEventOngoingNormalMain and Third 2540562880X1620D9N5(2.7)NormalOngoingNormalMain and Sub S 2024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D8N5SMDEventOngoingNormalMain and Third 2540562880X1620D9N5(2.7)NormalOngoingNormalMain and Sub S 2024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D8N5SMDEventOngoingNormalMain and Third 2540562880X1620D9N5(2.7)NormalOngoingNormalMain and Sub S 2024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D8N5SMDEventOngoingNormalMain and Third 2540562880X1620D9N5(2.7)NormalOngoingNormalMain and Sub S 2024622304X1296D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080			D6	247	Event	Ongoing	Normal	Main and Third	30	1522	1920X1080
D9 N5(2.7) Normal Ongoing Normal Main and Sub S 20 2462 2304X1296 D10 N5(2.9) Normal Ongoing Normal Main and Third 30 243 1920X1080 D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D9 N5(2.7) Normal Ongoing Normal Main and Sub S 20 2462 2304X1296 D10 N5(2.9) Normal Ongoing Normal Main and Third 30 243 1920X1080 D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D9 N5(2.7) Normal Ongoing Normal Main and Sub S 20 2462 2304X1296 D10 N5(2.9) Normal Ongoing Normal Main and Third 30 243 1920X1080 D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D9 N5(2.7) Normal Ongoing Normal Main and Sub S 20 2462 2304X1296 D10 N5(2.9) Normal Ongoing Normal Main and Third 30 243 1920X1080 D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080			D7	N5(2.5)	Event	Ongoing	Normal	Main and Third	30	649	1920X1080
D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080	D10N5(2.9)NormalOngoingNormalMain and Third 302431920X1080D11D1822247EventOngoingNormalMain and Third 3026781920X1080			D8	N5SMD	Event	Ongoing	Normal	Main and Third	25	4056	2880X1620
D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080	D11 D1822247 Event Ongoing Normal Main and Third 30 2678 1920X1080			D9	N5(2.7)	Normal	Ongoing	Normal	Main and Sub S	20	2462	2304X1296
						D10	N5(2.9)	Normal	Ongoing	Normal	Main and Third	30	243	1920X1080
D12 N5(2.11) Normal Ongoing Normal Main and Third 30 2010 1920X1080	D12 N5(2.11) Normal Ongoing Normal Main and Third 30 2010 1920X1080	D12 N5(2.11) Normal Ongoing Normal Main and Third 30 2010 1920X1080	D12 N5(2.11) Normal Ongoing Normal Main and Third 30 2010 1920X1080			D11	D1822247	Event	Ongoing	Normal	Main and Third	30	2678	1920X1080
				ſ		D12	N5(2.11)	Normal	Ongoing	Normal	Main and Third	30	2010	1920X1080

11.1.4 Online User

View the logged-in users, and force non-admin users to log out of the NVR when necessary.

1. Go to Menu > Maintenance > System Info > Online User.

Basic Info	Camera	Recording On	line User	Disk Slot Stat	tus		
C]No.	Username			IP Address	Login Time	
		admin			127.0.0.1	2022-08-15 16:18:19	
		admin			202.5.1.138	2022-08-15 16:18:00	
Lo	gout	Exit					

2. Choose a non-admin user and then click Logout.

Note: Only admin can manage user permissions.

11.1.5 HDD Status

View the status and property of HDDs on the NVR.

Go to **Menu** > **Maintenance** > **System Info** > **Disk**. View hard disk information including the total capacity, free space, status, manufacturer, and property.

-	-	arei, and property.			
		Online User <u>Disk</u> Slot Statu			
HDD No.	Total(GB)	Free(GB)	Status	Manufacturer	Property
	7431.79	7284.25	Normal	SEAGATE	Read/Write
	7431.79	7293.00	Normal	SEAGATE	Read/Write
	7431.79	7412.75	Normal	SEAGATE	Read/Write
	7431.79	7412.25	Normal	SEAGATE	Read/Write
	7431.79	7413.75	Normal	SEAGATE	Read/Write
	7431.79	7411.25	Normal	SEAGATE	Read/Write
	7431.79	7412.75	Normal	SEAGATE	Read/Write
8	7431.79	7407.75	Normal	SEAGATE	Read/Write
	3705.77	3700.50	Normal	SEAGATE	Read/Write
10	3705.77	3701.75	Normal	TOSHIBA	Read/Write
11	3705.77	3704.00	Normal	SEAGATE	Read/Write
12	3705.77	3703.50	Normal	SEAGATE	Read/Write
Total Ca	pacity(GB)	553983.90			
Free Spa	ce(GB)	543602.00			

Exit

11.1.6 Decoding Card Status

View decoding card status. Only certain NVRs support this function.

Go to **Menu** > **Maintenance** > **System Info** > **Slot Status**. View the slot type, number of video outputs, and video output status.

Basic Info Camera	Recording Online User Di	sk Slot Status		
No.	Slot	Video Output	Status	
	Local	3	Normal	
Exit				

11.2 Network Information

View network information including network traffic, network latency, packet loss rate, and network status.

11.2.1 Network Traffic

View network interface card (NIC) information including connection status, physical address, MTU, NIC type, and real-time traffic.

1. Go to Menu > Maintenance > Network Info > Network Traffic.

ork Traffic Packet (Capture Network Check Netv	ork Network Statistics			
512Mbps					
o 💷 🗌					
NIC1	Send:17.50Mbps		Receive:398.49Mbps		
NIC NIC1	Connection Status	MAC Address 6c:f1:7e:85:6e:f2	MTU 1500	NIC Type 1000M Full-Duplex	
NIC2	 Disconnected 	6c:f1:7e:85:6e:f3	1500	10M Half-Duplex	
NIC3			1500		
	Connected	6c:f1:7e:85:6e:f4		100M Full-Duplex	
NIC4	Disconnected	6c:f1:7e:85:6e:f5	1500	10M Half-Duplex	
Exit					

2. Choose an NIC to view the real-time network traffic.

11.2.2 Packet Capture

Capture, view, and save network packets for network security and troubleshooting.

1. Go to Menu > Maintenance > Network Info > Packet Capture.

Network	Traffic Packet Capture							
	Partition				Refresh			
	Select Port	AII		○ Filter				
	Select Port							
	Select IP		○ Specify	○ Filter				
	Packet Size(Bytes)							
	NIC		IP Address		Packet E	Backup	Open	
	NIC1		172.20.214.2	30	<u>ٿ</u>			
	Loopback Interface		127.0.0.1					
	Exit							

- 2. Choose a partition to save the captured packets.
- 3. Specify ports and IPs.
 - All: Capture packets of all the ports and IPs connected to the device.
 - Specify: Capture packets of the specified ports and IPs.
 - Filter: Capture packets except that of the specified ports and IPs.

4. Set the packet size.

式 Note:

- The packet size is 0 by default, which indicates that there is no size limit for the captured packet data. The larger the size, the lower the risk of data loss, and the more complete the information.
- Too large packet size may occupy too much storage space.
- 5. Click for the NIC or loopback interface to start capturing packets.
 - NIC 1/2/3...: Capture transmission packets of the NIC.
 - Loopback interface: Capture operation packets of the NVR.

Note: A progress bar appears. To cancel the task, click **Cancel**.

6. View the captured data.

When the task is completed, the captured data are saved to the root directory of the USB storage device, and the **Backup** page appears, showing the file containing the captured packets. You may also click **Open** to open the **Backup** page.

	Bac	kup		
Partition Location	USB-sdz4 /		Refresh	
	Size	Туре	Modify Time	Delete
🛅 Previous Level		dir	2022-08-15 12:25:50	
📩 backup		dir	2022-08-11 14:56:47	Ē
📩 CaptureReport		dir	2022-07-26 20:09:20	Ē
eth0_20220815_163632.pcap	100.1MB	file	2022-08-15 16:36:34	
Free Total	59821MB 59999MB			
New Folder			Format	Cancel

😴 Note:

- The device cannot capture packets if a capturing task is already started on the Web client.
- The file containing the captured packets is named in this format: *NIC_YYYYMMDD_hhmmss*.pcap, for example, eth0_20220815_163632.pcap.
- When PPPoE dial-up succeeded, a virtual NIC appears in the NIC list. You can also capture packets of the NIC.

11.2.3 Network Check

Monitor the network traffic, network latency, packet loss rate, etc.

Configure Network Check

- 1. Go to Menu > Maintenance > Network Info > Network Check.
- 2. Select the Select Channel checkbox, select the channel(s) you want to monitor. Up to 5 channels are allowed.
- 3. Select the **Test Address** checkbox, and then enter the address you want to test. You may enter an IP address or a domain name. Up to 2 IP addresses (separated with a semicolon) are allowed.
- 4. Choose the test duration. The system will test the network status during this time. Options are 30s (default), 1 min, 5 min, 10 min, 30 min, and 1 hour.
- 5. Set the size of test packets. The default is 1500 Bytes. The range is [64-4000]. Set according to the actual network condition.

Select Channel	D1(D016M2250),D2(400W-(2.41	L)) ~
🗹 Test Address	206.2.2.250	
Test Duration	30s	~
Test Packet Size(Bytes)	1500	
Test Result		
Currently Displayed		
Chart	Packet Loss Rate	O Network Latency

6. Click Test to test the packet loss rate and network latency.

View Test Results

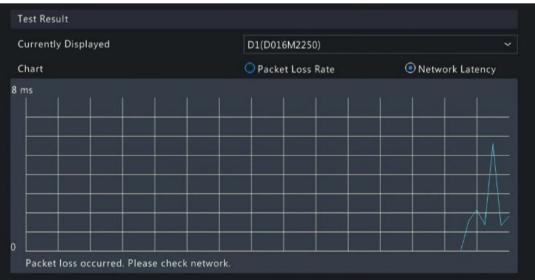
If the test is successful, the system saves test data and shows the packet loss rate and network latency. If the test failed, the test result shows "The destination is unreachable".

Note: If you click Stop Test before the test is completed, the system will save the existing test data and show the test result.

- 1. You can click the **Currently Displayed** drop-down list to choose the channel or address to be tested.
- 2. Click Packet Loss Rate or Network Latency to view the test result.
 - Packet loss rate

urrently Displayed	D1(D016M2250)	÷
Chart	Packet Loss Rate	O Network Latency
5%		

Network latency



Export Test Results

- 1. Click **Export**. The **Backup** page appears.
- 2. Choose the destination path, click **Backup** to export test results to the external storage device.
- 3. The exported file is a **.tgz** package, including ping logs of all the test objects and one summary file. See the examples below.
 - Exported files

ping_206.2.2.140.log
ping_206.2.2.100.log
ping_206.2.2.67.log
ping_206.2.2.21.log
ping_206.2.2.9.log
ping_206.2.2.7.log
ping_206.2.2.5.log

ping.csv

Exported report

		A	В	C	D	E	F	G	Н	I	J		К	L	н	N	0	P	
1	Test	Item N	o. Section 1	Section	2Section	Section	Section	Section	Esection 7	Section 8	Section	1 Sect	ion 1	Section	1Section	1Section	1Section	1Section	1Se
2	Chl	1.	LossPkt: 0 ;A	vLossPkt:	LossPkt:	LossPkt:	LossPkt:	LossPkt:	0 ;AvgRt1	t: 0.56120	0 ms;Ti	ineNow:	2022	2-08-17	13:57:10				
	Chl		LossPkt: 0 ;A	vLossPkt:	LossPkt:	LossPkt:	LossPkt:	LossPkt:	0 ;AvgRt1	:: 1.19980	0 ms;Ti	ineNov:	2022	2-08-17	13:57:10				
	Chl		LossPkt: 0 ;A																
	Chl		LossPkt: 0 ;A																
	Chl		LossPkt: 0 ;A																
7	206.	2.2.21.	LossPkt: 0 ;A																
8	206.	2.2.67.	LossPkt: 0 ;A	vLossPkt:	LossPkt:	LossPkt:	LossPkt:	LossPkt:	0 ;AvgRt1	:: 1.22300	0 ms;Ti	neNov:	2022	2-08-17	13:57:10				
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
4		pi	ng 🕀								: 4								Þ

11.2.4 Network Status

View network parameters of an NIC.

Go to Menu > Maintenance > Network Info > Network. Choose an NIC to view its network parameters.

Network Traffic Packet Capture	Network Check Network Network Statistics
Select NIC	NIC1 ~
IPv4 Obtainment Mode	Static
IPv4 Address	206.2.2.62
IPv4 Subnet Mask	255.255.0
IPv4 Default Gateway	206.2.2.1
IPv6 Obtainment Mode	Router Advertisement
IPv6 Address	fe80::6ef1:7eff:fe85:6ef2
IPv6 Prefix Length	64
IPv6 Default Gateway	
Preferred DNS Server	 206.10.5.39
Alternate DNS Server	8.8.4.4
Default Route	NIC1
Enable PPPoE PPPoE Address	Off
	0.0.0
PPPoE Subnet Mask	0.0.0
PPPoE Default Gateway	0.0.0
Exit	

11.2.5 Network Resource Statistics

View bandwidth usage.

Go to Menu > Maintenance > Network Info > Network Statistics. Bandwidth usage is displayed.

Network Traffic P			Network Statistics
Туре		Bandwidth	
IP Camera	2	360Mbps	
Remote Li		2048Kbps	
Remote P		0bps	
	ive Bandwidth		
		408Mbps	
Idle Send	Bandwidth	766Mbps	
Exit			

Note:

- When idle receive bandwidth is low, cameras cannot get online.
- When idle send bandwidth is low, live view, playback, and recording download will fail.

11.2.6 PoE and Network Port Status

View connection status of PoE ports or network ports. This function is applicable to NVRs with PoE ports or network ports.

Go to **Menu** > **Maintenance** > **Network Info** > **PoE Port Status** or **Network Port Status**. The port connection status is displayed. Blue means the port is in use. For PoE device, you may also view power information.

11.3 Log Search

Logs contain information about user operation and device status. You can use logs to keep track of device operation status and view detailed alarm information.

Log Search

1. Go to Menu > Maintenance > Log.

		_							
Log									
	Log		2022-08-15 00:00:00						
	End Time		2022-08-15 23:59:59						
	Main Type		Operation						
	Sub Type		All Types						
	Username	Ope	eration Time	Camera ID	Play	Main Type	Sub Type	Details	
	admin	202	22-08-15 16:53:30	D111	ightarrow	Operation	Playback/Download		
	admin	202	22-08-15 16:52:33			Operation	Quick Search IP Camera		
	admin	202	22-08-15 16:52:33			Operation	Login		
	admin	202	22-08-15 16:50:01			Operation	Logout		
	admin	202	22-08-15 16:43:05			Operation	Start Network Test		
	admin	202	22-08-15 16:41:26			Operation	Start Network Test		
	admin	202	22-08-15 16:33:55			Operation	Quick Search IP Camera		
	admin	202	2-08-15 16:33:55			Operation	Login		
								>	
	Search Log	Backu	up Exit						

- 2. Set the start time, end time, main type and sub type.
- 3. Click Search.
- 4. Click 📑 to view log details.

	Log Details	
Username	admin	
Operation Time	2022-08-15 16:53:30	
IP	127.0.0.1	
Camera ID	D111	
Туре	OperationPlayback/Download	
Description:		
N/A		
		Exit

Playback

Click 💽 to view the video recorded at the current log time.

Playback

×



😴 Note:

- This feature is not available to certain log types.
- The video is 11 minutes long (1m before and 10m after alarm).

Log Backup

Click **Backup**. The **Backup** page appears. Choose the destination path, click **Backup** to save the logs to the external storage device.

11.4 Maintenance

11.4.1 Maintenance

Maintenance includes restore system, system backup, and auto-function.

Go to Menu > Maintenance > Maintenance > Maintenance.

Restore System

Restore default system settings.

- 1. Choose **Default** or **Factory Default** as needed. A message appears. The NVR will restart and restore the default settings after you confirm. Choose a method according to your actual needs:
 - Restore: Restore default settings except network settings, user settings, and time settings.
 - Factory Default: Restore all default settings.
- 2. Click Apply.

Note: Either option will not delete the recorded videos and operation logs.

System Backup

Import, export, and delete system configurations.

1. Click System Backup.

System E	Backup Diagnosis Info				
	Partition Location	USB-sdz4 /	∼ Refresh		
	Name	Size	Туре	Modify Time	Delete
	🛅 Previous Level		dir	2022-08-15 12:25:50	
	📩 backup		dir	2022-08-11 14:56:47	
	🚞 CaptureReport		dir	2022-07-26 20:09:20	
	📄 eth0_20220815_163632.pcap	100.1MB	file	2022-08-15 16:36:34	
	Free	59821MB			
	Total	59999MB			
Ne	w Folder Import Configurat Expor	t Exit			

- 2. Perform the following operations as needed:
 - Import configurations: Choose the *.xml file in the directory list, click **Import Configuration**, and then confirm to import the configuration file.
 - Export configurations: Choose the destination in the directory list, click **Export Configuration**. Then a *.xml file containing the exported configurations is generated in the specified folder later.

式 Note:

- Caution: The device will restart after you import configurations. If power is disconnected during the process, the system will be unusable.
- Only admin can import or export configurations.
- Delete: Choose the folder or file to be deleted, click 📠 🥅 means the folder or file cannot be deleted.

Note: Caution: Deleted files cannot be recovered.

- Create folder: Choose the destination path in the directory list, click **New Folder**, enter a folder name to create the folder.
- Refresh: Click the **Refresh** button to refresh the list.
- 3. Click Apply.

Auto-Function

The device can restart or delete files automatically at the preset time. Only admin can perform this operation.

- 1. Find the **Maintenance** area.
- 2. Configure the parameters.
 - Auto-Restart System: The system restarts automatically at the set time.
 - Auto-Delete File(s): The system automatically deletes videos and images saved on the hard disk. Range: 1-240.
- 3. Click Apply.

11.4.2 Diagnosis Info

View and back up diagnosis information of the NVR and the connected cameras. The NVR keeps 14 days of diagnosis information and overwrites the earliest when the storage is full.

Go to Menu > Maintenance > Maintenance > Diagnosis Info.

NVR Diagnosis Info

1. Choose **NVR** as the device type.

System B	Backup Diagnosis	Info				
	Device Type	NVR	Oipc			
	Current Diagnosis	Info Export				
	□No.	History Diagnosis Info		File Size	Modify Time	
		NVR_Log_2022081423590	0.tgz	3645KB	2022-08-15 00:00:00	
	2	NVR_Log_2022081323590	0.tgz	3442KB	2022-08-14 00:00:00	
	3	NVR_Log_2022081223590	0.tgz	2997KB	2022-08-13 00:00:00	
	4	NVR_Log_2022081123590	0.tgz	2369KB	2022-08-12 00:00:00	
	5	NVR_Log_2022081023590	0.tgz	3434KB	2022-08-11 00:00:00	
	6	NVR_Log_2022080923590	0.tgz	4932KB	2022-08-09 22:00:00	
	7	NVR_Log_2022080823590	0.tgz	4608KB	2022-08-08 22:00:00	
	8	NVR_Log_2022080723590	0.tgz	4658KB	2022-08-08 00:00:00	
	9	NVR_Log_2022080623590	0.tgz	4509KB	2022-08-07 00:00:00	
	10	NVR_Log_2022080523590	0.tgz	4380KB	2022-08-06 00:00:00	
	11	NVR_Log_2022080423590	0.tgz	4147KB	2022-08-05 00:00:00	
E	Backup	Exit				

- 2. Export NVR diagnosis information.
 - Current Diagnosis Info: Diagnosis information since the latest startup. Click **Export** to export diagnosis information to the external storage device.
 - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click **Backup**. On the **Backup** page, choose the destination path, click **Backup**.

Camera Diagnosis Info

1. Choose **IPC** as the device type.

ntenance Diagnosis Info One						
Device Type		Onvr	● IPC			
Select Channel		D1(HDIPCAM)				
Current Diagnosis Inf	o	Export				
□No.	History [Diagnosis Info		File	Size	Modify Time
	IPC_Log	Chl1_20240730235900.te	gz	266	2КВ	2024-07-30 20:05:00
□ 2	IPC_Log_	Chl1_20240729235901.te	gz	247	9KB	2024-07-29 20:05:01
3	IPC_Log	Chl1_20240718235900.tg	gz	262	5KB	2024-07-19 00:05:00
4	IPC_Log	Chl1_20240624235900.te	gz	360	4KB	2024-06-25 00:05:00
5	IPC_Log	Chl1_20240606235900.te	gz	209	2KB	2024-06-07 00:05:00
6	IPC_Log	Chl1_20240605235901.te	gz	194	9KB	2024-06-06 00:05:01
07	IPC_Log	Chl1_20240603235900.te	gz	169	2КВ	2024-06-04 00:05:00
8	IPC_Log	Chl1_20240530235900.tg	gz	179	2KB	2024-05-31 00:05:00
9	IPC_Log	Chl1_20240527235900.te	Jz	189	8KB	2024-05-28 00:05:00
🗆 10	IPC_Log	Chl1_20240523235900.te	gz	199	8KB	2024-05-24 00:05:00
□ 11	IPC_Log	Chl1_20240522235900.te	gz	193	8KB	2024-05-23 00:05:00

ackup

Exit

- 2. Choose the desired camera from the list.
- 3. Export diagnosis information of the selected camera.
 - Current Diagnosis Info: Diagnosis information since the latest startup. Click **Export** to export diagnosis information to the external storage device.
 - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click **Backup**. On the **Backup** page, choose the destination path, click **Backup**.

11.4.3 One-Click Collection

Collect NVR and camera diagnosis information.

1. Go to Menu > Maintenance > Maintenance > One-Click Collection.

Maintena	ance Diagnosis I	Info One-Click Collection
I	IPC Diagnosis Info	All 🗸 🗸 VVR Diagnosis Info
	Collection Time	3Days ~
	Export Ir ir	nformation to collect includes NVR diagnosis info, IPC diagnosis nfo, and operation logs.The export may take a long time if you
	cl	hoose All
E	xit	

- 2. Choose the camera and select a number of days of diagnosis information to be collected. NVR diagnosis information is always collected.
- 3. Click Export to collect camera diagnosis information, NVR diagnosis info, and operation logs.

Note: Choose the days according to the actual requirements. The export process may take a long time if you choose All.

11.5 System Upgrade

Upgrade the firmware of the NVR and the connected cameras.

Two upgrade methods are available. The device will restart after the upgrade is completed.

- Cloud upgrade: Upgrade through the cloud server.
- Local upgrade: Upgrade using the upgrade files saved in a USB storage device.



- Make sure the device is always connected to power and network during the upgrade. Use an Uninterrupted Power Supplies (UPS) if necessary.
- Before you start a cloud upgrade, make sure the DNS server is functional. Go to Menu > Network > Basic
 > Network. See Network Configuration for detailed information.
- The cloud upgrade speed is limited by the network transmission speed.

11.5.1 NVR Upgrade

Upgrade the firmware of the NVR.

1. Go to Menu > Maintenance > System Upgrade > NVR Upgrade.

NVR Upgrade IPC Upgrad				
Disk Type		Cloud Upgrade	O Local Upgrade	
Current Version		NVR-85201.35 20.320012		
Latest Version				
Build Date				
Upgrade	eck for Update Exit			

- 2. Choose Cloud Upgrade or Local Upgrade.
 - Cloud Upgrade

Click Check for Update. The system checks for updates.

- If updates are available, the new version number and its build date are displayed. Click **Upgrade** to start.
- If no updates are available, the system indicates that the current version is already the latest.
- Local Upgrade

Select the upgrade file in the USB storage device, click Upgrade to start.

Note: If the upgrade failed, the failure cause will be displayed, and the device will restart automatically. Fix the problem and then try again.

NVR Upgrade_ IPC Upgrade				
Disk Type	○ Cloud Upgrade			
			Local Upgrade	∼ Refresh
Partition	USB-sdz4			✓ Refresh
Location				
Name	Size	Туре	Modify Time	Delete
🚞 Previous Level		dir	2022-08-15 12:25:50	
🚞 backup			2022-08-11 14:56:47	
🚞 CaptureReport		dir	2022-07-26 20:09:20	
📄 eth0_20220815_163632.pcap	100.1MB	file	2022-08-15 16:36:34	
Upgrade				

11.5.2 IPC Upgrade

Upgrade the firmware of the IPC. This function is only applicable to cameras connected via the Private protocol.

1. Go to Menu > Maintenance > System Upgrade > IPC Upgrade.

	D Camera Name	Model	Firmware Version	Cloud Up	
□ D1	D016M2250	HICTHELOP TA YA	QIPC-R1206-9-18-211122		ŧ.
🗖 D2	400W	Thoreases an analy-Ac	QUPC-RESOL LE R. SPR719		
D3	N5(2.50)	IPC-0412-06(U-032-F	H0HW-R008811-01-01102		
🗖 D4		IPOLISI-IW-AUSUNIC-DT	GIPC-BROKE-BROKE-BROKE		
🗆 D5	2.241	IPC2051-IN19-AUPO740-5-DT	GIPC INCODES IN 1201219		
🗆 D6	247	IPC-BALL-DOB PAU-DS	CPC-419015.11.201123		
🗆 D7	N5(2.5)	190-5362-05(00P-083-M28-F	IPC_QUIOL-8941779304184.2		
D8	N5SMD	IPC-8365-9489980C-983-940.	. GIPC: 86300 6 3.129764		
D9	N5(2.7)	IPCHLILB-IRDHAL	DIPC-012231100.200402		
D10	N5(2.9)	IPC-0362-85809-083-M36-F	IPC.01201-65807P3003612		
🗆 D11	D1822247	HE2621204-C2NWI-UST-A	QIPC: 81200.00.16.2001035		
D12	N5(2.11)	IPCIESERS-OUMPPHO	GIPC BROCH 28 DE 100909		
Note: Before	upgrading a camera, ma	ke sure the disk is in normal si	tatus; before upgrading by cloud, please check if update i	s available	

- 2. Choose Cloud Upgrade or Local Upgrade.
 - Cloud Upgrade

Click Check for Update. The system checks for updates.

- If updates are available, the new version number and its build date are displayed. Click 🔥 to upgrade a camera, or select multiple cameras and then click **Upgrade** to upgrade in batches.
- If no updates are available, the system indicates that the current version is already the latest.
- Local Upgrade
 - (1) Click 💷 to upgrade a camera, or select multiple cameras and then click Local Upgrade.

		Upgrade C	amera	
Partition	USB-sdz4	1		∼ Refresh
Location Name	/ Size	Туре	Modify Time	Delete
🗂 Previous Level		dir	2022-08-15 12:25:50	
🚞 backup		dir	2022-08-11 14:56:47	İ
🚞 CaptureReport		dir	2022-07-26 20:09:20	
ieth0_20220815_163632.pcap	100.1MB	file	2022-08-15 16:36:34	
			Upg	rade Back

(2) On the **Upgrade Camera** page, select the upgrade file in the USB storage device, and then click **Upgrade**.

11.6 HDD Check

Perform S.M.A.R.T. test and bad sector detection. The actual functions available may vary with device.

11.6.1 Run S.M.A.R.T. Test

S.M.A.R.T. tests the hard disk including its head, platter, motor, circuit, etc. and evaluates the disk health status.

1. Go to Menu > Maintenance > HDD > Run S.M.A.R.T. Test.

	. Test Bad Sector De							
• • ••								
	st Type	Short						
	st Status	Not tested			nperature(°C)	35		
	nufacturer	SEAGATE			n Time(day)	612		
Mo		ST4000VX000-2AG166		Self-Eva		Pass		
	mware Version	CV11			valuation	Bad Sectors		
ID	Attribute Name		Status	Flag	Threshold	Value	Worst	Raw Value
1	Raw_Read_Error_R	ate	Healthy	0x000f	44	80	64	103912624
	Spin_Up_Time			0x0003		94	93	
	Start_Stop_Count	Start_Stop_Count		0x0032	20	100	100	74
	Reallocated_Secto	r_Count	Healthy	0x0033		100	100	
	Seek_Error_Rate		Healthy	0x000f	45	94	60	2730148977
Start T	est Apply	Exit						

- 2. (Optional) Enable **Continue to use the disk when it fails to pass evaluation**, so the device can continue using the hard disk even if the disk fails in the self-assessment. However, this may incur great risks. Please choose carefully.
- 3. Choose the disk slot and test type.
 - Short: Less test contents, faster speed.
 - Extended: More comprehensive and thorough, longer time.
 - Conveyance: Detects problems in data transmission.

4. Click **Start Test**. The **Status** column shows the real-time progress, for example, Testing: 10%. View test results after the test is completed.

The overall evaluation provides three kind of status: Healthy, Failure, Bad Sectors. It is recommended to replace faulty disks immediately. Contact our technical support for more information.

11.6.2 Bad Sector Detection

The device system detects bad sectors in hard disks in a read-only manner.

1. Go to Menu > Maintenance > HDD > Bad Sector Detection.

Run S.M.A.R.T. Test Bad Se	ctor Detection			
Select Disk	Slot1 ~			
Detection Type	Key Area ~			
		Disk Capacity	1863.02 GB	
		Block Capacity	1.16 GB	
		Status	Not detected	
		Error Count	0	
		Start Test		
Normal	Damaged	-		
Exit				

- 2. Choose the disk slot and detection type.
- 3. Click Start Test. To stop the detection, click Stop Test.

Select Disk	Slot1			
Detection Type	Key Area			
		Disk Capacity	1863.02 GB	
		Block Capacity	1.16 GB	
		Status	Detection completed	
		Error Count		
		Start Test		
Norma	l Damaged			
Horme	Bunugeu			

means the detected area is in good condition.

means the detected area is damaged. The detection stops automatically when the error count reaches 100.

12 Playback

12.1 Instant Playback

Instant playback plays the video recorded during the last 5 minutes.

Make sure that the video is recorded during the last 5 minutes. Instant playback does not work if there's no recording during this time.

1. On the preview page, select the target window, and click 🔊 on the window toolbar.



- 2. Drag the slider on the progress bar to fast forward. Click **11** to pause.
- 3. Click 🔲 to exit the playback.

12.2 Recording Playback

On the preview page, right-click the desired window and select Playback.

Playback 🗸 🗸		
Max. Cam 🔀 Close All		
Select Camera Name		
D1(IP Camera 01)		
D2(IP Camera 02)		
D3(IP Camera 03)		
D4(IP Camera 04)		
D5(IP Camera 05)		
D6(IP Camera 06)		
D7(IP Camera 07)		
D8(IP Camera 08)		
D9(IP Camera 09)		
D10(IP Camera 10)		
D11(IP Camera 11)		
D12(IP Camera 12)		
C , C , C , C , C , C , C , C ,		
≪ < 2024 Jun > ≫		
Su Mo Tu We Th Fr Sa 1		
2 3 4 5 6 7 8		_
	Normal Event Result Normal Smart	
16 17 18 19 20 21 22	Normal Smart O0:00:14	🗕 24 h 🖸
23 24 25 26 27 28 29		6
	00.00 02:00 04:00 06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:0 AII ✓ 🗴 🐱 📾 🔍 ⊂ 🕩 🗐 😅 II 1x	00 22:00 🗉

Playback Interface Introduction

Table 12-1: Playback Toolbar

Icon	Description						
00:09:36	Show playback progress.						
00,00 02:00 04:00	■ Note:						
	• 📑 indicates 4 cameras are selected. 📑 indicates the playback progress in						
	the first window, 💾 indicates the playback progra	ess in the second window,					
	and so on.						
	 Different colors on the progress bar mean different recording types: blue for normal recording, red for event-triggered recording, green for smart event recording. 						
00:00 02:00 04:00	Normal playback timeline. Blue for normal recording, and recording.	red for event-triggered					
	Hover over the timeline to view a thumbnail image to quid	ckly pinpoint an event.					
12:00 14:00	Smart playback timeline. Green for recording of smart sea recording; blue for normal recording,	rch; red for event-triggered					
All ~	Select an event playback type.						
24 h 🛛 🗖	Zoom in or out on the timeline. Alternatively, click on the timeline and use the scroll wheel to zoom in or out.						
<u>大</u> 63	Normal playback: Show the progress bar including event recordings triggered by human/motor vehicle/non-motor vehicle.	Click 🐼 to enable/diable Skip Normal Recordings and set the playback speed					
	Smart playback: Show the progress bar including recordings of human/motor vehicle/non-motor vehicle.	as needed.					
	■ Note:						
	 The smart playback recordings of targets are larger than the normal playback recordings of targets. 						
	• The target recording search is only available						
	to the single-channel playback, and the corresponding recordings will be shown green on the progress bar.						
309 (805)	Rewind/forward 30s, or click 🐼 and choose from the Internet	erval drop-down list.					
D	Reverse.						
	Stop playback and return to the start point.						
\square	Play/pause.						
lx	Set the playback speed.						
	Forward by frame.						

lcon	Description	
	Search images or recordings of targets by AcuSearch or AcuTrack. AcuSearch: Search for images of the motor vehicle, non- motor vehicle, or human body. AcuTrack: Search for recordings of the motor vehicle, non-motor vehicle, or human body during a specified period of a day and display the search results on the timeline.	Click (), drag to select the target, and choose AcuSearch or AcuTrack to view the accurate search results. Note: • () Last Recording.
	 Note: Before use, go to Menu > VCA > Analyzer Config, and set the analyzer mode to AcuSearch/AcuTrack. By default, the NVR searches for images/ recordings of all cameras of the current day and with the similarity of 60%. You can reset the search conditions as needed, and the set similarity will be the default value the next time you perform the accurate search or tracking. 	 Next Recording. The storage device.
Clarity	 Click is to set the video clarity, including HD or SD. Note: If no images are displayed on the preview page in videos are not stored. If SD video is available in SD playback mode, SD vide it switches to HD video automatically when you do maximize it in a multi-window layout. 	deo is played by default;
•••	 Choose ito enable/disable POS; choose to play records storage device. When POS is enabled, POS OSD appears on the playback so buttons are deactivated. Note: This function is available for certain NVRs. The button only appears in normal playback mode normal playback mode, POS OSD is displayed for 5 time is configurable. 	creen, and some toolbar and POS playback mode. In
	 Start/stop clipping video. The video clips will be and will be deleted if you exit the playback page. Take a snapshot. The window borders will flash white temporarily saved to and will be deleted if you exit the playback page. File management, including files of clips, snapsh indicates there is a newly saved file. Video Clip: The video clips can be saved to an external Playback Snapshot: The playback snapshots can be save device. Lock File: The locked recordings can be saved to an external Tag: Tag management. 	e. The snapshots will be ne playback page. ots, locked files, tags; 📷 storage device. red to an external storage

Icon	Description
X	Full screen.
Ð	Exit the playback screen.
ୀ <br< th=""><th>Click a playback window to show the window toolbar.</th></br<>	Click a playback window to show the window toolbar.
<u>آ</u>	Take a snapshot.
\bigcirc	Add a tag at the current time point to record the current video. The added tags can be viewed in \mathbf{m} .
	User can search for recordings based on the tag keywords. For tag search, see Others.
A	Digital zoom. See Digital Zoom for details.
氏×/ 氏))	Turn on/off audio.
•	Adjust the sound volume.
£	Lock the playback recording. Locking a recording file will prevent all the files stored in the same disk partition (254.4MB in size) from being overwritten.

Playback Operations

Туре	Description	Step 1	(Optional) Step 2
Normal playback	Play all recordings of the selected camera(s)	Select camera(s) in normal/corridor playback mode or select a camera in smart playback mode, double-click the desired date; or select the date and then click b to start playback.	Click [], [], or [] to specify the target type(s), and then the corresponding event recordings triggered by human body, non- motor vehicle, or motor vehicle will be displayed.
		 In normal playback mode, click Max. Cameras to select the maximum number of cameras allowed. The 	Click and and choose an event type to play the corresponding recordings.
Corridor playback	Play recordings in corridor mode in multiple windows. Up to 3 cameras can be selected.	 performance may vary with NVR model. In normal playback mode, click Close All to stop playback for all cameras. The calendar uses different flags to indicate different recording types: blue for normal recording, 	/
Smart playback	search for recordings triggered by motion detection or targets including motor vehicle/ non-motor vehicle/human body	 red for event-triggered recording, and no flag for none. The NVR plays HD videos by default. You can switch to SD mode if SD videos are stored. For SD video storage, see Encoding Settings. 	Click () to play the event recordings triggered by motion detection. Click (), (), or () to specify the target type(s), and then the corresponding recordings including human body, non-motor vehicle, or motor vehicle will be displayed. The default smart search area is the full screen. To specify a smart search area, click (), and choose () to clear the existing areas. Then, click and drag on the image to specify an area, and click () to start search smart playback of the specified area. () () : Full screen. () () : Exit the smart search page. () Sensitivity Adjust the smart search sensitivity.

13 Startup and Shutdown

This chapter describes device startup, shutdown, logout, and restart.

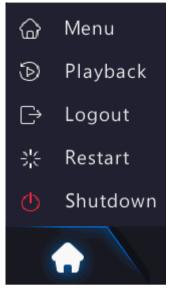
Startup

Start up the device. See Front Panel Buttons for details.

Shutdown

Shutdown refers to turn off the operating system of the device with power supply connected. Please disconnect the power supply if the device will be shut down for a long time.

 Local interface: Hover the mouse at the bottom of the preview page to display the screen toolbar, click , and then select shutdown, logout, or restart as needed.



- Front panel: Press and hold the power button on the front panel (if available) for 3 seconds until you hear a beep, then hold for 2 seconds until an on-screen message appears, and then click Yes to shut down the device.
- **Note:** Unsaved settings will be lost if the NVR is shut down unexpectedly, for example, due to a power failure. A shutdown during a system upgrade may cause startup failures. Please handle with caution.

14 Web-Based Operations

You may access and manage the NVR remotely using a web browser on your PC (through the Web interface).

14.1 Preparation

Check the following before you begin:

- Access will be authenticated during login, and operation permissions will be required.
- The NVR is operating properly and has a network connection to the PC.
- A Web browser is installed on the PC. Chrome 60 or later is recommended. Firefox 60 or later, Microsoft Internet Explorer 10.0 or later, Edge 79 or later are also supported.
- The PC uses an operating system of Windows 7 or later.
- A 32-bit or 64-bit Web browser is required if you are using a 64-bit operating system.

🛃 Note:

- The parameters that are grayed out on the Web interface cannot be edited. The parameters and values displayed may vary with NVR model.
- The figures below are for illustration purpose only and may vary with NVR model.

14.2 Login

Follow these steps to log in to the Web interface (The login page may vary with browser type).

1. Open a Web browser on your PC, enter the IP address of the NVR in the address bar (**192.168.1.30** by default), and then press **Enter**.

- 2. Install the plug-in.
 - You need to install the plug-in as prompted at your first login, which is mainly used for processing media streams. Close all the Web browsers when the installation starts. Follow the on-screen instructions to complete the installation and then open the browser again to log in.

Please click here to download and install the latest plug-in. Close your browser before installation.

• You may also find the plug-in manually by entering http://IP address/ActiveX/WebPlayer.exe in the address bar, and press Enter.

😴 Note:

- The plug-in is available for devices that support access to the cloud website.
- For non-IE browsers, you can log in to the Web interface without installing the plug-in, but some functions on the live view, playback, and setup pages are unavailable.
- 3. On the login page, enter the default username and password (admin/123456), and then click Login.

	NVR824-256R		C
		English	<
Username	[
Password		Forgot Password	
	Login	Reset	

Note: The default password is intended only for your first login. You are strongly recommended to set a strong password to ensure account security.

- Strong password: At least 9 characters including all three elements: letter, special character, and digit.
- Weak password: Less than 9 characters including two or less of the three elements: letter, special character, and digit.

14.3 Live View

The **Live View** page is displayed when you are logged in. Select the desired channel on the left, and view the live video.

		🖲 Live View 💷 Playback 🌣 Setup 🎝	Smart	admin Logout Privacy
NVR814-254R		No.2016 Committee		
📄 💽 D1N3	10	hr — —		
🗟 💽 D2	73			
🗟 💽 D3	-3			
📄 💽 D4				
🗑 D6	3	A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A SALE OF A		
📄 💽 D7	73	the second second second second second second second second second second second second second second second se		
👼 D8	61 61			
🗟 💽 D9				
📄 💽 D10	3			
💽 D11	3			
📄 💽 D12	3			
🗟 💽 D13				
💽 D14	-3			
💽 D15	3			
	• •	Ⅲ• 👾 û [0fps] [0bps] [0×0] [0.00%]		🔤 🧐 🖸 🛎 兵 🔶 🔌 🥠 🐁 🥰 💥

The operations may vary with NVR model.

Button	Description	Button	Description
	Two-way audio	₫/₫/	Main/sub/third stream
	Start/stop live video in all windows	* / *	Previous/next screen
	Switch screen layout	~	Select stream type
	Enable/disable intelligent mark	[25fps] [2.56Mbps] [1920×1088] [H.264] [0.59%]	Frame rate/bit rate/ resolution/packet loss
< ê>	Open/close the control panel	Ø	Take a snapshot
-11:	Local recording	A	Digital zoom
$\langle \rangle \langle \rangle$	Turn on/off audio		Start/stop two-way audio
Cad	3D positioning	К.Я. 2 У	Full screen
চত্র	Multi-sensor preview	Ś	Fisheye mode

Table 14-1: Live View Window Control Buttons

😴 Note:

- right to device name means two-way audio with the NVR. right to channel name means twoway audio with the camera.
- Only the main stream $\overline{\mathfrak{T}}$ is displayed when the camera is offline or it supports only one stream.
- Snapshots are saved in a snapshot file folder named with the IP address, and snapshot files are named in *Camera ID_time* format and saved in this directory: \Snap\IP\Camera ID_time. The time is in YYYYMMDDHHMMSSMS format.
- Local recordings are saved in a recording file folder named with the IP address, and recording files are
 named in *Camera ID_S recording start time_E recording end time* format and saved in this directory:
 \Record\IP\Camera ID_S recording start time_E recording end time. The recording start and end times are
 in YYYYMMDDHHMMSSMS format.

14.4 Playback

Click **Playback** to go to the **Playback** page. You can select the playback type, clarity, and camera to view recorded videos.

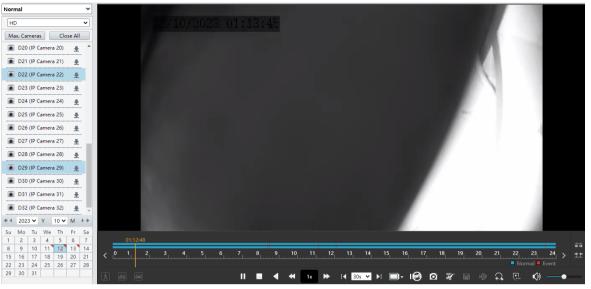


Table 14-2: Playback Control Buttons

Button	Description	Button	Description
► II	Play/pause		Stop
•	Reverse	₩ ₩	Slow down/speed up
30◀ / ▶30	Rewind/forward 30s. You can change the time as needed.	∢I / I►	Rewind/forward by frame
-	Set the display ratio, including full or original	Ø	Take a snapshot
¥ / 🗞	Start/stop clipping video		Save video clip
\uparrow	Enable/disable digital zoom	.	Add a custom tag
<mark>∻</mark> ≑≯	Zoom in/out on the timeline	() — •	Adjust sound volume; turn on/ off sound
< / >	Previous/next period		

14.5 Configuration

Click Setup on the top, and set the relevant parameters.

	🐺 Live View 💷 Playback 💁 Setup 🛃 Smart	admin	Logout	Privacy
Client 🛛 🕹	Basic Setup			
System 🔿				
 Basic Setup Preview Time DST Holiday 	Device Name NVR824-2588 Device ID 1 Device Language English Model NV8224-258R Seriel No. 210235C3N82218000054			
Serial Security Hot Spare	Serial No. 210235C3N83218000054 Firmware Version NVR-thattal.th.tb.2007th Build Date 2022-07-29			
POS	Operation Time 0 Day(s) 0 Hour(s) 42 Minute(s)			
Camera Image: Camera Hard Disk Image: Camera Alarm Image: Camera Alert Image: Camera Network Image: Camera Platform Image: Camera User Image: Camera Maintenance Image: Camera Upgrade Image: Camera Backup Image: Camera	Save			

14.6 Smart

Click **Smart** on the top, and configure the relevant parameters. See VCA Configuration for details.

	💻 Live View	🎟 Playback 🏘 Setup 🦾	Smart		· · ·
1 0	VCA Config		Intelligence Usage v		
	I VCA Config		intelligence oblige 🗸		
\odot	Select Camera D1	¥			
	Face Recognition				
8	Face Detection	Face Comparison			
	● Camera Side A ○ NVR Side Analy	Camera Side A ONVR Side Analy			
	Perimeter Protection				
	🗹 🗼 Cross Line Detection 🔅	Intrusion Detection	🗹 💽 Enter Area	🗹 📴 Leave Area 🔹 💠	
	○ Camera Side A	○ Camera Side A ● NVR Side Analy	Camera Side A ONVR Side Analy	● Camera Side A ○ NVR Side Analy	
	Exception Detection & Statistics				
	Defocus Detection	Scene Change Detection	Object Removed	Object Left Behind	
	◉ Camera Side A ○ NVR Side Analy	Camera Side A NVR Side Analy	Camera Side A NVR Side Analy	Camera Side A NVR Side Analy	
	🗆 📀 Auto Tracking 🔹 🔅				
	Camera Side A NVR Side Analy				

15 Appendix FAQ

Problem Possible Cause and Solution			
Forgot the login password.	Click Forgot Password on the login page as admin, then follow the on-screen instructions to retrieve password.		
Cannot load the Web plugin.	Close your web browsers when the installation starts.		
	• Disable the firewall and close the anti-virus program on your PC.		
	 Enable your Internet Explorer (IE) to check for newer versions of the stored pages every time you visit the webpage (Tools > Internet Options > General > Settings). 		
	 Add your NVR's IP address to the trusted sites in your IE (Tools > Internet Options > Security). 		
	 Add your NVR's IP address to the Compatibility View list in your IE (Tools > Compatibility View Settings). 		
	Clear your IE's cache.		

Problem	Possible Cause and Solution
No images are displayed in live view on the Web interface.	Check if the bit rate is 0Mbps in the live view window.
view on the web interface.	• If yes, check if the firewall/anti-virus program is disabled on your PC.
	• If not, check if the graphics card driver on your PC is working properly. Try installing the driver again.
A camera is offline, and No Link is displayed.	Click Menu > Maintenance > System Info > Camera . The cause is displayed under Status . Common causes include disconnected network, incorrect username or password, weak password, and insufficient bandwidth.
	Check network connection and other configuration.
	• If it indicates incorrect username or password, check that the camera password set in the NVR is the one used to access the camera's Web interface.
	 If it indicates denied access for weak password, log in to the camera's Web interface and set a strong password.
	• If it indicates insufficient bandwidth, delete other online IP devices on the NVR.
The NVR displays live video for some cameras and No Resource for others.	 Click 2 to Encoding Settings, set the camera to encode the sub stream and decrease its resolution to D1.
for others.	• Set the NVR to use the sub stream first for live view.
A camera goes online and	Check if network connection is stable.
offline repeatedly.	• Upgrade the software version of the camera and NVR. Contact your dealer for the latest versions.
Live view is normal, but the	Check if a recording schedule is properly configured.
recording cannot be found.	• Check if the time and time zone configured in the NVR are correct.
	Check if the hard disk storing the recording is damaged.
	Check if the desired recording has been overwritten.
Motion detection is not effective.	• Check that motion detection is enabled, and the motion detection area is properly configured.
	Check that detection sensitivity is properly set.
	Check that the arming schedule is properly configured.
A hard disk cannot be identified	Use the power adapter delivered with the NVR.
by the NVR.	 Disconnect the power supply of the NVR, and then mount the hard disk again.
	• Try another disk slot.
	• The disk is not compatible with your NVR. Contact your dealer for a list of compatible disk models.
The mouse does not work.	Use the mouse delivered with your NVR.
	Make sure no cable is extended.