

### User Guide (Ver. 1.1)

Models: Desktop - N4/8/16NS, N4/8/16NSP Wall Mount - N4/8/16WNS, N4/8/16WNSP

## 4/8/16 Channel Network Video Recorder





#### About This User's Guide

Before operating the unit, please read this user's guide thoroughly and retain it for future reference.

## Cautions



CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

## **Explanation of Graphical Symbols**



This symbol indicates the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



This symbol indicates the presence of "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock, property damage, personal injury, or death.

#### WARNING

To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

#### CAUTION

Changes or modifications not approved by the manufacture will void the warranty of the product. Using an incompatible battery may increase the risk of fire or explosion.

Replace only with the same or equivalent type battery recommended by the manufacture. Discard used batteries according to manufacturer's instructions.

## These precautions must be followed for safety reasons

# Warning

- Do not use if the unit emits smoke.
- Do not disassemble the unit.
- Do not place any heavy or sharp objects on the unit.
- Do not place on uneven surface.
- Do not expose to shock or vibration.
- Do not move the unit when the unit is powered on.
- Do not block, and allow dust to accumulate in the air vents.
- Do not restrict airflow of the unit; doing so can damage the unit.
- Only qualified and experienced personnel should perform installation and servicing.
- Turn off the power of the NS when connecting Cameras, Audio or Sensor Cables.
- The manufacturer is not responsible for any damage caused by improper use of the product or failure to follow instructions for the product.
- The manufacturer is not responsible for any problems caused by or resulting from the user physically opening the NS for examination or attempting to repair the unit.
- For NSP models with the PoE Switch, it is strongly recommended that the 48V connector is inserted to the PoE Switch before the AC cable is attached to the adaptor.

## **Product Components**

Please make sure the following components are included as specified below.



## Specifications

	MODEL		N4NS	N8NS	N16NS	N4NSP	N8NSP	N16NSP	
		IP Cameras	4	8	16	4	8	16	
	Input	Max Bit Rate	20Mbps	401	Vbps	20Mbps	40	Mbps	
Video		Resolution	Max. 1920x1080						
		Main Monitor			VGA and	HDMI			
	Output	Sub Monitor			CVBS (E	BNC)			
		IP Cam Audio	4	8	16	4	8	16	
Audia	Input	RCA Input	4	8	16	4	8	16	
Audio	Output	RCA Output		•	1				
	Audio Cod	ec			G.71	1			
	Sensor In	IP Cam Sensor	4	8	16	4	8	16	
Event	Sensor III	Local Input			4 (Termina	l Block)			
Lvent	Local Alarm Output (T	erminal Block)			1				
	IP Camera Motion	Detection			Yes	;			
Serial	RS-2320	>			Yes	;			
Condi	RS-485			1	Yes	;	1		
	Private (IP Camera, Auto Connection)		10/100 Base-T	10/100/1000 Base-T 4 Port PoE		8 Port PoE			
Network	LAN (Remote Access, IP Camera)		10/100 Base-T 10/100/1000 Base-T 10/100 Base-T 10/100/1000 Base			000 Base-T			
	Protocol	8	TCP/IP,	UDP, DHC	P, HTTP, NTF	P, SMTP, RTP, RT	rsp, onvii	=	
	Compression		H.264 (Baseline, Main, High Profile)						
	Resolution & Frame	D1	120fps	240fps	480fps	120fps	240fps	480fps	
	Rate	1280x720	120fps	240fps	400fps	120fps	240fps	400fps	
Recording		1920x1080	100fps	192fps	192fps	100fps	192fps	192fps	
	Recording N	lode	С	ontinuous /	Motion / Sens	sor / Schedule / M	anual		
	Pre Record	ling			Max. 20 M	linutes			
	Post Record	ding			Max. 60 S	econds			
	Search			Quick Sear		e, Event, Archive,	Log		
Playback	Multi-Deco	•	1, 4	1, 4, 8	1, 4, 8, 16	1, 4	1, 4, 8	1, 4, 8, 16	
	Playback Sp	beed				x8, x16, x32, x64			
	Media		USB drive, External HDD, Network, DVD-R (via USB)						
Backup	File Form			BM	-	ietary Format			
	Large Back				Yes (Max. 2				
		1 HDD Max Size			3TE	8			
	HDD	Internal HDDs		3			2		
Storage		e-SATA			1				
	USB	Front	2						
		Rear			1				

User I/F	Input Method	Front Buttons, IR, Mouse, Keyboard Controller		
	Dynamic DNS	Yes (Free DDNS)		
Features	Digital Zoom	Yes		
	DLS (Day Light Savings)	Yes		
	NTP (Network Time Protocol)	Yes		
	S.M.A.R.T.	Yes		
	Internal Beep	Yes		
Γ	Multi-Language	Yes		
	e-mail Notification	Yes		
	3G Mobile	iPad / iPhone /	/ Android	
Network	Web Viewer	Windows (IE, Chrome, Firefox, Safari), MAC(TBD)		
Access	PC Client	Single / Multi Client and	CMS (64 channels)	
	Remote Setup and Upgrade	Yes		
Power	Power Supply Voltage	DC12V 5A	DC12V 5A & DC48V 2A	
Tomo costuno	Operating Temperature	41°F ~ 104°F (5	°C ~ 40°C)	
Temperature -	Storage Temperature	14°F ~ 122°F (-10	0°C ~ 50°C)	
) (/cicht	Desktop Unit Weight (Gross weight)	Approximately 11 lbs	Approximately 12 lbs	
Weight	Wall Mount (Gross weight)	Approximately 16 lbs	Approximately 17 lbs	
Dimension	Unit Dimension (W x D x H)	15"W x 13.4"D x 2.8"H (380r	nm x 340mm x 72mm)	
Dimension -	Wall Mount (W x D x H)	13.5" x 3.5" x 17"		

Please note that specifications and unit exterior design are subject to change without notification.

## **Table of Contents**

1.	Main Features	10
2.	Initial Boot-up Process	11
	2-1. Initial Boot up and Basic Time Setup	11
	2-2. Setting up Daylight Savings Time	11
	2-3. Setting NTP (Network Time Protocol)	12
	2-4. EZ SETUP	15
	2-5. PoE Port SETUP	18
	2-6. Non PoE Port SETUP	20
	2-7. IP Camera SETUP (through Web Viewer page)	21
	2-8. Dual Streaming	21
3.	Front and Rear Panels	22
	3-1. Desktop Front Panel	22
	3-2. Connectors	23
	3-3. Remote Control	24
4.	Setting up the NS	25
	4-0. Setup – Main Live Screen	25
	4-1. Setup – IP CAMERA	26
	4-1-1. SCAN Menu	28
	4-1-2. ONVIF	28
	4-2. Setup – SYSTEM	31
	4-3. Setup – RECORD Mode	34
	4-3-1. Recording Schedules	36
	4-4. Setup – DEVICE Mode	37
	4-4-1. Alarm-Out	38
	4-4-2. Digital Deterrent	39
	4-5. Setup – DISPLAY Mode	40
	4-6. Setup – NETWORK Mode	41
	4-6-1. Network Types	42
	4-6-2. DDNS	42
	4-6-3. Network Port and Web Port	43
	4-7. Setup – USER MANAGEMENT Mode	44
	4-8. Setup – STORAGE Mode	46
	4-9. Setup - CONFIG Mode	48
	4-9-1. Firmware Upgrade	49
5.	Live, Search and Playback	. 50
	5-1. Live View	50
	5-1-1. PTZ Control	54
	5-2. Digital Zoom in Live and Playback Screen	55
	5-3. SEARCH Screen	55

5-3-1. EZSearch	56
5-3-2. Time Line Search	57
5-3-3. Event Search	57
5-3-4. Go To First Time	58
5-3-5. Go To Last Time	58
5-3-6. Go To Specific Time	58
5-3-7. Archive List	58
5-3-8. Log List	59
5-4. Play Mode	59
6. Back Up	61
6-1. Video Backup onto USB Flash Drive during playback	61
6-2. EZCopy: Video Backup onto USB Flash Drive during playback	62
6-3. Transferring Still Images or Video from the ARCHIVE List	63
6-4. Playback of Backup Video	64
6-5-1. AVI Format	64
6-5-2. NSF Format	65
7. Network Access Using the Multi-Sites Network Viewer	66
7-1. Overview	66
7-2. PC Requirements	66
7-3. Installation of the Program	67
7-4. Live Window	68
7-4-1. Main User Interface	68
7-4-2. Control Buttons	68
7-5. Search and Playback Window	69
7-5-1. Main User Interface	69
7-5-2. Main Control Panel	70
7-6. Setup of SpecoTech Multi Client	71
7-6-1. General	71
7-6-2. Event	72
7-6-3. Record	73
7-6-4. Display	74
7-6-5. Language	75
7-6-6. About	75
7-7. Remote Setup	76
7-7-1. IP Camera	77
7-7-2. System	77
7-7-3. Record	78
7-7-4. Device	79
7-7-5. Display	80
7-7-6. Network	80
7-7-7. User Management	81

7-7-8. Storage	82
7-7-9. Remote Upgrade	82
7-7-10. Information	82
7-8. Operation	83
7-8-1. Addition, Delete, and Modify of NS Sites	83
7-8-2. Connect and Disconnect	85
7-8-3. Still-image Capture During Live	86
7-8-4. Recording Video on Local PC During Live	86
7-8-5. Local Playback and Remote Playback	88
7-8-6. AVI Backup during Playback	90
8. Network Access Using the Web-Browser Viewer	
9. Network Access Using the Smart Phone Viewer	
9-1. App Viewer for iPhone	94
9-1-1. Live	94
9-1-2.PTZ Control	96
9-1-3. Playback	96
9-2. App Viewer for Android Phone	97
9-2-1. Live	97
9-2-2. Playback	98
9-2-3. PTZ Control	99
APPENDIX: Network Connection - LAN	
APPENDIX: Network Connection – Internet and DDNS	102
APPENDIX: E-SATA CONNECTION	105

## 1. Main Features

- Automatic IP Camera Detection and connection (Plug & Play)
- Easy Record, Copy and Setup
- Easy Search by Thumbnail Preview
- Easy Copy
- Easy Network
- Easy IP Camera Setup

**NOTE:** Under federal law, The Fourth Amendment to the U.S. Constitution, Title III of the Omnibus Crime Control and Safe Streets Act of 1968, as amended by the Electronic Communications Privacy Act of 1986 (18 U.S.C. § 2510, *et seq.*), and the Foreign Intelligence Surveillance Act of 1978 (50 U.S.C. 1801, *et seq.*) permit government agents, acting with the consent of a party to a communication, to engage in warrantless interceptions of telephone communications, as well as oral and electronic communications.

- Covert camera operation provides enhanced security and administrator control
- Dynamically programmable recording priority, motion detection, alarms and scheduling
- Simple and Easy Graphic User Interface
- Simple Scheduler
- HDMI Output
- VGA Output
- Password to secure installation authorization
- Network software supports 10/100Mbps
- USB 2.0 port for video clip exporting and easy firmware upgrade via USB Flash Drive

## 2. Initial Boot-up Process

#### 2-1. Initial Boot up and Basic Time Setup

1. During the first boot up, the following logo will be displayed.



2. After the logo, select the language and set date and time as specified below.

CHOOSE LANGUAGE	
ENGLISH 🛛	
< PREV NEXT > CLOSE	
SET DATE AND TIME	
CLOCK SET $11 \sum / 7 \sum / 2012 \sum 16 \sum : 26 \sum : 37 \sum$	
< PREV FINISH CLOSE	
Initializing system It may take a few seconds or minutes to check	the syste
90%	
Initialize NetworkDone	

#### 2-2. Setting up Daylight Savings Time

To enable Daylight Saving feature/NTP synchronization, take the following steps.

1. Enter the SETUP mode. The default Username is "ADMIN" and Password is "1111".

	CH2	СНЗ	CH4				
	NO VIDEO EZ SETUP DISCONNECT	NO VIDEO	NO VIDEO				
CH5	CH6 SETUP AUDIO MUTE		СН8				
NO VIDEO	NO VID SEARCH CAMERA PTZ	NONITOR SEQUENCE	NO VIDEO				
СНЭ	CH10 DISABLE MANUA	L RECORD	CH12	LOGIN - SETUP			
NO VIDEO	NO VID MANUAL DIGITA DISPLAY CAMERA INFORM		NO VIDEO	USER PASSWORD	ADMIN		
CH13	CH14 SYSTEM INFORM	MATION	CH16				
NO VIDEO	NO VID SYSTEM LOCK SYSTEM SHUTD SOCOLA	OWN /15/2013 11:15:42 RC:	NO VIDEO ALL HDD: OVERWRITE			ОК	ANCEL

2. Go to SETUP > SYSTEM > DATE & TIME SETUP

í Ô	နိ္ဘ္နဲး SYSTEM		
202	DESCRIPTION		4
22	LANGUAGE	ENGLISH	$\overline{\Sigma}$
	DATE DISPLAY FORMAT	MM/DD/YY	ΎY 🛛
50	DATE & TIME SETUP		4
×	CLIENT ACCESS	ON	$\overline{\Sigma}$
	NTP SETUP	ON	₽ ∑
	SEND EMAIL SETUP	OFF	<b>*</b>
品	UNIT NAME		NVR
	SYSTEM RESTART		4
1	SYSTEM SHUTDOWN		4
		APPLY	CANCEL

3. Select ON from the DAYLIGHT SAVING dropdown menu.

TIME ZONE	GMT -5:00 (Montreal/New York)
DAYLIGHT SAVING	USA
□ SET DATE & TIME	2013 \[\] / 5 \[\] / 6 \[\] 12 \[\] : 48 \[\] : 51 \[\] Ok Cancel

#### 2-3. Setting NTP (Network Time Protocol)

1. SETUP > SYSTEM > NTP SETUP > ON

Õ	နို္င္ခ်ိုး SYSTEM		
<b><i><u></u></i></b> <u></u>	DESCRIPTION		4
222	LANGUAGE	ENGLISH	$\overline{\Sigma}$
	DATE DISPLAY FORMAT	MM/DD/YY	YY 🛛
10	DATE & TIME SETUP		4
×	CLIENT ACCESS	ON	$\sum$
	NTP SETUP	ON	<b>*</b>
	SEND EMAIL SETUP	OFF	₽ ∑
品	UNIT NAME		NVR
	SYSTEM RESTART		4
T	SYSTEM SHUTDOWN		4
		APPLY	CANCEL

2. Select the proper TIME ZONE time.

PRIMARY SNTP SERVER	Pool.ntp.org		4
SECONDARY SNTP SERVER	Time.nist.gov		4
TIME ZONE	GMT -5:00 (Montreal/New York)	Σ	
CONNECTION MODE	TIME	Σ	
CONNECTION PERIOD	03:00 AM	Σ	
		OK CAI	NCEL

#### Table2.3.1. GMT Time Zone

Table2.3.1. GMT Time Zone				
	State	Standard Time	Daylight-Saving Time	
AL	Alabama	GMT-6	GMT-5	
AK	Alaska	GMT-9	GMT-8	
AK	Alaska (Aleutian Islands)	GMT-10	NA	
AZ	Arizona	GMT-7	NA	
AZ	Arizona (Navajo)	GMT-7	GMT-6	
AR	Arkansas	GMT-6	GMT-5	
CA	California	GMT-8	GMT-7	
CO	Colorado	GMT-7	GMT-6	
СТ	Connecticut	GMT-5	GMT-4	
DC	District of Columbia	GMT-5	GMT-4	
DE	Delaware	GMT-5	GMT-4	
FL	Florida	GMT-5	GMT-4	
FL	Florida (W)	GMT-6	GMT-5	
GA	Georgia	GMT-5	GMT-4	
HI	Hawaii	GMT-10	NA	
ID	Idaho (N)	GMT-8	GMT-7	
ID	Idaho (S)	GMT-7	GMT-6	
IL	Illinois	GMT-6	GMT-5	
IN	Indiana	GMT-5	GMT-4	
IN	Indiana (SW / NW)	GMT-6	GMT-5	
IA	Iowa	GMT-6	GMT-5	
KS	Kansas	GMT-6	GMT-5	
KS	Kansas (W)	GMT-7	GMT-6	
KY	Kentucky (E)	GMT-5	GMT-4	
KY	Kentucky (W)	GMT-6	GMT-5	
LA	Louisiana	GMT-6	GMT-5	
ME	Maine	GMT-5	GMT-4	
MD	Maryland	GMT-5	GMT-4	
MA	Massachusetts	GMT-5	GMT-4	
MI	Michigan	GMT-5	GMT-4	
MI	Michigan (W)	GMT-6	GMT-5	
MN	Minnesota	GMT-6	GMT-5	
MS	Mississippi	GMT-6	GMT-5	
МО	Missouri	GMT-6	GMT-5	
MT	Montana	GMT-7	GMT-6	
NE	Nebraska	GMT-6	GMT-5	
NE	Nebraska (W)	GMT-7	GMT-6	
NV	Nevada	GMT-8	GMT-7	

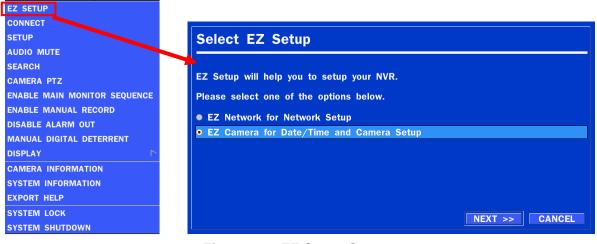
NH	New Hampshire	GMT-5	GMT-4
NJ	New Jersey	GMT-5	GMT-4
NM	New Mexico	GMT-7	GMT-6
NY	New York	GMT-5	GMT-4
NC	North Carolina	GMT-5	GMT-4
ND	North Dakota	GMT-6	GMT-5
ND	North Dakota (W)	GMT-7	GMT-6
ОН	Ohio	GMT-5	GMT-4
OK	Oklahoma	GMT-6	GMT-5
OR	Oregon	GMT-8	GMT-7
OR	Oregon (E)	GMT-7	GMT-6
PA	Pennsylvania	GMT-5	GMT-4
RI	Rhode Island	GMT-5	GMT-4
SC	South Carolina	GMT-5	GMT-4
SD	South Dakota (E)	GMT-6	GMT-5
SD	South Dakota (W)	GMT-7	GMT-6
TN	Tennessee (E)	GMT-5	GMT-4
TN	Tennessee (W)	GMT-6	GMT-5
TX	Texas	GMT-6	GMT-5
TX	Texas (W)	GMT-7	GMT-6
UT	Utah	GMT-7	GMT-6
VT	Vermont	GMT-5	GMT-4
VA	Virginia	GMT-5	GMT-4
WA	Washington	GMT-8	GMT-7
WV	West Virginia	GMT-5	GMT-4
WI	Wisconsin	GMT-6	GMT-5
WY	Wyoming	GMT-7	GMT-6

Â

**NOTE:** If you want the unit to automatically synchronize the local time, the Time Zone must be properly set according to your local time zone.

#### 2-4. EZ SETUP

Quick installation Menu for NS and IP Camera Easy installation(Right-Click on the Main Screen)





#### 2.4.1. Setup DATE & TIME, IP CAMERA configurations.

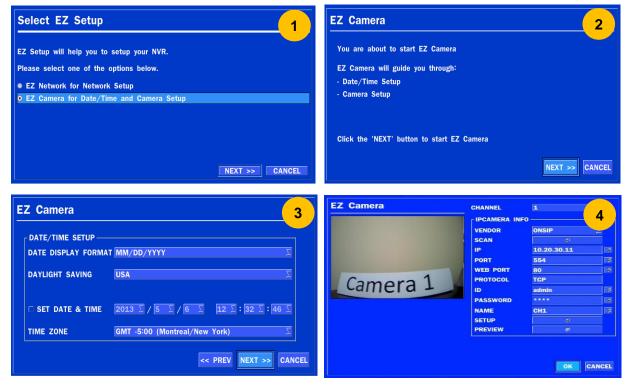


Figure 2.4.1. EZ CAMERA Setup Procedure

- ① Select EZ Camera for Date/Time and Camera Setup, Click NEXT to proceed.
- 2 Description of EZ Camera Setup is displayed, Click NEXT to proceed.
- ③ Set up the Date/Time settings and click NEXT to get to the camera setup.
- ④ Configure individual cameras in the EZ Camera Setup.
  - Select the Channel to configure.
  - Select the Camera Manufacturer and then click on the scan button; this will scan the networks for any cameras from the particular manufacturer.
  - Select on the desired Camera from the list, and then check on register.
  - If necessary, click on Preview to Preview the camera, or Setup to change camera settings.

#### 2.4.2. EZ NETWORK (Using an internet connection)

	EZ NETWORK	1
	Internet Connection	
	Is your DVR connected to the Ir	nternet?
	O Yes (I will use an Internet	connection)
	No (I will not use an Inter	net connection)
		NEXT >>
EZ NETWORK	2	EZ NETWORK
LAN Setup	<u> </u>	LAN Setup
Auto Configuration (DHCP)	∑ Test	Manual Configuration (STATIC)
✓ Get IP, Gateway, Subnet Mas	sk	IP Address 172.16.2.62
<ul> <li>Search DNS Server</li> <li>Check Internet connectivity</li> </ul>		Subnet Mask 255.255.0.0
Search UPnP/PortForwarding		Gateway 172.16.1.254
- Support UPnP		DNS (Primary) 168.126.63.1
Your network has been configure Please press 'NEXT' to continue		Your network has been configured successfully! Please press 'NEXT' to continue << PREV NEXT >> CANCEL
EZ NETWORK	4	
DDNS Setup	4	You have now completed your network setup.
ENABLE DDNS	OFF 💆	
HOST NAME	hostname	
HOST DOMAIN NAME	hostname.ddns.specoddns.net	Click the 'FINISH' botton to finish EZ Network,
SUBMIT/UPDATE	OFF 💆	Click the 'FINISH' botton to finish EZ Network, or click the 'GO TO EZ CAMERA' button to start the Camera Setup
ezDDNS	OFF 义	
	<< PREV NEXT >> CANCEL	GO TO EZ CAMERA FINISH CANCEL

Figure 2.4.2. EZ NETWORK Setup Procedure

- ① Select YES in case of setting the network using an internet connection
- ② Select Auto Configuration(DHCP) or Manual Configuration(STATIC) and then click TEST Button. It will automatically setup the network for the system(NS)
- ③ Setup DDNS setting. DDNS(Dynamic Domain Name System) allows a DNS name to be constantly synchronized with a dynamic IP address. It allows using a dynamic IP address to be associated with a static domain name. Refer to the full version manual for more information.
- ④ Click Finish to save the setup.

#### 2.4.3. EZ NETWORK setting (Not using internet connection)

	EZ NETWORK	1
	Internet Connection	
	Is your DVR connected to the Internet?	
	• Yes (I will use an Internet connect	lon)
	No (I will not use an Internet conn	ection)
		NEXT >> CANCEL
EZ NETWORK		
LAN Setup	2	LAN Setup 3
Auto Configuration (DHCP)	Test	Manual Configuration (STATIC)
🗸 Get IP, Gateway, Subnet Mask		IP Address 172.16.2.62
V Search DNS Server		Subnet Mask 255.255.0.0
		Gateway 172.16.1.254
		DNS (Primary) 168.126.63.1
Your network has been configured sud Please press 'NEXT' to continue	ccessfully!	Your network has been configured successfully! Please press 'NEXT' to continue
	<< PREV NEXT >> CANCEL	< PREV NEXT >> CANCEL
EZ NETWORK	4	EZ NETWORK 5
DDNS Setup		
		You have now completed your network setup.
	DFF 🗵	
HOST NAME HOST DOMAIN NAME	hostname nostname.ddns.specoddns.net	
	)FF $\overline{\Sigma}$	Click the 'FINISH' botton to finish EZ Network,
	DFF Z	or click the 'GO TO EZ CAMERA' button to start the Camera Setup
	< PREV NEXT >> CANCEL	
	CANCEL	GO TO EZ CAMERA FINISH CANCEL

Figure 2.4.3. EZ NETWORK Setup – Manual Configuration Screen

- 1 Select NO if the NVR is not using an internet connection.
- 2 Select Auto Configuration(DHCP) or Manual Configuration(STATIC) and then click TEST button when ready.
- ③ Input the Network Settings if Manual Configuration was selected, and click TEST
- ④ Select OFF for ENABLE DDNS and click NEXT button.
- 5 Click Finish to save the setup.

#### 2-5. PoE Port SETUP

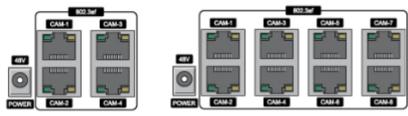


Figure 2.5. PoE Port (N4NSP / N8NSP & N16NSP)

2.5.1 Connecting the Camera(NSP Model)

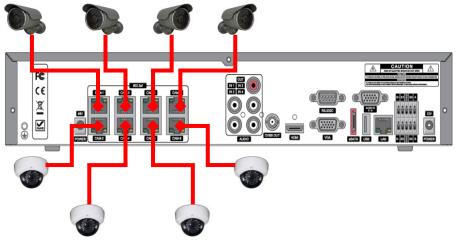
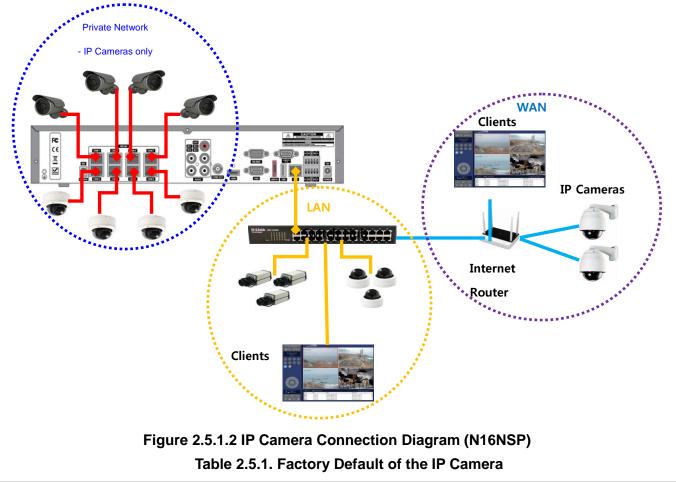
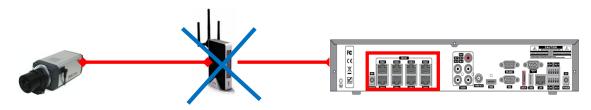


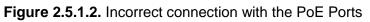
Figure 2.5.1.1 IP Camera Connection Diagram (N8NSP)



Setup Items	Default	ettings are recommended for optimal connection with the NS Series Description
Network Type	DHCP	The IP Camera must act as a DHCP client for the "Plug and Play".
Encoding Type	CBR	The "CBR" is recommended because of the internal buffer design of the NS Series
Resolution	1280x720	The maximum performance of the N16NS/NSP is 1080p@192fps or 720p@400fps.
		To get higher frame rates per channel, 1280x720 is the recommended resolution.
Frame Rate	25fps	The maximum performance of the N16NS/NSP is 720p@400fps.
		Therefore 25fps per channel is recommended. (25fps x 16 = 400fps)
Bit Rate	2Mbps	The maximum throughput of the N16NS/NSP is <u>40Mbps</u> .
		Therefore 2Mbps per channel is recommended. (2Mbps x 16 = 32Mbps)
Sub Stream	CIF	For "Dual Streaming", the sub stream should be turned on.
	512Kbps	And for the proper streaming through the WAN connection,
		CIF@512Kbps or lower bitrates per channel is recommended.

- The NSP Series features a "Plug and Play" function with a PoE Switch.
- The "Plug and Play" functionality requires the IP Camera to be in DHCP mode.
- The NS automatically assigns an IP Address to the IP Camera. (10.20.30.11 ~ 10.20.30.254)
- The NSP models will automatically map the camera on the PoE Port to the corresponding NVR channel number.





With the NSP Models, it is prohibited to connect a router to the POE Ports to connect the IP Camera, the NSP will not be able to find and connect to the camera. The LAN Port can be connected to a router, but not the PoE Ports.

#### 2-6. Non PoE Port SETUP

2.6.1 Connecting the Camera (Non - PoE Model)

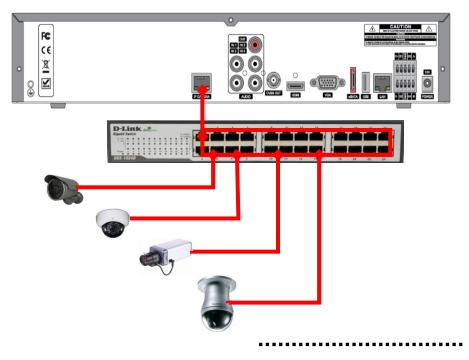


Figure 2.6.1.1. Proper connection example of the NS (No PoE Switch).

- The NS Series features a "Plug and Play" function (on board PoE Switch not included).
- Setting up cameras can be done through the EZ CAMERA menu, refer to Figure 2.4.1.

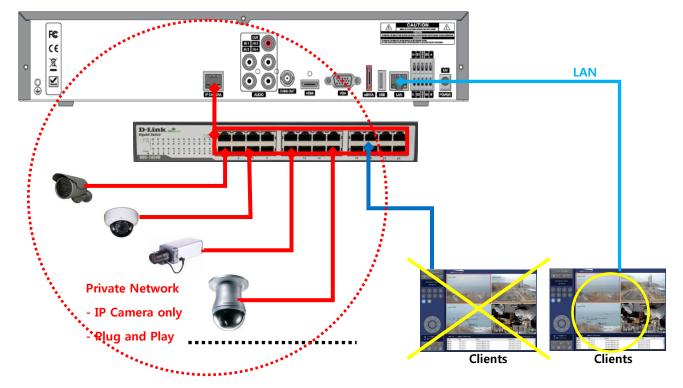


Figure 2.6.1.2. Improper connection of the NS (No PoE switch).

#### 2-7. IP Camera SETUP (through Web Viewer page)

NS / NSP Series allow remote access to the IP Cameras through an "IP Camera Setup" menu.

The PC Web Client features the "IP Camera Setup" menu that can be accessed remotely.

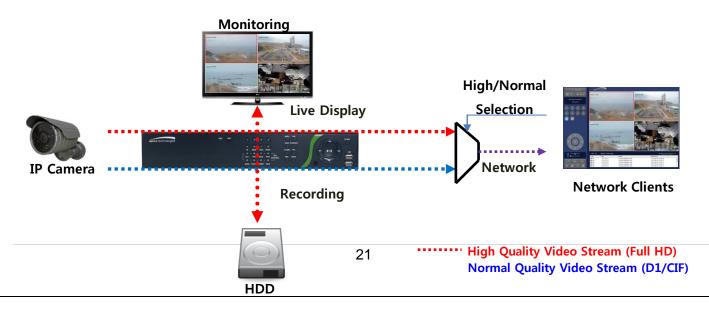


- 1 Click the mouse right button
- 2 Select "IP Camera Setup".
- 3 Select Channel Number.
- ④ It launches the camera's web setup page.

In order for the web pages to launch from the "IP Camera Setup" menu when accessed from the WAN, Ports 59011 to 59254 on the router must be port forwarded to the NVR. The local address of the NVR can be found in the system information

#### 2-8. Dual Streaming

- High Quality (Main Profile) Video Stream is used for both Recording and Live Display.
- High Quality (Main Profile) Video Stream can be viewed through the network, when selected.
- Normal (Secondary) Quality Video Stream is used by default when viewing through the network.



## 3. Front and Rear Panels

#### 3-1. Desktop Front Panel



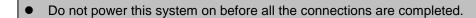
Figure 3.1.1. Desktop NS Front panel

Name	Description
POWER	LED light is on when power is applied to the system.
HDD	LED light is on when the system is recording video data.
USB Port	This USB port for archiving footage into a USB device. (USB 2.0)

#### Table 3.1.2. Front Buttons

Name	Description
Number1~16	Select a channel from CH1 to CH16.
N NEAR VEW START	Buttons from 9 to 16 are used as function keys in PTZ control mode.
(13) - (14) - (15) - (16) - (1	To escaping PTZ mode, press the ESC button.
MENU	Enters the Setup Menu.
COPY	Takes a screenshot on Live and Backup button on Playback.
ALARM	Activates the external alarm device.
SEQ	Enable the sequence mode on Live.
ESC	Exits the current mode or cancel an operation.
PLAYBACK	Goes to search menu.
PTZ	Activate Pan, Tilt and Zoom menu operation.
MODE	Select the screen display mode (1x1, 2x2, 3x3, if applicable: 4x4, 1+7)
POWER	Initiates system shut down.
	LIVE mode – Up
	SEARCH mode - Jump 1min ahead on playback and 1 frame ahead on pause.
	LIVE mode – Right
	SEARCH mode - Control the play speed (Fast Forward).
	LIVE mode – Down
	SEARCH mode - Jump 1min back on playback and 1 frame back on pause.
44	LIVE mode – Left
	SEARCH mode- Select the play speed (Rewind).
▶/Ⅱ	LIVE mode – Select (Center)
	SEARCH mode - Play & Pause.

#### 3-2. Connectors



 Make sure all the connections are properly secured. Faulty connection may result in the system being damaged.

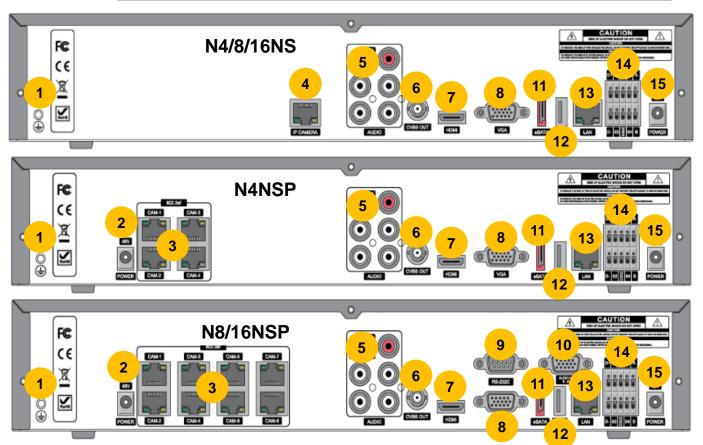
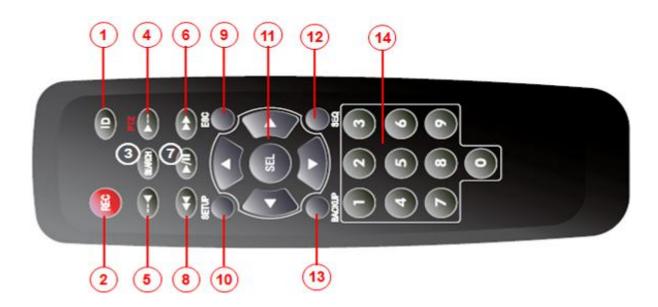


Figure 3.2.1. Connectors

- $\textcircled{1} \quad \textbf{Ground: Use for grounding.}$
- 2 PoE POWER: DC48V input.(NSP Models)
- ③ PoE PORT: N4NSP (4 Port PoE), N8NSP/N16NSP(8 Port PoE)
- ④ ETHERNET PORT2: Network Second Terminal. No Internet access.(NS Series without PoE)
- (5) AUDIO IN/OUT: 4 Connectors for Audio Input / 1 Connector for Audio Output
- 6 CVBS OUT: MAIN Composite Video Output.
- ⑦ HDMI OUT: HDMI output port, Connector to the HDMI Monitor, (1280x720, and 1920x1080).
- (8) VGA OUT: Connector for VGA Monitor, Main Video Output.
- (9) RS232C: POS Interface (TBD)
- AUDIO Port: Audio inputs connections for channels 5-8 or 5-16 through external cable (N8NSP, N16NSP Models only).
- 1) E-SATA: 1 External SATA Terminal
- 2 USB PORT: Connector for USB Mouse or USB flash memory.
- 3 ETHERNET PORT1: RJ-45 Connector for LAN Connection, used for Internet Connection
- (I) SENSOR IN, ALARM OUT, RS-485: 4 sensor inputs, 1 alarm output and RS-485 for PTZ
- 15 POWER: DC12V input

#### 3-3. Remote Control



- 1) ID: Used to set up the remote control ID.
- 2 REC: To enable or disable manual recording mode.
- ③ SEARCH: Goes to SEARCH menu for playback options.
- ④ F/ADV:
  - During Playback Moves the playback forward by 60 seconds.
  - During Pause Moves the playback forward by 1 frame.
- 5 F/REW:
  - During playback Moves the playback backward by 60 seconds.
  - During Pause Moves the playback backwards by 1 frame.
- 6 FF: Increases playback speed (fast fowards).
- ⑦ PLAY/PAUSE: To play or to pause the recording in playback mode
- (8) REW: Plays video backwards (rewinds), additional selection increases backwards playback speed.
- 9 ESC:
  - During Setup Returns to the previous menu screen.
  - During Playback Exits playback mode.
  - System lock Locks the system when pressing ESC button for 5 seconds.
  - System unlock Unlocks the system when pressing ESC button for 5 seconds.
- (1) SETUP: Opens up the SETUP menu.
- (1) Direction buttons: Used to move menu items or select a channel.
- 2 SEQ: Starts auto sequence the screen when in full screen mode. (Toggle)
- BACKUP: Start the backup operations in live or playback mode.
- (4) 0~9: Used to select channel (1,2,3,..) or to setup a NS Remote ID.

## 4. Setting up the NS

The following sections detail the initial setup of the NS.



Menu screen will close if user input is not received within 5 minutes.

#### 4-0. Setup - Main Live Screen

To enter the setup menu, right click on the mouse and select setup from the submenu or press the setup button on the remote control.

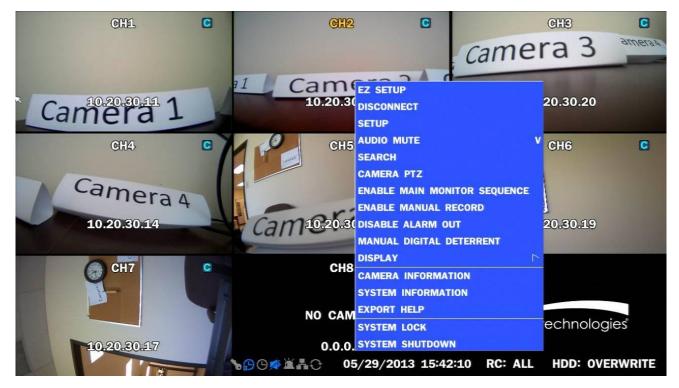


Table 4.0.1. Live Screen and Quick Operation Window

LOGIN - SETUP		ADI	MIN	PAS	sw	ORD										
			1	2	3		4	5 (	3	7	8	9	0		=	
USER	ADMIN			q	w	e	•	t	y	u			0	p	ī	1
PASSWORD	Ф	СА	PS	a	s	d	f	g	h		:	k			•	ENTER
			IIFT	z		×	C		b	n	m				T	SHIFT
	OK CANCEL		CLEA	AR					SP	ACE					C	LOSE

When the NS prompts the LOG-IN window, enter the PASSWORD using the virtual keyboard, or the front panel, or the remote control. For ADMIN, the factory default password is 1111. It is highly recommended to assign a new password to protect the system. User can assign a new password in SECURITY setup menu.

#### 4-1. Setup – IP CAMERA

Press the SETUP button and enter the password. The IP Camera setup menu is displayed below.

íOj	O IP CAMERA		
τ <sup>ο</sup> λ	CHANNEL	1	<b>*</b>
~~	VENDOR	ONSIP	$\Sigma$
	SCAN		4
N.P.	IP	0.	.0.0.0
×	PORT		554
<b>P</b>	WEB PORT		80
	PROTOCOL		ТСР
品	ID	us	ser_id
T	PASSWORD	***	****
		APPLY	CANCEL

Figure 4.1.1. IP Camera mode setup screen

#### Table 4.1.1. Menu items in IP CAMERA mode setup

ltem	Description							
HANNEL	То	manually cor	nnect eac	h camera, c	lick on the	<i>∉</i> t	o get this v	window:
		ТҮРЕ	SCAN	IP	PORT	WEB PORT	PROTOCOL	OTHERS
	1	ONSIP		10.20.30.11	554	80	ТСР	
	2	VIP		10.20.30.12	554	80	TCP	
	3	VIP		10.20.30.20	554	80	TCP	
	4	VIP		10.20.30.14	554	80	тср	
	5	VIP		10.20.30.16	12064	12060	тср	
	6	ONSIP		10.20.30.19	554	80	ТСР	
	7	VIP		10.20.30.17	554	80	тср	
		ONSIP		0.0.00	554	80	TCP	

Under the column labeled Type, Select IP Camera Manufacturer.

TYPE	SCAN	
ONSIP 🗵	-	Double Click to Scan
ONSIP		
VIP AXIS PANASONIC ONVIF		

**SCAN**: Double click the empty box to search IP camera on the local network.

IP	PORT	WEB PORT
192.168.56.104	10204	10200
10.20.30.16	12064	12060
192.168.56.240	554	80
192.168.56.127	554	80
192.168.56.100	554	80
10.20.30.12	554	80
10 20 20 17	EEA	00

IP: Enter the address of IP camera to connect, or select from scanned list.

PORT: Enter the port number of IP camera to connect

WEB PORT: Enter the web port number of IP camera to connect

#### PROTOCOL: TCP Only

**SETUP:** Change the IP camera setting. Double click the empty box and then Log-In box will be pop-up. (Enter ID and PASSWORD of IP Camera)

ID	admin	4
PASSWORD	***	4
	ок	

VENDOR	Select the camera manufacturer.	
SCAN	Automatic IP Camera search on the local network.	
IP	Set up IP camera address.	
PORT	Set up the RTSP port of the IP Camera (default: 554)	
WEB PORT	Set up the web port of IP Camera (default: 80)	
PROTOCOL	Select a protocol. (TCP only)	
ID	Enter ID of IP CAM	
PASSWORD	Enter the PASSWORD of IP CAM	

#### 4-1-1. SCAN Menu

O IP CAMERA				
CHANNEL	1 2 4			
VENDOR	ONSIP			
SCAN	e a	IP	PORT	WEB PORT
	0.0.0.0	192.168.56.104	10204	10200
	554	10.20.30.16	12064	12060
WEB PORT	80	192.168.56.240	554	80
PROTOCOL	ТСР	192.168.56.127	554	80
品 ID	user_id	192.168.56.100	554	80
PASSWORD	*******	10.20.30.12	554	80
		10 20 20 17	554	00
		Camera Scanning I	has been co	ompleted.
		REFRESH	REGISTER	CANCEL
	APPLY CANCEL	0		

Figure 4.1.3 IP CAMERA Setup Screen

Figure 4.1.4 Search IP Camera Screen

- ① Select the specific manufacturer of IP Camera and then on click the scan button
- ② Select the camera on the list and then click the register button.
- $\ensuremath{\textcircled{3}}$  After the registration is completed, the basic information is to be displayed.

#### **IP CAMERA** -O' 0 CHANNEL ဂ်နဲ VENDOR ONVIF SCAN Ы IP 172.16.2.77 WEB PORT 80 PROTOCOL тср ID admin 品 PASSWORD PROFILE Primary A **ONVIF SETUP** CANCEL APPLY

#### 4-1-2. ONVIF

#### Figure 4.1.2 IP CAMERA Setup Screen (ONVIF)

The NS Series can search for IP Cameras that are conformant to ONVIF (Open Network Video Interface Forum). In order to search for ONVIF Cameras, the field associated with VENDOR has to be set to ONVIF. Click on the Box associated with SCAN to scan the networks for ONVIF Conformance cameras.

IP	WEB PORT	DEVICE INFORMATION	HOST NAME
192.168.56.127	80	VIP1D1	SPECO_VIP1D1
192.168.56.221	80	VIP2C1P	SPEC0_VIP2C1P
192.168.56.100	80	VIP2P1N	SPECO_VIP2P1N
10.20.30.23	80	02IR56B1S	02IR56B1S
10.20.30.11	80	02D4	02D4
10.20.30.17	80	VIP2B3	SPECO_VIP2B3
10 20 20 14	00	VIDODO	CDECO VIDODO

Figure 4.1.4 ONVIF Camera Scan Window

PROFILE NAME	RESOLUTION	FRAME RATE	BIT RATE	I-FRAME INTERVAL	H264 PROFILE	
Profile1	1280 X 720	25	2000	20	Baseline	
Profile3	1280 X 720	20	2000	20	Baseline	
Profile Scanning	Profile Scanning has been completed.					
					APPLY CANCEL	
	F	iqure 4.1.5 ON	<b>VIF Profile Sc</b>	an Window		

- ① Select ONVIF for Vendor and click the SCAN button.
- 2 Select the camera on the list and then click the register button.
- 3 Then, PROFILE and ONVIF setting button will be displayed on the menu.
   Click PROFILE button and then the detail information of ONVIF will be searched and listed.
   (If there is not one listed, the ONVIF protocol of IP CAM is not compatible with NVR and therefore not supported.)
- ④ Double click the listed profile to apply.
- (5) Enter ID and PASSWORD of IP CAM. Registration is .completed.



Figure 4.1.6 ONVIF Setup Window

Under ONVIF Setup, the following can be viewed and changed: VIDEO, NETWORK, SYSTEM settings.

	Table 4.1.2. Menu Items in ONVIF Setup Screen
Menu Item	Description
VIDEO	Under ONVIF system setup, the following can be viewed and/or changed.
	Video: Resolution, Framerate, and Bitrate.
	Encoder: I-Frame Interval, H.264 Profile
	Audio Encoder.
	VIDEO       RESOLUTION       FRAMERATE       BITRATE (Kbps)
	ENCODER       I-FRAME INTERVAL       M.264 PROFILE
	ENCODER S
NETWORK	View and change Network settings.
	NETWORK   INTERFACE NAME   INTERFACE TYPE   STATIC   IP   172.16.2.81   SUBNET MASK   255.255.0.0   GATEWAY   172.16.1.254   RTSP PORT   554   WEB PORT   80   HTTPS   O
SYSTEM	Device information can be viewed, passwords can be changed. Factory reset and the rebooting the camera are also available through ONVIF System setup.
	INFORMATION MANUFACTURER SPECO MODEL VIP2P1N FIRMWARE VERSION 1.0.3-T7_release SERIAL NUMBER 5CF207213888 HARDWARE ID 1.0
	30

#### 4-2. Setup – SYSTEM

In the SETUP menu, select the SYSTEM tab. Then, the SYSTEM menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

íO;	နို္င္ငံဒ <mark>္</mark> SYSTEM		
tõr	DESCRIPTION		4
222	LANGUAGE	ENGLISH	$\overline{\Sigma}$
	DATE DISPLAY FORMAT	MM/DD/YY	<u>∑</u> ⊻YY
NB	DATE & TIME SETUP		4
×	CLIENT ACCESS	ON	$\Sigma$
	NTP SETUP	ON	<u>∑</u> ≉
	SEND EMAIL SETUP	OFF	<u>∑</u> ≉
品	UNIT NAME		NVR
	SYSTEM RESTART		4
T	SYSTEM SHUTDOWN		<b>4</b>
		APPLY	CANCEL

Figure 4.2.1. SYSTEM Setup Screen

#### Table 4.2.1. Menu Items in SYSTEM Setup Screen

Item	Description
DESCRIPTION	Press the button to view the system information. (Software Version, Storage Size, IP Address, MAC Address and DDNS Status)
	MODEL NAMEN4NSSOFTWARE VERSIONVer 3.7.3_20130405STORAGE SIZE217 GBNETWORK TYPEDHCPIP ADDRESS172.16.2.62MAC ADDRESS00:02:69:07:39:1BDDNS STATUSDDNS OFFUNIT NAMENVRREMOTE CONTROLLER ID0
LANGUAGE	Select the display language using the mouse or the remote control. Once a language is selected, the display language will change.
DATE DISPLAY	Select the date display format using the mouse or the remote control. Options are:
FORMAT	MM/DD/YYYY, YYYY/MM/DD, DD/MM/YYYY, YYYY-MM-DD, MM-DD-YYYY, DD-MM-YYYY
DATE&TIME	Select the display date and time using the mouse or the remote control and press OK
SETUP	button to set the present date and time.

	TIME ZONE	GMT -5:00 (Montreal/New York)			
	DAYLIGHT SAVING	USA 🔀			
	□ SET DATE & TIME	2013 ∑ / 5 ∑ / 6 ∑ 12 ∑ : 48 ∑ : 51 ∑ OK CANCEL			
	Select DAYLIGHT SAVI	NGS using the mouse or the remote control and select the			
	appropriate daylight savir <b>OFF</b> : Daylight saving is to	ngs time zone. The options are: urned off.			
	USA: Applies the USA da	lylight saving time.			
	EU: Applies the EU daylig	ght saving time.			
	- Select the GMT	AREA using the mouse or the remote control.			
	- Set the time diff	erence with the standard time using the mouse or the button.			
	OTHERS: If the time zor	ne is neither USA nor EU, set the date and time of the daylight			
	saving period.				
	- Select BEGIN or	END.			
	Caution				
	- Do not set the start time to 23:00 for DLS.				
	- DLS cannot be a	pplied if the date of BEGIN and END is the same.			
CLIENT	Enable/Disable remote a	ccess through the network.			
ACCESS					
NTP	NTP (Network Time Protocol) which synchronizes the time of the computer				
SETUP	variable-latency data net	works.			
		Pool.ntp.org			
	PRIMARY SNTP SERVER	Pool.ntp.org			
	SECONDARY SNTP SERVER	Pool.ntp.org			
		Time.nist.gov			
	SECONDARY SNTP SERVER	Time.nist.gov GMT -5:00 (Montreal/New York)			
	SECONDARY SNTP SERVER TIME ZONE	Time.nist.gov GMT -5:00 (Montreal/New York)			
	SECONDARY SNTP SERVER TIME ZONE Connection Mode	Time.nist.gov 4 GMT -5:00 (Montreal/New York) $\Sigma$ TIME $\Sigma$			
	SECONDARY SNTP SERVER TIME ZONE Connection Mode	Time.nist.gov GMT -5:00 (Montreal/New York) TIME			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD	Time.nist.gov GMT -5:00 (Montreal/New York) TIME O3:00 AM			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD	Time.nist.gov			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD PRIMARY SNTP SERVE SECONDARY SNTP SER	Time.nist.gov       Image: Constraint of the primary NTP time-server.			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD PRIMARY SNTP SERVE SECONDARY SNTP SEI TIME ZONE: NTP sync	Time.nist.gov       Image: Constraint of the primary NTP time-server.         GMT -5:00 (Montreal/New York)       Image: Constraint of the primary NTP time-server.         OK       CANCEL         R: Input the address of the primary NTP time-server.         RVER: Input the address of the secondary NTP time-server.			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD	Time.nist.gov       Image: Constraint of the secondary NTP time-server.         GMT -5:00 (Montreal/New York)       Image: Constraint of the secondary NTP time-server.         03:00 AM       Image: Constraint of the secondary NTP time-server.         R: Input the address of the secondary NTP time-server.         RVER: Input the address of the secondary NTP time-server.         chronizes with GMT (Greenwich Mean Time) regardless of			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD	Time.nist.gov			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD PRIMARY SNTP SERVE SECONDARY SNTP SEI TIME ZONE: NTP sync geography; user must sei CONNECTON MODE:	Time.nist.gov       Image: Constraint of the secondary NTP time-server.         GMT -5:00 (Montreal/New York)       Image: Constraint of the secondary NTP time-server.         OK       CANCEL         R: Input the address of the primary NTP time-server.         RVER: Input the address of the secondary NTP time-server.         chronizes with GMT (Greenwich Mean Time) regardless of lect time difference from GMT.			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD PRIMARY SNTP SERVE SECONDARY SNTP SER TIME ZONE: NTP sync geography; user must se CONNECTON MODE: INTERVAL, and ONCE. CONNECTION PERIOD	Time.nist.gov       Image: Constraint of the secondary NTP time-server.         GMT -5:00 (Montreal/New York)       Image: Constraint of the secondary NTP time-server.         OK       CANCEL         R: Input the address of the primary NTP time-server.         RVER: Input the address of the secondary NTP time-server.         chronizes with GMT (Greenwich Mean Time) regardless of lect time difference from GMT.			
	SECONDARY SNTP SERVER TIME ZONE CONNECTION MODE CONNECTION PERIOD PRIMARY SNTP SERVE SECONDARY SNTP SERVE SECONDARY SNTP SEI TIME ZONE: NTP synd geography; user must sei CONNECTON MODE: INTERVAL, and ONCE. CONNECTION PERIOD - TIME – Refresh th	Time.nist.gov       (f)         GMT -5:00 (Montreal/New York)       (f)         TIME       (f)         03:00 AM       (f)         CK       CANCEL         R: Input the address of the primary NTP time-server.         RVER: Input the address of the secondary NTP time-server.         chronizes with GMT (Greenwich Mean Time) regardless of lect time difference from GMT.         Select the NTP time-server connection mode from TIME,			

NS sends E-MAIL Notification when the NTP server time is faster than the system time with below message.

"NTP server time is faster than the system time. In this case, NTP server time is ignored to protect the user data. User must set the time manually. SYSTEM TIME: Mon Oct 10 13:46:49 2011 SERVER TIME: Mon Oct 10 13:33:12 2011 NS ID: NS IP ADDRESS: 172.16.2.46"

SEND EMAIL

TRANSMISSION MODE	TEXT	V
IP NOTIFICATION	OFF	<u>V</u>
MAIL BY SENSOR	OFF	Σ
MAIL BY MOTION	OFF	Σ
MAIL BY DISCONNECTION	OFF	Σ
MAIL BY S.M.A.R.T.	OFF	Σ
MAIL BY STATUS	ON	<b>4</b>
SERVER TYPE	MANUAL	Σ
MAIL SERVER		4
MAIL PORT	25	4
SECURE OPTION	NONE	Σ
ID		4
PASSWORD		4
MAIL TO		4
MAIL FROM		4

TRANSMISSION MODE: Select the mail transmission mode (TEXT or VIDEO).

- On VIDEO mode, AVI video file is attached when the motion is detected.

The AVI file contains the 1~2 second(s) pre-record and 1 second post record.
 IP NOTIFICATION: Enable/disable sending e-mail when the IP address is changed.
 MAIL BY SENSOR: Enable/disable sending e-mail when the sensor is detected.
 MAIL BY MOTION: Enable/disable sending e-mail when the motion is detected.
 MAIL BY SENSOR: Enable/disable sending e-mail when sensor input is received.
 MAIL BY VIDEO LOSS: Enable/disable sending e-mail when the video loss is detected.
 MAIL BY S.M.A.R.T.: Enable/disable sending e-mail when S.M.A.R.T. is triggered.
 MAIL BY STATUS: Enable/disable sending periodical e-mail of the system status.

	050100				
	PERIOD	DAILY		<u>×</u>	
		FIRST Z SI	IN 🛛	0Н 🗵	
			0	KCANCEL	
	SERVER TYPE: Select GMAIL,	HOTMAIL, AOL, YA	HOO or M	ANUAL	
	MAIL SERVER: Enter the ap	propriate mail server	information	).	
	MAIL PORT: Assign Mail Por	t number.			
	SEURE OPTION: Select the secure mail server connection method. (SSL or TL ID: Enter the appropriate mail server ID.				S)
PASSWORD: Enter the appropriate mail server PASSWC					
	MAIL TO: Enter the appropriate email address to enable sending e-mail reports usi				sing a
	virtual keyboard.				
	MAIL FROM: To set the email ac	ldress sent to the de	stination ho	st.	
UNIT NAME	Name the NS (e.g. Factory)				
	This feature is to identify the nam	ne of the NS under th	ie same net	work.	
SYSTEM	Restart the system				
RESTART					
SYSTEM	Shut down the system				
SHUTDOWN					

#### 4-3. Setup – RECORD Mode

In the SETUP menu, select the RECORD tab. Then, the RECORD menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

Õ	RECORD		
	SITE RECORDING MODE SENSOR RECORDING PRE RECORD POST EVENT RECORD AUDIO SCHEDULE	CH 1         CONTINUOUS         - ∑ - ∑ - ∑ -         1 MINUTE(S)         10 SECOND(S)         OFF <ul> <li>✓</li> <li>✓</li> </ul>	► <u>X</u> X Z - X X X X
		APPLY	CANCEL

Figure 4.3.1. RECORD Setup Screen

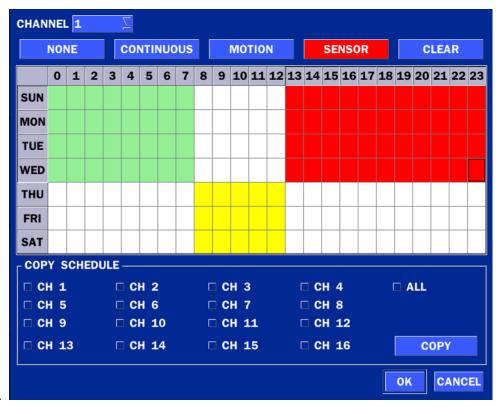
Menu Item	Description           Select a channel for applying the following settings using the mouse or the remote control. To change the values of all channels, take the following steps. Select the			
SITE				
	button 🚰 to c	hange the values of a	all channels.	
	RECORDING	PRE RECORD	POST EVENT REC	AUDIO
		1 MIN(S)	10 SEC(S)	OFF
		1 MIN(S)	10 SEC(S)	OFF
	2 CONTINUOUS 3 CONTINUOUS	1 MIN(S) 1 MIN(S)	10 SEC(S) 10 SEC(S)	OFF OFF
	4 CONTINUOUS	1 MIN(S)	10 SEC(S)	OFF
	5 CONTINUOUS	1 MIN(S)	10 SEC(S)	OFF
	6 CONTINUOUS	1 MIN(S)	10 SEC(S)	OFF
	7 CONTINUOUS	1 MIN(S)	10 SEC(S)	OFF
	8 CONTINUOUS	1 MIN(S)	10 SEC(S)	OFF
				OK CANCEL
RECORDING	Assign the recording mode for the selected channel.			
MODE	Options are: Continuous, Motion, Schedule or Disable.			
SENSOR	Select the sensor setting for the selected channel.			
RECORDING		C		
PRE RECORD	Enable/disable pre-event recording. Pre-event recording time is up to 20 minutes.			
POST EVENT	Set the post event recording time duration for the specified channel.			
RECORD	(10~30 seconds)			
AUDIO	Enable/disable audio recording for the specified channel.			
SCHEDULE	Set the recording schedule.			

#### 4-3-1. Recording Schedules

To setup a recording schedule, select SCHEDULE in the RECORD menu. Navigate through the menu items or change the settings using the mouse or the remote control.

Select CHANNEL > select NONE, CONTINUOUS or MOTION > Highlight area

To copy a schedule to a different channel, select the channel from the COPY SCHEDULE menu.



#### Figure 4.3.2. Schedule Recording Setup Screen

- NONE: Disable recording during selected timeframe (Highlighted in White)
- **CONTINUOUS**: CONTINUOUS recording (Highlighted in Green)
- **MOTION**: MOTION recording (Highlighted in Yellow)
- **SENSOR**: SENSOR recording (Highlighted in Red)
- **CLEAR**: Clears the schedule.

#### 4-4. Setup – DEVICE Mode

In the SETUP menu, select the DEVICE tab. Then, the device menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

<b>O</b>	Y DEVICE		
503	ALARM OUT		4
~~~	DIGITAL DETERRENT		4
	SITE	CH 1	$\overline{\Sigma}$
<b>S</b>	AUDIO SOURCE	IP CAM	
×	KEY TONE	OFF	$\overline{\Delta}$
	REMOTE CONTROLLER ID	0	$\Sigma$
	SENSOR	1	$\overline{\Delta}$
	ТҮРЕ	OFF	$\overline{\Delta}$
T	IEEE 802.3af PSE STATUS		¢1
		APPLY	CANCEL

Figure 4.4.1. DEVICE Setup Screen

#### Table 4.4.1. Menu Items in DEVICE Setup Screen

Item	Description
ALARM OUT	Set the sensor, motion, and video loss for triggering alarm relay
	HDD Error and Video Loss can trigger beeping.
DIGITAL DETERRENT	Setup schedule and audio recordings for Digital Deterrent.
SITE	Select specified channel for motion zone setup.
AUDIO SOURCE	Select IP CAM Audio or Local Audio.
KEY TONE	Enable/disable key tone from front panel usage.
REMOTE CONTROL ID	Set the remote control ID.
	1. Select ID.
	2. Input the remote control ID number.
	3. An icon will indicate on the Live Screen if the remote control ID is
	synchronized.
	The options are from 0 to 99
SENSOR	Select the type of each sensor.
	Option is Off, Normal Open or Normal Close.
IEE 802.3af PSE	PSE (Power Sourcing Equipment) Status Monitoring Menu
STATUS	(NSP Models)

PORT	STATUS	FAULT	VOLTAGE (V)	CURRENT (mA)	POWER (mW)
1	POWER DELIVERY	NO FAULT	16	358	5728
2	POWER DELIVERY	NO FAULT	16	265	4240
3	POWER DELIVERY	NO FAULT	16	208	3328
4	POWER DELIVERY	NO FAULT	16	212	3392
5	POWER DELIVERY	NO FAULT	17	230	3910
6	POWER DELIVERY	NO FAULT	16	304	4864
7	POWER DELIVERY	NO FAULT	16	213	3408
8	POWER DELIVERY	NO FAULT	16	227	3632
TOTAL				2017	32502

# 4-4-1. Alarm-Out

ALARM-OUT	<b>1</b> 🛛
SENSOR IN - LOCAL	<u>- I - I - I - I</u>
SENSOR IN - IP CAM	<u>- I - I - I - I</u>
MOTION ON	<u>-                                    </u>
DISCONNECTION	OFF 🛛
HDD ERROR	OFF 🛛
ALARM DURATION	<b>INFINITE</b>
BUZZER	HDD ERROR
	OK CANCEL

Figure 4.4.2. ALARM-OUT Setup Screen

Table 4.4.2	. Item f	for AL	ARM-OL	JT Setu	ip Screen
-------------	----------	--------	--------	---------	-----------

Item	Description
ALARM OUT	Only one Alarm-out is available.
SENSOR IN(LOCAL)	Local Sensor input from 1 to 4.
SENSOR IN(IP CAM)	IP Cam Sensor input
MOTION ON	Camera motion detection from 1 to 4.
DISCONNECTION	Alarm output can be set when disconnection event occurs
HDD ERROR	HDD Failure alarm output
VIDEO LOSS ON	Camera video loss detection from 1 to 4.
ALARM DURATION	Set alarm dwell time from 5 to 60 seconds.
BUZZER	Set the error type for the Buzzer activation.
	The options are OFF, ALL, HDD ERROR and VIDEO LOSS

#### 4-4-2. Digital Deterrent

Trigger audio message via motion detection or sensor.

IMPORT FROM USB	
EXPORT TO USB	
RECORD	
SCHEDULE	
	ОК

Figure 4.4.3. Digital Deterrent setup screen

Table 4.4.3. Item for Digital Deterrent Setup Screen			
Item	Description		
IMPORT FROM USB	Import up to 8 sound files from USB.		
EXPORT TO USB	Export the sound file to USB		
RECORD	Select a channel and set up the date and the duration.		
	And, select the sound file to play.		
	CHANNEL CH 1		
	FROM5 $\checkmark$ $\checkmark$ $15$ $\checkmark$ $2013$ $\checkmark$ $12$ $\checkmark$ $43$ $\checkmark$		
	TO 05/15/2013 12:40:53		
	DURATION 10 SECOND(S)		
	FILE NAME sound_1		
SCHEDULE       Schedule the sound file considering the expected situation.         CHANNEL 1       I			
	NONE         DEFAULT         SOUND_1         SOUND_2         SOUND_3         SOUND_4		
	SOUND_5 SOUND_6 SOUND_7 SOUND_8 CLEAR		
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23		
	SUN D       D       1       1       1       2       2       2       3       3       4       4       4       5       5       6       6       6       7       7       8       8         MON D       D       1       1       1       2       2       2       3       3       4       4       4       5       5       6       6       7       7       8       8		
	TUE         D         1         1         2         2         2         3         3         4         4         4         5         5         6         6         7         7         8         8		
	WED         D         D         1         1         2         2         2         3         3         4         4         4         5         5         6         6         6         7         7         8         8		
	THU D       D       1       1       1       2       2       2       3       3       4       4       4       5       5       6       6       7       7       8       8         FRI       D       D       1       1       1       2       2       2       3       3       4       4       4       5       5       6       6       7       7       8       8         FRI       D       D       1       1       2       2       2       3       3       4       4       4       5       5       6       6       7       7       8       8		
	SAT         D         1         1         2         2         2         3         3         4         4         4         5         5         6         6         7         7         8         8		
	COPY SCHEDULE		
	CH 1 CH 2 CH 3 CH 4 ALL		
	□ CH 5 □ CH 6 □ CH 7 □ CH 8 □ CH 9 □ CH 10 □ CH 11 □ CH 12		
	□ CH 13 □ CH 14 □ CH 15 □ CH 16 COPY		

#### Table 4.4.3. Item for Digital Deterrent Setup Screen

CANCEL

ок

#### 4-5. Setup – DISPLAY Mode

In the SETUP menu, select the DISPLAY tab. Then, the DISPLAY menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control. To return to the previous setup menu screen, press the ESC button.

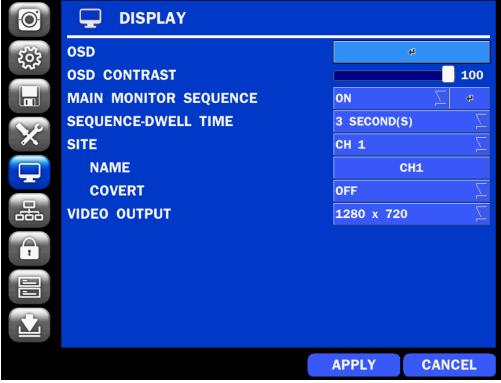


Figure 4.5.1. DISPLAY Setup Screen

Item	Description
OSD	Enable/Disable on-screen-display.
	(Channel Name, Video Loss, Status Bar / Icon)
OSD CONTRAST	Set the visibility level of the On Screen Display (OSD) (0~100)
MAIN MONITOR	Enable/Disable sequential display of video in full screen mode.
SEQUENCE	
SEQUENCE	Set the dwell time of each,
DWELL TIME	single channel display in sequential display mode (3~60 seconds)
SITE	Select a channel to apply the name and covert settings change using the
	mouse or the remote control.
	Select a channel to apply the following settings using the mouse.
NAME	Set the channel name. Press the right square button and set the channel
	name and select OK using the mouse.
	The name can be made up to 36 characters.
COVERT	Enable/disable display of the specified video channel in live display.
VIDEO OUTPUT	Select 1280x720 or 1920x1080.

#### 4-6. Setup – NETWORK Mode

Select the NETWORK tab. Then, the network menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

<b>O</b>	品 NETWORK		
503	NETWORK TYPE	STATIC	$\overline{\Delta}$
222	IP	172.	16.2.62
	SUBNET MASK	255.	255.0.0
N.P.	GATEWAY	172.:	L6.1.254
×	DNS (PRIMARY)	168.:	L26.63.1
	DNS (SECONDARY)	168.:	L26.63.2
	DDNS		4
品	NETWORK PORT	Ę	6445
	NETWORK AUDIO PORT	E	6446
1	WEB PORT		80
		APPLY	CANCEL

Figure 4.6.1. NETWORK Setup Screen

#### Table 4.6.1. Menu Items in NETWORK Setup Screen

ltem	Description
NETWORK TYPE	DHCP: NS will automatically retrieve an IP address.
	STATIC: Network information must be manually configured.
IP	Enter IP address that is assigned for the NS
SUBNET MASK	Enter Subnet Mask that is assigned for the NS
GATEWAY	Enter Gateway that is assigned for the NS.
DNS (PRIMARY)	Enter Primary DNS address that is assigned for the NS
DNS (SECONDARY)	Enter Secondary DNS address that is assigned for the NS
DDNS	Dynamic Domain Name System (DDNS) allows a DNS name to be
	constantly synchronized with a dynamic IP address. In other words, it
	allows using a dynamic IP address to be associated with a static domain
	name so others can connect to it by the static name.
	Enable/disable using domain name address through DDNS server.
NETWORK PORT	Enter the port number.
NETWORK AUDIO	Display the network audio port (NETWORK PORT + 1).
PORT	
WEB PORT	Enter the port number for connection using web.
	-

#### 4-6-1. Network Types 4-6-1-1. DHCP

An IP address is automatically assigned by the DHCP server, which automatically assigns the IP address and other parameters to new devices.

#### 4-6-1-2. STATIC

IP address, Subnet Mask, Gateway, and DNS are manually assigned by the user.

- IP ADDRESS: The fixed IP address of the NS unit.
- SUBNET MASK: The subnet mask for the LAN.
- GATEWAY: The IP address of the Gateway.
- DNS (PRIMARY) The primary address of Domain Name Server
- DNS (SECINDARY): The secondary address of Domain Name Server



# NOTE

Unless DNS is properly set, the DDNS and the e-mail features will not work.

#### 4-6-2. DDNS

DDNS (Dynamic Domain Name System) allows a DNS name to be constantly synchronized with a dynamic IP address. It allows using a dynamic IP address to be associated with a static domain name.

Once the setting is completed, the DDNS address will be:

http://hostname.ddns.specoddns.net

For example, if you enter the host name as "NS", then the address will be:

http://NS.ddns.specoddns.net

Select NETWORK>DDNS. The menu displays as below.

ENABLE DDNS	OFF	$\overline{\Delta}$
HOST NAME	hosti	name
SUBMIT/UPDATE	OFF	$\Sigma$
ezDDNS	OFF	$\overline{\Delta}$
	APPLY	CLOSE
	APPLY	CLOSE

Figure 4.6.3. NETWORK Setup Screen – DDNS

ltem	Description
ENABLE DDNS	Turn DDNS on/off
HOST NAME	This item allows the user to setup a domain name manually,
	using virtual keyboard displays as shown.
SUBMIT/UPDATE	When manual host name input is done, move the cursor to this
	item and select ON to submit the settings.
ezDDNS	Enable/disable ezDDNS to register the host name automatically.

#### Table 4.6.2. DDNS

#### 4-6-3. Network Port and Web Port

Connecting NS/NSP through a common IP sharing device, each NS must be assigned a unique TCP port number for access from outside the LAN. This port number is displayed on NETWORK>NETWORK PORT Setup MENU.

## NOTE:

If you access the NS only within the same LAN, the TCP port number does not need to be changed.

#### Network access beyond a router

To access NS beyond a router (firewall), you must open the proper TCP ports for live/playback streaming, for commands, for remote backup, and for audio streaming. If these ports are not opened properly, you can't access the NS beyond a router.



- For live/playback streaming, for commands, for remote backup: Open the port number on NETWORK>NETWORK PORT menu. The default port number is 5445.
- For bi-directional audio: Open the port number on NETWORK AUDIO PORT. The default port number is [NETWORK PORT number + 1].
   For web-viewer downloading and remote firmware upgrading: Open the port number on
- For web-viewer downloading and remote firmware upgrading: Open the port number or NETWORK>WEB PORT menu. The default port number is 80.
- For IP Camera Setup through web viewer: Forward ports 59011 ~ 59254 to the NVR.

#### 4-7. Setup – USER MANAGEMENT Mode

In the SETUP menu, select the USER MANAGEMENT tab. Then, the USER MANAGEMENT menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

<b>O</b>			
503	AUTHORITY SETUP		4
222	USER NAME SETUP		4
	PASSWORD SETUP		4
NP	PLAYBACK AUTHORITY		¢
T			
		APPLY	CANCEL

Figure 4.7.1. USER MANAGEMENT Setup Screen

Table 4.7.1. Menu Items in USER MANAGEMENT Setup Screen
Description

Item	Description								
AUTHORITY	Only the Admin will have access to the menu.								
SETUP	<b>PASSWORD CHECK:</b> Select the Checkbox to enable the functions or leave the								
	Checkbox blank	to disable	the functio	ons.					
	SETUP:	Enable/Dis	sable of a	ccess to	Setup				
	PB: Enable	ole/Disable	e of acces	ss to Play	back				
	• PTZ: Ena	ble/Disab	le of acce	ess to PT	Z Control				
	REC OFF	: Enable/	Disable o	f manual	Record				
	NETWOF	RK: Enable	e/Disable	of access	s to Netw	ork			
	Selected Checkb	ox: The N	S will ask	for a pass	word whe	en the giver	n function is	selected	
	for all users.								
	Blank Checkbox	: The NS	will not	ask for a	passwor	rd when th	ne given fur	nction is	
	selected for all us	sers.							
		PASSWORD	SETUP	РВ	PTZ	REC OFF	NETWORK		
	PASSWORD CHECK			2	V	V	N		
	ADMIN 1111 🔽 🖳 🖾 🖾								
	USER1	1111	V	2	M	M	M		
	USER2	1111	V		V	V	₩.		
	USER3	1111	×	V	M	M			
							OK CANCEL		

	ADMIN, USER1, USER2, USER3:																				
	Selecte	d Cl	hec	kbo	x: T	he	use	r ca	n ao	cces	ss th	ne fu	unct	ion.							
	Blank C	hec	kbc	ox: T	Гhe	use	er ca	an n	ot a	icce	ss t	he f	unc	tion	•						
USER NAME	Change	the	e na	me	of l	JSE	R1,	US	SER	2 ar	nd L	JSE	R3.								
SETUP		•	CI	ick	"EN	ITE	R" a	fter	nar	ming	<b>j</b> .										
PASSWORD	Passwo	ords	car	n be	ch:	ang	ed f	or A	DM	IIN,	USI	ER1	, U	SEF	R2 a	nd	USER	3.			
SETUP	Select l	JSE	R I	PAS	SN	/OR	Du	Ising	g th	e m	nous	se o	r th	e re	emo	te c	ontro	. Se	lect u	serna	me
	and ent	er tl	he d	curr	ent	pas	swo	ord.	And	d, e	nter	a n	ew	pas	swo	ord,	enter	the sa	ame p	assw	ord
	again to	ос	onfi	rm	and	d se	elec	t O	K.	The	n tl	he	mes	ssag	ge"	PAS	sswo	RD (	CHAN	GED"	is
٨	again to confirm and select OK. Then the message "PASSWORD CHANGED" is displayed.																				
	The factory default password is <b>1111</b> .																				
	lt is hig	jhly	rec	om	me	nde	ed to	o as	ssig	n a	nev	v pa	assi	wor	d to	pr	otect	the sy	ystem	-	
PLAYBACK	Set auth	norit	ty le	evel	of p	olay	bac	k or	n ea	ch ı	Jser					-					
AUTHORITY	Checke	ed b	ox:	aut	thor	izec	to l	play	/bad	ck. I	Blar	nk c	hec	k b	ox:	no	autho	ity.			
	_																	-			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
	ADMIN	•	•		V							•			V						
	USER1	×	V	V	V	V		•	V	V	•	V	V	V	~	V					
	USER2	•	•	•	V		•				V			V	V	V					
	USER3		•	V	V	V	•	V			V		V			V					
															ОК	CA	NCEL				

#### 4-8. Setup - STORAGE Mode

In the SETUP menu, select the STORAGE tab. Then, the STORAGE menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

íO;	E STORAGE		
202	OVERWRITE	ON	$\overline{\Delta}$
244	DISK FORMAT		4
	DISK INFO		4
X	RECORDING LIMIT	OFF	<u>又</u> 又
×	RECORDING LIMIT DAYS	30 DAY(S)	$\Sigma$
	S.M.A.R.T.		4
T			
		APPLY	CANCEL

Figure 4.8.1. STORAGE Setup Screen

#### Table 4.8.1. Menu Items in STORAGE Setup Screen

Item	Description
OVERWRITE	When enabled, the NS will continue recording and overwrite the oldest existing
	recorded data once the hard drive is full. When disabled, recording will stop once
	the hard drive is full.
DISK FORMAT	Once clicked, the user will have to confirm to format the Hard Drive.
Λ	After confirming, the NS will reboot, and the format sequence will load.
	The format sequence allows user to select which HDDs to format.
<u> </u>	Caution: It is recommended to archive any data that you may need in the
	future before formatting the hard drive.
DISK INFO	Hard drive information.
	Displays the following information:

	HDD SI	ZE : 5221 GB (FREE : 409	7 GB)									
	HDD LA	ST TIME : 07-11-2012 16:	16:00									
		MODEL NAME	TEMPERATURE	HEALTH (GOOD/NORMAL/BAD								
	HDD 1	WDC WD20EURS-73S48Y0	42 C (107 F)	GOOD								
	HDD 2	WDC WD20EVDS-63T3B0	48 C (118 F)	GOOD								
	HDD 3	WDC WD20EVDS-63T3B0	48 C (118 F)	GOOD								
	HDD 4											
	HDD 5											
	HDD 6											
				OK DETAIL								
RECORDING LIMIT	Enable/	disable a recording lin	nit.									
RECORDING	Set the	recording limit days. (	1- 90 days)									
LIMIT DAYS	If the R hours.	ECORDING LIMIT D	AYS are set t	o 1, the data will								
S.M.A.R.T	Set the	alarm and beep by se	tting the HDD	temperature limit								
	Alarm will trigger alarm output.											
	Buzzer will trigger beeping from the internal speaker.											
	TEMPE	)										
	ALARM		ON									
	BUZZE	2	ON									
				OK CANCE								

#### 4-9. Setup - CONFIG Mode

In the SETUP menu, select the CONFIG tab. Then, the configuration menu is displayed as pictured below. Navigate through the menu items or change the settings using the mouse or the remote control.

Õ	CONFIG		
το <sub>τ</sub>	EXPORT TO USB		4
	IMPORT FROM USB		¢
	LOAD DEFAULT		¢
X	LOAD FACTORY DEFAULT		4
×	SOFTWARE UPGRADE		4
Ţ			
品			
1			
		APPLY	CANCEL

Figure 4.9.1. CONFIGURATION Setup Screen

ltem	Description					
EXPORT TO	User can save the current configuration settings of the NS to a USB flash					
USB	drive. Plug in the USB flash on the front panel and press the button to start					
	the export process.					
IMPORT FROM	User can upload the configuration of the NS to another NS using the USB					
USB	Flash drive. Plug in the USB flash drive on the front panel and press the					
	button to start the import process.					
LOAD DEFAULT	Select this option to reset the system to the default settings.					
	The following settings such as Language, NS ID, Security User					
	Authentication, Security User P/W, Date format, DLS settings, Network					
	settings, HDD overwrite, Limit recording, HDD serial number, and HDD					
	ERROR time will not be included.					
LOAD FACTORY	Press the button to reset the system to the factory default settings.					
DEFAULT						
SOFTWARE	Upgrade softeware to the latest version.					
UPGRADE	After connecting USB flash drive to USB port on the NS, click SEARCH.					
	It will automatically find the upgrade file.					

#### 4-9-1. Firmware Upgrade

- 1. Create a new folder named "upgrade" in the USB flash drive root directory.
- 2. Create sub-folder for each model under "upgrade" folder and copy each firmware.
  - "n4ns" for N4NS and N4NSP: "main\_n4ns\_speco\_\*.\*.\*\_201\*\*\*\*"
  - "n8ns" for N8NS and N8NSP: "main\_n8ns\_speco\_\*.\*.\*\_201\*\*\*\*"



- 3. Plug in the USB flash drive on the rear panel.
- 4. Navigate to CONFIG menu of SETUP.
- 5. Select SOFTWARE UPGRADE.
- 6. Follow the procedure from Figure 4.9.2 to Figure 4.9.4.

MODEL NAME N8NS CURRENT SOFTWARE Ver 3.7.4_201	MODEL NAME 130521 CURRENT SOFTWAR	N8NS RE Ver 3.7.4_20130521
	USB CHECK	FOUND
	USB MOUNT	ОК
	FILE CHECK	main_n8ns_speco_3.7.4_20130522.bin
0%		0%
SCAN CANO	CEL	UPGRADE CANCEL





MODEL NAME	N8NS			
CURRENT SOFTWARE	Ver 3.7.4_20130521			
USB CHECK	FOUND			
USB MOUNT	ОК			
FILE CHECK	main_n8ns_speco_3.7.4_20130522.bin			
100%				
UPGRADE SUCCESS				
	RESTART NOW			

Figure 4.9.4

#### NOTICE



- 1. If selecting REBOOT LATER, the upgraded software will not be applied until the system reboots.
- 2. If selecting REBOOT NOW when the USB flash drive is plugged, the following message will pop up: Remove the USB flash drive and select OK.

# 5. Live, Search and Playback

## 5-1. Live View

In the Live screen, video inputs from the cameras are displayed as they are configured in the Display Setup screen. Various On-Screen Display (OSD) symbols, which indicate the status of the NS, are described in Table 5.1.1.

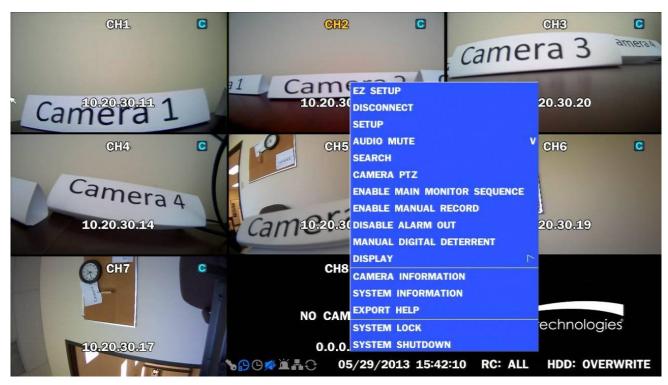


Figure 5.1.1. Live Screen and Quick Operation Window

lcon	Description
	Indicates the NS is locked.
	Note) to unlock, right click on the live view screen and click on Unlock.
	Audio mute.
	To select audio output, press the Audio after click the right button on the
	mouse.
	Toggle from Audio 1 to 4, mute in order.
	Indicates that alarm is set. To set the alarm function, press the Alarm button
	on the front panel.
G	Indicates that alarm output is activated.
•	Event indicator. When there is an event (motion recording, video loss, HDD
<b></b>	fail, S.M.A.R.T), this icon will be highlighted.
-	Indicates that a network client is connected to the NS.

#### Table 5.1.1. Status Indicator Icons in Live Viewing Screen

0	Indicates that sequencing mode is enabled.
05/15/2013 11:15:42	Displays the current date and time.
RC: ALL	Remote control ID display. If a remote ID is not set, the message "ALL" is displayed.
15%	Displays the amount of recording on the hard disk from 0-99%.
	Indicates that HDD is recycled.
C	Continuous recording in progress.
B	Manual recording in progress. To set the Manual recording mode, press the
	Record button on the front panel.
<b>.</b>	Motion alarm recording in progress.
S	Sensor recording in progress.

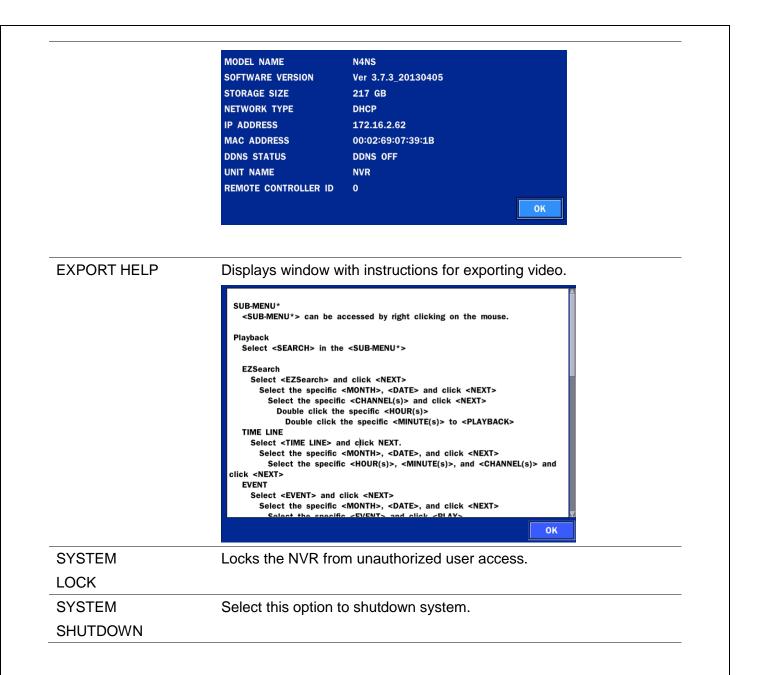
Right click the mouse, and the quick operation window will be displayed as below.

EZ SETUP
CONNECT
SETUP
AUDIO MUTE
SEARCH
CAMERA PTZ
ENABLE MAIN MONITOR SEQUENCE
ENABLE MANUAL RECORD
DISABLE ALARM OUT
MANUAL DIGITAL DETERRENT
DISPLAY
CAMERA INFORMATION
SYSTEM INFORMATION
EXPORT HELP
SYSTEM LOCK
SYSTEM SHUTDOWN

Figure 5.1.2. Quick Operation Window

lcon	Description		
EZ SETUP	Select this option to start EZ Setup Wizard.		
DISCONNECT	Select this option to disconnect/connect from IP Camera.		
SETUP	Select this option to enter the Setup menu.		
AUDIO MUTE			
AUDIO MUTE	Select this option to set an audio channel to output.		
	(Channel 1 through 16, Audio Mute)		
SEARCH	Search button. Click this button to enter the search menu.		
CAMERA PTZ	Pop up the PTZ user interface.		
ENABLE MAIN	Sequence button. Click this button to use a sequence function.		
MONITOR			
SEQUENCE ON/OFF			
ENABLE MANUAL	Manual Record button. Click this button to enable manual recording.		
RECORD ON/OFF			
DISABLE	Click this button to enable/disable Alarm outputs		
ALARM OUT			
MANUAL	Select this option to manually trigger any of the saved Digital		
DIGITAL DETERRENT	Deterrent messages.		
	Manual Digital Deterrent		
	Select Digital Deterrent Source		
	Select Digital Deterrent Source		
	OK CLOSE		
	OK CEOSE		
DISPLAY	Select between different multi-view display formats.		
CAMERA	Press the button to view the record setting of a selected channel.		
INFORMATION	IP CAMERA INFORMATION		
	CH VENDOR IP ADDRESS RESOLUTION FRAME RATE BIT RATE		
	1         ONSIP         10.20.30.11         1920 x 1080         30         1773           2         VIP         10.20.30.12         1920 x 1080         30         1773		
	2         VIP         10.20.30.12         1920 x 1080         15         3907           3         VIP         10.20.30.20         1920 x 1080         22         3514		
	4         VIP         10.20.30.14         1920 x 1080         23         3500           5         VIP         10.20.30.16         1280 x 1024         30         3902		
	6         ONSIP         10.20.30.19         1280 x 1024         13         660		
	7         VIP         10.20.30.17         1280 x 720         30         1810           8         VIP         10.20.30.18         1920 x 1080         22         3413		
	TOTAL 185 22479		
	CLOSE		
SYSTEM	Press the button to view the system information.		
INFORMATION			

# Table 5.1.2. Menu Items in Quick Operation Window



## 5-1-1. PTZ Control

Table 5.1.3. Menu Items in PTZ Control Window			
ltem	Description		
INITIALIZE	Initialize the PTZ settings of the selected camera		
PAN/TILT	Select PAN/TILT using the ▲▼◀ and ▶button, then		
	press SEL.		
	Adjust the tilt (UP/DOWN) & pan (LEFT/RIGHT)		
7001/2001/0	position using the ▲▼ ◀ and ▶ buttons.		
ZOOM/FOCUS	Select ZOOM/FOCUS using the $\blacktriangle \lor \blacktriangleleft$ and $\triangleright$		
	buttons, then press <b>SEL</b> . Adjust the zoom (UP/DOWN)/ focus (LEFT/RIGHT)		
	position using the $\blacktriangle \lor \blacktriangleleft$ and $\blacktriangleright$ buttons.		
OSD	Select OSD to enter the menu. Control keys are Right,		
	Left, UP, Down, Select, Far (REW KEY), and Near (FF		
	KEY).		
	Press the <b>ESC</b> button to return to the previous menu.		
	Press the <b>PTZ</b> button to close the OSD menu.		
AUTOSCAN	Press the right key (▶) to start auto scan.		
	Press the left key (◀) to stop auto scan.		
PRESET	Select PRESET, and then press the left key ( <). A		
	number input window will appear.		
	Set the number (3 digits) using the number key, and then press the SEL to confirm the preset number for		
	the current position. Press the right key (▶) and enter		
	the number (3digits) to go to the preset position.		
TOUR	Select TOUR and press the right (▶) key. A number		
	input window will open.		
	Select a number (1 digit) using a number key, and then press SEL to start the tour.		
	Press the left (◀) key to stop the tour.		
	Preset the number of the tour group in the OSD menu.		
NO.	For the TOUR and PRESET menu.		
×	Press ESC to return to the main menu		

#### - 4 0 M 14



PTZ

CH 2

INITIALIZE

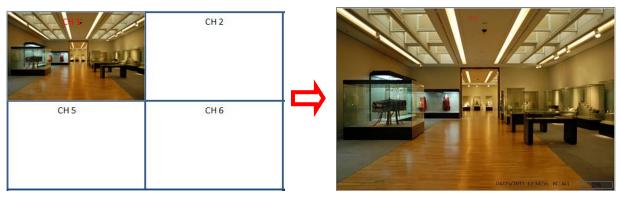
×

 $\nabla$ 

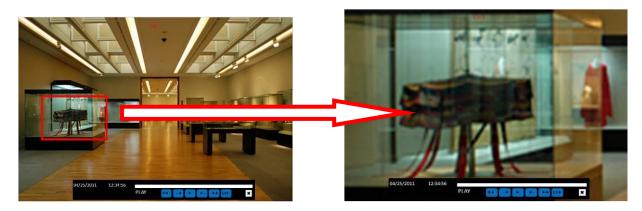
#### 5-2. Digital Zoom in Live and Playback Screen

NS series supports Digital Zoom feature during live and playback mode.

1. Double click the target channel.



2. Click the left button of the mouse and drag to make rectangular shape.



#### 5-3. SEARCH Screen

To enter the search screen menu, select SEARCH menu on the screen using the mouse or press SEARCH icon on live screen.



Figure 5.3.1. Search Screen

There are 7 playback options provided in the search menu, such as EZSEARCH, TIME LINE (Calendar), EVENT, GO TO FIRST TIME, GO TO LAST TIME, GO TO SPECIFIC TIME, ARCHIVE, and LOG on the screen.

# 5-3-1. EZSearch

The EZSearch window is used to find stored video with ease using the thumb nail playback screen.



Figure 5.3.2. Calendar Screen



Figure 5.3.3. Channel Selection Screen



Figure 5.3.4. 24 Hourly Thumbnail Screen

Figure 5.3.5. Minute Thumbnail Screen



Figure 5.3.6. Play Mode Screen

- 1. When the EZSearch menu is selected, the user can see a calendar, which displays recorded dates with highlights. Select a specific date on a calendar.
- 2. Select a channel from Channel Selection Screen. Then, 24 Hourly Thumbnail Search screen displays.
- 3. Select the hourly thumbnail. Then, Minute Thumbnail Search screen displays.
- 4. Select the thumbnail of minutes that you want to playback.

#### 5-3-2. Time Line Search

The CALENDAR Search window is used to find the stored video by using the time line bar.



Figure 5.3.7. Calendar Screen

Figure 5.3.8. Time-Line Search Screen

When the Timeline menu is selected, the user can see a calendar, which displays recorded dates with highlights. Select a specific date and time. Click and drag the red time indicator bar to the desired hour. User can select a specific minutes using a button in the above red box. Press the PLAY button after selecting the specific time. Press the PREV to return to the SEARCH window.

#### 5-3-3. Event Search

The Event Search window is used to find stored video.

EVENT MO	TION SENSOR MANU	ALLOOM INCOOS	
			<1/2
CHANNEL	LOG	DATE	$\Delta$
CH1	CONTINUOUS	10/27/2012 00:00:01	
CH2	CONTINUOUS	10/27/2012 00:00:01	
СНЗ	CONTINUOUS	10/27/2012 00:00:01	
CH4	CONTINUOUS	10/27/2012 00:00:01	
CH5	CONTINUOUS	10/27/2012 00:00:01	
CH6	CONTINUOUS	10/27/2012 00:00:01	
CH7	CONTINUOUS	10/27/2012 00:00:01	
CH8	CONTINUOUS	10/27/2012 00:00:01	
СНЭ	CONTINUOUS	10/27/2012 00:00:01	
CH10	CONTINUOUS	10/27/2012 00:00:01	
CH11	CONTINUOUS	10/27/2012 00:00:01	
CH12	CONTINUOUS	10/27/2012 00:00:01	
CH13	CONTINUOUS	10/27/2012 00:00:01	
CH14	CONTINUOUS	10/27/2012 00:00:01	
CH15	CONTINUOUS	10/27/2012 00:00:01	
CH16	CONTINUOUS	10/27/2012 00:00:01	
387 log(s) fo	und		BACKUP
001 10E(3) 10	anta		Enternor

#### Figure 5.3.9. Event Search Screen

When the Event menu is selected, the user can see a calendar, which has recorded data. Select a specific date and the event log will be displayed. Press the PLAY button to playback the data or the SAVE button to save the data after selecting the specific data. User can find a data of the specific channel and event using a button in the above red box as following Figure 5.3.10. Press the PREV to return to the SEARCH window.

ALL	🗹 CH1	CH2	🗹 СНЗ	🗹 CH4
	🗹 CH5	⊻ CH6	✓ CH7	<b>⊻ CH8</b>
	⊴ СН9	⊻ CH10	🗹 CH11	⊻ CH12
	- CH13	🗹 CH14	🗹 CH15	✓ CH16

Figure 5.3.10. Event Search Screen

#### 5-3-4. Go To First Time

User can access from the oldest recorded data on the NS hard drive by selecting GO TO FIRST TIME on the SEARCH window. Press the PREV to return to the SEARCH window.

#### 5-3-5. Go To Last Time

User can access from the last minute recorded data on the NS hard drive by selecting GO TO LAST TME on the SEARCH window. Press the PREV to return to the SEARCH window.

#### 5-3-6. Go To Specific Time

User can search for video data from a specific instance by setting the date and time in the GO TO SPECIFIC TIME menu. Use the mouse or the remote control to change the date and time value and press the PLAY button after setting. If there is no video data in the set date and time, No Data Exist message displays.

#### 5-3-7. Archive List

The ARCHIVE Search window is used to find previously stored video or images.

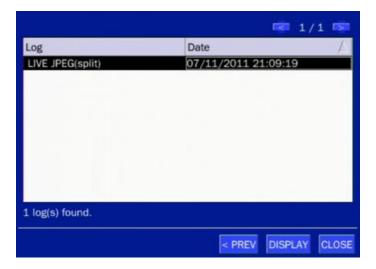


Figure 5.3.11. Archive Search Screen

When the Archive menu is selected, the user can see a calendar, which has recording data. Select a specific date and then the archived data will be displayed. Press the Display button to view the still image or the first frame of the selected video, then the user can save the selected data.

# 5-3-8. Log List

You can access the LOG list search screen by selecting LOG on the SEARCH window.

	1/1 💌
LOG	DATE
Camera Disconnection : CH2	05/15/2013 10:02:34
Camera Connection : CH2	05/15/2013 10:02:35
Camera Disconnection : CH1	05/15/2013 11:17:48
Setup : Enter	05/15/2013 11:18:21
Setup : Exit	05/15/2013 11:18:24
Setup : Enter	05/15/2013 12:22:19
Camera Disconnection : CH2	05/15/2013 13:48:30
Camera Disconnection : CH3	05/15/2013 13:48:30
Camera Connection : CH2	05/15/2013 13:52:02
Camera Connection : CH3 🔉	05/15/2013 13:52:03
42 log(s) found	BACKUP
< PREV	NEXT > CLOSE

Figure 5.3.12. Log List Screen

When the Log menu is selected, the user can see a calendar, which has a log data. Select a specific date and press NEXT button, and then the log data will be displayed. Press the SAVE button to save the data and then the data is saved as a text file format.

#### 5-4. Play Mode

During playback of a recorded event, the mode changes from SEARCH to PLAY. While in PLAY mode, user may return to the SEARCH screen by pressing the X button on the status bar.



Figure 5.4.1. Play Mode Screen

The following status bar hides automatically and appears again if a mouse pointer is positioned to the bottom of the screen.

Button	Description			
	<ul> <li>2x, 4x, 8x,16x, 32x speeds at 2x2 screen display mode.</li> </ul>			
	<ul> <li>2x, 4x, 8x,16x speeds at 3x3 screen display mode.</li> </ul>			
	<ul> <li>2x, 4x, 8x speeds at the 4x4 screen display mode.</li> </ul>			
	<ul> <li>Single Channel backward playback speed 1x, 2x, 4x, 8x, 16x, 32x, 64x</li> </ul>			
-1	Jump/Step backward. The playback position moves 60 seconds backward.			
	Press to play or pause recorded video.			
	Jump/Step forward. Playback position moves 60 seconds forward.			
	• 2x, 4x, 8x,16x, 32x speeds at 2x2 screen display mode			
	• 2x, 4x, 8x,16x speeds at 3x3 screen display mode.			
	<ul> <li>2x, 4x, 8x speeds at the 4x4 screen display mode.</li> </ul>			
	• Single Channel forward playback speed 1x, 2x, 4x, 8x, 16x, 32x, 64x			
1/4	Slow Mode play. Forward playback speed x1/4, x1/2			
[,	Press to backup the video.			
EZ	EZCopy button.			
	Return to the previous menu screen, search window, or exit from the Menu.			

# 6. Back Up

#### 6-1. Video Backup onto USB Flash Drive during playback

Video can be captured and archived onto the USB flash drive or a hard drive while playing back the

recorded video. In playback mode, press the BACKUP button to launch the backup function.

1. When you press L BACKUP button on the selected channel or all channels, the NS will ask

whether to archive a Still Image, a NSF or AVI and select the proper media type.

PLEASE SELECT ARCHIVE MEDIA TYPE • STILL IMAGE • NSF - PROPRIETARY FORMAT • AVI - INTEGRATED SUBTITLE • AVI - SEPARATED SUBTITLE, MAC COMPAT	'IBLE
	< PREV NEXT > CLOSE
PLEASE SELECT MEDIA TYPE	
• USB DRIVE	
	< PREV START CLOSE

Select USB STICK (Flash Drive) to back up less than an hour.
 Select USB HDD (Large Backup) to back up from 1 hour to 24 hours. (Only for NSF type)



3. Once you select the channel and duration, the system will start to archive the data to the USB drive.



4. The following image shows the progress of archiving the data.

90%			
	< PREV	START	CLOSE

5. The following shows the image to complete the backup. Select close to return to the previous screen.

	100%			
COMPLETE				
		< PREV	START	

## 6-2. EZCopy: Video Backup onto USB Flash Drive during playback

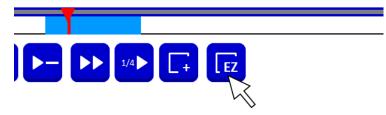
Using EZCopy feature, Video can be easily archived onto the USB flash drive or a hard drive.

In playback mode, press the

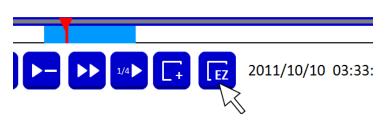
**EZCOPY** button to launch the backup function.

1. Press EZCOPY button on the selected channel or all channels.

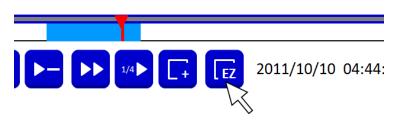
ΕZ



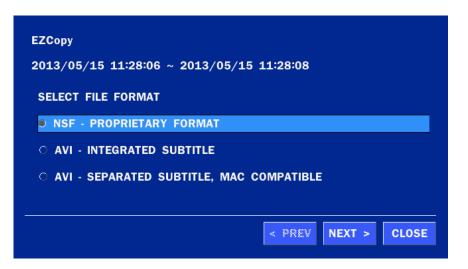
2. Then, EZCOPY START time will display.



3. Move time bar cursor to the time of end of backup and press EZCOPY button. Then, EZCOPY STOP time will display.



4. EZCOPY window will display. The NS will ask whether to archive a Still Image, a NSF or AVI.



5. After backup format is selected, also select media type and channel(s) to archive the data to the media.

#### 6-3. Transferring Still Images or Video from the ARCHIVE List

The stored data in the hard drive can be found in the ARCHIVE list in the SEARCH window.

User can back up still images or video into the storage device from the ARCHIVE list.

- 1. Select the date to begin searching and navigate through the days using the mouse or the remote control.
- 2. Once you have selected the date, press the NEXT button to open the list of stored data.
- 3. Use the mouse or the remote control to scroll through the archive list.
- 4. Select a list of stored events in the archive list.
- 5. Once the desired event has been selected, press the DISPLAY button to view the still image or the first frame of the selected video.
- 6. Press the BACKUP button to launch the archiving function in playback mode.
- 7. Press the CLOSE button to return to the SEARCH window.

			1/1 🛸
Log	Date		$ \land$
CH6 PLAY JPEG	07-13-2011 20:42:32		
CH6 NFS(1 min)	07-13-2011 20:44:20		
rfv AVI(1 min)	07-13-2011 20:45:37		
CH6 AVI(1 min)	07-13-2011 20:45:46		
rfv AVI(1 min)	07-13-2011 20:55:52		
CH6 AVI(1 min)	07-13-2011 20:56:02		
6 log(s) found.			
	< PREV	DISPLA	AY CLOSE



Figure 6.3.1. Archive Search Screen

# 6-4. Playback of Backup Video

## 6-5-1. AVI Format

AVI format: AVI format video can be played back by Window Media Player™ or other media player that is compatible with AVI format video.

1. Please install the UMSDecoderFilter that the NS copies "NSPlayer" folder on USB flash drive with the video. UMSDecoderFilter is exported to the "/NSPlayer" folder of the USB drive.



 Otherwise, the video and time stamp over video can't be properly playbacked and displayed on Window Media Player<sup>™</sup>.





Timestamp On AVI. The subtitle is embedded to the video clip file.

The subtitle is embedded to the AVI file. To display a subtitle, user should install a special filter called "UMSDecoderFilter".

#### 6-5-2. NSF Format



NSF format: NSF format video can be played back using the HDPlayer HDplayer that the NS copies to

"NSPlayer" folder on USB flash drive with video. Use the mouse scroll to use digital zoom in and out feature.



# 7. Network Access Using the Multi-Sites Network Viewer

#### 7-1. Overview

The SpecoTech Multi Client is a multiple site monitoring client software with; video, audio, and alarm signals from the NS over the network. The SpecoTech Multi Client does not limit the number of NS units to register. The program displays up to 16 NS units and supports dual monitors.

On the program, user may control PTZ cameras on the NS. By attaching a microphone and speaker system to devices on site, the user may make bi-directional audio communication over the network.

#### 7-2. PC Requirements

Minimum PC Requirements

CPU	Intel Core i3
	1.8Ghz
Memory	2GB DDR2
VGA	512MB
Resolution	1280x720
Disk Space	1GB
OS	Windows 2000, XP Professional, XP Home, Vista, 7 (NOTE: Not all versions of Vista and 7
	are supported)
Network	10/100Base T
Others	Direct X 9.0c or Higher

**Recommended PC Requirements** 

CPU	Intel Core i5
	2Ghz or higher.
Memory	4GB DDR3 or higher.
VGA	512MB or higher.
Resolution	1920x1080
Disk Space	1GB
OS	Windows 2000, XP Professional, XP Home, Vista, 7 (NOTE: Not all versions of Vista and 7
	are supported)
Network	10/100/1000Base T
Others	Direct X 10 or higher.

Before installing the program, check the PC specifications. The NS remote software may not perform correctly if the PC does not meet the minimum requirements.

#### 7-3. Installation of the Program

1. Insert the provided CD in the CD drive and double-click "SpecoTech Multi Client (XXXX).exe"



0506

1. Select a destination folder and click "Next".

hoose Destination Location		
Select folder where Setup will install files.		
Setup will install SpecoTech Multi Client in the	e following folder.	
To install to this folder, click Next. To install to another folder.	o a different folder, click B	Browse and select
Destination Folder		
- Destination Folder C:\\Speco Technologies\SpecoTech Mu	ulti Client	Browse
	ulti Client	Browse

2. Select the program folder and click "Next".

InstallShield Wizard		×
Select Program Folder Please select a program folder.		
Setup will add program icons to the Program name, or select one from the existing folders		new folder
Program Folders:		
SpecoTech Multi Client		
E <u>x</u> isting Folders:		
Accessories Administrative Tools Adobe AlViewer AnvSoft avast! Free Antivirus CMS		
DTS+AC3 Filter DVR		-
InstallShield		
	< <u>B</u> ack <u>N</u> ext>	Cancel

- 4. The installation status screen is displayed.
- 5. After the installation is completed, "SpecoTech Multi Client" icon displays on the desktop screen.



#### 7-4. Live Window

When installation is completed, double click the "**SpecoTech Multi Client**" icon on your desktop to start the program.

# 7-4-1. Main User Interface

SPECO Multi Client Ver 3.1.2.5	speco technologies	*	
Ver 3.1.2.5			5, 5, 5, 5, 5,
Ver 3.1.2.5			
	SPECO Multi Client		
	Ver 3.1.2.5		
		<u> </u>	
		11 0	1 🗳
			n +>
		< P	τ ) >

#### 7-4-2. Control Buttons

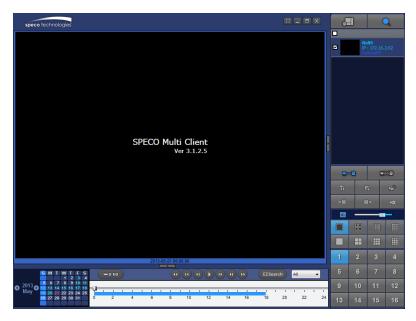
Button	Description
LOCAL PLAYBACK	Click this icon to run a playback window to search and play videos that are recorded in the local PC.
REMOTE PLAYBACK	Click this icon to run a playback window to search and play videos that are recorded in the remote NS.
Nockis Nockis IP: 172, 16, 2, 62 SITE MANAGEMENT	<ul> <li>THUMBNAIL REFRESH: Click this icon to refresh and renew thumbnail image of the connected sites.</li> <li>SITE ADDITION: Click this icon to open 'Site Addition' window.</li> <li>SITE DELETE: Click this icon to delete site from the index window, after disconnect a site.</li> <li>NET FINDER: Select the site from the index window and click this icon to modify the information of specific site.</li> </ul>
	Click this icon to connect the selected site/sites.
DISCONNECT	Click this icon to disconnect the selected site/sites.

SETUP	Click this icon to setup configuration of UMS MULTI CLIENT.
	Click this icon to capture a still image.
EVENT LIST	Opens list of events logged by the UMS Multi Client.
PAUSE	Click this icon to play/pause live video.
ALARM ON	Click this icon to turn on/off alarm outputs.
RECORD ON	Enable or disable recording of live video to local disk, which has set in setup menu.
AUDIO	Use the volume control bar to set the audio level.
MIC	Use the microphone volume control bar to set the micro phone level.
	User can control PRESET/TOUR/SCAN/MENU
PRESET/TOUR/SCAN/MENU	
	To select the numbers of display channel/channels (Single, quad, 9
CHANNEL SPLIT	channels, and 16 channels) of highlighted site.
	To select the numbers of NS/NSs (1 NS, 4 NSs, 9 NSs, 16 NSs) on
NS SITE SPLIT	main display screen.

#### 7-5. Search and Playback Window

#### 7-5-1. Main User Interface

You can access to search window by clicking the search icon (Local Playback / Remote Playback) on the upper right of the Live Window.



7-5-2. Main Control Panel Button	Description
	Click this icon to run a playback window to search and play videos that
LOCAL PLAYBACK	are recorded in the local PC.
REMOTE PLAYBACK	Click this icon to run a playback window to search and play videos that are recorded in the remote NS.
NxNS           IP:172.16.2.62	THUMBNAIL REFRESH: Click this icon to refresh and renew thumbnail image of the connected sites.
	SITE ADDITION: Click this icon to open 'Site Addition' window.
	SITE DELETE: Click this icon to delete site from the index
	window, after disconnect a site.
	NET FINDER: Select the site from the index window and click this
	icon to modify the information of specific site.
CONNECT	Click this icon to connect the selected site/sites.
DISCONNECT	Click this icon to disconnect the selected site/sites.
SETUP	Click this icon to setup configuration of SpecoTech Multi Client.
CAPTURE	Click this icon to capture a still image.
EVENT LIST	Opens list of events logged by the UMS Multi Client.
EZCopy Start	Click this icon to set the beginning time for backup of the recorded video in AVI format.
EZCopy End	Click this icon to set the ending time for backup of the recorded video in AVI format.
ВАСКИР	Click this icon to backup the recorded video in AVI format.
AUDIO	Use the volume control bar to set the audio level.
	To select the numbers of NS/NSs (1 NS, 4 NSs, 9 NSs, 16 NSs) on main display screen.
	To select the numbers of display channel/channels (Single, quad, 9 channels, and 16 channels) of highlighted site.

1         2         3         4           5         6         7         8           9         10         11         12           13         14         15         16	To select the channel to playback.
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 3 4 5 6 7 8 9 10 11 12 3 4 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	The calendar shows dates with recorded video in color.
All	To display the recorded data of selected channel or all channels on a
All V	time line scale.
	To change a timeline scale from 24 hours to 60 minutes.
	The timeline shows recorded data in color on the bar. You can adjust
₩ 0-60 24 HOUR	the timeline scale and move it to the time you wish to playback. Then
	click the play icon to display the recorded video.
	Playback buttons.
EZCasesh	Thumbnail search over the network.
EZSearch	- List the thumbnail 24images from 00:00 to 23:00.
	- Select one of 24 images every 150sec for an hour.
	- Then play the tile
	* Click the "PREVIOUS" button to go the previous step.
	Digital Zoom Window in Live and Playback. (Only available in Single
	Channel Viewing)

#### 7-6. Setup of SpecoTech Multi Client

Click the setup icon to setup the configuration of UMS Multi Client software. The SETUP window is displayed as below.

#### 7-6-1. General

Security Option: Set a password for security options. Select security options and set a password.

Then when you access any of selected functions, you need to enter the password.

You can also set the save path for capturing and backup.

Save Path: Specify the location to save captured still image for Capture and Backup data.

#### Miscellaneous

Automatic Reconnection: If enabled, the software will automatically try to reconnect to the last successful IP address. But, when CLIENT ACCESS is OFF on the NS, the software will not try to reconnect even if it is enabled.

**Always On Top**: If enabled, the software display will be continuously on the top of other windows. **Time Format**: Change the way the Client software displays the time.

etup		X		
<ul> <li>General</li> <li>Event</li> <li>Event search</li> </ul>	Security Option Startup Shutdown Setup Local Playback Remote Playback	vord		
Record Disk	Save Path			
Display Language About	Capture : C:\Storage\Capture\			
	Backup : C:\Storage\Backup\			
	Miscellaneous			
	Automatic reconnection			
	Always On Top			
	Time Format : YYYY-MM-DD -			
		Concel		
	OK	Cancel		

### 7-6-2. Event

Event log can be archived and searched.

**Event Log:** Specify the location to save event logs and select event to archive.

Setup				X
<ul> <li>E General</li> <li>▲ Event</li> <li>֎ Event search</li> <li>֎ Record</li> </ul>	Log Path : C:\Storag Size : 10	je\Log\	(1	 MAX : 100MB)
🚽 Disk	Event	Log	Event list	
🔁 Display	Startup	<b>V</b>	V	
Language	😵 Shutdown		<b>V</b>	
About     About	🏈 Setup Change		<b>V</b>	
•	Sensor in	$\checkmark$	<b>V</b>	
	👯 Alarm out	$\checkmark$	<b>V</b>	
	💐 Motion	$\checkmark$	<b>V</b>	
	🙀 Camera loss		<b>V</b>	
	🖳 Network loss		<b>V</b>	
	💷 Record		<b>V</b>	
			ОК	Cancel

Event Search: Event log can be searched from the selected time.

tup E General Event Event search Record	From : To : Path :	First	2011-04-26 2011-04-26 pe\Log\		:00:00 AM :48:54 PM		Find
<ul> <li>Disk</li> <li>Display</li> <li>Language</li> <li>About</li> </ul>	Туре	Site	Address	Event		Date/Time	

#### 7-6-3. Record

**Record Setup:** You can set the recording conditions as the following; Always, Event, or Auto record. And you can also select target NS/NSs and channel/channels. When you set the recording condition to event, you can set event for motion or alarm with duration.

Setup					X
<ul> <li>General</li> <li>Event</li> <li>Event search</li> </ul>	Record Cor Always Event	ndition ⊚ Event	i Al	ito record	
<ul> <li>Record</li> <li>Disk</li> <li>Display</li> <li>Language</li> </ul>	Channel Site :	C Alarm	Duration :	5	Sec
About	NO. 1 2 3 4 5 6	CH Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6			
			(	ОК	Cancel

**Record Local Storage Setup:** You can select the local disk to record and the amount of disk space you want to allow the program to use for recording. You can also select the option to overwrite data or stop recording when the maximum amount of disk space is full.

Setup		X
Setup General General Event Event search Record Disk Display Language About	Disk Space : Cı   4   GB Disk Info Total space : 465 GB Free space : 398 GB Disk full	
	OK	cel

# 7-6-4. Display

You can select the OSD (On Screen Display) to be displayed.

Setup		0
<ul> <li>General</li> <li>Event</li> <li>Event search</li> <li>Record</li> <li>Disk</li> <li>Display</li> <li>Language</li> <li>About</li> </ul>	OSD Site : Site 1  All site Info Display network statistics Date/Time One Record Video Loss	
	Display  Secondary monitor image correction  Please use this option only on the PC when having a shattered image on the secondary monitor during use of multi monitor. If option is enabled, the performance of the program may drop.  OK Cancel	

# 7-6-5. Language

English, French and Spanish is selectable.

Setup				X
<ul> <li>General</li> <li>Event</li> <li>Event search</li> <li>Record</li> <li>Disk</li> <li>Display</li> <li>Language</li> <li>About</li> </ul>	Language :	English French English Spanish		
			ОК	Cancel

# 7-6-6. About

"About" provides network client version information.

Setup		X
<ul> <li>☑ General</li> <li>▲ Event</li> <li>֎ Event search</li> <li>֎ Record</li> <li>֎ Disk</li> <li>Display</li> <li>▲ Language</li> <li>? About</li> </ul>	SPECO Multi Client Version 3.1.2.5 (Build 130506)         Copyright (C) 2011         This product licensed to :         Warning: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.	
	OK Cano	el

#### 7-7. Remote Setup

The menu settings for the NS unit can be set over network.

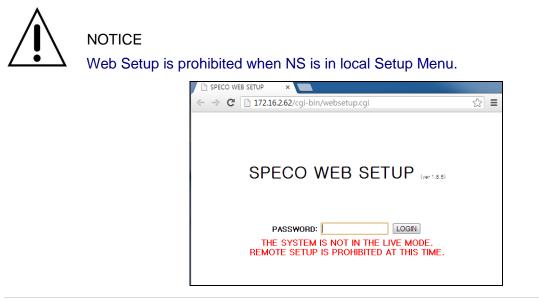
Put the cursor of the mouse on the channel, which is connected to the site and right click on the mouse to open the submenu. Then the following window is displayed as below. Select the **REMOTE SETUP**.



Then the setup window is displayed. The specified menu screen is displayed on the upper left of the screen. Enter the password of the NS when prompted. (NOTE: The default password is 1111)

Setting is the same as with the NS menu setting. Refer to the corresponding pages for details on the setting items.

SPECO WEB SETUP ×	
← → C [] 172.16.2.62/cgi-bin/websetup.cgi	☆ =
PASSWORD: LOGIN	



#### 7-7-1. IP Camera

Select IP Camera to set system and time settings

IP CAMERA	SYSTEM	RECORD	DEVICE	DISPLAY	NETWORK	USER MANAGEMENT	STORAGE
UPGRADE	INFORMATIO	ON					
CHANNEL				CH1			•
VENDOR				ONSI	Þ		•
IP				demo-	d1.okddns.com		
PORT				5445			
WEB POR	г			80			
PROTOCO	L			TCP			•
ID				admin			
PASSWOF	RD			1111			

# 7-7-2. System

Select System to set system and time settings.

INFORMATION         DATE DISPLAY FORMAT       MM/DD/YYYY         CLENT ACCESS       O ON O OFF         NTP SETUP       ON         PRIMARY SMTP SERVER       Pool ntp org         SECONDARY SMTP SERVER       Time nist.gov         TIME ZONE       GMT -5.00 (Montreal/New York)         CONNECTION MODE       TIME         CONNECTION PERIOD       03.00 AM         SEND EMAIL SETUP       OFF         ONNECTION PERIOD       03.00 AM         SEND EMAIL SETUP       OFF         IT PAINSMISSION MODE       TEXT         IP NOTIFICATION       OFF         MAIL BY SENSOR       OFF         MAIL BY DISCONNECTION       OFF         MAIL BY MOTION       OFF         MAIL BY SIDSONNECTION       OFF         MAIL BY SIDSONNECTION       OFF         MAIL BY SIDSONNECTION       OFF         MAIL BY STATUS       ON         SERVER TYPE       MANUAL         MAIL PORT       25         SECURE OPTION       NONE         ID	IP CAMERA SYST	EM RECORD	DEVICE	DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE
CLIENT ACCESS       O ON O OFF         NTP SETUP       ON         PRIMARY SNTP SERVER       Pool.ntp.org         SECONDARY SNTP SERVER       Time.nist.gov         TIME ZONE       GMT-S:00 (Montreal/New York)         CONNECTION MODE       TIME         CONNECTION PERIOD       03:00 AM         SEND EMAIL SETUP       OFF         TRANSMISSION MODE       TEXT         IP NOTIFICATION       OFF         MAIL BY SENSOR       OFF         MAIL BY SINSCONNECTION       OFF         MAIL BY SINSON       ON         PERIOD       DAILY         PERIOD       DAILY         SERVER TYPE       MAINUAL         MAIL PORT       ZS         SECURE OPTION       NONE         ID	INFORMATION							
CLIENT ACCESS       O ON O OFF         NTP SETUP       ON         PRIMARY SNTP SERVER       Pool.ntp.org         SECONDARY SNTP SERVER       Time.nist.gov         TIME ZONE       GMT-S:00 (Montreal/New York)         CONNECTION MODE       TIME         CONNECTION PERIOD       03:00 AM         SEND EMAIL SETUP       OFF         TRANSMISSION MODE       TEXT         IP NOTIFICATION       OFF         MAIL BY SENSOR       OFF         MAIL BY SINSCONNECTION       OFF         MAIL BY SINSON       ON         PERIOD       DAILY         PERIOD       DAILY         SERVER TYPE       MAINUAL         MAIL PORT       ZS         SECURE OPTION       NONE         ID		IAT				,		-
NTP SETUP       ON       Image: Setup of the se								
SECONDARY SNTP SERVER       Time.nist.gov         TIME ZONE       GMT -5.00 (Montreal/New York)         CONNECTION MODE       TIME         CONNECTION PERIOD       03:00 AM         SEND EMAIL SETUP       OFF         TRANSMISSION MODE       TEXT         IP NOTHFICATION       OFF         MAIL BY SENSOR       ON         PERIOD       DAILY         FIRST       SUN         MAIL PORT       25         SECURE OPTION       NONE         ID       Internet         MAIL FROM       Internet         MAIL FROM       Internet         MAIL FROM       Inter								•
SECONDARY SNTP SERVER       Time.nist.gov         TIME ZONE       GMT -5.00 (Montreal/New York)         CONNECTION MODE       TIME         CONNECTION PERIOD       03.00 AM         SEND EMAIL SETUP       OFF         TRANSMISSION MODE       TEXT         IP NOTHFICATION       OFF         MAIL BY SENSOR       ON         PERIOD       DAILY         FIRST       SUN         MAIL PORT       25         SECURE OPTION       NONE         ID       Internet         PASSWORD       Internet         MAIL FROM       Internet         UNIT NAME       NVR	PRIMARY SNTP SE	RVER			Pool.ntp.org			
TIME ZONEGMT -5:00 (Montreal/New York)CONNECTION MODETIMECONNECTION PERIOD03:00 AMSEND EMAIL SETUPOFFTRANSMISSION MODETEXTIP NOTIFICATIONOFFMAIL BY SENSOROFFMAIL BY SENSOROFFMAIL BY DISCONNECTIONOFFMAIL BY DISCONNECTIONOFFMAIL BY STATUSONPERIODDAILYPERIODDAILYSERVER TYPEMANUALMAIL PORT25SECURE OPTIONNONEID	SECONDARY SNTF	P SERVER						
CONNECTION MODETIMECONNECTION PERIOD03:00 AMSEND EMAIL SETUPOFFTRANSMISSION MODETEXTIP NOTIFICATIONOFFMAIL BY SENSOROFFMAIL BY SENSOROFFMAIL BY MOTIONOFFMAIL BY DISCONNECTIONOFFMAIL BY SENSOROFFMAIL BY STATUSONPERIODDAILYSERVER TYPEMANUALMAIL SERVER	TIME ZONE					ontreal/New York)		
CONNECTION PERIOD03.00 AMSEND EMAIL SETUPOFFTRANSMISSION MODETEXTIP NOTIFICATIONOFFMAIL BY SENSOROFFMAIL BY SENSOROFFMAIL BY MOTIONOFFMAIL BY MOTIONOFFMAIL BY STATUSONPERIODDAILYSERVER TYPEMANUALMAIL PORT25SECURE OPTIONNONEIDIPASSWORDIMAIL TOIMAIL TOIMAIL TOIMAIL FROMIMAIL TOIMAIL TOI<	CONNECTION MOD	)E				,		•
SEND EMAIL SETUP       OFF         TRANSMISSION MODE       TEXT         IP NOTIFICATION       OFF         MAIL BY SENSOR       OFF         MAIL BY SENSOR       OFF         MAIL BY MOTION       OFF         MAIL BY MOTION       OFF         MAIL BY SENSOR       OFF         MAIL BY MOTION       OFF         MAIL BY SENSOR       ON         PERIOD       DAILY         PERIOD       DAILY         SERVER TYPE       MANUAL         MAIL PORT       25         SECURE OPTION       Inone         ID       Inone         PASSWORD       Inone         MAIL TO       Inone         MAIL TO       Inone         MAIL FROM       Inone         UNIT NAME       InvR	CONNECTION P	ERIOD			03:00 AM			
IP NOTIFICATION       OFF         MAIL BY SENSOR       OFF         MAIL BY MOTION       OFF         MAIL BY DISCONNECTION       OFF         MAIL BY SIM A.R.T.       OFF         MAIL BY STATUS       ON         PERIOD       DAILY         PERIOD       FIRST         MAIL SERVER       MANUAL         MAIL SERVER       Image: Comparison of the second o	SEND EMAIL SETUP				OFF			
MAIL BY SENSOR       OFF         MAIL BY MOTION       OFF         MAIL BY DISCONNECTION       OFF         MAIL BY SENSOR       ON         MAIL BY STATUS       ON         PERIOD       DAILY         FIRST       SUN         MAIL SERVER       Interference         MAIL PORT       25         SECURE OPTION       NONE         ID       Interference         PASSWORD       Interference         MAIL TO       Interference         MAIL FROM       Interference         UNIT NAME       NVR	TRANSMISSION MO	DDE			TEXT			~
MAIL BY MOTION       OFF         MAIL BY DISCONNECTION       OFF         MAIL BY S.M.A.R.T.       OFF         MAIL BY STATUS       ON         PERIOD       DAILY         SERVER TYPE       MANUAL         MAIL SERVER	IP NOTIFICATION				OFF			
MAIL BY DISCONNECTION       OFF         MAIL BY S.M.A.R.T.       OFF         MAIL BY STATUS       ON         PERIOD       DAILY         SERVER TYPE       MANUAL         MAIL SERVER	MAIL BY SENSOR				OFF			<b>.</b>
MAIL BY S.M.A.R.T.       OFF         MAIL BY STATUS       ON         PERIOD       DAILY         FIRST       SUN         SERVER TYPE       MANUAL         MAIL SERVER	MAIL BY MOTION				OFF			~
Mail BY STATUS       ON         PERIOD       Daily         FIRST       SUN         SERVER TYPE       MANUAL         MAIL SERVER	MAIL BY DISCONN	ECTION			OFF			~
PERIOD DAILY   FIRST SUN   SERVER TYPE MANUAL   MAIL SERVER	MAIL BY S.M.A.R.T				OFF			~
FIRST   SERVER TYPE   MANUAL   MAIL SERVER   MAIL PORT   SECURE OPTION   NONE   ID   PASSWORD   MAIL TO   MAIL FROM   UNIT NAME	MAIL BY STATUS				ON			
SERVER TYPE       MANUAL         MAIL SERVER       Image: Comparison of the compa	PERIOD				DAILY			Ψ.
Mail SERVER					FIRST	✓ SUN	- 0 H	~
MAIL PORT     25       SECURE OPTION     NONE       ID        PASSWORD        MAIL TO        MAIL FROM        UNIT NAME     NVR	SERVER TYPE				MANUAL			•
SECURE OPTION NONE  ID  PASSWORD  MAIL TO  MAIL FROM  UNIT NAME  NVR	MAIL SERVER							
ID     I       PASSWORD     I       MAIL TO     I       MAIL FROM     I       UNIT NAME     NVR	MAIL PORT				25			
PASSWORD MAIL TO MAIL FROM UNIT NAME NVR	SECURE OPTIO	N			NONE			~
MAIL TO MAIL FROM UNIT NAME NVR	ID							
MAIL FROM UNIT NAME NVR	PASSWORD							
UNIT NAME NVR	MAIL TO							
	MAIL FROM							
	UNIT NAME				NVR			
STSTEM RESTART	SYSTEM RESTART					SYSTEM REST	ART	

- DATE DISPLAY FORMAT: Select the date display format.
- CLIENT ACCCESS: Enable/Disable remote access through network client software.
- **NTP SETUP:** Sets whether to synchronize the time using NTP server or not.

- Primary SNTP Server: Input the NTP primary server address.
- Secondary SNTP Server: Input the NTP secondary server address.
- **Time Zone**: Select the time zone.
- **Connection Mode**: Select the connection mode to NTP time server.
- SEND E-Mail SETUP: Sets whether to enable/disable e-mail sending function.
  - **TRANSMISSION MODE:** Select the mail transmission mode (TEXT or VIDEO).
  - IP NOTIFICATION: Enable/disable sending e-mail when the IP address is changed.
  - MAIL BY SENSOR: Enable/disable sending e-mail reports when an alarm event is triggered.
  - MAIL BY MOTION: Enable/disable sending e-mail when the motion is detected.
  - MAIL BY VIDEO LOSS: Enable/disable sending e-mail when the video loss is detected.
  - o MAIL BY S.M.A.R.T.: Enable/disable sending e-mail reports when S.M.A.R.T. is triggered
  - MAIL BY STATUS: Enable/disable sending periodical e-mail of the system status.
  - MAIL PORT: Mail port setting.
  - SEURE OPTION: Select a secure mail server connection. (SSL or TLS)
  - MAIL TO: Input the appropriate email address to enable sending e-mail reports
  - MAIL SERVER: Input the SMTP server name as well as the user ID and password.
  - MAIL FROM (Return Mail Address): Set the source e-mail address to be notified to the destination.
- USER NAME: Name the NS

#### 7-7-3. Record

Select **RECORD** tab to set the recording conditions.

IP CAMERA	SY	(STE	м	REC	ORD	D	EVIC	E	DISF	PLAY	N	IETWO	DRK	U	SER I	MANA	GEM	ENT	S	FORA	GE	UP	GRAD	E
INFORMATION																								
SITE												CH1												-
RECORDING	g Mo	DE										CONT	TINUO	US										-
SENSOR RE	ECOF	RDIN	G									-		▼ -		-	-			-		▼ -		-
PRE RECOR	RD											1 MIN	IUTE(	S)										-
POST EVEN	IT RE	ECOR	RD.									10 SE	CON	D(S)										-
AUDIO												OI	N O	OFF										
SCHEDULE																								
NONE	_									•														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
MON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								

These settings apply to the specified channel only.

- Recording Setup
  - RECORDING MODE: CONTINUOUS, SCHEDULE, MOTION
  - **PRE RECORD**: Sets whether to perform or not pre recording.
  - **POST EVENT RECORD**: Sets the duration of the event recording.

- o AUDIO: Sets whether to perform or not audio recording.
- o SCHEDULE: Sets the schedule recording.

#### 7-7-4. Device

Select Device to set device settings of the NS

ECO	WEB 3	SETU	P (ver 1.8	3.8)																				
CAMERA	SYSTEM	RECORD	DEVIC		DISPLAY	NETV	VORK	USER	MANAGEM	ENT	STORAG	e UPG	RADE	INFORMA	TION									
ARM-OUT												1												
SENSOR IN -	- LOCAL											1		~	25			× -			~			
SENSOR IN -												-		~				× -			~			
MOTION ON												-		~	-			× -			~			
												OFF												
HDD ERROF												INFINITE												
ZZER	ATION											HDD ERF												
GITAL DETER												47 												
																								Irowse. UPLOA
CHANNEL												CH1												
	E											NONE												
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SUN																								
NON																								
TUE																								
WED																								
THU																								
FRI																								
SAT																								
IANNEL												1												
UDIO SOUF	RCE											IP CAM												
Y TONE												ON O	OFF											
	TROLLER ID											0												
NSOR TYPE												OFF												
	SE STATUS											011												
						PC	ORT	ST	ATUS	FAL	JLT	VOLTAG	E (V)	CURRENT (	(mA)	POWER	(mW)							
							1		WER JVERY	NO F/	AULT	16	ł.	333		5328	3							
							2		WER LIVERY	NO F/	AULT	17	s	2		34								
							3	DEL	WER LIVERY	NO F/	AULT	16		223		3568	3							
							4	DEI	WER LIVERY	NO F/	AULT	16		235		3760	)							
							5	DEL	WER LIVERY	NO F/	AULT	17	8	223		379								
						-	6	DEI	WER LIVERY	NO F/		16		309		4944								
						-	7	DEL	IVERY	NO F/	and a second	17		189		3213	3							
						-	8	SEAF	RCHING	NO F/	AULT	0		0		0								
						TO	TAL	4.6						1514		2463	8							

#### • ALARM OUT: Set the sensor, motion, and video loss for triggering alarm relay.

HDD Error and Video Loss can be set for triggering a beeping sound

The following settings can be changed to trigger an alarm output.

- SENSOR IN LOCAL
- SENSOR IN IP CAM
- MOTION ON
- DISCONNECTION
- HDD ERROR
- ALARM DURATION
- **BUZZER:** The buzzer can be set to go off upon the error selected.
- **DIGITAL DETERRENT:** The schedule of digital deterrent can be set and a sound file can be uploaded to the NS.

To set up schedule, select **CHANNEL >** select **SOUND TYPE >** select Area.

- CHANNEL: Select the Channel to configure audio input
  - AUDIO SOURCE: Local Audio (RCA) or IP CAM Audio
- **KEYTONE**: Sets On or Off of Key Tone.
- **REMOTE CONTROLLER ID**: Sets an ID number of which remote control to receive commands.
- **SENSOR:** Select the type of each sensor.
- IEEE 802.3af PSE Status: a table showing the status of all PoE devices connected to the NSP.

#### 7-7-5. Display

Select the **DISPLAY** tab to set the DISPLAY conditions.

IP CAMERA SYSTEM RECORD	DEVICE DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE
INFORMATION					
OSD					
CHANNEL NAME		🔍 ON 🔘 OI	FF		
DISCONNECTION		🔍 ON 🔍 OI	FF		
STATUS BAR / ICON		🔍 ON 💿 OI	FF		
IP ADDRESS / FPS		IP			•
OSD CONTRAST		100			•
MAIN MONITOR SEQUENCE		🔍 ON 💿 OI	FF		
SEQUENCE-DWELL TIME		3 SECOND(	S)		•
SITE		CH1			•
NAME		CH1			
COVERT		OFF			•

These settings apply to all channels.

- **OSD**: Sets whether to display or not date and time as well as channel number on the screen.
- **OSD CONTRAST**: Adjust the character contrast on the screen.
- MAIN MONITOR SEQUENCE: Setting for automatically switching the displayed video.
- **SEQUENCE DWELL TIME**: Sets the interval for automatically switching the screens.
- SITE: Name, Covert, Brightness, Contrast, Hue, Saturation

These settings apply to the specified channel only.

#### 7-7-6. Network

INFORMATION   NETWORK TYPE   IP   172.16.2.62   IP   SUBNET MASK   255.255.0.0   GATEWAY   172.16.1.254   DNS (PRIMARY)   168.126.63.1   DNS (SECONDARY)   168.126.63.2   DDNS   ENABLE DDNS   OFF   NAME   NAME   SUBMIT/UPDATE   0FF   ezDDNS   NETWORK PORT   6445   NETWORK AUDIO PORT   80	IP CAMERA	SYSTEM	RECORD	DEVICE	DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE
IP       172.16.2.62         SUBNET MASK       255.255.0.0         GATEWAY       172.16.1.254         DNS (PRIMARY)       168.126.63.1         DNS (SECONDARY)       168.126.63.2         DDNS       Image: Comparison of the state of	INFORMATION								
SUBNET MASK       255.255.0.0         GATEWAY       172.16.1.254         DNS (PRIMARY)       168.126.63.1         DNS (SECONDARY)       168.126.63.2         DDNS       0FF         ENABLE DDNS       0FF         HOST NAME       hostname         SUBMIT/UPDATE       0FF         ezDDNS       0FF         NETWORK PORT       5445	NETWORK TYP	Έ				DHCP			<b>~</b>
GATEWAY 172.16.1.254 DNS (PRIMARY) 168.126.63.1 DNS (SECONDARY) 168.126.63.2 DDNS ENABLE DDNS OFF HOST NAME Not NAME Not NAME Not NAME Not NAME NOT NAME NOT	IP					172.16.2.62			
DNS (PRIMARY) 168.126.63.1 DNS (SECONDARY) 168.126.63.2 DDNS ENABLE DDNS OFF HOST NAME Notmen SUBMIT/UPDATE OFF ezDDNS OFF NETWORK PORT 5445	SUBNET MA	SK				255.255.0.0			
DNS (SECONDARY) 168.126.63.2 DDNS ENABLE DDNS OFF HOST NAME hostname SUBMIT/UPDATE OFF ezDDNS OFF NETWORK PORT 5445 NETWORK AUDIO PORT 5446	GATEWAY					172.16.1.254			
DDNS       ENABLE DDNS       OFF       HOST NAME       NOFF       SUBMIT/UPDATE       ezDDNS       OFF       NETWORK PORT       5445       NETWORK AUDIO PORT	DNS (PRIMA	RY)				168.126.63.1			
ENABLE DDNS     OFF       HOST NAME     hostname       SUBMIT/UPDATE     OFF       ezDDNS     OFF       NETWORK PORT     5445       NETWORK AUDIO PORT     5446	DNS (SECO	NDARY)				168.126.63.2			
HOST NAME     hostname       SUBMIT/UPDATE     OFF       ezDDNS     OFF       NETWORK PORT     5445       NETWORK AUDIO PORT     5446	DDNS								
SUBMIT/UPDATE     OFF       ezDDNS     OFF       NETWORK PORT     5445       NETWORK AUDIO PORT     5446	ENABLE DD	NS				OFF			•
ezDDNS     OFF       NETWORK PORT     5445       NETWORK AUDIO PORT     5446	HOST NA	ME				hostname			
NETWORK PORT 5445 NETWORK AUDIO PORT 5446	SUBMIT/U	IPDATE				OFF			<b>~</b>
NETWORK AUDIO PORT 5446	ezDDNS					OFF			<b>*</b>
	NETWORK POR	RT				5445			
WEB PORT 80	NETWORK AU	DIO PORT				5446			
	WEB PORT					80			

#### • NETWORK TYPE ( Cannot be altered remotely )

- **STATIC**: The address setting mode is manual. Input IP, Gateway, Subnet Mask, and DNS IP.
- **DHCP**: The address setting mode is automatic.
- **DDNS**: Set whether to use DDNS service or not
  - HOST NAME: Allows the user to setup a domain name manually
  - SUMBIT/UPDATE: Select ON to submit the settings
  - ezDDNS: Enable ezDDNS to register the host name automatically
- **NETWORK PORT:** When connecting multiple NSs to the network, set a unique port number.
- **NETWORK AUDIO PORT:** Display the network audio port (NETWORK PORT + 1).
- WEB PORT: Set a web server port number.

#### 7-7-7. User Management

Select the **USER MANAGEMENT** tab to set the DISPLAY conditions.

IP CAMERA	SYSTEM	RECORD [	DEVICE DISP	LAY	NETWO	RK I	JSER MA	NAGEMENT	STORAGE	UPGRADE
INFORMATION	١									
AUTHORITY S	ETUP									
		PASSWORD	SETUP	P	в	P	ΤZ	REC OFF	NETWORK	
	PASSWORD CHECK		<ul><li>✓</li></ul>		7	[	<b>v</b>	<b>V</b>		
	ADMIN	****				[	<b>√</b>			
	USER1	****		5	7	[	<b>v</b>	<b>V</b>		
	USER2	****		5	7	[	<b>V</b>	<b>V</b>		
	USER3	****		5	7	[	<b>v</b>			
USER NAME	SETUP				USER1					
NEW USEF	NAME				USER1					
PASSWORD	SETUP				ADMIN					
CHANGE					KEEP					•
NEW PASS	SWORD									
CONFIRM F	PASSWORD									
PLAYBACK A	UTHORITY									
				1	2	3	4			
			ADMIN	$\checkmark$	<b>V</b>	$\checkmark$	$\checkmark$			
			USER1	<b>V</b>	<b>V</b>	<b>V</b>				
			USER2		<b>V</b>	<b>V</b>	<b>V</b>			
			USER3	<b>V</b>	<b>V</b>	<b>V</b>				

- **AUTHORITY SETUP**: Select which users have access to each function, password check can be implemented for each function accessed.
- USER NAME SETUP: Select which Username to change
  - NEW USER NAME: Input the new username
- **PASSWORD SETUP**: Select Username to change Password
  - **CHANGE:** Select whether to KEEP or CHANGE the current password.
  - **NEW PASSWORD:** Input NEW Password if CHANGE was selected.
  - **CONFIRM PASSWORD:** Input NEW Password again to confirm.
- PLAYBACK AUTHORITY: User can select which users have access to which channels.

# 7-7-8. Storage

Select **Storage** to configure recording settings such as overwriting the hard disk and the setting a storage period for the recording data.

IP CAMERA	SYSTEM	RECORD	DEVICE	DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE
INFORMATION	•							
OVERWRITE					© ON ● O	FF		
DISK INFO HDD SIZE : HDD LAST 1					217 GB (FRE 05/15/2013 1/			
HDD 1 MODEL M TEMPER						721025CLA382 02 Fahrenheit)		
REALLO	(GOOD/NORM CATED SECTO	DRS			NORMAL			
UNCORR	t pending s Ectable se Try sector:	CTORS			0 0 0			
RECORDING L		9			OFF			•
RECORDING	G LIMIT DAYS				30 DAY(S)			~
S.M.A.R.T.								
TEMPERAT	URE LIMIT				60°C 140°F			▼.
ALARM BUZZER					<ul> <li>ON</li> <li>ON</li> <li>ON</li> <li>ON</li> </ul>			

- **OVERWRITE**: Select on to continue recording by overwriting when the hard disk becomes full.
- **RECORD LIMIT**: Sets whether to limit or not the recording data storage period.
- **S.M.A.R.T.**: Sets the TEMPERATURE LIMIT of the Hard Disk to trigger the ALARM and the BUZZER.

#### 7-7-9. Remote Upgrade

#### SPECO WEB SETUP (ver 1.8.8)

IP CAMERA	SYSTEM	RECORD	DEVICE	DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE	INFORMATION
							Cur		lodel Name : N8NS /er 3.7.4_20130524
									Browse
									UPGRADE

Shows the current Firmware version installed on NS.

- **Browse:** Select BROWSE to locate the firmware file.
- **Upgrade:** Select UPGRADE to upgrade the firmware of the NS.

#### 7-7-10. Information

IP CAMERA SYSTEM RECORD	DEVICE DISPLAY	NETWORK	USER MANAGEMENT	STORAGE	UPGRADE
INFORMATION					
MODEL NAME		N4NS			
SOFTWARE VERSION		Ver 3.7.3_20'	130405		
STORAGE SIZE		217 GB			
NETWORK TYPE		DHCP			
IP ADDRESS		172.16.2.62			
MAC ADDRESS		00:02:69:07:3	39:1B		
DVR ID		NVR			
REMOTE CONTROLLER ID		0			

Displays general information about the NS.

# 7-8. Operation

# 7-8-1. Addition, Delete, and Modify of NS Sites

7-8-1-1. Addition of Sites

1. Click SITE ADDITION button. And then the following window will be displayed as below.

Site Info			
Site name :			
Site address :			
Port number :	5445		
ID :			
Password :			

- $\circ$  Site Name: Input a name that properly describes a site.
- **IP Address:** Input IP address (Public IP address of a router that NS is connected.) or Domain name
- Port Number: Default Port Number is "5445".
- o ID: Input ID of NS. Default ID is "admin".
- Password: Input network password of NS. Default Password is "1111".
- 2. Click OK button. And then the registered site is added on the directory window.



# 7-8-1-2. Deleting a Site

1. Select the site/sites to delete from the directory window.



2. Click SITE DELETE button. And then the selected site/sites is/are deleted.

#### 7-8-1-3. Modify of Sites

1. Select the site/sites to modify from the directory window.



2. Click NET FINDER button. And then the following window will be displayed as below.

let Finder					X
Name	Address	Address	Port No.	Мас	Model
NxtNS	172.16.2.62				
Add	Modify Delete	Find	IP Change		Close

3. Click MODIFY button. And then the modified information is displayed as below.

Site Modify	X
Site Info	
Site name :	NXNS
Site address :	172.16.2.62
Port number :	5445
ID :	admin
Password :	••••
Channels	
Channels	16 CH 💌
📝 Display De	vice Channel name
Ch No. Na	ime 🔺
1 Cł	<del>1</del> 1 ≡
2 Cł	12
3 Cł	13
4 Cł	14
5 Cł	I-5 ▼
	OK Cancel

# 7-8-2. Connect and Disconnect

# 7-8-2-1. Connect

1. Select site/sites to connect from the directory window.



2. Click

CONNECT button, and then site/sites displays/display as connected.



# 7-8-2-2. Disconnect

1. Select site/sites to disconnect from the directory window.



■\$6日

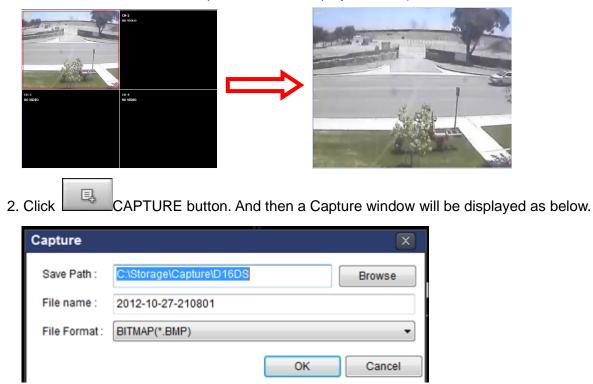
2. Click

DISCONNECT button, and then selected site/sites disconnected.



### 7-8-3. Still-image Capture During Live

1. Double-click a channel to capture from the display screen. (Otherwise all channels will be captured.).



- 3. Set Save Path, File Name, and File Format. And then click OK button.
- 4. Still image is saved as set in Capture window.

### 7-8-4. Recording Video on Local PC During Live

- 1. Click SETUP button. And then a setup window will be displayed as below.
- 2. Select Record and set the values.

Cvent     C	Auto record
Disk Motion Alarm Duration	tion : 5 Sec
Display	
About	
	All site
III All	
NO. CH	
1 Channel 1	:
2 Channel 2	
Channel 3	
4 Channel 4	
5 Channel 5	
6 Channel 6	
6 Channel 6	

3. Select Disk and set the values.

Setup		X
<ul> <li>Event</li> <li>Event search</li> <li>Record</li> <li>Disk</li> <li>Display</li> <li>About</li> </ul>	Disk Space : C:1	
	ок с	ancel

4. Click

RECORD ON button. And the color of button is changed.

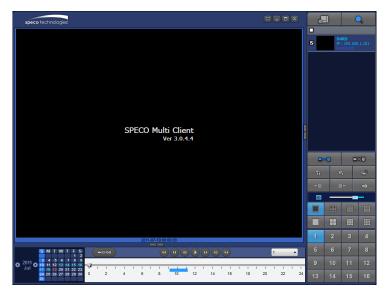
5. Live video data is recorded as set in Record and Disk setup. These video data can be searched and play-backed with Local Playback.

File Edit View Favor	tes Tools Help			
🕝 Back 🔹 🕥 🕤	🏂 🔎 Search 🛛 🍋 F	olders	× 🖌 📶 -	
Address 🛅 C: \Storage \	NC01	And Additional Additiona Additional Additional Additional Additional Additional Additional Additional Additional Additional Additional Ad		💌 🏓 🛛
Name 🔺	Size	Туре	Date Modified	
20090608		File Folder	6/8/2009 4:00 PM	
20090610		File Folder	6/10/2009 3:16 PM	
🖬 20090317.ndl	4,275 KB	NDL File	3/17/2009 6:24 PM	
🖻 20090317_0.ndb	102,402 KB	NDB File	3/17/2009 5:35 PM	
👼 20090317_1.ndb	102,403 KB	NDB File	3/17/2009 5:44 PM	
🚾 20090317_2.ndb	102,402 KB	NDB File	3/17/2009 5:52 PM	
🖬 20090317 3.ndb	73,845 KB	NDB File	3/17/2009 6:23 PM	

# 7-8-5. Local Playback and Remote Playback 7-8-5-1. Playback of Recorded Video on a Local PC

1. Click LOCAL PLAYBACK. And then Playback Window will be displayed over the Live

Window.



- 2. Select site/sites to connect from the directory window.
- 3. Click CONNECT button. And then Green bar displays on Search calendar and timeline scale window.

	S	М	Т	W	Т	F	S			0-60								•	(	EZS	earc	:h	All		<b>_</b>	
				1	2		4		0						 U	C		$\mathcal{I}$								
2042	5	6	7	8	9	10	11																			
0 2013 6	12	13	14	15	16	17	18	-12			 	 	 	 	 			 								_
─ May ~	19	20	21	22	23	24	25					- 1				- 1						1			1	1
	26	27	28	29	30	31		0		2	4	6	8	10	12		14	16		18		20		22		24
		-					1																			

6. Move the marker on the timeline scale to where there is video data and press the PLAY button.



7. Video data that is recorded on local PC will be play-backed.



8. Use the mouse scroll to digitally zoom in and out from a single channel display.

#### 7-8-5-2. Playback of Recorded Video on Remote NS

1. Click REMOTE PLAYBACK. And then Playback Window will be displayed over the Live

Window.



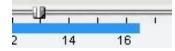
2. Select the site to connect from the directory window.

3. Click CONNECT. And then Green bar displays on Search calendar and timeline scale

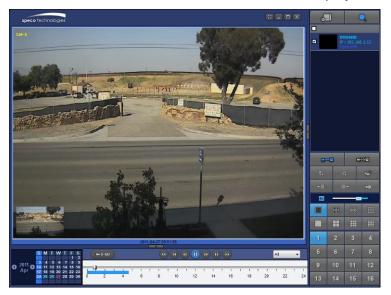
#### window.



4. Move the marker on the timeline scale to where there is video data and press the PLAY button.



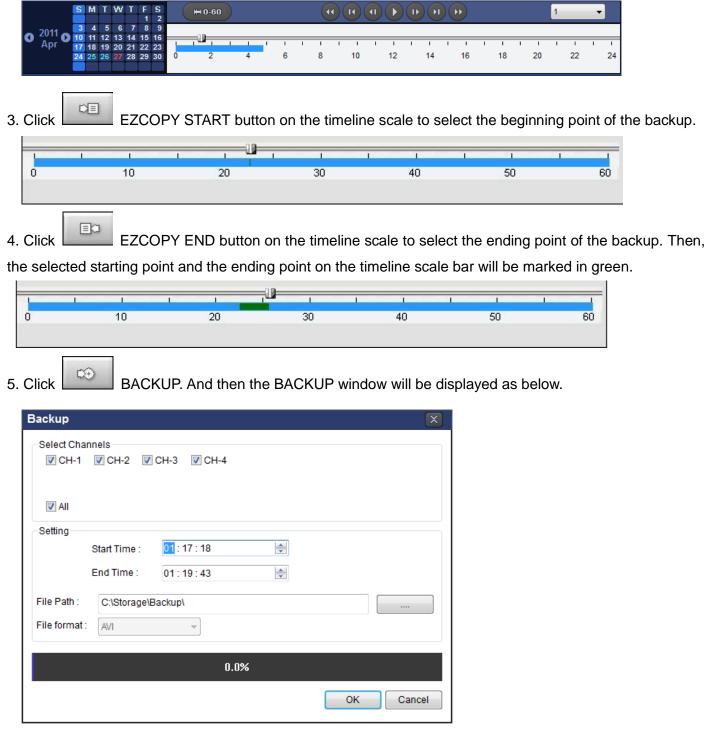
5. Video data that is recorded on the remote NS is play-backed.



# 7-8-6. AVI Backup during Playback

You can back up the recorded videos in AVI format during playback.

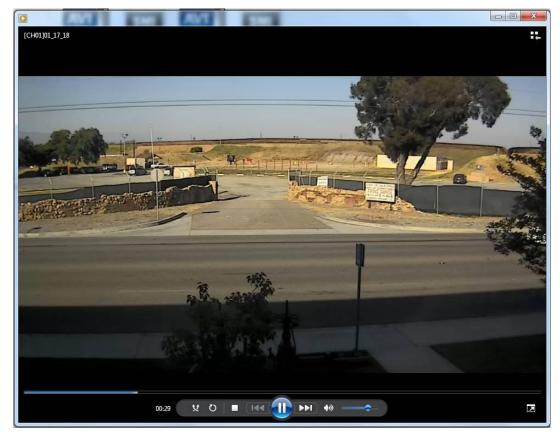
- 1. Double-click the target channel to backup.
- 2. Select the beginning time by using the search calendar and timeline scale bar.



6. You can also set the beginning time and ending time on this window. After selecting a channel for backup, click the OK button. The backup will begin.

- Select Char		CH-3 📝 CH-4		
Setting				
Setting	Start Time :	01 : 17 : 18	A V	
	End Time :	01:19:43	A. V	
File Path :	C:\Storage\B	ackup\		
File format :	AVI	▼		
		7.6%		
		7.070		

7. AVI video data is recorded as set in AVI Backup window. AVI format video can be played back by using Window Media Player™ or other media player that is compatible with AVI format video.



# 8. Network Access Using the Web-Browser Viewer

The NS provides a live remote monitoring feature by web-browser viewer. (NOTE: Web-Brower is only available for Internet Explorer)

- 1. Check the IP address of the NS from SETUP>SYSTEM>DESCRIPTION>IP ADDRESS or
- 2. Input the IP address or Domain name address that you pre-registered.

Address http://172.16.1.52

3. Click this bar. Then the dialog box is displayed.

4.

🔞 This site might require the following ActiveX control: 'WebViewer' from	Click here to install
Click "Install" to download and install the ActiveX control.	
👻 User Account Control	
Do you want to allow the following program to make changes to this computer?	
Program name: SpecoTech-WebViewer(ver1.4.8.7) Verified publisher: Speco Technologies File origin: Downloaded from the Internet	
Show details	
Change when these notifications appear	

5. The Web Browser Viewer will be displayed as below after the ActiveX installation



6. Click the CONNECT button on the Left upper corner of web-viewer. Then "Connect" dialog is displayed.

Connect		×
Connect to remote	system.	
IP Address :		
Port No :	5445	
ID :		
Password :		
		OK Cancel

- Site Name: Input a name that properly describes a site.
- IP Address: Input IP address (Public IP address of a router that NS is connected.) or Domain name
- Port Number: Default Port Number is "5445".
- ID: Input ID of NS. Default ID is "admin".
- Password: Input network password of NS. Default Password is "1111".
- 7. Then the cameras connected to the NS are displayed on the screen.
- 8. Use mouse scroll to digitally zoom in and out from a single channel display.



# 9. Network Access Using the Smart Phone Viewer



#### Notice

Data Usage applied without Wi-Fi connection. Please check with your Phone Carrier.

#### 9-1. App Viewer for iPhone

1. Enter the Apple iTunes Store.



2. Search "Speco Player" in the App Store.

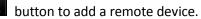


# Notice

SPECO Player is for the NS, DS, RS, their Wall Mount versions and HD series. SPECO Player is not compatible with the CS/LS/PS/GS Models, the T Series (TH, TN or TL) or the PC Series.

#### 9-1-1. Live

1. Open the installed "Speco Player" App and click



Edit Device List +

2. Enter the site name, IP or DDNS address, Network Port number (default 5445), ID(default admin) and Password (default 1111). Then, click "Save" button.

Cancel D16DS	Save	Edit	Device List	+
Site Information				
Site: D16DS	>	D16DS		>
IP/DNS: 192.168.1.2	>			
Port: 5445	>			
ID: admin	>			
Password: ****	>			

- \* Note: Network Port and Web Port must be forwarded before adding a new site.
- 3. Select a registered device and select LIVE. Then click "CONNECT" button.

Device List	D1	6DS	Edit
	-	Connect	
	Playback	Live	
Site Info	rmation		
Site:	D16DS		
IP/DNS:	192.168.1.2		
Port	5445		
ID:	admin		
Password:			

The app will display the selected channel(s). Double tap the channel screen to switch 1 channel display to 4,
 8, 10, 16 channels split display depending on the NS.



5. To select the display mode(1, 4, 9, 10 or 16 split display), tap the arrow menus button



6. Drag and drop channels

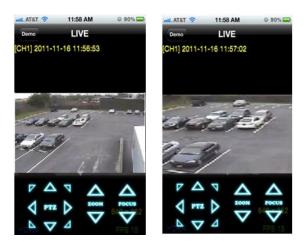
Touch and drag one channel to the other channel to swap the channel location. To swap the channel, drag a channel to another channel.

7. Digital Zoom In-Out

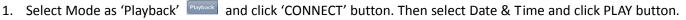
Double tap on the desired channel to view in 1channel mode. Then use the iPhone zoom feature using two fingers to pinch the screen to zoom in or out on the video image. User can also move the zoomed image around by touching the desired spot and dragging the zoom image.

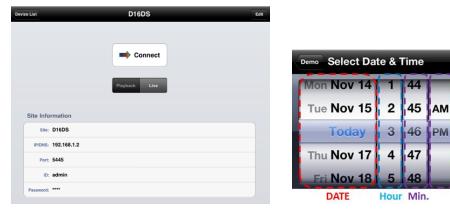
# 9-1-2.PTZ Control

To control the PTZ functions of the camera, tap the menu button. Then PTZ menu icons will display. Using the PTZ icon on the screen, control PTZF control.



### 9-1-3. Playback





2. The app will display the selected channel(s). Double tap the channel screen to switch 1 channel display to 4, 8, 10, 16 channels split display depending on the NS.



3. Tap the menu button. Then Playback menu icons will display.



# 9-2. App Viewer for Android Phone

1. Enter the Android Market.



2. Search "Speco Player" in the Android Market and install the "Speco Player" app.



# Notice

SPECO Player is for the DS, RS, WRS and HD series NSs. SPECO VIEWER is not compatible with the T Series NS's (TH, TN or TL) or the PC Series NS's.

#### 9-2-1. Live

- 1. Open the installed "Speco Player" App and select the Live Preview. Then click the menu button of the phone to add a remote device.
- 2. Select the registered device and select LIVE VIEW and select up to 4 channels to monitor. Then click START button.



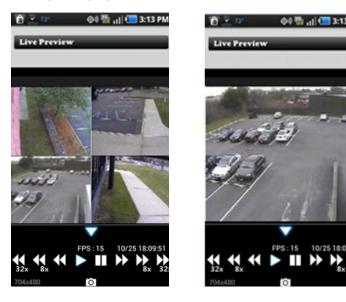


3. The app will display the selected channel(s). Double tap the channel screen to switch 1 channel display to 4 channels split display.



### 9-2-2. Playback

- 1. Select the registered device and select PLAYBACK and select up to 4 channels to search. Then click START button.
- 2. The app will display the selected channel(s). Double tap the channel screen to switch 1 channel display to 4 channels split display.

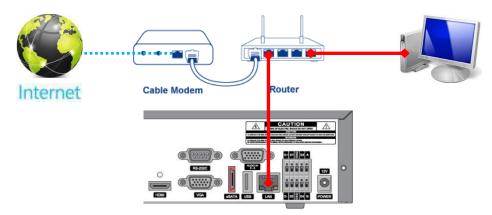


#### 9-2-3. PTZ Control

To control the PTZ function of the camera, tap the channel screen, then the channel name will be highlighted in Yellow. Using the PTZ menu icons on the screen, control PTZF.



**APPENDIX: Network Connection - LAN** 



- 1. Install the network client software from the supplied CD.
- 2. Check the IP address from SETUP > SYSTEM > DESCRIPTION or SETUP > NETWORK of NS.

MODEL NAME	N4NS
SOFTWARE VERSION	Ver 3.7.3_20130405
STORAGE SIZE	217 GB
NETWORK TYPE	DHCP
IP ADDRESS	172.16.2.62
MAC ADDRESS	00:02:69:07:39:1B
DDNS STATUS	DDNS OFF
UNIT NAME	NVR
REMOTE CONTROLLER ID	0
	ок

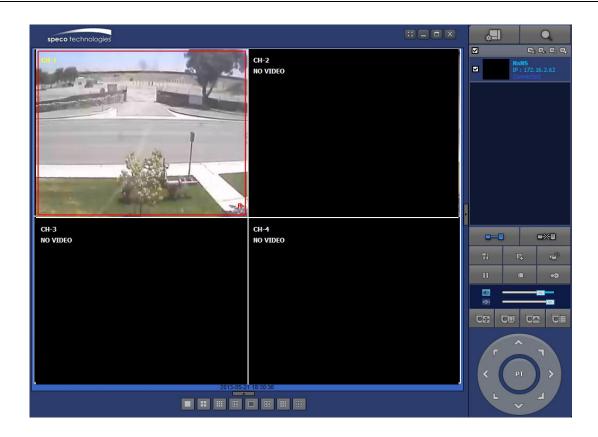
3. Run the network client software.

speco technologies		
speco technologies	SPECO Multi Client Ver 3.1.2.5	
Site Addition		
	×.	
Site Info		
Site name :		
Site address :		
Port number :	5445	
ID :		
Password :		
	ОК Сапсе	

4. Input Site Name, Site Address (IP address), Port Number, and Password on the connect window.

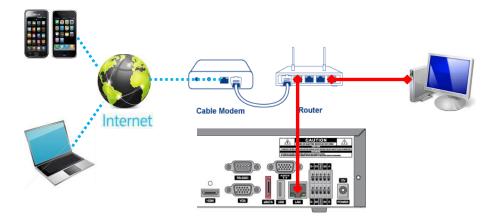
- Site Name: Input a name that properly describes a site.
- IP Address: Input IP address
- Port Number: Default Port Number is "5445".
- ID: Input ID of NS. Default ID is "admin".
- Password: Input network password of NS. Default Password is "1111".
- 5. Select a site by checking the box, and Press

button to connect to the site.



# **APPENDIX: Network Connection – Internet and DDNS**

Dynamic Domain Name System (DDNS) allows a domain name to be constantly synchronized with a dynamic IP address. A current dynamic IP address is being associated with a static domain name.



1. Go to SETUP>NETWORK>DDNS and set the DDNS SERVER to ON.

ENABLE DDNS	ON 💆
HOST NAME	hostname
SUBMIT/UPDATE	OFF 💆
ezDDNS	OFF 💆
	APPLY CLOSE

If you set **ezDDNS** to ON, the host name is automatically generated and registered.

2. Go to SETUP>NETWORK>DDNS>HOST NAME. Manually enter a domain name using the virtual keyboard and click ENTER button.

н	DST	- N	IAN	/IE							h	osti	nar	ne						
	1		2		3	4		5	6	7	7	8	9	,	0			=		
		q		w	6	•	r	t	2	1	u		i	o	)	p	1		1	
CAF	PS	i	a	s		d	f	8	3	h	j	j	k		I				EN	ITER
SH	IIFT		z		x	•		v	b		n	m							SH	IFT
(	CLE	A	R			SPACE								C	CLO	SE				

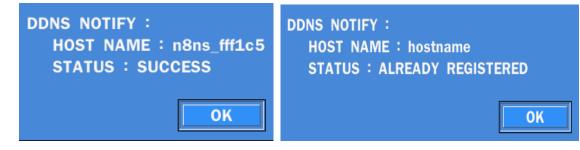
3. When a manual host name is completed, Go to SETUP>NETWORK>DDNS>SUBMIT/UPDATE and select ON to submit the settings on the SPECO DDNS.

Once the setting is completed, the DDNS address will be: http://hostname.ddns.specoddns.net

For example, if you enter the host name as "NS", then the address will be:

http://NS.ddns.specoddns.net

- 4. When DDNS setting is done, click the APPLY button. Otherwise DDNS setting will not be applied.
- 5. When you exit SETUP menu, DDNS NOTIFIY window will pop up.



6. DDNS registration status can be checked from SYSTEM INFORMATION or SETUP>SYSTEM>DESCRIPTION>DDNS STATUS

MODEL NAME	N8NS
SOFTWARE VERSION	Ver 3.7.4_20130524
STORAGE SIZE	870 GB
NETWORK TYPE	DHCP
IP ADDRESS	172.16.2.77
MAC ADDRESS	00:02:69:FF:F1:C5
DDNS STATUS	Already Registered
UNIT NAME	NVR
REMOTE CONTROLLER ID	0
	ок

7. Check the NETWORK PORT (Default: 5445), WEB PORT (Default: 80), and the IP Address of the NS from SETUP>NETWORK.

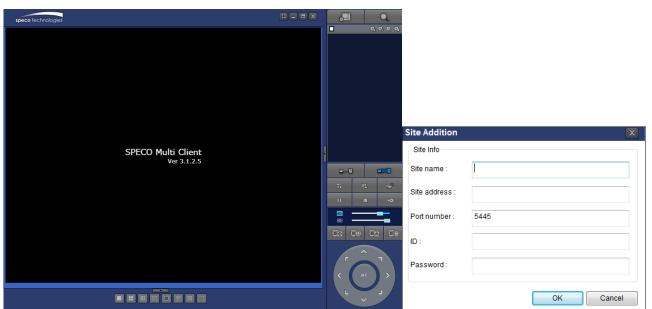
íO;	品 NETWORK		
503	NETWORK TYPE	STATIC	$\overline{\Delta}$
22	IP	172	16.2.62
	SUBNET MASK	255	.255.0.0
NB	GATEWAY	172.:	16.1.254
×	DNS (PRIMARY)	168.:	126.63.1
<b>P</b>	DNS (SECONDARY)	168.:	126.63.2
	DDNS		4
品	NETWORK PORT	Ę	5445
	NETWORK AUDIO PORT	Į	5446
Ť	WEB PORT		80
		APPLY	CANCEL

8. Port forward the NETWORK PORT (Default: 5445) and WEB PORT (Default: 80) of the private IP Address of the NS on the network router.

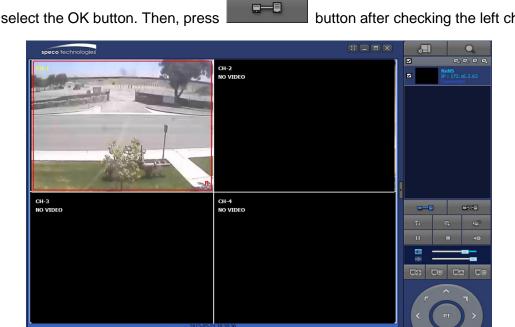


Please refer to the user manual and guide for the detailed steps for port forwarding for specific router model.

6. Run the network client software.



- 7. Input Site Name, Site Address (IP address), Port No., and Password on the connect window.
  - Site Name: Input a name that properly describes a site. •
  - IP Address: Domain name or Public IP address of a router that NS is connected.
  - Port Number: Default Port Number is "5445".
  - ID: Input ID of NS. Default ID is "admin".
  - Password: Input network password of NS. Default Password is "1111".
- 8. And select the OK button. Then, press



button after checking the left check box.

# **APPENDIX: E-SATA CONNECTION**



Please read the following instructions before using the E-SATA port. Failure to do so may cause serious damage to the recorded video. SPECO is not responsible for data loss caused by improper usage.

- Use ONLY a new HDD or a HDD that is approved for the unit.
- Turn off the NS before plugging the E-SATA HDD.
- DO NOT disconnect the E-SATA port while the NS power is on.
- The purpose of the E-SATA port is to extend recording capacity.
- Once connected, DO NOT remove or disconnect the E-SATA port from the NS.
- The E-SATA port is does not support the hot swappable function.