NVR OS User Manual

Ver. 2021-06

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Chapter 1. DVR / NVR Operation Setup

1-1 Power ON.

- ① connect the power
- 2 Once Power cable is connected (found in Rear Side), booting will be enabled. .
- 3 After booting is finished, the live screen and channel indication / clock are shown.
- ④ Menu window pops up by clicking the right button of the mouse or pressing [MENU] button in the remote control as shown below.



[Figure 1-1. Menu]

5 Login window pops up by clicking the login button. Login is available after inputting the password.

		15		-	112
ID	admin	~		2	1
Password			4	5	6
	<u>_</u>		7	8	9
	ок	Cancel		0	ñ

[Figure 1-2. Login pop up]

※ Password is available to change at {Menu} -> {Setup} -> {System} -> {Modify}.

1-2 Storage Setup

Select {Menu} -> {Setup} -> {Storage} and configure HDD.

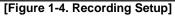
Setup							X
		l Q	*	0880	I.]
Time	Camera	IP Camera	Recording	Schedule	Storage	- 📻 Netwo	- System
1. Priva	te Recording		Off	\sim	Days		
2. HDD	Overwrite		On	\sim			
3. Loca	l Storage Manage	ement					
Recor	ding Backu	p Ne	w	RAID			
No.	Location	Seri	al	Temperature	Size(F/T) St	atus(SW/HW)
1	SATA	WD-WMC4N	10H9TMYL	43°C	496/2000	GB 🐴	
3	SATA	Z3T9T	9NY	45°C	496/5000	B Ö	nline/Healthy
					Reset	Save	Exit
							AL AND AL

[Figure 1-3. Storage selection]

1-3 Recording Setup

Select {Menu} -> {Setup} -> {Recording} -> {Recording}

Setup							X
		J 🔅	**	0880			
Time	Camera	IP Camera	a Recording	Schedule	Storage	- 📥 - Network	System
Schedu	ile1 🔴	Schedule2	Schedul	e3 🔵 Sch	nedule4		
Event	Re	cording	Alarm	Duration	Log	Push	
Came	ra	Resolution	Continu Spec	and the second se	Event Speed	Audic	
CH 0	1	1st Stream	Or		On	On	



Setup [Recording Resolution]/[Continuous Speed]/[Event Speed]/[Audio].

1-4 Date/Time Setup

- $(1) \quad \text{Select {Menu} -> {Setup} -> {Time}.}$
- 2 Configure [Time Sever]/[Date and Time]/[Standard Time Zone]/[Auto Reboot].

Setup						X
		() ()	₩	0880	I.	
Time	Camera	IP Camera	Recording	Schedule	Storage	 System
Time S	ync Dat	e & Time	Time Zone	Auto R	eboot	
1. Date 8	Time		2016/05/13	10:56:23		
2. Date D)isplay Type		yy/mm/dd	~	/	
		[F	igure 1-5. Da	ate/Time Set	up]	

1 - 5 Display Setting and Other Setup Select and set up {Menu} -> {Miscellaneous} -> {Display Setting}.

Display Setting		×
Camera Title Control Bar	On On	
Button Sound	On	
HD Frequency Border Line	60hz 🗸 🗸	
Draw	Off	
Width	2Pixel 🗸 🗸	
Color	White \vee	
Screen Saver	Off	
Spot Sequence	5 sec	
Main Sequence	5 sec	
		Exit

[Figure 1-6. Display Setting]

1-6 Search

- ① Search the video records depending on Time list/Event/Multi mode/Channel.
- 2 For more information, check [2-6 Search], [2-7 Playback], [2-8 Log viewer].

1-7 Backup

- ① Backup is available in Monitoring, Search, Log and Playback Mode.
- 2 For more information, check [2-10-5 Backup].

Information				
None	Select T	he Device		
Free Space		0	М	
Total Capacity	y	0	M	
File Size				
File Format	RMS for	mat	~	
Directory Nam	ne	_		
			6/05/13 10:58:39	
🔲 All Channe	ı			
All Channe	I □ CH 02	CH 03	CH 04	
CH 01	CH 02	CH 03	CH 04	
□ CH 01 □ CH 05	□ CH 02 □ CH 06	□ CH 03 □ CH 07	□ CH 04 □ CH 08	
 □ CH 01 □ CH 05 □ CH 09 	□ CH 02 □ CH 06 □ CH 10 □ CH 14	CH 03 CH 07 CH 11	□ CH 04 □ CH 08 □ CH 12	

[Figure 1-7. Backup Setup]

1-8 DVR / NVR Info.

Move to {Menu} -> {Miscellaneous} -> {DVR/NVR Info}.

UNIO Inter				
NVR Info.				×
CH 25: None		CH 26: None		-
CH 27: None		CH 28: None		
CH 29: None		CH 30: None		
CH 31: None		CH 32: None		
7. HDD Informati	on (Overwrite: On)			
Total Capacity	4: 2000 GB			
Free Space: 1	695 GB			
Start Date: 20	16/09/29 09:00:00	(212)		
End Date: 201	6/10/05 10:00:00 (212)		
8. Ethernet Type	e: Static			
IP Address: 1	92.168.100.97			=
Client Port: 50)100			=
Web Port: 80				
Auto Port For	warding: Off			
MAC Address	: 00:0C:28:0B:32:9	2		
	00:0C:28:0B:32:9	3		
	00:0C:28:0B:32:9	4		
			Exit	
			and the second	
VVR Info.				X
				_
CH 25: None		CH 26: None		\times
CH 25: None CH 27: None	_	CH 28: None	_	_
CH 25: None CH 27: None CH 29: None	_	CH 28: None CH 30: None	_	_
CH 25: None CH 27: None CH 29: None CH 31: None	on (Overwrite: On)	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Informatio	on (Overwrite: On)	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Informatio Total Capacity	/: 2000 GB	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Informatio Total Capacity Free Space: 1	7: 2000 GB 695 GB	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20	/: 2000 GB 695 GB 16/09/29 09:00:00	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201	/: 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type	/: 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (e: Static	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 1	/: 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (e: Static 92.168.100.97	CH 28: None CH 30: None CH 32: None		_
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Informatio Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50	/: 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (e: Static 92.168.100.97	CH 28: None CH 30: None CH 32: None		
CH 25: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50 Web Port: 80	 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (Static 92.168.100.97 100 	CH 28: None CH 30: None CH 32: None		
CH 25: None CH 27: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50 Web Port: 80 Auto Port Fore	 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (e: Static 92.168.100.97 100 warding: Off 	CH 28: None CH 30: None CH 32: None (212) 212)		
CH 25: None CH 27: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50 Web Port: 80 Auto Port Fore	 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (static 92.168.100.97 100 warding: Off : 00:0C:28:0B:32:9 	CH 28: None CH 30: None CH 32: None (212) 212)		
CH 25: None CH 27: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50 Web Port: 80 Auto Port Fore	 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (Static 92.168.100.97 100 warding: Off 00:0C:28:0B:32:9 00:0C:28:0B:32:9 	CH 28: None CH 30: None CH 32: None (212) 212) 2		
CH 25: None CH 27: None CH 27: None CH 29: None CH 31: None 7. HDD Information Total Capacity Free Space: 1 Start Date: 20 End Date: 201 8. Ethernet Type IP Address: 19 Client Port: 50 Web Port: 80 Auto Port Fore	 2000 GB 695 GB 16/09/29 09:00:00 6/10/05 10:00:00 (static 92.168.100.97 100 warding: Off : 00:0C:28:0B:32:9 	CH 28: None CH 30: None CH 32: None (212) 212) 2		

[Figure 1-8. DVR / NVR Info.]

Chapter 2. System Operation

2-1 Real Time Monitoring Mode and Icon

After booting is finished, Recording Status/Channel Title/Connection Status/Time/HDD Status are displayed as shown below.



[Figure 2-1. Recording Status]

Recording Event / Recording Mode Icon				
	M	Motion Detection Recording		
Recording Event	A	Audio Recording		
	S	Sensor Recording		
Recording	V	Video Recording		
Mode		Audio Recording		

% Recording Event Icons are still displayed despite of the recording stop. Recording Mode Icon distinguish recording status.

% 1HDD BAY model do not support Sensor function.

※ IPCAM do not support Audio Detection function.

X Live Screen Icon X	
0	Video is not connected.
No Signal	Camera has been disconnected.

	X Control Bar X								
ID:1	25 36 🕗	0	2016/05/13 11:01:20	91GB	Play				
1	2 3	4	5	6	0				
1	Remote ID								
2	Full / 4ch mode / 9ch mode	/ 16cł	n mode / 25ch mode / 36ch i	mode					
3	Auto Sequence Mode								
(4)	Digital zoom								
5	Date / Time								
6	HDD status								
7	Playback								

2-2 System Login

2-2-1 User Account and Authorization

System users are divided into local administrators and general users and the local administrator can use all functions.

admin	The local administrator can use all functions: System Power On/Off, Setup, Monitoring, and Playback
user	Up to 15 users are allowed. Each user can access the functions depending on the given authorities. For Authorization Setup, Move to {Menu} {Setup} {System} {4. User Registration}.

※ Functions available for Authorization Setup ※				
ID/PW	Administrator ID/PW setup (admin account ID can't be changed)			
Network live	Network live			
Playback	Playback & Network playback			
Backup	Backup control			
Setup	Setup menu control			
PTZ control	PTZ control			
Network Upgrade	Network Upgrade control			
PW	Using PW or not (Login available without PW by unchecking)			
Use of channel (user)	Authorization By each channel			

2-2-2 Login For security purpose, user must log in first to use {Monitoring Menu}.



[Figure 2-2. Login Window]

- ① On the real-time monitoring window, select {Menu} -> {Login}
- 2 Enter the password or select cancel.

2-2-3 Log out

After logging out, the user cannot use {Menu}.

2-3 Monitoring

Powerful monitoring functions as shown below

- 1/4/9/16 Division Mode and Auto Sequence Mode
- Channel Grouping
- TV mode
- Menu Controlling in Monitoring Mode
- Zoom
- Live Event Indication
- Screen Control by using PTZ.

※ Division mode is depending on Max. Ch

2-3-1 Screen Division and Auto Sequence

Our products provide the auto sequence mode as follows.

1/16 – basic mode

Auto sequence mode -special mode



[Feature 2-3. 16ch mode]

1 Channel Division Mode (16 Group)					
	1	2	3	4	
16 Channel Division Mode	5	6	7	8	
(1 Group)	9	10	11	12	
	13	14	15	16	

% The user can view an image on full screen by double-clicking a desired channel in the 1/16 mode. Doubleclick any part of the screen to return to the previous mode.

※ Max. 16ch Division mode is available

※ Auto Sequence	2					
-	e is to rotate images	s at an interval (of the cert	ain time in Basic 8	& Special Divisio	n mode Auto
	ot available in the B					IT MODE. AUTO
•					fallows (1 10	
1 Move to {Menu Display Setting	I} -> {Miscellaneous	s} -> {Display Se	etup} and	select the time as	$10000 \text{ (1} \sim 10)$	sec)
Carnera Title Control Bar	On On			Main Sequence		×
Button Sound	On			Sequence Duration	5 sec 🗸 🗸	(dense)
HD Frequency	60hz 🗸 🗸			Event Duration	5 sec V	
Border Line				Event Belease	None V	
Draw	Off				On V	
Width	2Pixel 🗸 🗸			Event Sequence	UN V	h
Color Screen Saver	white 🗸			Auto Sequence Order		
Spot Sequence	5 sec			No.	Channel	
Main Sequence	5 sec			1	CH 01	
				2	CH 02	
				3	CH 03	
				4	CH 04	
			Exit		Reset	Exit
 Pressing Rem 	ote Controller {SEQ		Button or	Mouse Arrow Butt	on initiate the A	uto Sequence
mode.			Dutton			
incue:			CHARLEN PROTOCOLOGY	ATT THE REPORT OF THE REPORT O	Marka Martin	ATTACK MALLES
ID:1	25	36 🕑 🕀	2016/0)5/13 11:01:20	91GB	Play
			2010/1	of to thome		1000
(3) Basic mode -	Auto sequence in 1	CH mode				
		orrinouo				
1 2 3	16					
	e sequence					
	connecting only o	ne camera)				

2 - 3 - 2 Menu in Monitoring Mode

The user can control all functions available in Monitoring Mode in {Menu}.

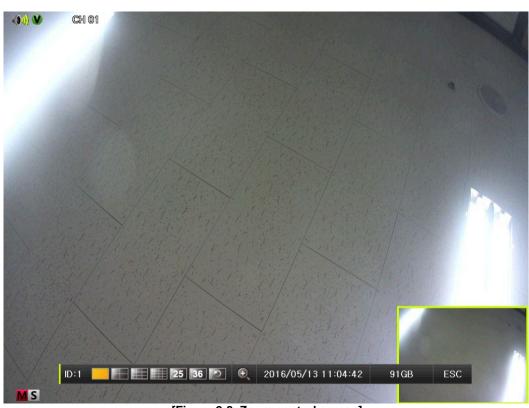
- ① Press the Menu or right-click mouse button. The {Menu} will then appear.
- ② Select the desired item by using the arrow keys or mouse.
- ③ Press the ESC button or right-click mouse button to end the menu.

2-3-3 Zoom

Zoom is to zoom in or out the 1 channel division image in the real time monitoring mode.



- Move to {Menu} -> {Zoom} or press the zoom icon from the control bar in the real time monitoring mode.
- ② After selecting a channel, it becomes the 1 channel mode and the zoom control screen shows at bottom-right.



[Figure 2-8. Zoom control screen]

- (3) In case of the mouse, move the pointer to an area to be zoomed in the zoom control screen and double-click on it.
- Then, it zooms in 3 levels; Normal, x4, x16. Those 3 levels can be controlled by the wheel of the mouse. 4 The user also can left-click and drag the yellow box to move the focused image in higher than the x4 mode.
- In case of the remote controller and front panel, it is available to move to 3 levels by using (5)



[SEQUENCE] button in the remote controller. The yellow box can be moved by the arrow keys

2-3-4 Screen Control by using PTZ

This enables the user the real-time monitoring by using PTZ camera. The PTZ camera must be connected to the system. Select {Menu} -> {Setup} -> {Camera} -> {PTZ}.

① Configure Protocol / ID / Baud Rate / Duration / Tour.

Setup Time Can	nera IP Carne	ra Recording	Schedule	Storage	Network	X System
Camera	PTZ	Event Source	ce Rela	У		
Camera	Protocol	Camera ID	Baud Rate	Duratior	η Τοι	ır
CH 01	None	1	9600	5 sec	Of	f 🔄
CH 02	None	2	9600	5 sec	Of	f
CH 03	None	3	9600	5 sec	Of	it 📃
CH 04	None	4	9600	5 sec	Of	
CH 05	None	5	9600	5 sec	Of	ť
CH 06	None	6	9600	5 sec	Of	f
CH 07	None	7	9600	5 sec	Of	f
CH 08	None	8	9600	5 sec	Of	f 🔍
			R	eset	Save	Exit
		[Eiguro 2.0	PTZ Setupl	1	1	

[Figure 2-9. PTZ Setup]

% Baud rate can be selected at 2400/4800/9600/19200/38400.

- \times Duration can be selected at 5/10/15/20/5-60(User setting) seconds.
- \times Tour consists of Tour 1/ Tour 2 and each tour can be set with 8 Preset.
- ****** PTZ supporting IPCAM sets the protocol as IP camera automatically.

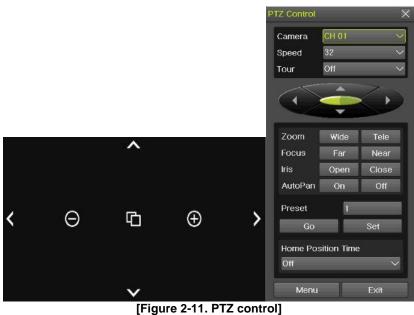


X For supported protocols, refer to APPENDIX.

2 To control PTZ camera, select {PTZ Control} in Menu or press {PTZ} in the remote controller.



[Figure 2-10. PTZ control]





In the PTZ mode, there are two function (Full and Mini). Speed can be different depending on the camera manufacturers. Tour has [Tour1] and [Tour2]. Home Position Time is 1/5/10/User setting (1-60)minutes.

Ú	Preset? Using horizontal/vertical/Zoom/Focus/Iris movement of PTZ Camera, zoom or focus or Iris a certain spot of the image by designating the coordinates and move to the designated coordinates quickly.	
Ú	Home Position Time? If there are no controlling signals to PTZ camera after a certain time, it goes automatically to the Preset No.1 position as Preset No. 1 is designated as Home Position	

2-4 System Information and Screen Setup Change

2-4-1 System information

[Menu] \rightarrow [Miscellaneous] \rightarrow [DVR/NVR info]

X Check the Figure [1-8] DVR / NVR info

2-4-2 Display setting

Camera Title On/Off, Control Bar On/Off, Button Sound On/Off, Border Line Draw/Width/Color, Sequence Duration 1-10seconds. After selecting Display Setting, it becomes the 1 channel mode and a menu pops up as shown below.

olay Setting			
Camera Title	On		
Control Bar	On		
Button Sound	On		
HD Frequency	60hz	\sim	
Border Line			
Draw	Off		
Width	2Pixel	~	
Color	White	U C	
Screen Saver	Off		
Spot Sequence	5 sec		
Main Sequence	5 sec		

[Figure 2-12. Display Setting Window]

2-4-3 Screen Saver

Monitor connected with DVR can be shut down to protect monitor. {Menu} -> {Miscellaneous} -> {Display Setting} -> {Screen Saver}

Name	Description
Enable	on/off setting
Duration	Screen Save duration setting
Starting	Screen Save starting setting, 0 to 24
Waiting time	Screen Save activating term when there is no input



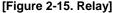
[Figure 2-13. Display Setting Window]

2-5 Control

In the real-time monitoring, move to {Menu} -> {Miscellaneous} -> {Misc. Control}.

Misc. Control					×	Misc. Control	
Audio	Relay	Spot				Audio Relay Spot	
 Mute CH 01 CH 07 CH 13 CH 19 CH 25 CH 31 	 CH 02 CH 08 CH 14 CH 20 CH 26 CH 32 	CH 03 CH 09 CH 15 CH 21 CH 27	 CH 04 CH 10 CH 16 CH 22 CH 28 	 CH 05 CH 11 CH 17 CH 23 CH 29 	 CH 06 CH 12 CH 18 CH 24 CH 30 	Release Relay01 Relay02 Relay03 Relay04	
					Exit		Exit
			44	11 - 1		[Finance 0.45] Delevel	

[Figure 2-14. Audio]



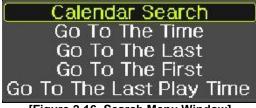
- ① Move to the Audio tab and select the channel to be activated or Mute.
- ② Move to the Relay tab and select.

2-6 Search

2-6-1 Search mode

Move to {Menu} -> {Search} in the real-time monitoring mode.

2-6-2 Calendar search



[Figure 2-16. Search Menu Window]

- $\textcircled{1} \quad \text{Select [Menu]} \rightarrow [\text{Search}] \rightarrow [\text{Calendar Search}]$
- 2 Calendar Search allows the users search and playback by [Time]/[Multi-Channel]/[Event].

		pril 20	16	>				
Mon	Tue	Wed	Thu	Fri	Sat	Time Index		
					2	Event	All	\sim
4	5	6		8	100			
11	12	13	14	15	16	Multi Mode	Multi Channel	\sim
	19	20	21	22	23	Channel		
25	26	27	28	29	30			
2	3 4	5	6 7	8	9 10	11 12 13 14 15 1	6 17 18 19 20 3	21 22 2
СН	0						45	Min
H 01								
H 02								
H 04								
	4 11 18 25 2 2 CH H 01	4 5 11 12 18 19 25 26 2 3 4 CH 0 101 102 103	4 5 6 11 12 13 18 19 20 25 26 27 2 3 4 5 CH 0 101 102 103	4 5 6 7 11 12 13 14 18 19 20 21 25 26 27 28 2 3 4 5 6 7 CH 0	4 5 6 7 8 11 12 13 14 15 18 19 20 21 22 25 26 27 28 29 2 3 4 5 6 7 8 CH 0	4 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 25 26 27 28 29 30 2 3 4 5 6 7 8 9 10 CH 0 0 0 0 0 0 403 0 0 0 0 0	Indian Indian Indian Indian Indian 4 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 25 26 27 28 29 30	A 5 6 7 8 9 11 12 13 14 15 16 18 19 20 21 22 23 25 26 27 28 29 30

[Figure 2-17. Calendar Search Window]

(1) Time Index

Every time when the user changes the time, a new folder (Index) is created and files saved in the folder before the time change can be found at {Menu} -> {Calendar Search} -> {Time Index}. Selecting a file at {Menu} -> {Calendar Search} -> {Time Index} leads to a selection window popup and the user can select a file in different folders (before time change).

Ú	※ Searching by using the file lists is only available on multi-channel mode.
Current time	The recorded file by time of the current system
Old time	The recorded file before time change

(2) Event

Event is to search the data by the events. Select [All/Motion/Sensor/Audio].

(3) Multi mode

Multi-Channel: The user can playback the video contents of the certain channels recorded in specific time simultaneously.

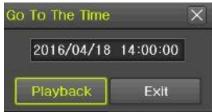
- Multi-Time : The user can playback the video contents of the certain channels recorded in different time zone simultaneously. Entering into the search mode during the Multi-Time playback leads to the Multi-Time Search.
- Multi-Date : The user can playback the video contents of the certain channels recorded in different dates simultaneously. Entering into the search mode during the Multi-Time playback leads to the Multi-Time Search.

(4) Channel

User can select the specific channel when selecting Multi-Time/Multi-date in Multi-mode.

2-6-3 Time Search

User can search the specific date and time records.



[Figure 2-18. Time Search Window]

2-6-4 Go To The Last

The user can search and playback the last (ahead of 5 minutes) recorded data by Multi-Channel Mode.

2-6-5 Go To The First

The user can search and playback the first recorded data in HDD by Multi-Channel Mode.

2-6-6 Go to The Last Played Time

The user can playback from the last played time.

2 - 7 Playback



[Figure 2-19. Playback Screen]

% There are five routes to play the recorded image.

- Playback in the Calendar Search Select {Playback} in {Menu} → {Search} → {Calendar Search} → {Search}.
- Playback in the Go To The Last
- Select **{Menu}** → **{Search}** → **{Go to The Last}**. > Playback in the Go To The First
- Select {Menu} \rightarrow {Search} \rightarrow {Go To the First}.
- Playback in the Last Played Time Select {Menu} → {Search} → {The Last Played Time}.
- Playback in the Log View
 After selecting (Menu) > (Misc
 - After selecting $\{Menu\} \rightarrow \{Miscellaneous\} \rightarrow \{Log Viewer\}$, select or double-click the time line listed to play.

X Our products provide a variety of the playback as follows.

- Calendar Search
- Multi-Time
- Multi-Day
- Panorama Play
- Event Play
- Zoom Play

2-7-1 Playback and Playback Speed Control

- 1 In the Playback mode, the user can playback video contents by using buttons as shown below.
- ② After the data is played to the end, the data of the next time zone will be automatically searched and played (this function is possible only in the Multi-channel Playback mode; both backward playback and forward playback are possible).

3 Pessing buttons, the user can adjust the playback speed by (x 1) / (x 2) / (x 4) / (x 8) / (x 16) / (x 32) / (x 300).

Image: State Stat

	Description of	the Search Buttons
Button	Name	Features
	Channel Mode Change	Switch the channel mode.
Q	Zoom Mode	Switch to the Zoom mode.
	Forward Play / Fast Forward	Press one time - Playback forward (x 1)
		Press two times - Fast forward (x 2)
		Press three times - Fast forward (x 4)
		Press four times - Fast forward (x 8)
		Press five times - Fast forward (x 16)
		Press six times - Fast forward (x 32)
		Press seven times - Fast forward (x 300) Pressing one more time in x300 leads to x1 back.
	Forward Frame by Frame	Playback frame-by-frame Pause
	Pause	Pause
	Reverse Frame by Frame	Reverse playback frame by frame Pause
	Reverse Play / Fast Reverse	Press one time - Playback reverse (x 1)
		Press two times - Fast reverse (x 2)
		Press three times - Fast reverse (× 4)
		Press four times - Fast reverse (x 8)
		Press five times - Fast reverse (x 16)
		Press six times - Fast reverse (x 32)
		Press seven times - Fast reverse (x 300) Pressing one more time in x300 leads to x back.
LIVE	Live button	Exit out of Playback Mode.
	×1	Status bar indicating information of the hourly recorded image data and the speed

Selecting the right-mouse button or menu button in the Playback Mode pops up the {Playback Menu} as shown below.



2-7-2 Calendar Search

Move to {Menu} -> {Search} -> {Calendar Search} and then a searching window pops up. Check [Figure 2-21. Playback menu]

2-7-3 Multi Time

The user can playback the video recorded image of the certain channel recorded in different time zones simultaneously. The arrangement of the searching result is the past to recent format. Check [Figure 2-21. Playback Menu]

2-7-4 Multi Day

The user can playback the video recorded image of the certain channel recorded in different dates simultaneously. The arrangement of the searching result is the past to recent format. Check [Figure 2-21. Playback menu]

2-7-5 Audio

Audio is to select the use of mute function in the recorded data. Check [Figure 2-21. Playback menu]

2-7-6 Event

Event is to search and play events [All/Motion/Sensor/Audio]. Check [Figure 2-21. Playback menu]

2-7-7 Backup

The user can save the backup image data and capture the image into [USB/External Device].

Backup	Save the recorded data into [External Device].
Snapshot	Capture and save the current displaying screen.

Check [Figure 2-21. Playback menu]

2-7-8 Screen Mode

Screen division is available in the Playback mode as same in the Monitoring Mode. Select the screen division mode by using the mouse or arrow keys in the front panel and remote controller.



2-8 Log Viewer

DVR/NVR records all Log information over the system operation including Power on/off, System Setup and Network Access. Move to {Menu} -> {Miscellaneous} -> {Log Viewer} to see the logs.

1	<	Ap	oril 20	16	>		All	Fail	Net	Rec Event N	ormal
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Event		Information	
							14:49:46	Playback	End	[Local]admin	
3	4	5	6		8	9	14:49:16	Playback	Start	[Local]admin	
10	11	12	13	14	15	16	14:49:16	Playback	End	[Local] admin	
17	18	19	20	21	22	23	14:48:38	Playback	Start	[Local]admin	
24	25	26	27	28	29	30	14:48:36	Playback	End	[Local]admin	
							14:48:23	Playback	Start	[Local] admin	
							14:48:23	Playback	End	[Local] admin	
etai	led Inf	orma	tion				14:48:18	Playback	Start	[Local]admin	
Pag	6	1	/ 10				14:48:18	Playback	End	[Local]admin	
	6/04/1			3			14:48:04	Playback	Start	[Local]admin	
	back						14:47:53	Playback	End	[Local] admin	
	cal]ad 6/04/1		:43:34	1			14:47:51	Playback	Start	[Local] admin	
							14:47:51	Playback	End	[Local]admin	
							14:47:05	Playback	Start	[Local] admin	
							14:46:56	Setup Ou	t	[Local]admin	
							14:46:56	Recording	setup Cha.	. admin	E.

[Figure 2-26. Log Viewer]

2-8-1 Log Type

- • · =•g ·)p•	
General	Logs related to power ON/OFF, file copy/backup failure, setup start/end, playback, and other basic system operations
Recording Event	Logs related to the recording including motion detection and sensor detection, Audio detection
Network	Logs related to network operations including network login, network logout, and network live
Fail	Logs related to system operation failures including signal loss and network connection failure
All	Logs related to all system operations

2-8-2 System Log Viewer

- In the real-time monitoring mode, {Menu} {Miscellaneous} {Log Viewer}, then, Log List Window pops up.
- ② On the activated calendar window, select the desired date (year/month/day) by using the arrow keys and the Select button.
- ③ The user can check the time and the log type by using the arrow keys in the log list.
- ④ Use the Up/Down button to check the logs by time and type on each page.
- (5) The user can shift the focus to a certain time zone to play the certain time (playback will start from the time point when logs are saved)
- 6 Click the right-mouse button or select {Menu} button in the remote controller and select {Hour} to move the desired log time zone.

Time Changed Log Data View

The stored data folder is created each time the user changes the time. A blue triangular icon is displayed at a date in the calendar window that time changes are made. Otherwise, a red triangular icon is displayed at an unchanged date. To view the log details, select the desired date with a red icon. Selecting a date with the blue icon causes the changed date list window to appear.

2-9 Recording

U

2-9-1 Recording Type

It supports various recording types as shown below.

Recording Type	Description
Continuous	The Continuous recording will be initiated based on the general frame rate.
Motion	When motion is detected, the recording will be initiated based on the event frame value.
Sensor	When input signal from an external sensor is generated, the recording will be initiated based on the event frame value.

Audio When audio is detected, the recording will be initiated based on the event frame value.

2-9-2 Recording Setup

Move to {Menu} -> {Setup} -> {Recording} -> {Recording}.

2-9-3 Recording Status View

1) Recording Status by Color

	※ Reco	rding Event / Recording Mode Icon ※
	Μ	Motion Detection Recording
Recording Event	Α	Audio Recording
	S	Sensor Recording
Recording	V	Video Recording
Mode		Audio Recording

2-10 Backup.

In order to backup the data, make sure to check that external storage devices (CD, DVD or HDD) supports USB 2.0 interface is connected. The user can back up data in the real-time monitoring, search, log, or the playback mode.

Min case of using USB with NTFS file system, 'Hardware safety removal' is necessary from Windows. If not, USB memory can be damaged.

After the backup, USB can be removed from DVR/NVR.



[Figure 2-27. Backup Menu]

2-1 0-1 Backup in the Real-Time Monitoring Mode

- In the real-time monitoring mode, select {Menu} -> {Backup} -> {Backup}. The backup menus will then appear.
- (2) The automatic backup time is set to 5 minutes before the Copy (Backup) button is pressed, and the end time, to the time the Copy (Backup) button is pressed.
- 3 All channels containing data at the time of backup are backed up automatically. Depending on the divided screen mode, however, only those channels that can be viewed may be selected.
- ④ For the remaining backup procedures, see [2-10-5 Common Backup Procedure].

Backup				X
Information				
None	Select T	he Device		
Free Space		01	М	
Total Capacity		01	M	
File Size				
File Format	RMS for	mat `	\checkmark	
Directory Name	e			
Time Index	016/05/13 10:	53:39 ~ 2016	5/05/13 10:58:3	9
🔲 All Channel				
🔲 CH 01	🗖 CH 02	🗖 CH 03	🗖 CH 04	
🗖 CH 05	🗖 CH 06	🗖 CH 07	🗖 CH 08	≡
CH 09	CH 10	CH 11	CH 12	
CH 13	□ CH 14	CH 15	□ CH 16	
Backup Proces	s			
		5	Start E×	it

[Figure 2-28. Backup in the Real-Time Monitoring Mode]

2-1 0-2 Backup in Search Mode



				3						rch
					>	16	pril 20	A	<	
			Time Index	Sat	Fri	Thu	Wed	Tue	Mon	Sun
	\sim	All	Event							
		Multi Channel	Multi Mode	9	8	7	6	5	4	3
		Multi Channel	Muta Mode	16		14		12	11	10
		CH 01	Channel	23	22 29	21 28	20 27	19	18 25	17 24
				30	2.3	20	21	26	2.0	.24
	21 2	17 18 19 20	11 12 13 14 15 16	9 10	8	6 7	5	3 4	2	0
2 2	21 2	17 18 19 20 51	11 12 13 14 15 16	9 10	8	6 7	5	3 4	СН	
Hc 2 2 Mir	21 2		11 12 13 14 15 16	9 10	8	6 7	5		СН Н 01	C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7	5		CH H 01 H 02	C C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7	5		СН Н 01	C C C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7	5		CH H 01 H 02 H 03	C C C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7	5		CH H 01 H 02 H 03	C C C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7			CH H 01 H 02 H 03	C C C
2 2	21 2		11 12 13 14 15 16	9 10	8	6 7	5		CH H 01 H 02 H 03	C C C

[Figure 2-29. Backup in Search Mode]

- Select {Menu} -> {Search} -> {Calendar Search}.
- ② The automatic backup start time is set to the year/month/date/hour/minute set in the search mode, and the end time, to the last minute/second of the data existing at the selected time.
- $\ensuremath{\textcircled{3}}$ All channels with existing data at the time of backup are backed up automatically.
- ④ For the remaining backup procedures, see [2-10-5 Common Backup Procedure].

2-1 0-3 Backup in Log Mode

1	<	Aŗ	oril 20	16	>	1	All	Fail	Net	Rec Event No	ormal
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Event	-	Information	
							14:49:46	Playback	End	[Local] admin	
3	4	5	6	7	8	9	14:49:16	Playback	Start	[Local]admin	
10	11	12	13	14	15	16	14:49:16	Playback	End	[Local]admin	
17	18	19	20	21	22	23	14:48:38	Playback	Start	[Local]admin	
24	25	26	27	28	29	30	14:48:36	Playback	End	[Local]admin	
							14:48:23	Playback	Start	[Local] admin	
							14:48:23	Playback	End	[Local]admin	
Detai	led Inf	orma	tion				14:48:18	Playback	Start	[Local]admin	
Pag		1	/ 10				14:48:18	Playback	End	[Local]admin	
	6/04/1			6			14:48:04	Playback	Start	[Local]admin	
	back						14:47:53	Playback	End	[Local]admin	
	al]ad 5/04/1		:43:34	1			14:47:51	Playback	Start	[Local] admin	
							14:47:51	Playback	End	[Local]admin	
							14:47:05	Playback	Start	[Local] admin	
							14:46:56	Setup Ou	t	[Local]admin	
							14:46:56	Recording	g Setup Ch	a admin	E

[Figure 2-30. Backup in Log Mode]

- Select a date in {Menu} -> {Miscellaneous} -> {Log Viewer} and select a log related to the data to be backed up.
- 2 Click the right-mouse button or select {MENU} button in the front panel.
- ③ The automatic backup time is set to 5 minutes before the selected log is generated, and the end time, to the time the selected log is generated.
- ④ All channels with existing data at the time of backup are backed up automatically. If a log has been generated for a specific channel, however, then only that channel is selected.
- 5 For the remaining backup procedures, see [3-10-5 Common Backup Procedure].

2-1 0-4 Backup in Playback Mode



[Figure 2-31. Backup in Playback Mode]

- ① In the Playback mode, select {Menu} -> {Backup}. Any playback in progress at this time will stop.
- ② The automatic backup time is set to 5 minutes before the Copy (Backup) button is pressed, and the end time, to the time the Copy (Backup) button is pressed.
- ③ All channels containing data at the time of backup are backed up automatically. Depending on the divided screen mode, however, only those channels that can be viewed may be selected.
- ④ For the remaining backup procedures, see [2-10-5 Common Backup Procedure].

2-1 0-5 Common Backup Procedure

None	\sim	Select	The Dev	rice			
Free Space				0	M		
Total Capacity				0	М		
File Size							
File Format		RMS fo	ormat		\sim		
Directory Nam	е						
_							
		5/13 10):53:39	~ 201	6/05/13	10:58:39	
1 2							
1 2 All Channel		CH 02		СН 03	CI	H 04	
1 2 All Channel CH 01 CH 05		CH 02 CH 06		CH 03 CH 07	□ ci □ ci	H 04 H 08	
1 2 All Channel		CH 02		СН 03	CI	H 04 H 08 H 12	

[Figure 2-32. Backup Window]

① [Figure 2-33] shows the initial backup window menus.

② A list of the devices that can be selected is outputted with simple information of the currently selected devices

③ Selecting a device by pressing the Select button causes the free space and total capacity for the selected device to be displayed.

④ Selecting a device causes the directory name based on the initial values for the time and channel to be displayed and the size of the file to be backed up to be calculated.

(5) The directory is named as same with the backup time. The first 12 digits are determined by the year/month/day/hour/minute/second for From, and the 12 digits in the middle, by the year/month/day/hour/minute/second for To. The last 2 digits are determined by the number of folders in the selected device.

6 Selecting a device enables selecting the backup time as well.

To change the start and end time, press the Select button after choosing the start and end time.
 Change year/month/day/hour/minute/second by using arrow keys.

③ Changing the backup time causes the name of the directory to be backed up to be changed as well.

③ Select [Yes/No/Cancel] after pressing Start button.

※ In case of AVI file, select [Yes] to back up the data or [No] to stop the backup. Otherwise, press the [Cancel] button to return to the device selection mode on the backup window.

2-1 1 Setup Backup

The Setup Backup is to back all setup values of the current menu up. This function enables the user to copy the setups and apply them into other devices.



[Figure 2-33. Setup backup]

- ① For the Setup Backup, a device for backup must be connected.
- ② Move to {Menu} -> {Backup} -> {Setup Backup} and a window shown below appears. The setup is copied by the name shown below.

Device Information	X
Device USB or HDD Device SATA Device 1 SanDCruzer_Force	
[Figure 2-34. Setup Upgrade]	
Saved as the name below	
H6E04_V1.3.003_20160414_172843.bin	
1 2 3 4	
Model / Version / Date / Time	

- $(\texttt{3} Move to \{Menu\} \rightarrow \{Setup\} \rightarrow \{System\} \rightarrow \{Upgrade\} \rightarrow \{Setup\} after insert the backup device.$
- ④ With this way, the user can upgrade a new device with the current setup values in easy way.

2-1 2 Log Backup

This is to back logs up including General/ Recording Event / Network / Fail. Move to {Menu} -> {Backup} -> {Log backup} and start the backup process after selection of the events.

SB or HDD Device ATA anDCruzer_Force
6270 M
7987 M
9646 Byte
20160418_20160418_09_LOG
📙 Rec Event 🛄 Normal
Start Exit
re 2-35. Log Backup]
lder shown below. LOG

2-1 3 Capture

Log file is the text file.

The Capture function lets the user create a JPG file in the real-time monitoring, playback, search, or log mode and back up the image data.



[Figure 2-36. Capture]

To back up the currently displayed image, select {Menu} -> {Backup} -> {Capture} in real-time monitoring, Playback and Log mode.

2-1 4 QR Code(Network information)

QR Code is the function to connect the DVR /NVR scanning the QR code image. The user can connect the devices through the application named 'CCTV SMART VIEWER'.



Chapter 3. Setup

3 - 1 Time

% Function Description

- 1. Time Synchronization
- 1) Synchronization with the NTP server

The time is synchronized once every hour with the NTP Server.

A. Automatic Setup

The nearest server from the user's zone will be selected for connection. If the connection fails, the next nearest server will be chosen.

B. User Setting

The user sets the URL or IP for the NTP server. If connection is not established, a message will be sent to the user, and the related log, saved.

If synchronization with the NTP server fails, synchronization with RTC will be established.

2. Daylight Saving Time (DST) Setup

Regardless of whether NTP server or DST server is referred to, DST is automatically processed according to the time.

3. Time Setup by User

The user can set the time directly.

For the NTP client setup, the user can read the time but not change it.

Move to {Menu} -> {Setup} -> {Time} to set up time functions.

Setup								X
Time Ca	amera	IP Camera	Recording	Schedu		C torage	Network	System
Time Sync	Dat	e & Time	Time Zone	AL	ito Reba	ot		
1. Time Sync 2. NTP			NTP	-	\sim			
Server Type			NTP		\sim			
Server URL	(day		Auto 2 Time	_	~			
3. Update No.,	ruay		Z Time		~			
					Res	et	Save	E×it

[Figure 3-1. Time Menu]

3 - 1 - 1 Time Sync

Select Time Sev	er / Sever Type / Sever URL	

Off	The time server is not used.
NTP	NTP is used to set the time for the time DVR/NVR



{NTP} setup is available when {Time Sync} is set as NTP. Server URL is [Auto] when the server type is [NTP]. The user can enter the IP, URL when the server type is [PC]

3 - 1 - 2 Date and Time (1)Date and Time

etup							×
			*	1284	F h	į	
Time	Camera	IP Camera	Recording	Schedule	Storage	Network	System
Time Sy	ync Dat	te & Time	Time Zone	Auto R	eboot		
1. Date &	Time		2016/05/13	11:16:09			
2. Date D	isplay Type		yy/mm/dd	~			
					Reset	Save	Exit
		[Fig	jure 3-2. Da	ate and Ti	me]		



Only available when Time Server is off.

The system date and time format is Year/Month/Day/Hour/Minute/Second.

- ① By using the arrow keys and the Select button, move the focus onto the desired field; Year/Month/Day/Hour/Minute/Second and press the Select button.
- ② Select a field you want to change by using the arrow buttons and press the Select button.

(2)Time Display Format

Select Time Display Format among [Day/Month/Year] / [Month/Day/Year] / [Year/Month/Day].

3 - 1 - 3 Standard Time Zone

Se	tup				na esta			X	
	Time	Camer	a IP Camera	Recording	Schedule	Storage	Network	System	
							Nothonk	oystem	
	Time Sy	ync	Date & Time	Time Zone	Auto R	eboot			
	1. Time Z	one		(GMT+09:00)	Seoul		\sim		
	2. Dayligt	nt Saving	Time	Off			\sim		
	Start Ti	me		March 2nd week Sun 02:00:00					
	End Tin	ne		November 1st week Sun 02:00:00					
						Reset	Save	Exit	

[Figure 3-3. Standard Time Zone]

(3)Standard Time Zone

- 1 Select {Standard Time Zone}.
- 2 On the selection window, select the standard time zone you want to set.

(4)DST

- 1 By using the arrow keys and the Select button, select {Summer Time}.
- ② On the selection window, select On/Off by using the arrow keys and the Select button.

(5)Start Time

- ① By using the arrow keys and the Select button, select {Start Time}.
- ② On the selection window, set up Start Time by using the arrow keys and the Select button.

(6)End Time

① By using the arrow keys and the Select button, select {End Time}.

as "OLD_" in the search and log list.

② On the selection window, set up End Time by using the arrow keys and the Select button.



% For a weekly setting in the {Start Time} and {End Time} fields, set Day to [week].% After the Daylight Saving Time is selected, the existing data will be displayed

3 - 1 - 4 Auto Reboot

Auto Reboot is for system stability, rebooting itself regularly.

Set	tup			_							X
(L,		* *	0284				2	
	Time	Carr	iera	IP Camera	Recording	Schedu	le	Storage	e Ne	etwork	System
ſ	Time S	∕nc	Dat	e & Time	Time Zone	Au	ito Reb	oot			
	1. Auto F	eboot			Off						
	Time(h	our)			00:00		\sim				
	Repeat				Every Day		\sim				
							Res	set	Sav	/e	Exit

[Figure 3-4. Auto Reboot Menu]

3 - 2 Camera

Setup					X
Time Car	era IP Camera	Recording	Schedule	Storage N	etwork System
Camera	PTZ	Event Source	Relay	y	
Camera	Connect	Name	PZ Mask	Туре	Adjust
CH 01	Off	CH 01		Auto	10/10
CH 02	Off	CH 02		Auto	10/10
CH 03	On	CH 03	0	Auto	10/10
CH 04	Off	CH 04		Auto	10/10
CH 05	Off	CH 05		Auto	10/10
CH 06	Off	CH 06		Auto	10/10
CH 07	Off	CH 07		Auto	10/10
CH 08	Off	CH 08		Auto	10/10 🔍
I					,
			Re	eset Sav	ve Exit

[Figure 3-5. Camera Menu]

% The channels which are connected with IPCAM in DVR/NVR are not available with the following features. [PZ Mask, Type, Adjust]

3 - 2 - 1 Camera

① Connection

Used to set whether to connect or disconnect each camera channel.



X When the camera channel is set to disconnected, the video contents will not be displayed even if the camera is actually connected.

2 Title

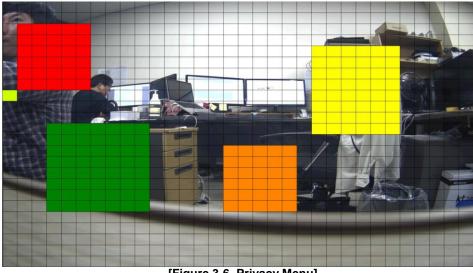
Name each camera. Max. 10 letters, 20 numbers are available.

③ Privacy

The feature that the monitors can't see the specific parts of the real-time monitoring channel. Privacy setting available once selecting the privacy tab of each channel. And the screen is converted to 1ch mode accordingly.

Max.4 privacy parts are available.

※ The channels which are connected with IPCAM in DVR/NVR are not available with this feature.



[Figure 3-6. Privacy Menu]

④ Type

Set the camera type. There are different camera types depending on the models. Please note that IPCAM & EX-SDI 1HDD Bay models do not support the camera type setting.

Setup					X
Time Can	era IP Camer	a Recording	Schedule	Storage	Network System
Camera	PTZ	Event Source	e Rela	ıу	
Camera	Connect	Name	PZ Mask	Туре	Adjust
CH 01	Off	CH 01		Auto	Auto
CH 02	Off	CH 02		Auto	4MP 3MP
CH 03	On	CH 03		Auto	3MP(1920×1536)
CH 04	Off	CH 04		Auto	T-1080
CH 05	Off	CH 05		Auto	A-1080 C-1080
CH 06	Off	CH 06		Auto	T-720
CH 07	Off	CH 07		Auto	A-720 C-720
CH 08	Off	CH 08		Auto	960H
<u></u>					
		1 C 2 7 C 0			Save Exit

[Figure 3-7. Camera Type Menu]

- ***** The channels which are connected with IPCAM in DVR/NVR and EX-SDI 1HDD Bay models are not available with this feature.
- (5) Adjust (IPCAM)

Adjust Brightness/Contrast/Color/Saturation/Sharpen/Camera.

	×
CH 03	\sim
el	
	*
	Exit

****** The channels which are connected with IPCAM in DVR/NVR are not available with this feature.

3 - 2 - 2 PTZ

Setup the protocol and baud rate of the PTZ Camera.

Se	etup						×
	Time Car	nera IP Came	ra Recording	Schedule	Storage N	etwork Sys	stem
1	Camera	PTZ	Event Sour	ce Relay	У		
U.	Camera	Protocol	Camera ID	Baud Rate	Duration	Tour	
I.	CH 01	None	1	9600	5 sec	Off	
I.	CH 02	None	2	9600	5 sec	Off	
II.	CH 03	None	3	9600	5 sec	Off	=
II.	CH 04	None	4	9600	5 sec	Off	
II.	CH 05	None	5	9600	5 sec	Off	
II.	CH 06	None	6	9600	5 sec	Off	
II.	CH 07	None	7	9600	5 sec	Off	
II.	CH 08	None	8	9600	5 sec	Off	
L							
				R	eset Sa	ve Exit	

[Figure 3-9. PTZ Menu]

*** IPCAM supporting PTZ is set to Protocol as IP Camera automatically.**

3 - 2 - 3 Event Source

Setup					×
Time C	amera IP Came	ra Recording Sch	nedule Storage	Network	System
Camera	PTZ	Event Source	Relay		
Channel	Motion Area	Motion Sensitivity	Sound Sensitivity	Sense Type	
CH 01	210	Highest		NO	
CH 02	210	Highest		NO	
CH 03	210	Highest		NO	=
CH 04	210	Highest		NO	
CH 05	210	Highest		NO	
CH 06	210	Highest		NO	
CH 07	210	Highest		NO	
CH 08	210	Highest		NO	
			Reset	Save	Exit

[Figure 3-12. Event Source Menu]



[Figure 3-13. Motion Area Setup]

- 1 Select Motion Area of each channel.
- ② It becomes the 1 channel division mode and rectangular boxes appear where motions occur. Drag the yellow pixel cursor by using the mouse or the front button/remote controller and select pixels where motion detection doesn't applied. The selected area turns black.
- ③ Click the right button of the mouse to finish.
- (2) Motion Sensitivity: Lowest/Low/Middle/High/Highest.
- (3) Sound Sensitivity: Lowest/Low/Middle/High/Highest
- (4) Sensor Type: Select the sensor type. (NO/NC)

3 - 2 - 4 Relay

Setup						×
() 👎		€.	8898	F h		
Time Car	nera IP Camera	Recording	Schedule	Storage	Network	System
Camera	PTZ	Event Source	Rela	iy		
Channel	Relay Type					
Relay 01	NO					
Relay 02	NO					
Relay 03	NO					
Relay 04	NO					
			R	leset	Save	Exit

[Figure 3-14. Relay Type Setup]

Select the relay type. (NO/NC)

3 - 3 IP Camera

3 - 3 - 1 IP Camera Setup

IP Camera can be registered to NVR. The user can check the information of IP Camera channel, Model Name, IP, Port and Protocol.

Se	tup				×
	Time Car	nera IP Carnera R	ecording Schedule		etwork System
Ĩ	Register	Stream	Common		
	IP Camera	Model Name	IP	Port	Protocol
	CH 01	F₩7502-KVF	10.34.47.2	80	ONVIF
	CH 02				-
	CH 03				-
	CH 04				-
	CH 05				
	CH 06				-
	CH 07				-
	CH 08				
				DHCP IPC List	Search
					Exit

[Figure 3-15. IP Camera Setup]

Search	_	_			X
	IP	Port	Model Name	MAC Address	
001	10.34.46.5	80	SK-NU30	8C:E7:48:EB:22:03	-
002	10.34.46.2	80	FW1174-FC-P	00:30:6F:85:5B:D5	
003	10.34.46.8	80	FW1179-FC1N	00:30:6F:84:D4:EE	
004	10.34.46.4	80	FW1174-FC-P	00:30:6F:85:5B:D1	
005					
006					
007					
800					=
009					
010					
011					
012					
013					
014					
015					
016					
			Refresh	Register Exit	

① Click [Search] button.

[Figure 3-16. IP Camera Search]

2 Check the camera search list [Figure 3-16. IP Camera Search]

Search						×
	IP	Port	Mode	l Name	MAC Address	
001	10.34.46.4	80	SK-I	NM30	8C:E7:48:FB:A8:3D	
002	Re	gister		X		
 003 004 		Channel	CH 18	\sim		н
005				.46.4		
006	F	Port	8	D		
007	1	D∕P₩ List	Empty	\sim		
008		D				
009	F	w				
010			🔲 RTSP-T	CP		
012	F	Protocol	ONVIF	\sim		
013						
014		Re	egister	Exit		
015						
016						-
				Refresh	Register Exit	

[Figure 3-17. IP Camera Registration]

- ③ Click [Register] button after selecting the camera among the searched IP cameras.
- ④ Select ID/PW, Port and Protocol of IP camera and click [Register] then finish the registration
- In case of registration with POE, it'll take about 1-3 minutes after connecting the IP camera.

And [Figure 3-18. IP Camera Link up using POE] is displayed on the screen.



[Figure 3-18. IP Camera Link up using POE]

- 6 After finishing IP Camera Link up, the registration popup appears on the screen.
- ⑦ Finish the IP Camera registration by clicking the registration button after selecting ID/PW, Port and Protocol of IP camera.

3 - 3 - 2 IP Camera Stream Setup

Setup			×
Time Can	nera IP Carnera Reco	rding Schedule Store	age Network System
Register	Stream Cor	nmon	
IP Camera	1st Stream	2nd Stream	3rd Stream
CH 01	1920x1080, 15fps	704×480, 10fps	320x240, 5fps 📃 📩
CH 02			-
CH 03			
CH 04			-
CH 05			
CH 06			-
CH 07			-
CH 08			-
			Exit

[Figure 3-19. IP Camera Stream Setup]

1 Select the stream of the channel

Setup		r.					×
	0	8	Stream		X		
			1st Stream				
Time	Camera	IP	Resolution	1920×1080	\sim	Network	System
Regist	er 🔤	Strea	Bit Rate	4096			
IP Cam	ега	1s	Frame Rate	15	\sim	3rd Stream	
CH 0	1 19	920×	2nd Stream			320x240, 5fps	
CH 0			Resolution	704×480			
CH 0			DU D-1-	100			=
CH 0	4		Bit Rate	1024			
CH 0			Frame Rate	10	\sim		
CH 0	6		3rd Stream				
CH 0			ere en				
CH 0	8		Resolution	320×240	\sim		
			Bit Rate	512			
		- 1	Frame Rate	15	\sim		
			C	hange Ex	it		
							Exit

[Figure 3-20. IP Camera Stream Change]

2 Click [Change] button after setting [Resolution, Bit Rate, Frame Rate]

3 - 3 - 3 IP Camera Search Protocol Setup

_								
S	etup							
	Time	Camera	IP Camera	Recording	Schedule	Storage	Network	System
	Regist	er 🤤	Stream	Common				
I		Protocol		ONVIF				
	2. POE Ca	amera Plug &	Play	Off				
	ID							
	₽₩							
I				RTSP-TCP	k S			
	Prot	ocol		ONVIF	\checkmark			
I								
18						Report	Source	Evit
						Reset	Save	Exit

[Figure 3-21. IP Camera Search Protocol Setup, Plug & Play Setup]

IP Camera Search Protocol Setup, Plug & Play Setup feature. Plug & Play is only available with POE supporting models. Input the information of IPC ID/PW/Protocol to NVR. Then POE Camera Plug & Play feature is available.

3 - 3 - 4 IP Camera Information

[Menu] \rightarrow [Setup] \rightarrow [IP Camera] \rightarrow [Register] \rightarrow Select the camera and camera information.

IP Camera Information	×
 1. 1st Stream RTSP URL: rtsp://10.34.47.2:554/cam0_0 Settings: 1920x1080, 8192kbps, 15fps, GOP 30, H.264 Streaming: 1920x1080, 576kbps, 10fps 2. 2nd Stream RTSP URL: rtsp://10.34.47.2:554/cam0_1 Settings: 704x480, 2048kbps, 10fps, GOP 15, H.264 Streaming: 704x480, 352kbps, 9fps 3. 3rd Stream RTSP URL: rtsp://10.34.47.2:554/cam0_2 Settings: 320x240, 0kbps, 5fps, GOP 0, JPG Streaming: 320x240, 384kbps, 5fps 4. HTTP URL: http://192.168.100.97:65401 5. MAC Address: 00:30:6F:01:07:17 6. Audio: On, PTZ: Off, RTSP-TCP: Off	
	Exit

[Figure 3-22. IP Camera Information]

The user can check the IP Camera information connected to NVR.

3 - 4 Recording

The Main setup is to configure the environment of record and system and major functions. In the real-time monitoring, move to $\{Menu\} \rightarrow \{Setup\} \rightarrow \{Recording\}$

tup	nera IP Camera	** <u></u> !	edule Storage	Network	; System
Schedule1	Schedule2		Schedule4		
Event	Recording A	Alarm Dura	ion Log		
Camera	Resolution	Continuous Speed	Event Speed	Audio	
CH 01	1st Stream	On	On	Off	
CH 02	1st Stream	On	On	Off	
CH 03	1st Stream	On	On	Off	=
CH 04	1st Stream	On	On	Off	
CH 05	1st Stream	On	On		
CH 06	1st Stream	On	On	Off	Ĩ
CH 07	1st Stream	On	On		
CH 08	1st Stream	On	On	Off	-
			Reset	Save	Exit

[Figure 3-23. Recording Setup Window]

3 - 4 - 1 Schedule Selection (Schedule1 ~ Schedule4)

Each channel can be scheduled in 4 different schedules. This schedule can be set as the recording schedule and each time can be 4 different schedules.

"Event, Recording, Alarm, Duration, Log" setup is available to schedule 1~4 anytime the user want.

Setup							X
		- Contraction of the second se	€£#	0255			
Time	Camera	IP Camera	Recording	Schedule	Storage	Network	System
Schedu	ule1 🔵 So	chedule2	Schedule3	Sche	dule4		

[Figure 3-24. Schedule Selection Window]

3	-	4	-	2	E	v	е	nt	t
---	---	---	---	---	---	---	---	----	---

Setup			- 171 M			X
		ý 😎	0000			
Time C	amera IP Can	nera Recordi	ng Schedule	Storage	Network	System
Schedule1	Schedule:	2 🔘 Sched	ule3 🔵 Sc	hedule4		
Event	Recording	Alarm	Duration	Log		
Camera	Motion	Sensor	Sound			
CH 01	On	On		•		
CH 02	On	On				
CH 03	On	On		=		
CH 04	On	On				
CH 05	On	On				
CH 06	On	On		-		
CH 07	On	On				
CH 08	On	On		-		
				Reset	Save	Exit

[Figure 3-25. Event Setup Window]

This is to set the events On/Off of Motion / Sensor / Sound.

Recording Type	Description

Motion	When motion is detected, recording will be initiated based on the event frame rate.
Sensor	When input signal from an external sensor is generated, recording will be initiated based on the event frame value.
Sound	When audio is detected, recording will be initiated based on the event frame value.

***** The channels which are connected with IPCAM in DVR/NVR are not available with the sound detection feature.

3-4-3 Recording

Setup						X
Time Car	nera IP Carnera	Recording	Cano Schedule	Storage	Network	System
Schedule1	Schedule2	Schedule3	Sche	edule4		
Event	Recording	Alarm	Duration	Log	Push	
Camera	Resolution	Continuou Speed	IS	Event Speed	Audio	
CH 01	1st Stream	On		Оп	On	
CH 02		On		On	On	
CH 03		On				
CH 04		On		On	On	
CH 05		On			On	
CH 06		On		On	On	
CH 07		On		On		
CH 08		On		On	On	•
				Reset	Save	Exit

[Figure 3-26. Recording Setup Window]

Used to set the resolution of the recorded channel.

(7)Frame Rate

If the user configures Continuous recording and Event recording at the same time, the continuous recording follows Continuous Speed frame rate and the event recording follows Event Speed frame rate.

Continuous Recording	Set the recording frame rate for continuous recording regardless of events.
Event Recording	Set the recording frame rate for events.
Sensor	Set the recording frame rate for events once input signal occurs from the external sensor.

3 - 4 - 4 Alarm

∛ Syste	Sy	Network	Storage		g Sche	Recordin	IP Carnera	Camera	<u>></u> -
			e4	Schedul	ıle3 🔇	Schedu	hedule2	🔵 So	Schedule1
	sh	Pus	Log	on 🗍	Durati	larm	ding A	Recor	Event
Þ	FTP	Callback	Popup	Spot	Relay	Email	PTZ Preset	Buzzer	Camera
r I	Off	Off	Off	Off	Off	Off	Off	Off	CH 01
f	Off	Off	Off	Off	Off	Off	Off	Off	CH 02
f				Off	Off				CH 03
	Off	Off	Off	Off	Off	Off	Off	Off	CH 04
f.					Off				CH 05
f I	Off	Off	Off	Off	Off	Off	Off	Off	CH 06
				Off	Off				CH 07
	Off	Off	Off	Off	Off	Off		Off	CH 08
Exit	Ε>	Save	et	Res					

[Figure 3-27. Recording Alarm Setup Window]

% This function is used to generate alarms through the Buzzer / PTZ Preset / e-mail / Relay / Popup / FTP in case of an event.

<u>.</u>

% Popup function is to inform event occurrence to the user through a warning window in the real-time monitoring mode.

3 - 4 - 5 Duration

Setup Time Can	nera IP Carr	era Recording	Schedule	Storage	Network	X System
O Schedule 1	Schedule2	Schedule	3 💿 Sche	dule4		
Event	Recording	Alarm	Duration	Log	Push	
Camera	Pre Alarm	Post Alarm				
CH 01	Off	10 sec	ie -			
CH 02	Off					
CH 03						
CH 04	Off					
CH 05						
CH 06	Off					
CH 07	Off					
CH 08	Off					
	(Cierry)	no 2.28 Dunot		Reset	Save	Exit

[Figure 3-28. Duration Setup Window]

Setup Pre-Recording(On / OFF), Post-Recording(5 / 10 / 15 / 20 / 60 / 150 / 300 seconds). Xin Pre-Recording, images of the last 7 seconds before the event occurrence are recorded.

3 - 4 - 6 Log

	nera IP Carr			Storage	Network	X System
Schedule1	Schedule2	Schedule	e3 💿 Sche	edule4		
Event	Recording	Alarm	Duration	Log	Push	
Camera	Motion	Sensor				
CH 01	On	On				
CH 02	On	On				
CH 03						
CH 04	On	On				
CH 05						
CH 06	On	On				
CH 07						
CH 08	On	On				
				Reset	Save	Exit

[Figure 3-29. Log Setup Window]

Setup On / Off for Motion / Sensor / Sound. **%** The channels which are connected with IPCAM in DVR/NVR are not available with this feature.

3 - 4 - 7 Push

Setup	14	- 24				×
Time Car	nera IP Cam	era Recording	Schedule	Storage	Network	System
Schedule1	Schedule2	Schedul	e3 💿 Sche	dule4		
Event	Recording	Alarm	Duration	Log	Push	
Camera	Motion	Sensor				
CH 01	Off	Off				
CH 02	Off	Off				
CH 03			=			
CH 04	Off	Off				
CH 05						
CH 06	Off	Off				
CH 07						
CH 08	Off	Off				
				Reset	Save	Exit

[Figure 3-30. Push Setup Window]

Setup On / Off for Motion / Sensor / Sound. **%** The channels which are connected with IPCAM in DVR/NVR are not available with this feature.

3 - 5 Schedule

Provide 4 different recording mode configurations. Each schedule mode can be set one week/24 hours and the recording follows the setting automatically. Select [Menu] \rightarrow [Setup] \rightarrow [Schedule] in the real-time monitoring menu.

Se	etup																								X
	Time)	1	e ame	-		P Ca	(Q) amer	ra	Rec	cord	ling		12 che	34		Sto	orag	e	 	etw	ork		Sys	tem
ľ	Sch	edu	le 1	٠	Sch	edu	le2	۲	Sch	edul	e3		Sch	edul											
	Hour					4					9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Sun	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Mon	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Tue	1	1		1		1		1		1	1		1		1	1	1	1		1	1		1	1
	Wed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Thu	1		1	1		1	1	1	1	1	1	1		1	1			1	1	1	1	1	1	1
	Fri	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Sat	1			1				1			1				1			1		1			1	1
	Hol	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
								-:		2			lolid				eset			Sa	ve			Exit	

[Figure 3-31. Schedule Window]

3 - 5 - 1 Schedule Setup

Select one schedule among Schedule1, Schedule2, Schedule3 and Schedule4.

- (1) Selection Tip
 - ① Select the day and time to be set by using the arrow keys.
 - ② Select after moving the cursor onto Time(0-23) or Day(Sun. Holiday) then the user can configure the whole line at once.
 - $\ensuremath{\mathfrak{I}}$) Using the mouse can be easier.

(2)Holiday Registration

Setup																								×
Time)	1	L' ame	-		P Ca	é amei	ra	Red	cord	! ling		12 che	34		Sto	orag	e	 - 	etw	ork		Sys	stern
O Sch	nedu	le 1	۲	Sch	edu	le2	۲	Sch	edul	e3														
Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun	1		1	1	1		1			1		1							1		1		1	1
Mon	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tue	1				1		1	1				1							1	1			1	1
Wed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Thu	1		1	1			1			1		1			1	1			1		1		1	1
Fri	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sat	1		1	1	1	1	1					1	1	1				1	1		1		1	1
Hol	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
										[H	lolid	ay		R	eset	ŝ.,		Sa	ve			Exi	

	<	A	pril 20	16	>		No.	Date		<	A	pril 20	6	>		No.	Date	
Sun	Mon	Tue	Wed	Thu	Fri	Sat			Sun	Mon	Tue	Wed	Thu	Fri	Sat	001	Every Year April 18	
						2									2			
									3						9			
						16			10						16			
	18		Every						17	18					23			
24			3rd Mi	onday	of Ap	ril			24		26		28		30			
																		l s

[Figure 3-32. Holiday Registration Window]

This feature is used to enable the user to set the holidays and schedule independently.

Move to {Schedule} -> {Holiday}.

<u> </u>	X If the date for the holiday and day of the week are the same in the {Schedule} menu, the
0	holiday setup will have priority over the date setup.
	X Designated holidays are marked with a green tag.

- ② On the Holiday Registration Window, select the date by using the arrow keys and the Select button and press the Select button.
- ③ After setting the holiday, move to {Save} at the bottom of the menu. Afterward, press the Select button.

3 - 6 Storage

Select [Menu]->[Setup]->[Storage] in the real-time monitoring menu.

Setup								×		
Time	Carnera	IP Camera	Recording	Schedu		Storage	Netwo			
	ate Recording Overwrite	Off On		× ×	- Days					
3. Loca	3. Local Storage Management									
No.	Recording Backup Ne			RAID Temperat	ure	Size(F/T) St	atus(SW/HW)		
1	SATA	WD-WMC4N	10H9TMYL	43°C		496/2000		Active/Healthy		
3	SATA	Z3T91	⁻ 9NY	45°C		496/5000	iB (O	nline/Healthy		
	Reset Save Exit									

[Figure 3-33. Storage Device Window]

In the Storage menu, To apply the new setting, save the new setting after changing the setting. **Reset**: Initialize the menu to the basic setting.

3 - 6 - 3 Max. Recording Days

This is to limit the recording days. None/1day/7days/30days/User setting(1-99) selection is available.

3 - 6 - 4 HDD Overwrite

Select On/Off for HDD Overwrite.

On	If there is no more hard disk space left, the existing files will be overwritten by starting with the oldest.
Off	If there is no more hard disk space left, the further recording will not be executed.

3 - 6 - 5 Local Storage Management (1)Local Storage Management Function

Local Storage refers to the internal hard disk and storages connected to the system via USB. Local Storage is classified and managed as **{Recording}**, **{Backup}**, **{New}** and functions are described below.

① Recording

The Recording storage is managed in Direct. The Recording storage stores data on the hard disk in the real time. Two commands can be executed. Depending on the SW/HW status, however, some commands cannot be executed.

New	Returns the status of the selected storage device to New; if this command is executed, the selected storage device will be moved to the {New} storage device manager.
Ú	※ Physical states supporting the execution of the commands above includes Healthy and Warning. In fault state, however, no command can be executed.

② Backup

Setup								X		
Time	Camera	IP. Camera	Recordin	g Schedu]	Storage	Network	System		
1. Priva	ate Recording	Off	Dff V Days							
3. Loca	2. HDD Overwrite On ~ 3. Local Storage Management									
Reco	rding <mark>Backu</mark>	p Ne	w	RAID						
No.	Location	Seri	ial Model		ł	Size	Dev	Device Type		
4	USB	4C53010282	0119116	SanDCruzer	_F	7 GB	Direc	t Access		
_										
	Reset Save Exit									

[Figure 3-34. Backup Storage Device Window]

The backup storage is managed in Backup. Backup storages are only used to back up the data.



Depending on the storage type, the storage is used only for (Recording) or (Backup) purposes.

3 New

Se	tup							×	
	Time	Camera	IP Carnera	Recording	Schedule	Storage	Network	< System	
1. Private Recording 2. HDD Overwrite				Off On	• •	Days			
3	. Loca	al Storage Man	agement						
ľ	Reco	rding Ba	ckup N	ew	RAID		-		
	No.	Location	Se	rial	Model	Backup-Format Backup-Format			
	2	SATA	XQKPPOBU	2GZD39KD	RAID 1	500 GB Dire		ect Access	
11									
U.									
I.									
	Reset Save Exit								

[Figure 3-35. New Storage Device Window]

All storages, initially detected are managed in {New}. All initially detected storages are displayed as New and can be changed into Recording storage or Backup Storage.

Recording-Format	Changes the selected storage into a dedicated recording storage.					
Backup-Format	Changes the selected storage into a backup storage.					



In **{New}**, At least, one storage shall be selected as a dedicated storage. Otherwise, the data cannot be stored in the real time.

④ RAID : User can use RAID thru the e-sata storage only.

(1)Composition of the local storage device

Ú	※ There are three software status types.
Active	Connected to storage or backup device; currently saving the data.
Online	Only connected to storage or backup device.
Offline	Not connected to storage or backup device.

3-7 Network

Select [Menu] → [Setup] → [Network]



3 - 7 - 1 Ethernet 1 (Client Port)

This is for the feature to do monitoring thru VMS, Web, Smartphone app.

It sets DHCP as default. DHCP can make the DVR/NVR to have the IP address from the router automatically. DHCP setting is recommended.

If user wants to use the IP address by manually, then unchecked DHCP and input the IP address user want.

Setup		. 8			-		X
Time	Camera	IP Camera	Recording	Schedule	Storage	e Network	x System
Ethernet1	Ethernet2	DDNS	Email	Bandwidth	Callback	FTP	RTSP
2. Sut 3. Def DNS 1. Prin 2. Sec Port 1. Clie 2. Wet	Address onet Mask ault Gateway nary DNS condary DNS ent Port b Server Port o Port Forwar	ding	192.168. 255.255. 192.168. 8.8.8.8 8.8.4.4 50100 80 Off	255.0			
E					Reset	Save	Exit

[Figure 3-37. Ethernet 1]

- ① [Menu] \rightarrow [Setup] \rightarrow [Network] \rightarrow [Ethernet1]
- ② Set the details then save. [IP address, Subnet Mask, Default Gateway, Primary DNS, Secondary DNS, Client Port, Web Server Port, Auto Port Forwarding]
- ③ Client port is for user's connection and it sets '50100' as default. It can be changed by user's situation like firewall or network status.
- ④ Web port is for user's web monitoring of DVR/NVR. It sets '80' as default.
- (5) We recommend to use the Client port and Web ports with '50100' and '80'.
- (6) 'Auto Port Forwarding': If user set it as 'On', it is no necessary to do Port forwarding at router. If the router is not supporting Port forwarding feature, user should connect to the router menu then do Port forwarding with Client and Web port.

3 - 7 - 2 Ethernet2 (IP Camera port)

Setup						×		
		£	0890					
Time Camera	IP Camera	Recording	Schedule	e Storage	Network	System		
Ethernet1 Ethernet	2 DDNS	Email B	Bandwidth	Callback	FTP	RTSP		
DHCP Server Enal	ble							
1. IP Address		10.34.46.	202					
2. Subnet Mask		255.255.2	255.255.255.0					
3. Default Gatewa	y	10.34.46.	1					
				- In				
				Reset	Save	Exit		

[Figure 3-38. Ethernet 2]

- ① [Menu] \rightarrow [Setup] \rightarrow [Network] \rightarrow [Ethernet2]
- 2 Set the details then save. [IP address, Subnet Mask, Default Gateway]

% This feature is available in NVR & DVR except EX-SDI DVR.

3 - 7 - 3 DDNS



[Figure 3-39. DDNS setting]

DDNS(Dynamic Domain Name System): the Dynamic Domain Name System (DDNS) service updates IP addresses of the host name in the real time and allocates fixed domain names to systems linked to dynamic IP addresses to allow users to use the same DNS name regardless of the change of in the IP address. It provides dynamic DNS to ensure URL access in the dynamic IP environment. User can monitor the remote place thru internet with web server functions which is equipped in DVR.

DDNS helps the user who doesn't know the IP address to connect DVR/NVR by using Domain Name.

- ① Select On/Off of DDNS or a domain name to use by using arrow keys and the selection button.
- ② In case of DDNS On, enter the host name and save it then, the registration procedure of the host name proceeds automatically. You can enter the host name with 2-20 letters.
- 3 The host name to enter must not be pre-registered in DDNS sever. Otherwise it won't work.
- ④ The basic host name is the MAC address of appertaining DVR.
- (5) In case the host name have entered starts with "000c28", none of MAC address will work excepting for appertaining DVR's.
- In case of DynDNS On, enter the host name, user name registered in DynDNS and password then, save them.

	※ Access to DynDDNS sever(http://www.dyndns.org) and apply for the user account then,							
<u>()</u>	register the domain name to use and enter URL.							
	X For more information, please access to the site.							

3 - 7 - 4 E-mail

Setup	×	<
Time Camera	Recording Schedule Storage Network System	
Ethernet1 Ethernet2 DDNS	Email Bandwidth Callback FTP RTSP	
1. Email Enable	Off	
2. Relay SMTP	Gmail	
SMTP Port	587	
Sender Email	@gmail.com =	
Sender Password		
Receiver Email 1		
Receiver Email 2		
Receiver Email 3		
Receiver Email 4		
Receiver Email for Error		
	Reset Save Exit	

[Figure 3-40. E-mail]

This is to set automatic E-mail transmission service when an event occurs.

- ① [Menu] → [Setup] → [Network] → [E-Mail]
- ② To use the e-mail function, {E-mail} in {Menu} → {Setup} → {System} → {9. Alarm} or {E-mail} in {Menu} → {Setup} → {Action} → {Alarm} need to be configured.

Setup						×	Setup			×
		-	in the second se	Storage	Network	System	Time Camera Recording	Schedule Storage	Network	System
Schedule1	Schedu	le?	Schedule3	Sch	edule4	1. DVR Name	000c28066429			
• ocneduler	e ocnedu		Seneduico	000			2. ID For Remote Controller	1		
Event Red	ording Al	arm Du	ration L	og			3. ID For Key Controller	1		
Camera	Buzzer F	PTZ Pres.	Email	Relay	Spot	Popup	4. Users	Modify Add	Delet	e
							5. Upgrade	Firmware Setup		
CH 01	Off	Off	On	Off	On	Off	6. Factory Setup	Reset		
CH 02	Off	Off	Off	Off	Off	Off	7. Console/POS Port	Console 🗸 🗸		
CH 03	Off	Off	Off	Off	Off	Off	8. Error Alarm Action	Email	Off	
CH 04	Off	Off	Off	Off	On	Off	9. Error Alarm Duration	Latch V	Buzzer	
CH 05	Off	Off	Off	Off	Off	Off			V Email	
CH 06	Off	Off	Off	Off	Off	Off	10. Menu Time Out	Off V	Relay01	
CH 07	Off	Off	Off	Off	Off	Off	11. Language	English 🗸 🗸	Popup Wir	ndow
CH 08	Off	Off	Off	Off	Off	Off				
●1~8	9~16		Re	set	Save	Exit		Reset	Save	Exit

- ③ Relay SMTP is set on 'Gmail' as default, but when 'Default' (in menu tab) is selected
- ④ Receiver Email can be set up to 5 users (emails).
- (5) Email Interval settings are as follows [5 sec / 1 min / 3 min / 5 min /10 min].

3 - 7 - 5 Bandwidth



[Figure 3-41. Bandwidth]

- (1) [Menu] \rightarrow [Setup] \rightarrow [Network] \rightarrow [Bandwidth]
- (2) This sets up the limit of the bandwidth to be used when bringing the live image, adjust resolution/quality and transmitting the data by using the network.
- In case of smartphone app monitoring, you can control the network resolution here to save the data cost.

Picture Resolution	CIF/2CIF/D1/960H/720P/1080P
Picture Quality	Adjust quality of the image, as the value increases, the compression rate gets higher and image quality gets low. However the transmission rate gets higher.
Bandwidth Limitation	Set the network bandwidth between 56 Kbps ~ 8 Mbps. The network transmission speed gets faster when value gets higher. Select Off if you don't want to limit the network bandwidth.
Transmission Code	JPEG / H.264
IPC Stream Bypass	NVR/DVR pass the stream of IPCAM to the network without filtering.

% For 8/16 CH DVR/NVR, recording resolution for the DVR/NVR is same with the max network image resolution.

Example) if user sets 720p as recording resolution, network image resolution will be 720p even if you sent 1080p for Picture Resolution on Bandwidth.

% IPC Stream bypass features is available with the channel connected to IPCAM.

3 - 7 - 6 FTP

Setup						X
Time Camera	IP Camera	Recording	Schedule	Storage	Network	System
Ethernet1 Ethernet2	DDNS	Email	3andwidth	Callback	FTP	RTSP
 FTP Server Enable 1. Server IP Address 2. Port 3. User ID 4. User Password 5. FTP Directory 		21 Test				
				Reset	Save	Exit

[Figure 3-43. FTP setting]

This to be sent JPG image to FTP server when the event occurs.

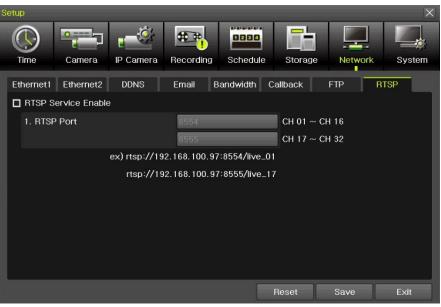
1 [Menu] \rightarrow [Setup] \rightarrow [Network] \rightarrow [FTP]

② Select FTP1 or FTP2 then tick FTP Server Enable.

Server IP Address	FTP IP address
Port	FTP Port
User ID	FTP ID
User Password	FTP Password
FTP Directory	FTP location to save JPG image file JPG
TEST	Test button to make sure FTP server works or not

After setting FTP here, then go to [Menu] \rightarrow [Setup] \rightarrow [Recording] \rightarrow [Alarm] then thru on for FTP. After that, user can receive the JPG image file at FTP Directory.

3 - 7 - 7 RTSP



[그림 3-44. RTSP 설정창]

Tick RTSP Service Enable then set RTSP port.

Please refer to the example shown on the menu. This RTSP address makes user to see the camera.

ex) rtsp://192.168.100.97:8554/live_01 rtsp://192.168.100.97:8555/live_17

3-8 System [Menu] → [Setup] → [System]

Setup					X
	₩	0880		ļ	
Time Camera IP Camera	Recording	Schedule	Storage	Network	System
1. DVR Name 2. ID For Remote Controller 3. Key Controller	000c280b3292 1 Setup				
4. Users	Modify	Add	Del	ete	
5. Upgrade	Firmware	Setup	Lo	3 0	
6. Factory Setup	Reset				
7. Error Alarm Action	Off				
8. Error Alarm Duration	Latch	\sim			
9. Menu Time Out	5 min	\sim			
10. Language	English	\sim			
11. Video Loss Event Delay Time	1 sec	\sim			
		R	leset	Save	Exit

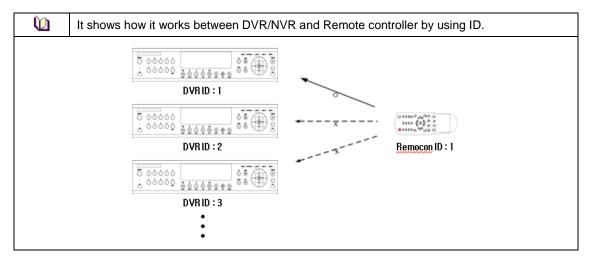
[Figure 3-45. System]

ID for remote controller	ID to be controlled by Remote controller
Users	Users authorities, modification, add and delete
Upgrade	Upgrade, setup change, Logo change

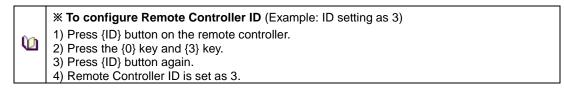
Factory Setup	Go back to default setting except Network setting
Error Alarm Action	Alarm setting for many types of system failure
Error Alarm Duration	Set for Alarm duration
Menu Time Out	Time setting from menu to live display
Language	System OSD Language setting
Video Loss Event Delay Time	It keeps 'Video Loos' during the setting period, then Video Loss event comes out
BNC out type	HD, SD resolution selection

3-8-1 ID For Remote Controller

This to be set when user have many DVR/NVRs with one remote controller



(1) [Menu] \rightarrow [Setup] \rightarrow [System] \rightarrow [ID for Remote Controller]



3-8-2 Users

	X User's Authorization X
ID/PW	Admin can change the User's ID/PW
	ID/PW support max 31 letters and numbers
Network Live	Network Live
Playback (Download)	Local Playback
Playback (Download)	Network playback/download
Local Backup	Local backup
Setup	Changing settings
PTZ Control	PTZ Control
Network Upgrade	Network upgrade control
Password	Password enable/disable
Channel Enable(user)	Authorization for each channels



Up to 14 users can be registered.

			×
ID	admin		
Password	* * * * *	.	
□ Network	< Live		
🗖 Playbac	k (Download		
🗖 Local B	ackup		
🗖 Setup			
D PTZ Col	ntrol		
□ Network	< Upgrade		
Passwo	ord		
Channel Er	nable		
🗖 CH 01	🗖 CH 02	🗖 СН 03	🗖 СН 04 📃
🗖 CH 05	🗖 СН 06	🗖 CH 07	🗖 CH 08 🗉
🗖 СН 09	🗖 CH 10	🗖 CH 11	🗖 СН 12 🚽
🗖 CH 13	🗖 CH 14	🗖 CH 15	🗖 СН 16 📃
		Modify	Cancel
[Fi	aure 3-46.	Users → M	A

3-8-3 Upgrade

To upgrade by external storage devices supports USB2.0.

% Firmware which will be upgraded should be located to the highest(root) location from the external devices supports USB 2.0



 After copying the upgrade file, be advised to get rid of the USB device with safety removal mode from PC.
 If the USB device is disconnected from the USB port while the upgrade file is being copied, the DVR system may not automatically detect the file.



Removing USB during the upgrade in progress may cause damage on the system. The system starts over when the upgrade is completed.

(1) Firmware Upgrade method

- ① Insert (input) USB 2.0 device into the DVR/NVR then select [Menu]→[Setup]→[System]→[Upgrade-> firmware] then you will see the menu below.
- ② Find the correct firmware then do double click to upgrade

Time Camera IP Camera Recording Schedule Storage Network System	Current VersionV1.7.00New VersionV1.7.00
2. ID For Rem 3. Key Control 4. Users 5. Upgrade 6. Factory Se 7. Error Alarn 8. Error Alarn 9. Menu Time 1. ID For Rem File Information Upgrade Version V1.7.001 Directory Name /mnt/sdb1 Device Model SanDCruzer_Force Exit	Upgrade contents /mnt/sdb1/dvr.boot /mnt/sdb1/dvr.ramdisk /mnt/sdb1/dvr.kernel /mnt/sdb1/dvr.bmp /mnt/sdb1/dvr.app
10. Language English ✓ 11. Video Loss Event Delay Time 1 sec ✓	Firmware upgrade and reboot
Reset Save Exit	Yes No

③ Read the information and select {Yes} to start the upgrade gradually. Select {No} to return to the {System} mode

X After 3 ~15 Seconds, you can see the Firmware upgrade process menu.

- ④ After the upgrade is completed, the system reboots.
- S Move to {Menu} →{Miscellaneous}→ {DVR Information} → {3. Software Version} to check the version.

(2) Setup Upgrade

.

5. Upgrade	Firmware	Setup	Logo

- ① Select **[Setup]** and the upgrade file list stored in the selected device and simple version info of the selected file are then displayed.
- ② Select a file and then the upgrade starts immediately.
- Caution

Select a file and then the upgrade starts immediately. All setting values of the current menu will be changed to the upgrade setting values.

(3) Logo Upgrade

5. Upgrade	Firmware	Setup	Logo

 $\ensuremath{\mathbb{X}}$ This to be changed to booting logo.

X Image format: JPG format, booting logo image size [720 x 480]

3-8-4 Factory Setup

 $[\mathsf{Menu}] \rightarrow [\mathsf{Setup}] \rightarrow [\mathsf{System}] \rightarrow [\mathsf{Factory} \ \mathsf{Setup}]$

Select Yes or No



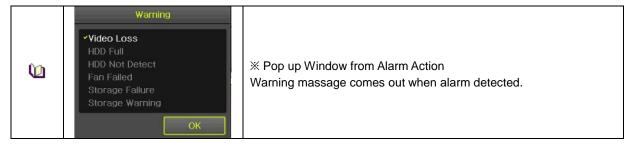
Take a note that all settings will be to default except network setting.

3-8-5 Error Alarm Action

- ① [Menu] \rightarrow [Setup] \rightarrow [System] \rightarrow [Error Alarm Action]
- 2 This is to set the alarm which is serious for system operation

Setup	_					X
	10					
		** *				
Time Camera I	P Camera	Recording	Schedule	Storage	Network	System
1. DVR Name		000c280b3292	2			
2. ID For Remote Controlle	۶ Г	1				
3. Key Controller		Setup				
4. Users		Modify	Add		ete	Ξ
5. Upgrade		Firmware -	Setup	Lo	go	
6. Factory Setup		Reset				
7. Error Alarm Action		Off		Alarm Action Alarm List	Diff Buzzer	
8. Error Alarm Duration		Latch			Email	
9. Menu Time Out		5 min	~		Relay01 Popup W	indow
10. Language		English			Push	
11. Video Loss Event Dela	ay Time	1 sec	~			
				Reset	Save	Exit
	[F	igure 3-48. /	Alarm Act	ion]		
				-		
Setup				-	_	X
Setup	:	45.78				×
Setup	- [©]	€ .*•	0880	F h		×
	P Carnera	Recording		Storage	Network	X System
Time Camera I	P Camera		Schedule		Network	
Time Camera		Recording	Schedule		Network	System
Time Camera I 1. DVR Name 2. ID For Remote Controlle		000c280b3292	Schedule		Network	System
Image: Time Image: Camera Image: Camera <td></td> <td>000c280b3292 1 Setup</td> <td>Case Schedule</td> <td>Storage</td> <td></td> <td>System</td>		000c280b3292 1 Setup	Case Schedule	Storage		System
Time Camera I Camera I 1. DVR Name 2. ID For Remote Controller 3. Key Controller 4. Users		000c280b329; 1 Setup Modify	Schedule 2 Add	Storage	ete	System
Image: Time Image: Camera Image: Time 1. DVR Name 1. 2. ID For Remote Controller 1. 3. Key Controller 1. 4. Users 1. 5. Upgrade 1.		000c280b3292 1 Setup Modify Firmware	Case Schedule	Storage	ete	System
TimeCamera1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup		000c280b329; 1 Setup Modify Firmware Reset	Schedule 2 Add	Storage Del	ete go	System
Image: TimeImage: Carnera1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup7. Error Alarm Action		000c280b3292 1 Setup Modify Firmware Reset Off	Schedule 2 Add	Storage	ete go ♪ ✓ Video Lo:	System
TimeCamera1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup		000c280b3292 1 Setup Modify Firmware Reset Off Latch	Schedule 2 Add	Storage Del Lo	ete go	System
TimeCamera1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup7. Error Alarm Action8. Error Alarm Duration9. Menu Time Out		000c280b3292 1 Setup Modify Firmware Reset Off Latch 5 min	Schedule 2 Add	Storage Del Lo	ete go Y Video Lo: Y HDD Full Y HDD Not Y Fan Faile	System
Image: DescriptionImage: Description1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup7. Error Alarm Action8. Error Alarm Duration	ЭГ	000c280b3292 1 Setup Modify Firmware Reset Off Latch	Schedule 2 Add	Storage Del Lo	ete go • Video Lo • HDD Full • HDD Not	System
ImageImage1. DVR Name2. ID For Remote Controller3. Key Controller4. Users5. Upgrade6. Factory Setup7. Error Alarm Action8. Error Alarm Duration9. Menu Time Out10. Language	ЭГ	000c280b3292 1 Setup Modify Firmware Reset Off Latch 5 min English	2 Add Setup	Storage Del Lo	ete go ✓ Video Lo: ✓ HDD Full ✓ HDD Not ✓ Fan Faile ✓ Storage F	System





3-8-6 Error Alarm Duration

This is to set duration not only for alarm but also, recording.

3-8-7 Menu Time Out

If no input is made in the System Setup menu from the front buttons, remote controller and mouse, the system automatically shifts to the real-time monitoring mode.

3-8-8 Language System OSD (On Screen Display) selection.

3-8-9 Video Loss Event Delay Time

This is to set the time for 'Video Loss' when the camera is disconnected.

Chapter 4. DVR / NVR Web Service

[DVR/NVR Web Service] through the Ethernet/Port setup and web server composition. The main purpose of DVR/NVR WEB SERVICE is for easy setup for users to control DVR/NVR setup and live view by WEB easily.

4-1 DVR / NVR Web Service

4 - 1 - 1 Web service connection

If the user is using the firmware 15.x.xxx, it means that DVR WEB SERVICE is available. Check the URL and Web port that DVR/NVR IP or DDNS is set. Input the confirmed 'IP or <u>URL:Port</u>' on the web browser then enter the page.

http://192.168.100.95/cgi-bin/login.cgi	0-0

[Figure 4-1. Browser Address Input]

Then, user can see the log-in menu as follows. Input ID/PW for the DVR/NVR. Click the [Login] button.

ID	User ID	
Password	User Password	Login

[Figure 4-2. Login Window]

	X This web service has been developed only for the Internet Explorer and Chrome. We can't guarantee the other web browser.
	Recommended web browser:
!	More than Internet Explorer 10 More than Chrome 42.0 More than Safari 5.1.7
	If the web browser is lower version, some features are not able to be controlled. In case of [PC Web Viewer Connection], it can be available with Internet Explorer.

4 - 1 - 2 Web Service Feature

After log-in, [PC Web Viewer/Information/QR Code/JPEG Viewer/Calculator/Setup] features are available. ** The main screen composition is as follows.

PC Web viewer	PC Web viewer			
QR Code (Netw		5	6	
JPEG Viewer	Client Port: 50100	& Connect	P Login with administrator	
Calculator	Please use the do	wnload link according to user s	ystem environment.	
Setup		PC Web Viewer Download		
		(B)	-	
		0		
		U		

[Figure 4-3. Web Service Main Window]

- ① Go to main menu
- ② ID for the user log-in
- ③ Refreshing
- ④ Setup/Information/QR code/JPEG viewer/Calculator selection
- (5) PC web viewer connection (Real-Time monitoring and playback)
- 6 Login with administrator
- ⑦ PC web viewer download.
- 8 Log out

** Currently connected DVR / NVR information check is available.

DVR Web Service			[admin] User Login	
PC Web viewer				ì
Information	Information			
g QR Code (Netw	1. ID: 1			~
JPEG Viewer	2. Name: 000c280b3292			
Calculator	3. Software Version: V1.7.028			
Setup	4. Hardware Version: 1.0 (UHD NVR)			
Time Camera	5. Video Mode: NTSC, FHD			
IP Camera	CH 01: 10.34.47.2(10fps)	CH 02: None		
 Recording Event 	CH 03: None	CH 04: None		
¹⁰ Recording	CH 05: None	CH 06: None		
 Alarm Duration 	CH 07: None	CH 08: None		
Cog	CH 09: None	CH 10: None		
 Push Schedule 	CH 11: None	CH 12: None		
Storage Network	CH 13: None	CH 14: None		
System 📽	CH 15: None	CH 16: None		
	CH 17: 10.34.46.3(16fps)	CH 18: None		~
[™] Logout			[admin] User Login	Ce
DVR Web Service			[admin] User Login	6
DVR Web Service	Information		[admin] User Login	•
DVR Web Service		CH 32: None	[admin] User Login	
DVR Web Service	Information	CH 32: None	[admin] User Login	
DVR Web Service PC Web viewer Information QR Code (Netw	Information CH 31: None	CH 32: None	[admin] User Login	
DVR Web Service PC Web viewer Information QR Code (Netw JPEG Viewer	Information CH 31: None 6. HDD Information (Overwrite: On)	CH 32: None	[admin] User Login	•
DVR Web Service PC Web viewer Information Q QR Code (Netw JPEG Viewer Calculator Setup Time S	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB		[admin] User Login	
DVR Web Service PC Web viewer Information Q QR Code (Netw JPEG Viewer Calculator Setup Time S	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB		[admin] User Login	
DVR Web Service PC Web viewer Information QR Code (Netw JPEG Viewer Calculator Setup Time Camera IP Camera PC Camera Recording	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214)		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215)		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static		[admin] User Login	
DVR Web Service PC Web viewer Information Q QR Code (Netw JPEG Viewer Calculator Setup Time Calculator Camera IP Camera IP Camera EVent Recording E Event Recording Alarm Duration Log	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static IP Address: 192.168.100.97		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static IP Address: 192.168.100.97 Client Port: 50100		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static IP Address: 192.168.100.97 Client Port: 50100 Web Port: 80		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static IP Address: 192.168.100.97 Client Port: 50100 Web Port: 80 Auto Port Forwarding: Off		[admin] User Login	
DVR Web Service	Information CH 31: None 6. HDD Information (Overwrite: On) Total Capacity: 2500 GB Free Space: 992 GB Start Date: 2016/10/05 16:00:00 (214) End Date: 2016/10/05 17:00:00 (215) 7. Ethernet Type: Static IP Address: 192.168.100.97 Client Port: 50100 Web Port: 80 Auto Port Forwarding: Off MAC Address: 00:0C:28:0B:32:92		[admin] User Login	

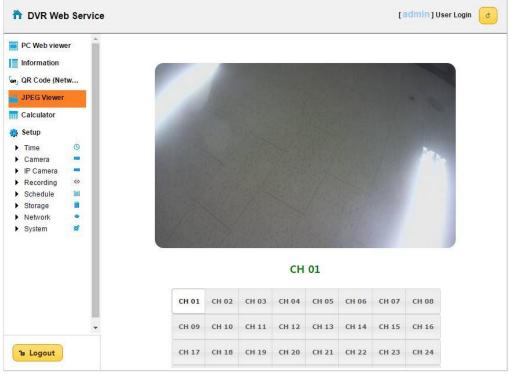
[Figure 4-4. DVR / NVR Information Window]

** Connection available through the mobile app using the QR code.



[Figure 4-5. QR Code Information Window]

** Real time video can be shown in seconds via JPEG image.



[Figure 4-6. JPEG Viewer]

** Depending on the recording setup, storable date and time can be calculated compared to disk capacity.

Information QR Code (Net	etw	Channel	Recording Quality	Recording Resolution	Frame Rate (Frame/Sec)	Recording Hour a Day (Hours)	
JPEG Viewe	r	CH 01	Highest	CIF	30	24	1
Calculator		CH 02	Highest	CIF	30	24	
🔉 Setup	_	СН 03	Highest	CIF	30	24	
▶ Time	0	CH 04	Highest	CIF	30	24	
 Camera IP Camera 	100	CH 05	Highest	CIF	30	24	
Recording	0	CH 06	Highest	CIF	30	24	
 Schedule Storage 		СН 07	Highest	CIF	30	24	
 Network System 		CH 08	Highest	CIF	30	24	
	•	HD	D Capacity	(GB)	Count		

[Figure 4-7. Calculator]

** Recording setup is available by each channel.

PC Web viewer	Recording					
QR Code (Netw						
JPEG Viewer	• Schedule1	O Schedule2	O Schedule3	O Schedule4		
Calculator						
Setup	Camera	Resolution	Continuous Speed	Event Speed	Audio	
Time Camera =	CH 01	1st Stream	On	On	On	
P Camera	CH 02	1st Stream	On	On	On	
Recording Event	CH 03	1st Stream	On	On	On	
** Recording	CH 04	1st Stream	On	On	On	
 Alarm Duration 	СН 05	1st Stream	On	On	On	
Log Push	СН 06	1st Stream	On	On	On	
Schedule 🔳	СН 07	1st Stream	On	On	On	
Storage Network	CH 08	1st Stream	On	On	On	
System 🧉	CH 09	1st Stream	On	On	On	~
\sim		1	1 1	1		

[Figure 4-8. Setup Recording Page]

A/P/P/E/N/D/I/X Recommended PTZ Camera Protocol

NO	Vendor	Model	Protocol
1	HONEYWELL	SCANDOME2	HSDN-251
2	LG	LG	LG_MULTIX,
2	LG	LG	LG_OLD
3	PANASONIC	WVCS854	WVCS854
4	PELCO	PELCO	PELCO – D
4	FELCO	FELCO	PELCO - P
5	SAMSUNG	SAMSUNG	SPD-1600
5	TECHWIN	SAMSUNG	SCC641
6	HITRON	FASTRAX2	FASTRAX2
7	COAX	COAX_OSD	UTP/Coaxitron OSD
		COAX_PTZ	UTP/Coaxitron PTZ

- End -

Network Camera User Manual

Manual Version: V3.00

Thank you for your purchase. If you have any questions, please do not hesitate to contact your dealer.

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Safety Instructions

(\mathbf{i})

CAUTION!

The default password is intended only for your first login. For security, we strongly recommend you set a strong password of at least 9 characters comprising digits, letters, and special characters.

Be sure to read this manual carefully before use and strictly comply with this manual during operation.

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.

- This manual is intended for multiple product models, and the photos, illustrations, descriptions, etc, in this manual may be different from the actual appearances, functions, features, etc, of the product.
- Uniview reserves the right to change any information in this manual without any prior notice or indication.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.
- Users are fully responsible for the damages and losses that arise due to improper operations.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

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

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1 Login

1.1 **Preparation**

Refer to the camera's quick guide to install it properly, and then connect power to start up it. You can log in to the camera's web interface to perform management or maintenance operations.

The following takes IE on a Windows 7.0 operating system as an example.

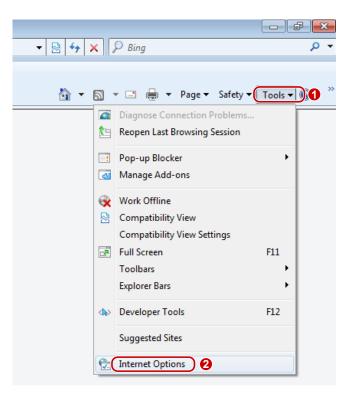
1. Check before login

- The camera runs normally.
- The PC has a network connection to the camera.
- A web browser has been installed on the PC. Microsoft Internet Explorer 10.0 or later is recommended.
- For optimal display, it is recommended to choose a monitor with the highest resolution of the camera.



NOTE!

Recommended PC specifications for 32MP live view: CPU: Intel® Core™ i7 8700; Graphics card: GTX 1080; RAM: DDR4 8GB or higher.



6		ew or change	security settings.	0	
Inter	net L	ocal intranet	Trusted sites	Restricted	
	Trusted	sites	0	-	les
~	trust not to your files.	o damage yo	bsites that you ur computer or this zone.	Ľ	
Securit	y level for	this zone	and the second		
Allow	ed levels f	or this zone:	Al		
: :	U -	rompts before nsigned Activ	e downloading pote veX controls will no	t be download	ed
F	Enable Pr	otected Mod	e (requires restartin Custom level	g Internet Expl	
		-	-		

You can add and remove websites from this zone will use the zone's security set	
Add this website to the zone:	
http://192.168.1.13	Add
Websites:	6
	Remove
	-
Require server verification (https:) for all sit	tes in this zone
Clear the check box	

3. (Optional) Change user account control settings

Before you access the camera, it's recommended to set **User Account Control** to **Never notify** as shown below.

	10 M M		User Account Control Settings		0
Control F	🚱 🔵 💌 💐 « All Control Pane	I Items User Accounts		1. 12. 12. 12. 12. 12.	
Control +	Control Panel Home			be notified about changes to your computer	
Adjust your compute	Manage your credentials	Make changes to your user accoun	User Account Control Tell me more about U Always notify	I helps prevent potentially harmful programs from making changes to your co Iser Account Control settings	emputer.
Action Center	Manage your file encryption certificates Configure advanced user	Change User Account Control settings Manage User Accounts	- [-	Never notify me when: Programs try to install software or make changes to	
Backup and Restore	profile properties			my computer	
Credential Manager	Change my environment variables	To change your password, press Ctrl+Alt+Del		 I make changes to Windows settings 	
Desktop Gadgets	variables				
🜉 Display					
Folder Options				1 Not recommended. Choose this only if you need to	
HomeGroup				use programs that are not certified for Windows 7 because they do not support User Account Control.	
🔹 Java			Never notify		
J Mouse			Never notify		
Performance Informati					
Power Options					
Recovery					Cancel
Sound					currer
System					
User Accounts					
M Windows Defender					
Twindows Update					

1.2 **Login**

The default static IP address of the camera is 192.168.1.13, and the default subnet mask is 255.255.255.0.

DHCP is enabled by default on the camera. If a DHCP server is deployed in the network, the camera may be assigned an IP address, and you need to use the assigned IP address to log in.

Follow the steps below to log in to the camera's web interface (take IE10 as an example):

- 1. Open IE, enter the IP address of your camera in the address bar and press Enter.
- 2. At your first login, you need to follow the on-screen instructions to install a plug-in (close all browsers before installation), and then open the browser again to log in. To manually load the plug-in, type http://IP address/ActiveX/Setup.exe in the address bar and press **Enter**.

Please click here to Download and install the latest plug-in. Close your browser before installation.

- 3. Set whether to start live view automatically after login.
- With Live View selected, live view will start automatically after login.
- With Live View not selected, you need to start live view manually.

นทิง	IPC-B314-IR	
Username	admin	
Password		Forgot Password?
	☐ Live View Login Reset	

- 5. After first login, the **Change Password** dialog box appears, in which you must set a strong password and enter your email address in case of password retrieval.
 - (1) Set a strong password of 9 to 32 characters including all three elements: digits, letters, and special characters.
 - (2) Enter your email address in case of password retrieval.

Change Password	
Username	admin
User Type	Admin
Old Password	
Password	
	1~32 common characters entered with
	keyboard.
Confirm	
🖌 Email	
	Used to reset password. You are recommended to fill in.
Select Permission	
✓ Parameter ✓ Live V	'iew 🗹 Playback 🗹 Snapshot 🗹 Two-way A
V PTZ Control V Event	Subs 🖌 Log 🛛 Maintenance 📝 Upgrade
	Please change your password and log in again (9 to 32 characters
including all three elements: d	igits, letters, and special characters).
	ОК

See <u>User</u> for more information.

If you forgot your password, click **Forgot Password** in the login page, then follow the on-screen instructions to reset your password.

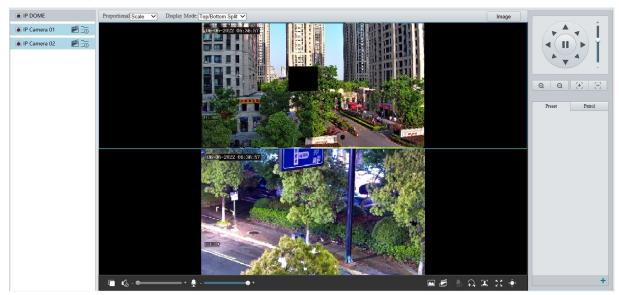
2 Live View

2.1 Live View

The page shows the live video from the camera.

You may double-click the window to enter or exit full screen mode.

Live view page of dual-channel camera



Live view page of single-channel camera





NOTE!

Live view operations supported may vary with device model.

Item	Description
Proportional Scale	 Set the image display ratio in the window. Scale: Displays 16:9 images. Stretch: Displays images according to the window size (stretch images to fit the window). Original: Displays images with original size.
Display Mode: Top/Bottom Split	 Set the image display mode in the window. Single Channel: Displays live video of a single channel. Left/Right Split: Displays live video in left/right split mode. Top/Bottom Split: Displays live video in top/bottom split mode. Picture in Picture: Opens a floating live view window on top of the current window. NOTE! This function is only available on dual-channel cameras.
1 2 3 ● IP Camera 01 ● 10 ● ● IP Camera 02 ● 10 ●	 Stop/start live view of the selected channel. Start local recording. Switch streams.
Main Stream Sub Stream Third Stream	Select a live video stream according to your camera.
Image	Set image parameters.
	Start/stop live view.
() / $()$	Turn off/on sound.
() - () +	Adjust the output volume for the media player on the PC. Range: 1 to 100.
Ŷ - +	Adjust the microphone volume on the PC during audio communication between the PC and the camera. Range: 1 to 100.
[25fps] [7.24Mbps] [3840×2160] [H.264] [0.00%]	Frame rate/bit rate/resolution/packet loss rate.
	Take a snapshot from the displayed live video. NOTE! See <u>Local Parameters</u> for the path of the saved snapshots.
	 Start/stop local recording. NOTE! See Local Parameters for the path of the saved local recordings. VLC media player is recommended for playing local recordings of 4K cameras.
👤 / 🗣	Start/stop two-way audio.
	Start/stop digital zoom. See <u>Digital Zoom</u> for details.
🗶 / 🕵	Start/stop capturing. See <u>Snapshot</u> for details.
кл К 9	Full screen.
	Show/hide PTZ control panel.

2.1.1 Digital Zoom



1. Click in the live view toolbar to enable digital zoom.

- 2. View the magnified area.
- Click in the live view window and roll the wheel to zoom in or out on the image. Drag your mouse to view all the magnified area. To restore, right-click in the window.
- Click in the live view window and drag your mouse to specify the area (rectangular area) to be magnified. Drag your mouse to view all the magnified area. To restore, right-click in the window.
- 3. To exit, click 🕰.

2.1.2 Capture



NOTE!

This function is only available on certain models.

1. Click I in the live view toolbar to start capture.



2. View captured images.

• Click **Open Image Folder** to view the images captured from the live video on your PC. The images are saved in JPEG format.

You can change the storage location in **Setup** > **Common** > **Local Parameters**. If the disk has less than 100MB free space, you will be prompted to clear up the auto snapshot folder, and new snapshots will not be displayed in the live view page until the disk space is freed.

- To delete all captured images, click Clear All Records.
- 3. To exit, click 🍱.

2.1.3 **5ePTZ**

- 1. Click in the live view toolbar to enable 5ePTZ tracking.
- 2. Set the tracking area. In 5ePTZ tracking mode, the live view window is divided into 1 panoramic window and 5 tracking windows. You may rest the cursor on the tracking boxes in the panoramic window or tracking windows and use the scroll wheel to zoom in or out, and drag the tracking windows to rearrange them.
- 3. Enable perimeter protection (see <u>Smart</u>), then the camera can automatically detect moving objects in the detection area, and simultaneously track and enlarge 5 objects that trigger the alarm rules until the objects disappear.
- 4. To exit, click .

2.2 PTZ Control



NOTE!

- This function is only available on PTZ cameras or cameras installed on PT mounts.
- Some lens control functions are available on cameras equipped with motorized lenses.
- The PTZ control buttons may vary with camera model.

PTZ Control Panel

Item	Description
+ Zoom -	Zoom in/out on images.
+ Focus -	Focus far/near for sharp images at a distance/at close range.
+ Iris -	Increase/reduce the amount of light that enters the camera for brighter/darker images.
	Scene lock, used for locking PTZ and lens. NOTE! After you lock the scene, the camera does not move, zoom and focus.
Cab	3D positioning.
[o]	One-click focus.
	Area focus.
	Enable/disable wiper.
Ì I	Adjust the rotation speed of the camera.
	Adjust the rotation direction of the camera or stop rotation.
•))	Enable/disable IR.
	Enable/disable heater.
9 / 9x	Enable/disable light.
× ×	Enable/disable snow removal.
Q Q	Adjust camera zoom.
٠	Auto back focus adjustment.
╡}┍┙┟ ╡┝	Shortcut keys for PTZ control. After the mouse cursor changes to one of these shapes in live view, click and hold the left mouse button to operate the PTZ camera. NOTE! These buttons are unavailable when 3D positioning or digital zoom is enabled.
କ୍ର୍	Shortcut keys for zooming in or out in live view. Scroll the wheel forward to zoom in or backward to zoom out. NOTE! This function is only available on cameras with motorized lenses.

2.2.1 3D Positioning



NOTE!

This function is only available on dome cameras and box cameras with motorized lens and PTZ.

1. Click (In the PTZ control panel to enable 3D positioning.



- 2. Click on the image and drag down/up to delineate a rectangular area to zoom in/out.
- 3. To exit, click 🕰.

2.2.2 Area Focus

1. Click in the PTZ control panel to enable area focus.



- 2. Click on the image and drag to delineate a rectangular area to start auto focus in this area.
- 3. To exit, click 🛄

2.2.3 Preset

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

On the PTZ control panel, click **Preset**.

- Add a preset
- 1. Use the PTZ directional buttons to steer the camera to the desired position.
- 2. Select a preset not in use and click 🖉 to edit the preset name.
- Click
 to save.
- Call a preset

In the preset list, select the preset to call, and then click *m*.

• Delete a preset

In the preset list, select the preset to delete, and then click $\overline{\mathbf{m}}$.

2.2.4 Patrol

You can define a patrol route comprising several actions or presets or record a patrol route to allow the PTZ camera to automatically move along the route.

1. Add a patrol route

• Add a common patrol route

In a common patrol route, the PTZ camera performs linear motion between presets.

1. On the PTZ control panel, click **Patrol**.

Preset	Patrol
	5 A I
	🕨 🕸 🕂

2. Click 🕂.

Add Patrol							×
Route ID							
Route Name							
Add Delete Added 0/0	54	1					
Action Type	Speed	Keep Rotating	Duration(ms)/Ratio	Preset	Stay Time(s)		
					/		
						~	
					_		
					_		
						$\mathbf{\mathbf{x}}$	
					_		
						-	
		0	K Cancel				

- 3. Set the route ID and name. On certain models, you may need to set the **Patrol Type** to **Common Patrol**.
- 4. Click Add to add patrol actions.

Add Patrol						×
Route ID	1					
Route Name	ceshi					
Add Delete Ad	ded 2/64					
Action Type	Speed	Keep Rotating	Duration(ms)/Ratio	Preset	Stay Time(s)	
Move Left	✓ 6 ✓		10000		20	
						K
			OK Canad			
			OK Cancel	J		

5. Complete the action settings.

Item	Description
	10 options: Move Left, Move Right, Move Up, Move Down, Move Up Left, Move Up Right, Move Down Left, Move Down Right, Zoom, Goto Preset.
Action Type	Up to 64 actions are allowed. All action types except Goto Preset are recorded as 2 actions. You may use the up and down arrows to rearrange the patrol actions.
	NOTE!
	It is recommended to set the first action to Goto Preset.
Speed	Set how fast the camera performs the action. 1 means the slowest, 9 means the fastest.
Keep Rotating	When enabled, the camera repeats this action for patrol.
Duration(ms)/Ratio	Set the duration/zoom ratio for the action.
Preset	Select the preset you want the camera to go to.
	Set the dwell time after the camera has performed the action.
Stay Time	Range: 15s to 1800s.

6. Click OK.

	Preset	Patrol	
1	[ceshi]		
) 🕨 🕾	+
	Iter	n	

Item	Description		
•	Start patrol.		
Ø	Edit patrol route.		
	Delete patrol route.		

• Add a scan patrol route

In a scan patrol route, the camera rotates from the start preset to the end preset in a specified gradient and direction.



NOTE! This function is only available on certain models.

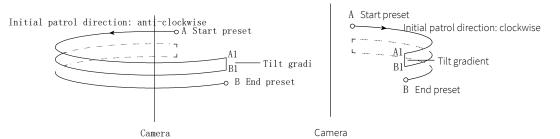
- 1. Before adding a scan patrol route, set presets first. See Preset for details.
- 2. On the PTZ control panel, click **Patrol**.

Preset	Patrol
	Þ 🕾 +
	• • • •

3. Click 🕂.

Add Patrol					×
Patrol Type	Scan Patrol	\checkmark			
Route ID	1				
Route Name	1				
Speed	Tilt Gradient	Initial Patrol Direction	Start Preset	End Preset	
5 🗸	2.8	Clockwise 🗸	2[2] 🗸	1[1]	
-So.					
and the second					
25×		ОК	Cancel		

- 4. Set the patrol type to **Scan Patrol**.
- 5. Set the route ID and name.
- 6. Set the patrol parameters.



Item	Description			
Speed Set how fast the camera rotate. 1 means the slowest, 9 means the fastest.				
Tilt Gradient	The average division value of the vertical distance between the start and end presets. The greater the value, the shorter the patrol route.			
Initial Patrol Direction The direction of the first rotation from the start preset to the end preset.				
Start/End Preset	Select a preset from the drop-down list as the start/end preset. The start and end presets must be different.			

- Record a patrol route
- 1. On the PTZ control panel, click **Patrol**.

	Preset	Patrol
1	[1]	
		+ 🗠 🕫

- 2. Click ^{see} to start recording. You can adjust the direction, rotation speed and zoom of the camera during recording. All movement data of the camera will be recorded.
- 3. Click I to finish recording and the recording is saved as a patrol route automatically.

	Preset	Pat	rol
1	[1]		
2	[Mode Rou	te]	
		ţ.	@+

2. Call a patrol route

Manual calls take precedence over scheduled calls.

Auto tracking and trigger tracking is executed only within the duration that the camera stays at a position during common patrol.

- Call manually
- 1. On the PTZ control panel, click **Patrol**.

Select the patrol route to call and click \blacktriangleright to start patrol.

	Preset		Patrol
1	[ceshi]	N	▶ 🖋 🏛
		6	
			🕨 🎕 🕂

• Call by schedule

1. On the PTZ control panel, click **Patrol**.

	Preset	Pat	rol
1	[1]		
2	[Mode Rou	te]	
		\$*	@ +

2. Click 🎦.

Mon	Tue	Wed	Thu	Fri		Sat	Sun			
		L ~			Ŀ	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
		L ~			L	Please	e select	~		
Сору То	Select All	1								
🖌 Mon	Tue	Wed	🗌 Thu	Fri	Sat	: [Sun			
									Сору	

- 3. Select the Enable Patrol Plan check box.
- 4. Select the patrol route to call and set a start time and an end time for it.
- 5. Click **OK**.

3 Playback



NOTE!

- Edge recordings refer to video recorded on storage media of cameras; local recordings refer to video recorded on a local PC.
- Before you search for edge recordings, make sure that the camera has storage resources such as memory card, and the storage parameters in <u>Storage</u> are properly configured.
- Recording playback and download functions are only available on certain models.
- For dual-channel devices, you can set playback parameters for the channels separately.

On the home page, click Playback.

		💭 Live View	🗰 Playback	🖃 Photo	🏶 Setup	⊖Logout
					5 6 7 8 12 13 14 15 20 21 28 29 26 27 28 29 Recording Do All Recording To 70	I21 Image: Fried State 1 Thrue Fried State 2 3 4 9 10 11 16 17 18 23 24 25 30 31
					G	h
	↓ +					
<	12/16 00:00:00 0 1 2 3				<u>10</u> , <u>11</u> , <u>12</u> , <u>13</u> , <u>14</u> , <u>15</u> , <u>16</u> , <u>17</u> , <u>18</u> , <u>19</u> , <u>20</u> , <u>21</u> , <u>22</u> , <u>23</u> , <u>24</u> } > ±±	

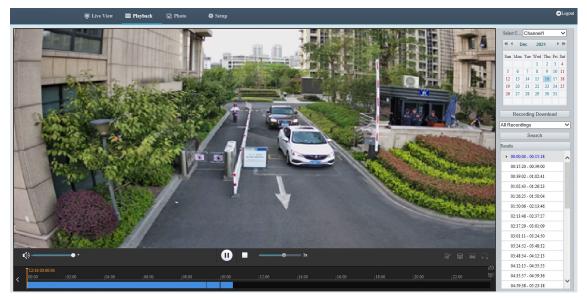
3.1 Playback Toolbar

Button	Description
√)+	Adjust sound volume. Range: 1 to 100.
0	Start playback.
0	Pause playback.
	Stop playback.
Ŕ	Clip video.
	Save.
1x	Adjust playback speed. The default playback speed is 1x. Both rewind and forward are supported.
	Take a snapshot. The snapshots are saved locally by default. You can change the storage location in <u>Local Parameters</u> .
A	Digital zoom. See <u>Digital Zoom</u> for details.
<u></u>	Zoom in/out on the time scale. You can also use the scroll wheel to zoom.
	When the time scale is zoomed in, you can click \mathbf{K} or $\mathbf{\Sigma}$ to view the previous or next section of the video.

12/15 00:00:00 0 1 	Playhead. Drag the playhead to skip to any point in the video.
	Playback bar. Blue: Normal recording.
	Red: Alarm recording. To view alarm recordings, you need to configure alarm-triggered recording. See <u>Alarm-triggered Actions</u> for details.

3.2 Search and Play Recordings

- 1. In case of a multi-channel camera, select the channel to search for recordings.
- 2. Select the date and recording type.
- 3. Click Search.
- 4. The search results are displayed. Double-click a result to play it back.



3.3 Download Recordings

You can download videos in batches or clip videos to download.

- Download in batches
- 1. Click Recording Download.
- 2. Select the recording type, set the start time and end time, and then click Search.

Record	ding Type		All Recordings	5 ▼				
Record	ding Time		2021-12-16	L~2021-12-	16 🕒	Search		
Record	ding Dowr	load				Browse)	
	No.	Start Ti	me		End Time			
	1	2021-12	-16 00:00:00		2021-12-16	00:15:18		1
	2	2021-12	-16 00:15:20		2021-12-16	00:39:00		1
	3	2021-12	-16 00:39:02		2021-12-16	01:02:41		1
	4	2021-12	-16 01:02:43		2021-12-16	01:26:23		1
	5	2021-12	-16 01:26:25		2021-12-16	01:50:04		1
	6	2021-12	-16 01:50:06		2021-12-16	02:13:46		1
	7	2021-12	-16 02:13:48		2021-12-16	02:37:27		1
	8	2021-12	-16 02:37:29		2021-12-16	03:01:09		
	9	2021-12	-16 03:01:11		2021-12-16	03:24:50		
	10	2021-12	-16 03:24:52		2021-12-16	03:48:32		
	11	2021-12	-16 03:48:34		2021-12-16	04:12:13		
	12	2021-12	-16 04:12:15		2021-12-16	04:35:55		
	13	2021-12	-16 04:35:57		2021-12-16	04:59:36		
	14	2021-12	-16.04-59-38		2021-12-16	05-23-18		•

- 3. Click **Browse...** to set the path to the recordings.
- 4. Select the recordings to download and click **Download**.
- Download video clips
- 1. Search for the video to clip.
- 2. In the playback toolbar, click
- 3. Click in the time bar to determine the start time and end time.
- 4. Click 🐼 to finish. The time bar of the clip turns blue and green.



5. Click 🔳.

6. Click **Recording Download**, select the video clip, and click **Download**.

Recording Type All Recordings Recording Download Browse No. Start Time End Time 1 2021-12-16 00:00:00 2021-12-16 00:05:31	ordin	g Downlo	ad	
No. Start Time End Time				
	Record	ing Downl	oad	Browse
1 2021-12-16 00:00:00 2021-12-16 00:05:31		No.	Start Time	End Time
		1	2021-12-16 00:00:00	2021-12-16 00:05:31
Download				

4 Photo

View the photo storage status. See <u>Storage</u> for photo storage policy.



NOTE!

This function is only available on cameras with storage capabilities.

On the home page, click **Photo**.

Refresh Delete	
Photo List Ascending Order Descending Order	Total Capacity for Smart Snapshot 0 GB,Free Space 0 GB.Total
Image: Server 1 Image: Server 2 Image: Server 2	

Item	Description
Refresh	Refresh the displayed content.
Export	Export the selected photos.
Delete	Delete the selected photos.
Export & Delete	Export the selected photos and delete them on the server.
Ascending Order	Arrange the items in chronological order.
Descending Order	Arrange the items in reverse chronological order.
SmartServer	Used to store smart snapshots.
CommonServer	Used to store common snapshots.



NOTE! To allocate photo capacity, go to **Setup** > \$

5 Setup

NOTE!

5.1 Local Parameters

Set local parameters for your PC, including smart, video, recording and snapshot.

The local parameters displayed may vary with camera model.

1. Go to Setup > Common > Local Parameters.

Smart	
Intelligent Mark	● On ○ Off
Target Mark	🗸 Vehicle 🗹 Non-Motor Vehicle 🗹 Pedestrian
Object Attributes	● On ○ Off
Font Size	Small 🗸
Display Human Body Sn.	🖲 On 🔿 Off
Note: When enabled, sna	apshots of human body will show in live view page. Only effective when face detection is enabled.
Video	
Display Mode	Balanced
Protocol	TCP V
Recording and Snapsho	t
Recording	Subsection By Time 🗸
Subsection Time (min)	30
When Storage Full	Overwrite Recording O Stop Recording
Total Capacity(GB)	10
Local Recording	MP4 🗸
Files Folder	C:\Users\I07053\WebPlugin_IPC\IPCUN\ Browse Open
Save	

2. Set local parameters as needed.

Item		Description
	Intelligent Mark	This function shall be used with <u>Cross Line Detection</u> , <u>Intrusion Detection</u> , <u>Enter</u> <u>Area</u> , <u>Leave Area</u> , <u>Mixed-Traffic Detection</u> , and <u>Face Detection</u> .
	Object Attributes	When enabled, the attributes of detected objects appear on the live view page.
Smart	Font Size	Set the font size of object attributes, including Large, Medium, and Small.
	Display Human Body Snapshot	When enabled, human body snapshots appear on the live view page. NOTE! Only effective when face detection is enabled.
Video	Display Mode	Set the display mode according to the network status, including Min. Delay , Balanced , and Fluent (from low delay to high delay). You may also customize the display mode as needed.
	Protocol	Set the protocol used to transmit media streams to be decoded by the PC, including TCP and UDP .
Recording and Snapshot	Recording	 Subsection By Time: Length of each local recording file. For example, 2 minutes. Subsection By Size: Size of each local recording file. For example, 10MB.

Subsection Time (min)/Subsection Size (MB)	 Subsection Time (min): Available when Subsection By Time is selected. 1 to 60 minutes allowed. Subsection Size (MB): Available when Subsection By Size is selected. 10 to 1024MB allowed.
When Storage Full	 Overwrite Recording: When the local recording capacity is full, older recordings are overwritten automatically. Stop Recording: When the local recording capacity is full, recording stops automatically.
Total Capacity (GB)	Allocate storage capacity for local recording. Range: 1 to 1024GB.
Local Recording	Set the file format for saving local recordings, including TS and MP4 .
Files Folder	 Set the location where snapshots and recordings are saved. Click Browse to select the storage location. Click Open to quickly open the folder. NOTE! The maximum length of the directory is 260 bytes. If the limit is exceeded, recording or snapshot during live view will fail.

3. Click Save.

5.2 Network

NOTE!

5.2.1 Ethernet

Connect the camera to the network so that it can communicate with other devices.

After you change the IP address, you need to log in again with the new IP address.

- 1. Go to Setup > Network > Network.
- 2. Configure Ethernet parameters.
- IPv4
 - Static Address (obtain IP manually)
 - (1) Select Static from the Obtain IP Address drop-down list.
 - (2) Enter the IP address, subnet mask, and default gateway address. Make sure that the IP address of the camera is unique in the network.
 - (3) Click Save.

Obtain IP Address	Static	~
IP Address	192.164.2.35	
Subnet Mask	255.255.255.0	
Default Gateway	192.164.2.1	
	DHCP	~
	DHCP	~
Mode	L	
Mode Basic MTU	1500	
Basic	1500 FE Port	~

.

Save

➢ PPPoE

Configure PPPoE to assign the camera a dynamic IP address to establish network connection.

- (1) Select **PPPoE** from the **Obtain IP Address** drop-down list.
- (2) Enter the username and password provided by your ISP (Internet Service Provider).
- (3) Click Save.

IPv4		
Obtain IP Address	PPPoE	~
IP Address	0.0.0	
Username	user	
Password	•••••	
Confirm	•••••	
10-10		
IPv6		
Mode	DHCP	~
Basic		
Port Type	FE Port	~
r on rype		
Operating Mode	Auto-negotiation	~

Save

> DHCP

DHCP (Dynamic Host Configuration Protocol) is enabled by default. If a DHCP server is deployed in the network, the camera can automatically obtain an IP address from the DHCP server.

- (1) Select DHCP from the Obtain IP Address drop-down list.
- (2) Click Save.

IPv4		
Obtain IP Address	DHCP	~
IPv6		
Mode	DHCP	~
Basic		
MTU	1500	
Port Type	FE Port	~
Operating Mode	Auto-negotiation	~

- Save
- IPv6
 - ➢ DHCP

By default, the IPv6 mode is set to **DHCP**. The IP address is automatically obtained from the DHCP server.

-IPv6			
Mode	DHCP		~
> Manual			
IPv6			
Mode	Manual	~	
Address	23:12:15:64:12:16:12:15		
Prefix Length	64		
Default Gateway	23:12:15:64:12:16:12:1		

- (1) Set the IPv6 mode to Manual.
- (2) Enter the IPv6 address, prefix length and default gateway. Make sure that the IPv6 address is unique in the network.
- 3. Set the MTU value, port type and operating mode.
- MTU: Set the maximum packet size supported by the network in bytes. The greater the value, the higher the communication efficiency, the higher the transmission delay.
- Port Type: FE Port by default.
- Operating Mode: Auto-negotiation by default.

Basic				
MTU	1500			
Port Type	FE Port	~		
Operating Mode	Auto-negotiation	~		

4. Click Save.

5.2.2 Port

1. Port

1. Go to Setup > Network > Port.

HTTP Port	80]
HTTPS Port	443]
RTSP Port	554]

Note: Modifying the RTSP port number will cause the device to restart.

2. You can use the defaults or customize them in case of port conflicts.

CAUTION!

i

- If the HTTP port number you entered has been used, a message "Port conflicts. Please try again." will appear. 23, 81, 82, 85, 3260, and 49152 have been assigned for other purposes and cannot be used.
- In addition to the above port numbers, the system can also dynamically detect other port numbers that are already in use.
- HTTP/HTTPS Port: If you change the HTTP/HTTPS port number, then you need to add the new port number after the IP address when logging in. For example, if the HTTP port number is set to 88, you need to use <u>http://192.168.1.13:88</u> to log in to the camera.
- RTSP Port: Real-Time Streaming Protocol port, enter an available port number.
- 3. Click Save.

2. Port Mapping

Configure port mapping so computers on the WAN can access your camera on the LAN.

- 1. Go to Setup > Network > Port > Port Mapping.
- 2. Enable Port Mapping.
- 3. Select the mapping type.
- UPnP

Port Mapping	💿 On 🔾 C	Off	
Mapping Type	UPnP	~	
UPnP Mapping	Auto Auto	~	
Port Type	Externa Manual	ternal IP Address	Status
HTTP Port	80	0.0.0.0	Inactive
RTSP Port	554	0.0.0.0	Inactive
HTTPS Port	443	0.0.0.0	Inactive
Sava			

- > Auto: Enable UPnP on the router, then the external port numbers are assigned automatically.
- > Manual: The external port numbers need to be set manually.
- Manual

Port Mapping	⊙ On ◯ Off
Mapping Type	Manual 🗸
HTTP Port	80
RTSP Port	554
HTTPS Port	443
Save	

> If your router does not support UPnP, you need to set the external port numbers manually.

- "Inactive" displayed in the Status column indicates that the port number you entered is already in use.
- 4. Click Save.

5.2.3 **E-mail**

Configure E-mail so that the camera can e-mail an alarm message to the specified email addresses when an alarm occurs.

1. Go to Setup > Network > E-mail.

Sender		
Sender Name Address SMTP Server SMTP Port TLS/SSL Snapshot Interval(s) Server Authentication Username Password	[25 ○ On Off 2 ✓ ● On Off]]]] ✔ Attach Image]
Confirm]
Recipient Name1		
Address1		Test
Name2		
Address2		Test
Name3		
Address3		Test

Jave

2. Set the sender and recipient information.

Description
Enter the device name.
Enter the device IP.
Enter the IP address and port number of SMTP server of the sender's e-mail. The default SMTP port number is 25.
Enable TLS/SSL to secure e-mail communication.
Set the interval for taking snapshots to be attached to alarm e-mails. NOTE!
• The interval for taking snapshots attached to alarm e-mails is subject to the settings on the E-mail page.
• Deep-learning exception detection functions captures 1 snapshot by default, and you do not need to set the snapshot interval for them.

Attach Image	When enabled, the camera will automatically send an alarm e-mail with 3 attached snapshots taken at seintervals in the event of an alarm. 1. Select the Attach Image check box. 2. Enable <u>Snapshot</u> and set the snapshot resolution as needed. Snapshot On Off Resolution 2560×1440 V Max. Size (KB) 500 Scheduled Snapshot Snapshot Interval(s) 1 Number to Snapshot Snapshot Mode Schedule O Repeat No. Snapshot Time
Server Authentication	Enable SMTP server authentication to secure e-mail transmission.
Username/Password	Enter the username and password of the SMTP server. NOTE! The email only shows the sender name not the username. 217.2.1.196-lly 217.2.1.196-lly: Motion Detection 03-07 10:23 489 KB The password allows special characters.
Recipient Name/Address	 Enter the e-mail name and address to receive e-mails. After recipient configuration, you can click Test to test the email sending function.

3. Click Save.

Sender		
Name	217.2.1.196.lly]
Address	217.2.1.196]
SMTP Server	217.2.1.8]
SMTP Port	25]
TLS/SSL	🔿 On 💿 Off	
Snapshot Interval(s)	2 🗸	🗹 Attach Image
Server Authentication	⊙ On ◯ Off	
Username	th1@th.com]
Password	•••••]
Confirm	•••••]
Paciniant		
Recipient		
Name1	th1@th.com]
Address1	th1@th.com	Test
Name2]
Address2		Test
Name3]
Address3		Test

5.2.4 **EZCloud**

You can add the camera to EZCloud via EZView app (without registering an EZCloud account) or EZCloud website to remotely access the camera.

EZCloud	\odot On \bigcirc Off
Add Without Signup	\odot On \bigcirc Off
Address	ap.ezcloud.uniview.com
Register Code	313SYJOZJSBEVR08D7VUZEK4Y
Device Status	Offline
Username	limaoji
Scan	
	ELAW-34
Cause	
Save	

Go to Setup > Network > EZCloud. EZCloud is enabled by default.

1. Add cameras on EZView app without signup

After you add the camera to EZCloud on EZView, you can view live or recorded video and receive alarm notifications from the camera on EZView. Certain functions are not available to cameras added without signup in the app.

- 1. Enable Add Without Signup.
- 2. Search and download EZView in the app store of your phone.
- 3. Open EZView and tap **Try Now**.

NOTE!

If your have EZView on your phone already, open it, and then select => **Devices** > **Add** > **Add** Without Signup.

- 4. A message pops up to inform you that no devices have been added. Tap Add.
- 5. Tap Add Without Signup.
- 6. Scan the OR code on the **EZCloud** page using EZView.
- 7. Enter the password and tap Login to add the camera to EZCloud.

2. Add cameras on EZCloud website

- 1. Enter en.ezcloud.uniview.com in the address bar of a web browser.
- 2. Click **Sign Up** and follow the on-screen instructions to create an account.
- 3. Log in to the EZCloud.

Device Management	Organization Management	Sharing Records	Personal Info			
Organization	My Cloud Devices Device	es Shared to Me				
Please enter organization name C	+ Add 🔟 Delete	Ø Refresh		Online Device 1 T	otal Number 1	Please enter device narr Q
E The root	IP Address	Device Name	Model Organization	Latest Online Time	Status	Operation

4. Go to **Device Management > My Cloud Devices** and click **Add**.

Add	×
Please enter device information below.	Where to find the register code?
	Option 1 : Log in to the Web of the device, and then click
* Device Name:	Network > EZCloud.
	Option 2 : Find the register code sticker on the device.
* Register Code:	
* Organization: root	
	OK Cancel

Item	Description	
Device Name	Enter the device name.	
Register Code	Enter the register code.	
Organization	Select an organization for your camera. By default, the root organization is selected. You may add or delete organizations under Organization Management > My Cloud Organizations .	

- 5. Click OK.
- 6. Click Save.
- 7. Check device status.
- EZCloud website: Go to Device Management > My Cloud Devices to check whether the camera is online.
- Camera's web interface: Go to **Setup > Network > EZCloud** to check whether the camera is online.

5.2.5 **DNS**

DNS (Domain Name System) is a distributed database system for translating human readable domain names to machine readable IP addresses, facilitating devices to access external servers or hosts through domain names.

- 1. Go to Setup > Network > DNS.
- 2. The default DNS server addresses are as follows.

Preferred DNS Server	8.8.8.8
Alternate DNS Server	8.8.4.4

5.2.6 **DDNS**

DDNS (Dynamic Domain Name System) automatically updates the DNS server with the dynamic IP address of the device to enable remote Internet access to the device on the network.

- 1. Go to Setup > Network > DDNS.
- 2. Enable **DDNS Service**.

DDNS Service	○ On
DDNS Type	DynDNS 🗸
Server Address	www.dyndns.com
Domain Name	
Username	
Password	
Confirm	
Save	

- 3. Select the DDNS type.
 - DynDNS/NO-IP: Third-party DDNS service provider, enter the domain name registered with the DDNS provider.
 - EZDDNS: Uniview's DDNS service, enter a domain name for your camera and click **Test** to check if the domain name is available.

DDNS Service	🔾 On 💿 Off	
DDNS Type	EZDDNS V	
Server Address	http://en.ezcloud.uniview.com	
Domain Name		Test
Device Address	http://en.ezcloud.uniview.com	
Save		

4. Click Save.

5.2.7 **SNMP**

SNMP is required for the camera to share configuration information to servers.

1. Go to Setup > Network > SNMP.



2. Enable SNMP.



NOTE!

This function is enabled by default on certain models.

- 3. Set SNMP parameters.
- SNMPv3



NOTE!

Before you enable SNMPv3, make sure that it is supported both on your camera and the server.

SNMP	\odot On \bigcirc Off
SNMP Type	SNMPv3 V
Username	admin
Authentication Mode	MD5 🗸
Password	•••••
Confirm	•••••
Encryption Mode	DES 🗸 🗸
Password	•••••
Confirm	•••••
Trap Community Name	private
Trap Server Address	0.0.0.0
Trap Port	162
SNMP Port	161

Save

Item	Description
SNMP Type	The default SNMP type is SNMPv3 .
Password	Set a password for authentication.
Confirm	Confirm the password you entered by entering it again.
Password	Set a password for data
Confirm	Confirm the password you entered by entering it again.
Trap Server Address	Set the trap server address in Management Server.
SNMP Port	The default SNMP port number is 161. You may change it as needed.

• SNMPv2

SNMP	\odot On \bigcirc Off
SNMP Type	SNMPv2
Read Community	public
Read/Write Community	private
Trap Community Name	private
Trap Server Address	0.0.0.0
Trap Port	162
SNMP Port	161
Save	

Item	Description
SNMP Type	Select SNMPv2 . After you select SNMPv2, a message pops up to remind you of potential risks and ask if you want to continue. Click OK .
Read Community	The default read community name is public, and you may change it as needed. Make sure the read community names of the server and camera are the same, otherwise the two-way authentication will fail.
Trap Server Address	Set the trap server address in <u>Management Server</u> .
SNMP Port	The default SNMP port number is 161. You may change it as needed.

4. Click Save.

5.2.8 **802.1x**

802.1x provides authentication to devices for access to the network and enhances network security by allowing only authenticated devices to access.

1. Go to **Setup > Network > 802.1x**.

802.1x	🔿 On 💿 Off
Protocol	EAP-MD5 🗸
EAPOL Version	1 ~
Username	admin
Password	•••••
Confirm	•••••
Save	

- 2. Enable **802.1x**.
- 3. By default, the protocol is set to EAP-MD5. Select the same EAPOL version as that of the router or the switch.
- 4. Enter the username and password for authentication.
- 5. Click Save.

5.2.9 **QoS**

QoS (Quality of Service) has the ability to guarantee the performance of high-priority services under limited network capacity.

1. Go to Setup > Network > QoS.

Audio & Video	46
Alarm Report	0
Configuration Manage	0
FTP	4
Save	

2. Set a priority level (0 to 63) for each service.

At present, QoS allows you to assign different priority to audio and video, alarm report, configuration management and FTP transmission. The greater the value, the higher the priority.

As shown in the figure above, the audio & video service takes priority over all other services in case of network congestion.



NOTE!

To use QoS, make sure that the router or switch is also configured with QoS.

3. Click Save.

5.2.10 WebSocket

WebSocket allows you to manage your camera on a third-party platform, such as device version and capability information acquisition, PTZ control, alarm reporting, etc.

1. Go to Setup > Network > WebSocket.

WebSocket	\bigcirc On \textcircled{O} Off
Destination IP	
Destination Port	7766
Device ID	
Authentication Key	
Confirm Authentication Key	
Online Status	Offline
Save	

2. Set the parameters.

Item	Description
WebSocket	Select to enable or disable WebSocket.
Destination IP	Enter the IP address of the third-party platform.
Destination Port	Enter the listener port of the third-party platform.
Device ID	The default device ID is the device's serial number. You can set a device ID as needed.
Authentication Key	Enter the authentication key used to connect the camera to a third-party platform. Make sure the authentication key configured on the camera and the third-party platform is the same.
Confirm Authentication Key	Confirm the authentication key you entered by entering it again.
Online Status	Check whether the device is successfully connected to the third-party platform.

3. Click Save.

5.3 Video & Audio

For dual-channel devices, you can set video and audio parameters for the channels separately.

5.3.1 Video

1. Video

1. Go to S	2560×1440@25	deo & A	udio > Vide	Ο.				
Main Stream	2000 1440@20	•	Enable Sub Stream			Enable Third Stream		
Video Compression	H.265	V	Video Compression	H.265	~	Video Compression	H.265	\checkmark
Resolution	2560×1440	~	Resolution	720×576(D1)	~	Resolution	352×288(CIF)	~
Frame Rate(fps)	25	~	Frame Rate(fps)	25	~	Frame Rate(fps)	25	~
Bit Rate(Kbps)	4352		Bit Rate(Kbps)	512		Bit Rate(Kbps)	128	
Bitrate Type	CBR	V	Bitrate Type	CBR	~	Bitrate Type	VBR	~
Image Quality	Bit Rate	Quality	Image Quality	Bit Rate	Quality	Image Quality	Bit Rate (Quality
I Frame Interval	50		I Frame Interval	50		I Frame Interval	50	
GOP	IP	\checkmark	GOP	IP	\sim	GOP	IP	\sim
Smoothing	Clear	Smooth	Smoothing	Clear	Smooth	Smoothing	Clear S	imooth
SVC	⊖ On ● Off		SVC	○ On ● Off		SVC	⊖ On ● Off	
U-Code	Off	\sim	U-Code	Off	\checkmark	U-Code	Off	~
Enable Fourth Stre	am		- Enable Fifth Stream			-		
Save								

2. Select a capture mode for your camera.

The Extended Encoding function is available only when the capture mode is greater than 8MP.

Capture Mode	8192×3840@25	~
Extended Encoding	⊖ On ⊙ Off	

After you change the capture mode, the encoding settings will be reset to defaults and some models of cameras will restart.

3. Set stream parameters.

The streams are independent of each other and can be set with different resolutions, frame rates, video compression formats, etc. Only the main stream supports full resolution.

NOTE!

- The fourth and fifth streams are only available on certain models.
- Before configuring the fifth stream, you need to enable the fourth stream first.

✓ Enable Fourth Stream

Item	Description				
Video Compression	Select a video compression standard for your camera: H.265 , H.264 or MJPEG . NOTE!				
	• When H.265 or H.264 is selected, Image Quality is not available; When MJPEG is selected, Bit Rate , I Frame Interval , Smoothing , SVC and U-Code are not available.				
	• The bit rate restores to the default when you switch between H.264 and H.265.				
Resolution	Select a video resolution for your camera. The higher the resolution, the clearer the image.				
Frame Rate(fps)	Select the frame rate.				
	NOTE!				
	To ensure image quality, the frame rate shall not be greater than the reciprocal of the shutter speed.				
Bit Rate(Kbps)	Set the bit rate. Range: 128 to 16384.				
	NOTE!				
	The bit rate range may vary with device model.				

Bitrate Type	 Select the bitrate type. CBR: The camera keeps a specific bit rate by varying the quality of video streams. VBR: The camera keeps the quality of video streams as constant as possible by varying the bit rate.
Image Quality	Configurable when Bitrate Type is set to VBR . The closer the slider is to Quality , the higher the bit rate, and the higher the image quality. The closer the slider is to Bit Rate , the lower the bit rate, and the image quality will be affected.
I Frame Interval	Set the number of frames between I-frames. A shorter interval presents better image quality but consumes more bandwidth and storage.
GOP	Group of Pictures, defines the basic pattern of the video stream encoded with I and P frames.
Smoothing	Set the smoothness of the video stream. Drag the slider to choose whether smoothness or clarity takes precedence. NOTE! Smoothing is recommended for fluent video in a poor network environment.
SVC	SVC (Scalable Video Coding) enables a video stream to be broken into multiple layers of resolution, quality and frame rate, reducing bandwidth consumption without compromising the image quality.
U-Code	Select the U-code mode.Basic Mode: The bit rate is reduced by about 25%.Advanced Mode: The bit rate is reduced by about 50%.

- 4. Set the BNC output format, PAL or NTSC.
- 5. Click Save.

2. Adaptive Streams

The bit rate of the media stream is automatically adjusted according to the network conditions.

NOTE!

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- This function is only available on certain models.
- This function is enabled by default on certain models.
- It's recommended to enable Adaptive Streams in a poor network environment.
- 1. Go to Setup > Video & Audio > Video > Adaptive Streams.

Adaptive Streams On On Off

Save

- 2. Enable Adaptive Streams.
- 3. Click Save.

5.3.2 Snapshot

Configure basic snapshot parameters and scheduled snapshot.

1. Go to Setup > Video & Audio > Snapshot.



NOTE!

- For dual-channel devices, you can set snapshot parameters for the channels separately.
- When you configure e-mail and FTP, you only need to enable Snapshot and set the resolution and maximum size, and do not need to configure the scheduled snapshot.

Snapshot	\odot On \bigcirc Off	
Resolution	2560×1440	~
Max. Size (KB)	500	
Scheduled Snapshot		
Snapshot Interval(s)	1	
Number to Snapshot	1	~
Snapshot Mode	\odot Schedule \bigcirc Repeat	
No.	Snapshot Time	+

- 2. Enable **Snapshot** and set the resolution and maximum size of snapshots to be saved.
- 3. Set the snapshot mode.
 - Schedule: Set a time for snapshot. For example, with snapshot interval set to 20s, number to snapshot set to 3, and snapshot time set to 16:00:00, the camera will take a snapshot at 16:00:00, 16:00:20 and 16:00:40.

Snapshot	\odot On \bigcirc Off				
Resolution	2560×1440	\checkmark	Snapshot	\odot On \bigcirc Off	
Max. Size (KB) Scheduled Snapshot	500		Resolution	2560×1440	~
Snapshot Interval(s)	1		Max. Size (KB)	500	
Number to Snapshot	1	\checkmark	Scheduled Snapshot		
Snapshot Mode	\odot Schedule \bigcirc Repeat			4	
No.	Snapshot Time	+	Snapshot Interval(s)	1	
		Quick Selection	Number to Snapshot	1	~
		13:55:00			
		13:55:30	Snapshot Mode	Schedule O Repeat	
		13:56:00	No.	Snapshot Time	
		13:56:30	INO.	Snapsnot 1 ime	+
		13:57:00	1	13:55:00	 一
		Time 13 : 56 : 16 🛟	*	15.55.00	
		Clear OK			

To delete a snapshot time, click m.

- Repeat: Set an interval for snapshot. For example, with snapshot plan set to 16:00:00 to 20:00:00 on Monday, repeat interval set to 120s, snapshot interval set to 20s, and number to snapshot set to 2, the camera will take a snapshot at 16:00:00, 16:00:20, 16:02:00 and 16:02:20.
- a Select Repeat and set the repeat interval. A valid repeat interval ranges from 1 to 86400.
- b Select the **Enable Snapshot Plan** check box and set the snapshot plan. See <u>Arming Schedule</u> for details. A 24/7 snapshot plan is enabled by default.



- NOTE!
- The time periods cannot overlap.
- Up to 4 time periods are allowed.
- 4. Set the snapshot interval and number to snapshot. For example, if the interval is set to 1s and the number to snapshot is set to 2, the camera will take 2 snapshots (take one first and then take another after 1 second).
- 5. Click Save.

5.3.3 Audio

1. Audio

1. Go to Setup > Video & Audio > Audio.

Audio Input		
Audio Input	$\textcircled{On} \bigcirc \texttt{Off}$	
Access Mode	Line/Mic	~
Input Volume		50
Audio Compression	G.711U	~
Sampling Rate(KHz)	8	\sim
Noise Suppression	\bigcirc On \textcircled{O} Off	
Channel 1	Line	✓ ✓ Enable
Audio Output		
Audio Output	Line	\checkmark

Save

2. Set audio input parameters.

Item	Description
Audio Input	Enable/disable audio input. NOTE! If audio data is not required, select Off to improve camera performance.
Access Mode	Select the audio input mode, including Line/Mic and RS485. NOTE! This function is not available on dual-channel cameras.
Input Volume	Set the input volume using the slider.
Audio Compression	Select the audio compression format, including G.711U and G.711A .
Sampling Rate(KHz)	Set the sampling rate according to your required audio compression. In G.711A or G.711U format, only 8KHz is available.
Noise Suppression	Reduce noise in audio to improve audio output quality. NOTE! This function is enabled by default.
Channel 1/Channel 2	Select the Enable check box to enable audio input for the channel. Channel 1 and Channel 2 (if available) cannot be enabled simultaneously. The default audio input mode of Channel 1 is Mic. You can change it to Line.

3. Set audio output parameters.

Item	Description
Audio Output	Select the audio output mode, including Line and Speaker.

4. Click Save.

2. Audio File

1. Go to Setup > Video & Audio > Audio.

Alarm Volume	95	
Alarm Audio File		Browse Import
Note: PCM or MP3 file	es, each no more than 200K.	
No.	Audio	Operation
1	You_are_in_the_restricted_area!_Please_leave!	(1)
2	You_are_in_the_danger_zone!_Do_no_approach!	u(1)
3	Please_be_aware!_You_are_in_a_monitored_area!	())
4	No_parking!_Please_leave!	(1)
5	Restricted_area!_Please_leave!	u(1)
6	Restricted_area!_Do_not_enter!	(1)
7	Danger!_Deep_water!	a(1)
8	Danger!_Do_not_climb!	u())
9	Welcome!	())
10	Warning!	u())
11	The area is crowded! Please leave!	u())
12	Please stop! No more people allowed!	u(1)
13	Entry forbidden! Please wear a mask!	u(1)

Save

2. Set audio file parameters.

ltem	Description	
Alarm Volume	Set the alarm volume using the slider.	
Alarm Audio File	Click Browse to import audio files. To play an audio file, click	
FIIE	 This function is available only on certain models. Up to 5 audio files are allowed. Built-in audio files may vary depending on the smart functions supported by the device. 	

3. Click Save.

5.3.4 **ROI**

ROI helps ensure image quality for the specified areas on the image first at low bit rate.

1. Go to Setup > Video & Audio > ROI.



- 2. Set ROI areas.
 - (1) Click 🖶 to add a ROI area. The area is a rectangle by default. Up to 8 areas are allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- Draw an area.

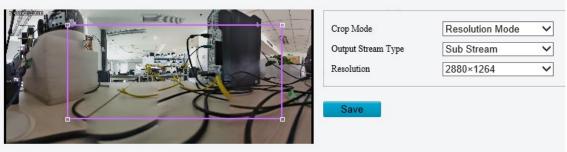
Click on the image and drag to draw an area.

5.3.5 View Cropping

You can crop the live video to view and save only the video of the region of interest in the form of sub or third stream to save transmission bandwidth and storage.

- 1. Go to Setup > Video & Audio > View Crop.
- 2. Select the Enable View Crop check box.

☑ Enable View Crop



- 3. Select the cropping mode.
- Field of View Mode: Size priority. Set the output stream type, crop size and resolution.

Crop Mode	Field of View Mode	\checkmark
Output Stream Type	Sub Stream	\checkmark
Crop Size	20:9	\checkmark
Resolution	2880×1264	\checkmark

• Resolution Mode: Resolution priority. Set the output stream type and resolution.

Crop Mode	Resolution Mode	~
Output Stream Type	Sub Stream	~
Resolution	2880×1264	~

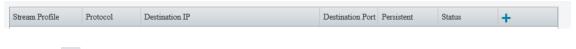
4. Click Save.

5.3.6 Media Stream

1. Media Stream

You can configure a media stream for your camera so that media contents from the camera such as audio and video can be transmitted over the network and played immediately on a third-party client rather than being downloaded first.

1. Go to Setup > Video & Audio > Media Stream.



2. Click + to add a media stream.

Stream Profile	Protocol	Destination	ı IP		Destination Port	Persistent	Status	+
			Add Media Stream	_	_	_	_	×
			Stream Profile	Main Str	ream	\sim		
			IP Address					
			Port					
			Protocol	TS/UDP		\sim		
			Persistent	Enable	○ Disable			
				O	Canc	el		

3. Complete the media stream settings.

Item	Description
Stream Profile	Select a stream type for the camera to transmit media contents to a third-party client.
Destination IP	Enter the IP address of the device receiving media streams.
Destination Port	Enter the port number of the device receiving media streams.
Protocol	Select a protocol for streaming media data over the network, including TS/UDP , ES/UDP , PS/UDP , and RTMP .
Persistent	Set whether to automatically establish the configured media stream after the camera restarts.

4. Click OK.

2. RTSP Multicast

RTSP multicast allows third-party players to request RTSP multicast media streams from the camera through the RTSP protocol.

1. Go to Setup > Video & Audio > Media Stream > RTSP Multicast Address.

Main Stream	
Multicast Address	0.0.0.0
Port	0
Sub Stream	
Multicast Address	0.0.0.0
Port	0
Third Stream	
Multicast Address	0.0.0.0
Port	0
Save	

2. Set the multicast address and port number (multicast address range: 224.0.1.0 to 239.255.255.255, port number range: 0 to 65535).

3. Click Save.

5.4 **PTZ**

5.4.1 Basic PTZ Settings

Go to Setup > PTZ > Basic Settings.

1. Preset Image Freeze

After you enable **Preset Image Freeze**, as the camera moves from one preset to another, the live view window keeps displaying the image of the previous preset until the camera stops at the next preset.

Preset Image Freeze 🛛 On 💿 Off

2. PTZ Timeout

After you enable **Stop PTZ Control After Timeout** and set a timeout period, the camera will stop rotation when the predefined timeout period is reached.

Stop PTZ Control After Tim... On On Off PTZ Control Timeout(s)

3. PTZ Speed

Speed Level between Presets	9
Manual Operation Speed Le	5

- Speed Level between Presets: Set the rotation speed of the camera between presets.
- Manual Operation Speed Level: Set the speed level for manually controlling the PTZ on the live view page.

NOTE!

- The higher the manual operation speed level, the higher each PTZ speed level on the live view page.
- When both manual operation speed level and PTZ speed on the live view page are set to the maximum, the PTZ speed reaches the upper limit.

4. PTZ Rectification

Check for PTZ zero point offset and perform rectification.



- Rectify manually: Click Rectify to start rectification immediately.
- Rectify automatically: Select the **Enable Auto Rectification** check box and set the execute time. The camera automatically performs PTZ rectification at the set time.

5. Power Off Memory

When enabled, the system will record the last position of the PTZ and lens in case of power failure. This function is enabled by default.

Power Off Memory

 On Off

5.4.2 Home Position

The PTZ camera can automatically operate as configured (e.g., go to a preset or start patrol) if no operation is made within a specified period.



NOTE!

Before use, you need to add a preset or a patrol route. See Preset and Add a patrol route for details.

1. Go to Setup > PTZ > Home Position.

Home Position	\odot On \bigcirc Off	
Mode	Preset	\checkmark
ID	[None]	~
Idle State(s)	60	
Save		

2. Enable Home Position and complete the settings.

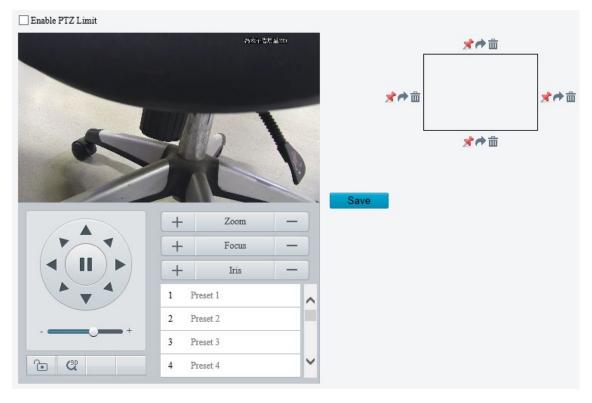
Item	Description	
Mode	Select the home position mode, including Preset and Patrol .	
ID	Select the desired preset or patrol route.	
Idle State	Set the idle duration for the camera to start auto guard.	

3. Click Save.

5.4.3 Pan/Tilt Limit

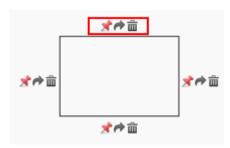
You can filter out the undesired scenes by limiting the pan and tilt movements.

1. Go to Setup > PTZ > Limit.

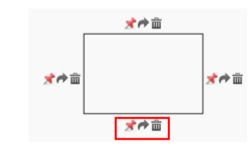


- 2. Select the Enable PTZ Limit check box.
- 3. Set the pan and tilt limits. Take the tilt limit configuration as an example:

- (1) Use **A** to move the camera to the desired upper tilt limit position.
- (2) Click $\stackrel{>}{>}$ above the rectangle to set the position as the upper tilt limit.



- (3) Use **V** to move the camera to the desired lower tilt limit position.
- (4) Click $\stackrel{>}{>}$ below the rectangle to set the position as the lower tilt limit.



Item	Description	
e	Rotate the camera to the limit.	
<u>ش</u>	Delete the limit.	

4. Click Save.

5.4.4 Remote PTZ Control

Remote PTZ control is required when the camera is added to a third-party platform and the PTZ protocol does not match.

1. Go to Setup > PTZ > Remote Control.

Remote Control	$\bigcirc On {\textcircled{o}} Off$
Listener Port	10008
Address Code	1
Save	

2. Enable Remote Control and complete the settings.

Item	Description	
Listener Port	Local port number of the camera. Make sure that the port number you entered is not in use. In general, it's recommended to keep the default value.	
Address Code	The address code in the command must be the same as the address code configured on the camera, so that the camera can parse the command.	

5.4.5 Preset Snapshot and Patrol Resumption

Go to Setup > PTZ > Patrol .			
Preset Snapshot	\bigcirc On \textcircled{O} Off		
Resume Patrol(s)	60		
Save			
Preset Snapsho	ıt		

The camera takes a snapshot at each preset during patrol and uploads the snapshots to FTP.

NOTE! Before use, please configure <u>FTP</u> and <u>Snapshot</u> first.

Resume Patrol

=⁄

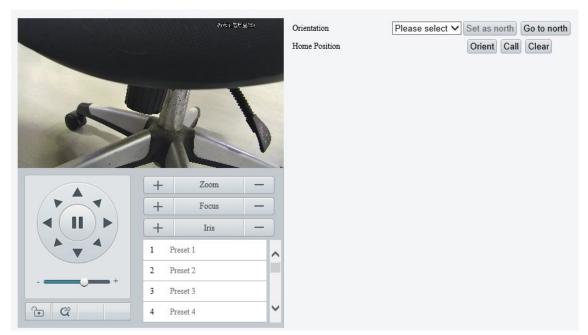
In the event of a patrol interruption, the camera can automatically resume the patrol after a specified time period.

5.4.6 Orientation Calibration

1. North Calibration

Calibrate the north direction.

1. Go to Setup > PTZ > Orientation.



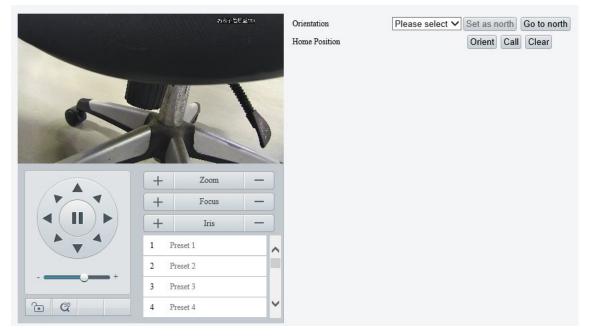
2. Select the mode to calibrate the camera to north.

Item	Description		
Manual	 Set the north direction manually. After calibration, you can click Go to north to rotate the camera to the calibrated north direction. 		
Automatic	 Automatically determines the north position based on the geomagnetic field. After calibration, you can click Go to north to rotate the camera to the calibrated north direction. NOTE! This option is only available on cameras that support electronic compass. 		

2. Home Position

Configure a home position so that the camera can use it as the zero degree pan and tilt positions.

1. Go to **Setup > PTZ > Orientation**.



- 2. Move the camera to the desired position.
- 3. Click **Orient** to set the position as the home position.

Item	Description	
Call	Move the camera to the home position.	
Clear	Clear the home position.	

5.5 **Image**

5.5.1 Image

For dual-channel devices, you can set image parameters for the channels separately.

1. Scenes

A scene mode is a collection of image parameters preset in the camera. The camera provides several predefined scene modes for different application scenarios. You can select a scene as required.

1. Go to Setup > Image > Image.

	-* Scenes	
Min	Enable Auto Switching	-
A A MARKET	-* Image Enhancement	Default
E IN-	* Exposure	
	- Smart Illumination	
and the second second	+ Zoom - Focus	
	+ Focus - White Balance	
	+ Iris - Advanced	
A _ A	Depart 1	
	Prest 2	
- +		
	Preset 3	
6 Cl	Preset 4	

2. Click Scenes.

No.	Current	Scene Name	Auto Switching	Setup
1	۲	<common></common>		Default Scene
2	0	<common></common>		📰 📌
3	0	<common></common>		📰 📌
4	0	<common></common>		📰 🖈
5	0	<common></common>		*

3. Set the scene parameters.

Item	Description	
Current	Select the scene you want to use.	
Scene Name	 Select the scene mode. Common: Recommended for outdoor scenes. Indoor: Recommended for indoor scenes. Road Highlight Compensation/Park Highlight Compensation: Recommended for capturing vehicle license plates. 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. Test: Recommended for test scenes. Standard: Recommended for most standard scenes both indoor and outdoor. Vivid: Enhanced saturation based on the Standard scene. Bright: Enhanced brightness based on the Standard scene. Starlight: Recommended for capturing faces in motion in complicated scenes. Person And Vehicle: Recommended for detecting motor vehicles, non-motor vehicles and pedestrians in road scenes. Intrusion Prevention: Recommended for perimeter protection scenes. 	
Auto Switching	Select whether to add the scene to the auto-switching list. When enabled, if the conditions for switching to a non-default scene are met, the device will automatically switch to the scene.	

	Set auto-switching conditions, including schedule, illumination and PTZ elevation. Auto switc can only be triggered when all the set conditions are met.
	Schedule Illumination PTZ Elevation
1	
	OK Cancel
r	Set the scene as the default scene.

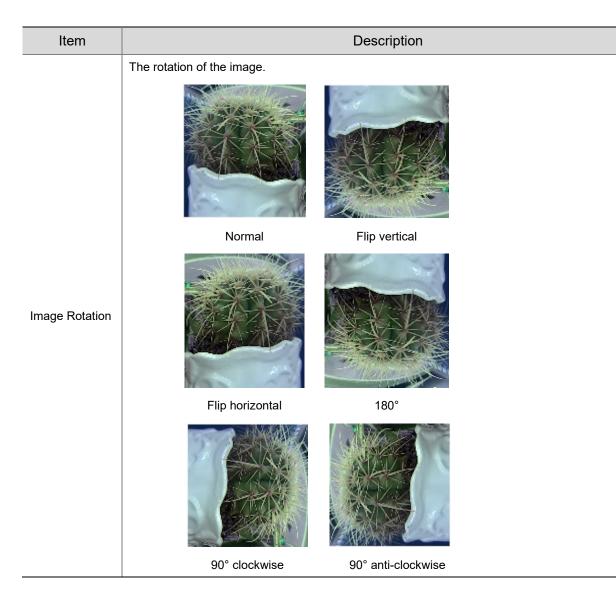
- 4. (Optional) Enable auto switching.
- When enabled, if the conditions for switching to a non-default scene are met, the camera will automatically switch to the scene; otherwise, the camera uses the default scene.
- After you select the **Enable Auto Switching** check box, all scene parameters cannot be configured.
- If multiple non-default scenes meet the switching condition at the same time, the camera will switch to the scene with the minimum number (starts from 1 to 5).
- 2. Image Enhancement
- 1. On the **Image** page, click **Image Enhancement**.

Timage Enhancement					
inago Ennancement					
Brightness	128				
Saturation	128				
Contrast	128				
Sharpness	128				
2D Noise Reduction	128				
3D Noise Reduction	128				
Image Rotation	180° 🗸				

2. Set the image enhancement parameters.

Item	Description
	The overall lightness or darkness of the image.
Brightness	
	Low brightness High brightness

Item	Description	
	The intensity or vividness of colors in the image.	
Saturation		
	Low saturation High saturation	
	The difference between the lightest and darkest tones in the image.	
Contrast		
	Low contrast High contrast	
	The definition of edges in the image.	
Sharpness		
	Low sharpness High sharpness	
2D Noise Reduction	Reduce noise by individually analyzing each frame, which may cause image blur.	
3D Noise Reduction	Reduce noise by analyzing the difference between successive frames, which may cause image smearing or ghosting.	



To restore defaults, click **Default**.

3. Exposure

NOTE!

- The exposure settings may vary with device model.
- The default settings are scene-adaptive. Use default settings unless modification is necessary.
- 1. On the **Image** page, click **Exposure**.

* Exposure	
Exposure Mode	Custom 🗸
Shutter(s)	1/100000 🗸 1/150 🗸
Gain	0 ~ 40
Slow Shutter	⊖ On
Slowest Shutter	1/12 🗸
Compensation	0
Restore Auto Exposure(min)	15
Metering Control	Face Metering V
Face Brightness	50
Min. Duration(min)	5
Day/Night Mode	$\textcircled{\label{eq:automatic} O ay } \bigcirc \ensuremath{\operatorname{Night}} \ensuremath{\mbox{O}} \ensuremath{\operatorname{Input}} \ensuremath{\operatorname{Boolean}}$
Day/Night Sensitivity	Medium 🗸
Day/Night Switching(s)	3
WDR	Off V
WDR Level	5
Suppress WDR Stripes	⊖ On
WDR On Sensitivity	5
WDR Off Sensitivity	5

2. Set the exposure parameters.

Item	Description
Exposure Mode	 Select the exposure mode. Automatic: The camera automatically set the optimum shutter speed 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. Iris Priority: The camera adjusts iris as priority to adjust the image quality. Indoor 50Hz: Reduce stripes by limiting shutter frequency. Indoor 60Hz: Reduce stripes by limiting shutter frequency. Manual: Fine-tune image quality by setting shutter, gain and iris manually. Low Motion Blur: Control the minimum shutter to reduce motion blur in faces captured in motion.
Shutter(s)	 Shutter is used to control the 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. NOTE! This parameter is configurable when Exposure Mode is set to Manual, Shutter Priority, or Custom. If Slow Shutter is disabled, the reciprocal of the shutter speed must be greater than the frame rate.
Gain	Control image signals so that the camera can output standard video signals in different light conditions. NOTE! This parameter is configurable when Exposure Mode is set to Manual or Custom.

Slow Shutter	Increase image brightness in low light conditions. NOTE! This parameter is configurable when Exposure Mode is not set to Iris Priority and Image Stabilization is disabled.
Slowest Shutter	Set the slowest shutter speed for exposure.
Compensation	Adjust the compensation value as required to achieve the desired image effect. NOTE! This parameter is configurable when Exposure Mode is not set to Manual .
Restore Auto Exposure(min)	Set the duration for the camera to restore automatic exposure mode.
Metering Control	 Set how the camera measures the intensity of light. 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. Spot Metering: Similar to evaluative metering. But it cannot increase the brightness of images. Face Metering: Adjust image quality in poor lighting conditions by controlling the brightness of captured faces in face scenes. NOTE! This parameter is configurable when Exposure Mode is not set to Manual.
Day/Night Mode	 Automatic: The camera automatically switches between day mode and night 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. Input Boolean: The camera switches between day mode and night mode according to the Boolean value input from a connected third-party device. NOTE! The Input Boolean option is only available on certain models.
Day/Night Sensitivity	Light threshold for switching between day mode and night mode. A higher sensitivity value 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. NOTE! 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. NOTE! This parameter is configurable when Day/Night Mode is set to Automatic.
WDR	Enable WDR to ensure clear images in high contrast conditions. NOTE! This parameter is configurable when Exposure Mode is set to Automatic, Custom, Shutter Priority, Indoor 50Hz or Indoor 60Hz and when Image Stabilization and Defog are disabled.
WDR Level	Adjust the WDR level. NOTE! Level 7 or higher is recommended if there is a high contrast between the bright and dark areas in the scene. In the case of low contrast, it is recommended to disable WDR or use level 1 to 6.
WDR On/Off Sensitivity	When WDR is set to Automatic , adjust the parameter to change the WDR switching sensitivity.
Suppress WDR Stripes	When enabled, the camera automatically adjusts the slow shutter frequency according to the light frequency to minimize stripes in the image.

To restore defaults, click **Default**.

4. Smart Illumination

1. On the **Image** page, click **Smart Illumination**.

Smart Illumination		
Smart Illumination	🔿 On 💿 Off	
Illumination Mode	White Light	~
Control Mode	Global Mode	~
Illumination Level	0	

2. Enable Smart Illumination.

3. Set the smart illumination parameters.

Item	Description
Illumination Mode	 Infrared: The camera uses infrared light illumination. White Light: The camera uses white light illumination. Warm Light: The camera uses warm light illumination. Laser: The camera uses laser light illumination. NOTE! Before you select Warm Light, please set the Port Mode to Illumination (go to Setup > System > Ports & Devices > Serial Port).
Control Mode	 Global Mode: The camera automatically adjusts illumination and exposure to achieve the balanced image effect. Some areas might be overexposed if you select this option. This option is recommended if you focus on the monitoring range and image brightness. Overexposure Restrain: The camera automatically adjusts illumination and exposure to avoid regional overexposure. Some areas might be dark if you select this option. This option is recommended if you focus on the clarity of the monitoring center area. Road: This mode offers a strong overall illumination and is recommended for monitoring wide-range scenes, for example, road. Park: This mode offers a uniform illumination and is recommended for monitoring small-range scenes with many obstacles, for example, park. Custom Level: This mode allows you to manually control the intensity of illumination. Custom Level(Always On): In this mode, the illumination is always on.
Illumination Level	 Set the intensity of the illuminator. The greater the value, the higher the intensity. 0 is off. Near-illumination Level: Recommended for near focus scenes. Mid-illumination Level: Recommended for medium distance focus scenes. Far-illumination Level: Recommended for far focus scenes. NOTE! This parameter is configurable when Control Mode is set to Custom Level.

To restore defaults, click **Default**.

5. **Focus**

1. On the **Image** page, click **Focus**.

One-Click Focus	~
Normal	~
1	~
10	~
40	~
	Normal 1 10

2. Set the focus parameters.

Item	Description	
Focus Mode	 Auto Focus: Automatic focus control based on the current light conditions. Manual Focus: Manual focus control. One-Click Focus: Automatic focus in the event of rotation, zoom, and preset call. One-Click Focus (IR): Recommended for low light scenes. One-click Focus (Locked): Recommended for road highlight scenes. 	
Scene	 Normal: Common monitoring scenes such as road, park, etc. Long Distance: Long-distance monitoring scenes 	
Zoom Speed	 1: Low zoom speed. Recommended for common scenes. 2: High zoom speed. Recommended when Quick Focus is enabled. 	
Min. Focus Distance	Select the minimum focus distance.	
Max. Zoom Ratio	Select the maximum digital zoom ratio, including 22, 44, 88, 176, and 352.	

To restore the default settings, click **Default**.

6. White Balance

White balance is used to eliminate unnatural color casts in images under different color temperatures for optimal color reproduction.

1. On the **Image** page, click **White Balance**.

* White Balance		
White Balance	Auto	~
Red Offset		9
Blue Offset		7

2. Set the white balance parameters.

Item	Description
White Balance	Adjust the red and blue gains of the image to remove unrealistic color casts.
	• Auto/Auto 2: Automatically adjust the red and blue gains according to the lighting conditions. If there are still color casts in Auto mode, try Auto 2 mode.
	Fine Tune: Manually adjust the red and blue offsets.
	• Sodium Lamp: Automatically adjust the red and blue gains for optimal color reproduction in sodium light sources.
	• Outdoor: Recommended for outdoor scenes where the color temperature varies widely.
	Locked: Keep the current color temperature.
	Set the red/blue offset.
Red/Blue Offset	NOTE!
	This parameter is configurable when White Balance is set to Fine Tune.

To restore defaults, click **Default**.

7. Defog

Defog is used to improve image visibility in foggy, hazy and other low-visibility scenes.

1. On the **Image** page, click **Advanced**.

* Advanced		
Defog	Automatic	~
Defog Intensity	5	

NOTE!

This function is only available when WDR is disabled.

2. Set the defog parameters.

Item	Description
	Select the defog mode, including Automatic, On, and Off.
Defog	In Automatic mode, the camera automatically adjusts the defog intensity according to the fog concentration for clear images.
	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.
Defog Intensity	NOTE!
Dolog interferty	Optical defog is available on certain models.
	To enable optical defog, select On and set the defog intensity to 6 or higher, or select Automatic . Optical defog is automatically turned on in thick fog, and the image changes from color to black and white.

To restore defaults, click **Default**.

8. Lens Info

NOTE!

-

- This function is only available on cameras with external lenses.
- When using a P-IRIS lens with Z/F function, connect the iris control cable to the Z/F port of the camera.

1. On the **Image** page, click **Lens Info**.

Lens Type	Common 🗸
Lens Model	LENS-DM0734P V
Aperture Control	Manual 💙
F-Number	100
	Use Recommended Value

2. Set the lens parameters.

Item	Description		
Lens Type	Select the lens type, including Common and IR .		
Lens Model	Select the lens model, including LENS-DC-IRIS, LENS-DM0734P, etc. NOTE! The lens models supported may vary with device model.		

Aperture Control	Select automatic or manual iris control. NOTE! This parameter is configurable when Lens Type is P-IRIS .
F-Number	Set the f-number to adjust the iris opening manually.
Use Recommended Value	The camera optimizes the iris opening based on the current lighting conditions.

To restore defaults, click Default.

9. Dewarping

Dewarping is used to correct distorted images caused by wide-angle lenses.

1. On the **Image** page, click **Advanced**.

Dewarping	Off	~
Dewarping Level		5

2. Enable **Dewarping** and set the dewarping level as needed.

To restore defaults, click **Default**.

10. Image Stabilization

A camera mounted outdoors may be shaken by external forces (e.g., wind), causing image blur. In this case, you can enable image stabilization to ensure the image quality.

1. On the Image page, click Advanced.

Image Stabilization	Off	~

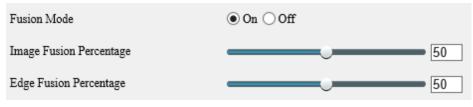
2. Select **On** or **Off** to enable or disable image stabilization.

To restore defaults, click Default.

11. Fusion Mode

In fusion mode, the object details on the visible image are overlayed on the thermal image, so that you can see the object details on the thermal image as well.

1. On the Image page, select Channel 2 and click Fusion Mode.

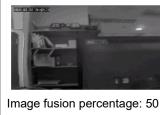


- 2. Select **On** to enable fusion mode.
- 3. Set the fusion percentage.

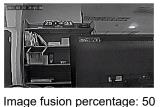
Item		Description
Image Fusion Percentage	The greater the value, the closer the the	ermal image effect is to the visible image effect.
	Image fusion percentage: 0	Image fusion percentage: 100
	Edge fusion percentage: 50	Edge fusion percentage: 50

The greater the value, the sharper the object edges in the thermal image.

Edge Fusion Percentage



Edge fusion percentage: 0



Edge fusion percentage: 100

3

NOTE!

The frame rate of live video may be limited when the fusion mode is enabled on certain models.

12. Non-Uniformity Correction

Non-uniformity correction is used to correct the non-uniformity of pixels caused by different response rates between thermal units to generate higher quality and more accurate images.

1. On the Image page, select Channel 2 and click Advanced.



- 2. Select the non-uniformity correction mode.
- Shutter Compensation: In this mode, the live video may be lost.
- Background Compensation: In this mode, scene change may occur during image collection.

13. Reduce Vertical Stripe Noise

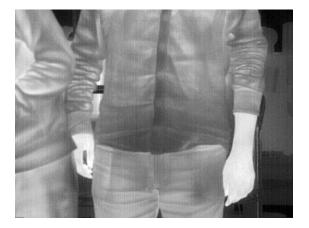
This function helps remove vertical stripes in images caused by sensor process or external temperature.

1. On the Image page, select Channel 2 and click Advanced.

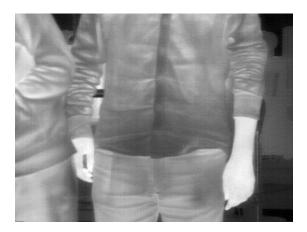
Reduce Vertical Stripe Noise

2. Drag the slider or enter a value to set the intensity. The greater the value, the blurrier the image.

Before removing vertical stripe noise



After removing vertical stripe noise



14. Thermal Imaging Palette

The camera offers a variety of color display options for thermal imaging. The rainbow palette has a strong contrast and a clear distinction between colors of different temperatures, ideal for pinpointing objects in environments with subtle temperature differences.

- 1. On the Image page, select Channel 2 and click Advanced.
- 2. Select the appropriate thermal imaging palette for your camera.

Common Palette "Rainbow 3"

Thermal Imaging Palette	Rainbow 3	~
Imaging Palette Example		
Common Palette "White Hot"		
Thermal Imaging Palette	White Hot	~
Imaging Palette Example		

5.5.2 **OSD**

On Screen Display (OSD) are characters displayed with video images, for example, camera name, date and time.



NOTE!

- This function may vary with device model.
- For dual-channel devices, you can set OSD parameters for the channels separately.

1. Live View OSD

Configure OSD overlayed on the live video.

1. Go to Setup > Image > OSD > Live View.

areal	area2	Enable No.	Overlay OSD Content X-Axis Y-Axis
and the second second		✓ 1	<scrollosd> 2 3</scrollosd>
		✓ 2	<ptz coordinates=""> 75 3</ptz>
		3	
		4	
		5	0 0
		6	0 0
		7	0 0
	+ Zoom -	8	0 0
	+ Focus -	Display Style	
	+ Iris -	Effect	Background V
		Font Size	Medium V
	1 Preset 1	Font Color	#0000-1
	2 Preset 2	Min. Margin	None
	3 Preset 3	Date Format	dd/MM/yyyy ddd=Day; dddd=Day of the week; M=Month; y=Year
°• ₡	4 Preset 4	Time Format	HH:mm:ss b/H=12/24 Hour; tt=A.M. or P.M.; mm=Minute; ss=Second

2. Set the OSD position and content.

Item	Description				
Enable	Select the check boxes in the Enable column to overlay the corresponding contents on the live video. NOTE! Up to 8 overlays allowed.				
Overlay OSD Content	 Set the OSD content you want to overlay. Point to the OSD content, click , select the OSD content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop-down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the drop down list or customize it. Image: Content from the list or customize				
X-Axis/Y-Axis	Specify the exact position of the OSD by entering the X and Y coordinates. Take the top left corner of the image as the origin coordinates (0, 0), the horizontal axis is the X-axis, and the vertical axis is the Y-axis. NOTE! You can also set the OSD position as follows: point to the OSD box in the preview window, drag the box to the desired position after the cursor shape is changed.				
	 indicates the OSD overlay is set successfully. Use the two buttons to rearrange the OSDs. 				

Upload Picture	 This parameter is available only when the Overlay OSD Content is set to Picture Overlay. Click Browse to select the picture you want to overlay. Click Upload, then the picture is displayed on the live video. Overlay Area Upload Picture Upload Note: The uploaded picture should be a 24-bit or 32-bit BMP/PNG file, with max size 64K.
ScrollOSD	 This parameter is available only when the Overlay OSD Content is set to Picture Overlay. 1. Enter the text information you want to overlay. 2. After successful configuration, the text will be scrolled from right to left on the live video



NOTE!

To cancel an OSD, clear the corresponding check box in the **Enable** column or click × in the **Overlay OSD Content** text box.

3. Set the OSD display style.

Item	Description			
Effect	Select the display effect of the OSD content, including Background , Stroke , Hollow , or Normal .			
Font Size	Select the font size of the OSD content, including X-large, Large, Medium, or Small.			
Font Color	Click of to select the text color of the OSD content.			
Min. Margin	Select the minimum distance between the OSD area and the edge of the image, including None , Single , and Double .			
Date Format	Select the date format, including dd/MM/yyyy, MM/dd/yyyy, etc.			
Time Format	Select the time format, including HH:mm:ss , HH:mm:ss.aaa , hh:mm:ss tt , and hh:mm:ss.aaa tt .			

2. Photo OSD

Configure OSD overlayed on the images captured from the live video.

1. Go to Setup > Image > OSD > Photo.

910.1971 - 710.000	OSD Configuration Mode	$\textcircled{\label{eq:selection} 0}$ Use Live View OSD \bigcirc Configure Separately	
	Single Photo	Font Color ##fffff 🥥 Background Color	•
	Snapshot a Single Image		
	Overlay Position Insid	de 🔿 External Top 🔿 External Bottom	
	Font Size Medium 🗸	Character Space px	
	Show Configuration I	tem Name	
	Time Format HH:mm:s	s h/H=12/24 Hour; tt=A.M. or P.M.; mm=Minute; ss=Second; aaa=Millis	Second
	Date Format yyyy-MM-	dd 🛛 🗸 dd=Day; dddd=Day of the week; M=Month; y=Year	
	☑ Date Time	Device ID	Intersection Info
	Custom 1	Custom 2	Custom 3
	Configuration Item Cust		
	Date Time	Area1 🗸 1 0 🔨 📩	
	Save		

- 2. Select how the photo OSD is configured, Use Live View OSD or Configure Separately.
- Use Live View OSD: Use the OSD overlayed on the live video.
- Configure Separately: Configure the OSD overlayed on the snapshots separately.
- 3. Set the text color and background color for the OSD.
- 4. Refer to the table below to set other parameters as needed.

Overlay Position Extention Extention Extention Extention Character Space Select the Range: Show Configuration Select the Range: Show Configuration Select the Range: Select the Range:				
Character Space Set the Range: Show Configuration Item Name Select with Select the Select th	distance between the OSD area and the edge of the image. 0 to 10px. whether to show the configuration item name, such as Date Time, Device ID, etc. he time format, including HH:mm:ss, HH:mm:ss.aaa, hh:mm:ss tt, and hh:mm:ss.aaa tt. he date format, including dd/MM/yyyy, MM/dd/yyyy, etc. he configuration items you want to overlay, then the selected items are listed in the table. 'Time Device ID Intersection Info on 1 Custom Configuration Item Overlay Space Line Feed ize the configuration item name. an overlay area for the configuration item. You may change the area position by dragging it			
Character Space Range: Show Configuration Item Name Select w Time Format Select th Date Format Select th Configuration Name Select th Custom Configuration Name Item Name Custom Configuration Name Custom Custom Configuration Name Select a on the ir	0 to 10px. whether to show the configuration item name, such as Date Time, Device ID, etc. he time format, including HH:mm:ss, HH:mm:ss.aaa, hh:mm:ss tt, and hh:mm:ss.aaa tt. he date format, including dd/MM/yyyy, MM/dd/yyyy, etc. he configuration items you want to overlay, then the selected items are listed in the table. Time Device D D Device D Coutom 3 on Dem. Custom Configuration Item. Overlay. Space. Line Feed. ize the configuration item name. an overlay area for the configuration item. You may change the area position by dragging it			
Item Name Select w Time Format Select th Date Format Select th Configuration Item Name Configuration Custom Configuration Name Custom Configuration Item Select a Select a Output Select a	he time format, including HH:mm:ss, HH:mm:ss.aaa, hh:mm:ss tt, and hh:mm:ss.aaa tt. he date format, including dd/MM/yyyy, MM/dd/yyyy, etc. he configuration items you want to overlay, then the selected items are listed in the table. Time Device D Intersection Info on hem Custom Configuration hem Overlay Space Line Feed ize the configuration item name. an overlay area for the configuration item. You may change the area position by dragging it			
Date Format Select th Configuration Name Item Custom Configuration Name Item Custom Configuration Name Select and the international select and the internatin select and the internatin select and the i	he date format, including dd/MM/yyyy , MM/dd/yyyy , etc. he configuration items you want to overlay, then the selected items are listed in the table. Time Device D Intersection Info on 1 Custom 2 Custom 3 on Item Custom Configuration Item Overlay Space Line Feet Area1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Configuration Item Select the Configuration Name Configuration Item Configuration Date Time Custom Name Select a on the ir	he configuration items you want to overlay, then the selected items are listed in the table. Time Overlay Device D Overlay D			
Configuration Item Name Custom Configuration Item Custom Configuration Item Custom Name Select a on the ir	Time Device D Intersection Info on 1 Custom 2 Custom 3 on Item Custom Coefiguration Item Overlay Space Line Feed Area1 v 1 0 v iii ize the configuration item name.			
Configuration Item Configuration Item Configuration Item Configuration Item Customs Name Customs Select a on the ir	om 1 Custom 2 Custom 3 on Item Custom Configuration Item Overlay Space Line Feed Area 1 v 1 Image: Custom Configuration Item name. ize the configuration item name. an overlay area for the configuration item. You may change the area position by dragging it			
Custom Configuration Item Name Customi Name Customi Select a on the ir	ize the configuration item name.			
Configuration Item Custom Name Select a on the ir	an overlay area for the configuration item. You may change the area position by dragging it			
Overlay Area				
Overlay Area				
	number of spaces after the overlay. Range: 0 to 10.			
Line Feed Count Set whe O: No Count Line Feed Count In E Subs In E	 Set whether and how to break line for the subsequent configuration items. 0: No line break. 1: Second line. 2/3: Third/fourth line. NOTE! 			
Delete ti	Use the two buttons to rearrange the configuration items.			

5. Click Save.

5.5.3 Privacy Mask

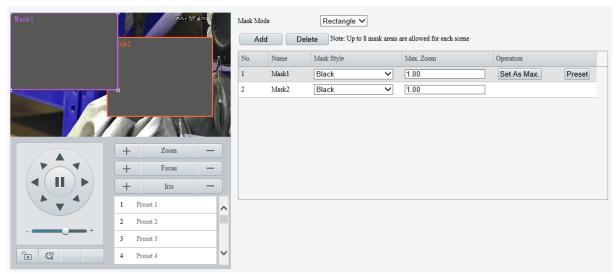
NOTE!

Privacy mask is used to cover certain areas on the image for privacy, for example, ATM keyboard.

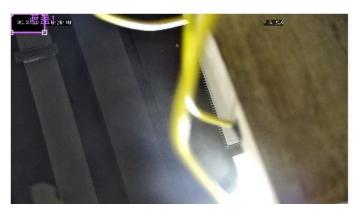


- This function may vary with device model.
- For dual-channel devices, you can set privacy mask parameters for the channels separately.

1. Go to Setup > Image > Privacy Mask.



- 2. Select the mask mode, Rectangle or Polygon.
- 2D-mask camera: For a PTZ camera, the privacy mask does not move and zoom with the camera.
- 3D-mask camera: For a PTZ camera, the privacy mask moves and zooms with the camera and the masked area is always covered.
- 3. Add a privacy mask.
 - (1) Click Add. The privacy mask is a rectangle by default.



- (2) Adjust the position and size of the mask or draw a mask as needed.
- Adjust the position and size of the mask.
- Point to a border of the mask and drag it to the desired position.
- Point to a handle of the mask and drag to resize it.
- Draw a mask.
- Polygon: 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 4 lines are allowed.
- Rectangle: Click on the image and drag to draw a rectangle.
- 4. Set the privacy mask.

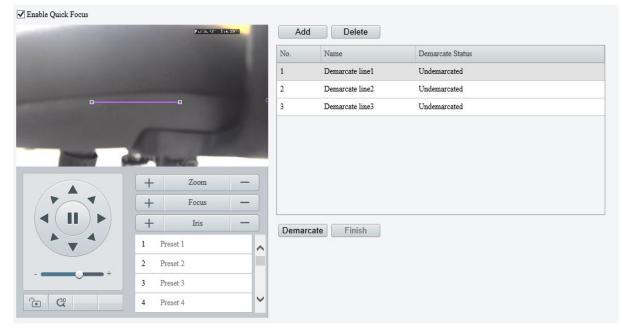
Item	Description			
	Select the mask style, Black or Mosaic .			
	NOTE!			
Mask style	• This parameter is configurable when Mask Mode is set to Rectangle . By default, the mask style of polygon mask is black and cannot be modified.			
	Mosaic is only available on certain models.			
Max. Zoom (3D-	Set the maximum zoom ratio to determine whether to show or hide the privacy mask.			
mask camera)	If the current lens zoom ratio is less than the maximum zoom ratio, the privacy mask is invalid.			
Set As Max. (3D- mask camera)	Click to set the current lens zoom ratio as the maximum zoom ratio.			
Preset (3D-mask camera)	Click to rotate the camera to the masked area (generally, the masked area is in the center the live video).			

5.5.4 Quick Focus

Fast focus effectively saves focus time and avoids missing important information after the camera changes the scene, focus and zoom.



- This function is only available on certain models.
- Set the zoom speed to 2 on the **Image** page when quick focus is enabled.
- 1. Go to Setup > Image > Quick Focus.
- 2. Select the Enable Quick Focus check box to enable it.



- 3. Add a calibration line for the desired scene.
 - (1) Click Add. A line displays on the image.



(2) Adjust the position and length of the line or draw a line as needed.

- > Adjust the position and length of the line.
- Point to the line and drag it to the desired position.
- Point to a handle of the line and drag to resize it.
- > Draw a line.

Click on the image and drag to draw a line.

- 4. Click **Demarcate** to start automatic zoom. After the auto zoom is completed, click **Finish** to complete calibration. If you click **Finish** during calibration, the calibration line is considered invalid.
- 5. Repeat the above steps to calibrate more scenes. Up to 4 scenes are allowed.

5.6 **Smart**

On the **Smart** page, you can select the smart event to be monitored and click ¹ to configure relevant

parameters.

The smart events supported by the device and the parameters supported by the events may vary with device model.

Perimeter Protection							
Cross Line	0	Enter Area	٥	Leave Area	٥.	Intrusion	0
Exception Detection							
Object Removed	•	Object Left Behind	۰				
Object Detection							
Face Detection	•	Mixed-Traffic Detection	¢				
People Counting							
People Flow Counting	•	Crowd Density Monitoring	¢				
Auto Tracking							
Auto Tracking	•						

Common Button Description

Button	Description
+	Create detection rules. Up to 4 detection rules are allowed for each smart event.
â	Delete detection rules.



- For dual-channel devices, you can set smart parameters for the channels separately.
- Some smart functions are mutually exclusive. When a smart function is enabled, the functions that are mutually exclusive with it are grayed out.

5.6.1 Alarm-triggered Actions

You can set how the camera responds to an event to alert you to deal with it in time.

Conventional	Alarm Output	Storage	PTZ
Send E-mail	$\square A \rightarrow 1$	Recording Edge Storage	Trigger Tr Tracking
Attribute Collection	$\square A \rightarrow 2$	Image Edge Storage	
✓ Upload Image(Original)	🗌 Alarm Sound 🗔	FTP Video Storage	

Item	Description
Upload to FTP	The camera uploads snapshots to the specified FTP server when an alarm occurs. Please configure <u>FTP</u> and <u>Snapshot</u> first before use.
Send E-mail	The camera sends snapshots to the specified email addresses when an alarm occurs. Please configure <u>E-mail</u> and <u>Snapshot</u> first before use.
Alarm the Center	The camera uploads alarm information to the surveillance center when an alarm occurs.
Attribute Collection	The camera uploads the attribute information of the object that triggers the alarm to the server when an alarm occurs.
	Please configure <u>Attribute Collection</u> first before use.
Upload Image(Original)	The camera uploads the original snapshots of the object that triggers the alarm to the server when an alarm occurs.
Upload Image(Target)	The camera uploads the object snapshots to the server.
Alarm Output	The camera outputs an alarm to trigger actions by an alarm output device when an alarm occurs. Please configure <u>Alarm Output</u> first before use.

	The camera plays warning sounds when an alarm occurs.		
Alarm Sound	 Select the Alarm Sound check box and click to configure relevant parameters. Set the arming schedule for audible alarms. See <u>Arming Schedule</u> for details. Set the alarm audio content and alarm times. Audio: Set the audio content to be played when an alarms occurs. See <u>Audio File</u> for details. Repeat: Set the number of times the audio to be played when an alarm occurs. Repeat: Set the number of times the audio to be played when an alarm occurs. The The The The The The The The The The		
Alarm Light	The illuminator of the camera flashes for a certain period of time when an alarm occurs. Select the Alarm Light check box and click to configure relevant parameters. Set the duration that the illuminator flashes when an alarm occurs. Set the arming schedule for visible alarms. See <u>Arming Schedule</u> for details. Normal Light The Transment of the transment		
Recording Edge Storage	The camera saves alarm recordings to its memory card or NAS when an alarm occurs. Please configure <u>Memory Card</u> or <u>Network Disk</u> first before use.		
Image Edge Storage	The camera saves alarm snapshots to its memory card or NAS when an alarm occurs. Please configure <u>Memory Card</u> or <u>Network Disk</u> first before use.		
FTP Video Storage	The camera uploads alarm recordings to the specified FTP server when an alarm occurs. Please configure <u>FTP</u> first before use.		
Trigger Tracking	The camera starts tracking the object that triggers the alarm automatically until the set tracking time is reached or the object disappears when an alarm occurs. You can click Tracking to configure tracking parameters. See <u>Tracking</u> for details.		
Go to Preset	The camera automatically goes to a preset position when an alarm occurs. Select the preset position you want the camera to go to. See <u>PTZ</u> for details.		

5.6.2 Arming Schedule

You can set an arming schedule to determine when the camera performs detection.

• Draw a schedule

To set an armed period, click **Armed**, and then click or drag on the schedule to select the time cells you want to enable arming. To set a disarmed period, click **Unarmed**, and then click or drag on the schedule to select the time cells you want to disable arming.



Only browsers of IE 9 or higher allows schedule drawing.

• Edit a schedule

Click Edit, set the arming time, and then click OK.

Mon	Tue	Wed	Thu	Fri	Sat	Sun
No.	St	tart Time		End Time		
1	0	0:00:00		23:59:59		
2			L			
3			L			
4			L			Ŀ
ру То	Select A	ll 🗌 Wed	Thu	Fri	Sat	Sun 🗌
Mon					l	Сору
Mon						Сору

NOTE!

- Up to 4 time periods are allowed per day. The time periods cannot overlap.
- To apply the same time settings to other days, select the desired day(s), and then click **Copy**.

5.6.3 Cross Line Detection

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

1. Go to Setup > Intelligent > Smart.

2. Select **Cross Line** and click **t** to configure it.

Cross Line Detection				
Rule Settings Trigge	er Actions Plan			
		Detection Rule + Rule1	Rule1 Trigger Direction Semitivity Level Detection Object Filter Type Max. Size Min. Size	A<->B 50 High Motor Vehicle Non-Motor Vehicle Pedestrian Motor Vehicle 2659 X 1439 26 X 26
	+ Focus			

- 3. Add a detection rule.
 - (1) Click 🛨 to add a detection line. Up to 4 detection rules are allowed.



- (2) Adjust the position and length of the line or draw a line as needed.
- > Adjust the position and length of the line.
- Point to the line and drag it to the desired position.
- Point to a handle of the line and drag to resize it.
- Draw a line.

Click on the image and drag to draw a line.

4. Set the detection rule.

ltem	Description
	Select the direction from which the object crosses the line to trigger an alarm.
	• A->B: The camera reports a cross line alarm when it detects an object crossing the line from A to B.
Trigger Direction	• B->A: The camera reports a cross line alarm when it detects an object crossing the line from B to A.
	• A<->B (default): The camera reports a cross line alarm when it detects an object crossing the line from A to B or from B to A.
	Set the detection sensitivity.
Sensitivity	The higher the sensitivity, the more likely cross line behaviors will be detected, and the more likely false alarms will occur.
	Select the priority of the detection rule, including High, Medium, and Low.
Level	The camera detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the camera detects the rule with higher priority.

Detection Object	Select the object to be detected, including Mot Pedestrian .	or Vehicle, Non-Motor Vehicle, and
Filter Type	After you select a detection object, you can set a filte For example, if you have selected Motor Vehicle as from the Filter Type drop-down list and set the Ma vehicles larger than the Max. Size or smaller than th	a detection object, select Motor Vehicle ax. Size or Min. Size for it, then motor
	When enabled, a box appears on the image, you ca to resize it. The camera filters objects larger than the The width and height of the maximum filter area mu filter area.	Max. Size or smaller than the Min. Size.
Max. Size/Min. Size	Detection Rule +	Rule1 Trigger Direction A<>B Sensitivity 50 Detection Object Ø Motor Vehicle Ø Pedestrian Filter Type Motor Vehicle Ø Ø Max. Size 2559 X 1439 Ø Min. Size 26 X 26

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.4 Enter Area Detection

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

- 1. Go to **Setup > Intelligent > Smart**.
- 2. Select Enter Area and click 💿 to configure it.

Enter Area Detection		
Rule Settings Trigg	ger Actions Plan	
	Detection Rul Rule1	Rulel Rulel Rulel Rulel Rulel Sensitivity 50 Level High V Detection Object Motor Vehicle Ø Non-Motor Vehicle Ø Pedestrian Filter Type Motor Vehicle Xassize 2559 X 1439 Min. Size 26 X 26
	+ Zoom - + Focus - 1 Preset 1 ^ 2 Preset 2 3 3 Preset 3 _ 4 Preset 4 _	

- 3. Add a detection rule.
 - (1) Click 🛨 to add a detection area. The detection area is a hexagon by default. Up to 4 detection rules are allowed.



(2) Adjust the position and size of the area or draw an area as needed.

- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- 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.

4. Set the detection rule.

Item	Description				
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely entry behaviors will be detected, and the more likely false alarms will occur.				
Level	Select the priority of the detection rule, including High , Medium , and Low . The camera detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the camera detects the rule with higher priority.				
Detection Object	Select the object to be detected, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.				
Filter Type	After you select a detection object, you can set a filter rule for it. For example, if you have selected Motor Vehicle as a detection object, select Motor Vehicle from the Filter Type drop-down list and set the Max. Size or Min. Size for it, then motor vehicles larger than the Max. Size or smaller than the Min. Size will not be detected.				
	When enabled, a box appears on the image, you can point to a handle of the box and drag to resize it. The camera filters objects larger than the Max. Size or smaller than the Min. Size. The width and height of the maximum filter area must be greater than that of the minimum filter area.				
Max. Size/Min. Size	Detection Rule Rule1 Sensitivity 50 Detection Object Motor Vehicle (Mon-Motor				

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.5 Leave Area Detection

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

1. Go to Setup > Intelligent > Smart.

2. Select Leave Area and click 💿 to configure it.

Leave Area Detection	
Rule Settings Trigger Actions Plan	
Petetion Rule Rule Smithing C Petetion Rule Rule Smithing Smithing Petetion Object Mator Vehicle Object Petetion Object Mator Vehicle Petetion Object Pater Type Mator Vehicle Petetion Object Pater Type Mator Vehicle Object Pater Type Mator Vehicle Petetion Object Mator Vehicle Pater Type Mator Vehicle Pater Type Pater Type <td></td>	

- 3. Add a detection rule.
 - (1) Click 🛨 to add a detection area. The detection area is a hexagon by default. Up to 4 detection rules are allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- 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.

4. Set the detection rule.

Item	Description			
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely cross line behaviors will be detected, and the more likely false alarms will occur.			
Level	Select the priority of the detection rule, including High , Medium , and Low . The camera detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the camera detects the rule with higher priority.			
Detection Object	Select the object to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .			

Filter Type	After you select a detection object, you can set a filter rule for it. For example, if you have selected Motor Vehicle as a detection object, select Motor Vehicle from the Filter Type drop-down list and set the Max. Size or Min. Size for it, then motor vehicles larger than the Max. Size or smaller than the Min. Size will not be detected.				
Max. Size/Min. Size	When enabled, a box appears on the image, you can point to a handle of the box and drag to resize it. The camera filters objects larger than the Max. Size or smaller than the Min. Size. The width and height of the maximum filter area must be greater than that of the minimum filter area.				

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.6 Intrusion Detection

I Interview Detection

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

- 1. Go to Setup > Intelligent > Smart.
- 2. Select Intrusion and click 💿 to configure it.

Rule Settings	Trigger Actions	Plan			
			Detection Rule Rule1 Rule2 Rule3 Rule4	Rule4 Time Threshold(s) Sensitivity Level Detection Object Filter Type Max. Size Min. Size	1 50 High ✓ Ø Motor Vehicle ✓ 2559 X 26 X 26 X 26 X 26
	+ 1	Zoom — Focus — Inis —			

- 3. Add a detection rule.
 - (1) Click 🛨 to add a detection area. The detection area is a hexagon by default. Up to 4 detection rules are allowed.



(2) Adjust the position and size of the area or draw an area as needed.

- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- 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.

4. Set the detection rule.

Item	Description					
Time Threshold(s)	Set how long the object stays in the detection area to trigger an intrusion alarm.					
	If an object stays in the detection area for the set time, an intrusion alarm will be triggered.					
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely intrusion behaviors will be detected, and the more likely false alarms will occur.					
	Select the priority of the detection rule.					
Level	The camera detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the camera detects the rule with higher priority.					
Detection Object	Select the object to be detected, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.					
Filter Type	After you select a detection object, you can set a filter rule for it. For example, if you have selected Motor Vehicle as a detection object, select Motor Vehicle from the Filter Type drop-down list and set the Max. Size or Min. Size for it, then motor vehicles larger than the Max. Size or smaller than the Min. Size will not be detected.					
Max. Size/Min. Size	When enabled, a box appears on the image, you can point to a handle of the box and drag to resize it. The camera filters objects larger than the Max. Size or smaller than the Min. Size. The width and height of the maximum filter area must be greater than that of the minimum filter area.					

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.7 Object Removed Detection

Object removed detection detects objects removed from a user-specified area. The camera reports an alarm when the detection rule is triggered.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Object Removed** and click ¹ to configure it.

Enable Object Removed Detection					
Rule Settings Trig	gger Actions	Plan			
		A	Detection Rule + Rule1 III Rule2 III Rule3 III Rule4 III	Rule4 Time Threshold(s) Sensitivity	5
	+ Fo				

- 3. Add a detection rule.
 - (1) Click to add a detection area. The detection area is a hexagon by default. Up to 4 detection rules are allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- 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.

4. Set the detection rule.

Item	Description
Time Threshold(s)	Set how long the object is removed from the detection area to trigger an alarm. If an object is removed from the detection area for the set time, an alarm will be triggered.
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely object removal behaviors will be detected, and the more likely false alarms will occur.

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.8 Object Left Behind Detection

Object left behind detection detects objects left behind in a user-specified area. The camera reports an alarm when the detection rule is triggered.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Object Left Behind** and click ¹ to configure it.

Enable Object Left Behind I	Detection				
Rule Settings	Trigger Actions	Plan			
		Ā	Detection Rule + Rule1 III Rule2 III Rule3 III Rule4	Rule4 Time Threshold(s) Sensitivity	5

- 3. Add a detection rule.
 - (1) Click 🛨 to add a detection area. The detection area is a hexagon by default. Up to 4 detection rules are allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.

- Point to a handle of the area and drag to resize it.
- 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.

4. Set the detection rule.

Item	Description
Time Threshold(s)	Set how long the object is left behind in the detection area to trigger an alarm. If an object is left behind in the detection area for the set time, an alarm will be triggered.
Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely object left behind behaviors will be detected, and the more likely false alarms will occur.

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.9 **Defocus Detection**

Defocus detection detects lens defocus. The camera reports an alarm when the detection rule is triggered.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Defocus** and click ¹ to configure it.

Defocus Detection		
Rule Settings	Trigger Actions	
Sensitivity	50	
Save		

- 3. Set the detection sensitivity. The higher the sensitivity, the more likely defocus will be detected, and the more likely false alarms will occur.
- 4. Set the alarm-triggered actions. See <u>Alarm-triggered Actions</u> for details.
- 5. Click Save.

5.6.10 Scene Change Detection

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

- 1. Go to Setup > Intelligent > Smart.
- 2. Select Scene Change and click 🙆 to configure it.

Scene Change Detection			
Rule Settings	Trigger Actions	Plan	
Sensitivity	50)	
Save			

- 3. Set the detection sensitivity. The higher the sensitivity, the more likely scene change behaviors will be detected, and the more likely false alarms will occur.
- 4. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 5. Click Save.

5.6.11 Face Detection

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

- 1. Go to Setup > Intelligent > Smart.
- 2. Select Face Detection and click ⁽⁾ to configure it.

✓ Enable Face Detection				
Rule Settings	Masked Area	Trigger Actions	Plan	
-10 18:19:21		Fa	ce Detection	
		Sna	apshot Area	● Full Screen ○ Specified Area
		Sna Sna	apshot Sensitivity	 50
		Sna Sna	apshot Mode	Intelligent Recognition 🗌 Alarm Input
		Hu	ıman Body Snapshot	○ On
		Mi	in. Pupillary Distance (px)	38 Draw
. 20 ¹⁰ 103 21 314 123		Sta	atic Object Detection	● On ○ Off
	ab My In-	Co	ounting	● On ○ Off
	0011	Co	ounting Direction	● Enter ○ Leave
	+ Zoom		Reset Counter at	00:00:00
	+ Focus		ce Selection	
(◀(Ⅱ))►	+ Iris	_	lection Mode	Effect Priority
	1 Preset 1			Effect Priority V
	+ 2 Preset 2	Filt	ter by Angle	○ On
	3 Preset 3	-Fa	ce Recognition	
6 Q	4 Preset 4	\sim	-	● On ◯ Off
			-	

3. Set the face detection rule.

Item	Description					
Snapshot Area	 Select the snapshot area. Full Screen: The camera detects and captures all faces in the live video. Specified Area: The camera only detects and captures faces in a specified area of live video. Select Specified Area and a detection box appears in the left preview window. With a state of the 					
Snapshot Sensitivity	Set the snapshot sensitivity. The higher the sensitivity, the more likely a face will be detected.					
Snapshot Mode	 Set the snapshot mode. Intelligent Recognition: The camera continuously performs face detection. Alarm Input: The camera only performs face detection in the event of an alarm input. Before use, you need to enable alarm input and configure arming schedule for it. See <u>Alarm Input</u> for details. 					
Human Body Snapshot	Select to enable or disable human body snapshot.					
Min. Pupillary Distance (px)	The minimum distance (measured in pixels) between two pupils. The face with pupillary distance smaller than the value will not be captured. To set the minimum pupillary distance, you can click Draw and drag the corners of the box in the preview window to resize it, or type the pupillary distance value in the text box.					
Static Object Detection	Select whether to detect static objects.					
Counting	After you enable Counting and select the people counting direction, the statistics of people entering or leaving are displayed on the live image. Before use, please configure a people counting OSD overlay on the OSD page. See <u>OSD</u> for details.					
Reset Counter at	 Select the Reset Counter at check box and set a time for the camera to clear people counting statistics. To clear people counting statistics immediately, click Clear Counting Result. This operation only clears the people statistics displayed on the OSD, and does not affect the reported data. 					

4. Set the face selection rule.

Item	Description
Selection Mode	 Select the face selection mode. Effect Priority: The camera selects 1 to 3 snapshots with the best quality to report. You can specify the number of photos to select. Speed Priority: The camera selects certain number of snapshots from the moment that the face is detected till Selection Timeout is up. You can specify the number of photos to select. Periodic Selection: The camera selects a snapshot in every selection period. For example, if Selection Period is set to 500ms, the camera selects a face snapshot every 500ms, and
	if Upload Original Image is enabled, both the original snapshot containing the face and the face cutout will be uploaded.

Number of Selected Photos		Set the number of snapshots to be selected in the range of 1 to 3. This parameter is set to 1 by default and cannot be modified on certain models.				
		ble Filter by Angle and ngles) will be filtered d			aces with	unqualified angles (larger
	Filter by Angle	● On ○ Off				
	Roll Left	40		Illustration		
Filter by Angle	Roll Right	40	1999 - C.			
	Yaw Left	40				
	Yaw Right	40			< /	
	Pitch Up	40	Roll	Yaw	Pitch	
	Pitch Down	40	1.011	140	1 IICH	

5. Set the face recognition rule. See <u>Face Recognition</u> for details.

NOTE!

Face recognition and human body snapshot cannot be enabled at the same time.

- 6. Mask undesired areas.
 - (1) Click 🛨 to add a masked area. The masked area is a hexagon by default. Up to 4 masked areas are allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- > Adjust the position and size of the area.
- Point to a border of the area and drag it to the desired position.
- Point to a handle of the area and drag to resize it.
- 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.

- 7. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 8. Click Save.

5.6.12 Face Recognition

Face recognition compares the faces captured in live view with the faces stored in face libraries, and uploads the comparison results to the server.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select Face Detection and click 🍳.
- 3. Click the Face Library tab.

Face Detection Face Library Monitoring Task
Refresh Add Modify Delete I Batch Import Export Template Gender Please select Name Please enter name ID No. Please enter ID No. Search Reset Select All Select

4. Create face libraries.

Click Add in the left area, enter the library name, and click OK.

Refresh Add Delete
chunjie
OK Cancel

5. Add face data.

Item	Description										
	4. Click Add.										
	Add Modify Delete Batch Import Export Template Oreder Please select Name Please enter name ID No. Please enter ID No. Search Reset 5. Upload a face image and complete the required face information.										
	Add Face Info ×										
Add one by one	Name Gender Obt of Birth Date of Birth Province City ID Type ID Type ID No. Face Lubrary Picture Upload JPG only. Image size: 10K.500K.										
	 Click Export Template to export the CSV face template file to the PC. Complete the required face data in the template with reference to the import guide. Refer to the import guide to fill in the template with the required face data. Click Batch Import, select the CSV file you have edited, and click Upload. 										
	Batch Import ×										
Add in batches	File Path Browse Upload										
	Make sure the file to import complies with the template. Up to 5000 faces can be imported at a time. Please import separately if the total number exceeds this limit.										

The imported face data are shown as below:

Refresh Add Dele	ete	Add Modify	Delete	Batch Import	Export Template	Ge	ender	Please select	✓ Name	Please enter name	ID No.	Please enter ID No.	Search	Reset
chunjie	Edit	Select All												
		F	2											
		33 35235464646	亡	22 3234353466	± 634543									
					1 Go '									

6. Add monitoring tasks.

Open the Monitoring Task tab.

Face Det	ection Face Library Mo	nitoring Task			
Add	Refresh				
No.	Monitoring Task Name	Cause of Monitoring	Alarm Threshold	Face Library	Operation

(1) Click Add.

Add		×
Monitoring Task Name Cause of Monitoring Monitoring Type	On Off All Plan	
Select All		
	OK	Cancel

(2) Complete the monitoring task settings.

Monitoring Type	Description
Monitoring Task	Select to enable or disable the monitoring task.
Monitoring Task Name	Enter a name for the monitoring task.
Cause of Monitoring	Enter the cause of the monitoring task.
Monitoring Type	 Select the monitoring type. All: The camera reports an alarm and performs the set alarm-triggered actions once it detects a face. Match Alarm: The camera reports a match alarm and performs the set alarm-triggered actions when the similarity between a captured face and a face in the monitored face library reaches the confidence threshold. Not Match Alarm: The camera reports a not match alarm and performs the set alarm-triggered actions when the similarity between a captured face and a face in the monitored face library reaches the confidence threshold.
Confidence Threshold	By default, the confidence threshold is set to 80. A match alarm/not match alarm occurs when the similarity between a captured face and a face in the face library reaches/fails to reach the threshold. The higher the value, the more accurate the face recognition.

- (3) Select the face library to be monitored.
- (4) Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- (5) Click OK.
- 7. Click Save.

5.6.13 Human Body Detection

Human body detection detects humans in a specified area. The camera reports an alarm when the detection rule is triggered.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Human Body Detection** and click **t** to configure it.

Enable Human Body Detection			
Rule Settings Plan			
Contraction of the second seco	Area Areal Sensitivity	Low High	
Save			

- 3. Add a snapshot area.
 - (1) Click 🛨. The snapshot area is a hexagon by default. Only one snapshot area is allowed.



- (2) Adjust the position and size of the area or draw an area as needed.
- Adjust the position and size of the area.
 Point to the area and drag it to the desired position. Drag the corners of the area to resize it.
- Draw an area.
 Click in the preview window to draw a polygonal area with up to 6 sides.
- 4. Set the detection sensitivity. The higher the sensitivity, the more likely humans will be detected, and the more likely false alarms will occur.
- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.14 Mixed-Traffic Detection

Mixed-traffic detection detects and captures motor vehicles, non-motor vehicles, and pedestrians in a user-specified area. You can set a mixed-traffic counting OSD to view realtime motor vehicle, non-motor vehicle and pedestrian statistics on the live video. See <u>Live View OSD</u> for details.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select Mixed-Traffic Detection and click ¹/₂ to configure it.

Rule Settings	Masked Area	Trigger Actions	Plan	
an annan an se n	-	Mit	xed-Traffic Detection	
		Sna	apshot Area 🤅	● Full Screen ○ Specified Area
	Aman	Sna	apshot Sensitivity	50
8 8		Def	tection Object	🛛 Motor Vehicle 🗹 Non-Motor Vehicle 🗹 Pedestrian
	A	Filt	ter Type	Motor Vehicle 🗸
MARKY'			Max. Size	2560 X 1440
				26 X 26
	a state of the second	Contraction of the second	,	● On ◯ Off
			otor Vehicle&Non-Motor 🤇	
	+ Z00	m — 🗌	Reset Counter at 0	00:00:00
	+ For	us —		
	+ Iris	s —		
	1 Preset 1	^		
	2 Preset 2			
	+ 3 Preset 3			
6 3	4 Preset 4	~		

3. Set the detection rule.

Item	Description						
Snapshot Area	 Select the snapshot area. Full Screen: The camera detects and captures objects in the live video. Specified Area: The camera only detects and captures objects in a specified area of live video. Select Specified Area and a detection box appears in the left preview window. Interview Traffic Detection Interview Specified Area Interview Vehicle						
Snapshot Sensitivity	Set the detection sensitivity. The higher the sensitivity, the more likely objects will be detected, and the more likely false alarms will occur.						
Detection Object	Select the object to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .						
Filter Type	After you select a detection object, you can set a filter rule for it. For example, if you have selected Motor Vehicle as a detection object, select Motor Vehicle from the Filter Type drop-down list and set the Max. Size or Min. Size for it, then motor vehicles larger than the Max. Size or smaller than the Min. Size will not be detected.						
Max. Size/Min. Size	When enabled, a box appears on the image, you can point to a handle of the box and drag to resize it. The camera filters objects larger than the Max. Size or smaller than the Min. Size. The width and height of the maximum filter area must be greater than that of the minimum filter area. Image: Comparison of the state of the maximum filter area must be greater than that of the minimum filter area. Image: Comparison of the state of the state of the minimum filter area. Image: Comparison of the state of the						
Static Object Detection	Select whether to detect static objects.						
Motor Vehicle&Non-Motor Vehicle&Pedestrian Count	Select whether to count motor vehicles, non-motor vehicles and pedestrians.						
Reset Counter at	You can set a time for the camera to clear the traffic statistics or click Reset Flow Counting to clear immediately.						

- 4. Mask undesired areas.
 - (1) Click 🛨 to add a masked area. The masked area is a hexagon by default. Up to 4 masked areas are allowed.



(2) Adjust the position and size of the area or draw an area as needed.

- Adjust the position and size of the area.
 Point to the area and drag it to the desired position. Drag the corners of the area to resize it.
- Draw an area.
 Click in the preview window to draw a polygonal area with up to 6 sides.
- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.15 People Flow Counting

People flow counting counts people passing a specified tripwire and triggers an alarm if the number of people exceeds the set alarm threshold.

1. Go to Setup > Intelligent > Smart.

Enable People Flow Counting					
Rule Settings Tri	gger Actions	Plan			
		Dat	a Report Interval(s)	60	
e e		⊡	Reset Counter at	00:00:00	Clear
		Ent	er	A->B 🗸	
		Cou	nting Type	Total 🗸	
		Pe	ople Present Alarm		
			Minor Alarm	≥60]
			Major Alarm	≥120]
]			Critical Alarm	≥180]
	+ Zoom	-			
	+ Focus	—			
	+ Iris	—			
V	1 Preset 1	~			
	2 Preset 2				
	3 Preset 3				
C C	4 Preset 4	~			

2. Select **People Flow Counting** and click ^I to configure it.

3. A tripwire is displayed in the left preview window by default. You can adjust the position and size of it or draw a tripwire as needed. Only one tripwire is allowed.



- Adjust the position and size of the tripwire.
 Point to the tripwire and drag it to the desired position. Drag the endpoints of the tripwire to resize it.
- Draw a tripwire. Click in the preview window to draw a tripwire.
- 4. Set the people flow counting rule.

Item	Description						
Data Report Interval(s)	Set the time interval for the camera to report people flow statistics. Default: 60. Range: 1 to 60. For example, if the interval is set to 60, the camera will report people flow statistics to the server every 60 seconds.						
Reset Counter at	 Select the Reset Counter at check box and set a time for the camera to clear people counting statistics on the OSD. To clear now, click Clear. 						
Enter	Set the entry direction.						
Counting Type	 Select the counting type. Before use, configure a people counting OSD first. See <u>OSD</u> for details. Total: The number of people entering and leaving the area is displayed in real time on the video image. People Entered: The number of people entering the area is displayed in real time on the video image. People Exited: The number of people leaving the area is displayed in real time on the video image. 						
People Present Alarm	 Set the people present alarm threshold. When the number of people present reaches a set threshold, an alarm is triggered. Range: 1 to 180. Minor Alarm: A minor alarm is triggered when the number of people present reaches the set value. Major Alarm: A major alarm is triggered when the number of people present reaches the set value. The value of major alarm must be greater than that of minor alarm. Critical Alarm: A critical alarm is triggered when the number of people present reaches the set value. The value of critical alarm must be greater than that of major alarm. 						

5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.

Ru	le Settings	Trigger Actions	Plan	
No.	Trigger Actions			
1	People Present Mi	nor Alarm		Ø
2	People Present Ma	ijor Alarm		Ø
3	People Present Cr	itical Alarm		

Edit-Trigger Actions-People Present !	finor Alarm	×
Alarm Output		
$\square A \rightarrow 1$		
Alarm Sound		
	OK Cancel	

6. Click Save.

5.6.16 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 Setup > Intelligent > Smart.
- 2. Select Crowd Density Monitoring and click of to configure it.

Enable Crowd Density Moni	toring			
Rule Settings	Trigger Actions	Plan		
38/05/2022 06/14/80			Report Interval(s)	60
			Crowd Density Alarm	
			☑ Minor Alarm	≥[20
		> <	🗹 Major Alarm	≥[24
		-	Critical Alarm	≥[30
the life				
- Martin	- Cala			
at the second se				
	+ Zoon	a —		
F4	+ Focu	s —		
(◀(Ⅱ)►	+ Iris	-		
		^		
	2 Preset 2			
	+ 3 Preset 3			
6 C	4 Preset 4	~		
	5 Preset 5			

3. A detection box is displayed in the left preview window by default. You can adjust the position and size of it or draw an area as needed. Only one area is allowed.



- Adjust the position and size of the area.
 Point to the area and drag it to the desired position. Drag the corners of the area to resize it.
- Draw an area.

Click in the preview window to draw a polygonal area with up to 6 sides.

4. Set the crowd density monitoring rule.

Item	Description	
Report Interval(s)	 Set the time interval for reporting crowd density statistics. Default: 60. Range: 1 to 60. For example, if the interval is set to 60, the camera will report crowd density statistics to t server every 60 seconds. 	
People Present Alarm	Set the crowd density alarm threshold. When the number of people in the specified area reaches a set threshold, an alarm is triggered. Range: 1 to 40.	
	 Minor Alarm: A minor alarm is triggered when the number of people in the specified area reaches the set value. 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. 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. 	

5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.

No.	Trigger Actions					
1	Crowd Density Minor Alarm					
2	Crowd Density M	ajor Alarm	Ø			
3	Crowd Density Critical Alarm					

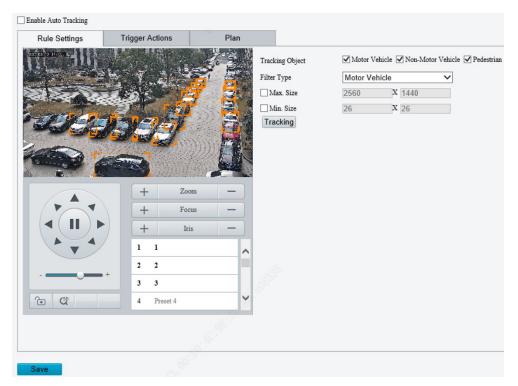
Edit-Trigger Actions-Crowd Density
Alarm Output
$\square A \rightarrow 1$
Alarm Sound

6. Click Save.

5.6.17 Auto Tracking

The camera can automatically track objects that trigger the predefined tracking rule.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Auto Tracking** and click ⁽¹⁾ to configure it.



3. Set the tracking rule.

Item	Description
Tracking Object	Select the object to be tracked, including Motor Vehicle, Non-Motor Vehicle, and Pedestrian.
Filter Type	After you select a detection object, you can set a filter rule for it. For example, if you have selected Motor Vehicle as a detection object, select Motor Vehicle from the Filter Type drop-down list and set the Max. Size or Min. Size for it, then motor vehicles larger than the Max. Size or smaller than the Min. Size will not be detected.

Max. Size	Size/Min.	When enabled, a box appears on the image, you can point to a handle of the box and drag to resize it. The camera filters objects larger than the Max. Size or smaller than the Min. Size. The width and height of the maximum filter area must be greater than that of the minimum filter area.
Tracking	g	Click to set tracking parameters. See <u>Tracking</u> for details.

- 4. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 5. Click Save.

5.6.18 Smoke and Fire Detection

Smoke and fire detection detects smoke and fire in the visible light channel and triggers an alarm. The camera uploads the original snapshots triggered by smoke and fire alarms by default.

- 1. Go to Setup > Intelligent > Smart.
- 2. Select **Smoke and Fire Detection** and click ¹ to configure it.

Rule Settings	Trigger Actions	Plan		
5/2022 20:05:40			Bounding Box Overlay On Off Sensitivity 50	
	23		Shield Area Add Delete	
- Al	A Start	AP .	No. Name	Operation
		6.2		
		Ball		
	+ Zoom	-		
	+ Focus	-)		
◄(II) ►	+ Iris	-		
	1 Preset 1	^		
	2 Preset 2			
	3 Preset 3			
		~		

- 3. Set the detection rule.
- Bounding Box Overlay: A rectangular box is used to frame the object that triggers the detection rule for you to quickly locate it.
- Sensitivity: Set the detection sensitivity. The higher the sensitivity, the more likely smoke and fire will be detected, and the more likely false alarms will occur.
- Shield Area: Shield areas that may interfere with detection or trigger false alarms. A total of 64 shielding areas are allowed, with a maximum of 8 shielding areas per image.
 - (1) Move the camera to the desired position manually or using presets.



(2) Click Add.

able Smoke and Fire Dete		- S		
Rule Settings	Trigger Actions	Plan		
16/2022 965834a	>	S	ounding Box Overlay On Off ensitivity 50 Shield Area	1
	The second second		Add Delete	
and the			No. Name	Operation
			1 Area1	
	+ Zoom	_		
	+ Focus			
	+ Iris	_		
	1 Preset 1	^		
	2 Preset 2			
	+ 3 Preset 3			
e (2	4 Preset 4	× .5		

(3) Adjust the position and size of the area or draw an area as needed.

- Adjust the position and size of the area.
 Point to the area and drag it to the desired position. Drag the corners of the area to resize it.
- Draw an area.

Click in the preview window to draw a polygonal area with up to 6 sides.



ltem	Description
	Click to move the shielding area to the center of the image. For example: Area 1 in the figure below is set as a shielding area.
Preset	
i leset	After you click Preset , the shielding area is moved to the center of the image.
	Image: Autom Difference Image: Autom Difference
Delete	Delete the shielding area.

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

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5. Click Save.

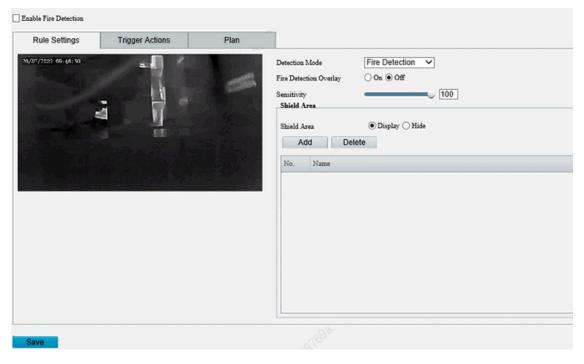
5.6.19 Fire Detection

Fire detection detects fire or heat in a specified detection area and triggers an alarm.

1. Go to Setup > Events > Thermal Alarm > Fire Detection.

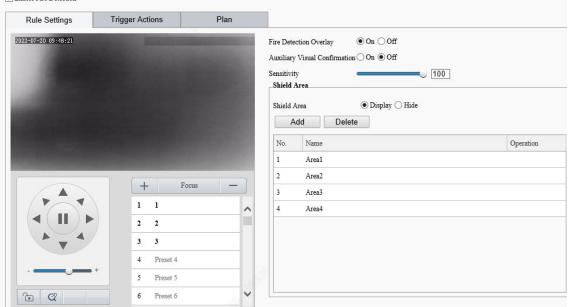
This function may vary with device model. The following shows the fire detection page of two models for reference.

Model 1



Model 2

☑ Enable Fire Detection



- 2. Enable fire detection.
- 3. Set the detection rule.

Item	Description
Detection Mode	Select the detection mode.

Fire Detection Overlay		Select whether to show the object bounding box.	
Auxiliary Visual Confirmation	Enable Auxiliary Visual Confirmation to work with smoke and fire detection to confirm detected fire or heat for more accurate detection results. After the fire detection detects a fire point, if the smoke and fire detection confirms that the fire point has smoke, a fire alarm will be reported.		
	NOTE!		
		• When both fire detection and auxiliary visual confirmation are enabled, all smart functions except smoke and fire detection are unavailable.	
		This function only works during the day.	
Sensitivity		Set the detection sensitivity.	
		The higher the sensitivity, the more likely fire or heat will be detected, and the more likely false alarms will occur.	

- 4. Shield areas that may interfere with detection or trigger false alarms. A total of 24 shielding areas are allowed, with a maximum of 8 shielding areas per image.
 - (1) Move the camera to the desired position manually or using presets.
 - (2) Click Add.
 - (3) Adjust the position and size of the area or draw an area as needed.
 - Adjust the position and size of the area.
 Point to the area and drag it to the desired position. Drag the corners of the area to resize it.
 - Draw an area.
 Click in the preview window to draw a polygonal area with up to 6 sides.

Item	Description	
Shield Area	Select to show or hide the shielding area.	
Preset Click to move the shielding area to the center of the image.		
Delete	Delete the shielding area.	

- 5. Set the alarm-triggered actions and arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming</u> <u>Schedule</u> for details.
- 6. Click Save.

5.6.20 Attribute Collection

1. Collect Attributes

You can collect attribute information of monitored objects.

1. Go to Setup > Intelligent > Attribute Collection.

✓ Face Attributes ✓ Gender	🖌 Age Range	✔ Glasses	Mask	☑ Hat Style	✔ Hat Color	
Pedestrian Attributes	✓ Mask	☑ Upper Garment Color	✓ Lower Garment Color	☑ Upper Garment Style	✓ Lower Garment Style	☑ Bag Style

- 2. Select the attributes to be collected.
- 3. Click Save.
- 2. Monitor by Attribute
- 1. Go to Setup > Intelligent > Attribute Collection > Monitor by Attribute.

No. Monitoring Rule			+	
1 123	Add			×
	Rule Name			
	Trigger Source	Face-Wear Mask	\checkmark	
	Trigger Condition	=	\checkmark	
	Parameter	NO	\checkmark	
	Trigger Actions			
	$\square A \rightarrow 1$ $\square A$	larm Sound		
	$\square A \rightarrow 2$			
		ОК	Cancel	

- 2. Click + to add a monitoring rule.
- 3. Set the monitoring rule.

Item Description			
Rule Name Set a name for the rule.			
Trigger Source Select the attribute to trigger monitoring.			
Trigger Actions	See <u>Alarm-triggered Actions</u> for details.		

4. Click OK.

5.6.21 Advanced Settings

Advanced settings include snapshot clarity and detection mode for smart functions.

1. Photo

1. Go to Setup > Intelligent > Advanced Settings > Photo Parameters.

Object Overlay	\odot On \bigcirc Off
Thumbnail Image Clarity	99
Save	

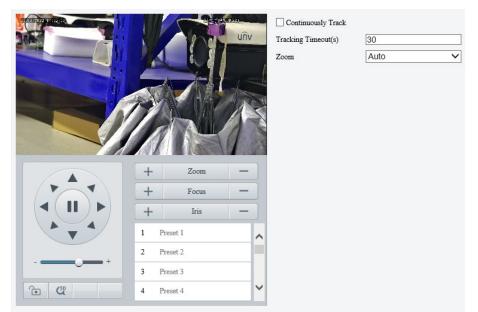
- 2. Select to enable or disable object overlay on the image.
- 3. Adjust the thumbnail image clarity. Please disable **Face Detection** before setting the photo parameters.
- 4. Click Save.
- 2. Detection
- 1. Go to Setup > Intelligent > Advanced Settings > Detection Parameters.
- 2. Set the detection parameters.

Item	Description			
Detection Mode	Select the detection mode. Filter Repeated Motion Mode is used to prevent repeated alarm reporting caused by repeated motion detected in the surveillance scene.			
Sync Intelligent Mark with Video	When enabled, the intelligent mark will follow the detected object.			

3. Click Save.

3. Tracking

1. Go to Setup > Intelligent > Advanced Settings > Tracking.



2. Set the tracking parameters.

Item	Description
Continuously Track	When enabled, the camera continuously tracks the object that triggers the tracking rule until the object disappears.
Tracking Timcout(s)	Set the tracking time. When the set time is reached, the camera stops tracking. NOTE!
Tracking Timeout(s)	 This parameter is not configurable when Continuously Track is enabled. If the object disappears within the set time, the actual tracking time is the time from the appearance to the disappearance of the object.
Zoom	 Select the tracking zoom ratio. Auto: The camera automatically adjusts the zoom ratio according to the object distance during tracking. Current Zoom: The camera keeps the current zoom ratio during tracking.

5.7 Alarm

NOTE!

Configure the alarm function, so the camera can report alarms when an event occurs. Configure alarm linkage, so the camera can trigger other devices to perform specified actions when an event occurs.



The supported alarms and linkage actions (or trigger actions) may vary with camera model.

5.7.1 Common Alarm

1. Motion Detection

The camera detects motions in specified detection areas or grids on the image and reports an alarm when detection rules are triggered.



NOTE!

The sicon appears in the upper right corner of the image when a motion detection alarm occurs.

1. Go to Setup > Events > Common Alarm > Motion Detection.

Rule Settings	Trigger Actions	Plan						
Detection Mode	Area		Detection Rule Rule2 Rule3 Rule4	+ 11 11	Rule1 Sensitivity Object Size	Low	Large	98
	+ + + 1 Preset 1 2 Preset 2 3 Preset 3 4 Preset 4							

- 2. Choose a detection mode from the drop-down list.
- Detection area
 - (1) Up to four detection rules are allowed. To add one, click 🛨. A rectangle appears on the image.



- (2) Adjust the position, size and shape of the rectangle detection area, or draw a new one.
- > Point to a border of the area and drag it to the desired position.
- > Point to a handle of the area and drag to resize it.
- > Click anywhere on the image, and then drag to draw a new area.

(3) Set detection rules.

Item	Description					
Sensitivity	Drag the slider to adjust detection sensitivity. The higher the sensitivity level, the higher the detection rate of small motions, and the higher the false alarm rate. Set based on the scene and your actual needs.					
Object size	 Drag the slider to set object size. Object size: The ratio of the size of the detected object to the size of the detection area. An alarm is triggered when the ratio reaches the set value. To detect motion of small objects, you need to draw a small detection area separately. Motion detection results of the current detection area are shown below in real time. The red means motions that have triggered a motion detection alarm. The height of the lines indicates the extent of motion. The density of the lines indicates the frequency of motion. The higher a line, the greater the extent. The denser the lines, the higher the frequency. 					

- (4) Set **Suppress Alarm** to avoid receiving the same alarms within a certain length of time (alarm suppression time). For example, alarm suppression time is set to 5s, after an alarm is reported:
- If no motion is detected within the next 5s, new alarms can be reported after 5s when the alarm suppression time is over.
- If motion is detected within the next 5s, the alarm suppression time recounts from the time of the last alarm, and new alarms can be reported when the alarm suppressions time (5s) is over.

Rule Settings	Trigger Actions	Plan			
Detection Mode	Grid	~	Sensitivity	Low High 83	
			Alarm Parameters		
		过大学的目标改革	Suppress Alarm(s)	15	
	+	Zoom —			
		Focus —			
	+	Iris —			
	1 Preset 1	^			
	2 Preset 2				
	3 Preset 3				
6 4	4 Preset 4	~			

Grid detection

Save

(1) Set grid detection areas (covered by grid), which is by default the whole screen.

Detection Mode	Grid	\checkmark	Sensitivity	Low	- High	83
			Alarm Parameters			
			Suppress Alarm(s)	15		

(2) Edit detection areas as needed.

- > Click or drag on grid areas to erase grids.
- > Click or drag on blank areas to draw grids.
- (3) Drag the slider to adjust detection sensitivity.

The higher the sensitivity level, the higher the detection rate of small motions, and the higher the false alarm rate. Set based on the scene and your actual needs.

- (4) Set **Suppress Alarm** to avoid receiving the same alarms within a certain length of time (alarm suppression time). For example, alarm suppression time is set to 5s, after an alarm is reported:
- If no motion is detected within the next 5s, new alarms can be reported after 5s when the alarm suppression time is over.
- If motion is detected within the next 5s, the alarm suppression time recounts from the time of the last alarm, and new alarms can be reported when the alarm suppression time (5s) is over.
- 3. Set alarm linkage and an arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming Schedule</u> for details.
- 4. Click Save.

2. Tampering Detection

The camera triggers a tampering alarm after the lens is blocked for a certain length of time.

1. Go to Setup > Events > Common Alarm > Tampering Detection.

1	✔ Enable Tampering Alarm			
	Rule Settings	Trigger Actions	Plan	
	Sensitivity Duration(s)	1	Į.	
	Save			

- 2. Select Enable Tampering Detection.
- 3. Set detection rules.
 - (1) Drag the slider to adjust detection sensitivity. The higher the sensitivity level, the higher the detection rate, and the higher the false alarm rate. Set based on the scene and your actual needs.
 - (2) Set the duration of lens blocking. The camera reports an alarm when the duration of lens blocking exceeds the set value. Set based on the scene and your actual needs.

- 4. Set alarm linkage and an arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming Schedule</u> for details.
- 5. Click Save.

3. Audio Detection

The camera monitors input audio signals and triggers an audio detection alarm when an exception is detected. Make sure an audio collection device (e.g. sound pickup) is connected, and audio detection is enabled (see <u>Audio</u>).

• When audio input mode is Line/Mic.

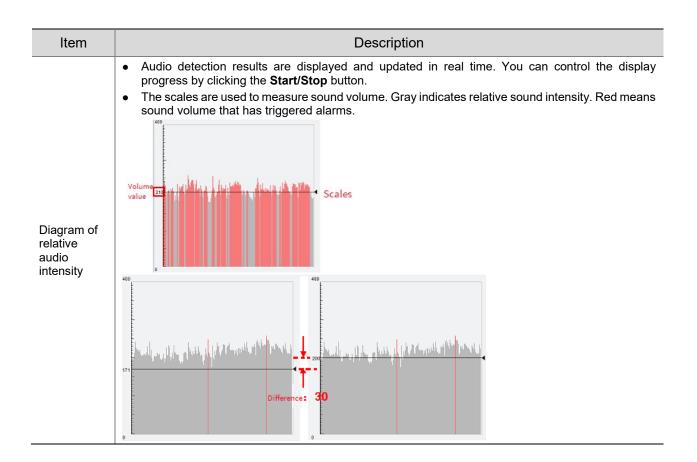
1. Go to Setup > Events > Common Alarm > Audio Detection.

Audio	Detection	\odot On \bigcirc Off			
	Rule Settings	Trigger Actions	Plan		
400	¢.			Detection Type	Sudden Rise 🗸
				Difference	100
20					
0	<u>E</u>		Stop]	
			0.00	I	
	ave				
	ave				

2. Enable Audio Detection.

3. Set audio detection rules.

Item	Description						
	• Sudden Rise: Detects sudden rising sound volume, and triggers an alarm when the rise of volume exceeds the difference.						
Detection	• Sudden Fall: Detects sudden falling sound volume, and triggers an alarm when the fall of volume exceeds the difference.						
Туре	• Sudden Change: Detects sudden rising and falling sound volume, and triggers an alarm when the rise or fall of volume exceeds the difference.						
	Threshold: Triggers an alarm when the volume exceeds the threshold.						
Difference/T hreshold	• Difference: The difference between two sound volumes. The camera triggers an alarm when the rise or fall of volume exceeds the difference (range: 0-400). This parameter is applicable when the detection type is Sudden Rise , Sudden Fall , or Sudden Change .						
nresnold	• Threshold: The camera triggers an alarm when the sound volume exceeds the threshold (range: 0-400). This parameter is applicable when the detection type is Threshold .						



- Set alarm linkage and an arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming Schedule</u> for details.
- 5. Click Save.
- When audio input mode is RS485.
- 1. Go to Setup > Events > Common Alarm > Audio Detection.

dio Detection	● On ○ Off			
Rule Settings	Trigger Actions	Plan		
00 E			Detection Type	Sudden Rises 🗸
			Difference	100
00				
-				
L		Stop		
		0.00		
Save				

- 2. Enable Audio Detection.
- 3. Set audio detection rules.

Item	Description				
Detection Type Volume Difference: Compare the difference between the actual ambient volume and the r value.					
Reference Volume	Standard value of ambient volume. Range: 0-90.				

- 4. Set alarm linkage and an arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming Schedule</u> for details.
- 5. Click Save.

4. Alarm Input

The camera can receive alarms from external third-party devices such as infrared detectors, smoke detectors, etc. After alarm input is configured, the third-party device can send signals to the camera after an event occurs.

1. Go to Setup > Events > Common Alarm > Alarm Input.

Select Alarm	Alarm Input 1				
Rule Settings	Trigger Actions	Plan			
Alarm Name	A1				
Alarm ID Alarm Type	N.O.	✓			
Alarm Input	\bigcirc On \textcircled{O} Off				
Save					

2. Choose an alarm input from the drop-down list.

The number of alarm inputs available may vary with camera model. For example, if the camera has two alarm inputs on the tail cable, you can configure alarm input 1 and alarm input 2 separately.

3. Configure alarm input.

Item	Description						
Alarm Name	The default name is the alarm input channel ID. You rename it as needed.						
Alarm ID	Set an alarm ID as you need.						
Alarm Type	 Set the alarm type according to the alarm input device. If the alarm input device is normally open (N.O.), choose N.C If the alarm input device is normally closed (N.C.), choose N.O 						
Alarm Input	Click On to enable Alarm Input .						

- 4. Set alarm linkage and an arming schedule. See <u>Alarm-triggered Actions</u> and <u>Arming Schedule</u> for details.
- 5. Click Save.

5. Alarm Output

The camera can output alarms to external third-party devices such as alarm bell, buzzer, etc. After alarm output is configured, the camera can output alarm signals when an alarm (such as motion detection alarm, tamping alarm) occurred and trigger the third-party device to perform certain actions.

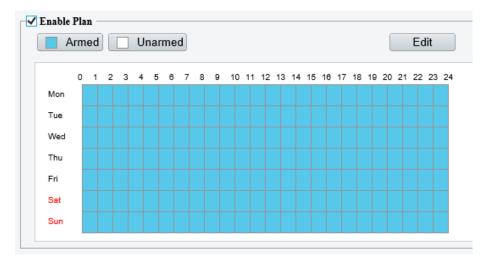
1. Go to Setup > Events > Common Alarm > Alarm Output.

Select Alarm	Alarm Output 1
Rule Settings	Output Schedule
Alarm Name	A1
Default Status	N.O. 🗸
Delay(s)	30
Relay Mode	Bistable 🗸
Save	

- 2. Choose an alarm output from the drop-down list. The number of alarm outputs available may vary with camera model.
- 3. Configure alarm output parameters.

Item	Description					
Alarm Name	The default name is the alarm output channel ID. You can rename it as needed.					
Default Status	 Choose the default status. The default is N.O If the external alarm device is normally open (N.O.), choose N.O If the external alarm device is normally closed (N.C.), choose N.C 					
Delay(s)	The duration of alarm output after the alarm is triggered. Set it as needed.					
Relay Mode	 The default is Monostable. 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. 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. 					

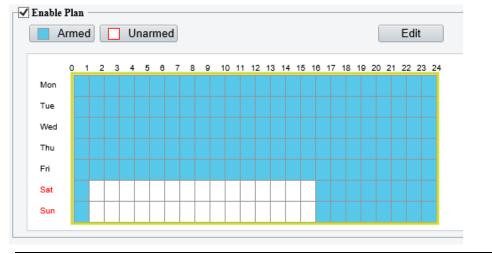
4. On the **Output Schedule** page, select **Enable Plan**, and then set when the camera can output alarms. By default, the schedule (plan) is disabled.



Two methods are available to make an arming schedule:

• Draw a schedule

Click **Armed**, and then drag on the calendar to set when the camera can output alarms. Click **Unarmed**, and then drag on the calendar to set when the camera cannot output alarms.



NOTE!

You need Internet Explorer (higher than IE8) to draw on the calendar. IE10 is recommended.

• Edit the schedule

Click Edit, set a refined schedule, click OK.

dit								3
]	Mon	Tue	W	ed	Thu	Fri	Sat	Sun
	No.		Start Time			End Time		
	1		00:00:00		L	23:59:59		
	2				L			
	3				L			
	4				L			
Сор	y To	Select	All					
√ I	Mon	🗌 Tue	Wee	d	Thu	🗌 Fri	Sat	🗌 Sun
							(Сору
				Oł	к	ancel		

NOTE!

- Four periods are allowed each day. The periods must not overlap.
- To apply the current settings to other days, select the check box for the days one by one or select the **Select All** check box, and then click **Copy**.
- 5. Click Save.



CAUTION!

- Strictly follow the instructions below when powering on external alarm devices (e.g., alarm light) to avoid device damage.
- Check that **Alarm Type** is set to **Normally Open** (default) on the camera. Make sure the camera and the external alarm device are disconnected from power.
- After you connect the alarm device to the camera, connect the alarm device to power first, and then connect the camera to power.

5.7.2 One-key Disarming

The camera cannot trigger linked actions when disarmed.

- 1. Go to Setup > Events > One-key Disarming.
- 2. Choose a disarming mode.
- Disarm by Schedule: Disarm according to a weekly schedule.
- Disarm Once: Disarm during a specified time period.
- 3. Configure disarming schedule or time according to the disarming mode you chose. The disarming schedule or time applies to all the actions selected.
- Disarm by schedule: Click 🙅 to configure disarming time.

Disarming Mode	⊖ Off) Disa	Off Disarm by Schedule Disarm Once								
Disarming Time	\$									
Disarm Alarm Input/Output	🗹 Send E-mail	✓	Alarm Sc	ound						
Save		Disa	rming Ti	ime						×
			Mon	Tue	e Wed	Thu	Fri	Sat	Sun	i i
			No.		Start Time		End Time			
			1		00:01:00	L	14:05:59		Ŀ	
			2			L			L	
			3			L			Ľ	
			4			L			L	
		c	ору То	Sele	et All					
			Mon	Tue	Wed	🗌 Thu	🗌 Fri	Sat	🗌 Sun	
									Сору	

• Disarm Once: Set the disarming time.

Disarming Mode	○ Off ○ Disarm by Schedule Disarm Once					
Disarming Time	2022-03-07 11:50:09 🕒~2022-03-07 19:50:09 🕒					
✓ Disarm ✓ Alarm Input/Output	✔ Send E-mail	✔ Alarm Sound				
Save						

- 4. Choose actions to be disarmed. The actual actions available, for example, for example, alarm light, alarm sound, email, alarm output, may vary with camera model and version.
- 5. Click Save.

5.8 Storage

Go to Setup > Storage > Storage.

Storage Medium	Memory Card V	Format Enable							
Storage Medium Status: Normal									
Total Capacity 29 GB, Free	Space 27 GB.								
Allocate Capacity									
Video(GB)	22	(The remaining capacity is used for image storage.)							
Common Snapshot(GB)	5	(The remaining capacity is used for smart snapshot storage.)							
Smart Snapshot(GB)	2								
-Video Storage Info-									
Storage Policy	◯ Manual and Alarm Recording ◯ Sche	duled and Alarm Recording () Alarm Recording Only							
When Storage Full	● Overwrite ○ Stop								
Post-Record(s)	60								
Save									

5.8.1 Memory Card

NOTE!

-

Before you use this function, make sure a memory card has been mounted on the camera.

1. Set Storage Media to Memory Card, and select Enable.

Storage Medium	Memory Card 🗸	Format 🗹 Enable
Storage Medium Status: No ca	ard	
Total Capacity 0 GB, Free Sp	ace 0 GB.	
Allocate Capacity		
Video(GB)	0	(The remaining capacity is used for image storage.)
Common Snapshot(GB)	0	(The remaining capacity is used for smart snapshot storage.)
Smart Snapshot(GB)	0	
Video Storage Info		
Storage Policy	Manual and Alarm Recording O Sch	eduled and Alarm Recording 💿 Alarm Recording Only
When Storage Full	Overwrite Stop	
Post-Record(s)	60	

Item	Description						
Storage Media	ncludes Memory Card and NAS.						
Format	op using the storage resource and then click Format . The camera will restart after completing e formatting.						
Memory Card Health Index	 Show the health status of the memory card. NOTE! This feature is not available to all devices. This feature is available to TF cards only. 						
When Storage Full	 Overwrite: When space is used up on the memory card, new data overwrites old data. Stop: When space is used up on the memory card, the camera stops saving new data. 						
Post-Record(s)	Sets the duration of alarm-triggered recording after the alarm ended.						

- 2. Allocate storage space as needed.
- 3. Configure storage information.
- To store manual recordings and alarm recordings

Choose Manual and Alarm Recording. By default, the main stream is stored.

Storage Policy	\textcircled{O} Manual and Alarm Recording \bigcirc Scheduled and Alarm Recording \bigcirc Alarm Recording Only
Stream	Main Stream V
When Storage Full	● Overwrite ○ Stop
Post-Record(s)	60

• To store scheduled recordings and alarm recordings

(1) Choose Scheduled and Alarm Recording.

Storage Policy	\bigcirc Manual and Alarm Recording $\textcircled{\sc opt}$ Scheduled and Alarm Recording \bigcirc Alarm Recording Only
Stream	Main Stream ~
When Storage Full	Overwrite Stop
Post-Record(s)	60

(2) The default recording schedule is 24/7. To change the schedule, drag on the calendar or click **Edit**.

A	rm	ed			Ur	nar	me	d													l		Ed	lit	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon																									
Tue																									
Wed																									
Thu																									
Fri																									
Sat																									
Sun																									

• To store alarm recordings only

Choose Alarm Recording Only.

Storage Policy	○ Manual and Alarm Recording ○ Sch	eduled and Alarm Recording \textcircled{O} Alarm Recording Only
When Storage Full	● Overwrite ○ Stop	
Post-Record(s)	60	

5.8.2 Network Disk

Use a Network Attached Storage (NAS) server to store camera videos.

- 1. Set Storage Medium to NAS.
- 2. Enter the server address.
- Enter the path to the destination folder on the NAS server. You can find the path by viewing the folder properties.

Storage Medium	NAS	Format
Server IP	192.161.3.250	
Path	/volume1/IPC-TEST1/I04	NAS Test Succeeded.

NOTE!

Letters, digits, dots, spaces, and symbols / : , - $_$ @ = are allowed in the path. Other characters are not allowed and will cause failed NAS test.

3. After the test succeeded, click **Save**.

NAS V Fo	ormat
192.161.3.250	
/volume1/IPC-TEST1/I04 NAS Test	Test succeeded.
e Space 1821 GB.	
1553	The remaining capacity is used for image storage.)
275	
0	
\bigcirc Manual and Alarm Recording \bigcirc Schedu	uled and Alarm Recording 💿 Alarm Recording Only
● Overwrite ○ Stop	
•	192.161.3.250 /volume1/IPC-TEST1/I04 NAS Test e Space 1821 GB. 1553 () 275 () 0 () Manual and Alarm Recording () Scheder

NOTE!

- The capacity status appears after you click **Save**. So to change the settings, click **Save** first.
- By default, 85% of the folder space is used to store videos, and the remaining 15% is used to store common snapshots. To allocate space for smart snapshots, you need to reduce space for videos and common snapshots.

5.8.3 **FTP**

=

Upload images and videos to an FTP server for storage.

1. Go to Setup > Storage > FTP.

Server Parameters				
Server IP	0.0.0.0		Upload Images	Convert Path into UTF8
Port No.	21		Upload Video	
Usemame			Test	
Password				
Confirm				
Photo		Recording		
Save To:				
File Path	File Na	me		
27-	Numine Tilement			
No.	Naming Element			
1	Disable	~		
2	Disable	~		
3	Disable	~		
4	Disable	~		
5	Disable	~		
6	Disable	~		
Note:Overwrite will ta	ake place in the curre	nt directory.		

Save

2. Configure server parameters.

Item	Description
Server IP	IP address of the FTP server.
Port No.	The default is 21. You can set a different port as needed.
Username	Username used to log in to the FTP server.
Password	Password used to log in to the FTP server.
Test	Test the connection to the FTP server.
	Select the check box if you want to upload common (non-smart) snapshots. To configure an FTP server for smart snapshots, go to Setup > System > Server > Intelligent Server .
Upload Images	Overwrite Storage: When the number of images in the folder of the lowest level reaches the threshold, the server continues to save new images by overwriting the existing images. For example, if the folder path is \IP\date, the level-2 folder "date" is the lowest. When the images uploaded on Jan. 4, 2022 exceeds 1,000, existing images in the 20220104 folder will be overwritten by new images.
	NOTE!
	If you select Overwrite Storage , make sure the last naming element of filename is Photo No. .
	The default overwrite storage threshold is 1000 images, and the maximum is 100,000 images.
Upload Video	Select if you want to upload alarm-triggered recordings.
Convert Path into UTF8 Format	Select if you want to convert the path into UTF8 format.
Post-Record(s)	Fill in the number of seconds, which is the duration of the alarm-triggered recording after the alarm has ended.

3. Configure the storage path.

Item	Description
Photo	File path, up to 6 levels. If not specified, the default path "\IP\Date\Common" will be used. Common means common snapshots.
Photo	Filename, up to 20 fields are allowed. If not specified, the sequence number such as 1, 2, 3, will be used as the filename.
Deserving	File path, up to 6 levels. If no path is specified, the default path "\IP\Date\Common" will be used.
Recording	The default filename is "S+recording start time+E+recording end time". For example, S20220104174903E20220104175002.

4. Click Save.

5.9 Security

The security functions available may vary with camera model and version.

5.9.1 **User**

Go to **Setup > Security > User**. You can add, edit, and delete users.

Ade	d Edit Delete	
No.	Username	User Type
1	admin	Admin

- Add user
- 1. Click Add.

Common User

Add				×
Username				
User Type	Common Us	ser	~	
Password				
	Weak	Medium	Strong	
Confirm				
Select Permission				
Live View 🗌 Playba	ck			
	OK	Cancol		
	OK	Cancel		

Operator

Add	×
Username	
User Type	Operator 🗸
Password	
	Weak Medium Strong
Confirm	
	Live View 🗹 Playback 🗹 Snapshot 🗹 Two-way A
✓ PTZ Contro1	Event Subs VLog Maintenance Upgrade
	OK Cancel

2. Configure the parameters.

Item	Description
Username	Set the username that you prefer.
User Type	 Choose Common User or Operator. NOTE! Up to 32 users are allowed, including admin (at least one), common users and operators (up to 31). Admin has all permissions in the system, including device operation and user management. Operator has higher privilege than common user and can configure in the web interface.
Password	Enter a password. NOTE! A strong password is required for the new user.
Confirm Password	Enter the password again.
Select Permission	Different user types have different permissions. Select permissions you want to assign to the new user. NOTE! You can select the Select Permission check box to select/deselect all permissions.

3. Click OK.

- Edit user information
- 1. Click the user.
- 2. Click Edit.

Common User

Edit				×
Username	1111			
User Type	Common Us	er	\sim	
Admin Password				
Password				
	Weak	Medium	Strong	
Confirm				
Select Permission	lavback			
	layback			
	Mayback			
	Mayback			
	'layback			
	Mayback			

Admin

Edit		×
Username	admin	
User Type	Admin 🗸	
Old Password		
Password		
	Weak Medium Strong	
Confirm		
🖌 Email		
	Used to reset password. You are recommended to fill in.	
Select Permis	ssion	
✓ Parameter	🖌 Live View 🖌 Playback 🖌 Snapshot 📝 Two-way A	
V PTZ Control	V Event Subs V Log Vaintenance V Upgrade	
		_
	OK Cancel	

3. Configure the parameters.

Item	Description		
Admin Password	Password of administrator, not the user being editing.		
Password	Enter a password that you prefer.		
Confirm Password	Enter the password again.		
	Different user types have different permissions. Select permissions you want to assign to the new user.		
Select Permission	Note		
	You can select the Select Permission check box to select/deselect all permissions.		

4. Click **OK**.



- NOTE!
- When editing admin information, you can change the registered mobile phone number. The phone number can be used to reset the device password if you forgot it.
- Only admin can change the device password. The new password must be different from the old.
- Only admin can change the username and password of a new user. If the user is logged in, the user will log out automatically and must use the new username and password to log in.
- Delete a user

Click the user, click **Delete**, and then click **OK** to confirm.

5.9.2 **HTTPS**

You can choose to enable HTTPS to enhance data security during network transmission.

1. Enable HTTPS.

```
Go to Setup > Security > Network Security > HTTPS.
```

NOTE!
The default HTTPS port is 443. To use a different port, go to Setup > Network > Port .

The camera automatically generates a default certificate. To edit certificate contents (such as expiration date), you can delete the installed certificate and re-create one.

• Use the default certificate

HTTPS	\bigcirc On \textcircled{o} Off			
Current Certificate	/CN=192.	=CN/L=HZ/ST=	=ZJ/O=Emb	Delete
Certified To	/CN=192.	=CN/L=HZ/ST=	=ZJ/O=Emb	
Certified By	/CN=192.	=CN/L=HZ/ST=	=ZJ/O=Emb	
Valid Period(day) Export Certificate Save	20211213~20221 Export	214		
(1) Enable H'(2) Click SavCreate a cert	e .			
HTTPS) On 🖲 Off	f	
Certificate Type		Private	○ Requ	est
Create Certificate		Create		
Save				

- (1) Click **Delete** to delete the current certificate.
- (2) Choose a certificate type: private certificate or certificate request.
- Private certificate: Suitable for low-security application scenarios without any signature from a third-party certificate authority.

- Certificate request: Suitable for high-security application scenarios and with a third-party certificate.
- (3) Click **Create**, and fill in the required information.

Create a private certificate

Create Certificate		×
Public Key	2048 🗸	
Country	Example:CN	
Domain Name/IP		
Valid Period(day)		
Province		
City		
Organization		
Organizational Unit		
Email		
	OK Cancel	

Create a certificate request

Create Certificate		×
Public Key	2048 🗸	
Country	Example:CN	
Domain Name/IP		
Province		
City		
Organization		
Organizational Unit		
Email		
	OK Cancel	

Item	Description
Public Key	Length of the public key: 2048 or 1024. Default: 2048.
Country	Two-character country code, for example, CN for China.
Domain Name/IP	Device's IP address or domain name.
Valid Period(day)	Validity period of the certificate.
Province	Complete province name.
City	Complete city name.
Organization	Organization name.
Organizational Unit	Organizational unit name.
Email	Email address of the contact.

(4) Click **OK**.



NOTE!

After the certificate request is created, click **Export** to export the certificate request file. After the thirdparty certificate authority (CA) signs and issues the certificate request, import the acquired CA certificate into the device. (6) Click Save.

2. Log in

The login page appears when HTTPS is enabled. A secure data transmission channel is established after you log in.

5.9.3 Authentication

Configure RTSP authentication and HTTP authentication to improve the security of network transmission. Only after successful authentication can data such as videos, audios, text, and images be transferred on the network.

1. Go to Setup > Security > Network Security > Authentication.

RTSP Authentication	Digest MD5	\checkmark
HTTP Authentication	Digest MD5	\checkmark

Save

2. Choose an authentication mode.

Item	Description
RTSP Authentica tion	 Choose an authentication mode from the drop-down list. Basic: Basic authentication. The username and password are transferred on network in plaintext, which imposes serious security risks. Digest MD5: Digest authentication, which uses MD5 to protect the username, password, and domain of the requester, and provides higher security. Digest SHA256: Digest authentication, which uses SHA256 for authentication and provides higher security than Digest MD5. None: Transmit message without authenticating the RTSP address.
HTTP Authentica tion	 Choose an authentication mode from the drop-down list. Digest MD5: Digest authentication, which uses MD5 to protect the username, password, and domain of the requester, and provides higher security. Digest SHA256: Digest authentication, which uses SHA256 for authentication and provides higher security than Digest MD5. None: Transmit message without authenticating the RTSP address.

3. Click Save.

5.9.4 Registration Information

You can set to hide vendor information of the camera from the server.

1. Go to Setup > Security > Registration Information.

2. Enable Hide Vendor Info. Vendor information will not be displayed on the management platform.



3. Click Save.

5.9.5 **ARP Protection**

Protect the camera from ARP spoofing attacks by binding the gateway's IP address and MAC address.

1. Go to Setup > Security > Network Security > ARP Protection.

ARP Protection	◉ On ◯ Off
Gateway	203.2.1.1
Gateway MAC Address	0
Save	

- 2. Enable **ARP Protection**.
- 3. Enter the gateway's MAC address.
- 4. Click Save.

5.9.6 IP Address Filtering

Use IP address filtering to allow or forbid access from specified IP addresses.

 Go to Setup > Security > Network Security > IP Address Filterin
--

IP Address Filtering Filtering Mode	○ On ● Off Allowlist	
No. IP Address		+
Save		

- 2. Enable IP Address Filtering.
- 3. Choose **Allow** or **Forbid** to filter IP addresses. When **Allow** is selected, access is allowed only from the added IP addresses. If **Forbid** is selected, access is forbidden from the added IP addresses.
- 4. Click +, enter IP addresses.
 - > Up to 32 IP addresses can be added. Duplicate addresses are not allowed.
 - The first byte of the IP must be 1-233, and the fourth byte cannot be 0. Invalid IP addresses such as 0.0.0, 127.0.0.1, 255.255.255, and 224.0.0.1 are not allowed.
- 5. Click Save.

5.9.7 Access Policy

Access policies are used to prevent unauthorized access and operation from the network.

- 1. Go to Setup > Security > Network Security > Access Policy.
- Illegal Login Lock

Illegal Login Lock	
Illegal Login Lock	◉ On ◯ Off
Illegal Login Limit	<u>5</u>
Lock Time (min)	 5



NOTE!

By default, illegal login lock is enabled, and the account will be locked for 5 minutes after 5 consecutive failed login attempts due to a wrong password. If illegal login lock is disabled, the camera will not lock the account no matter how many times an incorrect password is input.

Item	Description	
	If the client IP address is not on the blocklist, the input username is correct, but the input password is wrong, it is an illegal login attempt.	
Illegal Login	NOTE!	
Lock	• When an account is locked, information including the username, IP address, etc, is logged by the system.	
	• The user can unlock the account by disconnecting power and rebooting the camera.	
Illegal Login	The maximum number of illegal login attempts allowed. Range: 2-10.	
Limit	The account is locked when the limit is reached.	
Lock Time (min)	Integer within the range of 1-120.	

Example: User A tries to log in from the client IP address 192.168.1.33 and is locked. Then user A cannot log in within the lock time, but user B is not affected and can still log in from the same IP address.

Session timeout

A session is the connection established between the client (Web browser) and the server (camera). When session timeout is enabled, if the client cannot obtain or save configurations within the set time, the user will automatically log out and go to the login page.



NOTE!

Only admin can enable or disable this feature.

-Session Timeout	⊖ On Off	
Timeout (min)	5	
ltem	Description	
Session Timeout	 Sessions are counted as follows. Take one device as an example. If the session is established using one web browser from one client IP, there is one session. If sessions are established using one web browser from one client IP, there are two sessions. If sessions are established using two web browsers from two client IPs (two browsers from each IP), there are four sessions. NOTE! Up to 36 sessions are allowed at the same time. 	
Timeout (min)	Enter an integer within the range of 1-120. NOTE! The timer restarts when the session is re-established after a reboot.	

- 2. Click Save.
- Friendly password

Users are not affected when friendly password is enabled. When friendly password is disabled, users who are already logged in with a weak password will be forced to set a strong password before the user can proceed with other actions in the web interface.



NOTE!

Friendly password is not available to all cameras.

5.9.8 Watermark

Use watermark to encrypt custom information in videos to prevent tampering.



NOTE!

- Watermarks can be verified using EZPlayer (available for download from Uniview website).
- For devices with two video channels, watermark parameters need to be configured for the channels separately.

1. Go to Setup > Security > Watermark.		
Watermark	🔿 On 💿 Off	
Watermark Content		
Save		

- 2. Enable Watermark.
- 3. Set watermark contents, which may include uppercase letters, lowercase letters, and digits. Up to 16 characters are allowed.
- 4. Click Save.

5.9.9 WebSockets

WebSockets encrypts data based on SSL. You can enable WebSockets to enhance the security of data transmission.

1. Go to Setup > Security > Network Security > WebSockets.

WebSockets	\bigcirc On \textcircled{o} Off
Save	
2. Enable WebSocket	ts.

3. Click Save.

5.10 System



NOTE!

User operations in this module may vary with camera model.

5.10.1 Time

Set the device's system time manually or sync it with a server.

1. Go to Setup > System > Time.

Sync Mode	Sync with Latest Server Time	
Time Zone	(UTC+08:00) Beijing, Hong Kong, Urumqi, Singapore, Taipei, Perth	~
System Time	2022-05-24 16:32:16	
Set Time	2022-05-24 16:32:15 E Sync with Computer Time	
Save		

- 2. Set system time.
- Set manually in the Set Time field.

NOTE!

-

Make sure **Sync Mode** is set to **Sync with System Configuration**; otherwise, the device time will still sync with other sources after you set it manually.

Sync time

Item	Description
Sync with System Configuration	Default. Time provided by the system's built-in time module.
Sync with Latest Server Time	The camera regularly syncs time with all the connected servers.
Sync with Management Server(Non-ONVIF)	The camera regularly syncs time with the server that is not connected via Onvif.
Sync with Management Server(ONVIF)	The camera regularly syncs time with the server that is connected via Onvif.
Sync with NTP Server	The camera syncs time with the NTP server, for which you need to configure the server address, port, and update interval.
Sync with Cloud Server	The camera syncs time with the cloud server once when it gets online, and does not sync again until it gets offline.
BeiDou Module Auto Sync	The camera syncs time with BeiDou satellites through the BeiDou module (if equipped).
Sync with Computer Time	The camera syncs time with the client computer from which you log in to the camera.

3. Click Save.

5.10.2 **DST**

1. Go to Setup > System > Time > DST.

DST	\bigcirc On \odot O	Dff						
Start Time	Apr	✓ First	\sim	Sun	\sim	02	\sim	h
End Time	Oct	✓ Last	\sim	Sun	\sim	02	\sim	h
DST Bias	60mins						\sim	
Save								

- 2. Enable DST, and set the start time, end time, and DST bias.
- 3. Click Save.

5.10.3 Server

1. Intelligent Server

If the camera needs to report smart alarms to a server, you need to configure an intelligent server. The camera can be managed by two intelligent servers simultaneously.

- UNV
- 1. Go to Setup > System > Server > Intelligent Server.
- 2. Set Platform Communication Type to UNV.

Intelligent Server 1	
Server IP	0.0.0.0
Server Port	5196
Platform Communication Type	UNV
Camera No.	IPC6854SL-X40WUP-VC
Device No.	Chanl5

- 3. Enter the server's IP address. Keep the defaults for other parameters.
- 4. Click Save.
- FTP
- 1. Go to Setup > System > Server > Intelligent Server.
- 2. Set Platform Communication Type to FTP.

Intelligent Server 1		
Platform Communication Type	FTP	✓ Configure FTF

3. Click Configure FTP.

Configure FTP						×
Server Parameters						
Server IP	0.0.0.0		Upload Images	\checkmark	Custom Naming Rules	
Port No.	21		Test		Convert Path into UTF8	
Username						
Password						
Confirm						
Save To:						
File Path	File Name					
No. N	Jaming Element					
	-	7				_
1	Disable					
2	Disable N	•				
3	Disable N	•				
4	Disable N	•				
5	Disable	•				
6	Disable	•				
		Ok	Cancel			

4. Configure the parameters.

Item	Description
Server IP	IP address of the FTP server.
Port No.	Use the default port.
Username	Username used to log in to the FTP server.
Password	Password used to log in to the FTP server.
Test	Click to test the connection to the FTP server.
	Select the check box if you want to upload smart snapshots.
	Overwrite Storage: When the number of images in the folder of the lowest level reaches the threshold, the server will continue to save new images by overwriting the existing images. For example, if the folder path is \IP\date , the folder of the lowest level is the level-2 folder date . When the images uploaded on Jan. 4, 2022 exceeds 1000, existing images in the 20220104 folder will be overwritten by new images.
Upload Images	NOTE!
	If you select Overwrite Storage , make sure the last naming element of filename is Photo No
	For Overwrite storage threshold , the default is 1000 images, and the maximum is 100,000 images.
Custom Naming Rules	Choose Enable and then set the naming rule (see step 5).
Convert Path into UTF8 Format	Select if you want to convert the path into UTF8 format.

5. Configure the storage path.

Item	Description
File Path	Up to 6 levels. If not specified, the default path "\IP\Date\Intelligent" will be used. Intelligent means smart snapshots.
Filename	Naming element: Up to 20 fields are allowed. If not specified, the sequence number such as 1, 2, 3, will be used as the filename.

6. Click Save.

- GA/T1400
- Go to Setup > System > Server > Intelligent Server. 1

je Database.

intelligent Server 1		
Server IP	0.0.0.0	
Server Port	5196	
Platform Communication Type	Video&Image Database	~
VIID Version	VIID_2017	~
Device ID	001	
Jsemame		
Platform Access Code		
Confirm Platform Access Code		
Video&Image Database Settings		
Coordinate Mode	Percentage Mode	~
Connection Mode	Short Connection	~
Report Data Type	🖌 Motor Vehicle 🖌 Non-Motor Vehicl	le 🔽 Person 🔽

122

ltem	Description
Server IP	Server's IP address.
Server Port	Use the default port.
VIID Version	Choose the correct version, VIID_2017 or VIID_2018.
Device ID	Make sure the entered device ID conforms to the VIID protocol, and digits 11-13 must be 119.
Username	Username configured at VIID Management > VIID Device Management > Gateway Authentication on the VM.
Platform Access Code	Password configured at VIID Management > VIID Device Management > Gateway Authentication on the VM.
Confirm Platform Access Code	Enter the password again.

4. Configure the VIID parameters.

Item	Description
Coordinate Mode	Includes Percentage Mode, Pixel Mode, and Normalized Mode.
Connection Mode	Short Connection: This mode is implemented based on the standard HTTP protocol, and the server decides the connection mode.
	Standard: This mode is applicable only when the camera connects to a Uniview server.
Report Data Type	Types of date to be reported.

• LAPI

Only Intelligent Server 2 supports LAPI. Choose LAPI and then click Save.

5.10.4 **Device Information**

Set device information including device name, location, mounting height, etc., which can be used in smart FTP, OSD, etc.

1. Go to Setup > System > Device Info.

Device Name	1					
Device ID	1					
Intersection Info	road					
Intersection ID						
Direction ID	1					
Mounting Height (cm)	600					
Longitude	East 🗸	0	Degrees 0	Minutes	0.0000	Seconds
Latitude	North 🗸	0	Degrees 0	Minutes	0.0000	Seconds

- 2. Complete the information as needed.
- 3. Click Save.

Save

5.10.5 Ports & External Devices

The RS485 port is used for data transmission between the camera and external third-party devices for PTZ control, OSD, audio collection, illumination control, etc. The serial port parameters configured on the camera must match that of the connected external device.



1. Go to Setup > System > Ports & Devices > Serial Port.

2. Set Port Mode and configure the parameters.

Item	Description
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 applicable.
Data Bit	The actual number of data bits in a group of data packets. Usually the default value is applicable.
Stop Bit	Indicates the end of transmission of a group of data. Usually the default value is applicable.
Parity Bit	Used to check whether the received data bits are erroneous. You can choose Odd-Parity Check or Even-Parity Check .
Flow Control	Used to control data transmission to prevent data loss.

PTZ control

To control the PTZ using a third-party device, set **Port Mode** to **PTZ Control**.

By sending PELCO-D instructions through the RS485, you can control PTZ without using the PTZ control panel.

(1) Set Port Mode to Local PTZ Control.

RS485_1		
Port Mode	Local PTZ Control	~
Baud Rate	9600	\checkmark
Data Bits	8	\checkmark
Stop Bits	1	~
Parity	None	~
Flow Control	None	~
PTZ Protocol	PELCO-D	\checkmark
Address Code	1	
– Enable Trans-Channe	1	

Save

(2) Configure the parameters.

Item	Description
PTZ Protocol	Choose the correct PTZ protocol: PELCO-D, PELCO-P, INTERNAL-PTZ, ALEC, VISCA, ALEC_PELCO-D, ALEC_PELCO-P, MINKING_PELCO-D, MINKING_PELCO-P, YAAN, Private-KR. Some camera models support preset IDs from 1 to 1024 when the PTZ protocol is PELCO-D, and preset IDs from 1 to 255 when the PTZ protocol is other protocols.
Address Code	Set the PTZ address code. NOTE! This parameter is configurable only when Port Mode is set to PTZ Control and PTZ Protocol is set to Local PTZ Control .

• Trans-channel

Used to transmit data between the RS485 port and the third-party device.



NOTE!

This feature is not available to all camera models.

(3) Set Port Mode to Trans-Channel.

RS485_1		
Port Mode	Trans-Channel	~
Baud Rate	9600	\checkmark
Data Bits	8	~
Stop Bits	1	~
Parity	None	~
Flow Control	None	~
– Enable Trans-Channel		
L		

Save

- (4) Enable Trans-Channel.
- (5) Enter the destination address and port, that is, the IP address and port number of the third-party device to which the transparent channel is connected.
- (6) Click Save.
- OSD

Receive serial port information from the third-party device through the RS485 port and then overlay the parsed information on the OSD.



NOTE!

In order for the camera to correctly parse the received serial port information, make sure the serial port information sent from the third-party device conforms to our data formats. Contact our technical support for more information.

(1) Set Port Mode to OSD.

RS485_1		
Port Mode	OSD	~
	Enable OSD Report	
Baud Rate	9600	~
Data Bits	8	~
Stop Bits	1	~
Parity	None	~
Flow Control	None	~
– Enable Trans-Channel		

- (2) Select Enable OSD Report, so OSD data will be uploaded to the platform.
- (3) Click Save.
- Trans-Channel via ONVIF

Use the RS485 port for data transmission between the camera and third-party devices via Onvif.

-RS485_1		
Port Mode	Trans-Channel via ON	\checkmark
Baud Rate	9600	\checkmark
Data Bits	8	\checkmark
Stop Bits	1	\checkmark
Parity	None	\checkmark
Flow Control	None	\checkmark
– Enable Trans-Channel		

Save

- (2) Configure the parameters.
- (3) Click Save.
- Illumination

Use the RS485 port to transmit data between the camera and the third-party illuminator.

(1) Set Port Mode to Illumination.

_RS485_1		
Port Mode	Illumination	~
Baud Rate	9600	~
Data Bits	8	~
Stop Bits	1	~
Parity	None	~
Flow Control	None	~
– Enable Trans-Chann	el	

- (2) Configure the parameters.
- (3) Click Save.
- Wiper Control

Configure wiper parameters to control the wiper.

(1) Go to System > Ports & Devices > External Device.

Move Mode	Repeat	\checkmark
Time Interval(min)	15	
Effective For(h)	1	

(2) Configure wiper parameters.

Item	Item	Description
Control Mode		The wiper is controlled through PELCO-D instructions, so the PTZ protocol must be set to PELCO-D. See PTZ Protocol for more information.
		Use alarm input and output to open or close the circuit and control the wiper.
Enable Wiper	Normally Open/Normally Closed	Set according to the actual working status of the wiper.
Move Mode	One Time: The wiper works once every time you click the wiper icon on the PTZ control panel.	
One		Repeat: You need to set the Effective For and Time Interval parameters. The Effective For parameter sets the duration of the Repeat mode (1 to 24 hours), and the Time Interval parameter sets the interval between two wiper movements (1 to 60 minutes).
	Time/Repeat/Automatic	NOTE!
		If Time Interval is set to 60 minutes and Effective For is set to 1 hour, then the wiper works once at the last minute and then stops.
		Only integers are allowed.
		Automatic: Use a rain sensor to detect rains and automatically activate the wiper when the threshold is reached.

(3) Click Save.

5.10.6 Maintenance

1. Maintenance

System maintenance include software upgrade, system configuration, diagnosis information, power output, and heater settings.

Go to Setup > System > Maintenance.

• Software upgrade

NOTE!

- Make sure the version to be used matches the device; otherwise, exceptions may occur.
- The version file is a .zip file that includes all the upgrade files.
- Power must be connected throughout the upgrade.
 - Local upgrade
 - (1) Click **Browse**, locate the version. (If applicable) select **Upgrade Boot Program** to upgrade the boot program.
 - (2) Click **Upgrade** to start. The device will restart automatically after the upgrade is completed.
 - Peripheral upgrade
 - Check for upgradable peripherals such as pan/tilt unit, illuminator, etc., and available versions.
 - Cloud upgrade

Click **Detect** to check for new versions. You can perform a cloud upgrade if a new version is available on the cloud server.

• System configuration

You can export the current configurations of the camera to the client computer or an external storage device for backup, so when necessary, you can restore camera configurations by importing the backup file.

CAUTION!

- Restoring defaults will restore all settings to factory defaults except the administrator password, network interface settings, and system time.
- Before you import a configuration file, make sure the file matches the camera model; otherwise, unexpected results may occur.
- The camera will restart after importing the configuration file.

Import configurations

Config Management			
Default	$\hfill\square$ Restore all settings to defaults without keeping current network and user settings.		
Importing		Browse	Import
Exporting		Browse	Export

(1) Click Browse beside the Import button.

- (2) Locate the configuration file, click Import. A dialog box appears.
- (3) Enter the password and confirm.
- (4) Click OK.
- Export configurations
- (1) Click Browse beside the Export button.
- (2) Choose the destination folder, click Export. The File Encryption dialog box appears.
- (3) Enter the password and confirm.
- (4) Click OK.
- Restore defaults

Click **Default**. The system will restore default settings except network settings and user settings. To restore all settings, select **Restore all settings to defaults without keeping current network and user settings**.

• Diagnosis information

Diagnosis information includes logs and system configurations and can be exported to your client computer. Select **Collect Image Debugging Info** to collect diagnosis information with accompanying video images to facilitate troubleshooting.

Export Diagnosis Info		Browse	Export	
✓ Collect Image Debugging Info	,			

- (1) Click Browse and choose the destination.
- (2) Click Export.



NOTE!

Diagnosis information is exported as a compressed file. You need to decompress it first (using decompression tools like WinRAR) and then open the file using a text editor (like Notepad).

• Power output

The camera can supply power to external devices with lower power consumption such as a sound pickup.

Power Output	
12 VDC	◯ On ● Off

Restart device



CAUTION!

Restarting the camera will interrupt the ongoing service.

Restart

Restart device

Click **Restart** and then confirm to restart the device. You may set a schedule to reboot the camera automatically at the set time.

Heater

Use the heater to eliminate water droplets on the lens in a high humidity environment.

Heater	\bigcirc On \textcircled{O} Off	Remaining Heating Time 0	► Day(s) 0	✓Hour(s) 0	✓Minute(s)

- (1) Enable Heater.
- (2) Set Remaining Heating Time.

2. Network Diagnosis

Go to Setup > System > Maintenance > Network Diagnosis.

Select NIC	NIC1 (203.2.1.83) V
IP Filter	$\textcircled{\label{eq:all} O}$ All \bigcirc Specify \bigcirc Filter
Port Filter	$\textcircled{\label{eq:All} O}$ All \bigcirc Specify \bigcirc Filter
Custom Rules	

Start Capture

Select NIC

NIC1 is the camera's IP address.

- IP/port filter
 - > All: Capture all packets of the camera.
 - > Specify: Capture packets of the specified port or IP.
 - > Filter: Filter packets of the specified port or IP and capture other packets.
- Custom Rules

Select Custom Rules and set the rules.

Click **Start Capture** to start capturing packets. After packet capture is finished, save data and view the diagnosis.

• Test network delay and packet loss rate

Test network connectivity by sending test packets to a test address.

-Network Delay and Pack	Network Delay and Packet Loss Test							
Test Address	192. • • • • •							
Packet Size (Bytes)	64							
Test Result Test	Average Delay: 3.558 ms Packet Loss Rate: 0%							

- > Test Address: Must be a valid IP address or domain name.
- Packet Size (Bytes): Size of test packets to be sent. Range: [64-65507]. Sometimes a high delay may be caused by a large packet size. If the test failed, set a smaller packet size and then try again.

- > Test results include average delay and packet loss rate.
- Average delay: Average length of time from test packets are sent till responses are received.
- Packet loss rate: Ratio of lost packets to the sent packets.

5.10.7 **Logs**

Search camera operation logs and download to your computer.

Go to Setup > System > Log.

Time		2022-06-09 00:00:00	L~2022-06-09 23:59:59	Ŀ						
Main Ty	pe	AlarmEvent	Sub Type	A11	~					
Operatio	m	Query Export								
No.	Туре		Sub Type		Date	Time	Username	IP	Result	
1	Operator		Login		2022-06-09	10:25:05	admin	57 AL 11	Succeeded.	~
2	Operator		Upgrade		2022-06-09	10:18:25	admin	III E	Succeeded.	
3	Operator		Login		2022-06-09	10:05:29	admin	P21931.01	Succeeded.	\sim
				Total	3 . « < 1]/1 > >>				

- 1. Set a time range and choose main and sub log types.
- Main type: Including system operation, alarm parameter configuration, network configuration, audio and video configuration, PTZ configuration, image configuration, smart configuration, system configuration, storage configuration, and alarm events.
- Sub type: You can choose up to 5 types or choose All.
- 2. Click **Search**. Up to 100 logs can be displayed. The latest logs are displayed on the top.
- 3. Click **Export** to save search results as a .csv file to the client computer.

NETUS-P

Quick Setup Guide

LIVE / PLAYBACK / BACKUP / SYSTEM / E-MAP

Ver.1.1 / 2018.11





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1. Run NETUS

Input ID / Password.

	III NETUS . Professional		×
		admin	
- 1		암호	Œ
		 암호 저장	
		자동 로그인	
- 1			
	1998-2018 RIFATRON Systems, Incorp	orated and its licensors, All rig	1.0.0.12 hts reserved
_			
<u> </u>	Default ID/PW: admin/111111		

Run NETUS as shown below.

*** NETUS				오후 05:07:57 [1] _ 🗆 🗙
‡ 自 目 ❶				
	모 각이브_1 ×			+
김색 이				
▲ 10 32월 시스템 ● 000 NVRSCH ● 000 NVR2-16 ● 000 DVR2-16	RIFATRON	RIFATRON		
 (6) 최면 분말 15 한 금거찾기 4 한 장치 상태 알림 				
A ≠ Q ○ [·] A ≠ Q ○ [·] A ≠ Q ○ [·] Q ○ [·] Q ○ [·] Q ○ [·] A ≤ 0 A ≤ X → A ≤				RIFATRON
프리셋1 - 17 15	◆] ◀) [@] 💾 💾 💕	■ 1 /	4 ► ■ ■ ■ ₩	₩ ₩ 4×4 • [□]





Each menu command of NETUS are shown as below.

2. Device Registration

Click the yellow marked button to register the device.

	2 80123 ·		2 # 050757 世 – □ × +
A REACE B REACE B WRCH B WRCH B WRCH B WRCH Site mana	ager button	Trype, the Content	former i treade
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 ● 최근 보일 % : <li:< li=""> : : : <li< th=""><th></th><th></th><th></th></li<></li:<>			
▼ PTZ			
'A5# A583≏ 78 ≘3#1 - 17 17 .	4) (2) ∰ ∰• (6)	- • •	 ···· (0)



When [Site Manager] window pops-up, RIFATRON DVR/NVR which is in the same band with PC is automatically searched and displayed in Search list on the left.

🖿 사이트	트 관리자									×
□ 2	3치 등록	장치 그룹 등록								
		* * *					2	<u></u> 실색		Q + 🗹 🛅
	장치검색 항목	목 💧		모델	이름	IP(uri)	MAC	포트(옙)	쳐널	버젼 ^
	192.168.10.35 7000 (8000)	00:0c:28:08:3a:e7 16 개널	•	H6 DVR, NVR	REC_000C280B7C61	192.168.10.48	000C280B7C61	50100(80)	24	V1.6.057_6.18
	192.168.10.103	00:0c:28:0b:ce:4b		H6 DVR, NVR	REC_000C280BB3FE	192.168.10.6	000C280BB3FE	50100(443)	32	V1.7.061_8.27
	50100 (80)	16 채널		H6 DVR, NVR	REC_000C280BCCEE	192.168.10.93	000C280BCCEE	50100(80)		V1.6.059_8.10
	192.168.10.43	00:0c:28:08:7c:8d	•	H6 DVR, NVR	3brid	000c280b9f2f.powerd	000C280B9F2F	50100(80)		V1.4.046
	7000 (8000)	16 채널	•	H6 DVR, NVR	3brid_v1.4.046	apsubway.powerddn	000C280B9F34	4000(80)		V1.4.046
	192.168.10.25	00:23:63:70:bf:78	•	H6 DVR, NVR	3brid_v1.4.042	90232842.powerddns	000C280BA499	50100(80)		V1.4.042
	50100 (80) 192.168.10.55	4 채널 00:0c:28:06:e2:4c	•	H6 DVR, NVR	5brid_v1.6.044	ks24419009.powerdd	0023636D3953	50100(80)	20	V1.6.044
	50101 (60001)	16 채널		H6 DVR, NVR	MX7-1600	lottegoduc7.powerdd	000C280B7E4C	50100(80)	16	V1.7.035_1.13
	192.168.10.19	00:0c:28:0b:33:52		H6 DVR, NVR	TVI베트남	hanavina7.powerddn	000C280B8355	50100(80)	16	15.9.00.050
	50200 (80)	8채널		H6 DVR, NVR	v12.3.002	000c2807169d.cctvuse		50100(0)		12.3.00.002
	192.168.10.73 50100 (80)	00:0c:28:0b:ba:11 48 채널		H6 DVR, NVR	v15.9.0047	000c280b6a2f.powerd	000C280B6A2F	50100(80)		15.9.00.047
	192.168.10.5	00:23:63:70:bf:6e	•	H6 DVR, NVR	960H	000c2806726e.powerd	000C2806726E	50100(80)	16	15.1.00.013
	50100 (80)	16 채널	•	H6 DVR, NVR	v8.0.0532	gyjp.cctvuser.com		50100(0)	16	8.0.00.532
	192.168.10.92	00:0c:28:0b:33:51	•	H6 DVR, NVR	v1.6.044	master7757.powerdd	0023636D3779	50100(80)		V1.6.044
	50100 (80) 192.168.10.34	20 채널 00:0c:28:0b:77:58	•	H6 DVR, NVR	v1.6.046_대구	shinchon.powerddns	00236370BECA	50100(80)		V1.6.046
	50100 (80)	24 채널	•	H6 DVR, NVR	Dvcdjw sje	000c28047e25.cctvuse		50100(0)		8.0.00.156
	7	▼ 본 아이디 / 암호								▼ যৃ৪

Please select device at below to register device to NETUS and Press button, then selected device is supposed to be registered to right side tab.

		r 🗣 🔒 🕇		-					김색		<u>२</u> + छ
	장치검색 형목	:	장치 자동	<mark>추가</mark> 모델		이용	iP(url)	MAC	포트(행)	A 12	비전
	192.168.10.19 50200 (80)	00:0c:28:0b:33:52 8 개념		000 H6 D		REC_000C280B7C61	192.168.10.48	000C280B7C61		24	V1.6.057_6.18
	192.168.10.73	00:0c:28:0b.ba:11		H6 D		REC_000C280BB3FE REC_000C280BCCEE	192.168.10.6 192.168.10.93	000C280BB3FE		32 5	V1.7.061_8.27 V1.6.059 8.10
	50100 (80) 192.168.10.25	48 채널 00-23:63:70 bf:78		CE H6 D		3brid	000c280b9f2f.powerd			8	V1.6.059_6.10
	50100 (80)	4채널		000 H6 D		3brid_v1.4.046	apsubway.powerddn				V1.4.046
	192.168.10.43 7000 (8000)	00:0c:28:08:7c:8d		🚥 H6 D	VR, NVR	3brid_v1.4.042	90232842.powerddns	000C280BA495	50100(80)		V1.4.042
- 3922	192.168.10.72	00:0c:28:0b:4a:16		0 H6 0	VR, NVR	5brid_v1.6.044	ks24419009.powerdd	0023636D3953	50100(80)	20	V1.6.044
	50100 (80)	4 개념		CIII H6 D	VR, NVR	MX7-1600	lottegoduc7.powerdd	000C280B7E4C	50100(80)	16	V1.7.035_1.13
	192.168.10.4	00:23:63:74:74:38		I HE D	VR, NVR	TVI베트님	hanavina7.powerddn	000C280B8355	50100(80)	16	15.9.00.050
	50100 (80)	16 채널 00:0c:28:0b:67:2e		EE H6 D	VR, NVR	v12.3.002	000c2807169d.cctvuse		50100(0)		12.3.00.002
V	50100 (80)	4 채널		E HE D	VR, NVR	v15.9.0047	000c280b6a2f.powerd	000C280B6A2F	50100(80)		15.9.00.047
	192.168.10.103	00.0c.28.0b.ce.4b		CO HE D	VR, NVR	960H	000c2806726e.powerd	000C2806726E	50100(80)	16	15.1.00.013
	50100 (80)	16 채널		E HE D	VR, NVR	v8.0.0532	gyjp.cctvuser.com		50100(0)	16	8.0.00.532
	192.168.10.92 50100 (80)	00:0c:28:0b:33:51 20 채널		CTER H6 D	VR, NVR	v1.6.044	master7757.powerdd	0023636D3779	50100(80)		V1.6.044
	192.168.10.34	00 0c 28 0b 77 58		C HED	VR, NVR	v1.6.046_07	shinchon.powerddns	00236370BECA	50100(80)		V1.6.046



To change ID, Password and settings of registered device, Check the device and click 'modify devices button' in the upper right as shown below.

0 ::: 2	치등록	이 정치 그룹 등록								
								걸색		Q + 🖬
	장치검색	형목		모열	이즘	IP(uri)	MAC	포트(퀭)	채널	버전 장치
	192.168.10.19	00:0c:28:0b:33:52		HE DVR, NVR	REC_000C280B7C61	192.168.10.48	000C280B7C61	50100(80)	24	V1.6.057_6.18
C.	50200 (80)	8 채널		HE DVR, NVR	REC_000C280B83FE	192.168.10.6	000C280BB3FE	50100(443)	32	V1.7.061_8.27
	192.168.10.43 7000 (8000)	00:0c:28:08:7c:8d 16 채널		HE DVR, NVR	REC_000C280BCCEE	192.168.10.93	000C280BCCEE	50100(80)		V1.6.059_8.10
	192.168.10.4	00.23.63		H6 DVR, NVR	3brid	000c280b9f2f.powerd	000C280B9F2F	50100(80)		V1.4.046
	50100 (80)	16 채널), 🗸	HE DVR, NVR	3brid_v1.4.046	apsubway.powerddn	000C280B9F34	4000(80)	8	V1.4.046
_	192.168.10.72	00:0::28:0	/	DE HE DVR, NVR	3brid_v1.4.042	90232842.powerddns	000028084499	50100(80)	4	V1.4.042
010	50100 (80)	4 채널								
	192.168.10.36	00.0c.28:0b.67:2e		Gue H6 DVR, NVR	5brid_v1.6.044	ks24419009.powerdd	0023636D3953	50100(80)	20	V1.6.044
	50100 (80)	4 채널		H6 DVR, NVR	MX7-1600	lottegoduc7.powerdd	000C280B7E4C	50100(80)	16	V1.7.035_1.13
-	192.168.10.103	00:0c:28:0b:ce:4b		H6 DVR, NVR	TVIBEY	hanavina7.powerddn	000C280B8355	50100(80)	16	15.9.00.050
	50100 (80)	16 채널		HE DVR. NVR	v12.3.002	000c2807169d.cctvuse		50100(0)	4	12.3.00.002
	192.168.10.25	00:23:63:70:bf:78	NE:	H6 DVR, NVR	v15.9.0047	000c280b6a2f.powerd	000028086425	50100(80)	4	15.9.00.047
	50100 (80)	4 채널								
	192.168.10.92	00.0c.28.0b.33.51		H6 DVR, NVR	960H	000c2806725e.powerd	000C2806726E	50100(80)	16	15.1.00.013
	50100 (80)	20 채널		HE DVR, NVR	v8.0.0532	gyjp.cctvuser.com		50100(0)	16	8.0.00.532
	192.168.10.35	00:0c:28:08:3a:e7		HE DVR, NVR	v1.6.044	master7757.powerdd	0023636D3779	50100(80)		V1.6.044
	7000 (8000)	16 채널	-	H6 DVR, NVR	v1.6.046 🛄 구	shinchon.powerddns	00236370BECA	50100(80)	9	V1.6.046
	192.168.10.56	00.0c.28.0b.db.16		H6 DVR, NVR	Dvcdjw sje	000c28047e25.cctvuse		50100(0)	6	8.0.00.156
	50100 (80)	16 채널		HO DOR, NOR	overdia ale	00002004/020.0004/080m		30130(0)		0.0.00.100

Then poped-up as below.

	×
Device type	DVR(NVR)
Model type	H6 series 🔹
Device name	REC_000C280BACA4
IP(url)	192.168.10.72
Client port	50100
Web server port	80
User id	admin
User password	•••••
	Apply



Registration of device is successful.

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▶ 사이트 :	모 감이브_1 ×			+
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				RIFATRON
 (6) 최면 분할 15 (7) 즐거찾기 4 (7) 중치 상태 알림 	RIFATTRON			
▼ PTZ ▲ ●				
프리뷰1 ~ 13 평	•] 🜒 🙍 💾 ピ 💕	- 1 /	4 ►	

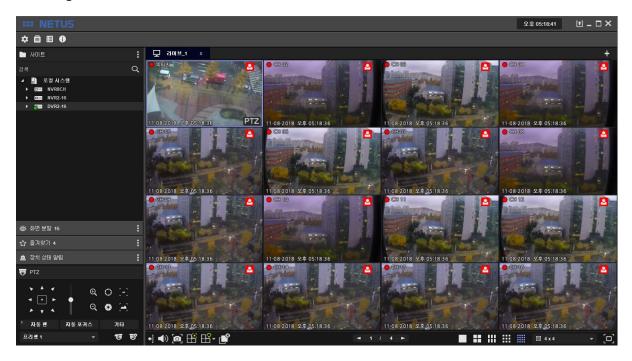
3. Live

Drag and drop the mouse pointer to the display area to see all channels. Or, you can add one by one by dragging each camera.

	Click and Drag		9.0 05:07:57 🗈 🗕 🗆 🗙
ACLE			+ REPATTION
	RIPATRON		RIFATRON
 (中) 최근 분달 16 (計) 유가 27 4 (計) 유가 260 일정 	II RIPATRON		RIFATRÓN
			RIFATRON
8881 - 1	ଟ୍ 🔸 📣 (୭) 🖽 🎛 - 💕	< > III	



Live images are shown as below.



You can stop the display by pressing 🗾 button below.

*** NETUS				오후 05:07:57 1 _ 그 🗙
\$ ₿ ₿ ₿				
🖿 사이트 🚦	모 라이브_1 ×			+
김색 Q				
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 80 원원 범감 16 10 금기 관기 4 10 금기 산기 4 				
▼ PTZ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ <				
프리뷰1 - 1명 명	•] •) @] 🖽 🖽 • 💕		4 ► 🔳 👪 👯	• • • • • • • • •



4. Add Tab Menu

오章 05:30:03 1 - - × * 8 8 0 : 모 라이브.1 L 1015 9 로벌 사스템 DVR2-16 PTZ 2018 9 05 29 58 11-08-2018 24 05 29 51 8-2018 24 05 29 5 05:29:5 11-08-2018 24 05-29-58 08-2018 24 05:29:51 08-2018 9 05:29:58 08-2018 24 05:29:51 PT7 Q 0 자동된 자동 포키스 기타 11-08-2018 11-08-2018 9 2 05 29 58 오草.05:29 •] •) @ 🖽 🖽 • 🖬 프리셋 1 T T ■ 111 111 111 = 4x4

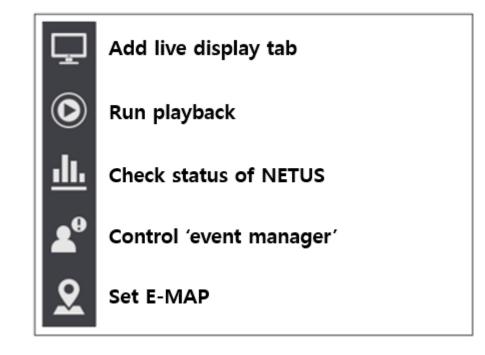
The image display tab can be added with right 📑 tab add button below.

Menu bar comes out on the right side when you press 📑 tab add button.

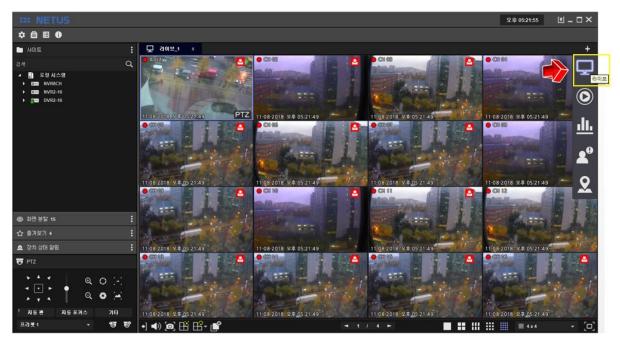




Each items on menu tab have functions as below.

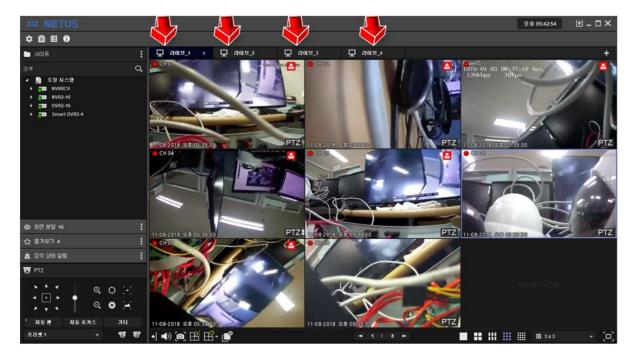


Click the live tab **u** on **u** tab of the right side if you want to add live tab.



Live tab comes out as above.

If you want to make other display tab, drag other devices image also.



Live tab can be added maximum 4.

You can separate each display tab by dragging tab name.





5. Split Screen



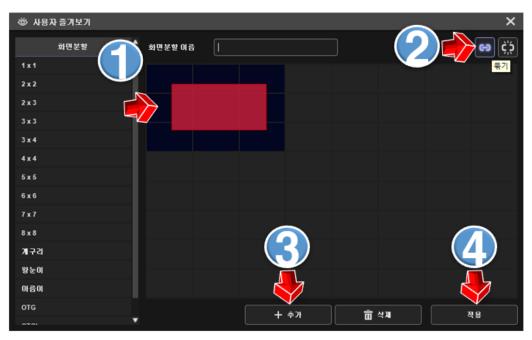
## NETUS		£≉ 05:57:28 🔳 _ 🗆 🗙
\$ 8 8 0		
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CONVR2-16 OVR2-16	· 사용자 즐기보기	×
Smart DVR2-4	화면분할 수 화면분할 이용	چې ھ
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	2x3	
E 6x6		
靈 7x7 國 8x8	3x3	
바 계구리	3x4	
다 하는데		
단 01801	4x4	
	• 11 08-2018 2 5 x 5	
☆ 즐겨찾기 4		
요 장치 상태 알림	: 6x6	
T PTZ		
	8x8	
	ATC	
	S 850	
'자동팬 자동포커스 기타	11-08-2018 24 OF BOI	
프리봇1 - 17	₹ + •) •	التحديد المتكبر ويحجب ويع
	016 + 62	富 삭제 적용

Setting window to spit screen has 8x8 cell. Please set size of this cell as you want.

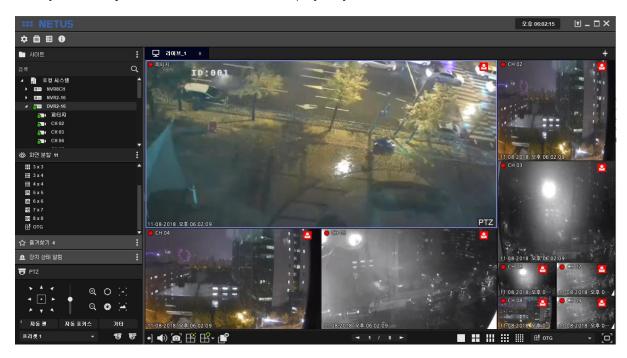
behind them using by button 2 below and repeat this setting.



once your settings are done and apply setting by click button Click button 3







Then you can adjust size of each channel's display as you want.

6. Favorite

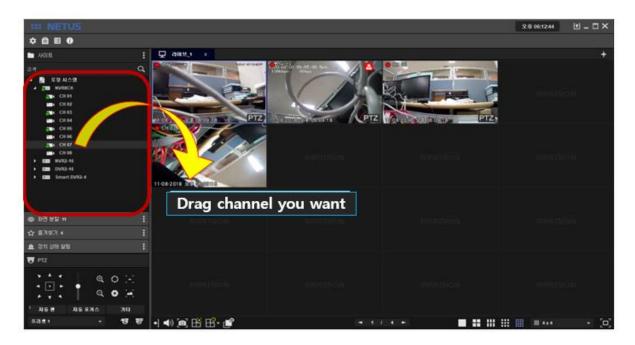
Select display mode to set 'favorite' at side menu or bottom menu.

*** NETUS				£‡06:05:48 [t] _ □ ×
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2월 6x6 1월 7x7 1월 8x8 단 OTG				
☆ 율계학기 4 【				
으 장치 상태 알림 :				
'자동편 자동포케스 기타 프리븟1 - 177 187	•] •) @] 🖽 ピ - 💕		· • • • • • •	



Drag channels you want and put them to the left side as below.

Picture below is to drag only odd number of channels.



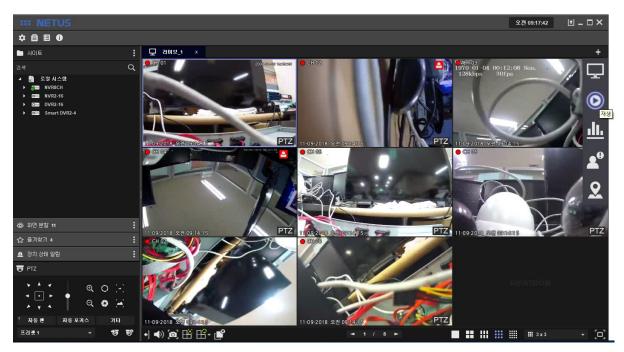
Click add favorite and put favorite name you want.

Settings are applied after click apply.

# NETUS				9 0 00:16:09 🗵 🗕 🗆 🗙
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☆ 81×88	11-08-2018 - 20 2013286	Name OTG	Apply	And the first
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11 - 1 7 17	•] •) @) 🖽 🏦 💣			III III II + x + (D)

7. Playback

Click tap on the right side and click the play button.



'Play' tab comes out as below.

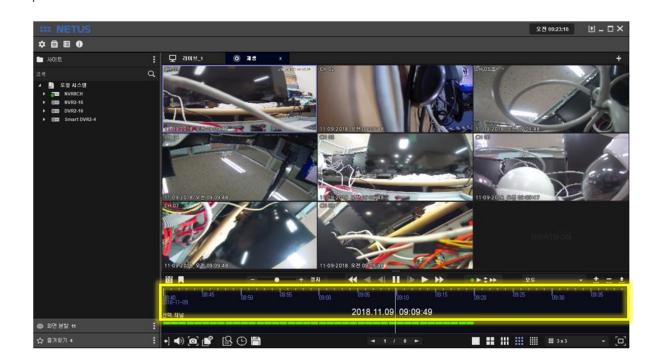
*** NETUS				오전 09:19:53 🚺 🗕 🗖 🗙
☆ 自 目 0	<u> </u>			
▶ 사이트	: 모 같이브_1 ⓒ 재생 ×	<		+
건쪽 C	٤			
▲ [] 로명시스템 → 600 NVR2CH → 600 NVR2-16 → 6000 DVR2-16 → 6000 Smart 0VR2-4	RIFATRON			
▶ titel smartUvxz-4				
	1227 म - ● 8:40 2018-11-09 ଅଧାନ-11-09		09:10 09:15 09:20 09:09:49	₽두 → ± = ± 09:30 09:35
👾 화면 분할 11	1			
🟠 즐겨찾기 4	: •] •) 💿 💕 😫 🕒 🖺		4 🕨	··· [□]



Drag devices to the right side (play tab) in the same way as 'Live display' and click play button to play video.



Video can be played back by click yellow area and drag mouse left and right.





12

You can search using the calendar.



С	alendar w	vill be disp	layed on	ce you cli	ck the ca	llendar b	utton
	•	July	-	20	18	¢	
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
	24	25	26	27	28	29	30
	1	2	3	4	5	6	7

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



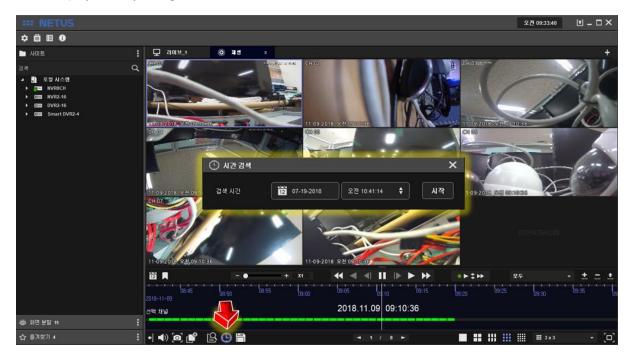
Green mark means there is recording data.



Event search window will be displayed once you click the event search button Select Event you want to play and click 'start button' Start. Then particular time you selected will be played.

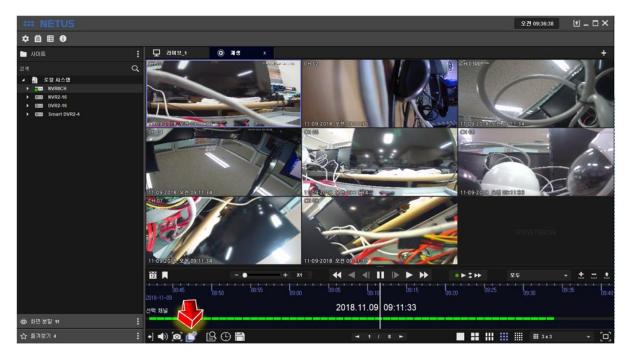
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You can playback by using 'time search' either.





You can stop playback with 'Display Off button'



8. Back up

Backup window comes out once you click the backup button at playback tap as below. You can proceed backup with it.

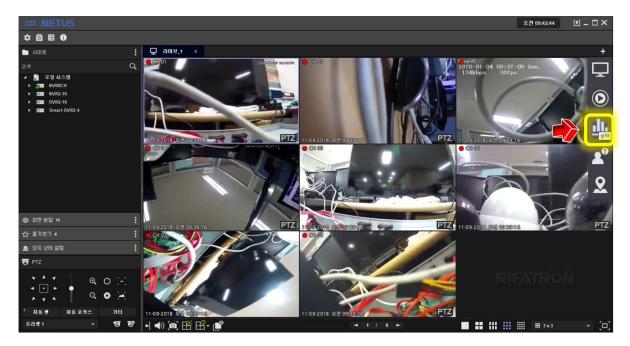
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9. System Status



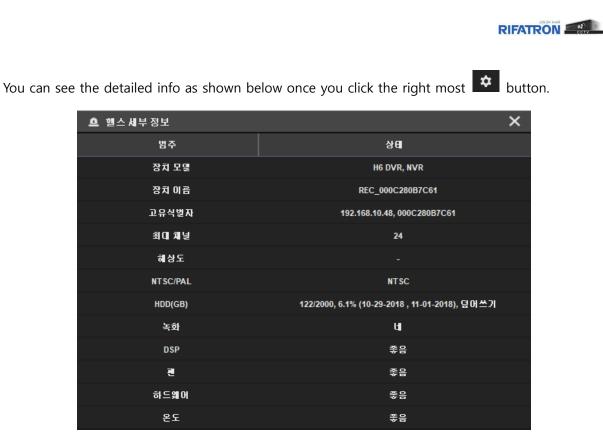
Click the status button.



It shows the status of the PC where the current NETUS is installed.

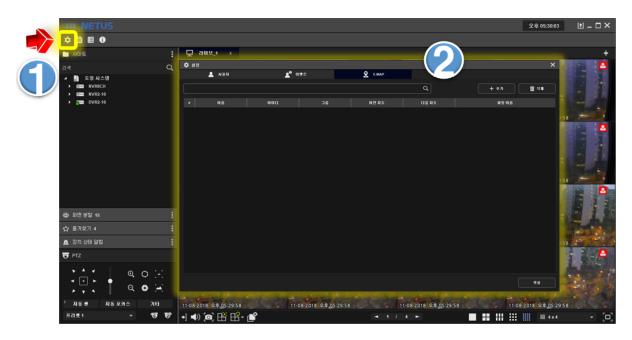


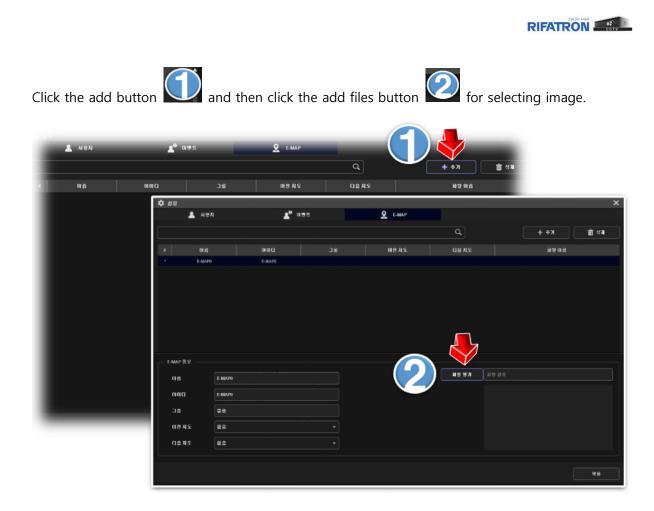
You can see the name, address, channels, resolution, HDD status, FPS, KBPS, recording, network status and detailed info of each registered device.

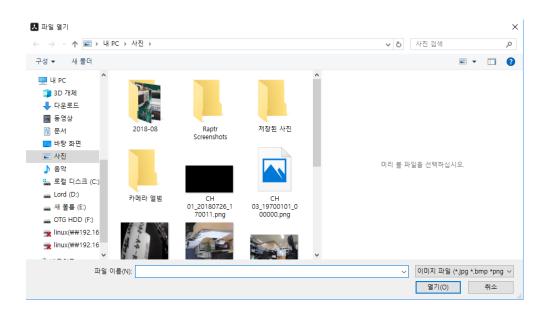


10.E-MAP

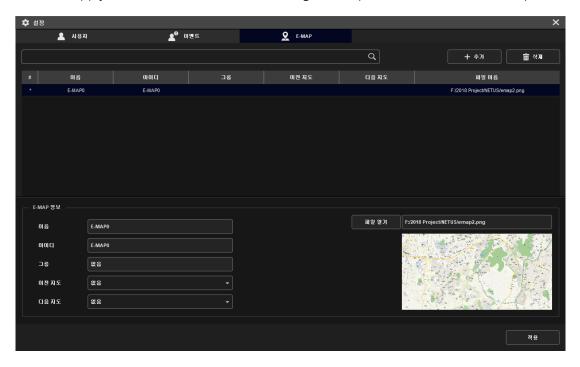
Add the image for E-MAP. Click is the settings button and set up the E-MAP tap.











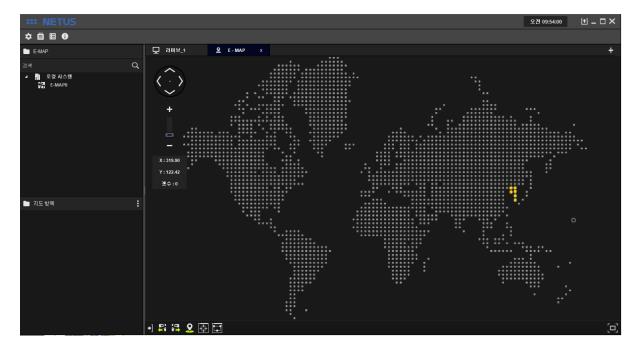
Click the apply button at bottom. Now selecting the map for E-MAP has been completed.

Compose the E-MAP with below steps.

Click the button at below image.

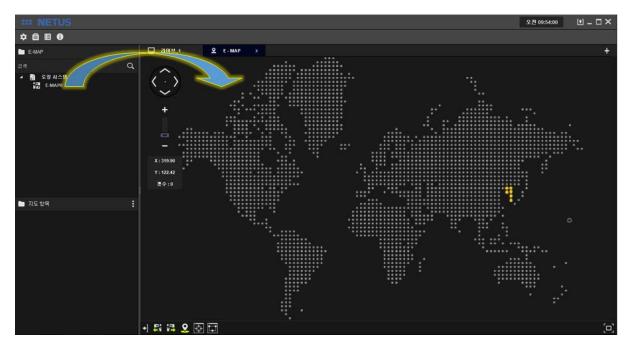






Then the window as below will be displayed.

Drag the map image at left side menu to E-MAP tap.







Adjust image as you want with zoom in/out the map.

Click 'add E-MAP button' Click 'add E-MAP button' then E-MAP item property window will come out.

Fill in the name and settings to be displayed in E-MAP. You can select the camera to be connected

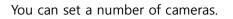
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to this name like number 2 Conce you click the selected camera

Select the camera and click OK button.

. You can see the video once camera is added to left side tap.









Thank you

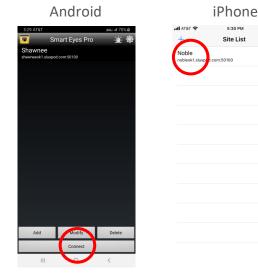


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In Manual Input, fill in. Click OK or Done.

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Android: Choose Site. Click Connect. iPhone: Click Site.





5

Live View Options:

1. Rotate phone for full view.

iDhone

- 2. Mode: To change number of channels to view on screen.
- 3. Click specific channel to see single screen only.
- 4. PTZ: If camera is PTZ, arrow controls will overlay live view. Click arrows to move camera.
- 5. Go to P.B.: To playback video. Once in, click Search or magnifying glass to choose date.
- 6. Camera Icon: Click to take screenshot.

For more information, call 818-906-1212 or email at sales@securitylines.us