

# NXL NVR User Manual



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# Welcome

Thank you for purchasing this NVR.

Please read this manual carefully before installing and operating the unit. If technical assistance is needed, please contact Speco Technologies Technical Support.

Phone: 1-800-645-5516 option 3 Email: techsupport@specotech.com

# **Important Safeguards and Warnings**

#### 1 Electrical safety

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

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

Speco Technologies assumes 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 personnel

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

#### 5 . Environment

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

#### 6. Accessories

Be sure to use the included accessories only.

Before installation, please open the package and check that all components are included. Contact the supplier immediately if something is broken or missing in the package.

#### 7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury.

When replacing the battery, please make sure to use the same exact model.

#### CAUTION

#### RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO LOCAL LAWS.

#### Before operation, please read the following instructions carefully.

- $\diamond$  Keep away from extreme hot places and sources and avoid direct sunlight
- ♦ Keep away from extreme humid place
- ♦ 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

# **1** Features and Specifications

### 1.1 Overview

The NXL NVR supports live view, recording and playback, and remote management and control of IP cameras.

The NXL supports plug and play for Speco's IP cameras. If a camera is connected to one of the PoE ports that are built into the back of the NVR, it will auto populate on the designated channel without any additional setup. Once the unit is set up, it can be accessed over the network through: 1) a web browser for quick viewing, playback, and setup and 2) SecureGuard® VMS, which provides a robust solution for viewing multiple devices simultaneously and redundancy.

## 1.2 Features

Live View	<ul> <li>Viewing layout options: 1x1, 2x2, 3x3</li> <li>HDMI and VGA outputs for monitors</li> <li>PTZ control interface</li> <li>Swappable channel tiles in real time</li> </ul>		
Playback	<ul> <li>Record up to 6MP on every channel at 30fps max</li> <li>Instant playback for any channel</li> <li>Supports various playback modes: slow play, fast play, backward play and frame by frame play.</li> <li>EZ Search (thumbnail based search)</li> <li>Export clips on USB flash drives and hard drives</li> </ul>		
User Management	<ul> <li>Customizable groups with access for individual features</li> <li>Assign users to different groups</li> <li>Up to 128 user accounts supported</li> </ul>		
Record	<ul><li>Supports video and snapshot storage</li><li>Record in continuous, motion, and sensor modes</li></ul>		
Alarm	<ul> <li>Trigger recording through motion, sensor, and tampering.</li> <li>Events can also trigger a relay alarm device and Digital Deterrent®</li> <li>Alerts can be also sent via email.</li> </ul>		
Upgrade	Supports local and remote upgrades via web browser		

# 1.3 Specifications

# 1.3.1 NXL NVR

Model		N4NXL	N8NXL
System System Resources		4 connections. Total camera bandwidth of 80Mbps.	8 connections. Total camera bandwidth of 80Mbps.
	OS	Embedded Linux real-time operation system	
	Interface	Local GUI /	Web Viewer
Decode	Compression	H.2	264
	Decode	Up to 8 channels, 720p @ 30fps	
	Capability	Up to 4 channels	s, 1080p @ 30fps
	(local viewing)	Up to 4 channel	s, 4MP @ 15fps
Video	Input	4 channels, network video	8 channels, network video
	Output	1 HDMI	, 1 VGA
	Split View	1/2	4/8
Audio	Input	1 RCA input	
	Output	1 RCA output	
	Compression	G.7	11a
Alarm	Input	N	/A
	Output	N	/A
Function	Storage	1 internal HDD slot, up to 6TB supported	
Port and	RS232 Port	N/A	
Indicator	RS485 Port	N/A	
	USB Port	2 USB 2.0 ports	
	Network	1 10/100Base-T Ethernet port	
	Connection		
	PoE Ports	4	8
	Indicator Light	Light Network / Power / HDD status indicator	
General	Power	48VDC, 1.25A; 50W PoE budget	48VDC, 2A; 80W PoE budget

Model		N4NXL	N8NXL
	Operating	14°F ~	131 <i>°</i> F
	Temperature		
	Operating	10%~90% RH	
	Humidity		
	Dimensions	10.2" x 1	.8" x 8.7"
	(WxHxL)		
	Weight	31	bs

# 2 Front Panel and Rear Panel

### 2.1 Front Panel

#### 2.1.1 NXL Series

The NXL front panel is shown below. See Figure 2-1.



Figure 2-1

Please refer to the following sheet for detailed information.

lcon	Name	Function
LAN	Network status	Blue indicator is on when connected to a
LAN	indicator	network
PWR	Power indicator	Blue indicator is on when power is operating
		normally
HDD	HDD status indicator	Blue indicator is on when the hard drive is
		operating normally

## 2.2 Rear Panel

#### 2.2.1 NXL Series

The 4ch unit's rear panel is shown below in Figure 2-2.

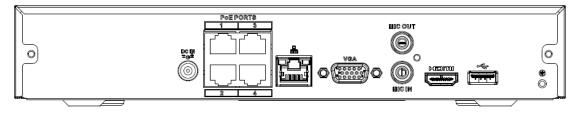


Figure 2-2

The 8ch unit's rear panel is shown below in Figure 2-3.

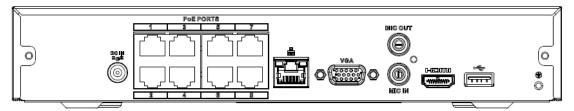


Figure 2-3

Please refer to the following sheet for detailed information.

Port Name	Connection	Function
•	USB2.0 port	May be used for a mouse and external storage.
	Network port	10M/100Mbps Ethernet port. Connect to a network cable.
HDMI	HDMI v1.4	Used for video output to a monitor/display with HDMI port
VGA	VGA output	Used for video output to a monitor/display with VGA port
1	GND	Ground end
DC 12V =-C=	Power input port	Input DC 12V/2A.
MIC IN	Audio input port	Audio input port for two-way audio. Connect a microphone.
MIC OUT	Audio output port	<ul> <li>Audio output port to a speaker</li> <li>Two-way audio output.</li> <li>Audio output on full screen live view.</li> <li>Audio output on full screen playback.</li> </ul>

# 2.3 Two-Way Audio

#### 2.3.1 Device to PC

#### **Device Connection**

Connect a microphone to the input port located on the rear panel of the NVR. Then connect a speaker to the audio output port on the PC.

Log into the web viewer to enable two-way audio:

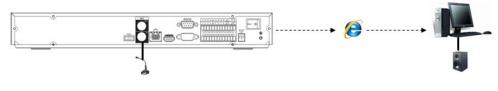
After logging in, look in the left menu panel at the bottom. See Figure 2-4.





#### Audio

See Figure 2-5.





#### 2.3.2 PC to Device

#### **Device Connection**

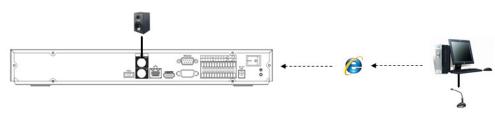
Connect a microphone to the audio input port on the PC and then connect a speaker to the output port on the rear panel of the NVR.

Log into the web viewer to enable two-way audio.

Please refer to the diagram above (Figure 2-4) to enable this option.

#### Audio

See Figure 2-6.





# 2.4 Mouse Operation

Please refer to the following table for mouse operation instructions.

Left Click	Menu item selection	
	Use for on-screen keyboard	
Double Click	In live view, double click to go from split screen to a full screen and back	
Right click	Brings up menu options in live view	
	Exit current menu without saving when in setup	
Drag mouse	Select motion detection zone	
	Select privacy mask zone	

# **3 Device Installation**

Note: All of the installation and operations here should conform to your local electric safety rules.

# 3.1 Check Unit

After unpacking the unit, please check for any visible damage. Then check to make sure that all accessories are included.

## 3.2 Product Label

Check that the model number and serial number that's listed on the label on the unit are the same as what's listed on the package label.

## 3.3 Connection

#### 3.3.1 Example

Please refer to Figure 3-1 for a connection example. The 8-channel unit is shown below.

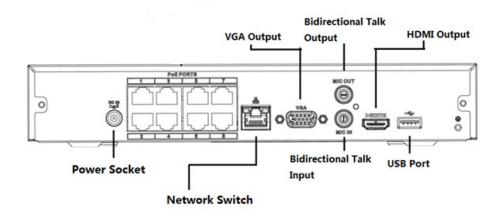


Figure 3-1

# 4 Unit Local Operation

# 4.1 Startup and Shutdown

### 4.1.1 Startup



Before powering up the unit, please make sure:

• Connect the NVR to the power adapter first and then connect the power adapter to the power outlet.

Please follow the steps listed below to start the device.

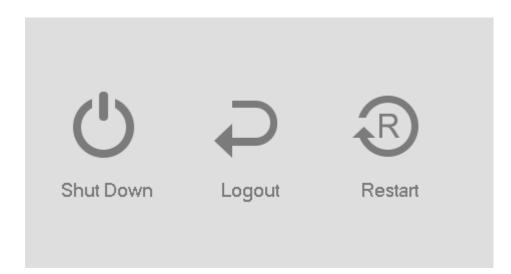
- Connect the device to the monitor and then connect a mouse.
- Connect power.
- The system will be in split screen mode by default upon startup.

#### 4.1.2 Shutdown

#### Note

• Do not unplug the power adapter when the device is running (especially when it is recording).

The proper way to shut down the unit is: Main Menu->Shutdown



Click OK.

# 4.2 Change/Reset Password

#### 4.2.1 Change Password

Listed below is the default login ID:

**Username:** admin (administrator, local and remote) 

#### Note:

For security purposes, it is required to create the administrator password on the initial login.

5 incorrect login attempts within 30 minutes will result in a lock on the account. Once the unit is locked, please wait for 30 minutes before attempting to log in again.

See Figure 4-1 for the password change screen.

- Security questions can be set here to reset the password in case you forgot. The NVR supports customized setup. Please note two security questions must be set. These questions must be answered correctly when resetting the password.
- For more information, please refer to section 4.2.2. •

SECURITY ADMIN	
User Name	admin
Enter Password	
Confirm Password	
Security Questions	
Question 1	What is your mother's maiden name?
Answer	
Question 2	What is your favorite hobby?
Answer	
	OK

Figure 4-1

#### 4.2.2 Reset Password

.

If the password has been forgotten, answer the security questions set in section 4.2.1 to reset the password.

Figure 4-2

The following dialogue box will pop up. Please answer the security questions and then enter the new password twice. See Figure 4-3.

Reset	
Question 1	What is your mother's maiden name?
Answer	
Question 2	What is your favorite hobby?
Answer	
Reset password of	(admin)
New Password	
Confirm Password	
	Reset Cancel

Figure 4-3

# 4.3 EZ Setup

EZ Setup is a wizard designed to assist with setting up the unit initially. After the NVR successfully boots up, the prompt for EZ Setup will pop up. To prevent EZ Setup from running again on the next reboot, uncheck the Startup box before selecting Next or Cancel.

EZ Setup
EZ Setup The EZ Setup includes General, EZ Network,
EZ Camera, Schedule,EZ Record.
✓ Startup
Please uncheck this option if you do not wish to go through EZ Setup again
Next Cancel

Figure 4-4

Click Next or Cancel button. See Figure 4-4

The system consists of two accounts:

- **Username**: admin (administrator, local and network)
- **Username**: default. **Password**: default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there are no users, hidden user "default" will automatically login.

SYSTEM LOO	iIN	
User Name	admin 🔽	
Password		
[	OK Cancel	

Figure 4-5

Click the OK button to go to the General Setup Interface. See Figure 4-6. For detailed information, refer to section 4.12.

		General		
General Da	ate&Time Holic	ау		
Device Name	NVR			
Language	ENGLISH 🔻			
Video Standard	NTSC -			
HDD Full	Overwrite 🔻			
Pack Duration	60	Ainute		
Instant Playback	5	Ainute		
Auto Logout	10	<i>l</i> inute		
Camera Time Syn	c 24	lours		
🗹 Navigation Bar	Auto Add IP Ca	mera		
Mouse Sensitivity	Slow	Fast		
Default				Apply
		Previous	Next	Cancel

Figure 4-6

Click the Next button to go to the network setup interface. See Figure 4-7. For detailed information, refer to section 4.10.

	NETWORK
MTU	1500 LAN Download
IP Version	IPv4 *
MAC Address	90:02:11:22:33:44
IP Address	172 · 12 · 88 · 112 DHCP
Subnet Mask	255 . 255 . 0 . 0
Default Gateway	172 . 12 . 0 . 1
Preferred DNS	8 . 8 . 8 . 8
Alternate DNS	8 . 8 . 4 . 4

Figure 4-7

Click the Next button to go to the EZ Camera tab. EZ Camera can be used to easily add IP cameras on the LAN to the unit (Speco IP cameras on the PoE ports will be added automatically). See Figure 4-8. Refer to section 4.5.

				EZ Ca	mera		
95 55 56 57 58 59 60 4		172. 172. 172. 172. 172. 172.	ddress 12.10.83 12.2.165 12.3.37 12.3.144 12.3.111 12.99.4	Port 37777 37777 37777 37777 37777 37777	Device Nar 2M01BD9P 1M03BB9P NVR PZC3FW13 ARC NVR	AK00140 AN00057	MAC Address * 3c:ef:8c:ee:11 4c:11:bf:4b:fa: 3c:ef:8c:04:a3 90:02:a9:1c:8a 4c:11:bf:1c:1d 90:02:04:15:45 *
Device Added [	Search Device	Δ	dd		Display	Filter N	one 🔻
Char		odify P	Delete × ×	Status	IP Address 10.1.1.128 172.12.88.202	Port Port 1 80	Device Name O2iD4M
	)elete		vidth: 78.5 ual Add	3Mbps/80Mbj	os	Next	Cancel

Figure 4-8

Click the Next button to go to the Schedule interface/EZ Record. See Figure 4-9. For detailed information, please refer to section 4.6.2.

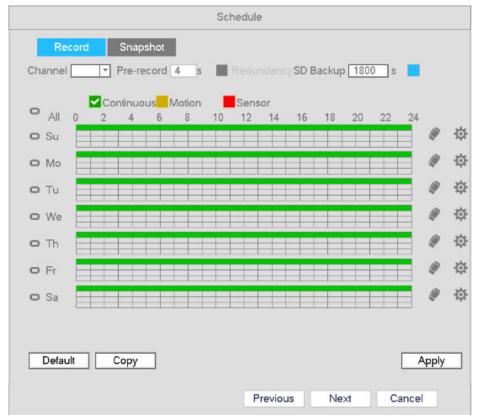


Figure 4-9

			EZ Record	1		
Main Stream Auto Manual Off Snapshot Enable				•		
Enable Disable	0	••				
Previous				Apply	Finish	Cancel

Figure 4-10

# 4.4 Navigation Bar

Go to Main menu->Setup->System->General to enable the navigation bar. The navigation bar is shown as below. See Figure 4-11.

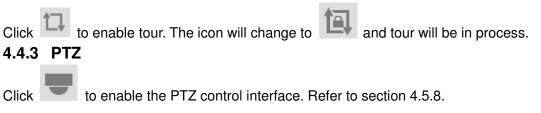




# 

#### 4.4.1 Main Menu





#### 4.4.4 Color

Click **v** to enable the color interface.

Please make sure the system is in 1x1 channel mode.

#### 4.4.5 Search

Click to enable the search interface. Refer to section 4.7.2

#### 4.4.6 Alarm Status

Click to enable the alarm status interface. This is for viewing device status and channel status.

#### 4.4.7 Channel Info

Click **Click** to enable the channel information interface. This is for viewing information of the corresponding channel.

#### 4.4.8 Registration

Click to enable the EZ Camera interface.

#### 4.4.9 Network

Click to enable the network setup interface. Please refer to section 4.10.

#### 4.4.10 HDD Manager

Click to enable the HDD manager interface. Please refer to section 4.11.1.

#### 4.4.11 USB Manager

Click to enable the USB Manager interface. It is to view USB information, backup and update.

### 4.5 Camera

### 4.5.1 Camera Setup

**Note**: For Speco's IP cameras, the built-in PoE ports support plug and play. In order to this feature to work, the IP camera's user ID and password must be kept at the default values, which are **admin** and **1234**, respectively.

Go to Main menu->Setting->Camera->Camera to open the camera setup interface.

- Device search: Click the button to search for all network cameras in the same network segment.
- Status: Red circle (
   ) means current channel has no video, green circle (
   ) means current channel has video.
- IP address: Displays the network camera IP address.
- Type: The = icon means the camera is connected to the POE port.
- Add/Delete: Click is to delete the device, click is to add the device to the NVR.
- Manual Add: Click the Manual Add button to manually enter camera information and assign it to a channel. The interface is shown below:

Manual Add
Channel 7  Protocol SpecoA
IP Address         192.168.0.0           RTSP Port         554         HTTP Port         80
User Name admin Password
Decode Priority Default  Remote Channel No. 1
Auto O TCP O UDP
Save Cancel

• Modify: Click Modify to edit a camera's information. See below.

	Modify
Channel	1 -
Protocol	SpecoA 🔽
IP Address	192.168.56.143
RTSP Port	554 HTTP Port 80
User Name	admin
Password	
Decode Priority	Default 👻
Remote Channel No.	1
Auto O TCP O	
	Save Cancel

- ♦ Channel: Change assigned channel.
- ♦ Protocol: Select protocol from the dropdown list.
- ♦ IP Address: Enter IP address.
- RTSP/HTTP port: Enter the correct port values for the camera. If you have not changed the ports, the default values are 554 and 80 respectively for almost all camera models.
- User name/Password: Enter user name and password of the camera. The default user name is admin and the default password is 1234.
- Decode Priority: There are three options: realtime/fluent/default. Please select from the dropdown list. Realtime puts a priority on keeping the video as close to realtime as possible in case of a network not performing optimally. Fluent puts a priority on video streaming quality.
- ♦ Remote Channel: Channel number for remote access.

## 4.5.2 Image

Go to Main Menu->Setup->Camera->Image. The interface is shown below in Figure 4-12.

**Note**: This section is available for configuration only for supported cameras. For non-supported cameras, the options will not be visible.

- Channel: Select the desired channel from the dropdown list.
- Saturation: For changing the saturation value of the camera. The value ranges from 0 to 100. The default value is 50. The colors will become more saturated as the value is increased. Saturation has no effect on the general brightness of the video. The recommended range is from 40 to 60.
- Brightness: For changing the brightness value of the camera. The value ranges from 0 to 100. The default value is 50.
- Contrast: For changing the contrast value of the camera. The default value is 50. The recommended value is from 40 to 60.
- Auto Iris: When you disable this function, the iris is at the max. This option is on by default.
- Mirror: Horizontal flip.
- Flip: To flip the video vertically or 90°.
- BLC: Depending on the camera model, this may include the following options: BLC/WDR/HLC/OFF.
- Profile: To set the white balance mode of the camera. This has an effect on the general hue of the video. This function is on by default.
- ♦ Auto: Auto white balance is on. System can auto compensate the color temperature to make sure the video color is proper.
- ♦ Sunny: The threshold of the white balance is in the day mode.
- ♦ Night: The threshold of the white balance is in the night mode.
- ♦ Customized: You can set the gain of the red/blue channel. The value ranges from 0 to 100.
- Day/night. To set color or monochrome mode for the camera. The default setup is auto.
- ♦ Color: Camera video stays in color.
- ♦ Auto: Camera switches to monochrome in low light.
- ♦ B/W: Camera video stays in monochrome.

SETUP							
		EVENT	STORAGE	SYSTEM			
Camera Image	Channel	4	✓ Setting	Day	-		
Stream IP Cam Name	Iris	Enable O Disabl	le Saturation Brightness	50 50			
	Flip	No Flip	Contrast Sharpness	50 50			
	Light	Stop					
	Scene Mode Day & Night	Auto Auto	▼ ▼				
	Default	Refresh	Save	Cancel App	oly		

Figure 4-12

# 4.5.3 Channel Name

Go to Main Menu->Setup->Camera->Channel name. The interface is shown in Figure 4-13. This is for setting the name of the local channel name on the NVR. This does not affect the nickname of the camera itself. Maximum of 31 letters are supported.

SETUP							
		EVENT	STORAGE	SYSTEM			
Camera Image Stream Channel Name	Channel Name CH1 CH3 CH5 CH7		CH2 2 CH4 4 CH6 6 CH8 8				
	Default		Save	Cancel Apply			

Figure 4-13

# 4.5.4 Camera Upgrade

#### Note

Supported IP camera models can have firmware be updated through the NVR, both locally through USB or remotely through a web browser.

To update:

Go to Main Menu->Setup->Camera->Upgrade. The interface is shown below in Figure 4-14. Click Browse button and then select the upgrade file. Then select a channel (or you can select device type filter to select several devices at the same time.)

Click Start Upgrade. You can see the corresponding dialogue once the upgrade is finished.

			SETUP				
		4	EVENT	STOP	RAGE	SYSTEM	
Camera Image	Site Locate	Stat	us Firmwa	are Up	ograde		
Stream	Upgrade File	/				Sele	ct
IP Cam Name	Device Upgrad	le(0/2)				/ Filter None	<b>_</b>
	Channel	Status	IP Address 10.1.1.128 172.12.88.202	Port Port 1 80	Protocol SpecoA SpecoA	Device Type	Fit
						Start Upg	grade

Figure 4-14

# 4.5.5 Right Click Menu

🕿 EZ Camera Manual Record > Q Search 8 Image E Auto Focus **PTZ** EZ Setup Display 1 ▶ Display 4 ▶ III Display 8 III Display 9

Figure 4-15

## 4.5.6 Display

Go to Main Menu->Setup->System->Display. See Figure 4-16.
These options do not affect recording and playback.

		SETUP		
		EVENT	STORAGE	SYSTEM
General Display Digital Deterrent Account Maintenance Import/Export Default Upgrade	Display Resolution Picture mode Transparency Time Display Channel Displa Enhance Image Original Scale		%	
	Default	4	Save	Cancel Apply

Figure 4-16

Now you can set corresponding information.

- Resolution: Choose the appropriate resolution for the monitor: 1280×1024 (Default), 1280×720, 1920×1080, and 1024×768. Please note the system needs to reboot to apply the new resolution.
- Picture Mode: Please select from the dropdown list
- Transparency: Higher value provides more transparency of the Setup interface.
- Time display: Enable this to display the time and date of the NVR.
- Channel display: Enable this to display the local channel names and the local IP addresses of the cameras.
- Enhance Image: Enable this to sharpen the image on live view. This option does not affect the camera itself.
- Original scale: For selected channels, this displays the camera resolutions in their original aspect ratio. Resolutions in 4:3 format will have black bars on the sides when this option is enabled.

Click Apply to save the setup.

# 4.5.7 Sequence

- Enable tour: Check the box here to enable the sequence function.
- Interval: Enter the desired time for how long the display will stay on the current screen. The range is from 1-120 seconds.
- Motion tour type: Single channel and 8-channel views are supported. For a channel to be displayed under this function, make sure to enable the Sequence option under Main Menu->Setup->Event->Video->Motion.
- Alarm tour type: Single channel and 8-channel views are supported. For a channel to be displayed under this function, make sure to enable the Sequence option under Main Menu->Setup->Event->Video->Alarm.

		SETU	JP	
		EVENT	STORAGE	SYSTEM
General Display	Display	Sequence		
Digital Deterrent	Motion Tour Ty Enable Tour	pe Display 1	✓ Alarm Tour Type [ Interval	Display 1
Account Maintenance	Split	Display 4		5sec.
Import/Export	2 🔽	2 3 4	Split	
Default Upgrade	2 🗹 5	678		
opgrade				
				ß
	Add	Delete	Move up	Move down
	Default		Save	Cancel Apply

Figure 4-17

#### 4.5.8 PTZ Control

To bring up the PTZ control interface, right-click when hovering over the desired channel and choose PTZ as shown in Figure 4-18. The display will switch to single-channel mode.

> 🗣 EZ Camera Manual Record > Q Search 8 Image F: Auto Focus PTZ EZ Setup **Display 1** Display 4 Display 8 Display 9

Figure 4-18

The PTZ setup is shown as in See Figure 4-19.

Here you can control PTZ direction, speed, zoom, focus, iris, presets, tours, and other PTZ options. Speed controls PTZ movement speed. The value ranges from 1 to 8 with 8 being the fastest.

for zoom, focus and iris. You can click and

The PTZ rotation supports 8 directions.

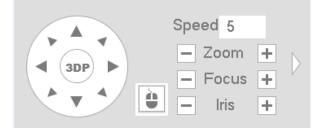


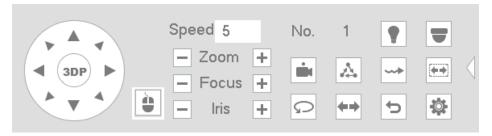
Figure 4-19

For supported camera models, the NVR can control the camera with 3D intelligent positioning (3DP). See Figure 4-20. Click this key, to enter single screen mode. Click and drag the mouse on the screen to identify a region of interest. The PTZ will automatically pan, tilt, and zoom to the area that was identified.



Figure 4-20

In Figure 4-19, click to open the menu, you can set preset, tour, pattern, scan, etc. See Figure 4-21.





Please refer to the following table 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 4-19.

lcon	Function	lcon	Function
<b>i</b>	Preset	+	Flip
2	Tour	¢	Reset
~~~	Pattern	\$	Aux Config
	Scan	•	Aux on/off
Q	Rotate		

#### 4.5.8.1 PTZ Function Setup

Click to go to the following interface to set preset, tour, pattern, and scan. See Figure 4-22.



Figure 4-22

#### Preset

As shown in Figure 4-22, click preset and use the direction arrows to set the camera to the proper position. Click the Set button and then enter the preset number. Click the Set button again to save current preset.

Click the Set button again to save current pre

#### Tour Setup

As shown below, click the tour button.

Enter the tour value and preset number. Click Add Preset to add the preset value to the tour.

#### Tips

Repeat the above steps to add more presets to the tour. Click Del preset button to remove it from the tour.



#### Pattern Setup

As shown below, click Pattern and enter the pattern number.

Click Begin button to start recording the directions for the pattern. You can also use the full PTZ controls shown in Figure 4-19 to operate zoom/focus/iris/direction.

Click the End button to finish recording the pattern.

PAN/TILT/ZOOM				
Preset	Tour	Pattern	Border	
			0 art nd	

#### Scan Setup

Click Scan button as shown below.

Use the direction buttons to set the left position of the camera and then click the Left button.

Use the direction buttons to set the right positions of the camera and then click the Right button. The scan setup process is then complete.

PAN/TILT/ZOOM
Preset Tour Pattern Border
4.5.8.2 Call PTZ Function
Call Preset
As shown in Figure 4-21, enter preset value and then click it to call the preset. Click again to stop.
Call Pattern
As shown in Figure 4-21, enter pattern value and then click to call the pattern. Click again again to stop.
Call Tour
As shown in Figure 4-21, enter tour value and then click is to call the tour. Click again is to stop.
Call Scan
As shown in Figure 4-21, enter scan value and then click to call the scan. Click again to stop.
Rotate

As shown in Figure 4-21, click	ч <i>~</i>	to enable the camera to rotate.

Aux
Click to go to the following interface. The options here are defined by the protocol. See Figure 4-23.



Figure 4-23

# 4.6 Recording

The priority order for recording is: Alarm -> Motion detection -> Schedule.

## 4.6.1 Stream

### 4.6.1.1 Stream

The Stream section is used to set the IP camera's stream settings.

The interface is shown in Figure 4-24.

- Channel: Select the desired channel.
- Type: The NVR can process two streams, main and sub.
- Compression: The NVR supports H.264 (HP, MP, BP profiles) and MJPEG.
- Resolution: The current setting of the camera will be displayed. Changes made in the NVR will be reflected in the camera.
- Frame rate: The current setting of the camera will be displayed. Changes made in the NVR will be reflected in the camera.
- Bit rate type: The NVR supports two types: CBR (constant bit rate) and VBR (variable bit rate). In VBR mode, you can set the video quality. The current setting of the camera will be displayed. Changes made in the NVR will be reflected in the camera.
- Quality: Options will be available in VBR mode. There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Video/audio: Check the box to enable audio for the channel. Please note, once you enable audio function for one channel, the system may enable audio function of the rest of the channels by default.
- Copy: After you complete the setup, you can click Copy button to copy the current setup to other channel(s). The current channel number will be highlighted gray. Select the desired channels and click the OK button to complete the setup.

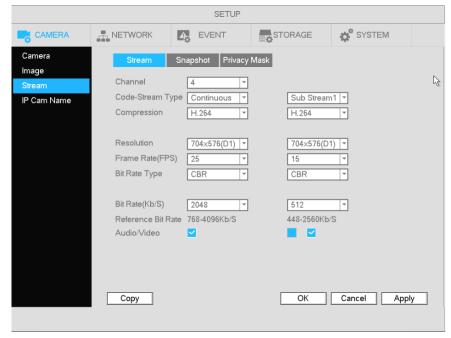


Figure 4-24

## 4.6.1.2 Snapshot

For supported camera models, the snapshot mode, picture size, quality and frequency can be set. See Figure 4-25.

- Channel: Select applicable channel
- Mode: There are two modes: schedule and event. If you select schedule mode, you need to set the snapshot frequency. If you select event mode, you need to set an event trigger (Under Setup -> Event).
- Image size: Set the snapshot picture size.
- Quality: Set the snapshot quality. The value ranges from 1 to 6 with 6 being the highest
- Snapshot Frequency: Used to set snapshot interval for schedule mode.

SETUP						
		EVENT	STORAGE	SYSTEM		
Camera Image	Stream S	napshot Privacy	Mask			
Stream	Images/Snapshot	4	~			
IP Cam Name	Channel Mode Image Size Quality Snapshot Frequen	Schedule	- - - - - - /second	13		
			ОК	Cancel App	ly	

Figure 4-25

# 4.6.2 Schedule

### 4.6.2.1 Schedule Recording

To set up schedule recording, go to Main Menu->Setup->Storage->Schedule. See Figure 4-29.

- Channel: Select the desired channel number first. You can select "all" if you want to set the schedule for all of the channels.
- Select icon of multiple days to link them together. This will allow the linked days to be edited simultaneously.

♦ Section Section

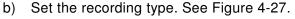
- Recording Type: Check the box of the desired recording type. There are three modes for recording: Continuous / Motion detection / Sensor.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: Special schedules can be set for holidays if needed. Holidays must be added manually. To add a holiday, go to Main Menu->Setup->System->General->Holiday. This option will not be shown if no holidays have been added.

- Pre-record: This option is to set up the pre-record interval for events. The range is from 1 to 30 seconds.
- Redundancy: Not applicable for the NXL series.
- SD Backup: For supported IP camera models, the video can be recorded to an SD card in case the network connection fails. The time range is from 0 to 43200 seconds. After the network connection resumes, the NVR will retrieve the video from the SD card.
- Period setup: Click is to bring up the interface to enter a time period manually.

Follow the steps listed below to visually draw the period.

a) Select the desired channel. See Figure 4-26.

	Chann	el 1	~	
	Figur	e 4-26		
e Figure	4-27.			



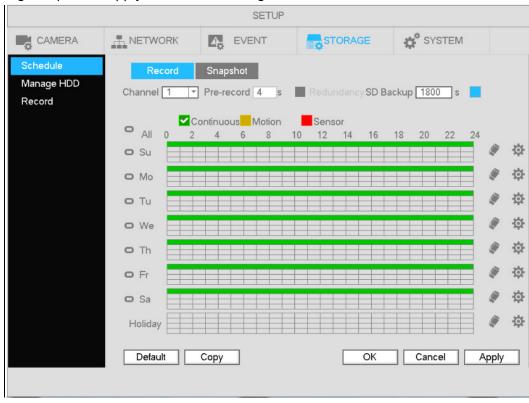
Continuous	Motion	Sensor

Figure 4-27

c) Click and drag. See Figure 4-28. **Note**: for all schedules, a maximum of 6 separate periods can be specified for a day.

		SETUP			
CAMERA		A EVENT	STORAGE	SYSTEM	
Schedule Manage HDD Record	Record Channel 2	Snapshot Pre-record 4 s	Redundancy SD Ba	ackup 1800 s 📘	
	o	Continuous	Sensor		
	Co Su	4 6 8	10 12 14 16	18 20 22 24	ø 🔅
	ලා Mo				ø 🔅
	O Tu				Ø 🔅
	o We				Ø 🔅
	O Th		Nome         No         No<		Ø 🔅
	O Fr				Ø 🕸
	O Sa		None         None <th< th=""><th></th><th>Ø 🔅</th></th<>		Ø 🔅
	Default	Сору	OK	Cancel A	pply

Figure 4-28



After completing setup, click Apply to save the settings.

Figure 4-29

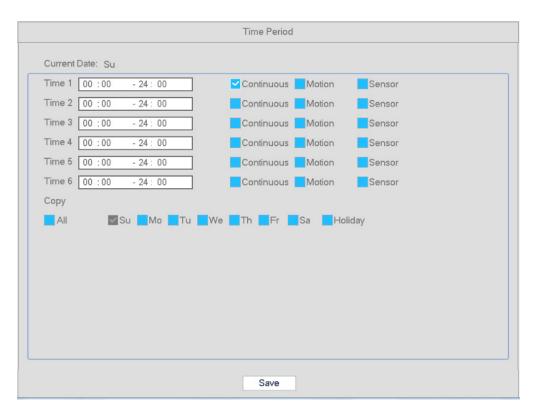


Figure 4-30

#### **Quick Setup**

Copy function allows you to copy one channel setup to another. After setting up a channel, click the Copy button to go to the interface shown in Figure 4-31. The current channel will be highlighted gray. Select the other channels to copy the settings into. Click the OK button to save. Then click the Apply button in the schedule interface.



Figure 4-31

## 4.6.2.2 Schedule Snapshot

Go to Main Menu->Setup->Storage->Record as shown in Figure 4-32. Select the desired channels for snapshot and press Apply to save the setting.

SETUP						
CAMERA		4	EVENT		🚓 SYSTEM	
CAMERA Schedule Manage HDD Record	Main Stream Auto Manual Off Snapshot Enable Disable	All O O O	1 2 3	STORAGE	SYSTEM	
				Save	Cancel Ar	oply

Figure 4-32

After snapshot recording is enabled, go to Main Menu->Setup->Camera->Stream->Snapshot, as shown in Figure 4-33.

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

		SETUP			
		EVENT	STORAGE	SYSTEM	
Camera Image Stream	Stream Images/Snapsh	Snapshot Privacy	Mask		
IP Cam Name	Channel Mode Image Size Quality Snapshot Frequ	6	▼ ▼ ↓ /second	51	
			OK	Cancel Apply	7

Figure 4-33

To set up the schedule for snapshots, go to Main Menu->Setup->Storage->Schedule. Refer to the screenshot below. Please refer to chapter 4.6.2.1 for detailed setup information.

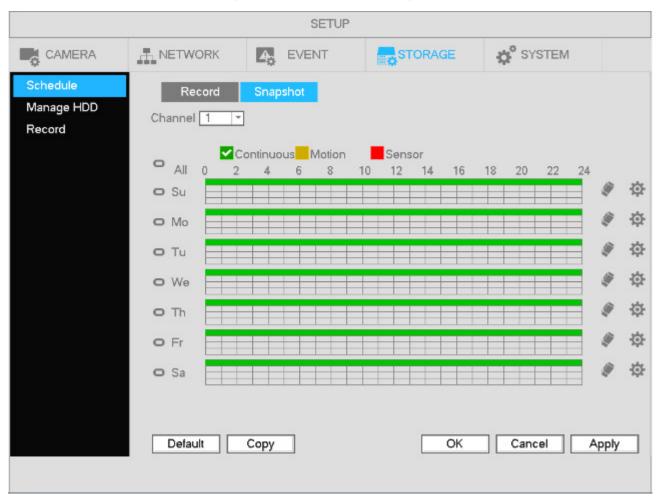


Figure 4-34

#### Note

• Please note that a snapshot for an event has higher priority than continuous. If both are enabled, the NVR will activate the event snapshot when an alarm occurs, and will just operate the continuous mode otherwise.

## 4.6.3 Motion detection

#### 4.6.3.1 Motion recording

a) Go to Main Menu->Setup->Event->Video->Motion. See Figure 4-35.

		SETUP		
CAMERA			STORAGE	SYSTEM
Video Alarm Notification	Motion Channel Enable Region Period Show Messag Record Chann PTZ Activation Sequence Snapshot Voice Prompts	Setup Setup e Alarm Upload i 2 3 Setup i 2 3 i 2 3	Sensitivity 4 Anti-dither 5 Send Email Delay 10	sec.
	Default	Сору	OK	Cancel Apply



- b) Select a channel from the dropdown list and then check the Enable box to enable motion detection.
- c) Select the Region Setup button to set up the motion detection zone. Click and drag to identify the desired zones. Multiple areas within the window can be highlighted.
- d) Period: Select the Period Setup button. The interface is shown below. Follow the same procedure as the general schedule setup. Note that a maximum of 6 separate periods can be specified for one day.



Figure 4-36

Time Period
Current Date: Su
Time 1 00 :00 - 24 : 00
Time 2 00 :00 - 24 : 00
Time 3 00 : 00 - 24 : 00
Time 4 00 : 00 - 24 : 00
Time 5 00 : 00 - 24 : 00
Time 6 00 :00 - 24 : 00
Сору
📕 All 🛛 📓 Su 📕 Mo 📕 Tu 💭 We 📕 Th 📕 Fr 📕 Sa 📕 Holiday
Save
Save

Figure 4-37

### 4.6.3.2 Motion Detection Snapshot

- a) Go to Main Menu->Setup->Camera->Stream->Snapshot. See Figure 4-38.
- b) Select the mode from the dropdown list and then set picture size, quality and snapshot frequency. Click Apply to save.
- c) Set up motion detection type and channel as describe in the previous section 4.6.3.1.

		SETUP			
		EVENT	STORAGE	SYSTEM	
Camera Image Stream Channel Name	Stream Images/Snapsh Channel Mode Image Size Quality Snapshot Frequ	Snapshot     Privacy       ot     2       2     2       Schedule     1920×1080(10       6     6			
			ОК	Cancel App	bly

Figure 4-38

## 4.6.4 Alarm Recording/Snapshot

## 4.6.4.1 Alarm Recording

Go to Setup->Event-> Alarm for the alarm setup interface. See Figure 4-39.

- Select the desired channel.
- Alarm type: Two types are supported.
  - ♦ A sensor input can be connected to an IP camera to generate the event
  - If an IP camera loses connection with the NVR, the NVR can generate the event. The alarm can last until the connection resumes.
- Check the enable box to enable the function.
- Type: normally open or normally closed.
  - a) Click Apply to complete alarm setup.

		SETUP			
			STORAGE	SYSTEM	
Video Alarm Notification	Sensor Channel Enable	Camera Offline 3 V	Туре NO		
	Period Show Messag Record Chann PTZ Activation Sequence Snapshot	nel 1 2 3 Setup 1 2 3	Delay 10	sec.	
	Default	s File Name <u>None</u>	OK	Cancel App	ly

Figure 4-39

b) To setup a schedule for alarm recording, follow the same instructions as motion recording schedule, but choose Sensor instead of Motion.

### 4.6.4.2 Alarm Snapshot

- a) Enable snapshot mode as shown in Figure 4-40.
- b) Follow the same procedure as motion snapshots to set up the schedule.

SETUP						
		AD EVENT	STORAGE	SYSTEM		
Camera Image Stream Channel Name	Stream Images/Snapsh Channel Mode Image Size Quality Snapshot Frequ	Snapshot         Privacy           01         2           2         2           Schedule         1920×1080(10)           6         1		STSTEM		
			ОК	Cancel App	ly	

Figure 4-40

# 4.6.5 Manual Recording/Snapshot

### 4.6.5.1 Manual Recording

a) To enable manual recording, right click mouse and select manual record or in the main menu, from Setup->Storage->Record. See Figure 4-41.

			SETUP			
CAMERA		4	EVENT	STORAGE	SYSTEM	
Schedule Manage HDD Record	Main Stream Auto Manual Off Snapshot Enable Disable	All O O O		Save	Cancel Ag	pply

Figure 4-41

- b) Check the boxes to select the channels for manual recording.
- Manual: The NVR will record the selected channels, regardless of the schedule.
- Auto: The NVR will record the selected channels based on the schedule setup.
- Stop: The NVR will not record the selected channels, regardless of the schedule.

## 4.6.5.2 Manual Snapshot

Click on the control bar in live view to manually take snapshots. The number of snapshots that are generated depends on the setting in Main Menu->Setup->Camera->Stream->Snapshot.

# 4.6.6 Holiday Recording

The NVR can be set up for recording on a holiday. Holidays are manually added. Please set up the holiday schedule as needed. Note that holiday recording/snapshot setup has a higher priority than regular schedule setup.

a) Go to Main Menu->Setup->System->General->Holiday as shown in Figure 4-42.

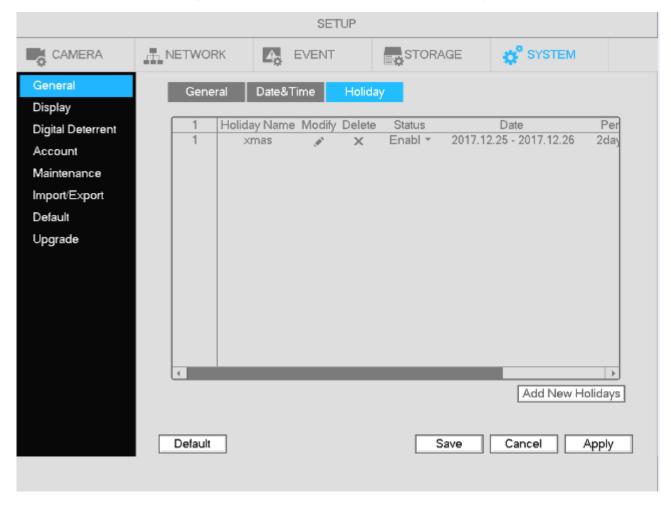


Figure 4-42

b) Click Add New Holidays, to bring up the interface shown in Figure 4-43. Here you can set the holiday name, repeat mode, and the date range.

Holiday Name	
Repeat Mode     Once     O Always       Holiday Range     Date     O Week       Start Time     02 - 22 - 2017       End Time     02 - 22 - 2017	
Add More	Save Add Cancel

Figure 4-43

- c) Click Add to complete the holiday setup.
- SETUP SYSTEM CAMERA A EVENT STORAGE - NETWORK Snapshot Manage HDD Channel 1 Redundancy SD Backup 1800 s Pre-record 4 s Record Continuous Motion Sensor 0 All 0 6 8 10 12 14 16 18 20 22 24 -O Su ø O Mo ø O Tu ¢ O We \$ O Th ¢ O Fr 亞 O Sa Ì 9 0 Holiday Default Copy OK Cancel Apply
- d) Make sure to set up for holiday recording within the schedule setup as shown below.

Figure 4-44

# 4.7 Playback and Search

## 4.7.1 Instant Playback

The NVR supports instant playback on any channel during live view. On any channel, hover the mouse pointer near the top of the channel display to bring up the pop-up menu. Select the left-most icon to start instant playback.

## 4.7.2 Search Interface

To start playback, go to Main menu->Search, or right click and then select Search from the live view screen. See Figure 4-45 for the playback interface.

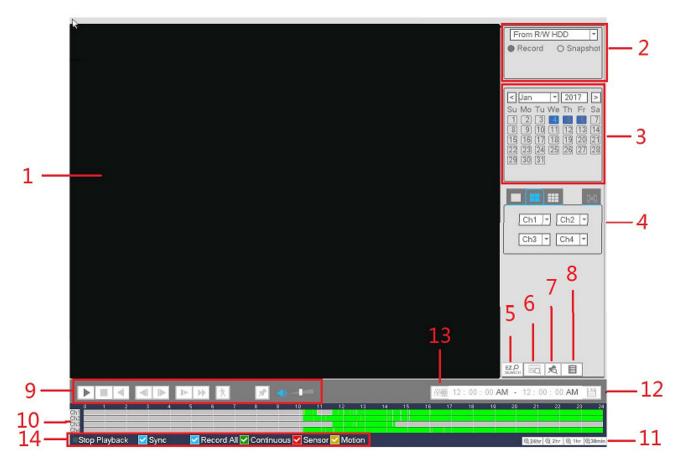


Figure 4-45

Please refer to the following table for more information.

SN	Name	Function						
1	Channel Display	<ul> <li>Displays camera channels for playback.</li> <li>Supports 1/4/8 channel views.</li> </ul>						
2	Search type	<ul> <li>Select video recording or snapshot for playback.</li> <li>Select the internal HDD or an external storage device to search for recordings.</li> </ul>						
3	Calendar	• Dates highlighted in blue means that there are recordings for those days.						
4	Channel selection	<ul> <li>Playback mode: 1/4/8 channel views.</li> <li>In single window mode: select the desired channel to view.</li> <li>In 4-channel mode: select the 4 channels to view.</li> <li>In 8-channel mode: all channels will be displayed.</li> </ul>						
5	EZ search	Displays thumbnails at time intervals (every hour and then every 2.5 minutes). Select the desired time to start playback for the chosen channel. <b>Note that EZ Search can operate only in single-channel mode.</b>						
6	Card record	N/A for the NXL series						
7	Bookmark pin list	Displays the bookmark pin list of the chosen channel.						
8	Recorded file list	<ul> <li>Click to view the file list of the selected date and channel</li> <li>The duration of the files correspond to the value of "Pack Duration" that is set in Setup-&gt;System-&gt;General.</li> <li>Maximum of 128 files can be displayed at once. Double click on a file to start playback.</li> <li>Enter a time in the following search box to start playback for a specific time. <ol> <li>12:00:00 AM</li> <li>File types that can be listed: C—continuous recording; S—sensor recording;</li> <li>M—Motion recording.</li> <li>File lock: Check the box the file to lock and then click the file lock button</li> <li>A locked file cannot be overwritten.</li> </ol> </li> <li>Return: Click  , to return to the calendar and channel setup interface. Note: <ul> <li>A file that is currently being written and has not finished the pack duration period cannot be locked.</li> </ul> </li> </ul>						

		Play/Pause
		There are three ways begin playback.
		<ul> <li>Play button</li> </ul>
		<ul> <li>Click on the applicable channel and time in the time bar.</li> </ul>
		<ul> <li>Click on a file in the file list.</li> </ul>
		When in slow play mode, click the play/pause button to resume playback at
		normal speed
		<ul> <li>Stop</li> </ul>
		Rewind
		<ul> <li>Press once to start rewind. Press again to pause.</li> </ul>
		Click play/pause to restore normal playback.
9	Playback	I ◀/ When paused, press to play the next or the previous frame
	control	Press $\blacktriangleright/II$ to restore normal playback.
		Slow play
		<ul> <li>In playback mode, press to start slow play. Supported speeds are 1/2x,</li> </ul>
		1/4x, $1/8x$ , and $1/16x$ .
		East forward
		Supported speeds are 2x, 4x, 8x, and 16x.
		Audio volume for recorded audio
		Pin button.
		<ul> <li>Displays the record type and the time period for the selected date.</li> </ul>
		• In 2x2 mode, there are four separate time bars for each channel that's
10	Time bar	selected. In other playback modes, there is only one time bar.
		• Color schemes for the different recording modes are: green for continous,
		yellow for motion, and red for sensor.
		The entione are: @24hr @2hr @1hr @30min Proce an ention
11	Time bar	
	unit	to divide the entire time bar over the selected time period. Use this option to
		quickly choose a time slot for playback more accurately.
		• Select the file(s) to backup from the file list. Then click the backup button,
12	Backup	which will then bring up the backup menu. Make sure that a USB flash drive or
		HDD is inserted in the USB port. Select or create new folder and then click the
		Backup button to begin the backup operation.
		This function is for editing a file with a specified time period and backing it up.
		Press      to start the file to edit.
13	Clip	
		• Select the clip start time on the time bar and then press

		<ul> <li>Select the clip stop time on the time bar and then press again.</li> <li>Press to bring up the backup menu.</li> <li>Please note:</li> <li>A maximum of 1024 files can be backed up at the same time.</li> <li>The clip operation will not work if any files have been checked in the file list.</li> </ul>
14	Record type and Sync	Select which recording modes are shown on the time bar (continuous, motion, sensor). Sync enables all channels to play back at the same exact time period. If Sync is unchecked, each channel can play back recordings at different times.
		Other Functions
	Digital zoom	When full-screen playback mode, click and drag to select a section and then left click to digitally zoom in. Right click to exit digital zoom.

#### 4.7.2.1 File list

To see the list of recorded files go to the file list interface. Enter a time at the top right corner to search the records by time. See image on the left side of Figure 4-46. For example, enter 11:00.00 and then click the

search button to view all recorded files after 11:00.00. See image on the right side of Figure 4-46. Double click a file to start playback.

01:00:00 AM Q	01:00:00 PM Q
StartTime Type	StartTime Type
01:00:00AM C	01:00:00PM C
02:00:00AM C	02:00:00PM C
03:00:00AM C	04:00:00PM C
05:00:00AM C	05:00:00PM C
06:00:00AM C	06:00:00PM C
07:00:00AM C	08:00:00PM C
08:00:00AM C	09:00:00PM C
10:00:00AM C	10:00:00PM C
11:00:00AM C	11:00:00PM C

Figure 4-46

#### 4.7.2.2 Bookmark Pins

During playback, a bookmark pin can be added to mark an important clip. The pin list can be retrieved from the playback screen

• Add Pin

During playback, click the button it to go to the following interface. See Figure 4-47. Add a name for the event and press OK.

Add Pin		
Mark Time	02-13-2017 11:28:19	)AM
Name		
Default	ОК	Cancel

Figure 4-47

#### • Playback Mark

In single-channel mode, click the Pin Event List button to go to the list interface. Double click on a file to begin playback.

Bookmark Pin Manager

Click the button on the Search interface to go to the Manager interface. See Figure 4-48.

Manager	
Channel Ch3 👻	
Start Time 02 - 14 - 2017 12 : 00 : 00 AM	
End Time 02 - 15 - 2017 12 : 00 : 00 AM	Search
2         Channel         Mark Time         Name           1         3         02-14-2017 09:31:41/41         1           2         3         02-14-2017 12:00:01F2         1	
Delete	Logout



#### Modify

Double click on an item, which will bring up a dialogue box to modify the pin name.

#### Delete

To remove a pin, check the box of a pin and then press Delete.

### 4.7.3 Snapshot Playback

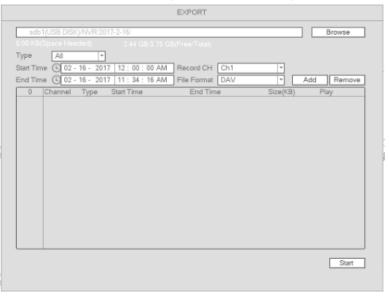
a) To view recorded snapshots, in the search interface, select Snapshot in the top right section and the interval

## 4.8 Export

#### 4.8.1 File Backup

In this interface, you can backup to a USB device.

- a) Connect a USB flash drive or an external HDD to a USB port on the unit.
  - b) Go to Main menu->Export as shown in Figure 4-49





- c) Select the backup device and then select the channel along with the file start time and end time.
- d) Click Add and the system will begin the search. All matched files will be listed. System automatically calculates the required and remaining capacity. See Figure 4-50.
- e) System will only backup files with the checkbox enabled before the channel name.
- f) When the system completes backup, there will be a prompt indicating successful operation.

nnel Type C C C	Start Time 02-16-17 11:32:23AM 02-16-17 11:32:21AM		1:33:07AM	Size(KB) 20056	Pla	ey.
C			1:33:07AM	20056		
	02-16-17 11:32:21AM				)	
C			1:33:07AM	26368	•	•
	02-16-17 08:04:11AM			404928	)	•
С	02-16-17 09:00:00AM		0:00:00.00	366480	)	<u>.</u>
					,	<u>.</u>
					)	<u>.</u>
					,	•
					,	•
C	02-16-17 11:32:21AM	/ 02-16-17 1	1:33:10AM	16640		t
	00000	C 02-16-17 10:00:00AM C 02-16-17 10:56:08AM C 02-16-17 11:21:41AM C 02-16-17 11:25:21AM	C 02-16-17 10:00:00AM 02-16-17 1 C 02-16-17 10:56:08AM 02-16-17 1 C 02-16-17 11:21:41AM 02-16-17 1 C 02-16-17 11:25:21AM 02-16-17 1	C         02-16-17         10:00:00AM         02-16-17         10:55:01AM           C         02-16-17         10:55:03AM         02-16-17         11:20:17AM           C         02-16-17         11:21:141AM         02-16-17         11:25:16AM           C         02-16-17         11:25:21AM         02-16-17         11:25:22AM	C         02-16-17         10:00:00AM         02-16-17         10:55:01AM         370832           C         02-16-17         10:56:08AM         02-16-17         11:20:17AM         360192           C         02-16-17         11:21:1A1AM         02-16-17         11:25:16AM         46784           C         02-16-17         11:25:12AM         02-16-17         11:25:22AM         2048	C         02-16-17         10:00:00AM         02-16-17         10:55:01AM         370832           C         02-16-17         10:56:08AM         02-16-17         11:20:17AM         360192           C         02-16-17         11:21:141AM         02-16-17         11:26:16AM         46784           C         02-16-17         11:25:21AM         02-16-17         11:26:22AM         2048

Figure 4-50

Note

- During the backup process, click on ESC to exit the current interface. However, the system will not terminate the backup process.
- The file name format is: Channel number+Record type+Time. In the file name, the date format is Y+M+D+H+M+S. File extension is .dav.

## 4.8.2 Import/Export

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

In Main menu->Setting->System->Import/Export, the configuration file backup interface is shown as below. See Figure 4-51.

		SETUP				
CAMERA		EVENT	STORAGE	G <sup>®</sup> SYSTEM	1	
General Display Digital Deterrent	Device Name Total Space	sdb1(USB DISK) 💌 3.75 GB	Refresh Free Space	2.43 GB		
Account Maintenance	Address	7		<u>.</u>		
Import/Export         Size           Default         FOUND.000						
Upgrade	Capture	.001 20161202120906 2.1_20160808 ? ivr2×_test				
	New Folder	Format Import	Export		Apply	

Figure 4-51

- Export: Please connect the USB backup device first and then go to the interface. Click Export and then there will be a corresponding "Config\_Time" folder. Double click the folder to view the backup configuration files.
- Import: Use this function to import the configuration files from a USB device to the unit. You need to select a folder first. The system will pop up a prompt if there is no configuration file under the selected folder. After a successful import, the system will reboot to activate the new setup.

Note:

- System will not open the config backup interface again if there is a backup operation already in process.
- System refreshes the device every time when you go to the config backup and sets 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 the Refresh button to see the newly added device.

## 4.8.3 Backup Log

a) Go to Main menu->Info->Log as shown in Figure 4-52.

SYSTEM INFO							
SYSTEM	<b>STATUS</b>		к 📄	LOG			
LOG	End Time 02 Type All 100 Time 88 2017-0 90 2017-0 91 2017-0 92 2017-0 93 2017-0 93 2017-0 94 2017-0 95 2017-0 96 2017-0 97 2017-0 98 2017-0 99 2017-0	2-16 08:54:21 2-16 08:54:21	00 : 00 AM 00 : 00 AM Event User logged in User logged of User logged of	<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168 ut<192.168	Play C		Search
	Page Up F	Page Down 1/11	(Current/Total)	[	Go To Bac		Page(s) Clear

#### Figure 4-52

- b) Select the log type under the drop-down menu and then set the start time/end time. Click Search to see log time and event information. Click III to view detailed log information.
- c) Select log items you want to save and then click the backup button. Select a folder to save the items to. Click Start to backup.

## 4.8.4 USB Device Auto Pop-up

When a USB device is inserted, the system can auto detect it and pop up the following interface. It allows you to conveniently backup files, log, and configuration or update the system firmware.

US	B DETECTED			
	Capacity:479.8	(USB DISK) 4 MB/479.86 MB(Fre	ee/Total)	
	File Backup	Log Backup	Config Backup	
[	System Upgrade			

Figure 4-53

## 4.9 Alarm

### 4.9.1 Alarm Detection

See Figure 4-54 4-55. There are three detection types: motion detection, tampering, and video loss.

#### 4.9.1.1 Motion Detection

Motion setup interface is shown in Figure 4-54

- Event type: Choose the Motion tab at the top
- Channel: Select a channel from the dropdown list to configure for motion
- Enable: Check the box here to enable motion detection for the selected channel.
- Region: Click the Setup button to set up the motion detection zone. Click and drag the mouse to define the zone and right click to exit.
- Sensitivity: The highest value is the most sensitive. This determines how easily motion alarm will be triggered.
- Anti-dither: This determines how long the motion alarm lasts. The maximum value is 600 seconds. For example, if the value is set to 10 seconds, the motion alarm will last for 10 seconds even if the actual motion event only lasts for a couple of seconds.
- Period: This is to set the motion detection schedule.
- Show message: System can pop up a local notification window when a motion event occurs.
- Alarm upload: System can upload the alarm signal to the network.

- Send email: System can send out a notification email when a motion event occurs.
- Record channel: Select the channel to record to once a motion event occurs.
- PTZ activation: PTZ cameras that are on the unit can be set to go to a specific preset when a motion event occurs.
- Delay: This is the post record time. The system can continue to record for the duration of the time that's specified after the motion alarm has ended. The value ranges from 10s to 300s.
- Sequence: Choose which channels that the unit will sequence through when a motion event occurs.
- Snapshot: Take a snapshot of the chosen channels when a motion event occurs.
- Voice Prompts: Select an audio file to play when a motion event occurs. Files must be added first through System->Digital Deterrent.

		SETUP		
CAMERA			STORAGE	SYSTEM
Video Alarm Notification	Channel	1	b Loss	
	Enable Region	Setup	Sensitivity 4	<b>_</b>
	Period Show Message Zecord Channe		Anti-dither 5	sec.
	PTZ Activation	Setup	Delay 10	sec.
	Snapshot		<b></b>	
	Default	Сору	OK	Cancel Apply

Figure 4-54

PTZ Activation			
CAM 1 None 👻 0	CAM 2	None	<b>~</b> 0
CAM 3 None 🔽 0	CAM 4	None	- 0
CAM 5 None 🔽 0	CAM 6	None	- O
CAM 7 None 🔽 0	CAM 8	None	- O
		OK	Cancel

Figure 4-55

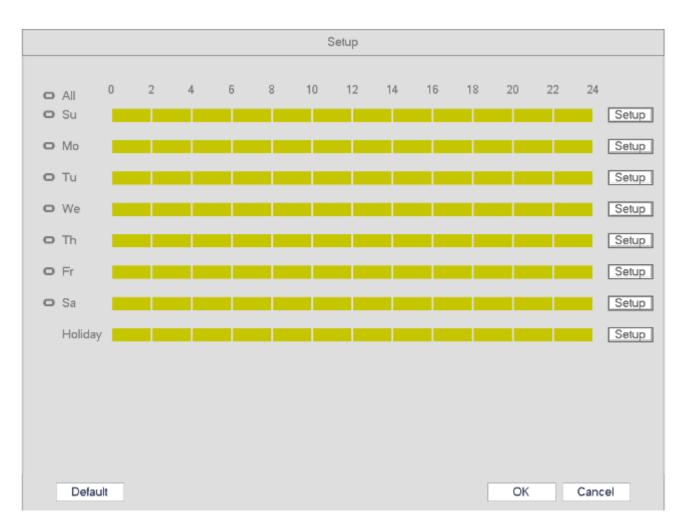


Figure 4-56

Time Period
Time Period         Current Date: Su         Time 1       00 : 00 - 24 : 00         Time 2       00 : 00 - 24 : 00         Time 3       00 : 00 - 24 : 00         Time 4       00 : 00 - 24 : 00         Time 5       00 : 00 - 24 : 00         Time 6       00 : 00 - 24 : 00         Time 6       00 : 00 - 24 : 00         Time 6       00 : 00 - 24 : 00         All       Su         Mo       Tu         We       Th         Fr       Sa         Holiday
Save

Figure 4-57

#### 4.9.1.2 Tampering

Note: This function is supported only for cameras that include a tampering detection function.

When a camera is tampered with (lens masking, color change, etc), the system can alert you to guarantee video continuity. Tampering setup interface is shown in See Figure 4-58.

• Sensitivity: The value range is from 1 to 6. Sensitivity is mainly related to brightness in the image.

#### Note:

• During tampering detection, motion detection and video loss functions are not active.

		SETUP			
CAMERA		EVENT	STORAGE	SYSTEM	
Video Alarm Notification	Motion Channel Enable Period	Tampering Video	Loss		
		Alarm Upload Alarm Upload Setup 1 2 3 1 2 3	Send Email Delay 10	sec.	
	Default	Сору	ОК	Cancel Appl	y

Figure 4-58

#### 4.9.1.3 Video Loss

Note: This function is supported only for cameras that include a video loss detection function. In Figure 4-54, select the video loss tab. The interface is shown in Figure 4-59. This function allows you to be notified when video loss occurs.

		SETUP			
CAMERA			STORAGE	SYSTEM	
Video Alarm Notification	Motion T Channel Enable	ampering Video	Loss		
	Period Show Message Record Channe PTZ Activation Sequence Snapshot Voice Prompts		Send Email Delay 10	sec.	
	Default	ору	ОК	Cancel Apply	·

Figure 4-59

## 4.9.2 Notification

There are two types: Disk/Network.

- ♦ HDD: HDD error, no HDD, no space. See Figure 4-60.
- ♦ Network: Disconnect, IP conflict, MAC conflict. See Figure 4-61.
- Show message: system can pop up the message in the local screen to alert you when an alarm event occurs.
- Send email: System can send out an email notification to alert you when an alarm event occurs.
- Voice Prompts: Select an audio file to play when a motion event occurs. Files must be added first through System->Digital Deterrent.

		SETUP		
CAMERA		EVENT	STORAGE	SYSTEM
Vīdeo Alarm	HDD	Network		
Notification	Event Type Enable	No HDD 💌		
	Show Messa	age	Send Email	
	Voice Prom	pts File Name <u>None</u>	<u> </u>	
			ОК	Cancel Apply

Figure 4-60

		SETUP		
CAMERA			STORAGE	<b>⇔</b> <sup>©</sup> SYSTEM
Video Alarm Notification	HDD Event Type Enable Show Messa	Network Disconnect	Send Email	
			ОК	Cancel Apply

Figure 4-61

# 4.10 Network

4.10.1.1 TCP/IP

The interface is shown in Figure 4-62.

- IP Version: IPv4 and IPv6 are supported.
- MAC address: Shows the MAC address of the unit.
- IP address: Shows the current IP address. If DHCP is disabled, a static IP address can be entered here.
- Default gateway: Shows the current gateway. If DHCP is disabled, a gateway can be entered manually. Note that the IP address and the default gateway must be in the same subnet.
- DHCP: If this option is enabled and the unit is on network with DHCP capability, the unit will automatically have an IP address assigned.
- MTU: This sets the MTU value of the network adapter. This determines the maximum size of a packet in any transmission. The value can range from 1280-1500 bytes. The default value is 1500. The following MTU values are for reference only.

  - ♦ 1492: Recommend value for PPPoE.
  - $\diamond$  1468: Recommend value for DHCP.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.
- LAN download: If the PC and the NVR are on the same local network, when downloading recordings to the PC, this option will speed up the download. The download speed is 1.5X or 2.0X of the normal speed.

After completing setup, click the save button and the system will return to the previous menu.

		SETUP		
CAMERA		4 EVENT	STORAGE	SYSTEM
TCP/IP Connection PPPoE DDNS	MTU IP Version	1500 LAN Download		
UPnP IP Filtering Ernail FTP Multicast	MAC Address IP Address Subnet Mask Default Gateway Preferred DNS Alternate DNS	5c:f2:07:38:00:09           172         12         88           255         255         0         .           172         12         0         .           8         8         8         .           8         8         .         4	16 DHC 0 1 8 4	Ρ
	Default		Save	Cancel Apply

Figure 4-62

#### 4.10.1.2 Connection

The connection setup interface is shown in Figure 4-63.

- Max connection: system supports a maximum of 128 users. Performance varies depending on the network bandwidth.
- 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 will reboot after any of the above ports are changed. Please make sure the port values do not conflict.

SETUP						
		EVENT	STORAGE	SYSTEM		
TCP/IP Connection PPPoE DDNS UPnP IP Filtering Email FTP Multicast	Max Connection TCP Port UDP Port HTTP Port HTTPS Port RTSP Port	128 37777 37778 80 443 554	(0~128) (1025~65535) (1025~65535) (1~65535) (1~65535) ■ Enable (1~65535)			
	Default		ОК	Cancel Apply		

Figure 4-63

4.10.1.3 PPPoE

PPPoE interface is shown in Figure 4-64.

Input "PPPoE name" and "PPPoE password" you get from your ISP (Internet service provider). Save and reboot to activate the configuration.

		SETUP		
CAMERA		A EVENT	STORAGE	SYSTEM
TCP/IP Connection	Enable			
PPPoE	User Name			
DDNS UPnP	Password IP Address	0.0.0.0		
IP Filtering Email		0.0.0.0	<u> </u>	
FTP				
Multicast				
	Default		OK	Cancel Apply

Figure 4-64

#### 4.10.1.4 DDNS

DDNS setup interface is shown in Figure 4-65.

Check the Enable box and click on Apply. The DDNS address will be "specoXXXXXX.specoddns.net" with "XXXXXX" being the last 6 digits of the unit's MAC address. When connected, the status field will show "connected".

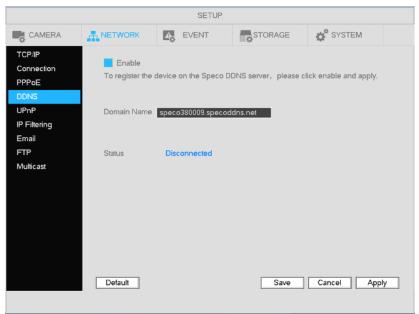


Figure 4-65

### 4.10.1.5 UPnP (EZ Network)

UPnP is used to establish necessary connections between the device and the router to provide access to the internet. Please make sure that the default gateway is set under the TCP/IP section. See Figure 4-66 for the UPnP interface.

- Enable: Check to enable UPnP.
- Status: Displays the UPnP connection status.
- LAN: Value of the default gateway.
- WAN: Public IP address of the router.
- Port Mapping List
  - ♦ Service name: Default list. More can be defined by the user.
  - ♦ Protocol: Protocol type
  - ♦ Internal port: Port that has been mapped in the router.
  - ♦ External port: Port that has been mapped locally.
- Default: Press Default and then Apply to restore the default list.
- Add: Used to add new items to the list
- Delete: Used to remove items from the list. Make sure the checkbox for the item is selected first.

Double click an item to view or change the mapping information. See Figure 4-67.

### Important:

When setting the external port, please use a port in the range 1024~5000. Do not use ports 1~1023 to avoid conflicts.

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

		SETUP		
CAMERA		EVENT	STORAGE	SYSTEM
CP/IP Connection	Enable			
PPoE	Status Disabl	e		
DNS	LAN 0			
PnP				
	WAN 0 :	0.0.0		
P Filtering	Port Mapping I	List		
mail	7 2 Se	rvice Name Protocol	Internal Port	External Port
TP	1 1 1		80	80
	2 🛛 TC		37777	37777
lulticast	3 🖸 UC	DP UDP	37778	37778
	4 🗵 R1	ISP UDP	554	554
	5 🛛 R1	TSP TCP	554	554
	6 🖂 SM	IMP UDP	161	161
	7 🗹 H1	TTPS TCP	443	443
	Add	Delete	Save	Cancel Apply

Figure 4-66

PORT INFO	
Service Name	
Protocol	TCP
Internal Port	1
External Port	1
	OK Cancel

Figure 4-67

4.10.1.6 IP Filtering

IP filtering interface is shown in Figure 4-68. A maximum of 64 IP addresses are supported. Both IPv4 and IPv6 are supported.

Trusted Sites means that only the IP addresses listed can access the unit. Blocked Sites means that the listed IP addresses cannot access the unit.

SETUP						
CAMERA		EVENT	STORAGE	🔅 SYS	STEM	
TCP/IP Connection	Enable 🛡	Trusted Sites O Bloc	cked Sites			
PPPoE DDNS UPnP	Start Address	End Ad	dress	Edit	Delete	
IP Filtering Email						
FTP Multicast						
	Add					
	Default		OK	Cancel	Apply	

Figure 4-68

Add	
IP Section	-
	OK Cancel

Figure 4-69

#### 4.10.1.7 Email

The email interface is shown below in Figure 4-70.

- SMTP server: Enter the mail server information.
- Port: Enter the corresponding port for the mail server.
- User name: Enter the user name of the email account.
- Password: Enter the password of the email account.
- Sender: Enter sender email address that will be displayed in the emails.
- Subject: A maximum of 32 characters are supported for the subject.
- Receiver: Enter the recipient's emails address. A maximum of 3 email addresses are supported.
- Encryption Type: Choose between SSL and TLS.
- Interval: This is to set how often the email gets sent. The range is from 0 to 3600 seconds. 0 means there is no interval.
- Check Status: This function allows the system to send out a test email to check the connection.
- Interval: This is for the Check Status interval.

Please note that system will not send out the email immediately when an alarm occurs. The system sends out the email according to the interval that's specified. The purposed of this is to reduce heavy loads on the email server if/when there are too many false alarms occurring.

	SETUP
CAMERA	NETWORK & EVENT STORAGE SYSTEM
TCP/IP	
Connection	Enable
PPPoE	SMTP Server MailServer Port 25
DDNS	Anonymous
UPnP	User Name Password
IP Filtering	
Email	Receiver
FTP	Sender
Multicast	Subject NVR ALERT Z Attachment
	Encryption Type NONE -
	Interval 120 sec.
	Check Status
	Interval 60 Minute
	Test Default OK Cancel Apply

Figure 4-70

#### 4.10.1.8 FTP

The FTP interface is shown in Figure 4-71.

Use this section to enter the FTP server address, port, and remote directory. If a remote directory is not specified, the system will automatically create folders according to the IP, time, and channel.

File length is the upload file size. If the specified value is larger than the actual file size, the system will upload the entire file. When the value is 0, the system will upload all corresponding files.

After specifiying the channel and weekday, two periods can be set for each channel according to the desired event type (sensor, motion, or continuous).

Click the Test button to test the FTP connection.

	SETUP
CAMERA	NETWORK CEVENT SYSTEM
TCP/IP	
Connection	Enable
PPPoE	Server IP 0 . 0 . 0 . 0 Port 21
DDNS	User Name
UPnP	Password Anonymous
IP Filtering	Remote Directory File Length 0 M
Email	Image Upload Interval 2 sec.
FTP	
Multicast	
	Channel 1
	Weekday Tu - Sensor Motion Continuous
	Time Period 1 00 : 00 - 24 : 00
	Time Period 2 00 : 00 - 24 : 00
	Test
	Default OK Cancel Apply

Figure 4-71

### 4.10.1.9 Multicast

Multicast setup interface is shown in Figure 4-72.

		SETUP			
CAMERA		EVENT	STORAGE	SYSTEM	
TCP/IP Connection PPPoE DDNS UPnP IP Filtering Email FTP Multicast		39 · 255 · 42 · 42 666 (1025~)	(224.0.0.0~239.255.; 65000)	255.255)	
	Default		ОК	Cancel Apply	

Figure 4-72

Refer to the following 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.

Other than the addresses mentioned above, other addresses are permitted. For example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

## 4.10.2 Network Test

4.10.2.1 Network Test

Go to Main menu->System Info->Network->Test shown in Figure 4-73.

- Destination IP: Enter a valid IPV4 address or domain.
- Test: The test results can display average delay and packet loss rate. View the network status.
- Network Analyzer Backup: Insert a USB drive and click the Refresh button to view the device. Use the dropdown list to select the device. Click the Browse button to select the path.

Click the button **I** on the right panel to begin the network packet analyzer. At this point, all network

operations will be backed up. Please go back to the interface and click **I** to stop. System will save the packets to the specified path.

		SYSTEM	NFO	
SYSTEM	<b>A</b> STATUS		LOG	
Users Online Network Test	Test Destination IP Test Result		][	Test
	Network Analy: Device Name Address	sdb1(USB DISK)	▼ Refresh	Browse
	NameLAN1	IP 192.168.1.108	Packet Size 0KB	Packet Backup

Figure 4-73

Go to Main menu->Info->Network->Load, shown in Figure 4-74. View statistics of the device network adapter. Connection status is shown as offline if disconnected.

				SYSTEM	/I INFO			
SYSTEM	Δ	STATUS		NETWOR	K 🗎	LOG		
sers Online					_		_	
etwork		LAN1		Address		IP Address 192.168.1.108	Type	MTU 1500
est		DAINT	30.Er		.D3 Succeed	192.100.1.100	Ethemet	1500
		16 Mb/S						
		· · · · · · · · · · · · · · · · · · ·						_
		0						
		LAN1	Ser	nd Speed	948 Kb/S	Receive	Speed 15.3	39 Mb/S

Figure 4-74

## 4.11 HDD Setup

View HDD information such as type, status, total capacity, record time, etc.

### 4.11.1 Format

a) Go to Main menu->Setup->Storage->Manage HDD shown in Figure 4-75.

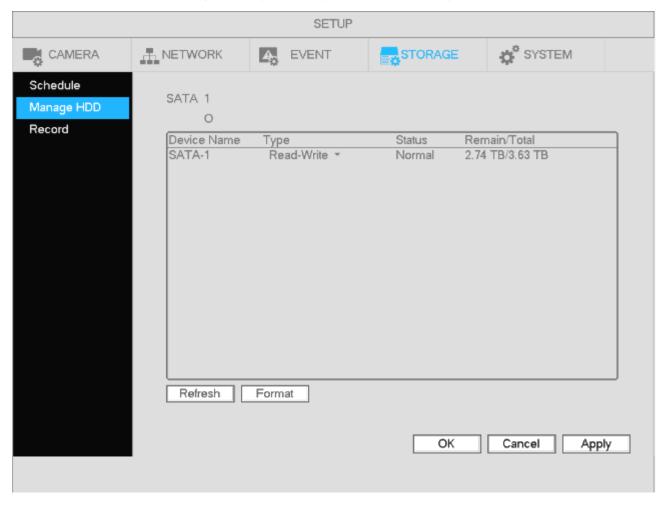


Figure 4-75

- b) Select the HDD and then select Format.
- c) Click the OK button to complete the format. The system will need to restart.

Important: This will erase all recorded data on the system. This option will not reset any system settings.

## 4.11.2 HDD Information

Shows hard drive type, total space, free space, and status. See Figure 4-76. Go to Main menu->System Info->System->HDD Info

If the drive is damaged, the system will show "?".

				SYSTE	M INFO						
SYSTEM	STATU	S	E.N	IETWOR	K		LOG				
HDD Info											
Record Info	1*	Device	Name	Туре	Fre 2 7/	e Spac	e/Total	Space	Status	S.M.A.R	.Т
Bitrate	1*	SATA-	1	Read/W					Normal	2	
Version											

Figure 4-76

Click the icon under the S.M.A.R.T column to bring up the interface is shown in Figure 4-77.

Port	1					
Vlodel	WDCWD4NPURX-64TPFY0					
Serial N	lo. WD-WCC4E7DEEFKZ					
Status	ок					
Describ	ie:					
Smart I	D Attribute	Threshold	Value	Worst	Status	
1	Read Error Rate	51	200	200	OK	
3	Spin Up Time	21	232	192	OK	
4	Start/Stop Count	0	100	100	OK	
5	Reallocated Sector Count	140	200	200	OK	
7	Seek Error Rate	0	200	200	OK	
9	Power On Hours Count	0	98	98	OK	
10	Spin-up Retry Count	0	100	253	OK	
11	Calibrate Retry Count	0	100	253	OK	
12	Power On/Off Count	0	100	100	OK	
192	Power-Off Retract Cycle	0	200	200	OK	
193	Load/Unload Cycle Count	0	200	200	OK	
194	Temperature	0	113	97	OK	
196	Reallocated Event Count	0	200	200	OK	
197	Current Pending Sector Count	0	200	200	OK	
198	Off-line Scan Uncorrectable Count	0	100	253	OK	
199	Ultra ATA CRC Error Rate	0	200	200	OK	
200	Write Error Rate	0	100	253	OK	

Figure 4-77

## 4.12 General System Setup

## 4.12.1 Device Setup

Go to Main menu->Setup->System->General for the general setup interface.

- Pack duration: Recording duration for a single file. The value ranges from 0 to 120 minutes. Default value is 60 minutes.
- Device Name: Specify a name for the unit. This name can be used to differentiate between multiple units.
- Language: Choose between English, Spanish, and French.
- Video standard: NTSC
- HDD Full: Choose between two options stop recording or overwrite.
- Instant Playback: Within live view, a single channel can be chosen for playback. The value ranges from 5 to 60 minutes.
- Auto logout: If a logged in user remains inactive for the duration of the specified time, the user will be logged out. Value ranges from 0 to 60 minutes.
- Navigation bar: Check to display the navigation bar on the interface.
- Camera Time Sync: The system will synchronize the time between the NVR and the IP cameras at the intervals specified.
- EZ Setup: If enabled, the system will go to the startup wizard directly when the system is rebooted. Otherwise, it will go to the login interface.
- Mouse sensitivity: Sets the double-click speed of the mouse.

		SETUP		
CAMERA		EVENT	STORAGE	SYSTEM
General	General Dat	e&Time Holi	day	
Display Digital Deterrent Account	Device Name Language Video Standard			
Maintenance Import/Export	HDD Full Pack Duration	Overwrite -	] ] ]M(======	
Default Upgrade	Instant Playback	60 5	Minute Minute	
	Auto Logout Camera Time Sync Vavigation Bar	L	Minute Hours	
	Mouse Sensitivity S	ilow	- Fast	
	Default		Save	Cancel Apply

Figure 4-78

## 4.12.2 Date and Time

Go to Main menu->Setup->System->General, shown in Figure 4-79

- System Time: Set the time of the system
- Date format: There are three types: YYYY-MM-DD, MM-DD-YYYY, or DD-MM-YYYY.
- Date separator: There are three types.
- DST: Set the start and end dates for Daylight Saving Time. DST must be enabled to use this function.
- Time format: Choose between 24-hour mode or 12-hour mode.
- NTP: Specify an NTP server to synchronize the time.

#### Note:

Do not modify the system time unless it is important. Before modification, please stop recording.

		SETUP		
		A EVENT	STORAGE	SYSTEM
General Display Digital Deterrent Account Maintenance Import/Export Default Upgrade	General Date Format Date Separator System Time DST DST Type Start Time End Time	MM DD YYYY - 1	oliday Fime Format 12-HOUR 5: 04PM GM	
	NTP Server Port Interval	pool.ntp.org 123 60 M	inute Save	anual Update

Figure 4-79

## 4.13 Device Maintenance and Manager

## 4.13.1 System Info

4.13.1.1 Version

Go to Main menu->System Info->System->Version, shown in Figure 4-80.

SYSTEM       Image: STATUS       Image: Status			SYSTEM INFO	>	
Record Info         Device Model         N8NXL           Bitrate         Record Channel         8           Firmware Version         3.200.0000.0           Build Date         02-16-2017           Web         3.1.0.1083           SN         2K02B52PAR00109           Onvil Version         2.4.1           Phone         1-800-645-5516	SYSTEM	STATUS		LOG	
	Record Info Bitrate	Record Channel Firmware Version Build Date Web SN Onvil Version Phone	8 3.200.0000.0 02-16-2017 3.1.0.1083 2K02B52PAR00109 2.4.1 1-800-645-5516		

Figure 4-80

#### 4.13.1.2 Bitrate

See Figure 4-81, for information on cameras connected to the unit.

		SYSTEM INF	0	
SYSTEM		NETWORK	LOG	
HDD Info Record Info Bitrate Version	2 192	solution Kb/S 20*1080 3210 20*1080 4063 - 598	Wave	

Figure 4-81

#### 4.13.1.3 Online User

Manage online users connected to the NVR. See Figure 4-82.

Click the button **I** to disconnect or block one user. Note that only an administrator can perform this function. The NVR detects when there are any newly added or deleted users every five seconds and then refreshes the list automatically.

		SYSTEM IN	FO				
SYSTEM	STATUS			LOG			
Users Online Network Test	User Name admin Block Time 60	IP Address 192.168.56.16	<b>1</b> ∕2	User Log 2017-2-1	in Time 5 12:50:32	Block for	

Figure 4-82

4.13.1.4 Remote Device Information

Go to Main Menu->System Info->Status to view the channel status of the remote device, connection log, etc. See Figure 4-83.

		SYSTEM INF	0	
SYSTEM		NETWORK	LOG	
Status	Device Status No HDD HDD Error HDD No Space IP Conflict Net Offline MAC Conflict	Devid	e(NIC No.:1,HDD No.:1)	
	Channel Status	Chan	nel(CH:8,External Alarm:0)	
	Video Loss Tampering Motion Sensor Camera Offline			

Figure 4-83

#### 4.13.1.5 Camera

4.13.1.5.1 Status

View the IP Camera status of connected channels. See Figure 4-84.

- Connection status: Connection success.
   Connection failed.
- Refresh: Click to refresh the status of the connected channels.

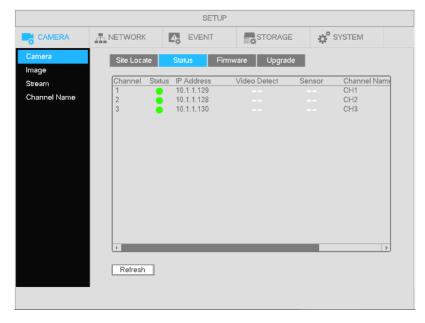


Figure 4-84

4.13.1.5.2 Firmware View camera information. See Figure 4-85.

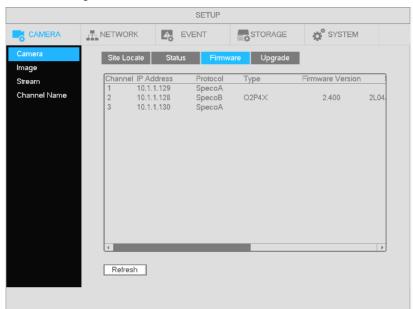


Figure 4-85

## 4.13.2 Log

Go to Main Menu->System Info->Log, shown in Figure 4-86.

• Start time/End time: Please select the start and end time and then click search. The log files will be displayed in a list. The system can display 100 logs on one page. Up to 1024 log files can be saved. Use page up/down buttons on the interface to view more.

#### Tips

Double click on a log item to view detailed information. See Figure 4-87.

	SYS"	TEM INFO		
SYSTEM A STA				
LOG Start T End T Type	ime 02 - 17 - 2017 1 All	2 : 00 : 00 AM 2 : 00 : 00 AM		Search
100	Time 2017-02-16 08:54:21	Event User logged in<192.168	Play Det	
89	2017-02-16 08:54:21	User logged out<192.16	E E	3
90	2017-02-16 08:54:21	User logged in<192.168		3
91	2017-02-16 08:54:21	User logged out<192.16		
92	2017-02-16 08:54:21	User logged in<192.168	E	1
93	2017-02-16 08:54:21	User logged out<192.16		
94	2017-02-16 08:54:21	User logged in<192.168	E	
95	2017-02-16 08:54:21 2017-02-16 08:54:21	User logged out<192.16	- E	
96	2017-02-16 08:54:21	User logged in<192.168 User logged out<192.16	E	
97	2017-02-16 08:54:21	User logged in<192.168		
99	2017-02-16 08:54:21	User logged out<192.16	Ē	
33		User logged in < 192.168		
	2011-02-10 00.04.21	Gael logged in 4152. rov		
Pag	e Up Page Down 1	/11(Current/Total)	Go To	1 Page(s)
			Backup	
			Ducida	
18				

Figure 4-86

	Detailed Information	
Log Time	2017-02-16 08:54:21	
Log Type	User Management>User logged out	
IP Address User	192.168.56.16 admin	
Previous Next	ОК	

Figure 4-87

## 4.13.3 Digital Deterrent

Digital Deterrent can be used to play an audio file when an alarm occurs.

#### 4.13.3.1.1 File Manage

Add audio files, listen to an audio file, or rename/delete audio files. See Figure 4-88.

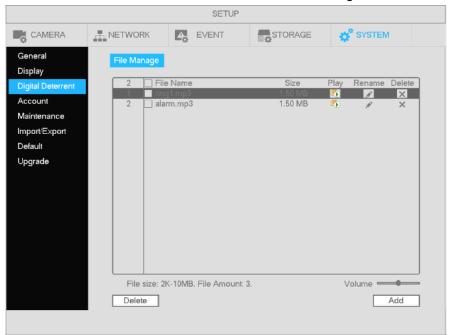


Figure 4-88

Click the Add button, to add an audio file via USB. Supported audio formats are MP3 and PCM. See Figure 4-89.

		Add			
Device Name Total Space	sdb1(USB DISK) * 3.75 GB	Refresh Free Space 2.37	GB		
Address	/music/				
Name			Size	Туре	Delete
□ <mark>▶</mark> □ ⊉ring1.m	n3		1.50 MB	Folder File	×
alarm.m			1.50 MB	File	Â

Figure 4-89

## 4.13.4 Account

See Figure 4-90. This section is used for:

- 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, a space in front of or at the back of the string is invalid. There can be a space in the middle. The string can include letters, numbers, underline, dash, and dot.
- The default user amount is 64 and the default group amount is 20. There is no limit to group or user amount.
- For group or user management, there are two levels: admin and user.
- There are two default users: admin and hidden user "default".
- Hidden user "default" is for system interior use only and can not be deleted. When there is no user logged in, the hidden user "default" automatically logs in. Some rights such as monitor can be set for this user so that cameras can be viewed without login.
- One user should belong to one group. User rights can not exceed group rights.
- Reusable function: this function allows multiple users to use the same account to login.

			SETUP				
CAMERA		DRK	EVENT	ST	ORAGE	<b>O</b> SYSTEM	
General Display	Modify	<mark>/ User</mark> Modify	/ Group Verific	ation			
Digital Deterrent	2	User Name	Group Name	Modify	Delete	Description	
Account	1 2	admin default	admin user	1	×	admin 's account default account	
Maintenance				£*			
Import/Export							
Default							
Upgrade							
	4	_	_				
						Add User Apply	·

Figure 4-90

#### 4.13.4.1.1 Add User

Click Add User to go to the interface is shown in Figure 4-91.

Enter the user name, password, and select the group it belongs to from the dropdown list. Then check the corresponding rights for the new user.

	Add Us	er	
User Name Password		Reusable Confirm Password	
Description Group admin  User Access			
PTZ Storage	<ul> <li>✓ System</li> <li>✓ Info</li> <li>✓ Event</li> <li>✓ Shutdown Device</li> </ul>	<ul> <li>Offline User</li> <li>Manual Control</li> <li>Network</li> </ul>	<ul> <li>✓ Default&amp;Upgrade</li> <li>✓ Backup</li> <li>✓ Camera</li> </ul>
	Save	Cancel	

Figure 4-91

#### 4.13.4.1.2 Modify user

	Modify	User	
User Name admin	<b>~</b>		
Modify Password 📃		Reusable 💹	
Old Password		User Name	
New Password		Group	nin 🔻
Confirm Password		Description adr	nin 's account
User Access			
System Playback	Live View		
🗹 User Account	🗹 System	🗹 Offline User	🗹 Default&Upgrade
	🗹 Info	🗹 Manual Control	🗹 Backup
PTZ	Event	🗹 Network	🗹 Camera
Storage			
	Shutdown Device		

Figure 4-92

4.13.4.1.3 Change Password

In Figure 4-92, check the Modify password box. Enter the old password and then enter the new password twice to confirm.

The password can contain 32-bytes. A space at the beginning or at the end of the password is invalid.

#### 4.13.4.1.4 Add/Modify Group

In Figure 4-90, click the Group button. See Figure 4-93.

			SETU	JP		
		rk 🗛	EVENT		STORAGE	SYSTEM
General Display	Modify	User Modity	Group V Modify	erilication Delete	Description	
Digital Deterrent Account Maintenance	1 2	admin user	I III III III	××	administrator g user group	roup
Import/Export Default Upgrade						
						Add Group Apply

Figure 4-93

Click the Add Group button. See Figure 4-94. Enter a group name and a description if necessary. Select the appropriate rights for the group.

		Add C	âroup	
Des	oup Name			
	System Playbac All User Account PTZ Storage Clear Log	<ul> <li>Live View</li> <li>System</li> <li>Info</li> <li>Event</li> <li>Shutdown Device</li> </ul>	<ul> <li>Offline User</li> <li>Manual Control</li> <li>Network</li> </ul>	<ul> <li>✓ Default&amp;Upgrade</li> <li>✓ Backup</li> <li>✓ Camera</li> </ul>
		Save	Cancel	

Figure 4-94

#### 4.13.4.1.5 Verification

		SET	UP	
CAMERA		4 EVENT	STORAGE	SYSTEM
General	Modify User	Modify Group	/erification	
Display Digital Deterrent	Successfully se	et. Please delete it	first if you want to reset sec	urity question again.
Account	Question 1	/hat is your mothe	r's maiden name?	~
Maintenance Import/Export	American			
Default	Answer			H22
Upgrade	Question 2	/hat is your favorite	hobby?	~
	Answer			
			[	Set Delete

See Figure 4-95. If a password is lost, the security questions can be used to reset the password.

Figure 4-95

## 4.13.5 System Upgrade

4.13.5.1 Local Upgrade

To upgrade the system firmware, go to Main menu->Setup->System Info->Upgrade. See Figure 4-96.

- a) Insert USB drive that contains the upgrade file.
- b) Follow the direction on the screen.

CAMERA Image: NETWORK     General   Display   Digital Deterrent   Account   Maintenance   Import/Export   Default   Upgrade   Upgrade			SETUP			
Display       System Upgrade         Digital Deterrent       Please insert a USB flash drive and click "System Upgrade" and then "Upgrade".         Account       Select the applicable file and press "Start" to initialize the firmware update. Please do not shut down the device while it's upgrading.         Maintenance       Import/Export         Default       Upgrade	CAMERA		A EVENT	STORAGE	SYSTEM	
	Display Digital Deterrent Account Maintenance Import/Export Default	Please insert a Select the appli- not shut down t	USB flash drive and cl cable file and press "{	Start" to initialize the firm		D

Figure 4-96

## 4.13.6 Factory Default

To perform a factory default, go to Main menu->Setup->System->Default. See Figure 4-97. Highlight the applicable boxes to reset the corresponding functions.

- All
- Camera
- Network
- Event
- Storage
- System

Note: this will not erase recorded data. In order to erase recorded data, the HDD must be formatted.

		SETUP		
CAMERA		4 EVENT	STORAGE	SYSTEM
General Display	Default			
Digital Deterrent	All 🗧	2		
Account	Camera 🗧			
Maintenance	Network			
Import/Export	Event			
Default	Storage			
Upgrade	System S	4		
	Factory Reset	]	OK	Cancel Apply

Figure 4-97

## 4.13.7 Maintenance

Set up auto-reboot time and auto-delete of old files. See Figure 4-98.

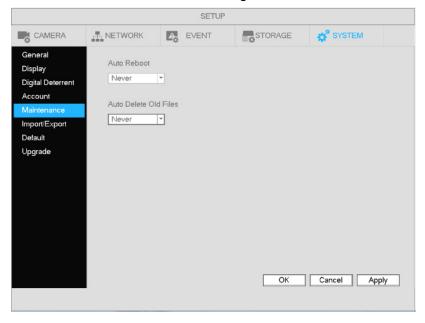


Figure 4-98

## 4.13.8 Logout /Shutdown/Restart

Go to Main Menu->Operation->Shutdown, as shown in Figure 4-99.

- Shutdown: System shuts down and turns off power.
- Logout: Logs out the current user.
- Restart: Reboot device.



Figure 4-99

# 5 Web Operation

## 5.1 General Introduction

The NVR can also be accessed through a web browser, allowing for live view, playback, system setup, and PTZ controls.

## 5.1.1 Log in

Before accessing the device on a web browser, make sure that the device is connected to the network and that it has a valid IP address.

Open Internet Explorer and enter the NVR IP address in the address column.

See Figure 5-1.

🏉 Blank Page - Windows Internet Explorer			
OO V B about:blank		💌 😽 🗙 baidu	P -
😭 🏟 🍘 Blank Page		🟠 🔹 🗟 👘 🖶 Page	e 🔹 🍈 Tools 🔹 🎽
	Enter IP address here.		
		🚱 Internet	
		internet	🔍 100% 🔹

Figure 5-1

There will be a prompt to install the web plug-in. Accept to install the plug-in.

If it fails to install the plug-in, please modify the browser settings as follows. See Figure 5-2. ActiveX controls must be enabled.

Internet Options	Security Settings - Internet Zone
General Security Privacy Content Connections Programs Advanced	Settings
Select a zone to view or change security settings.	Disable
	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.	Download unsigned ActiveX controls (not secure)     Disable (recommended)     Enable (not secure)     Prompt
Security level for this zone Allowed levels for this zone: Medium to High Medium-high	<ul> <li>Initialize and script ActiveX controls not marked as safe for s</li> <li>Disable (recommended)</li> <li>Enable (not secure)</li> <li>Prompt</li> </ul>
- Appropriate for most websites     - Prompts before downloading potentially unsafe     content     - Unsigned ActiveX controls will not be downloaded	Run ActiveX controls and plug-ins
Custom level         Default level           Reset all zones to default level	*Takes effect after you restart Internet Explorer          Reset custom settings         Reset to:       Medium-high (default)         Reset to:       Reset
OK Cancel Apply	OK Cancel

Figure 5-2

After installation, the interface is shown as below. See Figure 5-3.

speco technolo		
User Name:	admin	
Password:		
	• LAN O WAN	

Figure 5-3

Enter the user name and password. Choose between LAN and WAN modes. If accessing from the same local network, choose LAN. If accessing over the internet, choose WAN.

## 5.2 LAN Mode

For the LAN mode, after logging in, the main window will show. See Figure 5-9.

This main window can be divided into the following sections.

- Section 1: there are six function tabs at the top: Live View, Playback, Setup, Sensor, Setup, System Info, and Logout.
- Section 2: The left menu pane shows all channels that are connected in the NVR currently. For each channel, main stream or sub stream can be chosen for viewing. Refer to Figure 5-4. To select the stream, hover the mouse over the channel and click on the pulldown arrow.

Channel	G
1	
2 2	
3 3	
4 4	
5	
6	

Figure 5-4

 Section 3: The Open All button enables/disables live view for all channels. Selection can be made for main stream or sub stream. See Figure 5-5.

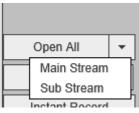


Figure 5-5

• Section 4: Start Talk button.

Enable two-way audio. Click the pulldown arrow to select the mode. There are four options: DEFAULT, G711a, G711u, and PCM. See Figure 5-6.

	-	
	DEFAULT	ľ
	G711a	
	PCM	
	G711u	

Figure 5-6

• Section 5: Click Instant Record to begin manual recording. See Figure 5-7. Click again to stop.

Instant Record

Figure 5-7

#### • Section 6: Local Play

Recorded data that's saved on the PC can be played back.

Click the local play button and choose the directory and file where the saved data is located. File format is .dav. See Figure 5-8.

	is PC → Documents	~ Ö	Search Docume	nts
Organize 👻 New folde	r		[	
ConeDrive	Name	D	ate modified	Туре
This PC	Bluetooth Exchange Folder	3,	/17/2014 11:36 AM	File folder
	Fiddler2	1	1/1/2016 4:49 PM	File folder
Desktop	SecureGuard	1,	/24/2017 11:32 AM	File folder
Downloads Music  Pictures Videos Local Disk (C:) HP_TOOLS (E:) HP_RECOVERY (				
	<			

Figure 5-8

- Section 7: PTZ operation panel. Please refer to chapter 5.4 for detailed information.
- Section 8: Image setup and alarm setup.

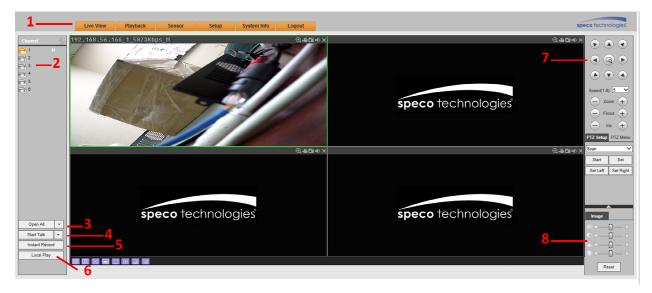


Figure 5-9

## 5.3 Live View

Click on a channel to view the image.

On the top left corner of the channel, view the following information: device IP(172.11.10.11), channel number(1), camera bitrate(2202Kbps) and stream type(M=main stream, S=sub stream). See Figure 5-10.

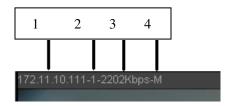


Figure 5-10

On the top right corner, there are five function buttons. See Figure 5-11.

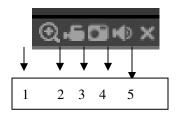


Figure 5-11

- 1: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. Right click to restore the image.
- 2: Record: Click to begin local recording. This button will be highlighted. Go to the system folder C:\RecordDownload to view the recorded file.
- 3: Snapshot: Take a snapshot. All images are saved in C:\PictureDownload (default).
- 4: Audio :Turn audio on/off
- 5: Close the channel live view

## 5.4 PTZ

There are eight direction keys for controlling PTZ. In the middle of the eight direction keys, there is a 3D intelligent positioning key.

Click the 3D intelligent positioning key to go to a single screen mode. Drag the mouse on the screen to automatically pan, tilt, and zoom to the area that was identified.

For PTZ setup, refer to the following table:

Parameter	Function
Scan	<ul> <li>Select Scan from the dropdown list.</li> </ul>
	<ul> <li>Click Set to set the scan left and right limits.</li> </ul>
	• Use direction buttons to move the camera to the desired location
	and then click the left limit button. Move the camera again and
	then click the right limit button.
Preset	<ul> <li>Select Preset from the dropdown list.</li> </ul>
	<ul> <li>Move the camera to the desired location and enter the preset</li> </ul>
	value. Click Add to add the preset.
Tour	Select Tour from the dropdown list.
	• Enter a preset value in the column. Click Add to add one preset
	to the tour.
	<ul> <li>Repeat the above procedure to add more presets to the tour.</li> </ul>
	Click Start to star the tour.
Pattern	<ul> <li>Select Pattern from the dropdown list.</li> </ul>
	<ul> <li>Enter a pattern value and then click Start button to begin</li> </ul>
	recording the PTZ movement pattern. Then click Add to set the
	pattern.

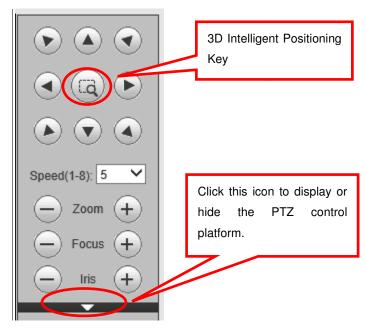


Figure 5-12

## 5.5 Image/Alarm-out

Select a channel and click on Image as shown in Figure 5-13.

### 5.5.1 Image

For supported camera, brightness, contrast, hue and saturation can be adjusted. Click on the Reset button to restore system default setup.

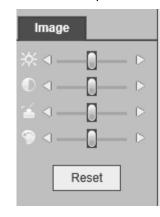
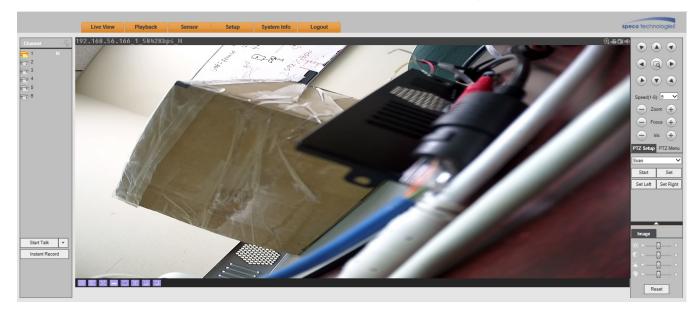


Figure 5-13

## 5.6 WAN mode

In WAN mode, after you logged in, the interface is shown as below. See Figure 5-14.





Please refer to the following for differences between LAN and WAN login.

1) In the WAN mode, system opens the main stream view of the first channel by default. The open/close button on the left pane is disabled.

2) You can select different channels and different viewing modes at the bottom of the interface. See Figure 5-15.

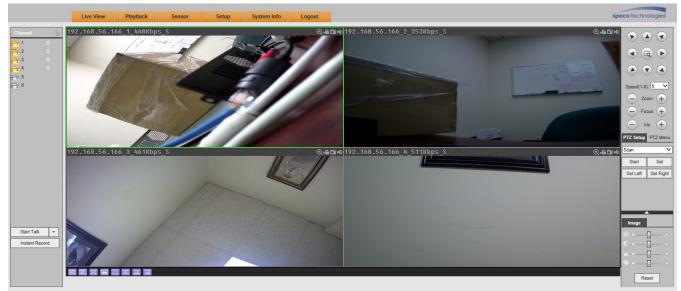


Figure 5-15

3) In a multiple-channel view, the system uses the sub stream by default. Double click on a channel to switch to a single channel view. The system will use the main stream for single channel view. On the left menu pane, M stands for main stream and S stands for sub stream.

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

## 5.7 Setup

### Note

Functions included in the web viewer are available locally in the unit. All changes made are saved locally at the unit. Screenshots are provided below for reference. For more detailed information on specific features, please refer to chapter 4.

### 5.7.1 Camera

#### 5.7.1.1 Camera Setup

Go to Setup->Camera->Camera to set up cameras on the device. See Figure 5-16. Click on Manual Add to manually add a camera. See Figure 5-17.

		IP Address	Po	ort	Dev	vice Name	Protocol	Type		MAC Address
21		192.168.56.130	8	0		O2D10	Onvif	On	vif	
22		192.168.56.102	8	0	0	2D11M-test	SpecoA	Spe	00	5c:f2:7:1d:76:67
23		192.168.56.129	8	0		O5D4M	SpecoA	Spe	00	5c:f2:7:1d:48:cb
24		192.168.56.131		D		O2VLB5	SpecoA	Spe	00	5c:f2:7:34:4:59
25		192.168.56.139	8	D		O3VLB3	SpecoA	Spe	00	5c:f2:7:28:45:93
26		/ 192.168.56.145	8	5	Ju	ustin o2Md2	SpecoA	Spe	00	5c:f2:7:1d:6:bb
27		192.168.56.146				O3VLD1	SpecoA	Spe	00	5c:f2:7:28:2e:c1
28		192.168.56.155				O2iD5M	SpecoA	Spe	00	5c:f2:7:30:2a:9e
29		192.168.56.169				O5B3M	SpecoA	Spe		5c:f2:7:1d:46:ed
30		192.168.56.61	8	0	028	36-Audio Test	SpecoA	Spe	00	5c:f2:7:1d:5f:84
•	Channel I	Modify Delete	Status	IP Address	Port	Device Name	Remote Channel No.	Protocol Cha	nnel Name Port	Browser
	2	2 0		192.168.78.132	2	O5D4M	1	SpecoA	80	6
	3	2 0		192.168.78.133	3	O2iMD1	1	SpecoA	80	e
	4	2 0		192.168.78.130	4	O3VFDM	1	SpecoA	80	e
	6	2 0	R.	192.168.78.129	6	9422E1	1	SpecoA	80	e

Figure 5-16

Manual Add	x
Channel	1 ~
Protocol	SpecoA 🗸
IP Address	192.168.0.0
RTSP Port	554
HTTP Port	80
User Name	admin
Password	••••
Remote Channel No.	1
Decode Priority	Default V
Server Type	Auto O TCP O UDP
	Save Cancel

Figure 5-17

Please refer to the following table for parameter information.

Parameter	Function
Device search	Click to search for all IP cameras on the network.
Add	Select a device in the list and then click Add to add the camera to the system.
Modify	Click local for any device in the Added device list to can change the corresponding remote channel setup.
Delete	Click Sto delete the remote connection of the corresponding channel.
Manual Add	Figure 5-17. Add a camera manually. Specify the IP address, RTSP port, HTTP, user name, and password. <b>Note:</b>
	<ul> <li>Multiple protocols are supported. Speco A is the main protocol for Speco's IP cameras. For certain cameras that have additional capabilities, the Speco B protocol can be used for more control through the NVR. This includes changing image settings, video loss detection, tampering detection, camera offline detection, and camera firmware upgrade</li> </ul>

### 5.7.1.2 Stream

5.7.1.2.1 Stream

## Interface is shown in Figure 5-18.

Stream	Snapshot	Privacy N	lask		Path				
Channel	2	•							
Main Stream			Sub	o Stream					
Code-Stream Type	Continuous	~	✓ v	/ideo Enable					
Compression	H264	~	C	Compression	ŀ	H.264		~	
Resolution	2592x1944	~	R	Resolution	3	352x240(0	IF)	~	
Frame Rate(FPS)	30	~	F	rame Rate(FP	PS) 3	30		~	
Bit Rate Type	CBR	~	В	Bit Rate Type	1	/BR		~	
Bit Rate	Customized	~	Ir	mage Quality	1	1		~	
Bit Rate	5120	Kb/s	В	Bit Rate	5	512		⊻ к	b/s
Reference Bit Rate	1-24576Kb/s		R	Reference Bit F	Rate 1	-24576Kb	/s		
Watermark Enable			,	Watermark Str	ring				
	Сору	Save	Refre	esh					

Figure 5-18

### 5.7.1.2.2 Snapshot

The snapshot interface is shown in Figure 5-19.

Stream	Snapshot	Privacy Mask	Path
Channel	4	_	
Channel	4 Schedule	×	
Mode		×	
Image Size	1080P(1920x1080)	× ×	
Quality	5	·	
Snapshot Frequency	1	/second	
	Save	Refresh	

### 5.7.1.2.3 Privacy Mask

The privacy mask interface is shown in Figure 5-20.

Stream	Snapshot	Privacy Mask	Path
Stream	Snapshot	Privacy Mask	Path Channel 4 Privacy Mask Monitor Channel Display Time Display
	Copy Sav	e Refresh	Default

Figure 5-20

Please refer to the following table for detailed information.

Parameter	Function
Monitor	Check the Monitor box first. Click the Set button and click and drag a zone within the image. A maximum of 4 privacy mask zones are supported.
Time Title	Enable this function to overlay the time info in the video window. Use the mouse to change the position.
Channel Title	Enable this function to overlay the channel title info in the video window. Use the mouse to change the position.

#### 5.7.1.2.4 Path

The storage path interface is shown in Figure 5-21.

The default setup is C:\PictureDownload and C:\RecordDownload for saving snapshots and recordings. Click the Save button to save the setup.

Stream	Snapshot	Privacy Mask	Path
Snapshot Path	C:\PictureDownload\	Browse	
Record Path	C:\RecordDownload\	Browse	
	Save	Default	

Figure 5-21

#### 5.7.1.3 Channel Name

Sets the local channel name on the unit. See Figure 5-22.

Channel Name							
Channel 1 1 Channel 5 5	Channel 2 Channel 6	2	Channel 3 Channel 7	3	Channel 4 Channel 8	8	
	Save	Refresh	Default	]			

Figure 5-22

## 5.7.1.4 IP Camera Upgrade

IP cameras using the Speco B protocols can be upgraded through the NVR. See Figure 5-23. Click Browse to select the firmware file. Select the camera to upgrade and click on Upgrade.

grade File			Browse					
ce Upgrade							Display Filte	Null
	Channel	Status	IP Address	Port	Protocol	Туре	Version	Upgrade Status
	1	<b>I</b>	192.168.78.134	80	SpecoA			
	2		192.168.78.132	80	SpecoA			
	3	<b>.</b>	192.168.78.133	80	SpecoA			
	4	<b>.</b>	192.168.78.130	37777	SpecoB	O3VFDM	2.420	
	5	<b>.</b>	192.168.78.135	80	SpecoA			
	6		192.168.78.129	80	SpecoA			

Figure 5-23

## 5.7.2 Network

5.7.2.1 TCP/IP The TCP/IP interface is shown as in Figure 5-24. Go to Setup->Network->TCP/IP.

TCP/IP	
Mode	O Static
MAC Address	5c : f2 : 07 : 38 : 00 : 02
MTU	1500
IP Version	IPv4 V
IP Address	192 . 168 . 56 . 166
Subnet Mask	255 . 255 . 255 . 0
Default Gateway	192 . 168 . 56 . 1
Preferred DNS	8 . 8 . 8 . 8
Alternate DNS	8 . 8 . 4 . 4
LAN Download	
	Save Refresh Default

Figure 5-24

#### 5.7.2.2 Connection

Connection	HTTPS	
Max Connection	128	(0~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535) Https Enable
RTSP Port	554	(1~65535)
RTSP Format	rtsp:// <user name="">:<passwo< th=""><th>rd&gt;@<ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip></th></passwo<></user>	rd>@ <ip address="">:<port>/cam/realmonitor?channel=1&amp;subtype=0</port></ip>
	channel: Channel, 1-8; subty	pe: Code-Stream Type, Main Stream 0, Sub Stream 1.
	Save	Default

Figure 5-25

#### 5.7.2.3 PPPoE

The PPPoE interface is shown in Figure 5-26.

Fill in the necessary information. Save and reboot the device.

#### Note: The LAN IP address needs to be used first to log into the device..

PPPoE	
Enable	
User Name	
Password	
IP Address	0.0.0.0
	0.0.0.0
	Save Refresh Default

Figure 5-26

#### 5.7.2.4 DDNS

The DDNS interface is shown in Figure 5-27.

DDNS	
Enable	
To register the devi	ce on the Speco DDNS server, please click enable and apply.
Domain Name	speco380002.specoddns.net
Status	Disconnected
	Save Refresh Default

Figure 5-27

#### 5.7.2.5 IP filtering

The IP filtering interface is shown in Figure 5-28.

IP Filtering			
🗹 Enable 💿 Tri	usted Sites O Blocked Sites		
Trusted Sites	Blocked Sites		
	IP Address	Edit	Delete
			~
			×
Add			
Add			
Save	Refresh Default		

Figure 5-28

## 5.7.2.6 Email

The email interface is shown in Figure 5-29.

Email	
Enable	
SMTP Server	MailServer
Port	25
Anonymous	
User Name	
Password	
Sender	
Encryption Type	NONE
Subject	NVR ALERT 🗹 Attachment
Receiver	+
Interval	120 sec.(0~3600)
Check Status	60 Minute (30~1440)
Check Status	00 Willitle (50~1440)
	Test
	Save Refresh Default

Figure 5-29

## 5.7.2.7 UPnP (EZ Network)

т	🔿 Enable 💿 Disable	)					
atus	Disable						
N	0.0.0.	0					
AN .	0.0.0.	0					
Port Mappin							
No.	<b>√</b>	Service Name	Protocol	Internal Port	External Port	Modify	Delete
1	✓	HTTP	TCP	80	80	2	8
2	$\checkmark$	TCP	TCP	37777	37777	1	8
3	$\checkmark$	UDP	UDP	37778	37778	1	8
4	$\checkmark$	RTSP	UDP	554	554	1	8
5	$\checkmark$	RTSP	TCP	554	554	1	8
6	$\checkmark$	SNMP	UDP	161	161	1	8
7	$\checkmark$	HTTPS	TCP	443	443	2	8
Add							

#### 5.7.2.8 FTP

The FTP interface is shown in Figure 5-31.

FTP	
Enable	
Server IP	0.0.0.*
Port	21 *
User Name	
Password	Anonymous
Remote Directory	
File Length	0 M
Image Upload Interval	2 sec.
Channel	1
Weekday	Friday V
Time Period 1	00 : 00 - 24 : 00 Sensor Motion Continuous
Time Period 2	00 : 00 - 24 : 00 Sensor Motion Continuous
	Test Save Refresh Default

Figure 5-31

## 5.7.2.9 Multicast

The multicast interface is shown in Figure 5-32.

Multicast		
Enable		
IP Address	239 . 255 . 42 . 42	(224.0.0.0~239.255.255.255)
Port	36666	(1025~65000)
	Save	efresh Default

Figure 5-32

#### 5.7.2.10 HTTPS

The HTTPS interface is shown in Figure 5-33.

Note

- HTTPS must be enabled first. Go to the Connection section to do this. The unit will reboot after enabling HTTPS.
- If the device IP address changed, the server certificate must be implemented again.
- If HTTPS is being used for the first time on a PC, the root certificate must be downloaded.

Connection	HTTPS	
Create Server Certificate	Download Root Certi	ficate

Figure 5-33

#### 5.7.2.10.1 Create Server Certificate

Click Create Server Certificate and enter the necessary information. Click Create. See Figure 5-34.

#### Note

Please make sure the IP or domain information is the same as the device IP or domain name.

Create Server Certificate		
Country	US	
State		
Location		
Organization		
Organization Unit		
IP or Domain Name	192.168.56.166	
	Create Cancel	

Figure 5-34

#### 5.7.2.10.2 Download root certificate

To download the root certificate, click Download Root Certificate. Press Open when prompte
Certificate ? 🔀
Certificate Information This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.
Issued to: Product Root CA
Issued by: Product Root CA
Valid from 2013-6-18 to 2023-6-16
Install Certificate] Issuer Statement

Figure 5-35

Click on Install certificate to go to the certificate wizard. See Figure 5-36.



Figure 5-36

Click Next to continue. Select a location for the certificate. See Figure 5-37.

Certificate Import Wizard		
<b>Certificate Store</b> Certificate stores are system areas where certificates are kept.		
Windows can automatically select a certificate store, or you can specify a location for O Automatically select the certificate store based on the type of certificate		
Place all certificates in the following store		
Certificate store:		
<u>Back</u> <u>N</u> ext > Cancel		

Figure 5-37

Click Next to complete the process. See Figure 5-38.

Certificate Import Wizard	
	Completing the Certificate Import Wizard
	You have successfully completed the Certificate Import wizard.
	You have specified the following settings:
	Certificate Store Selected Automatically determined by t Content Certificate
	×
	< Back Finish Cancel

Figure 5-38

Click Finish and the system will pop up a security warning box. See Figure 5-39.

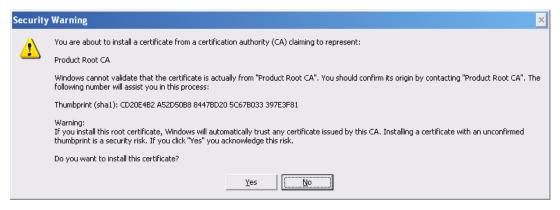


Figure 5-39

Click Yes to finish. See Figure 5-40.

Certificate Import Wizard 🛛 🔀		
The import was successful		
	ОК	



5.7.2.10.3 View and set HTTPS port

In Setup->Network->Connection, the HTTPS port can be set. The default HTTPS port value is 443.

5.7.2.10.4 Login

Open the browser and enter the IP address as: <u>https://xx.xx.xx.xx:port</u>.

xx.xx.xx.xx: is the device IP or domain mane.

Port is the HTTPS port. If using the default HTTPS value 443, the port information does not need to be added.

If setup was done correctly, the login page will be loaded.

## 5.7.3 Event

5.7.3.1 Video

### 5.7.3.1.1 Motion Detection

The motion detection interface is shown in Figure 5-41.

Motion	Video Loss	Tampering	
Enable	1		
Period	Setup		
Anti-dither	5 sec. (0-6	i00) Sensitivity	5 🗸
Region	Setup		
Record Channel	Setup		
Delay	10 sec. (10-	300)	
PTZ Activation	Setup		
Sequence	Setup		
Snapshot	Setup		
Voice Prompts	File Name None	~	
Show Message	Send Email Alarn	n Upload	
	Сору	Save Refr	Default

Figure 5-41

Setup	Ī
	Friday 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 5-42 - Schedule



Figure 5-43 – motion zone setup

#### 5.7.3.1.2 Video Loss

The video loss detection interface is shown in Figure 5-44.

Note that anti-dither, sensitivity, and region setup are not supported for video loss detection.

Motion	Video Loss Tampering
Enable	1
Period	Setup
Record Channel	Setup
Delay	10 sec. (10-300)
PTZ Activation	Setup
Sequence	Setup
Snapshot	Setup
Voice Prompts	File Name None V
Show Message	Send Email Alarm Upload
	Copy Save Refresh Default

#### 5.7.3.1.3 Tampering



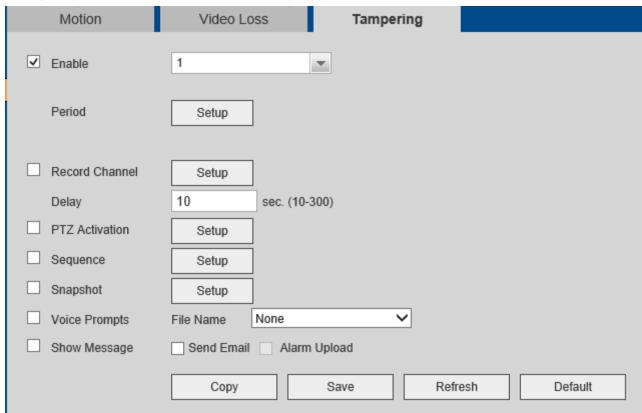


Figure 5-45

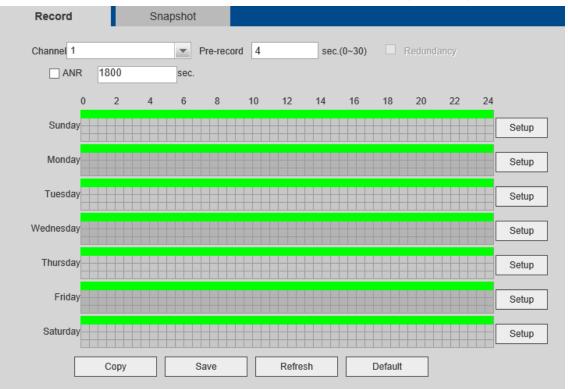
## 5.7.4 Storage

5.7.4.1 Schedule

Schedules for recording can be set in this section. See Figure 5-46.

There are four record modes: continuous (default), motion detection, sensor, and motion+sensor. Up to 6 separate periods can be set for a day.

The current schedule can be seen on the color bar. Note that the web schedule interface does not support dragging the color bar to set the schedule. Schedule must be set by clicking on Setup next to the color bar.





Setup		
Time Period 1 00 : 00 - 24 : 00 🗹 Continuous 🗆 Motion 🗆 Sensor		
Time Period 2     00     :     00     :     00     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     :     : <td::< td="">     :     :     :     :</td::<>		
Time Period 3 00 : 00 - 24 : 00 Continuous Motion Sensor		
Time Period 4 00 : 00 - 24 : 00 Continuous Motion Sensor		
Time Period 5 00 : 00 - 24 : 00 Continuous Motion Sensor		
Time Period 6 00 : 00 - 24 : 00 Continuous Motion Sensor		
🗌 All 🗹 Sunday 🗌 Monday 🗌 Tuesday 🗌 Wednesday 🗌 Thursday 🗌 Friday 🗌 Saturday		
Save Cancel		

Figure 5-47

## 5.7.4.2 Recording Control

The interface is shown in Figure 5-48.

Figure 5-48

Please refer to the following table for detailed information.

Parameter	Function
Auto	Recording based on the schedule set for each channel.
Manual	Highest priority. Records the specified channel regardless of the schedule.
Stop	Stops the current recording.

## 5.7.5 Setup

#### 5.7.5.1 General

5.7.5.1.1 General

The general interface is shown in Figure 5-49.

General	Date&Time	Holiday
Device Name	NVR	
Language	ENGLISH	✓
Video Standard	NTSC	✓
HDD Full	OverWrite	✓
Pack Duration	60	Minute
	Save	Refresh Default

Figure 5-49

#### 5.7.5.1.2 Date and time

The date and time interface is shown in Figure 5-50

General	Date&Time Holiday
Date Format	MM DD YYYY V
Time Format	12-HOUR V
Date Separator	
System Time	04 - 14 -2017 10 : 00 : 05 AM Sync PC Time Zone GMT-04:00 V
DST	
DST Type	O Date
Begin Time	Jan V Last Week V Sunday V 12 : 00 AM
End Time	Jan V Last Week V Sunday V 12 : 00 AM
□ NTP	
Server	pool.ntp.org Manual Update
Port	123 (1~65535)
Interval	60 Minute(0~65535)
	Save Refresh Default

Figure 5-50

## 5.7.5.1.3 Holiday Setup

The holiday setup interface is shown in Figure 5-51.

General	Date8	Time	Holiday						
								Add	New Holidays
No.	Status	Holiday Nan	ne		Date	Period	Repeat Mode	Edit	Delete
									^
						 			~
	Save	Re	fresh D	efault					

Figure 5-51

#### 5.7.5.2 Account

5.7.5.2.1 User name

Add/remove/modify users in this section. See Figure 5-52.

A	ccount						
	User	Group					
	SN	User Name	Group Name	Description	Modify	Delete	
	1	admin	admin	admin 's account	2	•	
	2	default	user	default account	1	8	1
	3	dchoi	admin		2	8	
							4
A	dd User						

Figure 5-52

Add user: To add a user to a group and set the user rights. See Figure 5-53.

Add User				×
User Name		1		
Reusable		-		
Password	low middle high			
Confirm Password				
Group	admin	]		
Description		]		
User Access				
System	Playback	Real-time Monitor		
<b>∠</b> All				
✓User Account	✓System	✓Offline User	✓Default&Upgrade	
✓PTZ	✓Info	✓Manual Control	✓Backup	
✓Storage	✓Event	✓Network	✓Camera	
✓Clear Log	Shutdown Device			
				Ť
	Save	Cancel		

Figure 5-53

## Modify user

To modify the user permissions, group	, and password. See Figure 5-54.
---------------------------------------	----------------------------------

Mo	odify User				×
	User Name	dchoi 🗸	1		
	User Name	dchoi			
	Reusable	<b>√</b>			
	Group	admin 🗸			
	Description				
	Modify Password				
	User Access				
	System	Playback	Real-time Monitor		_
	User Account	✓System	✓Offline User	Default&Upgrade	
	PTZ	Info Info Info	Manual Control	✓Backup ✓Camera	
	Storage	✓Event ✓Shutdown Device	INetwork	l⊻lCamera	
	Clear Log	In Shuldown Device			
					_
		Save	Cancel		

Figure 5-54

#### 5.7.5.3 Display

#### 5.7.5.3.1 Display

Display setup options are shown in Figure 5-55.

Display	Sequence
Resolution Picture mode Transparency Time Display	1920*1080       Standard       ✓       ○       ○       ✓
Channel Display	$\checkmark$
Enhance Image	$\checkmark$
Auto Logout	60 Minute(0-60)
EZ Setup	
Navigation Bar	$\checkmark$
Original Scale	Set
	Save Refresh Default

Figure 5-55

#### 5.7.5.3.2 Sequence

The sequence interface is shown as in Figure 5-56.

Display	Sequence	
Enable Tour		
Interval	5 sec.(5-120)	
Split	Display 1	
	8 🗹 Channel Group +	
	1 🗹 1	
	2 🗹 2 🔿	
	3 🗹 3	
	5 🗹 5	
	7 🗹 7 8 🗸 8	
	8 🗹 8	
Motion Tour Type	Display 1	
Alarm Tour Type	Display 1	
	Save Refresh Default	

Figure 5-56

#### 5.7.5.4 Default

The factory default setup interface is shown in Figure 5-57.

Individual items can be selected - Network/Event/Storage/System Config/Camera.

Default		
II All		
NETWORK	EVENT	
STORAGE	SYSTEM CONFIG	🗹 Camera
Default	Factory Reset	

Figure 5-57

#### 5.7.5.5 Import/Export

The interface is shown in Figure 5-58. Export or import the system configuration files.

Import&Export		
Address	Browse	Config Import
Config Export		



#### 5.7.5.6 Maintenance

The maintenance interface is shown in Figure 5-59.

The device can be set to reboot automatically on a schedule.

Maintenance			
Auto Reboot	Never	✓ 02:00AM ✓	
Auto Delete Old Files	Never	<b>~</b>	
	Manual Reboot	]	
	Save	Refresh	

5.7.5.7 Upgrade

The firmware upgrade interface is shown in Figure 5-60.

Select the firmware file and then click the upgrade button to begin the update. During the upgrade process, do not unplug the power cable, network cable, or shut down the device.

System Upgrade			
Please select update		Browse	Upgrade
file			

Figure 5-60

## 5.8 System Information

#### 5.8.1 Version

The version interface is shown in Figure 5-61. Click on the System Info tab at the top of the page and then click on System->Version.

Version	
_	
Туре	NVR
Record Channel:	8
SN:	80036500001
Web:	3.1.0.1503
Firmware Version:	3.200.0000.0
Build Date:	04-01-2017
Onvif Version	2.42(V1.1.0.Revision: 434742)
Phone:	1-800-645-5516
Email:	techsupport@specotech.com

Figure 5-61

## 5.8.2 Log

View system logs. See Figure 5-62.

Log					
	4 - 14 12 : 00 : 00 AM	End Time 2017 - 04 - 15	12:00:00 AM		
Type All No.	Search	Time	_	Event	 _
		Time		LVCIIL	 ^
					~
System Log Info					]
System Log Into					^
					, ,
					× Go To 1 ►

Figure 5-62

## 5.8.3 Online User

The online user interface is shown as in Figure 5-63.

No.	User Name	Group Name	IP Address	User Login Time
1	admin	admin	192.168.56.138	04-14-2017 08:09:53 AM

Figure 5-63

## 5.9 Playback

 Uver
 Payback
 Search
 Sequentities

 Speco technologies
 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

 Speco technologies

The playback interface is shown in Figure 5-64. Click on the Playback tab at the top of the page.

Figure 5-64

#### 5.9.1 Search Record

• Select Date

Click on a date on the right pane to select the date. Date highlighted in yellow font is the selected date. Blue highlighted dates indicate that recorded data exist for those dates.

• Viewing Windows

Select the window split mode. Choices are  $1 \times 1$ ,  $2 \times 2$ , or  $3 \times 3$ . Click is to display in full screen. Press the ESC button on the keyboard to exit. See Figure 5-65.



Figure 5-65

• Select Channel

For 1x1 and 2x2 modes, select the channels to view from the dropdown menus.

• Select Recording Type

Select the recording type to view at the bottom of the page. See Figure 5-66.



Figure 5-66

## 5.9.2 File List

Click the File List button on the right side to view the list of recorded data. See Figure 5-67.

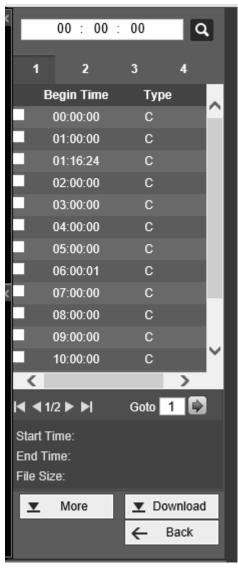


Figure 5-67

## 5.9.3 Playback

Select a file and click the Play button to begin playback or simply double click on a file. Note that for one channel, the system can not perform playback and download at the same time. See Figure 5-68.



Figure 5-68

## 5.9.4 Download

Select the file(s) to download and then click the download button on the right side to bring up the interface shown in Figure 5-69. The Download button will change to Stop and will show a progress bar. Go to the saved file path to view the files.



Figure 5-69

## 5.9.5 Additional Download Options

#### 5.9.5.1 Download By File

Select channel, recording type, and the start time and end time. Click the Search button to show the results. The interface is shown in Figure 5-70.

nload by File Downlo			Setup System Info Lo	gout			speco techn
	ad by Time Water	mark					
nnel Al Motion	Start Time     End Time	2017 - 04 - 14         00 : 0           2017 - 04 - 14         23 : 5	Jearon				
	No.	File Size:	Start Time	End Time	File Type	Bit Stream Type	Channel
	1	13712KB	2017-4-14 06:57:50	2017-4-14 06:58:04	Motion	Main Stream	3
	2	13760KB	2017-4-14 08:11:03	2017-4-14 08:11:17	Motion	Main Stream	3
	3	18368KB	2017-4-14 06:57:49	2017-4-14 08:58:20	Motion	Main Stream	4
	4	16672KB	2017-4-14 06:58:30	2017-4-14 06:58:59	Motion	Main Stream	4
	5	16944KB	2017-4-14 08:59:25	2017-4-14 06:59:54	Motion	Main Stream	4
	6	19184KB	2017-4-14 07:11:54	2017-4-14 07:12:28	Motion	Main Stream	4
	7	18320KB	2017-4-14 08:10:12	2017-4-14 08:10:40	Motion	Main Stream	4
	8	18016KB	2017-4-14 08:10:46	2017-4-14 08:11:14	Motion	Main Stream	4
	·						· ·
vnload to Local Download to	USB						M ◀ 1/1 ► ₩ Goto
Back							

Figure 5-70

#### 5.9.5.2 Download by Time

Select channel, start time, and end time.

Click the Download to Local button to bring up the interface is shown in Figure 5-71.

	Live View	Playback	Sensor	Setup	System Info	Logout	
Download by File	Download by Time	Watermark					
Channel 1 Bit Stream Type Ma			7 - 04 - 14 7 - 04 - 14	00 : 00 : 00 23 : 59 : 59			
Download to Local						×	
		Record Path	Format DAV C:\R	ecordDownload\ OK	Cancel	Browse	
Back							

Figure 5-71

#### 5.9.5.3 Watermark

The watermark interface is shown in Figure 5-72. Load a file and then click the Verify button to see if the file has been tampered with or not.

Download by File	Download by Time	Vatermark		
Local File				
C:\record\root\Cent	e platform		Verify	
Watermark Info				
Watermark Revised Ir	fo			
No.	Malfunction type		Watermark Time	
1	Normal			<u>▼</u>
Back				

Figure 5-72

## 5.10 Log out

To log out of the system, click the Logout tab at the top of the page. The log in page will be loaded. Enter the user name and password to log in again.

# 6 Troubleshooting

Issue	Possible Causes
NVR does not boot up properly	<ul> <li>Input power is not correct. Check the power supply.</li> <li>Firmware upgrade did not finish properly. Contact technical support.</li> <li>Main board is damaged. Check to see if front panel indicators are lit.</li> </ul>
NVR automatically shuts down or stops running	<ul> <li>Input voltage is not stable or it is too low. Check the power supply to see if it's providing steady power.</li> <li>HDD malfunction. Listen to check if the HDD is spinning.</li> <li>Working environment may be too harsh or has too much dust.</li> <li>Hardware malfunction. Contact technical support.</li> </ul>
System can not detect HDD	<ul> <li>HDD malfunction. Contact technical support.</li> <li>Check if the HDD ribbon cable is damaged or loose.</li> <li>Main board SATA port is broken. Contact technical support.</li> </ul>
No Video Output	<ul> <li>Check the HDMI/VGA connection to the monitor and make sure that the input on the monitor is set correctly.</li> <li>Low brightness.</li> <li>NVR hardware has malfunctioned. Check to see if front panel indicators are lit.</li> </ul>
No results when searching recordings	<ul> <li>HDD malfunction. Check HDD status in settings.</li> <li>The recorded file has been overwritten.</li> <li>Record function has been disabled.</li> </ul>
Incorrect time display	• Time is not set up correctly in settings. Go to Setup to set the correct time.
Unable to log in remotely	<ul> <li>ActiveX control has been disabled. Enable ActiveX control in Internet Explorer</li> <li>Network connection/setup error. Check network settings.</li> <li>Password or user name is invalid. Check the credentials locally on the unit and make sure the credentials are correct.</li> </ul>
No video when connected remotely	<ul> <li>Poor network bandwidth. Check network settings.</li> <li>Remote bandwidth has reached the maximum. Check for all users who are connected.</li> <li>Remote user has no viewing authorization. Administrator must provide this authority to the user. Go to Setup.</li> </ul>

Issue	Possible Causes				
Network connection is not stable.	<ul> <li>IP address conflict. Check if other devices are using the same IP address in the local network.</li> <li>Check that all necessary ports have been forwarded.</li> <li>Check network settings on the PC.</li> </ul>				
File backup errors	<ul> <li>The system is using too much CPU resource. Please stop recording first and then begin backup.</li> <li>File size is exceeding the total available capacity.</li> <li>USB backup device is not compatible. Try a different device.</li> <li>USB device is damaged. Try a different device.</li> </ul>				
Forgot password	<ul> <li>Answer the security questions on the log in prompt to reset the password</li> <li>If security answers have also been forgotten, contact technical support.</li> </ul>				
No video on channels	<ul> <li>IP address for the camera is not right.</li> <li>IP camera port number is not right.</li> <li>IP camera account (user name/password) is not right.</li> <li>IP camera is offline.</li> <li>Check Setup-&gt;Camera to make sure all camera settings are correct. Contact technical support for further assistance.</li> </ul>				
Output display is not optimal on monitor	• Check the display output setting and set it to the correct resolution to match the monitor.				
Video stutters when viewing in split screen	<ul> <li>The network bandwidth is not sufficient. Split screen viewing requires a bandwidth of 100Mbps or higher.</li> <li>PC resources are not sufficient.</li> </ul>				