ANYNET

Embedded NVR

# AnyNet 12824/6424/6416/6408/3208/3204 1604/1604 Lite/0804 Lite

## *System Operation Manual*

Secure your place at Anytime from Anywhere

**Version: 5.5**

**Doc No.: 2021072201E**

Secure your world in ours

# Table of Contents

**About This Guide** ---- **5**

**FCC Compliance Statement** ---- **5**

**FCC Warning** ---- **5**

**License Agreement** ---- **6**

**Trademark** ---- **8**

**Customer Support** ---- **8**

**Chapter 1 Product Introduction** ---- **9**

1-1. Model Description ---- 9

1-2. Product Package Content ---- 10

1-3. Recommend HDD List ---- 10

1-4. Product Overview ---- 11

**Chapter 2 Hardware Installation** ---- **15**

2-1. How to build up the Raid HDD function? ---- 16

2-2. How to format the HDD from the NVR system? ---- 21

2-3. How to rebuild the Raid HDD? ---- 24

**Chapter 3 NVR Operating System** ---- **26**

3-1. NVR System Control Panel Configuration ---- 27

3-2. NVR Main Program ---- 39

3-3. Witness Pro Program Overview ---- 40

**Chapter 4 Operate Auto Number Plate Recognition System** ---- **53**

4-1. How to get the criteria to image for the ALPR system? ---- 53

4-2. How to install the camera for the ALPR system? ---- 57

4-3. How to set up the parameters of the ALPR system? ---- 58

4-4. How to White list and Blacklist of ALPR system? ---- 63

**Chapter 5 Operate Face Recognition System** ---- **72**

5-1 What is QuickFace Facial Recognition System? ---- 72

5-2 How to install the camera for the Face Recognition system? ---- 74

5-3 How to set up the face recognition camera? ---- 76

5-4 How to white list and blacklist of face recognition system? ---- 78

5-5 How to import the confidence value of face recognition?---------- 90
5-6 The View log of face recognition---------- 91
5-7 Pop up the image of face recognition ---------- 95
**Chapter 6 Operate Object Classification and Counting Function ---------- 96**
6-1. What are the object classification and counting functions? ---------- 96
6-2. How to install and set up object classification and counting cameras? ---------- 98
6-3. How to configure the object counting and show statistical data? ----------100
6-4. How to check the objects count logs?----------102
6-5. How to configure the comparison of statistics data? ----------104
**Chapter 7 NVR Software Operation---------- 105**
7-1. Surveillance NVR/NVR (Witness Pro)----------105
7-2. How to setup Fisheye camera for 360°/180° Panorama viewing ----------111
7-3. Logging in the Witness Pro program----------114
7-4. Camera configuration ----------115
7-5. Video playback / Text insert playback / ezBackup ----------135
7-6. Remote Access setup----------151
7-7. System Configuration ----------156
7-8. User access setup ----------165
7-9. Application logs----------169
7-10. Peripherals setup----------171
7-11. Stop alarm siren ----------173
7-12. Storage configuration----------173
7-13. Public address configuration----------177
7-14. Control Panel ----------183
**Chapter 8 Application Tools- ezTools ---------- 187**
8-1 IP Camera Video transfer - ezVideoTrans ----------187
8-2 IE Browse Server - EzWebServer ----------189
8-3 RemoteApp & Desktop Connections control server – EzRServe----------192
8-4 Two Way Audio – EzTalk ----------195
8-5 Schedule Reboot – EzReboot ----------197

8-6 Time Synchronization – EzClock ----------198
8-7 HDD Healthy Monitoring - EzHDDSmart----------199
8-8 UPS utility –EzUPSCheck ----------202
8-9 On-Line Menu ----------203
8-10 Other Applications----------204

# About This Guide

**Conventions used in this guide to make sure that you perform certain tasks properly, take note of the following symbols to use throughout this manual.**

**On-Line Manual:** This icon will show on the screen Application software, click this icon will pop up the operation manual of this window screen section.

**WARNING:** Information to prevent injury to yourself when trying to complete a task.

**WARNING:** Information to prevent injury to yourself when trying to complete a task.

**CAUTION:** Information to prevent damage to the components when trying to complete a task.

**IMPORTANT:** Information that you must follow to complete a task.

**NOTE:** Tips and additional information to aid in completing a task.

# FCC Compliance Statement

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

# FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, according to Part 15 of the FCC Rules. These limits design 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 following the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Suppose this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on. In that case, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Shielded cables and I/O cords must be used for this equipment to comply with relevant FCC regulations.

# License Agreement

Notice to end-user: please read the following legal agreement carefully. Use of the Witness or any of the software provided with this agreement constitutes your acceptance of these terms. If you do not agree with the terms of this agreement, PROMPTLY RETURN the Witness system, Witness, AnyView Pro and FreeView Pro, any related software and the included items (including the Witness video system, written materials and containers) to the location where you purchased them for a full refund.

**1-1.** License Grant. I-View grants to you (either as an individual or an entity) a personal, nonexclusive, nontransferable license to use one copy of the executable code of the I-View's Witness, FreeView Pro and AnyView Pro on a single CPU residing on your premises. The term of this Agreement will be for the duration of I-View's copyright in the Witness, FreeView Pro and AnyView Pro. You may assign your rights under this Agreement to a third party who agrees in writing to be bound by this Agreement prior to the assignment, and provided that you transfer all copies of the Witness, FreeView Pro and AnyView Pro and related documentation to the third party or destroy any copies not transferred. Except as set forth above, you may not assign your rights under this Agreement, nor shall you rent, lease, sell, sublicense or otherwise transfer the Witness, FreeView Pro and AnyView Pro.

**1-2.** Reverse Engineering. You may not reverse engineer, decompile or otherwise disassemble the Witness, FreeView Pro and AnyView Pro except to the extent that applicable law expressly prohibits this restriction.

**1-3.** Copyright. Title and full ownership rights to the I-View's Witness, FreeView Pro and AnyView Pro will remain the exclusive property of I-View or its suppliers, and you will not acquire any rights to the I-View's Witness, FreeView Pro and AnyView Pro except as expressly set forth above.

**1-4.** Maintenance. I-View is not obligated to provide maintenance or updates to you for the Witness system and transport to Witness, FreeView Pro and AnyView Pro. However, any maintenance or updates by I-View shall be covered by the Agreement.

**1-5.** Disclaimer of Warranty. I-View warrants that the Witness system, the witness FreeView Pro and AnyView Pro and related software will perform substantially in accordance with the accompanying documentation and those CD-ROM diskettes are free from any defects for a period of 90 days from the date of purchase (limited warranty). Except for the foregoing limited warranty, I-View expressly disclaims any and all other warranties, whether express or implied, including without limitation, the implied warranties of merchantability, fitness for a particular purpose, and non-infringement of third party rights. If law does not permit such disclaimer of any implied warranty, the duration of any such implied warranties is limited to 90 days from the date of purchase. Some countries do not allow the disclaimer of implied warranties, limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so such limitation as or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary, from state to state.

**1-6.** Customer Remedies. In the event the Witness system or related software does not meet or conform to the Limited Warranty, I-View's entire liability and your sole and exclusive remedy shall be, at I-View's option, either to (a) correct the error, (b) help you work around or avoid the error or (c) authorize a refund so long as the Witness system documentation and CD-ROM diskettes are returned to I-View with a copy of your receipt. This Limited Warranty is void if failure of the Witness system has resulted from accident, abuse, or application. Any replacement Witness system will be warranted for the remainder of the original warranty period.

**1-7.** No Liability for Consequential Damages. In no event shall its suppliers be liable to you for any incidental, indirect, special or consequential damages of any kind rising out of or related to this agreement or use or inability to use the related software, even if I-View has been advised of the possibility of such damages.

**1-8.** Please acknowledge that the laws and regulations of the Taiwan R. O. C. restrict the export and re-export of commodities and technical data of Taiwan R. O. C. origin. You may not download or otherwise export or re-export the Witness system or related software or any underlying information or technology except in full compliance with all United States and other applicable laws and regulations. You agree to indemnify and hold I-View harmless from and against any and all liability arising from or relating to your breach of this Manual.

**1-9.** Governing Law; attorneys' fees. The laws of the Taiwan R. O. C will govern this agreement. Without

regard to conflict of law principles. The R. O. C. Convention on Contracts for the International Sale of Goods is specifically disclaimed. The prevailing party shall be entitled to recover its reasonable attorneys' fees in the event of a dispute arising out of or relating to this Agreement.

**1-10.** Entire Agreement. This is the entire agreement between you and I-View with respect to the use of the Witness, FreeView Pro and AnyView Pro, which supersedes any prior agreement, whether written, or oral, and all other communications between the parties relating to the subject matter of this Agreement. Should you have any questions concerning this Agreement, please contact I-View directly at one of the numbers or addresses listed at the beginning of this manual.

# Trademark

DigiCap II, DSecu, AnyNet, e-Witness, AnyNet, u-Witness XP, x-Witness, FreeView Pro, AnyView Pro, PDAView, MobileView, QuickPark and QuickFace are registered trademarks of I-View Communication Inc. Microsoft, Windows 95, 98, ME, Windows2000, XP, Vista and 7 are registered trademarks of Microsoft Corporation. All other trademarks are the property of their respective holders.

# Customer Support

If technical problems arise with the use of our products in which you and your vendor cannot resolve, please try the following: If you have an Internet connection, visit the I-View website http://www.i-view.com.tw (Taiwan) for any software or product updates, or email to support@i-view.com.tw (Taiwan) or Tel: 886-3-510-3001 Fax: 886-3-510-3002 (Taiwan). We are dedicated to providing the highest quality support. E-mailing our tech support will give you the chance to document each of the above items in a very clear and concise manner and will give our support team a chance to document any problems and respond with thoroughly researched answers.

# Chapter 1 Product Introduction

## 1-1.Model Description

| Model | Description |
|---|---|
| **AnyNet-1604 Lite** | 16 channels I-View's IP devices and/or 16 channels third-party IP devices digital video recorder provide up to 50TB HDD capability (10TB x5). |
| **AnyNet-3204 Lite** | 32 channels I-View's IP devices and/or 32 channels third-party IP devices digital video recorder provides up to 50TB HDD capability (10TB x 5). |
| **AnyNet-3204/1604** | 32/16 channels I-View's IP devices and/or 32 /16channels third-party IP devices digital video recorder provide 4 hot-swap SATA drive bays up to 40 TB HDD capability (10TB x 4) with Raid 0, 1, 5,10 function. |
| **AnyNet-3208/ AnyNet-6408** | 32/64 channels I-View's IP devices and/or 32 /64 channels third-party IP devices digital video recorder provide 8 hot-swap SATA drive bays up to 80 TB HDD capability (10TB x 8) with Raid 0, 1, 5, 6,10 function. |
| **AnyNet-6416/1616** | 64/16 channels I-View's IP devices and/or 64/16 channels third-party IP devices digital video recorder provide 16 hot-swap SATA drive bays up to 160 TB HDD capability (10TB x16) with Raid 0, 1, 5, 6,10 function. |
| **AnyNet-6424** | 64 channels I-View's IP devices and/or 64 channels third-party IP devices digital video recorder provide 24 hot-swap SATA drive bays up to 240 TB HDD capability (10TB x24) with Raid 0, 1, 5, 6,10 function. |
| **AnyNet-12824** | 128 channels I-View's IP devices and/or 128 channels third-party IP devices digital video recorder provide 24 hot-swap SATA drive bays up to 240 TB HDD capability (10TB x24) with Raid 0, 1, 5, 6,10 function. |

1. Redundancy Power supply and 4/6/8 monitors display are optional.
2. The maximum HDD writing speed cannot exceed 180 M/S for 4 Bays Raid NVR system and 250 M/S for 8 Bays NVR system. Please make sure the data size of the system will over than the HDD writing speed or not when you choose the Anynet-3204 or 6408 NVR
3. The most 7200RMB SAVAII/III HDD can capability with NVR. You can call your local dealer before buying the HDD; the Enterprise HDD is a strong recommendation.
4. We recommend using the same model HDD on a system when you use the Raid 5 or 6.

## 1-2. Product Package Content

Thank you for choosing the I-View Embedded NVR system. Before you start installing the hardware devices with the NVR, please check the items of the product package with the list below,

- ✓ **Recover USB Flash disk**
- ✓ **User manual & Power cable**
- ✓ **Screws for HDD installation**
- ✓ **Mouse**

If any of the above items are damaged or missing, contact your retailer.

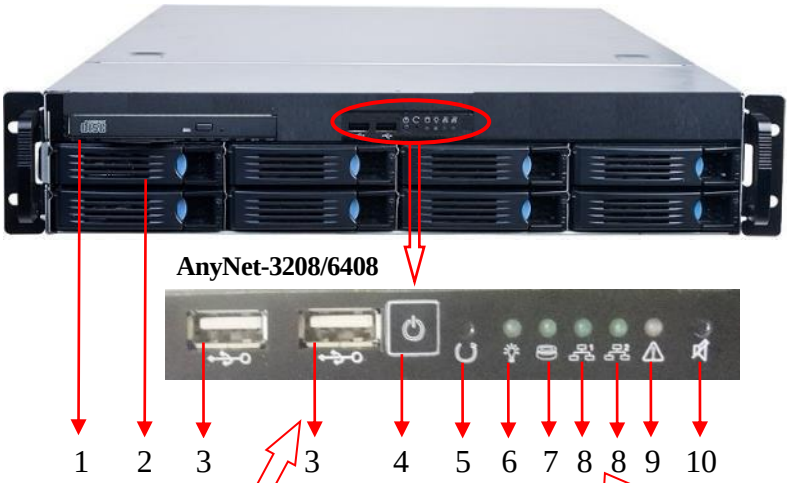
## 1-3. Recommend HDD List

| **Seagate** | | |
|---|---|---|
| **Model** | **Size** | **Type** |
| ST4000NM0035 | 4TB | SATA 6 Gb/Sec. |
| ST6000NM0115 | 6TB | SATA 6 Gb/Sec. |
| ST8000NM0055 | 8TB | SATA 6 Gb/Sec. |
| ST10000NM0086 | 10TB | SATA 6 Gb/Sec. |
| **Western Digital** | | |
| **Model** | **Size** | **Type** |
| WD4002FRYZ | 4TB | SATA 6 Gb/Sec. |
| WD6002FRYZ | 6TB | SATA 6 Gb/Sec. |
| WD8002FRYZ | 8TB | SATA 6 Gb/Sec. |
| WD101KRYZ | 10TB | SATA 6 Gb/Sec. |

## 1-4. Product Overview

Front Panel of AnyNet Embedded NVR System

➢ **Anynet-3208/6408/6416/6424 Rear Panel**

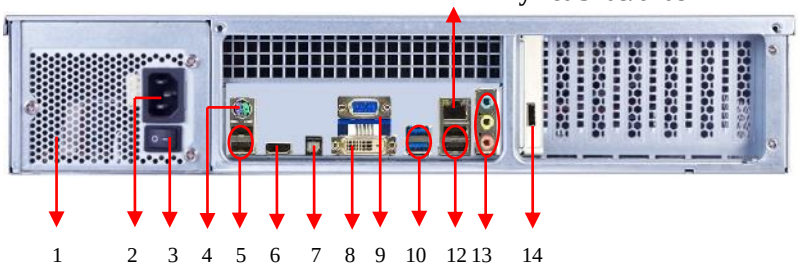


**AnyNet-6416**

**AnyNet-6424**

1. DVD drive
2. Remove Hot-swap HDD
3. USB 3.0 ports
4. Power Switch
5. System reset button
6. Alarm Mute button (Revised);
7. System HDD Activity indicator LED
8. Power indicator LED
9. Failed indicator LED (Revised)
10. LAN1 & LAN 2 indicator LED (Revised)

➢ **Anynet-1604/3204/3208/6416/6424 Back Panel**



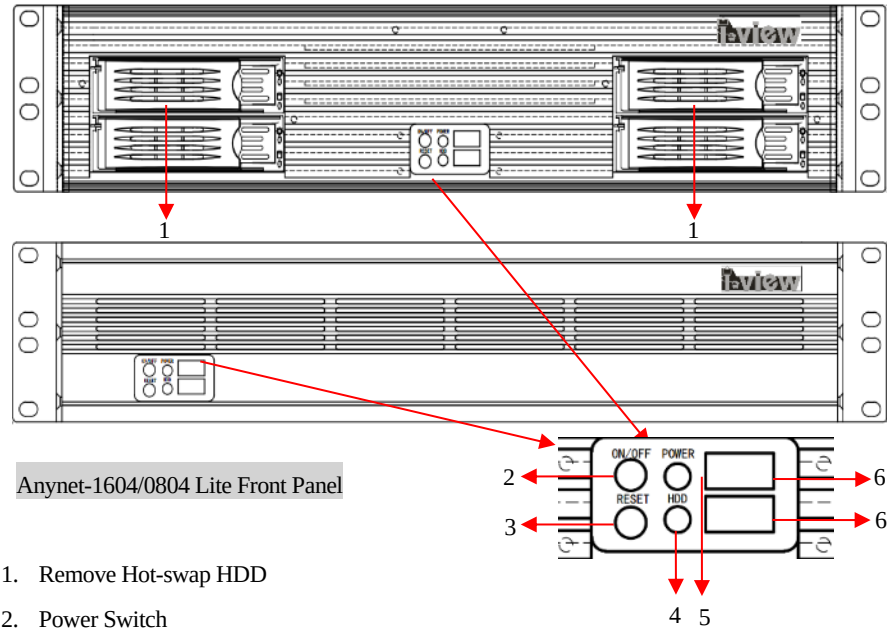

**AnyNet-3208/6408**

**AnyNet-6416**

**AnyNet-6424/12824**

1. **Power supply:** The power supply can be selected optional redundancy power supply.
2. **Supplied power cord:** Connect one end to the AC input.
3. **Power switch:** Turn on/off the power supply.
4. **PS2 keyboard/ mouse combo port:** This port is for a PS2 keyboard/mouse.
5. **USB port:** For USB device plug-in.
6. **HDMI port:** This port is for an HDMI monitor.
7. **S/PDIF port:** Audio output port.
8. **VGA port:** 15-pins ports for VGA monitor or device.
9. **DVI-DL port:** Support DVI-D Signal output only.
10. **e-SATA port:** Plug e-SATA devices.
11. **RJ-45 LAN port#1:** Connect to Switching HUB. The default IP address is 192.168.1.1
12. **USB port:** For USB device plug-in.
13. **Line in (Blue):** This port connects to CD, DVD audio sources. **Speaker out (Lime):** This port connects to the speaker. **Microphone in (Pink):** This port connects to the microphone.
14. **RJ-45 LAN port#2:** Connect to Switching HUB. The default IP address is 192.168.0.1

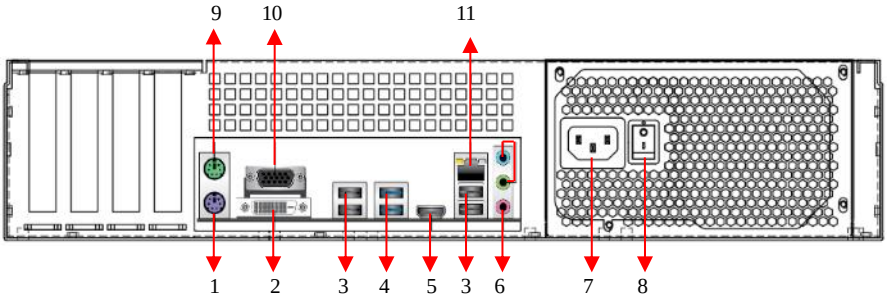
➢ **Anynet-1604/3204 Front Panel**




➢ Anynet-1604/0804 Lite Front Panel

1. Remove Hot-swap HDD
2. Power Switch
3. System reset button
4. Power indicator LED
5. HDD indicator LED
6. USB 3.0 ports

➢ **Anynet-1604/3204/1604Lite /0804 Lite Back Panel**




1.**PS2 keyboard port:** This port is for a PS2 keyboard.

2.**DVI-DL port:** Support DVI-D Signal output.

3.**USB port:** For USB2.0 device plug in.

4.**USB port:** For USB3.0 device plug in.

5.**HDMI port:** This port is for an HDMI monitor.

6.**Line in (Blue):** This port connects to CD, DVD audio sources. **Speaker out (Lime):** This port connects to the speaker. **Microphone in (Pink):** This port connects to the microphone.

7.**Supplied power cord:** Connect one end to the AC input.

8.**Power switch:** To turn on/off the power supply.

9.**PS2 mouse port:** This port is for a PS2 mouse.

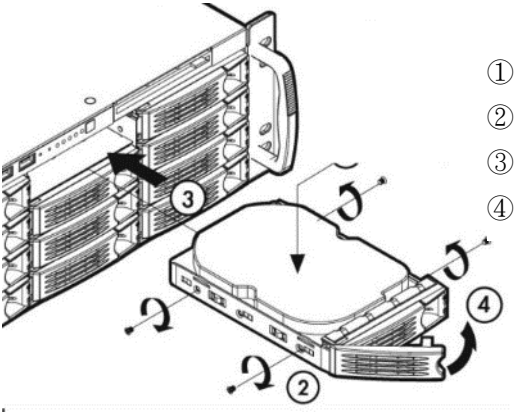
10.**RJ-45 LAN port#1:** Connect to Switching HUB. The default IP address is 192.168.1.1

11.**VGA port:** 15-pins ports for VGA monitor or device.

# Chapter 2 Hardware Installation

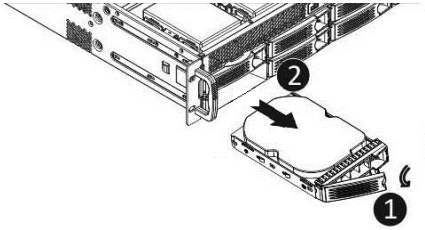
Please use the HDD that supports 7200 RMP or above and the same model when using the Raid 5 or 6 modes.

- **Install Hard Disk Drive**



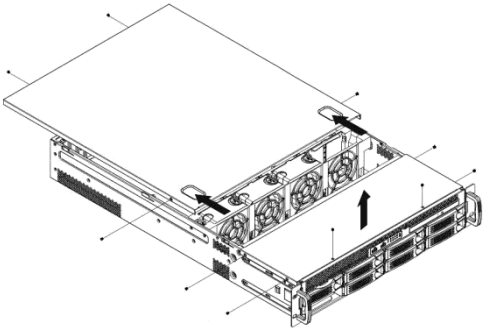

① Remove protects tray from the tray.
② Insert the HDD on the tray.
③ Attach with four screws to fix HDD.
④ Push the lever to latch the HDD tray.

- **Remove Hard Disk Drive**




① Pull the lever to latch the HDD tray.
② Slide tray from HDD tray.

- **Remove the top cover of the NVR**

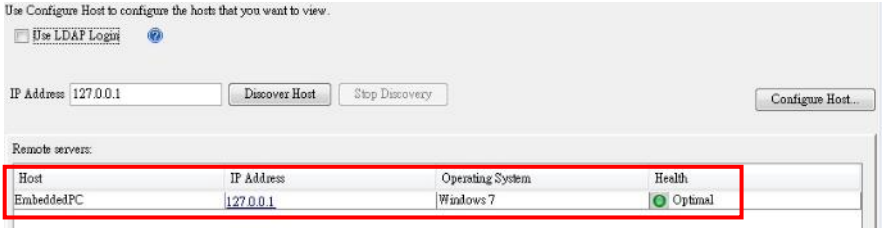


① Release two screws on the backside and two screws on both left and right sides.
② Thumb finger touches downward, and then push back the rear back cover.
③ Put hand on the front top cover pull it out.

## 2-1. How to build up the Raid HDD function?

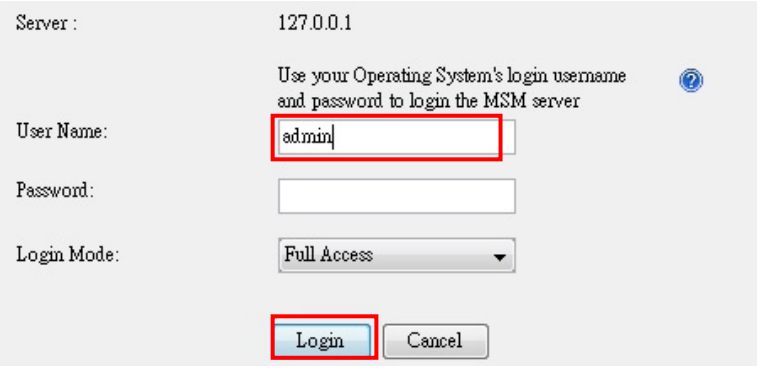
In this process which you can set up the Raid card from the Raid application Program. You can follow up the steps as below:

Click button from the **Control panel** of NVR to enable the Raid setting diagram. In this process which you can modify the Raid card setting from NVR's O.S. (Operation System)

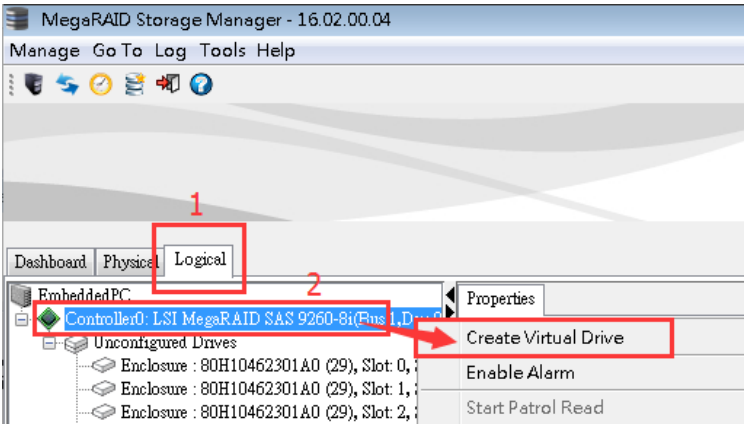



**Step 1.**Click the IP address, and the default IP address is 127.0.0.1, then enter the User name/ Password to click the "**Login**" icon. The default is admin/(No password) or Administrator/(No password).

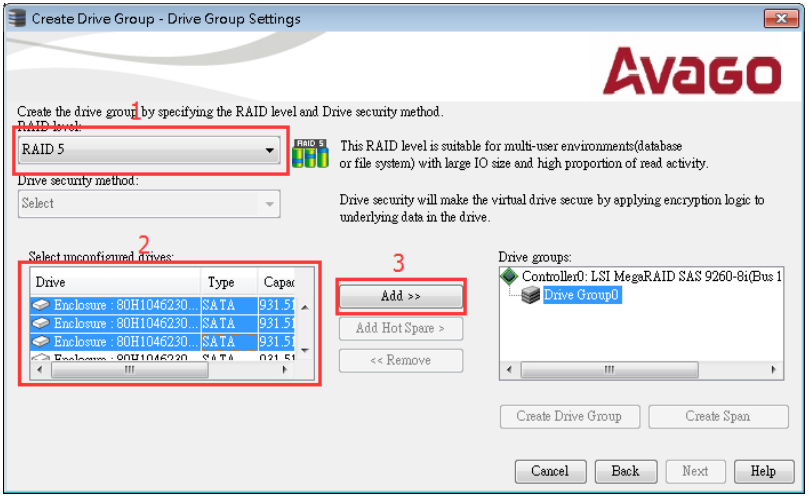
If you change the "administer account " user name & password of Windows O.S., the Raid card username/ password should be the same as the changed "administer account. "



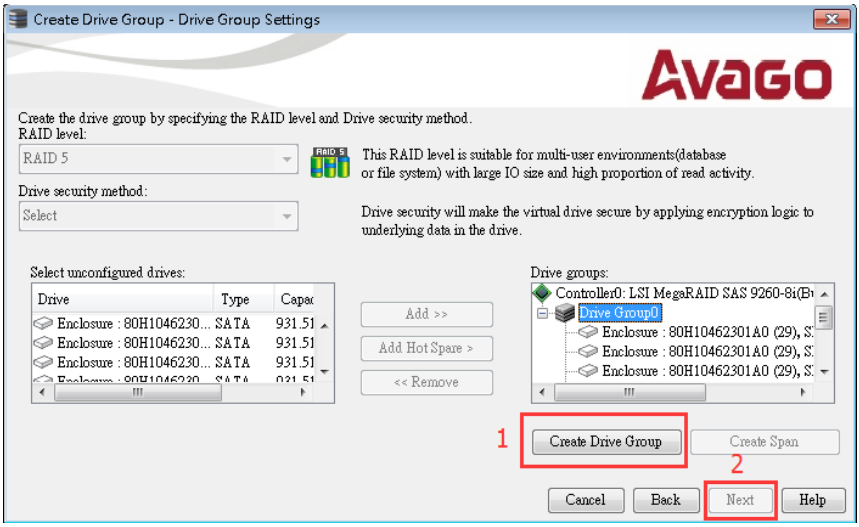
**Step 2.** Select the "**Logical**" section, then select the "**Virtual Device**" item. Right-click Mouse and then choose the "**Set Virtual Drive Properties**" icon.



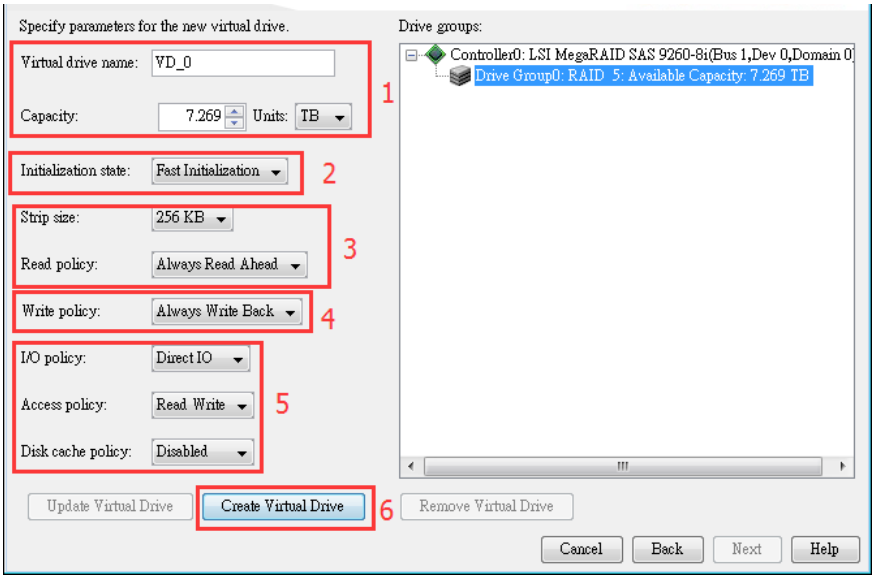

**Step 3.** Setup Raid 5 or 6 or others mode, then Ctrl + HDD list to choose multi HDDs at a time. Click the " Add " icon to select the HDDs listed.



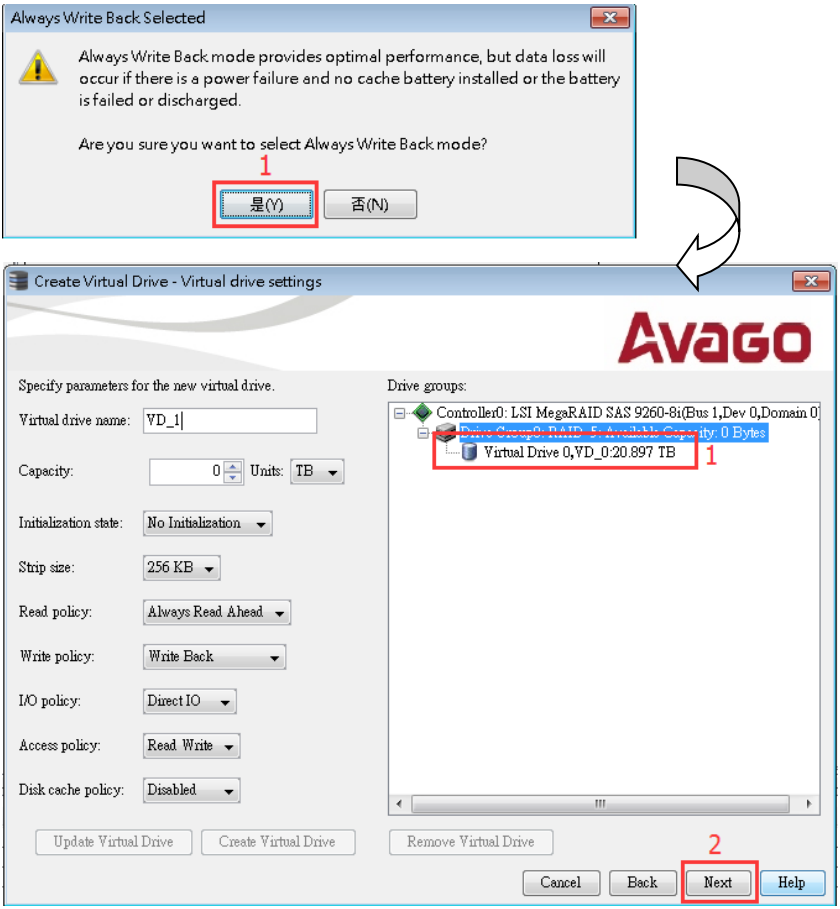
**Step 4.** Click the " Create Drive Group" icon and then click the " Next."



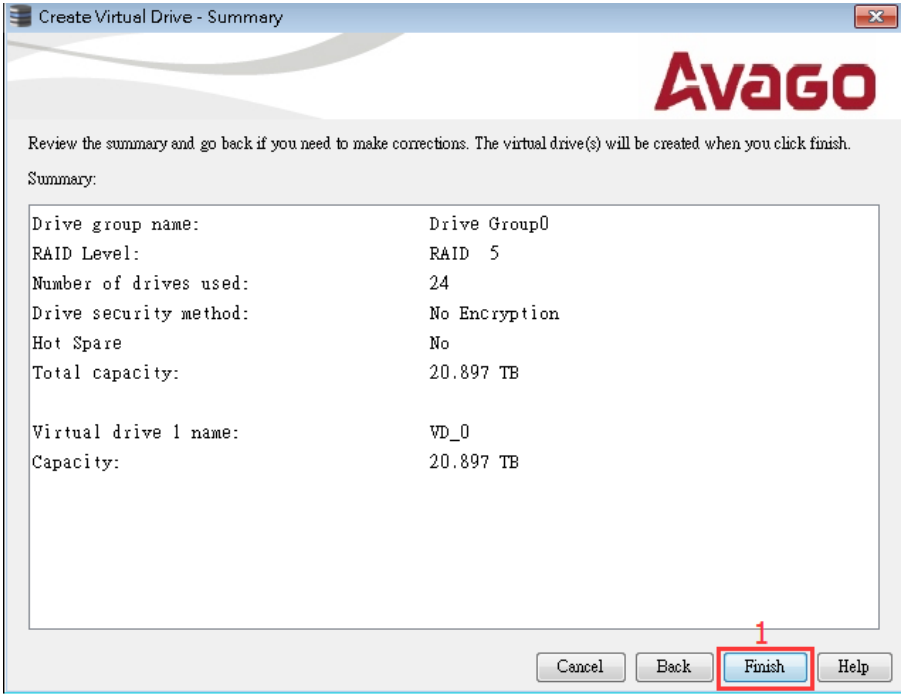

**Step 5.** Check the parameters of the setting, same as below or not? If yes, please click the "**Next**" icon.



**Step 6.** Click "**Yes**" to confirm the Raid parameters are setting, and then the Raid mode will show as below.



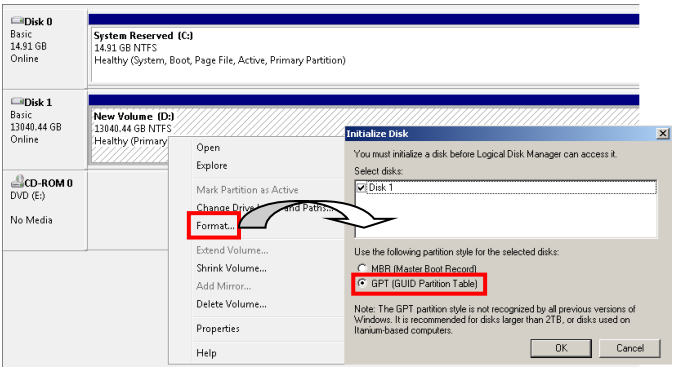
**Step 7.** Click the " Finish" icon and "**Ok**" to confirm the Raid setting.



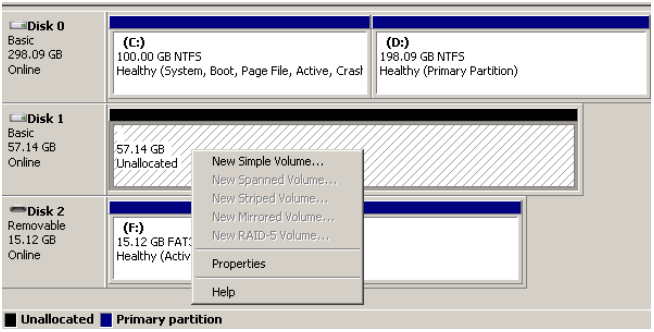
## 2-2. How to format the HDD from the NVR system?

You need to format the HDD from the NVR system when using the Raid HDD or standard HDDs. The O.S. of NVR is Embedded 7, and the format HDD processes the same as Windows 7. You can follow up on the process

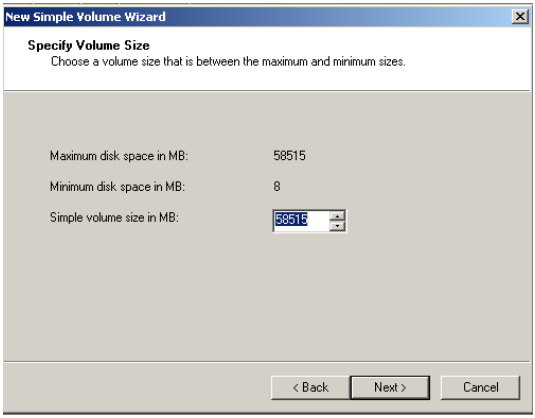
**Step 1.** Click button from the **Control panel;** the diagram of the HDD setting will pop up as below. Move the mouse to the "**Format**" icon and then right-click of Mouse, then check the "**GPT**" section (If the HDD size was bigger than 2TB) or MBR (HDD size less 2TB)and click "**OK**" to start to format the HDD.



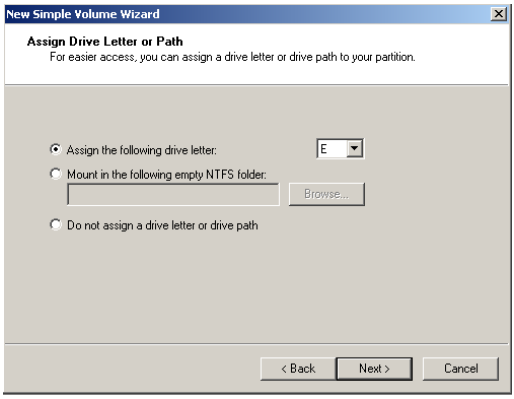

**Step 2.** Click the " **New Simple Volume** " icon, then click the " Next " icon.



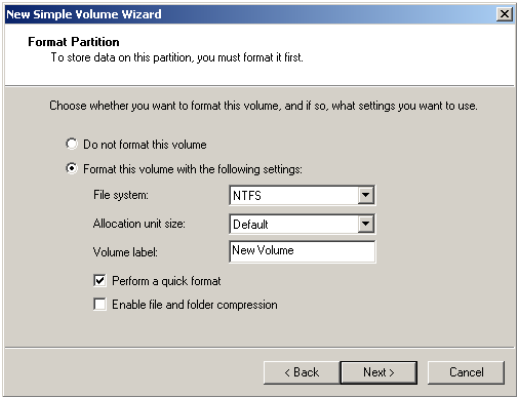
**Step 3.** Specify the volume size which you want to the format for the HDD.



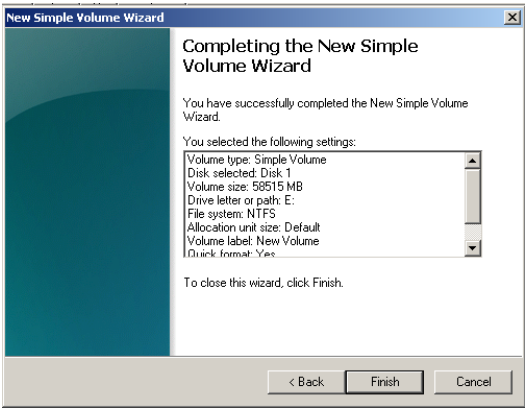

**Step 4.** Assign drive letter or path.




**Step 5.** Format the HDD partition; you can refer to the setting as diagram setting on the right side.



**Step 6.** Click the "**Finish**" button to finish HDD format.

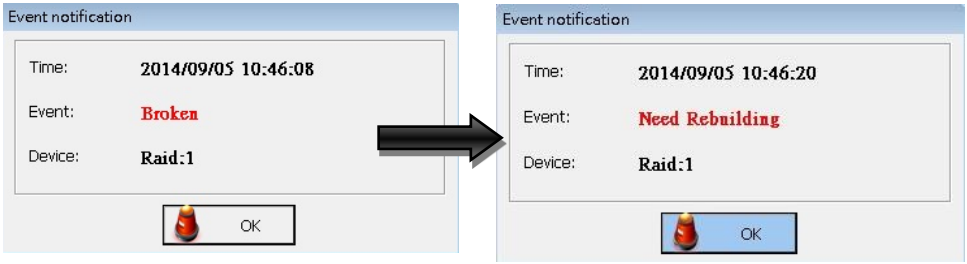



**Step 7.** Press the "Save System Setting ( ) icon and reboot the system to complete the changes.

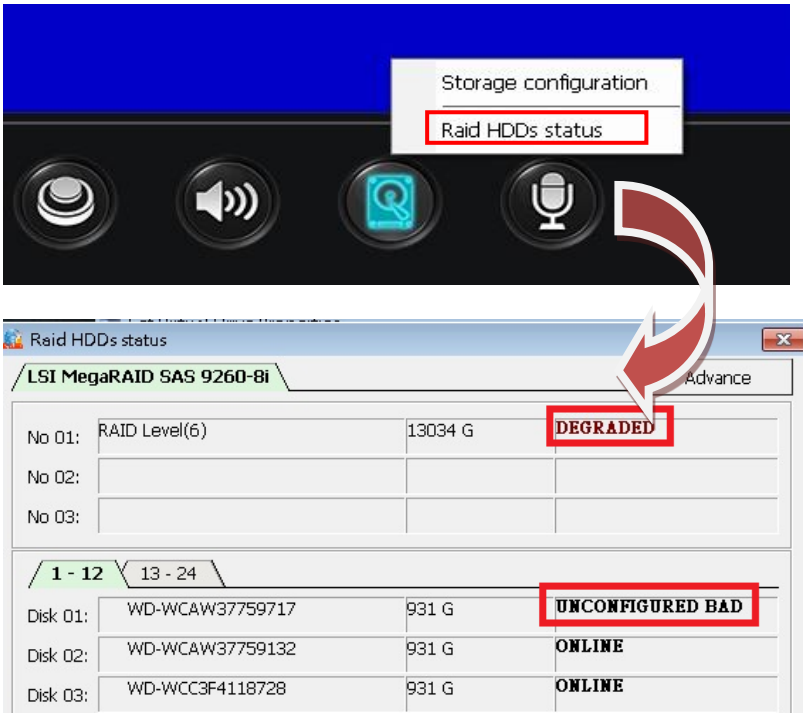
## 2-3. How to rebuild the Raid HDD?

**To rebuild the Raid HDD from the Witness Pro program, please, follow the steps shown below:**

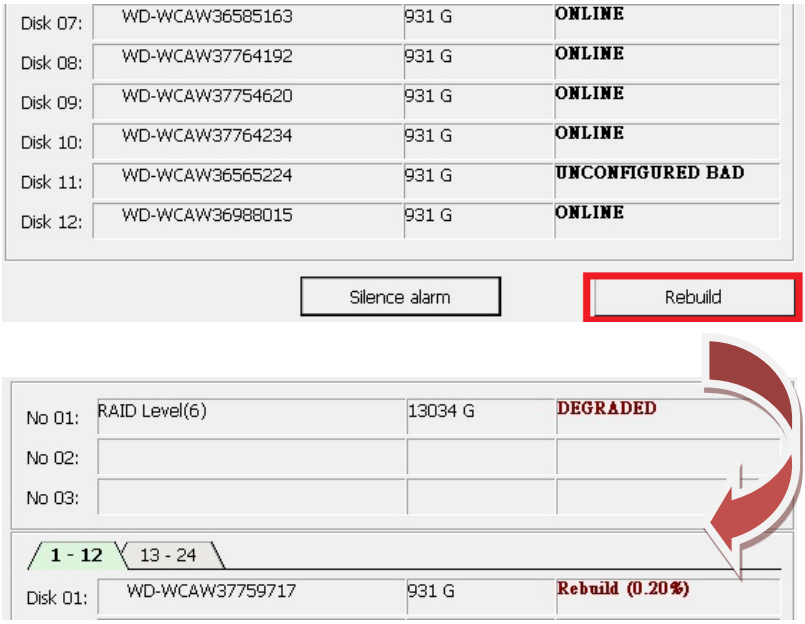
**Step 1.** The Witness Pro program will pop up an error message and Sound warning.



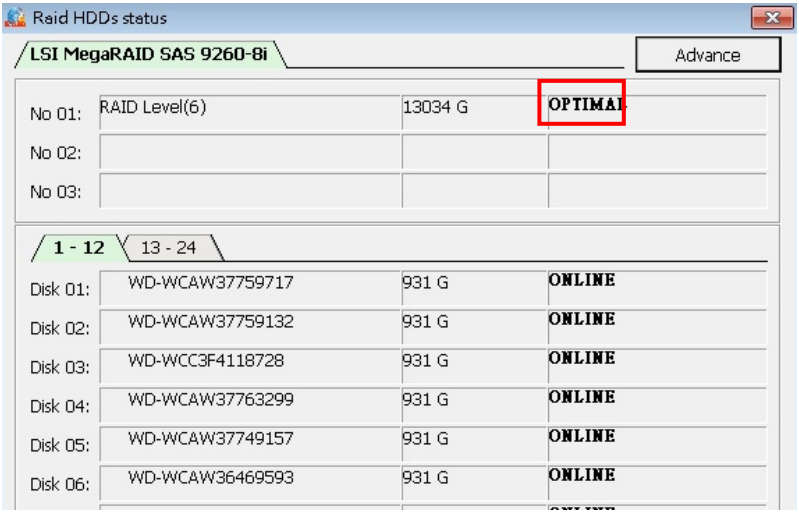

**Step 2.** Click the "**Raid HDD status**" icon from the "**Storage configuration**" field, and you will find out the defect HDD number and click the "Silence alarm" icon to stop the sound alarm and then change a new HDD.



**Step 3.** Click the **"Rebuild"** icon to start rebuilding the HDDs.




**Step 4.** When the rebuilt process finishes, the status will show "**OPTIMAL**."



# Chapter 3 NVR Operating System

After finish the CPU, RAM, and HDD installation, please remember to go to the System Control Panel to configure the NVR system for installed hardware devices operating correctly. For detail about the setup NVR system configuration in the control panel, please refer to chapter **3-1 NVR systems Control Panel Configuration**.

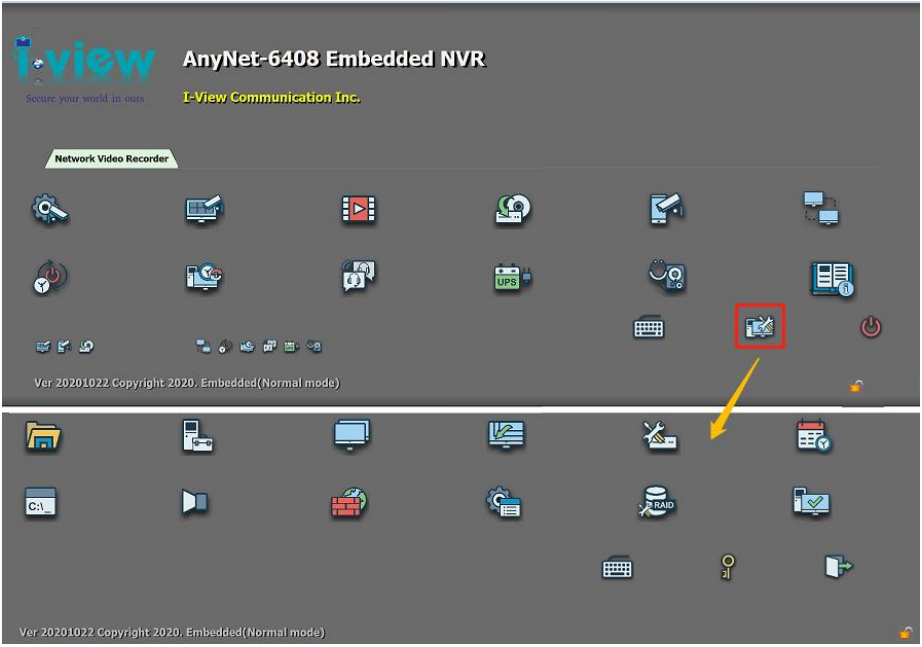
- **NVR System Main Screen**

**Take note of the following precaution before you start to configure the NVR system.**

1. The AnyNet provides a Bar-bond system for the distributor; therefore, it does NOT include the HDD and License of Embedded 7. So, you must install the HDD first by yourself. **Especially you MUST buy the license of Embedded 7 from Microsoft, otherwise using the O.S. will be ILLEGALITY.**
2. You MUST obey the rules of Microsoft to process the license of Embedded 7.
3. To avoid the virus problem, please remove the LAN cable and reboot the NVR system when you start to set up the NVR system configuration.

## 3-1. NVR System Control Panel Configuration

Once you have finished the HDD installation, please click the Control Panel icon ( ) on the right side corner bottom of the main screen to configure the Operation System's parameters, such as the Network setup monitor resolution, format HDD and timer setup.




➢ **Control Panel Function Description:**

**File Explore** – To select the folder or file.

**Device Manager** – To check the device driver.

**Setup Network Connections**– To set up the system network configuration.

**Display Setup**– To set up the system monitor display.

**Disk Management**– To format the hard disk when you install a new hard disk device.

**Date & Time Adjustment-** To adjust the system date/ time and Time zone to meet your city.

**Windows Defender**– To set up the firewall to protect your NVR.

**Accessory Applications** – To enable accessory applications from this icon.

**Command Code** – To enable DOS mode to run the command line process.

**Sound Adjustment** –To adjust the system sound volume.

**Setup Raid Parameters**– Press this icon to create or maintain the Raid HDD system.

**AnyNet NVR Operation Manual**– Press this icon to open the NVR online manual.

**On-screen Keyboard**– Click this icon to display a mini keyboard on the screen for word input.

**Return**– To return to the NVR system's main screen.

**Setup Password**– This allows you to set up a password to secure the system parameters of the NVR.

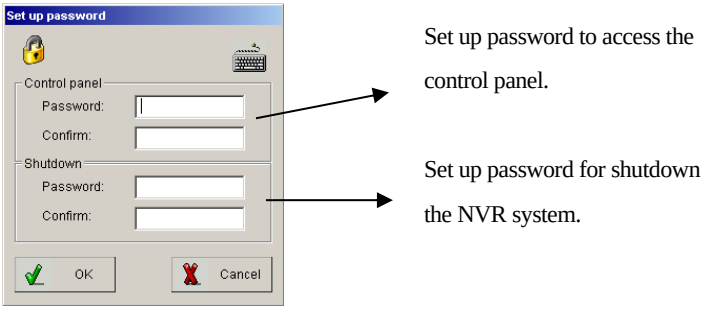



**Fig. 3-1.1 Set Up Password**

The operation process of the above icons of same as Windows 10 except for the Setup Raid Parameter. You can refer to the online help document if you have a problem. The reset operation process will show on this manual file.

**Save O.S. Parameters**– Press this icon to switch the read-write mode and reboot the device to make O.S. (Operation System) configuration change effectively.

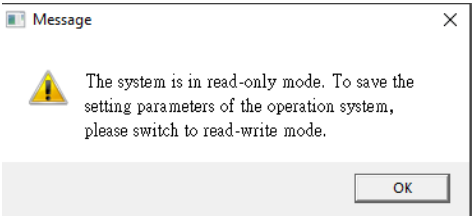
**Enable read-only mode** –The operation system (O.S.) is in read-only mode when this icon shows at the right-down position. The system cannot allow changing the O.S. parameters.

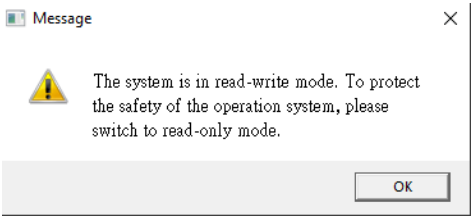
**Enable read-write mode for O.S.**–The operation system (O.S.) is in read-write mode when this icon shows at the right-down position. The system can modify the O.S. parameters.

### 3-1-1. How to make O.S. configuration change effectively?

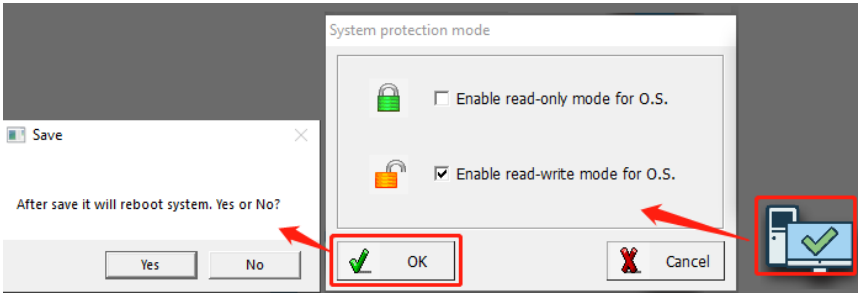
Please click icon from the main screen to make O.S. (Operation System) configuration change effectively. Please follow up the steps below to save the Operation System configuration.

1. Click icon to swap the main screen to the **Control panel** screen. The system will pop up the message to remind you of the current protection mode of the O.S.




2. Click icon to swap the protection mode from Read-only to Read-write mode, then click the **OK** icon to reboot the system to effect read-write mode. The default is Read-only mode.




3. Change the parameters configuration of O.S. completely, then click icon to swap the protection mode from Read-write to Read-only mode, then click the **OK** icon to reboot the system to make O.S. (Operation System) configuration change effectively. Also, let the O.S. keep on protection mode.

### 3-1-2. Date & Time Adjustment

Please click icon from the Control Panel to set up the “Date & Time” “Time Zone” of the NVR system and sync the time with the NTP server.

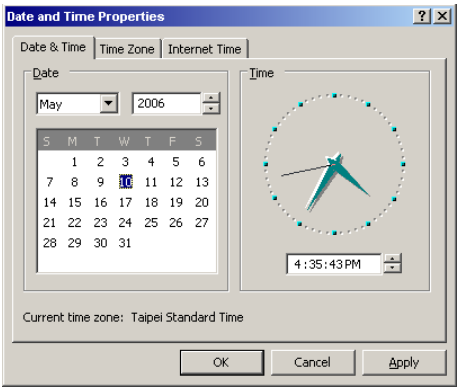



**Fig. 3-1-1.1 Adjust Date/Time**

### 3-1-3. Setup Network Connections

To have NVR remote monitoring and control capabilities, the user needs to connect NVR with the Internet and set up Network Connections configuration. Please follow the steps below to set up a network configuration.

1. Click icon on the control panel to enter the Network Connection configuration display.

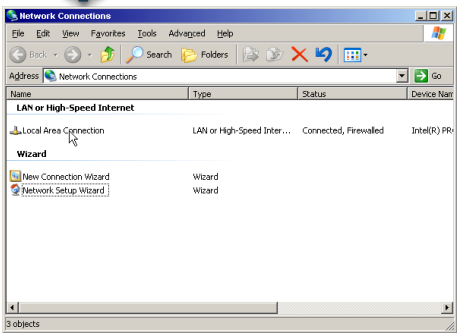



**Fig. 3-1-2.1 Local Area Connection Setting**

2. Click the mouse right button on the "Local Area Connection" icon and select the "**Properties** "item to enter the "**Local Area Connection Properties**" display.
3. Double click the **"Internet Protocol (TCP/IP) "**item to enter the "**Internet Protocol (TCP/IP) Propertie**s." Fill out the IP information in each section and press the "**OK**" button twice to complete.

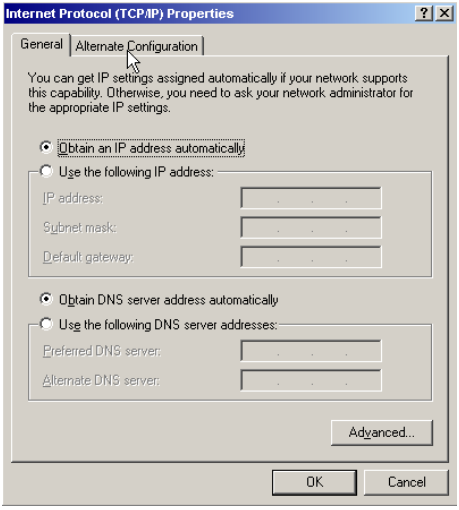
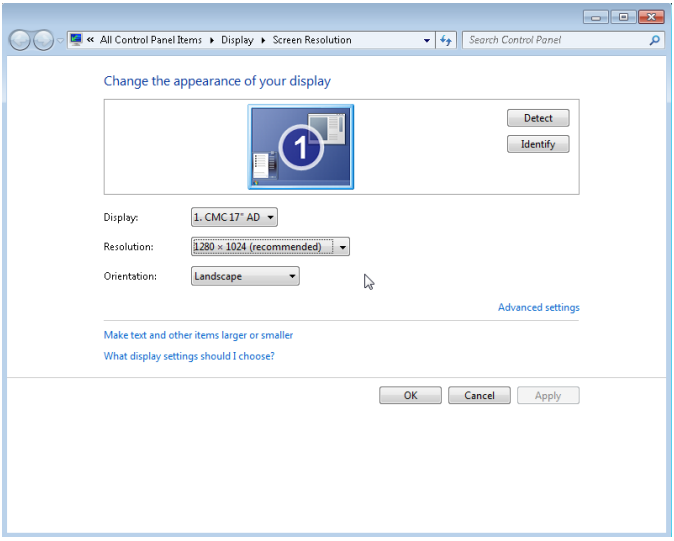



**Fig. 3-1-2.2 Internet Protocol (TCP/IP)**

### 3-1-4. Display Properties

To set up the CMS server display property, simply click the icon on the control panel to select the display, resolution, and orientation for each monitor. You can drop and drag Mouse to re-arrange the position of Monitors, and all monitors should be at the exact resolution, and Full HD strongly recommend.

1. Connect all monitors to NVR and turn on the power before you turn on the CMS server.
2. You should set up all displays with the exact resolution, and full HD strongly recommend.



### 3-1-5. Disk Management

This chapter walks you through the hard disk formatting in the NVR system when you install a brand new hard disk. Please follow the steps below to format the hard disks.

1. Click icon to display the "Disk Management" interface.
2. Click the mouse right button on the new installing HDD and select the **"New partition "**item.

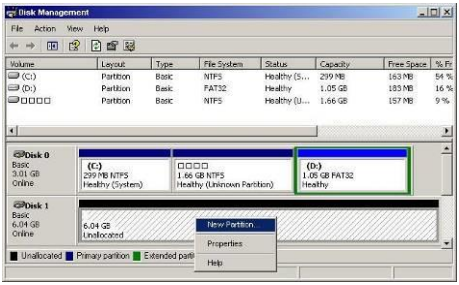



**Fig. 3-1-4.1 Select the "New Partition"**

3. Press the **"Next"** to start the format process.
4. Select the "**Extended partition** "item and click the **"Next"** button to continue.

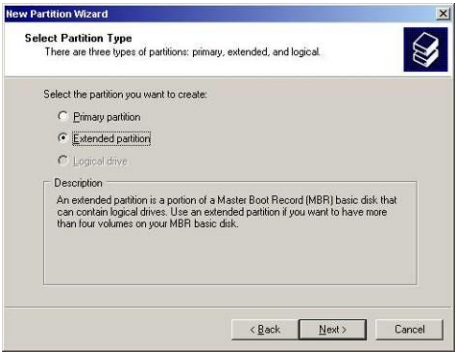



**Fig. 3-1-4.2 Select "Extended Partition"**

5. Click the **"Next"** to specify partition size.
6. Click the "**Finish** "icon to complete the new partition wizard.
7. Click the mouse right button on the new HDD again, and select **"New Logical Drive."**

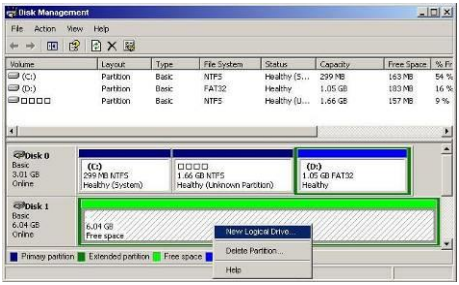



**Fig. 3-1-4.3 Select "New Logical Drive"**

**8.** Click **"Next"** to continue.

**9.** Select "**Logical drive** "partition type and clicks **"Next"** to continue.

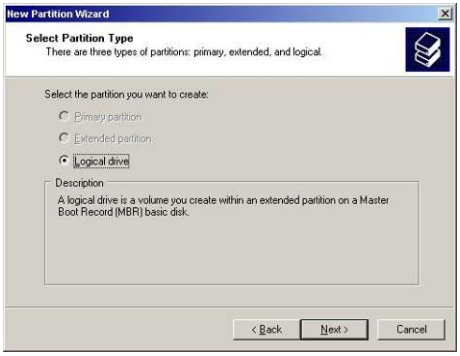



**Fig. 3-1-4.4 Select "Logical drive"**

**10.** Select the "**Assign the following drive letter** "item, and click **"Next"** to continue.

**Fig. 3-1-4.5 Select "Assign the following HDD Driver letter".**

**11.** Select "**Format this partition with the following settings** "item, and click **"Next"** to continue.

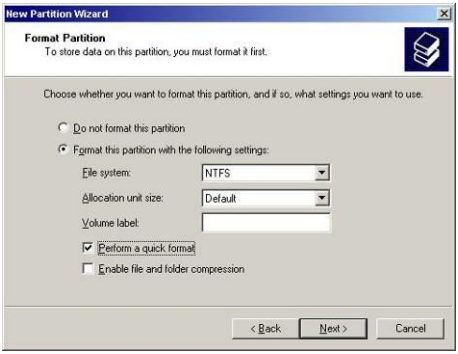



**Fig. 3-1-4.6 Select "Format this partition with the following settings"**

**12.** Click **"Finish"** to complete the hard disk partition and format process**.**

**13.** Repeat Step 1-12 to format another Hard disk.

**14.** Press the "Save System Setting" ( ) icon and reboot the system to complete the changes.

### 3-1-6. Setup Share Folders

This chapter will show you how to share the system folder (e.g., ClipPro folder) and to-be-view video files for remote network users. Would you mind following up on the steps below to set up system-sharing folders?

1. Click icon from the system control panel screen to display the "Shared Folders" interface.
2. Select the "**Shares** "folder, and click the **"Action"** button from the top, then select the " **New** " and " **File Share** "items to continue.

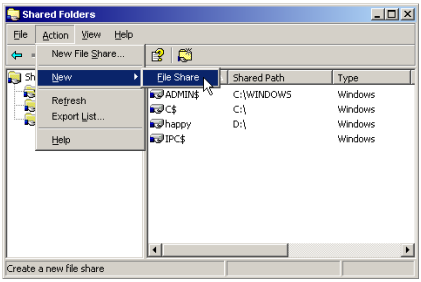



**Fig. 3-1-5.1 Action→New→File Share**

3. While the system displays a "**Create A Shared Folder Wizard**," please click the "**Next**" button to continue.

**Fig. 3-1-5.2 Create a Shared Folder**

4. Please click the "Browse" button to select a folder which the user wants to share, and fill in the "Share name" section, then press the "Next" button and follow the instruction to complete the shared folder sharing.

**5.**

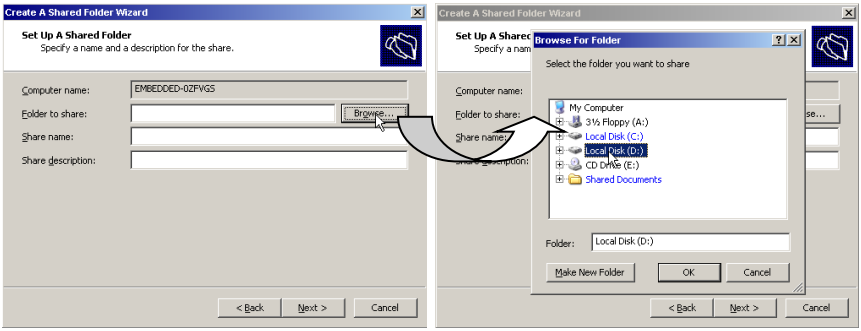
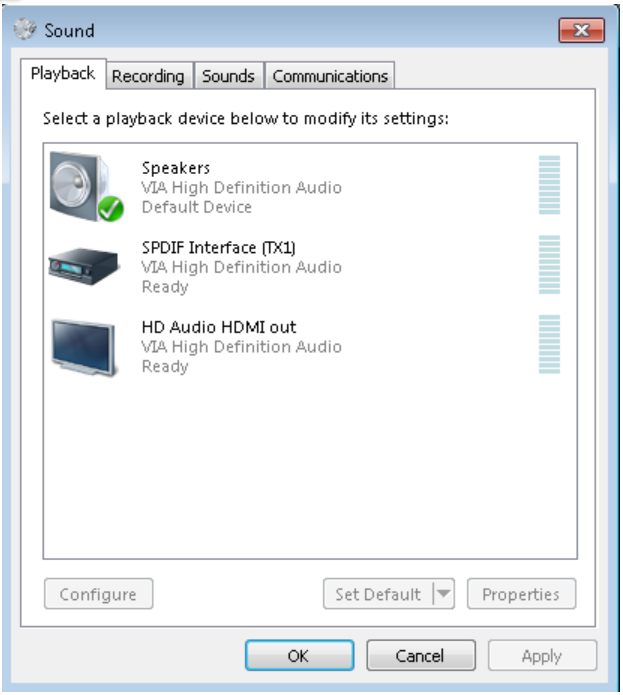



**Fig. 3-1-5.3 Browse a share folder**

1. You MUST share the Disk (Not folder) for the remote clients when using the ezLANPlayback program to playback the Video playback via LAN.
2. You MUST share the Folder to backup the video clips to Remote HDD via LAN using the ezBackup program.
3. There is a user account for remote access (Backup and playback video clips via LAN). You need to Login for remote access. The User name is "**guest,**" and the password is "**Guest**."

### 3-1-7. Sound Adjustment

Please click the icon on the system control panel screen to adjust the system volume.



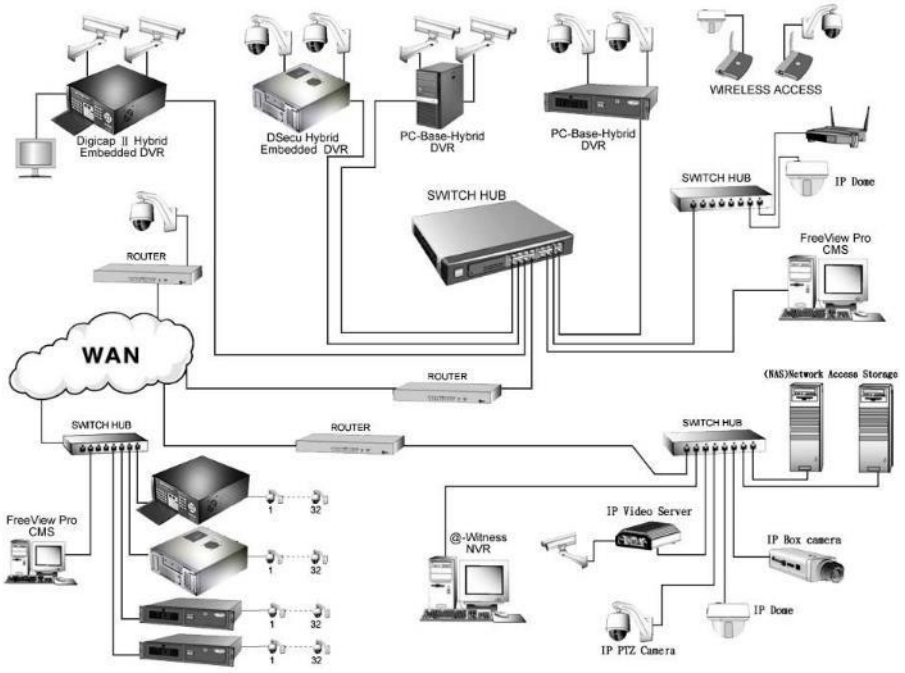

### 3-1-8. Save O.S. parameters

To make the change effectively, after modifying each Operation System configuration of the NVR server, **the user needs to press the "Save System Setting" ( ) icon and reboot the system to complete the changes.** This process just for the Operation system configuration only. The Witness Pro or FreeView Pro program set up no need for this process.

An abnormal shout-down maybe causes the system to crash when pressing the "**Save System Setting**" ( ) icon.

## 3-2. NVR Main Program

### 3-2-1. System Configuration Diagram



## 3-3. Witness Pro Program Overview

### 3-3-1. The primary function description:

**Setup Camera Connection- EzSetup**: Enable/disable individual audio/video channels and configure the audio source and video resolution settings. **Witness Pro Surveillance program –** The leading application software of AnyNet NVR provides on-site live video viewing, scheduled or motion-triggered video recording, and much more. It can also be utilized as a central video server to transmit video streams to a remote PC via PSTN, ISDN, LAN, or Internet (TCP/IP).

**Network Video Recorder Program – Witness Pro** It is the leading application software of AnyNet NVR that provides on-site live video viewing, scheduled or motion-triggered video recording, and much more. It can also be utilized as a central video server to transmit video streams to a remote PC via PSTN, ISDN, LAN, or Internet (TCP/IP).

**Video Playback Program - EzPlayback:** An easier-to-use program allows you to playback the 16 video files at a time. The program allows a search of the video file via camera, period, and recording type.

**Text insert playback - ezTextPlayback:** Playback the recorded video clips with text transactions. You can search the video by text record or keywords, such as date/time, register, goods, or amount. Please refer to **PTI-100 or FAC-500 Operation Manual**. (Optional)

**Video Files Backup - EzBackup:** Share or back up your recorded video clips into other storage

devices, such as an HDD, CD/DVD drive, USB Flash drive, Zip drive, etc.

**Browser Access - EzWebServer, EzMobileServer, ezVideoTrans** Click this icon can choose three kinds of video transfer programs and the description as below:

- **IE browser server – ezWebServer:** View the camera video in local NVR via the mobile phone, which supports the GPRS, Wifi, or 4G/5G function. Such as iPhone, Android phones. You can refer to Chapter 7-1 for the detailed process
- **Mobile phone Browser Server -ezMobileServer:** View the camera video in local NVR via the mobile phone, which supports the GPRS, Wifi, or 4G/5G function. Such as iPhone, Android phones. You can refer to Chapter 7-1 for the detailed process.
- **Video Transfer Server –ezVideoTrans:** Let remote PC access the NVR cameras video or access IP camera video directly via the ezVideoTrans program. The default port number is 1001, and this function is for the NVR only. You can refer to Chapters 5-7 for the detailed process.

**RemoteApp & Desktop Connections - EzRServer:** Allow full access to your NVR machine for remote technical assistance or remotely change your NVR's configuration. It would be best to use ezRClient in FreeView Pro to connect the remote PC and the NVR.

**Schedule Reboot - EzReboot:** We recommend scheduling the restart for the NVR machine at least once a week, especially before important events, in case you may have exited the application temporarily and forgot to relaunch it.

**Time Synchronization - EzClock:** Synchronize NVR's clock with an Internet Time Server. Please refer to chapter 5-4 for a detailed setup and operation introduction.

**2-Way Audio - EzSTalk:** Real-time voice communication between the NVR machine operator and a remote PC technician. Both machines must equip with a microphone and a pair of speakers. The interaction is like talk over with a couple of walkie-talkies. Especially useful when expensive telephone long-distance charges apply between the two locations.

**HDD Healthy Monitoring - EzHDDSmart:** S.M.A.R.T. (Self-Monitoring Analysis & Reporting Technology), along with the HDD's internal sensors, can detect physical weaknesses of the hard disk drive. Our ezHDDSmart software program will report the HDD's current health status, disk reliability, failure prediction, and related statistical information. Please refer

to Chapter 5-6 for in-depth details.

**Fingerprint Access Controller** – **ezFingerKey**: Manage the system configuration and the function usage for the fingerprint access controller. Please refer to the User Manual of Fingerprint access controller for the detailed instruction.

**UPS Monitoring - EzUPSCheck**: Monitoring the UPS battery status when the power is off, then the level of UPS battery is lower than the setting value. The NVR will be auto-turn off the Witness Pro program to make sure the video clip can save successfully.

**On-screen Keyboard:** Press to display a mini-keyboard for word input.

**Control Panel:** Press to enable control panel interfaces for system configuration.

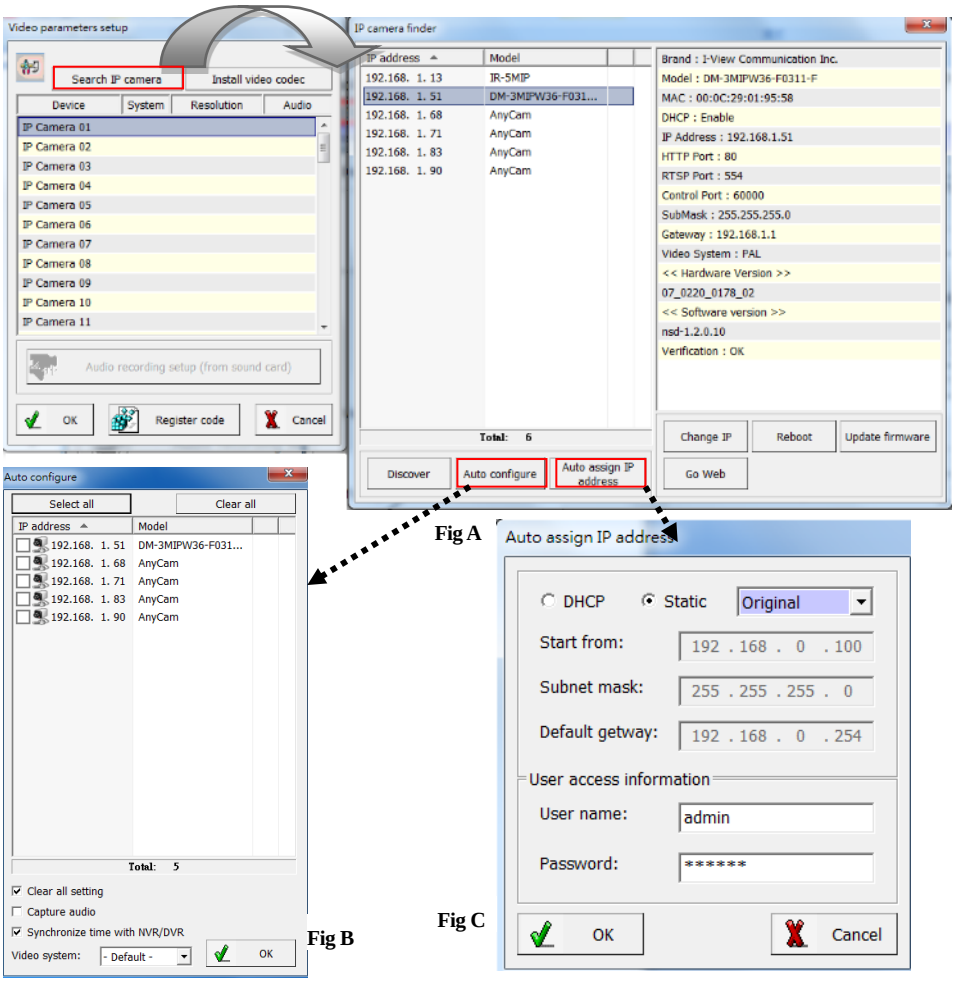
**Restart/Power off:** Press to select restart or power off the AnyNet system.

**Auto Dialup- ezDialup**– Allow you to auto dial up the 4G/5G modem to connect to the Internet when you turn on the Witness Pro NVR program.

### 3-3-2. Video parameters setup

Please click icon on the main screen or click to display the Video Parameters Setup window. When you first run the Witness Pro NVR program, and there is no IP camera setting on the system, the NVR will pop up the "**ezSetup** " program for the IP cameras configuration. This setup window may differ significantly depending on your NVR model.

**1. Setup the parameters of All IP cameras (For I-View's IP camera only)**



- **Search IP camera:** Click this icon will auto search IP cameras of the i-View brand. You can refer to **Fig A** diagram. Move the Mouse and click to the IP camera to select and double-click that the detailed information will show the right site; you can change the setting for this IP camera individually.
- **Install video codec:** Install the video codec of this IP camera when you connect the IP camera for the first time if the IP camera cannot show the video on the screen.

The detail setting of Fig A diagram description as below:

✧**Discover:** Click the "**Discover**" icon to research the IP address of the system.

✧**Autos configure** section- Click this icon to configure the selected IP cameras to NVR's channel automatically. Please refer to the diagram shown above **Fig B**.

- **Clear all settings:** Check this icon, and all previous channels' settings will be clean.
- **Capture audio:** You can record sound by microphone from the audio input port of the IP camera.
- **Synchronization with the NVR time:** Check to synchronize the IP camera's time with NVR when running the NVR program.
- **Video system:** Select the video system of the IP camera to match your country.

**Auto assign IP address** section- Click this icon to give the IP address to all IP cameras automatically. You can use the Static or DHCP IP address mode. There are two setting modes for the Static IP address; one is "**Original**," the other is "**User define**." Please refer to the diagram shown above **Fig C.**

**Original-** The auto change static IP address will same as the searched IP address.

**Users define-** The user can assign the segment of IP address for the IP camera. Please make sure the process as below before doing this process:

a. There is no conflict between the defined IP address and the other device of the same LAN.

b. The Username/Password of all IP cameras is the same.

This setting function for the i-View's IP camera only.

✧**Change IP:** Click the "**Change IP**" icon to set up the DHCP or Static IP address for individual IP cameras. After modification, click the "**OK**" icon to confirm the setting.

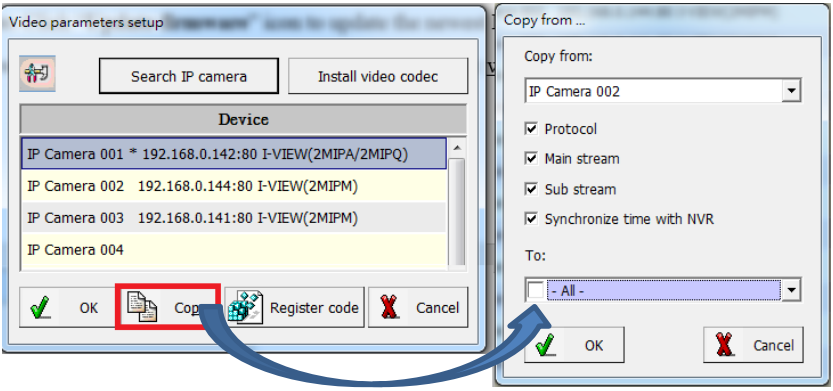
✧**Update firmware:** Click the "**Update firmware**" icon to update the newest IP camera

firmware; you can check and download the latest firmware version from our website: www.i-view.com.tw.

✧**Reboot:** Click the "**Reboot**" icon to restart this IP camera.

✧**Go Web:** Click the "**Go Web**" icon to enable the Internet Explorer Browser to check/set up the detail parameters.

**2. Copy the video parameters of the IP camera**




You can copy the parameters of the existing IP camera to the other cameras or all cameras.

a. Select the existing IP camera drop menu from the " Copy from" section.

b. Check the copy items which you want.

c. Select the IP camera drop menu from the " To" section to copy the parameters.

d. Click" Ok" to finish the setting.

**3. Setup the parameters of the Individual IP camera**

This section will allow you to set up the parameters for an individual IP camera for I-View's and the other brand.

➢ **Disable channel:** This will disable the selected channel when enabling this function.

➢ **Install video codec:** Install the video codec of this IP camera when you connect the IP camera for the first time if the IP camera cannot display the video on the screen.

**Vendor & Model:** Select the correct brand and model for the connected IP camera. You also can select "Onvif" if your IP camera support Onvif was compliant and not on the list. You can check the used camera support Onvif compliant from http://www.onvif.org. Click the " Onvif

setup “ icon to set up the parameters or enter the RTSP command code directly, which you want to run on the NVR.

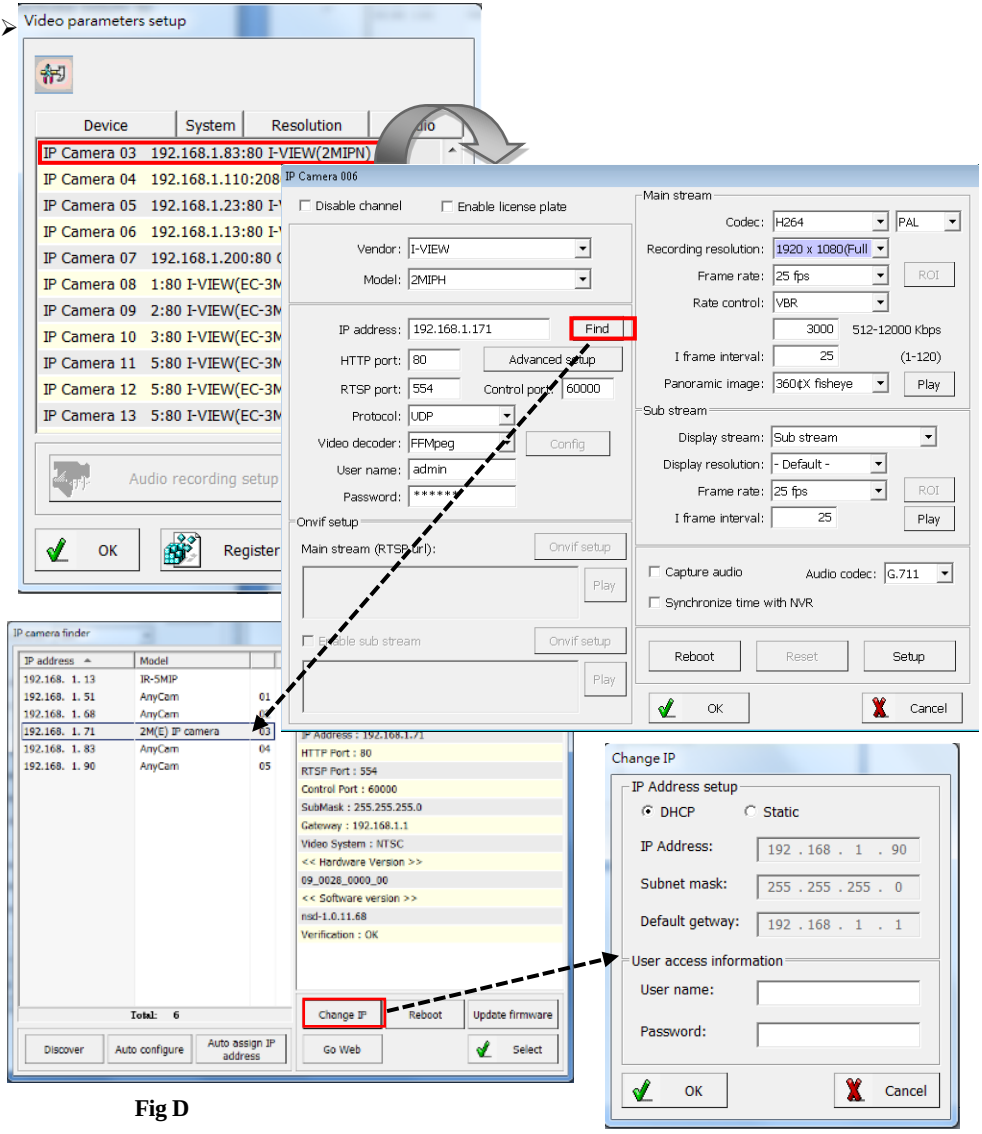
- **Disable Channel:** Check this item will close this IP camera from NVR.
- **Enable license plate:** Check this item will use the video stream of this IP camera for ALPR.
- 

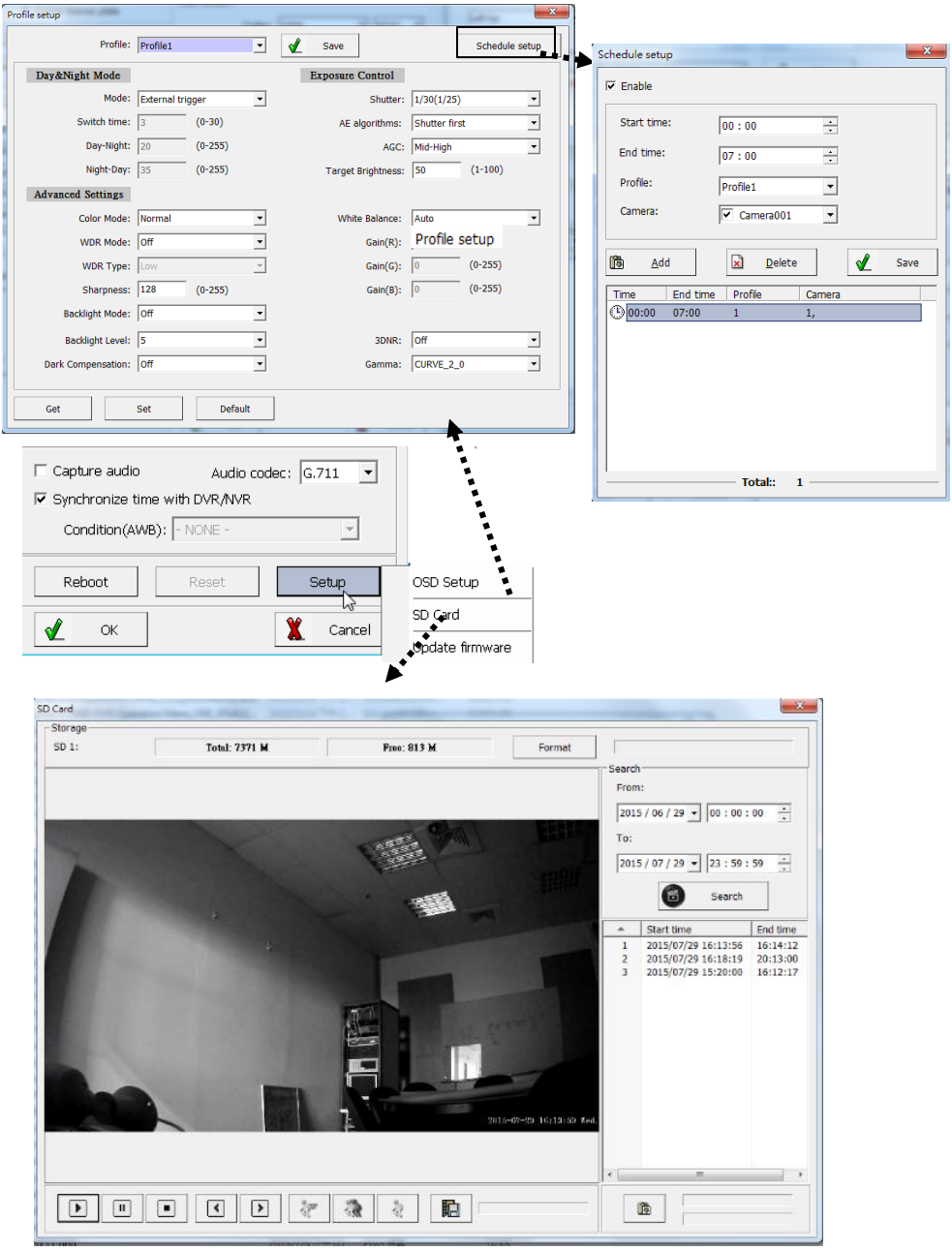

**Fig D**

- **IP address:** Entry the correct IP address for the connected IP camera. If you do not know the IP camera's IP address, you can click the "**Find**" icon to find out the currently connected IP cameras
- **User name & Password:** The user name and password must match the IP camera setting you want to connect.
- **Find:** Click this icon to find out all the currently connected IP cameras on the list. Click the IP camera and find out the information of each IP camera. Please refer to the diagram shown above **Fig D.** Click the IP address and "**Select**" icon, then the camera will add for this channel.
- **Advance setup:** Click this icon will enable the detail parameters setting of the IP camera. You need to load the Active X if this NVR activates in this process for the first time.

The different IP camera brand has its setup diagram and setting process, detailed information, and the IP camera operation menu.

- **HTTP port & RTSP port:** Both port numbers must match the setting of the IP camera.
- **Protocol:** There is UDP and TCP transmission protocol for the filed application.
- **Display streaming:** Enable "**Sub stream**" mode. The live display video will show lower resolution for split video and higher resolution (same as recording resolution) for a pop-up to a single video on the screen. This Dual streaming mode allows the display of multi-video and saves a vast CPU loading.
- **Codec:** Select a suitable video codec for video recording and transmission.
- **Recording resolution:** Select the resolution for video recording and display.
- **Frame rate:** Select the frame rate for video recording and display**.**
- **Rate Control:** You can choose CBR o VBR mode bit rate and I-Frame from this field. A high bite rate will get good video quality and immense storage capability.
- **Capture audio:** Enable this function for audio recording and listen.
- **Audio codec:** Select a suitable audio codec for audio recording and listen.
- **Synchronize time with NVR:** Check this function will auto-sync the time between the IP camera and NVR when turn on the NVR program.
- **Reboot:** Click this icon will reboot the IP camera.
- **Setup:** Click this icon for a detailed IP camera set (refer to I-View's IP camera; maybe there is some different setting diagram when used other models); you may not need Internet Explorer

Browser for the detailed IP camera setting. Please refer to the chart as below:



**Profile setup:** Click this icon to configure the profile of video parameters via a schedule. The system can allow 8 schedule profiles, and each profile has its video parameters.

Please follow up on the setting process as below.

a. Drop the menu file from the "Profile" section, and there is eight profile for your selection.

b. Click " Get " to download the existing parameters of the selected IP camera, or click the " Default" icon to set the default parameters, or click the " Set" icon to save the changed parameters.

c. Setup the click " Schedule setup " icon to choose the schedule, camera, and profile.

d. Click the " Save" icon to complete the setting.

**SD setup:** Click this icon to set up the SD card configures and description as below:

e. **Format:** Click this icon will format the SD card. It would help if you stopped the recording video clip from Internet Explorer Browser before you do this process.

f. : Click this icon to save the video clips from the SD card to specify the path of the storage device.

g. : Click this icon to save the video clips from the SD card to NVR automatically.

h. **Search:** Click this icon and the search period from the SD card. The video clips information will list on the table list. You can playback the video clips of an SD card without downloading them. The icon function description as below:

**Increase speed** – Increase the speed of playback.

**Decrease speed** – Decrease the speed of playback.

**Normal speed** – Adjust the playback speed to normal.

**Play** – Play the video.

**Pause** – Pause the video.

**Stop** – Stop the video.

**Previous frame** – Jump to the last frame of the video clip.

**Next frame** – Jump to the next frame of the video clip.

**Update Firmware:** Click this icon to update the Firmware of the IP camera.

4. **Register Code:** You can connect to the IP camera by Mac ID registration. It is an optional function if you use the IP camera from the other vendor. Please contact your vendor for the license code. The register code process diagram is below.

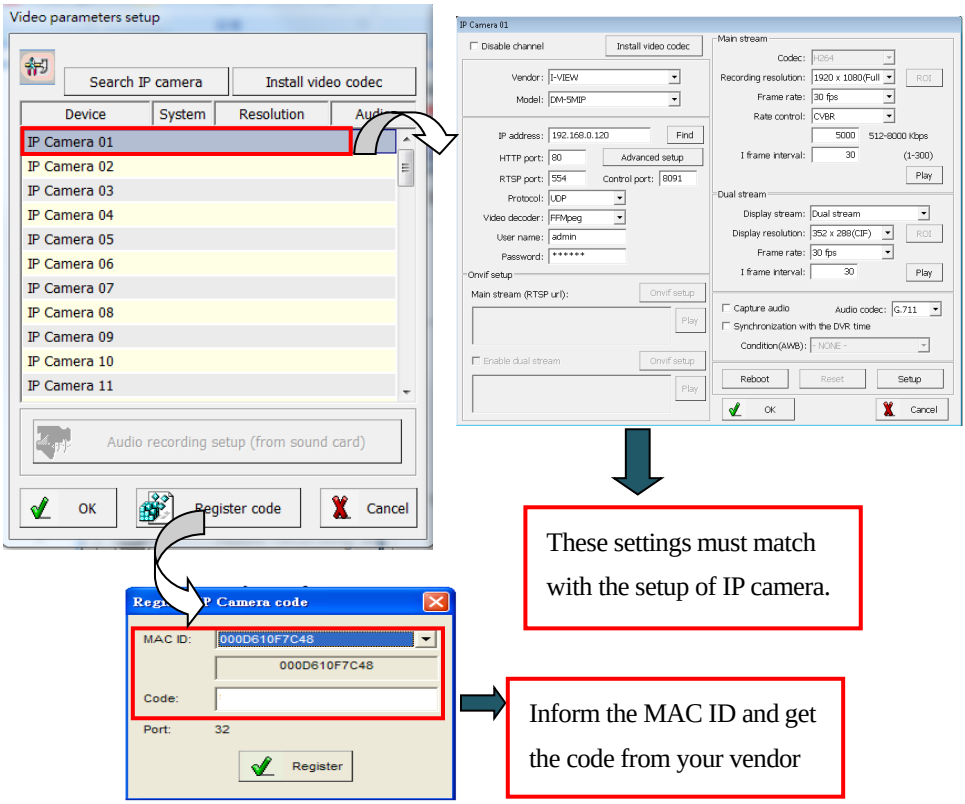
   a. Click "**Register code**" and inform the "**MAC ID**" for your vendor to get the code.

   b. Fill in the code and click the "**Register"** icon. After registering, the number of supported IP cameras will show in the **"Port**" area.

   c. Double click the IP camera from the "**Device list**" for setup.

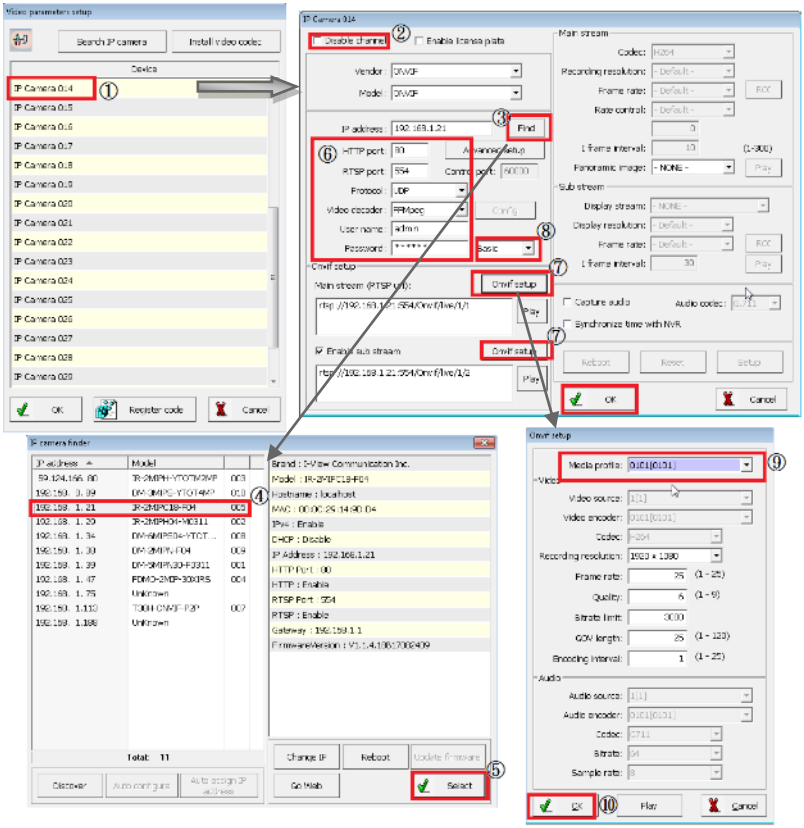
   d. Double click the IP camera number to connect the camera and parameter setting.

There is no need to have the "**Register code**" when using I-View' s IP Camera.



## 5. Setup the parameters of third-party IP camera

This section will allow you to set up the parameters for individual IP cameras for the third-party IP Camera. You need to get the license from your vendor first when you use the third party IP camera with i-View's NVR program, and you can refer to the above page to enter the " Register code:




Would you please follow the process to set up the Onvif IP camera?

**Step 1.** Select the Video channel and uncheck "**Disable channel**," then select "Onvif" from Vendor and Model section. Click the " **Find**" icon to search the third-party IP camera.

**Step 2.** Select the IP camera which will display on this channel and then click the "**Select"** icon.

**Step 3.** Entry User name, password, RTSP port, Protocol, and decoder match this IP camera.

There are **None**, **Basic**, **Digest** modes for Onvif protocol; you can change the model when you cannot find the Onvif setup function.

**Step 4.** Click the "**Onvif setup**" icon from Mainstream and Substream to select the resolution and streaming. The setup screen should be different when you use another brand. Then click " **Ok**" to set up the Onvif protocol.

**Step 5.** Click the " **Ok**" icon to finish the setting.

# Chapter 4 Operate Auto Number Plate Recognition System

## 4-1. How to get the criteria to image for the ALPR system?

✧ **Introduction**

The Video streaming that loads into the engine of the AutoPark® ALPR system can provide by an image source of any IP Camera. However, more important is that not all images are usable for ALPR (Automatic Number Plate Recognition). The AutoPark® ALPR system requires a set of specific criteria to meet when it comes to pictures. Thankfully, these criteria can be well defined. This guide will present what these criteria are and will also discuss them in detail.

In general, when discussing ALPR systems, the phrase "good quality images" refers to the fact that the images used to meet the criteria detailed in this document. This section will allow you to set up the parameters of ALPR (Automatic Number Plate Recognition). Would you mind following the process to set up the ALPR function?

✧ **What is the excellent contrast Image?**

To differentiate the character from the background, that must be a particular contrast between the two. The criterion for this is not for high contrast but rather a consecutive average difference. Of course, the higher the distinction, the better, but having a low contrast ratio (the minimal blur on the edges) is more important.

Fig1: An image with good contrast and the characters on the license plate are clear. (Good)

Fig2: An overexposed image on which the license plate is barely visible. (Bad)

✧ **What is the sharp image?**

Having adequately sharp images is also crucial. One general rule that can apply to OCR is that if a human can recognize the characters, the engine will also acknowledge them. This rule applies the other way around as well: if one cannot read the characters quickly and adequately, there is a low

probability that the engine will recognize the license plate. It is also worth noting that blurring can cause many other factors and not just a small image size.

Fig3: An adequately sharp image. (Good)

Fig4: A blurry image with a hard to read license plate. (Bad)

✧ **What are the optimum character size and resolution?**

The optimal size of the characters on the given image is essential. In terms of character size, there is one typical misconception. Many think that the higher the resolution, the better. This statement, however, is not valid. Neither images with too high or too low resolution will work properly.

➢ **High resolution**

High-resolution (macro) images contain a lot of redundant data. Characters can be easily defined based on the edges of a surface. No other information is needed. So much so that the pixels within a character are irrelevant in terms of shape/pattern recognition. These are just pixels that waste the resources of computation. Therefore, the resolution optimizes for a specific character size. Although this size can adjust, it has to note that changing the default character size can cause problems if characters are too tall.

➢ **Low Resolution**

When the images contain less information than what the engine needs, they should be considered low-resolution images. Of course, it has to note that even if the characters are more diminutive in resolution than the required minimum, the engine may deliver correct results. Still, it will not consistently recognize these images. If one fed the engine a few thousand low-resolution images, the recognition rate would drop over time.

Fig5: Macro image with enormous amounts of redundant data. (Bad)

Fig6: A good image with adequate resolution, not to high, not to low. (Good)

✧ **Minimum and Optimal resolution character size**

The optimal character size for an ALPR task is at least 80 pixels in the width of the license plate. A general rule of OCR is that the smallest unit that defines the recognized object has to be 2x2 pixels. In terms of ALPR, the smallest unit is the width of the license plate.

The characters can, of course, be taller (and will be if higher resolution cameras use). The 16 pixels height is just the minimum value. But do note that if the character height is less than 16 pixels, then the recognition rate will drop drastically. The same is true if the characters are too high. At around 40-50 pixels, the recognition will again drop and sooner or later will reach 0%.

QuickPark® engine is very robust; therefore, it has the capability of filtering noise from the image. If it is too small, a dot can recognize by the engine as noise in the picture. However, if it is sufficiently big, QuickPark ® will realize it more effectively without making mistakes.

✧ **Low distortion**

The camera, which acts as the image source for OCR, can be installed in many ways. There exist multiple installation positions that can help in providing optimal images with minimal distortion. However, there are many cases when the camera cannot be installed in this position, causing the object (license plate) to become distorted on the image. It is why the OCR engine inquires to be built to tolerate a 30˚ angle. However, if the pan or tilt angles of the camera exceed 30˚, distortion may significantly reduce recognition and performance rates.

✧ **Examples to avoid (NOT OPTIMAL FOR ALPR use)**

LOW SPATIAL RESOLUTION

LOW CONTRAST

HIGH DISTORTION

BLURRED IMAGE

OVEREXPOSURE

BAD LIGHTING CONDITIONS
(SHADOW AND STRONG LIGHT)

✧ **Summary**

To summarize, the images provided to the engine should meet the following requirements:

- A consecutive average difference in contrast.
- Adequate sharpness.
- Minimal distortion.
- The photo takes under good lighting conditions.
- The picture has to contain the whole license plate on which the characters at least 16 pixels high in case of characters

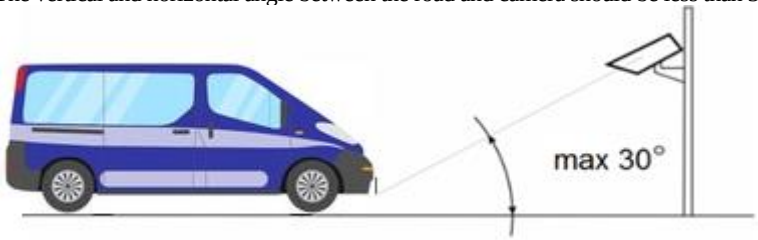
## 4-2. How to install the camera for the ALPR system?

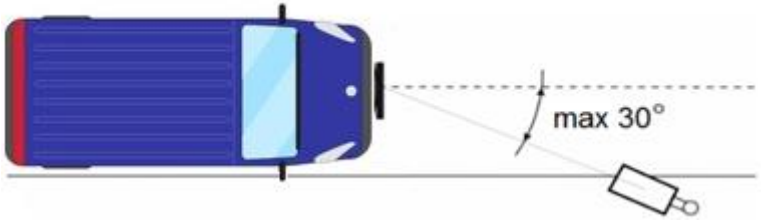
This section will introduce the rule of camera installation and get the optimal image for the ALPR system.

Please take notes as below when installing the ALPR camera.

1) To get a better recognition rate, we recommend license plate width is 80-300 pixels, or the recommended character height is 20-50 pixels of the photo.

2) The vertical and horizontal angle between the road and camera should be less than 30°.



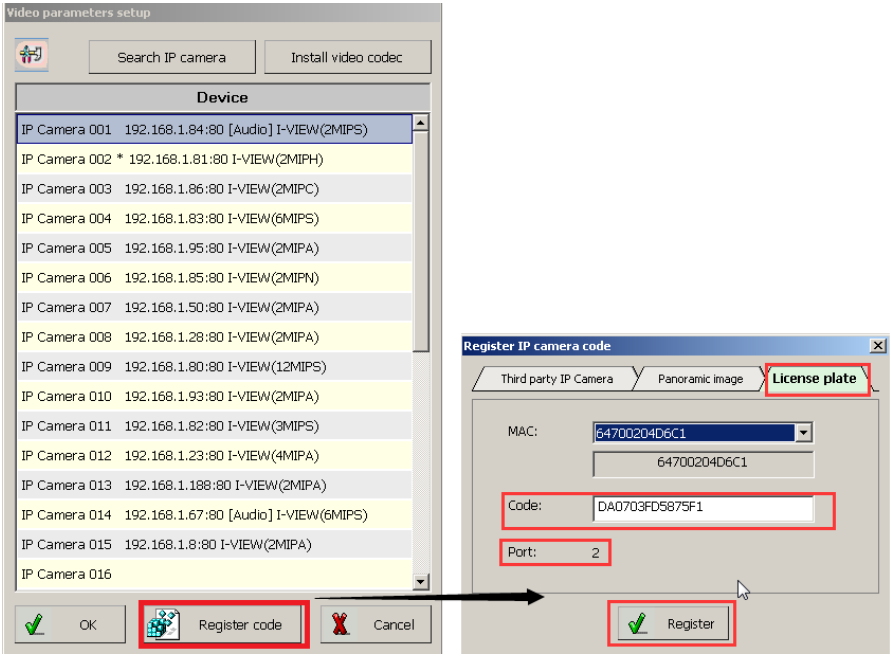

3) The license plate horizontal angle between the camera and license plate should less than up to 7°.

4) No blur effect

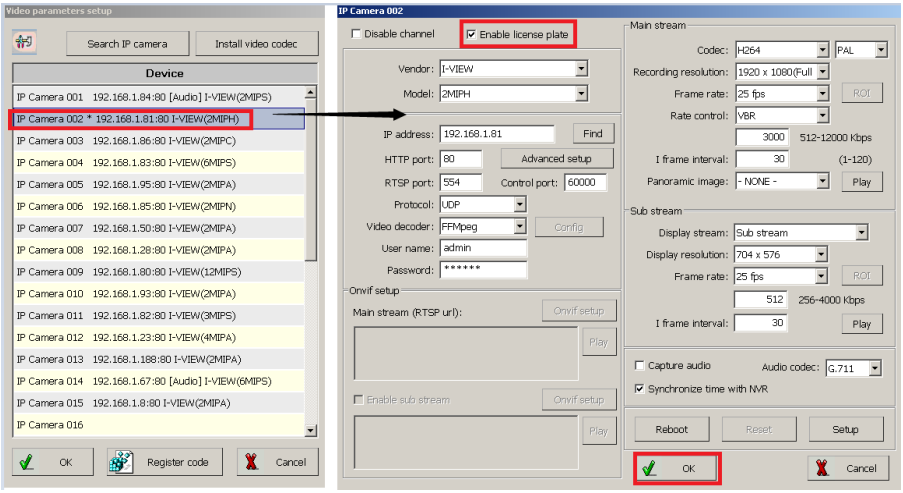
## 4-3. How to set up the parameters of the ALPR system?

This section will allow you to set up the parameters of ALPR (Automatic Number Plate Recognition). Would you please follow the process to set up the ALPR function?

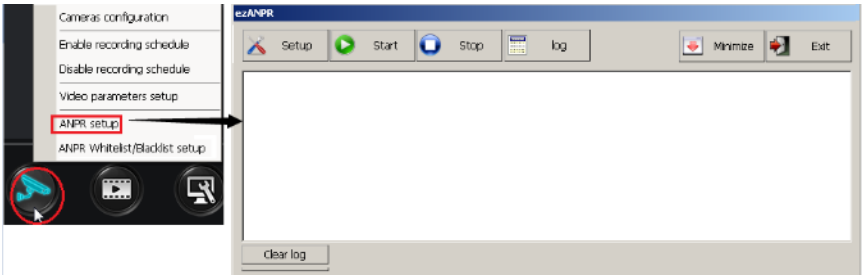
1. Plug the USB dongle into the USB port of NVR. The USB dongle comes with the NVR.
2. The default had been entry the license code of ALPR into QuickPark NVR already. If you Ghost the O.S. of NVR or want to add more ALPR channels, please call your vendor to service you. You also can refer to the below page to enter the " Register code" when you get the password.
   a. Please click icon on the main screen or click the "Video parameters setup" from the NVR program.
   b. Click the " **Register code,**" then click the " License plate " section, and then enter the password into the "Code" field. The window will show the license port number for this ALPR password license.
   c. Click the "Register" icon to complete the license of the ALPR setting.



3. Double click the camera which you want to use for the ALPR function. Then check the "Enable license Plate " icon to enable NPR function for this IP camera, click "Save " to save the setting. Repeat the same process to enable another IP camera for ALPR if the password provides more than one ALPR license.

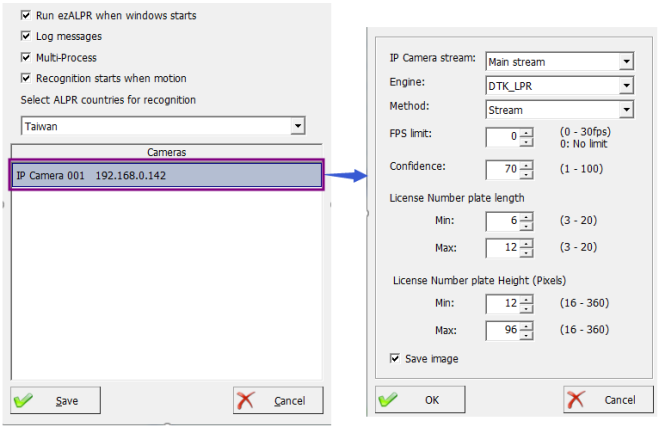



4. Click the icon and select the "ALPR setup " field, then the window will show as below.



The function description of the ezALPR program description as below

① **Setup**: Click this icon, the diagram window will display as below




a. Check " **Run ezALPR WHEN Windows starts**," the program will provide auto rune when start Windows O.S.

b. Check " **Log message**," the running status of the ezALPR program will display.

c. Check the " **Multi-Process**" function when the system process more than 4-ch ALPR.

d. Check " **Recognition starts when motion**" function, the system will start to recognize the license plate when detects the image motion, it will reduce the CPU loading, and this function suitable for the ALPR of parking lot entrance.

e. You can select the country code from the drop menu bar. The default is "Auto".

f. Double click the IP address of the camera to set up the parameters.

✧ Select the video streaming for the Number plate recognition. There are **Main | Sub | Third** streaming. The resolution of video streaming will base on your setting. The high resolution will occupy the CPU loading. Please select a suitable video resolution to keep the CPU running smoothly.

✧ Select the "Source" from the drop menu.

✧ Set up the value of the " **FPS Limit**" field. The number cannot more than the Frame

Rate of the IP camera. The lower number will reduce the CPU loading but less accuracy.

✧ Setup the value of the “Confidence “ field, the number of confidence lower than the result of number plate recognition, the system will ignore the impact.

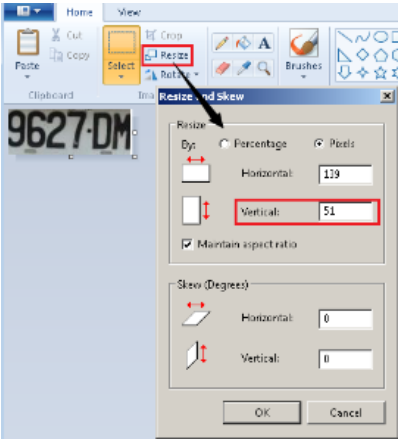
✧ Setup the value of number plate characters, the result of number plate recognition will be ignored when they detect feelings less or higher than the setting value.

✧ Setup, the pixels value of number plate characters (vertical), the result of number plate recognition, will be ignored when they detect characters less or higher than the setting value.

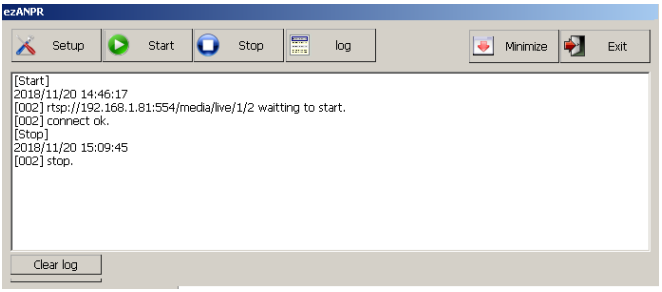
**How to measure the pixels of number plate characters?**

a. Take two photos of the number license plate, which are the farthest and the nearest to the camera.

b. Run the Paint accessory program of Windows, and then measure the pixels of number plate characters. Please refer to the photo below.




② **Start**: Click this icon to enable the ALPR program to get the video streaming from the IP camera.



③ **Stop**: Click this icon to disable the ALPR program to discontinue the video streaming.

④ **ALPR Application logs:** Click this icon to show the result table of the ALPR function.

a. Click the number license plate from the "Event Log" table to see detailed information such as photo, number plate, time, and confidence.

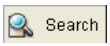
b. Click the "Play" icon, and the video will play the video clip of the snapshot monument.

c. Double click the "**license plate** " of the ALPR window will show the full-screen snapshot.

**Search log:** Click this icon to show the result table of the ALPR function.

a. Click the number license plate from the "Event Log" table to see detailed information such as photo, number plate, and time.

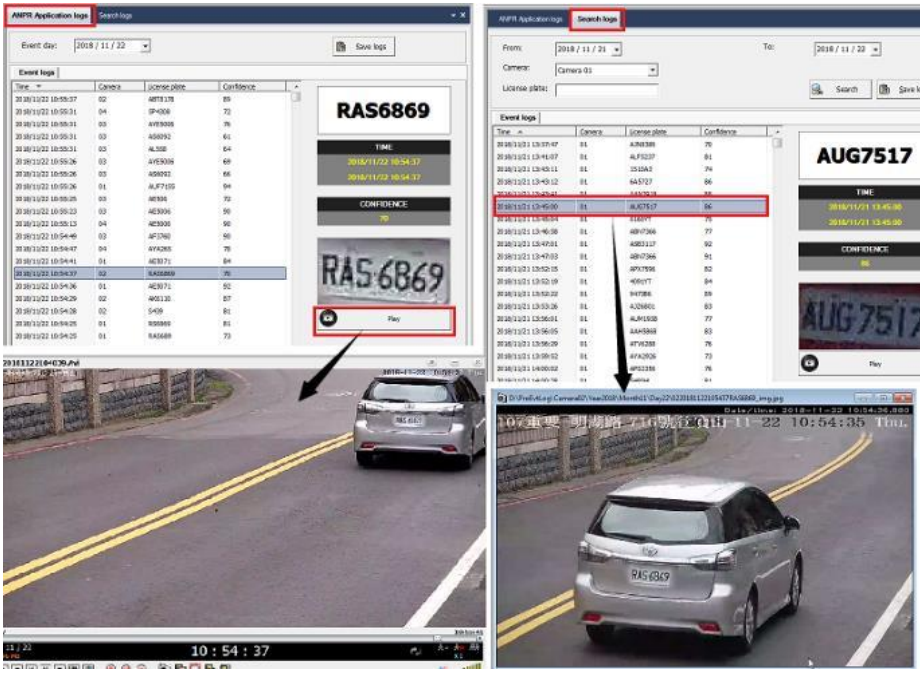
b. Search the logs via period, camera, or type the keywords.

c. Click "  " to search the logs.

d. Click " " to save the view log in txt or Xls format.

e. Click " " to playback the video clip of snapshot moment.

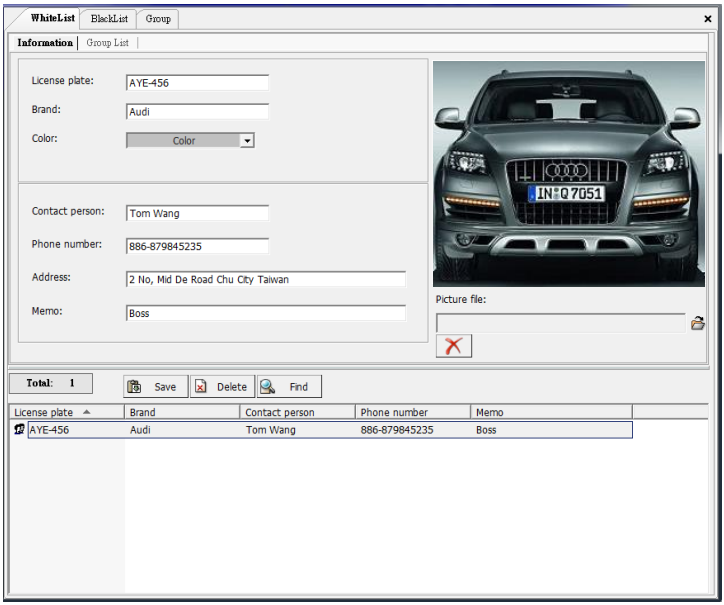
d. Double click the "license plate" of the ALPR window will show the full-screen snapshot.



## 4-4. How to White list and Blacklist of ALPR system?

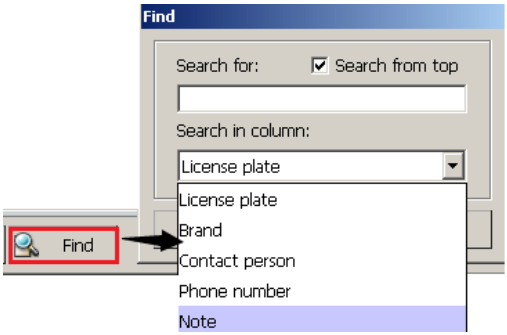
This section will allow you to set up the white list and blacklist of Car number plates for the ALPR application. Please follow the process to set up the white list and blacklist of Car number plates.

✧ **Setup the White list (Blacklist) car number plate → Information**




Please follow up the process to set up the White list (Blacklist) database:

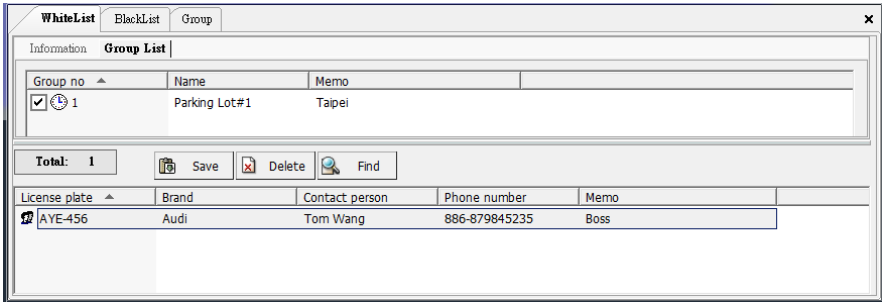
1. Input the License number, Brand, Color, and import the photo of the car.
2. Input contact information such as Contact person, Phone number, Address, etc.
3. Click the "Save" icon to complete the setting.
4. Repeat the 1-3 process to add another car number plate.



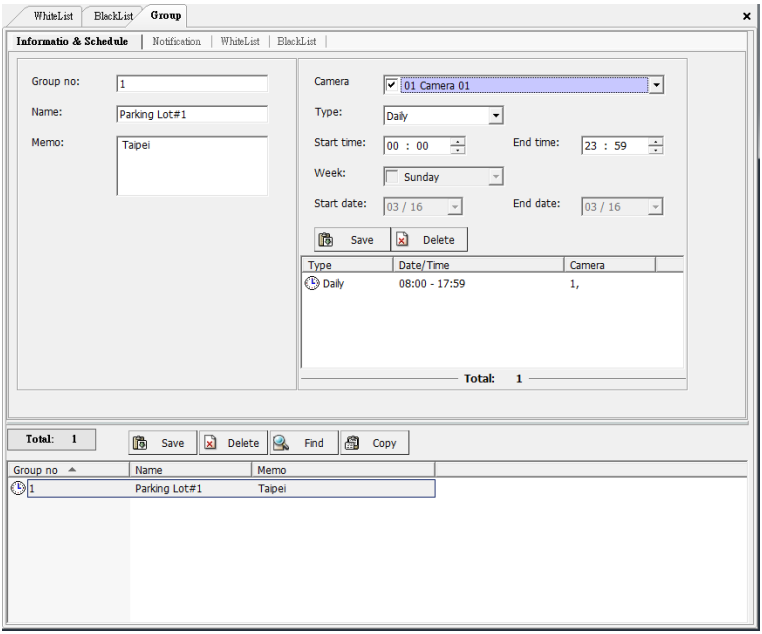

5. Select the existing license plate number plate and then click the " **Delete** " icon to remove the car number plate from the white list.

6. Click the “ Find” icon to search the White list via category.

**Group List:** You can check or modify each car of the White list (Blacklist) database from here.




✧ **Group → Information & Schedule setup**




Please follow up the process to set up the Group:

1. Input Group number, name, and from this section.
2. Select the camera(s) and schedule, then click “ Save “ to complete the schedule setting.

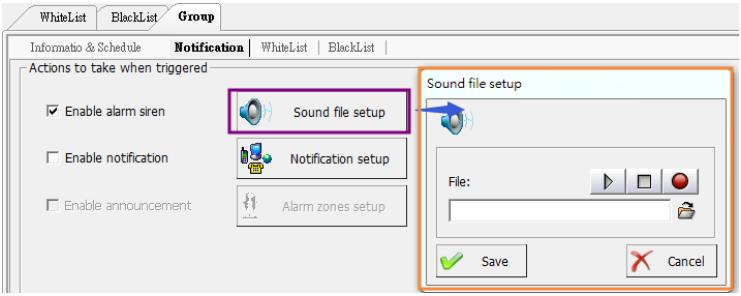
3. Click the " Save " to complete the group information setting. Or select the existing group, then click the " Delete" icon to cancel the group.

✧ **Group → Notification**

**Sound file setup:**

- **Enable alarm siren**

  Check this field and select the sound file or audio recording for the sound alarm when the event is triggered.

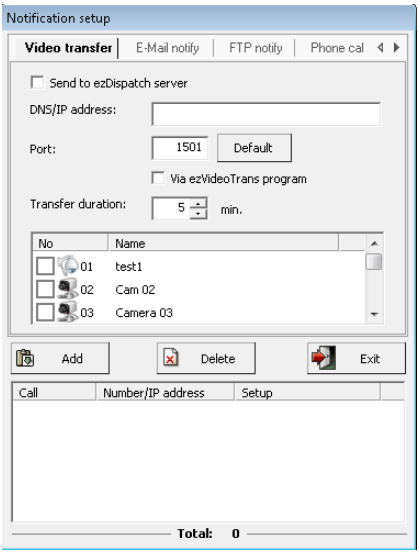



- **Enable notification**

  - **Enable notification:** Notification by phone call, SMS message, an email notifies, upload to FTP server, and live videos transferred to a remote site PC when motion detection is triggered.

    **Notify by Video transfer:** Upon motion detection, the NVR system will automatically send and record the selected live videos to a remote PC (with FreeView Pro standby). Please follow the steps below for setup. Click the "**Video transfer**" field.

    **Step 1.** Check if the user would like to send the live video to "**ezDispatch Server**" and distribute the live video to the available



CMS platform. This function is for an extensive system, and the control center has more than the CMS platform.

**Step 2.** Check if the user wants to send the live video to "**ezDispatch Server**" and distribute the live video to the available CMS platform. This function is for an extensive system, and the control center has more than the CMS platform.

Make sure the ezDispatch had been enabled or not when you want to use this function

**Step 3.** If the user wants to send the live video directly to a remote PC, type the remote PC's **IP address** or **DNS address. TCP/IP port** number (default port "**1501**") for the transfer connection.

**Step 4.** Determine the **Transfer duration** in minutes.

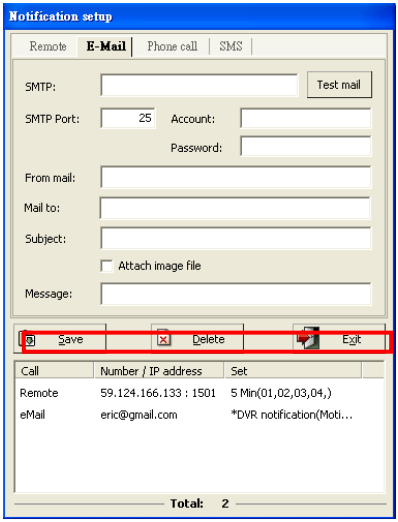
**Step 5.** Sect the desired video channels to transfer the live videos to remote site PC.

**Step 6.** Click the **"Save"** button to save your pending entry, list at the bottom of this window.

**Step 7.** Repeat steps 2 through 6 to add another "**Remote**" transfer live video notification entry.

The TCP/IP port number you choose must match the one set up in the FreeView Pro program at the remote PC; otherwise, the connections will fail. Please note you also need to open from your router configuration for remote PC. Check your router manual for more info about "**port forwarding**" or "**virtual server**."

**Notify by Email:** Upon motion detection, the NVR system will automatically send e-mail messages to the registered email recipients. Please follow the steps below to set up e-mail notification entries.




**Step 1.** Click the "**E-mail message**" field.

**Step 2.** Input the **SMTP server address** provided by your ISP.

**Step 3.** Type the default port "**25**" for connections.

**Step 4.** Entry the email account and password.

**Step 5.** Type the email address for sending the notification emails in "**From mail**" field.

**Step 6.** Type the email address for receiving the notification emails in the "**Mail to**" field.

**Step 7.** Fill "**Subject**" and "**Message**" fields to identify the email messages.

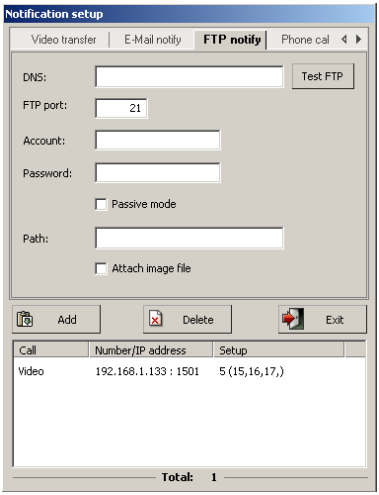
**Step 8.** Check if the user would like to receive the attached snapshot picture.

**Step 9.** Click the **"Save"** button to save your pending entry. That entry will list at the bottom of this window.

**Step 10.** Click "**Test mail**" to check if the setting is correct or not.

**Step 11.** Repeat **Step 2 - 6** to add other E-mail message notification entries.

**Notify by FTP server:** Upon motion detection, the NVR system can send the trigger message to the FTP server and save the trigger information as a text file. You will get the trigger information from the file, such as HYBRID NVR/NVR Name, Camera number, Event, and Timestamp. Please follow the steps below to set up FTP server notification entries.




**Step 1.** Click the "**FTP notify**" field.

**Step 2.** Input the DNS name and port number (default is port 21) which the user wishes to send the triggered information to this FTP server.

**Step 3.** Entry the FTP Server's "**User name**" and "**Password**."

**Step 4.** Enable "Passive mode" for some special FTP servers. Ask your MIS staff for the detailed setting.

**Step 5.** Entry the saving path and check the "**Attached image file**" icon if you needed.

**Step 6.** Click the "**Save**" button to save your pending entry. This entry will list at the bottom section of this window.

**Step 7.** Repeat **Step 2 to Step 4** to add other phone call notification entries.

**Notify by Phone Call:** Upon motion detection, the NVR system can dial the listed phone number(s) and play a recorded message or siren. Please follow the steps below to set up phone

call notification entries. Before setting up for phone call notification, please refer to "**System configuration**" for dial-up voice modem setup.

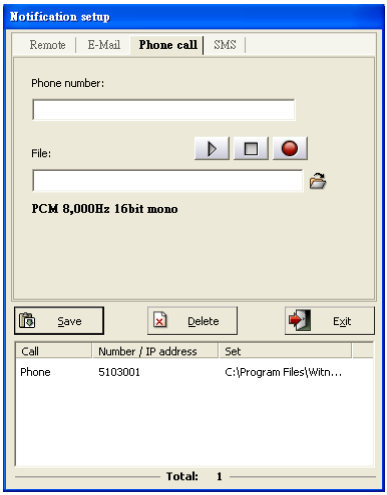
**Step 8.** Click the "**Phone call**" tab.

**Step 9.** Input the phone number the user wishes to call.

**Step 10.** Click the "**Sound File setup**" button to choose an alarm siren or record your voice message.

**Step 11.** Click the "**Save**" button to save your pending entry. This entry will list at the bottom section of this window.

**Step 12.** Repeat **Step 2 to Step 4** to add other phone call notification entries.




1. If the user wants to record his voice message, the ".WAV" file format must be 8000Hz, 16-bit, and Mono for phone calls notify.
2. If the user wants to set up the phone notification wave file from the system file, the warn.wav file should support 8000Hz, 16-bit, and Mono format.
3. Each phone call notification entry can have its unique audio stream. Each phone call automatically disconnects after a one-minute duration, even if your voice message is longer than one minute.
4. It would help if you used an approved Voice Dial-Up Modem.
5. If the user's telephone system requires an extension number t input, please use one or several commas (,) to separate the phone number and the extension number. The number of commas requirements depends on the system, so test it beforehand.

**Notify by SMS message.** Upon motion detection, the NVR system will automatically send the SMS message to the registered mobile phone. Please follow the steps below to set up SMS message notification entries. Before setting up for SMS message notification, please refer to "**System configuration**" for 3G modem setup first.

**Step 1.** Click the "**SMS message**" field.

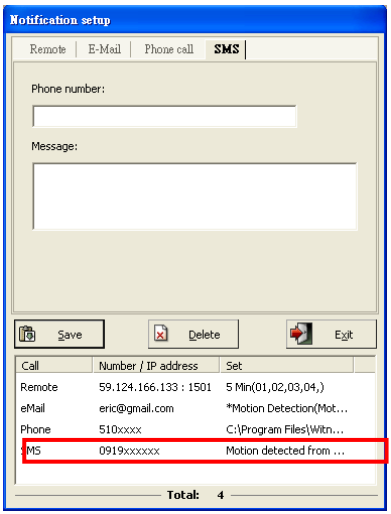
**Step 2.** Input the mobile phone number.

**Step 3.** Type the SMS message.

**Step 4.** Click the "**Save**" button to save your pending entry. That entry will list at the bottom section of this window.

**Step 5.** Repeat steps 2 through 5 to add another SMS message notification entry.

It would be best if you used an approved 3G Modem for sending SMS messages to mobile phones.

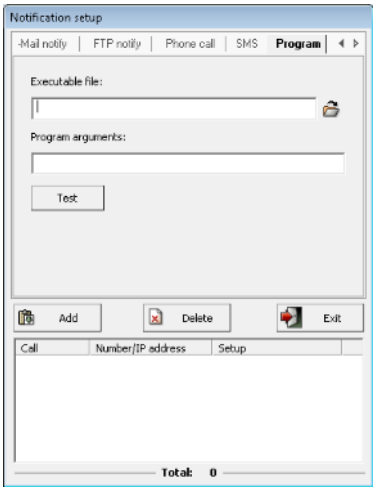



**Enable third party Program:** Upon motion detection, the NVR system can enable the pre-installation third party program. Please follow the steps below to set up **third-party program** entries.

**Step 1.** Install the Third-party program first.

**Step 2.** Choice the path of program and entry "**Program arguments** "(If it is needed).

**Step 3.** Click the "**Test** " icon to make sure the function will work out properly when the event is triggered.

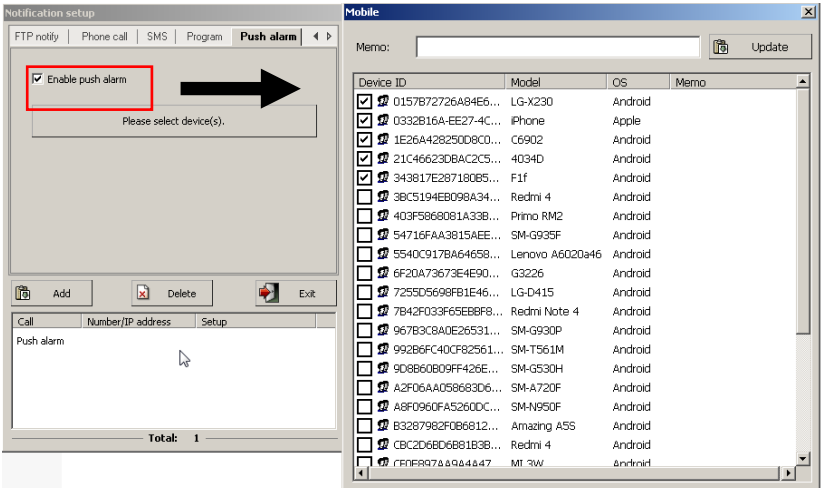



**Enable Push alarm:** Upon the event is triggered, the NVR system will enable the Push alarm to notify the mobile phone you have set up.

**Step 1.** Click the "**Push Alarm**" field.

**Step 2.** Click the "**Please select devices** " icon to enable the Mobile phone. The Mobile Phone should remote access this NVR via AnyView App first then the machine will list on the table.

**Step 3.** Check the devices from the table list and then click "Add" to finish the setting.




- **Alarm zones setup (Optional):** This function can be enabled when the **public address server** connects to the NVR. The public address server will announce to the camera site via a group(s) or zone(s) automatically when the NVR is triggered. Follow up the steps shown below to set up the announcement area:

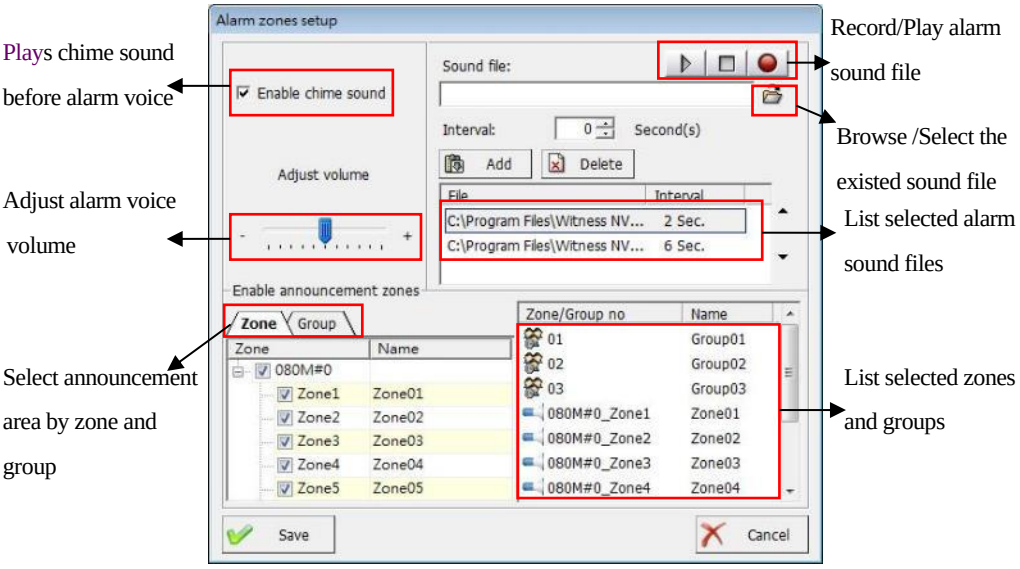
**Step 1.** Choice the "**Zone**" and "**Group**" where will announce when NVR is triggered. For the detail setting process of "**Zone**" and "**Group**," please refer to the "**Public address configuration**" chapter.

**Step 2.** Record or choose the existing alarm sound files, set up the interval period between files, and press the "**Add**" icon to save the file. Click the selected files and click "**Delete**" to remove the desired alarm sound file.

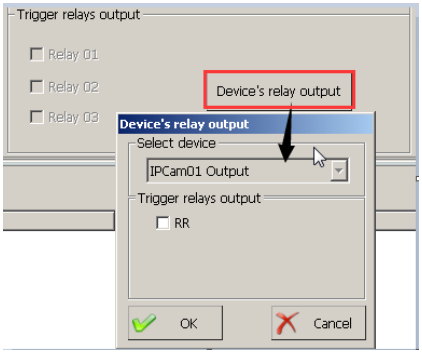
**Step 3.** Enable chime sound if you want to play chime sound before alarm sound.

**Step 4.** Adjust the audio volume for the play alarm sound.

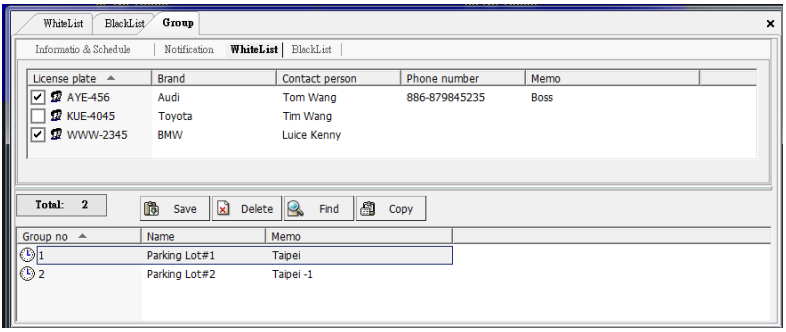
**Step 5.** Click the "**Save**" or "**Cancel**" icon to finish and exit the setting process.




- **Device relay output:** The user can select the output relays from each IP camera when the event is triggered.




**White list / Blacklist:** You can add or delete the White list (Blacklist) database from here.



# Chapter 5 Operate Face Recognition System

## 5-1 What is QuickFace Facial Recognition System?

✧ **Introduction**

i-View QkDefine® Face Recognition system can identify faces that are difficult to recognize within standard video surveillance technology. The QkDefine® Face Recognition engine can support the situations as below:

a. The minimum resolution of the face recognition is 150 pixels of Face.
b. The minimum view angle of the face recognition is 30 degrees to the left or right and 30 degrees to the up or down.
c. Allows detecting faces hidden by sunglasses or masks still get higher than 90% accuracy rate.

QuickFace also has high accuracy in matching faces taken from wear the Sunglasses or up to ten-year-old facial aging change.

-Specific faces can register in advance to send an alarm when they are detected.

The faces of repeat shoplifters and wanted criminals can register in the facial recognition security/surveillance system from data recorded in the past.

Information can also share between facial recognition systems by importing generic photo data in the JPEG format, and alarms can notify the operator by displaying pop-ups on the screen, emitting warning sounds. For example, face images of suspicious people detected on the sales floor can search for tracking information on a timeline, including what time they enter the store and which sales floor they passed. Whether suspicious people have shoplifted, etc., after entering the store can also be immediately searched for and checked by the facial recognition security system- "**QuickFace**."

✧ **QuickFace System's main features?**

**Face Matching:** One of the significant advantages of the Facial Recognition Solution is the level of control it gives you from a central point of management. Thanks to the direct connection between Face Recognition 2MP face recognition IP cameras (DM-2MIPR/IR-2MIPR series) and AnyNet QuickFace NVR server, you can control and gather insight from up to 128 cameras from one NVR server at the same time. With face matching and visual analysis carried out by the system in real-time, your operator can easily access any recorded images related to that face or customer via the GUI in i-View AnyNet NVR software. When it matches with registered people, the alarm of face matching

is output in real-time and displays an alarm history in the list. The specified screen image can be played back on the control monitor by double-clicking on an alarm history.

**High Precision:** The AI function enables cameras to automatically detect the scene and automatically optimize the settings accordingly to improve the detection ability of the video images. The camera automatically detects the moving objects, movement speed, faces, and light intensity (day/night/headlights) found in the video and optimizes the settings in real-time, and captures a more optimal video of the subject.

**System Cost Reduction:** With conventional facial recognition systems, all captured images send to the server, and the server performs face detection and facial recognition, which concentrates the load of data processing on the server. Systems also tend to be large-scale because of the large bandwidth required to send all the images and the high capacity hard drive space needed to save those images. Using i-View's surveillance system that combines NVR server and Face Recognition cameras, the camera built-in AI engine allows the faces detection and the camera to recognize. The recognition result data contain faces photos to send to the NVR server, dramatically decreasing the Server's CPU load and eliminating the need for large bandwidth. Performing facial recognition on the NVR server using the AI face recognition function reduces server load and hard drive capacity requirements. It permits up to 128 network cameras to connect to a single QuickFace NVR server.

With this i-View face recognition system, it is no longer necessary to send the data-intensive high-resolution images to a server, unlike conventional systems. It delivers high-precision facial recognition while dramatically decreasing network traffic, transmission costs, and network construction costs. Using i-View's system with 50 or more network cameras connected, fees can reduce by about 80 to 90% compared to conventional methods that do not use the built-in face recognition camera.

**System Expandability:** Simple batch registration of a maximum of 2000 faces is possible with the QuickFace NVR Server. Face detection, facial recognition, tracking, and surveillance with recorded video can perform in the same GUI by performing integrated management with the FreeView Pro CMS software and AnyNet-CMS for i-View video surveillance systems. It eliminates the need for the reliable operation and control required for conventional facial recognition systems and enables work to centralize.

## 5-2 How to install the camera for the Face Recognition system?

This section will introduce the rule of camera installation and get the optimal image for the Face Recognition system. Please take notes as below when installing the face recognition camera.

✧**Minimum face resolution and maximum face angle**

The minimum face resolution and maximum face angle for a face recognition task is at least 60x60 pixels, and the vertical /horizontal angle is 30°. A general rule of face recognition is that the smallest unit that defines the recognized face has to be 60x60 pixels. In terms of face recognition, the smallest unit is the width and height of the face that compromises the image on the face recognition. To get this face character, the minimum size of the characters has to be 60x60 pixels.

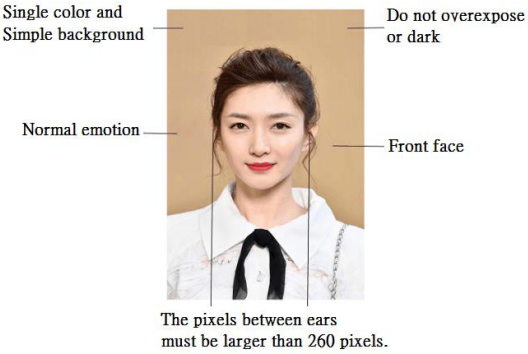
The characters can, of course, be taller (and will be if higher resolution cameras use). The 60x60 pixel width and height is just the minimum value. But do note that if the characteristic width and height are less than 80x80 pixels, then the recognition rate will drop drastically.

Horizontal range < ±30°

✧**How to make a perfect face photo of the Database for comparison purposes?**

The best face photo file of the database is below:

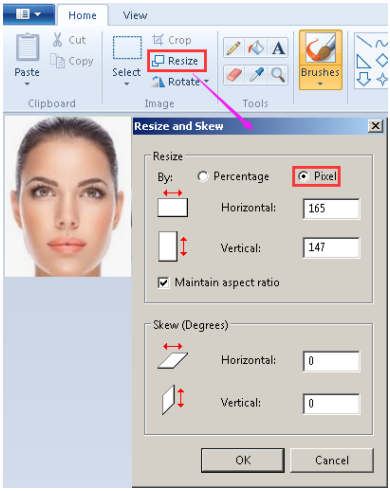
1. The face photo does not overexpose or dark.
2. Normal emotion.
3. Front face.
4. The pixels between ears must be larger than 260 pixels.
5. The background should be a single color.




✧ **How to measure the pixels of the face?**

a. Take two photos of the face, which are the farthest and the nearest distance to the camera of the detection area.

b. Run the Paint accessory program of Windows, and then measure the pixels of the face. Please refer to the photo on the right side.

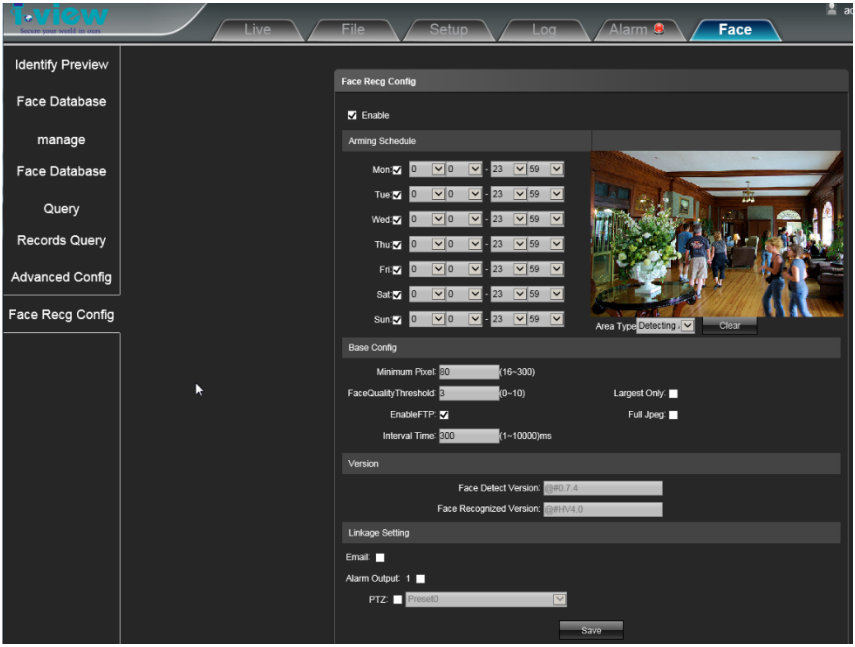


## 5-3 How to set up the face recognition camera?

You MUST connect the 2MP face recognition IP cameras (DM-2MIPR/IR-2MIPR series) to AnyNet QuickFace NVR before setting up the face recognition function parameter.

This section will allow you to set up the parameters of the Face Recognition camera. Please follow the process below.

1. Connect the 2MP face recognition IP cameras (DM-2MIPR/IR-2MIPR series) to AnyNet QuickFace NVR first.
2. Login to the face recognition IP cameras via Interner Explorer Browser, then select the " Face " section →"**Face Recg Config**," then you will see the below diagram window.




3. Press Check the "Enable" icon and then choose the arming schedule to have the face recognition function. The default schedule is 24/7.
4. Press and drag Mouse's left button to set up the Detection areas or Shield area from the "Area type" field. Click the "**Clear**" icon to clear the current detective areas.

**Minimum Pixel**: Setup the minimum pixels of face detection. The system will ignore the video when

the pixels of faceless than the set number.

**Face Quality Threshold**: Setup the minimum value of Face Quality Threshold to snapshot when face detection, the system ignores when the quality is less than the set number. High quality will get a more accurate result of face recognition but may lose in the beginning database.

**Largest only**: The camera processes the face recognition processing for the largest one among faces when enabling this function. The reset face of the image will ignore.

**Full Jpeg**: When the function is enabled, panoramas are taken and stored when the camera detects faces.

**Interval time**: This option can set the interval period between the latest and subsequent face detection.

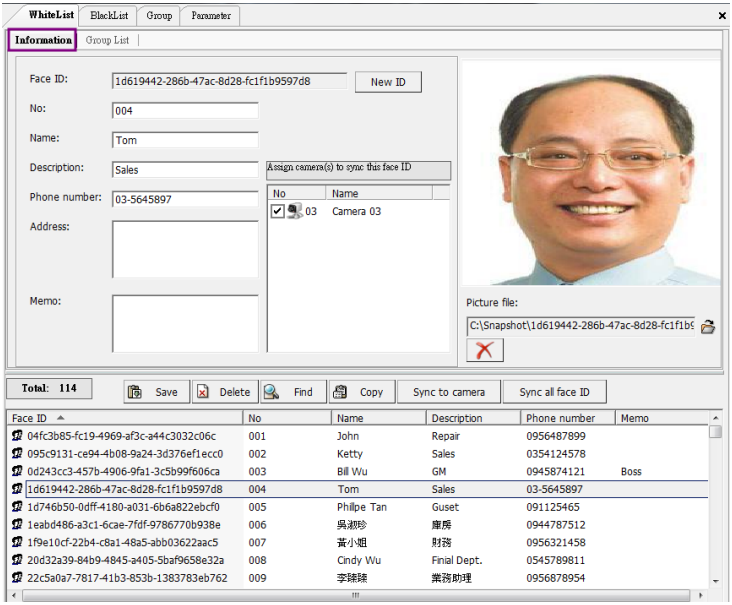
In a more detailed setting, you can refer to the manual of the face recognition camera which comes with the device.

## 5-4 How to white list and blacklist of face recognition system?

This section will allow you to set up the white list and blacklist of the face recognition system. Would you please follow the process to set up the white list and black list of face recognition?

Click the icon and select the "**FACE Whitelist/Blacklist setup**" field to enable the program.

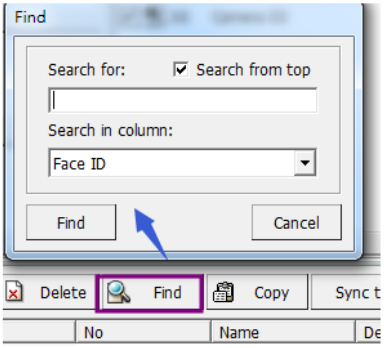
✧ **White list (Blacklist) face ID→ Information**




Follow up the steps below to edit (delete) a new Face ID into the database.

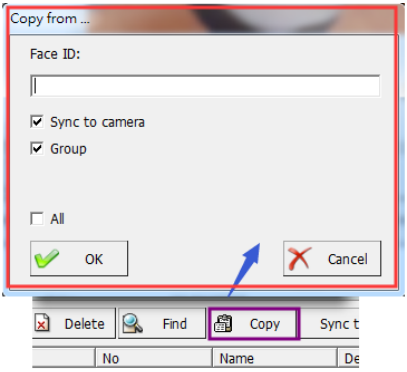
1. Click the "New ID" icon to generate a new face ID.
2. Browsers the path of the file, then choose the photos to save into the Database.
3. Input basic personal information such as No, Name, phone number, address, etc.
4. Select and check the cameras from the "**Assign camera to sync this face ID** " field which you want to synchronize this Face ID between the Face recognition camera and NVR.
5. Click the "**Save**" icon to complete the setting. You also can double-click the face ID to modify the personal information or click the "**Delete** " icon to remove the existing Face ID from the NVR.
6. Repeat the 1-4 process to add another face.

**Search the Face ID from white list (blacklist) via category?**




1. Select the search items via category from the drop menu of the " **Search in column**" field.
2. Click the "**Find**" icon to start to search.

**How to copy the parameters to the other Face ID?**

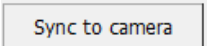



1. Double click the face ID which you want to use this ID (Named BaseID) to synchronize to the others Face ID, then copy the Characters of BaseID and paste it into the " Face ID" Field.
2. a. Select the Face ID which you want to synchronize with BaseID. (synchronize to 1 selected ID).

   b. Click the " **Copy** " icon and then check the copy items. You also check the "**All** " icon (synchronize to all face IDs).

c. Click the " **Ok**" icon, the Face ID setting parameters of the camera or group will come the same as this Base ID.

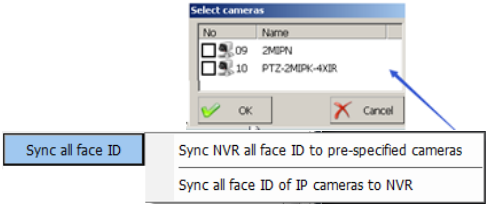
**Synchronize the parameters of Face ID to pre-assign IP cameras**




a. Press and hold the "**Ctrl**" key, then click the Mouse to select the face ID you want to export to the pre-specified cameras.

b. Click the "**Sync to camera**" icon to upload.

**Sync all face ID**




- **Sync NVR all face ID to pre-specified cameras.**
  a. Click the "**Sync NVR all face ID to pre-specified cameras**" field
  b. Select the IP cameras to export NVR's database
  c. Click OK to complete the setting.
- **Sync all face IDs of IP camera to NVR.**
  a. Click the "**Sync all face ID of IP camera to NVR**" field.
  b. Select the IP cameras to import the database face ID to NVR.
  c. Click OK to complete the setting.

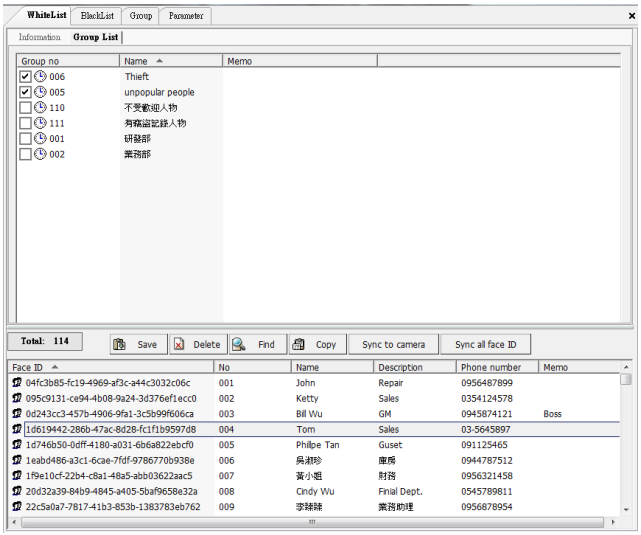
The Face Recognition cameras want to receive the export Face ID data from NVR, which cameras must check from the "**Assign camera to sync this face ID**" field of Face ID's parameters.

✧ **White list (Blacklist) face ID**

**→ Group List**

Follow up the steps below to add (remove) Face ID from the Whitelist (Blacklist) database.

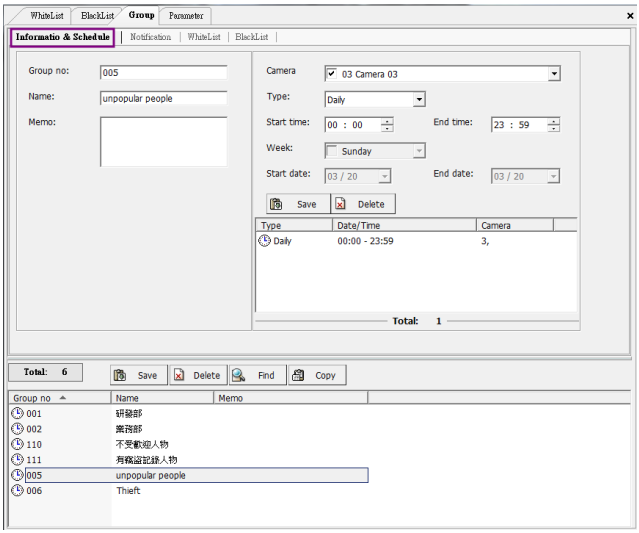
1. Select and click the Face ID from the list table. This Face ID will list on the Group table.
2. Check the Group name from the Group table to join



(Remove) this face ID into these groups

3. Click the "**Save**" icon to complete the setting.
4. Repeat the 1-3 process to add (remove) another face IDs.

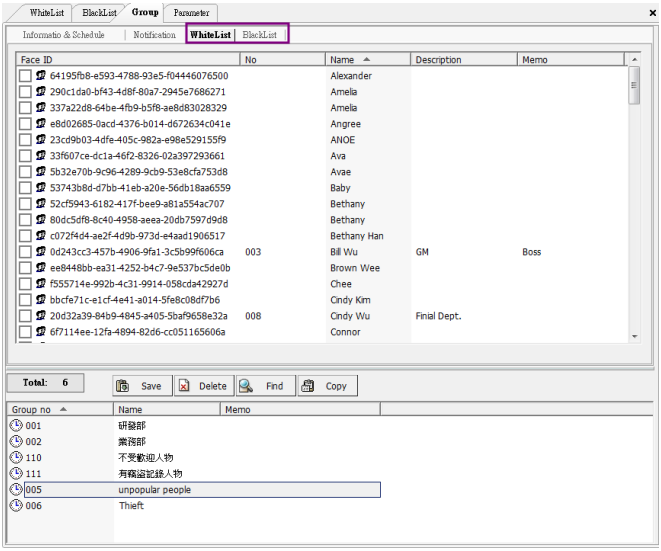
**Group → Information & Schedule**




Please follow up the process to set up the Group:

1. Input Group number, name, and from this section.
2. Select the camera(s) and schedule, then click the " **Save** " icon to complete the schedule setting.
3. Click the " **Save** " icon to complete the group information setting. Or select the existing group, then click the " **Delete**" icon to cancel the group.

**Group → Blacklist (Whitelist)**



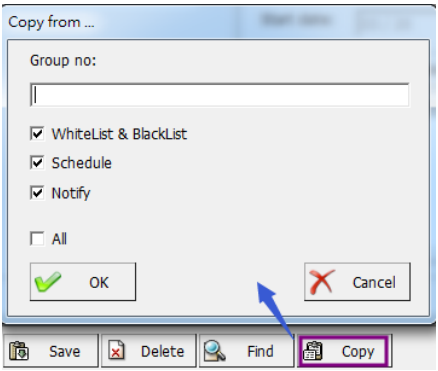

Follow up the steps below to edit (delete) the new Face ID into the Whitelist (Blacklist)database.

1. Select and click the Group from the Group table.
2. Check (Uncheck) the Face IDs from the " Face

ID list table."

3. Click the "**Save**" icon to complete the setting.
4. Repeat the 1-4 process to add another Group.

**How to copy the parameters to the other group?**

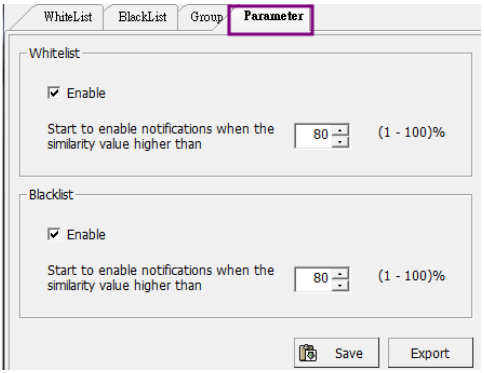



1. Entry the **Group No** you want to use (Named Base-group) to synchronize to the others groups.
2. Click the " **Copy** " icon and then check the copy items. You also check the "**All** " icon to synchronize all groups.
3. Click the " **Ok**" icon to complete the setting.

**Parameter**

Setup the similarity value of face recognition to enable the notification.

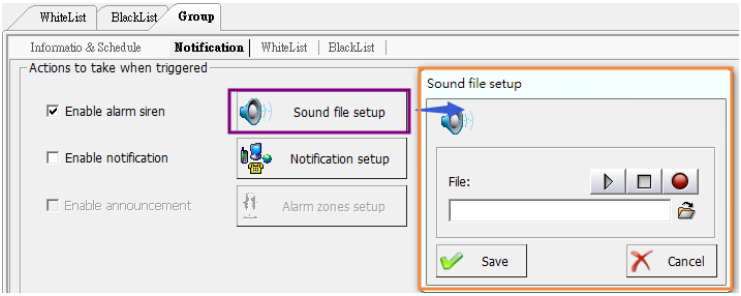
1. Check the "**Enable**" icon from whitelist or blacklist field.
2. Set up the similarity value as the threshold for trigger the notification process.



✧ **Group → Notification**

- **Sound file setup**

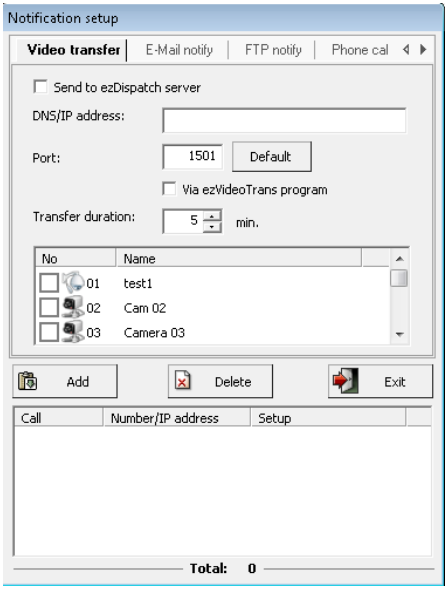
  Check this field and select the sound file or audio recording for the sound alarm when the event is triggered.




- **Enable notification**

  - **Enable notification:** Notification by phone call, SMS message, an email notifies, upload to FTP server, and live videos transferred to a remote site PC when motion detection is triggered.

    **Notify by Video transfer:** Upon motion detection, the NVR system will automatically send and record the selected live videos to a remote PC (with FreeView Pro standby). Please follow the steps below for setup. Click the "**Video transfer**" field.




**Step 8.** Check if the user would like to send the live video to the "**ezDispatch Server**" and distribute the live video to the available CMS platform. This function for an extensive system and the control center has more than the CMS platform.

**Step 9.** Check if the user would like to send the live video to the "**ezDispatch Server**" and distribute the live video to the available CMS platform. This function for an extensive system, and the control center has more than the CMS platform.

Would you please make sure the

ezDispatch is enabled or not when you want to use this function?

**Step 10.** If the user wants to send the live video directly to a remote PC, type the remote PC's **IP address** or **DNS address. TCP/IP port** number (default port "**1501**") for the transfer connection.

**Step 11.** Determine the **Transfer duration** in minutes.

**Step 12.** Sect the desired video channels to transfer the live videos to remote site PC.

**Step 13.** Click the **"Save"** button to save your pending entry, list at the bottom of this window.

**Step 14.** Repeat steps 2 through 6 to add another "**Remote**" transfer live video notification entry.

The TCP/IP port number you choose must match the one set up in the FreeView Pro program at the remote PC; otherwise, the connections will fail. Please note you also need to open from your router configuration for remote PC. Check your router manual for more info about "**port forwarding**" or "**virtual server**."

**Notify by Email:** Upon motion detection, the NVR system will automatically send e-mail messages to the registered email recipients. Please follow the steps below to set up e-mail notification entries.

**Step 1.** Click the "**E-mail message**" tab.

**Step 2.** Input the **SMTP server address** provided by your ISP.

**Step 3.** Type the default port "**25**" for connections.

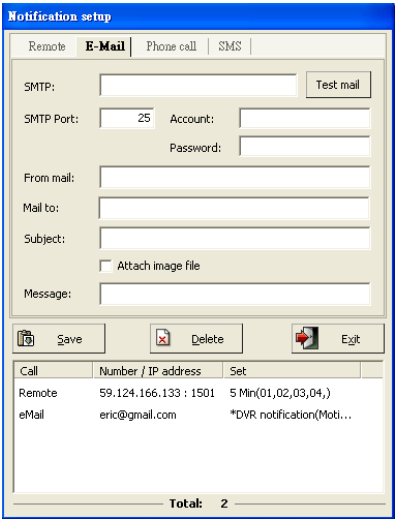
**Step 4.** Entry the email address and password.

**Step 5.** Type the email address for sending the notification emails in the "**From mail**" field.

**Step 6.** Type the email address for receiving the notification emails in the "**Mail to**" field.

**Step 7.** Fill "**Subject**" and "**Message**" fields to identify the email messages.

**Step 8.** Check if the user would like to receive the attached snapshot picture.



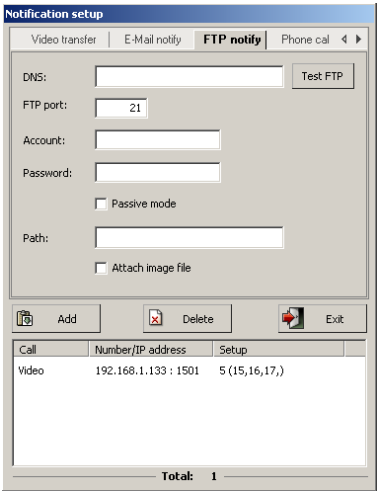

**Step 9.** Click the **"Save"** button to save your pending entry. That entry will list at the bottom of

this window.

**Step 10.** Click "**Test mail**" to check if the setting is correct or not.

**Step 11.** Repeat Step 2 to Step 6 to add other E-mail message notification entries.

**Notify by FTP server:** Upon motion detection, the NVR system can send the trigger message to the FTP server and save the trigger information as a text file. You will get the trigger information from the file, such as HYBRID NVR/NVR Name, Camera number, Event, and Timestamp. Please follow the steps below to set up FTP server notification entries.




**Step 1.** Click the "**FTP notify**" field

**Step 2.** Input the DNS name and port number (default is port 21) which the user wishes to send the triggered information to this FTP server.

**Step 3.** Entry the FTP server 's "**User name**" and "**Password**."

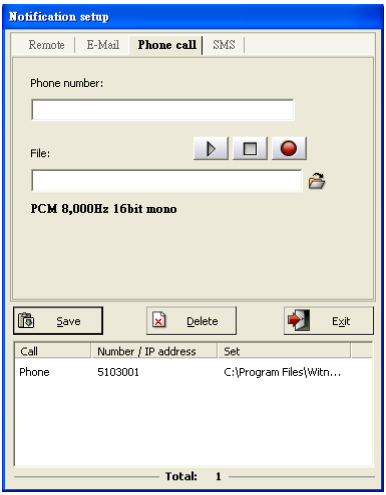
**Step 4.** Enable "Passive mode" for some particular FTP server. Ask your MIS staff for the detailed setting.

**Step 5.** Entry the saving path and check the "**Attached image file**" icon if you needed.

**Step 6.** Click the "**Save**" button to save your pending entry. This entry will list at the bottom section of this window.

**Step 7.** Repeat **Step 2 to Step 4** to add other phone call notification entries.

**Notify by Phone Call:** Upon motion detection, the NVR system can dial the listed phone number(s) and play a recorded message or siren. Please follow the steps below to set up phone call notification entries. Before setting up for phone call notification, please refer to "**System configuration**" for dial-up voice modem setup.




**Step 1.**Click the "**Phone call**" field.

**Step 2.** Input the phone number the user wishes to call.

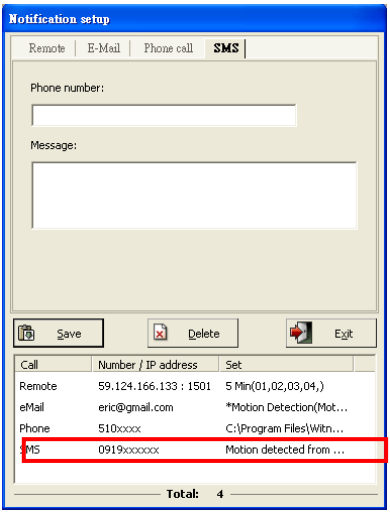
**Step 3.**Click the "**Sound File setup**" button to choose an alarm siren or record your voice message.

**Step 4.**Click the "**Save**" button to save your pending entry. This entry will list at the bottom section of this window.

**Step 5.**Repeat **Step 2 to Step 4** to add other phone call notification entries.

1. If the user wants to record his voice message, the ".WAV" file format must be 8000Hz, 16-bit, and Mono for phone calls notify.
2. If the user wants to set up the phone notification wave file from the system file, the warn.wav file should support 8000Hz, 16-bit, and Mono format.
3. Each phone call notification entry can have its unique audio stream. Each phone call automatically disconnects after a one-minute duration, even if your voice message is longer than one minute.
4. It would help if you used an approved Voice Capable Dial-Up Modem.
5. If the user's telephone system requires an extension number to input, please use one or several commas (,) to separate the phone number and the extension number. The number of commas requirements depends on the system, so test it beforehand.

**Notify by SMS message.** Upon motion detection, the NVR system will automatically send the SMS message to the registered mobile phone. Please follow the steps below to set up SMS message notification entries. Before setting up for SMS message notification, please refer to "**System configuration**" for the 3G modem setup.




**Step 1.** Click the "**SMS message**" field.

**Step 2.** Input the mobile phone number.

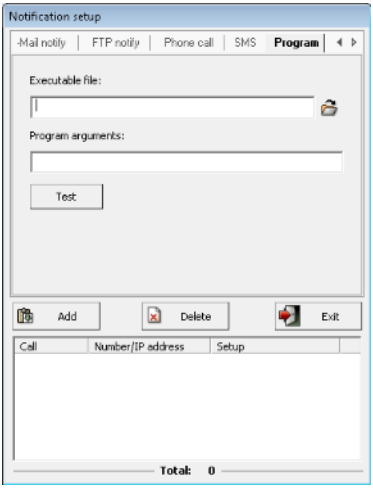
**Step 3.** Type the SMS message.

**Step 4.** Click the "**Save**" button to save your pending entry. That entry will list at the bottom section of this window.

**Step 5.** Repeat steps 2 through 5 to add another SMS message notification entry.

<u>It would be best to use an approved 3G Modem to send an SMS message to a mobile phone.</u>

**Enable third party Program:** Upon motion detection, the NVR system can enable the pre-installation third party program. Please follow the steps below to set up **third-party program** entries.




**Step 1.** Install the Third-party program firs

**Step 2.** Choice the path of the program and entry the "**Program arguments** "(If it is needed).

**Step 3.** Click the "**Test** " icon to make sure the function will work out properly when event is triggered.

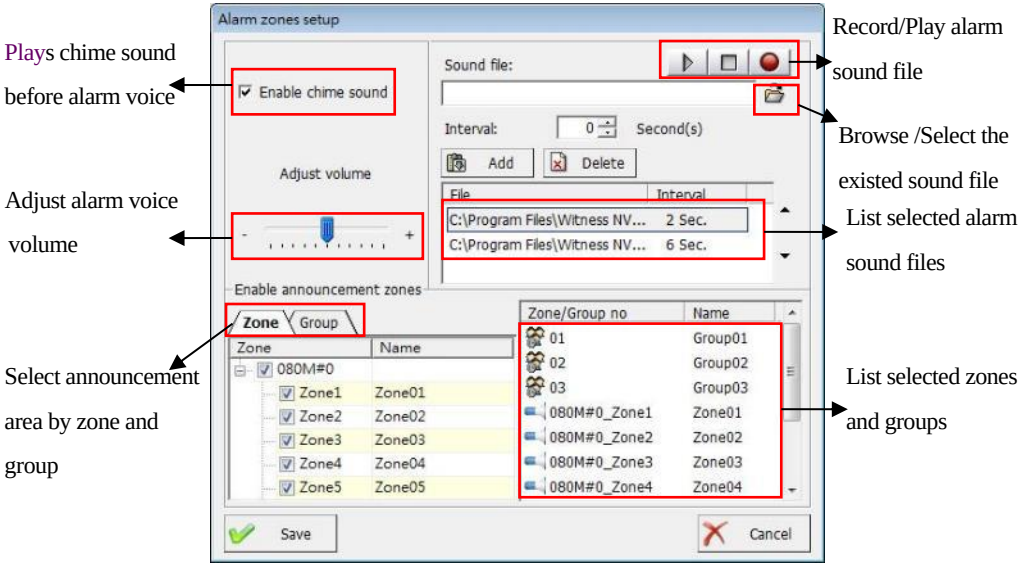
- **Alarm zones setup (Optional):** This function can be enabled when the **public address server** connects to the NVR. The public address server will announce to the camera site via a group(s) or zone(s) automatically when the NVR is triggered. Follow up the steps shown below to set up the announcement area:

**Step 1.** Choice the "**Zone**" and "**Group**" where will announce when NVR is triggered. For the detail setting process of "**Zone**" and "**Group**," please refer to the "**Public address configuration**" chapter. Record or choose the existing alarm sound files, set up the interval period between files, and press the "**Add**" icon to save the file. Click the selected files and click "**Delete**" to remove the desired alarm sound file.

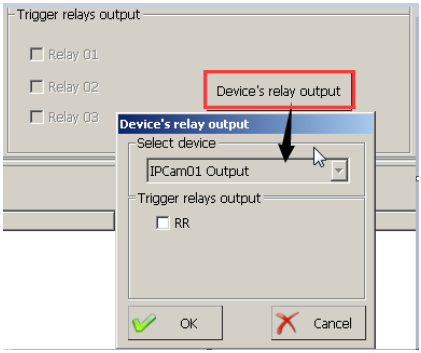
**Step 2.** Enable chime sound if you want to play chime sound before alarm sound.

**Step 3.** Adjust the audio volume for the play alarm sound.

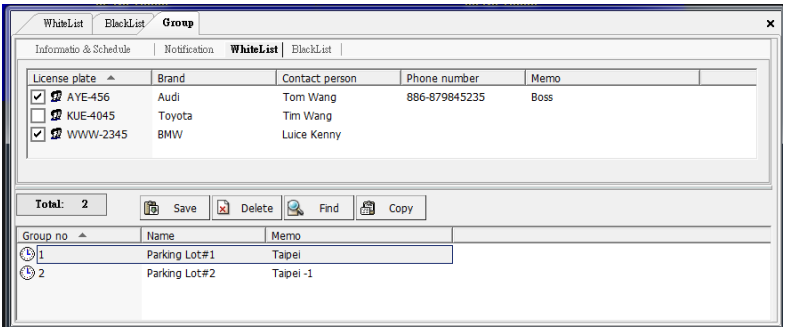
**Step 4.** Click the "**Save**" or "**Cancel**" icon to finish and exit the setting process.



- **Device relay output:** The user can select the output relays from each IP camera when the event is triggered.



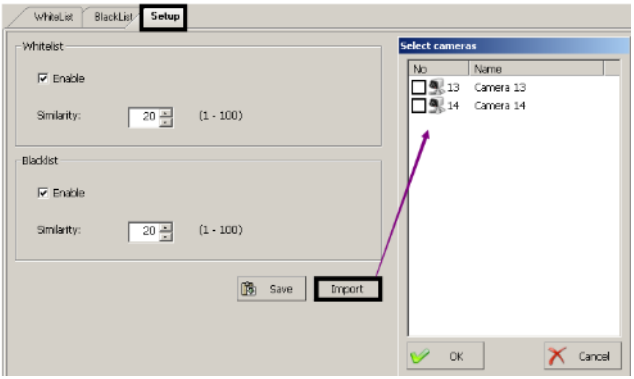

**White list / Blacklist:** You can add or delete the White list (Blacklist) database from here.



## 5-5 How to import the confidence value of face recognition?

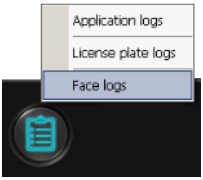
This section will set up the trigger value when the face similarity value recognizes as a white list and a blacklist of face recognition. Follow up the steps shown below to import the face similarity into the specific face recognition cameras:

1. Click the "**Setup**" field and Input the value for the database of white list and blacklist face.
2. Click the "Import" icon and then select the IP camera to save into face data.
3. Check the IP camera number to import the database and then click OK to complete the setting.



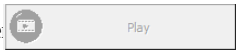
## 5-6 The View log of face recognition

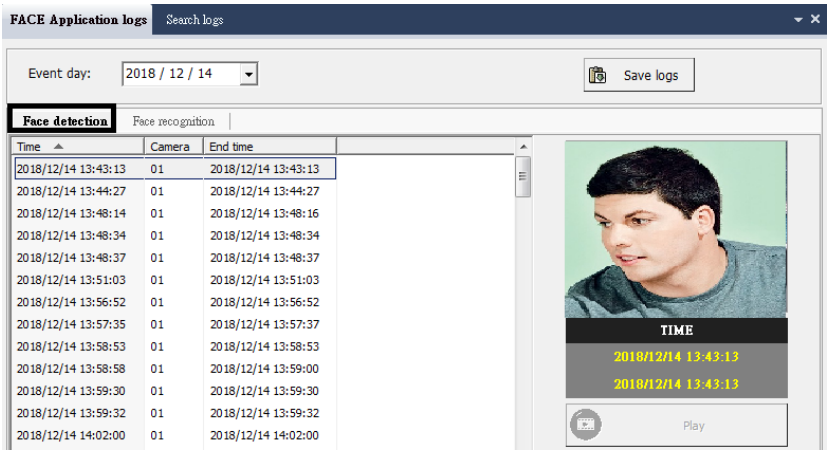
This section will allow checking and search the view log of face detection and face recognition. Click the **View log** icon and then select the **Face log** field and click **Search log** section will show the window as below.




✧ **Face application log- Search Face detection:** Click the **Face detection** field and then select the date from the "**Event day**" dropbox, then the face detection list will be list on the window. Select the face detection item, and the photo information will show the right site.

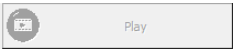
Click "**Play**" will start to play the video clip of the eve

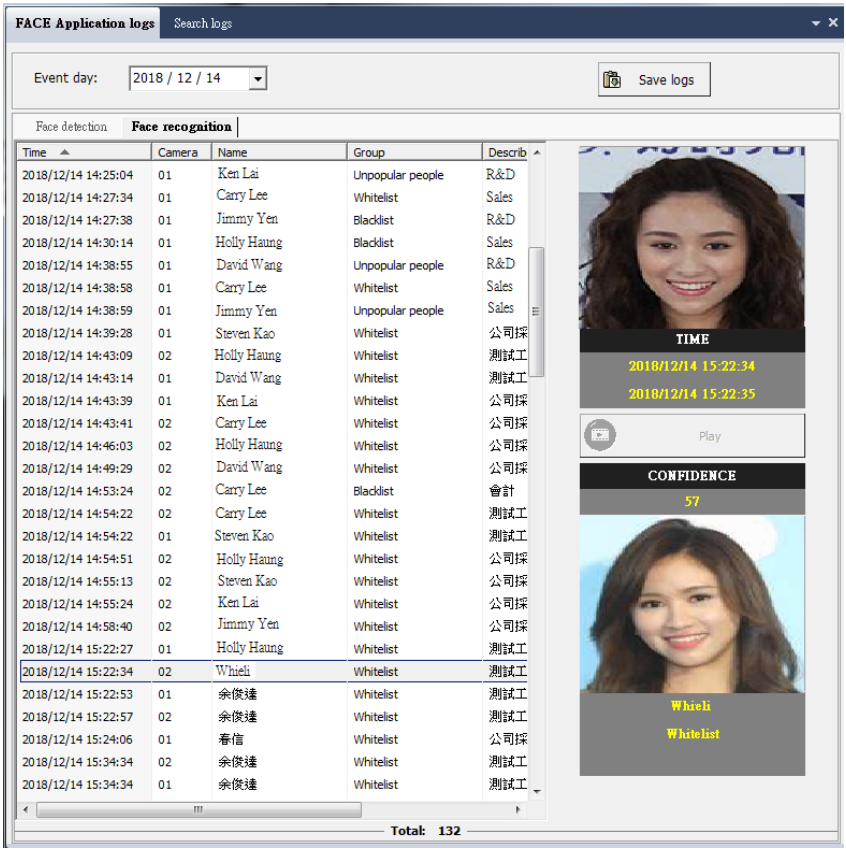


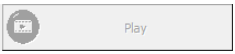
✧ **Search log- Search Face recognition:** Choose the "**Search log**" section and **Face recognition** field.

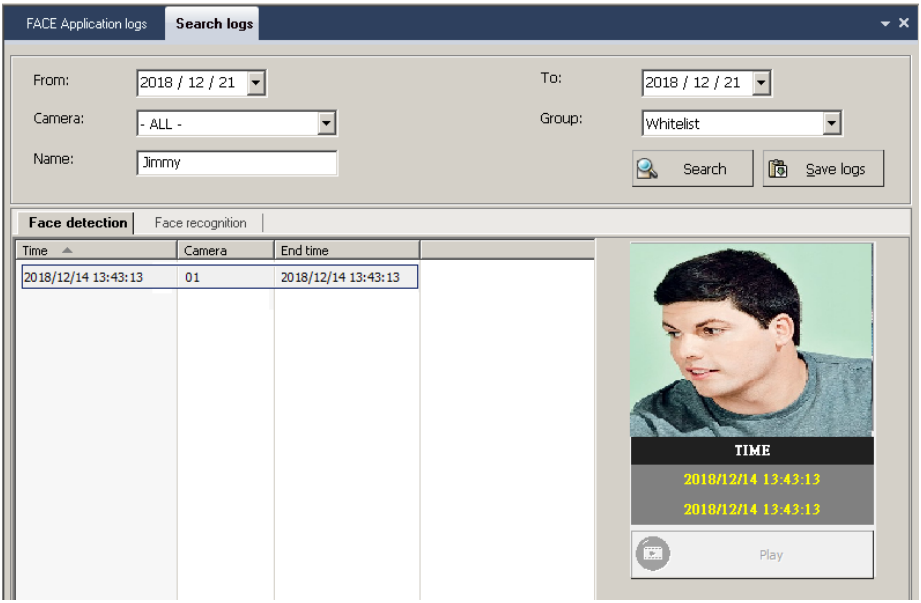
Select the search criteria such as the **Search period**, **Camera**, **Group,** and **Name,** and then click the **Search** icon. The search result will list in the window as below.

Click "**Play**" will start to play the video clip of the event. 

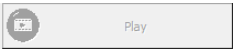
✧ **Search log- Search Face recognition:** Choose the "**Search log**" section and **Face detection** field. Select the search criteria such as the **Search period**, **Camera**, **Group,** and **Name,** and then click the **Search** icon. The search result will list in the window as below.

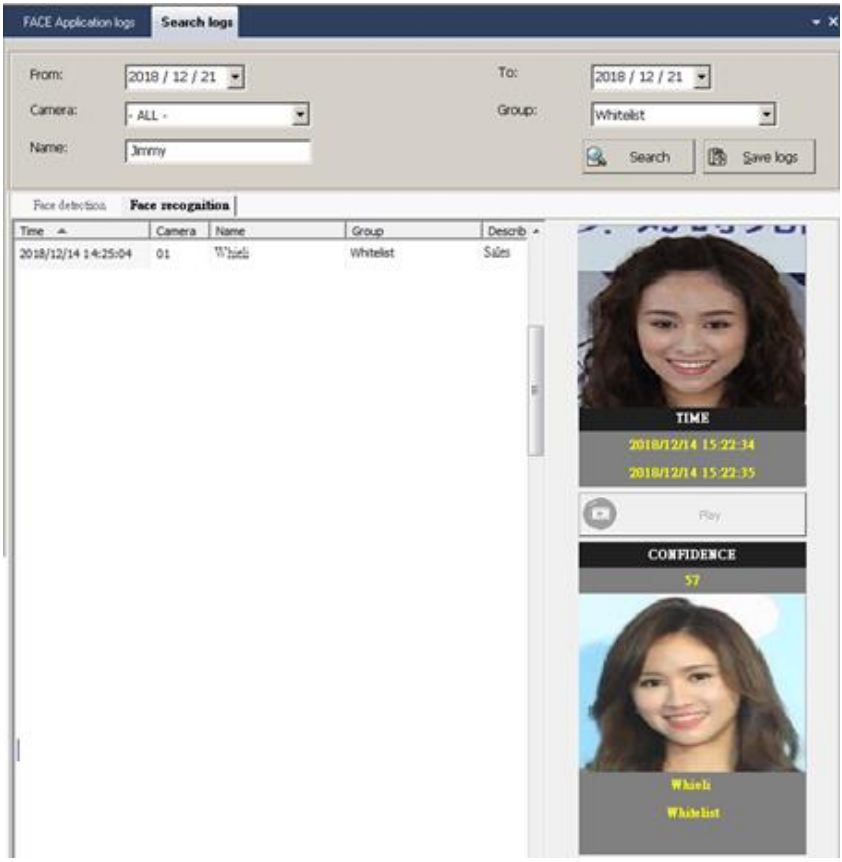
Click "**Play**" will start to play the video clip of the event. 

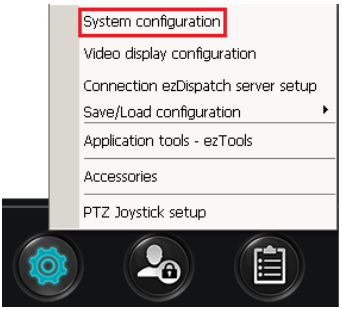
✧ **Search log- Search Face recognition:** Choose the "Search log" section and **Face recognition** field.

Select the search criteria such as the **Search period**, **Camera**, **Group,** and **Name,** and then click the **Search** icon. The search result will list in the window as below.

Click "**Play**" will start to play the video clip of the event. 

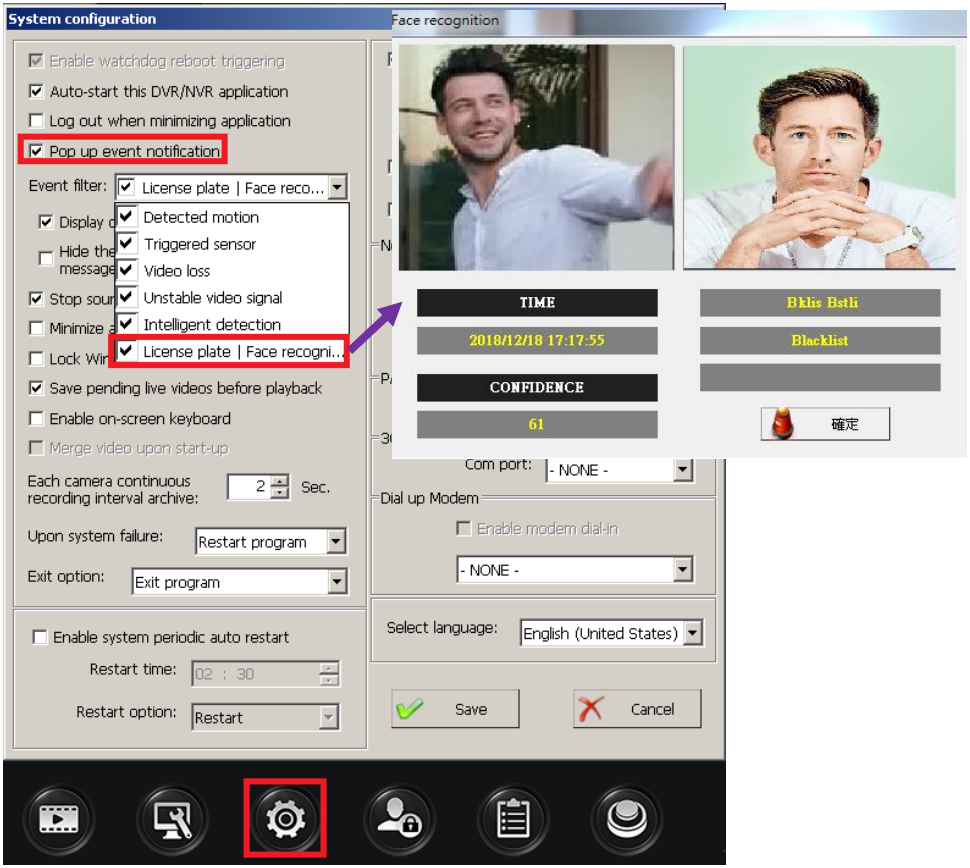



## 5-7 Pop up the image of face recognition




This section will allow pop up the image of face recognition when the face is recognized. Please follow up on the process below.

1. Click the system configuration icon.
2. Check the "**Pop up event notification** " icon.
3. Check "License plate /Face recognition" from the drop-down menu.
4. Click the **Save** icon to enable a pop-up message when the face is recognized.



# Chapter 6 Operate Object Classification and Counting Function

## 6-1. What are the object classification and counting functions?

✧ **System Introduction**

The AnyCam® object classification network cameras of i-View have a built-in AI algorithm, which functions object classification and counting. The so-called object classification is mainly to distinguish between cars and people, and the vehicles can further subdivide into different categories such as buses, cars, trucks, motorcycles, etc. And the object count is in a specific setting block or tripwire. When the object enters or leaves, the camera will add up or decrease or ignore the counting number based on the user's definition. i-View's DM-2MIPQ/IR-2MIPQ object classification cameras can connect to the AnyNet® NVR server to classify and count the object from the video of the camera and upload the identification and statistics results to the NVR host. At the same time, the NVR screen will display real-time statistical results and store these statistical databases in the log for analysis and comparison of statistical reports and future queries. It also allows users to export specific periods and cameras statistics.

✧ **The primary function of the system?**

The camera combines the function of object classification and counting, which can apply in many scenes, such as:

- Indoor crowd control application: When the crowd exceeds the set threshold, an alarm can automatically trigger.
- Visitors' statistics: The store can count the number of visiting customers every month, week, day, or period, and draw a chart to understand the number of visitors at different times, or compare the growth and decline of the number of visitors at other times.
- Smart Transportation application: Counting the traffic of various vehicles on the highway at different times to use this as a basis for traffic improvement.

✧ **High accuracy**

The AI function enables the camera to automatically detect the scene and automatically optimize the settings accordingly to improve the image recognition capability. The camera automatically detects the moving objects found in the image, moving speed, object, and light intensity

(day/night/front light), instantly optimizes settings and captures the best picture of the subject.

✧ **Reduce system cost and scalability**

The object classification and counting system of i-View combines a camera with AI recognition capability and an NVR. The front end uses an AI camera with object classification and counting. All real-time statistics store in the camera's SD storage; when the NVR server is connected, only statistics collect. The resulting data can automatically or manually upload to the NVR. All object classification and counting perform on the camera side, and the data processing load distributes among the cameras. The recording host aggregates all the statistical results instead of executing the identification processing. It can substantially reduce the burden of the NVR, significantly reducing the bandwidth and the hard disk capacity required for storing videos.

The object classification and counting system of i-View are different from traditional systems. It is no longer necessary to send high-resolution images to the server and only send statistical results, allowing up to 128 network cameras to connect to one NVR host. Compared with traditional systems that do not uses built-in object classification and counting, when the number of network cameras is 50 or more, the system cost of i-View can reduce by about 80% to 90%. This centralized management and distributed processing are adopted. The architecture has the advantage of not increasing the host load and infinitely expanding the system scale.

## 6-2. How to install and set up object classification and counting cameras?

This chapter will introduce the basic principles of camera installation and parameter setting to obtain the most accurate statistical results for object classification and counting. The rules of camera installation are as follows:

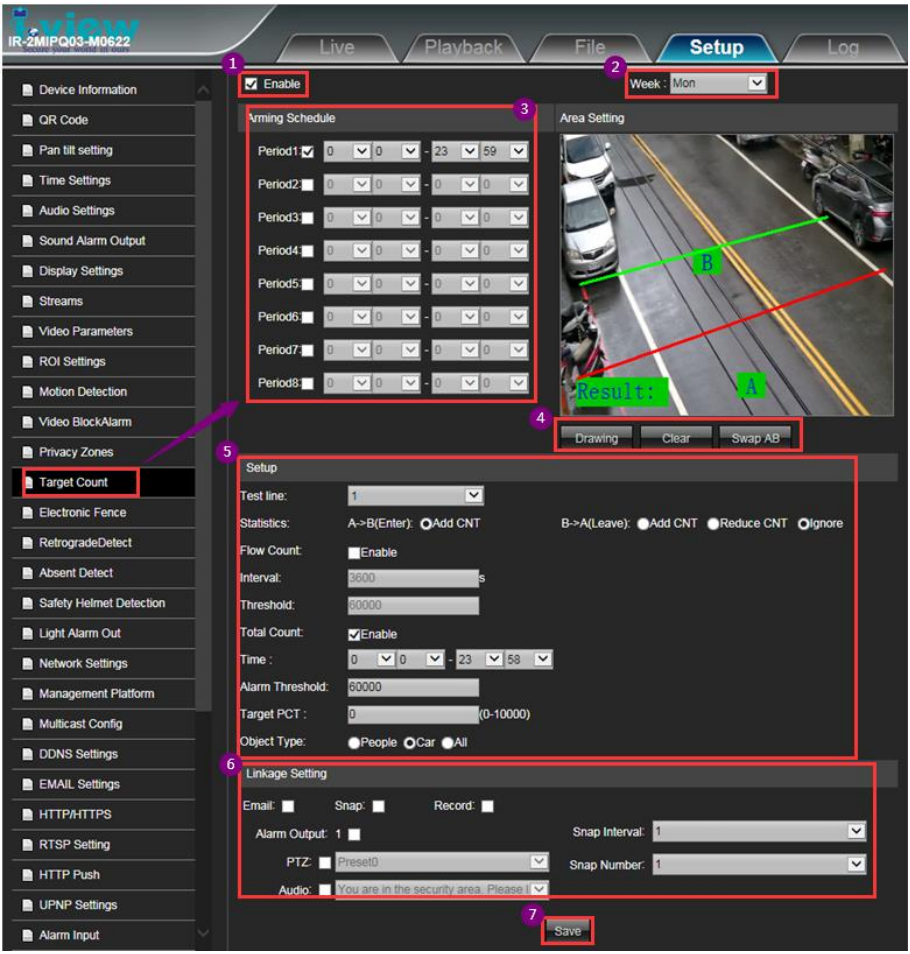
1. The appearance of the entire vehicle and or the complete human form can see.
2. Try to avoid overlapping objects; it is best to be able to distinguish each object.
3. Avoid overexposure, low light, and backlit shooting of the image.
4. The people counting tripwire setting must be based on the principle of the foot that can be touched when passing through.
5. Vehicle counting tripwire settings must be based on the principle of the front of the vehicle that can be touched when passing through.

To set the object classification and counting function parameters of the IP camera (DM-2MIPQ / IR-2MIPQ series), please follow the steps below:

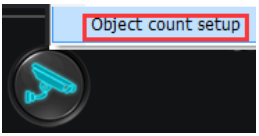
1. Log in to the camera through the I.E. browser, select the "**Setup** "→ "**Target Count**" option, and the following window will appear.
2. **Enable**: After checking the "**Enable**" option, select the detection schedule for object classification and counting. (Default is the whole day period).
3. **Test line:** Select the number of the tripwire; each line has its independent parameters setting.
   **Drawing:** Press the left mouse button and drag to draw the detection line, and click the right mouse button to end the drawing; after completion, the screen will show that A and B are on both sides of the detection line. Press the **Swap AB** button, and the positions of A and B will swap. Press the **Clear** key, and all the drawn detection lines will cancel.
4. **Statistics:** You can choose the entry direction (A→B or B→A) and define it as entering or leaving. When an object enters (leaves), you can choose to increase or decrease or ignore the count of the thing.
5. **Flow Count**: Refers to the number of people counted in a fixed period. After checking the Enable option, you can set the interval time and the threshold value. When the number of objects measured within the set interval exceeds the set threshold, an alarm signal will trigger.

6. **Total Count:** Refers to the number of objects counted in the specified time segment. When the count exceeds the set threshold, the system will send out an alarm signal.
7. **Target Proportion:** Refers to the proportion of the statistical objects in the overall screen. The setting range is 0-10,000. (0=Ignore)
8. **Object Type:** The counted objects can divide into people, cars, or all.
9. **Save:** Press the button to store all configuration parameters.

For more detailed settings, you can refer to the operation manual of the object classification and counting cameras attached to the product.



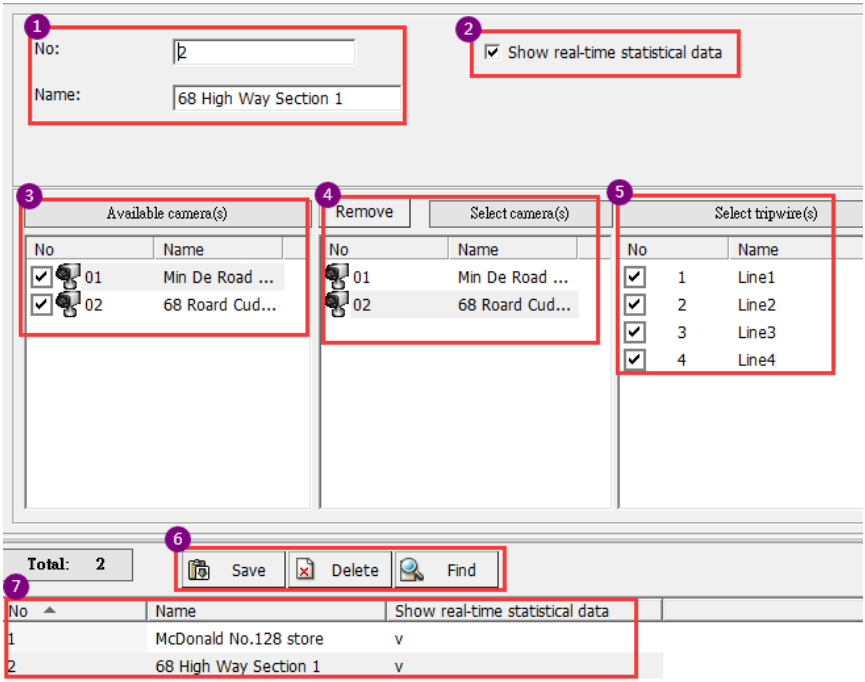
## 6-3. How to configure the object counting and show statistical data?



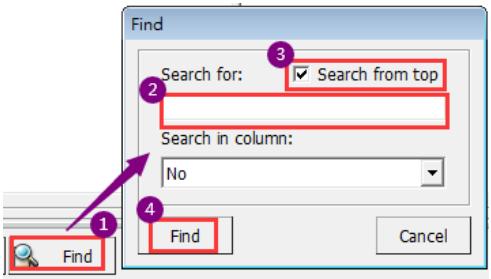

This chapter will descript the setting of object counting and the display of real-time statistical data.

Click button and select the "**Object count setup**" option to enable the following setting window. Follow the steps below to set up a single or group camera to display the real-time data of the object statistics.

1. Set the **No** and **name** of the group or single camera.
2. Check the **Show real-time statistical data** option.
3. Check the camera under the **Available camera(s)** field, and check the Tripwire No of each selected camera under the **Select tripwire**(s) field as the basis for the object statistics of the group.
4. **Remove:** Click on the camera in the **Select camera(s)** field and press the **Remove** button; the selected camera will cancel.
5. Press the **Save** button, and the set camera group name will appear in the window below. Selected the No. from the list of windows, and then click the **Delete** button to remove the selected item.

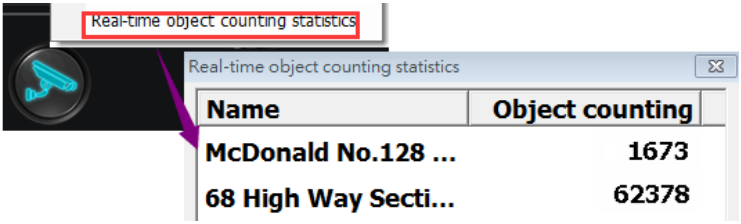


**6. Search:** Enter the group number in the **Search for** field and check the **Move to the top** option, then press the **Find** button; the selected number will display at the top of the list.

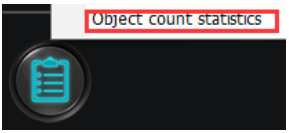



**Real-time object counting statistics:**

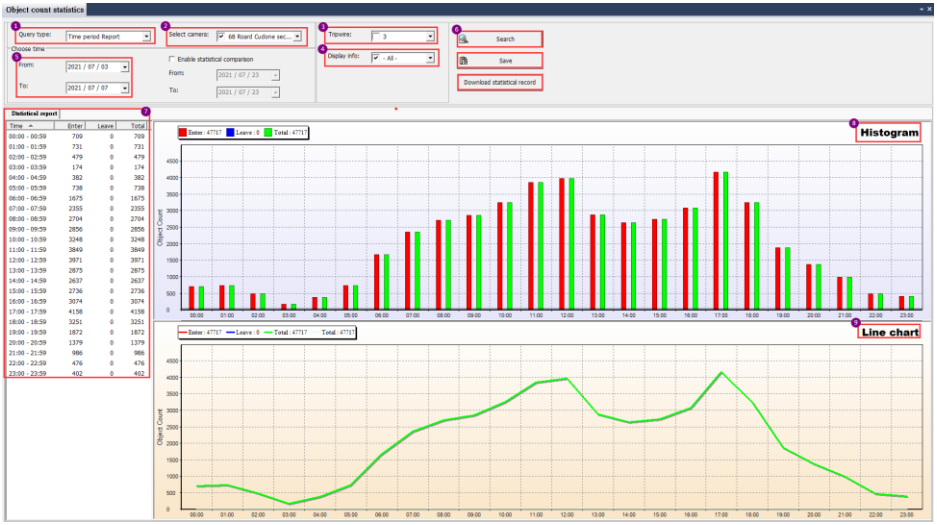
Click the button and select the "**Real-time object counting statistics**" option. The real-time object statistics data of all single or group cameras will appear.



## 6-4. How to check the objects count logs?

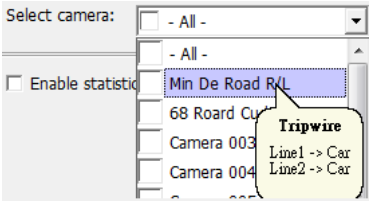



This chapter will descript the configuration of viewing, comparing, and searching object statistics logs.




Click button and select the **Object count statistics** option and the following window will be displayed. Follow the steps below to check the statistical reports:

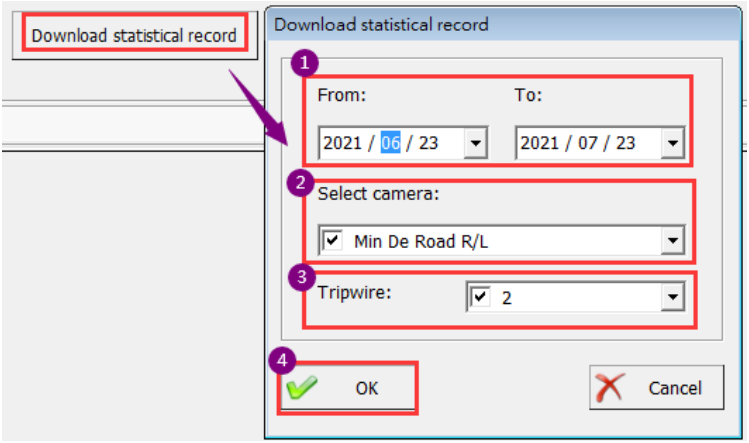
1. **Query type**: Select the query time in this option field; it supports period statistics, daily statistics, weekly statistics, and monthly statistics report forms.
2. **Select a camera**: Dropdown this option field to select the camera(s) that you want to query. Click on the camera and press the right mouse button twice to query the camera's tripwire No. and statistical object types.




3. **Select time**: Drop-down and check the time for querying the report in this option field.
4. **Tripwire**: Check the searched tripwire number in the drop-down menu in this option field.
5. **Display info**: Check the drop-down menu of this option field, which data will display in the reports, including entry, exit, and total.
6. **Search:** Press this button to display data, histograms, and line char forms in the lower window.
7. **Export:** Press this button to export the statistical data of the selected cameras.

Click the Download count button to display the right window. Follow the steps below to download object statistics from a connected camera:

1. Select the period during which statistics data needs to download.
2. **Select camera**: In this option field, drop down the menu and tick the camera that needs to download statistical data.
3. **Tripwire:** In this option field, pull-down and tick the number of the Electronic tripwire that needs to download statistics.
4. **OK:** Press this button to start downloading the counting statistics to the NVR.



## 6-5. How to configure the comparison of statistics data?

This function mainly compares the difference between the statistical data of the same camera or group at different times. Follow the steps below to check the statistical comparison of objects:

1. **Query type:** Select the query time in this option field; it supports period statistics, daily statistics, weekly statistics, and monthly statistics report forms.
2. **Select a camera:** Dropdown this option field to select the camera(s) you want to query.
3. **Select time:** Drop-down and check the time for querying the report in this option field.
4. **Enable statistical comparison**: Select the period for counting comparison in this option field.
5. **Tripwire**: In this option field, pull down the list and check the No. of the tripwire to be compared.
6. **Display info**: In this option field, select the report information to be compared in the drop-down menu, including entry, exit, total, and other options
7. **Search**: Press this button to display comparison report forms such as Data, Histograms, and Line chart graphs in the lower window.

# Chapter 7 NVR Software Operation

This chapter describes the functional aspect of the Witness Pro software application.

## 7-1. Surveillance NVR/NVR (Witness Pro)

The surveillance NVR/NVR is the primary application program of the I-View NVR systems. It provides comprehensive CCTV security solutions, including live monitoring, playback, video recording, motion detection, alarm notifications, E-map for easy site management, events logs, schedule recording, remote surveillance connection via WAN/LAN/Internet/Intranet, etc. Please see the instructions below for more in-depth details:

- **Start Witness Pro NVR program:**

- **Surveillance Witness Pro Program Descriptions:**

1. **Login/Logout Button** : You can log out as one user and log in as another with different privileges. The default username is "**root,**" and the default password is "**123**". This default user has full rights.

2. **Full Screen** **:** Enlarge to a full spilt screen, hide the toolbars and control panel. Or you can choose the current software screen (Such as eMap, Playback, Live video) to show on which monitor, if there are more than 2 (or more), monitors connected to this NVR. Press the "ESC" key of your keyboard to hide the toolbars and control panel. Later, you will have to press the "ESC" key to bring back the toolbars and control panel. If you have previously set "**Auto-logout**" within the system configuration, you may have to press on the "Alt-F4" or "Alt +I" key combination on your keyboard to bring up the login screen. It will allow you to first log in as a user with administrative privileges to bring back the toolbars and control panel.

Please make sure the resolution of all connected monitor settings is the same.

**:** Click to select a full screen or other multi-split screens.

**:** Click to switch the previous spilt screen or next split screen.

**:** Click to leave full screen and bring back the toolbars and control panel.

**:** Click to fix this control bar on the screen.

3. **Exit Button** **:** Exit Witness Pro program. If a crossed-hand icon appears instead, you must first log out and log in as a user with exit privilege.

4. **Minimize Button** **:** Minimize this program into the taskbar. If a crossed-hand icon appears instead, you must first log out and log in again as a user with exit privilege.

5. **Hide tools bar Button** **:** Hide the tools bar and click again to display the tools bar.

6. **Cameras configuration** **:** Set up various abilities (e.g., recording methods, alarm Notify, motion detection, failure notifications, etc.) for each audio/video channel.

7. **Video playback** **:** Run any of the following playback programs: "**Video playback**", "**Text insert playback**", and "**ezBackup**". Please refer to Chapter 6-4 for detailed information.

8. **Remote access setup** **:** Set up your NVR system network parameters for remote access.

9. **System configuration** **:** Configure the surveillance server's main general settings. There are three categories, including "**System configuration**", "**Video display configuration**," "**Connection ezDispatch Server setup**", "**Save / Load configuration**", and "**ezTools**".

10. **User access setup** **:** Manage a list of users with different access privileges.

11. **Application logs** **:** Review the user logins/logouts, motion detection records, video loss occurrences, remote user accesses, hard disk failure events, etc.

12. **Peripherals setup** : Set up the configuration of the peripheral device for advanced application.

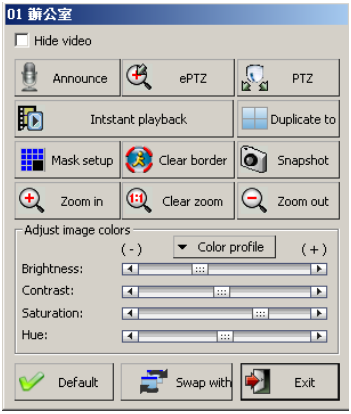
13. **Stop Alarm Siren** : Click to stop a sounding alarm.

14. **Storage Configuration** : Define the NVR video storage devices, Renew the Database manually, fine-tune the compression ratio and configure several video saving parameters.

15. **Public Address Configuration** : This icon will be enabled when the PAC-800USB/ PAC-800IP Public address server connects to the NVR or system.

16. **Video Control Panel:** On the right-hand side, you have many display/recordings control buttons, several PTZ camera control buttons, a TV channel selection list, and a visual e-Map utility tool. Please refer to **Chapter 6-13** for detailed instructions.

17. **Video Display Screen:** Display your enabled video channels. Double click on any video channel to enlarge its video images, and double click again to come back to the initial display mode. Right-click on any video channel to fine-tune the video parameters, take a snapshot, or hide the current channel's video images.




## Individual video channel attributes and functions:

To access the available video tools**,** right-click one of the video channels currently displayed to bring up a small window shown as the picture.

- **Hide video:** Blank out the currently selected video channel from the main screen while any recording sessions would not be affected.
- **Announce:** Allow announcing to this camera directly when the user needs to disclose information for the coverage area of this camera. This function affects when the NVR connects the Public address server or the IP camera, supporting audio output.

- ➢ **Audio input from:** Choice the audio input from the Sound card if installed more than one.
- ➢ **Speak voice format:** Select speak out voice format.

- **Transform voice format:** Choice of different compression formats for the audio converter.
- **Adjust volume:** Adjust the audio volume for the announcement.
- **Start / Stop:** Enable and disable the announce function.

We strongly recommend installing another sound card on the NVR system for the announced purpose. One sound card for alarm purposes on the NVR site, another sound card for reveals, or a 2-Way audio function between the NVR and camera.

- **ePTZ:** Press this icon to enable digital Pan / Tile / Zoom function and control via ePTZ Press. This icon allows enabling digital Pan / Tile / Zoom function and control via the mouse. The process describes as below:
  - Click the right button of Mouse and press the " **ePTZ**" icon (Digital process) to enable Digital PTZ (Pan / Tile / Zoom) function and click again to disable it.
  - Move the Mouse to the video which you want to control this camera with Digital PTZ.
  - Click the roller of Mouse and then click any point of the image. The image will move to the central area and zoom in (The IP camera will pop up video simultaneously, but the analog camera will not). Click the roller again will go back original video position.
  - Keep pressing the Mouse's left button and moving the mouse to the left /right/ up/down position. The image of the video will follow up the moving direction.
  - Scroll up the roller of Mouse to zoom out the video and scroll down the roller to zoom in.
- **PTZ:** Press this icon allows using the Mouse to control PTZ cameras for the Pan / Tile / Zoom function from the image directly. The process describes as below:
  - Click the right button of Mouse and press the "**PTZ**" icon (for PTZ camera) to control PTZ (Pan / Tile / Zoom) function from the image directly and click the icon again to disable it.
  - Move the Mouse to the video of the PTZ camera which you want to control. Keep on pressing the Mouse's left button and moving the mouse to the left /right/ up/down position, and the PTZ camera will follow up the moving direction.
  - Scroll up the roller of Mouse to zoom out the video and scroll down the roller to zoom in video continually; you can click Mouse's right button to stop zoom in/out.

- **Instant Playback:** Playback instantly the latest recorded video.

**Play:** Play video.

**Stop:** Stop playing video.

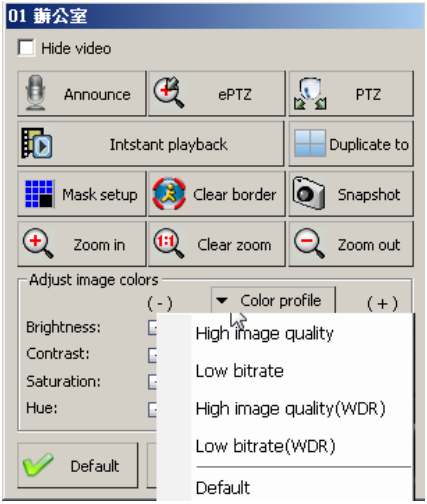
**Snapshot:** Capture the video screen and save as a BMP, PDF, PNG or JPEG file.

**Resize:** Resize the video chip.

**Navigation Bar:**

Display the current position of the video clip and allow users to move the video clip in different points. Left moves backward, right move forward.

- **Duplicate to:** Duplicate this selected channel to show the video on the second monitor if the NVR connects dual monitors. This function just can be enabled when the NVR connects to more than one monitor.
- **Clear border:** Remove the surrounding red border around the currently selected video channel. Please note that this red border only shows up upon motion-triggered recording.
- **Adjust Image Colors:** Adjust the brightness, contrast, saturation, and hue levels for the selected video channel's live images.




- **Color profile:** Click this icon, and you can change the color profile into the IP camera's video parameters.

**High image quality:** will get better video quality, but the file size will be more significant.

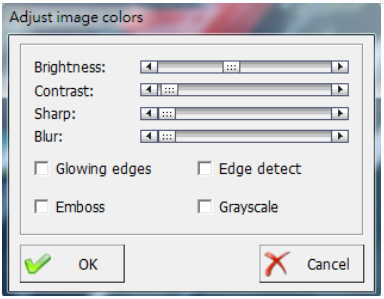
**Low bitrate:** will get the worse video quality, but the file size will be smaller.

**Default:** The video parameters will become to default setting.

1. The color profile of High image quality (WDR) and Low Bitrate (WDR) can use for the IP camera, which provides the True WDR function.
2. The color profile setup function can use for the I-View's IP camera only.

- **Default**: Bring back to the original settings.
- **Swap with:** Swap the on-screen positions of two different video channels. For example, if you wanted channel #1 to appear at position #15 and vice versa. There are two ways to swap the video channel.
  1. Click the "Swap with " icon and select the camera number you want to swap with the current camera from the drop menu. Click the "**Default**" icon the video display position will go back to default.
  2. Move the Mouse to the video, press the Mouse's right button and drag to the video channel which you want to swap, then release the button to exchange the video position.
- **Exit:** Click this button to exit the video tools window.
- **Snapshot:** Take a single picture of the selected channel's live image and save the snapshot picture on the disk.

**Adjust image colors:** Adjust the image contrast level and edit the picture within the snapshot picture.




**Normal:** Return to the original color format of the snapshot picture.

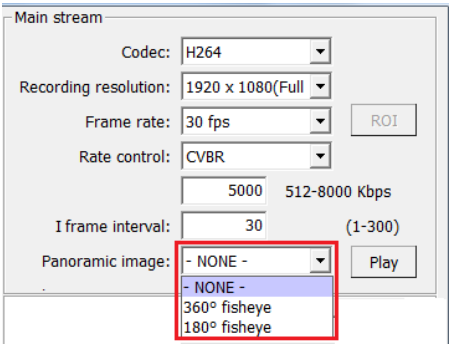
**Save a file:** Save the current snapshot picture in the disk (diskette, hard disk, USB flash drive, etc) in BMP, PNG, PDF or JPG file format.

**Print:** Print out the current snapshot picture if the printer is available.

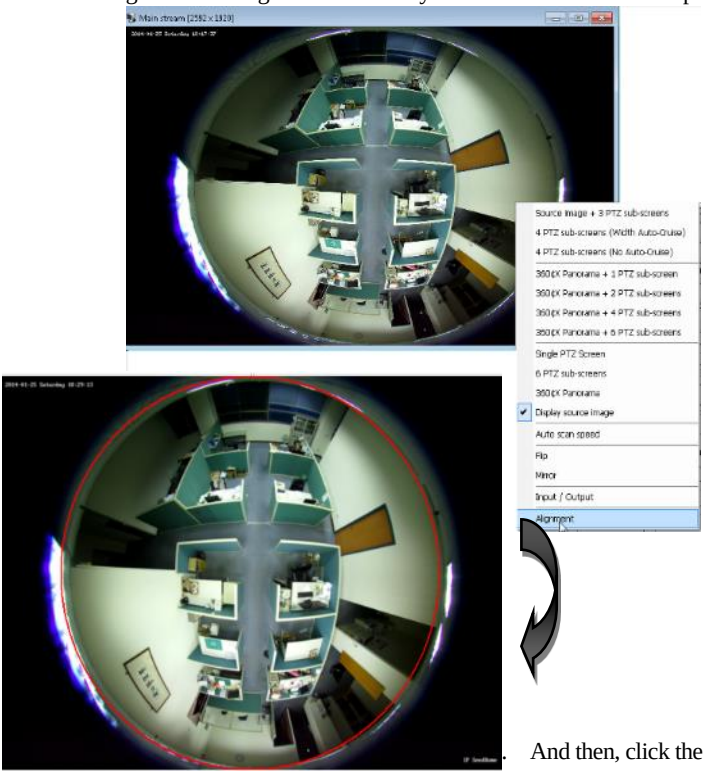
## 7-2. How to setup Fisheye camera for 360°/180° Panorama viewing

The Witness Pro software provides the 360°/180° Panorama viewing function for the Fisheye IP camera. Please follow up on the process as below when you use the Fisheye IP camera.

**Pre setup:**




1. Select the 360°/180° Panorama viewing mode from the ezSetup program. The Ceiling Mount should select 360°, and Wall Mount should be 180°.
2. There is the deviation of view angle. To help you to get the most significant view angle and avoid dark view angle, you may need to change the view angle for each Fisheye via software as the below process:




. And then, click the right button of

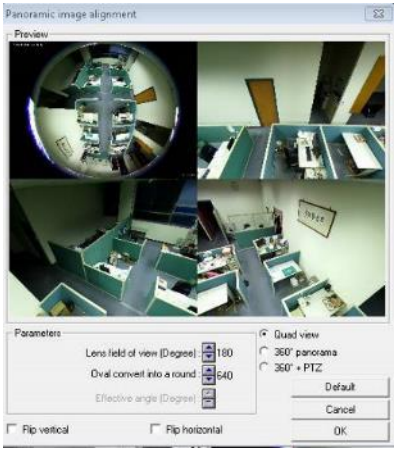
Mouse and then select the " **Alignment** " item if you need to fine-turn the view angle of the video.

b. Move the " **Red circuses**" into the effect video as more extensive as possible. Please do not let the " **Red circuses**" over the footage; otherwise, there is a dark image when selecting the split video.

c. You can do the fine-tuning from the parameters to let the view angle be as comprehensive as possible without over the video area. Please refer to the diagram below.

180° fine turning

360° fine turning

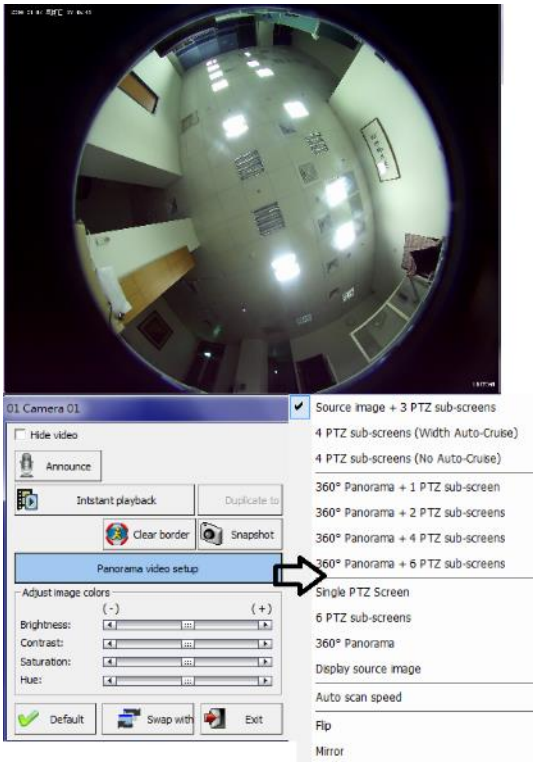



- **For 360 degree:** Let the Red circuses as more significant as possible but cannot exceed the image. Otherwise, the image will show a dark picture. The video will be changed when you adjust the video angle to get the most prominent view possible without the dark area.
- **For 180 degree:** If y For 180-degree: If you put the Fisheye on the wall for 180° view, you can ignore the top of the vertical angle and adjust to cover all horizontal views as big as possible.

**Operation:**

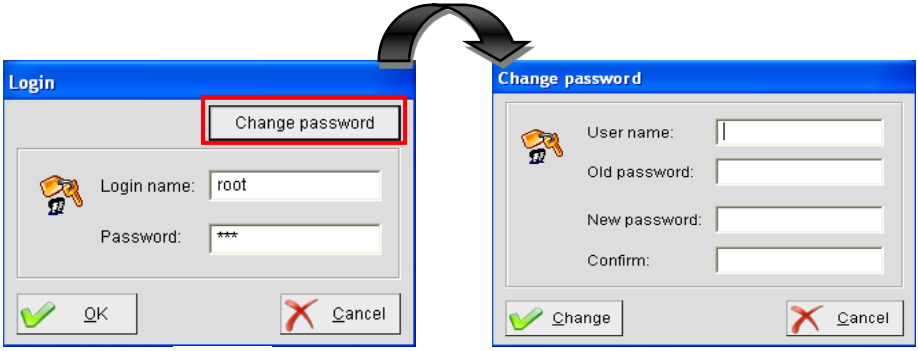
3. To access the Panorama s display tools when you run on Witness Pro software, move and right-click the Mouse on the currently displayed video channel of the Fisheye IP camera to bring up a small window shown as the right picture. Click the "**Panorama video setup** " icon you will find out the setting parameters. There are multi modes of video displays for

different applications. The fisheye IP camera will show the original video on the screen when showing the split video on the screen; double click the fisheye camera video will pop up the selected video mode on the screen. The software provides 12 types of image display ways, and the user can base the application to choose the split video on the screen.

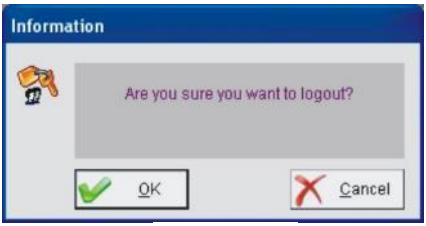


## 7-3.Logging in the Witness Pro program

To log in as a user, click button from the top-right corner of the Witness Pro surveillance program. You can also change the username and password when you log in. To log out, simply click the same button. The default login username and password are "**root**" (lowercase) and "**123,**" respectively. That default login profile may interchange with your own (recommended).

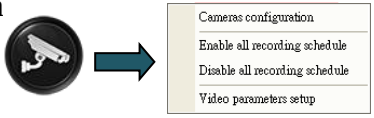



**Login**



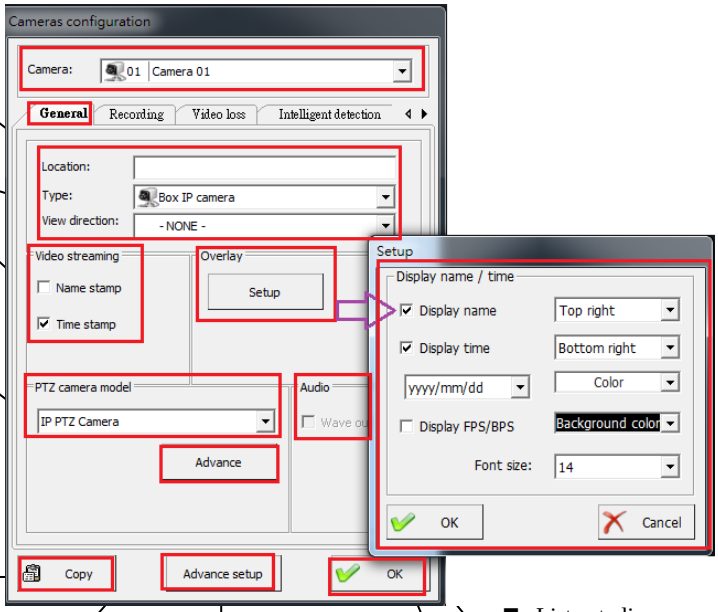

**Logout**

## 7-4. Camera configuration




### 7-4-1. Camera configuration:

**General:** This menu field primarily uses to set up the OSD options (which text overlay to show in the videos) and name the locations of the installed cameras. To access this setup section, simply click the "**General**" field at the top from the "**Cameras configuration**" window.

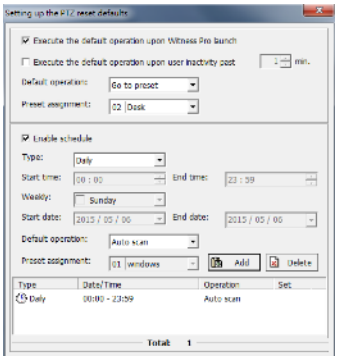



■ Setup the text, time stamp format and BPS/FPS to overlay display on live video.

■ Select icon type and view angle on eMap. Enter camera name and check name/time stamp to show video stream.

■ Enable IP PTZ camera selection.

■ Duplicate another camera's settings to the current camera.



■ Detail setup the IP camera parameter from I.E. Browser.

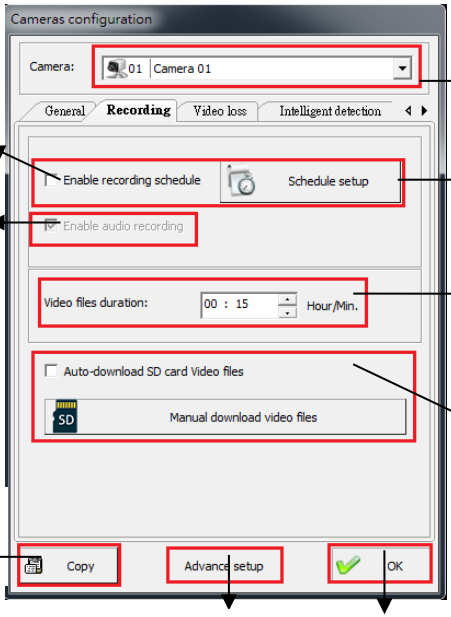
■ Listen to live audio via a 2Vp-p microphone.

■ Confirm and exit.

■ Click "**Advance**" button to enable your PTZ camera return to a default preset position after system reboot or inactivity for certain period
**Default operation:** Select "**Auto scan**", "**Preset scan**", or "**Go to preset**"
**Preset assignment:** Select camera for "**Go to preset**" and can setup the schedule running

**Recording:**

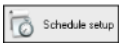
This menu field primarily uses to set up the video & audio recording functions. To access this setup section, simply click "**Recording**" field at the top of the "**Cameras configuration**" window.




- Activate the recording schedule.
- Activate audio recording. This function is only available with audio capable NVR models.
- Duplicate another camera setting to the current camera.
- Camera selection
- Set up video recording schedule.
- Set up as a maximum video streaming file size determined by minutes or hour.
- Check this function will auto or manual download the video files of SD card and merge into the NVR database for playback.
- Enable the I.E. Bowser to detail setup the parameter of IP camera.

Confirm and exit.

## Creating a recording schedule:

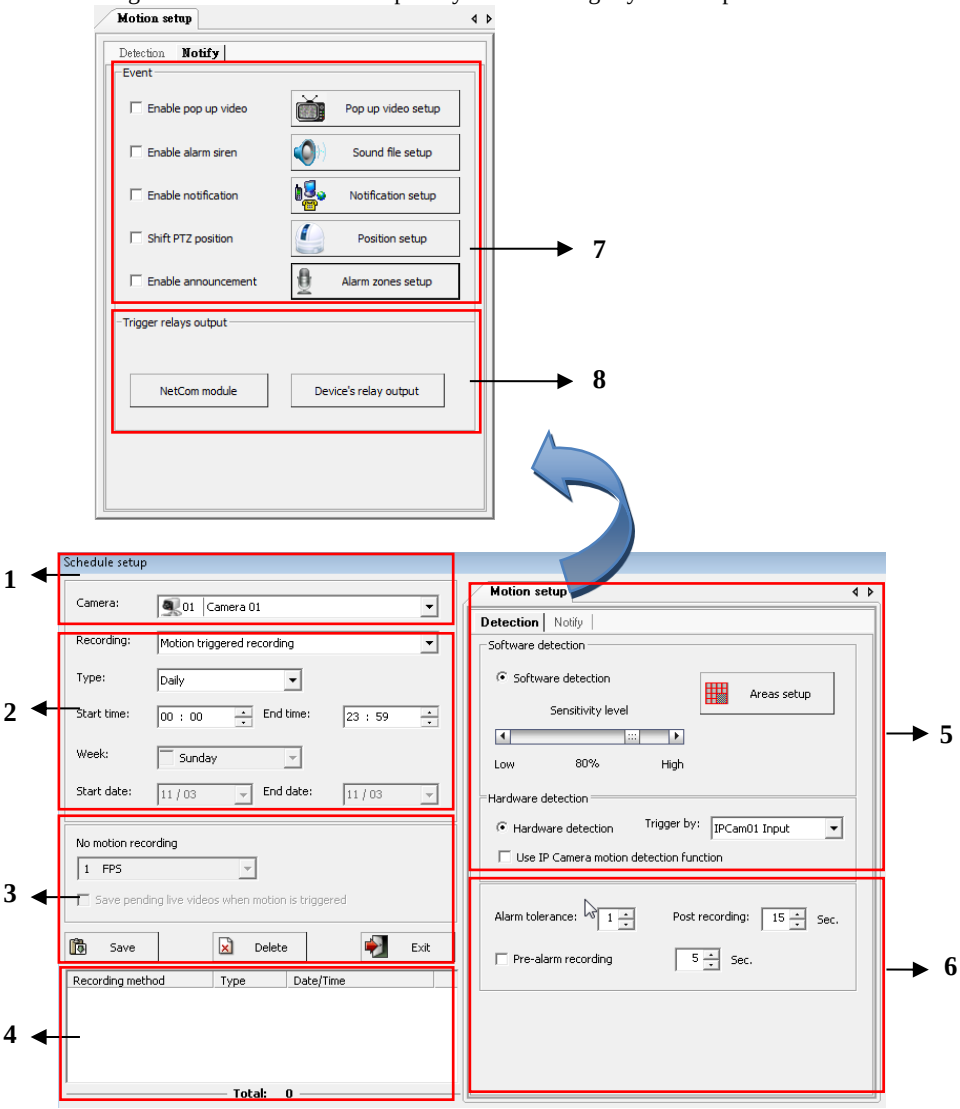
The primary purpose of a recording schedule is to determine if the NVR should record as "**Continuous recording**," "**Motion triggered recording**" or, "**Hybrid recording**." Click 

from the "**Recording**" field to bring up the "**schedule setup**" window. Please note if the user checks "**Enable recording schedule**" only without setting the schedule, the NVR will record the videos for 24 hours.

### ■ Section 1:

- **Camera:** Choice the camera which you want to set up the recording schedule and mode.
- **Continuous recording:** Non-stop record videos.
- **Motion triggered recording:** Record only upon motion detection. You can also select "**No motion recording**" to record continuously, whether the activity trigger or not.

**Hybrid recording:** Record high frame rate only upon motion detection and non-stop recording with slow frame rate without any triggered. You can select the frame rate from the "**No motion recording**" field to record continuously, whether the motion trigger or not. Using this recording mode can save the HDD capability without losing any video clips.



## ■ Section 2:

- **Type:** The user can set up a recording schedule for "**Daily**," "**Weekly,**" or "**Special duration**."
- **Start time & End time:** Set up the time frame for the recording schedule. Here's a classic sample recording schedule: "**Motion-triggered recording**" from 00:00 to 07:59; "continuous recording" from 08:00 to 16:59; "motion-triggered recording" from 17:00 to 23:59.

You should always set your complete schedule start at 00:00 and end at 23:59. Never overlap the time entries, such as from 00:00 to 12:00 and from 12:00 to 23:59. It should start from 00:00 to 11:59 and from 12:00 to 23:59.

- **Start date & End date:** Select dates for recording in "**Special duration**."

## ■ Section 3:

- **Frame Rate:** You can set up the recording frame rate for each schedule entry.

you set the recording frame rate higher than what the IP camera can physically offer, the recording frame rate will be the maximum IP camera can output speed.

- **No Motion Recording:** This option is only available under the "**Motion-triggered recording**" mode. When it checks, you can record the videos even if no motion trigger in any incidents. It advises setting a much lower recording frame rate here to save disk space.
- **Save pending live videos when motion is triggered:** When the signal is activated, the pending video stream will automatically save as a file. Subsequently, the action starts video stream will save into a separate file. This segregation makes your motion-triggered playback videos easier. Still, you may somewhat inadvertently truncate the beginning of the motion-triggered videos, mainly when you do not enable the pre-recording function or set the motion-sensing sensitivity too low. The pre-recording process and motion-sensing settings will discuss later on in this chapter.

## ■ Section 4:

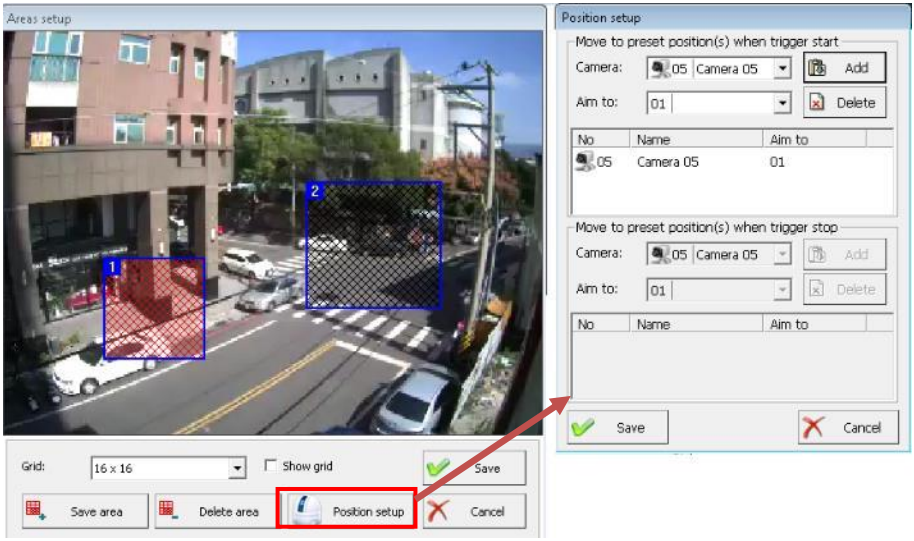
- **Schedule entries list:** This is a list of the set recording schedule entries. To edit one of the listed entries, simply double-click the entries appearing in the list. Once the editing is done, you may click the "**Save**" button to save your changes or the "**Exit**" button to discard your

changes. To delete entries, highlight the scheduled entry and click the "**Delete**" button.

## ■ Section 5:

The Witness Pro NVR system provides intelligent video detection functions, and the description as below:

➢ **Motion setup:**




The user will be fine-tuning how the NVR starts recording if people or objects move from the angle of view. To access this section, simply click "**Motion setup**" from the "**Select detection**" drop bar. There are "**Software detection**" and optional "**Hardware detection**." For hardware motion detection, the user will need to purchase a PCI I/O board or use the I/O ports of IP camera to connect its existing burglar alarm motion detectors. The motion setup can only affect if the user selected "**motion-triggered recording**" from the recording schedules. (See **"Schedule Setup"** from "**Recording**"). The user can verify if you have correctly activated the recording schedule for specific cameras from its number button on the "**Video control panel**." The camera number shall appear as light blue (scheduled to record) or red (currently recording).

**Software Detection** – You can select and frame multiple areas in the camera's view for software

detection. This function will help you save disk space, but it will also produce various false alarms. Consider hardware detection for better performance.

**Sensitivity Level** –You can adjust the sensitivity of the software motion detection. Simply move the slider bar to the right side to increase the sensitivity level or to the left side to decrease it.

When you choose a level of motion sensitivity, you shall take into consideration unavoidable movements. For example, if you have a blowing fan nearby, it may produce some activities in the video. Adjusting the sensitivity will filter out this issue.

**Areas Setup** – Select the specific areas from the view of the camera for motion detection.

➢ **To add a new area of detection, please follow the steps shown below:**

**Step 1.** Flame and drag on the video image to select the desired detection area by your mouse.

**Step 2.** Click button to add the new selection.

**Step 3.** Click the "Position setup" icon to trigger speed to move the preset position when the motion trigger (or stop).

**Step 4.** To set up other detection areas, repeat Step 1 ~ Step 3.

**Step 5.** Choose the sensitivity level of motion detection to suit the environment application.

➢ **To delete a pre-set detection area, follow the steps shown below:**

**Step 1.** Select a detection area by right-clicking on it. This area will become blue.

**Step 2.** Click the "**Delete area**" button. This area will be disappeared window.

**Step 3.** To delete other detection areas, repeat Step 1 and Step 2.

If you don't define specific detection areas, the full view of the video will be the detection area.

➢ **Hardware detection (Via IP camera)** – You can use hardware detection (IP camera alarm input) for more accurate motion sensing or use the Motion detection function of the IP camera, which will save the CPU loading of NVR. For example, light changes do not trigger false alarms, but it does with software detection (Including IP camera motion detection).

- **Alarm input of IP camera or NVR**: You can select a motion-sensing device from the "**Triggered by**" drop-down menu to choose the hardware alarm input from the IP camera of the I/O board of NVR. Once you connect the trigger signal onto the "**Sensor in**" of the "**Control board**" (NVR add-on by optional) or IP camera, the NVR will automatically activate an alarm output and start to record when receiving the triggered signal.

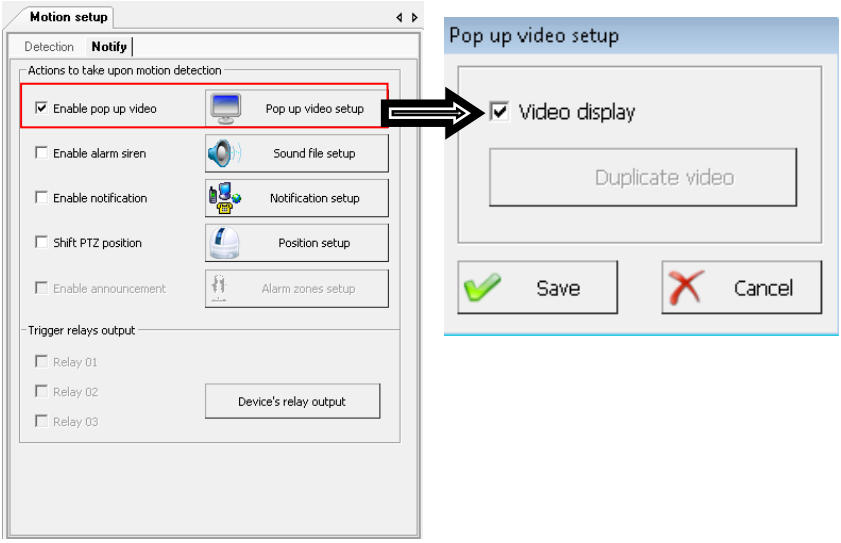
- **Use IP camera motion detection function:** Check this icon to use the motion detection function of the IP camera. You MUST set up the motion detection from the IP camera via Browser. For detailed information, please refer to the manual of IP cameras. Use this function will save the CPU loading of NVR.

## ■ Section 6:

- **Alarm Tolerance** – You can define the acceptable movements to prevent false alarms movements. For example, if the tolerance sets to 2, the actions in the video must be occurred at least three consecutive times to trigger the alarm and start to record this video channel.
- **Post recording** – You can set the duration to continue recording after motion is no longer detected. If the period is between one motion detection occurrence and a subsequent motion detection occurrence, the two instances will combine into one alarm/recording session.
- **Pre-alarm -** The camera will start a new motion-triggered recording session at least 1~99 seconds before the event occurs. The pre-alarm recording video will save into the HDD with about 2 FPS recording rate speed.

## ■ Section 7:

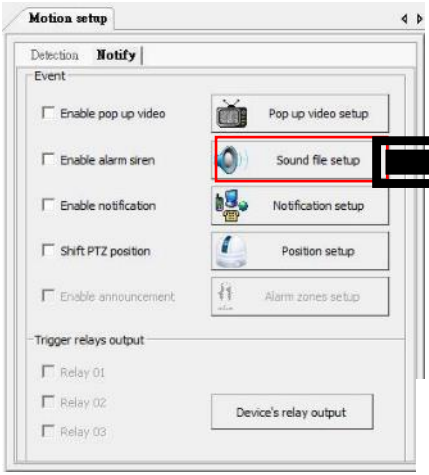
**Actions to take upon motion detection:** This section will allow you to set up what the NVR software should act when the motion detection is triggered. Please refer to the introduction below for setup details:

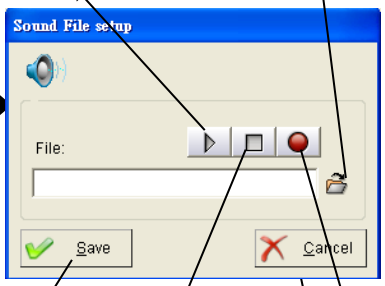


➢ **Pop video setup:** Check this icon, and the video will pop when the trigger and allow assigning the monitor to display the pop-up video. Click the "**Duplicate video**" icon to give the display monitor if you connect more than one monitor on the NVR.

➢ **Enable alarm siren:** The NVR can sound an alarm upon motion detection. Make sure your NVR equip with a pair of PC speakers. Click

button for setup.




■ Play a siren or your voice message.

Select an audio file for alarm siren.

■ Save your audio selection and exit the setting

■ Halt the current playing session.

■ Exit without saving your audio selection.

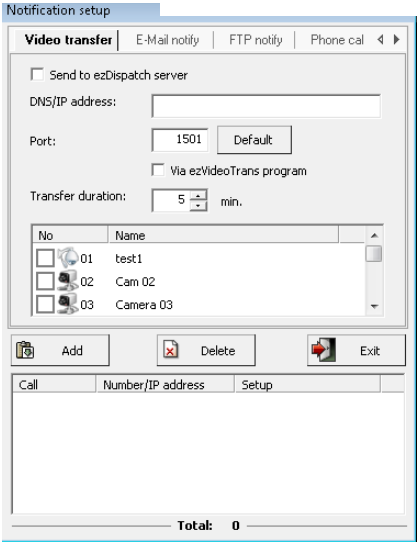
■ Record your voice message via your PC's microphone.

➢ **Enable alarm siren:** The NVR can sound an a
NVR is equipped with a pair of PC speakers.
Click

button for setup.

➢ **Enable notification:** Notification by phone call, SMS message, an email notifies, upload to FTP server, and live videos transferred to a remote site PC when motion detection is triggered.

**Notify by Video transfer:** Upon motion detection, the NVR system will automatically send and record the selected live videos to a remote PC (with



FreeView Pro standby). Please follow the steps below for setup. Click the "**Video transfer**" field.

**Step 1.** Check if the user would like to send the live video to "**ezDispatch Server**" and distribute the live video to the available CMS platform. This function is for an extensive system, and the control center has more than the CMS platform.

**Step 2.** Check if the user would like to send the live video to "**ezDispatch Server**" and distribute the live video to the available CMS platform. This function is for an extensive system, and the control center has more than the CMS platform.

Would you please make sure the ezDispatch is enabled or not when you want to use this function?

**Step 3.** If the user wants to send the live video directly to a remote PC, type the remote PC's **IP address** or **DNS address. TCP/IP port** number (default port "**1501**") for the transfer connection.

**Step 4.** Determine the **Transfer duration** in minutes.

**Step 5.** Sect the desired video channels to transfer the live videos to remote site PC.

**Step 6.** Click the **"Save"** button to save your pending entry, which will list at the bottom of this window.

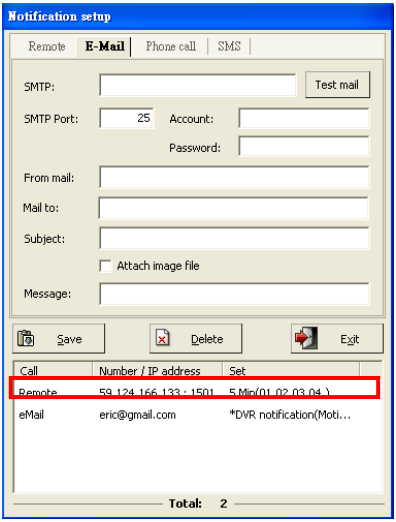
**Step 7.** Repeat steps 2 through 6 to add another "**Remote**" transfer live video notification entry.

The TCP/IP port number you choose must match the one set up in the FreeView Pro program at the remote PC; otherwise, the connections will fail. Please note you also need to open from your router configuration for remote PC. Check your router manual for more info about "**port forwarding**" or "**virtual server**."

**Notify by Email:** Upon motion detection, the NVR system will automatically send e-mail messages to the registered email recipients. Please follow the steps below to set up e-mail notification entries.

**Step 1.** Click the "**E-mail message**" field

**Step 2.** Enter the address of the SMTP server provided by your ISP.



**Step 3.** Type the default port "**25**" for connections.

**Step 4.** Enter the email account and password for sending the notification emails.

**Step 5.** Type the email address for sending the notification emails in the "**From mail**" field.

**Step 6.** Type the email address for receiving the notification emails in the "**Mail to**" field.

**Step 7.** Fill "**Subject**" and "**Message**" fields to identify the email messages.

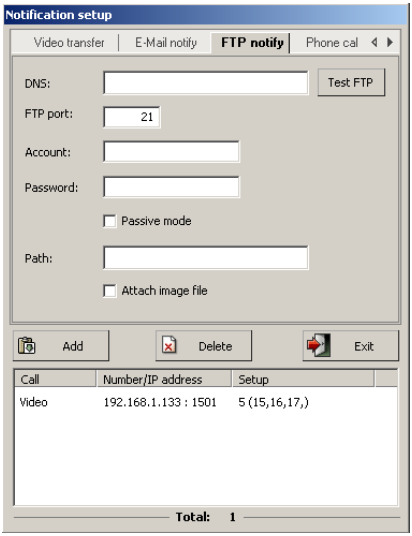
**Step 8.** Check if the user would like to receive the attached snapshot picture.

**Step 9.** Click the **"Save"** button to save your pending entry. That entry will list at the bottom of this window.

**Step 10.** Click "**Test mail**" to check if the setting is correct or not.

**Step 11.** Repeat Step 2 to Step 6 to add other E-mail message notification entries.

**Notify by FTP server:** Upon motion detection, the NVR system can send the trigger message to the FTP server and save the trigger information as a text file. You will get the trigger information from the file, such as HYBRID NVR/NVR Name, Camera number, Event, and Timestamp. Please follow the steps below to set up FTP server notification entries.




**Step 1.** Click the "**FTP notify**" field.

**Step 2.** Input the DNS name and port number (default is port 21) which the user wishes to send the triggered information to this FTP server.

**Step 3.** Enter the "**User name**" and "**Password**" of the FTP server for login.

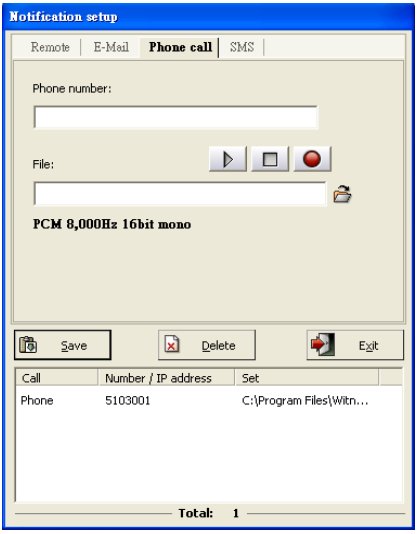
**Step 4.** Enable "Passive mode" for some particular FTP server. Ask your MIS staff for the detailed setting.

**Step 5.** Entry the saving path and check the "**Attached image file**" icon if you needed.

**Step 6.** Click the "**Save**" button to save your pending entry. This entry will list at the bottom

section of this window.

**Step 7.** Repeat **Step 2 to Step 4** to add other phone call notification entries.




**Notify by Phone Call:** Upon motion detection, the NVR system can dial the listed phone number(s) and play a recorded message or siren. Please follow the steps below to set up phone call notification entries. Before setting up for phone call notification, please refer to "**System configuration**" for dial-up voice modem setup.

**Step 1.** Click the "**Phone call**" field.

**Step 2.** Input the phone number the user wishes to call.

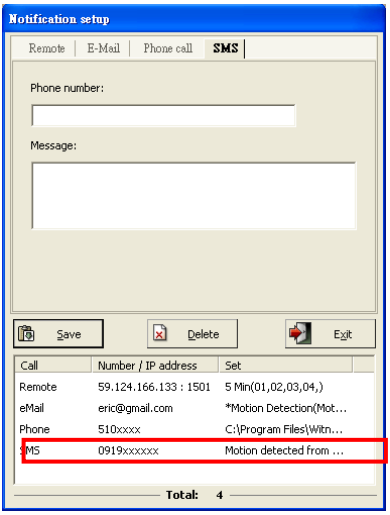
**Step 3.**Click the "**Sound File setup**" button to choose an alarm siren or record your voice message.

**Step 4.**Click the "**Save**" button to save your pending entry. This entry will list at the bottom section of this window.

**Step 5.**Repeat **Step 2 to Step 4** to add other phone call notification entries.

3. If the user wants to record his voice message, the ".WAV" file format must be 8000Hz, 16-bit, and Mono for phone calls notify.
4. If the user wants to set up the phone notification wave file from the system file, the warn.wav file should support 8000Hz, 16-bit, and Mono format.
5. Each phone call notification entry can have its unique audio stream. Each phone call automatically disconnects after a one-minute duration, even if your voice message is longer than one minute.
6. It would be best if you used an approved Voice Dial-Up Modem.
7. If the user's telephone system requires an extension number to input, please use one or several commas (,) to separate the phone number and the extension number. The number of commas requirements depends on the system, so test it beforehand.

**Notify by SMS message.** Upon motion detection, the NVR system will automatically send the SMS message to the registered mobile phone. Please follow the steps below to set up SMS message notification entries. Before setting up for SMS message notification, please refer to "**System configuration**" for the 3G modem setup.




**Step 1.** Click the "**SMS message**" field.

**Step 2.** Input the mobile phone number.

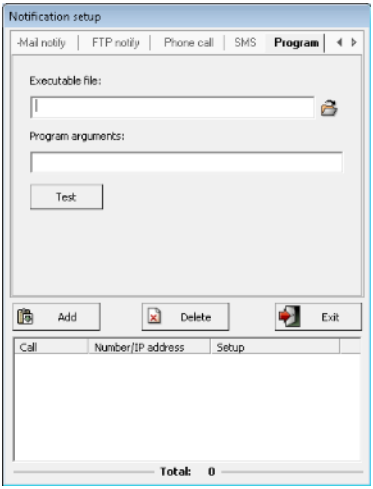
**Step 3.** Type the SMS message.

**Step 4.** Click the "**Save**" button to save your pending entry. That entry will list at the bottom section of this window.

**Step 5.** Repeat steps 2 through 5 to add another SMS message notification entry.

It would help if you used an approved 3G Modem for sending an SMS message to a mobile phone.

**Enable third party Program:** Upon motion detection, the NVR system can enable the pre-installation third party program. Please follow the steps below to set up **third-party program** entries.

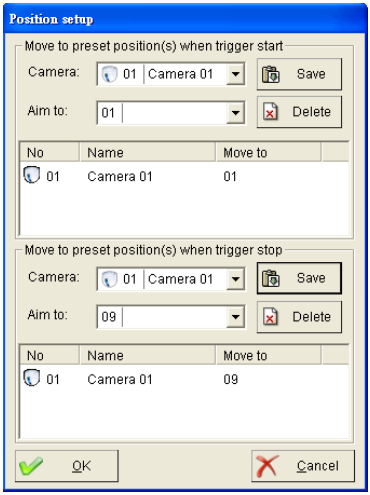



**Step 1.** Install the Third-party program first.

**Step 2.** Choice the path of program and entry " **Program arguments** " (If it is needed).

**Step 3.** Click the " **Test** " icon to make sure the function will work out properly when the event is triggered.

- **Shift PTZ position:** Upon motion detection, the PTZ camera can automatically move to the aiming position(s) of one or more or whatever the preset position(s) the user has defined. Please define the preset position from the "**Video Control Panel**" before setup. For more information about PTZ installation, please refer to the RS-485 control card (e.g., NC-3213USB) user manual.




**Step 1.** Select a PTZ camera from the "**Camera**" drop-down menu in the "**Move to preset position(s) when triggered**" section at the top.

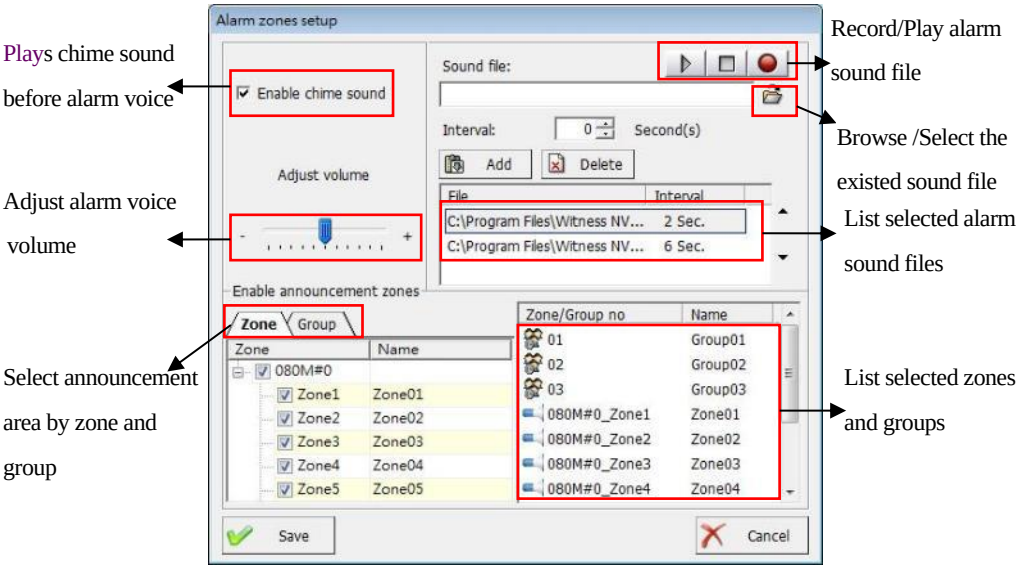
**Step 2.** Select a preset position from the "**Aim to**" drop-down menu in the "**Move to preset position when triggered**" section at the top.

**Step 3.** Click the "**Save**" button on the right to add your new entry to the list.

**Step 4.** Repeat Step 1 to Step 3 to add other PTZ cameras to move upon motion detection.

For the "**Return to preset position(s) when stop trigger**" setup, please follow the same procedures with the "**Move to preset position(s) when triggered**" section.

- **Alarm zones setup (Optional):** This function can be enabled when the **public address server** connects to the NVR. The public address server will announce to the camera site via a group(s) or zone(s) automatically when the NVR is triggered. Follow up the steps shown below to setup the announcement area:




**Step 1.** Choose the "**Zone**" and "**Group**" where they will announce when NVR is triggered. For the detail setting process of "**Zone**" and "**Group**," please refer to the "**Public address configuration**" chapter.

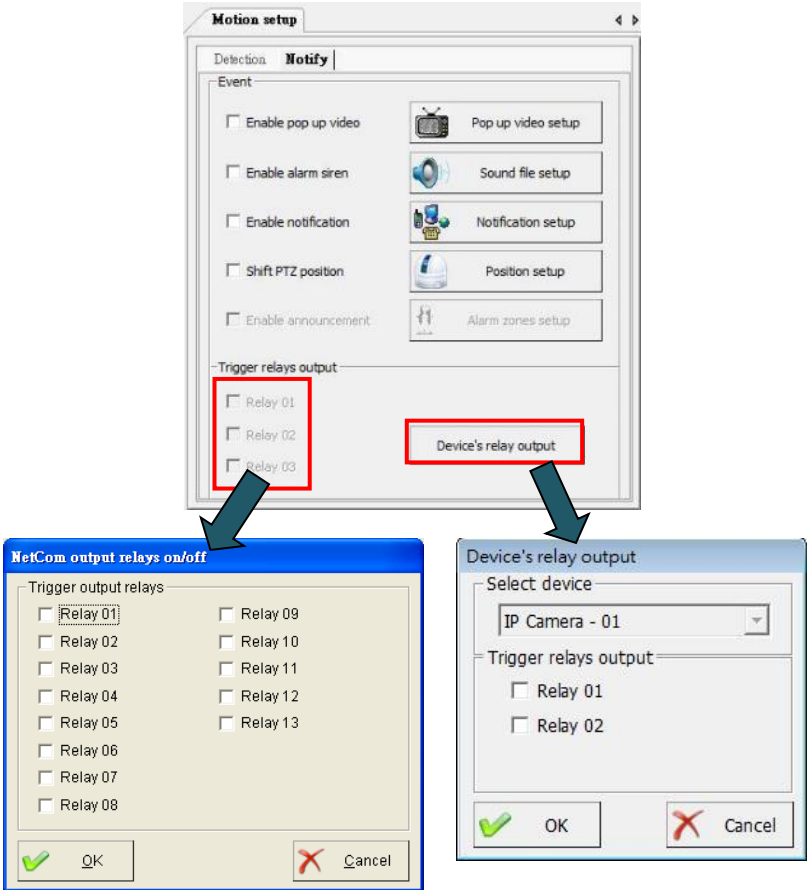
**Step 2.** Record or choose the existing alarm sound files, set up the interval period between files, and press the "**Add**" icon to save the file. Click the selected files and click "**Delete**" to remove the desired alarm sound file.

**Step 3.** Enable chime sound if you want to play chime sound before alarm sound.

**Step 4.** Adjust the audio volume for the play alarm sound.

**Step 5.** Click the "**Save**" or "**Cancel**" icon to finish and exit the setting process.

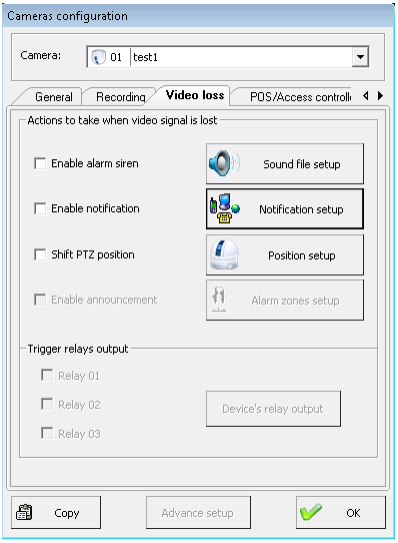
- **Trigger output relays:** The user can select the output relays from Relay 01 to 13 in the "**Controller board**" or select the output relays from each IP camera or NC-180AZ PTZ receiver module.



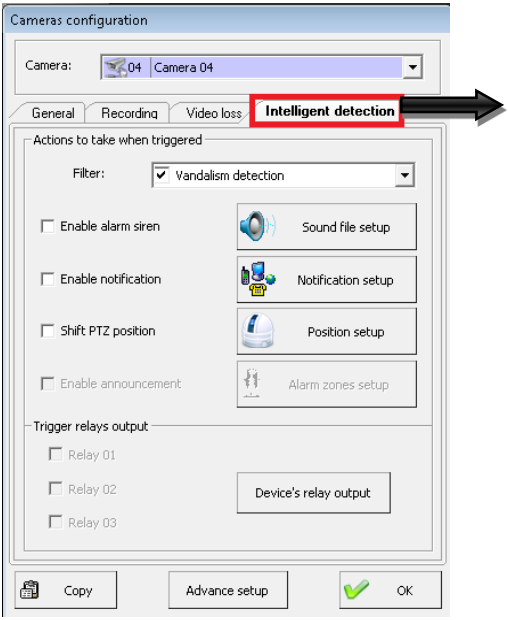

## Video Loss

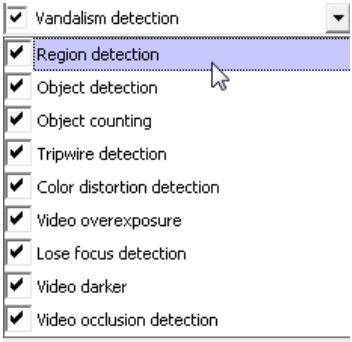
The NVR could send an alarm or other notifications if any video signal loses from the camera, either due to a power supply or lousy video connections. To activate this function, click the "**Video Loss**" field and follow the instructions below:

- **Enable alarm siren:** Set up an audio warning siren sound (or recorded voice) when video loss occurred.
- **Enable notification:** Each camera has its unique setup for notifications when video loss.
- **Shift PTZ position:** Set one or more of your connected PTZ cameras to move for one or more preset positions when video loss occurs on this particular camera.
- **Trigger output relays:** Select the output relays from the Relay board or the alarm output of the IP camera. The NVR can automatically turn ON external devices (such as siren horns, strobe lights, ceiling room lights, etc.) when video loss occurred on this camera.




**Intelligent detection (For IVA camera series only)**



- **Vandalism detection (Option):** The NVR can send an alarm or other notifications if the IP camera is moved or rapped by force. This function can protect the camera to avoid vandalism. To activate this function, check the "**Vandalism detection"** icon.

The Intelligent Video Analytics (IVA) functions as below for the IVA camera series only. The IVA camera supports the functions below, and the NVR can send an alarm or other notifications when IVA functions are triggered. For the detailed IVS setting process, please refer to the manual of the IVA camera. The IVA function description as below,

- **Region detection:** Check this function to detect the object entry, leave or stay in the setting region.
- **Object detection:** Check this function to detect the leave or miss object message from the IP camera.
- **Object Counting:** Check this function detects the object number and shows the value on the view log. Or pop up alarm message when object number mote than setting value. The event will record on the view log table.
- **Tripwire detection:** Check this function to detect the object cross the tripwire.
- **Color distortion detection:** Check this function to detect the video color cast problem of the camera.
- **Video overexposure detection:** Check this function to detect the video overexposure problem.
- **Lose focus detection:** Check this function to detect the loose focus problem of the camera.
- **Video dark:** Check this function to detect the video color too dark problem.
- **Video occlusion detection:** Check this function to detect the video occlusion problem.

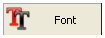
Following the instructions below to notify when the detection of the above event:

- **Enable alarm siren:** Set up an audio warning siren sound (or recorded voice) when the shake occurred on this camera.
- **Enable notification:** Each camera can have its unique setup for information when the shake has occurred.
- **Shift PTZ position:** Set one or more of your connected PTZ cameras to move for one or more preset positions when a shake occurred on this particular camera.
- **Trigger output relays:** Select the output relays from the Relay board or the alarm output of the

IP camera. The NVR can automatically turn ON external devices (such as siren horns, strobe lights, ceiling room lights, etc.) when the shake occurs on this camera.

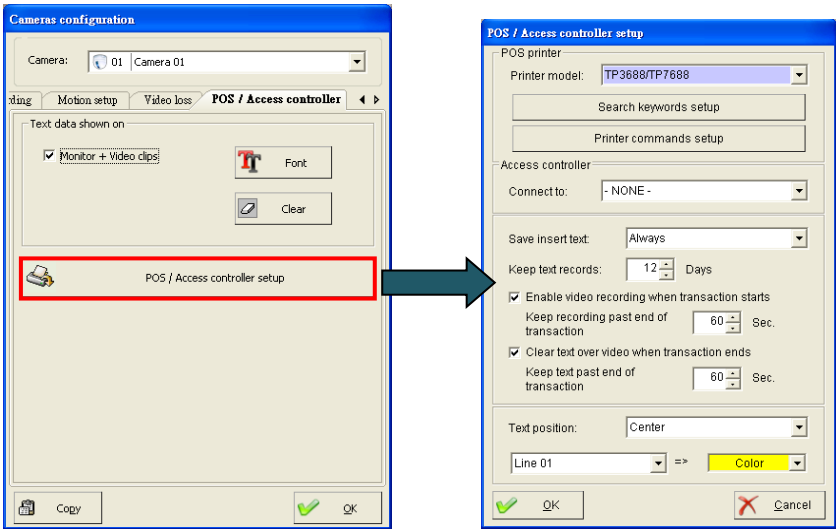
## POS & Access Controller (Optional)

Suppose the NVR integrates with the POS system and Access Controller. In that case, the POS and Access Controller text can be displayed on the screen and recorded with the video for specific video clip playback search quickly. After installing the POS text inserter system and Access Controller hardware, please click the "**POS & Access Controller**" field from "**Camera configuration**" and follow the instructions below for setup.

- **Font:** Click 

icon to specify the font size of text on the video clips.
- **Clear:** Click

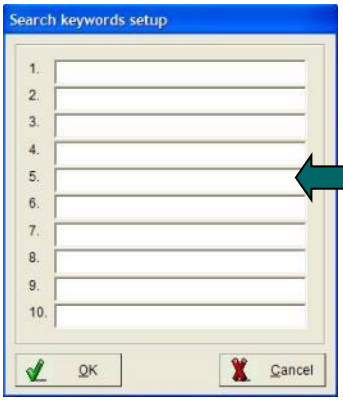
icon to erase the POS text shown on the current monitor.
- **Text data show on "Monitor + Video clips":** Enable to display the text from POS or Access Controller on the connected monitor, video clips, and remote PC. Please go to the "**General**" field and select "**Monitor + clips**" from "**Shown on**" to enable this function. After selecting "**Monitor + clips**," all these functions will be automatically fixed.



■ **POS / Access Controller setup:**

**1.) Printer model:** Select the printer model that uses for your POS system.

**2.) Search keywords setup:** Setup Keywords for searching text video clips.




Please type specific keywords from 1 to 10 columns for searching text on videos, and press "**OK**" button to save the setting.

**4.)Printer commands setup:** The NVR can process certain functions after receiving the printer command code, such as "Record events when cash drawer opens."

**4.) Access Controller:** Select a connected fingerprint access controller to capture the access record text for the video clips.

**5.) Save insert text:** The user can select "Always" or "Never" to determine the inserted text's status.

**6.) Keep text records:** Setup the retained period for text. This text record will be shown on the "**Text insert Playback**" and used for searching text on videos.

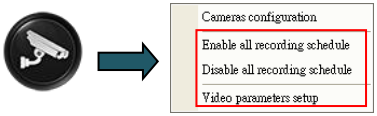
**7.) Enable video recording when transaction starts:** The NVR will begin to record when the transaction begins and specify the recording duration when the text transaction stops.

**8.) Clear text over screen when transaction ends:** The NVR can clear/clean up the text over the screen after the specified duration when the text transaction stops.

**9.) Text position:** Select the display position of text on the video.

**10.) Text color:** Select the display color from each line of the text.

## 7-4-2. Enable / Disable all recording schedule




After setup for the camera recording schedule, you can enable or disable the recording from here.

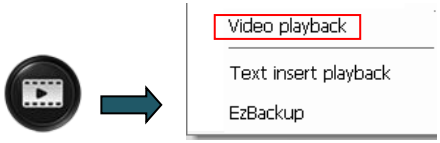
**Enable all recording schedule:** Click to enable all recording schedules (Continuous recording or Motion triggered recording) for each camera. The NVR will enable instant recording for each camera in 24 hours if there is no preset schedule.

**Disable all recording schedule:** Click to disable all recording schedules.

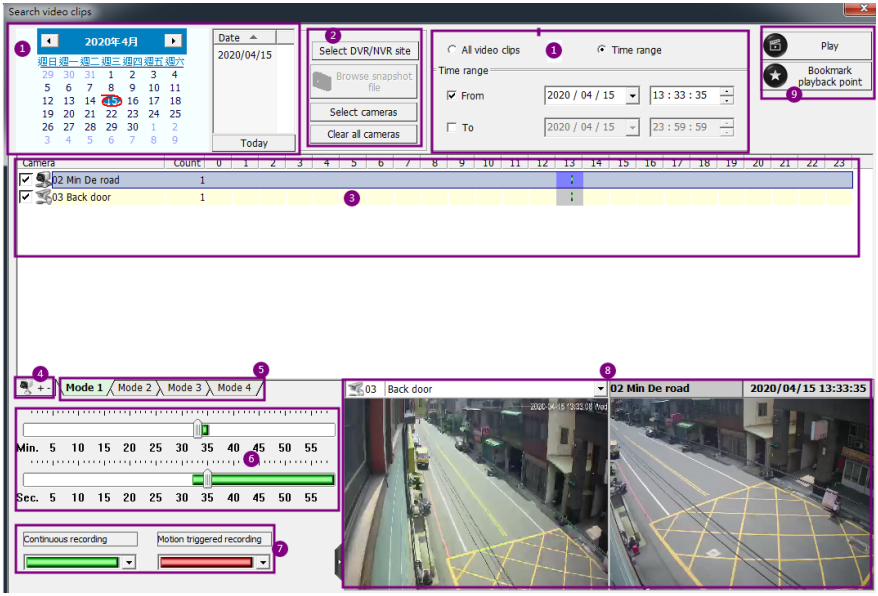
**Video Parameters setup:** Click this field will enable the " **ezSetup** " program, and then you can change the video parameters. After finish, the parameters setting that the Witness Pro program will reboot automatically to become effective

## 7-5. Video playback / Text insert playback / ezBackup

### 7-5-1. Video playback



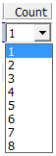

Click "**Video playback**" icon to start playback video clips. The function description is as below:




**The function description as below:**

- **Function descriptions of Video playback program:**
  1. **Video streams searching calendar:** Search the video clips by date. The red color button indicates recorded video data or selects the period you want to choose for playback.
  2. **Select cameras:** Select the cameras which you want to playback.

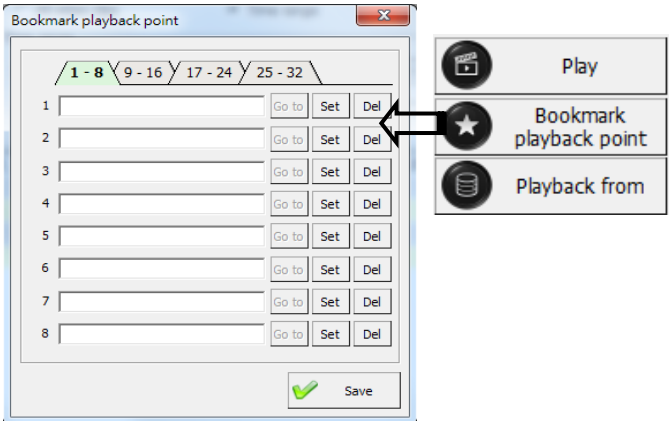
3. **Camera list table:** The cameras will show on the list window after deciding the playback video clips of cameras. Click the "**Count**" icon that allows eight different times of the same video file to play simultaneously.




4. **Add or remove the selected cameras:** Increase or decrease the fixed cameras you want to playback cameras from this icon.
5. **Display mode:** There are four display modes for the user selection.
   Select Display Mode 3 and Mode 4, and it will show the timetable of clips. Double click on the time list. The video window will show the first image of the time list which you chose. The function is the same as the Time bar.
6. **Time Bar:** The time bar will be displayed when the period has the video clips. You can click the "**Time bar**" by **Hour, Minute, Second**. And then, the window (section 8) will show the first image you choose on the time bar.
7. **The color of Time Bar:** The user can define the color of the Time bar for each event.
8. **Image window:** Select the play point from the Time bar. The image of the selected time point will show on this window; double click on this image window to enable a single playback program, the user can playback this video file quickly. Click this icon to display or hide the second image window. The user can select the image of another video file to display on the 2nd image window. This function can let the user quickly check the video file that you want to playback.

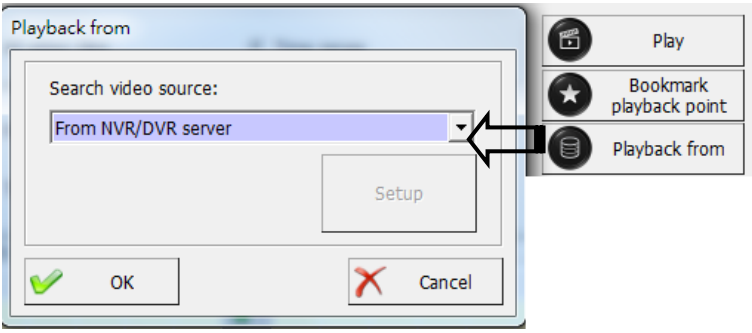
9. **Play:** Click this button to start playing the video files of the selected cameras.

**Bookmark playback point:** Click this icon to select the checked end of the video clip that you bookmark when you playback. Use this function that you can return to the playback point quickly which you want to play. The maximum setting is 32 bookmark points.



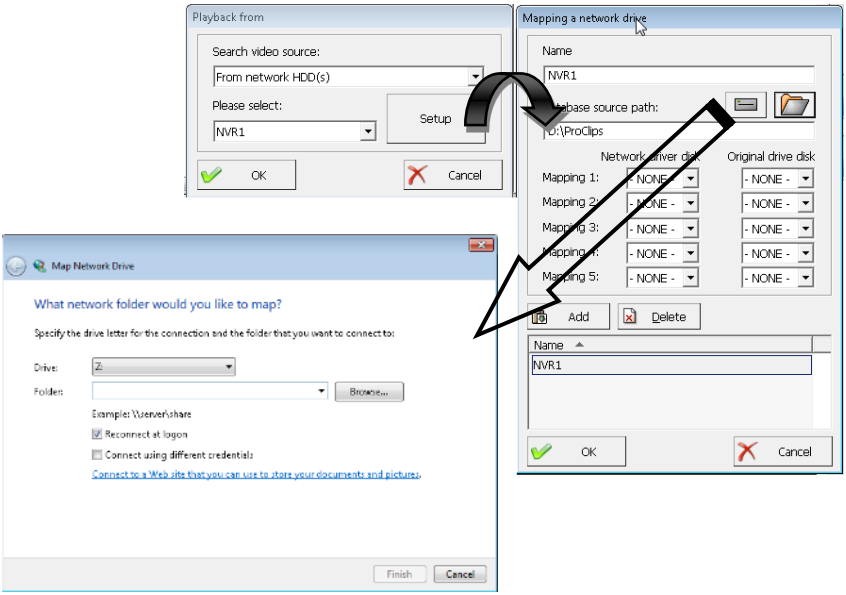

■ **Playback from:**

This section can use when this program uses alone (i.e., the playback program runs with a solitary PC). You can choose the video clips from NVR/HYBRID NVR server, CMS server, Network HDD, or User specify the path. The description as below:




- **NVR/NVR server:** You can playback the video clips of NVR/HYBRID NVR
- **CMS server:** You can playback the video clips of the CMS server.

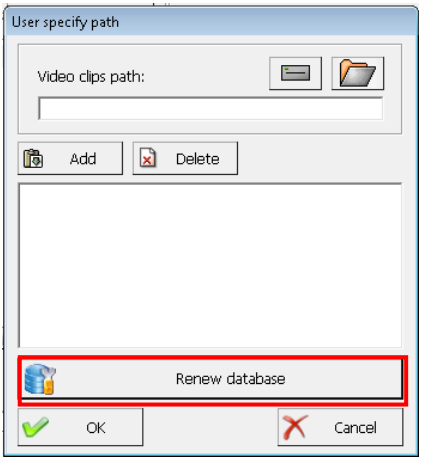
➢ **Network HDD:** You can playback the video clips of Network HDD.




To play the video clips from the Network sharing hard drive folder, please click the icon to display the network hard disk setting dialog, follow the dialog instruction and type the specific directory of the network sharing folder to add the path in the searching list. To add more network sharing folders, please repeat this step.

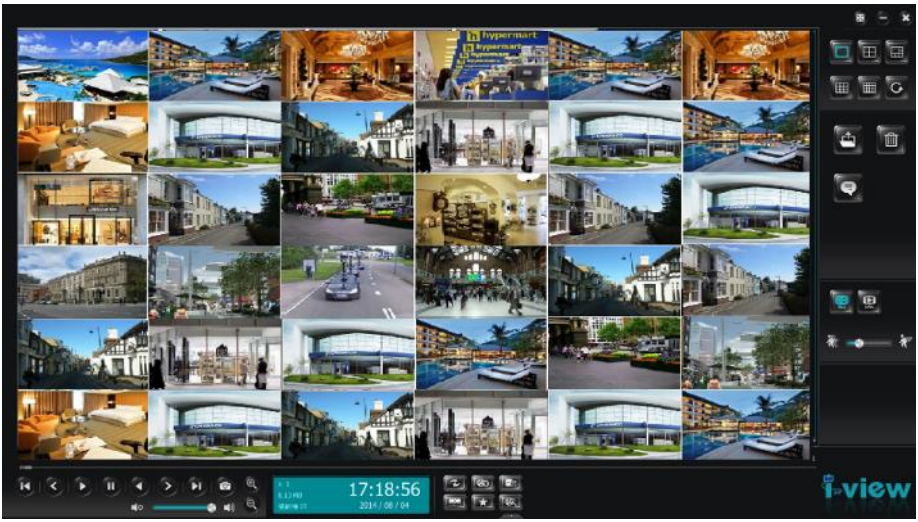
You must share the HDDs right for this PC first, which installs the ezPlayback program.

➢ **User specifies path:** You can playback the video clips of the user-specified path (Such as DVD); the process same as "Playback with Network HDD." But you need to click the "Renew database" icon before playback.



## 7-5-2. Video playback

At the playback screen, you can playback multi videos. Double click on any video screen to enlarge a single video. Move the mouse to any video screen to show the video toolbar and information of the single video. Double click again to restore the previous viewing screen.




### ➢ Toolbar descriptions of playback:

**Single display** – Click this icon to select which playback videos will show on the whole screen.

**4-Way split display** –Click this icon to display 4 split playback videos screen.

**6/8/10/13-Way split display** –Click this icon to display 46/8/10/13 split playback videos screen.

**9-Way split display** –Click this icon to display 9 split playback videos screen.

**16-Way split display** –Click this icon to display 16 split playback videos screen.

**Next Video** – Click this icon to rotate the playback videos split screen.

**Full Screen** –Click to enable full screen, hide the toolbar, or assign the playback screen shows on another monitor. Click this icon again to bring back the toolbars and control panel or display them on another monitor.

**Exit Button -** Exit Witness Pro program. If a crossed-hand icon appears instead, you must first log out and log in as a user with exit privilege.

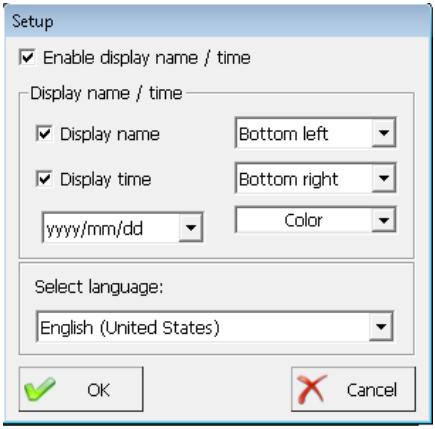
**Minimize Button -** Minimize this program into the taskbar. If a crossed-hand icon appears instead, you must first log out and log in again as a user with exit privilege.

**Hide tools bar Button -** Hide the tools bar and click again to display the tools bar.

**Search video clips** – Playback the videos via a single or multi-channel.

**Delete video clips** – Playback the videos from a single or multi-channel.

**Paste Camera name & Time stamp on video clips** – Enable the Timestamp/Text to show on the video when playback. You also can choose the language version, timestamp format, and position. The text just can deliver on the video clips when using I-View's playback program only.




**Previous video clip** – Jump to the previous video clips.

**Next video clip** – Jump to the next video clips

**Navigation bar** – Display the current position of the video clip and allow users to move to different points within the clip. Left moves backward, right move forward.

**Playback speed bar** –Left moves bar will be decrease playback, and the right moves will increasing the speed. You can find out the playback speed from the Window of payback information.

**Forward play** – Forward play video.

**Backward play** – Backward play video.

**Pause** – Pause the video.

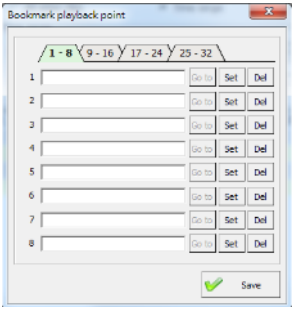
**Stop** – Stop video.

**First frame** – Jump to the first frame of the selected range of video clips.

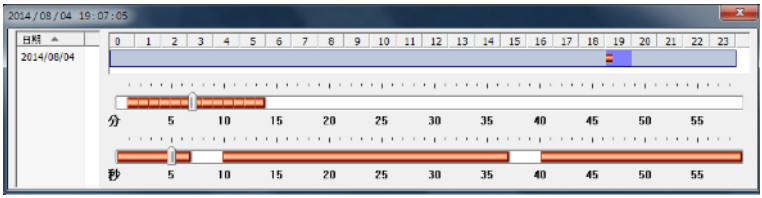
**Last frame** – Jump to the last frame of the selected range of video clips.

**Synchronize** – Synchronize playback of all video channels with the selected video channel.

**Bookmark** – Bookmark playback point which you want to start to playback. There is 32 Bookmark point for user setup to find out the checkpoint of video quickly.




**Time bar**– Click this icon o display the Time bar or timetable of the recording video clips for search and playback.




**Previous frame** – Jump to the previous frame.

**Next frame** – Jump to next frame.

**Zoom in** – Click this icon to zoom in.

**Zoom out** – Click this icon to zoom out.

**Snapshot** – Capture the video screen and save it as a BMP or JPEG file.

**Copy video clip** – Copy current video clip to a specified location for archiving or distribution.

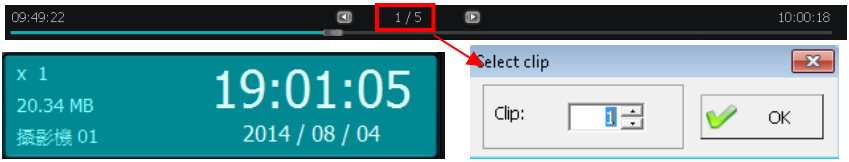
**Audio Volume** – Adjust the audio volume of the playback video clips.

**Video information –** Move the Mouse to the video channel. You can find out the current video clips information such as the file size, start time, end time, current time, the total video clips of

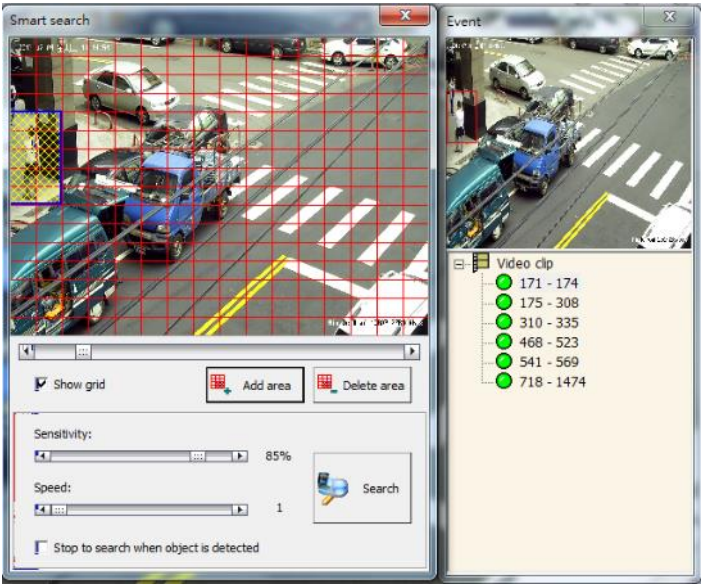
the selected period, zoom times, and camera number. Drag the navigation bar to choose the specific portion of one video clip or click the number to jump to another video clip quickly.

**Previous video clip** –Jump to the last video clip.

**Next video clip** –Jump next video clip.




**Smart search video:** Mark object searching regions in recorded video clips. The events will list in the right-side window. Please follow the introduction below to perform this function.



- **Function description of the Smart Search:**

**Add / Delete Area**: Press and drop the mouse's left button to select the intelligent search area, then click the "**Add area**" icon to add a chosen location. Click the chosen area and then click the "Delete area" icon to remove a selected area.

**Sensitivity**: Adjust the sensitivity function based on the selected region size. Suppose it sets as high sensitivity with the extensive search chosen area. In that case, the system may display very tiny changes on the list, and oppositely, if it sets as low sensitivity with the small search region, nothing might be found as a result.

**Speed**: Set the searching speed for the intelligent search function. A higher degree represents faster speed; oppositely, a lower degree represents slower speed.

**Range**: Select "**One clip**," "**All videos**," or "**Range**" for the intelligent search function. If you select "**Range**," you can set up the video clips range for searching.

**Stop to search when object is detected:** The system will stop the search process when the marked object is detected.

**Event list:** The system will display all detected object change events on the right list window, and the user can select an event to playback.

- **Playback video clips via "Smart search" function:**

**Step 1.** Press icon on the playback toolbar to display the "**Smart search**" interface.

**Step 2.** Press and hold the mouse left button to mark a specific search area.

**Step 3.** Click the "**Add area**" button to save a highlighted region. The user can use the same way to add more areas**.**

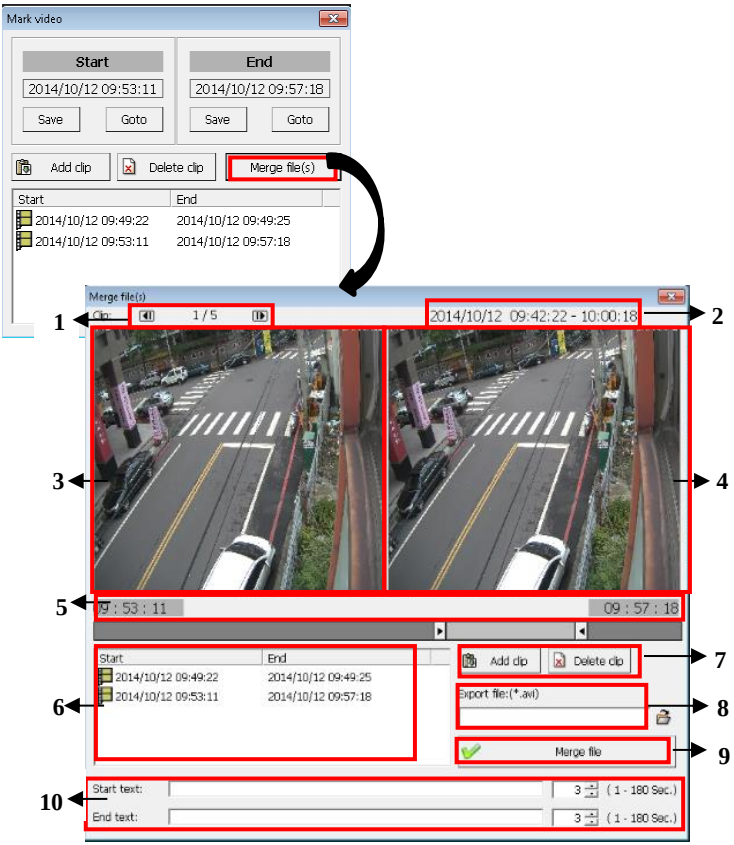
**Step 4.** Adjust "**Sensitivity**," "**Speed**," and "**Range**" functions, and click the "**Search**" button to start the intelligent search function.

**Step 5.** The system will display all detected object change events on the right list window, and the user can select an event list.

**Merge file(s)** – Merge the different files from the various video clips and export them as one "**.AVI**" file. Please follow the introduction below to perform this function.

**How to make the merge video clip file?** Please follow up the process as below:

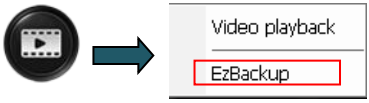
1. Mark a start and end frame of the individual video clip, then click "**Save**" while the playback video locates at the desired point of the Start frame and click "**Goto**" to go back to the selected point of the Start frame. Repeat the same procedure to set up the significance of the end frame.
2. Repeat Step 1 to make another merge video clip, click the "**Add clip**" icon to create this clip on the list for the merge file window, and then click the "**Merge files**" icon.
3. Browse the path and enter the file name, then click the "**Merge file**" icon to export the file.
4. Enter the edit video comment text in the start text and end text fields.



**Function descriptions:**

1. Click & to switch video clips from the selected time range.
2. Show the exact date and time frame for the selected video clip.
3. Show the start frame of the picture from the selected video clip.
4. Show the end frame of the picture from the selected video clip.
5. Drag the navigation bar to select the particular portion of one video clip or click  to type the start & end frame to choose the desire portion of the video clip.
6. Show the time frame and frame number for the selected start frame.
7. Show the time frame and frame number for the selected end frame.
8. Show the list of selected video clips that would like to merge as one "**.AVI**" file.
9. Select the location where the users want to save the file and click "**Merge file**" to save the file.
10. Enter the edit video comment text in the start text and end text fields.

## 7-5-3. ezBackup




This chapter will show how to back up video clips to another storage device.

**Function description of ezBackup:**

**Search** – Search video files.

**Select** – Select/Deselect all video clips for backup video clips.

**Create backup shortcut** – Create a shortcut of selected backup videos for the other storage devices, such as CD-RW/DVD+-RW.

**Back up video clips** – Back up video clips to Hard Disk.

**Setup auto backup schedule** – Backup video clips to Hard disk by schedule automatically.

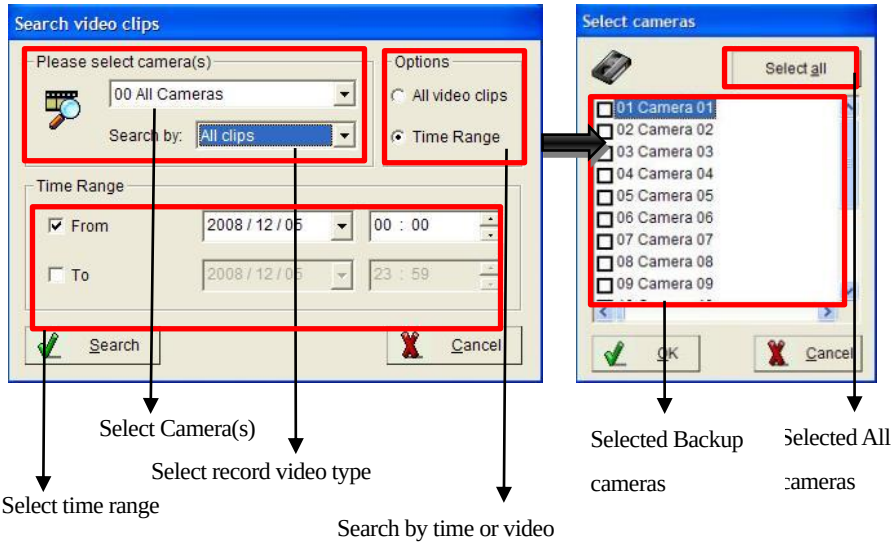
**CD/DVD Burning** – Back up video clips to Hard Disk to CD-RW or DVD+-RW.

**About** - Press to see the program version.

**Exit** –Exit the video backup setting window.

**Follow the steps below to back up videos**

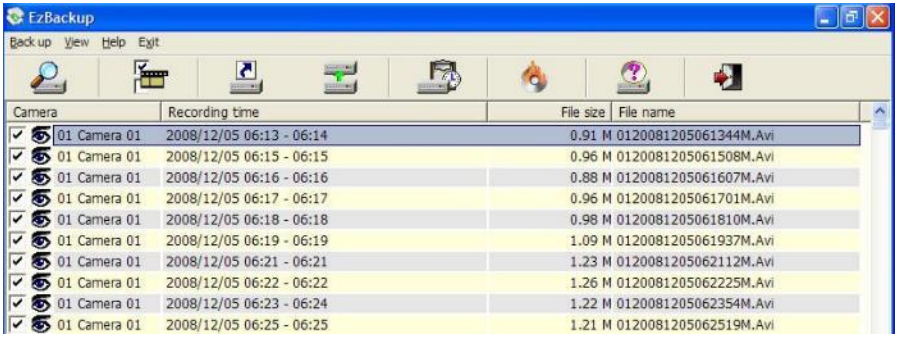
**Step 1.** Click in the top to **search** for videos in the database, select the search method from the "**Options**" field.




**Step 2.** If you select "**Time Range**," please select the camera from the drop-down menu and time range, then click "**search**" to find the clips among the chosen period.

**Step 3.** Select "**All video clips**" and click "search" to pop up the right window for camera selection.

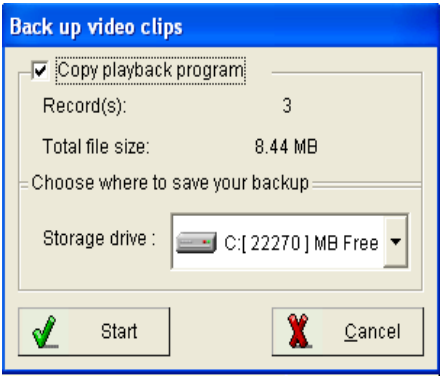
**Step 4.** Click the "**Search**" icon to find the clips among the selected parameters. The video files will list in the below window.



**Step 5.** Select video files which you would like to back up by manual. Or click to "**Select all/Deselect all**" video files.

**Step 6.** The ezBackup program provides three methods to back up the video clips, and the detailed process shos as below:

**Manual Back up methods**




★ **Back up to another HDD**:

a. Click to show the "**Back up video clips**" window.

b. Check "**Copy playback program**" if you would like to copy the playback program at the same time.

c. Select the HDD from "**Storage drive**" and then click the "**Start**" icon to start the backup.

★ **Back up to DVD RW**:

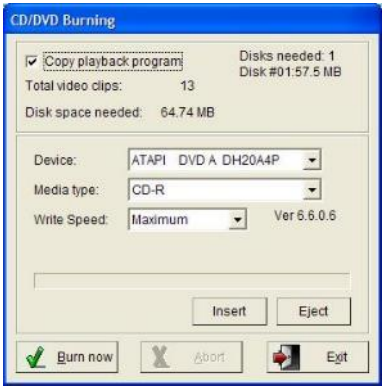
a. Click to show the "**Media Player Burning**" window.

b. Insert the backup media, such as the DVD.

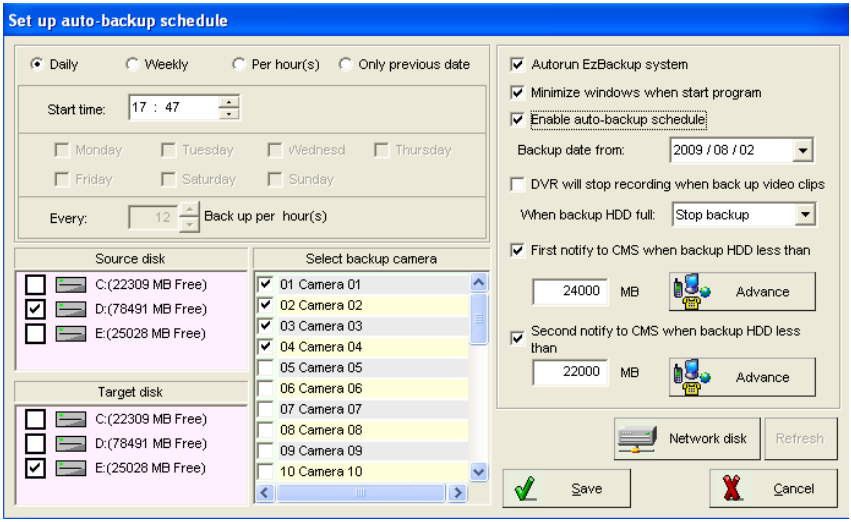
c. Select the correct "**Device**" and "**Media type**."

d. Click the "**Burn now** "icon to backup.

Use the Windows Media Play program for burn in the DVD RW.



**Schedule auto back up method:**




a. Click to show the "**Setup auto backup schedule**" window.

b. Select the "**Enable Auto-backup schedule**" function.

c. Select the date to backup video clips from the "**Backup date from**" field.

d. Select "**Recycle**" or "**Stop backup**" when the backup HDD is whole.

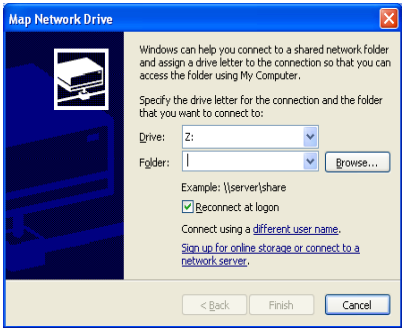
e. Select the backup schedule from "**Daily**, "**Weekly**," "**Per hour(s), "**or "**Only Previous day**."

f. Select the backup camera and source disk.

g. Select "**Target disk**" to back up the files.

If the "**Target disk**" is NAS or another PC, please click "

" icon to display "**Map Network Drive**" and follow the dialog instruction to type the specific path of the network HDD for backup. To add more Networks' HDD paths, please repeat this Step.




h. Check "**First notify to CMS when backup HDD less than**" and type for HDD space for warning level and set up the notification method from "**Advance**." Please refer to the **previous**

**chapter** for detailed setup **notify** instructions.

i. Set up for "**Second notify to CMS when backup HDD less than**" if needed.

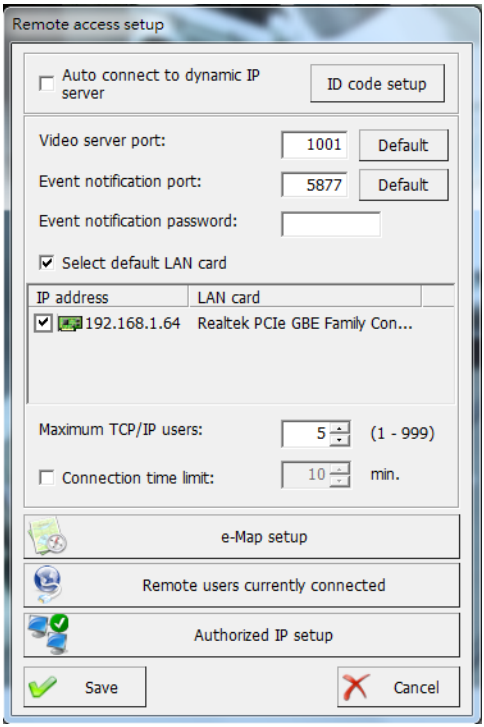
**Step 6.** Click to complete backup setup.

## 7-6. Remote Access setup

This section will introduce the configuration of the **Remote control setup** and **eMap setup**.

**Remote Access setup**

The primary function of "**ID code**" is to solve the possible problem with dynamic IP addresses connection. AnyNet series NVR contains a built-in IP address register function. Suppose you enable "Auto connect to dynamic IP server" and type the ID code into the system. In that case, its built-in IP Identify capability will allow the remote users to connect directly to the user's NVR from their FreeView Pro software or IE browser via the Internet when the user runs the Witness Pro. If the user does not have a static IP address assigned to the NVR, the ID Code may redirect browsers to the NVR by announcing its current IP address to the IP Dynamic Server.




**What is the dynamic IP Server?**

When the "**Auto connect to dynamic IP Server**" option is enabled, the NVR will send a message to the central IP Identify Server per hour. This server will notify and update the user's current NVR IP address. When the remote users try to access the NVR, they route through the dynamic IP Server to the NVR.

**Do I need to use the dynamic IP Service?**

Ask your ISP provider about setting a static IP address for your local account. Once you have a static IP address, disable the "**Auto connect to IP identify server**" option. If you do not have a static IP address, you can contact your vendor for optional "**dynamic IP service**".

**ID code setup:**

**1.)** Click "**ID code setup**" from network configuration.

**2.)** Input an "**ID code**" and click "**OK**" to register your ID code to an IP dynamic server.

**3.)** Enable "**Auto connect to dynamic server**."

**Video server port:** Set up the port number for video streaming remote connections via CMS (FreeView Pro). The default port is "**1001**".

**Event notification port:**

Set up the port number for pop-up notification to CMS (FreeView Pro program). The events include Detected motion, Video loss, Sensor triggered, Emergency call, Relay trigger, Access controller, Storage device failure. Please refer to the NVR setup of FreeView Pro for event selections. The default port is "**5877**".

**Event notification password:** Set up the password number for pop-up notification to CMS (FreeView Pro program). The default password is none.

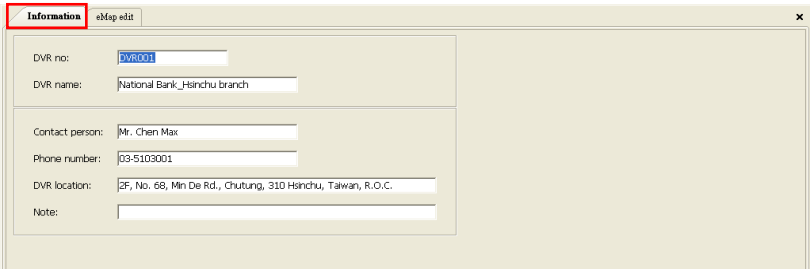
**Select default LAN card:** Un-check "**Select default LAN card**" if the system has more than one LAN card for selection.

**Maximum TCP/IP users:** Set up the maximum users for connecting NVR via IE browser or CMS.

**Connection time limit:** Set up the duration time for remote connections to NVR.

(For users that protects by a Firewall); if you encounter either the error message "**Cannot locate IP address**" or "**Cannot identify server**," please get in touch with the manufacturer of your Firewall and ask them how to create a PORT MAPPING. It will create a port in your firewall. This Port Mapping will enable the remote user to access the AnyNet NVR and IP camera Pro from the remote site.

**e-Map setup:** The user can create an e-Map for the location of NVR, cameras, and other devices and set up the contact information for notification. When the cameras or other devices on the map are triggered, the triggered devices will show flash on the map simultaneously.



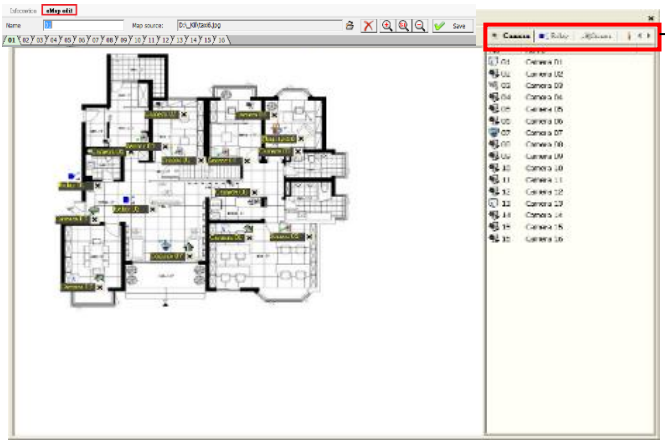

You must enter the NVR no for the CMS auto upload or download the eMap information.

- **Follow the instructions below for eMap setup:**

**1.)** Click the "**Information**" field.

**2.)** Type the information in the "**Contact person**," "**Phone number,**" "**NVR location,**" and "**Note**" columns. This information will be shown on the notification to the remote client PC (CMS)when connecting.

**3.)** Click the "**e-Map edit**" field. There are 16 eMap layers, and selected one to edit the e-Map.




**4.)** Click eMap layer from the 1-16 Layer filed, then enter the named the eMap layer which you selected

**5.)** Click icon to browse the map file from the CMS folder and click the "**Update**" icon. (The map file can be a BMP, PNG, or JPG file.) Click the or icon to zoom in/zoom out the map size to suit the window size. You also can click th icon to cancel the selected map file

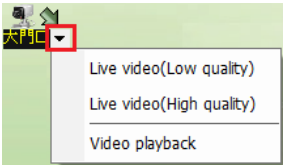
**6.)** Select the available devices to locate on the eMap from the device toolbar, press, and drag the widgets to a suitable location with the left mouse button. Repeat the 3-5 process for another eMap layer setting. Click " " to "**Save & Exit**" or "**Exit**" without saving the settings.

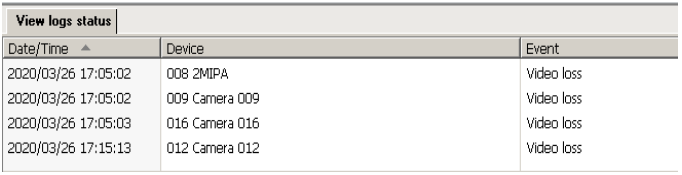
1. If the user wants to enable notification via the flashed icon on the e-Map when motion or alarm is triggered, you will need to enable "Pop up event notification" from the **System configuration** section.
2. If the system supports dual monitor, the eMap will automatically pop up to the secondary monitor (Monitor 02) when Witness Pro launched. The user can also click " " from the screen of eMap to assign eMap to "**Monitor 01**", "**Monitor 02**" or "**Monitor 03**".

- **Function descriptions of eMap:**

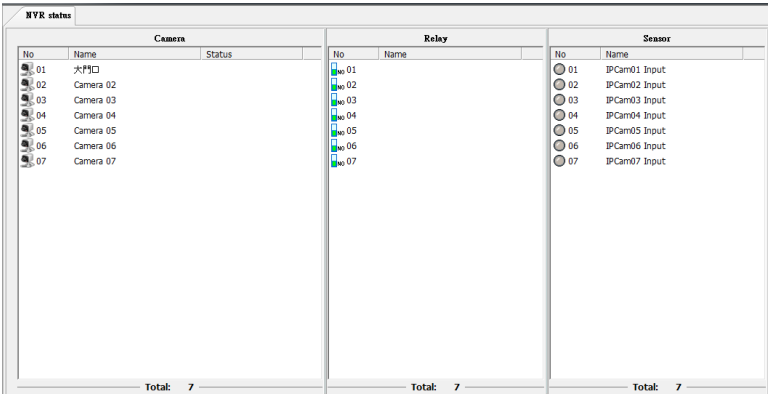
Please click “ ” from the video control panel to bring out the eMap screen.

**1.) Monitor live video, playback video file, and event status directly from Map:** Click the “**NVR status**” field to show the floor plan of eMap, detail information of NVR, and status of view logs and current remote users. Click “  ” from cameras to view the pop-up live video with High /Low resolution or playback the video clips.

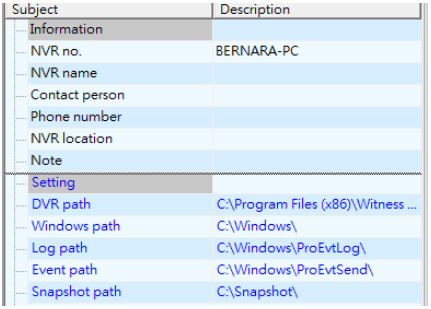


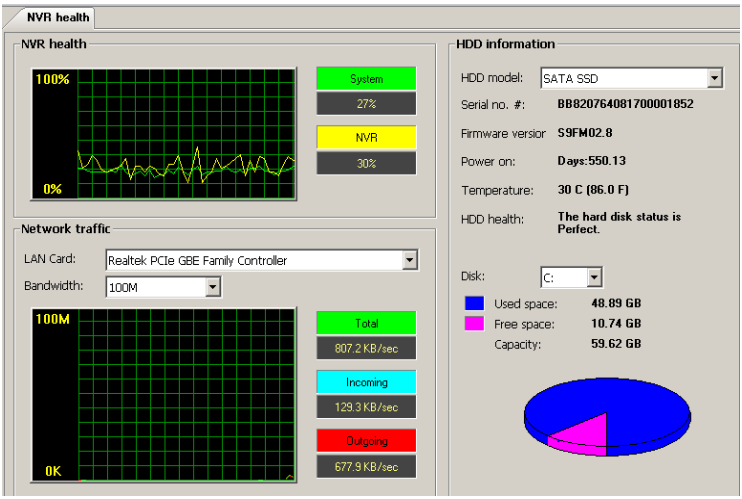

**2.) NVR status:** Click the “**NVR status**” field to show the real-time status of devices.



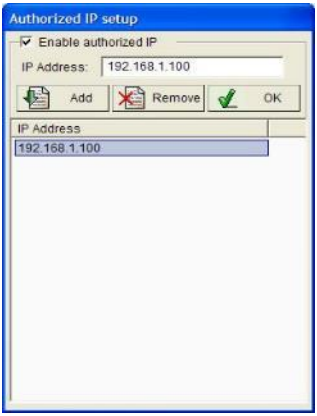

**3.) NVR information:** This window will show detailed NVR information.



**4.) NVR health:** Click the "**NVR health"** field to check the CPU usage, Network traffic, and HDD information.

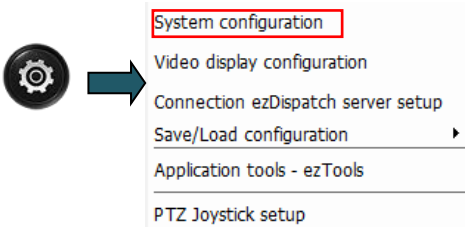



**Authorized IP setup** When this function checks, only authorized IP addresses are allowed for remote connection. If the IP address of the remote connection CMS server does not list in this window, a pop-up error message "Limit error" will be displayed when connecting.

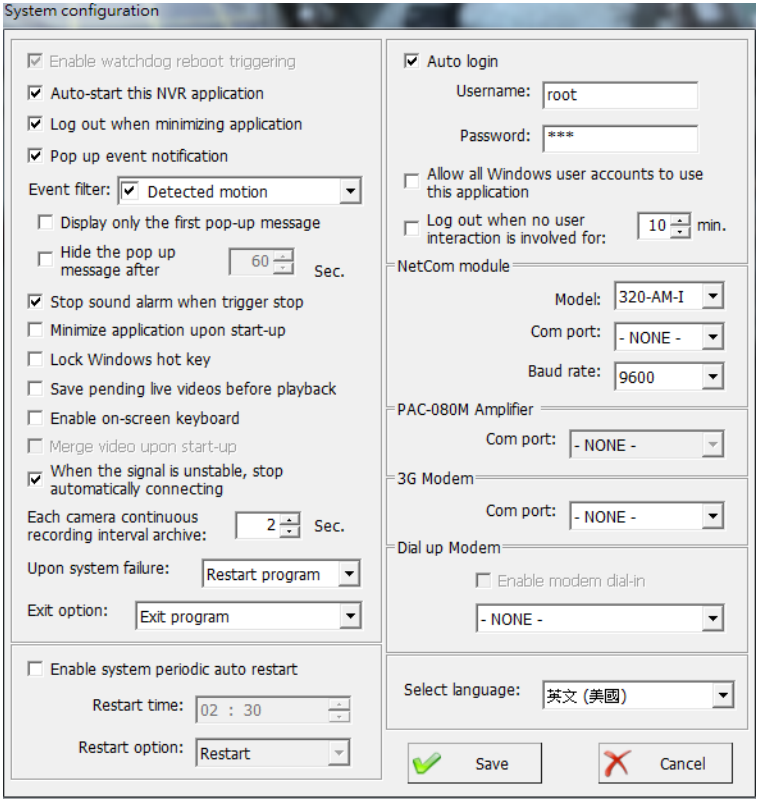



Please note that if this feature is not enabled, all authorized users from any IP address will be able to connect to this NVR remotely.

## 7-7. System Configuration




### 7-7-1. System configuration




- **Function descriptions of the system configuration:**

**Enable watchdog reboot triggering** If the system shutdown causes by the hardware or software problem, it will reboot NVR and go back to the original setting.

**Auto-start this NVR application** The Witness Pro will auto start when the system starts up.

**Logout when minimizing application,** The Witness Pro will log out when the software minimizes.

**Pop-up event notification** The event notification will pop up on the monitor when the selected events happened. The events include "Detected motion," Triggered sensor," "Video loss," "IVA functions," "License recognition," "Face recognition," "Unstable video signal," and "Triggered access controller."

a. **Display only the first pop-up message** Pop up only the first notify message on the screen if the triggered events are the same and more than one time.
b. **Hide the pop-up message after** Clear the pop-up notifies message from the screen after the setup period.

**Stop sound alarm when triggered stop** The sound alarm will automatically stop when the trigger stopped.

**Minimize application upon start-up** Minimize the window of Witness Pro after it starts up.

**Lock Windows hotkey** Prohibit the users to use Windows hotkey.

**Save pending live videos before playback** The recording video will be saved as a new file when you click the "**Playback**" icon. You can playback the instant video file without waiting.

Please note it will make your video files with different lengths from the set video interval.

**Enable on-screen Keyboard** Display the On-Screen Keyboard when the user setup the Witness Pro program.

**When the signal is unstable, stop connection automatically.** Check this function; the system will stop reconnect the IP camera when the video signal unstable. This process will avoid the system buffer full to cause the NVR abnormal shutdown because each IP camera connection will create a memory buffer for video transmission. If the video signal is unstable for a long time, the NVR will reconnect many times, and the system memory buffer will exceed the limitation set.

**Each camera continues recording interval archive.** The system will interval save the archive files the setting period. This process can avoid the HDD write speed issue when there are many files

needed to keep simultaneously.

**Upon system failure** Select NVR's reaction "**Restart program**" and "**Reboot system**" from the drop-down menu when the NVR system is abnormal. For example, select the "**Restart program,"** the system will automatically restart the Witness Pro program when the NVR system is bizarre.

**Exit option** Select NVR status "**Exit program**," "**Turn off**," "**Log off,**" or "**Restart**" from the drop-down menu after exiting **the Witness Pro** program. For example**:** Select "**Turn off**," the system will automatically shut down after closing the Witness Pro program.

**Enable system periodic auto restart** Auto restart or turn off the system at a specific time every day. Use this function to stabilize the program after a long period of usage.

**Allow all Windows User Accounts to use this application** All users with different Windows accounts can be allowed to run the Witness Pro program.

**Log out when no user interaction is involved for** Logout the Witness Pro program when the user is inactive NVR over the set duration.

**NetCom Module:**

- **Model:** Select the type of control board for the PTZ camera, D/I, and D/O devices based on the installed models.
- **Checksum:** It depends on the type of Speed dome camera. Please refer to the manual of the Speed dome camera.
- **Com Port:** You must select the "**Auto**" from the draw menu of the **"Com Port "**icon when you want to enable the functionality of the Netcom module.
- **Baud rate:** Select a correct Baud rate to control the Speed dome camera or P/T/Z camera from the Witness NVR board (Default setting is 9600 bps).

You must select the "**9600**" baud rate, enable the Checksum icon, and select "Pleco P" or "**FastCam V2**" or "SDCI-220" when you install I-View's FastCam III Speed dome camera series.

**PAC-080M Amplifier:** You need to connect the PAC-080M public address with the NVR/NVR before enabling this function. Select the "**Auto**" from the drop-down menu of the " **Com port**."

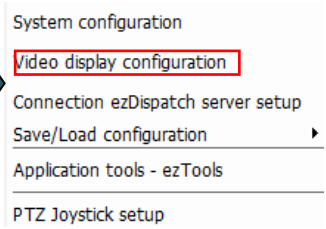
If the setup is correct that the P.A. configuration field will enable.

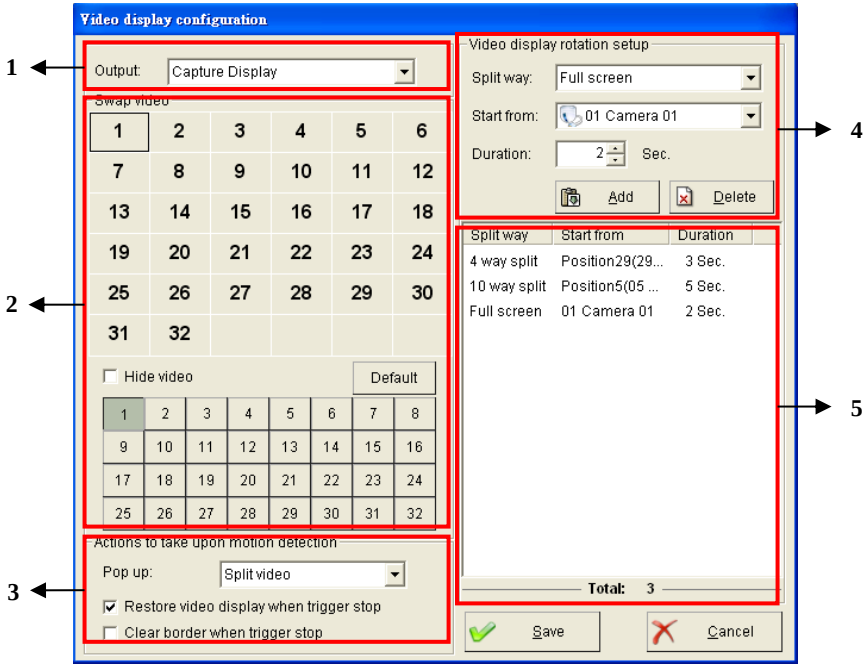
**3G Modem** Select the "**Auto**" from the drop-down menu of the "**Com port**" to enable the 3G modem for SMS notification.

**Enable modem dial-in** Enable this function to share one telephone line for both modem and fax. Otherwise, the modem will occupy the phone line always. Select the dial-up modem model for phone-call notifications.

**Select language** You can s select a different language from this section, and the software will reboot after you change the language.

## 7-7-2. Video display configuration



## ■ Section Descriptions:

### Section 1:

- **Output:**

  **Capture Display:** Show 1-32 Ch or 33-64 Ch digital split video on the monitor.

### Section 2:

- **Swap video:** The cameras can switch to different positions for the split-screen.
- **Hide video:** The cameras can be hidden and show the blue screen for the "**Live Display Mode**" and show the logo for "**Capture Display Mode**."
- **Default:** Switch the cameras' positions back to the factory's setting
- **Position display field:** 1-32 or 33-64 divisions depend on the different output sources.
- **Camera number:** Represent the number of the camera.

**Position display**

| | | | | | |
|---|---|---|---|---|---|
| 20 | 2 | 22 | 4 | 5 | 1 |
| 7 | 8 | 9 | 27 | 11 | 12 |
| 15 | 14 | 6 | 32 | 17 | 18 |
| 19 | 3 | 21 | 13 | 23 | 24 |
| 25 | 26 | 10 | 28 | 29 | 30 |
| 31 | 16 | | | | |

☑ Hide video  Default

**Camera number**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

**How to swap the cameras for spilt display:**

**Step 1.** Select the output display from the "**Output**" drop-down menu.

**Step 2.** Click the camera from the Position display field.

**Step 3.** Move the mouse and click the camera number which you would like to swap.

**Step 4.** Repeat Step 2 & 3 to swap other cameras' positions.

**Step 5.** Click the camera position and check "**Hide video**" if needed. Please note if this function is enabled, the background of the grid will become purple.

**Step 6.** Click "**default**" to switch back to the factory's setting if needed.

**Step 7.** Click "**Save**" to finish the setting.

## ■ Section 3:

- **Action to take upon motion detection:** The user can enable the popup video to display when motion is detected. For the setup, please refer to "**Schedule setup**."
- **Pop up:**

  **Full-page video:** Pop up the full-screen video when motion is triggered. If there are multi motion detections simultaneously, the latest activity detected video would show on the screen.

  **Split video:** Pop up the split-screen video when there are multi motion detections at the same time.
- **Restore video display when trigger stop:** Enable to go back to the original setting of the video display.
- **Clear border when trigger stop:** Remove the surrounding red border around the video channel after trigger stops.

## ■ Section 4:

- **Video display rotation setup:**

  **Split way:** Select full screen or split screen (4/6/8/9/10/13/16/25/32/36).

  **Start from:** Select which camera or position to start the rotation.

  **Duration:** Set up the rotation time for the display screen.

**How to set up the rotation for the output display:**

**Step 1.** Select the output display from the "**Output**" drop-down menu.

**Step 2.** Select the way of display for rotation from the "**Split way**" drop-down menu.

**Step 3.** Select the start camera or position from the "**Start from**" drop-down menu.

**Step 4.** Set up the duration for rotation time.

**Step 5.** Click "**Add**" to finish the setting.

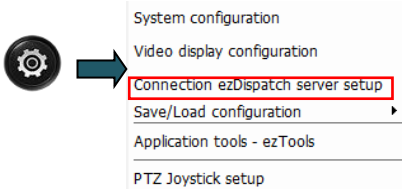
**Step 6.** Repeat Step 2 to Step 5 to add multi-rotation.

**Step 7.** After setup the rotation for output display, the user can enable the rotation schedule by clicking icon from the "Video Control Panel."

## ■ Section 5:

- **Rotation entries list:** This is a list of rotation entries. To edit one of the listed entries, simply double-click the entries that appeared in the list. Once the editing is done, you may click the "**Save**" button to save your changes or the "**Cancel**" button to discard your changes. To delete entries, highlight the entry and click the "**Delete**" button.

## 7-7-3. Connection ezDispatch Server setup




The ezDispatch can automatically allocate all the notifications from the following events to the standby CMS (FreeView Pro ) to dispatch the CMS loading when there are more than 2 CMS servers on the control center. The ezDispatch program will arrange live video to the CMS server to balance the loading of CMS. Such as there are 5 pcs CMS servers for remote monitoring 1000 NVRs, there 13 NVRs send the Live video to the CSM servers when triggered. The ezDispatch preprogram will average the activated videos to 5 pcs CMS servers to balance each CMS server's balance loading. The ezDispatch can install on one of CMS or any kind of PC station. Please refer to for ezDispatch setup.

**Follow the steps below to connect ezDispatch Server setup:**

**Step 1.** Check "**Connect to ezDispatch server**."

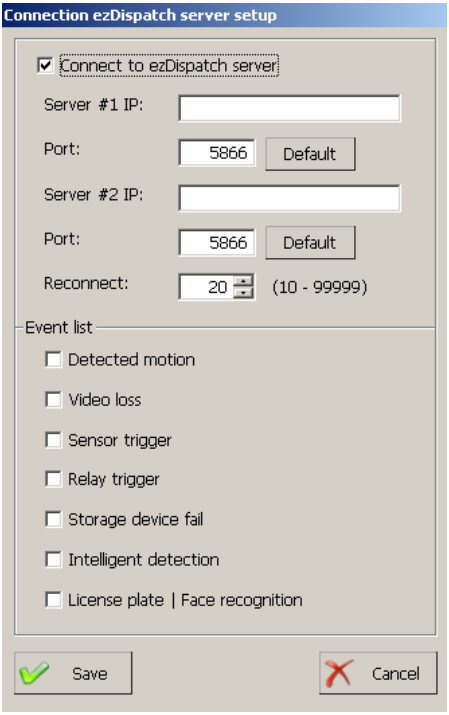
**Step 2.** Type IP address of ezDispatch server #1 where it has been installed and enabled.

**Step 3.** Type the port number for connecting ezDispatch server #1. The default port number is "**5866**".

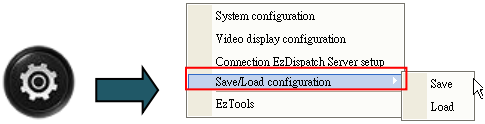
**Step 4.** Repeat 2~3 to set up for ezDispatch server #2 if a backup ezDispatch server is installed and enabled. Set up the reconnect time to reconnect the server if the network is disconnected.

**Step 5.** Select the event types for sending notification to CMS (FreeView Pro) via the ezDispatch server.

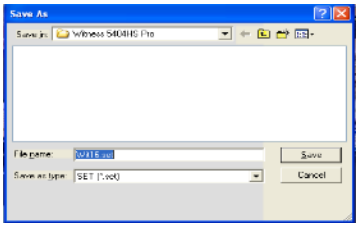
**Step 6.** Click "**OK**" to save the setting.

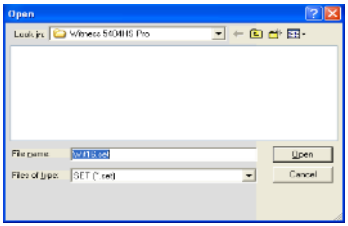


## 7-7-4. Save & Load configuration

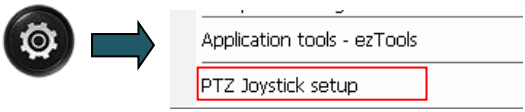



It might be annoyed to repeat all steps for the system configuration if the user has to install several NVRs simultaneously. Therefore, the user can click "**Save**" to back up the configuration setting as "**.set**" file in the local disk and click "**Load**" to restore the backup configuration setting from the local disk or other NVR.

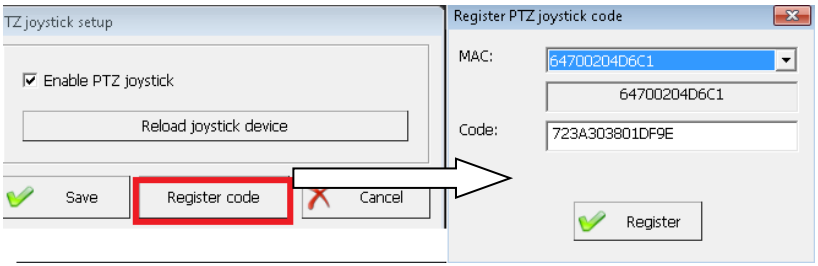


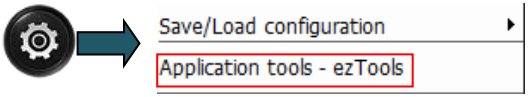

## 7-7-5. PTZ Joystick setup



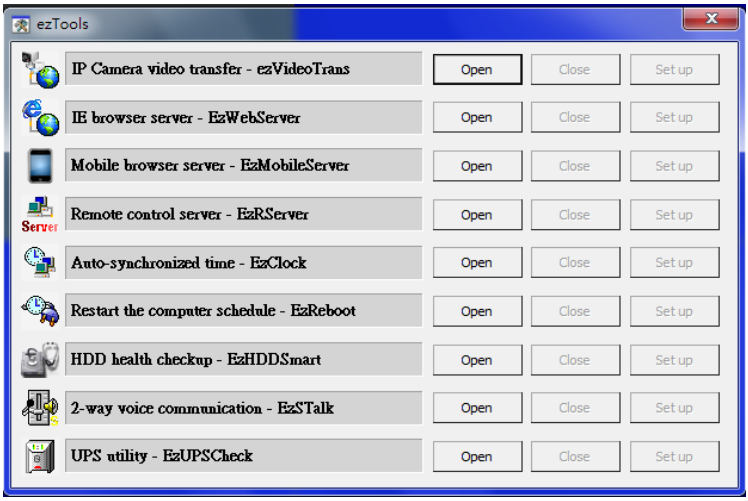

You need to register the password from here using the FSKY-300/400 USB joystick on the NVR. Send the Mac number of NVR to the vendor or the i-View to get the password for the joystick. Click the " **Register code**" to enter the password, then click the " **Register** " icon and " **Save**" icon to complete the setting.



## 7-7-6. Application tools -ezTools

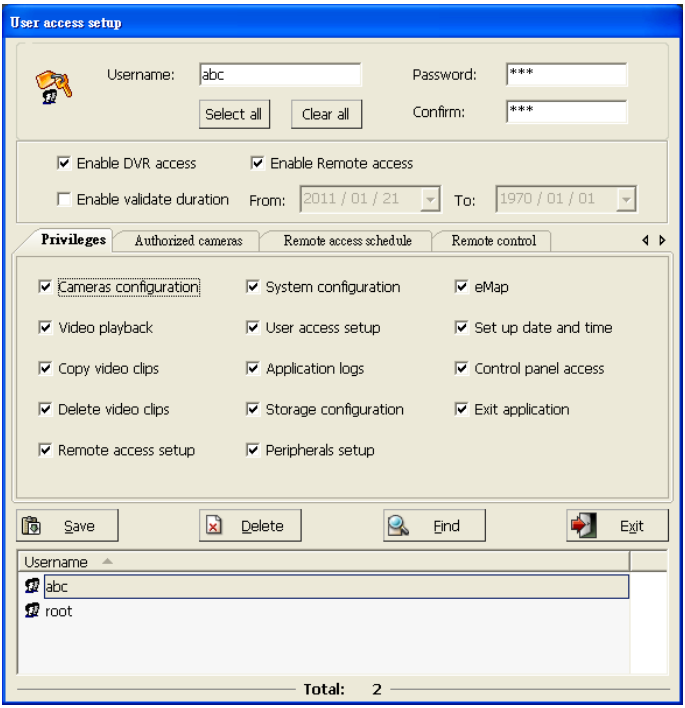



There are Accessory programs for specific applications, and you can enable these programs from this path— the accessories programs including ezVideoTrans, ezWebServer. ezMobileServr, ezRserver, ezClock, ezReboot, ezHDDSmart, ezTalk and ezUPScheck etc. We will introduce these accessory programs in **Chapter 7, Application tools- eTools**.



## 7-8. User access setup

Click icon to create usernames, passwords, and the user's privilege to log in to Witness Pro in different access levels from "**User access setup**."




- **Supervisor username and password**

  The default supervisor name and password are listed as below: **Username:** root / **Password:** 123

**Enable NVR access:** Allow the user to access the Witness Pro program.

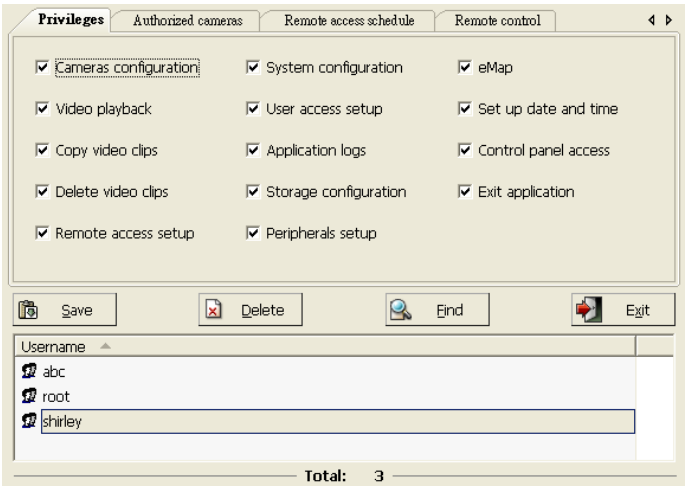
**Enable Remote access:** Allow the user to remotely connect NVR via CMS (FreeView Pro ) or IE browser

**Enable validate duration:** Set up the usage duration for the user.

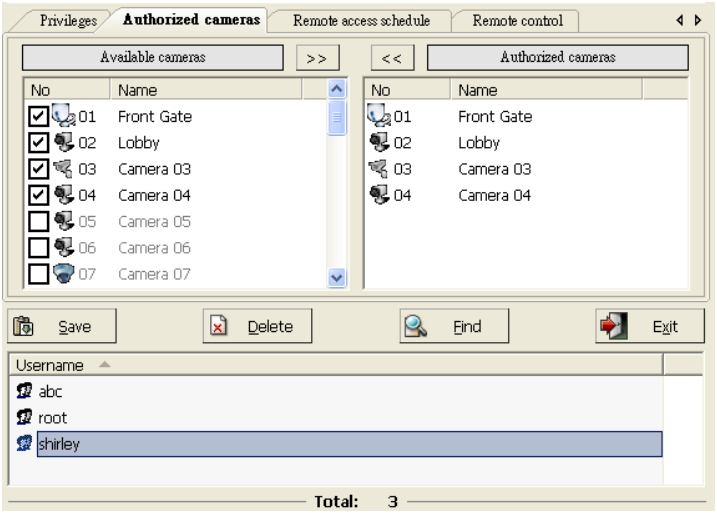
The password must consist of 0-9 or a-z or A-Z; the password is case-sensitive. PaSsWoRd is not the same as password)

● **Function descriptions of User access setup:**

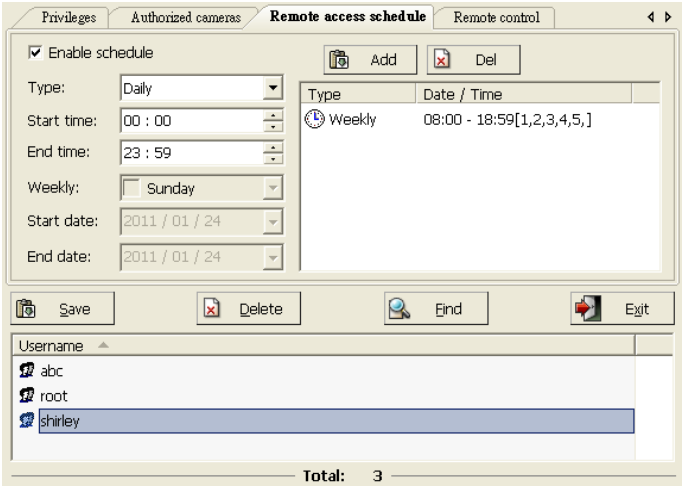
**1.) Privileges:** Select privileges for users to access, control, or set up for NVR.



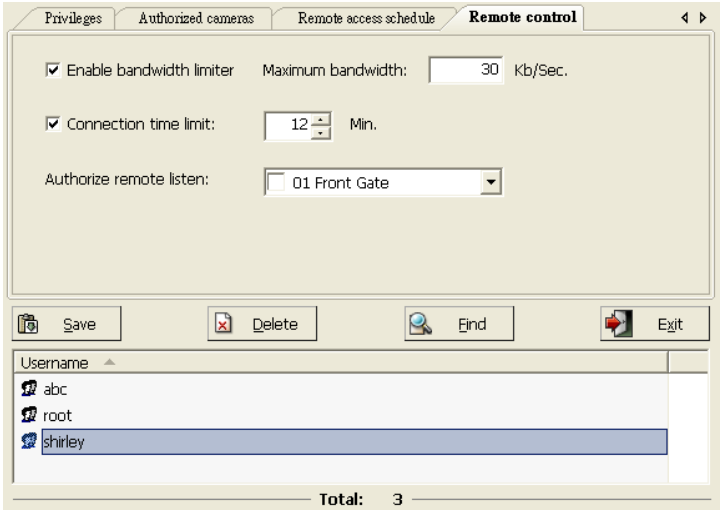

**2.) Authorized cameras:** Select cameras for the users to set up and control in Witness and remote live view via CMS (FreeView Pro ) or IE browser or mobile phone. Click " >> " to select all cameras and click " << " to remove all cameras.



3.) **Remote access schedule:** Enable and set up the remote access schedules to limit the short access period if needed. Select "**Daily**," "**Weekly**," and "**Special Duration**" for the access schedule.




4.) **Remote control:** Set up the maximum bandwidth and connection time to allocate and control the bandwidth of the network where the NVR is located and select the authorized cameras for remote listen if needed



- **Please follow the steps below to modify the supervisor's name and password:**

**Step 1.** Type new supervisor name and password.

**Step 2.** Press "**Select all**" (only for supervisor) for the privileges.

**Step 3.** Click "**Save**" to add the user to the list.

Please remember to remove the default supervisor "**root**." Otherwise, there will be two supervisors.

- **Set privilege for additional users**

**Step 1.** Type username and password.

**Step 2.** Select privileges.

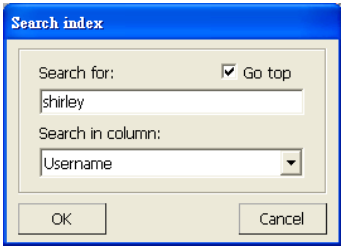
**Step 3.** Click the "**Authorized cameras**" field to select the cameras for remote live view. The user can click " >> " to fix all cameras and click " << " to remove all cameras.

**Step 4.** Click the "**Remote access schedule**" field to set up the connection schedule if required.

**Step 5.** Click "**Remote control**" to set up maximum bandwidth and connection time limit, and select cameras for remote listen if required.

**Step 6.** To create other users, please repeat **Step 1 to Step 5**.

**Step 7.** Click " Find " to search the username which has been created. Type the username from the "**Search for**" field and check "**Go Top**" if the user wants to explore the list from the beginning of the username list.

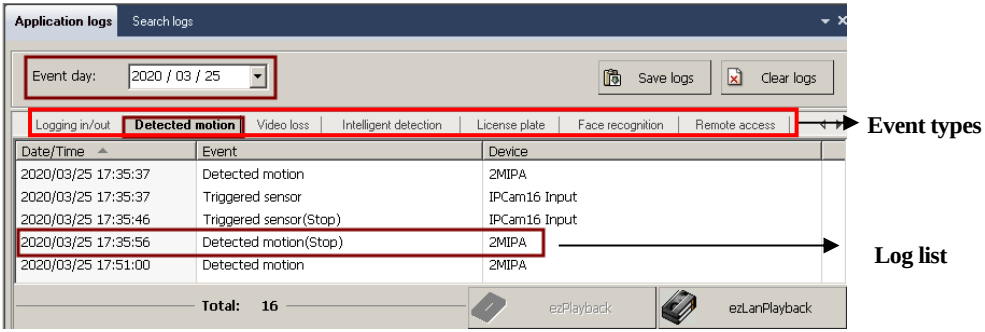



1. If the supervisor's password or username is lost, Witness ASE/HS/RD series must reinstall. All previous settings will fail. However, saved videos will not erase.
2. Password must consist of 0-9 and a-z or A-Z.
3. The password is case-sensitive. (PaSsWoRd is not the same as password)
4. Please remember to click " Save " after set up from each field.

- **Remove/modify user privileges:** Select the user in the username list. Click "**Delete**" to remove the user or double-click on the username to modify user privileges.

## 7-9. Application logs

Click the “ ” icon to check the system logs by the date and different events types.




- **Function Description of application logs:**

  **Save log button:** Save the log list as a txt or Xls format file.

  **Clear log button:** Clear current log list.

  **Exit:** Exit this interface.

  **Event types:** Users can easily click each field to find a specific event’s log list.

  1.) **Logging in/out:** Show the status of the user’s login and log out.

  2.) **Detected motion:** Show the status saw motion if the user enabled “Motion triggered recording” (Camera configuration → Recording → Schedule setup). The user can double click the event to view the recording video of motion-triggered.

  3.) **Video loss:** Show the status of the video signals.

  4.) **Intelligent detection:** Show the trigger event which comes from i-View’s smart video analytics’ camera.

  5.) **License Plate:** Show the black/white list trigger event of LPR.

  6.) **Face recognition:** Show the black/white list trigger event of Face recognition.

  7.) **Remote access:** Show the status of the remote connection.

  8.) **Storage devices:** Show the status of the health condition of HDD.

  9.) **Trigger relays output:** Show the status of relays if any event is triggered. If the user sets up the recording schedule when relays are activated, the user can double click the event to view the video.

**10.) Access controller:** Show access status and information.

**11.) Operation:** Show the record of operation modification.

**12.) System:** Show the status of the Witness Pro program.

**13.) ezPlayback:** Select the event and then click this icon to play the video clips from the event point timing.

**14.) ezLANPlayback:** Select the event and then click this icon to play the video clips from the event point timing and search the other cameras or schedule video files.

**Search logs:** Search the records via time, date, log type, or type the keywords of events and devices for search.

**1.)** Click the " **Search Log** " section to search the logs.

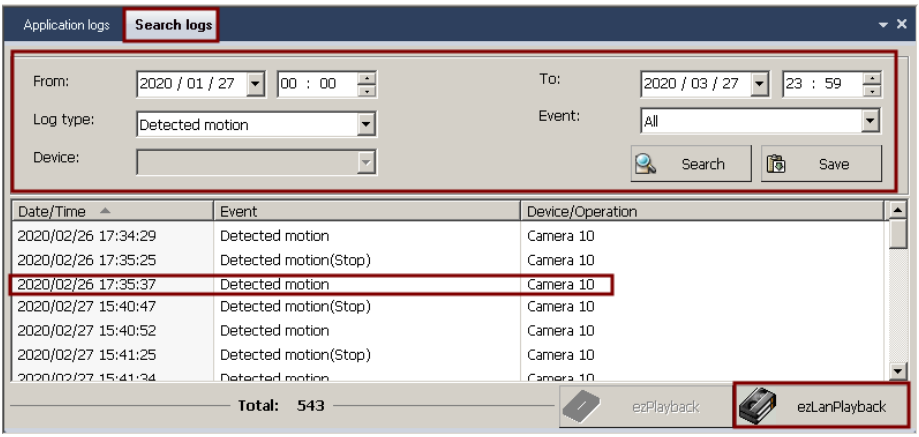
**2.)** Select the duration time to search for the logs.

**3.)** Select the "**Log type**" item from the drop-down menu.

**4.)** Type any keywords in the "**event**" and "**device**" fields for a quick search.

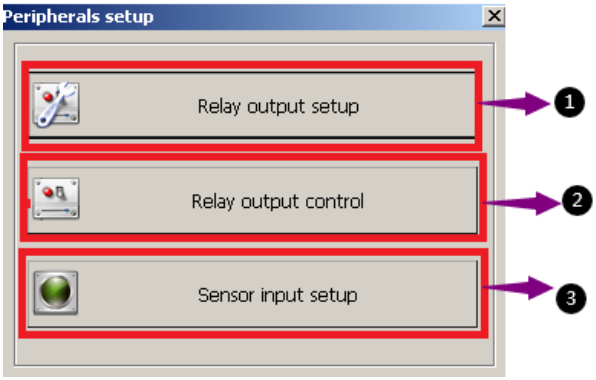
**5.)** Click "**Save**" if you would like to save the searched logs as a txt or Xls format file.

**6.)** Click "**Exit**" to leave the search logs window.



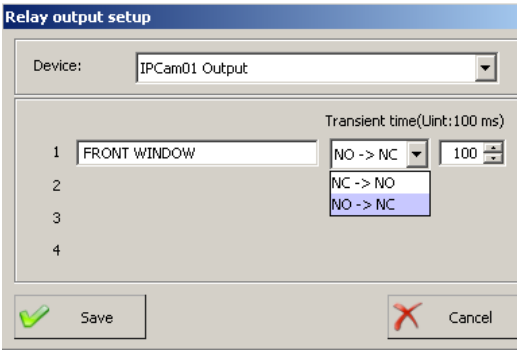
## 7-10. Peripherals setup

Click the icon to set up I/O configuration and parameters from "**Peripherals setup**". You can choose to set the output and input of the peripheral devices according to the actual needs. The NVR supports the I/O trigger function via built-in the NC-3212USB control card (Option), and the alarm output/input of the camera. You need to set up the parameters for the I/O devices trigger function.



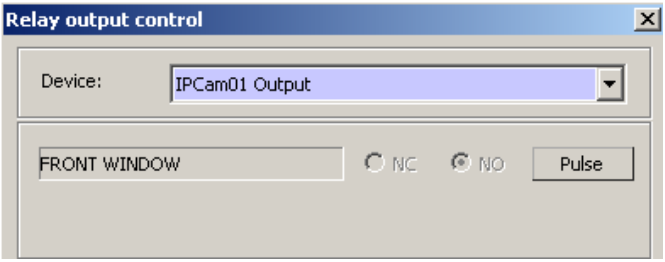

● **Section 1: Relay output setup**

- ✧ Select the device from the drop window, then enter a device name and set up a brief time when the event is triggered.
- ✧ If the trigger device is the relay output of the camera, please set the relay output of a short time to "no delay." Otherwise, the switching time will produce an error between the NVR and the camera.
- ✧ If the relay output is Normal open (NO), the switching mode should be set up NC→NO.
  If the relay output is Normal close (NC), the switching mode should set up NO→NC.
- ✧ The short time set up to 0, the trigger state is maintained, not switch.



●**Section 2： Relay output control**

✧ Select the device and allow switch the relay on/off state manually. If the "**Pulse**" mode appears only, the short switching time setup to 0.



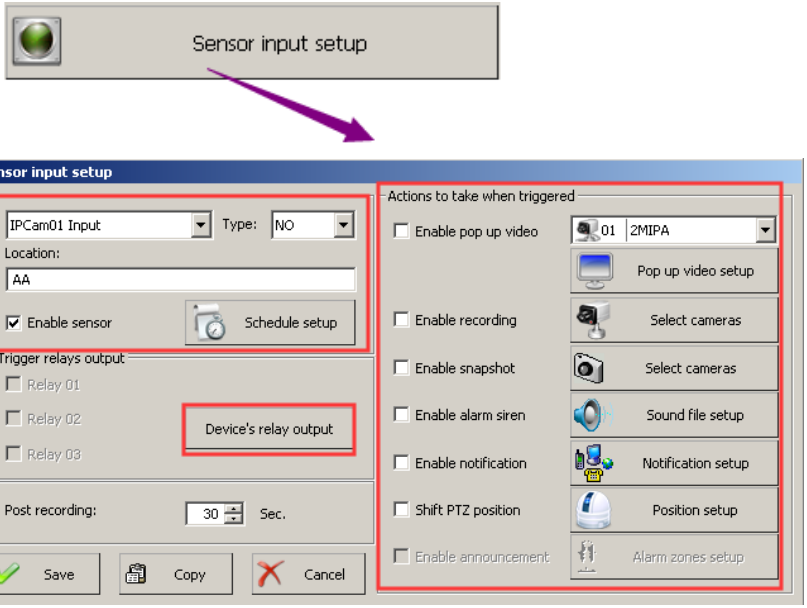

● **Section 3：Sensor input setup**

✧ Choose the device and named, then choose the NC or NO from the Type drop window.

✧ Check " Enable sensor" and then set up the activate schedule.

✧ Set up the relay output and multiple notification methods when the sensor is triggered.

For the detail setting process, please refer to the previous chapter.

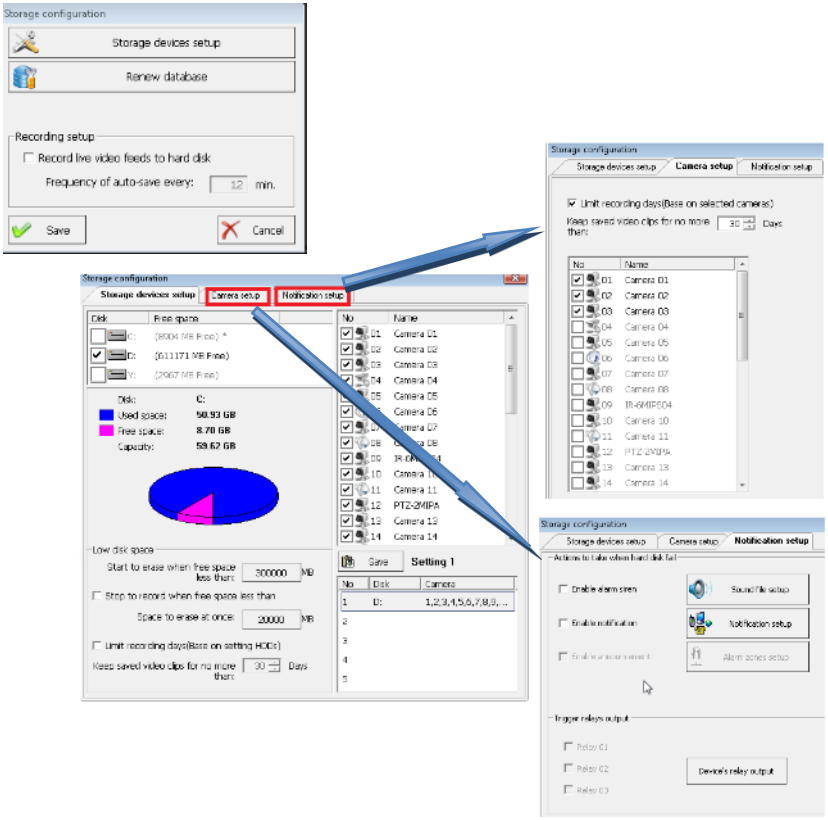


## 7-11. Stop alarm siren

Click “ ” icon to stop the alarm and adjust the audio volume or check “**Mute**.”

## 7-12. Storage configuration

Click “ ” icon to set up storage from “**Storage configuration setup**” will show the diagram as below then “**Storage configuration setup**” to set up the storage parameters.



### 7-12-1.Storage devices setup

**Storage devices setup:** Generally speaking, C: \ hard disk is the storage Operation System. The system will not check this hard disk for recording automatically; unless the NVR has only one C: \ hard disk. Get information about the usage and remaining capacity of each hard disk in this dialog box.

By default, all cameras record all hard disks except C: \; in general, C: \ is the storage system disk. The system will not automatically check this hard disk for recording; unless the recorder has only one C: \ hard disk.

The NVR system allows a specific camera(s) to record to a specified hard disk. The operation method is as follows:

1. Double-click No. 1 and select the hard disk to remain at No. 1.
2. Double-click No. 2 and select the camera number to be recorded on this hard disk.
3. Enter the value (It recommends to set the capacity to 3%-5% of the total hard disk capacity in the number) on the "Start to erase when free space less than" field, and also set up the value of "Space to erase at once" (Recommend is 3000M). When the hard disk space is lower than the input value, the system will automatically delete the oldest video file. The delete hard disk size each time will be the same as the setting value of the "**Space to erase at once**."
4. Press the "Save" button to complete the setting.
5. Repeat steps 2-4 to add another batch of specific cameras to record to another designated hard disk.
6. To cancel the recording of a specific camera with the specified hard disk, double-click the number 1, select the hard disk to remain at No 1, and then press the "Save" button to finish modifying the settings of the specified hard disk.

- **Start to erase when free space less than** It starts to erase the oldest video files to get the free space on the hard disk when only a certain amount of space leaves on your hard disk. The oldest files erase first.

**a.) Space to erase at once:** This specifies the amount of disk space to erase when the above limit reaches. The oldest files erase first. For example, if you type 1200 MB, the system will erase 1200MB when the limit reach.

Please set up about 3~5% free space before starting to erase the file and delete the file about 30G per time when HDD less the setting volume of room for the AnyNet-3208 (6416/6424) NVR.

**b.) Limited recording day(s):** The system will delete the oldest video clips when the recorded videos are over the set period. However, this function will be invalid if the recordable capacity of the hard disk space is lower than the "Keep recording days" setting.

- **Camera setup:**

➢ **Limited recording day (Base on selected camera(s):**

This configuration will allow users to set up the camera(s) to short recording days. To enable this feature, choose a specified camera (checked), and choose the limited days to keep these video clips.

- **Notification setup:** This configuration will allow users to set up notifications when the HDD failed. The notify process same as the previous description of the Motion detection chapter. For the detailed setting, please refer to the last chapter.
- **Renew database:** Click "**Renew database**" to detect new storage devices and rebuild the NVR/NVR system database. This button must click after an HDD drive is removed or added to your system. Otherwise, the program may not find playback video files. After clicking "OK," the system will restart the application.

Would you please perform this function if you find the playback function work abnormal? Running this function will re-index the Database of video clips.

## 7-12-2. Raid HDDs status

- **Raid HDDs status:**

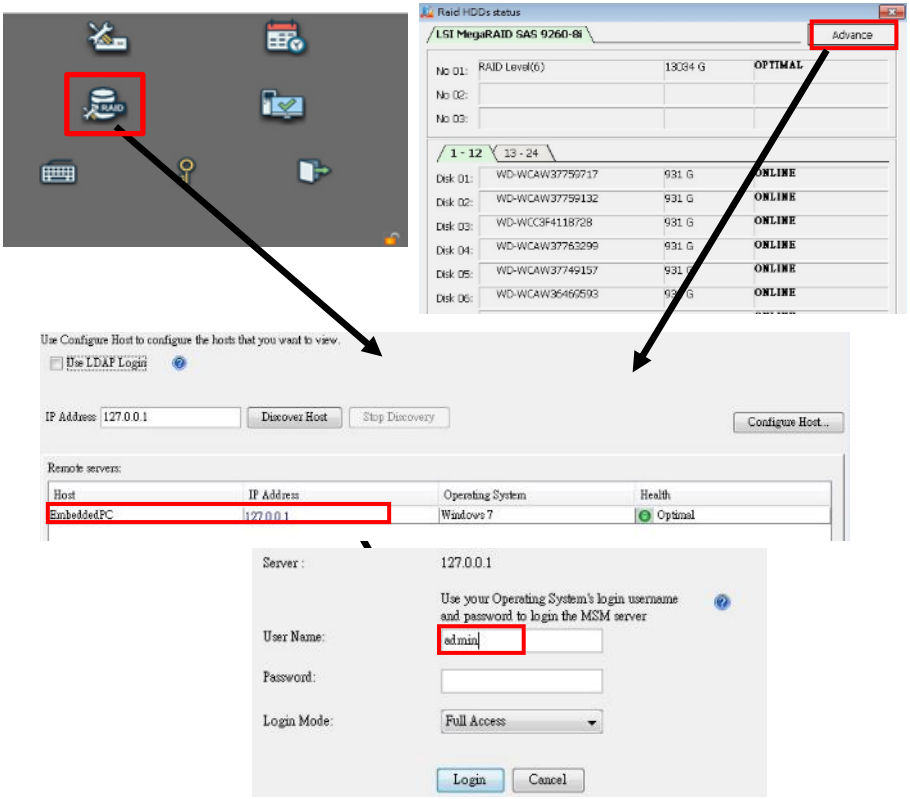
This field will show on the screen when the NVR had installed on the Raid card. Click the "**Raid HDDs status** " field to show the diagram widows below for checking the Raid HDD status and setting Raid card parameters.

**Setup the RAID parameters:**

1. Please click

icon on the screen of the System control panel or the "**Advance** " field (You will see the diagram below) to set up the parameters when installing new hard disks, replace faiure HDD or adjust the RAID parameters. Please follow up the process as below, and then

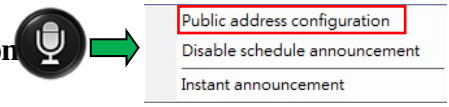
enter the User name /Password: admin/ (Password is space) to login for the RAID parameters setting.




2. If you want to change the password, please click the "**Configure Host** "field; then, you can set up the new password and password.
3. The system will enable alarm sound and pop up the error message automatically when the HDD defect and the Event log table show the defect HDD number. You can change a new HDD, and the system will auto rebuild this new HDD automatically.
4. For more detailed information, you can click the " On-line help " icon.
5. Click the " **Save system setting** " icon to finish the Raid HDD setting.

The HDD size should be the same as the existed HDD when you replace the Raid's HDD; otherwise, it may cause an error.

## 7-13. Public address configuration

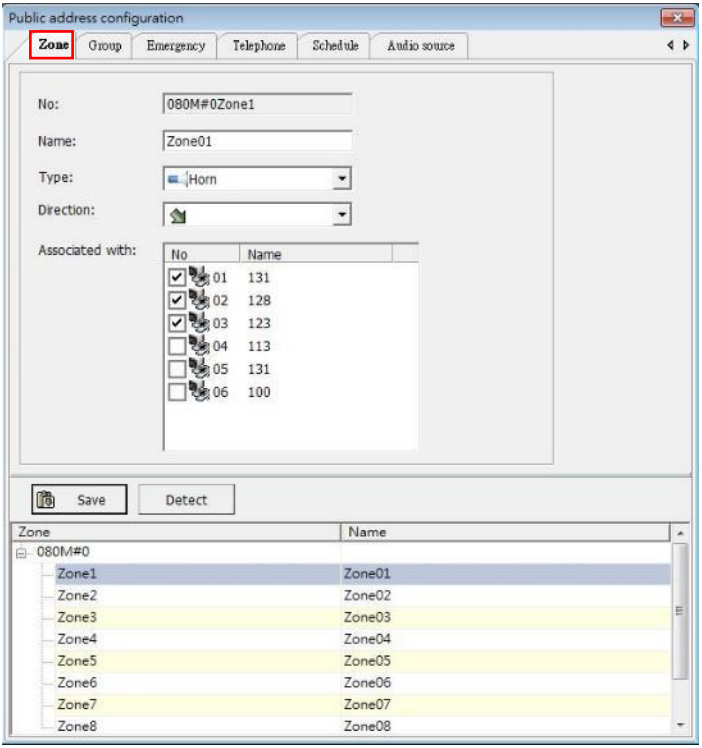



This function combines CCTV and public address functions. It equips with schedule/ Individual / Group broadcast and playback background music, which can integrate with the fire alarm system. It also can visually broadcast and monitoring the video through the Internet from anywhere at any time. The ability of remote visual broadcasting makes a wide variety of applications for different environments.

- **Public address configuration: (Optional)**

  Click the " " icon to set up the detail configuration from "**Public address configuration**."

- **Zone:** Click the "**Zone**" field to show the diagram below; follow up the process to set up the announcement zones.




**Step 1.** Click the "**Detect**" icon to check the entire public address servers connected to the NVR.

**Step 2.** Double click the "**Zone**" number from the listed table to set up the announcement zone.

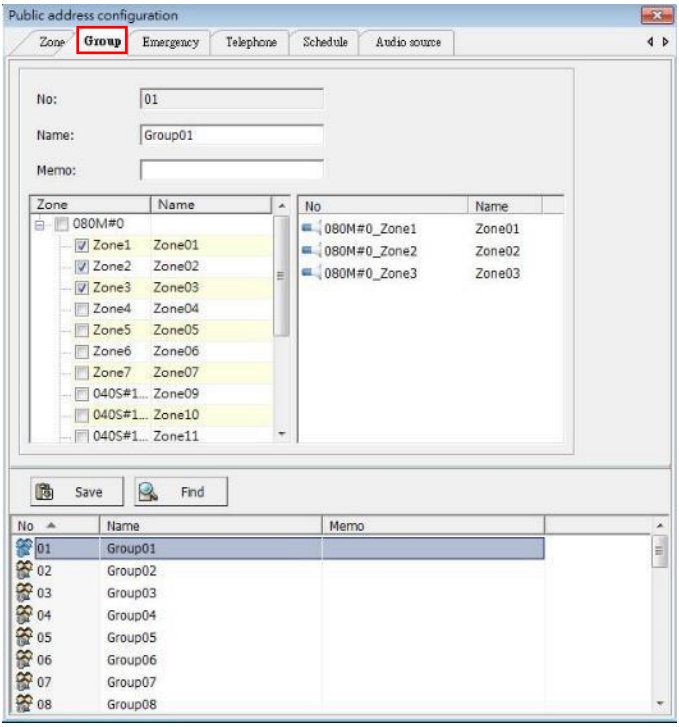
**Step 3.** Enter the location or name for the announcement zone.

**Step 4.** Choice the type and install the direction of the Speaker.

**Step 5.** Select the cameras which are associated with this alarm zone.

**Step 6.** Click the "**Save**" icon to finish and exit the setting.

- **Group:** Click the "**Group**" field to show the diagram below; follow up the process to set up the announcement groups.




**Step 1.** Double click the "**Group**" number from the listed table to set up the announcement group.

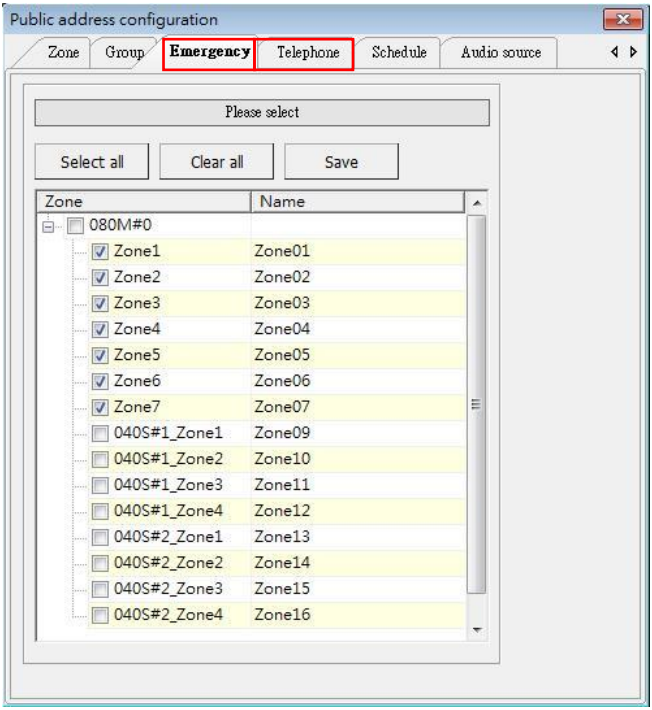
**Step 2.** Enter the location or name for the announcement group.

**Step 3.** Select the zones which will associate with this alarm group.

**Step 4.** Click the "**Save**" icon to finish and exit the setting.

- **Emergency & Telephone:** Click the "**Emergency**" or "**Telephone**" field to show the diagram below.

Please follow up on the process to set up the public address area when using the **Emergency**" or "**Telephone**" announcement.




**Step 1.** Click and select the zones from the list table for emergency or telephone announcements. For both hardware configurations, please refer to the PAC-080M installation menu.

**Step 2.** Click the "**Save**" icon to finish and exit the setting.

- **Schedule:** Click the "**Schedule**" field to show the diagram below. You can set up the schedule for announcement or playback background music (BGM) from this section. Would you please follow up on the process to set up the plan?

**Step 1.** Choose the schedule by Daily, Weekly, or Special during the "Type" field from the drop-down menu.

**Step 2.** Enter the "**Start time**" and "**End time**" for play announcement files.

**Step 3.** Choice the weekly date if you choose the "**Weekly**" mode and select "**Start date**" and "**End**

**date**" when you choose the "**Special during**" mode.

**Step 4.** Cho0se the "**Count**" or "**During**" mode from the drop menu of the "**Play with**" field.

**Count:** Choice the "**Count**" mode. The sound file will stop playback after three times if the setting count number is "**3**".

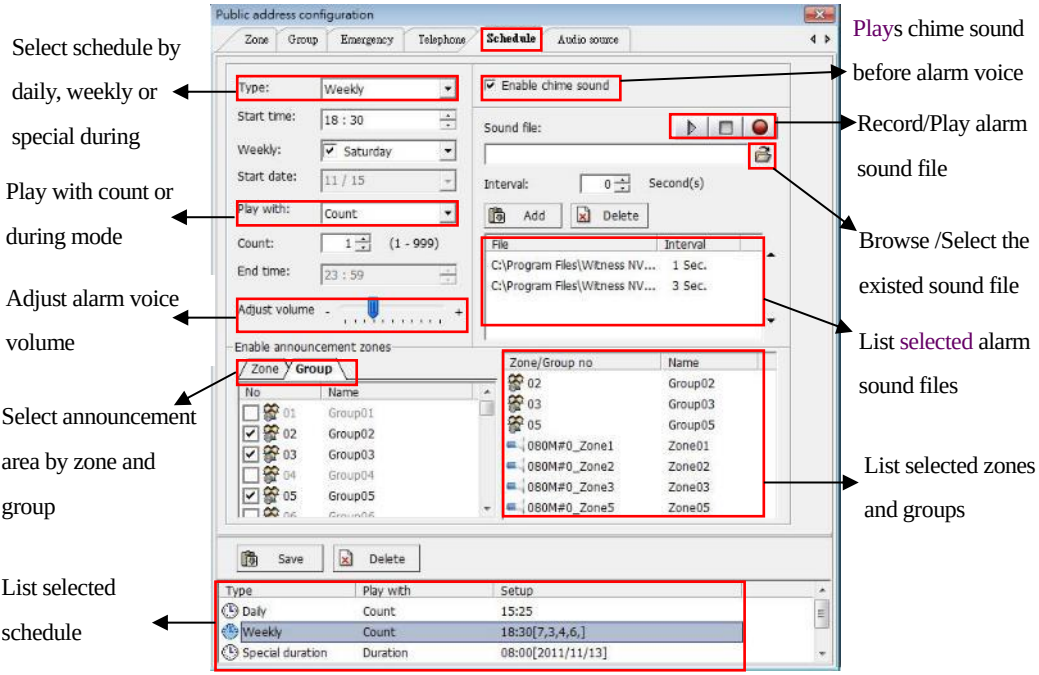
**During:** Choice the "**During**" mode, the sound file will playback from "**Start time**" to "**Endtime**."

**Step 5.** Adjust the sound volume and enable chime sound function if it is needed.

**Step 6.** Browse the sound files from existing files or record sound files by user, select interval period, and click the "**Add**" icon to save announcement files.

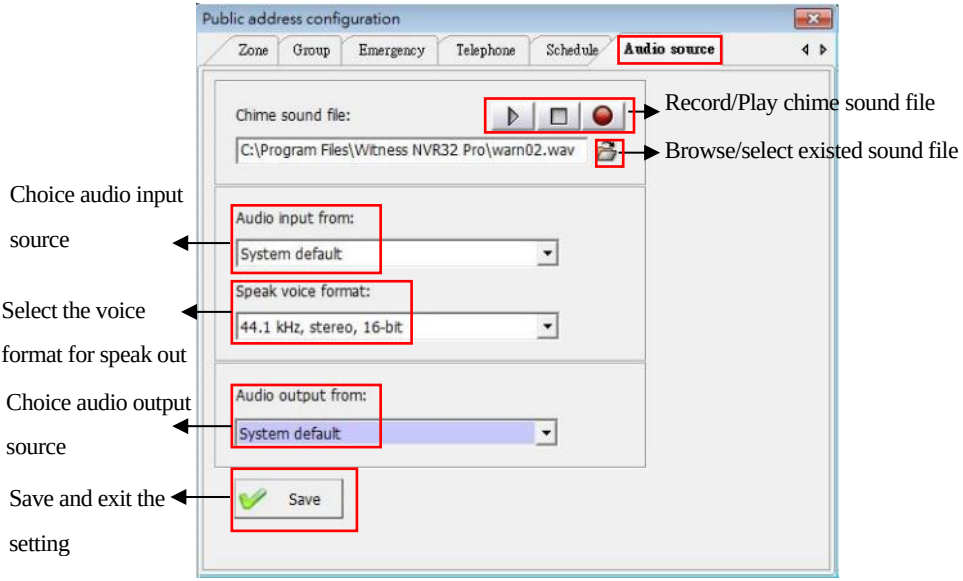
**Step 7.** Select the announcement zones and groups.

**Step 8.** Click the "**Save**" icon to finish and exit the setting.




➢ **Audio source:** Click "**Audio source**" field will show the diagram as below. You can choose the

chime sound file, the audio input and output source, and voice format from this section.




- **Enable / Disable schedule announcement:**
  Click the " " icon to enable the schedule of an announcement from the "**Enable/Disable schedule announcement**" field; click the area again to disable this function.

- **Instant announcement:** Click the " " icon to set up the detail configuration from the "**Instant announcement**" field. Click this field to show the below diagram. Would you mind following up on the process to set up the parameters of the instant announcement?

  **Step 1.** Choice the voice source of the instant announcement via the "**Microphone**" or "**Sound file**." If you want to play voice via a sound file, you can choose existing sound files or make a sound file. Select the number from the "**Count**" field if you want to play the sound files more than once. Also, choose the interval period between 2 sound files from the "**Interval**" field.

  **Step 2.** Choice the "**Zone**" or "**Group**" where you want to announce to these areas

  **Step 3.** Enable the chime sound function and adjust the voice volume if it is necessary when tell.

**Step 4.** Click the "**Start**" icon to start the announcement and click "**Stop**" to finish the instant statement.

Select "Microphone" or "**Sound file**" to make an announcement

Record/Play alarm sound file

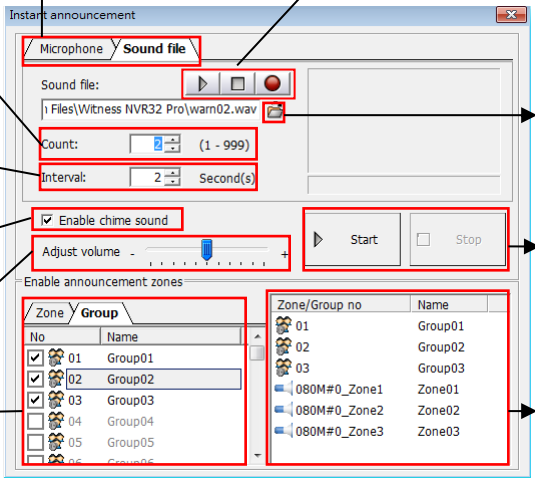
Set up repeat times for the selected sound files

Set up the duration between the selected sound files.

Plays chime sound before alarm voice

Adjust alarm voice volume

Select announcement area by zone and group




Browse /Select the existed sound file

Click "**Start**" to make an announcement and "**Stop**" to finish an announcement.

List selected zones and groups

## 7-14. Control Panel

■ Set up the display time clock for NVR

■ Select different display mode for viewing all connected cameras.

■ Switch to next camera or split screen

■ The channel selection buttons present "**live viewing without recording**" with black color, "**Stand by for scheduled recording**" with blue color, and "**live viewing with recording**" with red color.

■ OSD/Preset/Scan/2-point function control buttons.

■ Hide the tool bar; click again will go back the icon.

■ Click to adjust the parameters for "**Focus**", "**Zoom**", and "**IRIS**"

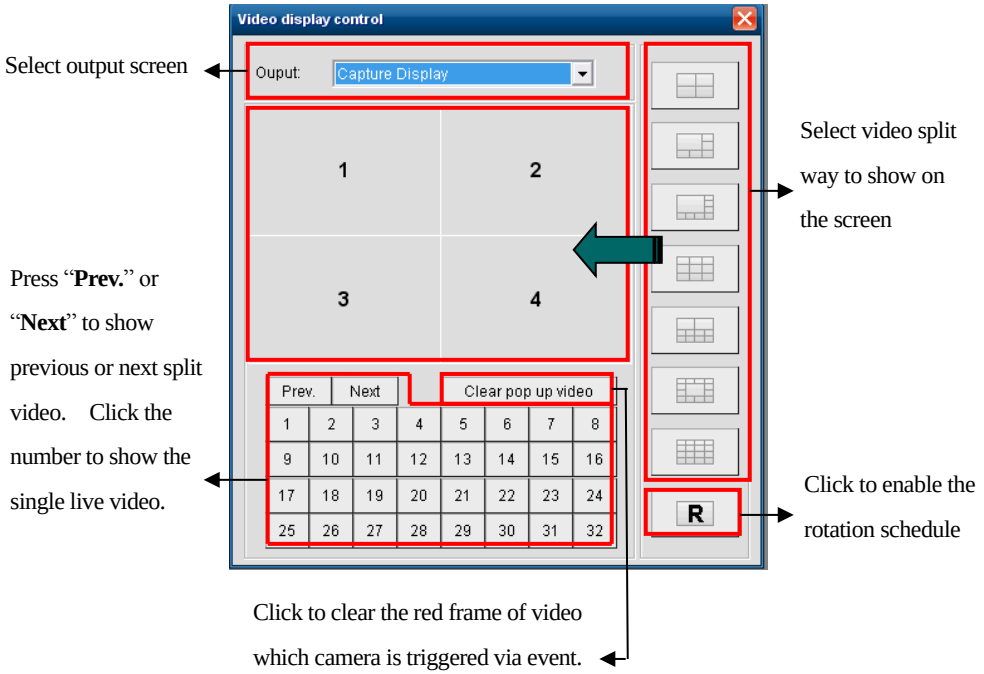
■ Click to set up I/O sensor.

■ Enable screen rotation for Live video

■ Right click the "**black button**" and select a PTZ camera. If the PTZ camera has been selected, the camera number will be shown on the black circle. Click "**Arrows**" to move the PTZ

■ Click to show the NVR information on the e-Map. If it supports dual monitor, the e-Map will be shown on the secondary monitor automatically.

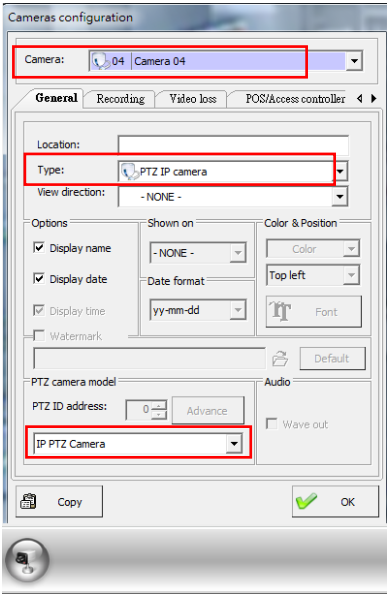
■ Click to show "**Video display control**" window and control the Live video display. The detail operation is shown as below:




**Operate i-View's IP PTZ camera**

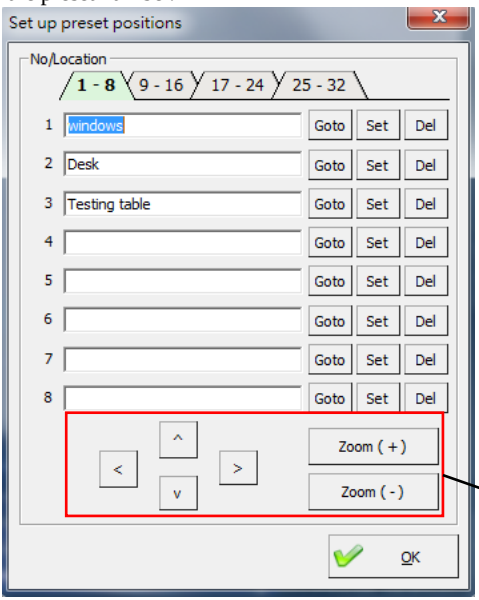
**Follow up the process as below to operate the i-View's IP PTZ camera:**

1. Select the camera, which is an IP PTZ camera and choose the "PTZ IP Camera" model from the drop bar of "Type," then select "IP PTZ camera" from the PTZ camera model section.
2. Move the Mouse icon and then click the left button to choose the IP PTZ camera number, and the camera number will be shown on the black circle when the PTZ camera is selected.
3. Click the "**Arrows**" icon to move the Pan/Tilt direction and click the (Zoom) icon or (Focus) icon or



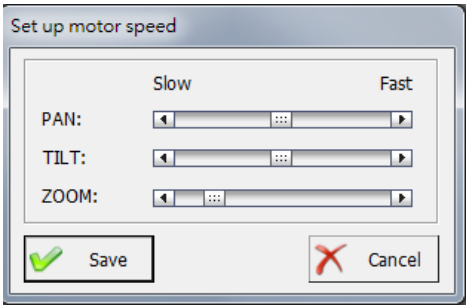
IRIS) icon to control the PTZ camera viewing position.

4. Click icon to set up the Preset position. Click "1-8" or "9-16" or "17-24" or "25-32" to select the more preset locations, the total 32 preset locations. You can click the "**Arrow**" & " **Zoom in /out** "keys to change the PTZ camera position and focus of the camera where you would like to set up for the preset position. Click the "**Set**" icon to save the present location. You can click the " Del " icon to cancel the preset; click the " **Goto**" icon; the PTZ camera will move the preset, which has been saved on the preset number.




Move the arrow key and zoom key to move the camera position, then click "Set the " key for save. Entry the Preset name, then click OK to save all the setting

Click icon to set up motor pan/tilt speed**;** move the navigation bar to adjust the speed of "**PAN**," "**TILT,**" and "**TILT**" for the PTZ camera. Please refer to the above photo.

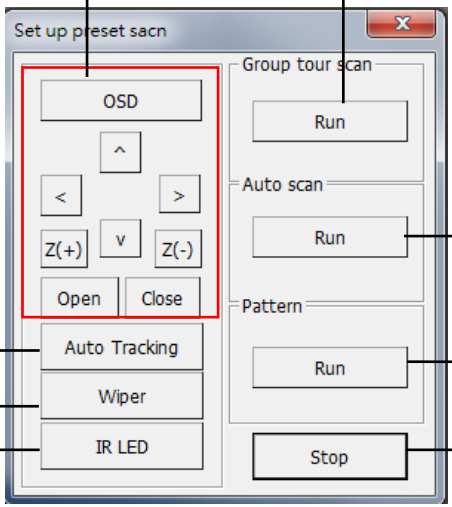


5. Click icon to set up setup swivel process. The "**Fig A"** diagram for "**FastCam III (V3)**", FDMO-D1IP, and FDPI-D1IP only. The different PTZ cameras will have different Graphic User Interface (GUI). Please refer to the PTZ camera user's manual for detailed information.

Enable OSD and move the arrow key and Open/Close to adjust the parameters of OSD.

Click this icon to start Preset tour scan; there are 8 preset tours.

**Fig B**




Click this icon to enable 2 point scan; support 8 scan setting

Click this icon to enable Pattern scan; support 4 Pattern scan

Click this icon to stop the running scan

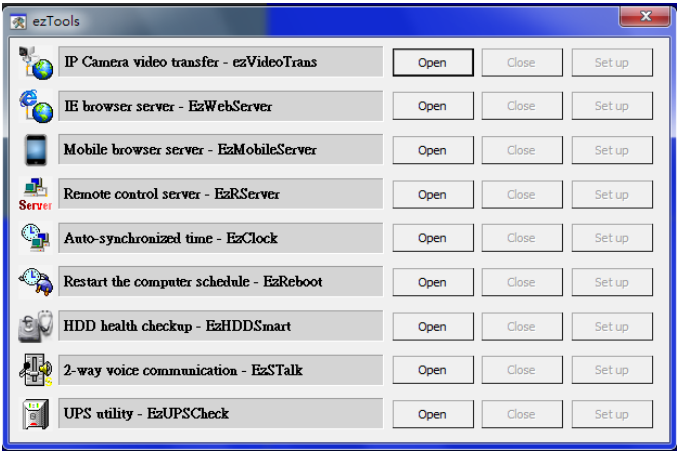
Enable/Disable Auto tracking

Enable Wiper on

Enable/Disable IR LED on

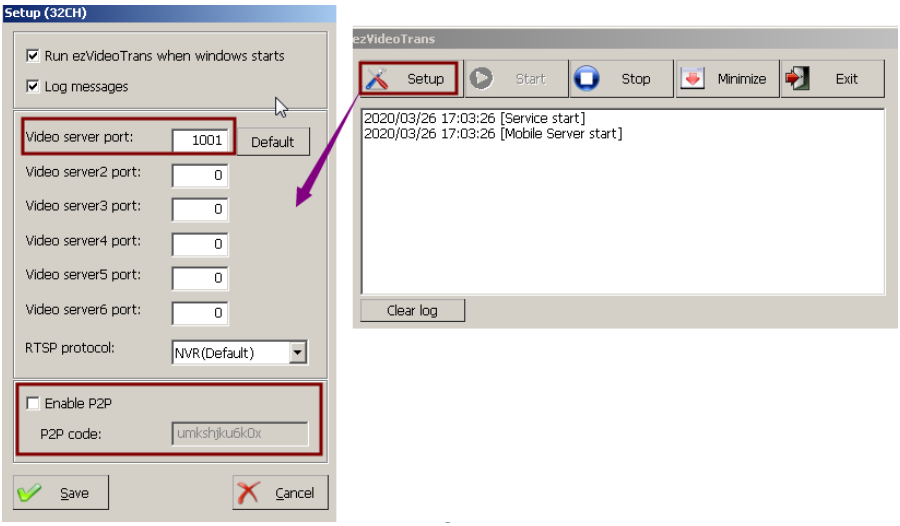
# Chapter 8 Application Tools- ezTools

This chapter will discuss the NVR's accessories programs and set up for each function.




## 8-1 IP Camera Video transfer - ezVideoTrans

This program suits the IP camera only; it is an alone program that allows the remote user to access the IP cameras from the small site. Using this program will not occupy the NVR program capability. We strongly recommend enabling this program when you use more than 32 IP cameras on an NVR and want to remote access these IP cameras.



**The function of the ezVideoTrans program description is as below:**

- Click the "ezVideoTrans program," and then click the "Setup" icon for the parameter's setup. The default port number is 1001, and you can choose the UTP or RTP of the RTSP transmission protocol. You can open more Video server ports (Maximum is 6) for video transmission if large video channels need to transfer to the remote sites. It will reduce the "ezVideoTrans" program loading. Please enter the "P2P" code for the P2P App service; you can buy the P2P code from your local dealer. As for the App, please download the MKVision App from Google Play or App Store. The default port number of the P2P App is 5800.
- Check the "**Log message** " that will show the current connection information of remote access.
- Click the "Start" icon to enable the ezVideoTrans program function. Click the "**Stop**" icon to disable it.
- Click the "**Minimize**" icon to save the program icon on the Windows tray.
- Click the "**Exit**" icon to close the program.

## 8-2 IE Browse Server - EzWebServer

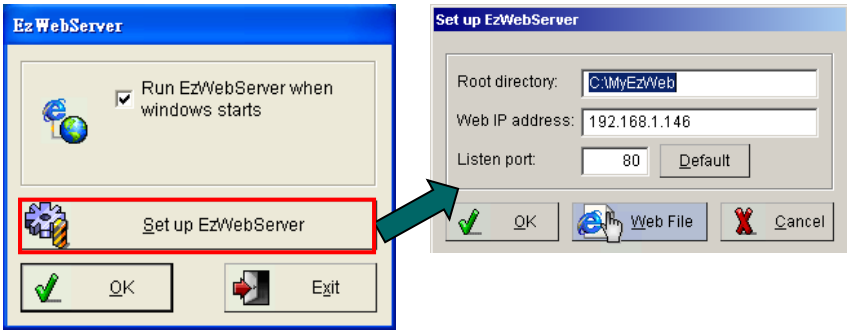
This program allows remote access to the NVR via INTERNET EXPLORER Browser. Would you please follow up on the process to set up the parameters? The NVR should have the static IP address or DDNS or ID code when you want to remote access this NVR.

➢ **Setup in NVR:**

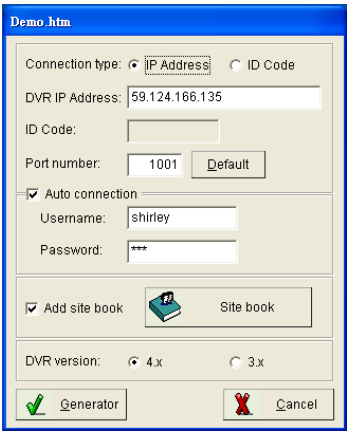
**Step 1.** Click "**ezWebserver**" from the "**ezTools**".

**Step 2.** Check the **"Enable autorun system"** to autorun the ezWebServer when starting the Witness Pro system every time.

**Step 3.** Click the "**Set up ezWebServer**" and fill out the NVR's IP address for the "**Web IP address**" section. For detail about the static IP address, please contact your ISP provider.




**Step 4.** Click the "**Web File**", fill out the information in each section of the "**Demo.htm**" interface, and click "**Generator**" to complete the settings.



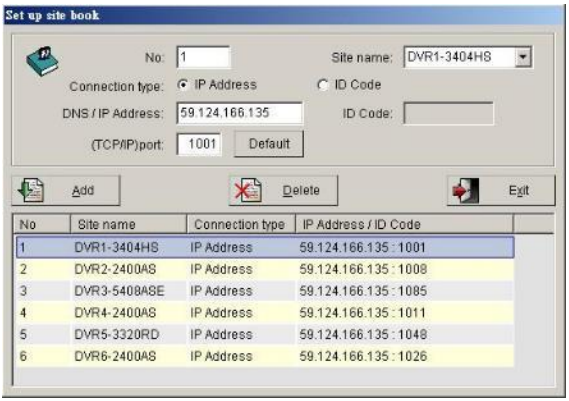

**"Demo.htm" Setup interface section:**

- **Connection Type:** Select the "**IP Address**" or the "**ID Code (For Dynamic IP address connection)**" for the connection.
- **NVR IP Address:** Type the NVR IP address if "**IP Address**" selects the connection type.
- **ID Code:** Type the ID code if "**ID Code**" select for the connection type.

- **Port number:** Type the port number for remote connection

Please make sure the setting connection port is not used by the PC program commonly, or the link may have collided with other PC application programs.

- **Auto connection:** Check "**Auto connection**" and type "**Username**" and "**Password**" for automatic connection via remote PC.
- **Add site book:** Save the connection information to this NVR in the site book. The users can select the NVR from the "Site Menu" list for remote connection via the IE browser.
- **NVR version:** There are two versions of Witness Pro currently. Select the correct version of the user's Witness Pro for connection.




**Remote client PC setup:**

**Step 1.** Click IE Browse from the remote client's PC. Type the IP address of the NVR Server.

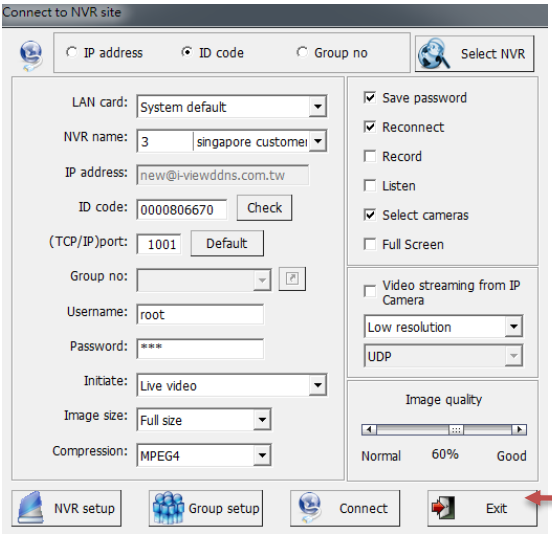
**Step 2.** Please allow the ActiveX program to be installed on the PC when the ActiveX pop-up.

**Step 3.** You can select the NVR list from the "**Site Menu**" drop-down menu for remote connection.

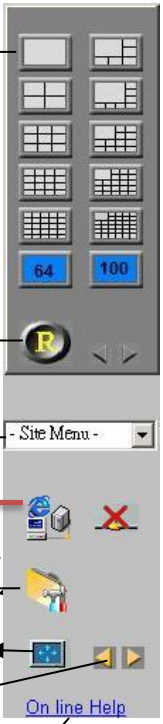
**Step 4.** Click " " icon from the left side control panel to connect the NVR Server and display the "**Connect to local site**" interface.

**Step 5.** Create a name in "**Site name**," type NVR IP address or ID code, (TCP/IP) port number, User name, and Password, and click "**Connect**" to start the connection.

- **Browser Viewing Tools Function Description:**




**Remote NVR connection setup.**




Display mode selections

Sites Rotation

NVR sites selection drop menu button

Disconnect the connection.

Enable audio and control PTZ camera.

Switch the channels in full size display mode.

See the detail operation from on line help menu.

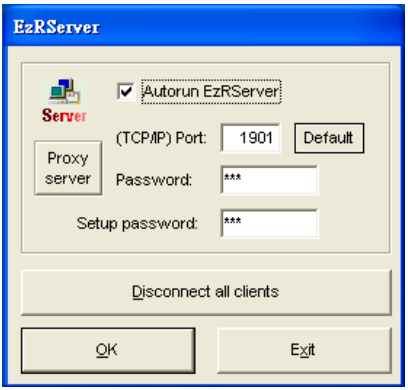
## 8-3 RemoteApp & Desktop Connections control server – EzRServe

The function of the **ezRserver** accessory program and must work with the ezRClient program.

The **ezRserver** program installs on the ParkHelper® Parking Management Server, which allows fully operate the function of the ParkHelper® Server via the **ezClient** program (install on Windows base PC) remotely for technical assistance or parameters configuration.

- **Follow the steps below to set up the Remote control server and client.**

**ezRserver program on NVR site**




**Step 1.** Click the **ezRServer** icon from the main screen of ParkHelper® Parking Management Server.

**Step 2.** Check the **Autorun ezRServer** to run the ezRserver program when the system starts automatically.

**Step 3.** Step 3.Set up the **TCP/IP** port for remote connection. (The default port is **1901**)

**Step 4.** Enter the password in the **Password** field for remote connection.

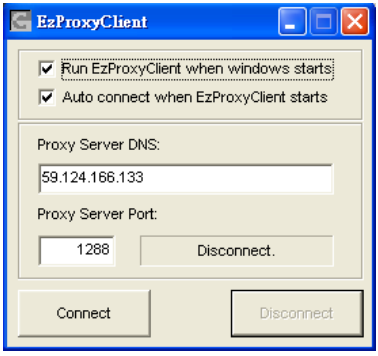
**Step 5.** Enter the password in the **Setup password** field to protect the parameters of the ezRserver program.

**Step 6.** Click the **OK** button to complete the setting.

- **Disconnect all clients button:** Press this button to disconnect all remote connections.
- **Exit:** Press this button to close the ezRserver program without save the setting.
- **Proxy server:** The **Proxy server** function will help remote users access the server without opening the Firewall.

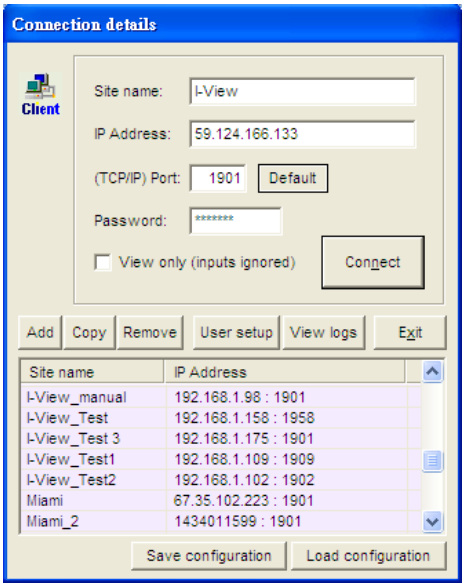
  **Please follow the steps shown below to set up the Proxy server function.**

  1. Click the **Proxy server** icon will pop up the dialog window.



2. Check the **Run ezProxyClient when Windows starts** option.
3. Check the **Auto-connect when ezProxyClient starts** option.
4. Enter the IP address in the Proxy Server DNS filed. The IP address must be math the IP address of the PC which install the ezProxyClient program
5. Enter the port for connecting ezProxy Server. (The default port is **1288**).
6. Click the **Connect** to connect ezProxy Server.

**ezClient program on Remote Client PC site**




**Step 1.** Enter the server name in the **Site name** field.

**Step 2.** Enter the IP address of the server.

**Step 3.** Enter the TCP/IP port to connect the Server. (The default port is **1901**.)

**Step 4.** Enter the password in the field which has set on the ezRServer.

**Step 5.** Check the **View only** option, and this remote client can view the server only.

**Step 6.** Click the **Add** button to save the connection information. The new user information will on the widow list. Double click the selected server from the list of the **Site name** filed, the selected server will be connected automatically.

**Step 7.** Press the **Copy** button to duplicate the selected item from the list.

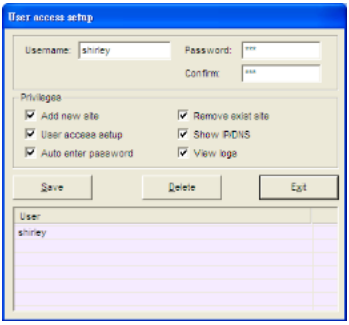
**Step 8.** Press the **Remove** button to delete the selected item from the list.

**Step 9.** Press the **Exit** button to close the ezRclient program.

➢ **Save configuration:** Export the parameters of the ezRClient program.

➢ **Load configuration:** Reload the parameters of the ezRClient program.

➢ **User access setup:**




**Step 1.** Enter the **User name** and **Password** for the authorized user to set up the ezRclient program.

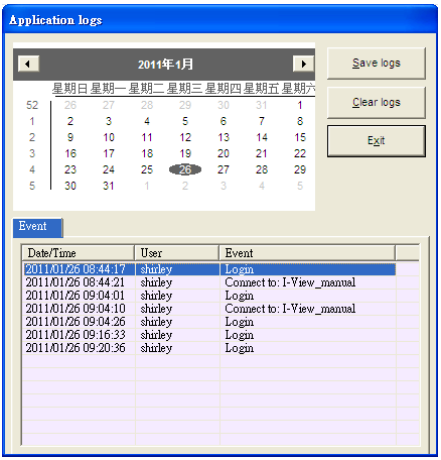
**Step 2.** Select the privileges for the authorized user.

**Step 3.** Click the **Save** button to add the authorized user.

**Step 4.** Click the **Delete** button to remove the selected user from the list.

**Step 5.** Click the **Exit** button to close the dialog window.

➢ **Application Logs:**




**Step 1.** Click the **Save logs** button to save the selected logs.

**Step 2.** Click the **Clear logs** button to delete the selected logs.

**Step 3.** Click the **Exit** button" to close the Application logs window.

## 8-4 Two Way Audio – EzTalk

This chapter describes the operation process to set up the 2-Way audio function on the server site and remote site.

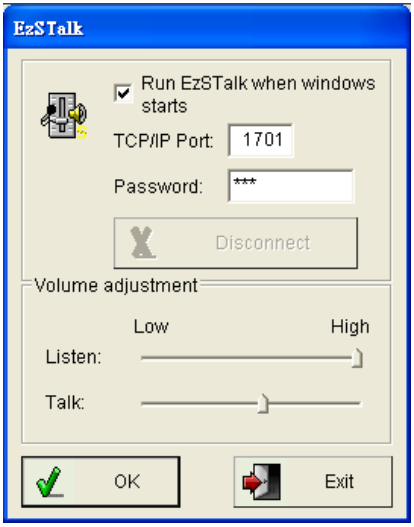



Fig 4-8.1

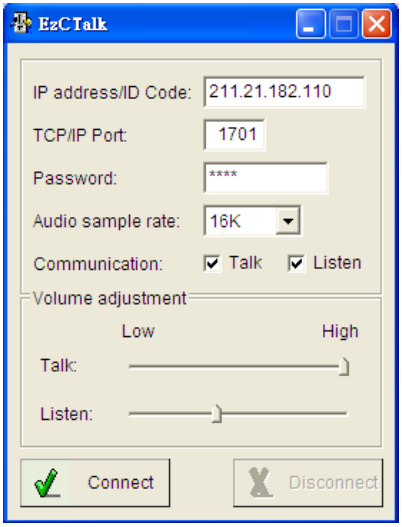



Fig 4-8.2

**Follow the steps below to set up 2-way audio communication:**

**On Server site**

**Step 1.** Click the **ezSTalk** from **ezTools**.

**Step 2.** Check the **Run ezSTalk when the Windows starts button automatically runs the ezSTalk program when the user turns** on the NVR.

**Step 3.** Click the **ezSTalk** from **ezTools**.

**Step 4.** Enter the TCP/IP port number for remote client connection. The default port is 1701.

**Step 5.** Set up the password in the Password field for remote client connection.

**Step 6.** Adjust the audio volume to the Listen and Talk field to suit your environment if needed.

**On Remote Client platform site**

**Step 1.** Run the **ezCTalk** program for remote audio connection.

**Step 2.** Enter the **IP address**, **port,** and **password** on which platform you want to remote audio connection.

**Step 3.** Select the **Audio sample** rate. The audio quality will be better with 16K but occupy higher bandwidth. Oppositely, the 8K audio rate requests less bandwidth transmission, and the audio quality will be usual.

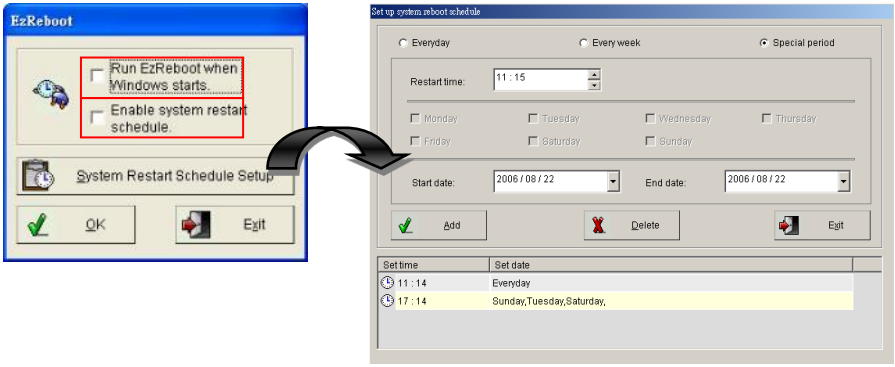
**Step 4.** Check the Talk or/and the **Listen** function in which you want to have the remote audio process.

**Step 5.** Adjust the audio volume of the Listen and **Talk** slide bar to suit the environment application when needed.

**Step 6.** Press the Connect button to start the communication process.

## 8-5 Schedule Reboot – EzReboot

It recommends rebooting the Server regularly (for example, once a week) to release the temporary memory and restore the server to its optimal state.




**Would you please follow the steps to complete the schedule reboot setting from the ezReboot application?**

**Step 1.** Click on the **ezReboot** program on the main screen, the dialog window will show as the above.

**Step 2.** Check the **Run ezReboot when Windows starts** option to autorun the application when the system turns on.

**Step 3.** Check the **Enable system restart schedule** option to activate the present reboot scheduled.

**Step 4.** Press the **System Restart Schedule Setup** button to set up the system reboot schedule.

**Step 5.** Select the appropriate schedule timeframe by checking the **Everyday**, **Weekly**, or **Special period** option, and then select the Restart time.

**Step 6.** Press the **Add** button, and the set schedule will be on the list.

**Step 7.** Press the **Exit** button to close the dialog window of the System Restart Schedule Setup.

**Step 8.** Repeat **Step 1-4** to increase the new schedule.

**Step 9.** Press the **OK** button to complete the setting and enable the **ezReboot** program.

## 8-6 Time Synchronization – EzClock

Sometimes the Server's clock time will be fast or late compared to the standard clock time after running for a while. Would you please follow the steps to complete the auto synchronize the clock time with a Standard time server from the ezClock program?

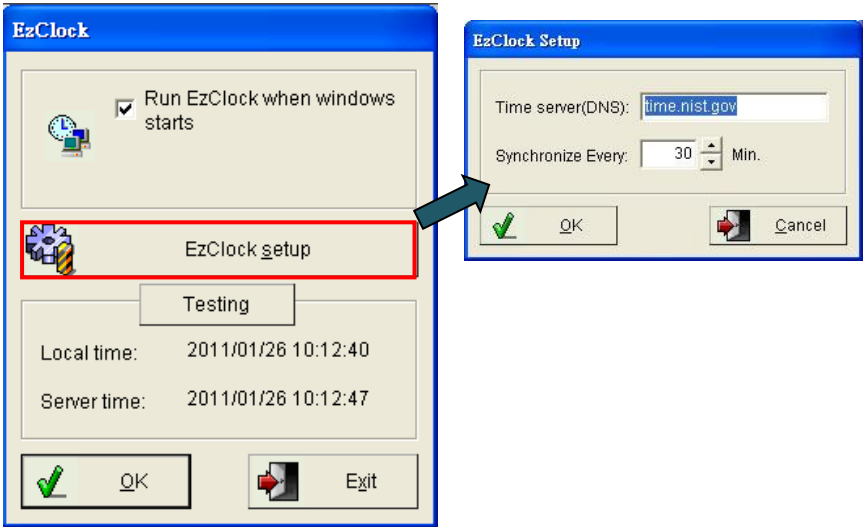
**Step 1.** Check the **Run ezClcok when Windows starts** option. The ezClock program will automatically run the ezClock program when the user turns on the platform.

**Step 2.** Click the **ezClock setup** button, and then input your favorite Time Server's DNS address or IP address to synchronize the clock time with this Time server. Or simply keep the default Standard Time Server as it is.

**Step 3.** Enter the interval of synchronization time in the **Synchronize Every** field.

**Step 4.** Click the **Testing** button to check the setting.

**Step 5.** Click the **OK** button to complete the setup.

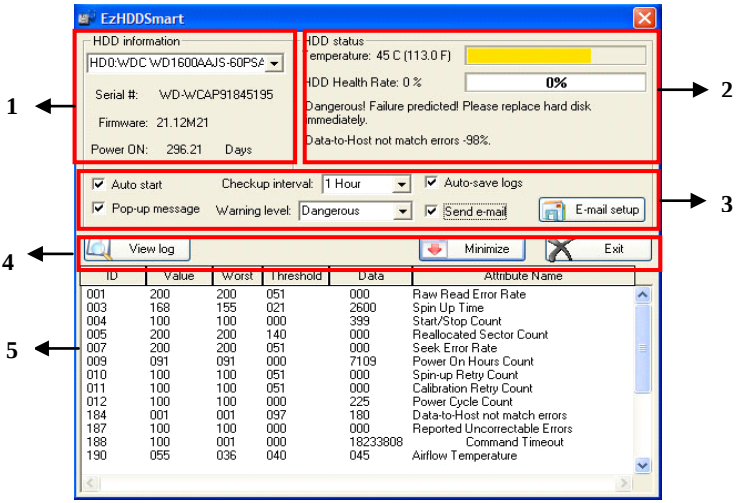


## 8-7 HDD Healthy Monitoring - EzHDDSmart

### What is S.M.A.R.T.?

S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) interface between the BIOS and a computer's hard disk. It features the Enhanced Integrated Drive Electronics (EIDE) technology that controls access to the hard drive. Suppose S.M.A.R.T is enabled when a computer is set. In that case, the BIOS can receive analytical information from the hard drive and determine whether to send the user a warning message about possible future failure of the hard drive.

SMART monitors a set of drive attributes, such as temperature, throughput performance, and the number of hours the drive has powered. It compares these attributes to a corresponding setting of thresholds. If a point drops below its threshold, the hard disk is no longer considered fit for use and should replace immediately. Not all features are available on all hard drives, however. It is the responsibility of the drive manufacturer to include SMART support. Sometimes the Platform's HDD will crash or cannot read/write the data unexpectedly. Avoid problems are repeatedly happen; the ezHDDSmart program will directly or indirectly detect the health status of hard disks and give statistical information. It can provide the hard disk reliability and the failure prediction function and send the user a warning message about possible future failure of the hard drive. Click the ezHDDSmart icon will pop up the dialog window below.



**Function description of the HDD Healthy Monitoring:**

**Section 1:**

- **HDD Information:** You can check the Hard disk drives installed on the platform in this field.

**Section 2:**

- **HDD status:** This section displayed the temperature and health rate of the selected hard disk drive. As well as show the action command and error reasons here.

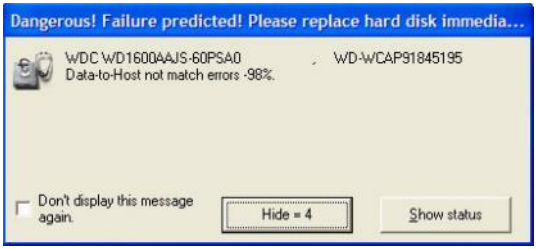
**Section 3:**

- **Auto start**: Check this option; the ezHDDSmart program will automatically launch when Windows starts.
- **Checkup interval:** Select the interval period to check the hard disk drives.
- **Auto-save logs:** Check this option. The ezHDDSmart program will automatically save the attributed factors of the HDD defect on the view log.
- **Pop-up message:** Check this option; the ezHDDSmart program will pop up an error message when a failure happens. There are two failure levels- the Dangerous and the Warning only mode.

  Please respond to the error message in the following manner:

  * Warning:

  It highly recommends back up your problematic hard disk regularly to help reduce data loss.




  ** Dangerous: Failure Predicted! Please replace your hard disk drive immediately, or at least disable it in the Storage Devices Configuration within the platform and back up the data directly.

- **Send e-mail:** Check this option; the email notification will automatically send out when a failure is triggered.
- **E-mail setup:** Enter the email address for HDD warring message notifications.

  **Please follow the steps below to set up email notification:**

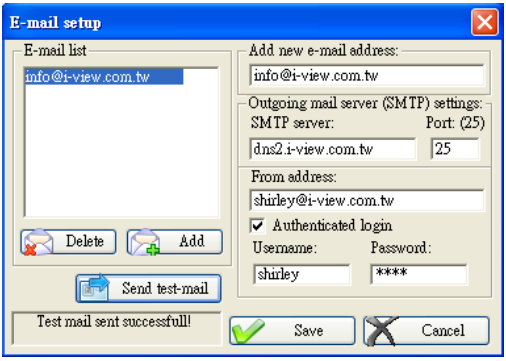
**Step 1.** Enter the **receiver's e-mail** address in the Add new e-mail address field.

**Step 2.** Enter the data in both the **SMTP server** and **Port** fields.

**Step 3.** Enter the sender email address in the **From address** field.

**Step 4.** Check the **Authenticated login** option, and then enter the Username and Password.

**Step 5.** Click the **Add** button to save the profile, and then the new information will show on the E-mail window. Selected an email from the list window, and then click the Delete button to remove the selected items.



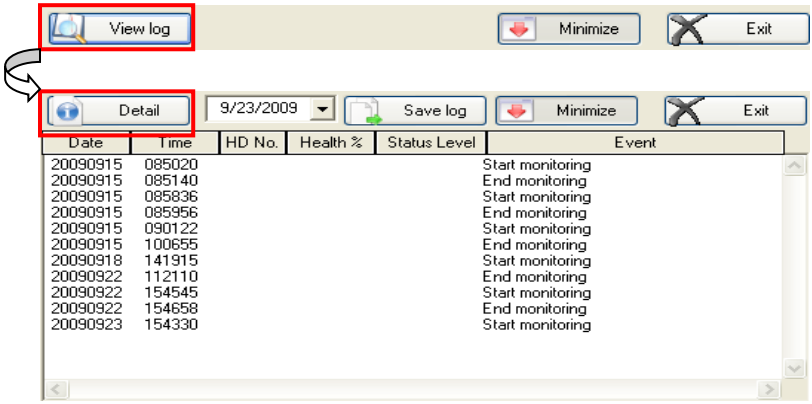

**Step 6.** Repeat **Step 1- 6** to add another e-mail profile.

**Step 7.** Press the Send test e-mail button to test the setting emails.

**Step 8.** Click the **Save** button to complete the setting.

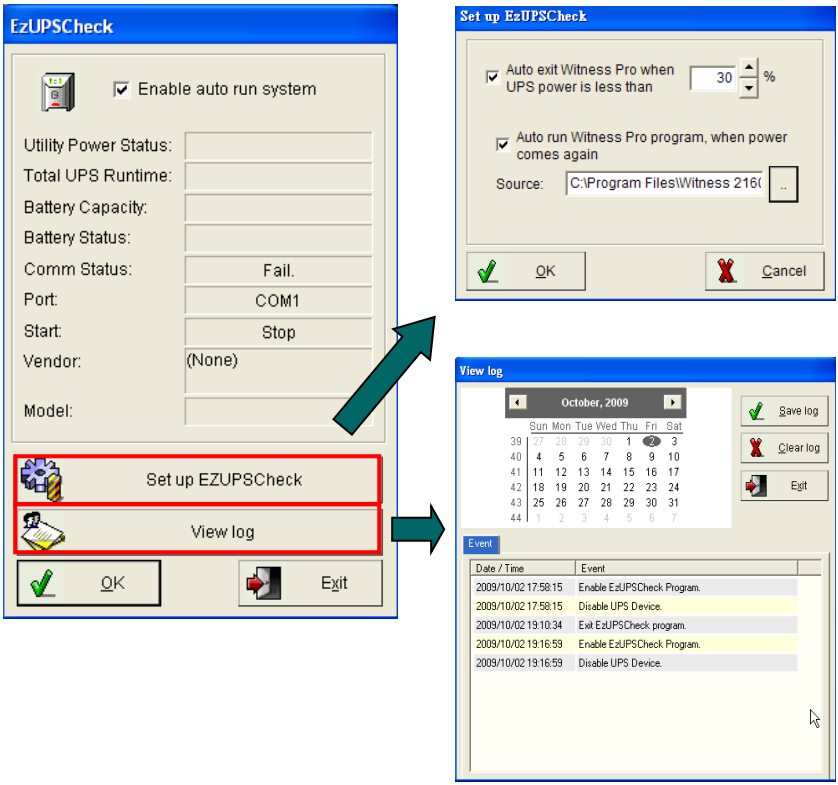
**Section 4:**

- **View Log**: View Log: Click this button to check the records of the HDD health status.
- **Detail:** Click this button and select the date to check the detailed status at that time.
- Minimize: Click this button to minimize the ezHDDSmart program.
- **Save log:** Click this button to export the records.
- **Exit:** Close this application program.



## 8-8 UPS utility –EzUPSCheck

The server integrates the UPS power management function. This program allows setting the actions to the Server platform when the power capacity of UPS lowers than the setting value to avoid the abnormal shutdown.




**Please follow the steps below to set up the EzUPSCheck program.**

**Step 1.** Check the **Enable auto run the system** option. The EzUPSCheck program will automatically run when the user turns on the platform.

**Step 2.** Check the UPS status. If the UPS well connects to the server platform, the status of UPS will automatically show on the detailed connection information of the dialog window.

**Step 3.** Click the **Set up ezUPSCheck** button to set up the parameters of UPS.

**Auto exit the ezParkM program when UPS power is less than:**

The system will autosave the running data and close the **ezParkM program** when the UPS power is less than the set percentage.

**Autorun Witness Pro program when power comes again:** The system will auto-run the assigned path's plan when the power comes back.

**Step 4.** Click the .. button to browse the assigned program to save in the **Source** field.

**Step 5.** Click the **View logs** button and select the date to check the records of the ezUPSCheck program.

**Step 6.** Click the **OK** button to complete the setting.

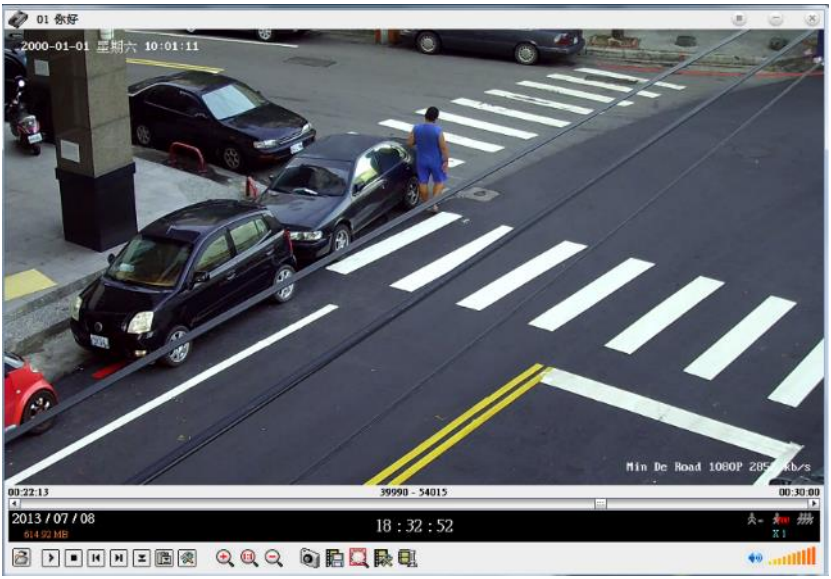
## 8-9 On-Line Menu

**Press this button to automatically open the online operation manual of the AnyNet® Network Video Recorder from the IE browser.**

## 8-10 Other Applications

### Single-file video playback – ezPlayback

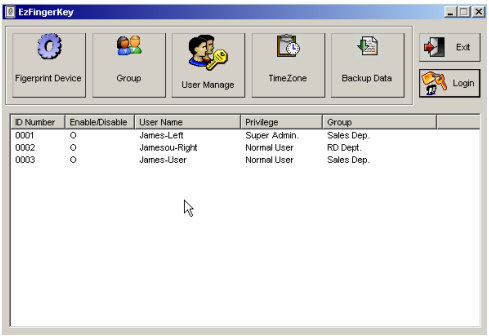
This function is for the user to playback video clips in a fast and straightforward way. Click the **"Start" menu → "Programs" → Witness Pro**, and click the **"Single-File Video Playback – ezPlayback"** selection.




Click the Open file icon to select the existed video clips to playback. The functions almost the same as the ezLANplayback, so you can refer to the previous description

### Access Control – ezFingerKey

While the NVR integrates with the fingerprint access controller, the user can go to the path of the Windows **"Start" menu → "Programs" → Witness pro,** and click the **"Access Control – ezFingerKey."** Please refer to the fingerprint access controller user manual



for detailed information about the fingerprint access controller installation, system configuration, and function usage.