





Installation and Operations Manual

Model Number: DNA3500, DNA3750,

DNA3800, DNA4000, DNA5000

Description: NVR IP Video Recording and

Management Software with IVS

DNA Network Video Recorder User's Manual

V 5.2.0

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Welcome

Thank you for purchasing our network video recorder!

This user's manual is designed to be a reference tool for your system.

Please open the accessory bag to check the items one by one in accordance with the list below.

Contact your local retailer ASAP if something is missing or damaged in the bag.

Important Safeguards and Warnings

1 . Electrical safety

All installation and operation here should conform to your local electrical safety codes.

The product must be grounded to reduce the risk of electric shock.

We assume no liability or responsibility for all the fires or electric shock caused by improper handling or installation.

2. Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3. Installation

Keep upwards. Handle with care. Do not apply power to the NVR before completing installation. Do not place objects on the NVR.

4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repair.

5. Environment

The NVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

This series product shall be transported, storage and used in the specified environments. Environment which needs to comply with the following conditions:

- The function of the ITE being investigated to IEC 60950-1 is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment.
- The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to the outside plant.

6. Accessories

Be sure to use all the accessories recommended by manufacturer. Before installation, please open the package and check all the components are included. Contact your local retailer ASAP if something is broken in your package.

7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury! When replace the battery, please make sure you are using the same model!

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Before your operation please read the following instructions carefully.

• Installation environment

- ♦ Keep away from extreme hot places and sources;
- ♦ Avoid direct sunlight;
- ♦ Keep away from extreme humid places;
- Avoid violent vibration;
- ♦ Do not put other devices on the top of the NVR;
- ♦ Be installed in well ventilated place; do not block the vent.

• Accessories

Check the following accessories after opening the box:

• Please refer to the packing list in the box *

1 Features and Specifications

1.1 Overview

This series NVR is a high performance network video recorder. This series product support local preview, multiple-window display, recorded file local storage, remote control and mouse shortcut menu operation, and remote management and control function.

This series product supports centre storage, front-end storage and client-end storage. The monitor zone in the front-end can be set in anywhere. Working with other front-end devices such as IPC, NVS, this series product can establish a strong surveillance network via the CMS. In the network system, there is only one network cable from the monitor centre to the monitor zone in the whole network. There is no audio/video cable from the monitor centre to the monitor zone. The whole project is featuring of simple connection, low-cost, low maintenance work.

This series NVR can be widely used in many areas such as public security, water conservancy, transportation and education.

Real-time Surveillance	 VGA, HDMI port. Connect to monitor to realize real-time surveillance. Some series support TV/VGA/HDMI output at the same time. Short-cut menu when preview. Support popular PTZ decoder control protocols. Support preset, tour and pattern.
Playback	 Support each channel real-time record independently, and at the same time it can support search, forward play, network monitor, record search, download and etc. Support various playback modes: slow play, fast play, backward play and frame by frame play. Support time title overlay so that user may view event accurate occurred time Support specified zone enlargement.
User	Each group has different management powers that can be edited freely.
Management	Every user belongs to an exclusive group.
Storage	 Via corresponding setup (such as alarm setup and schedule setup), user may backup related audio/video data in the network video recorder. Support Web record and record local video and storage the file in the client end.
Alarm	 Respond to external alarm simultaneously (within 200MS), based on user's pre-defined relay setup, system can process the alarm input correctly and prompt user by screen and voice (support pre-recorded audio). Support central alarm server setup, so that alarm information can remotely notify user automatically. Alarm input can be derived from various connected peripheral devices. Alert you via email/sms.

1.2 Features

Network Monitor	 Through network, sending audio/video data compressed by IPC or NVS to client-ends, then the data will be decompressed and display. Support max 128 connections at the same time. Transmit audio/video data by HTTP, TCP, UDP, MULTICAST, RTP/RTCP and etc. Transmit some alarm data or alarm info by SNMP. Support WEB access in WAN/LAN. 		
Window Split	 Adopt the video compression and digital process to show several windows in one monitor. Support 1/4/8/9/16/ 25/36-window display when preview and 1/4/9/16-window display when playback. 		
 Support normal/motion detect/alarm record function. Save the record files in the HDD, USB device, client-end PC, or network storage servulation user may search or playback the saved files at the local-end or via Web/USB device. 			
Backup	• Support network backup, USB2.0 record backup function, the recorded files can be saved in network storage server, peripheral USB2.0 device, burner and etc.		
Network	Supervise NVR configuration and control power via Ethernet.		
Management Support management via WEB. Peripheral Equipment Management • Support peripheral equipment management such as protocol setu port connection. • Support transparent data transmission such as RS232 (RS-422), F (RS-485).			
Auxiliary	 Support switch between NTSC and PAL. Support real-time system resources information and running statistics display. Support log file. Local GUI output. Shortcut menu operation via mouse. IR control function (For some series product only.). Shortcut menu operation via remote control. Support IPC or NVS remote video preview and control. 		

1.3 Specifications

1.3.1 DNA4000 3U NVR Series

Specifications		64-ch	128-ch	
	Main Processor	Industrial X86 multiple-core processor		
	Operation System	Embedded LINUX system		
	Power	Support hot swap		
	Fan	Redundant dual ball bearing fan		
		MTBF>100 thousand hours		
		Support online replacement.		
	Memory	4GB (Max 8G) Server-level	2GB (Max 8G) Server-level	
		(With ECC verification)	(With ECC verification)	
	Case	1.2mm extra-thickness hot-dip galvanized steel.		
		High accuracy aluminum alloy slider.		
		Self-developed patent removal	ole HDD bracket.	
	User Interface	WEB GUI		

	Network Protocol	RTP/RTCP, RTSP, UDP, HTTP, NTP, SNMP		
	Audio/Video			
	Connection	384M connection	192M connection	
	Audio/Video			
	Transmission	384M transmission	192M transmission	
	Audio/Video	Based on 61-bit high-performs	ance file system	
	Storage	Based on 64-bit high-performance file system.		
Audio/Video	Video Resolution	1080P, 720P, D1, HD1, CIF, QCIF		
Addio/ Video	Audio/Video	Based on data library and menu tree. Support various search		
	Search	engines.		
	Audio/Video	Support one camera or a batch of camera setup at the same		
	Setup	time.		
	Record Policy	Schedule record, manual reco	rd, alarm record	
	Alarm Record	Video loss, motion detect, can	nera masking, external alarm	
	Туре		_	
	HDD Amount	16 SATA HDDs (Max 4T space per HDD)		
	HDD Mode	One HDD, RAID0, RAID1, RAID5.		
Data	HDD Installation	Additional HDD bracket, support HDD hot swap.		
Management	Disk Array Enclosure/Backup	Mini SAS port 3Gbps(Optional)	
	HDD Hotspare	Support global hotspare.		
	Network Amount	4 100/1000Mbps Ethernet por	ts	
Network	Network Port		or 4 independent 1000Mbps	
Interface	Feature	Ethernet port.		
	Power	100V~240V,47~63Hz		
	Total Power	60W~200W (Including HDD)		
	Consumption			
	Working	0□~50□		
	Temperature			
	Working Humidity	5%~90% (Non-condense)		
	Storage	-20□~70□		
Others	Temperature			
	Storage Humidity	5%~90% (Non-condense)		
	Working Altitude	-60m~3000m		
	Dimensions	· ·	ngth)mm×485mm(With ear)×	
	(L×W×H)	133.2mm(H)	longth) (100mm (with suit	
		,	length)×482mm(without ear)	
	Net Weight	×133.2mm(H)		
		20Kg (Excluding HDD) Standard 19-inch rack installat	ion	
	Installation Mode	Standard 19-inch rack installat	1011	

1.3.2 DNA3500, DNA3700, DNA3750 4K 2U NVR Series

Model		32-ch	64-ch	128-ch	64-ch with redundant power supplying	128-ch with redundant power supplying
Syste m	Main Processor	Industrial X86	multiple-core	processor		
	Operation System	Embedded LIN	IUX system			
	System	Max	Max	Max	Max	Max
	Resources	32-channel×	64-channel×	128-channel	64-channel×	128-channel×10
		1080P	1080P	×1080P	1080P	80P connection
		connection	connection	connection	connection	
	User	WEB, local GL	۱۱ ال			
	Interface					
Audio	Audio	1-ch MIC bidire	ectional talk a	udio input		
Para	Input					
meter	Audio	1-ch MIC bidirectional talk audio output				
S	Output					
	Audio	G.711a				
	Compressi					
	on					
	Standard					
Video	Video	32-ch	64-ch	128-ch	64-ch netwo	
Para	Input	network	network	network	compression	network
meter		compression	compressi	compression	video input	compressio
S		video input	on video input	video input		n video input
	Video	1-ch VGA outp	ut,			
	Output	2-ch HDMI out	put			
	Video	H.264				
	Compressi					
	on					
	Standard					
	Window	The 1st		en: 1/4/8/9/16/25		
	Split Mode	screen:	The 2nd scre	een: 1/4/8/9/16-s	creen.	
		1/4/8/9/16/25				
		-screen.				
		The 2nd				
		screen:				
		1/4/8/9/16-sc				
Alarm	Alarm	reen. 16-channel				
Para	Input					
meter	Alarm	8-channel rela				
S	Output		youipui			
3	Output					

Model		32-ch	64-ch	128-ch	64-ch with redundant power supplying	128-ch with redundant power supplying
Deco	Decode	H.264;MPEG4				
de Para	Type Decode	22 abannal D1				
meter s	Capability	32-channel D1;16-channel 720P, 8-channel×1080P				
Netw	Record	Manual record	Manual recording, motion detection recording, schedule recording and alarm			
ork	Mode	recording.				
Funct ion		Priority: Manua detection recor	-		ording-> alarm	recording>motion
	Multi-Chan	Max support 1	28M playback	at the same tim	e.	
	nel					
	Playback					
	Motion		••	330((PAL 22×18	, NTSC 22×15)	detection zones.
	Detect	Various sensiti	vity levels.			
	Privacy	Each channel supports 4 privacy mask zones.				
	Mask					
	Record	Overwrite				
	Mode					
	Backup	Flash disk, eSATA, DVD burner.				
	Mode					
	Network Protocol	SNMP/FTP/IS	JSI/UPNP			
	SATA Port	8				
	eSATA	1				
	Port					
	RS232 Port	1 RS232 port.	To debug and	transmit COM d	ata.	
	RS485 Port	1 RS485 port.	To control per	ipheral PTZ and	etc. Support va	rious protocols.
	USB Port	3 USB 2.0 ports and 1 USB3.0 port.				
	HDMI Port	2 HDMI ports				
	Network Port	2 RJ45 10/100	/1000Mbps se	elf-adaptive Ethe	rnet ports	
	Power	One at the fror	it panel.		N/A	
On-off						
	Button					
	Power Button	One at the from	nt panel.			
	IR Remote	One at the fror	nt nanel			
	Control					
	Receiver					
	Neceivei					

Model		32-ch	64-ch	128-ch	64-ch with redundant power supplying	128-ch with redundant power supplying
	Indicator Light	 1 HDD alarm indicator light 1 system running status indicator light 1 network alarm indicator light 1 power light 	• 1 system	lights. rd status indicato n running status e control button i	indicator light	
Gener	Power	AC110~240V,	50~60Hz		AC100~240V,	50~60Hz
al Para meter	Power Consumpti on	<40W (No HE	00)			
S	Working Temperatu re	-10°C∼+55°C				
	Working Humidity	10%~90%				
	Dimension s(L×W×H)	$\begin{array}{rrrr} 450.8mm & \times \\ 482mm(with \\ ear) & \times 91mm \\ (with foot \\ pad) \\ 450.8mm & \times \\ 440mm(witho \\ ut ear) & \times \\ 90.4mm \\ (without foot \\ pad) \end{array}$	ear) × 91n pad) 454.9mm×	 × 486mm(with nm (with foot 444mm(without 4mm (without 	×91mm (with 471.8mm×44	486mm(with ear) n foot pad) 4mm(without ear) rithout foot pad)
	Weight Installation Mode	9kg (No HDD) Rack/desktop)			

1.3.3 DNA 4K S2 2U NVR Series

Model		32-ch	64-ch	128-ch	64-ch with redundant power supplying	128-ch with redundant power supplying
Syste m	Main Processor	Industrial X86	multiple-core	orocessor		
	Operation System	Embedded LINUX system				
	System	Max	Max	Max	Max	Max
	Resources	32-channel×	64-channel×	128-channel	64-channel×	128-channel×10
		1080P	1080P	×1080P	1080P	80P connection
		connection	connection	connection	connection	
	User	WEB, local Gl	JI			
	Interface					
Audio	Audio	1-ch MIC bidire	ectional talk au	udio input		
Para	Input					
meter	Audio	1-ch MIC bidire	1-ch MIC bidirectional talk audio output			
S	Output	·				
	Audio	G.711a				
	Compressi					
	on					
	Standard					
Video	Video	32-ch	64-ch	128-ch	64-ch netwo	ork 128-ch
Para	Input	network	network	network	compression	network
meter		compression	compressi	compression	video input	compressio
S		video input	on video	video input		n video
			input			input
	Video	1-ch VGA outp				
	Output	2-ch HDMI out	put			
	Video	H.264/ H.265				
	Compressi					
	on					
	Standard					
	Window	The 1st screer				
	Split Mode	The 2nd scree	n: 1/4/8/9/16-s	screen.		
Alarm	Alarm	16-channel				
Para	Input					
meter	Alarm	8-channel relay	y output			
S	Output					
Deco	Decode	H.264;MPEG4	;H.265			
de	Туре					
Para	Decode	16-channel×10	9080			
meter	Capability					
S						

Model		32-ch	64-ch	128-ch	64-ch with redundant power	128-ch with redundant power
Netw ork Funct ion	Record Mode	recording. Priority: Manua	Manual recording, motion detection recording, schedule recording and alarm recording.Priority: Manual recording>card number recording-> alarm recording>motion detection recording>schedule recording.			
	Multi-Chan nel Playback	Max support 128M playback at the same time.				
	Motion Detect	Each screen s Various sensiti		330((PAL 22×18,	NTSC 22×15)	detection zones.
	Privacy Mask		supports 4 priv	vacy mask zones	·	
	Record Mode	Overwrite				
	Backup Mode Network	Flash disk, eSATA, DVD burner.				
	Protocol SATA Port	SNMP/FTP/ISCSI/UPNP 8				
	eSATA Port	1				
	RS232 Port RS485 Port	 1 RS232 port. To debug and transmit COM data. 1 RS485 port. To control peripheral PTZ and etc. Support various protocols. 				rious protocols.
	USB Port HDMI Port	2 USB 2.0 ports and 2 USB3.0 ports. 2 HDMI ports				
	Network Port	2 RJ45 10/100	/1000Mbps se	elf-adaptive Ether	met ports	
	Power On-off Button	One at the fror	nt panel.		N/A	
	Power One at the front panel. Button					
	IR Remote Control Receiver					
	Indicator Light	 1 HDD alarm indicator light 1 system running status 	• 1 alarm	alarm indicator lig indicator light rk alarm indicato light		

Model		32-ch indicator	64-ch	128-ch	64-ch with redundant power supplying	128-ch with redundant power supplying
		light 1 network alarm indicator light 1 power light				
Gener al Para meter s	a Power <pre><20W (No HDD) , <90w (4T*8)</pre>			50~60Hz		
	Temperatu re Working Humidity	10%~90%				
	Dimension s(L×W×H)	450.8mm × 482mm(with ear) × 91mm (with foot pad) 450.8mm × 440mm(witho ut ear) × 90.4mm (without foot pad)	ear) × 91n pad) 454.9mm× ear) × 90.	 486mm(with nm (with foot 444mm(without 4mm (without 	×91mm (with 471.8mm×44	486mm(with ear) n foot pad) 4mm(without ear) rithout foot pad)
	Dimension s(L×W×H) (With Package)	571*571*225m	m		632*585*242n	nm
	Weight Installation Mode	8kg (No HDD) Rack/desktop)		8.7kg(No HE	DD)

1.3.4 DNA 4K 3U NVR Series

Specifications		DNA 4K 3U NVR
	Main Processor	Industrial embedded micro processor
	Operation System	Embedded LINUX system
System	System	Max 128-channel×1080P connection,
	Resources	Total bandwidth (main stream 256M, sub stream 128M.)
	User Interface	WEB, local GUI
	Audio Input	1-ch MIC bidirectional talk audio input
Audio	Audio Output	1-ch MIC bidirectional talk audio output
Parameters	Audio	
	Compression	G.711a
	Standard	
	Video Input	128-ch network compression video input
	Video Resolution	8MP/5MP/3MP/1080P/UXGA/960P/720P/D1/CIF
	Video Output	HDMI (support 3840*2160)
Video	Video	
Parameters	Compression	H.264
	Standard	
	Window Split	The 1st screen: 1/4/8/9/16/25/36-screen.
	Mode	The 2nd screen: 1/4/8/9/16-screen.
Alarm	Alarm Input	16-channel
Parameters	Alarm Output	8-channel relay output
Decode	Decode Type	H.264;MPEG4
Parameters	Decode Capability	48-channel×D1;8-channel×1080P;2-channel 800w
	Record Mode	Manual recording, motion detection recording, schedule
		recording and alarm recording.
		Priority: Manual recording>card number recording-> alarm
		recording>motion detection recording>schedule recording.
	Multi-Channel	Max support 128M playback at the same time.
Functions	Playback Motion Detect	Fach corean supports 206/220//DAL 22 18 NTCC 22 15
	Motion Detect	Each screen supports 396/330((PAL 22×18, NTSC 22×15) detection zones. Various sensitivity levels.
	Privacy Mask	Each channel supports 4 privacy mask zones.
	Record Mode	Overwrite
	Backup Mode	Flash disk, eSATA, DVD burner.
	Network Protocol	SNMP,FTP,ISCSI,UPNP
	SATA Port	16 SATA Ports
Network	eSATA Port	1 eSATA port
	RS232 Port	1 RS232 port. To debug and transmit COM data.
Function	DO 405 Davi	1 RS232 port. To control peripheral PTZ and etc. Support
	RS485 Port	various protocols.
	USB Port	3 USB 2.0 ports and 1 USB3.0 port.

	HDMI Port	2 HDMI ports
		4 RJ45 10/100/1000Mbps self-adaptive Ethernetet ports+2
	Network Port	1000Mbps self-adaptive fiber ports
	SAS Port	1
	Power On-off Button	N/A
	Power Button	One at the front panel.
	IR Remote Control Receiver	One at the front panel.
		35 indicator lights.
	Indicator Light	 1 system HDD indicator light 1 alarm indicator light 1 network info indicator light 16 HDD power indicator lights
		 16 HDD read/write indicator lights
	Power	AC100~240V,50~60Hz
	Power Consumption	<170W (With 3T HDD)
	Working Temperature	-10□~55□
General	Working Humidity	10%~90% (No condensation)
Parameters	Dimensions (L \times	531.9(with the LCD length)mm $ imes$ 485mm(with ear) $ imes$
	W×H)	133.2mm(H)
		518(without the LCD length) $ imes$ 482mm(without ear) $ imes$ 133.2mm(H)
	Weight	17.45Kg(No HDD)
	Installation Mode	Rack/desktop
		-

1.3.5 DNA 4K S2 3U NVRSeries

Specifications		DNA 4K S2 3U NVR Series
	Main Processor	Industrial embedded micro processor
	Operation System	Embedded LINUX system
System	System	Max 64/128-channel×1080P connection,
	Resources	Total bandwidth (main stream 256M, sub stream 128M.)
	User Interface	WEB, local GUI
	Audio Input	1-ch MIC bidirectional talk audio input
Audio	Audio Output	1-ch MIC bidirectional talk audio output
Parameters	Audio Compression Standard	G.711a
	Video Input	64/128-ch network compression video input
Video	Video Output	HDMI (support 3840*2160)
Parameters	Video Compression Standard	H.264

	Window Split	The 1st screen: 1/4/8/9/16/25/36-screen.
	Mode	The 2nd screen: 1/4/8/9/16-screen.
Alarm	Alarm Input	16-channel
Parameters	Alarm Output	8-channel relay output
Decode	Decode Type	H.264;MPEG4
Parameters	Decode Capability	48-channel×D1;8-channel×1080P;2-channel 800w
	Record Mode	Manual recording, motion detection recording, schedule
		recording and alarm recording.
		Priority: Manual recording>card number recording-> alarm
		recording>motion detection recording>schedule recording.
	Multi-Channel	Max support 128M playback at the same time.
Functions	Playback	wax support rzow playback at the same time.
	Motion Detect	Each screen supports 396/330((PAL 22×18, NTSC 22×15)
		detection zones. Various sensitivity levels.
	Privacy Mask	Each channel supports 4 privacy mask zones.
	Record Mode	Overwrite
	Backup Mode	Flash disk, eSATA, DVD burner.
	Network Protocol	SNMP,FTP,ISCSI,UPNP
	SATA Port	16 SATA Ports
Network	eSATA Port	1 eSATA port
Function	RS232 Port	1 RS232 port. To debug and transmit COM data.
runction	RS485 Port	1 RS232 port. To control peripheral PTZ and etc. Support
		various protocols.
	USB Port	3 USB 2.0 ports and 1 USB3.0 port.
	HDMI Port	2 HDMI ports
	Network Port	4 RJ45 10/100/1000Mbps self-adaptive Ethernetet ports
		2 1000Mbps self-adaptive fiber ports
	SAS Port	1
	Power On-off Button	N/A
	Power Button	One at the front panel.
	IR Remote Control Receiver	One at the front panel.
		35 indicator lights.
		 1 system HDD indicator light
	Indicator Light	• 1 alarm indicator light
		1 network info indicator light
		16 HDD power indicator lights
		16 HDD read/write indicator lights
	Power	AC100~240V,50~60Hz
General	Power	<170W (With 3T HDD)
Parameters	Consumption	
	Working Temperature	-10□~55□
	remperature	

Working Humidity	10%~90% (No condensation)
Dimensions (L \times	531.9(with the LCD length)mm $ imes$ 485mm(with ear) $ imes$
W×H)	133.2mm(H)
	518(without the LCD length) $ imes$ 482mm(without ear) $ imes$
	133.2mm(H)
Weight	17.45Kg (No HDD)
Installation Mode	Rack/desktop

1.3.6 DNA5000 4U NVR Series

Specifications		DNA 4U NVR		
	Main Processor	Industrial X86 multiple-core processor		
	Operation System	Embedded LINUX system		
	Power	Support hot swap		
	Fan	Redundant dual ball bearing fan		
		MTBF>100 thousand hours		
System		Support online replacement.		
System	Memory	8GB Server-level		
	Case	1.2mm extra-thickness hot-dip galvanized steel.		
		High accuracy aluminum alloy slider.		
		Self-developed patent removable HDD bracket.		
	User Interface	WEB, local GUI		
	Network Protocol	RTP/RTCP, RTSP, UDP, HTTP, NTP, SNMP		
Compression Standard	Image			
	Compression	H.264, MotionJpeg,Mpeg4		
	Standard			
	Audio			
	Compression	G711A, MpegLayerII		
_	Standard			
	Image Display	1/4/8/9/16/25/36/64-window		
		1-channel VGA output		
		2-channel HDMI output		
	Video Output	LCD output at the front panel (For special series only.)		
		Support VGA/HDMI/LCD (For special series only) video output		
		at the same time.		
	Monitor Tour	Support monitor tour functions such as motion detection, and		
Video Monitor		schedule auto control.		
		Real-time monitor		
	Resolution	VGA: 1280*1024, 1920*1080, 1024*768;		
		HDMI : 1280*1024、1920*1080		
	Image Information	Channel information, time information.		
	Color	Hue, brightness, contrast, saturation and gain setup for each		
	Configuration	channel.		
Audio	Audio Input	1-chanel audio input		
Audio	Audio Output	1-channel audio output		

	Bidirectional Talk	1-channel bidirectional talk input
	HDD Amount	24 HDDs
	HDD Installation	Independent HDD bracket, support HDD hot swap.
	Disk Array	and a second second
	Enclosure/Backu	eSATA port
	p Port	
HDD	HDD Backup	Support global hotspare HDD
	HDD Mode	One HDD/RAID0/RAID1/RAID5
		Non-working HDD adopts hibernation function. It is suitable to
	HDD Manager	guarantee sound ventilation, lower power consumption and
		enhance HDD life span.
		Manual recording, motion detection recording, schedule
	Record Mode	recording and alarm recording.
		Priority: Manual recording>card number recording-> alarm
		recording>motion detection recording>schedule recording.
	Record Repeat	When hard disk is full, system can overwrite previous video
	Mode	file.
	Record Search	Various search engines such as time, type and channel.
Record and	Playback Mode	Various fast play, slow play speeds, manual frame by frame
Playback	Flayback Mode	playback and reverse play mode.
	Various File	Can switch to previous or next file or any file in current play list.
	Switch Ways	Can switch to file on other channel of the same time. (If there is
		a file)
		Support file continuous play, when a file is end system auto
		plays the next file in the current channel
Multi-Channel Playback		Support 64-channel D1 playback at the same time.
	ridyback	HDD backup. Redundancy HDD backup.
		Support peripheral USB backup device. (Flash disk, portable
Backup	Backup Mode	disk and etc.)
function		Support peripheral eSATA device.
		Support network download and save.
		View monitor channel remotely.
		NVR configuration through client-end and web browser
		Upgrade via client or browser to realize remote maintenance.
Network		View alarm information such as motion detection and video
Function		loss via client.
	Network control	Support network PTZ lens control
		File remote download and backup and playback
		Multiple devices share information via corresponding software
		such as professional surveillance software (PSS)
-		Network alarm input and output
		Bidirectional audio.
		Alarm can activate record, external alarm, screen message
	Video Loss	prompt, or audio.

		Curport report optimation function or patients subserved at the	
	External Alarm	Support record activation function or activate external alarm or	
	Manual Ala	screen message in specified period.	
	Manual Alarm	Enable or disable alarm input channel	
	Control	Simulate alarm signal to specific alarm output channel.	
	Alarm Input	4-channel alarm input (NO/NC)	
	Alarm Output	4-channel relay output	
	Alarm Relay	30VDC 2A, 125VAC 1A (activation output)	
	USB port	2 USB 2.0 ports, 2 USB 3.0 ports	
David	Network Amount	4 100/1000Mbps Ethetnet ports	
Port	Network Features	4 Ethernet port load balance or 4 independent 1000Mbps	
		Ethernet ports.	
	RS485 RS232	Serial port protocol communication	
User		Multi-lever user management; various management modes	
Management		Integrated management for local user, serial port user and	
		network user.	
	User Management	Configurable user power.	
		Support user /group and its corresponding rights modification.	
		No limit to the user or group amount.	
		Password modification	
		Administrator can modify other user's password.	
	Password	Account lock strategy	
	Authentication	Five times login failure in thirty minutes may result in account	
		lock.	
		Client-end/update tool.	
Upgrade		USB device	
		Password login protection to guarantee safety	
		User-friendly interface when login. Provide the following	
Login, Logout a	Ind Shutdown	options: Logout /shutdown/ restart.	
J J J J J J J J J J		Right authentication when shut down to make sure only those	
		proper people can turn off NVR.	
	Power	100V~240V, 47~63Hz	
	Power		
	Consumption	200~400W (With HDD)	
	Working		
	Temperature	0°C~40°C	
General	Working Humidity	10%~80% (No condensation)	
Parameters	Storage		
	Environment	-20°C∼70°C	
	Temperature		
	Storage		
	environment	5% \sim 90% (No condensation)	
	Humidity	o%~vu% (INO condensation)	
	Working Altitude	-60m~5000m	
	working Altitude	□ - DUUC~2UUUI	

Dimensions (L \times	545mm (with the LCD length) \times 482.6mm (With ear) \times 175mm	
W×H)	(4U case)	
	514mm (without the LCD length) \times 482.6mm (With ear) \times	
	175mm (4U case)	
	493.5mm (without the LCD length) \times 480mm (Without ear)	
	×175mm 4U case)	
Weight	27Kg (No package materials, no HDD)	
Installation Mode	Standard 19-inch rack installation	
	Rack/desktop	
HDD Amount	24 SATA HDD (Max 4T/HDD)	

2 Front Panel and Rear Panel

2.1 Front Panel

2.1.1 DNA 3U NVR / DNA 4K 3U NVR/ DNA 4K S2 3U NVR Series

For the product of LCD, the front panel of DNA 3U NVR/DNA 4K 3U/DNA 4K S2 3U NVR is shown as below. See Figure 2-1.

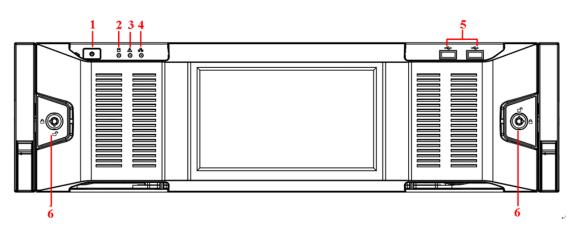


Figure	2-1
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Please refer to the following sheet for front panel button information.

SN	Name	Function
1	Power button	Press it once to turn on the device.
		Press it for a long time to turn off the device. (Usually we do not
		recommend).
		Press power button for a long time or pull out the power cable may
		result in device auto restart.
2	System HDD	The blue light becomes on after system booted up properly.
	Indicator light	In the system HDD, there are device important configuration file,
		factory default configuration file, and device initial boot up data.
3	Alarm indicator	The alarm indicator light becomes on once an alarm occurred. It
	light	becomes on via the software detection. The alarm includes local
		alarm, no disk and etc. The indicator light becomes on when there is a
		local alarm.
4	Network	The blue network indicator light is on after you connected the device
	indicator light	to the network.
5	USB port	
6	Front panel lock	/

For general DNA 3U NVR/DNA 4K 3U/DNA 4K S2 3U NVR series, the front panel is shown as in Figure 2-2.

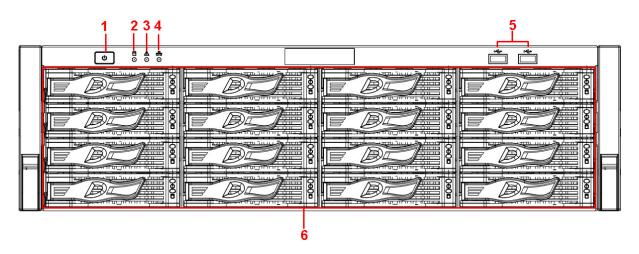


Figure 2-2

Please refer to the following sheet for detailed information.

SN	Name	Function
1	Power button	Press it once to turn on the device.
		Press it for a long time to turn off the device (Usually we do not
		recommend).
		Press power button for a long time or pull out the power cable may
		result in device auto restart.
2	System HDD	The blue light becomes on after system booted up properly.
	Indicator light	In the system HDD, there are device important configuration file,
		factory default configuration file, device initial boot up data.
3	Alarm indicator	The alarm indicator light becomes on once an alarm occurred. It
	light	becomes on via the software detection. The indicator light becomes
		on when there is a local alarm.
4	Network	The blue network indicator light is on after you connected the device
	indicator light	to the network.
5	USB port	/
6	16 HDD slot	/

After you remove the front panel, user may see there are 16 HDDs. From the left to the right and from the top to the bottom, it ranges from 1~4, 5~8, 6~12, 13~16. See Figure 2-3.

User may see there are two indicator lights on the HDD bracket.

- The power indicator light is at the top. The light is yellow after you connected the device to the power.
- The read-write indicator light is at the bottom. The blue light flashes when system is reading or writing the data.

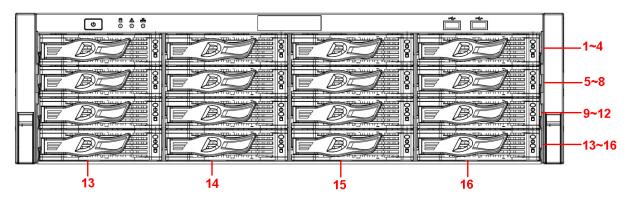


Figure 2-3

2.1.2 DNA 4K 2U NVR/ DNA 4K S2 2U NVR Series

The DNA 4K 2U 64/128-channel NVR front panel is shown as in Figure 2-4.

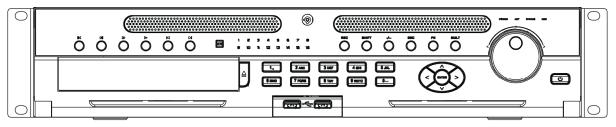


Figure 2-4

Please refer to the following sheet for detailed information.

Name	lcon	Function	
Power button	ባ	Power button, press this button for three seconds to boot up or shut down NVR.	
Number button	0-9 and etc	Input Arabic number Switch channel	
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.	
Input number more than 10	-/	If you want to input a number more than 10, please click this button and then input.	
500	500	Go to previous menu, or cancel current operation.	
ESC	ESC	When playback, click it to restore real-time monitor mode.	
Accietant		One-window monitor mode, click this button to display assistant function: PTZ control and image color.	
Assistant Fn		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.	

		In motion detection setup, working with Fn and direction keys to	
		realize setup.	
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.	
		In HDD management interface, user may click it to switch HDD	
		record information and other information (Menu prompt)	
		Realize other special functions.	
Window switch	Mult	Click it to switch one-window/multiple-window.	
Shift	+	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation and etc.	
		Enable or disable tour.	
		Activate current control, modify setup, and then move up and	
Up/	• •	down. Increase/decrease numeral.	
Down			
		Assistant function such as PTZ menu.	
Left/ Right ►		Shift current activated control, and then move left and right.	
		When playback, click these buttons to control playback bar.	
Slow play	Þ	Multiple slow play speeds or normal playback.	
Fast play	••	Various fast speeds and normal playback.	
Play previous	н	In playback mode, playback the previous video.	
/D		In normal playback or pause mode, click this button to reverse	
Reverse/Pause		playback In reverse playback, click this button to pause playback.	
Play Next	M	In playback mode, playback the next video	
		In normal playback click this button to pause playback.	
Play/Pause		In pause mode, click this button to resume playback.	
	► II	In backward playback or pause mode, click this button to resume	
		normal playback.	
	1	In real-time monitor mode, click this button to go to the search	
		menu.	
		menu. Confirm current operation	
Enter	ENTER		

Shuttle(outer ring)		In real-time monitor mode it works as left/right direction key. Playback mode, counter clockwise to forward and clock wise to backward.	
Jog(inner dial)		Up/down direction key. Playback mode, turn the inner dial to realized frame by frame playback. (Only applies to some special versions.)	
USB port		To connect USB storage device, USB mouse and etc.	
Channel indicator light	1-16	It becomes on when system is recording.	
IR Receiver	IR	It is to receive the signal from the remote control.	
Power indicator light	POWER	Power indicator light.	
Remote control indicator light	ACT	Remote control indicator light.	
Status indicator light	STATUS	If there is Fn indicator light, current status indicator light is null.	
HDD abnormal indicator light	HDD	The indicator light is on when there is no HDD, HDD error occurred or HDD capacity is below specified threshold value.	

The DNA 4K 2U 32-channel/ DNA 4K S2 2U 32-channel NVR front panel is shown as in Figure 2-5.

NVB			
	HDD	NET	

Figure 2-5

Please refer to the following sheet for front panel button information.

lcon	Name	Function
STATUS	Status indicator light	The blue light is on when the device is working properly.
HDD	HDD status indicator light	The blue light is on when the HDD is malfunction.

Icon	Name	Function
NET	Network status indicator	The blue light is on when the network connection is
	light	abnormal.
POWER	Power status indicator light	The blue light is on when the power connection is
		OK.
مچ ې	USB2.0 port	Connect to peripheral USB 2.0 storage device,
		mouse, burner and etc.

The DNA 4K S2 2U 64/128-channel NVR front panel is shown as in Figure 2-6.

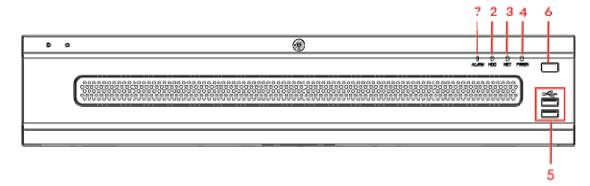


Figure 2-6

Please refer to the following sheet for front panel button information.

SN	lcon	Function	SN	Icon	Function
1	Status	Status indicator light	2	HDD	HDD indicator light
3	NET	Network indicator light	4	Power	Power indicator light
5	~ ~	USB port	6		Power on-off button
7	ALARM	Alarm indicator light	-	-	

2.1.3 DNA 4U NVR Series

For the product of the LCD screen, the front panel is shown as in Figure 2-7.

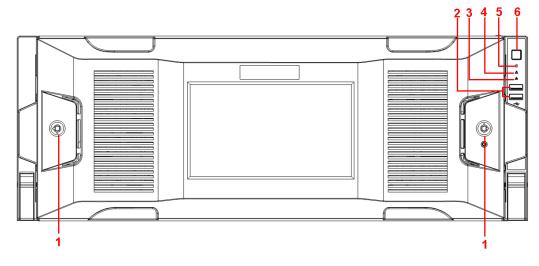


Figure 2-7

SN	lcon	Name	Function
1		Front panel lock	/
2	ŝ	USB port	/
3	윱	Network indicator light	The network indicator light is blue and it flashes when you connect the device to the network.
4	۸	Alarm indicator light	The alarm indicator light becomes on once an alarm occurred. It becomes on via the software detection. The indicator light becomes on when there is a local alarm.
5	Û	System HDD Indicator light	The blue light becomes on when system is reading or writing the system HDD. In the system HDD, there are device important configuration file, factory default configuration file, device initial boot up data.
6	U	Power button	Press it once to turn on the device. Press it for a long time to turn off the device (Usually we do not recommend).
			Press power button for a long time or pull out the power cable may result in device auto restart.

After you remove the front panel, user may see there are 24 HDDs. From the left to the right and from the top to the bottom, it ranges from 1~4, 5~8, 9~12, 13~16, 17~20, 21~24. See Figure 2-8. User may see there are two indicator lights on the HDD bracket.

- The power indicator light is at the top. The light is yellow after you connected the device to the power.
- The read-write indicator light is at the bottom. The blue light flashes when system is reading or writing the data.

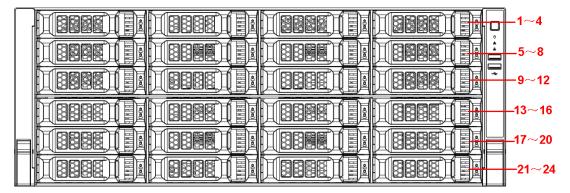


Figure 2-8

2.2 Rear Panel

2.2.1 DNA 3U NVR Series

The general series rear panel of DNA 3U NVR is shown as in Figure 2-9.

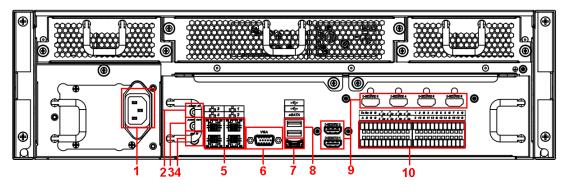


Figure 2-9

The redundant power series rear panel of DNA 3U NVR is shown as in Figure 2-10.

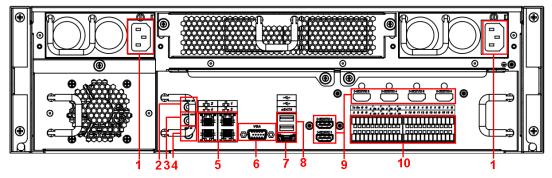


Figure 2-10

Please refer to the following sheet for rear detailed information.

SN	Function	SN	Function
1	Power socket	2	Audio Input
3	Audio output	4	Bidirectional talk input
5	Network port	6	Video VGA output
7	eSATA port	8	USB port
9	HDMI port	10	Alarm input/alarm output/RS485 port.

Important

Right now, system does not support audio input port. System supports HDMI1/HDMI2 port by default. You need to purchase HDMI interface board if you want to use HDMI3-HDMI6 port.

2.2.2 DNA 4K 2U/DNA 4K S2 2U NVR Series

The DNA 4K 32-channel 2U/ DNA 4K S2 32-channel 2U series rear panel is shown as in Figure 2-11.

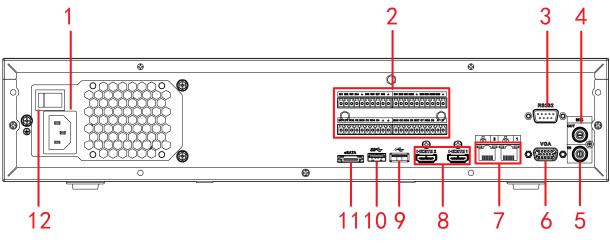


Figure 2-11

The DNA 4K 64-channel 2U/ DNA 4K 128-channel 2U/ DNA 4K S2 64-channel 2U/DNA 4K S2 128-channel 2U general series rear panel is shown as in Figure 2-12.

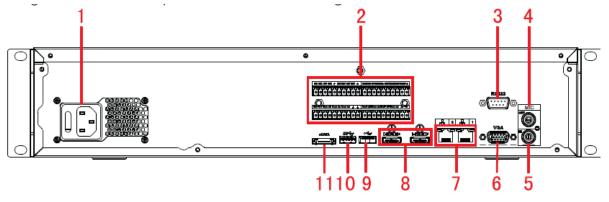


Figure 2-12

The DNA 4K 64-channel 2U/DNA 4K 128-channel 2U/ DNA 4K S2 64-channel 2U/DNA 4K S2 128-channel 2U redundant power series rear panel is shown as in Figure 2-13.

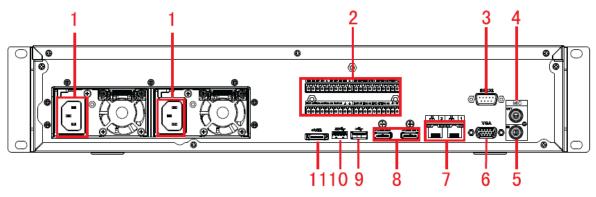


Figure 2-13

Please refer to the following sheet for detailed information.

SN	Function	SN	Function
1	Power socket	2	Alarm input/alarm output/RS485 port.
2	RS232 port	4	Audio output

5	Audio input	6	VGA port
7	Network port	8	HDMI port
9	USB 2.0 port	10	USB 3.0 port
11	eSATA port		

2.2.3 DNA 4K 3U NVR Series

The general series rear panel of DNA 4K 3U is shown as in Figure 2-14.

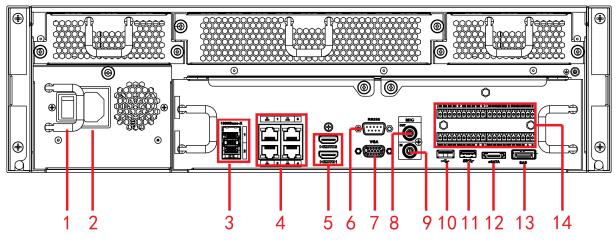


Figure 2-14

The redundant power series rear panel of DNA 4K 3U is shown as in Figure 2-15.

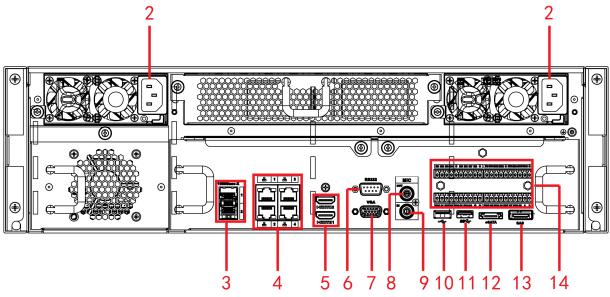


Figure 2-15

Please refer to the following sheet for rear detailed information.

SN	Name	SN	Name
1	Power on-off button	2	Power socket
3	1000M fiber port	4	Network port
5	HDMI port	6	RS232 port
7	Video VGA output	8	Audio output
9	Audio input	10	USB2.0 port

SN	Name	SN	Name
11	USB3.0 port	12	eSATA port
13	SAS extension port	14	Alarm input/output/RS485 port

2.2.4 DNA 4K S2 3U NVR Series

The general series rear panel of DNA 4K S2 3U is shown as in Figure 2-16.

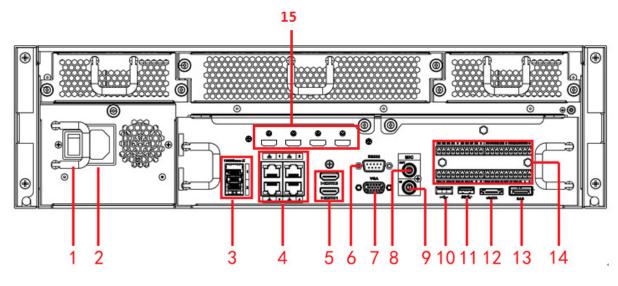


Figure 2-16

The redundant power series rear panel of DNA 4K S2 3U is shown as in Figure 2-17.

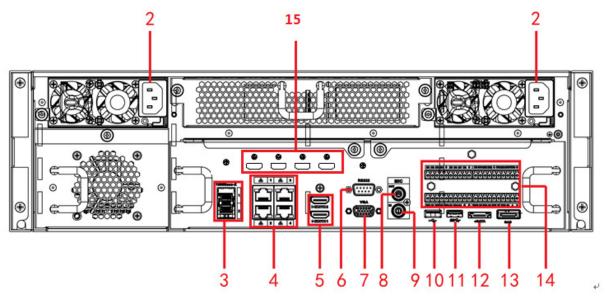


Figure 2-17

Please refer to the following sheet for rear detailed information.

SN	Name	SN	Name
1	Power on-off button	2	Power socket
3	1000M fiber port	4	Network port
5	HDMI port	6	RS232 port
7	Video VGA output	8	Audio output
9	Audio input	10	USB3.0 port

SN	Name	SN	Name
11	USB3.0 port	12	eSATA port
13	SAS extension port	14	Alarm input/output/RS485 port
15	HDMI port (The HD decode card is not the default accessory. Please purchase if you want to use)		

2.2.5 DNA 4U NVR Series

The general rear panel is shown as in Figure 2-18.

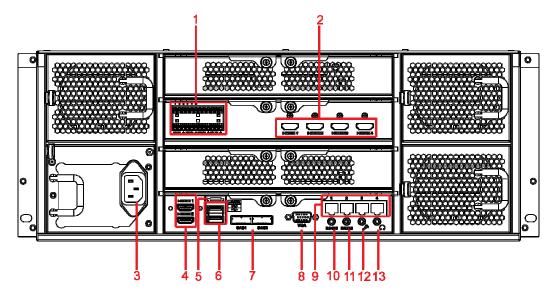


Figure 2-18

The redundant power series rear panel is shown as in Figure 2-19.

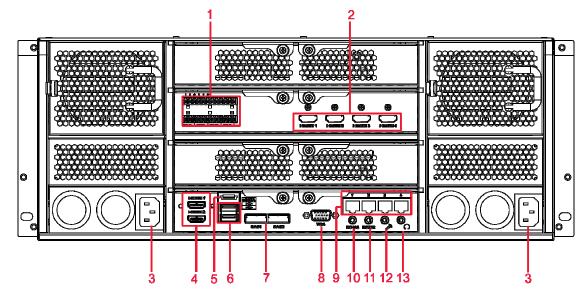


Figure 2-19

Please refer to the following sheet for detailed information.

SN	Name	SN	Name
1	Alarm input/alarm output	2	HDMI port (Reserved port. Right now system does not support HD decode card.)
3	Power port	4	HDMI port
5	eSATA port	6	USB port
7	SAS port	8	Video VGA output
9	Network port	10	RS485 port
11	RS232 port	12	Audio input port
13	Audio output port		

2.3 Alarm Connection

Please refer to the following sheet for alarm input and output connection.

There are two alarm input types for you to select: normal open (NO) and normal close (NC).

1. Alarm input

- a. Please make sure alarm input mode is grounding alarm input.
- b. Grounding signal is needed for alarm input.
- c. Alarm input needs the low level voltage signal.
- d. Alarm input mode can be either NC (normal Open) or NO (Normal Close)

e. When you are connecting two NVRs or you are connecting one NVR and one other device, please use

a relay to separate them.

2. Alarm output

The alarm output port should not be connected to high power load directly (It shall be less than 1A) to avoid high current which may result in relay damage. Please use the co contactor to realize the connection between the alarm output port and the load.

3. Please make sure the front-end device has soundly earthed.

Improper grounding may result in chip damage.

2.3.1 Alarm input and output details

2.3.1.1 DNA 3U NVR /DNA 4K 3U/DNA 4K S2 3U Series

User may refer to the following sheet for alarm input and output information. See Figure 2-20.

Tx Rx G G	<u>ี 1 2</u>	5 ON C 0	วิพ	1	2	G	3	4	G	5	6	G	7	8	G
ABGG	่ ี ี ี เรื่อง เรื่อง		วิพ	9	10	G	11	12	G	13	14	G	15	16	G

Figure 2-20

lcon	Note
1, 2, 3, 4, 5, 6,	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.
7, 8, 9, 10, 11,	
12, 13, 14, 15, 16	
1-ON C, 2-ON C,	Eight groups of normal open activation output (on/off button)
3-ON C, 4-ON C,	
5-ON C, 6-ON C,	
7-ON C, 8-ON C	
G	GND cable.
A/B	The A/B cable to control the RS485 devices. It is to connect to
	control devices such as PTZ dome camera. 120 Ω should be parallel
	connected between A, B lines on the far end to reduce reflection and
	guarantee the signal quality.
Tx and Rx	RS232 port. Tx is the data output cable and the Rx is the data input
	cable.

2.3.1.2 DNA 4K 2U/DNA 4K S2 2U Series

User may refer to the following sheet for alarm input and output information. See Figure 2-21.

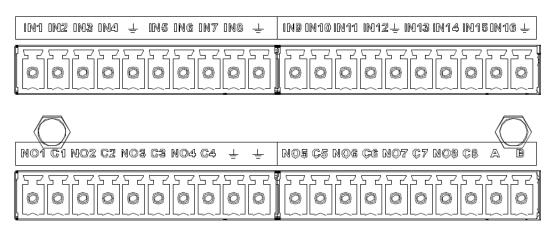


Figure 2-21

lcon	Note
------	------

1, 2, 3, 4, 5, 6,	ALARM 1 to ALARM 16. The alarm becomes active in low voltage.
7, 8, 9, 10, 11,	
12, 13, 14, 15, 16	
1-ON C, 2-ON C,	Eight groups of normal open activation output (on/off button)
3-ON C, 4-ON C,	
5-ON C, 6-ON C,	
7-ON C, 8-ON C	
<u>_</u>	GND cable.
A/B	The A/B cable to control the RS485 devices. It is to connect to
	control devices such as PTZ dome camera. 120 Ω should be parallel
	connected between A, B lines on the far end to reduce reflection and
	guarantee the signal quality.

2.3.1.3 DNA 4U NVR Series

User may refer to the following sheet for alarm input and output information. See Figure 2-22.

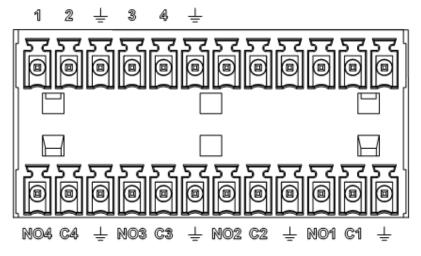


Figure 2-22

lcon	Note
1~4	ALARM 1 to ALARM 4. The alarm becomes active in low
	voltage.
NO1 C1, NO2 C2, NO3 C3, NO4	Four groups of normal open activation output (on/off
C4	button)
<u>+</u>	GND

2.3.2 Alarm Input and Output Port

Please refer to the following sheet for more information.

- Grounding alarm inputs. Normal open or Normal close type)
- Please parallel connect COM end and GND end of the alarm detector (Provide external power to the alarm detector).
- Please parallel connect the Ground of the NVR and the ground of the alarm detector.
- Please connect the NC port of the alarm sensor to the NVR alarm input(ALARM)
- Use the same ground with that of NVR if you use external power to the alarm device.

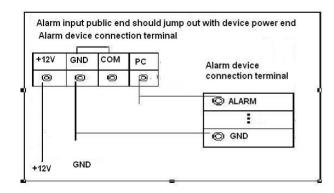


Figure 2-23

2.3.3 Alarm Output Port

- Provide power to peripheral alarm device.
- To avoid overloading, please read the following relay parameters sheet carefully.
- RS485 A/B cable is for the A/B cable of the PTZ decoder.

2.3.4 Alarm relay specifications

Model:	JRC-27F	
Material of the contact	Silver	
Rating value	Contact load	30V DC 1A, 125V AC 0.5A
(Resistance load)	Maximum switch power	62.5VA/30W
load 2	Maximum switch voltage	125V AC, 60V DC
	Maximum switch current	2A
Insulation	Between loop and the contact	1000V AC 1 minue
	Between breaking contact	400V AC 1 minue
Insulation voltage	1000MΩ (500V DC)	
Opening time	< 5ms	
Closing time	< 5ms	
Longevity	Mechanical	300/1 minue
	Electrical	30/1 minute
Working	-30□ ~+70□	
Temperature		

2.4 Remote Control

The remote control interface is shown as in Figure 2-24.

Please note remote control is not our standard accessory and it is not included in the accessory bag.

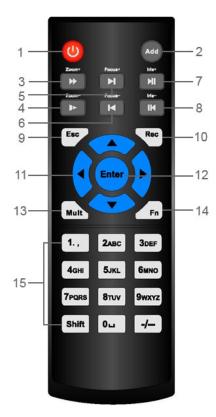


Figure 2-24

Serial Number	Name	Function
1	Power button	Click it to boot up or shut down the device.
2	Address	Click it to input device number, so that user may control it.
3	Forward	Various forward speeds and normal speed playback.
4	Slow play	Multiple slow play speeds or normal playback.
5	Next record	In playback mode, playback the next video.
6	Previous record	In playback mode, playback the previous video.
7	Play/Pause	In pause mode, click this button to realize normal playback.
		In normal playback click this button to pause playback.
		In real-time monitor mode, click this button to enter video search menu.
8	Reverse/pause	Reverse playback pause mode, click this button to realize normal playback.

		In reverse playback click this
		button to pause playback.
	Esc.	Go back to previous menu or
9		cancel current operation (close
		upper interface or control)
10	Record	Start or stop record manually
		In record interface, working with
		the direction buttons to select the
		record channel.
		Click this button for at least 1.5
		seconds, system can go to the
		Manual Record interface.
11	Direction keys	Switch current activated control,
		go to left or right.
		In playback mode, it is to control
		the playback process bar.
		Aux function(such as switch the
		PTZ menu)
12	Enter /menu key	go to default button
		go to the menu
13	Multiple-window switch	Switch between multiple-window
		and one-window.
14	Fn	In 1-ch monitor mode: pop up
14	Fn	assistant function: PTZ control
14	Fn	assistant function : PTZ control and Video color.
14	Fn	assistant function: PTZ control and Video color. Switch the PTZ control menu in
14	Fn	assistant function: PTZ control and Video color. Switch the PTZ control menu in PTZ control interface.
14	Fn	assistant function: PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface,
14	Fn	assistant function : PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to
14	Fn	assistant function: PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup.
14	Fn	 assistant function: PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup. In text mode, click it to delete
		assistant function: PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup. In text mode, click it to delete character.
14	Fn 0-9 number key	assistant function : PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup. In text mode, click it to delete character. Input password, channel or
		assistant function : PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup. In text mode, click it to delete character. Input password, channel or switch channel.
		assistant function : PTZ control and Video color. Switch the PTZ control menu in PTZ control interface. In motion detection interface, working with direction keys to complete setup. In text mode, click it to delete character. Input password, channel or

2.5 Mouse Operation

Please refer to the following sheet for mouse operation instruction.

Left	click	When you have selected one menu item, left click mouse to view menu content.
mouse		Modify checkbox or motion detection status.
		Click combo box to pop up dropdown list

	 In input box, user may select input methods. Left click the corresponding button on the panel user may input numeral/English character (small/capitalized). Here ← stands for backspace button stands for space button. In English input mode:stands for input a backspace icon and ← stands for deleting the previous character. 	
	!?@#\$% = + * ← 123 qwertyuiop/ 456 asdfghjkl:Enter 789 zxcvbnm,.Shift 0&	
	!?@#\$%=+* 123 QWERTYUIOP/ 456 ASDFGHJKL: Enter 789 ZXCVBNM,. Shift 0&	
	In numeral input mode: $_$ stands for clear and \leftarrow stands for deleting the previous numeral.	
Double left click mouse	Implement special control operation such as double click one item in the file list to playback the video. In multiple-window mode, double left click one channel to view in full-window. Double left click current video again to go back to previous multiple-window mode.	
Right click	In real-time monitor mode, pops up shortcut menu.	
mouse	Exit current menu without saving the modification.	
Press middle	In numeral input box: Increase or decrease numeral value.	
button	Switch the items in the check box.	
	Page up or page down	
Move mouse	Select current control or move control	
Drag mouse	Select motion detection zone	
	Select privacy mask zone.	

2.6 Mouse Control

Left	click	System pops up password input dialogue box if you have not logged in.	
mouse		In real-time monitor mode, user may go to the main menu.	
		When you have selected one menu item, left click mouse to view menu content.	
		Implement the control operation.	
		Modify checkbox or motion detection status.	
		Click combo box to pop up drop down list	

	In input box, user may select input methods. Left click the corresponding butto on the panel user may input numeral/English character (small/capitalized). Her ← stands for backspace button stands for space button.	
	In English input mode: _stands for input a backspace icon and \leftarrow stands for deleting the previous character.	
	ABCDEFG HIJKLMN OPQRST⊔ UVWXYZ← uvwxyz←	
	In numeral input mode: _ stands for clear and \leftarrow stands for deleting the previous numeral.	
	When input special sign, user may click corresponding numeral in the front panel to input. For example, click numeral 1 user may input"/", or user may click the numeral in the on-screen keyboard directly.	
	1 / 2 : 3 . 4 ? 5 - 6 _ 7 @ 8 # 9 % 0 & _ ←	
Double left	Implement special control operation such as double click one item in the file list	
click mouse	to playback the video.	
	In multiple-window mode, double left click one channel to view in full-window.	
	Double left click current video again to go back to previous multiple-window	
	mode.	

Right click mouse	 In real-time monitor mode, pops up shortcut menu: one-window, four-window, nine-window and sixteen-window, Pan/Tilt/Zoom, color setting, search, record, alarm input, alarm output, main menu. Among which, Pan/Tilt/Zoom and color setting applies for current selected channel. If you are in multiple-window mode, system automatically switches to the corresponding channel. 	
	View 1 Wiew 4 View 8 View 9 View 9 View 16 View 25 View 36 View 64 PTZ PTZ Auto Focus Image Auto Focus Image Auto Focus Manual Remote	
	Main Menu Exit current menu without saving the modification.	
Press middle	In numeral input box: Increase or decrease numeral value.	
button	Switch the items in the check box.	
	Page up or page down	
Move mouse	Select current control or move control	
Drag mouse	Select motion detection zone	
	Select privacy mask zone.	

3 Local Basic Operation

3.1 Boot up and Shutdown





Before the boot up, please make sure:

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

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

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

3.1.2 Shutdown

Note

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

There are three ways for you to log out.

a) Main menu (**RECOMMENDED**)

From Main Menu->Shutdown, select shutdown from dropdown list. Click OK button, user may see device shuts down.

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

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

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

3.2 Change/Reset Password

3.2.1 Change Password

For your own safety, please change your administrator default password after your first login.

After system booted up, user may see the following interface if it is your first login or you have restored default setup. See Figure 3-1. Please input old password and then input new password twice to confirm the change.

- The default administrator user name is **admin** and the password is **admin**.
- User may set security questions here to reset the password in case you forgot. System supports customized setup. Please note you need to set two security questions at the same time. When you

reset the password, you need to answer these two security questions too.

• For reset information, please refer to chapter 3.2.2.

	ADMINISTRATOR
User Name	(admin)
Old Password	
New Password	
Confirm Password	
Secure Questions	(Optional)
Question 1	What's your favorite pet?
Answer	
Question 2	(What's your first car model?
Answer	
	OK Cancel

Figure 3-1

Click Cancel button, system pops up the following interface for you to confirm. See Figure 3-2. Check the box here, system will not pop up the change password interface the next time.

Message
For your device safety, please change admin default password! Are you sure to quit changing now?
Do not prompt admin to change its default password.
OK Cancel

Figure 3-2

3.2.2 Reset Password

Once you forgot password, user may answer the security questions you set in chapter 3.2.1 to reset the password.

In login interface, click

	SYSTEM LOGIN
User Name Password	(admin 💽 🔓
	OK Cancel

Figure 3-3

System pops up the following dialogue box, please answer the security questions and then input the new password twice. See Figure 3-4.

	Reset
Question 1	What's your favorite pet?
Answer	
Question 2	What's your first car model?
Answer	
Reset password o	f (admin)
New Password	
Confirm Password	
	Reset Cancel

Figure 3-4

Tips

User may go to main menu->Setting->System->Account->Secure question to set.

3.3 Startup Wizard

After device successfully booted up, it goes to startup wizard.

Click Cancel/Next button, user may see system goes to login interface.

Tips

Check the box Startup button here, system goes to startup wizard again when it boots up the next time. Cancel the Startup button, system goes to the login interface directly when it boots up the next time.



Figure 3-5

Click Cancel button or Next Step button, system goes to login interface. See Figure 3-6. System consists of three accounts:

- Username: admin. Password: admin. (administrator, local and network)
- Username: 888888. Password: 888888. (administrator, local only)
- Username: default. Password: default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. User may set some rights such as monitor for this user so that user may view some channel view without login.

	SYSTEM LOGIN
User Name Password	admin 🕝 🔒
	OK Cancel

Figure 3-6

Note:

For security reason, please modify password after you first login.

Within 30 minutes, three times login failure will result in system alarm and five times login failure will result in account lock!

Click OK button, user may go to General interface. See Figure 3-7. For detailed information, please refer to chapter 3.17.1.

GENERAL	
General Date&Time Holiday	
Device No. 8	
Language ENGLISH -	
Video Standard PAL	
HDD Full Overwrite	
Pack Duration 60 Minute	
Realtime Play 5 Minute	
Auto Logout 10 Minute	
IPC Time Sync 24 Hours	
Navigation Bar	
Mouse Sensitivity Slow Fast	
Ва	ck Next Cancel

Figure 3-7

Click Next button, user may go to network interface. See Figure 3-8. For detailed information, please refer to chapter 3.15.

		TCP/IP			
Ethernet Card	IP Address	Net Mode	NIC Member	Edit	Unbond
Network Card1	172.11.3.8	Single NIC	1	1	
Network Card2	192.168.1.106	Single NIC	2	/	
Network Card3	192.168.1.105	Single NIC	3	/	
Network Card4	192.168.1.104	Single NIC	4	/	
Fiber Card5	192.168.1.103	Single NIC	5	/	
Fiber Card6	192.168.1.102	Single NIC	6	/	
b A	- D-	fairly Cartan	170 11 0 1	NATUR	1500
	l.3.8 De 02:a9:da:33:e1 Su	efault Gateway: ibnet Mask: 255		MTU: Mode	1500 STATIC
/IAC Address: 90:					
AC Address: 90:	02:a9:da:33:e1 Su	ibnet Mask: 255			
AC Address: 90: ^P Version (IPv4 Preferred DNS (02:a9:da:33:e1 Su	ibnet Mask: 255			
AC Address: 90: Version (IPv4 Preferred DNS (02:a9:da:33:e1 Su 8 . 8 . 8 . 8 . 8 . 4 .	ibnet Mask: 255		Mode	STATIC
P Version (IPv4)	02:a9:da:33:e1 Su 8 . 8 . 8 . 8 . 8 . 4 .	ibnet Mask: 255		Mode	
AC Address: 90: Version (IPv4 referred DNS (02:a9:da:33:e1 Su 8 . 8 . 8 . 8 . 8 . 4 .	ibnet Mask: 255		Mode	STATIC
AC Address: 90: Version (IPv4 Preferred DNS (02:a9:da:33:e1 Su 8 . 8 . 8 . 8 . 8 . 4 .	ibnet Mask: 255		Mode	STATIC
AC Address: 90: Version (IPv4 Preferred DNS (02:a9:da:33:e1 Su 8 . 8 . 8 . 8 . 8 . 4 .	ibnet Mask: 255		Mode	STATIC

Figure 3-8

Click Next button, user may go to remote device interface. See Figure 3-9. For detailed information, please refer to chapter 3.5.

				Re	mote				
(IP Addr	ess	\supset				Sea	arch		
53	Modi	ifv Prev	view IP Ad	dress	Port		Түре		MA^
1	- ē	<u> </u>		5.6.86	8090		<u>·) </u>		00:
2	- ē		10.9.	16.201	37777				4c:
3	- ē		10.5.	1.10	37777				90:
4	- ē		10.1	5.6.131	8086				00:
5	🗌 🖨		10.1	5.1.171	37777				4c:
6	\[\] \[10.1	5.6.61	37777				90: 🗸
	I	, ,							
Device	Search		.dd) (Manual Ado	d) (Modif	y IP)	Filter	Null	
Added D)evice								
Chan	inel	Modify	Delete	Status	IP Add	ress	Port	Device	∍ Nam(^)
9		1	×	0	10.15.6	6.131	40003		
10		1	×	Ö	10.9.15	5.55	37777		
11		1	× × × ×	ĕ	10.15.8	3.123	37777		
12		1	×	ē	10.15.6	6.229	37777		
13		1	×	0	10.9.15	5.30	37777		
14		1	×	0	10.9.15	5.11	37777		
Delet	e	Impor	t) E	xport			OK		ancel

Figure 3-9

Click Next button, user may go to RAID interface. See Figure 3-10. For detailed information, please refer to chapter 3.16.4.

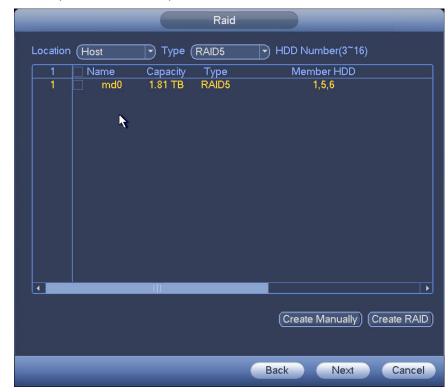


Figure 3-10

Click Next button, user may go to Schedule interface. See Figure 3-11. For detailed information, please refer to chapter 3.11.2.



Figure 3-11

Click Finish button, system pops up a dialogue box. Click the OK button, the startup wizard is complete. See Figure 3-12.

	Message	
Startup is finish.		
	ОК	

Figure 3-12

3.4 Navigation Bar

You need to go to the Main menu->Setting->System->General to enable navigation bar function; otherwise user may not see the following interface.

The navigation bar is shown as below. See Figure 3-13.





3.4.1 Main Menu

Click button to go to the main menu interface.

3.4.2 Dual-screen operation

Important

This function is for some series only.

Click to select screen 2, user may view an interface shown as below. See Figure 3-14. It is a navigation bar for screen 2.

Figure 3-14

Click any screen split mode; HDMI2 screen can display corresponding screens. Now user may control two screens. See Figure 3-15.



Figure 3-15

Note

- Screen 2 function is null if tour is in process. Please disable tour function first.
- Right now, the screen 2 operation can only be realized on the navigation bar. The operations on the right-click menu are for screen 1 only.

3.4.3 Output Screen

Select corresponding window-split mode and output channels.

3.4.4 Tour



U to enable tour, the icon becomes , user may see the tour is in process.

3.4.5 PTZ

Click system goes to the PTZ control interface. Please refer to chapter 3.10.2.

3.4.6 Color

Click button , system goes to the color interface. Please refer to chapter 3.5.3.

Please make sure system is in one-channel mode.

3.4.7 Search

Click button system goes to search interface. Please refer to chapter 3.12.2

3.4.8 Audio Broadcast

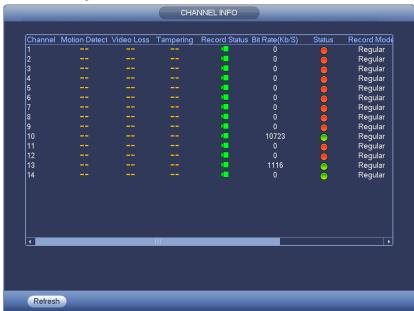
Click user may go to the audio broadcast interface. Please refer to chapter 3.12.2.

3.4.9 Alarm Status

Click button, system goes to alarm status interface. It is to view device status and channel status. Please refer to chapter 3.20.1.5.

3.4.10 Channel Info

Click button system goes to the channel information setup interface. It is to view information of the corresponding channel. See Figure 3-16.





3.4.11 Remote Device

Click system goes to the remote device interface. Please refer to chapter 3.5.

3.4.12 Network

Click system goes to the network interface. It is to set network IP address, default gateway and etc. Please refer to chapter 3.15.

3.4.13 HDD Manager

Click System goes to the HDD manager interface. It is to view and manage HDD information. Please refer to chapter 3.16.1.

3.4.14 USB Manager

Click System goes to the USB Manager interface. See Figure 3-17. It is to view USB information, backup and update. Please refer to chapter 3.13.1 file backup, chapter 3.13.3 backup log, chapter 3.13.2 import/export, and chapter 3.20.4 upgrade for detailed information.

Name	Туре	Total Space	Used Space	Left Space
🖌 /dev/sdb1		1.8G	256.0K	1.8G

Figure 3-17

3.4.15 System Status

Click user may go to the following interface. See Figure 3-18. Here user may view host information, RAID information, HDD usage rate, fan speed, CPU usage, CPU temperature, memory

usage, power information and etc.

The following interface for reference only.



Figure 3-18

3.4.16 Device Tree

Click , user may go to the following interface. See Figure 3-19. User may view channel list and device list.

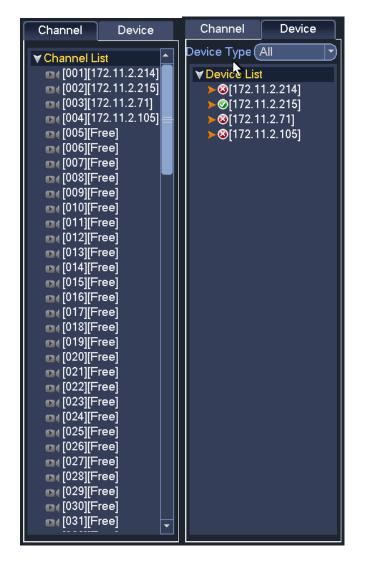


Figure 3-19

3.5 Remote Device

3.5.1 Remote Device Connection

From Main menu->Setting->Camera->Remote->Remote or right click mouse on the preview interface and then select Remote item, user may see the following interface. See Figure 3-20.

	SETTING
	📅 NETWORK 📷 EVENT 🎇 STORAGE 🛃 SYSTEM
CAMERA REMOTE IMAGE ENCODE CAM NAME	Remote Status Firmware Upgrade Image: Point Preview IP Address Port Type MA 1 1 10.15.6.86 8090 00 2 10.9.16.201 37777 4c; 90; 3 10.5.1.10 37777 4c; 90; 4 10.15.6.131 8086 00; 4c; 90; 5 10.15.6.61 37777 4c; 90; 0; 6 10.15.6.61 37777 4c; 90; ; Device Search Add Manual Add Modify IP Filter Null Added Device 1 10.15.6.129 37777 ; ; 1 2 4 10.15.6.129 37777 ; 3 4 01.15.6.129 37777 ; ; 1 2 4 01.15.6.129 37777 ; 2 4 01.15.6.129 37777 ; ; 3 4 01.15.6.82 40008 ; ; 4 4
	Delete Import Export OK Cancel Apply

Figure 3-20

Search remote device

Click Device search button, user may view the searched IP addresses at the top pane of the interface. **Note**

- User may use IP address or MAC address to search device. System supports fuzzy search.
- For the device in the added device list, user may not see it at the top pane of the interface.
- Click, user may view the video of current camera.

Double click an IP address or check one or more IP address (es) at the same time and then click Add button, user may add current device to the added devices at the bottom pane of the interface. System supports batch add function.

Add remote device

Click Manual Add button, user may add a device directly. Here user may set TCP/UPD/auto connection mode. The default setup is TCP. See Figure 3-21.

- Manufacturer: Select the manufacture from the dropdown list.
- IP address: Input remote IP address.
- TCP port: Input TCP port value.
- User name: Input the user name you login the remote device.
- Password: Input the password you login the remote device.
- Channel amount: It is to display channel total amount. Click Set button to set remote device channel so that user may control remotely.
- Remote channel amount: The channel mount of the remote device.
- Channel: The channel mount of current device. It is the channel amount you want to view the remote device.

• Decode buffer: Please select from the dropdown list: default/realtime/fluency.

Important

Please note the manual add function is for Dante, Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, ONVIF and Custom. When the type is the custom, user may just input URL address, user name and password connect to the network camera without considering network camera manufacture. Please contact your network camera manufacturer for the URL address.

		Manual Add		_	_	
Manufacturer	(Private 🔻					
IP Address	(192.168.0.0					
TCP Port	37777					
User Name	admin					
Password	•••••					
Connect						
Channel No.		Set				
Remote Channel No.						
Channel	5					
Decode Buffer	(Default 🔻					
	K					
		ОК С	ancel			

Figure 3-21

Change IP address

On the searched devices list, check one or more device(s) at the same time. Click Modify IP button

user may see the following interface. See Figure 3-22.

- DHCP: Check the box here, system can auto allocate the IP address. The IP address, subnet mask, default gateway are reference only.
- Static: Check the box here, user may set IP address, subnet mask, default gateway manually.
- IP address/subnet mask/default gateway: User may input corresponding information here.
- User name/password: The account you login the remote device. Please input here to password verification to change the remote device password.
- Incremental value: When you want to change several IP addresses, once you input the IP address of the first device, the IP address of the next device will increase accordingly. For example, when the incremental value is 1, if the IP address of the first device is 172.10.3.128, the IP address of the second device will auto be set as 172.10.3.129.

Note

• For the static IP address, system will alert you if there is any IP conflict. If you are changing several IP addresses at the same time, system auto skip the conflicted IP and auto allocate again according to the incremental value you set.

Checked Device No.: 1 O DHCP User Name admin STATIC Password IP Address 172 · 11 · 4 · 170 Incremental Value 1 Subnet Mask 255 · 255 · 0 · 0 Default Cetaurary 170 · 11 · 0 · 1
Default Gateway (172 . 11 . 0 . 1) 1 IP Address 1 172.11.4.170
OK

Figure 3-22

Export IP

User may export the list of the added devices to your local PC.

Insert UBS device and then click Export button, user may see the following interface. See Figure 3-23.

		Browse				
Device Name Total Space	(sda1(USB DISK))	Refresh Free Space	(5.81 GB			
Address	(/NVR/RemoteConfBa	ckup/				
Name			Size	Type Folder	Del	
				ОК	Cancel	

Figure 3-23

Select the saved path and click OK.

User may see "Backup completed " prompt. See Figure 3-24.

Message
Backup completed.
Yes

Figure 3-24

Note

The export file extension name is .CVS. The file contains IP address, port, remote channel No. manufacturer, user name, password and etc.

Import IP

User may import the added device list to add the device conveniently. Click Import button, user may go to the following interface. See Figure 3-25.

			Browse					
Device Name Total Space	(sda1(USB DISK) (14.45 GB	_	(Refresh) Free Space	(5.81 GB				
Address	(/NVR/RemoteCo	onfBackup/						
Name					Size	Туре	Del	
j⊑ ⊡Remote€	Config_20150707_	eng.csv			531 B	Folder File	×	
						ОК	Cancel	

Figure 3-25

Select the import file and then click OK button.

Note

If the imported IP is already in the added device list, system pops up dialogue box for you to confirm overwrite or not.

- Click OK button, the new IP setup can overwrite the new one.
- Click Cancel button, system adds the new IP setup.



Important

- User may edit the exported file. Please make sure the file format is the same. Otherwise user may not import the file again!
- System does not support customized protocol import/export.
- The import/export function is for the devices of the same language.

3.5.2 Short-Cut Menu

In the preview interface, for the channel of no IPC connection, user may click the icon "+" in the centre of the interface to quickly go to the Remote Device interface. See Figure 3-26.



Figure 3-26

3.5.3 Image

From main menu->Setting->Camera->Image, user may see the image interface is shown as below. See Figure 3-27.

- Channel: Select a channel from the dropdown list.
- Config file: There are three configuration files. System sets proper parameters (such as brightness, contrastness and etc) for each configuration file. User may select according to your actual situation.
- Saturation: It is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
- Brightness: It is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number is, the bright the video is. When you input the value here, the bright

section and the dark section of the video will be adjusted accordingly. User may use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

- Contrast: It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. User may use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
- Auto Iris: It is for the device of the auto lens. User may check the box before ON to enable this function. The auto iris may change if the light becomes different. When you disable this function, the iris is at the max. System does not add the auto iris function in the exposure control. This function is on by default.
- Gamma: It is to set each pixel brightness. The higher the value is, the brighter the image is. The value ranges from 0 to 100. The recommended value ranges from 40 to 60.
- Mirror: It is to switch video left and right limit. This function is disabled by default.
- Flip: Please select from the dropdown list. It includes normal/180°/90°/270° and etc. Some camera sports flip mode.
- 3D NR: It is to process multiple-frame (At least two frames). System uses the information between these two frames to realize noise reduction function.
- BLC: It includes several options: BLC/WDR/HLC/OFF.
- BLC: There are two modes: default/customize. For the default mode, the device auto exposures according to the environments situation so that the darkest area of the video is clearer. For the customized mode, user may select a rectangle zone to enhance its brightness to the proper level.
- WDR: For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that user may view these two sections clearly at the same time. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.
- HLC: After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.
- ♦ OFF: It is to disable the BLC function. Please note this function is disabled by default.
- Profile: It is to set the white balance mode. It has effect on the general hue of the video. This function is on by default. User may select the different scene mode such as auto, sunny, cloudy, home, office, night, disable and etc to adjust the video to the best quality.
- Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.
- ♦ Sunny: The threshold of the white balance is in the sunny mode.
- ♦ Night: The threshold of the white balance is in the night mode.
- ♦ Customized: User may set the gain of the red/blue channel. The value reneges from 0 to 100.
- W/B Mode: It is to set white balance mode. It can affect the video total hue. The default setup is auto. Please note different cameras support different modes. Please select from the dropdown list. The options include sunny/night/customized and etc.
- Day/night. It is to set device color and the B/W mode switch. The default setup is auto.
- ♦ Color: Device outputs the color video.
- Auto: Device auto select to output the color or the B/W video according to the device feature (The general bright of the video or there is IR light or not.)

- \diamond B/W: The device outputs the black and white video.
- ♦ Sensor: It is to set when there is peripheral connected IR light. Please note some non-IR series product support sensor input function.

		SETTING	
			SYSTEM
REMOTE	Channel 10		
ENCODE CAM NAME	PC Exposure	Config Files Image Brightness Contrast Saturation Sharpness Gamma Mirror Flip BLC	Config1 50 50 50 50 50 50 0 On • Off Normal
	Iris ● On O 3D NR ● On O WB Mode (Auto	Off Mode Off Day&Night Mode	Close
	Default Refresh	ОК	Cancel Apply

Figure 3-27

3.5.4 Channel Name

From main menu->Setting->Camera->Channel name, user may see an interface shown as in Figure 3-28.

It is to modify channel name. It max supports 31-character.

Please note user may only modify the channel name of the connected network camera.

CAMERA Image STORAGE SETTI REMOTE Image Camera Name Channel1 IPC Channel2 2 CAM NAME Channel3 3 Channel4 4 4 Channel5 5 Channel6 6 6 Channel9 9 Channel10 10 0 Channel13 13 Channel14 14 14 Channel15 15 Channel16 16	
IMAGE Camera Name ENCODE Channel1 IPC Channel2 2 CAM NAME Channel3 3 Channel4 4 Channel5 5 Channel6 6 Channel7 7 Channel8 8 Channel9 9 Channel10 10 Channel11 11 Channel12 12 Channel13 13 Channel14 14	NG
 ■ 1/16 Default OK Cancel 	Apply

Figure 3-28

3.5.5 Upgrade

Important

System max supports to upgrade 8 network cameras at the same time.

It is to update the network camera.

From main menu->Setting->Camera->Remote->Upgrade, the interface is shown as below. See Figure 3-29.

Click Browse button and then select the upgrade file. Then select a channel (or user may select device type filter to select several devices at the same time.)

Click Start upgrade button to upgrade. User may see the corresponding dialogue once the upgrade is finish.



Figure 3-29

3.6 Preview

After device booted up, the system is in multiple-channel display mode. See Figure 3-30.Please note the displayed window amount may vary. The following figure is for reference only. Please refer to chapter 1.3 Specifications for the window-amount your product supported.



Figure 3-30

3.6.1 Preview

If you want to change system date and time, user may refer to general settings (Main Menu->Setting->System->General). If you want to modify the channel name, please refer to the display settings (Main Menu->Camera->CAM name)

Please refer to the following sheet for detailed information.

1	Þ	Current channel pops up this icon when it is recording.	3	?	Current channel pops up this icon when video loss alarm occurs.
2	*	Current channel pops up this icon when motion detect alarm occurs.	4	8	Current channel pops up this icon when it is in monitor lock status.
5	()	System exceeds decoded channel amount.			

<u>Tips</u>

• Preview drag: If you want to change position of channel 1 and channel 2 when you are previewing, user may left click mouse in the channel 1 and then drag to channel 2, release mouse user may switch channel 1 and channel 2 positions.

3.6.2 Preview Control Interface

Move you mouse to the top centre of the video of current channel, user may see system pops up the preview control interface. See Figure 3-31. If your mouse stays in this area for more than 6 seconds and has no operation, the control bar automatically hides.



Figure 3-31

1) Instant playback

It is to playback the previous 5-60 minutes record of current channel.

Please go to the Main menu->Setting->->System->General to set real-time playback time.

System may pop up a dialogue box if there is no such record in current channel.

2) Digital zoom

It is to zoom in specified zone of current channel. It supports zoom in function of multiple-channel.

Click button (1997), the button is shown as

There are two ways for you to zoom in.

• Drag the mouse to select a zone; user may view an interface show as Figure 3-32.

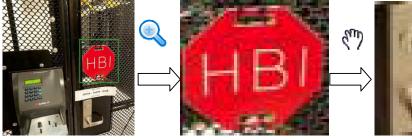




Figure 3-32

• Put the middle button at the centre of the zone you want to zoom in, and move the mouse, user may view an interface shown as in Figure 3-33.

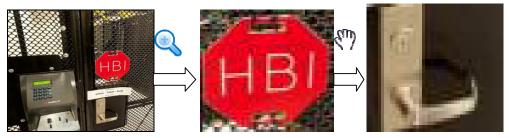


Figure 3-33

Right click mouse to cancel zoom and go back to the original interface.

3) Manual record function

It is to backup the video of current channel to the USB device. System can not backup the video of multiple-channel at the same time.

Click button system begins recording. Click it again, system stops recording. User may find the record file on the flash disk.

4) Manual Snapshot

Click Click Click Click Click Click Click The snapshot file is saved on the USB device or HDD. User may go to the Search interface (chapter 3.12) to view.

5) Bidirectional talk

If the connected front-end device supports bidirectional talk function, user may click this button. Click

button 💟 to start bidirectional talk function the icon now is shown as 💆 . Now the rest bidirectional talk buttons of digital channel becomes null too.

Click 🕎 again, user may cancel bidirectional talk and the bidirectional talk buttons of other digital

channels become as

6) Switch stream

Click M, user may switch between the main stream and the sub stream.

M: M stands for main stream.

S: S stands for sub stream. System supports 3 sub streams (S1/S2/S3). Please refer to chapter 3.11.1.1.

3.6.3 Right Click Menu

After you logged in the device, right click mouse, user may see the short cut menu. Please see Figure 3-34.

- Window split mode: User may select window amount and then select channels.
- Custom split: It is to set video split mode and displayed channel.
- PTZ: Click it to go to PTZ interface. Please refer to chapter 3.8.
- Fish eye: It is to set fish eye installation mode and display mode. Please refer to chapter 3.7.

- Split track: It is to set the video to be displayed at the same screen as 4/6-window mode. Please refer to chapter 3.7.
- Smart Track: It is to view the trigger video of the fish eye and PTZ camera. Please refer to chapter 3.7.

Auto focus: It is to set auto focus function. Please make sure the connected network camera supports this function.

- Image: Set video corresponding information. Please refer to chapter 3.5.3.
- Search: Click it to go to Search interface to search and playback a record file. Please refer to chapter 3.12.
- Record control: Enable/disable record channel and alarm control. Please refer to chapter 3.11 and 3.14.10.
- Remote: Search and add a remote device. Please refer to chapter 3.5.
- Main menu: Go to system main menu interface.

Tips:

Right click mouse to go back to the previous interface.

►
►
►
►
►
•
►
►
•

Figure 3-34

3.6.4 Preview Display Effect Setup

3.6.4.1 Display

From Main Menu->Setting->System->Display, user may go to the following interface. See Figure 3-35. Here user may set menu and video preview effect. All you operation here does not affect the record file and playback effect.

Now user may set corresponding information.

• Time display: User may select to display time or not when system is playback.

- Channel display: User may select to channel name or not when system is playback.
- Image enhance: Check the box; user may optimize the margin of the preview video.
- IVS rule: Check the box to enable IVS function. System can display IVS rule on the preview video.
- Original scale: User may set different original rates for different channels. Click Set and then select a channel, user may restore original rate.
- Screen mode: It is for dual-screen operation. Please select from the dropdown list according to your actual situation. Click Apply button, system needs to restart to activate new setup. For example, 32+4 means for VGA, system max supports 32-window split and for HDMI2, system max supports 4-window split. Please note this function is for some series product only.
- Screen enable: Check the box here to enable the screen. In this way, it can display the video.
- Screen No. Select the corresponding screen from the dropdown list and then set resolution.
- Resolution: There are four options: 1920×1080, 1280×1024, 1280×720, and 1024×768. The VGA default resolution is 1280×1024; HDMI default resolution is 1920×1080. Please note the system needs to reboot to activate current setup.

		SETTIN	IG	
ST CAMERA		👼 EVENT	STORAGE	SYSTEM
GENERAL DISPLAY PTZ	Display Time Display	Tour Custo	om Split	
POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Channel Display Image Enhance IVS Rule Original Scale Screen Mode	Set HDMI1 + HDMI2	Screen2 Image: Resolution (1280×1024) POS Info	
	Default		ОК	Cancel Apply

Figure 3-35

- Preview mode: It is to set preview display mode. Please select from the dropdown list.
- ♦ General: There is no displayed information on the preview interface.
- Human face: System will display human face information on the right pane of the preview interface.
 See Figure 3-36.

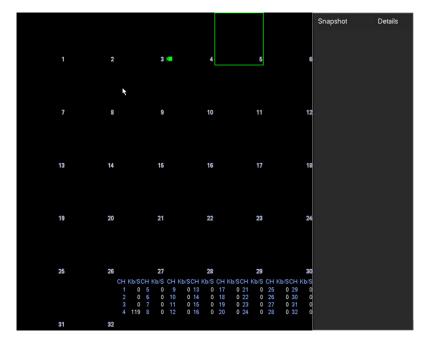


Figure 3-36

• POS info: Check the box, system will display POS information on the preview interface. Click OK button to save current setup.

3.6.4.2 Preview Tour Parameters

Set preview display mode, channel display sequence and tour setup.

- Set preview display mode: On the preview interface, right click mouse, user may view right-click menu. Now user may select preview window amount and channel.
- Set channel display mode: On the preview interface, if you want to change channel 1 and channel 16 position, please right click channel 1 video window and then drag to the channel 16 video window, release button, user may change channel 1 and channel 16 position.
- Tour setup: Here user may set preview window channel display mode and interval. Please follow the steps listed below.

From Main menu->Setting->System->Display->Tour, user may see an interface shown as in Figure 3-37. Here user may set tour parameter.

- Screen No.: Please select screen from the dropdown list.
- Video detect: It is to set video detect tour. System supports 1/8-window tour.
- Alarm: It is to set alarm tour. System supports 1/8-window tour.
- Enable tour: Check the box here to enable tour function.
- Interval: Input proper interval value here. The value ranges from 1-120 seconds.
- Window split: It is to set window split mode.

		SETTING			
STAMERA		THE EVENT	STORAGE	SYSTEM	
CAMERA GENERAL DISPLAY PTZ POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Display To Screen NO (HDM Video Detect (View Enable Tour) Window Split (View 32 / 1 / 1 2 3 2 / 5 6	Custom S 11 Custom S 1 Alarm Interva 4 Custom S Alarm Interva 4 Custom S Interva 4 Custom S Interva 5 Interva 2 Custom S Interva 2 Custom S Interva Inte	plit (View 1	SYSTEM	
	Add C	rel (Mov	e up)(Move down)	· · · · ·	
	Default		ОК	Cancel Apply	

Figure 3-37

Tips

On the navigation bar, click in the navigation bar, click is a click to enable/disable tour.

Click Save button to save current setup.

3.6.4.3 Custom Split

It is to set customized local preview display mode.

From Main menu->Setting->System->Display->Custom split, user may see an interface shown as in Figure 3-38.

			SETTING				
Marcamera		📷 EV	'ENT	STOR/	AGE	SYSTE	м
GENERAL DISPLAY	Display	Tour	Custom S	plit			
PTZ	+						
POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Name Delete						
		L %) (Canc	el) (Ap	nlv
		~~~					

Figure 3-38

Click + and then click - 25 36 to select basic mode

In regular mode, drag the mouse in the preview frame, user may merge several small windows to one window so that user may get you desired split mode.

After the setup, the selected window has the red frame. See Figure 3-39.

			SETTING				
Marcamera	TWORK 📷	📆 EVE	INT	STOR	٩GE	SYSTEI	м
CAMERA GENERAL DISPLAY PTZ POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Display + Name Delete Split36 ×	Tour	Custom Sp		AGE		
		×	(	ОК	) (Cance	el Apj	ply

Figure 3-39



to cancel the merge to restore regular

mode.

Click Save to exit.

After the setup, user may go to the preview window, right click mouse and then select custom split. See Figure 3-40.

View 1	•	
View 4		
🔜 View 8	•	
Wiew 9	•	
IIII View 16	►	
遯 View 25	►	
36 View 36	•	
🔀 Custom Split	Þ	Split36
🖶 PTZ		7
💿 Fish Eye		
Split Track		
Smart Track		
[+] Auto Focus		
🔁 Image		
୍ତ୍ର Search		
😫 Manual	•	
🖙 Remote		
ሰ Main Menu		



# 3.7 Fish Eye

# 3.7.1 Fish eye de-warp during preview interface

Select the merging window, the frame is red; user may click

On the preview interface, select fisheye channel and then right click mouse, user may select fisheye. Now user may see an interface shown as in Figure 3-41. User may set fisheye installation mode and display mode.

Note:

- ۲ For the non-fisheye channel, system pops up dialogue box to remind you it is not a fisheye channel and does not support de-warp function.
- If system resources are insufficient, system pops up the corresponding dialogue box too. ۲



Figure 3-41

There are three installation modes: ceiling mount/wall mount/ground mount. The different installations modes have different de-warp modes.

Please refer to the following sheet for detailed information.

Installation modes	lcon	Note
(Ceiling mount)	0	360°panorama original view
(Ceiling mount)	$\leftrightarrow$	1 de-warp window+1 panorama stretching
(Ground mount)	$\begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	2 panorama stretching view
	Q	1 360° panorama view+3 de-warp windows
	Ω	1 360°panorama view+4 de-warp windows
	Ĵ	4 de-warp windows+1 panorama stretching
	Q	1 360° panorama view+8 de-warp windows
	0	360°panorama original view
(Wall mount)	$\times$	Panorama stretching

$\mathbf{X}$	1 panorama unfolding view+3 de-warp windows
$\mathbb{X}$	1 panorama unfolding view +4 de warp windows
X	1 panorama unfolding view +8 de warp windows

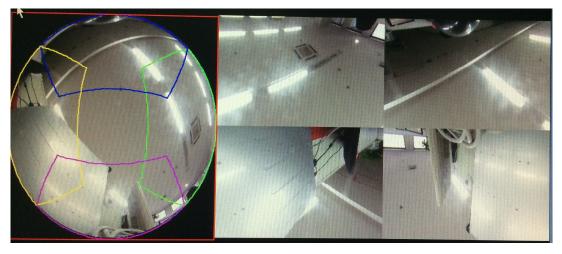


Figure 3-42

In Figure 3-42, user may adjust the color pane on the left pane or use your mouse to change the position of the small images on the right pane to realize fisheye de-warp.

Please use the mouse to zoom in/zoom out, move/rotate the image. (Please note this function is not for wall mount mode)

### 3.7.2 Fish eye de-warp during playback

On the main menu, click search button.

Select 1-window playback mode and corresponding fisheye channel, click 🕨 to play.

Right click the , user may go to the de-warp playback interface. For detailed information, please refer to chapter 3.7.1.

# 3.8 Split Track

It is to display one video channel in several windows.

On the preview interface, right click mouse and then select split track, user may see an interface shown as below. See Figure 3-43.



Figure 3-43

Please select split mode, it includes main screen, one main screen+3 extension screens, one main screen +5 extension screens. See Figure 3-44.

This function can divide the main screen to several windows. Use the mouse to adjust the frames in different colors to set the images to be displayed in the extension screen.

On the main screen or the extension screen, use the middle button of the mouse to zoom in or zoom out.



Figure 3-44

# 3.9 Smart Track

This function allows you to view the trigger video of the fish eye&PTZ camera. The fish eye is the main camera to view the whole surveillance condition, the PTZ camera works as the slave camera to view the details.

On the preview interface, select the corresponding window, right click mouse and then select Smart track, user may see an interface shown as below. See Figure 3-45.

#### Note

Please refer to chapter 3.14.8 for setup information.



Figure 3-45

# 3.10 PTZ

#### Note:

Before you control the PTZ, please make sure the PTZ decoder and the NVR network connection is OK and the corresponding settings are right.

### 3.10.1 PTZ Settings

#### **Cable Connection**

Please follow the procedures below to go on cable connection

- Connect the dome RS485 port to NVR RS485 port.
- Connect dome video output cable to NVR video input port.
- Connect power adapter to the dome.

In the main menu, from Setting->System->PTZ, user may see an interface is shown as in Figure 3-46. Here user may set the following items:

- Channel: Select the current camera channel.
- PTZ type: There are two types: local/remote. Please select local mode if you are connect RS485 cable to connect to the Speed dome (PTZ). Please select remote mode if you are connecting to the network PTZ camera.
- Protocol: Select corresponding PTZ protocol(such as PELCOD)
- Address: Default address is 1.
- Baud rate: Select corresponding baud rate. Default value is 9600. USE 2400 FOR PELCO D
- Data bit: Select corresponding data bits. Default value is 8.
- Stop bit: Select corresponding stop bits. Default value is 1.
- Parity: There are three options: odd/even/none. Default setup is none.

	SETTING
CAMERA	77 NETWORK 📷 EVENT STORAGE SYSTEM
GENERAL DISPLAY PTZ POS BROADCAST	Channel (1 ) PTZ Type (Local ) Protocol (NONE ) Address (1 )
ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Baud Rate (9600 ) Data Bit (8 ) Stop Bit (1 ) Parity (None )
	Default Copy OK Cancel Apply

Figure 3-46

If you are connecting to network PTZ, the PTZ type shall be remote. See Figure 3-47.

		SETTING			
	<b>TWORK</b>	To EVENT	STORAGE	SYSTEM	
GENERAL DISPLAY PTZ POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Channel (3 PTZ Type (Rer	P note			
		Сору	ОК	Cancel Apply	

Figure 3-47

### 3.10.2 PTZ Control

After completing all the setting please click save button. Right click mouse (click "Fn" Button in the front panel or click "Fn" key in the remote control). The interface is shown as in Figure 3-48. Please note user may only go to the PTZ control interface when you are in 1-window display mode.

	View 1	•
	View 4	•
	View 8	•
	View 9	•
	View 16	•
25	View 25	•
36	View 36	•
1	Custom Split	•
∎	PTZ	
	Fish Eye	- A -
<u> </u>	rish Eye	
	Split Track	
	· ·	
8 0	Split Track	
8 0	Split Track Smart Track Auto Focus	
₩ • •	Split Track Smart Track Auto Focus	
	Split Track Smart Track Auto Focus Image	
	Split Track Smart Track Auto Focus Image Search	•
1 🔹 🖓 🗄 🔂 🕲	Split Track Smart Track Auto Focus Image Search Manual	•

Figure 3-48

The PTZ setup is shown as in See Figure 3-49.

Please note the commend name is grey once device does not support this function.

The PTZ operation is only valid in one-window mode.

Here user may control PTZ direction, speed, zoom, focus, iris, preset, tour, scan, pattern aux function, light and wiper, rotation and etc.

Speed is to control PTZ movement speed. The value ranges from 1 to 8. The speed 8 is faster than speed 1. User may use the remote control to click the small keyboard to set.

User may click of the zoom, focus and iris to zoom in/out, definition and brightness.

The PTZ rotation supports 8 directions. If you are using direction buttons on the front panel, there are only four directions: up/down/left/right.





In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 3-50. Please make sure your protocol supports this function and you need to use mouse to control. Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust

section size. The dragged zone supports 4X to 16X speeds. It can realize PTZ automatically. The smaller zone you dragged, the higher the speed.



Name	Function	function	Shortcut	Function	function	Shortcut
	key		key	key		key
Zoom	•	Near	ŀ	•	Far	*
Focus	•	Near	◀	•	Far	►
Iris	•	close	◀	•	Open	▶

In Figure 3-49, click to open the menu, user may set preset, tour, pattern, scan and etc. See Figure 3-51.



Figure 3-51

Please refer to the following sheet for detailed information.

Please note the above interface may vary due to different protocols. The button is grey and can not be selected once the current function is null.

Right click mouse or click the ESC button at the front panel to go back to the Figure 3-49.

lcon	Function	lcon	Function
•	Preset	$\bigcirc$	Flip
	Tour	Ð	Reset
~	Pattern		Aux
æ	Scan	0	Aux on-off
			button
•	Rotate	0	Go to menu

#### 3.10.2.1 PTZ Function Setup

Click user may go to the following interface to set preset, tour, pattern, and scan. See Figure 3-52.



Figure 3-52

#### **Preset Setup**

In Figure 3-52, click preset button and use eight direction arrows to adjust camera to the proper position. The interface is shown as in Figure 3-53.

Click Set button and then input preset number.

Click Set button to save current preset.



Figure 3-53

#### **Tour Setup**

In Figure 3-52, click tour button.

Input tour value and preset No. Click Add preset button to add current preset to the tour. See Figure 3-54. **Tips** 

Repeat the above steps to add more presets to the tour. Click Del preset button to remove it from the tour. Please note some protocols do not support delete preset function.



Figure 3-54

#### Pattern Setup

In Figure 3-52, click Pattern button and input pattern number.

Click Begin button to start direction operation. Or user may go back to Figure 3-49 to operate zoom/focus/iris/direction operation.

In Figure 3-52, click End button.

		PTZ
Preset	Tour	Pattern Border
		Pattern 0 Start End

Figure 3-55

### Scan Setup

In Figure 3-52, click Scan button.

Use direction buttons to set camera left limit and then click Left button.

Use direction buttons to set camera right limit and then click Right button. Now the scan setup process is complete.

		PTZ			
	Preset	Tour	Pattern	Border	
				Left (ight	
		Figure 3-	56		
3.10.2.2 Call PTZ Call Preset	Function				
In Figure 3-51, inp	out preset value and	then click	to call a pre	set. Click 📴 a	gain to stop call.
<b>Call Pattern</b> In Figure 3-51, inp call.	out pattern value ar	nd then click	to call a	pattern. Click	again to stop
Call Tour					
In Figure 3-51, inp	out tour value and th	nen click	to call a tour.	Click again	to stop call.
Call Scan					
In Figure 3-51, inp	out Scan value and	then click	to call a tou	r. Click again	to stop call.
Rotate In Figure 3-51, cliq System supports p	ck to enable preset, tour, pattern	the camera to , scan, rotate, li		nction.	

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

Aux



, system goes to the following interface. The options here are defined by the protocol. The aux

number is corresponding to the aux on-off button of the decoder. See Figure 3-57.

	AUX	
Direct Aux		
(Wiper 🔻	On	Off
Aux Num		
0	On	Off

Figure 3-57

# 3.11 Record and Snapshot

The record/snapshot priority is: Alarm->Motion detect->Schedule.

# 3.11.1 Encode

### 3.11.1.1 Encode

Encode setting is to set IPC encode mode, resolution, bit stream type and etc.

From Main menu->Setting->System->Encode, user may see the following interface. See Figure 3-58.

- Channel: Select the channel you want.
- Type: Please select from the dropdown list. There are three options: regular/motion detect/alarm. User may set the various encode parameters for different record types.
- Compression: System supports H.264, MPEG4, MJPEG and etc.
- Resolution: The mainstream resolution type is IPC's encoding config. Generally there is D1/720P/1080P.
- Frame rate: It ranges from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
- Bit rate type: System supports two types: CBR and VBR. In VBR mode, user may set video quality.
- Video/audio: User may enable or disable the video/audio. Please note, once you enable audio function for one channel, system may enable audio function of the rest channels by default.
- Audio encode: Please select audio encode mode from the dropdown list. It includes: PCM/G711A/G711Mu/AAC.
- Audio sampling: It is the audio sampling rate in one second. The higher the sampling rate is, the more nature the audio is. There are two options: 8000(default)/16000.
- Copy: After you complete the setup, user may click Copy button to copy current setup to other channel(s). User may see an interface is shown as in Figure 3-65. User may see current channel number is grey. Please check the number to select the channel or user may check the box ALL. Please click the OK button in Figure 3-65 and Figure 3-59 respectively to complete the setup. Please note, once you check the All box, you set same encode setup for all channels. Audio/video enable box, overlay button and the copy button is shield.

e hi	highlight icon 🔎 to select the corresponding function.					
		SETTING				
		📂 NETWORK 🛛 👼 EVENT 🛛 🛃 STORAGE 🛛 🛃 SYSTEM				
	REMOTE IMAGE	Encode Overlay Snapshot				
	ENCODE	Channel (2 )				
	CAM NAME	Code-Stream Type Continuous > Sub Stream1 >				
		Compression (H.264H V (H.264H V				
		Resolution (2048x1536(3N)) (704x576(D1))				
		Frame Rate(FPS) (25 • 25 •				
		Bit Rate Type CBR				
		Bit Rate(Kb/S) (4096 - 1024 -				
		Reference Bit Rate 2560-10240Kb/S 256-2304Kb/S				
		Audio/Video 🖌 🖌				
		Audio Encode (G.711A ) (G.711A )				
		Sampling Rate 16000 • 16000 •				
		Default Copy Refresh OK Cancel Apply				

Please highlight icon <a>[</a> to select the corresponding function.



# 3.11.1.2 Overlay

Click overlay button, user may see an interface is shown in Figure 3-59.

- Cover area: Here is for you to cover area section. User may drag you mouse to set proper section size. In one channel video, system max supports 4 zones in one channel. User may set with Fn button or direction buttons.
- Preview/monitor: The cover area has two types. Preview and Monitor. Preview means the privacy mask zone can not be viewed by user when system is in preview status. Monitor means the privacy mask zone can not be view by the user when system is in monitor status.
- Time display: User may select system displays time or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Channel display: User may select system displays channel number or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Customized title: System supports five customized titles.

	SETTING
	TRANSPORT TRANSPORT
REMOTE IMAGE	Encode Overlay Snapshot
ENCODE CAM NAME	Channel 2 Time Display Monitor Set Channel Display Monitor Set Cover-Area Monitor Set Customized Title Monitor Set Customized Title Customized Title Custo
	Customized Title4 Customized Title5 Align Mode Left Align Default Copy OK Cancel Apply

Figure 3-59

# 3.11.2Schedule

The record type priority is: Alarm>Motion detect>Regular.

### 3.11.2.1 Schedule Record

Set record time, record plan and etc. Please note system is in 24-hour record by default after its first boot up.

In the main menu, from Main menu->Setting->Storage->Schedule, user may go to schedule menu. See Figure 3-63. There are total six periods.

- Channel: Please select the channel number first. User may select "all" if you want to set for the whole channels.
- ♦ Sync connection icon. Select icon of several dates, all checked items can be edited or

together. Now the icon is shown as



- $\diamond$  **Matrix**: Click it to delete a record type from one period.
- Record Type: Please check the box to select corresponding record type. There are four types: Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu->Setting->System->General) to add holiday first. Otherwise user may not see this item.
- Pre-record: System can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.

- Redundancy: System supports redundancy backup function. It allows you backup recorded file in two disks. User may highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. (Main menu->Setting->Storage->HDD Manager). Please note this function is null if there is only one HDD.
- ANR: It is to save video to the SD card of the network camera in case the network connection fails. The value ranges from 0s~43200s. After the network connection resumed, the system can get the video from the SD card and there is no risk of record loss.
- Period setup: Click button after one date or a holiday, user may see an interface shown as in Figure 3-64. There are five record types: regular, motion detection (MD), Alarm, MD & alarm, and intelligence.

Please following the steps listed below to draw the period manually.

a) Select a channel you want to set. See Figure 3-60.



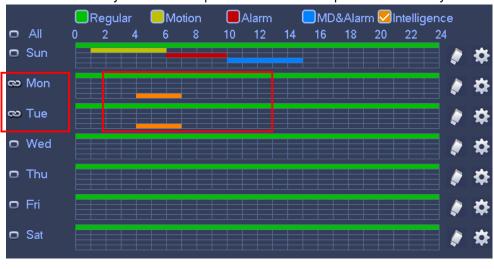
Figure 3-60

b) Set record type. See Figure 3-61.





c) Please draw manually to set record period. There are six periods in one day. See Figure 3-62.





Please check the box is to select the corresponding function. After completing all the setups please click save button, system goes back to the previous menu.

There are color bars for your reference. Green color stands for regular recording, yellow color stands for motion detection and red color stands for alarm recording, and orange color stands for intelligent alarm. The white means the MD and alarm record is valid. Once you have set to record when the MD and alarm occurs, system will not record neither motion detect occurs nor the alarm occurs.

	SETTING
	TRACE EVENT
SCHEDULE HDD MANAGE RECORD	Rec     Snapshot       Channel 1     Pre-record 4 s
ADVANCE ISCSI RAID HDD DETECT	Regular       Motion       Alarm       MD&Alarm       IVS         All       0       2       4       6       8       10       12       14       16       18       20       22       24         Sun       Mon       Mon       Mon       Motion       Moti

Figure 3-63

Period					
Current Date: Sun					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Regular Regular Regular Regular Regular Regular	Motion Motion Motion Motion Motion	Alarm Alarm Alarm Alarm Alarm Alarm	MD&Alarm Intelligence MD&Alarm Intelligence MD&Alarm Intelligence MD&Alarm Intelligence MD&Alarm Intelligence MD&Alarm Intelligence	
Copy					
ОК					

Figure 3-64

#### **Quick Setup**

Copy function allows you to copy one channel setup to another. After setting in channel 1, click Copy button, user may go to interface Figure 3-65. User may see current channel name is grey such as channel 1. Now user may select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, user may click the first box "ALL". Click the OK button to save

current copy setup. Click the OK button in the Encode interface, the copy function succeeded. Please note, if you select ALL in Figure 3-65, the record setup of all channels are the same and the Copy button becomes hidden.



Figure 3-65

Click OK button to save current setup.

## 3.11.2.2 Schedule Snapshot

From Main menu->Setting->Storage->Record or on the preview interface, right click mouse and then select record item, user may see Figure 3-66.

Select snapshot channel and enable snapshot function. Click Save button.

		SETTING		
CAMERA	7 NETWORK	To EVENT	STORAGE	SYSTEM
SCHEDULE HDD MANAGE RECORD ADVANCE ISCSI RAID HDD DETECT	Main Stream Auto Manual Off Sub Stream Auto Manual Off	All 1 2 0 • • 0 0 0 0 0 0 0 • • 0 0 0 0 0 0 0 0 0		
	Snapshot Enable Disable	0 00	ОК	Cancel Apply

Figure 3-66

From Main menu->Setting->Camera->Encode->Snapshot, user may go to snapshot interface. See Figure 3-67.

Select the snapshot channel from the dropdown list and then select snapshot mode as Timing (Schedule) from the dropdown list and then set picture size, quality and snapshot frequency.

SETTING					
	📂 NETWORK 🙀 EVENT 🧏 STORAGE 🛃 SETTING				
REMOTE IMAGE	Encode Overlay Snapshot				
ENCODE CAM NAME	Manual Snap (1) Time				
	Channel 1 Mode Timing Image Size 2048x1536 Quality 5 Snapshot Frequency 1 SPL				
	OK Cancel Apply				

Figure 3-67

In the main menu, from Main menu->Setting->Storage->Schedule->Snapshot, user may go to schedule menu. See Figure 3-63. Here user may set snapshot period. There are total six periods in one day. Please refer to chapter 3.11.2.1 for detailed setup information. The setup steps are general the same.

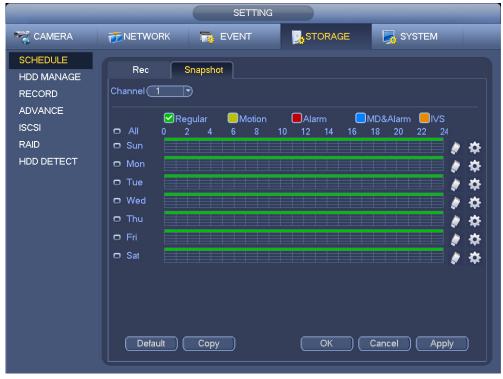


Figure 3-68

#### Note

- Please note the trigger snapshot has the higher priority than regular snapshot. If you have enabled these two types at the same time, system can activate the trigger snapshot when an alarm occurs, and otherwise system just operates the regular snapshot.
- Only the trigger snapshot supports this function. The regular snapshot function can not send out picture via the email. But user may upload the picture to a FTP.

# 3.11.3 Motion Detect Record/Snapshot

### 3.11.3.1 Motion detect record

a) From Main menu->Setting->Event->Video detect, user may go to the following interface. See Figure 3-69.

SETTING					
		EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT	Motion Detect Vi Channel Region		ng Scene Change nable 🖌	Video Analytics	
HEAT MAP AUDIO DETECT SMART TRACK ALARM	Period Alarm Out Show Message	Set Alarm Upload Set	5678	Anti-dither (5 s)   Latch (10 s   Send Email Delay (10 s	
ABNORMALITY ALARM OUT	PTZ Activation Tour Snapshot Log Buzzer	Set Set Set			
	Default	Сору	ОК	Cancel Apply	

Figure 3-69

- b) Select a channel from the dropdown list and then check the enable button to enable motion detect function.
- c) Click Region Click select button, the interface is shown as in Figure 3-70. Here user may set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. User may click Fn button to switch between the arm mode and disarm mode. In arm mode, user may click the direction buttons to move the green rectangle to set the motion detection zone. After you completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.

	2	3	4
Zone Name	e (Region1		
Sensitivity		<b>j</b> 55	
Threshold	-	10	



- d) Period: Click set button, user may see an interface is shown as in Figure 3-71. Here user may set motion detect period. System only enables motion detect operation in the specified periods. It is not for video loss or the tampering. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- ♦ In Figure 3-71, Select icon of several dates, all checked items can be edited together. Now

the icon is shown as . Click to delete a record type from one period.

- ♦ In Figure 3-71. Click button after one date or a holiday, user may see an interface shown as in Figure 3-72. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
  - e) Set sensitivity. Please note the sixth level has the highest sensitivity.
  - f) Click Save button to complete motion detect setup.
  - g) From Main menu->Setting->Storage->-Schedule. See Figure 3-63.
  - h) Set motion detect record channel, period and the record type shall be motion detect (MD). Please refer to chapter 3.11.2.
  - i) Click Copy button to copy current setup to other channel(s).
  - j) Click OK button to complete motion detect record setup.



Figure 3-71

	Time Period
Current Date: Sun	
Period 1 (00 : 00 - 24 : 00	
Period 2 (00 : 00 - 24 : 00	
Period 3 (00 : 00 - 24 : 00	
Period 4 (00 : 00 - 24 : 00	
Period 5 (00 : 00 - 24 : 00	
Period 6 (00 : 00 - 24 : 00	
Copy	
	on 🗍 Tue 🗍 Wed 🗍 Thu 🗍 Fri 🦳 Sat
	Save
	Save

Figure 3-72

### 3.11.3.2 Motion Detect Snapshot

- a) From Main menu->Setting->Camera->Encode->Snapshot, user may go to snapshot interface. See Figure 3-73.
- b) In Figure 3-73, select trigger snapshot from the dropdown list and then set picture size, quality and snapshot frequency. Click OK button to save current setup.
- c) From Main menu->Setting->Event->Detect, here user may select motion detect type, motion detect channel and then check the enable box. Please refer to chapter 3.11.3.1.
- d) Click OK button to complete motion detect setup.

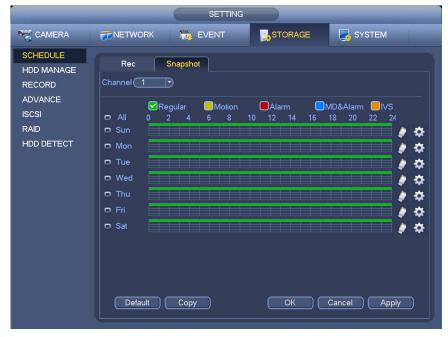


Figure 3-73

# 3.11.4 Alarm Record/Snapshot

- 3.11.4.1 Alarm Record
  - a) Before you set alarm setup information, please go to chapter 2.3 to connect alarm input and alarm output cable (such as light, siren and etc).
  - b) The record priority is: Alarm>Motion detect>Regular.

In the main menu, from Setting->Event-> Alarm, user may see alarm setup interface. See Figure 3-74.

- Alarm in: Here is for you to select channel number.
  - Event type: There are four types. Local input/network input/IPC external/IPC offline alarm.
    - ♦ Local alarm: The alarm signal system detects from the alarm input port.
    - ♦ Network alarm: It is the alarm signal from the network.
    - IPC external alarm: It is the on-off alarm signal from the front-end device and can activate the local NVR.
    - IPC offline alarm: Once you select this item, system can generate an alarm when the front-end IPC disconnects with the local NVR. The alarm can activate record, PTZ, snapshot and etc. The alarm can last until the IPC and the NVR connection resumes.
- Enable: Please you need to highlight this button to enable current function.
- Type: normal open or normal close.
  - c) Click Save button to complete alarm setup interface.

		SETTING		
CAMERA		📷 EVENT		SYSTEM
VIDEO DETECT IVS PLAN	Local	Net IPC Ext		
BEHAVIOR ANA	Alarm In		able 🗹 Type (NO	
FACE DETECTI PEOPLE COUNT	Alarm Name			
HEAT MAP	Period	Set		Anti-dither 5 s
AUDIO DETECT	Alarm Out	1234	5678	Latch (10)s
SMART TRACK	Show Message	Alarm Upload		Send Email
ALARM	Record Channel	l Set		Delay 10 s
ABNORMALITY	PTZ Activation	Set		
ALARM OUT	Tour	Set		
	Snapshot	(Set		
	✓Log			
	Buzzer			
	Default	Сору	ОК	Cancel Apply

Figure 3-74

- d) From Mani menu->Setting->Storage->Schedule, user may go to Figure 3-63.
- e) Select alarm channel, period and the record type shall be alarm. Please refer to chapter 3.11.2.
- f) Click Copy button to copy current setup to other channel(s).
- g) Click OK button to save alarm record information.

## 3.11.4.2 Alarm Snapshot

- a) Please refer to Step a) to step c) of chapter 3.11.3.2 to enable timing snapshot.
- b) From Main menu->Setting->Storage->schedule, user may go to Figure 3-75 to enable snapshot function.
- c) From Main menu->Setting->Event->Alarm, user may go to Figure 3-74 to set alarm parameter and enable snapshot function.
  - SETTING SETTING CAMERA 📆 EVENT STORAGE REMOTE Snapshot Encode Overlay IMAGE ENCODE Manual Snap CAM NAME (1)7 Trigger  $\Box$ Image Size (1280×720(720 -) (5 Snapshot Frequency (1 SPL Cancel Apply
- d) Click Save button to save alarm snapshot setup.

Figure 3-75

# 3.11.5 Manual Record/Snapshot

You need to have proper rights to implement the following operations. Please make sure the HDD has been properly installed.

### 3.11.5.1 Manual Record

a) Right click mouse and select manual record or in the main menu, from Setting->Storage->Manual Record. Manual record menu is shown as in Figure 3-76.

#### Tips

User may click Rec button on the front panel (if possible) to go to the Manual Record interface.

	_	SETTING		
	💏 NETWORK	Tag EVENT	STORAGE	SYSTEM
SCHEDULE HDD MANAGE RECORD ADVANCE ISCSI RAID HDD DETECT	Main Stream Auto Manual Off Sub Stream Auto Manual Off Snapshot	All 1 2 0 • • 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
	Enable Disable	0 ••	ОК	Cancel Apply



- b) Check the box here to select manual record channel(s). User may see the corresponding indicator light on the front panel is on.
- Channel: It is to display device all channels.
- Manual: It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup. Now system is record general file.
- Auto: System enables auto record function as you set in chapter 3.11.2 schedule interface (General/Motion detect/Alarm)
- Stop: Stop current channel record/Snapshot no matter what period applied in the record setup.
- All: Check the All box to select all channels.
  - c) Click OK button to complete manual record setup.

### 3.11.5.2 Manual Snapshot

Click button at the preview control bar, user may snapshot 1-5 picture(s). From main menu->Setting->Camera->Encode->Snapshot, user may set snapshot times. User may go to chapter 3.12 to view snapshot picture.

# 3.11.6 Holiday Record/Snapshot

It is for you to set holiday record or snapshot plan. Please note the holiday record/snapshot setup has the higher priority than the ordinary date record/snapshot setup.

- 3.11.6.1 Holiday Record
  - a) From Mani menu->Setting->System->General, user may go to the following interface. See

Figure 3-77.

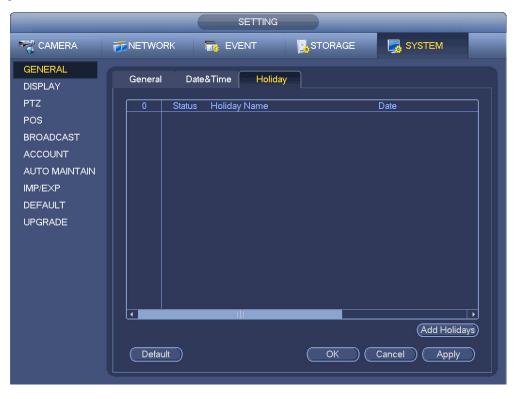


Figure 3-77

b) Click Add new holiday button, user may see an interface shown as in Figure 3-78. Here user may set holiday date name, repeat mode, start time/end time and etc.



Figure 3-78

c) Click Add button to complete holiday setup. Now user may enable holiday setup and then click

Apply button.

d) From Main menu->setting->Storage->schedule, user may go to schedule interface. See Figure 3-79. Now user may set period and record type of holiday time. Please refer to chapter 3.11.2.1 for detailed setup information.

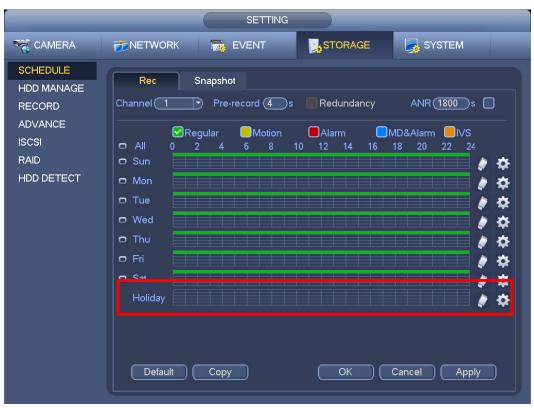


Figure 3-79

e) Click OK button to set holiday record setup.

## 3.11.6.2 Holiday Snapshot

Set Holiday date first. Please refer to step a) to step c) of chapter 3.11.6.1.

From Main menu->Setting->Storage->Schedule, user may go to schedule interface. See Figure 3-79. Click Holiday item to set snapshot period.

Set holiday snapshot type (Trigger/Regular). Please refer to chapter 3.11.2.2 or chapter 3.11.3.2.

# 3.11.7 Other Record/Snapshot

Motion detect&Alarm record or snapshot, please refer to chapter 3.11.4. Video loss or tampering record or snapshot function, please refer to chapter 3.11.3.

# 3.12 Search and Playback

## 3.12.1 Real-time Playback

Please refer to chapter 3.6.2 for real-time playback information.

### 3.12.2 Search Interface

From Main menu->Search, or on the preview interface right click mouse and then select search item; user

may go to the following interface. See Figure 3-80.

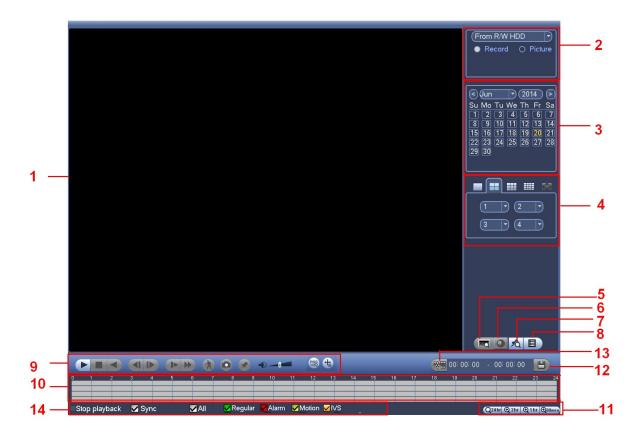


Figure 3-80

Please refer to the following sheet for more information.

SN	Name	Function			
1	Display	Here is to display the searched picture or file.			
I	window	<ul> <li>Support 1/4/9/16-window playback.</li> </ul>			
2	Search type	<ul> <li>Here user may select to search the picture or the recorded file.</li> <li>User may select to play from the read-write HDD, from peripheral device or from redundancy HDD.</li> <li>Before you select to play from the peripheral device, please connect the corresponding peripheral device. User may view all record files of the root directory of the peripheral device. Click the Browse button; user may select the file you want to play.</li> </ul>			
3	Calendar	<ul> <li>The blue highlighted date means there is picture or file. Otherwise, there is no picture or file.</li> <li>In any play mode, click the date you want to see, user may see the corresponding record file trace in the time bar.</li> </ul>			
4	Playback mode and channel selection pane.	<ul> <li>Playback mode: 1/4/9/16. (It may vary due to different series.)</li> <li>In 1-window playback mode: user may select 1-X channels (X depends on the product channel amount).</li> <li>In 4-window playback mode: user may select 4 channels according to your requirement.</li> <li>In 9-window playback mode, user may switch between 1-8, 9-16 and etc</li> </ul>			

	channels.		
	<ul> <li>In 16-window playback mode, user may switch between1-16, 17-32 and etc</li> </ul>		
	channels.		
	<ul> <li>The time bar will change once you modify the playback mode or the channel</li> </ul>		
	option.		
POS	In 1-channel playback mode, click it user may set advanced setup.		
search			
Fisheye dewarp	In 1-channel playback mode, click it; user may see fisheye setup interface on the right pane. User may set fisheye installation mode and display mode to de-warp the record. Please refer to chapter 3.7.2 for detailed information.		
Mark file	Click it to go to mark file list interface. User may view all mark information of current channel by time. Please refer to chapter 3.12.5 for detailed information.		
list button	Please note only the product of this icon supports mark function.		
File list switch button	<ul> <li>Double click it, user may view the picture/record file list of current day.</li> <li>The file list is to display the first channel of the record file.</li> <li>The system can display max 128 files in one time. Click Play button to view the file. Select one item, and then click the mouse or click the Play button to playback.</li> <li>User may input the period in the following interface to begin accurate search.</li> <li>File type: R—regular record; A—external alarm record; M—Motion detect record.</li> <li>Ioo: 00: 00: 00: 00: 00: 00: 00: 00: 00:</li></ul>		
Playback control pane.	<ul> <li>Play/Pause         <ul> <li>There are three ways for you to begin playback.</li> <li>The play button</li> <li>Double click the valid period of the time bar.</li> <li>Double click the item in the file list.</li> <li>In slow play mode, click it to switch between play/pause.</li> </ul> </li> <li>Stop         <ul> <li>Backward play                 In normal play mode, left click the button, the file begins backward play.</li> <li>Click it again to pause current play.                       In backward play mode, click it to play the next or the previous section. User may click continuously when you are watching the files from the same channel.</li> </ul> </li> </ul>		
	search Fisheye dewarp Mark file list button		

		In normal play mode, when you pause current play, user may click $\blacktriangleleft$ and
		► to begin frame by frame playback.
		In frame by frame playback mode, click $\blacktriangleright/II$ to restore normal playback.
		▶ Slow play
		In playback mode, click it to realize various slow play modes such as slow
		play 1, slow play 2, and etc.
		Fast forward
		>> In playback mode, click to realize various fast play modes such as fast
		play 1,fast play 2 and etc.
		Note: The actual play speed has relationship with the software version.
		Smart search
		The volume of the playback
		Click the snapshot button in the full-screen mode, the system can snapshot 1 picture.
		System supports custom snap picture saved path. Please connect the peripheral device first, click snap button on the full-screen mode, user may select or create path. Click Start button, the snapshot picture can be saved to the specified path.
		Mark button. Please note this function is for some series product only. Please make sure
		there is a mark button in the playback control pane.
		User may refer to chapter 3.12.5 for detailed information.
		In 1-window playback mode, click it to overlay POS information.
		In 1-window playback mode, click it to overlay IVS rule information.
		• It is to display the record type and its period in current search criteria.
	Time bar	• In 4-window playback mode, there are corresponding four time bars. In other
		playback mode, there is only one time bar.
		• Use the mouse to click one point of the color zone in the time bar, system
10		begins playback.
		• The time bar is beginning with 0 o'clock when you are setting the configuration.
		The time bar zooms in the period of the current playback time when you are playing
		the file.
		• The green color stands for the regular record file. The red color stands for the
		external alarm record file. The yellow stands for the motion detect record file.
		•The option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the
	Time bar unit	zoom rate. User may accurately set the time in the time bar to playback the record.
11		• The time bar is beginning with 0 o'clock when you are setting the configuration.
		The time bar zooms in the period of the current playback time when you are playing
		the file.
12	Backup	<ul> <li>Select the file(s) you want to backup from the file list. User may check from the</li> </ul>
-	· ·	

		list. Then click the backup button, now user may see the backup menu. System
		<ul> <li>supports customized path setup. After select or create new folder, click the Start button to begin the backup operation. The record file(s) will be saved in the specified folder.</li> <li>Check the file again user may cancel current selection. System max supports to display 32 files from one channel.</li> <li>After you clip on record file, click Backup button user may save it.</li> <li>For one device, if there is a backup in process, user may not start a new backup operation.</li> </ul>
13	Clip	<ul> <li>It is to edit the file.</li> <li>Please play the file you want to edit and then click this button when you want to edit. User may see the corresponding slide bars in the time bar of the corresponding channel. User may adjust the slide bar or input the accurate time to set the file end time.</li> <li>After you set, user may click Clip button again to edit the second period. User may see the slide bar restore its previous position.</li> <li>Click Backup button after clip, user may save current contents in a new file.</li> <li>User may clip for one channel or multiple-channel. The multiple-channel click operation is similar with the one-channel operation.</li> <li>Please note:</li> <li>System max supports 1024 files backup at the same time.</li> <li>User may not operate clip operation if there is any file has been checked in the file list.</li> </ul>
14	Record type	In any play mode, the time bar will change once you modify the search type.
		Other Functions
15	Smart motion detect search	<ul> <li>When system is playing, user may select a zone in the window to begin smart search. Click the motion detect button to begin play.</li> <li>Once the motion detect play has begun, click button again will terminate current motion detect file play.</li> <li>There is no motion detect zone by default.</li> <li>If you select to play other file in the file list, system switches to motion detect play of other file.</li> <li>During the motion detect play process, user may not implement operations such as change time bar, begin backward playback or frame by frame playback.</li> <li>Please refer to chapter 3.12.4 Smart Search for detailed operation.</li> </ul>
16	Sync	In pane 14 of Figure 3-80, click Sync button, user may playback the files of different channels occurred at the same time.
17	Other channel synchroni zation switch to play	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.

	when playback	
18	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. User may right click mouse to exit.

### Note:

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

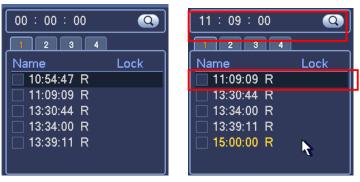
## 3.12.3 Accurate Playback by Time

Select records from one day, click the list, user may go to the file list interface. User may input time at the top right corner to search records by time. See image on the left side of the Figure 3-81 For example,

input time 11:00.00 and then click Search button, user may view all the record files after 11:00.00 (The records includes current time.). See image on the right side of the Figure 3-81 Double click a file name to playback.

### Note

- After you searched files, system implement accurate playback once you click Play for the first time.
- System does not support accurate playback for picture.
- System supports synchronization playback and non-synchronous playback. The synchronization playback supports all channels and non-synchronous playback only supports accurately playback of current select channel.





## 3.12.4 Smart Motion Detect Search

During the multiple-channel playback mode, double click one channel and then click the button, system begins smart search. System supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Please left click mouse to select smart search zones. See Figure 3-82.

Play			Sync				All			legula		Alarr		M	ation					6	24M (+)	thr Q 1hr
	2	3	4	5	6			8	9	10	11	12	13	14	15	16	17	18	19	20	21	22 23
ΠΓ				Þ	•	僚												446		0:00 -		
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-													-	-	-	+	+			13-10-		
																				Start T	ime	
																					00:00 F	
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Figure 3-82

Click the local, user may go to the smart search playback. Click it again, system stops smart search playback.

Important

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

# 3.12.5 Mark Playback

Please make sure your purchased device support this function. User may use this function only if user may see the mark playback icon on the Search interface (Figure 3-80).

When you are playback record, user may mark the record when there is important information. After playback, user may use time or the mark key words to search corresponding record and then play. It is very easy for you to get the important video information.

Add Mark

When system is playback, click Mark button, user may go to the following interface. See Figure 3-83.

Add Mark
Mark Time (2013-09-27 10:01:08) Mark Name (
Default OK Cancel

Figure 3-83

# Playback Mark

During 1-window playback mode, click mark file list button in Figure 3-80, user may go to mark file list interface. Double click one mark file, user may begin playback from the mark time.

• Play before mark time

Here user may set to begin playback from previous N seconds of the mark time.

### Note

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

Mark Manager

Click the mark manager button on the Search interface (Figure 3-80); user may go to Mark Manager interface. See Figure 3-84. System can manage all the record mark information of current channel by default. User may view all mark information of current channel by time.

	Marks Manager	
	• 09 - 27 00 : 00 : 00     • 09 - 28 00 : 00 : 00     Mark Time     2013-09-27 10:00:12	Mark Name report
	•	
Delete		Exit

Figure 3-84

# Modify

Double click one mark information item, user may see system pops up a dialogue box for you to change mark information. User may only change mark name here.

Delete

Here user may check the mark information item you want to delete and then click Delete button, user may remove one mark item. .

### Note

- After you go to the mark management interface, system needs to pause current playback. System resume playback after you exit mark management interface.
- If the mark file you want to playback has been removed, system begin playbacking from the first file in the list.

# 3.12.6 Picture Playback

- a) From Main menu->Search, or on the preview interface right click mouse, user may go to Figure 3-80.
- b) At the top right pane, user may check the box to select picture and then select playback interval.
- c) Please refer to chapter 3.12.2 to select picture you want to view.

# 3.12.7 Splice Playback

On the main menu, click Search button, or right click mouse and then select Search. User may go to the Figure 3-80.

On the right pane, select the search type as splice from the dropdown list (pane 2 in Figure 3-80 ), and then set channel, date, split mode

### Note

Select split mode, so that the record can be spliced in several sections.

Select splice file.

- Click Playback, system playbacks from the first of current date by default.
- Click time bar, system playbacks from the time you click.
- Click 📕, user may select on the file list.

### Note

- System can auto slice file of one channel into 4/8/16 sections and then play at the same time.
- User may select channel mode to set splice amount. There is no splice operation if you select 1-window.
- The record min file size is 5 minutes.

# 3.12.8 Smart Playback

This function includes face detect and behavior analytics.

On the main menu, click Smart play, the interface is shown as below. See Figure 3-85.

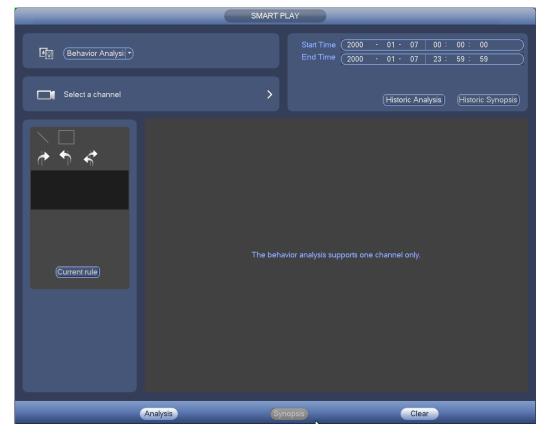


Figure 3-85

### 3.12.8.1 Behavior Analysis

It is to search the record of corresponding rule and then playback. Set a channel number. Please note this function is for 1-channel mode only. Set the search type as behavior analytics, set channel, start time and end time. Set detect rule (tripwire/intrusion), and then set detect rule. 3.12.8.1.1 Tripwire

Click and then use mouse to draw the rule on the right pane of the interface. Left click mouse to confirm first and then right click mouse to complete drawing. Here user may set rule direction. See Figure 3-86.

- Line1/2/3/4: System supports four tripwires. Each SN stands for one tripwire.
- Direction ( System can generate an alarm once there is any object crossing in the specified direction.

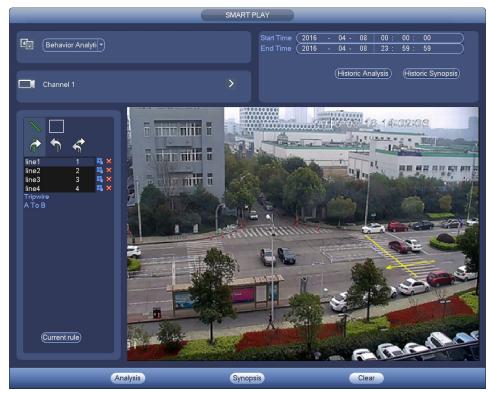


Figure 3-86

### 3.12.8.1.2 Intrusion

Click L, use mouse to draw the rule on the right pane of the interface. Please note the start position and the end position shall be at the same place. Right click mouse to complete the setup. See Figure 3-87.

• Area1/2/3/4: System supports four zones. Each SN stands for one area.



Direction (

System can generate an alarm once there is any object

enter/exit (Or both) the zone.

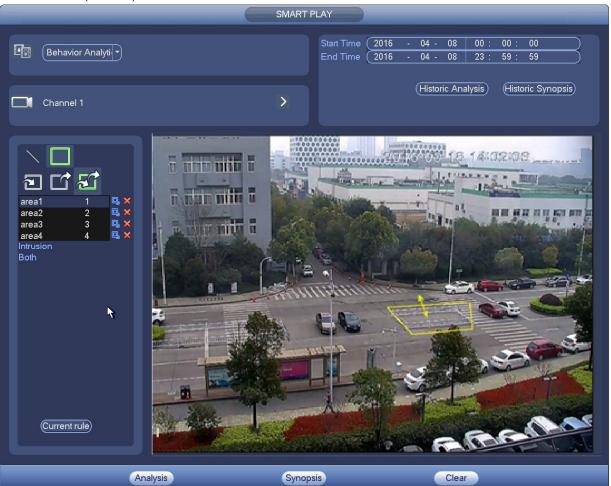
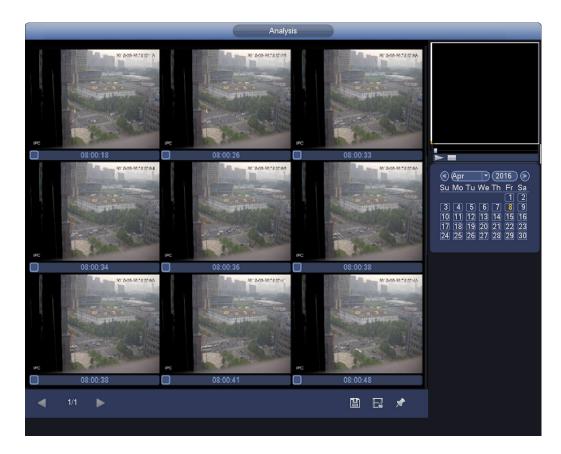


Figure 3-87

### Tips

Click Current rule button, user may use the rule you set in chapter 3.14.2 (Main menu->Setting->Event->Behavior Analytics) to detect.

Click Historic analysis button at the right pane or Analysis button at the bottom of the interface, system begins analyzing, and display the image of the corresponding event. See Figure 3-88.





Click the image; user may view the record file.

- Select a file and then click Lil, user may save current file to peripheral storage device.
- Select a file and then click [], user may lock current file in case it will be overwritten in the future
- Select a file and then click Main, user may mark the time of the detected event.

In smart playback interface (Figure 3-85), click Clear button, user may delete detection and behavior analytics rule(s) of current channel.

### 3.12.8.2 Face Detect Playback

System can search the record containing the human face and then playback.

### Important

Before you use this function, please make sure current channel has enabled human face detection function. Please refer to chapter 3.14.4 (Main menu->Setting->Event->Face Detection) for detailed information.

Set the search type as face detect, set channel, start time and end time.

Click Historic analysis button at the right pane or Analysis button at the bottom of the interface, system begins to search. User may view the event time and image. See Figure 3-89. Click the image, system begins playback.

- Select the file and then click i, user may save current file to peripheral device.
- Select the file and then click [1], user may lock the file in case it will be overwrtitten in the future.
- Select the file and then click **M**, user may mark the time of the detected event.

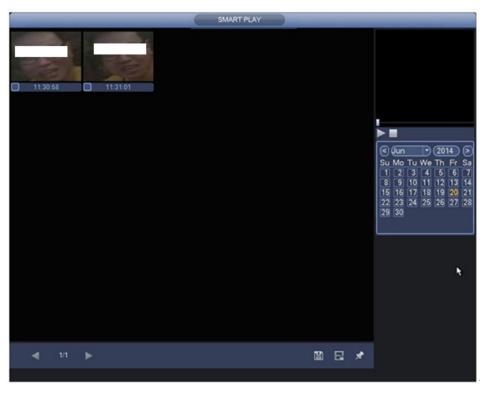


Figure 3-89

# 3.12.8.3 Video Synopsis

System can analyze the moving object, extract the moving object and merge different moving objects to one common background. In this way, it can display all moving objects and persons in the specified period to one window for you to view.

On smart search interface, select detection type, channel, start time and end time.

Click Synopsis button at the bottom of the interface; user may see the following interface. See Figure 3-90.

Synopsis Settings
Resolution CIF Synopsis Density 3
Yes No



Input resolution and synopsis density, click the OK button.

User may view the image after the synopsis process. See Figure 3-91.

Click the green rectangle; user may playback the record at the top right corner of the interface.

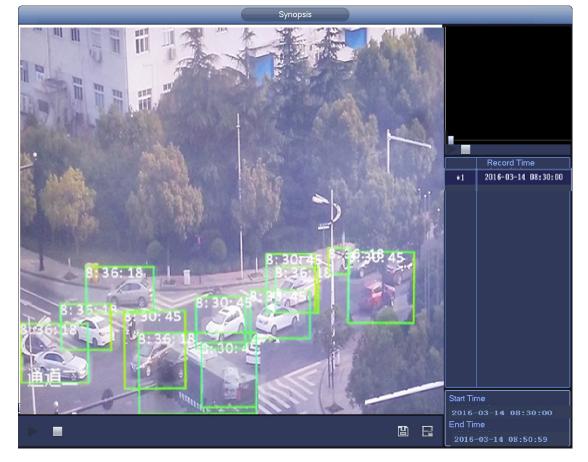


Figure 3-91

# Tips

Click Historic synopsis, user may view the previous synopsis image.

# 3.13 Backup

# 3.13.1 File Backup

In this interface, user may backup record file to the USB device.

- a) Connect USB burner, USB device or portable HDD and etc. to the device. User may see the detected device name and storage space, status.
- b) From Main menu->Backup, user may go to the Backup interface. See Figure 3-92.

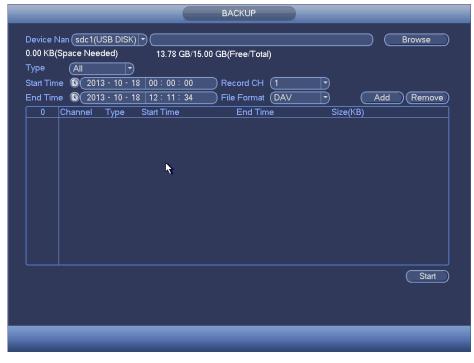


Figure 3-92

- c) Select backup device and then set channel, file start time and end time.
- d) Click add button, system begins search. All matched files are listed below. System automatically calculates the capacity needed and remained. See Figure 3-93.
- e) System only backup files with a  $\sqrt{}$  before channel name. User may use Fn or cancel button to delete  $\sqrt{}$  after file serial number.
- f) Click backup button, user may backup selected files. There is a process bar for you reference.
- g) When the system completes backup, user may see a dialogue box prompting successful backup.

Type Start Tir	ne (	All 🕄 2013 -	) 10 - 10 _ 0	0:00:00	Record CH	(1			
End Tir		0 2013 -		2:11:34	File Format	(DAV	$\exists$	Add	Remove
					~	<u> </u>		<u></u>	Remove
43		Channel Ty		rt Time	End Tim		Size(Kl	3)	^
1		1 R		10-14 22:00:00		4 23:00:00	48176		
2	$\checkmark$	1 R		10-14 23:00:00		5 00:00:00	48037		
3	$\checkmark$	1 R		10-15 00:00:00		5 00:28:50	22528		
4	$\checkmark$	1 R		10-15 00:28:50		5 01:00:00	24668	R	
5	$\checkmark$	1 R		10-15 01:00:00		5 02:00:00	46815	7	
6	$\checkmark$	1 R		10-15 02:00:00		5 03:00:00	47802		
7	$\checkmark$	1 R		10-15 03:00:00		5 04:00:00	47566		
8	$\checkmark$	1 R		10-15 04:00:00		5 05:00:00	47468		
9	$\checkmark$	1 R		10-15 05:00:00		5 06:00:00	47358		
10	$\checkmark$	1 R		10-15 06:00:00		5 07:00:00	47773		
11		1 R		10-15 07:00:00		5 08:00:00	47229		
12	$\checkmark$			10-15 08:00:00		5 09:00:00	47865		
13	$\checkmark$			10-15 09:00:00		5 09:03:02	2780		Ļ
<u>1</u> 1		1 D	12	10 15 00.05.55	12 10 16	00.57.22	10060		
									(Start



h) Click backup button, system begins burning. At the same time, the backup button becomes stop button. User may view the remaining time and process bar at the left bottom.

#### Note

- During backup process, user may click ESC to exit current interface for other operation (For some series product only). The system will not terminate backup process.
- The file name format usually is: Channel number+Record type+Time. In the file name, the YDM format is Y+M+D+H+M+S. File extension name is .dav.

# 3.13.2 Import/Export

This function allows you to copy current system configuration to other devices. It also supports import, create new folder, and delete folder and etc function.

From Main menu->Setting->System->Import/Export, user may see the configuration file backup interface is shown as below. See Figure 3-94.

		SETTING		_	
Samera		📷 EVENT	STORAGE	SYSTEM	
GENERAL DISPLAY POS ACCOUNT AUTO MAINTAIN	Device Name Total Space Address	(sda1(USB DISK))▼) (14.45 GB	(Refresh) Free Space	(5.81 GB	
IMP/EXP DEFAULT UPGRADE	Name English				Ty A Fo
	(New Folder)	Format (Import)	(Export)		pply

Figure 3-94

- Export: Please connect the peripheral device first and then go to the following interface. Click Export button, user may see there is a corresponding "Config_Time" folder. Double click the folder, user may view some backup files.
- Import: Here user may import the configuration files from the peripheral device to current device. You need to select a folder first. User may see a dialogue box asking you to select a folder if you are selecting a file. System pops up a dialogue box if there is no configuration file under current folder. After successfully import, system needs to reboot to activate new setup.
- Format: Click Format button, system pops up a dialogue box for you to confirm current operation. System begins format process after you click the OK button.

### Note:

- System can not open config backup interface again if there is backup operation in the process.
- System refreshes device when you go to the config backup every time and set current directory as the root directory of the peripheral device.
- If you go to the configuration backup interface first and then insert the peripheral device, please click Refresh button to see the newly added device.

# 3.13.3 Backup Log

a) From Main menu->Info->Log, the interface is shown as below. See Figure 3-95.

	INFO
SYSTEM	
LOG	
	Start Time ( 2013 - 11 - 07   00 : 00 : 00
	End Time (2013 - 11 - 08 00 : 00 : 00 )
	Types (All ) (Search
	6 2013-11-07 18:01:01 Channel12 User logged in. 🗕 📃
	7 2013-11-07 18:01:01 Channel 4 User logged in 📰
	8 2013-11-07 18:01:01 Channel 5 User logged in 📰
	9 2013-11-07 18:01:01 Channel 6 User logged in 📃 🗖
	10 2013-11-07 18:01:01 Channel 7 User logged in. 🗕 😑
	11 2013-11-07 18:01:01 Channel 8 User logged in. 🗕 😑
	12 2013-11-07 18:01:20 Channel 9 User logged in. 🗕 😑
	13 2013-11-07 18:01:20 Channel13 User logged in. 🗕 😑
	14 2013-11-07 18:01:20 Channel 2 User logged in 📰
	15 2013-11-07 18:01:20 Channel 3 User logged in 📰
	16 2013-11-07 20:13:01 User logged in.<10.15.6.122> 😑
	17 2013-11-07 20:13:01 User logged in.<10.15.6.122> 😑
	18 2013-11-07 20:14:01 User logged out. <admin> 📰</admin>
	19 2013-11-07 20:14:01 User logged out. <admin> 😑 🔻</admin>
	Backup Clear

Figure 3-95

b) Select log type and then set start time/end time, click Search button, user may see log time and

event information. Click 🔲 to view detailed log information.

c) Select log items you want to save and then click backup button, user may select a folder to save them. Click Start to backup and user may see the corresponding dialogue box after the process is finish.

# 3.13.4 USB Device Auto Pop-up

After you inserted the USB device, system can auto detect it and pop up the following dialogue box. It allows you to conveniently backup file, log, configuration or update system. See Figure 3-96. Please refer to chapter 3.13.1 file backup, chapter 3.13.3 backup log, chapter 3.13.2 import/export, and chapter 3.12.2 search for detailed information.



Figure 3-96

# 3.14 Alarm

# 3.14.1 Video Detect

In the main menu, from Setting to Video detect, user may see the following interface. See Figure 3-97. There are three detection types: motion detection, video loss, tampering.

# 3.14.1.1 Motion Detect

After analysis video, system can generate a motion detect alarm when the detected moving signal reached the sensitivity you set here. System max supports 4 detect zones.

From main menu->Setting->Video detect->motion detect, motion detection menu is shown as below. See Figure 3-97.

- Event type: From the dropdown list user may select motion detection type.
- Channel: Select a channel from the dropdown list to set motion detect function.
- Enable: Check the box here to enable motion detect function.
- Region: Click select button, the interface is shown as in Figure 3-98. Here user may set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. User may click Fn button to switch between the arm mode and disarm mode. In arm mode, user may click the direction buttons to move the green rectangle to set the motion detection zone. After you completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.
- Anti-dither: Here user may set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, user may see the each activation may last 10s if the local alarm is activated. During the process, if system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the screen prompt, alarm upload, email will not be activated again. After 10s, if system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Period: Click set button, user may see an interface is shown as in Figure 3-100. Here user may set motion detect period. System only enables motion detect operation in the specified periods. It is not for video loss or the tampering. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- ♦ In Figure 3-100, Select icon of several dates, all checked items can be edited together. Now

the icon is shown as . Click to delete a record type from one period.

- ♦ In Figure 3-100. Click button after one date or a holiday, user may see an interface shown as in Figure 3-101. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- Alarm output: when an alarm occurs, system enables peripheral alarm devices.
- Latch: when motion detection complete, system auto delays detecting for a specified time. The value ranges from 1-300(Unit: second)

- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function.
- Send email: System can send out email to alert you when an alarm occurs.
- Record channel: System auto activates motion detection channel(s) to record once an alarm occurs. Please make sure you have set MD record in Schedule interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)
- PTZ activation: Here user may set PTZ movement when an alarm occurs. Such as go to preset, tour &pattern when there is an alarm. Click "select" button, user may see an interface is shown as in Figure 3-99.
- Record Delay: System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
- Tour: Here user may enable tour function when an alarm occurs. System one-window tour.
- Snapshot: User may enable this function to snapshot image when a motion detect alarm occurs.
- Log: Check the box here, system can record motion detect log.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

Please highlight icon bit to select the corresponding function. After all the setups please click save button, system goes back to the previous menu.

### Note:

In motion detection mode, user may not use copy/paste to set channel setup since the video in each channel may not be the same.

In Figure 3-98, user may left click mouse and then drag it to set a region for motion detection. Click Fn to switch between arm/withdraw motion detection. After setting, click enter button to exit.

		SETTING			
		Devent	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT	Motion Detect Vi Channel Region	deo Loss Tamperir (10) Ter Set	ng Scene Change nable 🖌	Video Analytics	
HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Period Alarm Out Show Message Record Channe PTZ Activation		5678	Anti-dither 5 s Latch 10 Send Email Delay 10	⊃s ⊃
	Buzzer	Set	ОК	Cancel Apply	

Figure 3-97





	PTZ Activation	
Channel 1 None 🕤 🛈	Channel 2	None 🔻 🛈
Channel 3 None 🔻 🔍 🛛	Channel 4	None 🔻 0
Channel 5 None 🔻 🔍 🛈	Channel 6	None 🔻 0
Channel 7 None 🔹 🛈	Channel 8	None 🔻 0
Channel 9 None 🔹 🔍	Channel 10	None 🔻 0
Channel 11 None 🔻 🛈	Channel 12	None 🔻 0
Channel 13 None 🔻 0	Channel 14	None 🔻 0
Channel 15 None 🔹 🔍	Channel 16	None 🔻 0
Channel 17 None 🔹 🔍	Channel 18	None 🔻 O
Channel 19 None 🔻 0	Channel 20	None 🔻 0
Channel 21 None 🔻 🔍	Channel 22	None 🔻 0
Channel 23 None 🔹 🔍	Channel 24	None 🔻 0
Channel 25 None 🔹 🔍	Channel 26	None 🔻 0
Channel 27 None 🔻 🔍	Channel 28	None 🔻 0
Channel 29 None 🔹 🔍	Channel 30	None 🔻 0
Channel 31 None 🔹 🔍	Channel 32	None 🔻 0
		OK Cancel





Figure 3-100

	Time Period
Current Date: Sun	
Period 1 (00 : 00 - 24 : 00 )	
Period 2 (00 : 00 - 24 : 00 )	
Period 3 (00 : 00 - 24 : 00 )	
Period 4 00 : 00 - 24 : 00	
Period 5 00 : 00 - 24 : 00	
Period 6 00 : 00 - 24 : 00	
🔲 All 📃 Sun 🗋 Mon	🗋 Tue 🗋 Wed 🗋 Thu 💭 Fri 📋 Sat
	Save

Figure 3-101

Motion detect here only has relationship with the sensitivity and region setup. It has no relationship with other setups.

3.14.1.2 Video Loss

From main menu->Setting->Video detect->video loss, user may see the interface is shown as in Figure 3-102. This function allows you to be informed when video loss phenomenon occurred. User may enable alarm output channel and then enable show message function.

User may refer to chapter 3.14.1.1 Motion detect for detailed information.

### Tips:

User may enable preset/tour/pattern activation operation when video loss occurs.

	SETTING
ST CAMERA	TRANSPORT SYSTEM
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Motion Detect       Video Loss       Tampering       Scene Change Video Analytics         Channel       10       Enable       Image: Change Video Analytics         Period       Set       Image: Change Video Analytics         Period       Set       Image: Change Video Analytics         Pariod       Set       Image: Change Video Analytics         Period       Set       Image: Change Video Analytics         Period       Set       Image: Change Video Analytics         Period       Set       Send Email         Record Channel       Set       Delay 10         PTZ Activation       Set       Image: Change Video Analytics         Image: Tour       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set       Image: Change Video Analytics         Image: Change Video Analytics       Set
	Default Copy OK Cancel Apply

Figure 3-102

### 3.14.1.3 Tampering

When someone viciously masks the lens, or the output video is in one-color due to the environments light change, the system can alert you to guarantee video continuity. From main

menu->Setting->Video detect->Tampering, user may see tampering interface is shown as in Figure 3-103. User may enable "Alarm output "or "Show message" function when tampering alarm occurs.

• Sensitivity: The value ranges from 1 to 6. It mainly concerns the brightness. The level 6 has the higher sensitivity than level 1. The default setup is 3.

### Tips:

User may enable preset/tour/pattern activation operation when video loss occurs. Please refer to chapter 3.14.1.1 motion detection for detailed information.

### Note:

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

	SETTING
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Motion Detect Video Loss Tampering Scene Change Video Analytics   Channel 1 Enable   Period Set   Image: Set of the set of

Figure 3-103

# 3.14.1.4 Scene Changing

When the detected scene has changed, system can generate an alarm.

From main menu->Setting->Event->Video detect->Scene change, the interface is shown as in Figure 3-104.

Please refer to chapter 3.14.1.1 motion detection for detailed information.

	SETTING
STAMERA	75 NETWORK 👼 EVENT STORAGE SYSTEM
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Motion Detect Video Loss Tampering Scene Change Video Analytics   Channel 10 Enable     Period Set   Alarm Out 12345678   Alarm Upload Send Email   PRecord Channel Set   Out Set   Tour Set   Snapshot Set   Log   Buzzer
	Default Copy OK Cancel Apply

Figure 3-104

### 3.14.1.5 Video Analytics

From main menu->Setting->Video detect->Video analytics, user may see the interface is shown as in Figure 3-105. This function allows you to be informed when video is blurry, overexposure or color cast occurs. Each channel has its own enable/disable button and analytics rule. User may enable alarm output channel and then enable show message function.

Please refer to chapter 3.14.1.1 motion detection for detailed information.

	SETTING
	TORAGE
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Motion Detect       Video Loss       Tampering       Scene Change       Video Analytic\$         Channel       1       Enable       Set       Set       Set         Period       Set       Set       Alarm Out       1 2 3 4 5 6 7 8 Latch 10 s       Send Email         Alarm Out       1 2 3 4 5 6 7 8 Latch 10 s       Send Email       Send Email         ✓Log       Buzzer       Set       Set       Set
	Default Copy OK Cancel Apply

Figure 3-105

In Figure 3-105, click Set button, user may see the following interface. See Figure 3-106.

	Video Analytics
Select All	
Stripe	✓ 30
Noise	✓ 30
Color Cast	✓ — 30
Out of Focus	✓ — 30
Overexposure	9 🗹 —— 🛛 30
	OK Cancel

Figure 3-106

Check the box to set video diagnosis item (such as stripe) and then set alarm threshold (default setup is 30).

• Stripe: The strip occurs when the device is old or there is electronic interference. There may be cross

strip, vertical strip, slanting strip and etc.

- Noise: The video noise refers to the blurry video, poor video quality. It may result from the optical system distortion or the hardware problem during the video transmission when recording.
- Color cast: Usually the video is color containing RGB. When these three colors displayed in abnormal rate, we can say color cast occurred.
- Out of focus: The clear video presents abundant video details. The video definition decreases when the distortion event occurs. The out of focus event may result from many sources such as video transmission, processing and etc.
- Overexposure: The color brightness refers to the image pixel intensity. Black is the darkest and the white is the brightest. We use number 0 to stand for black and use number 255 to stand for white. Once the brightness threshold of the whole image has exceeded the threshold value, it means the image is over exposure.
- Threshold: The value ranges from 1 to 30. System can generate an alarm once the value is higher than the threshold you set here.

# 3.14.2 IVS Plan (Optional)

### Important

The IVS plans are for the smart camera. If you do not set a rule here, user may not use the intelligent functions in Behavior analytics (Chapter 3.14.3), Face detection (Chapter 3.14.4) and People counting (Chapter 3.14.5) when you are connecting to a smart camera.

In this interface, user may quickly add an intelligent rule for one preset. The intelligent rule includes human face detection, behavior analytics and people counting.

SETTING **METWORK** STORAGE SYSTEM CAMERA EVENT VIDEO DETECT ▼ Preset (1_Preset1 ▼ Channel (2 Add IVS PLAN **BEHAVIOR ANA** 0 Preset Del FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT Cancel Apply

From main menu->Setting->Event->IVS plan, the interface is shown as below. See Figure 3-107.

Figure 3-107

Please select a channel number and a preset.

Click Add and then select preset from the dropdown list and then add the intelligent plan. See Figure 3-108.

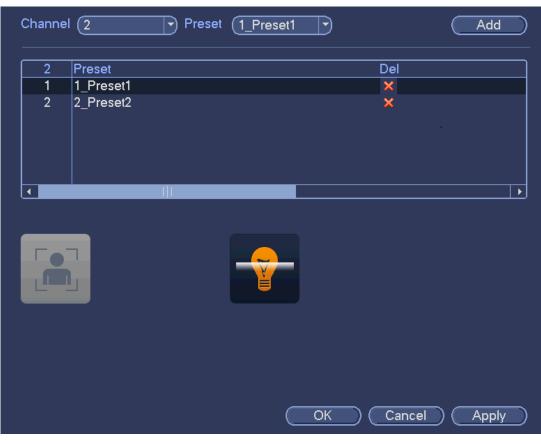


Figure 3-108

Click OK to complete the setup.

# 3.14.3 Behavior Analytics (Optional)

# $\Delta$ Please contact your service engineer or local retailer if user maynot use IVS function.

From main menu->Setting->Event->Behavior Analytics, user may go to the behavior analytics interface. Here user may set general behavior analytics rule. System can generate an alarm as the mode you previously set once there is any object violates the rule. See Figure 3-109.

	(	SETTIN	IG	
STAMERA		📷 EVENT	STORAGE	SYSTEM
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (10			
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1 🗹 Enable	e Name Rule1	Type Preset Tripwire ▼ -	Draw Trigger Delete
			Add	Cancel Apply

Figure 3-109

Select a channel from the dropdown list.

Click Add button to add a rule and then select a rule type from the dropdown list.

Set corresponding parameters.

Click Apply button to complete the setup.

3.14.3.1 Tripwire (Optional)

System generates an alarm once there is any object crossing the tripwire in the specified direction.

- The tripwire supports customized setup. It can be a straight line or a curve.
- Support one-direction or dual-direction detection.
- Support several tripwires at the same scene suitable for complicated environment.
- Support object size filter.

From main menu->Setting->Event->Behavior analytics, the interface is shown as below. See Figure 3-110.

	SETTING	
STAMERA	📷 NETWORK 📷 EVENT 🧏 STORAGE 🛃 SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (10	
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1 ✓ Enable Name Type Preset Draw Trigger Delete 1 ✓ Rule1 Tripwire ✓ - ✓ 🛱 🗙	
	Add Cancel Apply	

Figure 3-110

Click Draw button *L* to draw the tripwire. See Figure 3-111.



Figure 3-111

Select direction, and then input customized rule name.

• Preset: Select a preset you want to use behavior analytics.

- Name: Input customized rule name.
- Direction (A→B/B→A/A↔B): System can generate an alarm once there is any object crossing in the specified direction.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a tripwire. The tripwire can be a direct line, curve or polygon. Right click mouse to complete.

Tips

Click kollete the corresponding rule.

Click Click

User may refer to the following information to set other parameters.

- Channel: Select a channel from the dropdown list to set tripwire function.
- Enable: Check the box here to enable tripwire function.
- Rule: input customized rule name here.
- Period: Click set button, user may see an interface is shown as in Figure 3-100. Here user may set tripwire period. System only enables tripwire operation in the specified periods. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- ♦ In Figure 3-100, Select icon of several dates, all checked items can be edited together.

Now the icon is shown as Click V to delete a record type from one period.

- ♦ In Figure 3-100. Click button after one date or a holiday, user may see an interface shown as in Figure 3-101.
- Alarm output: when an alarm occurs, system enables peripheral alarm devices.
- Latch: when tripwire complete, system auto delays detecting for a specified time. The value ranges from 1-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function.
- Send email: System can send out email to alert you when an alarm occurs.
- Record channel: System auto activates tripwire channel(s) to record once an alarm occurs. Please make sure you have set intelligent record in Schedule interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)
- PTZ activation: Here user may set PTZ movement when an alarm occurs. Such as go to preset, tour &pattern when there is an alarm. Click "select" button, user may see an interface is shown as in Figure 3-99.
- Record Delay: System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
- Tour: Here user may enable tour function when an alarm occurs. System one-window tour.

- Snapshot: User may enable this function to snapshot image when a motion detect alarm occurs.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Track/track time: Check the box here, user may input customized track time value. The unit is second.

	Trigger		
Period	Set		
Alarm Out	<mark>1</mark> 2345678	Latch (10	s
	Alarm Upload	Send Email	
Record Channel	Set	Delay (10	s
PTZ Activation	Set		
Tour	Set		
Snapshot	Set		
✓Log			
Buzzer			
Track		Track Time (30	
Tack		Track Time (30	)s
Default			OK Cancel

Figure 3-112

	PTZ	Activation		
CAM 1	(None 🔻 0	CAM 2	(None	- (0
CAM 3	(None ) (0	CAM 4	None	$\overline{}$
CAM 5	None 🔽 🛈	CAM 6	None	$\square$
CAM 7	None 🔻 0	CAM 8	None	$\square$
CAM 9	None 💎 🛈	CAM 10	None	$\bigcirc$
CAM 11	None 💎 🛈	CAM 12	None	$\square$
CAM 13	None 💎 🛈	CAM 14	None	$\mathbb{P}$
CAM 15	None 🔽 0	CAM 16	None	$\overline{}$
	ОК	Cancel		

Figure 3-113



Figure 3-114

Time Period	
Current Date: Sun	
Period 1 (00 : 00 - 24 : 00 🗹	
Period 2 00 :00 - 24 : 00	
Period 3 (00 : 00 - 24 : 00)	
Period 4 00 : 00 - 24 : 00	
Period 5 00 :00 - 24 : 00	
Period 6 00 : 00 - 24 : 00	
Copy	
🗌 All 👘 Sun 🗍 Mon 💭 Tue 💭 Wed 💭 Thu 💭 Fri 💭 Sat	
Save	

Figure 3-115

After you set the corresponding parameters, click OK button in Figure 3-112., and then click the Apply button in Figure 3-110 to complete the setup.

# 3.14.3.2 Intrusion (Cross warning zone) (Optional)

System generates an alarm once there is any object entering or exiting the zone in the specified direction. From main menu->Setting->Event->Behavior analytics, click Add button and then select type as intrusion, the interface is shown as below. See Figure 3-116.

- System supports customized area shape and amount.
- Support enter/leave/both detection.
- Can detect the moving object operation in the specified zone, customized trigger amount and staying time.
- Support objects filter function.

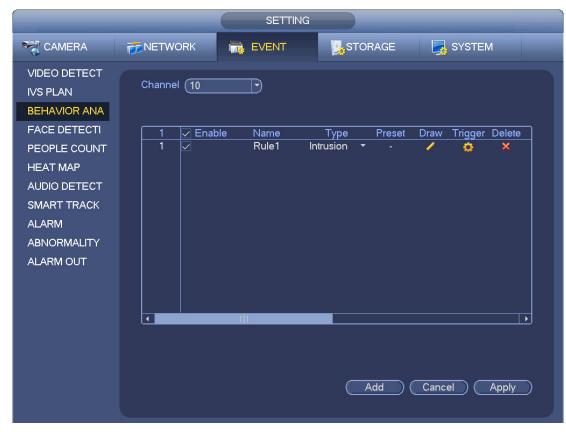


Figure 3-116

Click draw button *to draw the zone.* See Figure 3-117.



Figure 3-117

Select direction, and then input customized rule name.

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Direction (A→B/B→A/A↔B): System can generate an alarm once there is any object crossing in the specified direction.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a warning zone. Right click mouse to complete the setup.

Tips

Click K to delete the corresponding rule.

Click Click click user may refer to chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

3.14.3.3 Abandoned Object Detect (Optional)

System generates an alarm when there is abandoned object in the specified zone.

From main menu->Setting->Event->Behavior analytics, select the type as abandoned object, the object interface is shown as below. See Figure 3-118.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.

	_	SETTIN	IG	-	
	<b>NETWORK</b>	🔂 EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (10				
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1 ✓ Enat	ole Name Rule1	Type Preset Abandone ▼ -	Draw Trigger Del	
			Add	Cancel App	⊥► I¥



Click draw button *L* to draw the zone. See Figure 3-119.

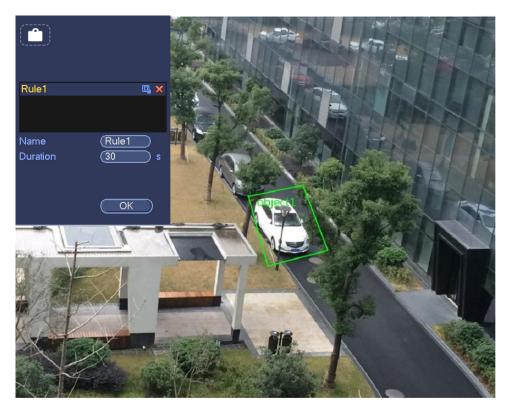


Figure 3-119

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Duration: System can generate an alarm once the object is in the zone for the specified period.
- Target filter: Click, user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a zone, until you draw a rectangle, user may right click mouse.

### Tips

Click kontent to delete the corresponding rule.

Click Click click user may refer to the chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

3.14.3.4 Missing Object Detection (Optional)

System generates an alarm when there is missing object in the specified zone.

From main menu->Setting->Event->Behavior analytics, select the type as abandoned object, the object interface is shown as below. See Figure 3-120.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.

		SETTIN	IG		
	TWORK 📷	📆 EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (10				
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1	Rule1	Type Preset Missing Ol ▼ -	Draw Trigger Delete	
			Add (	Cancel Apply	

Figure 3-120

Click Draw button *to draw a zone. See Figure 3-121.* 

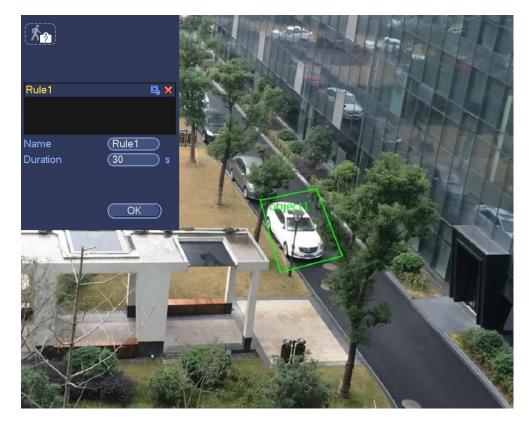


Figure 3-121

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Duration: System can generate an alarm once the object in the zone is missing for the specified period.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a zone, until you draw a rectangle, user may right click mouse.

### Tips

Click K to delete the corresponding rule.

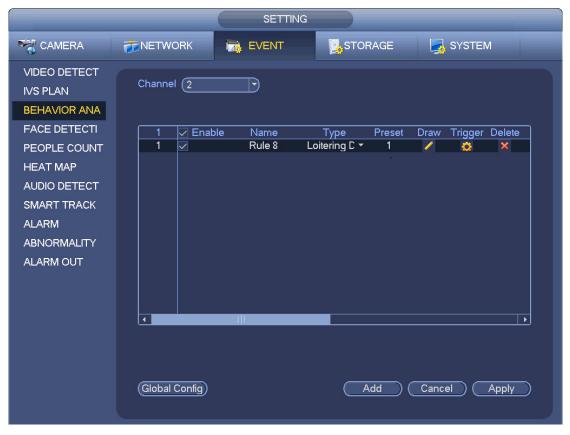
Click Click chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

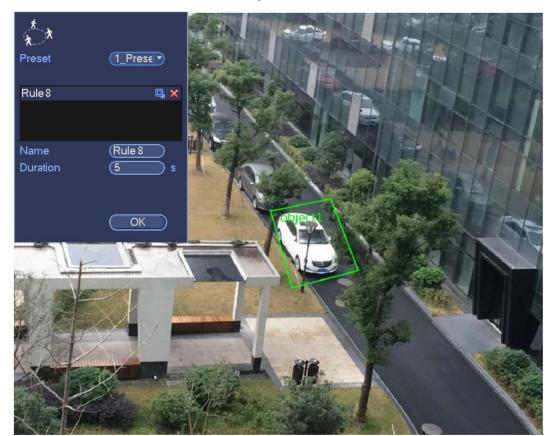
### 3.14.3.5 Loitering Detection (Optional)

System can generate an alarm once the object is staying in the specified zone longer than the threshold. From main menu->Setting->Event->Behavior analytics, select the type as loitering, the object interface is shown as below. See Figure 3-122.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.







Click draw button *local* to draw the zone. See Figure 3-123.

Figure 3-123

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Duration: System can generate an alarm once the object is in the zone for the specified period.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a zone, until you draw a rectangle, user may right click mouse.

Tips

Click K to delete the corresponding rule.

Click Click chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

# 3.14.3.6 Crowd Gathering Detection (Optional)

System can generate an alarm once the people amount gathering in the specified zone is larger than the threshold.

From main menu->Setting->Event->Behavior analytics, select the type as crowd gathering detect, the interface is shown as below. See Figure 3-124.

- Customized zone and amount setup.
- Duration setup.
- Sensitivity setup.
- Min gathering zone setup.

		SETTI	NG					
SAMERA		📷 EVENT	STO	RAGE		SYSTEM	И	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (2							
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT	1	ole Name Rule 8	Type Crowd Gat ▼	Preset 1	Draw ⁄	Trigger Ö	Delete ×	
SMART TRACK ALARM ABNORMALITY								
ALARM OUT								
							)	
	(Global Config)			Add (	Canc	el) (	Apply	

Figure 3-124

Click draw button *L* to draw the zone. See Figure 3-125.



Figure 3-125

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Duration: System can generate an alarm once the object is in the zone for the specified period.
- Sensitivity: It is to set alarm sensitivity. The value ranges from 1 to 10. The default setup is 5.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a zone, until you draw a rectangle, user may right click mouse.

Tips

Click to delete the corresponding rule.

Click Click chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

# 3.14.3.7 Fast moving (Optional)

It is to detect the fast moving object in the specified zone.

From main menu->Setting->Event->Behavior analytics, select the type as fast moving, the interface is shown as below. See Figure 3-126.

		SETTIN	IG		
SAMERA		🔂 EVENT		SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (2				
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1	ole Name Rule 8	Type Preset Fast-Movir <del>▼</del> 1	Draw Trigger Delete	
				•	]
	(Global Config)		Add	Cancel Apply	>

Figure 3-126

Click draw button *L* to draw the zone. See Figure 3-127.

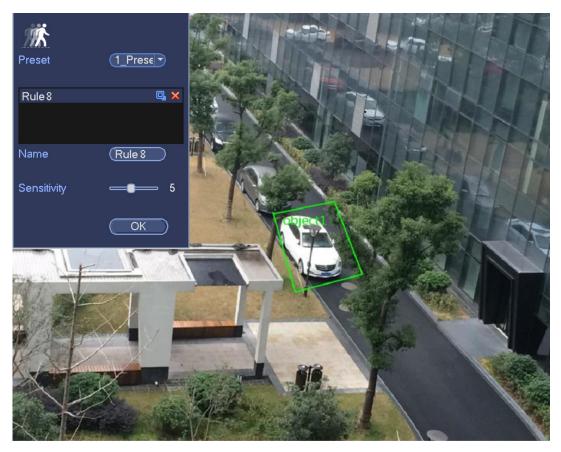


Figure 3-127

- Preset: Select a preset you want to use behavior analytics.
- Name: Input customized rule name.
- Sensitivity: It is to set alarm sensitivity. The value ranges from 1 to 10. The default setup is 5.
- Target filter: Click , user may set filter object size. Each rule can set two sizes (min size/max size).

Once the object is smaller than the min size or larger than the max size, there is no alarm. Please make sure the max size is larger than the min size.

Now user may draw a rule. Left click mouse to draw a zone, until you draw a rectangle, user may right click mouse.

## Tips

Click to delete the corresponding rule.

Click (user may refer to the chapter 3.14.3.1 to set other parameters.

Click Apply to complete the setup.

#### 3.14.3.1 Global Setup (Optional)

After you set the rule(s), user may see the following interface. See Figure 3-128.

		SETTING		_
STAMERA	📻 NETWORK 🛛 👼 E		RAGE 🌅	SYSTEM
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Channel (2	<u></u>		
FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	1 R 2 R 3 R 4 R 5 R 6 R	lame Type tule1 Tripwire ← tule2 Intrusion ← tule3 Abandone ← tule4 Fast-Movir ← tule5 Crowd Gat ← tule6 Missing OI ← tule7 Loitering C ←		Trigger Delete
	(Global Config)	A	sdd Canc	el Apply

Figure 3-128

Click Global config button, the interface is shown as below. See Figure 3-129.

- Channel: Please select a channel from the dropdown list.
- Preset: Select a preset you want to set the rule. Please note, you need to add a preset first, otherwise, user maynot see the preset dropdown list. If there is no preset, user may draw a rule in current channel.
- Calibration zone:
- ♦ Click Add zone , user may draw a calibration zone at the left pane of the interface. Select a zone and then click Delete zone button; user may remove the selected zone.
- Select gauge type (horizontal/tilt), user may set the corresponding length. User may draw three tilt gauges and one horizontal gauge at the left pane of the interface.
- Select Width/Height and then click Verify, user may draw a line in the calibration zone, and then user may see its actual length.
- Refresh preset: Click it to get the latest preset setup.



Figure 3-129

### The depth of the field calibration and principles

Here system uses one horizontal line and 3 height lines and the corresponding distance in the actual world, then it can calculate the camera internal parameters (internal geometric features and optics features) and external parameters (The 3D positions and direction in the actual world), so it can get the relative relationship between the 2D images of the camera and the 3D object of the actual world.

#### Depth of the field calibration setup and notes

- Application environments
- Use the near or far scene above 3M of the camera installation position. Do not use the scene at the bottom or at the top of the video.
- ♦ The calibration is for the horizontal scene, not for tilt corner or surface.
- ♦ Do not support unusual scene such as wide angle camera or fish eye camera.
- Calibration zone setup: The calibration zone shall be in the same surface.
- Tilt calibration setup: The bottom of the three tilt gauges shall be at the same surface. They shall form a triangle and use fixed reference object as the tilt gauge such as the vehicle parking along the road, or pole. The best way is to arrange a person to stand at these three positions and draw one by one.
- Tilt gauge: Please select the reference object on the ground that you have known the length (The

sign on the road or use tools to test the actual length.)

- Since these tilt lines have the same actual length, while according to the camera modeling mode, the line at the near sight is large while the line at the far sight is small, so, when you are drawing near the camera, the line shall be longer and when you are drawing far away the camera, the line shall be short.
- Calibration verify: After you set the gauge, please use tool to check the parameters. If the verification error is huge, please adjust the setup slightly or reset to reduce the error.

# 3.14.4 Face Detect (Optional)

When camera detects human face, system can generate an alarm.

From main menu->Setting->Event->Face detect, the interface is shown as in Figure 3-130.

- Enable: Check the box to enable face detection function.
- Face ROI (Region of Interest): Check the box here, system can enhance the human face display pane.
- Log: Check the box here, system can record face detect log.

User may refer to the chapter 3.14.1.1 to set other parameters.

Click OK to complete the setup.

	(	SETTING			
STAMERA		DEVENT		SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Channel Face ROI Set Period Alarm Out Record Channel PTZ Activation Tour Snapshot Cog Buzzer	13 Rule Set 1 2 3 4 Alarm Upload Set Set Set Set Set	5678	nable	⊃s ⊃s
	Default		ОК	) Cancel A	pply )

Figure 3-130

# 3.14.5 People Counting (Optional)

System can calculate the entry/exit people amount in the specified zone. It can generate an alarm when the amount has exceeded the threshold.

From main menu->Setting->Event->People counting, user may see an interface shown as in Figure 3-131.

- Enable: Check the box to enable people counting function.
- OSD overlay: Check the box here; user may view the people amount on the surveillance video.

- Direction: It is to set people flow direction. It includes entry/exit.
- Entry No.: It is to set people entry amount. System can generate an alarm once the amount has exceeded the threshold.
- Exit No.: It is to set people entry amount. System can generate an alarm once the amount has exceeded the threshold.
- Stranded No.: It is to set people staying amount in the zone. System can generate an alarm once the amount has exceeded the threshold.

		SETTING			
🥰 CAMERA		Devent	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Channel Set OSD Overlay People Counting Period Alarm Out PERECORD Channel PTZ Activation Tour Snapshot Log Buzzer	Rule Clear Enter No. (0 Set 1 2 3 4 Alarm Upload	Enable 🗹	Stranded No. () Latch () Send Email Delay (1)	)s )s
	()		(ОК	) (Cancel) (Ap	ply

Figure 3-131

# 3.14.6 Heat Map (Optional)

It is to detect the object activity level in the scene during the specified period.

From main menu->Setting->Event->Heat map, user may see an interface shown as in Figure 3-132.

- Channel: Please select a channel and then check the box to enable this function.
- Enable: Check the box to enable heat map function.

		SETTING		
STAMERA		Devent	STORAGE	SYSTEM
VIDEO DETECT IVS PLAN	Channel	(1) Er	nable 🖌	
BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Period	Set		
	Default		OK	Cancel Apply

Figure 3-132

# 3.14.7 Audio Detect

System can generate an alarm once it detect the audio input is abnormal or audio volume changes. From main menu->Setting->Event->Audio detect, user may see an interface shown as in Figure 3-133.

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

User may refer to the chapter 3.14.1.1 to set other parameters.

	(	SETTING			
STAMERA		Devent	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK	Channel Sensitivity Threshold Period ☑Alarm Out ☑Record Channel	10 In	out Abnormal 🖌 In — 50 (1 - 100) — 50 (1 - 100) 5 6 7 8	Latch (10 Send Email	s
ALARM ABNORMALITY ALARM OUT	PTZ Activation Tour Snapshot Log Buzzer Default	Set Set Set	OK	Delay (10	)s

Figure 3-133

# 3.14.8 Smart Track (Optional)

The smart track function refers to a system consisting of the fish eye and the PTZ camera. The fish eye is the master camera to view the whole surveillance situation, and the PTZ camera is the slave camera to view the details.

### Important

The fish eye and the PTZ camera shall surveillance proper zone.

The fish eye and the PTZ camera shall use the private protocol to add.

From Main menu->Setting->Event->Smart track, user may see an interface shown as Figure 3-134.

		SETTING			
SAMERA		EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA FACE DETECTI PEOPLE COUNT HEAT MAP AUDIO DETECT SMART TRACK ALARM ABNORMALITY ALARM OUT	Scene	Main Cam	PTZ Status	Operation	

Figure 3-134

Click add button, user may see an interface shown as in Figure 3-135.

- Type: Here user may select smart track mode. It includes: 1 fish eye+1 PTZ camera/1 fish eye+2 PTZ cameras/1 fish eye+3 PTZ cameras.
- Scene: It is the monitor position. Input customized monitor position name.
- Main channel: Click Select button and then select fish eye from the dialogue box.
- PTZ camera: Click Select button and then select corresponding PTZ camera amount from the dialogue box.

Add
Type Fisheye+PTZ 1 Fisheye+1 Scene Select PTZ Select Channel Camera Name IP Address
OK Cancel

Figure 3-135

After the setup, click OK button.

In Figure 3-134. click is or double click the line, user may go to the following interface. See Figure 3-136. Here user may set the fish eye and PTZ camera bonding relationship.



Figure 3-136

On the fish eye displayed zone, left click mouse or move 🖭 to confirm the position.

On the PTZ camera displayed zone, use the following buttons to adjust the PTZ camera position.

Button	Function
ଷ୍ପ୍	Zoom
	Focus
O S	Iris
	Electronic mouse, move it on the interface to control the
	PTZ direction.
Speed(1-8)	It is to control PTZ movement speed. The higher the
opeed(1-0)	value is, the faster the speed is.
<b>□</b> 1	For example, the step 8 speed is faster than step 1.

Click add button and then click 🗎 to save.

Now you complete one group position, user may view at the list. See Figure 3-137.

Add	lear			
Main Cam	PTZ	Zoom	Save	Del
4090,4096	1677,-80	2	<b>=</b>	×

Figure 3-137

Repeat the above steps to set at least three group positions.

#### Note

- For one PTZ camera, there must be three calibration groups. System max supports 8 group positions. Please make sure the calibration position is accurate.
- For the first calibration group position, please select the reference objects at the far distance to enhance the trigger accuracy.

Click OK button to complete the calibration setup, user may go back to the smart track interface, the

status is shown as

#### Note

After you complete smart track setup, please go to the preview interface and then right click mouse, and then select Smart track, user may view the corresponding video. Please refer to chapter 3.9 for detailed information.

# 3.14.9 Alarm Output

From Main menu->Setting->Event->Alarm output, user may see an interface shown as in Figure 3-138. Here is for you to set proper alarm output (Auto/manual/stop).

Click OK button of the alarm reset, user may clear all alarm output status.

		SETTING		
CAMERA		Devent	STORAGE	SYSTEM
VIDEO DETECT IVS FACE DETECT AUDIO DETECT ALARM ABNORMALITY	Alarm Out Auto Manual Stop Status	All 1 2 • • • • • • •		
ALARM OUT	Alarm Release	OK	ОК	Cancel Apply

Figure 3-138

Please highlight icon 📕 to select the corresponding alarm output.

After all the setups please click OK button, system goes back to the previous menu.

### 3.14.10Alarm Setup

In the main menu, from Setting->Event->Alarm, user may see alarm setup interface.

• Alarm in: Here is for you to select channel number.

In the main menu, from Setting->Event->Alarm, user may see alarm setup interface. See Figure 3-139.

There are four alarm types. See Figure 3-139 to Figure 3-142.

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

#### Important

- If it is your first time to boot up the device, the disconnection status of the front-end network camera will not be regarded as offline. After one successfully connection, all the disconnection events will be regarded as IPC offline event.
- When IPC offline alarm occurs, the record and snapshot function of digital channel is null.
- Enable: Please you need to highlight this button to enable current function.
- Type: normal open or normal close.
- Period: Click set button, user may see an interface is shown as in Figure 3-144. There are two ways for you to set periods. There are max 6 periods in one day. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
  - ♦ In Figure 3-144, Select icon of several dates, all checked items can be edited together.

Now the icon is shown as . Click to delete a record type from one period.

- In Figure 3-144. Click button after one date or a holiday, user may see an interface shown as in Figure 3-145. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- PTZ activation: When an alarm occurred, system can activate the PTZ operation. The PTZ activation lasts an anti-dither period. See Figure 3-143.
- Anti-dither: Here user may set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, user may see the each activation may last 10s if the local alarm is activated. During the process, if system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the

screen prompt, alarm upload, email will not be activated again. After 10s, if system detects another alarm signal, it can generate an alarm since the anti-dither time is out.

- Alarm output: The number here is the device alarm output port. User may select the corresponding ports(s) so that system can activate the corresponding alarm device(s) when an alarm occurred.
- Latch: When the anti-dither time ended, the channel alarm you select in the alarm output may last the specified period. The value ranges from 1 to 300 seconds. This function is not for other alarm activation operations. The latch is still valid even you disable the alarm event function directly.
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Alarm upload: System can upload the alarm signal to the network (including alarm centre and the WEB) if you enabled current function. System only uploads the alarm channel status. User may go to the WEB and then go to the Alarm interface to set alarm event and alarm operation. Please go to the Network interface to set alarm centre information.
- Send email: System can send out the alarm signal via the email to alert you when an alarm occurs. Once you enable the snap function, system can also send out an image as the attachment. Please go to the Main Menu->Setting ->Network->Email interface to set.
- Record channel: user may select proper channel to record alarm video (Multiple choices).
  - You need to set alarm record mode as Schedule in Record interface (Main Menu->Advanced->Record). Please note the manual record has the highest priority. System record all the time no matter there is an alarm or not if you select Manual mode.
  - Now user may go to the Schedule interface (Main Menu->Setting->Schedule) to set the record type, corresponding channel number, week and date. User may select the record type: Regular/MD/Alarm/MD&Alarm. Please note, user may not select the MD&Alarm and MD(or Alarm) at the same time.
  - ♦ Now user may go to the Encode interface to select the alarm record and set the encode parameter (Main Menu->Setting->Encode).
  - Finally, user may set the alarm input as the local alarm and then select the record channel. The select channel begins alarm record when an alarm occurred. Please note system begins the alarm record instead of the MD record if the local alarm and MD event occurred at the same time.
- Tour: Here user may enable tour function when an alarm occurs. System supports 1/8-window tour. Please go to chapter3.6.4.1 Display for tour interval setup. Please note the tour setup here has higher priority than the tour setup you set in the Display interface. Once there two tours are both enabled, system can enable the alarm tour as you set here when an alarm occurred. If there is no alarm, system implements the tour setup in the Display interface.
- Snapshot: User may enable this function to snapshot image when an alarm occurs.
- Log: Check the box here, system can record local alarm log.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

		SETTING		
CAMERA		Devent		SYSTEM
VIDEO DETECT IVS PLAN	Local	Net IPC Ex	t IPC Offline	
BEHAVIOR ANA	Alarm In		nable 🗹 Type (NO	
FACE DETECTI	Alarm Name			
PEOPLE COUNT HEAT MAP	Period	Set		Anti-dither 5 s
AUDIO DETECT	Alarm Out	[1][2][3][4]	5678	Latch (10 s
SMART TRACK	Show Message	Alarm Upload		Send Email
ALARM	Record Channel	(Set		Delay 10 s
ABNORMALITY	PTZ Activation	Set		
ALARM OUT	Tour	Set		
	Snapshot	Set		
	✓Log			
	Buzzer			
	Default	Сору	ОК	Cancel Apply

Figure 3-139

	SETTING
😋 CAMERA	TRACE SYSTEM
VIDEO DETECT	Local Net IPC Ext IPC Offline
FACE DETECT	Alarm In 🔹 🚺 🕞
AUDIO DETECT	Alarm Name
ALARM	
ABNORMALITY	Period Set
ALARM OUT	Alarm Out 12 Latch 10 s
	Show Message Alarm Upload Send Email
	Record Channel     Desy Space
	PTZ Activation Set Delay 10 s
	Tour 12
	Snapshot 12 Easy Space
	✓Log
	Buzzer
	Default Copy OK Cancel Apply

Figure 3-140

SETTING					
STAMERA		🔯 EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN	Local	Net IPC Ext	IPC Offline		
BEHAVIOR ANA FACE DETECTI	Channel Alarm Name	Er	nable 🗹 Type (NC		
PEOPLE COUNT				0 mai aliata a c	
HEAT MAP AUDIO DETECT	Period	Set )	5678	Anti-dither 5 s	⊃s
SMART TRACK	Show Message	Alarm Upload		Send Email	
ALARM	Record Channel	Set		Delay (10	_)s
ALARM OUT		Set Set			
	Snapshot				
	Buzzer				
	Default	Сору	ОК (	Cancel Apply	

Figure 3-141

		SETTING			
😋 CAMERA		📷 EVENT	STORAGE	SYSTEM	
VIDEO DETECT IVS PLAN BEHAVIOR ANA	Local	Net IPC Ex	t IPC Offline		
FACE DETECTI PEOPLE COUNT					
HEAT MAP	Alarm Out	1234	5678	) Latch (10	⊃s
AUDIO DETECT	Show Message	Alarm Upload		Send Email	
SMART TRACK				Delay (10	)s
ALARM	PTZ Activation	Set			
ABNORMALITY	Tour	Set			
ALARM OUT	Snapshot	(Set			
	Log				
	Buzzer				
	Default	Сору	ОК	Cancel App	ly

Figure 3-142

		PTZ Activation	
Channel 1	None 🔻 0	) Channel 2	None 🔻 🛈
Channel 3	(None ) ()	) Channel 4	(None 🔻 🔍
Channel 5	(None ) ()	) Channel 6	None 🔻 🛈
Channel 7	(None 🔽 🛈	) Channel 8	None 🔻 🛈
Channel 9	(None 🔽 🛈	) Channel 10	None 🔻 O
Channel 11	(None 🔽 🕡	) Channel 12	None 🔻 O
Channel 13	(None 🔽 🔍	) Channel 14	None 🔻 O
Channel 15	(None 🔽 🔍	) Channel 16	(None 🔻 0
Channel 17	(None 🔽 🔍	) Channel 18	None 🔻 0
Channel 19	(None 🔻 🔍	) Channel 20	None 🔻 0
Channel 21	(None 🔽 🛈	) Channel 22	None 🔻 🛈
Channel 23	(None 🔽 🛈	) Channel 24	None 🔻 O
Channel 25	(None 🔽 🕡	) Channel 26	None 🔻 O
Channel 27	(None 🔽 🕡	) Channel 28	None 🔻 0
Channel 29	(None 🔽 🔍	) Channel 30	None 🔻 0
Channel 31	(None ) (0	) Channel 32	(None 🔻 0
			OK Cancel

Figure 3-143

	Setup
🗖 All 🗖 Sun	0 2 4 6 8 10 12 14 16 18 20 22 24
Mon	
Tue	
D Wed	
• Thu	
🗢 Fri	
🗖 Sat	Setup)
Defaul	t OK Cancel

Figure 3-144

Current Date: Sun
Period 1 (00 : 00 - 24 : 00 )
Period 2 (00 : 00 - 24 : 00)
Period 3 (00 : 00 - 24 : 00 )
Period 4 00 : 00 - 24 : 00
Period 5 00 : 00 - 24: 00
Period 6 00 : 00 - 24 : 00
Copy
🗋 All 👘 Sun 🗋 Mon 🗋 Tue 🗋 Wed 🗍 Thu 🗍 Fri 🗍 Sat
Save

Figure 3-145

Please highlight icon to select the corresponding function. After setting all the setups please click save button, system goes back to the previous menu.

### 3.14.11Abnormality

There are three types: Disk/Network/power fault.

- ♦ Disk: Disk error, no disk, no space. See Figure 3-146.
- ♦ Network: Disconnection, IP conflict, MAC conflict. See Figure 3-147.
- Power fault. The interface is shown as in Figure 3-148. This function is for power-redundancy series product. When this function is on, user may remove one power sourcing from the system, it does not affect the normal operation of the device, but system will generate an alarm to alert you.
- Alarm output: Please select alarm activation output port (multiple choices).
- Less than: System can alarm you when the HDD space is less than the threshold you set here (For HDD no space type only).
- Latch: Here user may set corresponding delaying time. The value ranges from 1s-300s. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.
- Show message: system can pop up the message in the local screen to alert you when an alarm occurs.
- Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you enabled current function. For disconnection event, IP conflict event and MAC conflict event, this function is null.
- Send email: System can send out email to alert you when an alarm occurs.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Log: Check the box here, system can record corresponding alarm log.

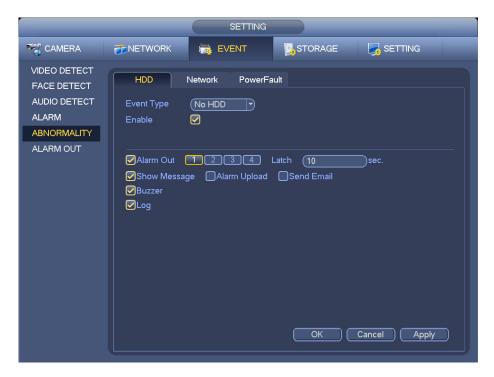


Figure 3-146

SETTING					
SAMERA		EVENT	STORAGE	SETTING	
VIDEO DETECT FACE DETECT	HDD	Network PowerFa	ault		
AUDIO DETECT ALARM ABNORMALITY	Event Type Enable	Disconnect 🔻			
ALARM OUT	<ul> <li>✓ Alarm Out</li> <li>✓ Show Mess</li> <li>Buzzer</li> <li>✓ Log</li> </ul>		Latch (10 Send Email	Sec.	

Figure 3-147

	-	SI	ETTING		-	_
CAMERA		🔂 EVEN	ντ	STORAGE	SETT	ING
VIDEO DETECT FACE DETECT AUDIO DETECT	HDD		PowerFau	ılt		
ALARM	Enable					
ABNORMALITY		123	4 Latel	ר (10	)sec.	
ALARM OUT	Show Mess Buzzer Log			Send Email		
				ОК	Cancel	Apply

Figure 3-148

# 3.15 Network

# 3.15.1 Network Settings

3.15.1.1 TCP/IP

From main menu->Setting->Network->TCP/IP, the interface is shown as in Figure 3-149.

- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and user may access via them.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.
- Default card: It is to set default network card.
- LAN download: System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

# Important

For the IP address of IPv6 version, default gateway, preferred DNS and alternate DNS, the input value shall be 128-digit. It shall not be left in blank.

	SETTING
STAMERA	TINETWORK THE EVENT STORAGE SYSTEM
TCP/IP PORT PPPoE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST ALARM CENTER	Ethernet Card       IP Address       Net Mode       NIC Member       Edit       Unbond         Ethernet Port1       10.15.6.145       Single NIC       1       1       1       1         Ethernet Port2       192.168.1.106       Single NIC       2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1
REGISTER CLUSTER IP	MAC Address. 90.02.39.59.10.as     Subhet Mask. 255.255.0.0     Midde. STATIC       IP Version     IPv4     •       Preferred DNS     10 · 1 · 2 · 80       Alternate DNS     10 · 1 · 2 · 81       Default     OK       Cancel     Apply

Figure 3-149

Click Edit button due to the following interface. See Figure 3-150.

- Network mode:
  - Single NIC: eth1/eth2/ eth3/eth4 operate separately. User may use the services such as HTTP, RTP service via eth1/eth2/ eth3/eth4. Usually you need to set one default card (default setup is eth1) to request the auto network service from the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.
  - Network fault-tolerance: In this mode, device uses bond0 to communicate with the external devices. User may focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card).System can enable alternate card when the master card is malfunction. The system is shown as offline once these two cards are both offline.
  - Load balance: In this mode, device uses bond0 to communicate with the external device. The eth1/eth2/ eth3/eth4 are working now and bearing the network load. Their network load are general the same. The system is shown as offline once all cards are offline.
  - ♦ Note: Different series products have different Ethernet port amount.
- NIC member: User may check the box here to select the bind cards.
  - ♦ This mode is for fault-tolerance or load balance mode only.
  - $\diamond$  The network cards number shall be equal to or more than 2.
  - ♦ The different types of cards such as fiber card or the Ethernet card can not binding together.
- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and user may access via them.

- MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. It is read-only.
- IP address: Here user may use up/down button (▲▼) or input the corresponding number to input IP address. Then user may set the corresponding subnet mask the default gateway.
- Default gateway: Here user may input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- DHCP: It is to auto search IP. When enable DHCP function, user may not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, user may not modify IP/Subnet mask /Gateway.
- MTU: It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or user may click Cancel button to terminate current modification. Before the modification, user may check the MTU of the gateway; the MTU of the NVR shall be the same as or is lower than the MTU of the gateway. In this way, user may reduce packets and enhance network transmission efficiency. Right now, the value here is for read-only.

The following MTU value is for reference only.

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

After completing all the setups please click OK button.

### Tips

Click button K to cancel card binding.

	Edit
Ethernet Card Net Mode NIC Member	Ethernet Port1  Single NIC O Fault-tolerance O Load Balance Ethernet Port2
IP Version MAC Address IP Address Subnet Mask Default Gateway	IPv4     •       90:02:a9:b9:fd:a3       10 · 15 · 6 · 145       255 · 255 · 0 · 0       10 · 15 · 0 · 1
MTU	
	OK Cancel

Figure 3-150

### 3.15.1.2 Port

The port setup interface is shown as in Figure 3-151.

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

Important: System needs to reboot after you changed and saved any setup of the above four ports. Please make sure the port values here do not conflict.

SETTING					
CAMERA		👼 EVENT	STORAGE	SYSTEM	
TCP/IP PORT PPPoE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST ALARM CENTER REGISTER CLUSTER IP	Max Connection TCP Port UDP Port HTTP Port HTTPS Port RTSP Port POS Port	37777           37778           80           443           6554	(1~128) (1025~65535) (1025~65535) (1~65535) (1~65535) (1~65535) (1~65535)		
	Default		ОК	Cancel Apply	

Figure 3-151

### 3.15.1.3 PPPoE

PPPoE interface is shown as in Figure 3-152.

Input "PPPoE name" and "PPPoE password" you get from your ISP (Internet service provider).

Click save button, you need to restart to activate your configuration.

After rebooting, NVR will connect to internet automatically. The IP in the PPPoE is the NVR dynamic value. User may access this IP to visit the unit.

	_	SETTING		
SAMERA		To EVENT	STORAGE	SYSTEM
TCP/IP PORT PPPOE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST				
ALARM CENTER REGISTER CLUSTER IP	Default	k	ОК	Cancel Apply

Figure 3-152

### 3.15.1.4 DDNS

DDNS setup interface is shown as in Figure 3-153.

You need a PC of fixed IP in the internet and there is the DDNS software running in this PC. In other words, this PC is a DNS (domain name server).

In network DDNS, please select DDNS type and highlight enable item. And then please input your PPPoE name you get from you IPS and server IP (PC with DDNS). Click save button and then reboot system.

Click save button, system prompts for rebooting to get all setup activated.

After rebooting, open IE and input as below:

http: //(DDNS server IP)/(virtual directory name)/webtest.htm

e.g.: http: //10.6.2.85/DVR _DDNS/webtest.htm.)

Now user may open DDNSServer web search page.

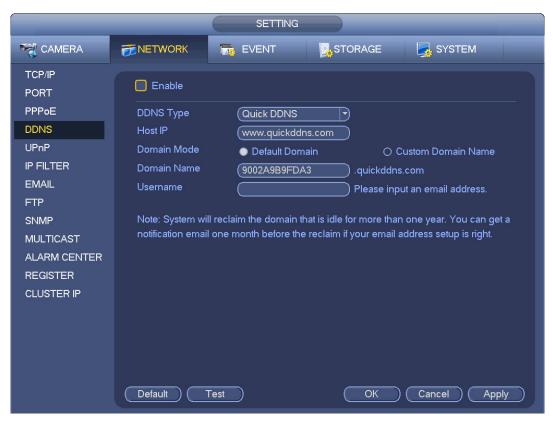


Figure 3-153

Please note DDNS type includes: CN99 DDNS, NO-IP DDNS, Quick DDNS, Dyndns DDNS and sysdns DDNS. All the DDNS can be valid at the same time, user may select as you requirement.

Private DDNS function shall work with special DDNS server and special Professional Surveillance Software (PSS).

#### **Quick DDNS and Client-end Introduction**

#### 1) Background Introduction

Device IP is not fixed if you use ADSL to login the network. The DDNS function allows you to access the NVR via the registered domain name. Besides the general DDNS ,the Quick DDNS works with the device from the manufacturer so that it can add the extension function.

### 2) Function Introduction

The quick DDNS client has the same function as other DDNS client end. It realizes the bonding of the domain name and the IP address. Right now, current DDNS server is for our own devices only. You need to refresh the bonding relationship of the domain and the IP regularly. There is no user name, password or the ID registration on the server. At the same time, each device has a default domain name (Generated by MAC address) for your option. User may also use customized valid domain name (has not registered.).

#### 3) Operation

Before you use Quick DDNS, you need to enable this service and set proper server address, port value and domain name.

- Server address: www.quickddns.com
- Port number: 80
- Domain name: There are two modes: Default domain name and customized domain name.

Except default domain name registration, user may also use customized domain name (User may input your self-defined domain name.) After successful registration, user may use domain name to login installed of the device IP.

• User name: It is optional. User may input your commonly used email address.

### Important

- Do not register frequently. The interval between two registrations shall be more than 60 seconds. Too many registration requests may result in server attack.
- System may take back the domain name that is idle for one year. User may get a notification email before the cancel operation if your email address setup is OK.

### 3.15.1.5 UPnP

The UPNP protocol is to establish a mapping relationship between the LAN and the WAN. Please input the router IP address in the LAN in Figure 3-149. See Figure 3-154.

- UPNP on/off : Turn on or off the UPNP function of the device.
- Status: When the UPNP is offline, it shows as "Unknown". When the UPNP works it shows "Success"
- Router LAN IP: It is the router IP in the LAN.
- WAN IP: It is the router IP in the WAN.
- Port Mapping list: The port mapping list here is the one to one relationship with the router's port mapping setting.
- List:
  - ♦ Service name: Defined by user.
  - ♦ Protocol: Protocol type
  - ♦ Internal port: Port that has been mapped in the router.
  - ♦ External port: Port that has been mapped locally.
- Default: UPNP default port setting is the HTTP, TCP and UDP of the NVR.
- Add to the list: Click it to add the mapping relationship.
- Delete: Click it to remove one mapping item.

Double click one item; user may change the corresponding mapping information. See Figure 3-155.

Important:

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

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

	SETTING	
R CAMERA		🛃 STORAGE 🛛 🛃 SYSTEM
TCP/IP PORT	C Enable	
PPPoE DDNS UPnP	Status (Disable)	)
IP FILTER EMAIL	WAN IP (0 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · 0	)
FTP SNMP	7         Service Name         Protocol           1         HTTP         TCP           2         TCP         TCP	Internal Port         External Port           80         80           37777         37777
MULTICAST ALARM CENTER	3 UDP UDP 4 RTSP UDP 5 RTSP TCP 6 SNMP UDP	37778 37778 554 554 554 554 161 161
REGISTER CLUSTER IP	7 HTTPS TCP	443 443
	Default	OK Cancel Apply

Figure 3-154

	PORT INFO
Service Name Protocol Internal Port External Port	HTTP TCP 80 80
(	OK Cancel

Figure 3-155

# 3.15.1.6 IP Filter

IP filter interface is shown as in Figure 3-156. User may add IP in the following list. The list supports max 64 IP addresses. System supports valid address of IPv4 and IPv6. **Please note system needs to check the validity of all IPv6 addresses and implement optimization.** 

After you enabled trusted sites function, only the IP listed below can access current NVR. If you enable blocked sites function, the following listed IP addresses can not access current NVR.

- Enable: Highlight the box here, user may check the trusted site function and blocked sites function. User may not see these two modes if the Enable button is grey.
- Type: User may select trusted site and blacklist from the dropdown list. User may view the IP address on the following column.
- Start address/end address: Select one type from the dropdown list, user may input IP address in the start address and end address. Now user may click Add IP address or Add IP section to add.
  - a) For the newly added IP address, it is in enable status by default. Remove the  $\sqrt{}$  before the item, and then current item is not in the list.
  - b) System max supports 64 items.

  - d) System automatically removes space if there is any space before or after the newly added IP address.
  - e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.
  - f) System may check newly added IP address exists or not. System does not add if input IP address does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 3-157. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null. **Note:**
- If you enabled trusted sites, only the IP in the trusted sites list can access the device.
- If you enabled blocked sites, the IP in the blocked sites can not access the device.
- System supports add MAC address.

		SETTING			
SAMERA		🕞 EVENT 🛃	STORAGE	SYST	ГЕМ
TCP/IP PORT	🕑 Enable 🏼	Trusted Sites O Blocked Site	es		
PPP₀E DDNS	Start Address	End Address		Edit	Del
UPnP IP FILTER					
EMAIL					
FTP SNMP					
MULTICAST ALARM CENTER					
REGISTER CLUSTER IP					
	Add				
	Default		ОК	Cancel	Apply

Figure 3-156

Edit
Start Address 10.15.6.140 123 End Address 10.15.6.145
OK Cancel

Figure 3-157

### 3.15.1.7 Email

The email interface is shown as below. See Figure 3-158.

- SMTP server: Please input your email SMTP server IP here.
- Port: Please input corresponding port value here.
- User name: Please input the user name to login the sender email box.
- Password: Please input the corresponding password here.
- Sender: Please input sender email box here.
- Title: Please input email subject here. System support English character and Arabic number. Max 32-digit.
- Receiver: Please input receiver email address here. System max supports 3 email boxes. System automatically filters same addresses if you input one receiver repeatedly.

- SSL enable: System supports SSL encryption box.
- Interval: The send interval ranges from 0 to 3600 seconds. 0 means there is no interval.
- Health email enable: Please check the box here to enable this function. This function allows the system to send out the test email to check the connection is OK or not.
- Interval: Please check the above box to enable this function and then set the corresponding interval. System can send out the email regularly as you set here. Click the Test button, user may see the corresponding dialogue box to see the email connection is OK or not.

Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.

SETTING					
STAMERA	TINETWORK 📷 EVENT SYSTEM				
TCP/IP PORT					
PPPoE DDNS	SMTP Server (MailServer) Port (25)(1~65535)				
UPnP IP FILTER	Username Password				
EMAIL FTP	Receiver Sender				
SNMP MULTICAST	Subject NVR ALERT Attachment				
ALARM CENTER REGISTER	Interval 120 s Health Enable 60 min.				
CLUSTER IP	Test				
	Default OK Cancel Apply				

Figure 3-158

#### 3.15.1.8 FTP

You need to download or buy FTP service tool (such as Ser-U FTP SERVER) to establish FTP service. Please install Ser-U FTP SERVER first. From "start" -> "program" -> Serv-U FTP Server -> Serv-U Administrator. Now user may set user password and FTP folder. Please note you need to grant write right to FTP upload user. See Figure 3-159.

Serv-U Administrator - << Local Server >	>>X
Cal Server >> Cal Server >> Cal Settings Cal Domains Cal Domains	Account       ☑ General       ☑ Dir Access       ☑ IP Access       ☑ UL/DL Raii<       ▶         Path       Access       Group       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □       □ <t< th=""></t<>
< <local server="">&gt; [System Administrator]</local>	Down: 0.000 kBps / Up: 0.000 kBps   3 of 32767 Sockets   0 (0) Users   0 Xfers //

Figure 3-159

User may use a PC or FTP login tool to test setup is right or not.

For example, user may login user <u>FTP://10.10.7.7</u> and then test it can modify or delete folder or not. See Figure 3-160.

Interne	t Explorer	
?	To log on to this FTP server, type a user name and password.	
×	FTP server: 10.10.7.7	
	User name:	
	Password:	
	After you log on, you can add this server to your Favorites and return to it easily.	
	Log On Cancel	

Figure 3-160

System also supports upload multiple NVRs to one FTP server. User may create multiple folders under this FTP.

FTP interface is shown as in Figure 3-161.

Please highlight the icon 📕 in front of Enable to activate FTP function.

Here user may input FTP server address, port and remote directory. When remote directory is null, system automatically create folders according to the IP, time and channel.

User name and password is the account information for you to login the FTP.

File length is upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section. When interval value is 0, system uploads all corresponding files.

After completed channel and weekday setup, user may set two periods for one each channel.

Click the Test button, user may see the corresponding dialogue box to see the FTP connection is OK or not.

SETTING						
STAMERA		📷 EVENT	STOR/	AGE	SYSTEM	
TCP/IP PORT	🖌 Enable					
PPPoE DDNS	Host IP Username			Port (21	(1~65535)	
UPnP IP FILTER EMAIL FTP	Password Remote Directory Image Upload Int		Anonyr C Anonyr File Length		M	
SNMP MULTICAST ALARM CENTER REGISTER CLUSTER IP	Channel Weekday Time Period 1 Time Period 2 <b>Test</b>	1 (Tue (00 :00 (00 :00	• • 24 : 00 • 24 : 00	Alarm	Motion Continuous	
	Default			ок_) (	Cancel Apply	

Figure 3-161

## 3.15.1.9 SNMP

SNMP is an abbreviation of Simple Network Management Protocol. It provides the basic network management frame of the network management system. The SNMP widely used in many environments. It is used in many network device, software and system.

User may set in the following interface. See Figure 3-162.

SETTING					
STAMERA		📆 EVENT	STORAGE	SYSTEM	
CAMERA TCP/IP PORT PPPoE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST ALARM CENTER REGISTER	Enable Version SNMP Port Read Community Write Community Trap Address Trap Port	<ul> <li>✓ V1 ✓ V2</li> <li>(161 (1</li> <li>(161 (1</li> <li>(161 (1</li> <li>(161 (1</li> </ul>	~65535)		
CLUSTER IP	Default		ОК	Cancel Apply	



Please enable the SNMP function. Use the corresponding software tool (MIB Builder and MG-SOFT MIB Browser. You still need two MIB file: BASE-SNMP-MIB, NVR-SNMP-MIB) to connect to the device. User may get the device corresponding configuration information after successfully connection. Please follow the steps listed below to configure.

- In Figure 3-162, check the box to enable the SNMP function. Input the IP address of the PC than is running the software in the Trap address. User may use default setup for the rest items.
- Compile the above mentioned two MIB file via the software MIB Builder.
- Run MG-SOFT MIB Browser to load the file from the previous step to the software.
- Input the device IP you want to manage in the MG-SOFT MIB Browser. Please set the corresponding version for your future reference.
- Open the tree list on the MG-SOFT MIB Browser; user may get the device configuration. Here user may see the device has how many video channels, audio channels, application version and etc.

### Note

### Port conflict occurs when SNMP port and Trap port are the same.

#### 3.15.1.10 Multicast

Multicast setup interface is shown as in Figure 3-163.

SETTING					
STAMERA		D EVENT	STORAGE	SYSTEM	
TCP/IP PORT PPPoE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST ALARM CENTER REGISTER CLUSTER IP	✓ Enable IP Address (23) Port (366)		00)		
	Default		ОК	Cancel Apply	

Figure 3-163

Here user may set a multiple cast group. Please refer to the following sheet for detailed information.

• IP multiple cast group address

-224.0.0.0-239.255.255.255

-"D" address space

- The higher four-bit of the first byte="1110"
- Reserved local multiple cast group address

-224.0.0.0-224.0.0.255

-TTL=1 When sending out telegraph

-For example

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

224.0.0.13 PIMv2 router

• Administrative scoped addressees

-239.0.0.0-239.255.255.255

-Private address space

- Like the single broadcast address of RFC1918
- Can not be used in Internet transmission
- Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, user may use other addresses. For example: Multiple cast IP: 235.8.8.36

. Multiple cast PORT: 3666. After you logged in the Web, the Web can automatically get multiple cast address and add it to the multiple cast groups. User may enable real-time monitor function to view the view. Please note multiple cast function applies to special series only.

### 3.15.1.11 Alarm Centre

This interface is reserved for you to develop. See Figure 3-164.

		SETTI	NG	
STAMERA		T EVENT	STORAGE	SYSTEM
TCP/IP PORT PPPoE DDNS UPnP IP FILTER	Host IP ( Port (		<u>2</u> 1~65535)	
EMAIL FTP SNMP MULTICAST	Self-report Time	r) at (	08:00	
REGISTER CLUSTER IP	Default		OK	
	Default		ОК	Cancel Apply

Figure 3-164

### 3.15.1.12 Auto register

This function allows the device to auto register to the proxy you specified. In this way, user may use the client-end to access the NVR and etc via the proxy. Here the proxy has a switch function. In the network service, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto register function, the device can auto register to the proxy server.

1) The setup interface is shown as in Figure 3-165.

#### Important

Do not input network default port such as TCP port number.

		SETTING		
SAMERA		Tage EVENT	STORAGE	SYSTEM
TCP/IP PORT	🖌 Enable			
PPPoE DDNS UPnP IP FILTER		.0.0.0 000 (1~65	535)	
EMAIL FTP SNMP				
MULTICAST ALARM CENTER				
REGISTER CLUSTER IP				
	Default		ОК	Cancel Apply

Figure 3-165

2) The proxy server software developed from the SDK. Please open the software and input the global setup. Please make sure the auto connection port here is the same as the port you set in the previous step.

3) Now user may add device. Please do not input default port number such as the TCP port in the mapping port number. The device ID here shall be the same with the ID you input in Figure 3-165. Click Add button to complete the setup.

4) Now user may boot up the proxy server. When you see the network status is Y, it means your registration is OK. User may view the proxy server when the device is online.

#### Important

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

#### 3.15.1.13 Cluster IP

About Cluster service: when master device is malfunction, the slave device can use the master device configuration and virtual IP address to replace the work (monitor or record) accordingly. When you use the virtual IP to access the device, he can still view the real-time video and there is no risk of record loss. Once the master device becomes properly, the slave can still work until you use the WEB to fix manually. During the whole process (the master device is working properly->master device is malfunction->master device becomes work properly again), user may use this virtual IP to access the device all the time. It is for you to set IP address, subnet mask, gateway and etc of the Switch. See Figure 3-166. Please check the box to enable this function and then input corresponding IP address, subnet mask, default gateway. Click OK button to complete the setup. The virtual IP here is for the master device. **Note** 

The IP in the TCP/IP interface is for cluster internal control (It is mainly for the mater device and slave device internal interactive). The virtual IP you set here is for cluster external control (It is for external network connection).

		SETTING		
STAMERA		To EVENT		SYSTEM
TCP/IP PORT PPPoE DDNS UPnP IP FILTER EMAIL FTP SNMP MULTICAST ALARM CENTER REGISTER CLUSTER IP	Enable IP Address Subnet Mask Default Gateway			
	Default		ОК	Cancel Apply

Figure 3-166

## 3.15.2 Network Test

In this interface, user may see network test and network load information.

3.15.2.1 Network Test

From main menu->Info-Network->Test, the network test interface is shown as in Figure 3-167.

- Destination IP: Please input valid IPV4 address and domain name.
- Test: Click it to test the connection with the destination IP address. The test results can display average delay and packet loss rate and user may also view the network status as OK, bad, no connection and etc.
- Network Sniffer backup: Please insert USB2.0 device and click the Refresh button, user may view the device on the following column. User may use the dropdown list to select peripheral device. Click Browse button to select the snap path. The steps here are same as preview backup operation.

User may view all connected network adapter names (including Ethernet, PPPoE, WIFI, and 3G), user

may click the button **I** on the right panel to begin Sniffer. Click the grey stop button to stop. Please note system can not Sniffer several network adapters at the same time.

After Sniffer began, user may exit to implement corresponding network operation such as login WEB,

monitor. Please go back to Sniffer interface to click 🔲 stop Sniffer. System can save the packets to the

specified path. The file is named after "Network adapter name+time". User may use software such as Wireshark to open the packets on the PC for the professional engineer to solve complicated problems.

		INFO		
SYSTEM	📆 EVENT		📡 LOG	
ONLINE USERS				
LOAD	TEST			
TEST	Destination IP			Test
	Test Result			
	Network Sniffer	Packet Backup		
	Device Name	(sdc1(USB DISK)	Refresh	
	Address			
		<u> </u>		
	Name LAN1		Sniffer Packet Size DKB	Sniffer Packet Backup
	LANT	10.15.6.143	JVB	<b>*</b>

Figure 3-167

### 3.15.2.2 Network Load

From main menu->Info->Network->Load, network load is shown as in Figure 3-168. Here user may view the follow statistics of the device network adapter.

Here user may view information of all connected network adapters. The connection status is shown as offline if connection is disconnected. Click one network adapter, user may view the flow statistics such as send rate and receive rate at the top panel



Figure 3-168

# 3.16 HDD Setup

Here user may view HDD information such as type, status, total capacity, record time and etc. The operation includes format, resume from error, change HDD property (Read write, Read-only). Here user may also set alarm and HDD storage position.

## 3.16.1 Format

a) From Main menu->Setting->Storage->HDD Manager, user may go to HDD management interface. See Figure 3-169.

		SETTING		_
ST CAMERA		THE EVENT	STORAGE	SYSTEM
SCHEDULE				
HDD MANAGE		Physical Position	Type HDD Gr	
	sda	main board-1	Read/W - 1	✓ Normal 1.8
RECORD	sdd sde	main board-5 main board-6	Read/W <del>▼</del> 1 Read/W <del>▼</del> 1	✓ Normal 930.4 ✓ Normal 1.8
ADVANCE	sae sdc	main board-6 main board-10	Read/W - 1	✓ Normal 1.8 ✓ Normal 930.4
ISCSI	suc	main board-10	Reau/w T	• Normai 930.4
RAID				
HDD DETECT		*		
	<	()		
	Format		ОК	Cancel Apply

Figure 3-169

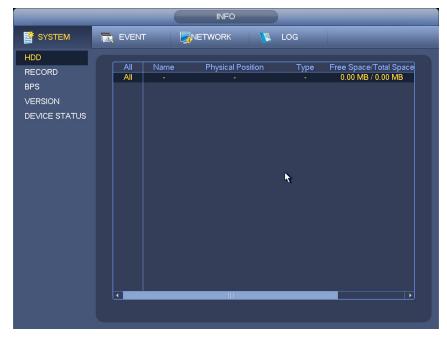
- b) Select a HDD and then select format from the dropdown list. Click Execute button.
- c) Click OK button to complete the setup. User may see system needs to restart to activate current setup.

## 3.16.2 HDD Information

From Main menu->Info ->System->HDD, here is to list hard disk type, total space, free space, and status. See Figure 3-170.

 $\circ$  means current HDD is normal.. - means there is no HDD.

If disk is damaged, system shows as "?". Please remove the broken hard disk before you add a new one.



# Figure 3-170

In Figure 3-170, click one HDD item, the S.M.A.R.T interface is shown as in Figure 3-171.

Port	5					
Modle	ST2000VX000-1CU164					
Serial No.	W1E54HJW					
Status	Error					
Describe:						
Smart ID	Attribute	Threshold	l Value	Worst	Status	<b>^</b>
1	Read Error Rate	6	120	99	OK	_
3	Spin Up Time		97	96	OK	
4	Start/Stop Count	20	100	100	OK	
5	Reallocated Sector Count	10	100	100	OK	
	Seek Error Rate	30	59	55	OK	
9	Power On Hours Count		100	100	OK	
10	Spin-up Retry Count	97	100	100	OK	
12	Power On/Off Count	20	100	100	OK	
184	Unkown Attribute	99	100	100	OK	
187	Reported Uncorrect		100	100	OK	
188	Unkown Attribute		100	100	OK	
189	High Fly Writes		96	96	OK	
190	Airflow Temperature Cel	45	61	43	Error	
191	G-Sense Error Rate		100	100	OK	
192	Power-Off Retract Cycle		100	100	OK	Ţ
102	Lead/Unlead Cuale Course	<b>^</b>	100	100		

Figure 3-171

Parameter	Function
SATA	1 here means there is 1 HDD.
	For different series product, the max HDD amount may vary,
	When HDD is working properly, system is shown as O "_" means there is no HDD.
SN	User may view the HDD amount the device connected to;
	* means the second HDD is current working HDD.
Туре	The corresponding HDD property.
Total space	The HDD total capacity.
Free space	The HDD free capacity.
Status	HDD can work properly or not.
Bad track	Display there is bad track or not.
Page up	Click it to view previous page.
Page down	Click it to view the next page.
View recording time	Click it to view HDD record information (file start time and end time).

View	HDD	Click it to view HDD property, status and etc,
type	and	
capabilit	ÿ	

## 3.16.3 Advanced

From Main menu->Setting->Storage->Advanced, It is to set HDD group, and HDD group setup for main stream, sub stream and snapshot operation

Click main stream/sub stream/snapshot button to set corresponding HDD group information. See Figure 3-172 through Figure 3-174.

			SETTING		
	👬 NE	TWORK 📷	EVENT	STORAGE	SYSTEM
SCHEDULE HDD MANAGE RECORD		Stream Sub Strea	m Snapshot		
ADVANCE ISCSI	СН	HDD Group CH	HDD Group CH	HDD Group CH	HDD Group
RAID HDD DETECT		· · 2	· · 3	· • 4	$\overline{\bigcirc}$
		(- ) 6 (- ) 10	( - ) 7 ( - ) 11	· · · 8 · · · · 12	
	13	· · · · 14	- 7 15	- • 16	
	17 21	- • 18 (- • 22	· · · 19	· · 20	
	25	· · 26	· · 27	· · · 28	
	29	- 30	- 🖓 31	- 7 32	
				ОК С	Cancel Apply

Figure 3-172

	SETTING	
	TRANSPORT IN INTERNAL IN INTERNAL INTER	
SCHEDULE HDD MANAGE RECORD	Main Stream     Sub Stream     Snapshot       Set All Channels     •     All	
ADVANCE ISCSI	CH HDD Group CH HDD Group CH HDD Group CH HDD Group	
RAID HDD DETECT		
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
	$25  ^{\bullet}  26  ^{\bullet}  27  ^{\bullet}  28  ^{\bullet}  ^{\bullet}$	
	OK Cancel Apply	

Figure 3-173

	SETTING
SAMERA	📻 NETWORK 🙀 EVENT STORAGE 🛃 SYSTEM
SCHEDULE HDD MANAGE RECORD ADVANCE	Main Stream     Snapshot       Set All Channels     •
ISCSI	CH HDD Group CH HDD Group CH HDD Group CH HDD Group
RAID HDD DETECT	1 $\cdot$ $\cdot$ $2$ $\cdot$ $\cdot$ $3$ $\cdot$ $\bullet$ $4$ $\cdot$ $\bullet$ 5 $\cdot$ $\bullet$ $6$ $\cdot$ $7$ $\cdot$ $\bullet$ $8$ $\cdot$ $\bullet$ 9 $\cdot$ $\bullet$ $10$ $\cdot$ $\bullet$ $11$ $\cdot$ $\bullet$ $12$ $\cdot$ $\bullet$ 13 $\cdot$ $\bullet$ $14$ $\cdot$ $\bullet$ $15$ $\cdot$ $\bullet$ $16$ $\cdot$ $\bullet$ 17 $\cdot$ $\bullet$ $18$ $\cdot$ $\bullet$ $19$ $\cdot$ $20$ $\cdot$ $\bullet$ 21 $\cdot$ $\bullet$ $22$ $\cdot$ $\bullet$ $23$ $\cdot$ $\bullet$ $24$ $\cdot$ $\bullet$ 25 $\cdot$ $\bullet$ $26$ $\cdot$ $\bullet$ $27$ $\cdot$ $\bullet$ $28$ $\cdot$ $\bullet$ 29 $\cdot$ $\bullet$ $30$ $ \bullet$ $31$ $\cdot$ $\bullet$ $32$ $\cdot$ $\bullet$
	OK Cancel Apply

Figure 3-174

# 3.16.4 ISCSI

## iSCSI function is for some series product only.

User may set the network mapping HDD so that device can store audio/video on the network HDD. From Main menu->Setting->Storage->ISCSI, user may go to the following interface. See Figure 3-175.

- Server IP address: It is to input ISCSI server IP address.
- Port: It is to input ISCSI server port value. The default setup is 3260.
- User name/password: It is to input ISCSI server user name and password. Check the Anonymous button if it supports anonymous login.
- Set path: User may click the Set path button to select the remote storage path. Please note each path here stands for one ISCSI share disk. The path has been generated when it is created at the server.
- Add: After you input the above information, click add button to add the new information to the list.

	SETTING
	TRAGE
SCHEDULE HDD MANAGE RECORD ADVANCE ISCSI RAID HDD DETECT	Type     ISCSI       Host IP     0 . 0 . 0     Port (3260)       Remote Storage Point     Storage Path Setting       User     Password     Anonymous       Add     Del     Modify
	SN Status Host IP Port User Remote Storage Point
	Default OK Cancel Apply

Figure 3-175

Click Ok button to complete the setup.

## Tips

Click the modify/delete button to change or remove the ISCSI disk.

Now, from the main menu->setting->Storage-> HDD manage, user may see the corresponding interface.

## 3.16.5 RAID

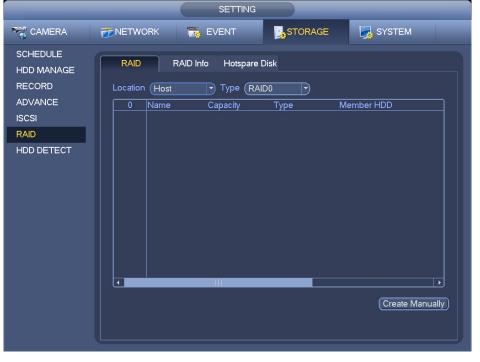
## Important

Please make sure your purchased product support the RAID function, otherwise user may not see the following interface.

Right now, RAID supports Raid0, Raid1, Raid5, Raid6, and Raid10. Local hotspare supports Raid1, Raid5, Raid6, and Raid10.

## 3.16.5.1 RAID Config

From Main menu->Setting->Storage->RAID->RAID Config, it is for you to manage RAID HDD. It can display RAID name, type, free space, total space, status and etc. Here user may add/delete RAID HDD.

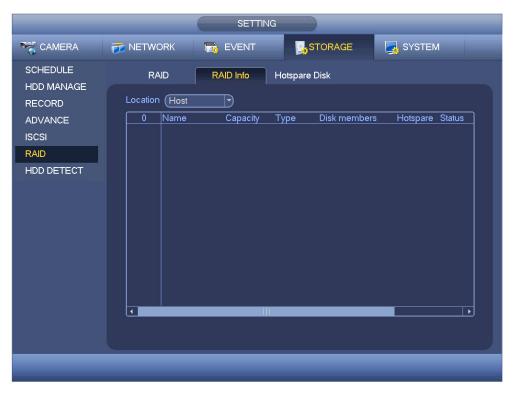


Click Add button to select RAID type and then select HDDs, click OK button to add. See Figure 3-176.

Figure 3-176

# 3.16.5.2 RAID Info

From Main menu->Setting->Storage->RAID->RAID info, it is to display RAID name, space, type, member HDD, hotspare HDD, status and etc. Here user may delete RAID. See Figure 3-177.



# 3.16.5.3 Hotspare Disks

From Main menu->Setting->Storage->RAID->Hotspare HDD, user may add the hotspare HDD. See Figure 3-178. The type includes two options:

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

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



Figure 3-178

# 3.16.6 HDD Detect

The HDD detect function is to detect HDD current status so that user may clearly understand the HDD performance and replace the malfunction HDD.

There are two detect types:

- Quick detect: It is to detect the storaged files on the HDD. User may use format function to repair the bad track. System can not detect the bad track if there is no record on the HDD.
- Global detect: It detects the whole HDD. The process may take a long time and may affect the HDD that is saving the record. If it detects the bad track, it may result from the damaged HDD.

## 3.16.6.1 Manual Detect

The manual detect interface is shown as below. See Figure 3-179.

Please select detect type and HDD. Click start detect to begin. User may view the corresponding detect information.

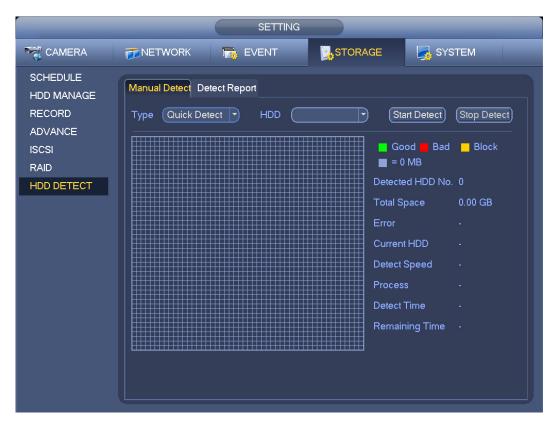


Figure 3-179

## 3.16.6.2 Detect Report

After the detect operation, user may go to the detect report to view corresponding information. The detect report interface is shown as below. See Figure 3-180.

SETTING								
CAMERA	😿 NETWORK 🛛 🔯 EVENT	STORAGE	SYSTEM					
SCHEDULE HDD MANAGE	Manual Detect Detect Report							
RECORD ADVANCE ISCSI RAID HDD DETECT	1       HDD Port No. Detect Type         1       2         Quick Detect	Start Time 2015-02-02 15:37:58		ror View				

Figure 3-180

Click View, user may see the detailed information such as detect result, backup and S.M.A.R.T.

# 3.17 Basic Setups

Set NVR basic setup, device setup and other setups.

## 3.17.1 Device Setup

From Main menu->Setting->System->General->General, user may go to the general interface. See Figure 3-181.

- Pack duration: Here is for you to specify record duration. The value ranges from 0 to 120 minutes.
   Default value is 60 minutes.
- Device ID: Please input a corresponding device name here.
- Device No: When you are using one remote control (not included in the accessory bag) to control several NVRs, user may give a name to each NVR for your management.
- Language: System supports various languages: English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)
- Video standard: There are two formats: NTSC and PAL.
- HDD full: Here is for you to select working mode when hard disk is full. There are two options: stop
  recording or rewrite. If current working HDD is overwritten or the current HDD is full while the next
  HDD is no empty, then system stops recording, If the current HDD is full and then next HDD is not
  empty, then system overwrites the previous files.
- Pack duration: Here is for you to specify record duration. The value ranges from 1 to 120 minutes. Default value is 60 minutes.
- Realtime play: It is to set playback time user may view in the preview interface. The value ranges from 5 to 60 minutes.

- Auto logout: Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
- Navigation bar: Check the box here, system displays the navigation bar on the interface.
- IPC Time Sync: User may input an interval here to synchronize the NVR time and IPC time.
- Startup wizard: Once you check the box here, system will go to the startup wizard directly when the system restarts the next time. Otherwise, it will go to the login interface.
- Mouse property: User may set double click speed via dragging the slide bard. User may Click Default button to restore default setup.

	SETTING	
CAMERA	TRANSPORT TRANSPORT	
GENERAL DISPLAY POS ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	General       Date&Time       Holiday         Device Name       NVR         Device No.       8         Language       ENGLISH         HDD Full       Overwrite         Pack Duration       60         min.       Realtime Play         Auto Logout       10         PC Time Sync       24         Navigation Bar       Startup Wizard	
	OK     Cancel     Apply	

Figure 3-181

## 3.17.2 Date and Time

From Main menu->Setting->System->General->Date and time, user may go to the general interface. See Figure 3-182.

- System time: Here is for you to set system time
- Date format: There are three types: YYYY-MM-DD: MM-DD-YYYYY or DD-MM-YYYY.
- Date separator: There are three denotations to separate date: dot, beeline and solidus.
- DST: Here user may set DST time and date by week or by date. Please enable DST function and then select setup mode. Please input start time and end time and click Save button.
- Time format: There are two types: 24-hour mode or 12-hour mode.
- NTP: It is to set NTP server, port and interval.

### Note:

Since system time is very important, do not modify time casually unless there is a must! Before your time modification, please stop record operation first!

After completing all the setups please click save button, system goes back to the previous menu.

SETTING								
ST CAMERA	TINETWORK TIME EVENT SYSTEM							
GENERAL DISPLAY	General Date&Time Holiday							
POS ACCOUNT	Date Format (YYYY MM DC) Time Format (24-HOUR) Date Separator (							
AUTO MAINTAIN IMP/EXP	System Time (2015 - 07 - 07 11 : 26 : 21) (GMT+08:00 ) Save							
DEFAULT UPGRADE	□ DST DST Type ○ Week ● Date           Start Time							
	End Time (2000 - 01 - 01 00 : 00							
	Server (time.windows.com) (Manual Update) Port (123)(1~65535)							
	Interval 60 min.							
	Default OK Cancel Apply							
	T							

Figure 3-182

## 3.17.3 Holiday

From Main menu->Setting->System->General->Holiday, holiday setup interface is shown as in Figure 3-183. Click Add new holiday button, user may input new holiday information. See Figure 3-184. Here user may set holiday name, repeat mode and start/end time.

SETTING								
SAMERA	TRANSPORT TRANSPORT							
GENERAL DISPLAY	General Date&Time Holiday							
POS ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	0 Status Holiday Name Date							
	(Add Holidays)							
	Default OK Cancel Apply							

Figure 3-183



Figure 3-184

# 3.18 POS

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

## Note

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

From main menu->Setting->System->POS, user may go to the following interface. See Figure 3-185.

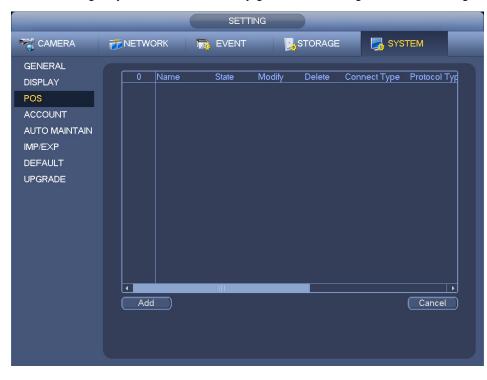


Figure 3-185

Click Add, user may see the following dialogue box. See Figure 3-186.

Config
Enable
Name (pos
Connect Type NETWORK 🔻 Setup
Protocol Type POS
Transaction Start
Transaction End
Line Delimiter
Ignore String
Case Sensitive NetWork Overtime (30 (5s-900s)
(CHANNEL SET)
OK Cancel

Figure 3-186

Check the box to enable POS function, Click Set button; user may see the following interface. See Figure 3-187.



Figure 3-187

Set source IP and destination IP, and then click OK. System goes back to Figure 3-186.

- Source IP: POS device IP address. •
- Destination IP: NVR IP address. •

In Figure 3-186, click Channel Set button, select the channel you want to overlay POS information. Click OK button to complete the setup.

Tips



Click it to delete POS setup.

Click it to change setup information.

# 3.19 Audio Broadcast

This function allows you to broadcast to the camera, or user may use several channels to establish a broadcast group.

From main menu->Setting->System->Voice, user may go to the following interface. See Figure 3-188.

				SETTING			
STAMERA	👘 NE	TWOF	rk 📷	EVENT	STORAGE	SYSTEM	
GENERAL							
DISPLAY		0 0	Group Name	Memo	Modi	y Delete	
PTZ							
POS							
BROADCAST							
ACCOUNT							
AUTO MAINTAIN							
IMP/EXP							
DEFAULT							
UPGRADE							
	An	ld Grou					

Figure 3-188

Click Add button, user may add see the following interface. See Figure 3-189.

Please input a group name and select one or more channel(s).

Click Save button to complete the setup.

### Tips

In Figure 3-188., click 🖊 to change broadcast setup, click 🔀 to delete broadcast setup.

_	_		Add	Group		_	_
roup Name		$\supset$					
Channel							
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	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
<b>4</b> 9	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
			<b>4</b> 1/2				
			Save	Canc	el		

Figure 3-189

After the setup, user may go to the preview interface, click of the navigation bar; user may see the following interface. See Figure 3-190.

Check the box to select a group name and then click _____, user may realize audio broadcast function.

	Group Name	Memo		
1	overseas	Channel 2 3		

Figure 3-190

# 3.20 Device Maintenance and Manager

## 3.20.1 System Info

3.20.1.1 Version

From main menu->Info->System->Version, user may go to version interface.

Here is for you to view some version information. See Figure 3-191. Please note the following figure for reference only.

- Model
- Channel
- Alarm in
- Alarm out
- System version
- Build Date
- Web
- SN
- ONVIF version

INFO								
SYSTEM	📆 EVENT		1	LOG				
HDD RECORD BPS DEVICE STATUS VERSION		16 8 3.210.0002.0 2016-03-16 3.2.3.64883 1234567890abcde						

Figure 3-191

3.20.1.2 BPS

From main menu->Info->System->BPS, here is for you to view current video bit rate (kb/s) and resolution. See Figure 3-192.



Figure 3-192

### 3.20.1.3 Device Status

From main menu->Info->System->Device status, here is for you to view device current status. See Figure 3-194. The red highlighted fan means current fan is malfunction.

		INFO	
SYSTEM	📆 EVENT		LOG
HDD			
RECORD	Fan Speed		
BPS	۵ 🛞	left 2903 left 🚷	2890
DEVICE STATUS	<b>(</b>		
VERSION			
	CPU	CPU Temperature	Memory
		Normal	
		42	
	13%		29%
	Power 🧲		

Figure 3-193

## 3.20.1.4 Online User

From main menu->Info->System->Online user, here is for you manage online users connected to your NVR. See Figure 3-194.

User may click button is to disconnect or block one user if you have proper system right.

System detects there is any newly added or deleted user in each five seconds and refresh the list

#### automatically.

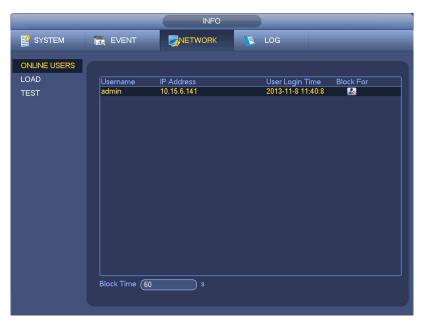


Figure 3-194

3.20.1.5 Remote Device Information

3.20.1.5.1 Alarm Status

From main menu->Info->Event->alarm status, here user may view the channel status of the remote device, connection log and etc. See Figure 3-195.



Figure 3-195

### 3.20.1.5.2 Analytics

It is to display channel video diagnosis results. User may view histogram and a list to view the occurred times in the specified period.

From main menu->Info->Event->Analytics, user may go to the following interface.

Input start time, end time, select a channel and then click Search button. User may see the following interface. See Figure 3-196.

### Tips

Click the name at the bottom of the histogram or select type from the dropdown list; user may filter the displayed type.



Figure 3-196

## 3.20.1.5.3 People Counting

It is to search and view the people counting results of each channel. System can export people counting report. The export file extension name is .bmp.

From main menu->Info->Event->People Counting, user may go to the following interface. See Figure 3-197. Channel: Please select a channel from the dropdown list.

- Type: Please select report type from the dropdown list. It includes daily report/monthly report/annual report. User may click to select histogram or polygon chart.
- Start time/end time: Input start time and end time of the people counting.
- Enter: Check to search enter amount.
- Exit: Check the box to search exit amount.
- Display No.: Check the box, system can display enter and exit people amount in the report.

	INFO
SYSTEM	
ALARM STATUS VIDEO ANALYT PEOPLE COUNT HEAT MAP	Channel 9 Type Daily Report → *Daily report max has 24 hours. Start Time 2016 - 04 - 05 00 End Time 2016 - 04 - 06 00 Search People Counting Statistics Chart Histogram/Polygon 1
	0 '1 '2 '3 '4 '5 '6 '7 '8 '9 '10 11 12 13 14 15 16 17 18 19 20 21 22 23 Hour

Figure 3-197

### 3.20.1.5.4 Heat Map

It is to search and view the heat map of each channel.

From main menu->Info->Event->Heat Map, user may go to the following interface. See Figure 3-198.

Select a channel, input start time and end time. Please note the report search period shall be within one month.

Click Search button, user may view the heat map report.

	INFO
SYSTEM	EVENT NETWORK 📧 LOG
ALARM STATUS VIDEO ANALYT PEOPLE COUNT HEAT MAP	Channel 1 Start Time 2016 - 04 - 01 00 End Time 2016 - 04 - 06 00 *The report search period shall be within one month. Search
	HEAT MAP

Figure 3-198

3.20.1.6 Remote

3.20.1.6.1 Device Status

From main menu->Setting->Remote->Status, here user may view the IPC status of the corresponding channel such as motion detect, video loss, tampering, alarm and etc. See Figure 3-199.

- IPC status: Front-end does not support. Front-end supports.
- Connection status: Connection succeeded.
- Refresh: Click it to get latest front-end channel status.

SETTING								
	<b>DETWORK</b>	170 EV	'ENT	STORAGE	SETTING			
REMOTE IMAGE	Remote	Status	Firmware	Upgrade				
ENCODE CAM NAME	Channel 1 Refresh		ddress \ 5.6.99	/ideo Detect IPC E 	External Alarm Camera IPC	Nar •		

Figure 3-199

## 3.20.1.6.2 Firmware

From main menu->Setting->Remote->Firmware, it is to view channel, IP address, manufacturer, type, system version, SN, video input, audio input, external alarm and etc. See Figure 3-200.

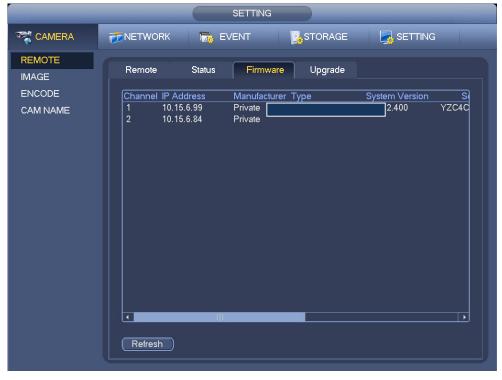


Figure 3-200

# 3.20.2 Log

From Main menu->Info->Log, user may go to the following interface. See Figure 3-201.

Start time/end time: Pleased select start time and end time, then click search button. User may view
the log files in a list. System max displays 100 logs in one page. It can save 500,000 logs on the HDD,
and 16384 logs on the system. System max supports 500,000+16384 logs if there is a HDD. System
max supports 16384 logs if there is no HDD. Please use page up/down button on the interface or the
front panel to view more.

## Tips

Double click a log item to view its detailed information. See Figure 3-202. Click PgUp/PgDn to view more logs.

INFO	
💕 SYSTEM 🕅 EVENT 🖳 NETWORK 🚺 LOG	
SYSTEM       EVENT       INETWORK       LOG         LOG         Start Time 2014 - 06 - 20 00 : 00 : 00 : 00         ENT       LOG         Start Time 2014 - 06 - 20 00 : 00 : 00 : 00         End Time 2014 - 06 - 21 00 : 00 : 00         Type All         100 Record Time Event Play         87 2014-06-20 16:30:55       User logged in.<10.15.5.219>         89 2014-06-20 16:30:52       User logged out.<10.15.5.219>         90 2014-06-20 16:30:52       User logged in.<10.15.5.219>         91 2014-06-20 16:30:52       User logged in.<10.15.5.219>         91 2014-06-20 16:30:52       User logged in.<10.15.5.219>         92 2014-06-20 16:30:49       User logged in.<10.15.5.219>         93 2014-06-20 16:30:49       User logged in.<10.15.5.219>         93 2014-06-20 16:30:49       User logged in.<10.15.5.219>         94 2014-06-20 16:30:49       User logged in.<10.15.5.219>         94 2014-06-20 16:30:44       User logged in.<10.15.5.219>         93 2014-06-20 16:30:46       User logged in.<10.15.5.219>         93 2014-06-20 16:30:46       User logged in.<10.15.5.219>         93 2014-06-20 16:30	Search Details A B B B B B B B B B B B B B B B B B B B

Figure 3-201





## 3.20.3 Account

From main menu->Setting->System->Account, here is for you to implement account management. See Figure 3-203. Here user may:

- Add new user
- Modify user
- Add group
- Modify group
- Modify password.

For account management please note:

- For the user account name and the user group, the string max length is 6-byte. The backspace in front of or at the back of the string is invalid. There can be backspace in the middle. The string includes the valid character, letter, number, underline, subtraction sign, and dot.
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. No limit to group or user amount.
- For group or user management, there are two levels: admin and user.
- The user name and group name can consist of eight bytes. One name can only be used once. There are four default users: admin/888888/666666 and hidden user "default". Except user 6666, other users have administrator right.
- Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. User may set some rights such as monitor for this user so that user may view some channel view without login.
- One user should belong to one group. User right can not exceed group right.
- About reusable function: this function allows multiple users use the same account to login.

After all the setups please click save button, system goes back to the previous menu.

	SETTING
	TORAGE
GENERAL DISPLAY	User Group Secure Qu
PTZ	3 Username Group Name Modify Delete Memo
POS	1 8888888 admin 🧪 🗙 888888 admin 's account
BROADCAST	2 admin admin / X admin's account 3 default user / X default account
ACCOUNT	3 default user 🖌 🗙 default account
IMP/EXP	
DEFAULT	
UPGRADE	
	Add User



3.20.3.1.1 Add User

Click modify user button *C* in Figure 3-203, the interface is shown as in Figure 3-204.

Please input the user name, password, select the group it belongs to from the dropdown list. Then user may check the corresponding rights for current user.

For convenient user management, usually we recommend the general user right is lower than the admin account.

- Username: admin. Password: admin. (administrator, local and network)
- Username: 888888. Password: 888888. (administrator, local only)
- **Username**: default. **Password**: default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. User may set some rights such as monitor for this user so that user may view some channels without login.

	Add	User
User Name Password Memo Group (admin Period Set Authority		Confirm Password
	Aback Monitor  SYSTEM  SINFO  STORAGE  CLEAR LOG	<ul> <li>✓ DISCONNECT USER ✓ DEFAULT&amp;UPGRADE</li> <li>✓ MANUAL CONTROL ✓ BACKUP</li> <li>✓ EVENT</li> <li>✓ NETWORK</li> <li>✓ SHUTDOWN</li> </ul>
		Save Cancel

#### Figure 3-204

When you create a new user, user may input the corresponding MAC address of current user. If you leave this item in blank, any MAC address user can share this user account to login. Please note system needs to check the validity of MAC. Only the 12-digit 0-f format address can pass the validity verification. System only saves small character even you input capitalized one. User may see the corresponding prompt if there is any illegal input.

Click the Set button after the period, user may set valid period to use current account. See Figure 3-205.

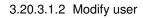




Click Set button, user may set six periods in one day. See Figure 3-206. Check the box after the period, user may enable current setup.

Period
Current Date: Sunday
Period 1 (00 : 00 - 24 : 00)
Period 2 $(00:00 - 24:00)$
Period 3 (00 : 00 - 24 : 00 )
Period 4 00 :00 - 24 : 00
Period 5 00 :00 - 24 : 00
Period 6 00 : 00 - 24 : 00
Copy
📄 All 🐷 Sunday 🗋 Monday 🗋 Tuesday 🗋 Wednesday 💭 Thursday 💭 Friday 💭 Saturday
ОК

Figure 3-206



Click user may go to the following interface to change user information. See Figure 3-207.

For admin, 888888, and default (hidden user), user may not change period setup.

	l	Jser
Username (888888 Modify Password 🔲 Old P	assword (	Username (888888
New Password		Group (admin )
Confirm Password		Memo (8888888 admin 's account
Authority		
System Playback	Monitor	
II All		
		🗹 NETWORK SETUP 🗹 CAMERA
CLEAR LOG	SHUT DOWN	
Save Cancel		

#### Figure 3-207

#### 3.20.3.1.3 Change Password

In Figure 3-207, check the Modify password box, user may change password. Please input old password, and then input new password twice to confirm.

The password can contain 32-byte and the space at the beginning or at the end of the password are null. It can contain in the middle of the password. For the user of account right, it can change the password of other users.

#### 3.20.3.1.4 Add/Modify Group

In Figure 3-203, click Group button, user may see the following interface. See Figure 3-208.

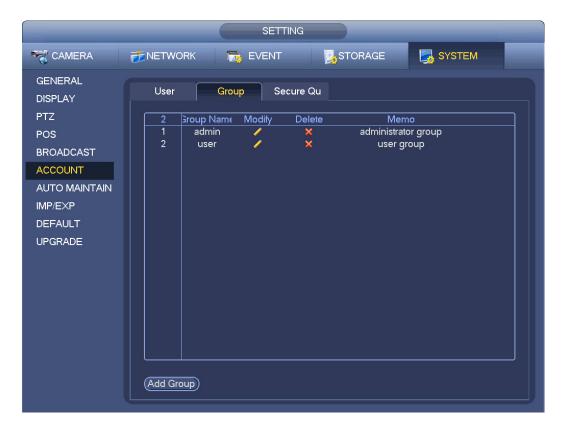


Figure 3-208

Click add group button in Figure 3-208, the interface is shown as below. See Figure 3-209. Here user may input group name and then input some memo information if necessary. There are total 98 rights such as control panel, shut down, real-time monitor, playback, record, record file backup, PTZ, user account, system information view, alarm input/output setup, system setup, log view, clear log, upgrade system, control device and etc.

_	_		Add Group
Group Name ( Memo ( Authority			
System	Playback	Monitor	
	JNT	SYSTEM	DISCONNECT USER DEFAULT&UPGRADE
PTZ			MANUAL CONTROL DACKUP
	AGE		
	LOG		N
Save C	ancel		

Figure 3-209

3.20.3.1.5 Security Question

### Note

This function is for administrator only.

The security question is shown as below. See Figure 3-210.

Here user may change security questions. User may select from the dropdown list or input customized questions. Click Set button, user may save current setup. User may correctly answer the security questions to reset password of admin account.

### Tips

Input proper answer and then click Delete button, user may reset security password.

	SETTING
ST CAMERA	
GENERAL DISPLAY	User Group Secure Qu
PTZ POS	Please set a security question so that you can find the password of (admin) again.
BROADCAST	Question 1 (What's your favorite pet?
ACCOUNT AUTO MAINTAIN	Answer
IMP/EXP DEFAULT	Question 2 (What's your first car model?
UPGRADE	Answer
	Set Delete

Figure 3-210

# 3.20.4 Update

From Mani menu->Setting->Info->Update, user may go to the following interface. See Figure 3-211.

- a) Insert USB device that contain the upgrade file.
- b) Click Start button and then select the .bin file.
- c) User may see the corresponding dialogue box after the update process is complete.



Figure 3-211

## 3.20.5 Default

User may restore factory default setup to fix some problems when the device is running slowly. Configuration error occurred.

From Main menu->Setting->System->Default, user may go to the default interface. See Figure 3-212.

Click default icon, system pops up a dialogue box. User may highlight 📕 to restore factory default setup.

- All
- Camera
- Network
- Event
- Storage
- System

Please highlight icon 📕 to select the corresponding function.

Click factory reset button, user may restore factory default setup.

After all the setups please click OK button, system goes back to the previous menu.

## Warning!

After you use default function, some your customized setup may lose forever! Please think twice before you begin the operation!



Figure 3-212

## 3.20.6 Auto Maintain

From Main menu->Setting->System->Auto maintain, here user may set auto-reboot time and auto-delete old files setup. User may set to delete the files for the specified days. See Figure 3-213. User may select proper setup from dropdown list.

After all the actives places click cave butter, system sees head to the

After all the setups please click save button, system goes back to the previous menu.

		SETTING			
Samera	👼 NETWORK 🛛 📷 EVI	ENT 💽 STO	RAGE	SYSTEM	
GENERAL DISPLAY PTZ POS BROADCAST ACCOUNT AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Auto Reboot Tuesday • at 02:0 Auto Delete Old Files Customized • 18				
			ок (	Cancel Appl	

Figure 3-213

### 3.20.7 Logout /Shutdown/Restart

From Main menu->Operation->Shutdown, user may see an interface shown as in Figure 3-214.

- Shutdown: System shuts down and turns off power.
- Logout: Log out menu. You need to input password when you login the next time.
- Restart: Reboot device.

If you shut down the device, there is a process bar for your reference, system waits for 3 seconds and then shut down (User may not cancel).

Please note, sometimes you need to input the proper password to shut down the device.



Figure 3-214

# 4 Web Operation

## 4.1 General Introduction

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

### 4.1.1 Preparation

Before log in, please make sure:

- PC and NVR connection is OK.
- You have set PC IP address, NVR IP address, subnet mask and gateway. (Please set the IP address of the same section for the PC and NVR. Please input corresponding gateway and subnet mask if there are routers.) This series product max supports 4 network adapters. The default setup is eth1:192.168.1.108, eth2: 192.168.1.106, eth3:192.168.1.105 and eth4:192.168.1.104.
- Use order ping ***.***.***(NVR IP address) to check connection is OK or not.

### 4.1.2 Log in

Open the IE and then input the NVR IP address in the address column.

For example, if your NVR IP address is 192.168.1.108, then please input http:// 192.168.1.108 in IE address column. See Figure 4-1.

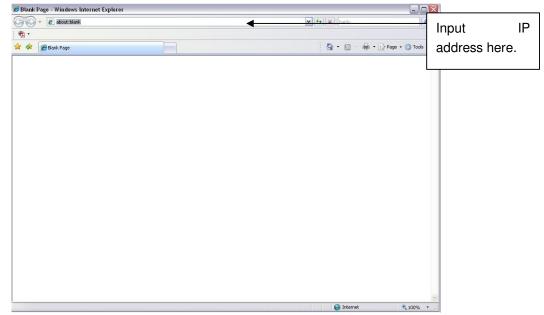


Figure 4-1

System pops up warning information to ask you whether install webrec.cab control or not. Please click yes button.

If user can't download the ActiveX file, please modify your settings as follows. See Figure 4-2.

Internet Options	Security Settings - Internet Zone
General Security Privacy Content Connections Programs Advanced	Settings
Select a zone to view or change security settings.	Disable     Enable
😜 😼 🗸 🎽	Download signed ActiveX controls (not secure)     Disable
Internet Local intranet Trusted sites	Enable (not secure)     Prompt (recommended)
Internet This zone is for Internet websites, except those listed in trusted and restricted zones. Security level for this zone Allowed levels for this zone: Medium to High 	Download unsigned ActiveX controls (not secure)     Disable (recommended)     Enable (not secure)     Prompt     Initialize and script ActiveX controls not marked as safe for si     Disable (recommended)     Enable (not secure)     Prompt     Run ActiveX controls and plug-ins     Advisite table approved
- Unsigned ActiveX controls will not be downloaded	*Takes effect after you restart Internet Explorer
Custom level         Default level           Reset all zones to default level	Reset custom settings Reset to: Medium-high (default)
OK Cancel Apply	OK Cancel

Figure 4-2

After installation, the interface is shown as below. See Figure 4-3.

WEB SER	VICE	
User Name:	admin	]
Password:		Plain Text
Туре:	TCP	
	• LAN O WAN	
	Login Cancel	]

Figure 4-3

Please input your user name and password.

Default factory name is **admin** and password is **admin**.

System pops up the following dialogue box for you to change default administrator password. See Figure 4-4.

ADMIN SECURITY	
User Name	admin
New Password	
	Law Middle High
Confirm Password	
* The password max ha characters.	please change administrator default password. s 6-digit containing letters, numbers and other special
* Usually the password	shall not be the same as the user name.
	Save Cancel

Figure 4-4

### For your own safety, please change the default password after you first login.

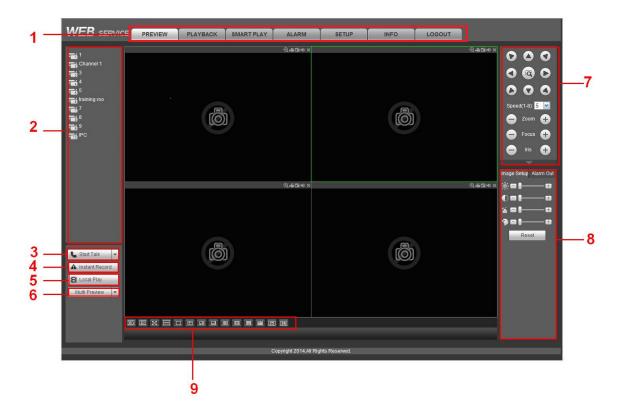
Click Cancel button, system pops up the following dialogue box to confirm the exit. See Figure 4-5. Check the box here, system will not pop up the change password interface the next time.

Message
For your device safety, please change admin default password! Are you sure to quit changing now?
Do not prompt admin to change its default password.
Save Cancel

Figure 4-5

## 4.2 LAN Mode

For the LAN mode, after you logged in, user may see the main window. See Figure 4-6.





This main window can be divided into the following sections.

- Section 1: There are seven function buttons: Preview (chapter 4.3), setup (chapter 4.8), info (Chapter 4.9), playback (chapter 4.10), smart play (chapter: 4.11), alarm (chapter 0), and logout (chapter 4.13).
- Section 2: There are monitor channels successfully connected to the NVR.

Please refer to Figure 4-7 for main stream and extra stream switch information.



Figure 4-7

• Section 3: Start Talk button.

User may click this button to enable audio talk. Click 【▼】 to select bidirectional talk mode. There are four options: DEFAULT, G711a, G711u and PCM. See Figure 4-8.

After you enable the bidirectional talk, the Start talk button becomes End Talk button and it becomes yellow. Please note, if audio input port from the device to the client-end is using the first channel audio input port. During the bidirectional talk process, system will not encode the audio data from the 1-channel.

Start Talk 👻			
	DEFAULT		
· · ·	G711a		
	G711u		
	PCM		
Ļ			

Figure 4-8

• Section 4: Instant record button. Click it, the button becomes yellow and system begins manual record. See Figure 4-9. Click it again, system restores previous record mode.



• Section 5: Local play button.

The Web can playback the saved (Extension name is dav) files in the PC-end.

Click local play button, system pops up the following interface for you to select local play file. See Figure 4-10.

Open	? 🔀
Look in: 🞯 Desktop	- 🖬 🍅 📾 -
<ul> <li>My Documents</li> <li>My Computer</li> <li>My Network Places</li> <li>Access IBM</li> <li>AOL Double-Click to Start</li> <li>EarthLink Internet 30 Days Free</li> </ul>	Image: Second system       Image: Second system <td< th=""></td<>
File name:	>
Files of type: Record files (*.*)	Cancel

Figure 4-10

- Section 6: Zero-channel encoding. Please refer to chapter 4.6 for detailed information.
- Section 7: PTZ operation panel. Please refer to chapter 4.4 for detailed information.
- Section 8: Image setup and alarm setup. Please refer to chapter 4.5 for detailed information.
- Section 9: From the left to the right ,user may see video quality/fluency/ full screen/1-window/4-window/6-window/8-window/9-window/13-window/16-window/20-window/25-win dow/36-window.. User may set video fluency and real-time feature priority.

## 4.3 Real-Time Monitor

In section 2, left click the channel name you want to view, user may see the corresponding video in current window.

On the top left corner, user may view device IP(172.11.10.11), channel number(1), network monitor bit stream(2202Kbps) and stream type(M=main stream, S=sub stream). See Figure 4-11.

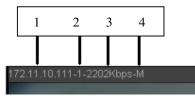


Figure 4-11

On the top right corner, there are six unction buttons. See Figure 4-12.



Figure 4-12

- 1: Fisheye: Click it to change fisheye installation mode and display mode.
- 2: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. right click mouse system restores original status.
- 3: Local record. When you click local record button, the system begins recording and this button becomes highlighted. User may go to system folder RecordDownload to view the recorded file.
- 4: Snapshot picture. User may snapshot important video. All images are memorized in system client folder PictureDownload (default).
- 5: Audio :Turn on or off audio.(It has no relationship with system audio setup)
- 6: Close video.

## 4.4 PTZ

Before PTZ operation, please make sure you have properly set PTZ protocol.

There are eight direction keys. In the middle of the eight direction keys, there is a 3D intelligent positioning key.

Click 3D intelligent positioning key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. It can realize PTZ automatically.

Please refer to the following sheet for PTZ setup information.

Parameter	Function			
Scan	• Select Scan from the dropdown list.			
	• Click Set button, user may set scan left and right limit.			
	• Use direction buttons to move the camera to you desired location			
	and then click left limit button. Then move the camera again and			
	then click right limit button to set a right limit.			
Preset	Select Preset from the dropdown list.			
	• Turn the camera to the corresponding position and Input the			
	preset value. Click Add button to add a preset.			

Parameter	Function
Tour	<ul> <li>Select Tour from the dropdown list.</li> <li>Input preset value in the column. Click Add preset button, you have added one preset in the tour.</li> <li>Repeat the above procedures user may add more presets in one tour.</li> <li>Or user may click delete preset button to remove one preset from the tour.</li> </ul>
Pattern	<ul> <li>Select Pattern from the dropdown list.</li> <li>User may input pattern value and then click Start button to begin PTZ movement such as zoom, focus, iris, direction and etc. Then user may click Add button to set one pattern.</li> </ul>
Aux	<ul> <li>Please input the corresponding aux value here.</li> <li>User may select one option and then click AUX on or AUX off button.</li> </ul>
Light and wiper	User may turn on or turn off the light/wiper.

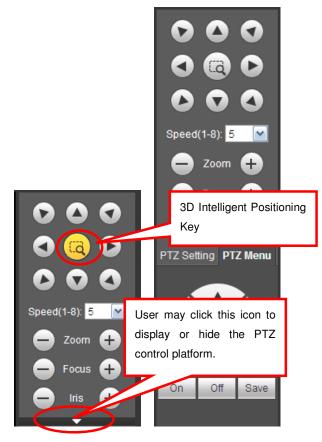


Figure 4-13

## 4.5 Image/Alarm-out

Select one monitor channel video and then click Image button in section 9, the interface is shown as Figure 4-14.

### 4.5.1 Image

Here user may adjust its brightness, contrast, hue and saturation. (Current channel border becomes green).

Or user may click Reset button to restore system default setup.

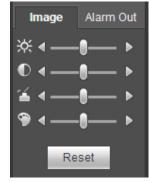


Figure 4-14

### 4.5.2 Alarm Output

Here user may enable or disable the alarm signal of the corresponding port. See Figure 4-15.



Figure 4-15

## 4.6 Zero-channel Encode

Select a window and then click zero-channel encode button, the interface is shown as below. See Figure 4-16.



Figure 4-16

## 4.7 WAN Login

In WAN mode, after you logged in, the interface is shown as below. See Figure 4-17.

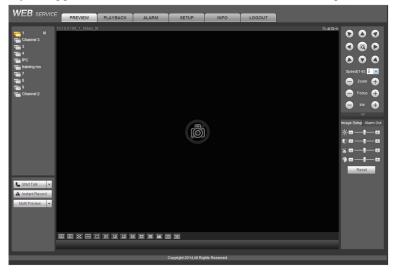


Figure 4-17

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

1) In the WAN mode, system opens the main stream of the first channel to monitor by default. The open/close button on the left pane is null.

2) User may select different channels and different monitor modes at the bottom of the interface. See Figure 4-18.

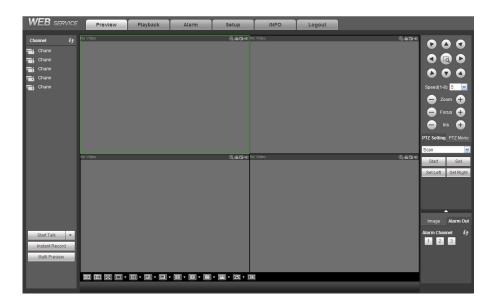


Figure 4-18

### Important

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

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

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

#### Important

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

## 4.8 Setup

### 4.8.1 Camera

4.8.1.1 Remote Device

4.8.1.1.1 Remote Device

From main window->Setup->Camera->Remote device->Remote device, user may see remote device interface is shown as below. See Figure 4-19.

Remote Device	Upgrade							
IP Address	•	S	earch					
83	IP Address	Port Device	e Name Mai	nufacturer	Туре	м	AC Address	
1	172.11.199.248	80		Onvif	1300		No Address	•
2	172.11.2.161	80		Onvif				E
3	172.11.199.114	80		Onvif				
4	172.11.1.11	80		Onvif				
5	172.11.4.201	80		Onvif				
6 🔲	172.11.9.104	80		Onvif				
7	172.11.3.81	80		Onvif				
8 🗖	172.11.199.112	80		Onvif				
Device Search	Add	Manual Add	Modify IP			Fi	Iter None	
Channel Me	odify Delete Status	IP Address P	ort Device Name	Remote Channel No.	Manufacturer	Camera Name	Туре	
1	2 🗢 🖪	172.11.199.32 37	777 PZC4AV044W00 172	1	Private	Channel 4	IPC-HF5200	^
2	2 o 🖿	172.11.199.32 37	777 PZC4AV044W00 172	1	Private	Channel 4	IPC-HF5200	
								Ŧ
Delete	Import	Export	Refresh					

Figure 4-19

Manual Add		×
Manufacturer	Private	<b>▼</b>
IP Address	192.168.0.0	
TCP Port	37777	(1~65535)
User Name	admin	
Password	••••	Connect
Channel No.	1	Setup
Remote Channel No.	1	~
Channel	11	~
Decode Buffer	280	ms (80~480)
	OK Cance	el

Figure 4-20

Please refer to the following sheet for log parameter information.

Parameter	Function
Device search	Click Device search button, user may view the searched device information on the list. It includes device IP address, port, device name, manufacturer and type.

Add	Select a device in the list and then click Add button, system can connect the device automatically and add it to the Added device list. Or user may double click one item in the list to add a device. <b>Tips</b>						
	User may select several addresses to add at the same time.						
Modify	Click 😢 or any device in the Added device list, user may change the corresponding channel setup.						
Delete	Click (S), user may delete the remote connection of the corresponding channel.						
Connection status	<ul> <li>Connection succeeded.</li> <li>Connection failed.</li> </ul>						
Delete	Select a device in the Added device list and then click Delete button, system can disconnect the device and remove it from the Added device list.						
Manual Add	<ul> <li>Click it, the interface is shown as in Figure 4-20. Here user may add network camera manually.</li> <li>User may select a channel from the dropdown list (Here only shows disconnection channel.).</li> <li>Note: <ul> <li>System supports manufactures such as Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, Dante and Onvif standard protocol.</li> <li>If you do not input IP address here. System uses default IP 192.168.0.0 and system does not connect to this IP.</li> <li>Can not add two devices at the same time. Click OK button here, system only connect to the corresponding device of current channel.</li> </ul> </li> </ul>						

### Change IP

On the searched devices list, check one or more device(s) at the same time. Click Modify IP button, user may see the following interface. See Figure 4-21

Please refer to the following	a sheet for loo	narameter information
riease relei to the following	J SHEEL IOF IOU	parameter monnation.

Parameter	Function
DHCP	Check the box here, system can auto allocate the IP
	address. The IP address, subnet mask, default
	gateway are reference only.
Static	Check the box here, user may set IP address,
	subnet mask, default gateway manually.
IP address/subnet	User may input corresponding information here.
mask/default gateway	
User name/password	The account you login the remote device. Please
	input here to password verification to change the
	remote device password.

Parameter	Function
Incremental value	When you want to change several IP addresses, once you input the IP address of the first device, the IP address of the next device will increase accordingly. For example, when the incremental value is 1, if the IP address of the first device is 172.10.3.128, the IP address of the second device will auto be set as 172.10.3.129.

### Note

For the static IP address, system will alert you if there is any IP conflict. If you are changing several IP addresses at the same time, system auto skip the conflicted IP and auto allocate again according to the incremental value you set.

Mod	lify IP			×
	Checked Device No.:			
$\odot$	DHCP	User admin	]	
۲	STATIC	Password		
	IP Address	172 . 11 . 2 . 50	Incremental Value 1	
	Subnet Mask	255 . 255 . 0 . 0		
	Default Gateway	172 . 11 . 0 . 1		
		ок с	ancel	
	SN	P Address		
	1	72.11.2.50		_
				Ŧ

Figure 4-21

### Export IP

User may export the list of the added devices to your local PC.

Click Export button and then select the saved path. Click OK.

User may see "Backup completed " prompt.

### Note

The export file extension name is .CVS. The file contains IP address, port, remote channel No.

manufacturer, user name, password and etc.

### Import IP

User may import the added device list to add the device conveniently. Click Import button, and then select the import file.

### Note

If the imported IP is already in the added device list, system pops up dialogue box for you to confirm overwrite or not.

- Click OK button, the new IP setup can overwrite the new one.
- Click Cancel button, system adds the new IP setup.



#### Important

- User may edit the exported file. Please make sure the file format is the same. Otherwise user may not import the file again!
- System does not support customized protocol import/export.
- The import/export function is for the devices of the same language.

#### 4.8.1.1.2 Upgrade

#### Important

#### This function is for online network camera only.

From main window->Setup->Camera->Remote device->Upgrade, user may see an interface is shown as below. See Figure 4-22.

Check the network camera you want to upgrade and then click Browse button to select upgrade file. Click Start upgrade button to begin the process.

ect Firmware	e File		Br	owse				
vice Upgrade	9						Device Type N	one 💌
	Channel	Status	IP Address	Port	Manufacturer	Туре	Version	Upgrade Status
	1	×	10.15.6.52	37777	Private			
	2	<b>.</b>	10.15.6.191	37777	Private	IP Camera	2.400	
	3	×	10.15.5.208	37777	Private			
	4		10.15.6.187	37777	Private			
	5		10.15.1.65	37777	Private	IP Camera	2.420	
	6	<b>.</b>	10.15.6.84	40002	Private	HCVR	3.200	
	7	×	10.15.7.125	37777	Private			
	8		10.15.5.68	37777	Private			

Figure 4-22

Tips

User may use filter to select several network cameras at the same time.

### 4.8.1.2 Image

From main window->Setup->Camera->Image, user may see an interface shown as in Figure 4-23. Here user may view device property information. The setups become valid immediately after you set.

2014-07-03 08:20:54	Channel	2			Ŧ				
	Config Files	Day			~				
	Auto Iris	۲	Enable	0	Disable	Saturation	<b>1</b> —	-0-	50
	Mirror	0	Enable	۲	Disable	Brightness	: <b>:</b> :	-0-	50
						Contrast	<b>0</b> -	-0-	50
E F						Sharpness		-0	50
	3D Denoise	۲	Enable	0	Disable				
	Flip	No F	lip		~				
	Light	Clos	э		~				
	Scene Mode	Auto			~				
	Day & Light								

Figure 4-23

Parameter	Function
Channel	Please select a channel from the dropdown list.
Config file	The options includes: day/night/general/switch by period. Once the mode is switch by period, user may set sunset and sunrise time.
3D NR	It is to process multiple-frame (At least two frames). System uses the information between these two frames to realize noise reduction function.
Hue	It is to adjust monitor video brightness and darkness level. The default value is 50.
	The bigger the value is, the large the contrast between the bright and dark section is and vice versa.
Brightness	It is to adjust monitor window brightness. The default value is 50. The larger the number is , the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. User may use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The value ranges from 0 to 100.The recommended value ranges from 40 to 60.
Contrast	It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50.
	The larger the number is, the higher the contrast is. User may use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over

		exposure .The recommended value ranges from 40 to 60.				
Saturati	on	It is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50.				
		The larger the number is, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.				
Gain		The gain adjust is to set the gain value. The smaller the value is, the low the noise is. But the brightness is also too low in the dark environments. It can enhance the video brightness if the value is high. But the video noise may become too clear.				
White le	vel	It is to enhance video effect.				
Color mode		It includes several modes such as standard, color. User may select corresponding color mode here, user may see hue, brightness, and contrast and etc will adjust accordingly.				
Auto Iris	;	It is to enable/disable auto iris function.				
Flip		It is to switch video up and bottom limit. This function is disabled by default.				
Mirror		It is to switch video left and right limit. This function is disabled by default.				
BLC Mode	BLC	The device auto exposures according to the environments situation so that the darkest area of the video is cleared				
	WDR	For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that user may view these two sections clearly at the same time.				
		The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.				
	HLC	After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.				
	Off	It is to disable the BLC function. Please note this function is disabled by default.				
Profile		It is to set the white balance mode. It has effect on the general hue of the video. This function is on by default.				
		User may select the different scene mode such as auto, sunny, cloudy, home, office, night, disable and etc to adjust the video to the best quality.				
		• Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.				
		<ul> <li>Sunny: The threshold of the white balance is in the sunny mode.</li> </ul>				

	<ul> <li>Night: The threshold of the white balance is in the night mode.</li> <li>Customized: User may set the gain of the red/blue channel. The value reneges from 0 to 100.</li> </ul>
Day/Night	<ul> <li>It is to set device color and the B/W mode switch. The default setup is auto.</li> <li>Color: Device outputs the color video.</li> <li>Auto: Device auto select to output the color or the B/W video according to the device feature (The general bright of the video or there is IR light or not.)</li> <li>B/W: The device outputs the black and white video.</li> <li>Sensor: It is to set when there is peripheral connected IR light.</li> </ul>

#### 4.8.1.3 Encode

4.8.1.3.1 Encode

From main window->Setup->Camera->Encode->Encode, the encode interface is shown as below. See Figure 4-24.

Encode	Snapshot	Overlay	Path		
Channel	2	×	-		
Main Stream			Sub Stream		
Code-Stream Type	Regular	<b>~</b>	Video Enable		
Compression	H.264	<b>~</b>	Compression	H.264	
Resolution	1920*1080(1080P)	<b>~</b>	Resolution	704*576(D1)	
Frame Rate(FPS)	30	<b>~</b>	Frame Rate(FPS)	30 💌	
Bit Rate Type	CBR	<b>~</b>	Bit Rate Type	CBR	
Bit Rate	4096	Kb/S	Bit Rate	1024	Kb/S
Reference Bit Rate	1280-8192Kb/S		Reference Bit Rate	192-4096Kb/S	
Audio Enable			Audio Enable		
✓ Watermark Enable			Watermark String	DigitalCCTV	
	Сору	ок	Refresh De	fault	

Figure 4-24

Parameter	Function
Channel	Please select a channel from the dropdown list.
Video enable	Check the box here to enable extra stream video. This item is enabled by default.
Code stream type	It includes main stream, motion stream and alarm stream. User may select different encode frame rates form different recorded events.
	System supports active control frame function (ACF). It allows you to record in different frame rates.
	For example, user may use high frame rate to record important events, record scheduled event in lower frame rate and it allows you to set different frame rates for motion detection record and

	alarm record.			
Compression	The main bit stream supports H.264. The extra stream supports H.264, MJPG.			
Resolution	The resolution here refers to the capability of the network camera.			
Frame Rate	PAL: 1~25f/s; NTSC: 1~30f/s.			
Bit Rate	<ul> <li>Main stream: User may set bit rate here to change video quality. The large the bit rate is, the better the quality is. Please refer to recommend bit rate for the detailed information.</li> </ul>			
	• Extra stream: In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value. The value is null in VBR mode.			
Reference bit rate	Recommended bit rate value according to the resolution and frame rate you have set.			
I Frame	Here user may set the P frame amount between two I frames. The value ranges from 1 to 150. Default value is 50.			
	Recommended value is frame rate *2.			
Watermark	This function allows you to verify the video is tampered or not.			
enable	Here user may select watermark bit stream, watermark mode and watermark character. Default character is DigitalCCTV. The max length is 85-digit. The character can only include number, character and underline.			

### 4.8.1.3.2 Snapshot

From main window->Setup->Camera->Encode->Snapshot, the snapshot interface is shown as in Figure 4-25.

Encode	Snapshot	Overlay	Path
Channel	2	•	
Mode	Timing	<b>~</b>	
Image Size	1080P (1920*1080)	<b>×</b>	
Quality	5	<b>~</b>	
Snapshot Frequence	ay 1 SPL	<b>~</b>	
	ОК	Refresh	

### Figure 4-25

Parameter	Function
Mode	There are two modes: Regular (schedule) and timing (Trigger).

	<ul> <li>Regular snapshot is valid during the specified period you set.</li> <li>Trigger snapshot only is valid when motion detect alarm, tampering alarm or local activation alarm occurs.</li> </ul>
Image size	It is the same with the resolution of the main stream.
Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s. Or user may set customized value. The max setup is 3600s/picture.

### 4.8.1.3.3 Video Overlay

From main window->Setup->Camera->Encode->Overlay, the video overlay interface is shown as in Figure 4-26.

	Encode	Snapshot	Ove	erlay	Path			
_								
						Channel	2	•
						Cover-Area		
						Monitor	Setup	
						Channel Display	Setup	
						☑ Time Display	Setup	
	Сору	ОК	Refresh	Default				

Figure 4-26

Please refer to the following sheet for detailed information.

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

#### 4.8.1.3.4 Path

From main window->Setup->Camera->Encode->Path, the storage path interface is shown as in Figure 4-27.

Here user may set snap image saved path (Image in the preview interface) and the record storage path

in the preview interface). The default setup is C:\PictureDownload and C:\RecordDownload.

Please click the Save button to save current setup.

Encode	Snapshot	Overlay	Path
Snapshot Path	C:\PictureDownload\		Browse
Record Path	C:\RecordDownload\		Browse
	ОК	Default	

Figure 4-27

#### 4.8.1.4 Camera Name

1

From main window->Setup->Camera->Camera name, here user may set channel name. See Figure 4-28.

Camera Name							
Channel 1	1	Channel 2	Channel 1	Channel 3	3	Channel 4	4
Channel 5	5	Channel 6	training room	Channel 7	7	Channel 8	8
Channel 9	9	Channel 10	IPC	Channel 11	11	Channel 12	12
Channel 13	13	Channel 14	14	Channel 15	15	Channel 16	16
Channel 17	17	Channel 18	18	Channel 19	19	Channel 20	20
Channel 21	21	Channel 22	22	Channel 23	23	Channel 24	24
Channel 25	25	Channel 26	26	Channel 27	27	Channel 28	28
Channel 29	29	Channel 30	30	Channel 31	31	Channel 32	32
Channel 33	33	Channel 34	34	Channel 35	35	Channel 36	36
Channel 37	37	Channel 38	38	Channel 39	39	Channel 40	40
Channel 41	41	Channel 42	42	Channel 43	43	Channel 44	44
Channel 45	45	Channel 46	46	Channel 47	47	Channel 48	48
Channel 49	49	Channel 50	50	Channel 51	51	Channel 52	52
Channel 53	53	Channel 54	54	Channel 55	55	Channel 56	56
Channel 57	57	Channel 58	58	Channel 59	59	Channel 60	60
Channel 61	61	Channel 62	62	Channel 63	63	Channel 64	64
Channel 65	65	Channel 66	66	Channel 67	67	Channel 68	68
Channel 69	69	Channel 70	70	Channel 71	71	Channel 72	72
Channel 73	73	Channel 74	74	Channel 75	75	Channel 76	76
Channel 77	77	Channel 78	78	Channel 79	79	Channel 80	80
Channel 81	81	Channel 82	82	Channel 83	83	Channel 84	84
		ОК	Refresh	Defau	lt		

Figure 4-28

## 4.8.2 Network

### 4.8.2.1 TCP/IP

From main window->Setup->Network->TCP/IP, the TCP/IP interface is shown as in Figure 4-29.

Ethernet Card	IP Address	Network Mode	NIC Member		
Network Card1	172.11.3.8	Single NIC	1	2	<b>^</b>
Network Card2	192.168.1.106	Single NIC	2	1	
Network Card3	192.168.1.105	Single NIC	3	2	
Network Card4	192.168.1.104	Single NIC	4	2	
Fiber Card5	192.168.1.103	Single NIC	5	2	
Fiber Card6	192.168.1.102	Single NIC	6	2	
MAC Address: 9	00:02:a9:da:33:e1 S	Default Gateway:172.11.0 Subnet Mask: 255.255.		TIC	
Version	IPv4	<b>•</b>			
referred DNS	8.8.8	. 8			
Iternate DNS	8.8.4	. 4			
efault Card	Network Card1	•	LAN Download		

Figure 4-29

Parameter	Function			
IP Version	It is to select IP version. IPV4 or IPV6.			
	User may access the IP address of these two versions.			
Default card	Select Ethernet card name if you network mode is fault tolerance.			
Preferred DNS	DNS IP address.			
Alternate DNS	Alternate DNS IP address.			
For the IP address of IPv6 version, default gateway, preferred DNS and alternate DNS, the input value shall be 128-digit. It shall not be left in blank.				
LAN load	System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.			

Click Edit button, user may go to the following interface. See Figure 4-30.

Edit		X
Ethernet Card	Network Card	
	1	
Network Mode	● Single NIC ○ Fault-tolerance ○ Load Balance	
NIC Member	Network Card2 Network Card3 Network Card4	
IP Version	IPv4	
MAC Address	90.02.a9.da.33.e1	
Mode	● STATIC ○ DHCP	
IP Address	172 . 11 . 3 . 8	
Subnet Mask	255 . 255 . 0 . 0	
Default Gateway	172 . 11 . 0 . 1	
MTU	1500	
0	K No	

Figure 4-30

Parameter	Function
Network mode	It includes: single NIC, fault tolerance, load balance.
	• Single NIC: eth1/eth2/ eth3/eth4 operate separately. User may use the services such as HTTP, RTP service via eth1/eth2/ eth3/eth4. Usually you need to set one default card (default setup is eth1) to request the auto network service from the device-end such as DHCP, email, FTP and etc. In multiple-address mode, system network status is shown as offline once one card is offline.
	• Fault-tolerance: In this mode, device uses bond0 to communicate with the external devices. User may focus on one host IP address. At the same time, you need to set one master card. Usually there is only one running card (master card).System can enable alternate card when the master card is malfunction. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
	• Load balance: In this mode, device uses bond0 to communicate with the external device. The all cards are working now and bearing the network load. Their network load are general the same. The system is shown as offline once all cards are offline. Please note all cards shall be in the same LAN.
NIC member	User may check the box here to select the bind cards.
	<ul> <li>This mode is for fault-tolerance or load balance mode only.</li> <li>The network cards number shall be equal to or more than 2.</li> </ul>
	<ul> <li>The different types of cards such as fiber card or the Ethernet card can not binding together.</li> </ul>

IP address	Here user may use up/down button ( $\blacktriangle \nabla$ ) or input the corresponding number to input IP address. Then user may set the corresponding subnet mask the default gateway.
Mac Address	It is to display host Mac address.
IP Version	It is to select IP version. IPV4 or IPV6.
	User may access the IP address of these two versions.
Default gateway	Here user may input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
DHCP	It is to auto search IP. When enable DHCP function, user may not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, user may not modify IP/Subnet mask /Gateway.
MTU	<ul> <li>It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network becomes off. That is to say, MTU modification can affect current network service. System may pop up dialog box for you to confirm setup when you want to change MTU setup. Click OK button to confirm current reboot, or user may click Cancel button to terminate current modification. Before the modification, user may check the MTU of the gateway; the MTU of the NVR shall be the same as or is lower than the MTU of the gateway. In this way, user may reduce packets and enhance network transmission efficiency. Right now, the value here is for read-only.</li> <li>1500: Ethernet information packet max value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some router, switch or the network adapter.</li> <li>1492: Recommend value for DHCP.</li> </ul>

### 4.8.2.2 Connection

From main window->Setup->Network->Connection, the connection interface is shown as in Figure 4-31.

CONNECTION		
Max Connection	20	(0~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535)
RTSP Port	554	(1~65535)
RTSP Format	rtsp:// <user name="">:<passw< th=""><th>ord&gt;@<ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip></th></passw<></user>	ord>@ <ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip>
	channel: Channel, 1-128; sul	btype: Code-Stream Type, Main Stream 0, Sub Stream 1.
	OK Re	fresh Default

#### Figure 4-31

Please refer to the following sheet for detailed information.

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

### 4.8.2.3 PPPoE

From main window->Setup->Network->PPPoE, the PPPoE interface is shown as in Figure 4-32. Input the PPPoE user name and password you get from the IPS (internet service provider) and enable

PPPoE function. Please save current setup and then reboot the device to get the setup activated.

Device connects to the internet via PPPoE after reboot. User may get the IP address in the WAN from the IP address column.

Please note, you need to use previous IP address in the LAN to login the device. Please go to the IP address item to via the device current device information. User may access the client-end via this new address.

PPPoE	
Trable	
Enable	
User Name	
Password	
IP Address	0.0.0.
	0.0.0
	OK Refresh Default

Figure 4-32

### 4.8.2.4 DDNS

From main window->Setup->Network->DDNS, the DDNS interface is shown as in Figure 4-33.

The DDNS is to set to connect the various servers so that user may access the system via the server. Please go to the corresponding service website to apply a domain name and then access the system via the domain. It works even your IP address has changed.

Please select DDNS from the dropdown list (Multiple choices). Before you use this function, please make sure your purchased device support current function.

DDNS	
Enable	
DDNS Type	Quick DDNS
Host IP	www.quickddns.com
Domain Mode	⊙ Default Domain ○ Custom Domain Name
Domain Name	9002A9112233 .quickddns.com Test
Email Address	(Optional)Please input an email address.
	Save Refresh Default

Figure 4-33

Parameter	Function
Server Type	User may select DDNS protocol from the dropdown list and then enable DDNS function.
Server IP	DDNS server IP address
Server Port	DDNS server port.
Domain Name	Your self-defined domain name.

Parameter	Function
User	The user name you input to log in the server.
Password	The password you input to log in the server.
Update period	Device sends out alive signal to the server regularly. User may set interval value between the device and DDNS server here.

### **Quick DDNS and Client-end Introduction**

### 1) Background Introduction

Device IP is not fixed if you use ADSL to login the network. The DDNS function allows you to access the NVR via the registered domain name. Besides the general DDNS, the quick DDNS works with the device from the manufacturer so that it can add the extension function.

### 2) Function Introduction

The quick DDNS client has the same function as other DDNS client end. It realizes the bonding of the domain name and the IP address. Right now, current DDNS server is for our own devices only. You need to refresh the bonding relationship of the domain and the IP regularly. There is no user name, password or the ID registration on the server. At the same time, each device has a default domain name (Generated by MAC address) for your option. User may also use customized valid domain name (has not registered.).

### 3) Operation

Before you use Quick DDNS, you need to enable this service and set proper server address, port value and domain name.

- Server address: www.quickddns.com
- Port number: 80
- Domain name: There are two modes: Default domain name and customized domain name.

Except default domain name registration, user may also use customized domain name (User may input your self-defined domain name.) After successful registration, user may use domain name to login installed of the device IP.

• User name: It is optional. User may input your commonly used email address.

### Important

- Do not register frequently. The interval between two registrations shall be more than 60 seconds. Too many registration requests may result in server attack.
- System may take back the domain name that is idle for one year. User may get a notification email before the cancel operation if your email address setup is OK.

#### 4.8.2.5 IP filter

From main window->Setup->Network->IP filter, the IP filter interface is shown as in Figure 4-34. After you enabled trusted sites function, only the IP listed below can access current NVR. If you enable blocked sites function, the following listed IP addresses can not access current NVR.

IP FILTER			
Enable  Trusted Site	es O Blocked Sites		
Trusted Sites	Blocked Sites		
	IP Address	Edit	Delete
			<u> </u>
Add			
Adu			
Save Refre	esh Default		

Figure 4-34

### 4.8.2.6 Email

From main window->Setup->Network->Email, the email interface is shown as in Figure 4-35.

	Email	
	Enable	
	SMTP Server	10.1.0.97
	Port	25
	Anonymous	
	User Name	
	Password	•••••
	Sender	
	Encrypt Type	NONE
	Subject	NVR ALERT 🗹 Attachment
	Receiver	
	Interval	120 Second(0~3600)
	Health Enable	60 Minute (30~1440)
		Test
		1004
		Save Refresh Default
I		

Figure 4-35

Parameter	Function
Enable	Please check the box here to enable email function.
SMTP Server	Input server address and then enable this function.
Port	Default value is 25. User may modify it if necessary.
Anonymity	For the server supports the anonymity function. User may auto login anonymously. You do not need to input the user name, password and the sender information.

Parameter	Function
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	User may select SSL or none.
Subject	Input email subject here.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Receiver	Input receiver email address here. Max three addresses. It supports SSL, TLS email box.
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.
Health mail enable	Please check the box here to enable this function.
Update period (interval)	This function allows the system to send out the test email to check the connection is OK or not. Please check the box to enable this function and then set the corresponding interval. System can send out the email regularly as you set here.
Email test	The system will automatically sent out an email once to test the connection is OK or not .Before the email test, please save the email setup information.

### 4.8.2.7 FTP

From main window->Setup->Network->FTP, the FTP interface is shown as in Figure 4-36. It is to set FTP IP, port and etc for remote storage.

FTP	
Enable	
Host IP	0.0.0*
Port	21 *(1~65535)
User Name	
Password	Anonymous
Remote Directory	
File Length	0 M
Image Upload Inter	val 2 sec.
Channel	1 💌
Weekday	Thursday
Period 1	00 : 00 - 24 : 00 🗌 Alarm 🗌 MD 🗌 Regular
Period 2	00 : 00 - 24 : 00 🗌 Alarm 🗌 MD 🗌 Regular
	FTP Test
	OK Refresh Default

Figure 4-36

### 4.8.2.8 UPnP

From main window->Setup->Network->UPnP, here user may also add, modify or remove UPnP item. See Figure 4-37.

It allows you to establish the mapping relationship between the LAN and the public network.

- In the Windows OS, From Start->Control Panel->Add or remove programs. Click the "Add/Remove Windows Components" and then select the "Network Services" from the Windows Components Wizard.
- Click the Details button and then check the "Internet Gateway Device Discovery and Control client" and "UPnP User Interface". Please click OK to begin installation.
- Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the NVR can auto detect it via the "My Network Places"

AT	🖸 Enable 🔾 Di	sable						
tatus	Disable							
N IP	0 . 0 . 0	. 0						
AN IP	0.0.0	. 0						
Port Mappin	ng List							
No.		Service Name	Protocol	Internal Port	External Port	Modify	Delete	
1		HTTP	TCP	80	80	1	8	
2		TCP	TCP	37777	37777	1	8	
3		UDP	UDP	37778	37778	🧷	8	
4		RTSP	UDP	554	554	1	8	
5		RTSP	TCP	554	554	2	8	
6		SNMP	UDP	161	161	1	8	
7		HTTPS	TCP	443	443	2	8	
Add								
Auu								

Figure 4-37

#### 4.8.2.9 SNMP

From main window->Setup->Network->SNMP, the SNMP interface is shown as in Figure 4-38.

The SNMP allows the communication between the network management work station software and the proxy of the managed device. It is reserved for the 3rd party to develop.

SNMP V1/V2	
Enable	
SNMP Port	161 (0~65535)
Read Community	public
Write Community	private
Trap Address	
Trap Port	162 (0~65535)
Version	✓ V1 ✓ V2
<ul> <li>Enable</li> <li>SNMP Port</li> <li>Read Community</li> <li>Write Community</li> <li>Trap Address</li> <li>Trap Port</li> <li>Version</li> </ul>	Save Refresh Default

Figure 4-38

Parameter	Function
SNMP Port	The listening port of the proxy program of the device. It is a UDP port not a TCP port. The value ranges from 1 to 65535. The default value is 161

Parameter	Function
Read Community	It is a string. It is a command between the manage process and the proxy process. It defined the authentication, access control and the management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read all the objects the SNMP supported in the specified name. The default setup is public.
Write Community	It is a string. It is a command between the manage process and the proxy process. It defined the authentication, access control and the management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read/write/access all the objects the SNMP supported in the specified name. The default setup is write.
Trap address	The destination address of the Trap information from the proxy program of the device.
Trap port	The destination port of the Trap information from the proxy program of the device. It is for the gateway device and the client-end PC in the LAN to exchange the information. It is a non-protocol connection port. It has no effect on the network applications. It is a UDP port not TCP port. The value ranges from 1 to 165535. The default value is 162.
SNMP version	<ul> <li>Check V1, system only processes the information of V1.</li> <li>Check V2, system only processes the information of V2.</li> </ul>

### 4.8.2.10 Multicast

From main window->Setup->Network->Multicast, the multicast interface is shown as in Figure 4-39. Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.

Multicast	
Enable	
IP Address	239 . 255 . 42 . 42 (224.0.0.0~239.255.255.255)
Port	36666 (1025~65500)
	Save Refresh Default

Figure 4-39

### 4.8.2.11 Register

From main window->Setup->Network->Register, the auto register interface is shown as below. See Figure 4-40.

This function allows the device to auto register to the proxy you specified. In this way, user may use the client-end to access the NVR and etc via the proxy. Here the proxy has a switch function. In the network

service, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto register function, the device can auto register to the proxy server.

AUTO REGISTER	
Enable	
Host IP	0.0.0.0
Port	8000
Sub-device ID	0
<ul> <li>Enable</li> <li>Host IP</li> <li>Port</li> <li>Sub-device ID</li> </ul>	Save Refresh Default

Figure 4-40

### 4.8.2.12 Alarm Centre

From main window->Setup->Network->Alarm centre, the alarm center interface is shown as below. See Figure 4-41.

This interface is reserved for you to develop. System can upload alarm signal to the alarm center when local alarm occurs.

Before you use alarm center, please set server IP, port and etc. When an alarm occurs, system can send out data as the protocol defined, so the client-end can get the data.

Alarm Centre	
🗹 Enable	
Protocol Type	ALARM CENTER
Host IP	20 . 2 . 12 . 27
Port	1
Self-report Time	Everyday 🔹 at 08:00 💌 Save Refresh Default



### 4.8.2.13 HTTPS

From main window->Setup->Network->HTTPS, user may see an interface shown as in Figure 4-42. In this interface, user may set to make sure the PC can successfully login via the HTTPS. It is to guarantee

communication data security. The reliable and stable technology can secure the user information security and device safety.

### Note

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

HTTPS		
Create Server Certificate	Download Root Certificate	]



4.8.2.13.1 Create Server Certificate

If it is your first time to use this function, please follow the steps listed below.

Create Server Certificate

In Figure 4-42, click button, input country name, state name and etc. Click Create button. See Figure 4-43.

#### Note

Please make sure the IP or domain information is the same as your device IP or domain name.

Create Server Certifi	cate		×
Country	AU		
State		]	
Locatity		]	
Oragnization		]	
Oragnization Unit		]	
IP or Domain Name	10.10.6.238	]	
	Create	Cancel	

Figure 4-43

User may see the corresponding prompt. See Figure 4-44. Now the server certificate is successfully created.

HTTPS		
Create Server Certificate	Download Root Certificate	
Create Succeed		

Figure 4-44

In Figure 4-42, click Download Root Certificate button, system pops up a dialogue box. See Figure 4-45.



Figure 4-45

Click Open button, user may go to the following interface. See Figure 4-46.

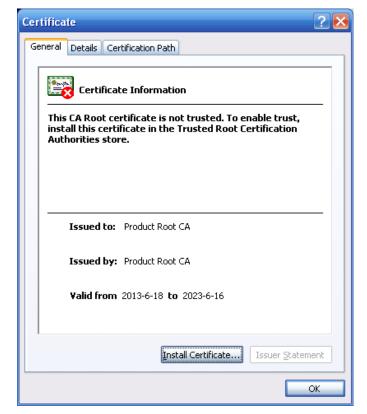


Figure 4-46

Click Install certificate button, user may go to certificate wizard. See Figure 4-47.



Figure 4-47

Click Next button to continue. Now user may select a location for the certificate. See Figure 4-48.

Certificate Import Wizard	×
Certificate Store Certificate stores are system areas where certificates are kept.	
Windows can automatically select a certificate store, or you can specify a location for	
$\odot$ Automatically select the certificate store based on the type of certificate	
Place all certificates in the following store	
Certificate store:	
Browse	
Sack Next > Cance	el

Figure 4-48

Click Next button, user may see the certificate import process is complete. See Figure 4-49.

Certificate Import Wizard		X		
	Completing the Certificate Import Wizard You have successfully completed the Certificate Import wizard.			
	You have specified the follow	ving settings:		
	Certificate Store Selected Content	Automatically determined by t Certificate		
	< <u>B</u> ack	Finish Cancel		

Figure 4-49

Click Finish button, user may see system pops up a security warning dialogue box. See Figure 4-50.

Security	r Warning 🔀					
	You are about to install a certificate from a certification authority (CA) claiming to represent:					
	Product Root CA					
	Windows cannot validate that the certificate is actually from "Product Root CA". You should confirm its origin by contacting "Product Root CA". The following number will assist you in this process:					
	Thumbprint (sha1): CD20E4B2 A52D50B8 8447BD20 5C67B033 397E3F81					
	Warning: If you install this root certificate, Windows will automatically trust any certificate issued by this CA. Installing a certificate with an unconfirmed thumbprint is a security risk. If you click "Yes" you acknowledge this risk.					
	Do you want to install this certificate?					
	Yes No					

Figure 4-50

Click Yes button, system pops up the following dialogue box, user may see the certificate download is complete. See Figure 4-51.



Figure 4-51

4.8.2.13.3 View and set HTTPS port

From Setup->Network->Connection, user may see the following interface. See Figure 4-52. User may see HTTPS default value is 443.

CONNECTION		
Max Connection	20	(0~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535)
RTSP Port	554	(1~65535)
RTSP Format	rtsp:// <user name="">:<passw< th=""><th>ord&gt;@<ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip></th></passw<></user>	ord>@ <ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip>
	channel: Channel, 1-128; su	btype: Code-Stream Type, Main Stream 0, Sub Stream 1.
	OK Re	fresh Default

Figure 4-52

4.8.2.13.4 Login

Open the browser and then input https://xx.xx.xx.xx.port.

xx.xx.xx.xx: is your device IP or domain mane.

Port is your HTTPS port. If you are using default HTTPS value 443, you do not need to add port information here. User may input <u>https://xx.xx.xx.xx</u> to access.

Now user may see the login interface if your setup is right.

## 4.8.3 Event

4.8.3.1 Video detect

4.8.3.1.1 Motion Detect

After analysis video, system can generate a video loss alarm when the detected moving signal reached the sensitivity you set here.

From main window->Setup->Event->Video detect->Motion detect, the motion detect interface is shown as in Figure 4-53.

Motion Detect	Video Loss	Tampering	Scene Change	Video Analytics	
Enable	1	•			
Period Anti-dither Region	Setup 0 Setup	s(0-600)			
Record Chan	nel Setup				
Delay	10	s(10~300)			
Alarm Out	1 2 3	4 5 6 7 8			
Latch	0	s(0~300)			
PTZ Activation	Setup				
Tour	Setup				
Snapshot	Setup				
Show Messag	ge 📄 Send Ema	iil 🔲 Alarm Upload	🔲 Buzzer 🔲 Log		
	Сору	ОК	Refresh	Default	

Figure 4-53

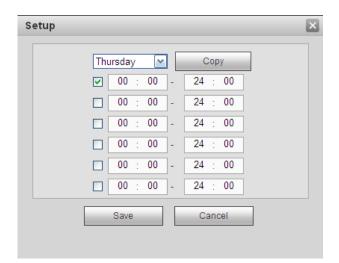


Figure 4-54

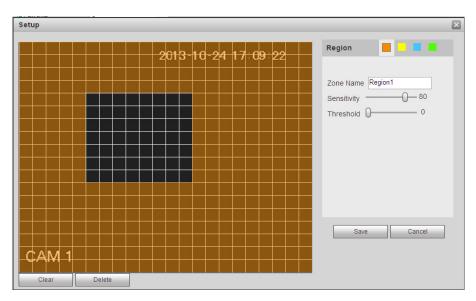


Figure 4-55

PTZ Activation				×
Channel 1	None	~	0	
Channel 2	None	~	0	
Channel 3	None	~	0	
Channel 4	None	~	0	
Channel 5	None	~	0	
Channel 6	None	~	0	
Channel 7	None	<b>~</b>	0	
Channel 8	None	~	0	
Channel 9	None	<b>~</b>	0	
Channel 10	None	~	0	
Channel 11	None	<b>~</b>	0	
Channel 12	None	<b>~</b>	0	
Channel 13	None	<b>~</b>	0	
Channel 14	None	<b>~</b>	0	
Channel 15	None	~	0	
<	1111			>
	ОК	Cance	el	

Figure 4-56

Tour			$\times$
All 1 2 3 4 5			
	Save	Cancel	

Figure 4-57

Snapshot	×
All 1 2 3 4 5	
Save	Cancel

Figure 4-58

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	You need to check the box to enable motion detection function. Please select a channel from the dropdown list.
Period	Motion detection function becomes activated in the specified periods. See Figure 4-54. There are six periods in one day. Please draw a circle to enable corresponding period. Click OK button, system goes back to motion detection interface, please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.
Sensitivity	There are six levels. The sixth level has the highest sensitivity.
Region	If you select motion detection type, user may click this button to set motion detection zone. The interface is shown as in Figure 4-55. Here user may set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. User may click Fn button to switch between the arm mode and disarm mode. In arm mode, user may click the direction buttons to move the green rectangle to set the motion detection zone. After you completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set motion detect record

Parameter	Function
	period and go to Storage-> Schedule to set current channel as schedule record.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Alarm out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when an alarm occurs.
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre.
Message	When 3G network connection is OK, system can send out a message when motion detect occurs.
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Tour	You need to click setup button to select tour channel. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 4-57.
PTZ Activation	Here user may set PTZ movement when an alarm occurs. Such as go to preset X. See Figure 4-56.
Snapshot	Click setup button to select snapshot channel. See Figure 4-58.

4.8.3.1.2 Video Loss

From main window->Setup->Event->Video detect->Video loss, the video loss interface is shown as in Figure 4-59.

Please note video loss does not support anti-dither, sensitivity, region setup. For rest setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

Motion Detect	Video Loss	Tampering	Scene Change	Video Analytics	
Enable	5	-			
Period	Setup				
Record Channel	Setup				
Delay	10	s(10~300)			
Alarm Out	1 2 3	4 5 6 7 8			
Latch	10	s(0~300)			
PTZ Activation	Setup				
Tour	Setup				
✓ Snapshot	Setup				
Show Message	Send Email	🔲 Alarm Upload	🔲 Buzzer 🔽 Log		
	Сору	ОК	Refresh	Default	

Figure 4-59

## 4.8.3.1.3 Tampering

From main window->Setup->Event->Video detect->Tampering, the tampering interface is shown as in Figure 4-60.

After analysis video, system can generate a tampering alarm when the detected moving signal reached the sensitivity you set here.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

Motion Detect	Video Loss	Tampering	Scene Change	Video Analytics	
🗹 Enable	5	•			
Period	Setup				
Record Channel	Setup				
Delay	10	s(10~300)			
Alarm Out	123	4 5 6 7	8		
Latch	10	s(0~300)			
PTZ Activation	Setup				
Tour	Setup				
Snapshot	Setup				
Show Message	Send Emai	il 🔲 Alarm Upload	🔲 Buzzer 🔽 Log		
	Сору	ОК	Refresh	Default	

Figure 4-60

#### 4.8.3.1.4 Scene Change

From main window->Setup->Event->Video detect->Scene change, the video diagnosis interface is shown as in Figure 4-61.

Motion Detect	Video Loss	Tampering	Scene Change	Video Analytics	
Enable	6	•			
Period	Setup				
Record Channel	Setup				
Delay	10	s(10~300)			
Alarm Out	123	4 5 6 7 8	]		
Latch	0	s(0~300)			
PTZ Activation	Setup				
Tour	Setup				
🔲 Snapshot	Setup				
🔲 Send Email 🗌	Alarm Upload 🔲	Buzzer 🔲 Log			
	Сору	ОК	Refresh	Default	

Figure 4-61

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.1.5 Video analytics

From main window->Setup->Event->Video detect->Video diagnosis, the video diagnosis interface is shown as in Figure 4-62.

Motion Detect	Video Loss	Tampering	Scene Change	Video Analytics	
Enable	1	▼ S	set		
Period	Setup				
Alarm Out	1 2 3	4 5 6 7 8	3		
Latch	10	s(0~300)			
📄 Send Email	🔲 Buzzer 🔽 Log				
	ОК	Refresh	Default		

Figure 4-62

Click Set button, the interface is shown as below. See Figure 4-63.

System can generate an alarm once there is stripe, noise, or video is color cast, out of focus or over exposure.

Analysis		×
All		
Stripe		
Noise		
Color Cast		
Out of Focus		
Over exposur	e	
	ОК	Cancel

Figure 4-63

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

## 4.8.3.2 IVS Plan

From main menu->Setup->Event->IVS plan, user may go to the IVS plan interface. See Figure 4-64.

IVS PLAN		
Channel		•
Add	*	
ОК	Refresh	

Figure 4-64

Select a channel from the dropdown list. Click Add button, user may see an interface shown as below. See Figure 4-65.

Select a channel from the dropdown list and then set preset. Click Add button and then set the corresponding rule.

Channel 2 •	
&Preset1	× *
&Preset3	×
	•

Figure 4-65

Click OK button to complete the setup.

4.8.3.3 Behavior Analytics (Optional)

### Important

- Please contact your retailer or you service engineer if user may not use the behavior analytics function.
- Right now, the behavior analytics supports 32 rules.

### 4.8.3.3.1 Behavior Analytics

From main menu->Setup->Event->Behavior analytics->Behavior analytics, user may go to the Behavior analytics interface. See Figure 4-66.

EHAVIOR ANALYTICS GLOBAL					
2014-07-21 20:01:44	Channel	1		•	
	No.	Name	Preset	Rule Type	÷
	1	Rule1		Tripwire 💌	•
	Parameters Config	A To B		•	
	Direction	AIUD			
	Period	Setup			
	Record Channe				
	Delay	10	s(10~3	00)	
	Alarm Out	1 2	3 4 5	6 7 8	
Draw Rule Clear	Latch	10	s(0~30	0)	
	PTZ Activation	Setup			
Target Filter   Max Size  Draw Target  Clear  Clear	Tour	Setup			
O Min Size	Snapshot	Setup	1		
	Send Email	Alarm Upload	Buzzer	Log	
	ок	Refresh			

Figure 4-66

Please select a channel from the dropdown list

Click 🖶 to add a rule. The default setup is tripwire, user may double click the rule type name to modify.

See Figure 4-67.





Then user may set corresponding parameters. Click OK button to complete the setup.

## 4.8.3.3.1.1 Tripwire

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click 🕂 user may see the following interface. See Figure 4-68.

System generates an alarm once there is any object crossing the tripwire in the specified direction.

EHAVIOR ANALYTICS GLOBAL BEHAVIOR ANALYTICS						
	2015-03-04 14:13:03	Channel	4		•	
		No.	Name	Preset	Rule Type	÷
	الفت	<b>V</b> 1	Rule1	5 <del>75</del>	Tripwire	•
Please dative a line	Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Caunty Ca	- Parameters Config Direction Period	A To B Setu	p	×	
		Record Channel				
California no3	1	Delay	10	s(10~30		
		Alarm Out	1 2		6 7 8	
Draw Rule	Clear	Latch	10	s(0~300	))	
		PTZ Activation	Setu	p		
Target Filter   Max Size	Draw Target Clear	Tour	Setu	p		
O Min Size		Snapshot	Setu	p		
		Send Email	Alarm Uploa	d 🔲 Buzzer	✓ Log	
		ОК	Refresh			

Figure 4-68

Check the Tripwire box to enable tripwire function.

Select SN (Line1/2/3/4) and direction, and then input customized rule name.

• Direction: There are three options: A->B, B->A, both. System can generate an alarm once there is any object crossing in the specified direction.

Now user may draw a rule. Click Draw rule button and then left click mouse to draw a tripwire. The tripwire can be a direct line, curve or polygon. Right click mouse to complete. See Figure 4-69.

BEHAVIOR ANALYTICS	GLOBAL							
		2015-03-04 14:12:44	Channel No.	4 Name Rule1	Preset 	Rule Type	÷	
DR	ing is completed	Caund Desarrow	Parameters Config Direction Period Period Record Channel Delay	A To B Setup Setup 10	_	v		
California no3 Draw Rule		Clear	Alarm Out Latch PTZ Activation	1 2 10 Setup	3 4 5 s(0~300	6 7 8		
Target Filter 💿 Max Siz 🔿 Min Siz		Draw Target Clear	<ul><li>Tour</li><li>Snapshot</li></ul>	Setur		✓ Log		
			ОК	Refresh				

Figure 4-69

Click Draw Target to draw filter object. See Figu	re 4-70.
BEHAVIOR ANALYTICS GLOBAL	
	Channel 4 No. Name Preset Rule Type 1 Rule1 - Tripwire Parameters Config Direction A To B Period Setup Record Channel Setup Delay 10 s(10~300)
Celifornia no3 Draw Rule Clear Target Filter Max Size Draw Target Clear © Min Size	Alarm Out       1       2       3       4       5       6       7       8         Latch       10       s(0~300)       PTZ Activation       Setup         Tour       Setup       Setup       Snapshot       Setup         Send Email       Alarm Upload       Buzzer V Log         OK       Refresh

Figure 4-70

Select the blue line and then use mouse to adjust zone size.

## Note

Each rule can set two sizes (min size/max size). Once the object is smaller than the min size or larger

than the max size, there is no alarm. Please make sure the max size is larger than the min size. Click Ok to complete the rule setup.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.3.1.2 Intrusion (Cross warning zone)

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click , and then select rule

type as intrusion, user may see the following interface. See Figure 3-116.

Note:

- System supports customized area shape and amount.
- Support enter/leave/both detection.
- Can detect the moving object operation in the specified zone, customized trigger amount and staying time.
- Support objects filter function.

		Channel	4		Pula Tura	÷
		No.	Name Rule1	Preset	Rule Type	-
	Sauto K ALEANER		KuleT		Indusion	Ū
		Parameters Config -				
	<b>E 3</b>	Action	Cross		•	
	in the Table	Direction	Both		•	
	A CONTRACTOR	Period	Setup			
lifornia no3	3	Record Channel	Setup			
		Delay	10	s(10~30	))	
raw Rule	Clear	Alarm Out	1 2	3 4 5	6 7 8	
		Latch	10	s(0~300)	1	
Target Filter O Max Size	Draw Target Clear	PTZ Activation	Setup			
Min Size		🗖 Tour	Setup			
		Snapshot	Setup			
		Send Email	Alarm Upload	I 🔲 Buzzer	✓ Log	



Check the Intrusion box to enable intrusion function.

Select SN (Area1/2/3/4) and direction, and then input customized rule name.

- Action: System suppors two types:appear/cross.
- Direction: There are three options: A->B, B->A, both. System can generate an alarm once there is any object enter/exit (Or both) the zone.

Now user may draw a rule. Left click mouse to draw a line first and then right click mouse to draw another line until you draw a rectangle, user may right click mouse to exit. Click Ok to complete the rule setup.

Click Draw Rule to draw the zone. See Figure 4-72.

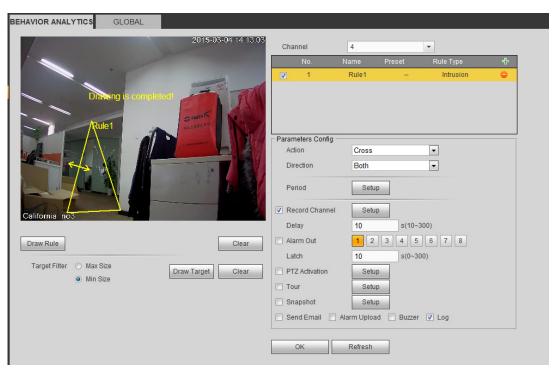


Figure 4-72

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.3.1.3 Abandoned Object Detect

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click , and then select rule

type as abandoned object detection, user may see the following interface. See Figure 4-73.

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.

	2015-03-04 14:13:16	Channel	4		•	
		No.	Name F	Preset	Rule Type	÷
		1	Rule1		Abandoned Object	•
	Saunk Stream					
		<ul> <li>Parameters Config -</li> <li>Period</li> </ul>	30		s	
		1 child	30			
		Period	Setup			
		Record Channel	Setup			
California no3		Delay	10	s(10~30	10)	
		Alarm Out	1 2 3	3 4 5	6 7 8	
Draw Rule	Clear	Latch	10	s(0~300	))	
		PTZ Activation	Setup			
Target Filter O Max Size	Draw Target Clear	Tour	Setup	1		
Min Size		Snapshot	Setup	1		
		🗌 Send Email 🔲	Alarm Upload	Buzzer	✓ Log	
		ОК	Refresh	1		

Figure 4-73

Check the Object box to enable object detect function.

• Period: System can generate an alarm once the object is in the zone for the specified period.

Click Draw Rule to draw the	e rule. See Figure 4	-74.			
BEHAVIOR ANALYTICS GLOBAL					
	2015-03-04 14:14:00	Channel	4	¥	
		No.	and the second	reset Rule Type	÷
			Rule1	Abandoned Object	•
		Parameters Config – Period Period	30 Setup	S	
California no3 Rule1		<ul> <li>Record Channel</li> <li>Delay</li> <li>Alarm Out</li> </ul>	Setup 10 1 2 3	s(10~300)	
Draw Rule Target Filter O Max Size	Clear	Latch PTZ Activation	10 Setup	s(0~300)	
Min Size	Draw Target Clear	<ul> <li>Tour</li> <li>Snapshot</li> <li>Send Email</li> </ul>	Setup Setup Alarm Upload	Buzzer ✔ Log	
		OK	Refresh		

Figure 4-74

Now user may draw a rule. Left click mouse to draw a line, until you draw a rectangle, user may right click mouse.

Click Ok to complete the rule setup.

# For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information. 4.8.3.3.1.4 Missing Object Detect

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click, and then select rule

type as missing object detection, user may see the following interface. See Figure 4-75.

- System supports customized area shape and amount.
- Support period setup.

Draw Rule

Support objects filter function. •

BEHAVIOR ANALYTICS GLOBAL							
	2015-03-04 14:12:44	Cha	annel	4		-	
			N0.	Name	Preset	Rule Type	÷
			1	Rule1	-	Missing Object	•
	SAWINK NO						
	arranges a		meters Config				
			meters Config eriod	30		s	
	1 1 1	Pe	eriod	Set	up		
			1.01				
			ecord Channe				
California no3			elay	10	s(10~		
			arm Out	1	2 3 4 5	6 7 8	
Draw Rule	Clear	La	atch	10	s(0~3	00)	
		PT	TZ Activation	Set	up		
Target Filter 🔘 Max Size	Draw Target Clear	🗆 то	our	Set	up		
Min Size		Sr	napshot	Set	up		
					ad 🗌 Buzzer		
						U LUY	
			01	Defeat			
			ОК	Refresh			

Figure 4-75

Click Draw Rule to draw the rule. See Fig	gure 4-76.
BEHAVIOR ANALYTICS GLOBAL	
2015-03-04 14:13:32	Channel 4
	No. Name Preset Rule Type 🕂
	😨 1 Rule1 Missing Object 😑
California no3	Parameters Config         Period       30         Period       Setup         V       Record Channel         Delay       10       s(10~300)         Alarm Out       1       2       3       4       5       6       7       8
Draw Rule Clear	Latch 10 s(0~300)
Target Filter O Max Size	PTZ Activation     Setup
Min Size     Min Size	Tour     Setup
	Snapshot Setup
	📄 Send Email 📄 Alarm Upload 📄 Buzzer 📝 Log
	OK Refresh

Figure 4-76

Click Ok to complete the rule setup.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.3.1.5 Loitering

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click -, and then select rule

type as loitering detection, user may see the following interface. See Figure 4-77.

Note

- System supports customized area shape and amount.
- Support duration setup.
- Support objects filter function.

EHAVIOR ANALYTICS GLOBAL						
and the second second	2014-07-21 20:01:42	Channel	2		•	
T		No.	Name	Preset	Rule Type	÷
*	2244 C	☑ 1	Rule1	1	Loitering Detection	•
		Parameters Config -				
	WINKIP	Duration	5		S	
		Period	Setup			
		Record Channel	Setup			
lipa lipa		Delay	10	s(10~3	300)	
		Alarm Out	1 2	3 4 5	6 7 8	
Draw Rule	Clear	Latch	10	s(0~30	00)	
		PTZ Activation	Setup			
Target Filter   Max Size	Draw Target Clear	🗖 Tour	Setup			
Min Size		Snapshot	Setup			
		Send Email	Alarm Upload	Buzzer	Log	
		Track Time	30	s (5~3	00)	
		ОК	Refresh			
				_		

Figure 4-77

• Duration: System can generate an alarm once the object is in the zone for the specified period.

Click Draw Rule to draw the rule.

Click OK to complete the rule setup.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.3.1.6 Crowd gathering detection

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click the select rule

type as crowd gathering estimation, user may see the following interface. See Figure 4-78.

- Customized zone and amount setup.
- Duration setup.
- Sensitivity setup.
- Min gathering zone setup.

BEHAVIOR ANALYTICS	GLOBAL		
	2013-09-12 12:15:44	Channel	2
	WHE WE AND THE REAL PROPERTY OF THE REAL PROPERTY O	No.	Name Preset Rule Type 🕂
		☑ 1	Rule1 1 Crowd Gathering Estima
		Parameters Config	
		Duration	10 s
AN A		Sensitivity	— — () — — + 5
		Period	Setup
()AC		Record Channel	Setup
		Delay	10 s(10~300)
Draw Rule	Clear	Alarm Out	1 2 3 4 5 6 7 8
		Latch	10 s(0~300)
Crowd	Draw Target Clear	PTZ Activation	Setup
Gathering Estimatiion		Tour	Setup
		Snapshot	Setup
		Send Email 🔲 A	Alarm Upload 🔲 Buzzer 📝 Log
		Track Time	30 s (5~300)
		ОК	Refresh

Figure 4-78

- Duration: System can generate an alarm once the object is in the zone for the specified period.
- Sensitivity: It is to set alarm sensitivity. The value ranges from 1 to 10. The default setup is 5.

Click Draw Rule to draw the rule.

Click OK to complete the rule setup.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

4.8.3.3.1.7 Fast moving

From main menu->Setup->Event-> Behavior analytics->Behavior analytics, click , and then select rule

type as fast moving, user may see the following interface. See Figure 4-79.

• Sensitivity: It is to set alarm sensitivity. The value ranges from 1 to 10. The default setup is 5.

BEHAVIOR ANALYTICS	GLOBAL							
	1	1	at 901 milliona	Channel	2		-	
	<u>_</u>			No.	Name	Preset	Rule Type	÷
Draw Rule Target Filter   Max Siz Min Siz		Clea Draw Target Clea	ar	VO. V 1 Parameters Co Sensitivity Period V Record Cha Delay Alarm Out Latch PTZ Activatic Tour Snapshot	Rule1	1 	Fast-Moving + 5	5 0
					Alarm Uploa		✓ Log	
				Track Time	30	s (5~3		
			[	OK	Refresh			
			l	UK	Refresh			
			_		•			

Figure 4-79

Click Draw Rule to draw the rule.

Click OK to complete the rule setup.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

## 4.8.3.3.2 Global Config

From main menu->Setup->Event->Behavior analytics->Global, user may go to the global configuration interface. See Figure 4-80.

- Channel: Please select a channel from the dropdown list.
- Preset: Select a preset you want to set the rule. Please note, you need to add a preset first, otherwise, user maynot see the preset dropdown list. If there is no preset, user may draw a rule in current channel.
- Calibration zone:
- Click Add area , user may draw a calibration zone at the left pane of the interface. Select a zone

and then click Delete zone button; user may remove the selected zone.

- Select gauge type (vertical/level), user may set the corresponding length. User may draw three tilt gauges and one horizontal gauge at the left pane of the interface.
- Select Width/Height and then click Verify, user may draw a line in the calibration zone, and then user may see its actual length.
- Update preset: Click it to get the latest preset setup.

BEHAVIOR ANALYTICS GLOBAL	
P PT2 Dorre	Channel 8   Preset The PTZ camera does d  Calibration Config Calibration Area  Calibration Area  Calibration Area  Cauge  O Vertical Gauge  Cuevel Gauge  Actual Length  M  Add Gauge Delete Gauge
Zoom + Speed 5 • - Focus + Update Preset - Inis +	Width Verification     Verify       OK     Refresh

Figure 4-80

# 4.8.3.4 Face Detect (Optional)

When camera detects human face, system can generate an alarm.

From main menu->Setup->Event->Face detect, the interface is shown as in Figure 4-81.

- Face ROI(Region of Interest): Check the box here, system can enhance the human face display pane.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.

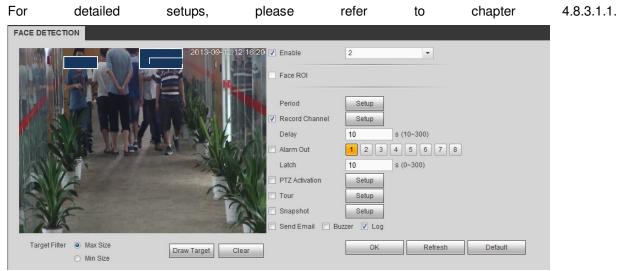


Figure 4-81

# 4.8.3.5 People Counting

System can calculate the entry/exit people amount in the specified zone. It can generate an alarm when the amount has exceeded the threshold.

From main menu->Setup->Event->People counting, user may see an interface shown as in Figure 4-82.

• Channel: Please select a channel from the dropdown list. Check the box to enable people counting function.

- OSD overlay: Check the box here; user may view the people amount on the surveillance video.
- Direction: It is to set people flow direction. It includes entry/exit.
- Entry No.: It is to set people entry amount. System can generate an alarm once the amount has exceeded the threshold.
- Exit No.: It is to set people entry amount. System can generate an alarm once the amount has exceeded the threshold.
- Stranded No.: It is to set people staying amount in the zone. System can generate an alarm once the amount has exceeded the threshold.

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

2013-09-12 12:16:48	Channel 2 OSD Overlay Clear
	Name Direction Enter  People Counting
	Enter No. 0 Exit No. 0 Stranded No. 0
	Parameters Config Period Setup
Draw Rule Clear	Delay         10         s(10~300)           Alarm Out         1         2         3         4         5         6         7         8           Latch         0         s(0~300)         5         5         7         8
	PTZ Activation     Setup       Tour     Setup       Snapshot     Setup
	Send Email     Alarm Upload     Buzzer     Log       OK     Refresh     Default

Figure 4-82

## 4.8.3.6 Heat Map

It is to detect the object activity level in the scene during the specified period.

From main menu->Setup->Event->Heat Map, user may see an interface shown as in Figure 4-83. For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

HEAT MAP	. <b></b>		
	2014-07-21 20:01:41 Channel Parameters Config Period	14  Setup	
	К	Refresh Default	

Figure 4-83

# 4.8.3.7 Audio Detect

System can generate an alarm once it detect the audio input is abnormal or audio volume changes. From main menu->Setup->Event->Audio detect, user may see an interface shown as in Figure 4-84.

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

For detailed setups, please refer to chapter 4.8.3.1.1 motion detect for detailed information.

Audio Detect	
Channel	2 🗸
Input Abnormal	
Intensity Change	
Sensitivity	□
Threshold	□
Period	Setup
Record Channel	Setup
Delay	10 sec. (10~300)
Alarm Out	1 2 3 4 5 6 7 8
Latch	10 sec. (1~300)
PTZ Activation	Setup
✓ Tour	Setup
🖌 Snapshot	Setup
🖌 Alarm Upload	 □ Send Email □ Buzzer ☑ Log
	OK Refresh Default

Figure 4-84

## 4.8.3.8 Smart Track

From main menu->Setup->Event->Smart Track, the interface is shown as in Figure 4-85.

SMART TRACK							
	Scene	Main Cam	PTZ	Status	Edit	Config	DEL
Add	DEL Refresh						



Click Add button, the interface is shown as below. See Figure 4-86.

- Type: Here user may select smart track mode. It includes: 1 fish eye+1 PTZ camera/1 fish eye+2 PTZ cameras/1 fish eye+3 PTZ cameras.
- Scene: It is the monitor position. Input customized monitor position name.
- Main channel: Click Select button and then select fish eye from the dialogue box.
- PTZ camera: Click Select button and then select corresponding PTZ camera amount from the

dialogue box.

Click OK to complete the setup.

Add				×
Туре	Fisheye+PTZ -	1 Fisheye+1		
Scene				
Main Cam			Select	
PTZ	Select			
Channel	CAM NAME		IP Address	
	01/			
	OK	Cancel		

Figure 4-86

After you go back to the smart track interface, it is shown as in Figure 4-87.

SMART TRACK							
	Scene	Main Cam	PTZ	Status	Edit	Config	DEL
	Door	9	8	50	2	26	•
		1					
Add	DEL Refresh						

Figure 4-87

In Figure 4-87, click is or double click the line, user may go to the following interface. See Figure 4-88. Here user may set the fish eye and PTZ camera bonding relationship.



Figure 4-88

On the fish eye displayed zone, left click mouse or move to confirm the position. On the PTZ camera displayed zone, use the following buttons to adjust the PTZ camera position. It is to

move the center position of the PTZ camera is the same as the  $rac{1}{2}$  position of the fish eye. **Note** 

The L

 $\cdot$   $\cdot$  of the PTZ camera is the center position of the video.

Button	Function
<b>ତ୍ର୍</b>	Zoom
E	Focus
0, 9	Iris
<u>0</u>	Electronic mouse, move it on the interface to control the
-	PTZ direction.
	Fast position button.
	Click the button, and the select a position in the video.
	System auto uses the current clicked position as the
	center to adjust.

Button	Function
Speed	It is to control PTZ movement speed. The higher the
	value is, the faster the speed is.
	For example, the step 8 speed is faster than step 1.

Click add button and then click 同 to save.

Now you complete one group position, user may view at the list. See Figure 4-89.

Main Cam	n PTZ	Zoom	OPERATI	ON DEL
3942,816	1077,-20	128	_	•

Figure 4-89

Repeat the above steps to set at least three group positions.

### Note

- For one PTZ camera, there must be three calibration groups. System max supports 8 group positions. Please make sure the calibration position is accurate.
- For the first calibration group position, please select the reference objects at the far distance to enhance the trigger accuracy.

Click OK button to complete the calibration setup, user may go back to the smart track interface, the

status is shown as 🔯

### 4.8.3.9 Alarm

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

4.8.3.9.1 Local Alarm

From main menu->Setup->Event->Alarm->Local alarm, the local alarm interface is shown as in Figure 4-90. It refers to alarm from the local device.

Local Alarm	Net Alarm         IPC External Alarm         IPC Offline Alarm
Enable	1 Alarm Name
Period	Setup
Anti-dither	5 s(0-600) Type NO
Record Channel	Setup Easy Space
Delay	10 s(10-300)
Alarm Out	1 2
Latch	10 s (0-300)
PTZ Activation	Setup
Tour	Setup
Snapshot	Setup 📃 Easy Space
Show Message	📄 Send Email 📄 Alarm Upload 📄 Buzzer 📝 Log
	Copy OK Refresh Default

Figure 4-90

Setup		×
	Thursday 🕑 Copy	
	✓ 00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00 : 00 - 24 : 00	
	00:00 - 24:00	
	Save Cancel	

Figure 4-91

PTZ Activation				×
Channel 1	None	~	0	
Channel 2	None	~	0	
Channel 3	None	~	0	
Channel 4	None	<b>~</b>	0	
Channel 5	None	<b>~</b>	0	
Channel 6	None	~	0	
Channel 7	None	~	0	
Channel 8	None	~	0	
Channel 9	None	<b>~</b>	0	
Channel 10	None	~	0	
Channel 11	None	×	0	
Channel 12	None	×	0	
Channel 13	None	<u>~</u>	0	
Channel 14	None	<u>~</u>	0	
Channel 15	None	~	0	
<				>
	ОК	Cancel		

Figure 4-92

Please refer to the following sheet for detailed information.

Parameter	Function	
Enable	You need to check the box to enable this function. Please select a channel from the dropdown list.	
Period	This function becomes activated in the specified periods There are six periods in one day. Please draw a circle to enable corresponding period.	
	Select date. If you do not select, current setup applies to today only. User may select all week column to apply to the whole week.	
	Click OK button, system goes back to local alarm interface, please click save button to exit.	
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.	
Sensor type	There are two options: NO/NC.	
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set alarm record period and go to Storage-> Schedule to set current channel as schedule record.	

Parameter	Function	
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.	
Alarm out	Enable alarm activation function. You need to select alarm output port so that system can activate corresponding alarm device when an alarm occurs.	
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.	
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.	
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.	
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre).	
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.	
Tour	You need to click setup button to select tour channel. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 4-57.	
PTZ Activation	Here user may set PTZ movement when an alarm occurs. Such as go to preset X. See Figure 4-92.	
Snapshot	Click setup button to select snapshot channel. See Figure 4-58.	

#### 4.8.3.9.2 Net Alarm

From main menu->Setup->Event->Alarm->Net alarm, the network alarm interface is shown as in Figure 4-93.

Network alarm refers to the alarm signal from the network. System does not anti-dither and sensor type setup. For setup information, please refer to chapter 4.8.3.9.1.

Local Alarm	Net Alarm	IPC External Alarm	IPC Offline Alarm	
Enable	1	✓ Alarm Name		
Period	Setup			
Record Channel	Setup 📃 Easy:	Space		
Delay	10 s(10-3	00)		
Alarm Out	1 2			
Latch	10 s (0-30	)0)		
PTZ Activation	Setup			
Tour	Setup			
Snapshot	Setup 📃 Easys	Space		
🔲 Send Email 🔲 B	uzzer 🔽 Log			
	Сору	OK R	efresh Default	

Figure 4-93

### 4.8.3.9.3 IPC external alarm

From main menu->Setup->Event->Alarm->IPC external alarm, the IPC external alarm interface is shown as in Figure 4-94.

Network alarm refers to the alarm signal from the network. System does not support anti-dither and sensor type setup. For setup information, please refer to chapter 4.8.3.9.1.

Local Alarm	Net Alarm	IPC External Alarm	IPC Offline Alarm	
Channel	5	✓ Alarm Name		
Period	Setup			
Anti-dither	5 s(0-60	00) Type NO	•	
Record Channel	Setup 🔲 Easy	Space		
Delay	10 s(10-3	300)		
🔲 Alarm Out	1 2			
Latch	10 s (0-3	00)		
PTZ Activation	Setup			
Tour	Setup			
✓ Snapshot	Setup 📃 Easy	Space		
✓ Show Message	🔲 Send Email 🔲 E	Buzzer 🔽 Log		
	Сору	OK Refr	esh Default	

Figure 4-94

4.8.3.9.4 IPC Offline Alarm

From main menu->Setup->Event->Alarm->IPC offline alarm, the IPC offline alarm interface is shown as in Figure 4-95.

System can generate an alarm once the network camera is offline. For setup information, please refer to chapter 4.8.3.9.1.

Local Alarm	Net Alarm	IPC External Alarm	IPC Offline Alarm	
Channel	1	•		
Record Channel	Setup 📃 Easy	Space		
Delay	10 s(10-3	300)		
Alarm Out	1 2			
Latch	10 s (0-3	00)		
PTZ Activation	Setup			
Tour	Setup			
Snapshot	Setup 🔲 Easy	Space		
Show Message	🔲 Send Email 🔲 E	Buzzer 🔽 Log		
	Сору	OK Re	fresh Default	

Figure 4-95

### 4.8.3.10 Abnormality

From main menu->Setup->Event->Abnormality, user may go to the abnormality interface. It includes three types: HDD/Network/Power fault. See Figure 4-96 through Figure 4-98.

HDD	NETWORK	PowerFault	
Event Type	No HDD	<b>~</b>	
Enable			
Alarm Out	1 2 3 4 5	6 7 8	
Latch	10 sec.(1-	-300)	
Show Message	🗌 Send Email 🔲 A	larm Upload 🔲 Buzzer	🗌 Log
	ОК	Refresh	

Figure 4-96

HDD	NETWORK	PowerFault
Event Type	Disconnect	<b>•</b>
Enable		
Alarm Out	12345	6 7 8
Latch	10 sec.(1-	300)
Show Message	🗌 Send Email 🔲 Bu	uzzer 🔽 Log
	ОК	Refresh

Figure 4-97

HDD	NETWORK PowerFault
Enable	
Alarm Out	1 2 3 4 5 6 7 8
Latch	10 sec.(1-300)
Show Message	🗌 Send Email 📄 Buzzer 📄 Log
	OK Refresh

Figure 4-98

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	<ul> <li>The HDD event type includes: No HDD, HDD error, no space. See Figure 4-96.</li> </ul>
	User may set one or more items here.
	Less than: User may set the minimum percentage value here (For HDD not space only). The device can alarm when capacity is not sufficient.
	You need to draw a circle to enable this function.
	<ul> <li>Network event type includes: Disconnect/IP conflict/MAC conflict. See Figure 4-97.</li> </ul>
	<ul> <li>Power fault. The interface is shown as in Figure 4-98. This function for power-redundancy series product. When this function is on, us may remove one power sourcing from the system, it does not affec the normal operation of the device, but system will generate an ala to alert you.</li> </ul>
Enable	Check the box here to enable selected function.

Parameter	Function
Alarm Out	Please select corresponding alarm output channel when an alarm occurs. You need to check the box to enable this function.
Latch	The alarm output can delay for the specified time after an alarm stops. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Alarm upload	System can upload the alarm signal to the centre (Including alarm centre.
Send Email	If you enabled this function, System can send out an email to alert you when an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.

### 4.8.3.11 Alarm Output

From main menu-> Setup->Event->Alarm output, it is to set alarm output mode. See Figure 4-99.

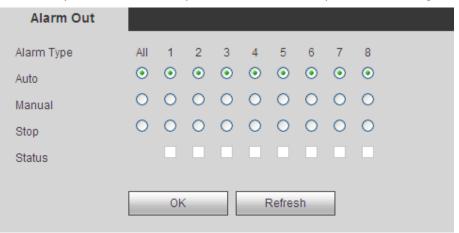


Figure 4-99

## 4.8.4 Storage

4.8.4.1 Schedule

4.8.4.1.1 Record

From main menu-> Setup->Storage->Schedule->Record, user may go to the record interface. In this interfaces, user may add or remove the schedule record setup. See Figure 4-100.

There are five record modes: Regular, motion detect, alarm and MD&alarm, and intelligence. There are six periods in one day.

User may view the current time period setup from the color bar.

- Green color stands for the general record/snapshot.
- Yellow color stands for the motion detect record/snapshot.
- Red color stands for the alarm record/snapshot.
- Blue color stands for MD&alarm record/snapshot.
- Orange color stands for intelligent record/snapshot.

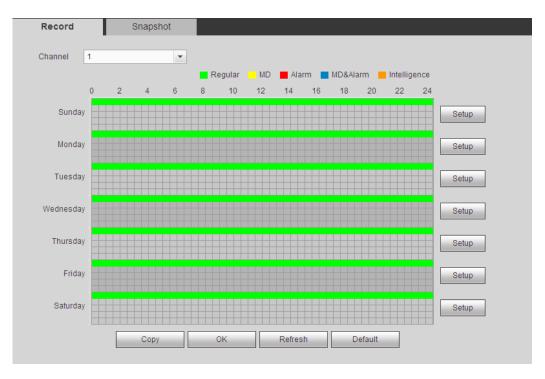
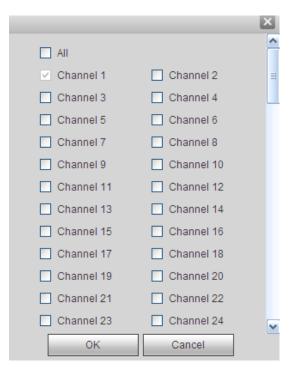


Figure 4-100

etup					
Period 1 00 : 00 - 24 : 00	🗹 Regular	Motion	Alarm	MD&Alarm	Intelligence
Period 2 00 : 00 — 24 : 00	🗌 Regular	Motion	Alarm	MD&Alarm	Intelligence
Period 3 00 : 00 — 24 : 00	🗌 Regular	Motion	Alarm	MD&Alarm	Intelligence
Period 4 00 : 00 - 24 : 00	🗌 Regular	Motion	Alarm	MD&Alarm	Intelligence
Period 5 00 : 00 - 24 : 00	🗌 Regular	Motion	Alarm	MD&Alarm	Intelligence
Period 6 00 : 00 - 24 : 00	🗌 Regular	Motion	🗌 Alarm	MD&Alarm	Intelligence
🗋 All 🔍 Sunday 🗌 Monday 🗌	Tuesday 🔲 W	/ednesday 🗌	Thursday 🗌	Friday 🗌 Sa	iturday

Figure 4-101





Please refer to the following sheet for detailed information.

Parameter	Function		
Channel	Please select a channel from the dropdown list.		
ANR	Check the box here, user may enable ANR function. When the NVR and IPC connection is abnormal, the recorded file can be saved on the IPC (Please make sure your IPC has storage media and support this function). The NVR can download record from the IPC once the network connection is OK.		
	User may set the max download record file length. Once the disconnection is more than the threshold you set here, NVR only downloads the specified record period.		
Pre-record	Please input pre-record time here. The value ranges from 0 to 30.		
Redundancy	Check the box here to enable redundancy function. Please note this function is null if there is only one HDD.		
Snapshot	Check the box here to enable snapshot function.		
Holiday	Check the box here to enable holiday function.		
Setup	Click the Setup button, user may set record period. See Figure 4-101. There are six periods in one day. If you do not check the date at the bottom of the interface, current setup is for today only. Please click Save button and then exit.		
Сору	Copy function allows you to copy one channel setup to another. After setting in channel, click Copy button, user may go to interface Figure 4-102. User may see current channel name is grey such as channel 1. Now user may select the channel you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, user may click the first box "ALL". Click the OK button to save current		

Parameter	Function
	copy setup. Click the OK button in the Encode interface, the copy function succeeded.

### 4.8.4.1.2 Snapshot

From main menu-> Setup->Storage->Schedule->Snapshot, user may go to the record interface. Please refer to chapter 4.8.4.1.1 for detailed information.



## 4.8.4.2 HDD Manager

From main menu-> Setup->Storage->HDD manager, the HDD manager interface is shown as in Figure 4-103. Here user may see HDD information. User may also operate the read-only, read-write, redundancy (if there are more than one HDD) and format operation.

HDD MANAGE				
Device Name	Physical Position	HDD Operation	Status	Free Space/Total Space
sda	host_1	Read-Write 💌	Normal	0GB/930.47GB
OK Refrest	Format			

Figure 4-103

## 4.8.4.3 Record Control

From main menu->Setup->Storage->Record, the interface is shown as in Figure 4-104.

Record											
Main Stream	All	1	2	3	4	5	6	7	8	9	10
Auto	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
Manual	0	0	0	0	0	0	0	0	0	0	0
Stop	0	0	0	0	0	0	0	0	0	0	0
Sub Stream											
Auto	0	0	0	0	0	0	0	0	0	0	0
Manual	0	0	0	0	0	0	0	0	0	0	0
Stop	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
Snapshot											
Open	0	0	0	0	0	0	0	0	0	0	0
Stop	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
		_	Ok	(			Re	efres	h		

Figure 4-104

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Here user may view channel number. The number displayed here is the max channel amount of your device.
Status	There are three statuses: schedule, manual and stop.
Schedule	System enables auto record function as you set in record schedule setup (general, motion detect and alarm).
Manual	It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup.
Stop	Stop current channel record no matter what period applied in the record setup.
Start all/ stop all	Check the corresponding All button, user may enable or disable all channels record.

4.8.4.4 Advanced

4.8.4.4.1 HDD

From main menu->Setup->Storage->Advanced->HDD, the HDD interface is shown as below. See Figure 4-105. Here user may set HDD group.

HDD	Main Stream	Sub Stream	Snapshot		
	HDD			HDD Grou	p
	sda			1	
ОК	Refresh				

Figure 4-105

## 4.8.4.4.2 Main Stream

From main menu->Setup->Storage->Advanced->Main stream, the main stream interface is shown as in Figure 4-106. Here user may set corresponding HDD group to save main stream.

HDD	Main Stream	Sub S	stream	Sna	apshot						
Channel	HDD Group	Channel	HDD (	Group	Channel	HDD	Group	Channel	HDD	Group	
Channel 1	1	Channel 2	1	~	Channel 3	1	~	Channel 4	1	~	
Channel 5	1 💌	Channel 6	1	~	Channel 7	1	~	Channel 8	1	~	
Channel 9	1 💌	Channel 10	1	~	Channel 11	1	~	Channel 12	1	~	
Channel 13	1 💌	Channel 14	1	<b>~</b>	Channel 15	1	~	Channel 16	1	<b>~</b>	
Channel 17	1 💌	Channel 18	1	<b>~</b>	Channel 19	1	~	Channel 20	1	<b>~</b>	
Channel 21	1 💌	Channel 22	1	<b>~</b>	Channel 23	1	~	Channel 24	1	<b>~</b>	
Channel 25	1 💌	Channel 26	1	<b>~</b>	Channel 27	1	~	Channel 28	1	<b>~</b>	
Channel 29	1 💌	Channel 30	1	~	Channel 31	1	~	Channel 32	1	~	
OK	Refresh	Сору									



#### 4.8.4.4.3 Sub Stream

From main menu->Setup->Storage->Advanced->Sub stream, the sub stream interface is shown as in Figure 4-107.

Here user may set corresponding HDD group to save sub stream.

Channel	HDD 0		Channel	HDD		Channel	HDD	Group	Channel	HDD	
Channel 1	1	~	Channel 2	1	~	Channel 3	1	~	Channel 4	1	~
Channel 5	1	~	Channel 6	1	~	Channel 7	1	~	Channel 8	1	~
Channel 9	1	~	Channel 10	1	~	Channel 11	1	~	Channel 12	1	~
Channel 13	1	~	Channel 14	1	~	Channel 15	1	~	Channel 16	1	~
Channel 17	1	~	Channel 18	1	~	Channel 19	1	~	Channel 20	1	~
Channel 21	1	~	Channel 22	1	~	Channel 23	1	~	Channel 24	1	~
Channel 25	1	~	Channel 26	1	~	Channel 27	1	~	Channel 28	1	~
Channel 29	1	~	Channel 30	1	~	Channel 31	1	~	Channel 32	1	~
										· ·	

#### 4.8.4.4.4 Snapshot

From main menu->Setup->Storage->Advanced->Snapshot, the snapshot interface is shown as in Figure 4-108. Here user may set corresponding HDD group to save snapshot picture.

HDD	Main Stream	Sub S	tream	Sn	apshot						
Channel	HDD Group	Channel	HDD 0	roup	Channel	HDD	Group	Channel	HDD	Group	
Channel 1	1 💌	Channel 2	1	~	Channel 3	1	~	Channel 4	1	~	
Channel 5	1	Channel 6	1	~	Channel 7	1	~	Channel 8	1	~	
Channel 9	1 💌	Channel 10	1	~	Channel 11	1	~	Channel 12	1	~	
Channel 13	1	Channel 14	1	~	Channel 15	1	~	Channel 16	1	~	
Channel 17	1 💌	Channel 18	1	~	Channel 19	1	~	Channel 20	1	~	
Channel 21	1	Channel 22	1	~	Channel 23	1	~	Channel 24	1	<b>~</b>	
Channel 25	1 💌	Channel 26	1	~	Channel 27	1	~	Channel 28	1	<b>~</b>	
Channel 29	1	Channel 30	1	~	Channel 31	1	~	Channel 32	1	<b>~</b>	
											_
ОК	Refresh	Сору									
ОК	Refresh	Сору									

Figure 4-108

#### 4.8.4.5 RAID Manager

#### Important

Please make sure your purchased product support the RAID function, otherwise user may not see the following interface.

4.8.4.5.1 RAID Config

From main menu->Setup->Storage->RAID->RAID config, user may go to the following interface. See Figure 4-109.

It is for you to manage RAID HDD. It can display RAID name, type, free space, total space, status and etc. Here user may add/delete RAID HDD.

Click Add button to select RAID type and then select HDDs, click OK button to add. See Figure 4-109.

RAID	RAID Info		HOTSPARE			
Physical Position	Host	<b>~</b>	Raid Type	RAID5	HDD Number (3~16)	
	Name	Capacity	Туре		Disk members	
	1	930.51GB	General HDD		-	
						~
Create RAID	Create Manually	Refresh				

Figure 4-109

# 4.8.4.5.2 RAID Info

From main menu->Setup->Storage->RAID->RAID info, user may go to the following interface. See Figure 4-109. Here user may vie corresponding RAID information.

RAID	RAID Info	H	OTSPARE			
Physical Position	Host	~				
No. Name	Capacity	Туре	Disk members	Hotspare	Status	Delete
	Capacity	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		netoparo		
						<u></u>
Refresh						

Figure 4-110

## 4.8.4.5.3 Hotspare disks

From main menu->Setup->Storage->RAID->Hotspare, user may see an interface shown as in Figure 4-111. The type includes two options:

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

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

RAID	RA	ID Info	HOTSPARE				
Physical Position	Host	<b>v</b>					
No.	Name	Capacity	Туре	Raid name	Edit	Delete	
1	1	930.51GB	General HDD	-	2	-	<u>~</u>
							V
Refresh							

Figure 4-111

# 4.8.4.6 iSCSI

From main menu->Setup->Storage->iSCSI, user may see an interface shown as in Figure 4-112. Here user may set corresponding HDD group to save main stream.

ISCSI SETTING							
Server IP Address User Name		Anonyr	Port nous	3260	(3260~65535)		
Password Path				Set Path			
ISCSI Targets							
No.	Status	IP Address	Port	User Name		Path	Delete
Add OK	Refresh	Default					

Figure 4-112

Check the box to enable iSCSI function and then input iSCSI server IP address and port. The default port number is 3260.

Click Set path button, system pops up the path setup dialogue box. Please select the connected path and then click OK button. See Figure 4-113.

Each path here stands for an iSCSI share disk. The path is already generated when it was created on the server.

Set Path		X
No.	Path	
1	iqn.2013-04.com.20140107193119.ess5016s:cc	
2	iqn.2013-04.com.20140107193059.ess5016s:bb	
3	iqn.2013-04.com.20140107193045.ess5016s:aa	
4	iqn.2013-04.com.20140107172245.ess5016s:iscsi3	
5	iqn.2013-04.com.20140107165856.ess5016s:iscsi	
		Y
	OK Cancel	

Figure 4-113

Input user name and password to set iSCSI path access right.

There are two situations:

• When you set the iSCSI server, you have set corresponding user name or password for a path. In this situation, you need to input user name or password to login.

• When you set the iSCSI server, you have not set the corresponding access right. In this situation, user may check the anonymous button or input customized user name.

Click add button, now you have added an iSCSI server. Click OK button, the setup is finish. The interface is shown as in Figure 4-114.

Note:

- If you have not input a user name/password, or check the anonymous button, system pops up a dialogue box to prompt you that system is going to add anonymously. In this situation, once the iSCSI path has the access setup, you may not connect to the iSCSI server.
- Since the connection may take a while, please wait a moment and then click refresh button, once the status is shown as offline after you added.

	ISCSI					
🔽 En	able					
Server	IP Address	172.12.5.75	Port	3260	(3260~65535)	
User N	lame		Anonymous			
Passw	ord					
Path		iqn.2013-04.com.12345685	236985.ess3116x:dahau	Set Path		
	ISC SI Targets					
No.	Status	IP Address	Port	User Name	Path	Delete
1	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:dahau	◎ -
2	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:mama	0
3	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 xbaba	0
4	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x.svl	8
5	connected	172.12.5.75	3260		iqn.2013-04.com.12345685236985.ess3116 x:syj	8
	Add Save	Refresh De	fauit		×0)	

Figure 4-114

# 4.8.5 Setting

4.8.5.1 General

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

4.8.5.1.1 General

From main menu->Setup->System->General->General, the general interface is shown as in Figure 4-115.

General	Date&Time	Holiday	
Device Name	NVR		
Device No.	8		
Language	ENGLISH	<b>~</b>	
Video Standard	PAL	<b>~</b>	
HDD Full	Overwrite	<b>~</b>	
Pack Duration	60	min.	
Auto Logout	10	min. (0-60)	
Startup Wizard			
Navigation Bar			
IPC Time Sync	24	h	
	ОК	Refresh Det	fault



Please refer to the following sheet for detailed information.

Parameter	Function		
Device ID	It is to set device name.		
Device No.	It is device channel number.		
Language	User may select the language from the dropdown list.		
	Please note the device needs to reboot to get the modification activated.		
Video Standard	This is to display video standard such as PAL.		
HDD full	Here is for you to select working mode when hard disk is full. There are two options: stop recording or rewrite. If current working HDD is overwritten or the current HDD is full while the next HDD is no empty, then system stops recording, If the current HDD is full and then next HDD is not empty, then system overwrites the previous files.		
Pack duration	Pack Here is for you to specify record duration. The value ranges from		
Auto logout	Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.		
Startup wizard	Once you check the box here, system will go to the startup wizard directly when the system restarts the next time. Otherwise, it will go to the login interface.		
Navigation bar	Check the box here, system displays the navigation bar on the interface.		
IPC Time Sync	User may input an interval here to synchronize the NVR time and IPC time.		

From main menu->Setup->System->General->Date and time, the date and time interface is shown as in Figure 4-116

General	Date& Time	Holiday
Date Format	YYYY MM DD	
Time Format	24-HOUR	<b>~</b>
Date Separator	-	<b>~</b>
Time Zone	GMT+08:00	<b>~</b>
System Time	2014 - 07 - 03	11 : 20 : 18 Sync PC
DST		
DST Type	💿 Date i 🔿 Week	
Begin Time	2000 - 01 - 01	00 : 00
End Time	2000 - 01 - 01	00 : 00
NTP		
Server	time.windows.com	Manual Update
Port	123	(1~65535)
Interval	60	min. (0~65535)
	ОК	Refresh Default

Figure 4-116

Please refer to the following sheet for detailed information.

Parameter	Function
Date format	Here user may select date format from the dropdown list.
Time Format	There are two options: 24-H and 12-H.
Time zone	The time zone of the device.
System time	It is to set system time. It becomes valid after you set. Caution System time is very important! Do not change unless there is a must!
Sync PC	User may click this button to save the system time as your PC current time.
DST	Here user may set day night save time begin time and end time. User may set according to the date format or according to the week format.
NTP	User may check the box to enable NTP function.
NTP server	User may set the time server address.
Port	It is to set the time server port.
Interval	It is to set the sync periods between the device and the time server.

4.8.5.1.3 Holiday Setup

From main menu->Setup->System->General->Holiday, holiday setup interface is shown as in Figure 4-117.

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

	General		Date&Time	Holiday					
	N.C.	Otatua	the Polesco Managero		0.4	Destad	Descentile de	<b>5</b> .0	Datata
	No.	Status	Holiday Name	_	Date	Period	Repeat Mode	Edit	Delete
									<u> </u>
L									×
	Add Holida	iys							
	OK	R	Refresh Default	-					

Figure 4-117

## Note

- When you enable Holiday settings and schedule setup at the same time, holiday setting has the priority. If the selected day is a holiday, then system records as you set in holiday setting. If it is not a holiday, system records as you set in Schedule interface.
- After you successfully set holiday date, the record and snapshot period will be also shown as holiday item.

# 4.8.5.2 Display

Display interface includes GUI, Tour.

4.8.5.2.1 Display

From main menu->Setup->System->Display->Display, here user may set background color and transparency level. See Figure 4-118.

Display	Tour Custom Split	ſ
Screen Mode	HDMI1+HDMI2	
Screen Enable	Screen NO1 🔲 Screen NO2	
Screen NO	Screen 1(HDMI1) Resolution 1280*1024	
Time Display	V	
Channel Display	V	
Image Enhance		
IVS Rule		
POS Info		
Original Scale	Setup	
	OK Refresh Default	

Please refer to the following sheet for detailed information.

Parameter	Function
Resolution	There are four options: 1920×1080, 1280×1024(default), 1280×720, 1024×768. Please note the system needs to reboot to activate current setup.
Transparency	Here is for you to adjust transparency. The value ranges from 128 to 255.
Time title/channel title	Check the box here, user may view system time and channel number on the monitor video.
Image enhance	Check the box; user may optimize the margin of the preview video.
POS info	Check the box here to overlay POS info on the preview interface.
Original rate	Click Setup button and then select a channel, user may restore original scale.

#### 4.8.5.2.2 Tour

From main menu->Setup->System->Display->Tour, the tour interface is shown as in Figure 4-119. Here user may set tour interval, split mode, motion detect tour and alarm tour mode.

Display	Tour Custom Split
Screen NO ☑ Enable	HDMI1
Interval	5 s(5-120)
Window Split	View 1
	128       ✓       Channel Group       +         1       ✓       1       -         2       ✓       2          3       ✓       3          4       ✓       4          5       ✓       5          6       ✓
Video Detect	View 1
Alarm	View 1
	OK Refresh Default

Figure 4-119

#### Please refer to the following sheet for detailed information.

Parameter	Function
Enable tour	Check the box here to enable tour function.
Interval	Here is for you to adjust transparency. The value ranges from 5 to 120s. The default setup is 5s.

Split	Here user may set window mode and channel group. System can support 1/4/8/9/16/25/36-window according to device channel amount.
Motion tour/Alarm tour	Here user may set motion detect tour/alarm tour window mode. System supports 1/8-window now.

4.8.5.2.3 Custom Split

From main menu->Setup->System->Display->Custom split, the interface is shown as in Figure 4-119. Here user may set customized split mode.

Display	Tour	Custom Split		
+		⊞ Ⅲ Ⅲ 25 36		重
Name	Delete			
	ОК	Refresh		



In regular mode, drag the mouse in the preview frame, user may merge several small windows to one window so that user may get you desired split mode.

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

Select the merging window, the frame is red; user may click 🛄 to cancel the merge to restore regular

mode.

Click OK to exit.

4.8.5.3 RS232

From main menu->Setup->System->RS232, the RS232 interface is shown as in Figure 4-120.

R\$232	
Function	Console
Baud Rate	115200
Data Bit	8
Stop Bit	
Parity	None
	OK Refresh Default

Figure 4-120

Please refer to the following sheet for detailed information.

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

4.8.5.4 PTZ

The PTZ interface is shown as in Figure 4-121 (local type) and Figure 4-122 (remote type). Before setup, please check the following connections are right:

- PTZ and decoder connection is right. Decoder address setup is right.
- Decoder A (B) line connects with NVR A (B) line.

Click Save button after you complete setup, user may go back to the monitor interface to control speed dome.

PTZ	
Channel	1
PTZ Type	Local
Protocol	NONE
Address	1
Baud Rate	9600
Data Bit	8
Stop Bit	1
Parity	None
	Copy Save Refresh Default

Figure 4-121

PTZ						
Channel	22	•				
PTZ Type	Remote	<b>~</b>				
	Сору	Save	Refresh	Default		

Figure 4-122

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Select speed dome connected channel.
PTZ Type	There are two options: local/remote.
	Please select remote type if you are connecting to the network PTZ.
Protocol	Select the corresponding dome protocol such as PELCOD.
Address	Set corresponding dome address. Default value is 1. Please note
	your setup here shall comply with your dome address; otherwise
	user may not control the speed dome.
Baud Rate	Select the dome baud rate. Default setup is 9600.
Data Bit	Default setup is 8. Please set according to the speed dome dial switch setup.
Stop bit	Default setup is 1. Please set according to the speed dome dial switch
	setup.
Parity	Default setup is none. Please set according to the speed dome dial switch setup.

# 4.8.5.5 POS

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

# Note

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

From main menu->Setting->System->POS, user may go to the following interface. See Figure 4-123.

POS								
	No.	Name	Connect Type	Protocol	Status	Modify	Delete	
	1	pos	Net	POS	Off	2	•	
								_
Add	Delete							

Figure 4-123

Click Add, user may see the following dialogue box. See Figure 4-124.

Add	×					
Enable						
Name	pos					
Connect Type	Net 💌 Set					
Protocol Type	POS 🔹					
Transaction Start						
Transaction End						
Line Delimiter						
Ignore String	Case Sensitive					
NetWork Overtime	30 (5~900) s					
CHANNEL OK Cancel						

Figure 4-124

Check the box to enable POS function, Click Set button; user may see the following interface. See Figure 3-187.

Source IP         192         168         0         1         Port         37777           Destination IP         172         11         1         12         Port         38800	Modify		×
Destination IP 172 . 11 . 1 . 12 Port 38800	Source IP	192 . 168 . 0 . 1	Port 37777
	Destination IP	172 . 11 . 1 . 12	Port 38800
OK Cancel		OK Cancel	

Figure 4-125

Set source IP and destination IP, and then click OK. System goes back to Figure 4-124.

- Source IP: POS device IP address.
- $\bullet$ Destination IP: NVR IP address.

In Figure 4-124, click Channel Set button, select the channel you want to overlay POS information. Click OK button to complete the setup.

# Tips



X: Click it to delete POS setup.



Click it to change setup information.

## 4.8.5.6 Account

Note:

- For the character in the following user name or the user group name, system max supports 6-digits. The space in the front or at the end of the string is null. The valid string includes: character, number, and underline.
- The user amount default setup is 64 and the group amount default setup is 20. The factory default setup includes two levels: user and admin. User may set the corresponding group and then set the rights for the respective user in the specified groups.
- User management adopts group/user modes. The user name and the group name shall be unique.
   One user shall be included in only one group.

## 4.8.5.6.1 User name

From main menu->Setup->System->Account, user may go to the account interface. In this interface user may add/remove user and modify user name. See Figure 4-126.

	User	Group Name	Memo	Modify	Delete	
1	888888	admin	888888 admin 's account	2	•	-
2	admin	admin	admin 's account	1	•	
3	default	user	default account	1	•	

Figure 4-126

Add user: It is to add a name to group and set the user rights. See Figure 4-127.

There are three default users: admin (password: admin)/888888(password: 888888) and hidden user "default".

Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. User may set some rights such as monitor for this user so that user may view some channel view without login.

Here user may input the user name and password and then select one group for current user.

Please note the user rights shall not exceed the group right setup.

For convenient setup, please make sure the general user has the lower rights setup than the admin.

Add User		×
User Reusable		
Password		
Confirm Password		
Group	admin	
Memo		
Authority		
System	Playback Real-time Monitor	
	STEM DISCONNECT USER DEFAULT	
	STEM INFO MANUAL CONTROL FILE BACKUP	
CLAER LOG SH	UTDOWN	
	OK Cancel	

Figure 4-127

#### Modify user

It is to modify the user property, belonging group, password and rights. See Figure 4-128.

#### Modify password

It is to modify the user password. You need to input the old password and then input the new password twice to confirm the new setup. Please click the OK button to save.

Please note, the password ranges from 1-digit to 6-digit. It shall include the number only. For the user of the account rights, he can modify the password of other users.

Modify User			×
User	666666	<b>v</b>	
User	666666		
Reusable			
Group	user	<b>~</b>	
Memo	666666 user's acc	count	
Modify Password			
Old Password			
New Password			
Confirm Password			
Authority			
System	Playback	Real-time Monitor	
	STEM D	ISCONNECT USER	DEFAULT
		ANUAL CONTROL	FILE BACKUP
	ENT N	ETWORK	CAMERA
CLAER LOG SH	UTDOWN		
	ОК	Cancel	

Figure 4-128

#### 4.8.5.6.2 Group

The group management interface can add/remove group, modify group password and etc. The interface is shown as in Figure 4-129.

ACCOUNT				
User	Group			
SN	Group Name	Memo	Modify	Delete
1	admin	administrator group	2	•
2	user	user group	1	•
				<u>×</u>
Add Group				



Add group: It is to add group and set its corresponding rights. See Figure 4-130.

Please input the group name and then check the box to select the corresponding rights. It includes: shutdown/reboot device, live view, record control, PTZ control and etc.

Add Group	Ε	×
Group Name Memo		
Authority System	Playback Real-time Monitor	
□ACCOUNT □PTZ □STORAGE □CLAER LOG	SYSTEM     DISCONNECT USER     DEFAULT       SYSTEM INFO     MANUAL CONTROL     FILE BACKUP       EVENT     NETWORK     CAMERA       SHUTDOWN     SHUTDOWN     SHUTDOWN	
	OK Cancel	

Figure 4-130

# Modify group

Click the modify group button, user may see an interface is shown as in Figure 4-131. Here user may modify group information such as remarks and rights.

Modify Group				×
Group Name Group Name	user user			
Memo	user group	0		
Authority System	Playl	back	Real-time Monit	or
☑PTZ [ □STORAGE [	⊇system ⊇system info ⊇event ⊇shutdown		ONNECT USER JAL CONTROL VORK	☐DEFAULT ✓FILE BACKUP ☐CAMERA
	04	(	Cancel	

Figure 4-131

4.8.5.7 Auto maintain

From main menu->Setup->System->Auto maintain, the auto maintain interface is shown as in Figure 4-132.

Here user may select auto reboot and auto delete old files interval from the dropdown list.

If you want to use the auto delete old files function, you need to set the file period. Click Manual reboot button, user may restart device manually.

Auto Maintain				
Auto Reboot Auto Delete Old Files	Tuesday	<ul><li>✓</li></ul>	02:00	r Days Ago
Auto Delete Old Files	Reboot		23	_ Days Ago
	ОК		Refresh	

Figure 4-132

## 4.8.5.8 Import/Export

From main menu->Setup->System->Import/export, the interface is shown as in Figure 4-133.

Import&Export	
Import Config File	Browse Config Import
Config Export	

Figure 4-133

Please refer to the following sheet for detailed information.

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

4.8.5.9 Default

From main menu->Setup->System->Default, the default setup interface is shown as in Figure 4-134. Here user may select Network/Event/Storage/Setting/Camera. Or user may check the All box to select all items.

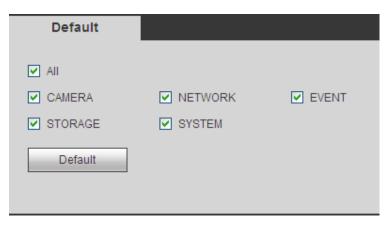


Figure 4-134

# 4.8.5.10 Upgrade

From main menu->Setup->System->upgrade, the upgrade interface is shown as in Figure 4-135.

Please select the upgrade file and then click the update button to begin update. Please note the file name shall be as *.bin. During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.

## **Important**

Improper upgrade program may result in device malfunction! Please make sure the operation is operated under the DNAvision of the professional engineer!

System Upgrade	
Select Firmware File	Browse Upgrade

Figure 4-135

# 4.8.6 Cluster Service

The Cluster service is a system component used to control activities on a single node. When one or several device(s) are malfunction, it can switch to the slave device to replace the work accordingly. There are two standards when the master device is malfunction: 1) Device is offline. 2) Device storage is damaged.

# 

Please go to the **WEB of the slave device** to set the cluster setup of the master device and slave device .

# 4.8.6.1 Cluster IP

About Cluster service: when master device is malfunction, the slave device can use the master device configuration and virtual IP address to replace the work (monitor or record) accordingly. When you use

the virtual IP to access the device, he can still view the real-time video and there is no risk of record loss. Once the master device becomes properly, the slave can still work until you use the WEB to fix manually. During the whole process (the master device is working properly->master device is malfunction->master device becomes work properly again), user may use this virtual IP to access the device all the time.

Set Cluster IP		
Enable		
IP Address	0.0.0.0	
Subnet Mask	0.0.0.	
Default Gateway	0.0.0.0	
	OK Refresh Default	

After you set the right cluster IP, user may use the cluster IP to login the device. See Figure 4-136.

Figure 4-136

#### Note:

The first IP is for cluster internal control(For interactive communications between the master device and slave device .), the virtual IP address is for cluster external control (For external network connection).

#### 4.8.6.2 Master Device

From main menu->Setup->Cluster service->Master device, user may go to the following interface. See Figure 4-137.

In this interface, user may add several master devices manually. After you enable the cluster function, user may view device IP, work status. Click operation button, user may view the connection log of the main device. See Figure 4-137.

STER DEVICE					
- Henry Add					
Manual Add					
Master Device Name	IP Address	Status	Operation	Delete	
NVR1	172.11.3.28	Working		•	

Figure 4-137

Click Manual add, the interface is shown as below. See Figure 4-138.

Manual Add		×
Master Device Name		
IP Address		
Port	37777	(1~65535)
User Name	admin	
Password	••••	
	Yes No	

Figure 4-138

Click or view event occurrence time, name, operation and reason. See Figure 4-139.

	formation			~
	Event Time	Event Name	Event Reason	
2	014-06-23 18:25:54	Device login		^
				-

Figure 4-139

4.8.6.3 Slave Device

When you add the first slave device , the default IP is the device IP address that logins in the WEB. From main menu->Setup->Cluster service->Slave device, user may go to the following interface. See Figure 4-140. User may refer to Chapter 4.8.6.1 to set.

- DCS Working	g Device+Free 🔍	0

Figure 4-140

After you added master device and slave device , you need to enable cluster function. Otherwise, cluster function is null. Please refer to chapter 4.8.6.5.

4.8.6.4 Record Transfer

From main menu->Setup->Cluster service->Record transfer, user may go to the record transfer interface.

When the master device is malfunction and can not record, system can use slave device to record instead. User may use this function to forward the record files on the slave device to the main device.

After the master device is malfunction, the slave device becomes active and status is used.

After the master device becomes active again, there is a substant button on the left side of the master device

🔍 . 🧹 is the resume button.



If you want to switch the slave device to the main device, please click share button manually to resume the main device. User may see the following prompt. See Figure 4-141.

Master Device Name		Status	Operation	
NVR1	172.11.3.28	Working	<b>Q</b>	•



After the master device becomes active again, system can forward the record files on the slave device to the master device.

From Setup->Cluster->Record transfer, user may go to the following interface. See Figure 4-142.

REC	CORD TRANSFER			
	Add Task			
	Slave Device Name/IP	Master Device Name/IP	Return Speed	
				^
				-

Figure 4-142

Click Add task button, user may go to the following interface to set device IP, channel, start time, end time See Figure 4-143.

Add Task	×
Master Device IP	
Slave Device IP	
Channel	
Start Time	2015 - 06 - 30 00 : 00 : 00
End Time	2015 - 07 - 01 00 : 00 : 00
	OK Cancel

Figure 4-143

4.8.6.5 Cluster control

4.8.6.5.1 Cluster control

From main menu->Setup->Cluster service->Cluster control I-> Cluster control, user may go to the cluster control interface. It is to enable/disable cluster. See Figure 4-144.

CLUS	TER CONTROL	Arbitrage IP	
Γ	Start Cluster	Delete Cluster	

#### Figure 4-144

User may see the corresponding prompt if you successfully enabled cluster service.

4.8.6.5.2 Arbitration IP

When there is only two NVRs in the cluster, user may set the arbitration IP to change the cluster accordingly. The arbitration IP is the IP address of other device/PC/gateway that can connect to the NVR. From main menu->Setup->Cluster service->Cluster control-> Arbitration IP, user may see the following interface. See Figure 4-145.

CLUSTER CONTROL	Arbitrage IP	
Main IP		
Spare IP		
ОК	Refresh	

Figure 4-145

# 4.8.6.6 DCS Log

From main menu->Setup->Cluster service->DCS log, user may go to the DCS log interface. The DCS log interface is shown as in Figure 4-146. Here user may search and view the DCS log.

DCS LOG		
Begin Time	2014 - 07 - 03 00 : 00 : 00 End Time 2014 - 07 - 04 00 : 00 : 00	
Search	Matched 0 logs Record Time 2014-07-03 00:00:00 2014-07-04 00:00:00	
	No. Time Event	
		2
DCS Log Informa	ation	
	🗮 🔍 1/1 🕨 🕅 GoTo 👖	

Figure 4-146

# 4.9 Info

From main menu->Info, user may go to the following interface.

# 4.9.1 Version

From main menu->Info->Version, the version interface is shown as in Figure 4-147.

Here user may view record channel, alarm input/output information, software version, release date and etc. **Please note the following information for reference only.** 

VERSION	
Device Type:	NVR
Record Channel:	128
Alarm In:	16
Alarm Out:	8
SN:	1234567890abcde
Web:	3.2.3.64883
Onvif Version:	2.4.1
System Version:	3.210.0002.0, Build Date: 2016-03-16

Figure 4-147

# 4.9.2 Log

From main menu->Info->Log, here user may view system log. See Figure 4-148.

Log		
Start Time	2014 - 07 - 03 00 : 00 : 00 End Time	2014 - 07 - 04 00 : 00 : 00
Туре	All Search Matched 1686 logs	Record Time 2014-07-03 11:46:41 2014-07-03 00:04:44
No	. Time	Event
1	2014-07-03 11:46:41	Motion Detect
2	2014-07-03 11:46:36	Motion Detect
3	2014-07-03 11:46:24	Motion Detect
4	2014-07-03 11:46:13	Motion Detect
5	2014-07-03 11:46:12	Motion Detect
6	2014-07-03 11:46:05	Motion Detect
7	2014-07-03 11:46:02	Motion Detect
8	2014-07-03 11:46:01	Motion Detect
System Log Info		
Backup		K ◀ 1 / 17 ► K Go To 1 👘 Remove

Figure 4-148

Please refer to the following sheet for log parameter information.

Parameter	Function
Туре	Log types include: system operation, configuration operation, data operation, event operation, record operation, and user management, log clear.
Start time	Set the start time of the requested log.

Parameter	Function
End time	Set the end time of the requested log.
Search	User may select log type from the drop down list and then click search button to view the list. User may click the stop button to terminate current search operation.
Detailed information	User may select one item to view the detailed information.
Clear	User may click this button to delete all displayed log files. Please note system does not support clear by type.
Backup	User may click this button to backup log files to current PC.

# 4.9.3 Online User

From main menu->Info->online users, the online user interface is shown as in Figure 4-149. User may view current online user name. User may click Refresh button to view the latest information.

	User Name	Group Name	IP Address	User Login Time	
1	admin	admin	10.15.6.140	2014-07-03 09:30:12	
2	admin	admin	10.15.6.200	2014-07-03 10:50:31	
3	admin	admin	10.15.6.244	2014-07-01 19:25:05	
4	admin	admin	10.15.6.188	2014-07-03 10:55:17	
5	admin	admin	10.15.6.188	2014-07-03 10:55:17	
Refresh					

Figure 4-149

# 4.9.4 Video Analytics

It is to search the video analytics of each channel.

From main menu->Info->Video Analytics, the interface is shown as in Figure 4-150.

Input start time, end time, select channel and then click Search button. User may see the corresponding results.

Video Analytics								
Start Time	2016-03-01	<b>00</b> :	00 : 00	End Time	2016-03-22	2	3 : 59 : 59	
Channel	All	×	Search					
Diagnosis List						Туре	All	•
No.	Channel		Record Time				All Stripe Noise	
							Color Cast Out of Focus Over exposure	
								◀ 1/1 ▶ ▶ 1 📦

Figure 4-150

# 4.9.5 People Counting

From main menu->Info->People counting, the interface is shown as in Figure 4-151.

PEOPL								
	Channel	1	-	Search	Export			
	Report Type	Daily Report	•	*Daily report max has	24 hours.	💿 Polygon Graph		
					Graph			
	Start Time	2016-03-29		00 : 00 : 00	End Time	2016-03-29	16 : 00 : 00	
	Flow Direction	Enter	V Exit	Display No.				
					Demand			

Figure 4-151

# 4.9.6 Heat Map

From main menu->Info->Heat Map, the interface is shown as in Figure 4-152.

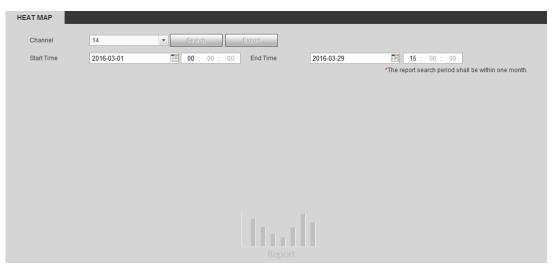


Figure 4-152

# 4.9.7 HDD

From main menu->Info->HDD, the HDD interface is shown as in Figure 4-153. Here user may view HDD information.

HDD						
Device Name	Physical Position	Status	Free Space/Total Space	S.M.A.R.T.	Path	
sda	host_1	Normal	0GB/930.51GB		-	
HDD Time						
Refresh						
Rencon						

Figure 4-153

# 4.10 Playback

Click Playback button, user may see an interface is shown as in Figure 4-154.

X BDO	(Ô)	Rec         Image: Constraint of the state of the
	6	1
Image: Constraint of the state of	10         11         12         13         14         15         16         17         18           10         11         12         13         14         15         16         17         18           10         11         12         13         14         15         16         17         18           10         11         12         13         14         15         16         17         18           11         12         13         14         15         16         17         18           12         Regular         12         MD         12         Marm         12         MS         16         17	

Figure 4-154

# 4.10.1 Search record

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

## Select date

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

#### Window display mode

Now user may select window display mode. Click Esc on the keyboard to exit full-screen. Click Esc on the keyboard

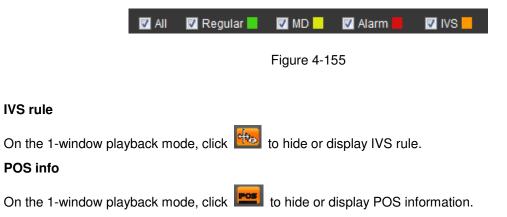


#### Channel

User may select channel 1-n (n=device max channel amount). A1-An means sub stream.

#### **Record type**

Check the box to select record type. See Figure 4-155.



# Slice

In Figure 4-154, select splice from the dropdown list at the top right corner, and then select date, split mode and channel(s).

# Note

Select split mode, so that the record can be spliced in several sections.

Select splice file.

- Click Playback, system playbacks from the first of current date by default.
- Click time bar, system playbacks from the time you click.
- Click III, user may select on the file list.

#### Note

- System can auto slice file of one channel into 4/8/16 sections and then play at the same time.
- User may select channel mode to set splice amount. There is no splice operation if you select 1-window.
- The record min file size is 5 minutes.

# 4.10.2 File List

Then please click File list button, user may see the corresponding files in the list. See Figure 4-156.

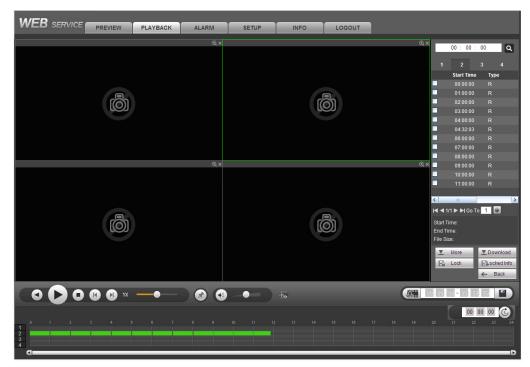


Figure 4-156

# 4.10.3 Playback

Select a file you want to play and then click Play button, system can begin playback. User may select to playback in full-screen. Please note for one channel, system can not playback and download at the same time. User may use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play and etc. See Figure 4-157.



Figure 4-157

## 4.10.4 Download

Select the file(s) you want to download and then click download button, user may see an interface shown as in Figure 4-158. The Download button becomes Stop button and there is a process bar for your reference. Please go to you default file saved path to view the files.

	00 : 00 :	00	٩		
1	2	3	4		
	Start Time	Туре	•		
	00:00:00	R			
	01:00:00	R			
	02:00:00	R			
✓		R			
	04:00:00	R			
✓	04:32:03	R			
<b>Z</b>	06:00:00	R			
<b>~</b>	07:00:00	R			
▼ ▼	08:00:00	R			
	09:00:00	R			
	10:00:00	R			
	11:00:00	R			
<	Ш		>		
◀ ◀ 1/	1 🕨 🍽 Go To	o 1 🗈			
Start Ti	me:03:00:00				
End Time:04:00:00					
File Siz	e:1839872(K	(B)			
<u>•</u>	More	▼ Stop	0(0%)		
E	Lock	Lock	ed Info		
		← Ва	ack		

Figure 4-158

# 4.10.5 Load more

## Download by time/file

Click More button in Figure 4-158, user may see an interface shown as in Figure 4-159. It is for you to search record or picture. User may select record channel, record type and record time to download. There are two download types. The download by file interface is shown as in Figure 4-159 and the download by time interface is shown as in Figure 4-160.

rpe A	JI VI Records ✓ Main Sub ✓	Start Time End Time		: 59 : 59	Search		
	No.	File Size:	Start Time	End Time	File Type	Bit Stream Type	Channel
	1	3513472KB	2014-07-01 00:00:00	2014-07-01 01:00:00	Regular	Main Stream	2
	2	3645312KB	2014-07-01 01:00:00	2014-07-01 02:00:00	Regular	Main Stream	2
	3	2432KB	2014-07-01 02:00:00	2014-07-01 02:00:02	Regular	Main Stream	2
	4	333312KB	2014-07-01 02:02:00	2014-07-01 02:07:58	Regular	Main Stream	2
	5	1471232KB	2014-07-01 02:08:31	2014-07-01 03:00:00	Regular	Main Stream	2
	6	1712512KB	2014-07-01 03:00:00	2014-07-01 04:00:00	Regular	Main Stream	2
	7	1741184KB	2014-07-01 04:00:00	2014-07-01 05:00:00	Regular	Main Stream	2
	8	1831680KB	2014-07-01 05:00:00	2014-07-01 06:00:00	Regular	Main Stream	2
Down To Local	Down To USB					H 4	1/3 🕨 🍽 Go To 1
Back							

Figure 4-159



Figure 4-160

#### Watermark

Watermark interface is shown as in Figure 4-161. Please select a file and then click Verify button to see the file has been tampered with or not

Local File	8-22\DVR_ch3main_201308221730			
Vatermark Info				
No.	Malfunction type	Watermark Time		
1	Normal		_ ✓	
Back				

Figure 4-161

# 4.10.6 Lock file

Check the box to select the record file(s), and then click Lock button, user may lock the file(s).System will not overwrite the locked files. Please note this function is for main stream only.

# 4.10.7 Unlock file

Click view locks, user may see the following interface. See Figure 4-162.

Select a channel/start time/end time, click search button, user may view the locked files.

Check the box and then click unlock, user may unlock the file.

FileLock										
Channel	All				00 : 00 : 00 23 : 59 : 59	Searc	h			
	N	o. f	File Size	Start Time	End	Time	File Type	Bit Stream Type	Channel	
	1	22	86976KB	2015-07-01 00:00:00	2015-07-0	1 01:00:00	Regular	Main Stream	1	-
	2	22	86336KB	2015-07-01 01:00:00	2015-07-0	1 02:00:00	Regular	Main Stream	1	
	3	22	83904KB	2015-07-01 02:00:00	2015-07-0	1 03:00:00	Regular	Main Stream	1	
										Ŧ
Unlock										
Back										

Figure 4-162

# 4.11 Smart Playback

It is to realize the intelligent detect on the playback record.

In the main menu, click smart playback, user may go to the following interface. See Figure 4-163.

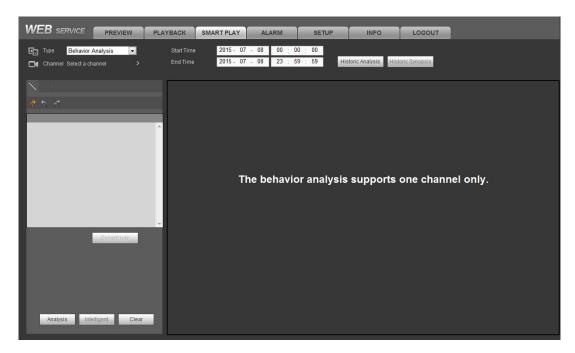


Figure 4-163

# 4.11.1 Behavior Analysis

It is to search the record of corresponding rule and then playback. Set a channel number. Please note this function is for 1-channel mode only. Set the search type as behavior analytics, set channel, start time and end time. Set detect rule (tripwire/intrusion), and then set detect rule.

4.11.1.1 Tripwire

Click and then use mouse to draw the rule on the right pane of the interface. Left click mouse to confirm first and then right click mouse to complete drawing. Here user may set rule direction. See Figure 4-164.

- Line1/2/3/4: System supports four tripwires. Each SN stands for one tripwire.
- Direction (A to B/B to A/Both): System can generate an alarm once there is any object crossing in the specified direction.

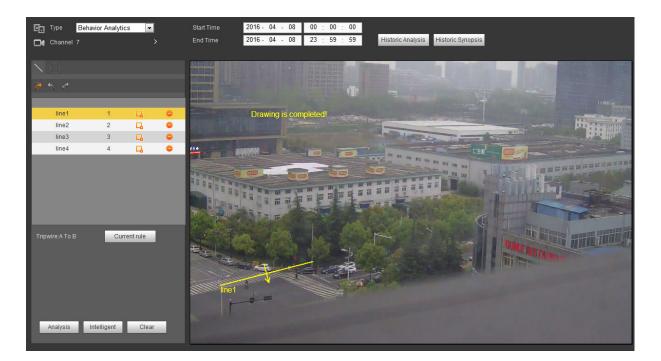


Figure 4-164

4.11.1.2 Intrusion

Click . use mouse to draw the rule on the right pane of the interface. Please note the start position and the end position shall be at the same place. Right click mouse to complete the setup. See Figure 4-165.

- Area1/2/3/4: System supports four zones. Each SN stands for one area.
- Direction ( ): System can generate an alarm once there is any object enter/exit (Or both) the zone.

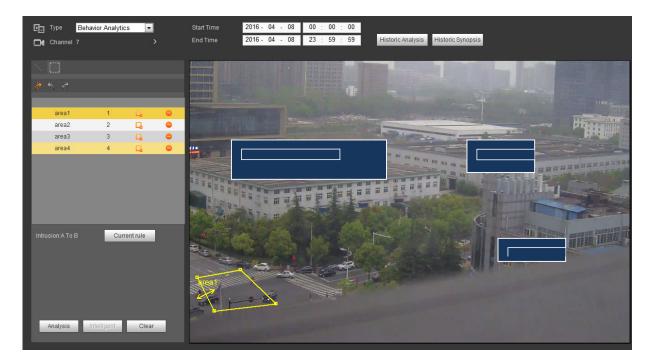


Figure 4-165

### Tips

Click Current rule button, user may use the rule you set in chapter 4.8.3.3 (Main menu->Setting->Event->Behavior Analytics) to detect.

Click Historic analysis button at the right pane or Analysis button at the bottom of the interface, system begins analyzing, and display the image of the corresponding event. See Figure 4-166.



Figure 4-166

Click the image; user may view the record file.

- Select the file and then click ¹⁷ ^{Tag}, user may save current file to peripheral device.
- Select the file and then click Locked, user may lock the file in case it will be overwrtitten in the future.
- Select the file and then click Backup, user may mark the time of the detected event.

In smart playback interface (Figure 4-163), click Clear button, user may delete detection and behavior analytics rule(s) of current channel.

4.11.1.3 Face Detect Playback

System can search the record containing the human face and then playback.

#### Important

Before you use this function, please make sure current channel has enabled human face detection function. Please refer to chapter 4.8.3.4 (Main menu->Setting->Event->Face Detection) for detailed information.

Set the search type as face detect, set channel, start time and end time.

Click Historic analysis button at the right pane or Analysis button at the bottom of the interface, system begins to search. User may view the event time and image. See Figure 4-167.

Click the image, system begins playback.

- Select the file and then click ¹⁷ ^{Tag}, user may save current file to peripheral device.
- Select the file and then click Locked, user may lock the file in case it will be overwrtitten in the

future. Select the file and then click Backup, user may mark the time of the detected event.

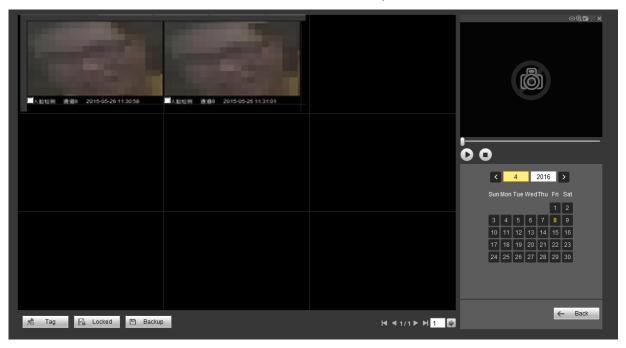


Figure 4-167

#### 4.11.1.4 Video Synopsis

System can analyze the moving object, extract the moving object and merge different moving objects to one common background. In this way, it can display all moving objects and persons in the specified period to one window for you to view.

On smart search interface, select detection type, channel, start time and end time.

Input resolution and synopsis density, click the OK button.

User may view the image after the synopsis process.

Click the green rectangle; user may playback the record at the top right corner of the interface.

## Tips

Click Historic synopsis, user may view the previous synopsis image.

# 4.12 Alarm

Click alarm function, user may see an interface is shown as Figure 4-168.

Here user may set device alarm type and alarm sound setup (Please make sure you have enabled audio function of corresponding alarm events.).

		No.	Time	Alarm Type	Channel
Alarm Type					
Motion Detect	External Alarm				
Tampering	HDD Error				
Video Loss	HDD Full				
Intelligentized Detect	AUDIO DETECT				
Operation					
Message					
Alarm Sound					
Play Alarm Sound					
Sound Path	Select				
Sound an	Jeleu				

Figure 4-168

Please refer to the following sheet for detailed information.

Туре	Parameter	Function				
Alarm	Video loss	System alarms when video loss occurs.				
Туре	Motion detection	System alarms when motion detection alarm				
		occurs.				
	Tampering	System alarms when camera is viciously masking.				
	Disk full	System alarms when disk is full.				
	Disk error	System alarms when disk error occurs.				
	External alarm	Alarm input device sends out alarm.				
	IPC external	It refers to the on-off signal from the network				
	alarm	camera. It can activate the NVR local activation				
		operation.				
	IPC offline alarm	System can generate an alarm when the network				
		camera and the NVR are disconnected.				

Туре	Parameter	Function
Operation	Prompt	Check the box here, system can automatically pops
		up an alarm icon on the Alarm button in the main
		interface when there is an alarm.
Alarm	Play alarm	System sends out alarm sound when an alarm
Sound	sound	occurs. User may specify as you wish.
	Sound path	Here user may specify alarm sound file.

# 4.13 Log out

Click log out button, system goes back to log in interface. See Figure 4-169. You need to input user name and password to login again.

WEB SER	VICE	
User Name:	admin	
Password:		Plain Text
Туре:	TCP	
	• LAN O WAN	
	Login Cancel	]

Figure 4-169

# 4.14 Un-install Web Control

User may use web un-install tool "uninstall web.bat" to un-install web control.

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

# Appendix A HDD Capacity Calculation

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

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

$$q_i = d_i \div 8 \times 3600 \div 1024 \tag{1}$$

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

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

$$m_i = q_i \times h_i \times D_i \tag{2}$$

In the formula:

- $h_i$  means the recording time for each day (hour)
- $D_i$  means number of days for which the video shall be kept

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

$$q_T = \sum_{i=1}^{c} m_i \tag{3}$$

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

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

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

In the formula: a% means alarm occurrence rate

Note

- This manual is for reference only. Slight difference may be found in the user interface.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website or contact your local service engineer for more information.
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