@-Witness

PC-Base DVR

Software opertation Manual

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iview
A Safe Life

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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.

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

- 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. 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.

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.

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.

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.

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.

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.

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.

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.

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.

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

I-View, e-Witness, @-Witness Pro, u-Witness XP, x-Witness, FreeView Pro, AnyView Pro, PDAVirw and MobileView are registered trademarks of I-View Communication Inc.

Microsoft, Windows 95, 98, ME, Windows2000, XP and Vista 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

The main surveillance software application, named Witness Pro, is for on-site live monitoring, on-disk recording and follow-up playback. Please note that the DVR card needs to be installed in the PC before the Witness Pro software can be launched.

1-1. Product Feature

The Witness Pro surveillance software provides the following features:

- **Live Display:** Max. 960 FPS display rate @ D1 resolution, up to 32 video inputs.
- **Video/Audio:** Up to 32 audio/video recording channels, accessible locally and remotely.
- **Dual Monitor Display:** Allows live and eMap or playback screens to be viewed on two separate monitors.
- **Screen divisions:** auto-switching to 1, 4, 6, 7, 8, 9, 10, 13, 16 and 32 video channel display or on-the-fly selections along with optionally assigned rotation.
- **Video Backup:** the EZ-Backup applet supports various storage devices (HDD, CD-R, DVD-R, USB Drives, etc.), and the recorded video clips can easily be played back using EZ-Playback (self-installed on the backup media) or via Windows media player.
- **Playback:** gives you the ability to search and play back specific video clips based on date & time, special events or preset keywords.
- **E-Map:** Provides you with a graphical overview of the security system devices installed at your site, indicating the locations of the connected cameras, motion sensors, relays and Fingerprint Access controllers.
- **Motion Detection:** with sensitivity controls and confinable trigger areas so as to avoid detection in remaining areas prone to false alarms, such as a window or rotating ceiling fan.
- **Watermark:** Prevents the recorded videos to be tampered with so as to be allowed in a court of law.
- **Alarm Notification:** When an alarm is triggered, whether through burglar alarm input devices or camera software motion detection, the DVR system can automatically notify you by phone with a voice recorded message or siren sound; email picture attachments; or transfer live video to a remote PC.

- **Event Logs:** Displays the system logs of the logins/logouts, video losses, remote accesses, HDD failures, and motion detections. POS transaction records and Access controller text.
- **FreeView Pro and AnyView Pro (Remote Client Software):** Support simultaneously multiple sites connections for remote live view, recording, download and playback of video clips.

Chapter 2. DVR System Installation

This chapter describes the DVR software installation for the various comprised software programs (Witness Pro, FreeView Pro, AnyView Pro and PDAView Pro), system requirements, installation prerequisites, and recommended installation steps.

2-1. Software System Requirements

Before installing the DVR software, please make sure that your PC meets the following minimum system requirements.

2-1-1. Witness Pro (Local Recording & Transmitting Software)

- **Operating System:** Windows 2000 (Service Pack 2 or above), XP or Vista -- with DirectX 9.
- **CPU Requisites:** Please refer to the table in **Appendix A** for CPU requirements.
- **Memory Requisites:** Minimum 512 MB RAM; 1 GB RAM or better is recommended.
- **Hard Disk Drives:** Speed of 7200 RPM or better.
- **VGA Graphics Card:** 24-bit (true-color) or better.
- **Sound card and speakers:** For alarm sound effects or alarm voice recording.
- **Microphone:** 2Vp-p output is required for audio recording.
- **Voice Dial-Up Modem:** speed of 33.6 kbps or more; external modem that supports Wave files is recommended.
- **CP Series DVR Cards:** Please make sure that the DVR card is physically installed in one of the PCI or PCI-E slots of your PC. For the DVR system requirements and installation, please refer to the table in **Appendix B** and the CP series DVR board installation guide.

Each DVR card has its own distinct software program. See the list below:

Software	Hardware
Witness 1400AS Pro	CP-1400AS XP
Witness 2400AS Pro	CP-2400AS XP
Witness 2160 RD Pro	CP-2160RD Deluxe 0
Witness 3160 RD Pro	CP-3160RD Deluxe
Witness 2320 RD Pro	CP-2160RD Deluxe 0 + CP-2160RD Deluxe 1
Witness 3320 RD Pro	CP-3160RD Deluxe + CP-1605DC
Witness 1908ASE Pro	CP-1908ASE XP
Witness 1916ASE Pro	CP-1916ASE XP
Witness 1932ASE Pro	CP-1932ASE XP
Witness 1906PCI-E Pro	CP-1906PCI-E XP 0 (+ XP 1 + XP 2 + XP 3)
Witness 1908PCI-E Pro	CP-1908PCI-E XP 0 (+ XP 1 + XP 2 + XP 3)
Witness 1916PCI-E Pro	CP-1916PCI-E XP 0 (+ XP 1)
Witness 5432ASE Pro	CP-5416ASE XP 0 + CP-5416ASE XP 1
Witness 5416ASE Pro	CP-5416ASE XP 0
Witness 5408ASE Pro	CP-5408ASE XP 0 + CP-5408ASE XP 1
Witness 5404HS Pro	CP-5404HS XP 0 (+ XP 1 + XP 2 + XP 3)

2-1-2. FreeView Pro and AnyView Pro (Remote Client Software)

- Desktop or Notebook PC with Pentium III 500 MHz CPU or better.
- Operating system: Windows 2000, XP or Vista. Not compatible with Apple O.S..
- Minimum of 256 MB of free hard disk storage space.
- Sound card and speakers are required for alarm sound effects or alarm voice recording.
- 24-bit (true-color) VGA graphics card or better.
- Modem speed: 33.6 kbps or better.

2-1-3. PDAView Pro (Remote Client Software for PDA palm device)

- PDA device, which use the Windows Pocket 2002 and Pocket 2003 O.S.
- Operating system: Windows Pocket 2002 and Pocket 2003 O.S.
- Wi-FI Modem, GPRS Modem or 3G Modem.

2-1-4. MobileView Pro (Remote Client Software for Mobile Phone)

- Smart phone, which use the Windows Mobile 5.0 or Mobile 6.0 or above O.S.

- Operating system: Windows Mobile 5.0 or Mobile 6.0 or above O.S.
- Wi-Fi Modem or 3G Modem.

1. FreeView Pro communicates via a TCP/IP connection, AnyView Pro communicates via a dial-up modem-to-modem connection; and for simple remote viewing, PDAView Pro needs a PDA Palm device, and MobileView Pro needs a smart-phone (smart cell-phone).
2. The output audio level of your microphone must be 2V2p-p or better.
3. The dial-up modem (voice/data/fax) must support Wave files; otherwise you won't be able to generate phone call" notifications.
4. The video files size depends largely on the recording resolution setting, image compression method utilized, compression bit rate chosen and your own environment (lighting conditions, movement rate, etc.).

2-2. Installation Prerequisites

It is recommended that you install the main DVR software application (Witness Pro) along with the Access Runtime Database before you physically insert the DVR card into your PC.

2-3. System Installation Procedures

Please proceed with the installation of the Witness DVR software application in the following order:

Step1. While into Windows, insert the I-View DVR software CD into a CD/DVD drive.

Step2. Choose to install the "Device Driver & Witness Pro Software".

Step3. Completely shut down (turn OFF) the PC.

Step4. Open the PC casing.

Step5. Insert the DVR card (and other optional cards) in one of the free PCI or PCI-E slots.

Step6. Turn ON the PC and follow the instructions in the section "software Installation Procedures".

2-4. Software Installation Procedures

The procedures for installing the Witness Pro software is mainly the same for all supported Windows versions, although Windows Vista requires more permissions for the DVR software to run correctly. Please follow the instructions below to install the Witness Pro, FreeView Pro, AnyView Pro, PDAView Pro or MobileView Pro software.

2-4-1. Witness Pro Installation Procedures

If you acquired one of the following DVR card models: CP-2160RD, CP-3160RD, CP-3320RD, CP-19XXASE, CP-19XXPCI-E, CP-54XX ASE and CP-2400AS, you MUST interconnect the supplied USB cable between DVR card and one of the USB sockets on the PC's motherboard. Please follow the steps below to complete the installation of Witness Pro.

Please follow the steps below to complete the installation of Witness Pro.

Step1. While into Windows, and insert the I-View DVR software CD into a CD/DVD drive.

If Windows does not automatically bring up the software installation menu after you insert the software CD, please go into My Computer and double click on the appropriate CD/DVD drive and then double click on the file "**Install.exe**" to start the installation process.

Step2. Select (click on) the first option **"Device driver & Witness Pro Software"** as shown in Fig. 2-4-1.1.

Fig. 2-4-1.1 Installation Menu

Step3. Select the exact software version that corresponds to your DVR card model, as showing in Fig. 2-4-1.2.

Fig. 2-4-1.2 Selection Section

Step4. Please make sure you have selected the appropriate software for your DVR card. If so, then click on "**Yes**", otherwise click on " **No** " (as shown on fig. 2-4-1.3) to select the correct software version.

Fig. 2-4-1.3 Confirm Section

Step5. Select the installation language and press the

Fig. 2-4-1.4 Choose a setup language

Step6. Press the **"Next"** button to start the installati

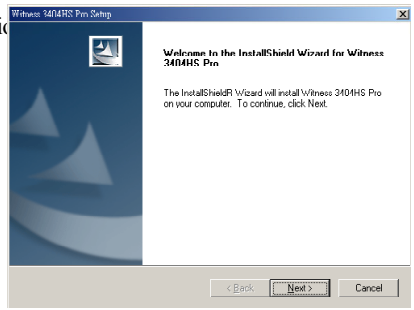


Fig. 2-4-1.5 Installation Startup

Step7. Click on the **"Browse"** button to install into a different directory, otherwise click on the **"Next"** button to install the software into the proposed director.

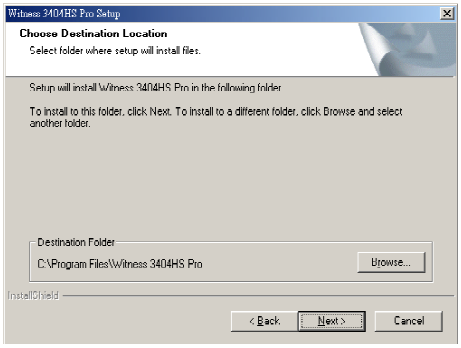


Fig. 2-4-1.6 Installation directory

Step8. Select one of driver modes. The default driver mode #1 can work with most PC Motherboards, but when the video signal is not stable, select mode #2 instead. Click on the **"Next"** button to continue. (For CP-14xx series only)

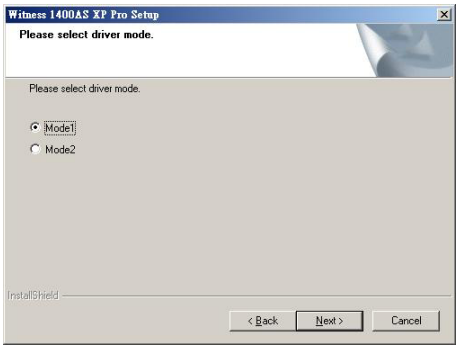


Fig. 2-4-1.7 Driver modes

Step9. Select an audio recording source – either from a DVR Audio board or your PC's Sound card. Press on the **"Next"** button to continue.

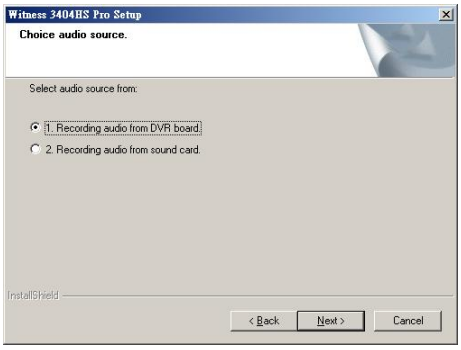


Fig. 2-4-1.8 Select an audio source

I If the DVR card model ends with "-A" and includes multiple audio ports then select the **"Recording audio from DVR board"** option.

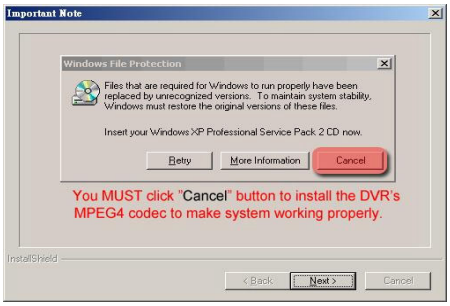


Fig. 2-4-1.10 Windows warning message

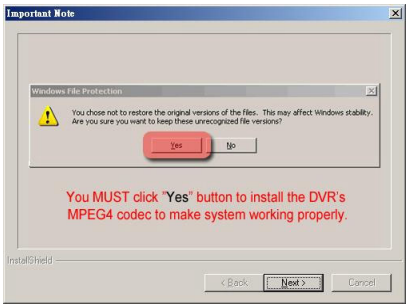


Fig. 2-4-1.9 Windows warning message

Step10. Windows XP and Vista will prompt you to recover the original MPEG 4 Codec. You must select "Cancel" and then click on the "Yes" button on the subsequent dialog box to ignore this process, otherwise the DVR videos will display upside down. See figures above.

Step11. Select **"No, I will restart my computer later"** and press on the **"Finish"** button to exit.

Step12. Shut down (turn OFF) the PC and follow the hardware DVR card installation instructions found on the accompanying leaflet.

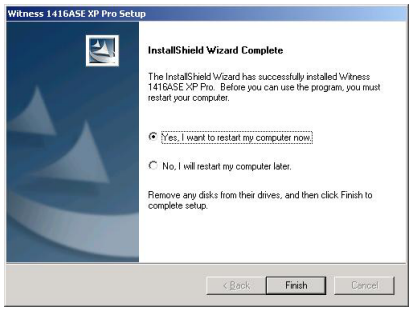


Fig. 2-4-1.11 Restart the computer

Step13. After you complete the physical DVR card hardware installation, turn ON the PC; then Windows will automatically display the "**New Hardware Found**" wizard box and ask you to install one or more device drivers related to the DVR card and accessories. You must install the drivers from one of the following directories:

Model	Location of Device driver
CP-1400AS XP, CP-2400AS XP	C:\ASDevice
CP-2160RD, CP-3160RD , CP-3320RD, CP-2320RD, CP-19XX ASE, CP-19XX PCI-E Series, CP-54XX ASE Series	C:\RDDevice

2-4-2. FreeView Pro Installation Procedures (TCP/IP)

This section walks you through the installation and setup processes of the internet remote client software FreeView Pro. Follow the steps below to complete the installation:

Step1. Select the **"FreeView Pro Software"** option on the **software installation menu** as shown in Fig. 2-4-2.1 below.

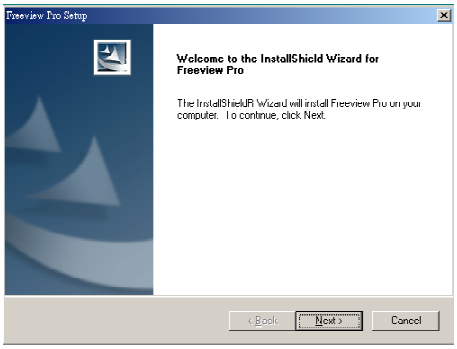
Step2. Select an installation language and click the **"OK"** button to continue.

Fig. 2-4-2.1 Installation Menu

Fig. 2-4-2.2 Choose a setup language

Step3. Click the **"Next"** button to continue.

Fig. 2-4-2.3 Installation startup



Step4. Click the **"Browser"** button to install into a different directory, otherwise click on the **"Next"** button to install the software into the proposed directory.

Fig. 2-4-2.4 Select an installation

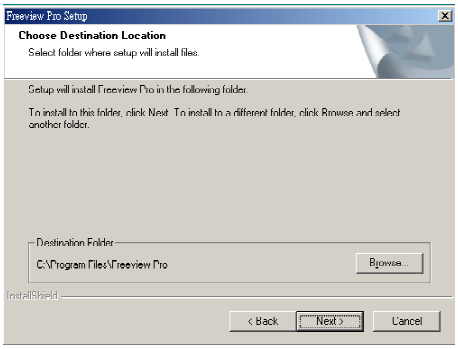


Fig. 2-4-2.5 Windows warning message

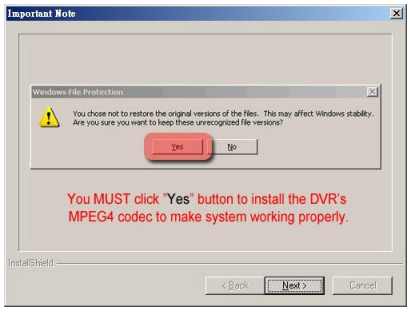


Fig. 2-4-2.6 Windows warning message

Step5. T he O.S. will ask you recover to original MPEG 4 Codec, when you use the Windows XP or Vista O.S. You must select " Cancel " and then click " Yes " button to ignore this process, otherwise the video will show the up side down.

Step6. Click the **"Finish"** button to complete.

.

Fig. 2-4-2.7 Finish the installation

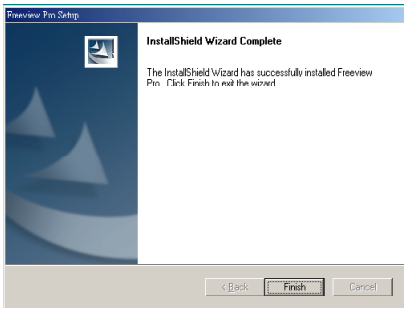


Fig. 2-4-2.7 Finish the installation

2-4-3. AnyView Pro Installation Procedures (Modem to Modem)

This chapter walks you through the installation and setup process for Remote client software, AnyView Pro. Please follow the steps below to complete the installation.

Step1. Please select the **"FreeView Pro Software"** option for the **software installation menu** as showing in Fig. 2-4-3.1 below to install.

Fig. 2-4-3.1 Installation Menu

Step2. Select an installation language and click the **"OK"** button to continue.

Fig. 2-4-3.2 Choose a setup language

Step3. Click the **"Next"** button to continue.

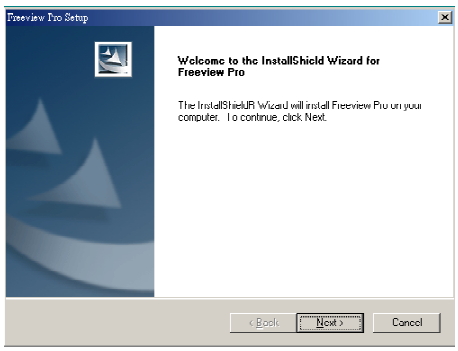


Fig. 2-4-3.3 Installation startup

Step4. Click the **"Browse"** button to install into a different directory, otherwise click on the **"Next"** button to install the software into the proposed directory.

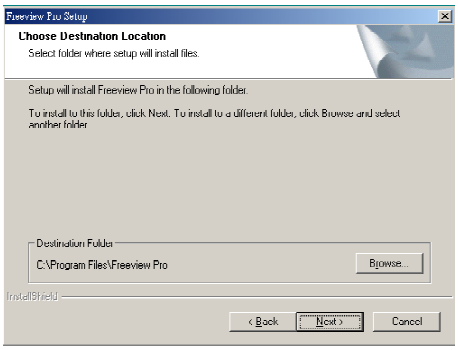


Fig. 2-4-3.4 Select an installation

Step5. Click the **"Finish"** button to complete.

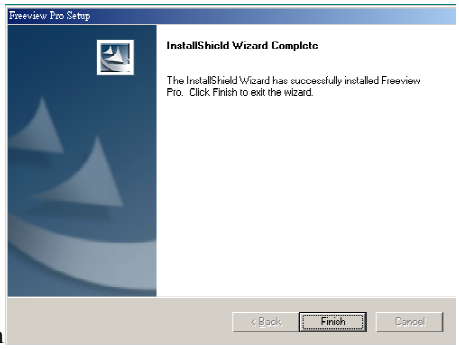


Fig. 2-4-3.5 Finish the installation

2-4-4. PDAView Pro & MobileView Pro Installation Procedures

To install the PDAView Pro (For PDA Palm) and MobileView Pro (For Smart phone) program into a PDA or Smart Phone, please follow the installation steps below:

P To install the PDAView Pro (For PDA Palm) and MobileView Pro (For Smart phones) programs into a PDA or Smart Phone please follows the installation steps below:

1.) Plug your PDA or Smart Phone device to either a USB or COM port on your desktop or laptop PC.

2.) If not already available, you will have to download and install Microsoft ActiveSync on your PC. See the Microsoft website, www.microsoft.com for availability.

3.) Launch the Microsoft ActiveSync on the PC and make sure your wireless device is synchronized with your PC.

4.) Insert the I-View DVR CD into the CD/DVD drive of the PC and if the installation menu does not automatically open, then explore the CD and run "**Install . exe**" found in the root directory.

5.) In the setup dialog box select "**PDAView Pro**" or "**MobileView Pro**" and click "**Next"**.

6.) Click **Browse** if you wish to specify another destination directory; otherwise click "**Next"** and follow the rest of the instructions to complete the installation

7.) In the setup dialog box select "**PDAView Pro**" or "**MobileView Pro**" and click "**Next"**.

8.) Click **Brows** if you wish to specify another destination directory; otherwise click "**Next"** and follow the rest of the instruction to complete the installation.

1. The PDA must have Pocket 2002/2003 installed and the Smart phone must have Windows Mobile 5.0 or above.
2. There are 2 versions Remote viewing program for the mobile phone. The **MobileView –Touch** program for the mobile phone, which has touch screen. The other program calls **MobileView –Key** and this version for the mobile which keyboard only.

Chapter 3. System Configuration

3-1. Witness Pro Application Overview

You can find several program icons in the Witness Pro **"Start"** menu as shown in Fig 3-1-1.1 below.

Fig. 3-1-1.1 Windows Start → All Programs → Witness XXXX Pro

- **Accessories program descriptions:**

Auto-synchronized time (EzClock): to synchronize DVR's clock with an Internet Time Server.

Video files archiving (EzBackup): to share or back up your recorded video clips onto another storage device, such as a HDD, CD/DVD drive, USB Flash drive, Zip drive, etc..

IE browser server (EzWebServer): to view the DVR security camera video images via the popular Internet Explorer browser.

Mobile phone browser server (EZMobileServer): to view the DVR security camera video images via the mobile phone which spports the GPRS, Wifi or 3G function.

Multi-file video playback (EzLanPlayback): to play back recorded video clips from other network [LAN] PC's; or for playing back your video backups off-site, such as the police station. You can automatically include this program onto your backup media, see EzBackup for more details.

Single-file video playback (EzPlayback): An easier-to-use program allowing you to play back your video backups off-site, such as at the police station, but only one file at a time. You can automatically include this program onto your backup media, see EzBackup for more details.

POS transaction playback (EzPosPlayback): to access the recorded video clips that match specific POS (cash register) transactions. For examples, if you wanted to see whose patron purchased a sleigh shovel yesterday at your hardware store; or you wanted to see what was sold between 10:00 and 11:00, this playback program will easily allow you to achieve that.

Remote control server (EzRServer): to allow full access to your DVR machine for remote technical assitance, or for remotely changing your DVR's configuration. You must then use EzRClient in FreeView Pro to make the connection between the remote PC and the DVR.

Video parameters setup (EzSetup): to enable/disable individual audio/video channels and to configure the audio source and video resolution settings**.**

DVR Surveillance Server (Witness Pro): Main DVR application software program 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).

Auto-restart the DVR machine (EzReboot): It is recommended to schedule the DVR machine to restart at least once a week, especially prior to important events, in case you may have exited the application temporarily and forgot to relaunch it.

2-way voice communication (EzTalk): Real-time voice communication between the DVR machine operator and a remote PC technician. Both machines must be equipped with a microphone and a pair of speakers. The interaction is similar to talking over with a pair of walkie-talkies. This is especially useful when expensive telephone long distance charges apply between the two locations.

Uninstall Witness Pro: This will remove the complete DVR software application from your computer. For easier software re-installation, its device drivers will be kept on the hard disk although you will not see any reference to them in Windows Device Manager.

HDD Health Checkup (EzHDDSmart): S.M.A.R.T. (Self Monitoring Analysis & Reporting Technology) along with the HDD's own inner 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. Refer to chapter 3-3-3 for in-depth details.

3-2. Prevent System Crash

This section introduces several suggested Windows settings to help prevent system crashes when running the Witness Pro software on your own PC. Please follow the instructions below to set up Windows for optimum performance.

3-2-1. Power Management Setup

Please follow the steps below to set up Windows Power Management.

Step1. Right click on an empty space of your Windows desktop (the main screen when you first turn ON your PC).

Step2. Select **"Properties"** on the pop-up menu.

Step3. Select the **"Screen Saver"** tab of the Display Properties window.

Step4. Then click on the **"Power"** button.

Step5. Change the Power Schemes to **"Always on"**

Step6. Choose to **"Never"** turn off the monitor, hard disks and system standby.

Step7. Click **"Ok"** to complete the setup.

3-2-2. Windows Performance Setup

Please follow the steps below to set up Windows File System.

Step1. Locate the **"System"** icon in the Windows Control Panel. The System icon is normally located in the **"Performance and Maintenance"** category.

Step2. Select the **"Advanced"** tab, and press the "**Settings**" button in the **"Performance"** section, and then select **"Adjust for best performance"**.

Step3. Click **"Ok"** to complete the setup.

3-2-3. Create a "System reboot schedule" to auto-restart the DVR

It is recommended that you make use of the "System reboot schedule" function of the Witness Pro application to routinely (such as weekly or before important events) refresh the DVR system to its original state. Please follow the instructions below to complete this configuration.

Step1. Click the **"Start"** button, then **"All Programs"** followed by **"Witness series Pro"** and finally select **"System reboot schedule (EzReboot)".**

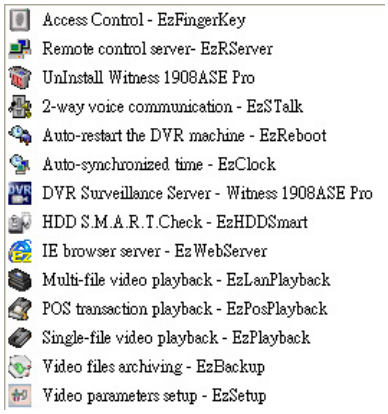


Fig. 3-2.3.1 System reboot schedule

Step2. Check both "Run EzReboot when Windows starts" and "Enable system restart schedule"**.**

Function Description:

a.) **Run EzReboot when Windows starts:** to automatically launch that program in the background with an icon on the system tray.

b.) **Enable system restart schedule:** To make your pre-set reboot schedule active.

Fig.3-2-3.2 Enable reboot schedule

Step3. Click the **"System Restart Schedule Setup"** button to set up the system reboot schedule**.**

Step4. Select the appropriate schedule timeframe by checking **"Every day"**, **"Every week"** or **"Special period".**

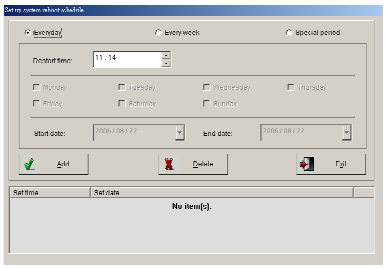


Fig.3-2-3.3 Set up schedule time

Step5. Enter the restart time and other available schedule info, then press the **"Save"** button to save your entry.

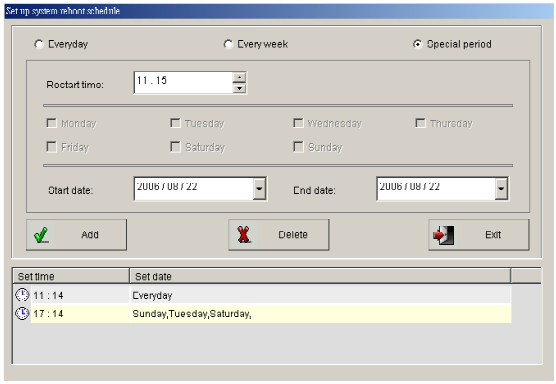
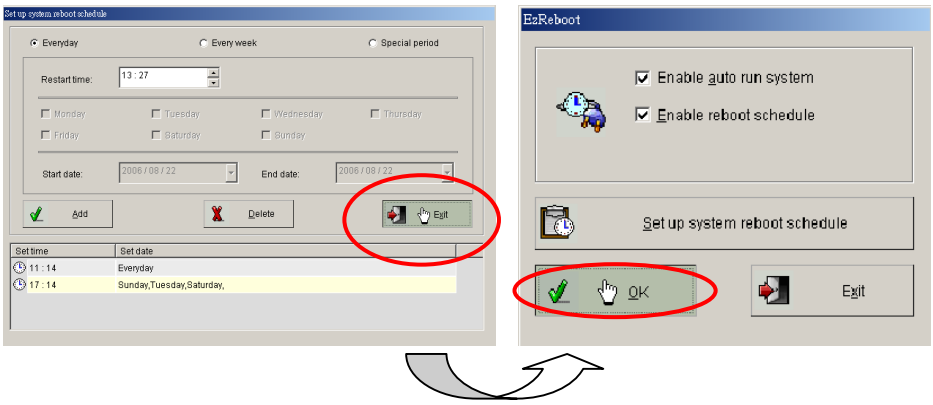


Fig.3-2-3.4 Add new reboot schedule

Step6. You can set up several reboot schedule entries for the DVR machine. When finished adding your schedule entries, press the **"Exit"** button to return to the previous [EzReboot] window, then press the **"OK"** button to activate the auto-reboot function. This icon " " will automatically appear in the Windows system tray located at the bottom right of your screen.



3-3. Witness Pro System Configuration

This section introduces you to some of the Witness Pro system optimization setup.

3-3-1. Auto-synchronized time (EzClock)

Sometimes the DVR's clock time can become behind or forward compared to the actual time. "**EzClock"** will automatically adjust your DVR's clock every once in a while, depending on your setting in the EzClock setup. This section will show you how to set up EzClock.

- **Follow the steps below to configure EzClock:**

Step1. Click on the Windows **"Start"** button, then **"All Programs**", **"Witness [model] Pro"**, and finally **"Auto-Synchronized time (EzClock)"** and you will see the window shown in Fig3-3-2.1.

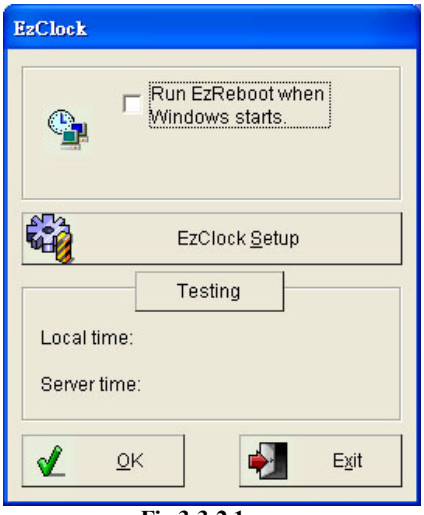


Fig 3-3-2.1

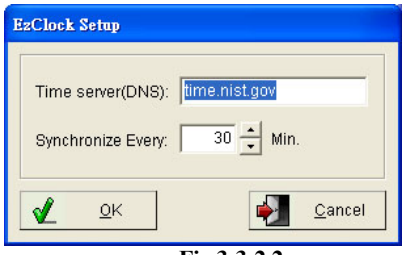


Fig 3-3-2.2

Step2. Click on the "**EzClock Setup**" button (refer to **Fig 3-3-2.1**) and enter your favorite Time Server's DNS address or IP address that you would want to use to synchronize your DVR's clock with, or simply keep the default Standard Time Server as it is.

Step3. In the entry field "**Synchronize Every**", enter the period of time to wait until the next auto-adjustment of the DVR's clock should occur.

Step4. Enable "**Run EzReboot when Windows starts**", and click **OK** to complete the setup.

3-3-2. Video Parameter Setup-EzSetup

To configure the video parameter settings of Witness Pro, click the Windows "**Start**" button, then "**All Programs**", **"Witness [model] Pro",** and finally click the icon to display the Video Parameters setup window. That window will differ greatly depending on your DVR model. See the instructions below to modify the default settings.

Show TV out OSD: This option will display the video channel numbers onto the video images, but only when the TV set or security monitor is set to show the video images in a divided screen matrix. This option is only available on our DVR's with real-time display capability, such as with the XP series, and the RD cards series.

Show Overlay Text: This option will display the cameras locations (as assigned in Cameras Configuration within Witness Pro) onto the live video images, but only if you are currently in real-time display mode. This option is only available on our DVR's with real-time display capability, such as with the XP series and the RD cards series.

Disable Device: This will disable the selected DVR chipset device. Each chipset device may affect one or more video channels, depending on your DVR model. It is important to disable the devices that are not in use (no cameras are currently connected to them) so as to avoid unnecessary auto-signal searching which requires CPU processing.

Disable Channel: This will disable the selected channel. It is important to disable the channels that are not in use (no cameras are currently connected to them) so as to avoid unnecessary auto-signal searching which requires CPU processing.

Default button: This will revert all of your changes to the original factory default settings.

Video System: There are two surveillance video standards, NTSC (North America and Japan) and PAL (Europe and most other countries).

Resolution: You can select the video resolution of your choice, which will affect both, live feeds and recorded clips. There are three options: 704 x 480, 704 x 240 and 352 x 240 (NTSC); 704 x 576, 704 x 288 and 352 x 288 (PAL)

Capture audio: Whether or not you want to record sound picked up by a stand-alone microphone or audio camera. If your DVR came with multiple audio ports, then each device chipset can support one audio channel each. Then, select one video channel (camera #) in which you want to

associate the audio channel with.

Copy: This button copies the video parameters of another channel into the current one.

OK: Click OK to accept all of your settings modifications.

Cancel: Click "Cancel" to discard your current changes.

■ **Individual function description within the "Video Parameters Setup" window:**

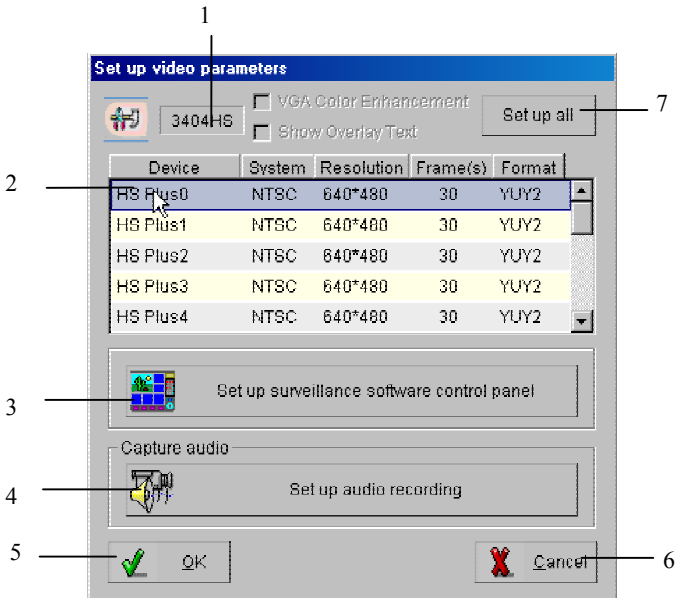


Fig. 3-3-3.1 Setup Video Parameter - EzSetup

1. **Model Name Display:** Display the DVR board model name.
2. **Devices List:** Displays individual DVR board chipset names with their corresponding settings. Each chipset handles one or more connected cameras, depending on the model of your DVR card. If you double click on one of the chipset names, you will be able to change that particular chipset frames rate, recording resolution or disable it altogether if no camera is currently connected to it, in order to prevent unnecessary continuous video signal seeking. Click on the "Set up all" button if you would like to change all chipsets settings at once.
3. **Witness Pro control panel setup:** This will allow you to change the positions (either left or right of the screen) of two of the control panels within the Witness Pro application. See

the two samples below. You can individually change it for the live cameras screen and/or the main playback screen as shown on Fig. 3-3-3.2

■ **Left side video control panel**

■ **Right side video control panel**

4. **Audio recording setup** (when using your own PC's sound card)**:**

Double click on the "**Audio recording setup**" button and follow the instructions below to set up audio recording for a single camera with audio (or stand-alone microphone which you would like to associate to a camera).

a. On the **"Audio device"** drop-down menu, select your sound card.

b. Connect the camera audio cable to your PC's "Microphone In" or "Line In" jack.

c. On the **"Audio source"** drop-down menu, select the port you plugged your microphone in.

d. On the **"Recording Channel"** drop-down menu, select the camera you want to record the audio.

e. Click **"OK"** to complete the settings.

Fig **3-3-3.2**

Fig **3-3-3.3**

For optimal audio recording, a microphone with a 2Vp-p output level is recommended.

- **First chipset device (or camera 01) setup for the following DVR card models:**

CP-5404HS-A, 5408ASE-A, 5416ASE-A, 1908ASE-A, 1916ASE-A, 1906PCI-E-A, 1908PCI-E-A, 1916PCI-E-A, 2160RD-A, 3160RD-A. **See Fig. 3-3-3.4 below.**

Double click on "Camera 01" within the device column to set up one audio channel

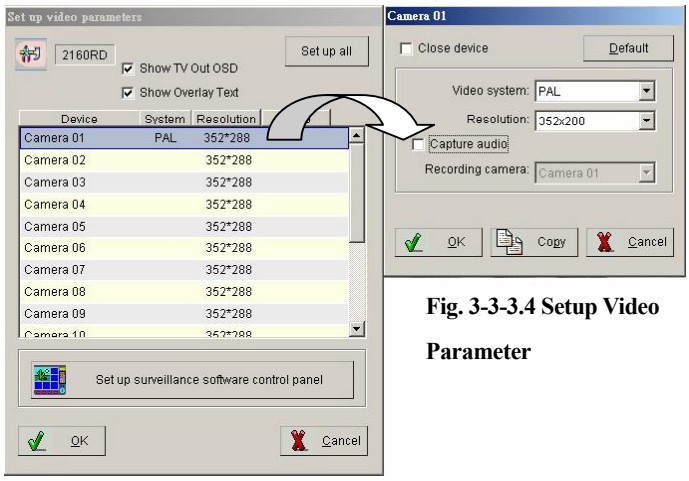


Fig. 3-3-3.4 Setup Video Parameter

- **First chipset device (or camera 01) setup for the following DVR card models:**

  CP-2400AS /1932ASE /3320RD-A DVR board model:

  Double click on "Camera 01" to configure audio

  Click the **"OK" button** to confirm the settings and exit.

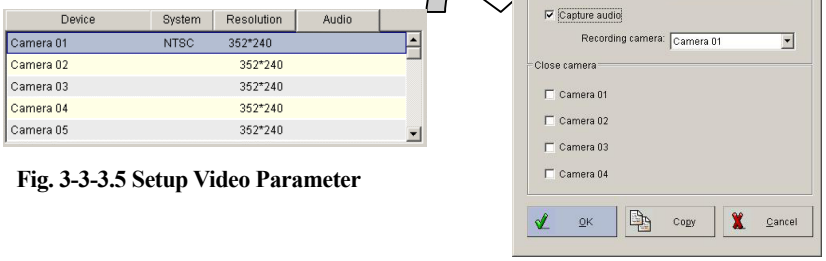


Fig. 3-3-3.5 Setup Video Parameter

5. **"Cancel" button:** This with allows you to exit the "Video Parameters setup" window without saving any of your changes (discarding only your current pending changes).
6. **"Set up all" button:** This will allow you to alter the settings for all the video channels at

once. **WARNING:** when using this option, be aware that all your previously disabled devices/channels will be re-enabled as a result. Consider yourself warned!

Please enable "**Close camera**" function, if the video port does not connect the camera.

7. **"OK" button:** To confirm the setting and exit "Video parameters setup" interface.
8. **"Cancel" button:** To exit the "Video parameters setup" interface without saving changing.
9. **"Set up all" button:** To set up all cameras' video system type, resolution and frame rate.

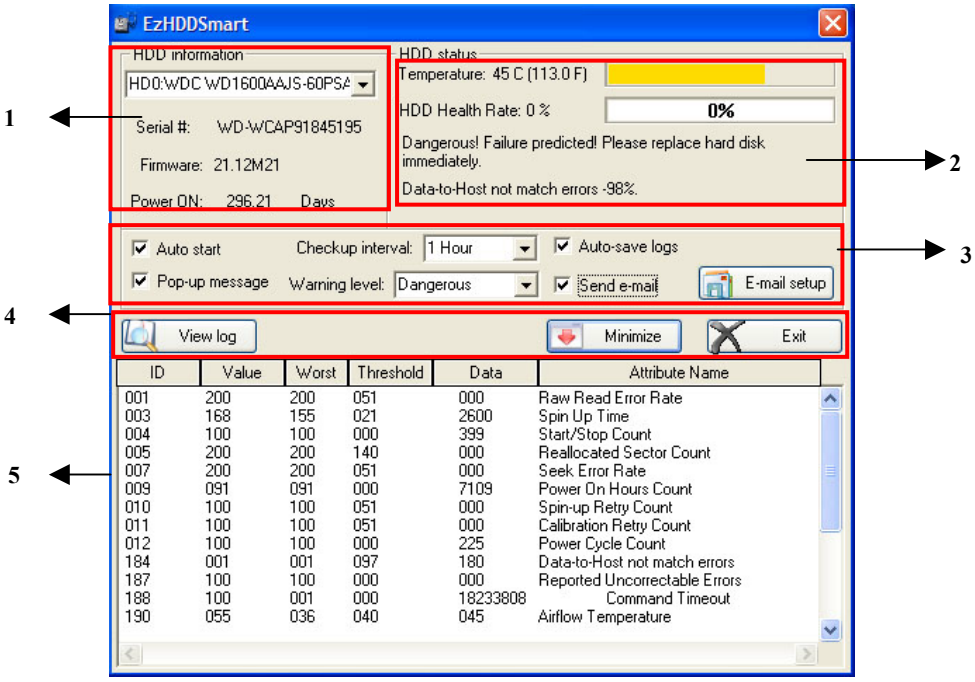
3-3-3. HDD Health Checkup (EzHDDSmart) –EzHDDSmart

What is S.M.A.R.T.?

S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) is an interface between the BIOS and a computers hard disk. It is a feature of the Enhanced Integrated Drive Electronics (**EIDE**) technology that controls access to the hard drive. If S.M.A.R.T is enabled when a computer is set up, 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 been powered on. It compares these attributes to a corresponding set of thresholds. If an attribute drops below its threshold, the drive is no longer considered fit for use and should be replaced immediately. Not all attributes are available on all drives, however. It is the responsibility of the drive manufacturer to include SMART support.

Sometimes the DVR's HDD will crash or cannot read/write the data suddenly. To avoid this problem happen again and again, our EzHDDSmart will provide the directly or indirectly affect hard disk health status and gives statistical information. It can provide about the hard disk reliability and the failure prediction function and to send the user a warning message about possible future failure of the hard drive.

To enable HDD SMART function settings, please go to the path: Windows "Start" → "Programs" → **"Witness AS/ASE/PCI-E/HS/RD Pro",** and click the icon to display the HDD Health Checkup setup interface. **Function description of the "HDD Health Checkup" interface:**



Section 1: Hard disk drives installed on your DVR.

Section 2: HDD status: This section displays the current temperature of the selected hard disk drive, as well as its health status level and surface sector defect factor.

Section 3: The in-depth details of this section follow:

Auto start: When checked, this EzHDDSmart program will automatically launch itself in the background when Windows starts (when you turn ON your PC).

Checkup interval: Decide how often you would like EzHDDSmart to perform a scan check of your installed hard disk drives to try to determine their reliability.

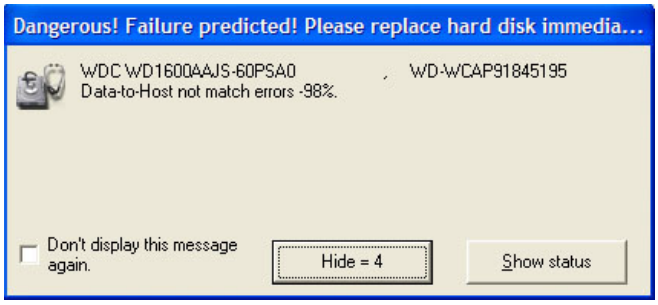
Auto-save logs: When checked, this function records the attributed factors of the defect on the view log table.

Pop-up message: When checked, the main DVR application (Witness Pro) will pop up an error message to notify you of any failures, which could require your prompt attention. There are two failure levels, "**dangerous**" and "**warning only**". Please respond to the error message in the

following manner:

** **Warning:** When receiving a warning, it is highly recommended that you back up your problematic hard disk on a regular basis 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 Witness Pro.



Send e-mail: When checked, any HDD error messages will also be sent to you via email.

E-mail setup: This is where you will enter your email address to receive HDD error message notifications. Please follow the steps below to set up email notification:

Step 1: Enter the receiving e-mail address in the **"Add new e-mail address"** entry field.

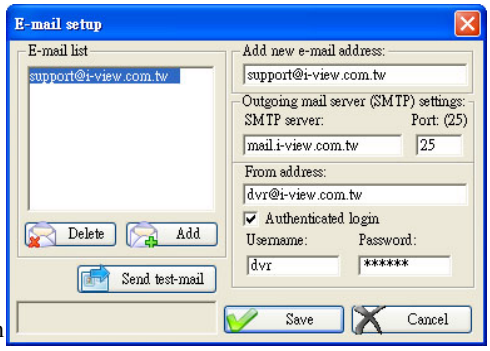
Step 2: Fill in both the **"SMTP server"** and **"Port"** entry fields.

Step 3: Enter the sending e-mail address in the **"From address"** entry field.

Step 4: Check the **"Authenticated login"** box.

Step 5: Fill in both the **"Username"** and **"Password"** entry fields.

Step 6: Click the **"Add"** button to save your profile into the e-mail list on the left pane. You can click the **"Delete"** button to remove an e-mail profile from the list.



Step 7: Repeat **steps 1** through **6** to add another **e-mail** profile.

Step 8: Click the **"Send test e-mail"** button to test your settings. The result will display.

Step 9: Click the **"Save"** button to keep your new e-mail profiles. This will automatically exit the **"e-mail settings"** window.

The default of program will show the worst health of HDD on the screen.

Section 4: The details of this section are described here:

Report Date: If you chose to record the HDD health reports into a Status log, then you can enter a previous date to recall its health status details report.

Minimize: Minimizes the EzHDDSmart program onto the system tray.

Save log: Saves the health status reports onto disk.

Exit: Close this application program.

Section 5. This multi-columns area will display detailed status information of the reviewed disks based on the date provided in Section 4.

By default the HDD health status report will only be displayed on the screen, it will not be saved to disk.

Chapter 4. DVR Software Operation

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

4-1. Surveillance Server (Witness Pro)

The surveillance server is the primary application program of the I-View DVR systems. It provides comprehensive CCTV security solutions, including live monitoring, 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 the Surveillance Server program:**

Please click on the Windows **"Start"** button, then **"All Programs"**, and finally on **"Witness [model] Pro"** to launch the program.

- **Surveillance Server Functions Descriptions:**

1. Login/Logout Button: This function primarily allows you to log out as one user and log in as another with different privileges. The default username is "root" and the default password is "123". That user has full privileges.

2. **Exit Button:** This function allows you to exit this program. If a crossed-hand icon appears instead, then you must first log out and next log in as a user with exit privilege.

3. **Minimize Button:** To function allows you to minimize this program onto the taskbar. If a crossed-hand icon appears instead, then you must first log out and next log in as a user with exit privilege.

4. **Video Display Screen:** Allows you to 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 to hide the current channel's video images.

5. **Cameras Configuration:** This is to set up various abilities (e.g. recording methods, alarm functions, motion detection, failure notifications, etc.) for each individual audio/video channel.

6. **Video Playback:** This will allow you to run any of the following playback programs: "Time range video playback", "Synchronized video playback", "POS transaction playback"

7. **Remote Access Setup:** This will allow you to set up your DVR system network parameters and remote access capabilities.

8. **System Configuration:** This is where you will initially need to configure the surveillance server's main general settings.

9. **User access setup:** This will let you manage a list of users with different access privileges.

10. **Application Logs:** This will allow you to review the user logins/logouts, motion detection records, video loss occurrences, remote user accesses, hard disk failure events, etc.

11. **Peripherals Setup:** This will allow you to set up new DVR peripheral devices for advanced system integration.

12. **Stop Alarm Siren:** Click on this option to stop a sounding alarm.

13. **Storage Configuration:** This will let you define the DVR video storage devices, fine-tune the compression ratio and configure several video saving parameters.

14. **Real-Time Display Switch:** If your DVR model has real-time display capability, then you can toggle the real-time display switch on and off at any time. Switch to the real-time display mode when you are primarily viewing live video feeds. Turn it off while the DVR is unattended so that the recording quality is at its peak performance.

15. **Video Control Panel:** On the right-hand side you have many display/recording control buttons, several PTZ camera control buttons, a TV channel selection list and a visual eMap utility tool.

16. **Hide The Toolbars:** Clicking on the icon or pressing on the "**ESC**" key of your keyboard will hide the toolbars and control panel. Later, you will have to press on the **"ESC"** key to bring back the toolbars and control panel. If you have previously set "auto log in" within the system configuration, then you may have to press on the "Alt-F4" or "Alt +I " key combination on your keyboard to bring up the login screen. This will allow you to first log in as a user with administrative privileges, so as to be able to bring back the toolbars and control panel.

■ Individual video channel attributes and functions:

To access the available video tools, right click on one of the video channels currently displayed and it will bring up a small window as illustrated on the right.

- **Hide video** blanks out the currently selected video channel from the screen although any recording sessions would not be affected by it.
- **Clear Border** removes the surrounding red border around the currently selected video channel. Please note that this red border only shows up upon motion-triggered recording.
- **Swap with:** this function allows you to 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.

Adjusting Image Colors will let you adjust the brightness, contrast, saturation, and hue levels of the currently selected video channel's live images.

This function allows you to magnify the currently selected video channel's live images. Once you have zoomed in the video display, you can navigate throughout the enlarged viewing area by simply dragging the video images to any direction you wish, while holding your mouse left button.

This function allows you to undo the magnifying previously done using the Zoom-In function, one click at a time.

This function cancels out the previously zoomed in video display and returns to its original view display.

Default: This button is for when you need to bring back the original settings.

Exit: Click this button to exit the video tools window.

The purpose of this tool is to take a single still picture of the currently selected channel's current live image and to save that snapshot picture onto disk. Once the snapshot is taken and displayed on the screen as a separate pop-up window, you will have a few function icons available to you as shown on the sample snapshot window below.

: To adjust the image contrast level within the snapshot picture.

: Allows you to convert a color snapshot picture into a grayscale one.

: This function icon simply returns a previously converted grayscale snapshot picture into its original color format.

: Click on this diskette icon to save the current snapshot picture onto disk diskette, hard disk, USB flash drive, etc) in either a .BMP or JPG file format.

: If a printer is available, you can use this icon to print out the current snapshot picture.

4-1-1. Logging in the Surveillance Server

To log in as a user, first click the button from the top-right corner of the Witness Pro surveillance server program. 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 be interchanged with your own (recommended) by clicking the red icon at the bottom of the screen.

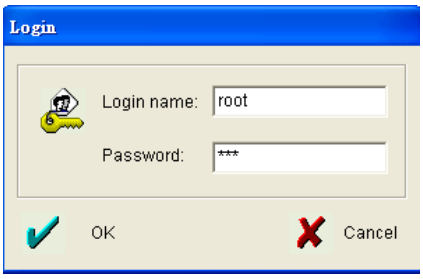


Fig 4-2-1.1 Login

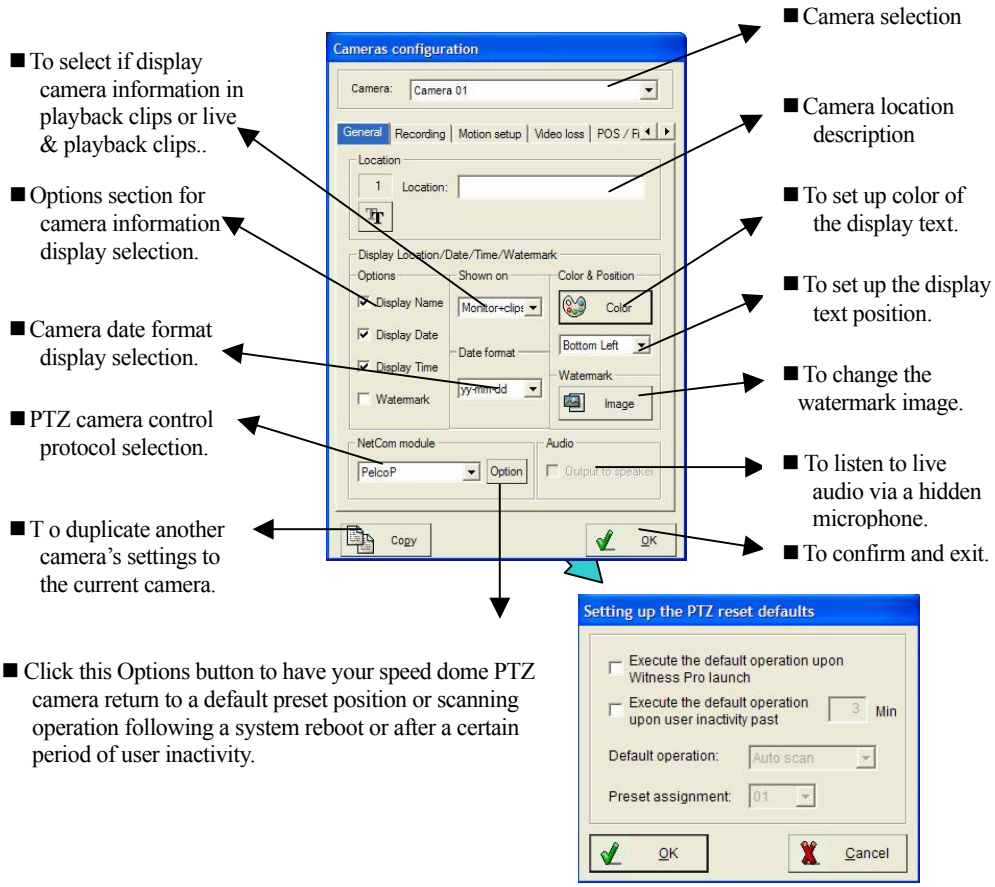
Fig 4-2-1.2 Logout

4-1-2. Camera Configuration

screen and follow the instructions below. To move to another camera channel at any time, simply click on the down arrow right of the camera number field.

4-1-2-1. General

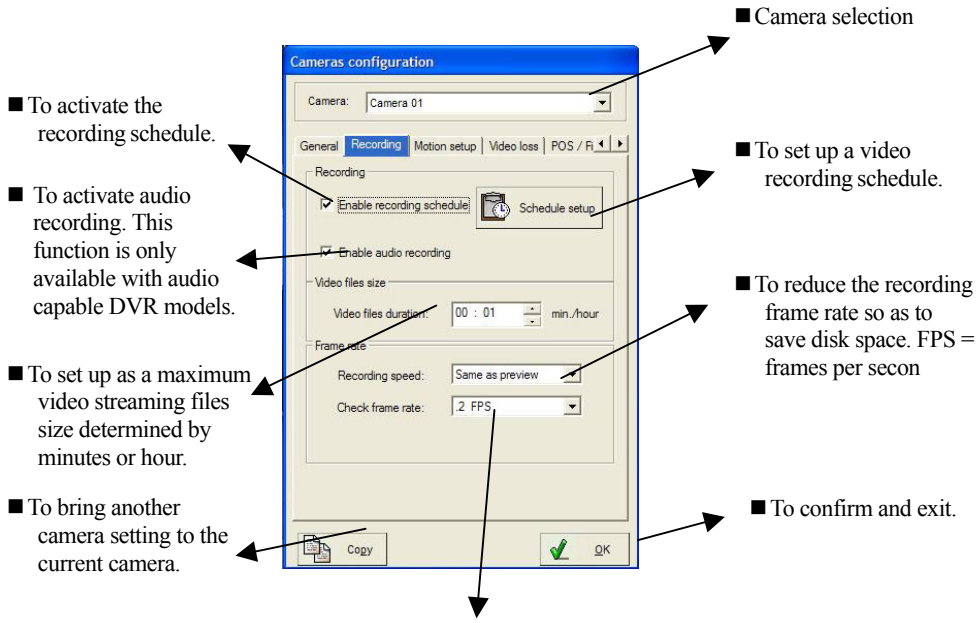
This menu tab is primarily used to set up the OSD options (which text overlay to show onto the videos) and to name the locations of the installed cameras. To access this setup section, simply click on the "General" tab at the top of the "Cameras configuration" window.



■ Click this Options button to have your speed dome PTZ camera return to a default preset position or scanning operation following a system reboot or after a certain period of user inactivity.

4-1-2-2. Recording

This menu tab is primarily used to set up the video & audio recording functions. To access this setup section, simply click on the “General” tab at the top of the “Cameras configuration” window.

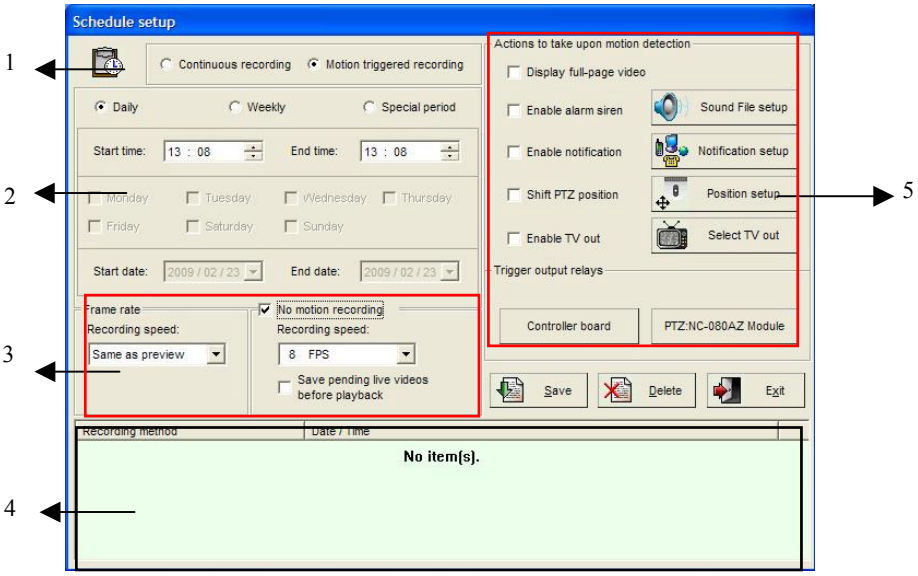


■ Due to unpredictable system failure, the recording frame rate may drop substantially. If it falls below the entered “minimum frame rate” value, then the DVR machine will automatically reset itself and resume in its normal state. Please note that if you set a high “maximum frame rate”, you should likewise set a high “minimum frame rate”.

4-1-2-2-1. Creating a recording schedule

The main purpose of a recording schedule is to determine when the DVR should record as "continuous recording" and when it should record as "motion triggered recording". Click on

in the "Recording" tab section to bring up the Schedule Setup window.



- **Section 1:**
  - **Continuous recording:** To record videos non-stop with or without movement in the field of view.
  - **Motion triggered recording:** To record only upon motion detection. This will make the "No motion recording" and "Action to take upon motion detection" sections available.

Section 2:

- **Daily:** For when your business hours are the same every day of the week.
- **Weekly:** For when you need to set different time schedules depending on the day of the week. This will subsequently allow you to choose multiple days for a single weekly

schedule, such as Monday to Friday, for instance.

- **Special period:** For special occasions, such as holidays.
- **Start at & Stop at:** this is when the current schedule entry should begin to record and subsequently when it should end the recording session. 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 begin your complete schedule setup at 00:00 and end it at 23:59. Never overlap the time entries, such as from 00:00 to 12:00, then from 12:00 to 23:59. Instead, schedule from 00:00 to 11:59, then from 12:00 to 23:59.

Section 3:

- **Schedule Recording:** This sub-section allows you to set the recording frame rate for each individual schedule entry.

If you set the recording frame rate higher than what your DVR can physically handle, then the recording frame rate will be the maximum your DVR can handle.

- **No Motion Recording:** This option is only available under the "motion triggered recording" mode. When checked, this option will allow you to record nonetheless during times when no motion is detected in live images. This is especially useful to prove that no one was present during those idle times. It is advised to set a much lower recording frame rate here to save disk save.
- **Start saving into a new file upon motion detection:**

  With this option enabled, anytime motion is introduced into live images during idle times, the pending video stream will automatically be saved onto disk and subsequently the motion triggered video stream will be saved into a separate file. This segregation makes finding your motion triggered videos easier, but you may somewhat inadvertently truncate the beginning of the motion triggered videos, mostly if you do not elect to use the pre-recording feature or if you set the motion sensing sensitivity too low.

The pre-recording feature and motion sensing settings will be discussed later on in this chapter.

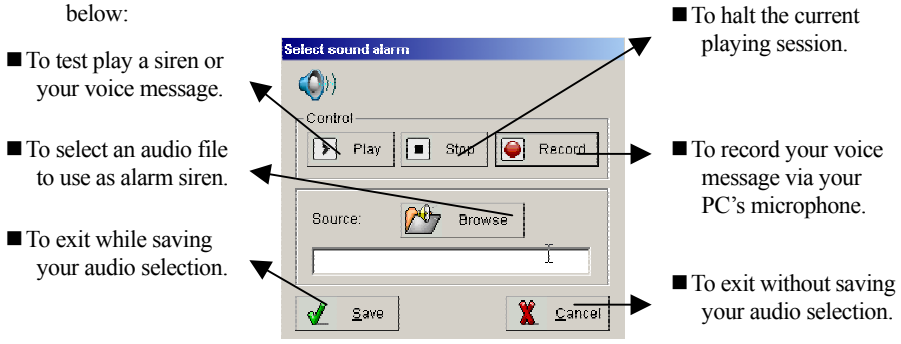
Section 4:

- **Schedule entries list:** This is a list of the currently entered recording schedule entries. To edit one of the listed entries, simply double click on it and you will be able to change the settings appearing in the other sections of this Schedule Setup window. Once the editing is done, you may click on the Save button to save your changes or the Exit button to discard your changes. To delete entries you no longer need, simply highlight the schedule entry to delete and click on the Delete button.

Section 5:

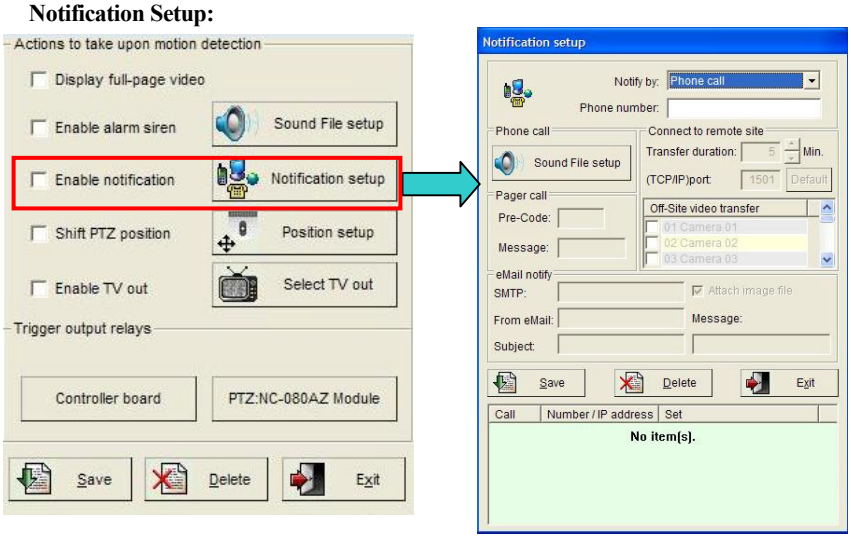
Actions to take upon motion detection: This section will let you decide what the DVR software should do when a moving person (or moving object) in the field of view triggers a new recording session. Please refer to the introduction below for setup details:

- **Display full-page video:** when this option is checked, anytime motion is detected on this particular camera channel, the live video feeds will automatically enlarge to fill the entire block of view. If you also set other camera channels with this option, the surveillance server will move from one channel to the next one that detects motion. That way, one can possibly follow an intruder's movement from one location to the next.
- **Enable alarm siren:** with this option checked, the DVR will sound an alarm upon motion detection. Make sure your DVR is equipped with a pair of PC speakers.
- **Sound file selection:** clicking on this button will pop up a new window as depicted below:



➢ **Enable notification:** use this feature if you wish to be notified by -- phone, pager, email, or live videos transferred to an off-site PC -- upon motion detection.

■ **Notification Setup:**



1.) Notify me via Phone Call: Upon motion detection, the DVR system will 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.

Step 1: Select **Notify me via "Phone call"** via the drop-down menu.

Step 2: Enter the phone number you wish to call.

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

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

Step 5: Repeat **steps 2** through **4** to add another Phone call notification entry.

1. If you wish to record your own voice message, the .WAV file format must be 8000Hz, 16-bit and Mono.

2. If you wish to setup the phone notification wave file from the Witness Pro, The warn.wav file supports 8000Hz, 16-bit and Mono format.

2. Each phone call notification entry can have its own unique audio stream, and each phone call automatically disconnects after a one-minute duration even if your voice message is longer.

3. You must use an approved Voice Capable Dial-Up Modem.

4. If your telephone system requires an extension number to be inputted, then use one or several commas (,) to separate the phone number and the extension number. The number of commas required depends on the system, so test it beforehand.

2.) Notify me via Pager Text: Upon motion detection, the DVR system will dial the listed pager number(s) and display an alarm message. Please follow the steps below to set up Pager Call notification entries.

Step 1: Select **Notify me via "Pager Text"** via the drop-down menu.

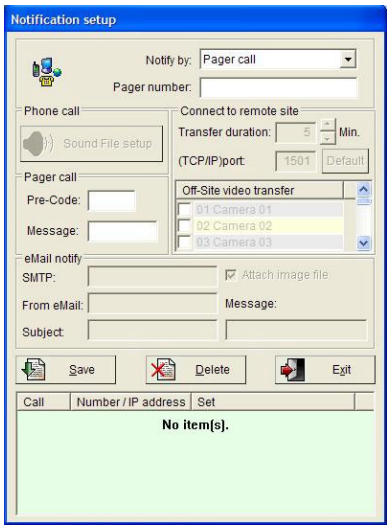
Step 2: Enter in the pager number.

Step 3: Enter the Pre-code number.

Step 4: Type in the alarm message.

Step 5: Click the **"Save"** button to save your pending entry. That entry will then appear in the list of entries at the bottom section of this window.

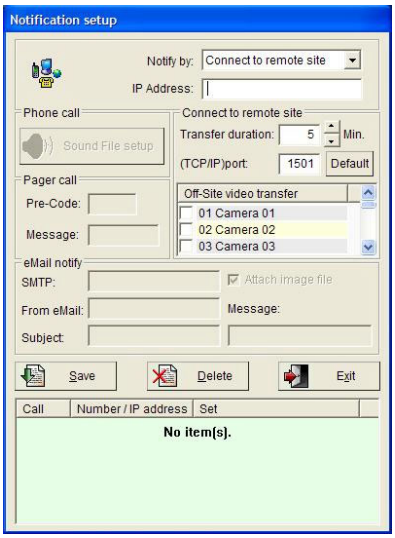
Step 6: Repeat **steps 2** through **5** to add another Pager call notification entry.



1. You must use an approved Voice Capable Dial-Up Modem.

2. If your telephone system requires an extension number to be inputted, then use one or several commas (,) to separate the phone number and the extension number. The number of commas required depends on the system, so test it beforehand.

3.) Notify me via "Off-Site Video Transfer ".



This function will record selected live videos onto a remote PC (with FreeView Pro running). Please follow the steps below to set up this important function.

Step 1: Select **Notify me via "Off-Site Video Transfer ".**

Step 2: Enter the remote PC's **IP address** or **DNS address**.

Step 3: Determine the **Transfer Duration** in minutes.

Step 4: Enter a unique **TCP/IP port** number (the default port # is 1501) for the transfer connection.

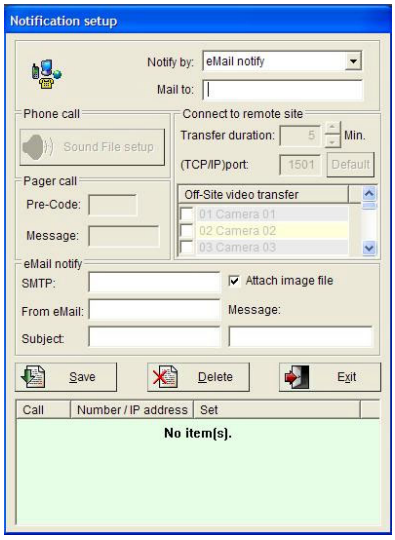
Step 5: Select the desired video channels to transfer the live video images from.

Step 6: Click on the **"Save"** button to save your pending entry. That entry will then appear in the list of entries at the bottom of this window.

Step 7: Repeat **steps 2** through **6** to add another **Off-Site Video Transfer** alarm notification entry.

The TCP/IP port number you choose must match the one set at the remote PC, namely in the FreeView Pro program; or else the connections will fail. Please note that you will need to open the port you choose via your router configuration. Contact your router manual for more info on "port forwarding" or "virtual server".

4.) Notify me via E-Mail Message: Upon motion detection, the DVR system will automatically send an e-mail message to the entire list of email recipients found in the list of alarm notification entries at the bottom of this window.



Please follow the steps below to set up e-mail notification entries.

Step 1: Select **Notify me via "E-Mail Message"**.

Step 2: Enter the recipient email address.

Step 3: Enter the **SMTP server address** provided to you by your ISP.

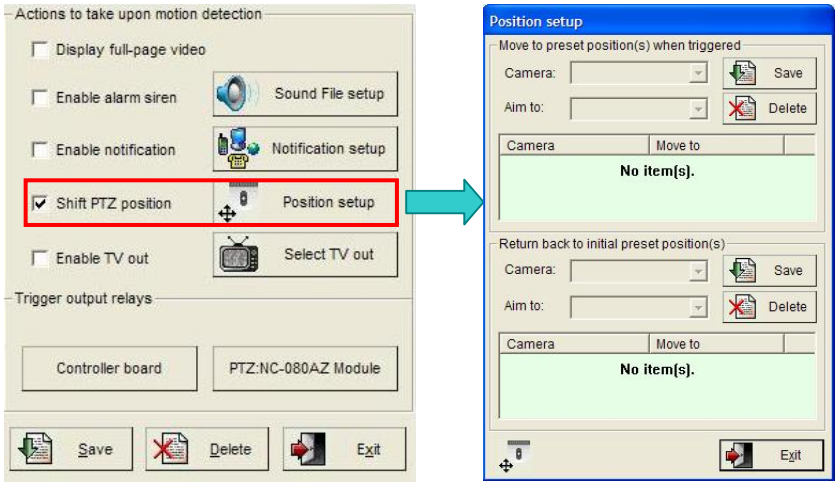
Step 4: The From eMail entry should be the e-mail address used at the DVR site.

Step 5: Fill in the Subject and Message fields to better identify the email messages received.

Step 6: Click on the **"SAVE"** button to save your pending entry. That entry will then appear in the list of entries at the bottom of this window.

Step 7: Repeat **steps 2** through **6** to add another **E-Mail Message** notification entry.

➢ Enable "**Shift PTZ position":** With this function activated, whenever this video channel detects movement, it will automatically change the aiming position(s) of one or more of your speed dome (PTZ) cameras to whatever preset position(s) you define. For more information please refer to the RS-485 control card (e.g. NC-3213USB) user manual. Also, refer to **Chapter 3-2-10 Control Panel** for setting up the PTZ preset positions.



➢ **Positions Setup:**

Follow the steps below to set up the trigger positions:

Step 1. Select a speed dome (PTZ) camera within the "camera" drop-down selection box in the "Move to preset position(s) when triggered" section at the top.

Step 2. Select a preset position within the "Aim To" drop-down selection box in the "Move to preset position when triggered" section at the top. Please refer to the **Chapter 3-2-10 Control Panel** for setting up the PTZ camera preset positions.

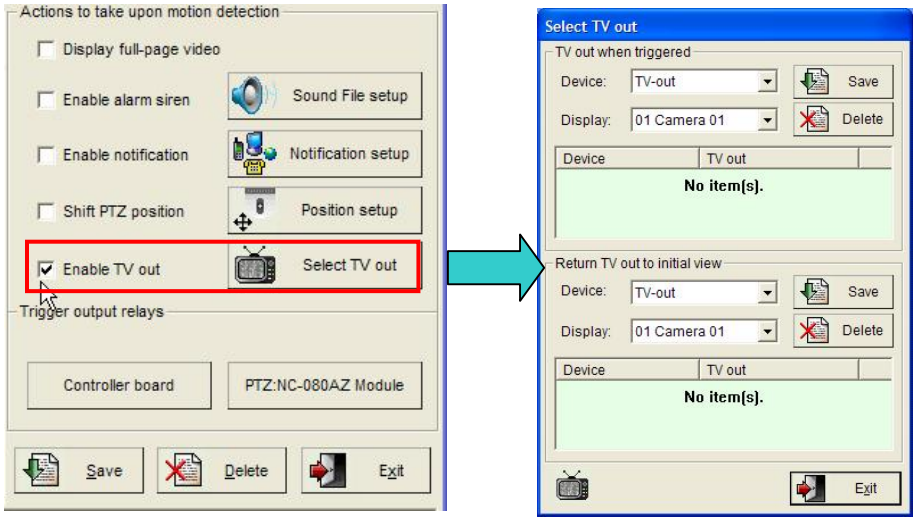
Step 3. Click on the **"Save"** button on the right to add your new entry to the list box below it.

Step 4. Repeat steps **1** through **3** to add another speed dome (PTZ) camera to move upon motion detection.

To set up the section **"Return back to initial preset position(s)"**, please follow the same procedures as with the "Move to preset position(s) when triggered" section.

- **Enable TV out:** If you hook up a TV set or security monitor to your DVR and enable this function, the live video feeds will simultaneously display onto the external monitor when motion is detected on this DVR video channel. Please refer to the next page to set up the TV Out channels selection.

  Please follow the steps below to set up the "**TV out when triggered**" section:



Step1: Select your DVR card model within the "Device" drop-down selection box.

Step2: Select the camera within the "Display" drop-down selection box.

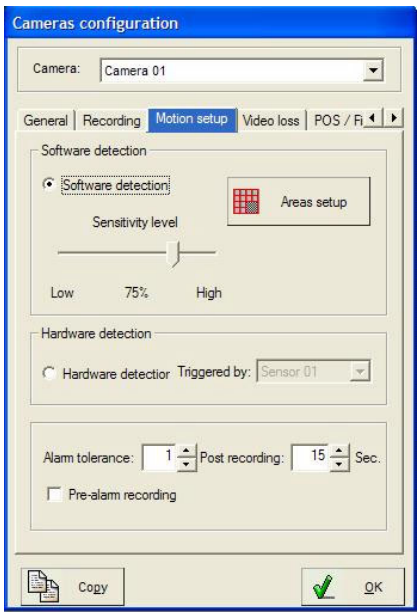
Step3: Click on the "Save" button to add your new entry to the list below it.

Step4: To add another camera to the TV Output view, simply repeat steps 1 through 3.

To set up the "Return TV out to initial view", please follow the same procedures as with the "TV out when triggered" section.

- **Trigger relays:** You can select the specific output relays to turn ON upon motion detection on this DVR channel. You can also trigger the output relays for each of the NC-080AZ modules utilized to control old PTZ cameras.

4-1-2-3. Motion Setting



In this section you will be fine-tuning how the DVR starts recording when people or objects are moving in the angle of view. To access this section, simply click on the **"Motion setup"** tab in the "Cameras Configuration" window shown at the right. The DVR comes with "Software detection" and optionally "Hardware detection". In order to use hardware motion detection, you would need to purchase a PCI I/O board that would allow you to connect your existing burglar alarm motion detectors.

The settings you choose in this section can only take effect if you introduce motion triggered recording within your recording schedules (see **"Schedule Setup"** on the Recording tab) and that **"Enable Recording Schedule"** is checked on the recording tab as well. You can verify that you have properly activated the video channel by inspecting its reference number button on the right-side toolbar. That channel number shall appear as light blue (scheduled to record) or red (currently recording).

1.) **Software detection**

Selecting software detection will help you save disk space, but will also produce multiple false alarms. Consider hardware detection for better performance.

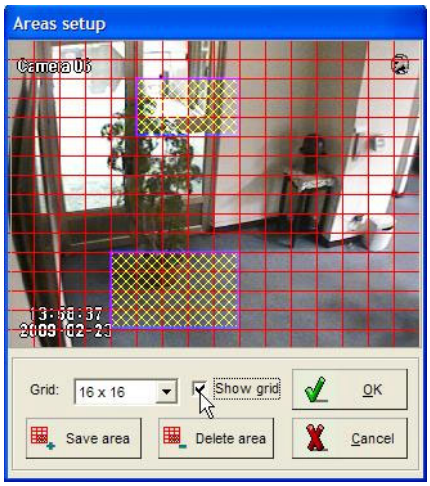
2.) **Sensitivity Level** – You can adjust the sensitivity of the software motion detection. Simply move the slider bar to the right to the increase sensitivity level or to the left to decrease it.

When choosing a level of motion sensitivity you should take into consideration unavoidable movement. For example, if you have a blowing fan nearby, this may produce some sort of motion in the images. Adjusting the sensitivity properly will filter out this movement.

3.) **Alarm Tolerance** – This function is to prevent false alarms by defining acceptable movement. For example, if tolerance is set to 2, changes in the video images must occur at least three consecutive times before this video channel will start recording.

4.) **Areas Setup** – Click this button to include only specific areas of the field of view.

■ **To add a new area of detection, follow the steps below:**



Step1: Left click your mouse somewhere on the image and drag it to the other extremity of the desired detection area.

Step2: Click on the **"Save Area"** button to add your new selection.

Step3: To set up another detection area, repeat steps 1 and 2.

Step4: Click **"OK"** to conclude your areas setup.

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

Step1: Select a detection area by right clicking on it. That area will then turn blue.

Step2: Click on the "**Delete area**" button. That area will then disappear from view.

Step3: To delete another detection area, repeat steps 1 and 2.

Step4: Click **"OK"** to conclude the areas setup.

If you do not define specific detection areas, the entire field of view will detect movement.

➢ **Hardware detection (Optional)**

You can select to use hardware detection for more accurate motion sensing. For example, light changes do not trigger false alarms as it does with software detection..

➢ **Triggered By:**

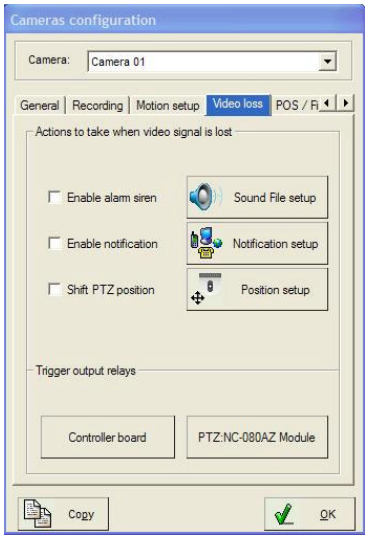
Select a motion-sensing device from within the drop-down list. One connects the sensing

devices at the "**Sensor In**" ports of the optional "**inputs board**" (DVR add-on). When a motion sensor is tripped due to detected movement in its track, the assigned DVR video channel will automatically create an alarm and start to record.

- **Post recording** – This function sets the period of time to continue recording after motion is no longer detected. If the period of time between one motion detection occurrence and a subsequent motion detection occurrence is less than the value in this field, then the two instances will be combined into one alarm/recording session.
- **Pre-alarm -** With this function enabled, the current video channel will begin a new motion triggered recording session at least 1~30 seconds before the event actually occurs. The number of seconds involved depends solely on the "Schedule Recording" frame rate you set. The higher the FPS, the least pre-alarm recording you will have. Please note that with this function running, more RAM will be needed. So, if you have limited RAM, it is best not to use this function.

4-1-2-4. Video Loss

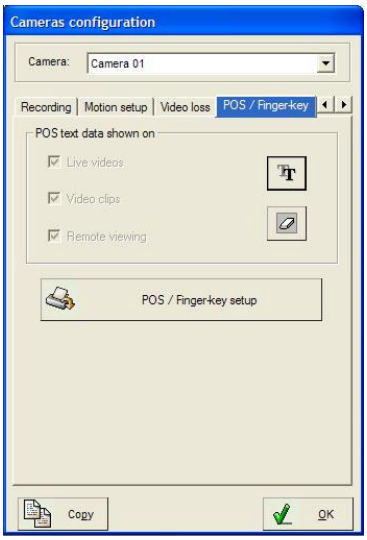
This function is to send you an alarm notification whenever the video channel loses its camera input signal, either due to a power supply problem or bad video coax connections. To activate this function, click on the **"Video Loss"** tab and follow the instructions below:



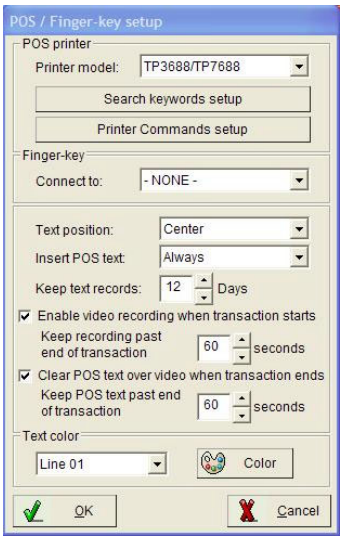
- **Enable alarm siren:** To set up an audio warning siren sound (or recorded voice) whenever the video input signal fails. Please see page 46 for more information on how to set it up.
- **Enable notification:** Each video channel can have its own unique set of notifications. Please refer to pages 46 through 50 for in-depth details on the alarm notification setup scheme.
- **Shift PTZ position:** This function is to set one or more of your connected speed dome (PTZ) cameras to change their viewing directions to one or more preset positions when video loss occurs on this particular video channel. Please refer to pages 50 and 51 for more details on how to set it up.
- **Trigger output relays:** This allows you to have the DVR automatically turn ON external devices (such as siren horns, strobe lights, ceiling room lights, etc.) when video loss occur on this video channel.

4-1-2-5. POS & FingerKey (Optional)

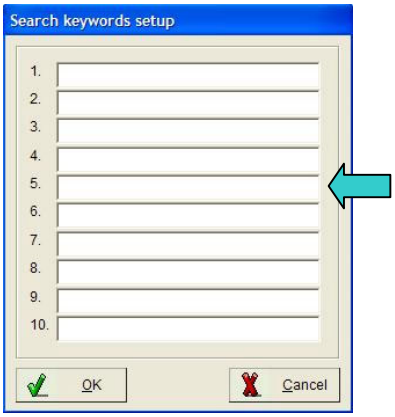
This function allows POS and FingerKey text to be displayed on the screen for specific video clip playback searching easily. After completing the hardware installation of POS text inserter system and the FingerKey, please press "POS & FingerKey" tab from the top of the "Camera configuration" setting and follow the instructions below to setup the program.



- **Font:** Click icon to specify the font size of text to past on the video clips.
- **Delete text:** Click icon will erase the POS text which showed on the monitor .
- **POS text data show on:** Enable/disable **Monitor**, **Video clips** and **Remote** to display the POS text on the connected monitor, video clips or remote PC.

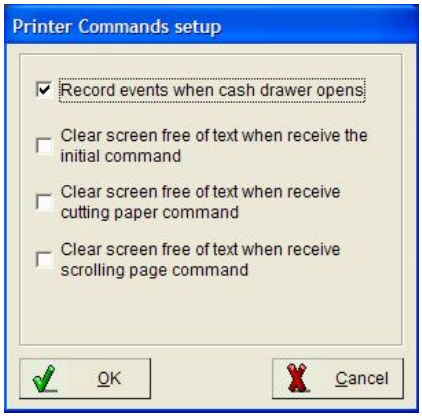


- **Setup POS & FingerKey connection**
- **Printer model:** Select printer model, which is to be used with your POS system.
- **Search keywords setup:** Allows you to setup Keywords for searching video clips.



Please type in the specific keywords in 1 to 10 column, and press "OK" button for saving the setting.

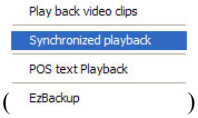
- **Printer commands setup:** The DVR is able to process certain functions after receiving the printer command code, such as recording with the event of opening cash draw.
- **Fingerkey:** To select a connected fingerprint access controller to capture the Fingerkey access record text on the video clips.
- **Text position:** To change the display position of text by working on the column position.
- **Insert POS text:** Determine the status of inserted text.



- **Keep text records:** Setup the text keeping period.
- **Enable video recording when transaction starts:** This enables video recording once the sale starts and specifies the time period of video recording once the sale stops.
- **Clear text over screen when transaction ends:** This would clear/clean up the text over the screen after the specified time period when sale stops.

4-1-3. EzSyncPlayback

Clicking the ( ) icon on the tool bar and select the "EzSyncPlayback" ( ) to display the "EzSyncPlayback" interface for searching video clips.



- **EzSyncPlayback Overview**

- **EzSyncPlayback Function Description:**

1. **Split screen display modes section:** To select the split screen display mode
2. **Camera selection of the video clips:** To select the playback cameras of the selected video clips folder.
3. **The video clips deletion:** To delete the video clips from the hard drive.
4. **Video streams searching calendar:** Provide user to search the video streams of the video clips by date, the red color of the dates contain recorded video data.

5. **Cameras switch:** Clip the "Up" and "Down" buttons to display the video stream of the cameras.
6. **Playback toolbar:** Provide powerful functions for user to view and search the playback video clips.
7. **Video stream searching bar:**
   - **0~23 (Hours) selections:** To search the video stream data by hours.
   - **White/Gray color video stream blocks:** White color block indicates empty data, and gray color block indicates the block with video data.
   - **0~60 (Min) dragging bar:** To search the video steam data by minutes.
8. **Playback speed selection:** Provide user to select the playback speeds to searching easily.
9. **Video stream information:** To display the selected video steam information.
10. **Display screen:** To display the video.

- **EzSyncPlayback Toolbar Description:**

Play – Click this icon to play back videos.

Pause – Click this icon once to pause videos.

Play backward – Click to play video stream backward.

Stop – Click this icon to stop videos.

Previous frame – Jump to previous frame.

Next frame – Jump to next frame.

First frame – Jump to the first frame of video clip.

Last frame – Jump to the last frame of video clip.

Repeat playback –Click this icon once have the videos play back on repeat. Click once more to cancel repeat.

Zoom in – Click this icon to zoom in.

Zoom out – Click this icon to zoom out.

Original – Click this icon to go back original video size.

Video copy – This button will copy current video clip to a specific location for archiving.

User could enable/disable "**Copy audio data**".

Delete video – Erase video play back file.

Navigation bar – This displays the current position of the video clip and allows users to move to different points within the clip. Left moves backward, right moves forward.

Snapshot – Click this icon to capture the video screen as a BMP or JPEG file.

Repeat – Click this icon once have the videos of all camera play back on repeat. Click once more to cancel repeat.

Resize – Click this icon to resize clip.

Next video – Jumps to the next video.

Previous video – Jumps to the previous video.

Decrease frame rate – Decreases the frame rate.

Normal frame rate – Adjusts frame rate back to normal.

Increase frame rate – Increases the frame rate.

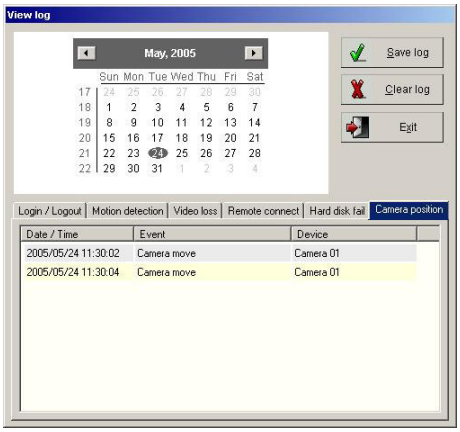
Screen size can be adjusted by selecting different multiple displays. Click to view full screen; click to view videos in 352 x 288; click to view videos in 176 x 144; click to view videos in 160 x 120.

Quick search video: To list the information of all video clips for searching and playback.

Smart search video: To detect the change of the object in a selected region of a recorded video clips, and list the events on the right side window. Please follow the introduction below to perform this function:

Step 1: Playback video clips from event table of the View log directly:

Click the icon on the toolbar of the Main screen to display the "View log" dialog.



Step 2: Press the "**Motion detection** "tab to display the Motion detection events list.

Step 3: Search the video clips by date from the calendar.

Step 4: Double click the desired video clips from the event list to display the playback interface.

Step 5: Press the icon on the playback toolbar to display the "Smart search" interface (as showing in **Fig 4-1-3.1)**.

Step 6: Press and hold the mouse left button to select a specific searching area.

Step 7: Click the **"Save area"** button to Save a highlighted region. User can use the same way to Save more areas**.**

Step 8: Adjust the " **Sensitivity** ", the" **Speed** "and the" **Range** " function, and click the " **Search** " button to start the smart search function.

Step 9: As showing in **Fig 4-1-3.2,** the system will display all detected object change events on the rights list window, and use can select an event to playback.

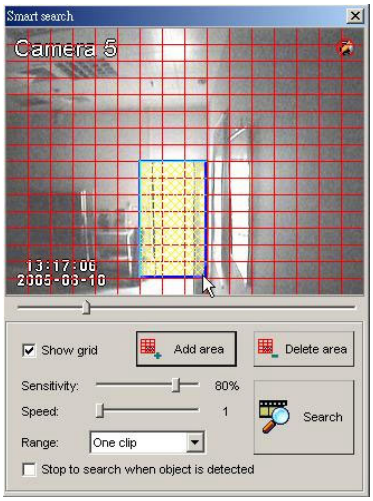


Fig 4-1-3.1 **Fig 4-1-3.2**

- **Function description of the Smart Search:**

- **Sensitivity**: Please base on the selected region size to adjust the sensitivity function. If set too high of the sensitivity with the big selected search area, the system may display very tiny changed on the list, oppositely, if set too low of the sensitivity with the small search region, user may easily find nothing in the result.
- **Speed**: User can set the searching speed for the smart search function, higher degree represents faster speed; oppositely, lower degree represents slower speed.
- **Range**: Select" **One video** "or "**All videos** "for smart search function.
- **Stop to search when object is detected:** If enable this function, the system will stop the search process when object is detected.

- **EzSyncPlayback Basic Operation**

Please follow the instruction below to use this function:

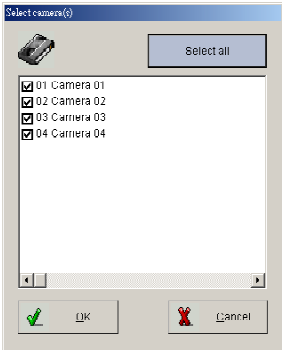


Fig4-1-3.4

1.) **Select the playback cameras:** Click the camera selection button ( ) to display the "Search camera" dialog (As showing in Fig4-1-3.4), then select the desired cameras for playback, and click the "OK" button to complete.

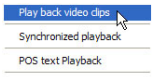
2.) **Select the split screen display mode:** Select a split screen to display all cameras videos on the screen for searching easily.

3.) **Select a date from the calendar to search the video stream:** Select the video stream from the calendar by the order of year, month and date.

4.) **Select display camera:** Click the "Up" and "Down" button to display the desired cameras' video stream.

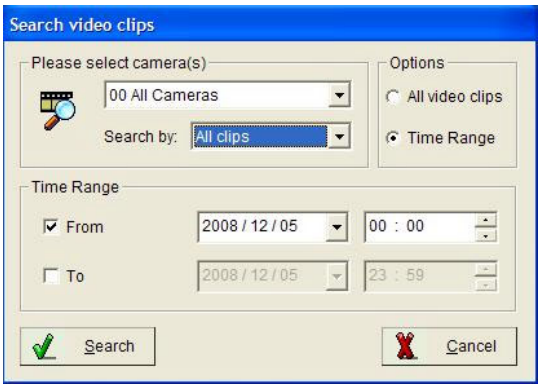
5.) **Click a desired gray color video stream block to play:** Click a desired gray color video stream block, and click the play icon to view.

4-1-4. Playback Video Clips

Clicking the ( ) icon on the tool bar and select the "Play back Video Clips" () to display the "Search video clips" interface for searching video clips.

● **Follow the steps below to play back videos:**

Step 1: Click in the middle of right side to **search** for videos in database. And you will see below window.



Step 2: Select the camera. To play multiple videos, select **"00 Camera 00"**.

Step 3: Decide which recording way will be searched by "**Options**".

Step 4: Select the recording period, then click **search** to find the clips among the selected time.

● **Follow the steps below to remove a video from your archive:**

Step 1: Click on right screen to search for videos.

Step 2: Decide which recording way for deletion by "**Options**".

Step 3: Select the videos that need to be removed.

Step 4: Select camera and time of the archived video.

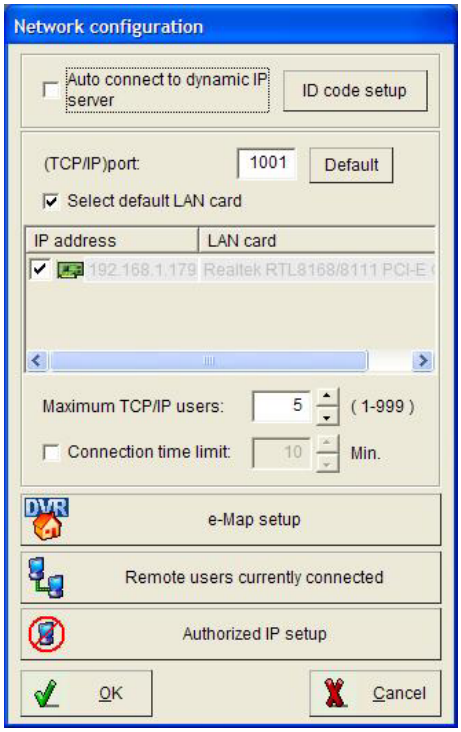
Step 5: Click **"Delete"**.

- **Play back Archived Videos**

At the playback screen, you can play back videos. Camera number, camera location, time recorded, storage space, etc. will be displayed on the screen. Double click on any video screen to enlarge a single video. Move the mouse to any video screen to show video tool bar and information of single video (see below picture). Double click again to restore the previous viewing screen.

Please refer to the chapter 3-2-3-3 EzSyncPlayback for detail of the Playback toolbar functions.

4-1-5. Network Configuration



The main function of "**ID code**" is to solve possible problems with dynamic IP addresses connection. @-Witness series DVR contains a built-in IP address register function. If you enter the ID code into the system and enable the **"ID Identify Server"** icon, then when you start the Witness Pro, its built-in IP Identify capability allows others to connect directly to your Witness Pro system from their FreeView Pro software or IE browser via the Internet. In cases where you do not have a fixed IP address assigned to your DVR, the ID Code may use the DVR to redirect browsers to the DVR by announcing its current IP address to the IP Identify Server.

What is the IP Identify Service?

When the **"Auto connect to IP Identify Server"** option is enabled, the DVR sends a message to the central IP Identify Server per hour. This machine then knows what IP address your DVR has for the current session. When other users try to access your DVR, they are routed through the IP Identify Server to your DVR.

Do I need to use the IP Identify Service?

No. Ask your ISP provider about setting up a fixed IP number for your local account. Once you have a fixed IP number, disable the **"Auto connect to IP identify server"** option.

- Set ID code login by doing the following:

1.) Click in the Tool bar for network configuration.

2.) Enter an **"ID code"**.

3.) Enable **"Auto connect to IP identify server"**.

4.) Press **"OK"** to register your number to an IP identify server.

- Enable "**Connection limit to":** DVR could set the duration time, which allows remote users connect to DVR.

(For users that are protected by a Firewall)

If you are encountering either the error message "Cannot locate IP address" or the error message "Cannot identify server", please contact the manufacturer of your Firewall and ask them how to create a PORT MAPPING. This will create a hole in your firewall. This Port Mapping will enable the remote user to access the Witness ASE/HS/RD series Pro from the remote site.

- **Set up E-Map**

Enter the information of DVR and insert a map to arrange the location of device. Once these devices are triggered, the information can be transferred to a remote site PC via modem or Internet. The triggered devices will be flashed on the map at the same time. Follow the instructions below to complete setup.

1.) Click" **Set up E-Map** "icon and below picture will be shown.

2.) Enter the DVR name into **"Site name "**.

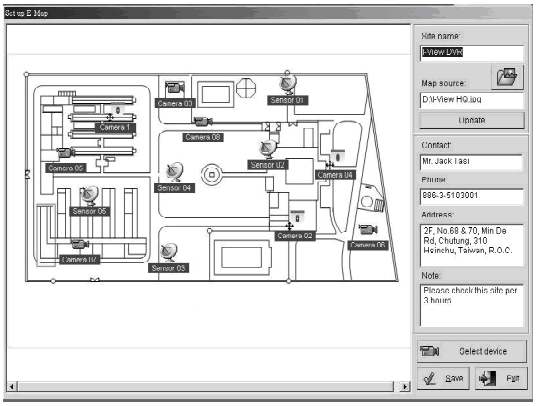
3.) Click " **Map source** " icon to browse the map file from DVR folder and then click "**Update**" icon after you find out the Map file. (The map file can be a BMP or JPG file.)

4.) Enter the data into " **Contact** ", " **Phone** ", " **Address** " and " **Note** " tab. It will show the DVR information on the remote client PC when connecting.

5.) Select the available devices for decorating on the DVR map from "**Select device**".

6.) Move to the device and then click and drag down to the suitable location with the left mouse key. Repeat this process for another device.

7.) Click **"Save "** button to complete the setting.

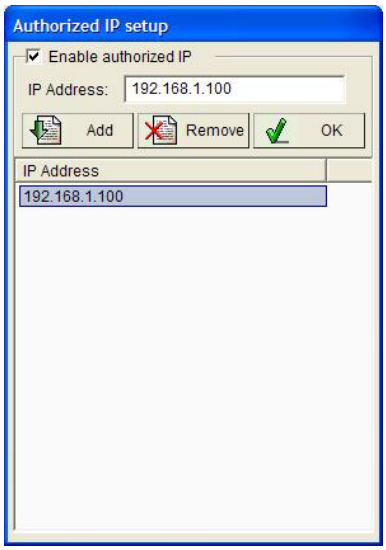


- **Remote user currently connected**

  User can simply click this button to view the remote currently connected users' information.

- **Authorized IP setup**

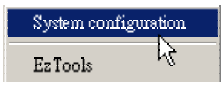
  After enable this function the DVR just allows the list IP to remote access function. The remote connecting IP which does not on the list window will pop up a "Limit error" error message when connection.

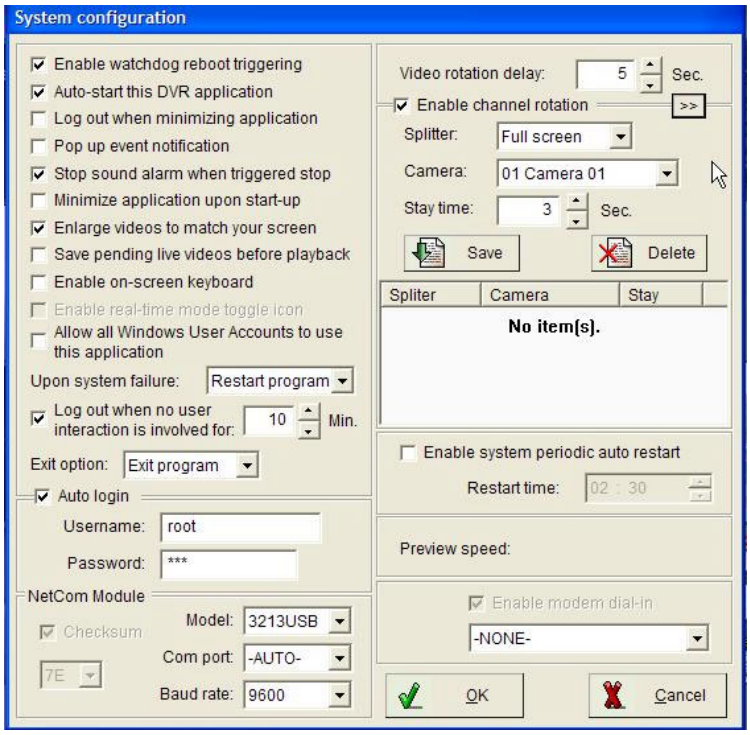


4-1-6. System Configuration/EzTools

- **System Configuration**

Click the button, the system will display "System configuration" and "EzTools" selections. To set up the DVR system configuration, simply click the "System configuration" and the system will display as below.





- **Function Description:**

Enable watchdog reboot triggering

Enable this function will reboot DVR and be back to original setting if system shutdown caused by hardware or software problem.

Auto star this DVR application Enable this function will start Witness Pro when system starts up.

Logout when minimizing application Enable this function will logout **Witness Pro** when

software is minimized or click " **ESC** " key of keyboard to hide the tool bar of Witness Pro program.

Pop-up event notification Enable this function will pop-up the event notification message on the screen and the camera or sensor will be flashed on the eMap when the device is triggered.

Enlarge the videos to fit your screen will enlarge the space taken by the video display window.

Stop sound alarm when triggered stop Enable this function, the sound alarm will stop when trigger stops.

Minimize application upon start-up To minimize the video window when enable Witness Surveillance Server program.

Save pending live videos before playback Enable this function, the video file will close and renew a new one automatically when you click "Playback "icon. You can playback the current video file without waiting till the file close. Enable this function, it will cause the length of video file not same as your setting on some video files.

Enable on-Screen Keyboard Enable this function, the On Screen Keyboard tool will display on the screen when you setup the Witness Pro program.

Enable real-time mode toggle icon Enable this function; the toggle switch icon Will be enabling.

Allow all Windows User Accounts to use this application Enable this function, it will allow the users to run Witness Pro program even through to login Windows O.S. with difference password.

Upon system failure To select PC status when DVR system abnormal. Press the arrow buttons to switch between "**Exit program**" and " **Restart** " function. For example**:** Select "**Exit program"**, the system will automatically reboot Witness Pro program when DVR system abnormal.

Log out when no user interaction is involved for To logout the DVR system when the user is inactive DVR over setting period.

Exit option To select PC status after exiting **Witness Pro** program. Press the arrow buttons to

switch among "**Exit program**", " **Turn off** ", " **Log off** "or " **Restart** ". For example**:** Select "**Turn off"**, the system will automatically shutdown after exiting Witness Pro program.

Auto login Enable this function will automatically login by user name and password saved in the system when you reboot.

Section of the NetCom Module:

Model Select "**3213USB or** NC-320AM-I" type for control the PTZ camera, D/I and D/O device. Base on which kind PTZ controller cards you plug into your DVR.

Checksum Enable Checksum or not will depend on the type of Speed dome camera. Please refer to the manual of Speed dome camera.

Com Port You must select "**Auto**" from the draw menu of **"Com Port "**icon when you want to enable the function of Netcom module.

Baud rate You need to select a correct Baud rate if you want to control the Speed dome camera or P/T/Z camera from Witness DVR board (Default setting is 9600 bps).

Dip switch of NC-3213USB Control Board:

The dip switch for the bound rate setting, please refer to the table as below:

Baud rate / Switch	2400	4800	9600	19200
S1	↓	↑	↑	↓
S2	↑	↓	↑	↓

1.) You must select 9600 baud rate, enable Checksum icon and select " Pelco P " or " FastCam III " or " SDCI-220 ", when you use I-View's FastCam Speed dome camera series.

2.) The ID 0 of Pelco " P " is same as Camera 1 of DVR , ID 1 same as camera 2.

Enable modem dial-in For AnyView Pro user or using Phone/Pager notify function should select which modem will be used and enable "**Modem dial-in"** below to communicate with DVR. If user's modem and fax share one telephone line, user must disable " **Modem dial-in"** when no more

connection required otherwise modem will occupy phone line always.

1.) You can select "None" to leave modem open for other communication software or voice calls.

2.) You must select which modem will be used and enable "Monitor" for AnyView Pro user and Phone/Pager notify functions.

3.) Please contact to your local dealer for asking the model of Modem.

Video rotation delay regulates the time period of camera rotation by clicking on the main screen. Click on the icon again to disable the rotation function. (Default setting is 5 seconds)

Enable channel rotation To rotate the sequence of the assigned cameras, which you want to show on the screen. There are two kinds video out rotation; one is "**Split video out** "and the other **"Single video out "**. Follow the instructions as below to set up the video rotation:

Enable channel rotation (Split video out) (For CP-2320RD and 2160RD Deluxe only)

1.) Select the rotation way from the **"Splitter"** of drop down menu as the window above.

2.) Choose the camera that will be first image on split screen at the drop down menu **"Camera"**.

3.) Enter number into **"Stay time"** tag.

4.) Click **"Save"** icon to save the rotation image.

5.) Repeat **1** to **4** for adding other rotation split videos.

6.) Click **"OK"** to complete the setting.

The rotation camera for 9 split screen, which can select 1-9 or 8-16 camera for 9-split screen display only.

Enable TV out rotation (Single video out)

1.) Click icon and then switch to the setting of" **TV out rotation"** mode.

2.) Choose the camera, which you want to display on the TV at the drop down menu **"Camera "**.

3.) Enter number into **"Stay time"** tag.

4.) Click **"Save"** icon to save the rotation image.

5.) Repeat **1** to **4** for adding other rotation videos.

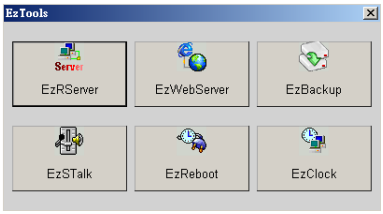
6.) Click **"OK"** to complete the setting.

Enable system periodic auto restart provide user to restarts your DVR at a set time. Using this function stabilizes the program after a long period of usage.

Visible motion area provide user to view the setting motion detection area. This function is only for the model of CP-1160RD, CP-1320RD and 2160RD Deluxe. To enable this function, user need to set up the motion setting and enable the schedule recording of motion detection in the camera configuration section.

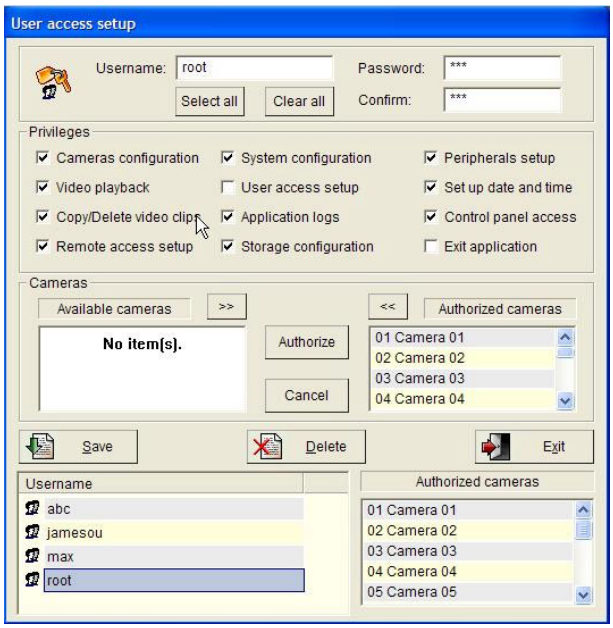
- **EzTools**

This function is to provide user selection the DVR main program tools without minimize the current surveillance sever program. To enter this selection, please click the icon, and select the EzTools selection, then the system will display as below



4-1-7. Setup Privileges

Click icon to enter **"Set up privileges"** interface for creating and modifying usernames and passwords. Users will have access to different only certain levels.



- **Supervisor name and password**

  The default supervisor name and password is listed below:

  Username: root **Password:** 123

Please follow the steps below to modify the supervisor's name and password:

1.) Enter new supervisor name and your chosen password.

2.) Press **"Select all"** (only for supervisor) and also click ">>" to authorize all cameras.

3.) After completing the steps above, click **"Save"** to finish setup. Click **"Exit"** to leave **"Set up privileges"**

Please remember removing the default supervisor "root", otherwise there will be two supervisors.

- **Set privilege for additional users**

1.) Enter username and password, enter password again for confirmation.

2.) Select privileges.

3.) Select cameras and authorize use by clicking on **"Authorize"**.

4.) After completing the above steps, click **"Save"** to finish user setup.

5.) To Save another user, please repeat **1 to 4 steps**.

1.If the supervisor's password or username is lost, Witness ASE/HS/RD series must be reinstalled. All previous settings will be lost. However, saved videos will not be erased.

2 Passwords must consist of 0-9 and a-z or A-Z.

3.The password is case sensitive. (PaSsWoRd is not the same as password)

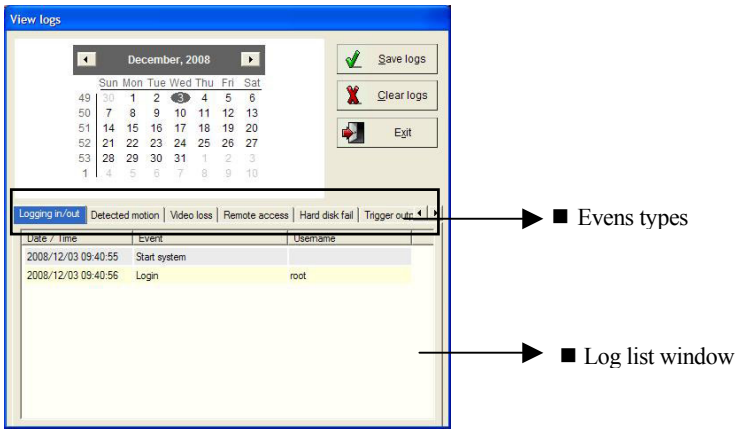
- **Remove/modify user privileges**

1.) Select the user in the username list.

2.) Click **"Delete"** to remove user or double-click on the username to modify user privileges.

4-1-8. View Logs

The Witness Pro will classify the logs by date and different events types. To check the system logs simply click the icon and the system will display the window as showing below.



■ **Function Description:**

Save log button: To save the log list as a file.

Clear log button: To clear current log list.

Exit button: To exit this interface.

Evens types: User can simply click each type tabs to find a specific even type's log list easily.

Log list window: To list each type logs.

4-1-9. Setup I/O

Click on tool bar to setup I/O configuration and parameters. Users will be able to **NetCom output repays setup, NetCom output replays on/off, NetCom sensor inputs setup, NetCom TT; module control, Emergency notification setup and FingerKey Access setup** …etc. (**Fig.4-1-9.1**)

If the NC-3213USB NetCom module has been installed, all functions icons will be enabled. Otherwise only "setup emergency call "and "Set up Fingerprint "will be enabled. This function can also check if the NC-3213USB NetCom module is working properly.

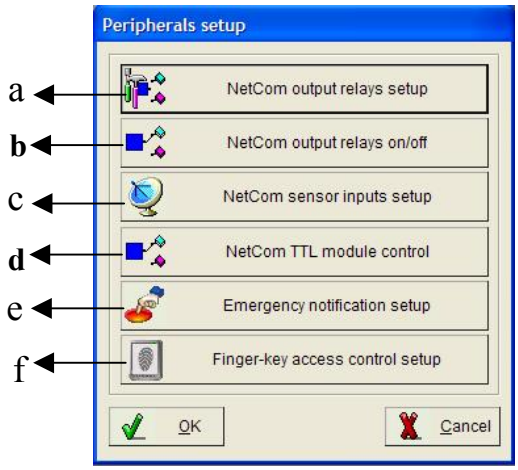
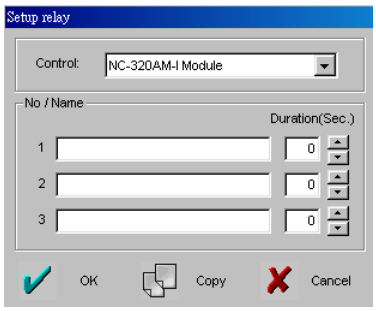


Fig. 4-1-9.1 Set up I/O port

a.) NetCom output repays setup (Option)

While user inserts the card into the DVR system, the "Set up relay" button will be able to click to enter the "Setup relay" interface as showing right site.



Function Description:

- **Control:** You need to specify the device for setup.
- **No/Name:** Enter "**Controller name**" corresponding to the desired relay number.
- **Duration:** Enter the controller's working period when relay trigger.

■ **OK:** Click to accept setting. **Copy:** Copy the parameter setting to another relay.

■ **Cancel:** Discard changes in parameter.

b.) NetCom output replays on/off & d.) NetCom TT module control (Option)

This function is to test remote controlling. Please click the **"NetCom output replays on/off"** and **"NetCom TT module control"** button from the "setup I/O port" to enter the setup interface as showing below.

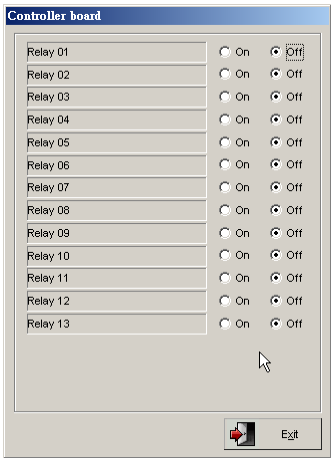


Fig. 4-1-9.2

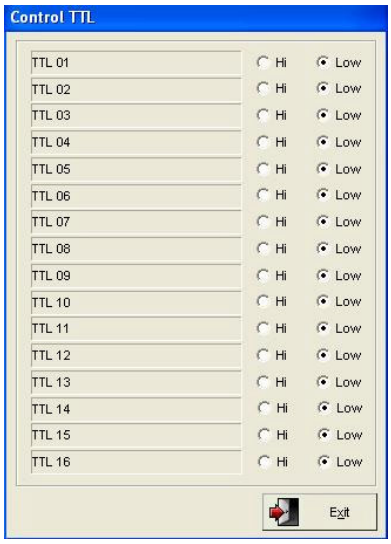


Fig. 4-1-9.3

■ **c.) NetCom sensor inputs setup (Option)**

Click **"NetCom sensor inputs setup"** button on setup I/O port, the window will display as **Fig. 4-1-9.4.** Please follow the instructions below to complete setting.

Step 1. Choose a Sensor in pull-down menu. Enter location of specified sensor in **"Location"** box.

Step 2. Choose sensor type (NC or NO) in **"Type"** box.

Step 3. Select **"Enable recording"** and/or **"Enable snapshot"** and/or **"Enable sound alarm"** and/or **"Enable notification"** and/or "**Trigger speed dome**" and "**Enable TV out**" configure their corresponding

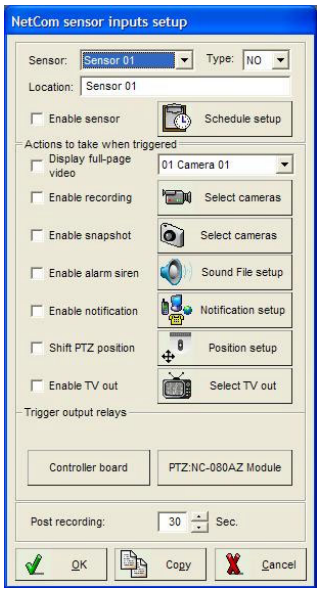


Fig. 4-1-9.4

options to the right.

- **Enable recording:** select camera you want to record when emergency call is pressed.
- **Enable Snapshot:** select camera to snapshot when emergency call is pressed.
- **Enable sound alarm**: You can set each camera to have its own unique alarm sound.
- **Enable notification**: See details on how to set up Notification**.**
- **Trigger speed dome**: See details on how to set up position**.**
- **Enable TV out:** Please refer to "Enable TV out" setting**.**

Step 4. Select the specific trigger relays to use from Relay 01 to 06 (**Back Panel**). It also can trigger the relays of each NC-180AZ module.

Step 5. Enter "**Post recording**" time to continue recording after sensor is triggered.

Step6. Click "**OK"** to complete.

d.) Emergency notification setup

This function is to set up emergency notification when the panic button is pushed, simply click the icon and follow the setup interface instruction to configure the emergency call feature which are sound an alarm, notify someone, start recording or show live video feeds on connected TV sets.

e.) FingerKey Access setup (Optional)

Click **"FingerKey Access setup"** button on setup I/O port, the window will display as **Fig.4-1-9.6.**

Please follow the instructions below to complete setting.

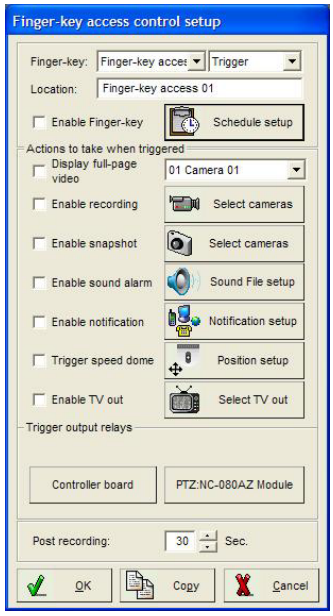
Step 1. Choose a Fingerprint in pull-down menu. Enter location of specified Fingerprint in **"Location"** box.

Step 2. Enable Fingerprint that you need to setup the Function when the Fingerprint is triggered.

Step 3. Choose trigger type (Trigger, Verify fail, Verify fail Disconnect or Door open) in box.

Step 4. Select **"Enable recording"** and/or **"Enable snapshot"** and/or **"Enable sound alarm"** and/or **"Enable notification"** and/or "**Trigger speed dome**" and

Fig.4-1-9.6.



"**Enable TV out**" configure their corresponding options to the right.

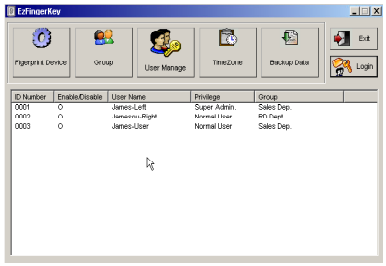
- **Enable recording:** select camera you want to record when emergency call is pressed.
- **Enable Snapshot:** select camera to snapshot when emergency call is pressed.
- **Enable sound alarm**: You can set each camera to have its own unique alarm sound.
- **Enable notification**: See details on how to set up Notification**.**
- **Trigger speed dome**: See details on how to set up position**.**
- **Enable TV out:** Please refer to "Enable TV out" setting**.**

Step 4. Select the specific trigger relays to use from Relay 01 to 06(**Back Panel**). It also can trigger the relays of each NC-180AZ module.

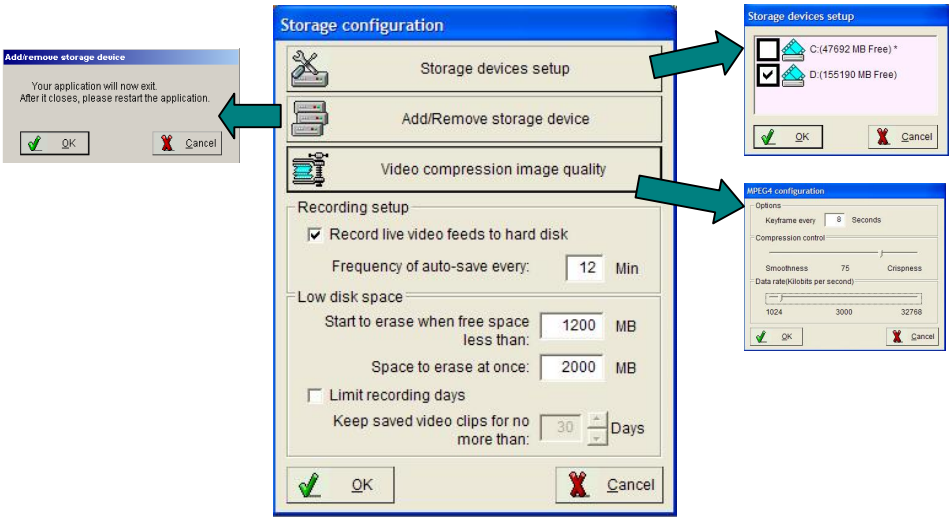
Step 5. Enter "**Post recording**" time to continue recording after sensor is triggered.

Step6. Click "**OK"** to complete.

While user connected the fingerprint access controller, user can simply click the icon. For detail of the Fingerprint Access Control, please refer to the fingerprint access controller user manual.

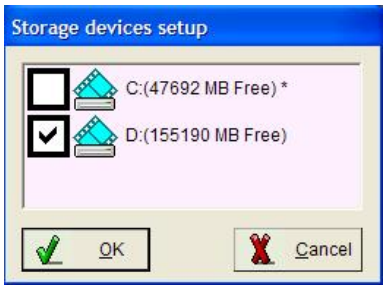


4-1-10. Set up storage device



- **Storage devices setup description:**

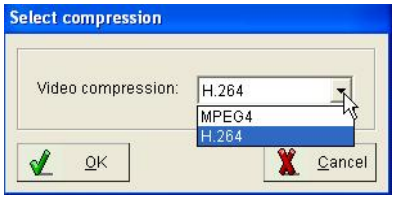
Storage devices setup: This button is to enable the system configured video storage (Drive **"C:"** is the flash card for saving the DVR operating system). To enable the configured device, simply check the device and click the "OK" button to complete.



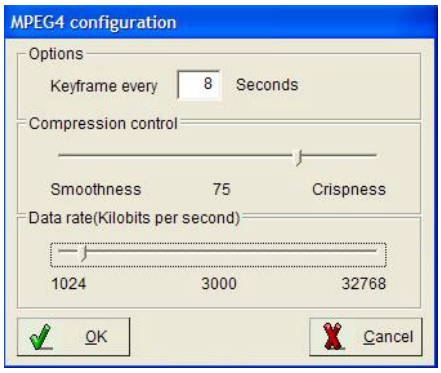
Add/remove storage device: This function is to detect the new storage device, but the DVR system need to be restart. This button must be clicked after a HDD drive is removed or added to your system. Otherwise, the program may not find playback video files. Clicking this will close your application, please remember to restart it.

Please perform this function if you find playback function work abnormal. Running this function could repair video clip and rebuild the Database of video clips.

Video compression image quality: The system provides two compression methods – MPEG 4 and H.264. The detail description as below:



- **MPEG 4 configuration:** This function provides user to adjust the video compression quality. Higher image saving quality will decrease the system compression "Data rate" (larger image size), in the same way, lower image quality can save more image storage space for longer time recording. Simply use the selection bar to adjust the "Compression control" section or the "Data rate" section, and click the "OK" button to complete.

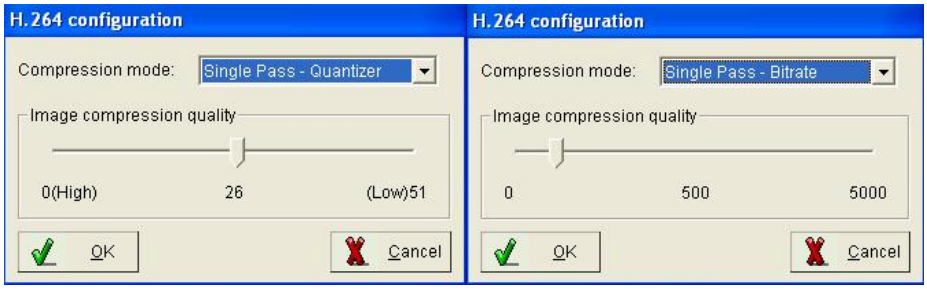


Select compression: This section is to set up when the image storage free space less than specific size, the system will start to erase.

- **H.264 configuration:** You can choice two modes Single Pass – Quantizer and Bitrate (**Optional codec**)

Quantizer: This mode suitable for the exchange rate of video is lower. The file size will be smaller, but the CPU loading will be higher.

Bitrate: This mode suitable for the exchange rate of video is higher. The file size will be bigger, but the CPU loading will be lower.



We will strong recommend using the Intel Q6700 or better CPU when you use the H.264 compressor for continue recording. The H.264 compressor requests more powerful CPU, so we also suggest to reduce the recording rate when using the H.264 Compressor.

Record live video feeds to hard disk: When you enable **"Record live video feeds to hard disk"**, your video clips will be saved to hard disk every few minutes automatically. For example, if **Frequency of auto-save every** "**5 minutes**", video clips will be saved every 5 minutes. You can choose from anywhere between 5 and 30 minutes. Using this option can minimize video clip loss under abnormal conditions, such as a power outage. If you enable this, it is recommended that you add a fan for the hard disk because of the additional heat that will be generated. If you disable this function, video clips will be saved in memory and saved to disk based on your settings in Camera configuration → Recording → File. However, if the system shuts down abnormally, all clips not saved to disk will be lost.

Start to erase when free space less than Will start to free space on your hard disk when only a certain amount of space is left on your hard disk. Older files are erased first.

Space to erase at once This specifies the amount of disk space to free when the above limit is reached. Older files are erased first. As an example, if 1200 MB is entered, 1200MB will be erased when the limit is reached.

Limited recording day(s) Start to delete the oldest video clips when the keeping period over the setting.

4-1-11. Video Control Panel

- **Clock Setting**

  To set up the DVR system display time clock.

- **Display Modes**

  Provide user to select different display mode for view all connected camera easily.

- **Display Modes Rotation** →

  Click to rotate the channels in split viewing mode automatically.

- **Camera Display selection** , , …

  The channels selection buttons for "normal live viewing ", "schedule prerecording " and "recording the view image "

- **P S A buttons** (Optional)

  PTZ camera control functions, user needs to install and configure the PTZ camera and its controlling card to enable this function.

  - **"P" button:** To set the PTZ camera "Preset Position", to set up this function please follow the setup steps below.

Step 1: Blue circle in the icon and select a PTZ camera (e.g.).

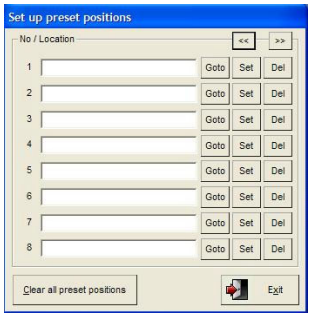
Step 2: Use the icon and click on or to adjust the parameters.

Step 3: Use the icon's direction arrows to adjust the camera aiming position.

Step 4: Press the "A" button and press "Stop swivel".

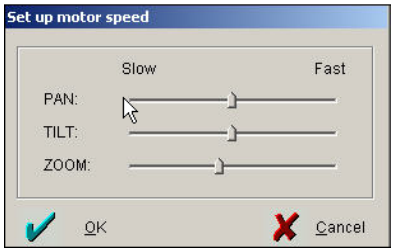
Step 5: Press the "P" button to enter the "Preset Position" setting interface.

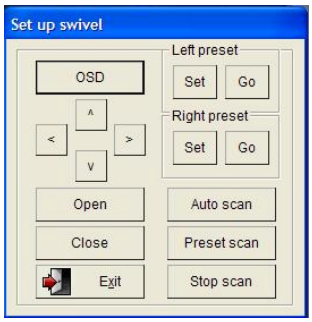
Step 6: Type a location name and press the "Set" button, and click the "OK" button to complete.



"Goto" button: To test the setting PTZ camera if aim to the preset position.

- **"S" button:** To set the speed for this camera pan, tilt, and zoom.





- **"A" button:** To adjust the PTZ camera "Auto scan" modes.

■ **TV out**

Click this icon to rotate videos or pop-up the on TV. (For single video out) You can choice which camera(s) and how many seconds will show on the TV by the software and it also can be used the Remoter controller to control the TV out video.

■ **E-Map**

Click this icon to show the information and map of DVR. When the sensor and camera is triggered that the icon will be flashed and video will pop up the TV out. If you use the dual monitor to display, the map will be shown on another monitor automatically.

■ **Relay**

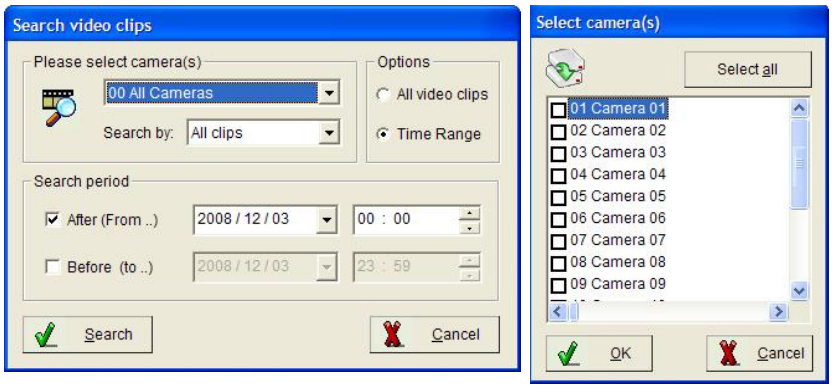
- Click this icon to set up I/O sensor of NC-180AZ Receiver module.

4-2. Video back-EzBackup

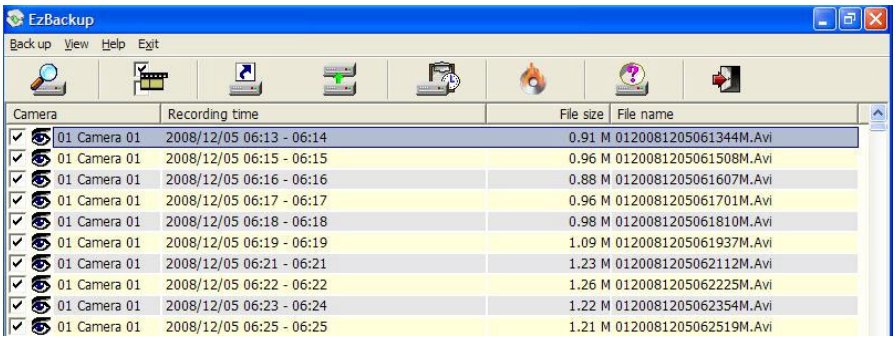
This chapter will show how to back up video clips to another storage device from your saved database.

- **Follow the steps below to back up videos**

1. Click in the top of left side to **search** for videos in database. And you will see below window.

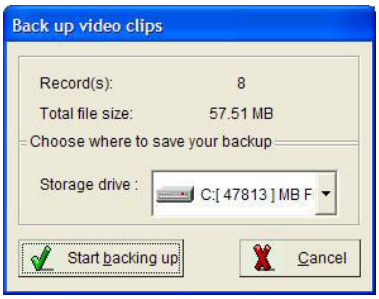


2. Select the camera. To play multiple videos, select **"00 Camera 00"**.
3. Decide which recording way will be searched by "**Options**".
4. Select the recording period time and date. Click **search** to find the clips among the selected time, and the system will display the window as below.



5. Select video file, which you would like to have by manual. Or you also can click to select /remove selection all video file.

6. The EZBackup program provides three methods to backup the video clips and the detail process as below:

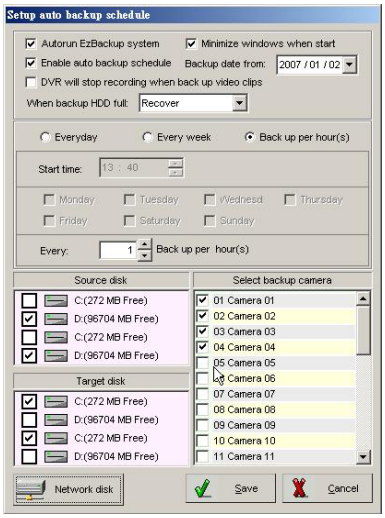


Backup to another HDD by manual:

a. Click will see the Fig4-2.1diagram window.
b. Select the HDD from " **HDD Drive** " section.
c. Click " **Start to back up** " icon to start backup.

(Fig4-2.1)

Setup auto backup Schedule:



a. Click will see the Fig4-2.2 diagram window.
b. Enable " **Enable auto backup seclude** " function.
c. Select the " **Date** " to backup video clips from " **Backup date from** " section.
d. Choice " **Recover** " or " **Stop** " from " When backup HDD is full " section.
e. Select the backup schedule from" **Daily** ", " **Weekly** " or "**Back up per hour(s)** ".
f. Select the backup camera (s) and source disk.
g. Select the " Target disk " to back the video clips. If The " **Target disk** " is NAS or another PC, please click the " " icon to display the network hard drive setting dialog as Fig4-2a, follow the dialog instruction and type the specific path of the network HDD for backup the video clips. To add more Network's HDD path, please repeat this step again. **(Fig4-2a)**

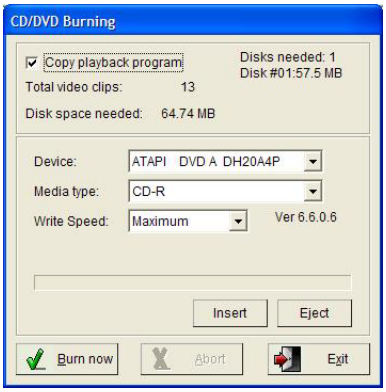
Backup video clips from DVD+-RW (CD-RW):

a. Click will see the Fig4-2.3 diagram window.

b. Insert the backup media such as CD or DVD disk.

c. Select the correct " **Device** " and " **Media type** " .

d. Click " **Burn now** " icon to start backup.



If you enable " Copy playback program " icon, the CD will back up EzPlayback and EZSyncplayback program at the same time. You can use the playback programs to playback the video clips of CD or DVD on any PC. **(Fig4-2.3)**

7. Click to complete backup.

- **Video tool bar on backup screen**

Search – Click this icon to search video files.

Select – Click this icon to select/remove all video clips to back up video clips.

Create backup shortcut – Click this icon to paste the video clips which has been selected to the other storage devices; such as CD-RW/DVD+-RW or HDD.

Back up video clips – Click this icon to back up video clips to Hard Disk.

Setup auto backup schedule – Click this icon to back up video clips to Hard Disk by schedule automatically.

CD Burning – Click this icon to back up video clips to Hard Disk on to back up video clips CD-RW or DVD+-RW.

About - Press to see the program version.

Exit –Exit the video backup setting window.

4-3. Web Browse Server – EzWebServer

This function is to provide user for remote monitoring with IE browser via Internet. Please follow the instruction below to set up this function.

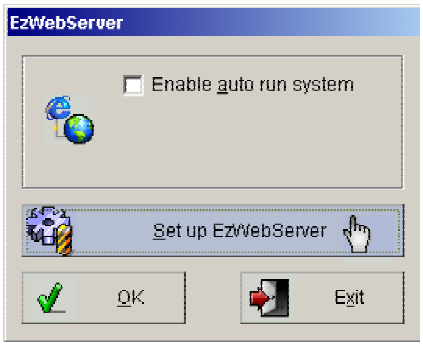


Fig. 4-3.1 EzWebServer

- **Setup in local host DVR sever:**

Step 1: Enable the "Web Browser Sever – EzWebServer" program.

Step 2: Click **"Enable auto run system"** and **"Hide window"** to auto enable the EzWebServer when start the Witness Pro system every times.

Step 3: Please click the "Set up EzWebServer" button and fill out the "Web IP address" section. For detail about the fix IP address, please contact your ISP provider.

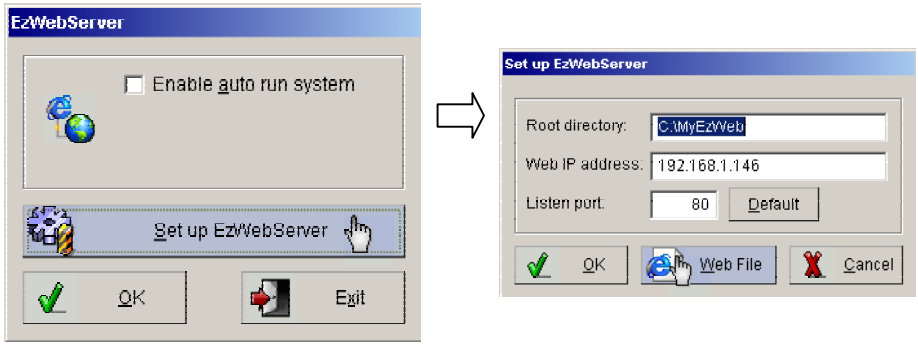


Fig.4-3.2 Click the "Set up EzWebServer" to display "Set up EzWebServer"

Step 4: Please click the "Web File" button and fill out the information in each section of the "Demo.htm" interface, then click the "Generator" button to complete the settings.

"Demo.htm" Setup interface sections description:

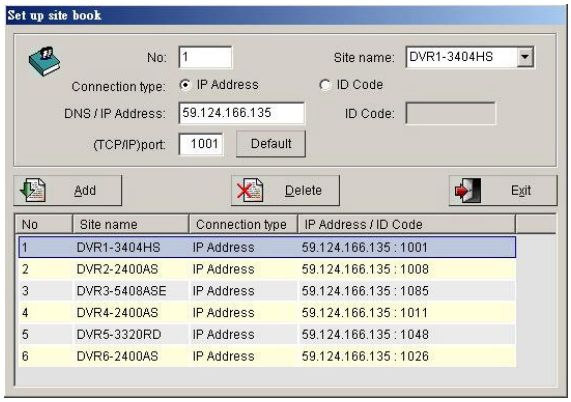
- **Connection Type:** To Select use "IP Address" connection or "ID Code" (For Dynamic IP address connection) connection.
- **DVR IP Address:** If user selects "IP Address" connection type, please fill the DVR IP address in this section.

Fig. 4-3.3 "Demo.htm" setting interface

- **ID Code:** If user selects "ID Code" connection type, please fill the ID code in this section
- **Port number:** Please type the port number for remote connection.

Please make sure the setting connection port is not used by PC program commonly, or the connection may be collided with other PC application program.

- **Auto connection:** Enable this function and type in the "Username" and "password to allow remote PC to set up remote connecting this DVR automatically.
- **Save connection:** Enable this function and type in the "Username" and "password to allow remote PC to set up remote connecting this DVR automatically.
- **Save site book:** Enable this function and then you can Save this DVR into the connection list when you enable EZWebserver program. The users can select the DVRs from among list from remote connection.



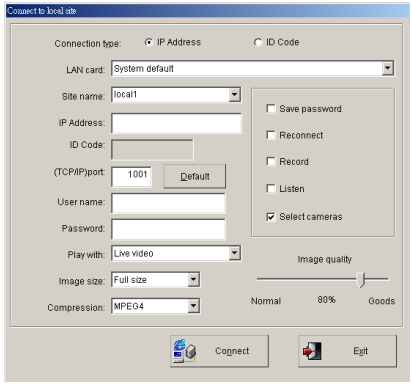
- **Remote client PC setup:**

Step 1: Click IE Browse from the Remote client PC, and then enter the IP address of Local DVR Server.

Step 2: Please allow the ActiveX program to install on your PC when the ActiveX pop-up, and the screen in IE browser will display as below.

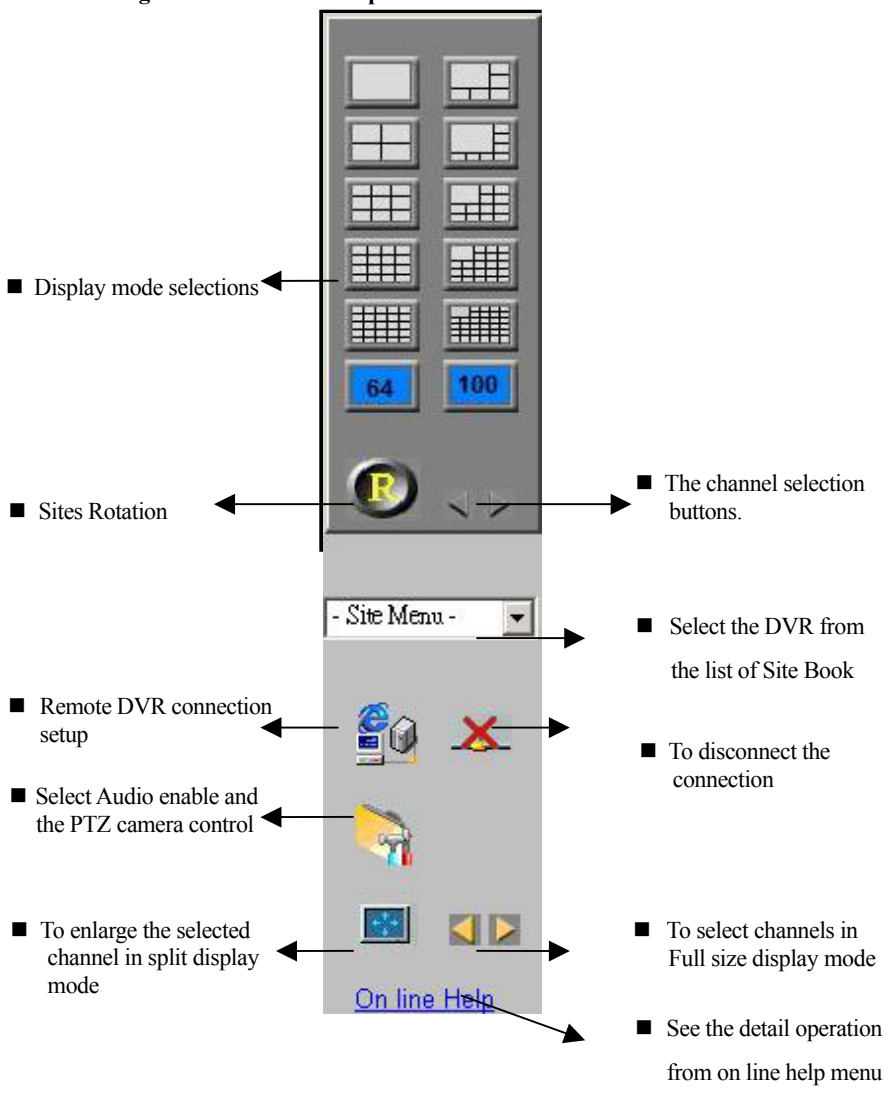
Step 3: You can select the DVR list from " **Site Menu** " box for remote connection.

Step 4: Click icon from the right side control panel to connect the Local DVR Server, and the screen will display the "Connect to local site" setting interface.



Step 5: Simply give a name in "Site name" and type in the DVR IP address or ID code, (TCP/IP) port number, Login "User name" and "Password', then press the "Connect" button to start the connection.

Browser Viewing Tools Function Description:



4-4. Multi-file video playback – EzLanPlayback

This chapter introduces how to use the EzLanPlayback program via the LAN connection. Before start to use EzLanPlayback program, please make sure that the file folder (e.g. ClipPro folder) of the Witness Pro is shared to network users, and follow the instruction below to start.

Step 1: Please go to the path: Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro**, and click the **"**Multi-File Video Playback – **EzLanPlayback"** to start the program as showing below

- **Play video clips from a default folder:**

Step 2: To use default local video clips file folder, simply click the " " icon on the right side control panel, and the system will display a video clips searching dialog as showing below.

Step 3: Select the desired camera and specific date, then click the **"Search"** button

to search the video clips.

Step 4: The system will automatically playback if the program finds the video clips, or it will display a message of "No Video Clips".

- **Play video clips from the local specific folders:**

Step5: To select a specific local folder of the video clips, simply uncheck the "Use default" box and press the icon on the right side control panel and the system will display the "Search video clips" dialog as showing below.

Fig 4-4.1 Search video clips

Step6: Click the icon to select a specific video clips folder for playback, and press the "Save" button to Save the selected folder path for video clips searching list, and repeat this step to add more video clips folder path on the searching list. Press the **"Re-search video clips"** button to finish the adding.

Step7: Click the " " icon and repeat the **Step3** and **Step4** above again to play the specific local folder video clips.

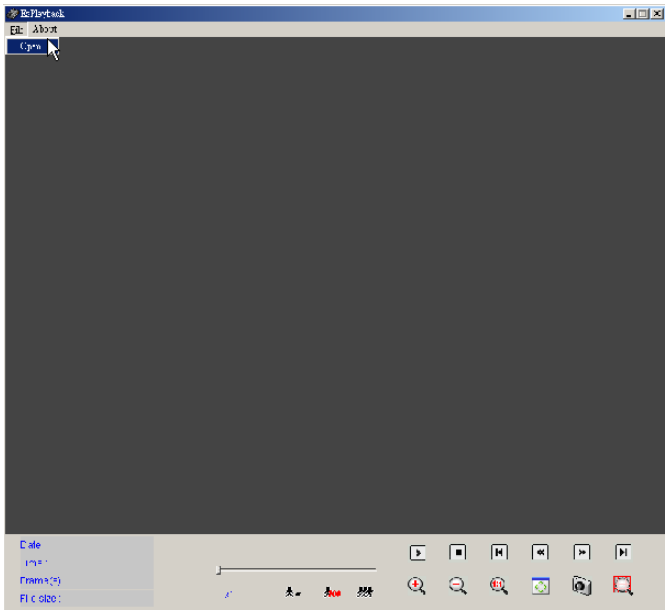
- **Play video clips from the network sharing folders:**

Step8: To play the video clips from the remote network sharing hard drive folder, please click the " " icon to display the network hard drive 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 folder, please repeat this step again. Press the **"Re-search video clips"** button to finish the adding

Step9: Click the " " icon and repeat the **Step3** and **Step4** above again to play the network sharing folder video clips.

4-5. Single-file video playback – EzPlayback

This function is for user to play back video clips in fast and simple way. Please go to the path: Single-File Video Playback Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro**, and click the "Single-File Video Playback **– EzPlayback"** selection to start the program



- **To open a video clips and play:**

1.) Press the "file" function from the program upper left side, and click the "Open" selection.

2.) The program will display a file selection dialog, then select a video clips file and press the "OK" button to finish the selection.

3.) The program main screen will display an initial image of the selected video clip, simply press the " " icon to start the playing.

- **EzPlayback Control Panel Function Description:**

Play – Click this icon to play back videos.

Pause – Click this icon once to pause videos.

Play backward – Click to play video stream backward.

Stop – Click this icon to stop videos.

Previous frame – Jump to previous frame.

Next frame – Jump to next frame.

First frame – Jump to the first frame of video clip.

Last frame – Jump to the last frame of video clip.

Zoom in – Click this icon to zoom in.

Zoom out – Click this icon to zoom out.

Original – Click this icon to go back original video size.

Navigation bar – This displays the current position of the video clip and allows users to move to different points within the clip. Left moves backward, right moves forward.

Snapshot – Click this icon to capture the video screen as a BMP or JPEG file.

Resize – Click this icon to resize clip.

Decrease frame rate – Decreases the frame rate.

Normal frame rate – Adjusts frame rate back to normal.

Increase frame rate – Increases the frame rate.

Smart search video: To detect the change of the object in a selected region of a recorded video clips, and list the events on the right side window. Please refer to the page 53 to page 55 of this manual for detail function description.

4-6. Text insert Playback – EzTextPlayback

To enable this function, user need to install the POS system with the PC, Please go to the path: Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro**, and click the **"POS Playback—EzPosPlayback"** icon. Please refer to the PTI-100 user manual for detail POS system hardware installation, system configuration and functions usage.

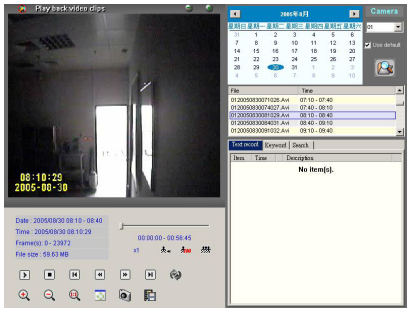


Fig.4-6.1 POS Playback

4-7. Remote Control Server– EzRServer

This function is to allow user remote connecting the DVR by the "FreeView Pro" PC program. To enable this function, simply click the icon from the path of the Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro**, and the system will display the **"EzRSever"** setting interface as showing below.

- **EzRSever Setting Description:**

■ **Autorun EzRSever:** Check to enable the Witness Pro to automatically run the EzRSever when system starts.

■ **(TCP/IP) Port:** To set the connection port for remote client PC connecting.

■ **Password:** To set the connecting password.

■ **Disconnect all clients button:** To disconnect all remote connection.

■ **OK button:** To enable the EzRSever function and complete the setting.

■ **Exit button:** To disable the EzRSever function and exit without the setting.

4-8. Two-way voice Communication – EzSTalk

This chapter will show how to have the real-time audio from designated locations is simultaneously transmitted to both the control center and designated DVR sites.

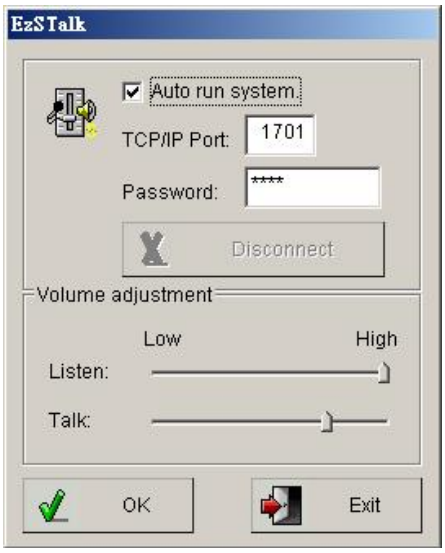


Fig 4-8.1

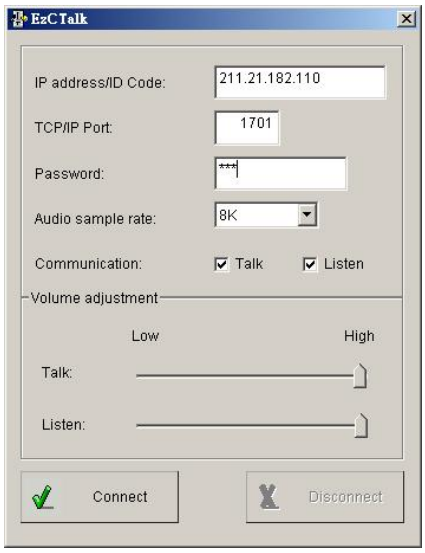


Fig 4-8.2

- **Follow the steps below to setup audio communication:**

On Witness Pro site

Step1: Click icon from the Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro**, and the system will display as Fig 4-8.1.

Step2: Enable **"Auto run system** "icon, the program will be enabled when you turn on the PC.

Step3: Enter your **"Password"** for remote client connection.

Step4: Adjust the audio volume of Listen and talk to suit your request, if it is necessary.

On Remote Client PC site

Step 1: Once user has finished installing the FreeView Pro software, go to the path of Windows **"Start"** menu → **"Programs"** → **"FreeView Pro",** and then clicking on the **"Two-way voice**

communication – EZCTalk" icon, and the system will display as Fig 4-8.2.

Step 2: Enter the **"IP address"** or **"ID Code"** and **"Password"** of the DVR board site setting.

Step 3: The number of "**TCP/IP Port**" must be matched between FreeView Pro and Witness Pro.

Step 4: Choose the **"Audio sample rate"**. Choosing a **16K** audio rate will give a better audio quality, but also take up more bandwidth. Oppositely, choosing a **8K** rate will give a worse quality and less bandwidth.

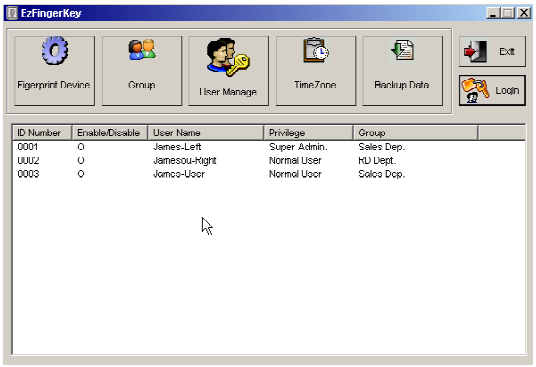
Step 5: In the **"Communication"** section. Check the **"Talk"** and **"Listen"** function box for Two-way voice communications.

Step 6: Adjust the audio volume of Listen and **Talk** to suit your request, if it is necessary.

Step 7: Press the **"Connect"** button to start the communication process.

4-9. Door Access Control – EzFingerKey

While user has connected to the fingerprint access controller, user can go to the path of Windows **"Start" menu → "Programs" → Witness (series AS/ASE/DX/HS/RD/U) Pro,** and click the **" Door Access Control – EzFingerKey"**. For detail about the fingerprint access controller installing, system configuration and the functions usage, please refer to the fingerprint access controller user manual.



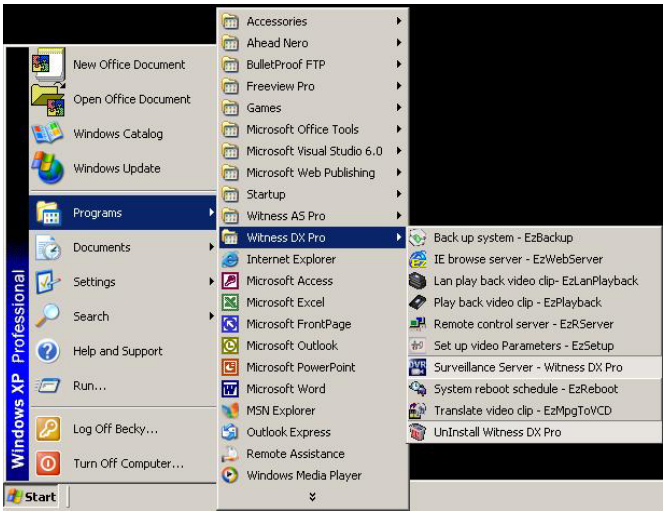
4-10. Uninstalling Witness Pro Software and Device Driver

This chapter describes the removal of the software and device driver.

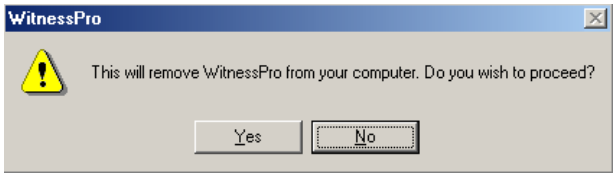
4-10-1. Uninstalling Witness AS/ASE//DX/HS/RD/U XP

You can uninstall Witness XP software by doing the following steps:

Step 1: Click **"Start"**, **"Programs", "Witness AS/ASE/DX/HS/RD/U XP"**, and then select **"Uninstall Witness AS/ASE/DX/HS/RD/U XP"**.



Step 2: Click **"Yes"** to start uninstalling **"Witness AS/ASE/DX/HS/RD/U XP"**.



Step 3: Click **"OK"** to complete the removal of the software.

4-10-2. Checking for or Uninstalling the Device Driver

You can uninstall or inspect your device driver by doing the following steps:

Step 1. Click **"Start"**, **"Settings"** and **"Control Panel"**, as **Fig. 4-10.1.**

Step 2. Double-click on the **"System"** icon, as **Fig. 4-10.2.**

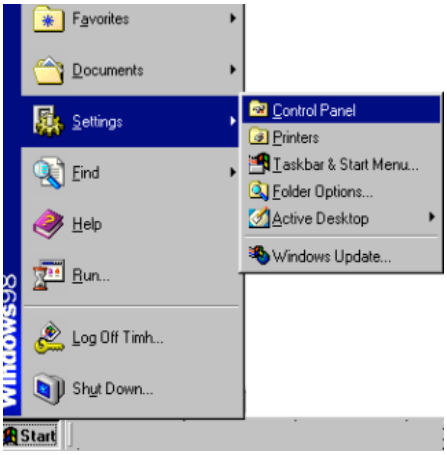


Fig. 4-10..1

Fig. 4-10..2

Step 3. Select the **"Device Manager"** tab.

Step 4. As **Fig. 4-10.3**, select **"Sound, video and game controllers"**, where you will find device driver. The detail driver information, please refer to the **Table 4-10**

Driver Name	Video Server Card
WitnessXP PCI 0/1/2/3 Device Video Server Capture WitnessXP PCI 0/1/2/3 Device Audio Server Capture	CP-1400AS XP 0/ 1/ 2/ 3
WitnessTWN PCI 0/1/2/3 Device Video Server Capture WitnessTWN PCI 0/1/2/3 Device Audio Server Capture	CP-2400AS XP 0/ 1/ 2/ 3
Witness 5404HS/5408/5416/5432ASE XP Device	CP- 5404HS/5408/5416/5432 ASE
Witness 1908/1916/1932 ASE XP Device	CP- 1908/1916/1932 ASE
Witness 1906/1908/1916 PCI-E XP Device	CP- 1908/1916/1932 PCI-E
Witness 2160RD Device	CP-2160RD or CP-3160RD Deluxe
Witness 3320RD Device	CP-3320RD Deluxe

(Table 4-10)

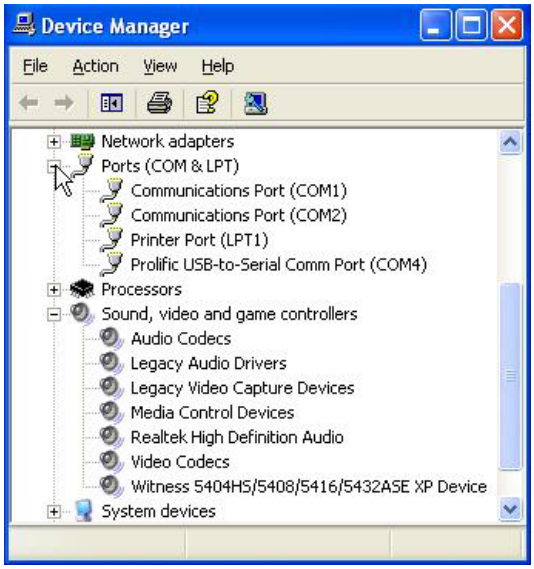


Fig. 3-2.3

Step 5. Removal only, highlights the device you wish to be removed, and then click **"Remove"** to remove the device driver.

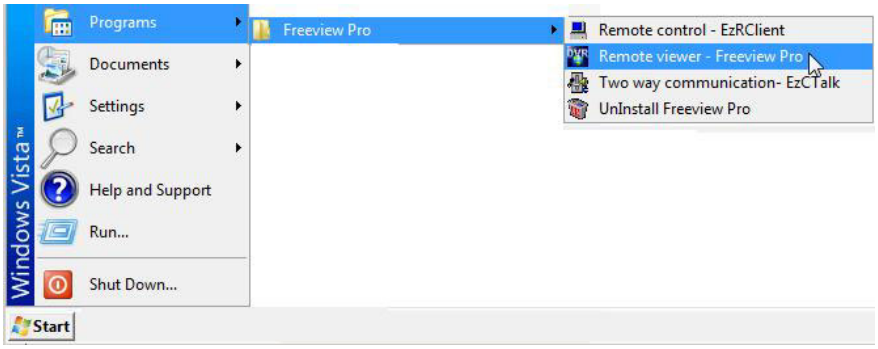
Step 6. Click "**Ok**" to complete the removal of the device driver.

Chapter 5. Remote Client PC Software

5-1. Start Using Remote Client Program

5-1-1. Start Using FreeView Pro

Once you have finished installing the software, please go to the windows "Start" menu, and select the **"Programs"**, then **"FreeView Pro",** and then clicking on the **"Remote Viewer – FreeView Pro"** icon. The following icons are available:

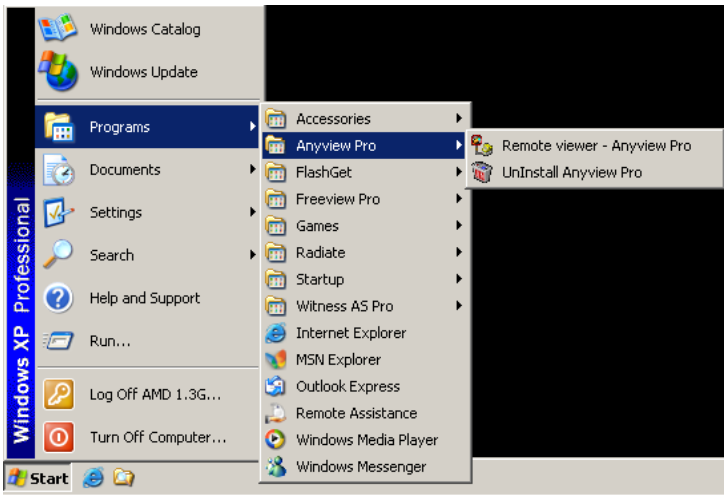


- **Remote Viewer - FreeView Pro:** FreeView Pro enables you to remotely patrol your place from any place at any time as long as you have the access to an Internet.
- **Uninstall FreeView Pro:** Removes FreeView Pro from your computer.
- **Two-way voice Communication- EzCTalk –** Real-time audio from designated locations are simultaneously transmitted to both the control center and designated DVR sites. Please refer to the **chapter 4-8** in this manual.
- **Remote Control- EZRClient:** Allows the Remote client to set up the DVR from remote site such as operating at the local. The detail setting please refer to the **Chapter 5-1-10** in this manual.

5-1-2. Start Using AnyView Pro

Once you have finished installing the software, there are two icons will be created in the system. You may access them by clicking on the **"Start"** button, the **"Programs"** folder, then **"AnyView Pro"** and then clicking on the **"Remote Viewer - AnyView "** icon. The following icons are available:

- **Remote Viewer - AnyView Pro:** AnyView Pro enables you to remotely patrol your home, office, retail outlet, warehouse, factory, etc. from any place at any time as long as you have the access to a telephone line.
- **Uninstall AnyView Pro:** Removes AnyView Pro from your computer.



5-1-3. Free View Pro/AnyView Pro Program Operation

Many of the functions in FreeView Pro behave similarly or even identically to those of Witness ASE/HS/RD Pro software.

The tool menu bar enables you to use TCP/IP to connect to the Local DVR Server via Internet or Intranet easily, control the video channels of the Local DVR Server, display Local DVR Server video channels, save video files, and configure exactly how you want the program to work.

Before you can do anything, you must login. You cannot access any of the functions in FreeView Pro without logging-in. Begin by pressing in the upper right corner and you should see the window below. The initial, factory default username is “root”, and the initial password is “123”. You should change the password as soon as possible after your first login. After you login, you can explore the system through the following buttons.

Connect to local site: Use this to set up a connection to the Local DVR Server.

Set up site book: The site book allows you to easily keep track of the sites you connect to. Rather than entering the same information every time you connect to a site, you can store it in the site book.

Play back video clips: This would allow user to search video clips by site name and play back one or more video files of remote client PC from saved database.

System configuration: Press this to set system configuration.

Set up privileges: Use for setting user privileges.

View log: Press this to see the log-in/logout record and alert table.

Storage device configuration: To configure storage settings.

Remote Control: Allows the remote client user to set up the DVR syetem.

Stop sound alarm: Press this to turn off an alarm (such as a detection alarm) after it sounds.

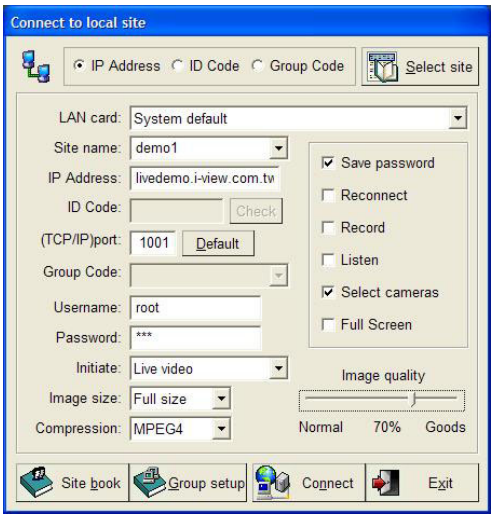
Listen: It will allow remote user listen to the local site DVR.

About: Press to see the program version.

5-1-4. Connecting to Local DVR SEVER

This chapter shows you how to connect to Local DVR Server.

- **Make a IP address or ID code connection via Internet**



1. Connect to the Internet or Intranet with your computer first.

2. Click on the bottom **Tool bar** To display the window **Fig 5-1-4.1**

3. Connecting to the Local DVR

4.Server via Internet:

Local DVR Server has a fix IP

a.) Enable **"IP address"** at the top of the window.

b.) Enter the **"IP address"** (IP address or DNS)

c.) Enter the site name that you wish to connect to in the **"Local site"** box. Its name is up to you.

Local DVR Server using the dynamic IP

a.) Enable **"ID Code"** at the top of the window.

b.) Enter the **"ID Code"**. Your vendor could provide the ID code.

c.) Enter the site name that you wish to connect to in the **"Local site"** box. Its name is up to you.

5. Select LAN card, if you have installed more than one.

6. The number of "**TCP/IP Port**" must be matched between FreeView Pro and Witness Pro. Witness ASE/HS/RD Pro default is 1001 Please choose an option from the **"Play with"** menu. **"Live video"** plays the camera. If the DVR site use the CP-2160RD/CP-2320RD that you can select " **Split Video** " selection to display the camera video with faster transmission speed, and there are some issues may different with **"Live video":**

a. All video which display in FreeView Pro with "Combine Video" mode will record into a file when you enable recording function.

b. In “Combine Video” mode, anyone of remote client or DVR site users who changes to different video split display mode (e.g. 1,4,8,16 split ways...etc.) will effect to all connected users.

7. Which is currently viewing, **“Remote Playback”** will allow you to play back video clips that had been recorded on Local DVR, and **“Remote download”** will allow you to download video clips that had been recorded on Local DVR.
8. Enter your **“Username”** and **“Password”**. The administrator of Local DVR Server must create a specified user account in Local DVR Server before you connect. Without the correct username and password, you cannot log in.
9. Choose a “**MPEG 4 HQ**” or “**MPEG 4**” as **Compression** method for transmitting video.
10. Choose an **“Image quality”**. Like other quality selectors, choosing a higher quality will give a better image, but also take up more space and take longer to transmit.
11. Choose an **“Image size”**. Choosing a **Full size** will give a better image, but also take up more space and take longer to transmit. Oppositely, choosing a **Half size** will give a worse quality and faster transmission speed.
12. Press the **“Connect”** button to complete the process. FreeView Pro will connect you to the Local DVR Server.
13. “**Site book**” allows you to set up site information if you have more than one Local DVR Server wants to connect. Click “**Site book**” in the bottom corner of window (you can also use “**Set up site book**” on the bottom tool bar) and enter the same information as you enter above, then click “**Save**” to save it. You can click the “**Select site**” icon in the upper right and decide which site you want to connect with.
14. Repeat **step 1~11** you can also connect more than one Local DVR Server and choose which one you want to **Play with**. (**Live video**, **Remote Playback** and **Remote download)**
15. Click near the top enter of your FreeView Pro window to disconnect when you finish communicating with the local DVR site. **“Save Password”**, **“Reconnect”**, **“Record”**, “**Listen”** and “**Select cameras”** are options on the right side of the window. **Save Password** if you want this user’s password to be saved. This means that later when you enter this same username, the password will automatically be recalled.

Reconnect If you want FreeView Pro to automatically reconnect after the connection is broken. **Record** It will record videos of the Local DVR Server on remote client computer automatically when the video is connected.

Listen It will allow remote user listen to the local site.

Select camera It will allow remote user to select, which camera(s) want to remote view. If you enable this function, it will show the available camera(s) for your selection before you connect to the Local DVR Server.

- **Concurrently monitor multiple Local DVR Servers**

When user wants to monitor multiple Local DVR Servers at the same time, at first, user should connect all Local DVR Servers he wants to monitor. Click any place on the screen then press or **ESC** key of keyboard. Below window will be seen. The videos came from multiple Local DVR Servers will be combined and displayed on the screen. User could decide to how many videos are split by select "**Splitter:"** (maximum is 100).

Click or to rotate camera views on screen manually. To return the tool bar mode, press the icon again or **ESC** key of the keyboard.

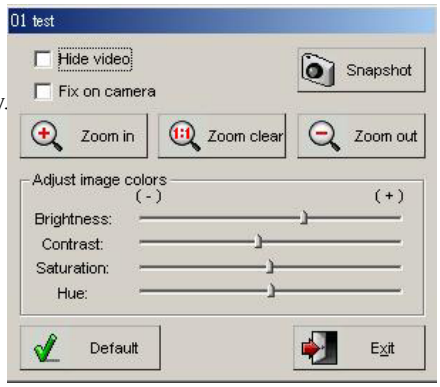
5-1-5. Video Window Function Description

The right toolbar contains many useful buttons. Here is an explanation of what they do.

- Click to modify system time.
- Click to view just one camera's image. Double-clicking a screen when viewing multiple windows can do this function too. Double-click again to go back to multiple modes.
- Click to divide the window into 4/9/16/25 split screens.
- Click to divide the window into 6/8/13/22 split screens.
- Click to rotate cameras views on screen automatically. Click again and the rotation will stop. Note that this differs from Witness Pro's camera rotation. For example, if you have 2 cameras at site A, and 4 cameras at site B. FreeView Pro will rotate to site A, showing the 2 cameras of A, then to B, only showing the 4 cameras of B. The rotate time is up to user.
- Click or to rotate camera views onscreen manually.
- Click … to start or stop recording. **Red** means recording, **blue** means waiting and view mode is **black**. You can instantly start recording on a camera by toggling this button to red if that camera did not set any recording schedule.
- **C**lick to disconnect with the Local DVR Server.
- Click To listen to the available camera(s) of the Local DVR Server. If you would like to stop to listen the audio; click "**Stop Listen"** tab.

- **P/T/Z (optional)** PTZ camera or Speed Dome Camera on Local DVR Server is authorized to be played on remote site, remote client can operate Speed Dome/PTZ Camera when connect successfully.
- When viewing camera(s) of Local DVR Server, you can right click on the screen to bring up more options, as below:

Hide video This button blanks the portion of the screen devoted to this camera.



Fix on camera This button freezes motion on all other cameras, while this camera will continue to play.

This button takes a snapshot of the video image as a photograph. A new window will pop up, where you can choose to save this image to disk or choose to print it out.

Adjust Image Colors Right click on the video screen, and you will be able to adjust brightness, contrast, saturation and hue.

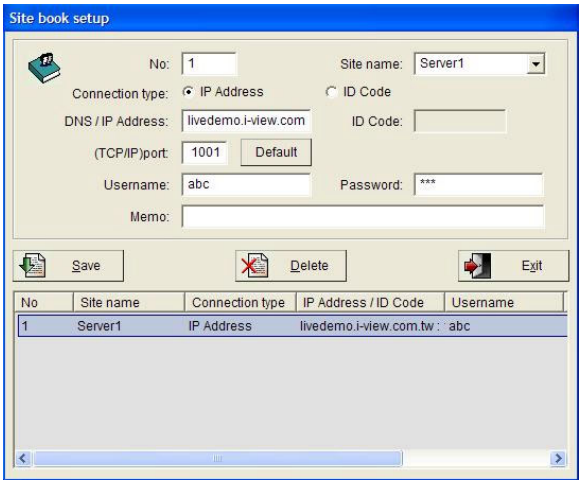
This function is designed to zoom in (amplify) the video display image. After you have screen zoomed in, you can navigate the viewing area by holding down the left mouse key on the screen.

This function is designed to zoom out (shrink) the display image. The video image zooms out at each click of the icon.

This function is designed to return the image to its original and default magnification.

5-1-6. Using the Site Book

The site book will conveniently remember all the necessary information about a site that you wish to connect to so you will not have to type it all over again every time you connect. Begin by clicking in the tool bar or in the lower right corner of the menu. You will see the window below.



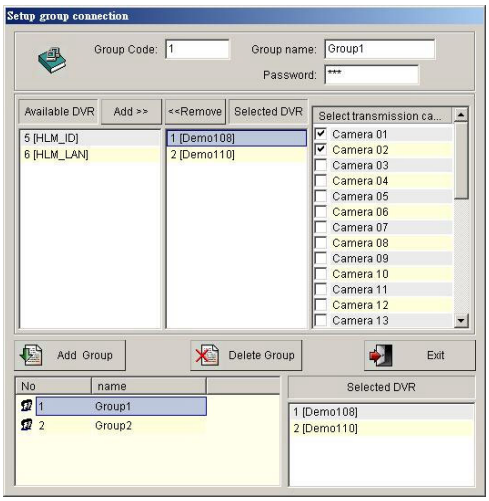
Please follow steps as below to set up the site book:

1. Fill in a "**No**". If you fill in a "**No**" that is not taken, you will be able to. The numbers you choose do not matter, as long as they are not already being used – the numbers are only for distinction. Note that if you ever add an entry with the same number as an existing one in the book, **the original will be deleted**.
2. Fill in "**Site name**" or select the available Local DVR Server in the pull-down menu.
3. Click ID code or IP address for "**Connection type**" and fill ID code or IP address/DNS, respectively.
4. Fill in **"Port"**. The number of "**Port**" must be matched between FreeView Pro and DVR's software. Default Port number is 1001.
5. Fill in **"Username"** and **"Password"**. The administrator of Local DVR Server must create a specified user account in Local DVR Server before you set up site book.
6. Press "**Save**" button to finish a site book set up.

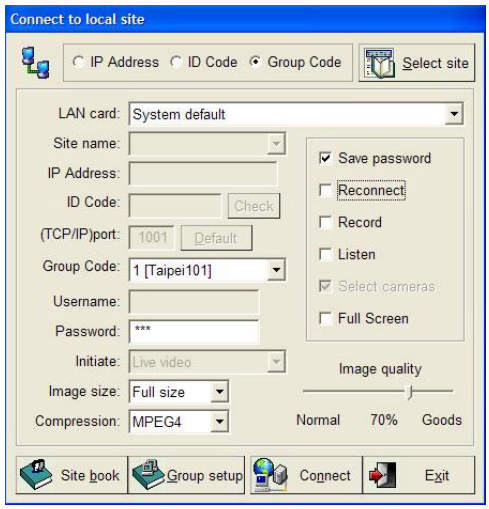
5-1-7. How to setup Group for Multi sites remote access

The site book will conveniently remember all the necessary information about a site that you wish to connect to so you will not have to type it all over again every time you connect. Begin by clicking in the tool bar or in the lower right corner of the menu. You will see the window below.

Please follow steps as below to set up the Group book:



- Fill in a "**No**". If you fill in a "**No**" that is not taken, you will be able to. The numbers you choose do not matter, as long as they are not already being used – the numbers are only for distinction. Note that if you ever Save an entry with the same number as an existing one in the book, **the original will be deleted**.
- Fill in "**Group name**" and entry the "**Password**"
- Select the DVR from " **Available DVR** " Box, which you would like to Save into the Group. And then click the " Save " icon to Save into the Group.
- The selected DVRs will show on the " **Selected DVR** " Box.
- Choice the transmission camera(s) for each DVR of " **Selected DVR** ". The selected camera(s) will list on the " Select transmission camera

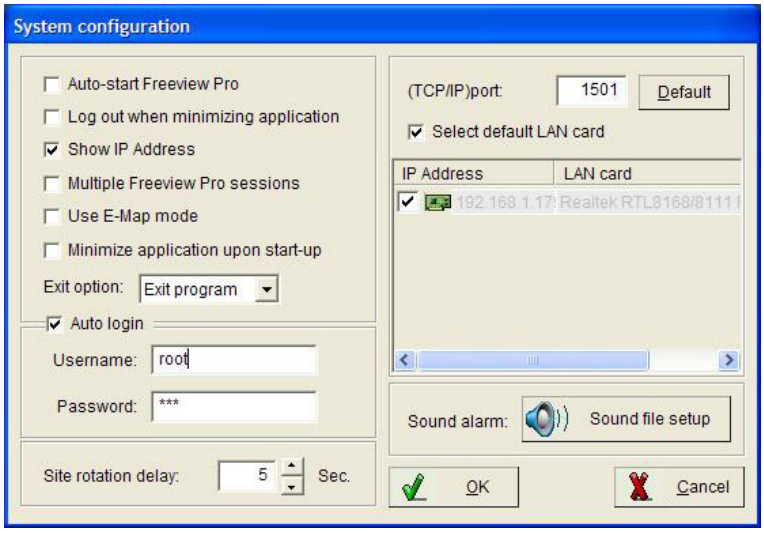


“ box.

- Press “**Save**” button and “ **Exit** “ icon to finish a DVR group set up.
- You can start to use the Group for Multi site connection when you finish the step 1 to 6.
- Select “ Group code “ icon and select the available Group name in the pull-down menu of “ Group Code “.
- Entry the Password that you setup for this Group and then click “ Connect “ icon for remote connection.

5-1-8. System Configuration

Click and you will see the window below



Auto run FreeView Pro automatically starts FreeView Pro whenever your PC starts Windows.

Logout when window is minimized automatically logs out the current user whenever the minimize button is pressed.

Show IP address Enable this function, you will be able to see real DNS/IP address instead of “ ******* ”.

Multi FreeView Pro Enable this function, the PC will be allowed to run multi FreeView Pro program on a PC.

Use E-Map mode Enable this function, the PC will be allowed to enable E-map controller function and the E-Map window will show on the second monitor automatically if there are dual monitors on the remote client PC. This is a optional function that you entry the password before you enable this function.

Minimize windows when start program automatically minimize the FreeView Pro's window whenever the FreeView Pro program is started.

Exit option To select PC status after exiting DVR's program. Press the arrow buttons to switch among "**Exit program**", " **Turn off** ", " **Log off** "or " **Restart** ". **Ex.** Select "**Turn off"**, the Windows OS will automatically shutdown after exiting DVR's program.

Auto login Enable this function will automatically login by user name and password saved in the system.

TCP/IP port Enter the port of DVR, which you would like to automatically send the live video to remote client PC with the FreeView Pro when camera is triggered. The number of "**Port**" must be matched between FreeView Pro and DVR's software. FreeView Pro default is 1501.

Select default LAN card It will speed transmission while FreeView Pro PC installs more than one LAN card. Enable this fuction, the system will execute the default setting of LAN card.

Select sound alarm FreeView Pro will notify the event via the setting alarm sound directly when the camera is triggered and video loss of DVR. You can record alarm sound file by yourself.

Site rotation time You can set the rotation time for each site.

5-1-9. Playing Back Video Clips

FreeView Pro can play both videos stored on your remote client computer and on the Local DVR Server. You can specify your search parameters, as below.

Search for recording video files on the remote client computer

1.Click on the tool bar, and click in the middle o
saved on remote client computer (the computer which insta
should see the window as **Fig 5-1-9.1.**

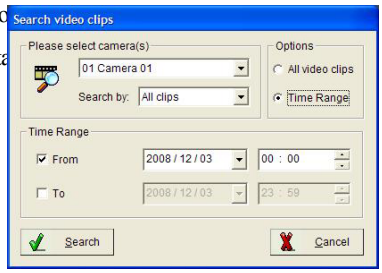


Fig 5-1-9.1

2. Select the site that you wish to search for videos of DVR site.
3. Enter a date and time into **After Date**, **Before Date** or both.
4. Click the **Search** button. All videos stored on the specified site during the specified period will be listed as **Fig 5-1-9.2**. Click the cameras you wish to display and click **"Ok"**.
   The videos will play concurrently.

Fig 5-1-9.2

Remote playback video files on one Local DVR Server

1. Click on the tool bar; enter the **site name** and **IP address or ID code** of Local DVR Servers where the video clips you want to play back stored on. Select "**Remote Playback** "on "**Play with**" box, then click "**Connect**". And you will see the **Fig 5-1-9.3.**
2. Decide which recording way will be searched by "**Options**".
3. Enter a date and time into **After**, **Before** or both.

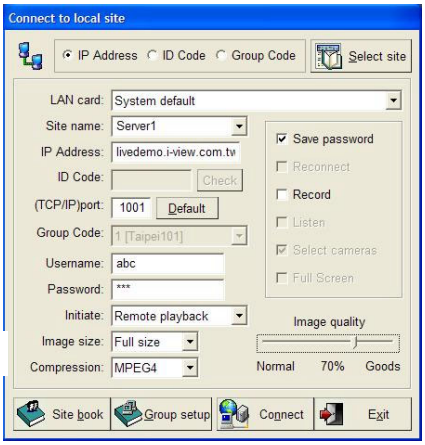


Fig. 5-1-9.3

4. Click the **Search** button. All files during the specified period will be listed. Click the cameras you wish to display and click **"Ok"**. The videos will play concurrently.

Remote playback video files on multiple Local DVR Servers

Please connect to all Local DVR Server sites you want to play back and please make sure you already select **Remote playback** on the **Play with** box. Then you could play back videos in multiple sites concurrently. For **Splitter** function, please refer "**Concurrently monitor multiple Local DVR Servers"** of Chap. **4-4-5.3**.

Specify one site or cameras to Playback from multiple connections

From **Site name** box, select a site you want to play back. You also could specify the cameras in one site by click .

Disconnect one site from connections

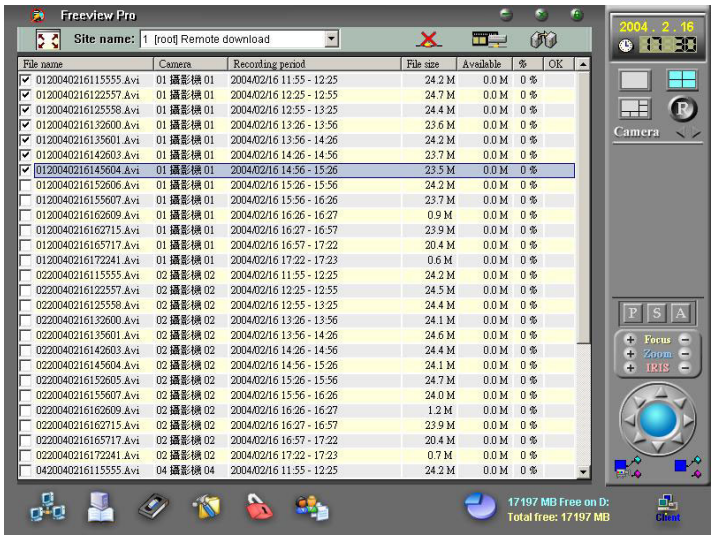
Click to disconnect with the site you select from **Site name** box.

Remote playback tool bar When viewing camera(s) of Local DVR Server, you can right click of mouse on the video of screen to bring up more options as below.

5-1-10. Remote Download Video Clips

You can easily download video clips of DVR on remote client computer via FreeView Pro. Please specify your search parameters of download, as below.

1. Click on the tool bar; enter the **Local site** and **IP address** or **ID code** of Local
2. Video Servers where the video clips you want to download stored on. Select "**Remote download** "on "**Play with**" box, then click "**Connect**".
3. Decide which recording way will be searched by "**Options**".
4. Enter a date and time into **After**, **Before** or both.
5. Click **Search** button. All files during the specified period will be listed. Click the cameras you wish to download and click **"Ok"**. The select video clips will be listed concurrently. (As below picture)



6. Select the video file which you want to download.
7. Click icon on the top right, start or stop to download the video clips.

Disconnect one site from connections

Click to disconnect with the site you select from **Site name** box.

5-1-11. Remote Setting the parameters of Witness series Pro

FreeView Pro allows remote client to control the Witness Pro server via EzRClient program through Internet or Intranet. The Remote client can set up the DVR server from remote site such as operating at the local. Control the Witness Pro server by through the following steps:

Step 1. Connect to the Internet with your remote client computer and Witness Pro server first.

Step 2. **On DVR Server site** Click icon to enable the **Remote Server- EzRServer** program and you should see below window (**Fig 5-1-11.1**). Enter "**Password**" and save it. Keep the EzRServer program running.

Step 3. **On FreeView Pro Client site** Click on the bottom **Tool bar** of FreeView Pro and you should see below window. (**Fig 5-1-11.2**)

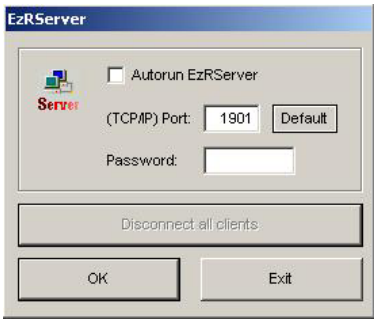


Fig 5-1-11.1

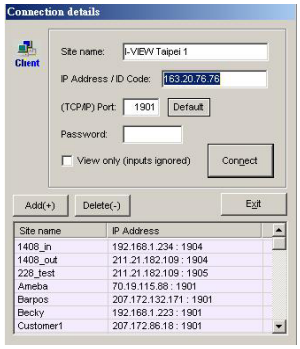


Fig 5-1-11.2

Step 4. Create a specified user account name in Local **EzRclient** program before connecting.

Step 5. Entry the **IP address/ID Code, Password** and then press **"Connect"** button to connect to the DVR sit. The number of "**TCP/IP Port**" must be matched between both sites.

Step 6. Click "**Save"** to save above information, then you can easily select when you connect again.

Step 7. Click "**Exit"** icon near the middle right of Control window to disconnect.

When enable **"View only"**; you can view the window of local site server only when the server is connected.

Step 8. Click "**Save"** to save above information, then you can easily select when you connect again.

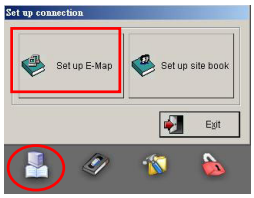
Step 9. Click "**Exit"** icon near the middle right of Control window to disconnect.

5-1-12. How to use the E-Map for remote viewing?

- **Set up E-Map for remote view**

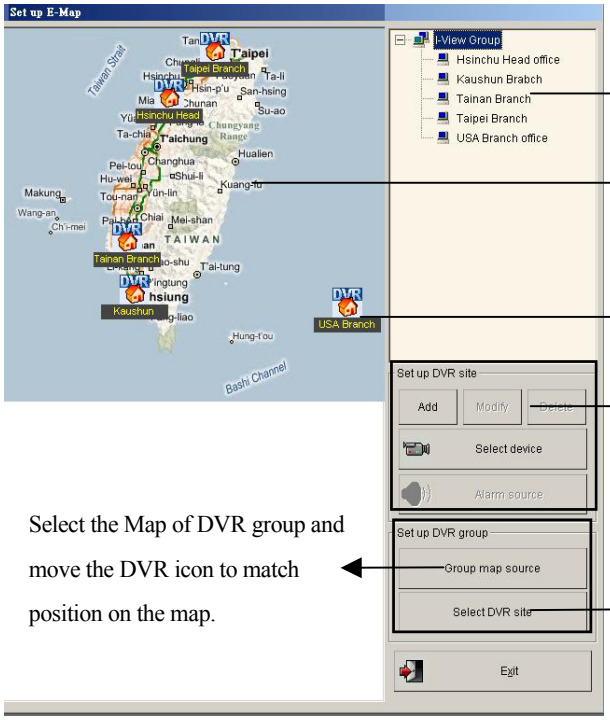
  Enter the information of connected DVR and insert a map to arrange the location of device (DVR, Camera, Sensors, Relay and integrated device). Once these devices are triggered, the information can be transferred to a remote site PC via Internet. The triggered devices will be flashed on the map, Sound alarm and pop up warring message at the same time. Follow the instructions below to complete setup the connected DVR.

1.) Enable " Use E-Map mode" function from " **System configuration "** tab and restart the FreeView Pro program.



2.) Click " Setup the E-Map from" button from " Set up connection " tab.

3.) Setup the DVR Group and function description as below:



List DVR site of same group

Show the DVR location on the Map

The DVR icon

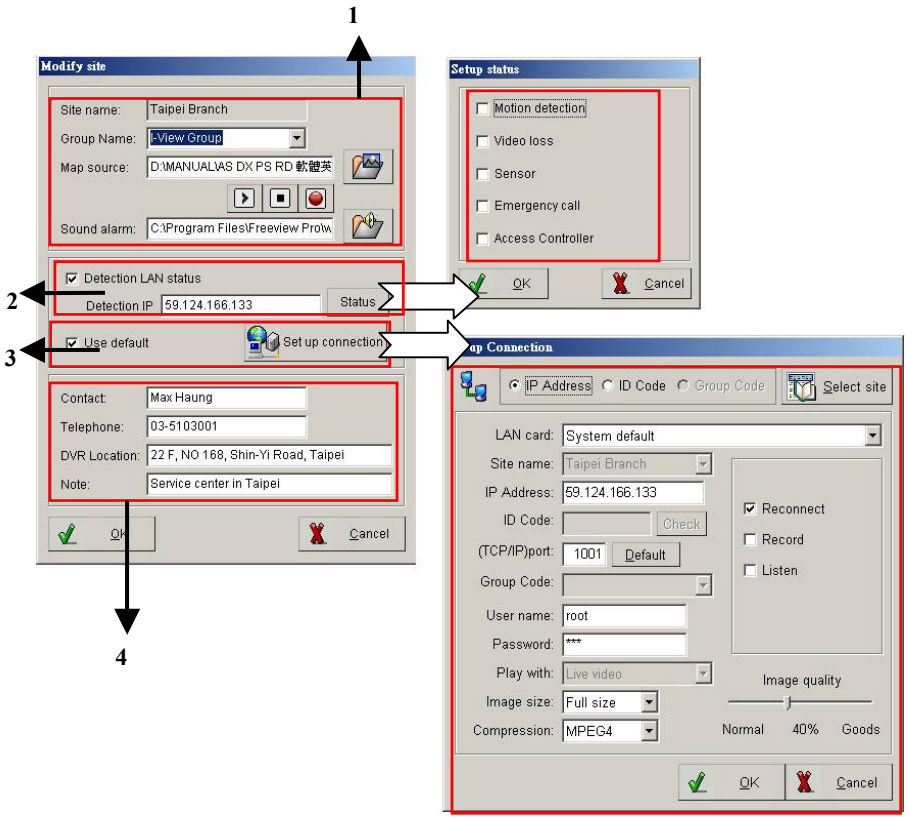
Add or Modify or Delete the setting of connected DVR

Select the Map of DVR group and move the DVR icon to match position on the map.

Select DVR, which will become to a group

4.) Set up the connected DVR site and the process and function description as below:

- **Save:** Click this button to Save a new DVR connection.
- **Modify:** Move the Mouse to the window of list DVR site and select one. And then click this button to modify the parameter of available connection DVR.
- **Delete:** Move the Mouse to the window of list DVR site and select one. And then click this button to delete the available connection DVR.
- **Select device:** Click this button to select device to show on the Map of DVR. Move the selected device to match location on the map.
- **Sound alarm:** Click this button to select sound alarm for individual device when triggered.



Section 1:

- **Sit name:** Entry the DVR name that is given by your definition.
- **Group name:** Entry or select available the Group name which for the current DVR to become one of Group.
- **Map source:** Select the Map source for the current DVR; the map file must be JPG or BMP format.
- **Sound alarm:** Select the sound alarm file form available wave file for sound warning when the detection items are triggered.

Section 2:

- **Detection LAN status:** Enable this function to detect the status of TCP/IP connection. The remote client PC will pop up message when TCP/IP connection is failed.
- **Detection IP:** entry the IP address which you want to check.
- **Status:** Setup the other status of DVR for remote notification when they are detected.

Section 3:

- **Use default:** Enable this function to connect the DVR and the parameters of connection will same as the setting.
- **Setup connection:** To set the parameters of connection to the DVR. You can refer the setting steps from **Chapter 5-1-4.**

Section 4:

This section to show the detail location information of DVR, it will help us the remote client to know the information of DVR when connection.

- **OK:** Click this icon to save the setting and exist the application.
- **Cancel:** Click this button to exist the application.

5.) Start to connect the DVR

Follow the instructions below to connect to the DVRs via E-Map mode:

Step 1. Click the " **Connect to local DVR** " button to start to connect the DVR.

Step 2. The system will show the DVR group as below window, if you had more than one DVR setup at a group. The function description of diagram shows as below.

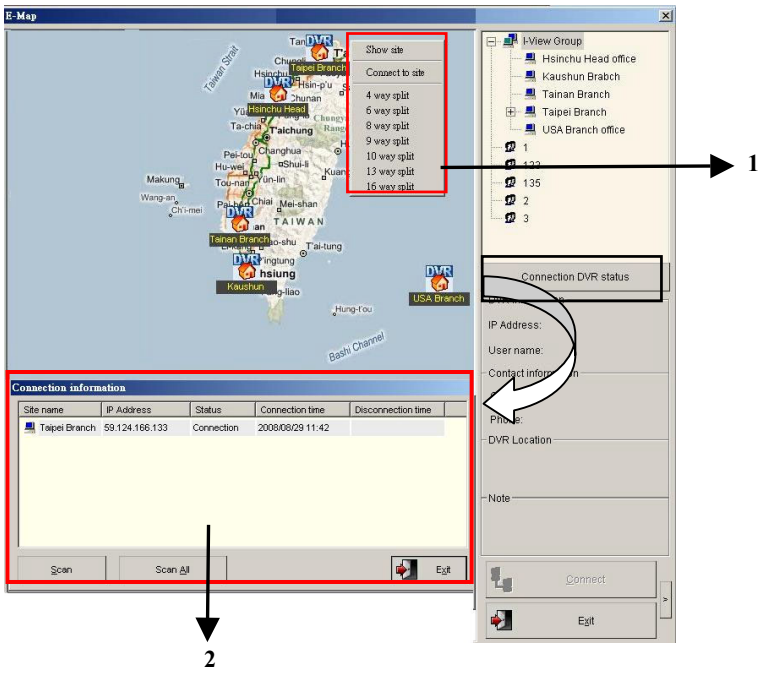
Section 1:

Click the DVR icon will show the diagram 1.

- **Show site:** Click this item, the detail device location of this DVR will be showed on the screen.
- **Connect to site:** Click this button the remote PC will connect to this DVR.
- **4-16 split way:** Click these buttons the display screen of DVR site will be changed same as the selected.

Section 2:

- **Connected DVR status:** Click this button to check or scan the TCP/IP status of connected DVR.



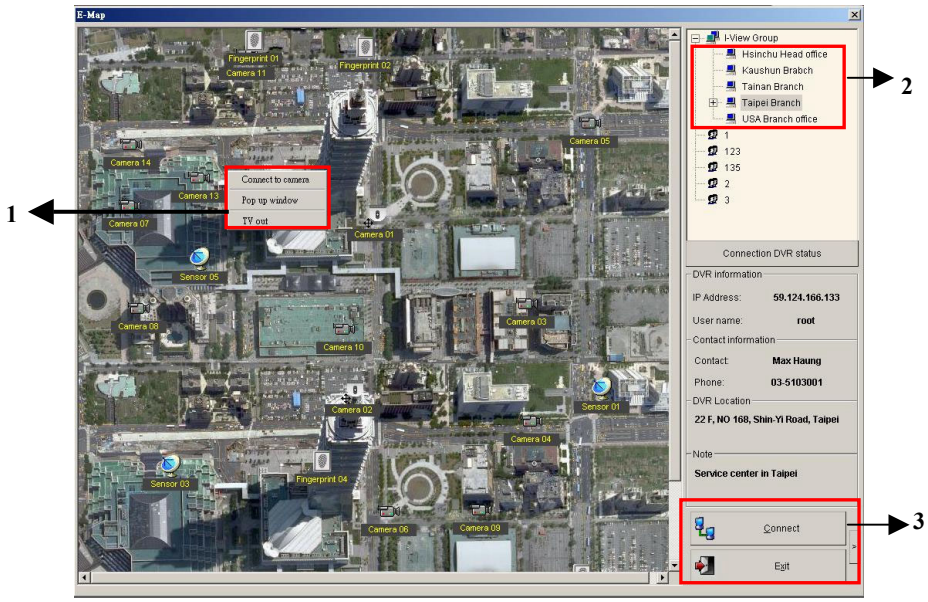
Step 3. Remote control the DVR:

Section 1:

- **Connect to camera:** Click this button and then the video of this camera will show on the screen.
- **Pop up window:** Click this button, then the video of this camera will pop up on the DVR's screen
- **TV out:** Click this button, then the video of this camera switch to TV Out of DVR.

Section 2:

- Move the Mouse to the DVR list window and then select on which want to connection.
- **Connect:** Click this button to remote connect this selected DVR site and the linking status will same as your setting before.



Chapter 6. Remote Client PDAView Software

PDAView Pro is a remote view application for PDA and Smart Phone device. It can run on PDA using Pocket PC 2002 or 2003 and smart phone using Windows Mobile 5.0 Operating System. These sections discuss PDAView Pro and how to use it. The main purpose of PDAView Pro is to provide a way to connect to the Local DVR Server (where you are running DigiCap II, Dsecu and Witness Pro DVR) to monitor the cameras there if you happen to be far away from it. With PDA you can begin to use automatic remote video security and surveillance via the Wireless LAN or Internet.

6-1. PDAView & MobileView Program Installation

The tool menu bar (Please refer Fig 6-2.1) enables you to easily use TCP/IP to connect to the Local DVR Server via Wireless LAN or Intranet, control the video channels of the Local DVR Server, display Local DVR Server video channels, save video files, and configure exactly how you want the program to work.

To install the PDAView Pro program into a PDA or Smart Phone, please follow the installation steps below:

1. Plug your PDA or Smart Phone via USB or Com port to a PC installed with Microsoft ActiveSync.
2. Run Microsoft ActiveSync in the connected PC and make sure both the PDA and PC are synchronized.
3. Insert our CD into the CD-ROM drive of the PC and run "**Install.exe**" in the CD-ROM root directory.
4. In the setup dialog box select "**PDAView Pro**" "**MobileView Pro**" and click "**Next"**.
5. Click **Brows** if you wish to specify another destination directory; otherwise click "**Next"** and follow the rest of the instruction to complete the installation.

The PDA must use the Pocket 2002 or 2003 and the Smart phone with Windows Mobile 5.0 or above Operation System when you running the PDAView or MobileView program.

6-2. PDAView & MobileView Program Operation

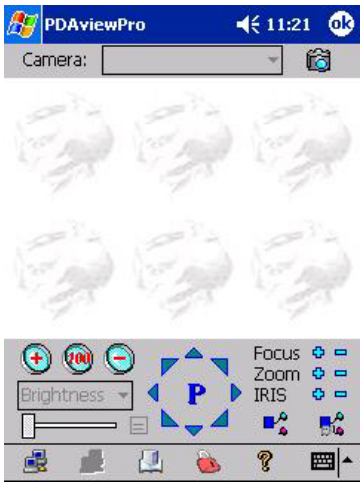


Fig 6-2.1

Fig 6-2.2

The tool menu bar (Please refer Fig 5-2.1) enables you to easily use TCP/IP to connect to the Local DVR Server via Wireless LAN or Intranet, control the video channels of the Local DVR Server, display Local DVR Server video channels, save video files, and configure exactly how you want the program to work.

1. **Many of the functions in PDAView Pro and MobileView behave similarly or even identically to those of Witness Pro DVR and FreeView Pro.**
2. **There are two program in the Mobile View Pro program, one for keyboard operate of Smart phone and the other for the Touch pad function. Please check your mobile phone before use the program.**

6-3. Connecting to DVR site

This chapter descript how to connect to Local DVR Server via wireless LAN or Internet.

Once PDAView Pro is installed into your PDA device, you will be able to use it to monitor DVR video.

1. Load the PDAView Pro from the CD-ROM. (Please refer to Fig 6-2.1)
2. Click the PDAView Pro icon in your PDA to start the application.
3. Click on the bottom **Tool bar**, and please refer to Fig 6-2.2.
4. Enter the **"IP Address"**, **"User name"** and **"Password".**
5. The number of "**Port**" must be matched between PDAView Pro and DVR's software.
6. Choose an **"Image quality"**.
7. Press the **"Connect"** button to complete the process. PDAView Pro will connect you to the DVR's. (Please refer to Fig 6-3.1)
8. Press the **"Camera"** button to select which camera you want to remote view.
9. Click on the bottom **Tool bar** to disconnect when you finish communicating with the local site.

Fig 6-3.1

6-4. Using the Site Book

Using the Site Book Tool Menu Bar in PDAView Pro behaves identically to those of FreeView Pro. Please refer to Chapter 5-1-6.

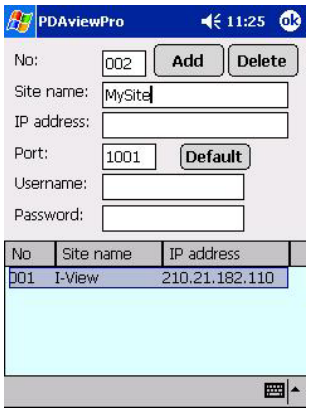


Fig 6-4.1

Appendix A: Optimum CPU for each DVR model

Use the following table to determine which compressor to use. (MPEG 4)

Bit Rate VS. Frame size		DVR Model	Card No.	Min. CPU	Min. RAM
1 M	1K/ Frame	**1400/2400AS**	1 Card	P III	512 M
2 M	2K/ Frame		2 Cards	550M/256M	512 M
3 M	3K/ Frame		3 Cards	P III 866M	512 M
.	.		4 Cards	P 4 1.5G	512 M
.	.	**5404HS**	1 Card	E2100	512 M
.	.		2 Cards	E2140	1G
.			3 Cards	E2200	1G
.	.		4 Cards	E4500	1G
.	.	**5408/5416AS**	1 Card	E2100	1G
.	.	**E**	2 Cards	E2160	1G
.	.				
32M.	32k/ Frame	**1908/1916AS**	1 Card	E2160	1G
		E			
		1932ASE	1 Card	E2160	1G
		1906PCI-E	1 Card	E4500	1G
			2 Cards	Q6600	2G
			3 Cards	Q9650	2G
			4 Cards	QX9650	3G
		1908PCI-E	1 Card	E2160	1G
			2 Cards	E8400	2G
			3 Cards	Q6600	2G
			4 Cards	Q9650	3G
		1916PCI-E	1 Card	E2160	1G
			2 Cards	E4700	2G
		3160RD	1 Card	E4500	1G

		3320RD	1 Card	E4700	1G
		2160RD	1 Card	E4500 Q6600	1G

IV H264 Codec request the CPU loading will higher 20% than MPEG4, and the H.264 codec will 200% higher than MPEG4. The testing environment bases on E4500 CPU, 2 G x DDR II RAM, Windows XP and Intel P35 Chipset.

Appendix B: Mother Socket Requirements

Sockets / Model	Slot	USB Port	Max card per PC
1400AS	1 x PCI Slot	0	4
2400AS XP	1 x PCI Slot	1 (Total)	4
3404HS XP	1 x PCI Slot	0	4
5404HS XP	1 x PCI Slot	1/ Card	4
5408/5416ASE XP	1 x PCI Slot	1/ Card	2
1908/1916ASE XP	1 x PCI Slot	1/ Card	1
1906PCI-E XP	1 x PCI_E Slot	1/ Card	4
1908PCI-E XP	1 x PCI_E Slot	1/ Card	4
1916PCI-E XP	1 x PCI_E Slot	1/ Card	2
2160RD	1 x PCI_E Slot	1/ Card	2
3160RD	1 x PCI Slot	1/ Card	1
3320RD	2 x PCI Slot	1/ Card	1