

# **User's Manual**



8-/16-Channel Network Video Recorder with HDMI

NVR-820/NVR-1620



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#### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4. Consult the dealer or an experienced radio technician for help.

#### FCC Caution

To assure continued compliance, for example, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.



#### Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

#### **CE Mark Warning**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

#### WEEE Regulation



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste; they should be collected separately.

#### Revision

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## Chapter 1. Product Introduction

### 1.1 Package Contents

The package should contain the following items:

- NVR unit x 1
- User's Manual CD x 1
- Quick Installation Guide x 1
- Power Adapter x 1
- Power Cord x 1
- HDD Screw Packet x 1
- HDD Bracket Screw Packet x 1
- HDD Bracket Set x 1
- SATA Cable x 2
- Feed Pad Set x 1

EXT	1.	If any of the above items are missing, please contact your dealer immediately.
	2.	Using the power supply that is not the one included in the NVR packet will cause
Note		damage and void the warranty for this product.





### 1.2 Overview

#### **SMB Surveillance Solution**

PLANET NVR-1620/NVR-820, a high-definition IP surveillance solution, is suitable for upgrading your CCTV system to IP system without re-cabling. The NVR-1620/NVR-820 is the 16-/8-channel Linux-embedded NVR with HDMI local display, bringing a stable and efficient system operation under a wide range of recording/network management/system settings. This latest NVR can be used as a control center to control and monitor up to 16/8 network cameras (ONVIF supported) connected to this NVR locally or remotely, and also supports image storage for evidentiary recording and data backup of up to 2 hard disks, perfectly designed for intelligent IP surveillance system. Users can just turn on the cameras and the NVR to easily protect their lives and properties under the IP networks. The recorded video files can be saved in the NVR without the need for an additional PC for file storage, thus bringing users a secure surveillance system at a lower total cost. It is fully compatible with iOS, Android and Internet Explorer on Windows operating system for multi-platform remote access.





#### **High Resolution Local Display**

The NVR-1620/NVR-820 provides both HDMI and VGA video output interfaces for dual local display, which can be connected to HDMI monitor or TV for doing monitoring in the full HD (1920 x 1080) resolution, and check NVR system status on VGA monitor at the same time, eliminating the need for a separate PC to view video from the unit. It also can be operated with the USB keyboard and mouse to configure and monitor all the systems easily.



#### Performing Real-time Remote Monitoring

Up to 16/8 IP cameras can be connected to the NVR-1620/NVR-820 via a connected IP network. With the NVR-1620/NVR-820, it delivers high performance to ensure stable recordings and smooth playbacks of multiple megapixel cameras. Users can view remote surveillance in real time and play back recorded videos via the web browser or the bundled CMS software.

### High-performance, Real-time Remote Monitoring



Live View



Playback



#### **Easy Configuration and Management**

The NVR-1620/NVR-820 features smart setup wizard program to help users easily complete the device installation. It supports web-based management interface for the administrators to remotely manage the device via web browser without any concern. Furthermore, the NVR-1620/NVR-820 can automatically search and find the available cameras in the network so it greatly reduces user's effort when setting up the system. This state-of-the-art and powerful software/hardware made in one design fits in with various network environments.



### 1.3 Features

#### Hardware

- Linux-embedded, highly-reliable standalone NVR
- Supports Gigabit Ethernet port
- Supports VGA / HDMI dual local display
- Supports 3.5" SATA x 2 HDDs

### Video / Audio

- Supports M-JPEG / MPEG-4 / H.264 compressions
- Auto configuration for PLANET IP camera
- Video resolution up to 5 mega-pixel (2560 x 1920)
- Supports up to 120fps @ 1080p (H.264)
- 2-way audio support with enhanced audio quality

#### Video Recording / Backup

- Simultaneous recording and live video streams
- Manual or scheduled recording of 16 / 8 IP cameras
- Video recycling function records events 24/7
- Exports recorded video files in AVI format to USB device or local storage
- Instant event notification

#### Network Service

Easy access with PLANET Dynamic DNS and built-in NTP Server



- Supports DHCP server/client (auto detection)
- Convenient data access (SMB / CIFS / HTTP / FTP)

#### Easy Installation & Management

- ONVIF compliant for interoperability
- Supports multiple languages
- Automatically discovered by management software
- E-map interface in web and utility configuration
- Web-based and management utility for easy configuration
- Up to 16 NVRs, max. 256 channels with the central management software
- Supports USB keyboard and mouse
- Supports mobile phone remote view

### **1.4 Product Specifications**

Product	NVR-820	NVR-1620			
Hardware					
Ethernet	1 x RJ45, 10/100/1000BASE-T				
USB Interface	2 x USB 2.0 for backup device and firmware upgrade				
Video Interface	VGA / HDMI video interface				
Audio Interface	Mic-in, line-in and line-out				
Storage Device	2 x 3.5" SATA II hard disk conne	ctors			
LED	Power, Status				
Button	Power, Reset				
Camera					
Max. Channels	8-channel IP Cameras	16-channel IP Cameras			
Additional Camera	Manual/Smart Camera Search/	Auto Setup			
Video					
Compression	H.264/MPEG-4/M-JPEG				
Resolution	5MP/3MP/1080p/720p/FD1/CIF	/QCIF			
Max. Live Video Frame Rate (Local Display)	240fps@720p30 120fps@1080p30 80fps@3MP Max. 5MP/channel Supports 1080p60	480fps@D130 360fps@720p30 150fps@1080p30 Max. 5MP/channel Supports 1080p60			
Max. Recording Frame Rate (Local Display)	240fps@1080p30, 4Mbps/channel, total 8 channels 120fps@3MP, 6Mbps/channel, total of 8 channels	480fps@1080p30, 4Mbps/channel, total of 16 channels			
	Real performance may vary in	different environments.			
	Audio				
Audio Type	2-way				
Audio format	G.711, G.726 (Camera depende	nt)			
Live Viewing					
Display Mode	Live View/Playback/Full/Screen/	Sequence View/Saved Views			
Split Screen	1/4/9	1/4/9/16			
Full Screen	1/4/9	1/4/9/16			



Sequence Mode	Sequence all/manually selected cameras in 1/4 split view with configurable timer		
Snapshot	Video snapshot in JPEG format		
PTZ Support	Digital PTZ/ Auto Pan/Preset Point/Sequence view		
Playback			
Split Screen	1/4		
Play Method	Play/Pause/Stop/Forward/Reverse/Speed Adjust/Frame by Frame Search by time or event only		
Bookmark	Intuitive timeline interface with bookmark function for easy file export		
Monitor			
Dual Monitor	Main UI + Full screen live view/sequence view		
Monitor Resolutions	1920 x 1080, 1280 x 1024, 1280 x 720, 1024 x 768		
Network and Configuration	h		
Network Service	TCP/HTTP/SMTP/DHCP/DNS/ARP/P2P/NTP/UPnP/FTP		
Streaming Protocols	Depending on the supported cameras		
Triggering and Event			
Event type	System Events – • System Start/Shutdown • System Settings modified • Camera Settings modified • Start Recycle • Disk Full Camera Events – • Motion/Sensor Detection		
Event Action	<ul> <li>Display red window on video of event channel</li> <li>Buzzer alarm</li> <li>Disable/enable event action</li> <li>Duration of event action</li> <li>Recording</li> <li>Mail/FTP notification</li> <li>E-map notification</li> </ul>		
Management			
Number of Groups	7 (Administrator/Guest/User Define * 5)		
Privileges	Live View/Playback/System Configurations/Camera Configurations / Recording Configuration/Event Configuration/ Maintenance		
User Interface	<ul> <li>Graphic local user interface (Operated by mouse, keyboard)</li> <li>Web browser (Internet explorer 7 or above)</li> <li>CMS Utility</li> </ul>		
Log Type	Alert/Event/User Access		
Software Utility	Search utility/media player for exporting recorded files		
Environment			
Power	19V DC, 4.74A		
Consumption	60W		
Operating Temperature	5~40 degrees C		
Storage Temperature	-40~70 degrees C		



Humidity	10~90% (non-condensing)	
Weight	2.4 kg	
Dimensions (W x D x H)	315 x 225 x 75 mm	



## Chapter 2. Hardware Interface

### 2.1 Physical Descriptions

Front Panel

NVR-1620



NVR-820

vç. vç.	Status Penner
PLANET NVR-820	Network Video Recorder

LED	Status	Definitions	
	Green	Solid green - Normal operation Slow blinking in green after pressing and holding the reset button for 5 seconds indicates the device will enter the restore default process. Other LEDs remain unchanged during this state.	
Power	Red	System off (power cord remains plugged in)	
Amber		Fast blinking in amber during system initializing/starting. Continuous blinking when system is unable to start properly (All other LEDs should be off when this LED is blinking in amber) Slow blinking indicates the system is shutting down.	
Buttons	Status	Definitions	
Power	ON	Press and hold for 2 seconds	
FOWEI	OFF	Press and hold for 2 seconds	
Reset	Restore default	Press and hold for 5 seconds	
	Restart	Press and hold for 2 seconds	
Buzzer	Status	Definitions	
	Complete start	Beep once (Indicating the system is starting)	
Веер	Initiating restart	Beep once (Indicating the restart process has begun)	
	Initiating shutdown	Beep once (Indicating the Power button is to be released as the shutdown process has begun)	



**Rear Panel** 



### Ethernet . Microphone Input .

Connector	Description
Ethernet	10/100/1000Mbps network
Video	VGA / HDMI
Audio	Line in/Line out/Mic
Power Supply	19V AC, 3.42A, 50 / 60Hz

### 2.2 Hardware Installation

### 2.2.1 Installing Hard Disk

1. Remove the screws on back side.







2. Remove the top case by pulling it toward you.



3. Prepare HDD brackets.



4. Screw bracket to HDD; two HDDs can be bracketed.







5. Prepare SATA cable and connect it to SATA data connector and SATA power connector.





6. SATA cable is fixed to the HDD.





7. Screw HDD brackets to system.





## Chapter 3. Connecting to the NVR

There are various ways you can connect to the NVR and below are the suggested methods for different network setups:

The NVR is placed in a network with a DHCP server: Connect to the NVR by using "Device Search" Utility.

The NVR is placed in a network without a DHCP server (or it can be connected directly): Access NVR with its default IP (192.168.0.20).

### 3.1 Using Device Search Utility

If the NVR is placed in a corporate network or a local area network where a DHCP server is already presented, please install the "Device Search" utility from the bundled CD disk.



To begin, launch the "Device Search" utility from the CD and proceed with the installation.





### Please click "Next" to continue.



### Please click "Install" to start the installation.

🛃 Search NVR - InstallShield Wizard	$\mathbf{X}$
Ready to Install the Program The wizard is ready to begin installation.	
Click Install to begin the installation. If you want to review or change any of your inst exit the wizard.	allation settings, click Back. Click Cancel to
	ack Install Cancel



Once the installation is completed, please click "Finish".

🔂 Search NYR - InstallShield Wizard				
	InstallShield Wizard Completed			
	The InstallShield Wizard has successfully installed Search NVR. Click Finish to exit the wizard.			
	< Back Finish Cancel			

Please go to Start => Programs => NVR => Search NVR to run the search tool. Then you will see the utility start searching the network.

Network Co	ommunication	

The NVR should be located and its IP address should be displayed: Double-click on it and the program should automatically access the NVR's web administration page from your default browser.

🏈 NVR Device Search				
2 0 🖭 Englis	h 🔹			
IP Address	Http Port	Brand	Modal	MAC Address
192.168.1.209	80	PLANET	NVR-1620	00-30-4f-60-00-a3

You may change NVR's IP address by clicking on the button highlighted below.





You will be prompted for the NVR's login information before proceeding to change device's IP address.

Metwork Setting				
Connection Mode C DHCP C Static IP		dament i a		
Network		S RAR Device Sear	nh	
MAC address			Http Bort Brand Modal	MAC Addross
MAC Address	00:30:4F:C0:01:4B	192,168,1,209	80 PLANET NVR-1620	00-20-4f-60-00-52
IP Address	192.168.0.50			00-30-41-00-00-83
Gateway	192.168.0.1		Account Input	
Subnet Mask	255.255.255.0		Account less Name admin	
DNS#1	192.168.1.11		Password *****	
DNS#2	192.168.1.13		Submà	
Http Port	80		Sconik	
Streaming Port	9877			
	Update Cancel			

You may click on the button highlighted below to perform search again. Or double-click on any of the search results to access NVR's web administration page.

### 3.2 Accessing NVR with its Default IP Address

The NVR comes with a pre-configured static IP address "192.168.0.20". However, it is only used when there is no DHCP server presented in the network. Connect the NVR and PC to your switch or hub, or connect the PC directly to the NVR using a crossover cat5 Ethernet cable.



You can select utility or type the IP address to connect with NVR directly. After login window appears, you should be prompted for the NVR's username and password. Enter its **default username "admin" and password "admin"** and then click "OK" to enter the system.

MVR Device Search	File	Edit	View	Favorites	Tools	Help	
State IP Address	G	Back 🝷	e	- 💌	2	1	Search
	Addres	is 🙆 h	ttp://1	192.168.0.2	:0/		









## Chapter 4. Web-based Management

This chapter provides setup details of the Internet Camera's Web-based Interface.

### 4.1 Main/Live Viewing



The main/live view is the first interface displayed once you access to the NVR through the internet browser.

It displays the live video of all the cameras added to the NVR and following the pattern chosen by the user. The interface has many functions explained below.

The "Live View" page provides the following functions:

- Retrieve camera's video stream
- Retrieve camera's status
- Perform Live Sequence Viewing
- PTZ Control (Click directly on the video)
- Perform PTZ Preset Sequence viewing
- Perform manual recording

• **Take snapshot -** as soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g., C:\)

- Receive audio of a video stream
- Send audio
- Control "Buzzer"
- Change web UI display language

The UI's 5 main functions:



The bar displays the 5 main functions of the Web User Interface (UI). The Live view is the main view .The other 4 views will be explained in each chapter.

### 4.1.1 Date and Time Display



The Date and the Time are defined by the user in the settings section of the NVR.



### 4.1.2 User's Configuration



It displays the name of the current user.

If you click on the name of the user, the context menu offers the functions below:

- Language settings
- User setting
- Locking the screen
- Logout function

### 4.1.3 Hardware Event Notification



In this section, you will receive notifications if a warning sound is triggered or if the hard drive of the NVR fails in recording data.

### 4.1.4 Channel Status



If you click on the icon, page tab will display the current status of the channels added to the NVR.

9લ્પ	INET								
					Ch	annel St	atus		
Channel	Dynamic streaming	Name	IP address	HTTP port	Continuous Recording	Schedule Recording	Event Recording	Manual Recording	Stream 1
	Not	ICA 22501/(11)	102 168 1 52	20					H264 @ 1920×1080
1	available	1CA-3250V(V1)	192.106.1.52	80					30fps, 3113kbps
2	Not		100 160 1 50						H264 @ 1920x1080
2	available	ICA-3230V(V2)	192.108.1.53	80					30fps, 3060kbps

It can also display the current configuration used for the event recording or the configuration settled for the scheduled and manual recording. The channels status page is updated as long as the NVR's main user interface is open.

### 4.2 Video Frame

All the camera's videos are displayed in this frame. If the cursor is pointing at one of the cameras, it will show a bar at the top. The bar displays the channel's number and some functions as shown on the snapshot below.





If you click on the name of the user, the menu will display as shown below:



The camera menu offers the functions below:

### - Digital Zoom

After clicking the digital zoom button, hold the mouse left button and draw a square on the video to specify the zoom in area



Once the image is digitally zoomed in, use the mouse scroll button to further zoom on or zoom out the image. Hold and left-click on the image and move the mouse to move the zoomed in video.

#### - Take Snapshot 1 / 3

User can select 1 or 3 continuous snapshots. As soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g. C:\)



If the "3 continuous snapshots" option is chosen, the new window will display snapshots where you can view them individually by using the "Prev" and "Next" buttons as shown above.





### - Audio in

Turn on/off audio of a live video.

#### - Lens Control

If this camera can control focus and iris, the button of the selection can be active; otherwise, it will be highlighted. There are three selections of focus and iris as shown below.

Main function <b>Lens controls</b>
Focus:
Near Far Auto
Iris:
Open Close Auto
<ul> <li>Preset point controls</li> <li>Change channel</li> <li>Enhancements</li> </ul>

### - Preset Point Controls

This page focuses on just PTZ camera, and here are some definitions below:

- Add current position: Click this button and current position will be added in the preset point selection.
- Go to preset point: Select the preset point and the PTZ camera will move to this position.
- **Preset point sequence:** Click *\** the preset page will display; user can adjust the preset point on this page; the other settings will be explained in each chapter.
- Auto pan controls: User can use "right", "stop", "left", "360 degrees" button to control the PTZ auto pan function.





### - Changing Channel

User can select another channel for another view or disconnect the current channel.



### - Enhancing Contrast

You are able to adjust brightness and contrast of the live video from the camera menu. The default values of two parameters are 50%. User can adjust those values from 0% to 100%. The layout of this bar is 10%.

Main function	
Lens controls	
Preset point controls	
Change channel	
<ul> <li>Enhancements</li> </ul>	
Brightness:	50%
	Brighter
Contrast:	50%
	Higher

### 4.3 List Viewing



It displays the list of channels added to the NVR. Each channel represents a camera with its name, the channel number and its currents status.





The channel status is defined by 3 colors:

- Red: The channel is recording and the live view is available
- Blue: The channel is connected and the live view is available
- Grey: The camera is disconnected

### 4.3.1 Pattern View



Different patterns of live view can be displayed on the video frame. You can display 1, 4, 9, or 16 cameras at once. Every time you click on an "n" pattern icon, the live video of the next "n" camera will be displayed.



The channel spilt of the NVR-820 is 1, 4 and 8.

### 4.3.2 Sequence Viewing

Start	Sequence
5s	
10s	
20s	
30s	
45s	
60s	

The sequence mode will automatically switch between a single and group of cameras every a certain period of time. You can define this period to 1 second to 60 seconds

### 4.3.3 Save Viewing

ave view
----------

Click on the save view button and you will able to name the current view and save it. This will help to quickly display your configured views when needed.



### 4.4 Saved Viewing



This section can display the views that you have already saved. You can choose the views from the list you have created. You are also able to switch between saved views every certain period of time by clicking on the "start sequence function". If you check the box beside the name of the view, you can edit or delete the view.

### 4.5 Setting Up Password

Create new user		Group privileges	E
Usernam	e:	Group name:	
Passwor	d:	Live videos	Advar
Confirm passwor	d:	Allow use of PTZ	Advar
Grou	p: 🛛 📉	Playback videos	Advar
Languag	e: 💉	System settings	Advar
Languag	e: 🗸	System settings	Adv

The default login username and password are admin and admin. To change the password of the admin account, go to "Settings" --> "Users & privileges", click on the "admin" account in the account list and then press the "edit" button to change its password. Finally, click "Apply" to save the change.



## Chapter 5. Playback Viewing

Playback is a function that allows you to play one or more videos that were previously recorded by a chosen recording method or due to an event trigger. The NVR offers synchronized playback from up to 4 channels and various types of search methods are provided to help you find the footage you need quickly. You can turn on or off the audio of a recorded video at your choice if audio was also recorded during the recording of the video. Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.



### 5.1 Certain Functions of Playback Video

You can do the following by clicking camera menu on the playback video. It's similar with live view. User can refer the previous description.



### Snapshot

As soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g. C:\)

### • Play Audio

Turn on/off audio of a playback video.



### • Digital Zoom

After clicking the digital zoom button, hold the mouse left button and draw a square on the video to specify the zoom in area



Once the image is digitally zoomed in, use the mouse scroll button to further zoom in or zoom out the image. Hold and left-click on the image and move the mouse to move the zoom in video.

#### • Take Snapshot 1 / 3

User can select 1 or 3 continuous snapshots. As soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g. C:\)



If the "3 continuous snapshots" option is chosen, the new window will display snapshots and let you view them individually by using the "Prev" and "Next" buttons as shown above.



Adjust Brightness/Contrast

You are able to adjust brightness and contrast of the live video from the camera menu. The default values of two parameters are 50%. User can adjust those values for 0% - 100%. The layout of this bar is 10%.





### 5.2 The Main Layout for Playback

Here is some explanation of other parts of playback page as shown below:

### - Zooming on a range of time

If you click on the icon you can zoom on range of the time and get more details on the playback bar. The "display current playback time" button will display while the NVR plays the recording. It can help user to find current playback time easily.







### - Exporting Playback Videos to AVI Files

User can export the recorded playback videos stored on NVR to a local computer and save them in AVI file format. The files can then be played on the PC by a 3rd party media player such as VLC player or Windows Media player.



Once you locate the recorded videos with steps described in the previous section, move the time bar to the specific start time which you want to export and then click the "Bookmark" button. "Bookmark" is used to set a time range for this specific time will be marked by a blue line. Move the time bar to the end time and click the "Bookmark" button again. You can find that this button will be changed to the "Clear" button.



Click the "Download" button and a new dialog will pop up and allows you to specify the time frame (or length) of the video you wish to export.

	E http://192.168.1.209/ExportAVI.html		
	Export as AVI file	e O Export to JPEG images	
	Channel:	1 💌	
	Start Time:	Dec 04, 2013 ▼ 05; 22; 00 ▲	
	Ind Time:	Dec 04, 2013 🔻 10: 46: 00 🖛	
	O Export Length:	Seconds	
	Specify a file name:	C:\ExportFolder\Export_CH01avi	
	Add file consister	ncy check	
	Start		
Click the	button to pull down the of http://192.168.1.209/ExportAVI html © Export as AV Channel: Start Time: Dec 04, 2013 2013 V	calendar to help you specify the month, o VI file • Export to JPEG images 1 • Dec 04, 2013 • 05: 22: 00 • X Dec 04, 2013 • 10: 46: 00 • Dec •	date and year.

Thur Fri Sat

27

14

28

heck

5 6 7

12 13

19 20 21

26

Sun

1 2 3

8 9

15

22 23

29 30

Mon Tues

16 17

10

24

31

Wed

4

11

18

25

portFolder\Export\_CH01\_.avi



Specify the starting and ending hours of the video by entering numbers in the text boxes.



Hit the "Start" button to start exporting. The file will be automatically named and saved under the C:\ partition.

Specify a	C:\ExportFolder	
🗌 Add	file consister	ncy check
Start		

You will be notified once the process is completed successfully

Windows XP (C:)		
File Edit View Fave	orites Tools Help	
🕝 Back 🝷 🕥 - 🏂 🎉	Search 🎼 Folders	
Address 🗢 C:\		
System Tasks 🛞	Documents and Settings	Intel
<ul> <li>drive</li> <li>Add or remove programs</li> <li>Search for files or folders</li> </ul>	Program Files	TeamViewer
File and Folder Tasks 🛞	Temp	WINDOWS
<ul> <li>Made a new folder</li> <li>Publish this folder to the web</li> <li>Search for files or folders</li> </ul>	Export-CH02-2009040506135 Video Clo 1,248 KB	RHDSetup.log Text.Document 1 KB
Other Places	v	

The exported AVI file will be saved under the C partition (or the partition where Windows is installed)



ffdshow is required in order to play the exported AVI file with Windows Media Player. You can get it at "http://sourceforge.net/projects/ffdshow/"

### 5.3 Playing Exported Playback Videos with NVR Media Player



You can also use the NVR Media Player to play the exported AVI files. This can save you the trouble of installing third-party media player or codecs when playing the exported AVI videos.



The NVR Media Player will be automatically installed after the CMS software is installed. You

can find it in the Windows Start menu. You also can click this icon to download this software on the playback page.



### Click "Open" >> "AVI File"

Look in:	ExportFolder	•	ф	£	ď	•
Export-C	101-20090914214707.avi					
File name:	Export-CH01-200909142	214707.avi		-		Open

Locate the exported AVI file and click "open". (Normally under "C:\ExportFolder)"





## Chapter 6. Event Viewing

This section displays the last events recorded by the NVR.

The events can only be detected and displayed if you have configured it on the NVR's settings. You can display the event of all the channels at once or by each channel.



You can click on one of the pictures on the bottom of the UI to display the event related to it. The event can also be displayed if you choose them from the list on the right side of the UI.



The video will then start playing


# 6.1 Opening Event Snapshot Images with NVR Media Player



Look in: 0 NVR1523605	- 🖬 📩 🛥 💌
192.168.102.18_CH8_MD_20100202-15	0918-0-0.h4 🕌 192.168.102.18
192.168.102.18_CH8_MD_20100202-15	0922-1-1.h4 👪 192.168.102.18
192.168.102.18_CH8_MD_20100202-15	0925-2-5.h4 📓 192.168.102.18
192.168.102.18_CH8_MD_20100202-15	0932-0-6.h4 🕌 192.168.102.18
192.168.102.18_CH8_MD_20100202-15	0936-1-7.h4 🕌 192.168.102.18
192.168.102.18_CH8_MD_20100202-15	0940-0-8.h4 👫 192.168.102.18
<u>د</u>	
File name:	Open

The NVR sends snapshots that are taken when an event occurs to a destined FTP server or mail recipient. These types of snapshot images are saved in a proprietary image file format, h4i or p4i, and can only be opened by the NVR media player.

To do so, Select "Open" from the top menu and then select "Image File". A new dialog should be displayed to enable you to locate the image file.



# Chapter 7. NVR Setup – Device Configuration

# 7.1 Network Setup

The "Settings" page provides users with options to set up the device quickly and properly. After properly configuring all settings on all the sub-pages, users should expect a fully working network video recorder that is ready to manage cameras on the network. We will start by configuring its network settings to make sure it works correctly in your network.

# 7.1.1 Network Settings

	Device configuratio	n					
	Network	Time & Date	Storage	Users & privileges			
	Video & Recording o	configuration					
				X	hello		
	Cameras	Recording	Scheduling	Preset point	OSD		
	Event configuration						
		$\hat{\Sigma}$	<b>Q</b>				
	Event sources	Notification	E-map				
	Device operations -	Ø	A	*	• 5- • j7		
	Device info	Log	Maintenance	Backup & Restore	USB Backup		
<u>Settings</u> > Netw	vork settings					Net	work settings
Connection type	e 💿 Set ne	twork automatically	(This might enable o	levice to assign IP addre	esses to other dev	vices on the net	vork)
Connection port	t 💿 Get ne	twork configuration	automatically				
DDNS	🔘 Use m	anual configuration					
DHCP server			Status:	DHCP server On			
			Subpet mask:	255 255 255 0			
			Gateway	192,168,101,50			
			DNS 1:	192.168.0.1			
			DNS 2:				
			Device name:				

The NVR supports three connection types that can be configured depending on how the network is set up:





Set network automatically

Set the NVR to configure network settings automatically

- 1) When no other DHCP server is in the network, the NVR should use the default IP: 192.168.0.20 and turn on built-in DHCP servers.
- 2) Users should not be able to change IP settings when this mode is selected.
- 3) Users cannot turn on/off built-in DHCP server.

Get network configuration automatically

This sets the NVR as a DHCP client

- 1) If no other DHCP server is in the network, the NVR should change to use the auto mode automatically.
- 2) Users should not be able to change IP settings when this mode is selected.
- 3) Users cannot turn on/off built-in DHCP server.
- 3. Use manual configuration

Set the NVR to use static IP

1) Built-in DHCP server should be turned on when this mode is selected.

2) Use the NVR's default static IP when this mode is selected.

3) Users can change the IP settings.

Users can turn on/off built-in DHCP server.

You need to adjust settings on this page for the device to work properly in your network. It is critical that settings here are configured correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to "Set network automatically" which if there's a DHCP server in the same local network, the NVR can obtain IP address from DHCP server, and you can locate the NVR by using the NVR search utility.

If there's no DHCP server in the network, and the NVR is set to enable DHCP server, it will use its own default static IP 192.168.0.20.

		Network settings
<u>ettings</u> > Network s	Contractionally (This might on able d	avies to period TD addresses to other devices on the petwork)
Connection type	<ul> <li>Get network configuration automatically</li> </ul>	evice to assign in addresses to other devices on the network)
DDNS	Use manual configuration	
DUCD server	Status:	DHCP server On
DHCP server	IP address:	192 . 168 . 101 . 50
	Subnet mask:	255 . 255 . 255 . 0
	Gateway:	192. 168. 101. 1
	DNS 1:	
	DNS 2:	
	Device name:	

If you wish to set the recorder to a static IP address in your local area network,

- 1. Choose "Use manual configuration"
- 2. Enter the IP address, subnet mask, default gateway address and DNS server address for the recorder

\* The recorder can detect the presence of a DHCP server upon startup. It sets itself to static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to



the network or you can manually turn off the DHCP server function if you wish to use a separate DHCP server.

### 7.1.2 DHCP Server

		Network settings
Settings > Network settings		
Connection type	DHCP server:	ON OFF
Connection port	Max. DHCP client:	30 (Max. 30)
DDNS		
DHCP server		

The built-in DHCP Server function is NOT always configurable and is greatly dependent to the connection type that is set to "Network Settings".

### 7.1.3 DDNS Service

<u>Settings</u> > Network	settings		Network settings
Connection type	Enable DDNS service		
Connection port	Service provider:	www.no-ip.com	
DDNS	Domain name:		
DHCP server	Username:		
	Password:		
	Connection status:	Disconnected	
	Check DDNS status		

DDNS, which stands for "Dynamic DNS", is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system (in this case, the NVR) using the Internet Protocol Suite, to notify a domain name server to change, in real time, the active DNS configuration of its configured host names, addresses or other information stored in DNS.

A popular application of dynamic DNS is to provide a residential user's Internet gateway that has a variable, often changing, IP address with a well-known host name resolvable through standard DNS queries.

This is useful if the NVR is placed on the Internet with a dynamic public IP, which once the DDNS is properly set up, users can access the NVR remotely with the DDNS domain name without worrying if the IP has changed or not.



\* Please make sure a valid DNS server has been configured under the "Network Settings" in order for this function to work properly.

\* The NVR currently only works with free DDNS service provided by "PLANET DDNS". For more information, please go to <u>www.planetddns.com</u>



\* If the NVR is placed behind a router or Internet gateway, please make sure port forwarding for port 80 is configured on the router or the gateway in order for the DDNS function to properly register with the service. It's often suggested to use the DDNS function in the router/ gateway for such case instead.

\* Once you have the DDNS function successfully up and running, please DO NOT forget to configure port forwarding for the NVR web port (default 80) and the streaming port (default 9877) in the router/gateway for remote viewing. You can then type in http://yourddnsdomain in the browser to access the NVR remotely for live viewing.



In order to properly configure the DDNS service function, please register a free DDNS domain name and account from PLANET DDNS first. Go to **http://www.planetddns.com** from the browser to do so.

л п			PLANET Networking & Communication
		3	PLANET Website FAQ Support
Home	My Devices	Profile	Welcome, Simon Yeh ( <u>Sign out</u> )
Ne	w Device		
	Registered	Domain nvr1620test .plane	etddns.com
	Name of You	Device NVR-1620	
		Cancel Submit	

Fill in the necessary fields as illustrated above.

The page will check whether or not another user has used the host name you entered as soon as you click the "Submit" button. If you see the message below, it means the domain name is created successfully.



🔥 PL		IS	2	01			G	PL	ANET ng & Communication
						PLANET	Website	FAQ	Support
Home	My Devices	Profile				We Sir	elcome, <b>non Yeh</b>	(Sign out	)
1 Item successf	ully submitted.								
A	dd Device 🕂								
No	. Image You	r Device R	egistered Domain	Name of Your Device	Last Connection IP	Ping Status	Modify	Delete	
1	?	1	nvr1620test	NVR-1620		•	/	16	
2	2 N	/R-820	nvr820test	NVR-820	210.61.134.9 <mark>1</mark>	۲	/		
<u>Settings</u> > Networ	k settings			Network se	ettings	Back	Nex	t	Apply
Connection type	Enable DDNS	service							
Connection port	Service pr	rovider:	www.plan	etddns.com 💌					
DDNS	Domain	name:	nvr820tes	t.planetddns.com					
DHCP server	Use	rname:	simon						
	Pas	sword:	•••••						
	Connection	status:	Disconnect	ed					
	Check DDNS s	tatus							

Go back to the NVR's DDNS service configuration page under "Settings" >> "Network settings" >> "DDNS". Fill in the domain name you picked during the registration in the "Domain Name" field and the username/password you created in the "User ID" and "Password" field and click "Apply" to finish

Connection type	Enable DDNS service				
Connection port	Service provider:	www.plane	tddns.com 😢		
DDNS	Domain name:	nvr820test	planetddns.com		
DHCP server	Username:	simon	Message from webpage		
	Password:	•••••	Connect DDNS successful		
	Connection status:	Connected	<u></u>		
	Check DDNS status		ОК		

You can click the "Check DDNS Status" button to check the PLANET DDNS service status. If you are getting a "Disconnected" message, it means that DDNS service server is down or the NVR is not connected to the Internet. If everything is normal, you should be prompted with a success message



# 7.2 Time and Date

Settings > Time & C	ettings > Time & Date					
Time & Date	Reminder:					
	data. Time zone configuration:					
	GMTI+08 (Beijing, Hong Kong, Shanghai, Taipei)					
	Enable summer time					
	Time configuration:					
	Sync with PC •					
	2014/05/29 10:28:57					

Set the time and date by selecting the time zone according to your location. It is imperative that you set the recorder's time correctly to avoid the following errors:

- · Incorrect display time for playback videos
- Inconsistent display time of event logs and when they actually occur

After selecting the time zone, choose an option below to set the recorder time.

Time configuration:	
---------------------	--

Sync with PC	•
Sync with NTP server	
Configure manually	
Sync with PC	

**Sync with NTP server** – enter the host name or IP address of a valid NTP server and set how often the recorder should synchronize the time with it by using the "Update interval" drop-down menu.

Time configuration:								
Sync with NTP server 💌								
NTP server:	ntp.ucsd.edu							
Update interval:	24 hr 🔻							
	Last sync: 2000/01/01 08:51:10. Status: Failed							

• Configure manually – Use the drop-down list and configure the time manually.

• Sync with PC – Check this option to synchronize the recorder time with the PC that you are currently using to access the recorder.



# 7.3 Storage

#### Disk actions

Select an action... 🔻

<u>Disk list</u>									
Disk ID	Model	Capacity	Remaining space	Online Time	Recording Period	Est. remaining recording time	Status		
2		469GB	445GB	2014/06/03 19:00:41	2014/06/03 19:00:53 - 2014/06/03 19:03:00		Online		
USB disk list									
Disk ID	Disk ID Capacity Remaining space Status								

Once you install a hard disk to the recorder, you would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed on this page.

Dis	( a	cti	ons

Format	•	Select a disk or volume 🔻
		Select a disk or volume
		Hard disk 2

To initialize it, simply choose the "Format" and disk ID under Disk actions and then click "Apply".



This page will list the Internal disks and the USB disk only. The HDD will be formatted in EXT4 file system.

- Disk ID: Display disk ID
- Model: Display HDD model name
- Capacity: Display HDD capacity in "GB"
- Remaining Space: Display remaining space in "GB"
- Online Time: Display when it is formatted
- · Recording Period: Display period of recording time that took place
- Establish remaining recording time: Calculate remaining recording time based on remaining disk space and current camera settings
- Status: Display HDD status



# 7.4 Users & Privileges

Group name: Live videos Allow use of PTZ Playback videos
Live videos Allow use of PTZ Playback videos
Allow use of PTZ
Playback videos
System settings
Description

Multiple users can access the recorder simultaneously. You can add, remove, and edit users by using options provided on this page to keep user information organized. Each recorder comes with a built-in "admin" account with password "admin". It's highly recommended to change the password upon your initial login.

# 7.4.1 Adding a New User

Create new user								
	Username:							
	Password:							
	Confirm password:							
	Group:	<i>r</i>						
	Language:	<i>r</i>						

<u>User account list</u>							
				Add	Remove		
	Username	Group	Lang	uage			
	admin	admin admin		English			

- Click "Add" to add new user.
- Enter a username and password

• Select a group from the "Group" drop-down menu to assign the new user to a particular group.

• Click "Apply" to finish configuration.



### 7.4.2 Changing the Password of the "Admin" Account

Create new user

Username:	admin
Password:	•••••
Confirm password:	•••••
Group:	admin 🔻
Language:	English 💌

#### <u>User account list</u>

		Add Remove
Username	Group Language	
admin	admin	English

- 1. Click and highlight the "admin" account in the account list.
- 2. Its information should be displayed.
- 3. Enter a new password in the "Password" field and enter it again in "Confirm Password".

### 7.4.3 Group Privilege

Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. There are 7 pre-defined user groups for privilege configurations. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the "admin" and the "guest" accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the "admin" account if you wish to do so. The guest account comes with a "view-only" privilege on the "Live View" page, and users in this group do not have the power to make any changes on the "Live View" page or have access to pages other than the "Live View" page.

<u>User account list</u>		Add
Username	Group	Language
admin	admin	English
Group privile	eges	Edit
Group name	: admin	
✓ Live video	s	Advance
√ Allow use	of PTZ	Advance
Playback	videos	Advance
√ System se	ettings	Advance

To change a group configuration, after clicking "Add" to add new user account, press "Edit" to change group privileges.

You can change the group name and privilege.



# Chapter 8. NVR Setup -- Channel Configuration

# 8.1 Camera Setup

The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually.

# 8.1.1 Adding a Camera via Automatic Search

Device configuratio	n					
Network	E A Date	Storage	Users &			
Video & Recording o	configuration		privileges			
Cameras Event configuration	Recording	Scheduling	Preset point	hello OSD		
	Notification	<b>Q</b> E-map				
Device operations	Log	A	Backup & Restore	USB Backup		
Auto search Ad	d manually					
Channel Channel	name Cam 240 <u>1</u>	era's IP addro 92.168.101.10	ess Live D H264, 1	stream 1920x1080	Record stream H264, 1920x1080	

In "Settings" >> "Cameras", click the "Auto search" button to perform the camera search.



After that, the search	should begin and	its status should	be displayed:
/ alor alor, alo ooaloli	ono ana bogin ana		so alopia, oa.



\* Double-click on one from the list to continue.

Search again								
Brand	Model	IP address	Port	Installed				
SONY	SNC-CH240	192.168.101.10	80					

Cameras found should be listed and simply select a camera from the list.

			Camera settings
Channel:	1	•	
Name:	SNC-CH240		
IP address:	192.168.101.10	Q Q≣	
Port:	80		
Username:	admin		
Password:	••••		
			Channel 1 - Preview

Its corresponding information should be displayed in the "Camera Information" section. Enter



its username and password and press "Next" to detect this camera.



					(	Back	Next	A
Video Port:	80							
Format:	H264							
Resolution:	1920×1080							
Frame Rate:	20							
Bitrate:	2 Mbps	-						

If connection establishes successfully, camera's detailed information should be polled and displayed as shown below. Adjust its video format, frame rate, resolution or bitrate, etc. if you wish and then click "Apply" to finish adding the camera.

You can click "Next" to set up recording stream if dual stream is supported on this camera.

Some cameras are capable of dual streaming profiles, in which different video codecs are used for different purposes.

You will be able to use a different video format for continuous recording if it's a dual-stream capable camera.



Resolution:	Same	e as Live	
Resolution:  Bitrate:		-	
Bitrate:		Resolution:	▼
		Bitrate:	
Quality:		Quality:	•

### 8.1.2 Adding a Camera Manually

				Cam	era settings
Auto sear	ch Add manu	ally			
Channel	Channel name	Camera's IP address	Live stream	Record stream	





Channel: Name:	1		
IP address:		Q Q≣	
Port:			
Username:			
Password:			
			Channel 1 🔻 Preview

Simply follow the instruction described above but instead of using the "Add manually" function, enter the camera's IP address and credential in the "Camera Information" manually.







If cameras are marked with "\*" in the search result, it means those cameras are already configured and connected to the NVR.



# 8.2 Recording

The "recording" gives users the overall control of how and when a recording is performed and the quality of different types of recordings performed on each channel. It can help the recorder to operate with sufficient system resource by performing recording only when it's necessary with adjustable recording frame rate.

#### <u>General</u>

🗹 Enable HDD recycle (When enabled, it automatically starts when remaining HDD space reaches 20GB. Oldest data is recycled 32GB at a time.)

Always keep the previous	days of recorded video

#### Channel specific

	Continuous	Schedule	Event *	Manual **	Audio
CH 1	I Only 🔻	I Only 🔻	Full <b>•</b>	Full 🔻	

\*Event recording is always on

\*\*Manual recording is turned on/off in live view

You can define the following in "General Settings":

- · Enable cycle recording or not
- Recording frame rate
- Define to always keep a number of days of previously recorded data
- Enable/disable different recording types on different cameras
- Enable/disable audio recording

Always keep the previous days of recorded video

Users can also set to keep a previous number of days of recording data by enabling the option below. This is quite often used in application such as banking which certain countries require to always keep a minimum previous number of days of recording data.

There are two types of fps settings here, one is the fps that NVR sets back to the camera, and this is the fps NVR will be receiving from the camera. The other is recording fps, which will be limited by the live fps. (e.g. if the live fps is set to 10, choosing "Full" in the recording fps means it will only record at the maximum of 10fps.

For MPEG/H.264, only i frame or full (i+p frame) can be selected for recording fps.

	Continuous	Schedule	Event *	Manual **	Audio
CH 1	I Only ▼	I Only	Full 🔻	Full 🔻	

You also can disable audio recording (record video only) of particular channels.



# 8.3 Scheduling

#### Schedule Recording Settings

Schedule Ta	ble																																						
	0	1	2		3	4	Ļ	5		6	7	,	8		9		10	11	1	2	1	3	14	15	1	16	1	17	1	18	1	19	5	20	2	21	2	2	23
Sunday				Π			П							Π	Π			Π			Π					Π		Π		Π		Π	Π	Π		Π			
Monday																																							
Tuesday																																							
Wednesday							Ш																																
Thursday							Ш							Ш					Ш										Ц										
Friday				Ц		1	Ш				Ш						Ш		Ш										Ш				Ш						
Saturday																																							
																																						0	Clea
Quick Confi	jura	tion																						 															
Days:																																							
Sun	Мо	n 🗌	Tue	s	W	/ed		Th	ur		Fri		Sat	t		A	di i																						
Duration:																																							
	,																																						
🔍 All day																																							

You can define the time range of the schedule recording for all channels on this page.

Channel: Select a channel... -

Use the "Channel" drop-down menu and select a camera first.

Schedule Ta	ble																																										
	0	1	2	3	3	4	5		6		7	8		9		1	0	1	1	1	2	13	3	1	4	1	5	1	6	1	7	1	8	1	9	2	20	2	21	2	2	2	3
Sunday	Π		Π			Π	П	П	Π	Π	П	Π	Π	Π	Π	Π	Π	П	П	Π	Π	Π	Π	Π	П	П		Π	П	П	П	П	Π			Π	Π		Π	Π	Π	Π	Π
Monday									Π					Π						Π																Π	Π						Π
Tuesday	ТП		Π	Π		Π	П	П	Π	П	П	Π	Π	Π	Π	Π	Π	П	П	Π	Π	Π	Π	Π	Π			Π	Π	П	П	П	Π	Τ		Π	Π	Π	Π	Π	Π	Π	Π
Wednesday	ТП		Π			Π	П	Π	Π	Π	П	Π		Π	Π	Π	П	П	П	Π	П	Π	Π	Π	П			П	П	П	П	П	П			Π	Π		Π	Π	Π	Π	Π
Thursday	ТП			П		Π	Π	П	Π		Т	Π		Π	Π	Π	П	П	Π	Π	П	Π		Π	П			Π	П	П	Π	Π	Π	Τ		Π	Π		Π	Π	Π	Π	Π
Friday	ТП		Π	Π		Π	П	Π	Π			Π		Π	Π	Π	Π	П	Π	Π	Π	Π		Π	П			Π	П	П	Π	Π	Π			Π	Π	Π	Π	Π	Π	Π	Π
Saturday			Π			Π	П		Π	П		Π		Π		Π	Π	П		Π	П	Π		Π	П	Т		Π	П	П		Π	Π			Π	Π			Π	Π		Π
			 		_		 				_				_				_				_											_							-	_	_

Clear

You can use the schedule table to set the time range. Click the cell boxes and then move horizontally to let you set what hours to perform recording during a day. Click and then move vertically to let you set what days to perform recording at a specific time.



Quick Configuration	
Days:	
Sun Mon Tues Wed Thur Fri Sat All	
Duration:	
O All day	
Ouring Start time: 00 ▼: 00 ▼ End time: 00 ▼: 00 ▼	Add



You can also use the "Quick Configuration" to define recording time range instead of clicking cell boxes one by one on the timetable. Simply check what days you would like to perform recording and specify the recording duration by either choosing "All Day" or enter a start and end time for specific recording duration.

Copy Schedule To Channel:	Select a channel 🔻
---------------------------	--------------------

Select the "Copy Schedule to Channel:" Opt for this if you would like to set the same recording schedule to another camera.

# 8.4 Preset Point Setting

### 8.4.1 PTZ Preset Settings

The recorder supports PTZ cameras and can set multiple preset points or retrieve and manage preset points that are set in the camera. This is helpful if you need to monitor multiple spots in one area from a particular camera.

Channel:	Select a channel ▼	
Focus:	Near Far Auto	
* Click or the scroll	the video to pan and tilt, use button for zoom control	
	Add	

Preset points list	
Sync from camera	Edit

To set up PTZ preset points:

- 1. Select a camera from the "Channel" drop-down menu.
- 2. Use the PTZ control provided on the configuration page to set the preset point.
- 3. Press "Add" to add preset point.

Press "Edit" to enter edit mode to change preset point names or delete preset points.

The function of "Sync from camera" is to retrieve preset points from camera.

You can choose to make this preset point a "Home" point among all other preset points, as well as making the camera to move to this particular point when an event is triggered.



The second s		
	Note	

"Move Here when Event Triggers": In order for this function to work properly, please also complete configuration in "Event Configuration" >> "Event Trigger".

## 8.4.2 PTZ Preset Sequence

Channel:	Select a channel	•



Dwell time: 20s 🔻

Once you have multiple preset points defined for a camera, it is convenient for monitoring to set up the sequencing viewing among those preset points and let the recorder automatically switch between them for you.

To configure preset sequence for a camera,

- 1. Select a channel from the "Channel" drop-down menu. The available preset points should be listed in "Camera Presets" section.
- 2. Pick the ones you like for sequence viewing and press the "->" button to move them to the "Preset Sequence" section.
- 3. Use the up and down buttons to adjust their sequencing positions.
- 4. Finally, select a dwell time from the drop-down menu and click "Apply" to save the configuration



# 8.5 OSD Settings

<u>Select a chan</u>	nel		<u>Preview</u>
Channel: Se	elect a chan	nel 🔻	
Display	OSD		
Display option	<u>15</u>		
Display	/ time		
Display	/ FPS		
Display	/ channel n	umber	
Display	/ customize	d text:	
<u>Display positi</u>	on		Preview * Click to see a preview of your OSD settings
۲	0	٥	
	Video		
0		0	

The OSD (On Screen Display) allows users to add informational text message and embed it onto the video. By default, this function is turned off. To add texts to one or more videos, select a camera you would like to add text to and choose "Display OSD"

### Select a channel

Channel: Select a channel				
Display OSD				
Display options				
Display time				
Display FPS				
Display channel number				
Display customized text:				



Choose one or more display options if you would also like the recorder to automatically embed the system time or the frame rate for you. Or simply choose to display a custom message of your own.



Next, define where the text will be displayed by either entering an X/Y value based on percentage or use the system pre-defined position from the drop-down menu.



Preview \* Click to see a preview of your OSD settings

Click on the "Preview" button to see the preview of your setting and click "Apply" to save the configuration.



# Chapter 9. NVR Setup -- Event Configuration

# 9.1 Event Sources

The "Event sources" section allows users to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. Such setting can reduce the management overhead and notify the administrator only when it's necessary.

Dis	sk fail		When	) is recycling				
W	hen device starts	up	When	ice configuration changed				
W	hen channel confi	guration changed	🔄 When	era connection status changed				
W	hen remaining HD	D space is lower t	than GB (*mi	um 2GB when HDD recycle is disabled)				
a ever	ents							
a ever eminde lease ly the	e <b>nts</b> e <b>nake</b> sure you h e first region will b	lave properly enal le used even if yo	oled and configured r u set multiple motion	on detection region in the camera's web configura ection regions in the camera.	on UI before enabling motion	detection in the device. The	e device only supports single re	egion detection, .
a ever eminde lease ly the	e <b>nts</b> l <b>er:</b> e make sure you h e first region will b	nave properly enal the used even if you From camera	oled and configured r u set multiple motion	on detection region in the camera's web configura ection regions in the camera. om CMS software	on UI before enabling motion	detection in the device. The	e device only supports single re	egion detection, a
a ever eminde Please aly the	e <b>nts</b> e make sure you h e first region will b Camera's o	ave properly enal le used even if yor From camera digital inputs	oled and configured r u set multiple motion	on detection region in the camera's web configura ection regions in the camera. om CMS software	on UI before enabling motion	detection in the device. The	e device only supports single re	egion detection, a
a ever eminde lease ly the	ents e make sure you h e first region will b Camera's ( Digital input	ave properly enal e used even if you From camera digital inputs Port condition	oled and configured r u set multiple motion Motion detection	on detection region in the camera's web configura ection regions in the camera. om CMS software	on UI before enabling motion	detection in the device. The	e device only supports single re	egion detection, a

The 1st step is to define the condition to trigger event; we can finish up the event triggers by setting:

- •Which channels will have event trigger function enabled?
- •What is considered to be an event?

Device events	
🔲 Disk fail	When HDD is recycling
When device starts up	When device configuration changed
When channel configuration changed	When camera connection status changed
When remaining HDD space is lower than	GB (*minimum 2GB when HDD recycle is disabled)

Define which system events should trigger the recorder to send out notifications.

	From camera			From CMS software
	Camera's d	ligital inputs	Mation detection	
	Digital input	Port condition	Motion detection	
CH 1	Disable 🔻	Disable 🔻		

### Use the checkbox to enable event trigger on the desired channels.



\* Once motion detection is enabled on this page, please configure the motion area and enable motion detection in the corresponding channels (cameras) from camera's own web UI. The NVR only detects the first motion area set in the camera. The NVR recognizes the first motion area by its ID number set in the camera. \* Enabling the "From CMS software" option allows the NVR to receive events

from the CMS software and start recording; event such as the intelligent video detection in the CMS is one example.

You can set up the recorder to receive triggers from a particular camera's digital input.



- 1. For cameras that come with physical digital input ports, their ports will be listed in the far left drop-down menu.
- 2. Pick the desired channel and then select the camera's input port from the drop-down menu.
- 3. Select the trigger condition from the "Port condition" drop-down menu.
- \*The recorder only acts as a medium for pairing up input/output ports between cameras and the recorder.
- \*Only connected cameras will be displayed in the list.
- \* Some cameras only allow one trigger source to be configured at a time, e.g.

If the camera has the motion detection function turned on, its digital input will be disabled and vice versa. Under such circumstance, if you set to use camera's digital input port as the event trigger source, you will not be able to select motion detection as the trigger source for this camera

Device events	Advance 🗙	
🔲 Disk fail	Event trigger duration	
When device starts up	Schadula Tabla	
🔲 When channel configura		
🔲 When remaining HDD sp	Sunday	
	Monday	
Compara quento	Tuesday	
	Thursday	
Reminder:	Friday	
*Please make sure you have only the first region will be us	Saturday	
	Clear	
	Event trigger interval	
Digital input Pr	β Seconds. (5~58640)	
CH 1 Disable V D		
	Event recording buffer	
Advance	Pre-alarm buffer: 0 Seconds (0~10)	
	Post-alarm buffer: 5 Seconds (5~60)	
	OK Cancel	

Click the "Advance" button to set up event schedule.

The "recording buffer" allows user to define "pre-alarm" and "post- alarm" time for event recordings. The "pre-alarm" time sets the NVR to record in advance when an event is triggered. The "post-alarm" time sets the NVR to continue recording for a period of time after an event trigger is finished.

# 9.2 Notification

Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image/txt) to a destined event server according to the configuration.



### **E-Mail Notification**

Primary SMTP server	
Network address:	(* Enter domain name or IP address)
Port: 25	
Authentication:	
Username:	
Password:	
Add backup SMTP server	
Send mail setting	
Sender's name:	
Send from:	
Send to:	(* Use "," to separate e-mails)
	Test

- 1. Enter the hostname or the IP address of the SMTP server
- 2. Enter the port of the SMTP server
- 3. Specify the sender's name in the "Sender's name" field
- 4. Enter the sender's e-mail address
- 5. Check "Enable Authentication" and enter the username and password of the SMTP server if it requires authentication
- 6. Click "Apply" to save the configuration
  - The NVR supports SMTP servers that use base64 or MD5 authentication methods.
  - Free e-mail services of 3<sup>rd</sup> party are supported, such as gmail (open SSL).



### **FTP Notification**

Server settings:		FTP server list:
Server name:		Add Remove
Network address:		Server name
	(* Enter domain name or IP address)	*Click on one to edit its settings
Port:	21	
Allow ano	nymous login:	
Username:		
Password:		
Use pas	ssive mode:	
Test connection:	Test	
Upload settings:		

To add an FTP server,

Upload path:

- 1. Start by giving a name to the server that you are adding to the recorder
- 2. Enter the hostname or the IP address of the FTP server
- 3. Enter the communication port of the FTP server (usually port 21)
- 4. Enter the username and password of the FTP server if it's required
- 5. Check "Use Passive Mode" if it's required or leaves it unchecked to use active mode
- 6. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
- 7. Click "Add" for the settings to take effect

### **Event Actions**

Warning sound
 E-mail pre-defined text file
 Upload pre-defined text file to FTP servers
 E-mail video snapshot
 Upload video snapshot to FTP servers
 E-mail or upload 1 frames per event

Define how the notifications will be sent and where they will be sent.



Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.



# 9.3 E-map

### 9.3.1 Local Map Setting



E-map monitor is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.

Change E-Map image:	Browse	Upload	(*Size limit: 500KB)

To replace the map, click the "Browse" button to locate the new map image file from the local PC and then click "Upload".



### <u>Channel list</u>

Add all channels	
Reset E-Map	
CH1: SNC-CH240	

Add all channels: display all camera icons on E-map Reset E-map: remove all camera icons on E-map Click CH ID to display camera icon of this camera on E-map





Then click and drag the camera icon to move the camera to define its location.

Access the E-map by enabling "Event view".





You can click on the camera icon to display video.





## 9.3.2 Google Map Setting



The Google Map monitor is a similar function to the aforementioned E-Map monitor. It is useful if you are managing multiple cameras from different locations.



To configure locations of each camera, first determine the location you'd like to place the camera to on the map. You can do so by:

- 1. Zooming in to a smaller area by using the zoom control bar on the map
- 2. Zooming in to a smaller area by using the mouse scroll button

Address or places of interest:	Search	
Address of places of liferest.		

You can also go to a specific place on the map by entering its address or the name of the place in the "Address or places of interest" field

Once the location has been determined, click and drag the camera icon to move it to the desired location

\* The Google Map Monitor requires active Internet connection and cannot be used in conjunction with the regular E-map monitor function.



# Chapter 10. NVR Setup -- System Operations

# **10.1 Device Information**

System Operations give users a glance of the overall system status and allow users to perform maintenance tasks such as upgrading firmware, restoring/backing up device settings or rebooting device, etc.

General information

Device name:

Model name: NVR-1620 Firmware version: v1.5.0.72602 Device up since: 2014/12/17 16:28:50

Network information

Connection type: Static IP

Device IP: 192.168.1.236

HTTP port: 80

Streaming port: 9877

MAC address: 00:30:4F:B9:F0:BC

DHCP server: OFF

UPnP port forwarding: OFF

The "Device Information" provides the general information of the device such as firmware version and system time. It also provides information of the current network settings and status.

# 10.2 Log

Syste	m Logs						
ID	Time	Туре	Sub-type	СН	AP	IP	User
1	July 19, 2011 10:15:07	User	User login		Web		admin
2	July 19, 2011 09:47:20	User	User login		Web		admin
3	July 19, 2011 08:56:19	Recording	Stop recycling HDD space				
4	July 19, 2011 08:55:23	Recording	Start recycling HDD space				
5	July 18, 2011 20:21:40	User	User logout		TestClient	192.168.102.21	admin
6	July 18, 2011 20:20:38	User	User logout		TestClient	192.168.101.178	admin
7	July 18, 2011 19:54:46	User	User login		Web		admin
8	July 18, 2011 19:50:35	User	User login		Web		admin
9	July 18, 2011 19:45:14	Linux	Format hard disk				
10	July 18, 2011 19:44:55	Linux	Format hard disk				
11	July 18, 2011 19:44:33	Linux	Format hard disk				
12	July 18, 2011 19:44:15	Linux	Format hard disk				
13	July 18, 2011 19:43:59	Linux	Format hard disk				
14	July 18, 2011 19:43:38	Linux	Format hard disk				
15	July 18, 2011 19:41:06	Channel	Camera connected	17			
16	July 18, 2011 19:41:06	Channel	Camera connected	16			
17	July 18, 2011 19:41:05	Channel	Camera connected	15			
18	July 18, 2011 19:41:05	Channel	Camera connected	13			
19	July 18, 2011 19:41:05	Channel	Camera connected	14			
20	July 18, 2011 19:41:05	Channel	Camera connected	12			

"Log" keeps a record of what's been happening to the device and provides basic information for troubleshooting.



# 10.3 Maintenance

<u>Upgrade firmware</u>		
Locate firmware:	Browse	Upgrade Current version: v1.5.0.72602
Restart device Restart		
Restart camera Select a channel 💌 Restart		
Reset to factory default Reset to default		
Change logo		
Locate logo image:	Browse	Change (*Max. 500KB)
"Maintenance" provides functions for u	users to:	
<ul> <li>Perform Firmware Upgrade (Only on</li> <li>Restart the NVR when necessary</li> <li>Restart cameras directly from the NV</li> <li>Reset the NVR's settings to their fact</li> </ul>	Web UI) /R tory default values	
10.4 Backup & Restore	e	
Backup configuration Backup		
Restore configuration		

It is a function that allows users to back up the NVR's settings to a local hard drive. Users also can restore the NVR's settings from a previously-saved configuration file.

Locate configuration file:

Browse...

Restore



Cattings	🛃 Save As		_			×
<u>Settings</u> > Backup & Restore	🖉 🖉 🖉 Deskto	op 🕨		<b>▼</b> 49	Search Desktop	٩
Backup configura	Organize 🔻 Nev	w folder				u≓ <b>▼</b> (2)
Backu	🔆 Favorites	Â	Libraries			<b>^</b>
	Desktop		System Folder			
	Recent Places	E	Homegroup			
<u>Restore configur</u>			System folder			
	Documents		ENM			
Locate	J Music		System Folder			
	Pictures		Computer			
	🛃 Videos		System Folder			
	🔞 Homegroup	-	Retwork			-
	File name:	backup				
	Save as type:	SSB File				
	Hide Folders				Save	Cancel
	L					

On Web UI, the configuration can be backed up to or restore from a local computer. Click "Backup" to store configuration file in local computer.

On local UI, the configuration can be backed up to or restore from a USB disk. It is required to plug in a USB disk formatted in FAT32 prior to using the backup and restore functions. Once it's detected, click "Backup" to store configuration file in USB disk.

USB2,926MB available,/media/a	au20/
OK	Cancel

# 10.5 USB Backup

USB HDD:	USB2, 926MB available	▼ * Ple	ease format the HDD	to FAT32 on a Windows PC	before using it for backup
Export As:	Media database	•			
Channel:	SNC-CH240 Channel 5 Channel 9 Channel 13	Chai Chai Chai Chai	nnel 2 nnel 6 nnel 10 nnel 14	<ul> <li>Channel 3</li> <li>Channel 7</li> <li>Channel 11</li> <li>Channel 15</li> </ul>	<ul> <li>Channel 4</li> <li>Channel 8</li> <li>Channel 12</li> <li>Channel 16</li> </ul>
Start time: End time:	2014/06/03 V 2014/06/03 V	16: 50: 16: 50:	02 (¥) 02 (¥)		
Backup					

It's a function that allows users to back up the recording data in its database file format as well as in AVI to the externally-connected USB hard disk.

USB HDD: USB2, 92

USB2, 926MB available 🔹 🔻

The USB hard disk(s) will be listed in the drop-down menu displaying the remaining disk space. Make your selection from the drop-down menu if you have more than one disks connected to the NVR.



	SNC-CH240	Channel 2	Channel 3	Channel 4
Channol	Channel 5	Channel 6	Channel 7	Channel 8
Channel:	Channel 9	Channel 10	Channel 11	Channel 12
	Channel 13	Channel 14	Channel 15	Channel 16

Next, select channels which you would like to back up the recording data from. Maximum 4 channels can be selected at once.

Start time:	2014/06/03	16: 50: 02
End time:	2014/06/03	16: 50: 02

Configure the start and end time of the recording data you would like to back up and click the "Backup" button to begin.

# 10.5.1 Things to Pay Attention to for the USB Backup Function

### Limitation:

- It does not support USB Hub that extend the number of HDDs connected to the NVR.
- Only one backup process can be performed at a time.
- Maximum 4 channels can be selected for backup.
- Only FAT32 USB hard disk is supported for backup.
- The USB hard disk needs to have more than 100MB remaining space.
- If multiple partitions are presented in one disk, only the first partition will be detected and used for backup.

### Process:

- Progress will be displayed on the UI.
- If the backup process gets interrupted, meaning the process stops before the "END Time" user defined, such time will be displayed on the UI.
- A folder will be automatically created in the USB hard disk with a name format like 0028687831\_20100610151515\_2010060511 0010\_20100606110010 (MAC backupbuttonclicktime starttime endtime).

### Note:

- Please plug in the USB HDD only after the NVR is fully started, or the HDDs will be incorrectly mounted.
- Play the backup files using the NVR media player.

### **10.5.2** Playing the Backup File with the NVR Media Player

🔛 NVR Media Player	
Open Setting Validate	About
AVI File	
Media Data Base	
Image File	
- Exit	

The backup files can be played with the NVR media player. In order to do this, open the player and select "Open" >> "Media Database".



Playback Setting
MDB PATH C:\Users\ENM\AppData\Local\Tem Browse Check
MDB Info
Server
Time Zone
🗖 Summer Time
Channel
First data time
Last data time
Start play time 2014/12/29
OK Cancel

Click "Browse..." to select the file from the USB disk.



Browse for Folder	x
PENDRIVE (E:)	
👔 Searches	*
📕 My Videos	
Public	
🛛 📄 UpdatusUser	
ULC source	
i web server	
Windows	
D VProtect Files	
DVD RW Drive (D:)	
PENDRIVE (E:)	=
00304FE10029_20141229142350_20141225153(	
brandon (\\192.168.1.174) (Z:)	
> 퉬 3CDaemon	
🎍 avaControlFinder	-
A brandon	-
OK Cancel	

A new dialog should be prompted for you to select the file location.

🔛 Playback Setti	ng	x
MDB PA	ГН E:\00304FE10029_20141	2291423! Browse Check
MDB Ir	fo	
Server		
Time Z	one GMT+8 Beijing, Taiwan, H	long Kong 🔹

When done, click "Check" to validate the file.



🧧 Playback Set	ting
MDB PA	TH E:\00304FE10029_201412291423! Browse Check
MDBI	nfo
Servei	r
Time 2	Zone NVR Media Player
Chann	el 🚺 Get Media Database Success!!
First	data tin OK
Last	data tin
Start pl	lay time 2014/12/29 土午 06:30:12 土
	OK Cancel

Once the file has been successfully verified, you should be prompted with the message shown below.

Time Zone		-
	GMT-14	~
	GMT-13	
Channel	GMT-12 Eniwetok, Kwajalein	
Channel	GMT-11 Midway Island, Samoa	
	GMT-10 Hawaii, Aleutian Island	
First data ti	GMT-9 Alaska	
	GMT-8 Las Vegas, San Francisco, Vancouver	
	GMT-7 Calgary, Denver, Salt Lake City	

Select the time zone according to your current location.





Finally, click "OK" to begin playing. The player should now play the backup file.



# Chapter 11. NVR Local Interface

# **11.1 System Configuration**

# 11.1.1 Service

	Server													
Services	Device Name:													
Display	Time and Date				_	_	_	_	_	_	_	_	_	
Network	Ime Zone	MT+08 (Beging, Tawar, Ho	e Kongi •	Summer time		_	_	_	_	_	_	_		
User Account	O Manual		Sync With NTP Server											
Disk	2013/11/28	14	NTP Server : rtp.u	ube.ter										
Channel	[11:17:53	10	pointe interval : 24 fm	16/24 Statue End										
Local Map	DONS		an spine and an inter i		_	_	_	_	_	_	_	_	-	
Burnet		Bruttle DON'S Service												ĺ
APCOTE	Server:	www.DyrCHIS.com												
vent Handling	Domán Name :													
System Log	User Name:													
Maintenance	Connection Status:	Disconnected												
USB Rectors		Chec	ODNE Statio											
						η								

You will the see the "Service" configuration page first when visiting the Configuration page. You are able to set a unique device name, set system time and configure DDNS on this page.

# 11.1.2 Display

				Nov 28, 2013 11:19:37	🔒 admin	•	8
	Display Setting						
Services	HDMI display:	VGA display:					
Disclay	Resolution:						
Network		•					
User Account	Arrangement;						
Disk	© Set Automary	<ul> <li>Set As Primary Esection to be slightlyed on the secondary monitor:</li> </ul>					
		Live - Sequetex view	(*)				
Channel		1 channal at a time	10				
Local Map		David Linna:					
Becard		10 anconsts					
Event Handling							
Sustam Lar							
And a second second							
Maintenance							
USB Backup	-						
					ANY	Center	

The "Display" configuration page allows you to choose the most optimized display resolution for the monitor that's used with NVR, as there will be circumstances that the incorrect resolution may be used when the system first boots up.


The NVR comes with two video outputs (HDMI: Primary as default, VGA: Secondary as default). You can set which to be used as primary and secondary on this page other than setting the resolution.

You are also able to set the function to be displayed on the secondary monitor on this page.

Currently you can configure the secondary monitor to display live videos with selected channels in desired layout, or live video in automatic sequence view.



The NVR will reboot automatically upon change of resolution/or monitor for the new setting to take effect or be detected.

## 11.1.3 Network

	Device Networking Setting DeKP Server	
Display	Device Networking Setting	
Thermork		
User Account	Source terms disk's server is Off	
Disk	IP Address: 192], 168, 1, 102	
	Submet Mark 1 255 - 255 - 0	
Channel	Guteway: 192 / 198 / 1 / 1	
Local Map		
Record	HTTP Funt: 60 + 1 - 55335, 6600 is not allowed	
	Streaming Font (MT77	
Vent Handling	UR-P Port Forwarding	
System Law	Estenui Porti 6000 lua	
Maintenance		
USB Backup		

You need to adjust settings on this page for the device to work properly in your network. It is critical that settings here are configured correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to "Auto Mode" which if there's a DHCP server in the same local network, the NVR can obtain IP address from the DHCP server. And you can locate the NVR by using the NVR search utility.

If there's no DHCP server in the network, and the NVR is set to "Auto Mode", it will use its own default static IP **192.168.0.20** 



\* The recorder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to the network or you can manually turn off the DHCP server function at the bottom of this page.



		Nov 28, 2013 11:20:01	🔒 admin 🛛	• <b>•</b>
	Network			
Services	Device Networking Setting DHCP Server			
Display	Device Networking Setting			
Wetwork				_
User Account	Satu: Internel DHCP server to DIT			
Disk	IP Address : 192 ) , 168 , 11 , 102			
	Nativet Mark 255 - 255 - 255 - 0			
Channel	Lifeway: 192 - 196 - 1 - 1 Bh61:			
Local Map	DNS2:			
Record	HTTP Point Im + 1 ~ 65535, 6000 is not allowed			
Event Handling	Sensoring York (W17) URAP for forwarding Extransition (M17) Internet Control (M17) Internet			
System Log				
Maintenance				
USB Backup				
			Acoly	Cincel
		Nov 28, 2013 11:20:14	🚊 admin 🛛	1
-	Network D			
Services	Design Reserving Setting OHCP Server			
Display	DHCP Server			
Network	DKPSewer O De Coll			
User Account	weer news constraints ( rear to constraints)			
Disk				
Channel				
Local Map				
Record				
Event Handling				
furthern Loss				
Maintenance				
155 Baches				
our order				
			1	

The built-in DHCP Server function is **NOT** always configurable and is greatly dependent to the connection type that is used:

- 1. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.0.20.
- 2. If the connection type is "Auto Mode", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
- 3. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be OFF if the NVR obtains an IP from a DHCP server in the local network.
- 4. If the connection type is "DHCP Client", the DHCP server function is NOT configurable. It will be ON if the NVR doesn't obtain an IP from a DHCP server in the local network and uses its own default static IP 192.168.0.20.
- 5. If the connection type is "Static IP", the DHCP server function is configurable and can be turned on/off manually.



## 11.1.4 User Account -- User setting



Multiple users can access the recorder simultaneously. You can add, remove, and edit users by using options provided on this page to keep user information organized. Each recorder comes with a built-in "admin" account with password "admin". It's highly recommended to change the password upon your initial login.

Vser Name : Password :	2
Confirm Password :	
Company :	(Optional)
Department :	(Optional)
Telephone :	(Optional)
Mobile :	(Optional)
E-Mail :	(Aptional)
Group : group1	- 3 4
Description :	(Optional)
Add Remove	Apply Cance

- Click "Add" to add a new user.
- Enter a user name and password. All other fields are optional for your own reference.
- Select a group from the "Group" drop-down menu to assign the new user to a particular group. Enter a short description for the account if you wish.
- Click "Apply" to finish configuration.



## 11.1.5 User Account -- User Group Setting

ser Set	ting		User	Gro	up Se	ettin	g					111								
roup:	gro	up1							-	gro	up1		w.		Ch	ange	Group Name			
ive															_					
_	11	12	12	14	1 6	16	17	1.0	Lo	110	Las	140	140	l.	lac	lac		-	13	_
Video	×	×	*	*	-	-	-		-	10	-	12	13	14	15	16				
Audio	×	×	-	*	-	-	-	-	-	-	-	-	-	-	-	-				
PT7	-	-	-	-	-	-	-	-							-	-				
12000		-	-	-	-	-	F	-	-	-	-		-	-	-					
lay	ac	k   2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Video	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×				
	-	-	-	-	-	-	×	*	*	-	*	-	-							
Audio	×		-			and a second	1000		12.20						×	×				

Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the "admin" and the "guest" accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the "admin" account if you wish to do so. The guest account comes with a "view-only" privilege on the "Live View" page, and users in this group do not have the power to make any changes on the "Live View" page or have access to pages other than the "Live View" page.

group1	group1	Change Group Name
--------	--------	-------------------

To create a group, select a group from the "Group" drop-down menu.

User Setting	User Group Setting	1	1	2
Group: group	01	-	group1	Change Group Name
Live				<b>BREAKSHELL</b>

You can change the group name by typing in a new group name and click the "Change Group Name" button to finish.



							9	Çh	an	ne	el –							
Live							1											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Video	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
Audio	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
PTZ	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
×									K									
Allow I	F	un	cti	on	S					С	he	ck	to	gı	an	it p	privil	ege
Parayo	ac	<u></u>																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Video	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
Audio	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
Syste	m	Co	nfi		ati	0.0												
				5		- CI												
X Sy	stem	Con	figu	atio	n	×	Cha	anne	I Con	nfigu	ratio	n	<b>X</b> E	ven	t Cor	nfigui	ration	
X Re	cord	ing (	Confi	gura	tion		Sys	tem	Opti	ons								

Use the checkboxes to allow or deny access to certain functions/channels. You can also restrict access on the certain system wise configuration pages.

### 11.1.6 Disk

	Hard Disk Set	ting			
Services	Internal				
Display	Disk ID	Туре	Capacity	Status	
Network	1	Internal	1878 GB	Normal	Format
	2	Internal	1878 GB	Normal	Format
Disk					
Channel					
Local Map					
Record					
Event Handling					
System Log					
Disk Status					
Maintenance					
USB Backup					

Once you install a new hard disk to the recorder, it will be listed on this page and shown status "offline". You would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed on this page.

To initialize it, simply click the "Format" button.

\*This page will list the Internal disks only. The HDD will be formatted in EXT3 file system.



\*The USB HDDs will only be listed on the "USB Backup" page. The USB HDDs have to be formatted in advance in FAT16/FAT32 or EXT3 file system. (FAT32 is recommended)

\*The internal disks that are formatted in EXT3 or FAT32 elsewhere will be listed on this page and shown as "Online" after they are installed to the NVR. It's highly recommended that it's formatted by the NVR, which will be formatted to EXT3 file system to ensure best performance. FAT32 can be used but will result in a performance slowdown. \*HDDs formatted in file systems other than EXT2/3, or FAT32 will not be listed, and therefore cannot be used.

# 11.1.7 Channel Configurations -- Adding a Camera (Automatic Search)

						No	/ 28, 2013 11:21:02	🔒 admin	(1)	5
Familian	Char	nel List	Drawet Doint   Drawet Services	1		 	_	_		
Jevices		Bea Community							_	_
Display	04	Channel hame	P Address	Port	200	Brand			-	_
Network		F3201	122.196.1.19	80	2840	 				
User Account	2		-		**					_
Disk	3		**		e					_
	4		-		**					
Channel	5		-		-					
Local Map	6									
	7	**								
Record	8				**					
	9		-		***					
Event Handling	10		-	-						
System Log	11									
Maintenatore	12	**								
Manntenance	12				44					_
USB Backup	14			44.						
	15									
	16				**					_

anne	el List Channel Setting	Preset Point Preset Sequence		
сн	Channel Name	IP Address	Port	Brand
1 1	ICA-HM316	192.168.1.150	80	PLANET
2 1	ICA-HM136	192.168.1.151	80	PLANET
3 1	ICA-HM132	192.168.1.152	80	PLANET
4 1	ICA-HM136	192.168.1.154	80	PLANET
5 1	ICA-HM620	192.168.1.121	80	PLANET
6	Second Second			
7.			**	
8				

The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually. You will be greeted with the "Channel List" page when you first enter the "Channel" configuration page. Simply double-click on any channel in the list to start automatic search and add camera to that channel.



Network Setting	
Channel Name : CH #6	
IP Address :	80
User Name :	
Password :	
Display :	
72%	Detect
Device Setting	
Brand :	
Video ID :	
Video Port :	
MAC :	
PTZ : 🗌 Enable	

The progress will be displayed and you will be switched to the "Channel setting" page for more configurations.

S	cervices C	hannel List Channel Setting	Preset Point Preset Seq	uence	
	IP Address	Brand	Model	Port	
	192.168.1.119	PLANET	ICA-1200	80	
	192.168.1.121	PLANET	ICA-HM620	80	_
	192.168.1.126	PLANET DOUDIE CIIC	ICA-HM126	80	
	192.168.1.127	PLANET	ICA-8350	80	
	192.168.1.129	PLANET	ICA-HM718	80	
	192.168.1.131	PLANET	ICA-HM126	80	
	192.168.1.150	PLANET	ICA-HM316	80	
	192.168.1.151	PLANET	ICA-HM136	80	
v	192.168.1.152	PLANET	ICA-HM132	80	
v	192.168.1.154	PLANET	ICA-HM136	80	
	192.168.1.156	PLANET	ICA-HM312	80	
	192 168 1 157	PLANET	ICA-5250V	80	-
	Searc	h again		Close	

Double-click on one from the search result to add it and for more detailed configurations.



			Nov 28, 2013 11:21:11 🖉 admin 🕧 🔛
	Channel List		
Services	Channel Laz Oterroel Setting Presst Point Presst Sequence		
Display	Ournet Ol I	hur Settings	
Network	Nessort Setting		
User Arrount	Channel Name : F3201	Format: N254	
Pink	IP Address : [192.168.1.10 90	1010-1000	
	User Name : [atmn]	Resolution :	
Channel	Passerd :	May 191. 15	
Local Map	Digbey : _).	-	
	Search Detect	Rate Control:	
Record		2048 Maps .	
	Device Semag	BT Rate:	
twent manning	Brand : Zavia	Quality: No.	
System Log	Weller D	- Audio Granuati a 711 a lar a 100	
Maintenance	MAC: 00:18:FE:03:08:9F	and the set of the set of the set	
USB Bacing	PTZ : 🗔 Enable		
			Prevasu Remove Apply Concel

The camera's current settings will be displayed on the right and you can adjust settings such as "Format", "Resolution" or "FPS" before adding it to the NVR.

Service       Joint Ust       Joint Ust       Joint Ust         Service       Joint Soft       Joint Ust       Joint Ust         Service       Joint Soft       Joint Ust       Joint Ust         Service       Joint Ust       Joint Ust       Joint Ust         Service       L				Nov 28, 2013 11:21:11 🚊 admin 🛞 📑
Service         Outrot String         Press/Press		Channel List		
Bedity   Nerent   Bio   Bio <th>Services</th> <th>Overset Like Channel Setting Preset Point Preset Sequence</th> <th></th> <th></th>	Services	Overset Like Channel Setting Preset Point Preset Sequence		
NameArk   User Accessit   Dem Accessit   Dam Ark	Display	Durant (UI)	other Sattings	
User Accessit         0           Bia         0           Date of the rest of the	Network	Nework Setting		
Image: Second Secon	lines Accounts	Chernel Name : [F3201	Format h254	
par   caanad   caanad   caanad   caanad   caanad   caanad   beby:   area banding   gand: fand   web banding   gand: fand   web banding   gand: fand   web b:   web b: <	ore second	IP Address: (192,168,1.10 80	-	
Chaned       Phone (1000)         Decky (100)       Bank (100)         Prese Handing       Becky (100)         System Lag       Becky (100)         System Lag       Becky (100)         Weite Press 28       Becky (100)         Becky (100)       Becky (100) <t< th=""><th>Dina</th><th>Uber Name : [admin]</th><th>Resolution :</th><th></th></t<>	Dina	Uber Name : [admin]	Resolution :	
Load May       Delay []       week heading         System Log       Delay [240]       Week [240]         System Log       Week [240]       Week [241]         Week heading       Week [241]       Week [241]         Week [241]       Week [241]       Week [	Channel	Pasaword:	May 1971 15 *	
Image: Second	Local Man	Digitay : [_]		
Second         System Kandling         System Kandling         System Kandling         Weite Fund Stat         Weite Fund Stat         Wite Fund State		Searth Defect	Rate Control CON	
Point Handling         System Lag         Wein Dimension         Wein Dimension         USB Brokup         Provide Handling         Wein Dimension         Wein Dimensi	Record		2048 khps +	
Nummer       System (ag)         System (ag)       With Voic : 24         Maximaan ca       With Voic : 24         Maximaan ca       Vice (ag)         Vice (ag)       Vice (ag) <td< th=""><th></th><th>- Device Setting</th><th>Bit Rate : Works was</th><th></th></td<>		- Device Setting	Bit Rate : Works was	
Sprinn Lig       Moniterance         Moniterance       Moniterance         Vide Brockup       Adds format : g271; j.bing g21; j.bing g21	Event Handling	Brand : Zevia	Quality MA	
Menteware USB Backup USB Backup	System Log	Wdes 3D :	and the former second	
	Malatanana	Video Port : 354	Audio Format : g.711_u-law g.711_a-law AMR	
	WEINERGENE	PTZ : Datie		
	USB Backup			
Trease Ramon Apply Concil				
The second				
Protein Ramon April Cated				
Protein Ramon Apply Cated				
These Remote Apply Concel				
Presson Remove Apply Carity				
heater Apply Called				
Protein Remove Apply Carlot				
headan Agay Cated				
heater Agely Carlot				<b>N</b>
hrevies Terror Apply Cancel				
Preview Remove Apply Cancel				
				Preview Remove Apply Cancel

Click "Apply" to finish and save the settings.





# 11.1.8 Channel Configurations -- Adding a Camera (Add manually)

Channel Lis	t Channel Setting Preset Point Preset Sequence
	Channel: CH 6
Network	Setting
	Channel Name : ICA-1200
	IP Address : 192.168.1.119 80
	User Name : admin
	Password : •••••
	Display :
Ľ	Search Detect
Device Se	tting
	Brand : PLANET
	Video ID :
	Video Port : 554
	MAC: 00:30:4F:A2:6C:FE
	PTZ: Enable

To add a camera manually, go directly to the "Channel Setting" page, and enter the camera's IP address, HTTP port, user name and password. Click "Detect" to retrieve camera's settings.

Channel Name :	ICA-1200	
IP Address :	192.168.1.119	80
User Name :	admin	
Password :		
Display :		
Det	ecting camera	A
	4766	Detect

The progress will be displayed. Once it's successfully detected, follow the procedures described in the previous section to finish configuring and adding camera to the NVR.



Channel Li	st			_		
Channel List	Channel Settir	Protet Dalet				
_	- crainie setu	Preset Point	Preset Sequence			
Channel :	CH 5 👻	1				
	and strates					
Set as	Home	Move Here When	Event Triggered	Position No.	Position Name	Descriptio
		0		1	Preset_1	
	4					
-		10				
Add	Remove	Edit	Sync with Came	. 3		
(LIDA)			Preset Na	me : [		
- Carlos			Descript	ion : [	and the second se	
				_	1	
Marris .	-	1 3 8 4 B	4. C	Auto Focus	Focus Far Focu	sNear
	-/		<ul> <li>4</li> </ul>			
1.000	A					
1.40		1	2			
the second			- 4			1000
Pan / Tilt / Zo	om with mouse				_	
					5	State State Street
					Appl	Can

You can create up to 8 preset points for each channel if it's a PTZ-capable camera. To add a preset point:

- 1. Select a channel from the "Channel" list and its video will be displayed at the lower-left hand corner.
- 2. Click on the video to change its pointing direction.
- 3. Assign a name to this preset position.
- 4. Click "Add" to add it.
- 5. Click "Apply" to save the settings.

Once you have multiple preset points defined for a camera, it is convenient for monitoring to set up the sequencing viewing among those preset points and let the recorder automatically switch between them for you.



Channel List Channel Setting	Preset Point	Preset Sequence
Channel : 🗾 💌		
Preset Positions:		Preset Sequence:
	-	
Dwell Time: 5s 💌		

To configure preset sequence for a camera,

- 1. Select a channel from the "Channel" drop-down menu. The available preset points should be listed in the "Camera Presets" section.
- 2. Pick the ones you like for sequence viewing and press the "->" button to move them to the "Preset Sequence" section, and then
- 3. Use the Up and Down buttons to adjust their sequencing positions.
- 4. Finally, select a dwell time from the drop-down menu and click "Apply" to save the configuration.



## 11.1.9 E-map

E-map monitoring is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can



quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.



E-map setting page in the local UI only allows you to configure the position of each camera (by using drag and drop). For detailed settings such as changing the E-map image, please do so in the web configuration UI.



To change the map image, place your own image on a USB disk and plug it into one of the USB ports on the NVR. Click the "Browse" button and select the USB disk when prompted.



Locate the image file (.jpg) and click "OK" to finish.





## 11.1.10 Recording

	Recording	Cattles.								_	í
	Recording	Seccing	_								i
Services	General S	metule mit.	-								
Display	C# 01	Intinuout.	Schedule	Conne:			_	_			
Network		1		- Connac		2222345	1000				
Iser Account				and the second second second		Codec	ipes_				
Disk				<ul> <li>Same as Uve</li> </ul>		Resolution :	1920+10	M			
				O Valeo Settavg		Quality:	1		197		
Channel				Recording mo	de						
Local Man				Continuous	Scher.	luie	Event.	Manual			
				99	1+ 19	(*)	14	* 1/P	•		
Record				X Record Audio							
ent Handling											
Sustain Law											
alargen rad											
Asistenance											
758 Beckup											

The "recording configurations" gives users the overall control of how and when a recording is performed and the quality of different types of recordings that will be performed on each channel. It can help the NVR to operate with sufficient system resource by performing recording only when it's necessary with adjustable recording frame rate. The NVR supports displaying live video and recording with different video quality settings or format if camera supports outputting multiple video streams.



	Codec :	jpeg	F
Same as Live	Resolution :	320x240	ſ
🗇 Video Setting	Frame Rate :	Full	J
	Quality :	5	<u> </u>

You can tell that you are configuring a multi-stream capable camera if the "Video setting" option is available.

Video Setting	Frame Rate :	Full	
	Quality :	5	
Recoding m	ode		
Continuous	Schedule	F Event	
Full	1	1	T
Record Audio	Full		
	5		
	10		
	20		

You can further configure the recording frame rate for different types of recordings, and choose whether to record audio or not.



Channel :	2		
Format			
	Codec :		F
Same as Live	Resolution :		N I
O Video Setting	Frame Rate :		Ē
	Quality :		
Recoding m	ode		
Continuous	<b>Schedule</b>	Event	
	▼ <b>1</b>	I/P	<u> </u>
Record Audio			

You will be given with options to record i frame only or i+p frames if the recording format is MPEG4 or H.264.

Record	ing s	Setti	ng															
General	Sch	nedule	mis	sc.										_	-			
Channel	: 1.1	CA-HM	316	-														
Schee	dule	Tabl	le															
* Left bu	utton to	select	, right l	button t	o desel	ect												
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	15
Sun																		
Mon																		
Tue																		
Wed	TTT			3														
Thu	TTT		TTT			TTT												
Fri	TT		TTT															
Sat		TTT	TT		TT		ITT						TTT					
Ouic	k Cor	nfigu	Irati	on														
Days:																		
🗆 Su	in 🗆	Mon	Tue	• 🗆 W	ed 🗌	] Thur	Fr	1 🗆 S	at 🗌	All								
Durat	tion:																	
• AI	Day		r	_	_ 6	_	-			-		-	-	-				
OD	uring	Start T	ime :	00	- : [	00	•	En	d Time	: 00	-	: 00	-	A	99			
Copy Se	chedule	e To Ch	annel :	1				-	1									

On the "Schedule" page, you are able to configure the NVR to record during a particular time frame for each channel.





Start by selecting a channel for configuration from the upper-right hand corner.

Sched	lule	Tabl	e															
* Left bu	Left button to select, right button to deselect																	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1
Sun																		
Mon																		
Tue																		
Wed				3														
Thu																		
Fri																		
Sat	TTT																	

Use the schedule table to define recording time frame. Each cell box represents 15 minutes. You can click one to select or click and hold down the mouse left button and drag horizontally to select consecutive hours of a particular day, or drag vertically to select a particular hour for multiple days.



You can also use the options in the "Quick Configuration" section to quickly define the recording time frame without using the schedule table.



	Recording Setting
Services	General Schedule misc.
Display	Record Buffer
Network	Pre-Alarm Buffer: 0 Seconds (0 ~ 10)
User Account	Post-Alarm Buffer: 5 Seconds (5 ~ 60)
Disk	Enable Recycle (When enabled, recycle automatically starts when remaining HDD space reaches 20GB. The system recycles HDD space 32GB at a time)
Channel	Keep the grevious days of recorded videos.
Local Map	

The record buffer allows you to set the NVR to start recording with a certain period of time before and after an event trigger.

## 11.1.11 Event Setting

The "Event Handling" section allows users to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. Such setting can reduce the management overhead and notify the administrator only when it's necessary.

The general settings section can help you quickly configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.





Start the configuration by defining the general settings:

#### Define when an event will be triggered

• Choose "Always" or "Scheduled" under "Event Trigger Duration"



• For the "Scheduled" option, use the table to define a range of time if you would like events to trigger corresponding actions only during a certain period of time.



\* Use the mouse left button to select and the right button to deselect.

\* You can click and hold down the left button and drag horizontally to quickly select consecutive hours of a particular day, or drag vertically to select the same time for multiple days. Drag diagonally to select consecutive hours/days at once. \* Each cell box represents 15 minutes of time.



Sat			
Event Trigge	er Interva	1	
Interval :	5	Seconds. (5~86400)	
Trigger Act:	lons		
Subject :	event		
	Send Message	☑ Send Image	2 frames 💌
Text :	eee		
FTP File Name :	aaa		

#### How often an event is triggered

• Set a time interval under "Event Trigger Interval" to define how often events are triggered. **Trigger action** 

Now that you have the event trigger duration and interval defined, choose what action to be taken during an event trigger:

- You can choose to have the recorder sent out the first few frames of the video recorder upon an event is triggered.
- You can also choose to have the recorder sent out a warning message in e-mail or in txt file format and upload it to a destined FTP server.





СН	Name	Port		Conditi	on
	#CH 1	Disable	-	Disable	*
	SNC-CH280	1	-	Open	-
	215PTZ	Disable	-	Disable	
	VB-C601.1.0	Disable	•	Ground Change	
	#CH 5	-		-	
	#CH 6	-	10.0	-	

This function allows users to use camera's digital input port from the recorder as source of an event. You can set up the recorder to receive events from a particular camera's input port and then trigger the NVR to start recording.



Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image / txt) to a destined event server according to the configuration.



1995	Name	Network Address	Port	Passive Mode	
1 a		192.168.101.11	21	N	ISS STREET, ST
2			21	N	
			PROPERTY.	HILL BURGERSTER	
111					
1.11					
8.14					
	Name :	CONTRACTOR OF THE OWNER.	0	STREET, STREET	AND
Ne	twork Address :	ALASSING STREET			
	Port : 21	SWIMP CONTRACTOR	Ă		
	User Name :	Internet Internet			
	Password :	Constant Strengthered	6		
	F Passi	ve mode 🚯			
Te	st Upload Path : //Nico/t	est i i i i i i i i i i i i i i i i i i i	Test		
			10000000000	-0	
1					0
In	and a set				
-	Add Remove				Apply X Ca
	CARGE CONTRACTOR				A REAL PROPERTY AND A REAL
		CONTRACTOR OF TAXABLE PARTY.			
	1 10 10 10 10 10 10 10 10 10 10 10 10 10	VIN CONSCRIMENCES	and a second second	Barren Marriel Concernation	

To add an FTP server,

- Click "Add" to begin
   Start by giving a name to the server that you are adding to the recorder
- Enter the host name or the IP address of the FTP server
   Enter the communication port of the FTP server (usually port 21)
- 5. Enter the user name and password of the FTP server if it's required
- 6. Check "Use Passive Mode" if it's required or leave it unchecked to use active mode
- 7. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
- 8. Click "Apply" for the settings to take effect

ont Servers			
IP Servers SMIP Serv			
Primary		Becondary	
Butmork Address :		Network Address	STOLEN STOLEN
Port	1	Patt	25
Sandor's Name		Sender's Name :	
Service's timal (	and the second se	Senter's Enul	T SULLEY'S INCOME AND
the second se	Enalty Authentication		
Unit Name I			
Contraction of the second second		Construction of the local division of the	Contraction of the local division of the loc

To add an SMTP server,

- 1. Enter the host name or the IP address of the SMTP server.
- 2. Enter the port of the SMTP server.



- 3. Specify the sender's name in the "Sender's name" field.
- 4. Enter the sender's e-mail address.
- 5. Check "Enable Authentication" and enter the user name and password of the SMTP server if it requires authentication.
- 6. Click "Apply" to save the configuration.

\*The NVR supports SMTP servers that use base64 or MD5 authentication methods.

ugger A	Ctions		
E-Mail :	E-Mail Addresses :	The second second	*use "," to separate
FTP :	Upload Path :	/Nico/test	
Warning Sound	a set a set a set a		
Move to partic	ular preset points		

We have finished defining how an event will be triggered and which servers will be receiving notifications in the previous two sections, now we can finish up the event configuration by setting:

- Which channels will have event trigger function enabled
- Add system events if you will
- Where the warnings will be sent to and how they will be sent.

	When Cha	nne	<b>1</b>	is	tr	ig	jer	ed	ьу				
		1	2	3	4	5	6	7	8	9	10	11	12
	I/O Input							-	1	*			
	Motion Detect												
	Custom Event			~			п		-				
- THE								* *	-	9			
THE REAL		4											

Use the checkbox to enable event trigger on the desired channels.



\*Enabling "Custom Event" allows events from the CMS software to trigger the NVR to start recording.



2012 11/24/45 0 ......

nin di

When NVR is triggered by	
Disk Fail	Recycled
When NVR Start Up	When NVR System Configuration Changed
When Channel Configuration Changed	When camera connection status changed
When remaining HDD space is lower than 2	GB (min. 2GB when HDD recycle function is disabled)
When system temperature is too high	

Define which system events should trigger the recorder to send out notifications if you will.

Trigger Actions		
E-Mail :	E-Mail Addresses :	*use "," to separate
FTP :	Upload Path :	
Warning Sound		
Move to particula	r preset points	

Define how the notifications will be sent and where they will be sent.



Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.

## 11.1.12 System Log

Time	Type	SubType	Ournel	SourceAF	10		User	
2013/11/28 10:26:32	Service	Some system logs are too old and have been cleared by system auto-						
2013/11/28 10:24:49	Recording	Not enough HDD space. Recording.						
2013/11/28 10:24:49	User	User login		NVILUE	127.0.0.1	atmis		
2013/11/28 10:24:32	Service	Service Start	1					
2013/11/26 18:51:05	User	Usar kagin	3	Web Event	192.158.1.60	atros		
2013/11/26 18:47:03	User	User logout	1	Web Event	192,168,1.60	atmin		
2013/11/26 18:45:43	User	User logie		Web Event	192.168.1.60	atmin		
2013/11/26 18:37:08	Channel	Camera connected	É					
2013/11/26 18:34:51	Channel	Camera disconnected	1					
2013/11/26 18:30:44	Channel	Camera connected	,					
2013/11/26 18:30:16	User	User logiset	1	Web Event	192.158.1.60	atmin		
2013/11/26 18:30:07	User	User login		Web Event	192.168.1.60	atmin		
2013/11/26 18:26:16	User	User logout		Web Event	192.158.1.60	admin		
2013/11/26 18:25:58	Use	User login		Web Event	192,158,1.60	atmin		
2013/11/26 18:25:55	User	User login		Web	192,168.1.60	atmin		
2013/11/26 18:24:34	Service	Relised Configuration	2					
2013/11/26 18:22:49	Service	Some system logs are too old and	8					
2013/11/26 18:22:02	Service	Reliad Configuration		-	-			
2013/11/26 18:21:59	Service	Reload Configuration		1				
2013/11/26 18:21:55	Service	Relaad Coofiguration	1	-				
2013/11/26 18:21:51	Service	Relicad Configuration	1	1				
2013/11/26 18:21:45	Service	Reliad Configuration	1					
2013/11/26 18:21:06	Recording	Not enough HCO space, Recording		1				
2013/11/26 18:21:05	User	User login		NVILLE	127.00.1	atmin		
2013/11/26 18:20:49	Service	Service Start	1	1				
2013/11/26 18:19:40	User	User lognut	-	NVR UE	127.00.1	atmis		
2013/11/26 18:19:43	Service	Service Stop						
2013/11/26 18:19:41	Service	Balaad Configuration	1					

"System Log" keeps a record of what's been happening to the device and provides basic information for troubleshooting.



### 11.1.13 Maintenance

Restart Configuration r	nisc.
Restart	
Rest	art NVR
1. F3201	- Restart Camera

"Maintenance" provides functions for users to:

- Reboot the NVR when necessary
- Reboot cameras directly from the NVR
- Perform Firmware Upgrade
- Back up the NVR's settings to a local hard drive
- · Restore the NVR's settings from a previously-saved configuration file
- Reset the NVR's settings to their factory default values

Server Maintenance
Restart Configuration misc.
Backup / Restore NVR Settings
Backup Restore
Reset NVR to Factory Default
This will restore all configurations to their factory default values
Restore Factory Default
When the DHCP server function is disabled, the default IP of the system is: 192.168.101.50
Please DO NOT power off the system during the reset process. You will be notified once the process is complete

The configuration can be backed up to or restore from a USB disk. It is required to plug in a USB disk formatted in FAT32, EXT3, or EXT4 prior to using the backup and restore functions.



Server Main	enance				
Restart Config	ukzion misc.				
Backup / R	estore NVR Settings				
Backup	Restore	/			
Reset NVR to Factory Default           This will restore all configurations to their factory default values					
Restore Fact	ory Default				
When the DHCP s *** Note ***:	erver function is disabled, the default IP of the	e system is: 192.168.101.5			
Please DO NOT p	ower off the system during the reset process.	You will be notified once t			
	Server Maint Restart Config Backup / Re Backup Reset NVR 1 This will restore a Restore Factor When the DHCP s *** Note ***: Please DO NOT po	Server Maintenance         Restart       Configuition misc.         Backup / Restore NVR Settings         Backup       Restore         Reset NVR to Factory Default         This will restore all configurations to their factory default value         Restore Factory Default         When the DHCP server function is disabled, the default IP of the         **** Note ***:         Please DO NOT power off the system during the reset process.			

To reset the recorder back to its factory default, click the "Restore Factory Default" button and begin the process.

HDD: USE	13, 2 GB availabl		Please for	nat the HDD to FAT32 on a Wind	dows
#CH 1	Channel 2	Channel 3	Channel 4		
Channel 5	Channel 6	Channel 7	Channel 8		
Channel 9	Channel 10	Channel 11	Channel 12		
Channel 13	Channel 14	Channel 15	Channel 16		
Channel 17	Channel 18	Channel 19	Channel 20		
Channel 21	Channel 22	Channel 23	Channel 24		
Channel 25	Channel 26	Channel 27	Channel 28		
Channel 29	Channel 30	Channel 31	Channel 32		
Support back	ip 4 channels at	the same time			
	2011/11/28	18:43:02	-		
Start Time :		the second se	and the second se		
Start Time : End Time :	2011/11/28	• 18:43:02			

It's a function that allows users to back up the recording data in its database file format as well as in AVI to the externally connected USB hard disk.



## 11.1.14 USB Backup

	USB Backup	P				
Services	USB HED : Export As :	Med in stored	Lant		fease format the HDD Iss FAT32 on a Indows PC Serlor susing it for Sackup	
Display	Diansels:	Figuration	Hawar	Francis	1	 -
Network	Escur	Duamer	_ Canoe s	E ONIMET		
User Account	Damers	_] Conners	_ cumer	- Oumers	4	
Disk	Channely		_ Chime 11	_ Unime 12		
	U Ounnel G	U Ouniei 14	Dume 15	U Orannel 16		
Channel						
Local Map						
Record						
vent Handling						
System Log						
Maintenance						
USE Barban	-					
USB BECKEY	* Support luckup	p-8 channels actives	ametine			
	Start Time:	2013/11/2	03:25	31 2		
	final Tense :	2013/11/2		dt 😭		
		fact	98			

It's a function that allows users to back up the recording data in its database file format as well as in AVI to the externally-connected USB hard disk.

JSB Backu	P				
JSB HDD :				-	* Nease format the HDD to FAT32 on a Windows PC before using it for backup
Export As : Channels :	Media data	base		-	
F3201	Channel 2	Channel 3	Channel	4	
Channel 5	Channel 6	Channel 7	Channel	8	
Channel 9	Channel 10	Channel 11	Channel	12	2

The USB hard disk(s) will be listed in the drop-down menu displaying the remaining disk space. Make your selection from the drop-down menu if you have more than one disk connected to the NVR.

oob buchu	P				
USB HDD :				¥	* Please format the HDD to FAT32 on a
Export As : Channels :	Media data	base		•	windows PC before using it for backup
F3201	Channel 2	Channel 3	Channel	4	
Channel 5	Channel 6	Channel 7	Channel	8	
Channel 9	Channel 10	Channel 11	Channel	12	2

Next, select channels which you would like to back up the recording data from. A maximum of 4 channels can be selected at once.





Configure the start and end time of the recording data you would like to back up and click the "Backup" button to begin.

	Thinks to new ottention for the UCD Declars function
	Things to pay attention for the USB Backup function
	<ul> <li>Limitation:</li> <li>It does not support USB Hub, extending the number of HDDs connected to the NVR.</li> <li>Only one backup process can be performed at a time.</li> <li>A maximum of 4 channels can be selected for backup.</li> <li>Only FAT32 USB hard disk is supported for backup.</li> <li>The USB hard disk needs to have more than 100MB remaining space.</li> <li>If multiple partitions are presented in one disk, only the first partition will be detected and used for backup.</li> </ul>
Note	<ul> <li>Process:</li> <li>Progress will be displayed on the UI.</li> <li>If the backup process gets interrupted, meaning the process stops before the "END Time" user defined, such time will be displayed on the UI.</li> <li>A folder will be automatically created in the USB hard disk with a name format like 0028687831_20100610151515_2010060511 0010_20100606110010 (MAC_backupbuttonclicktime_starttime_endtime).</li> </ul>
	<ul> <li>Note:</li> <li>Please plug in the USB HDD only after the NVR is fully started, or the HDDs will be incorrectly mounted.</li> <li>Play the backup files using the NVR media player.</li> </ul>



## **Appendix A: Ping IP Address**

The ping (Packet Internet Groper) command is used to detect whether a specific IP address is accessible by sending a packet to the specific address and waiting for a reply. It's also a very useful tool to confirm whether or not Internet camera is installed or if the IP address conflicts with any other device over the network.

If you want to make sure the IP address of Internet camera is alright, utilize the ping command as follows:

- Start a DOS window.
- Type ping x.x.x.x, where x.x.x.x is the IP address of the Internet camera.

The replies, as illustrated below, will provide an explanation to the problem.



If you want to detect any other device that conflicts with the IP address of Internet camera, you also can utilize the ping command but you must disconnect the Internet camera from the network first.



# **Appendix B: Planet DDNS Application**

Configuring PLANET DDNS Steps:

Step 1 Enable DDNS option through accessing web page of the ICA-3200.

Step 2 Select on DDNS server provided, and register an account if you do not use yet.

Let's take dyndns.org as an example. Register an account at http://planetddns.com







## Appendix C: Configuring Port Forwarding Manually

The device can be used with a router. If the device wants to be accessed from the WAN, its IP address needs to be set up as a fixed IP address. The port forwarding or Virtual Server function of router also needs to be set up. This device supports UPnP traversal function. Therefore, user could use this feature to configure port forwarding of NAT router first. However, if user needs to configure port forwarding manually, please follow the steps below:

Manually installing the device with a router on your network is an easy 3–step procedure as follows:

- 1. Assign a local/fixed IP address to your device
- 2. Access the Router with Your Web browser
- 3. Open/Configure Virtual Server Ports of Your Router

#### 1. Assigning a local/fixed IP address to your device

The device must be assigned a local and fixed IP Address that allows it to be recognized by the router. Manually set up the device with a fixed IP address, for example, 192.168.0.100.

#### 2. Accessing the Router with Your Web browser

The following steps generally apply to any router that you have on your network. PLANET WNRT-620 is used as an example to clarify the configuration process. Configure the initial settings of the router by following the steps outlined in the router's **Quick Installation Guide**. If you have cable or DSL service, you will most likely have a dynamically assigned WAN IP Address. 'Dynamic' means that your router's WAN IP address can change from time to time depending on your ISP. A dynamic WAN IP Address identifies your router on the public network and allows it to access the Internet. To find out what your router's WAN IP Address is, go to the **Status** screen on your router and locate the WAN information for your router. As shown on the following page the WAN IP Address will be listed. This will be the address that you will need to type in your web browser to view your camera over the Internet. Be sure to uncheck the **Reset IP address at the next boot** button at the top of the screen after modifying the IP address. Failure to do so will reset the IP address when you restart your computer.



O DI ONET		Home   General Setup   Status   Tool
Networking & Communication		Internet Broadband Router
	Internet Connection 2	
Status Internet Connection Device Status	View the current internet connection status and related information.	
<ul> <li>Security Log</li> <li>Security Log</li> </ul>	Attain IP Protocol : Dynamic IP disconnect	
<ul> <li>Active DHCP Client</li> <li>Statistics</li> </ul>	IP Address :	
	Subnet Mask :	
	Default Gateway : 0.0.0.0	
	MAC Address : 00:11:22:33:44:56	
Current Time	Primary DNS :	
17172000-2.01.15	Secondary DNS :	
	*****	

Your WAN IP Address will be listed here.

#### 3. Opening/Setting Virtual Server Ports to enable remote image viewing

The firewall security features built into the router and most routers prevent users from accessing the video from the device over the Internet. The router connects to the Internet over a series of numbered ports. The ports normally used by the device are blocked from access over the Internet. Therefore, these ports need to be made accessible over the Internet. This is accomplished using the **Virtual Server** function on the router. The Virtual Server ports used by the camera must be opened through the router for remote access to your camera.

Follow these steps to configure your router's Virtual Server settings

- Click Enabled.
- Enter a unique name for each entry.
- Select Both under Protocol Type (TCP and UDP)
- Enter your camera's local IP Address (e.g., 192.168.0.100) in the Private IP field.
- If you are using the default camera port settings, enter **80** into the **Public** and **the Private Port** section and click **Add**.

A checkmark appearing before the entry name will indicate that the ports are enabled.



Some ISPs block access to port 80. Be sure to check with your ISP so that you can open the appropriate ports accordingly. If your ISP does not pass traffic on port 80, you will need to change the port the camera uses from 80 to something else, such as 8080. Not all routers are the same, so refer to your user manual for specific instructions on how to open ports.



PLANET	Home   General Setup   Status   Tool
Networking & Communication	Internet Broadband Router
<ul> <li>System</li> <li>WAN</li> <li>LAN</li> <li>Wireless</li> <li>QoS</li> <li>NAT</li> <li>Port Forwarding</li> <li>Virtual Server</li> <li>Special applications</li> <li>UPAP Setting</li> </ul>	Virtual Server <ul> <li>You can configure the Broadband router as a Virtual Server so that remote users accessing services such as the Web or FTP at your local site via Public IP Addresses can be automatically redirected to local servers configured with Private IP Addresses. In other words, depending on the requested service (TCP/UDP) port number, the Broadband router redirects the external service request to the appropriate internal service (TCP/UDP) port number, the Broadband router redirects the external service request to the appropriate internal server (located at one of your LAN's Private IP Addresse).               Enable Virtual Server               Private IP             Private             Port             Public Port             WAN1 Port             Comment               Add             Reset</li></ul>
	Current Virtual Server Table:
Firewall	Private IP Private Type Public Port WAN Port Comment Select
	192.168.0.100 80 TCP+UDP 80 WAN1 ICA-HM230
	Delete Selected         Delete All         Reset
	Apply Cancel

Enter valid ports in the **Virtual Server** section of your router. Please make sure to check the box on this line to enable settings. Then the device can be accessed from WAN by the router's WAN IP Address.

By now, you have finished your entire PC configuration for this device.