

214A / 818A

Digital Video Record

USER manual

Edit:2010.9

Declare:

Maybe there have some technology details depict not very clear or matter for the point, if any problem happen when you following this user manual. Please connect use by email or phone for the solutions. This user manual will be update at anytime. We are sorry for without additional notify.

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1. System introduction

1.1 System summarize

This is a digital video process and long time storage system based the newest digital video process technology, it used Philip 7130 video capture IC to process video signal. Record video signal to HDD after Real time compression, or transfer video signal through LAN / WAN. This system can process 24 channels video signal at same time. It be used in a very large field include bank, power, communication, water power, intelligent building Etc.

1.2 Functions

- Digital video record / surveillance system and multi-channels video processor
- Multi display mode, display 24 channels video signal
- Support Chinese TV model
- Display and playback 24 channels in best hardware condition
- Real time video compression
- Double working on record and playback
- Research support files list and time list mode. Make the play back easily
- Support alarm recording
- Support alarm in/output interface
- Support alarm pre recording
- Program able timer. Setting the record time
- Support Motion detect recording
- Support SDK, easy to update, extra function and system integration
- Support multi language
- Support PSTN, WAN, LAN multi user connect in to surveillance or playback

1.3 Speciality

- Multi channels real time. This system used real time paratactic process technology, achieved 1-24 channels real time compression. Each channels can operate unaided, can set contract, color, brightness, saturation for each channel
- Long time storage: record file only use 80-120M hard disk, 160G HDD build in the system, can continuers recording for 150-200 hours
- Intelligent recording management: each channel can set the record mode the time in whole 24 hours, system will delete oldest files automatic, and system will combined action to each channel base alarm set
- Exact search, playback function: user can easily and exact find the record files based camera ID, time, and event. Faster, slower, frame play, repeat and second play mode functions can use in the playback image can full screen mode
- Networking function: networking function already build in this function. Use the networking function, can make the center recording and networking recording. Networking use TCP/IP protocol and multi cast technology, lesser the bandwidth use.

Achieved multi user connect in and multi use to multi server function

- High compression rate arithmetic: this system used MPEG4+ compression format. Make the better image quality and higher compression rate

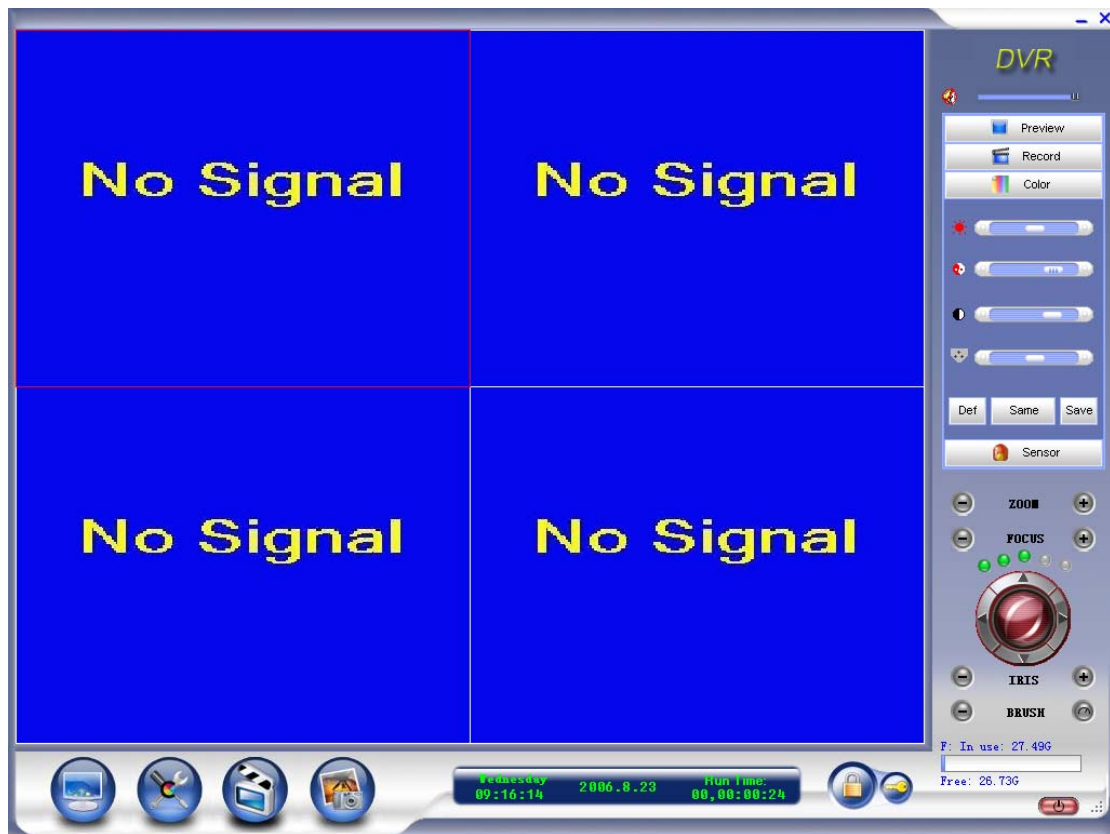
- SC(sudden change) detection: this system have image sudden change alarm function, it can detect the sudden change for light or background of video signal. this function used to detect various conditions such as power cable short circuit, discharge spark, fire, etc.

- Label add in function: this function support user add the label on each channel. the location of label can set.

- Stable: think about the stable of this system after long time working, system build in “unconventionality detection” and “system reactivate” function. When unconventionality happen, system will automatic restart within 20 seconds, and save all the latest working information

2. Sign in

2.1 Interface introduction



Like the picture, main interface have display area, right control area and bottom control area 3 parts


Display area: 1, 4, 8, 9, 12, 16, 25 channels display mode

Right control area: use this area can set audio, video, record, color, sensors, PTZ control etc functions

Bottom area: use this area can use multi channels switch display, system setup, playback, snap, system lock, sign out, exit functions

2.2 Sign in

2.2.1 Sign out

System will ask input the user name and password when start or press  button, like following picture:



Please log in

User:
admin


Password:
●●●●●●

Log in


17

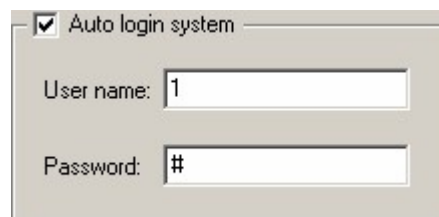
ATT: must input the user name [admin] the password [admin] within 30 seconds, if not, system will be lock

2.2.2 Lock

click on , system will be locked

2.2.3 Automatic sign in

Click on , select system settings, click on system settings label, find auto login, input user name and password, confirm.



Auto login system

User name: 1

Password: #

Like the picture ahead, system will auto sign in base this user name and password,

3. Operation introduction

3.1 Display

Click on the preview panel on right control area



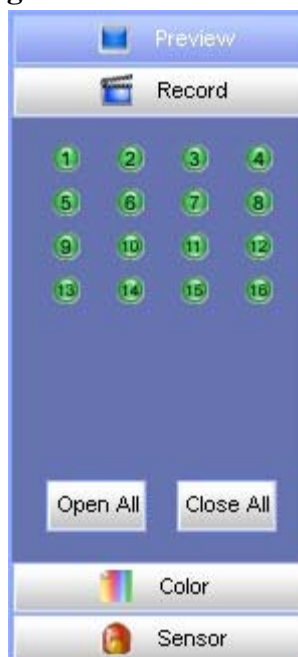
Like the picture ahead, preview panel will show channel numbers base the number of DVR cards. Light green mean current channel under previewing, dark green mean current channel closed. User can click on it to start or stop preview.

[Open All], [Close All] use to Start or Stop all channels preview

3.2 Record

3.2.1 Manual record

Click on record panel on right control area:



Like the picture ahead, record panel will show channel numbers base the number of DVR cards. Light green mean current channel under manual recording, dark green mean current channel agree manual recording, gray mean current channel under schedule recording mode.


User can change its working mode through click on it. Please attention on the working mode.

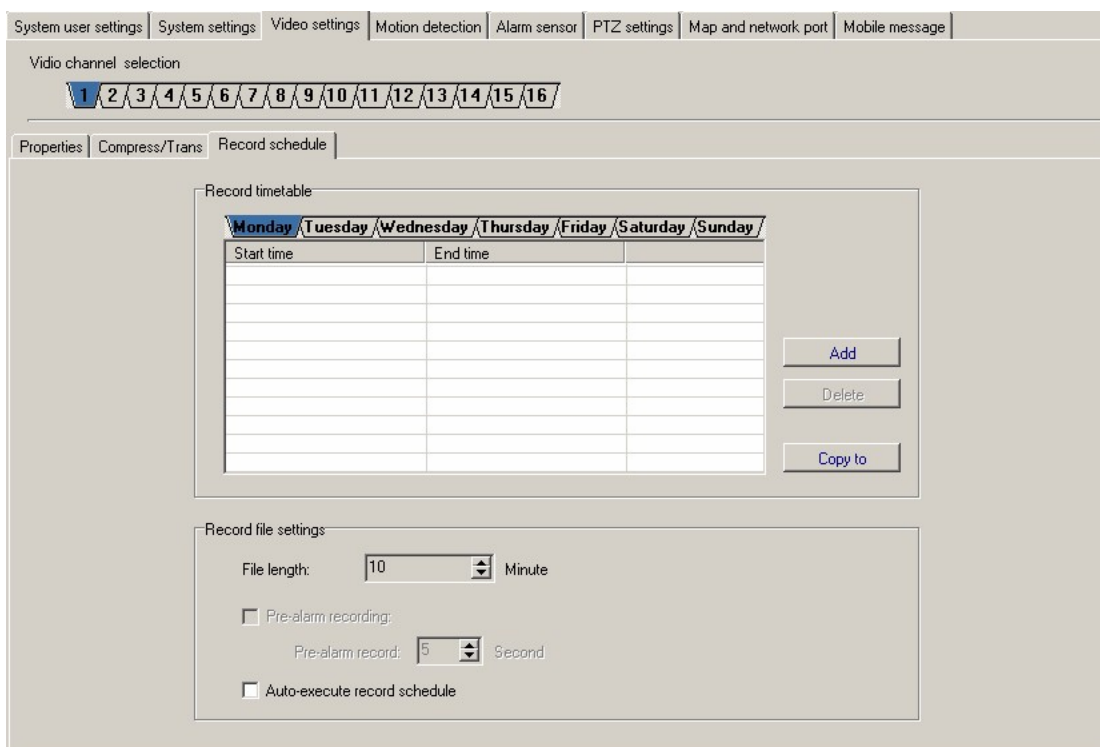
[Open All],[close All] button use to start or stop all channel record

ATT: If recording mode under schedule mode, can not change to manual recording mode

3.2.2 Schedule record



Click on , select system settings. Click on video setting label, find record schedule label:



System user settings | System settings | **Video settings** | Motion detection | Alarm sensor | PTZ settings | Map and network port | Mobile message

Video channel selection

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Properties | Compress/Trans | **Record schedule**

Record timetable

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Start time	End time							

Add
Delete
Copy to

Record file settings

File length: 10 Minute

Pre-alarm recording:
Pre-alarm record: 5 Second

Auto-execute record schedule

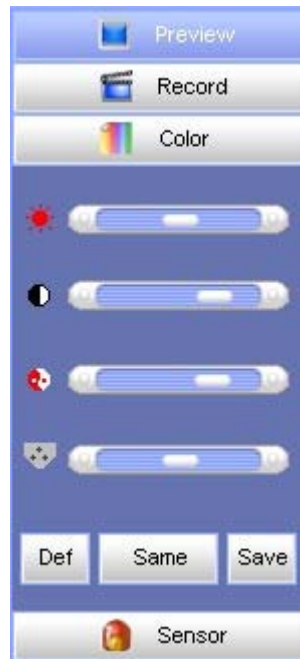
User can [Add] times to schedule and copy to full week, or only setting on current date.

File length: this setting use to establish a record file base limited time

ATT: Please confirm auto-execute record schedule after you setting this record schedule.

3.3 Color

Click on Color at right control area:



This panel use to set brightness, contrast, color, saturation for the video signal, pleas select the channels you want to set before this step

[Def]: use default setting

[Same]: set all channels be same

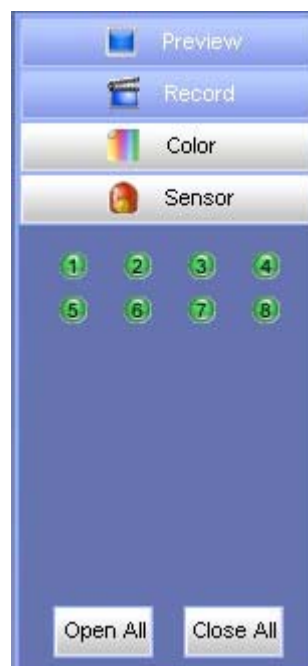
[Save]: save the setting to system

3.4 Sensor

3.4.1 manual sensor control

Before this step, please confirm “sensor manual set up defenses, cannel timetable in alarm sensor label,

Click Sensor panel at right control area:



Sensor panel will display the numbers for the sensor base the numbers of the Alarm control devices(no number display mean that no alarm control device). Light green mean manual alarm started. Dark green mean that agree manual alarm. Gray means that used schedule alarm

User can set the work mode on each channel.

[Open All], [Close All]: start, stop all channels manual alarm

ATT: if current channels works on schedule alarm mode. The number will be gray, now can not manual alarm

3.4.2 Schedule Alarm



Press , select system settings, click on alarm sensor label,

User can set the sensor and alarm mode in this window

1. setting the equipment type and communication port:

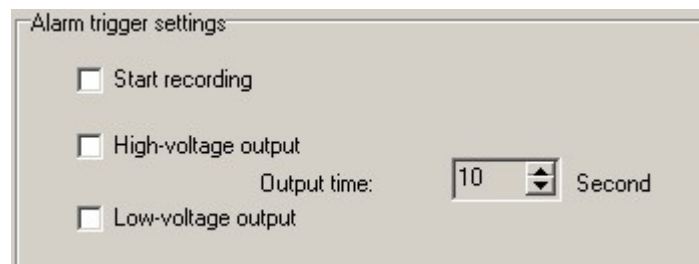
ATT: if you need alarm function. Please connect your supplier to provide compatible alarm equipment. If you also had other device need use COM port. Please make it use COM2.

Then select the sensor you want to set

Please attention on the channel numbers under connect channel, if the alarm equipment connected to this system and can working as well. Those numbers will display, if have not those numbers. Please check the communication between alarm equipment and system.

Setting alarm function base the equipment connected to system as well

Click on Channel1, select alarm mode (NO. NC.), then select the combined action for channel1:



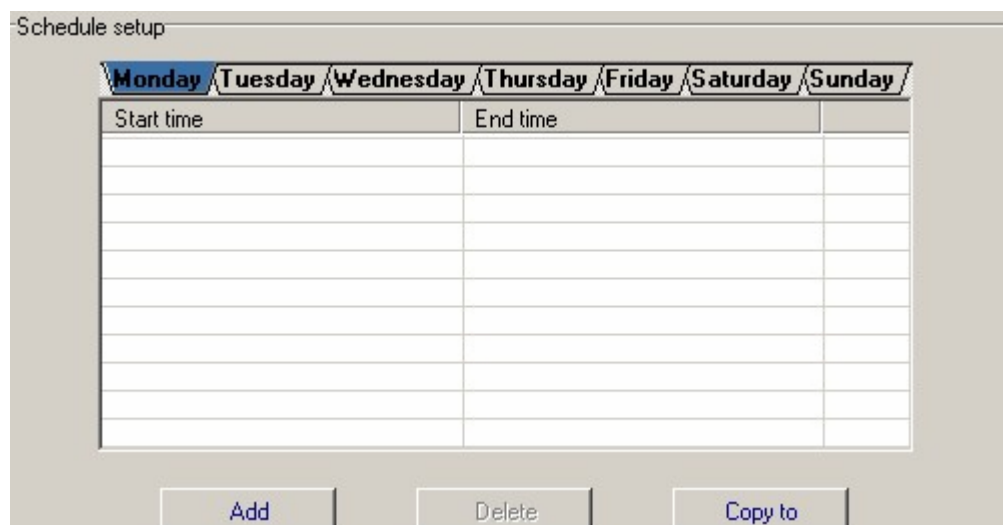
[Start recording] when system received alarm signal, it will start recording automatic, recording times can setting at [system settings]

[High-voltage output] when system received alarm signal, it will output a high-voltage signal to alarm control device (signal 1).

[Low-voltage output] When system received alarm signal, it will output a low-voltage signal to alarm control device (signal 0).

Output time delay can setting in output time

3. Set the alarm schedule:



User can [Add] times to this schedule and copy to full week, or setting for day as wish.

Other channels setting same as channel 1

ATT: please confirm [start this alarm sensor] after you setting alarm

3.5 PTZ control




User can control the scanner up, down, right, left, speed, focus, zoom, iris, wiper etc action

Please info 3.7.6 PTZ settings to set the PTZ

3.6 switch channels




Press  , system will switch to 1. 4. 8. 9. 12. 16. 25 channels mode

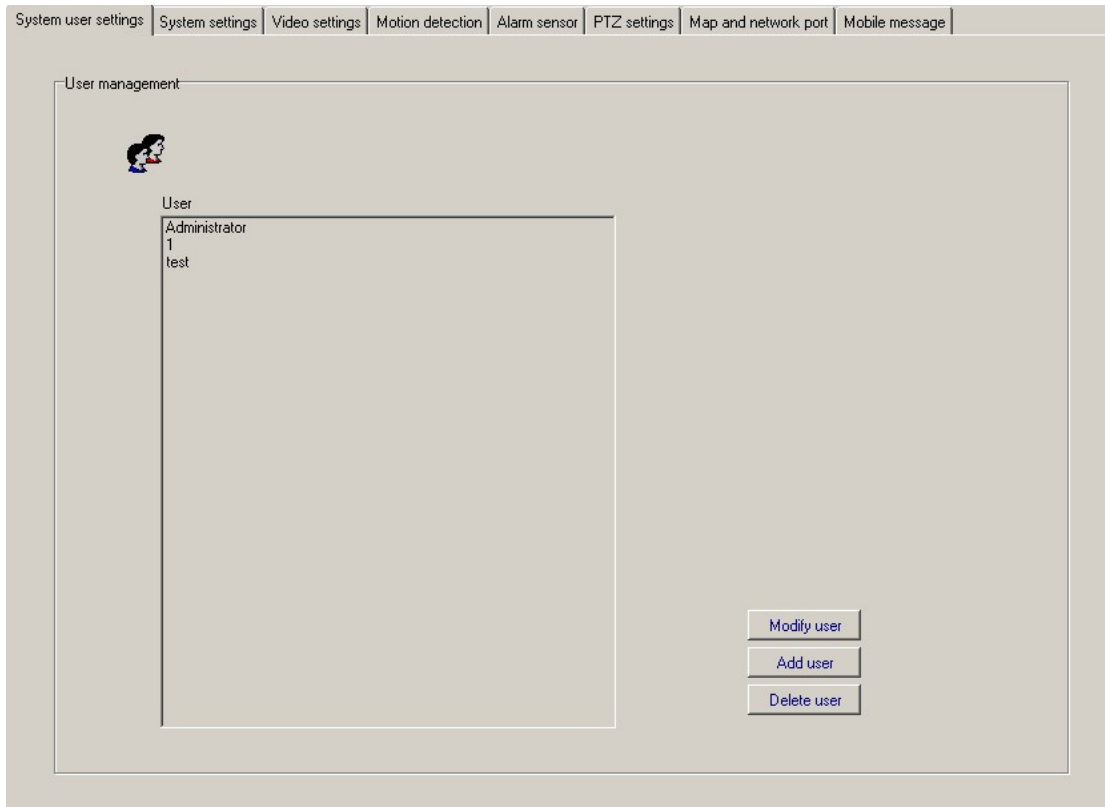
3.7 System settings

ATT: Please click on [apply] and [save] bottom after you did the settings. If not, all setting will be cancel



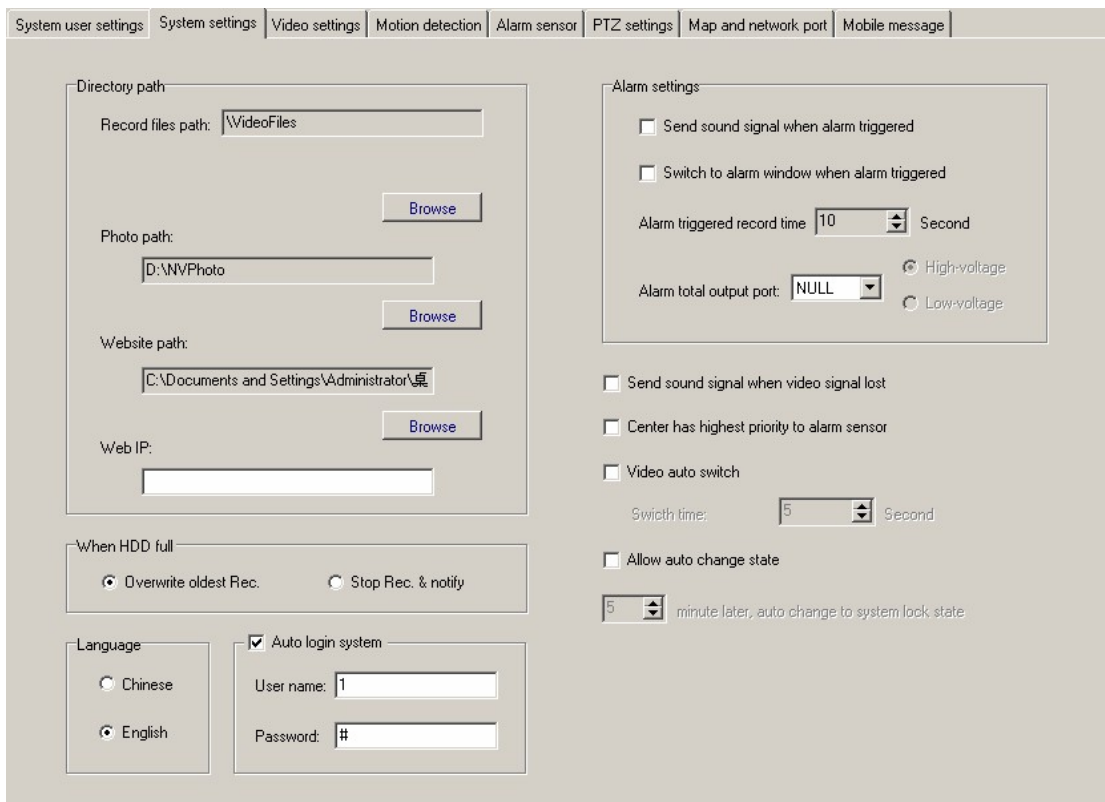
Press  , click on system setup to open the setup window.

3.7.1 System User Settings



Default [administrator], [1], [test] three user build in, can set it as your wish

3.7.2 System settings



System settings use to set the path for record files. Solution for HDD full. Language control

[Directory path], solution for HDD full and language selection always keep it is default

If you want not any partitions use to save record files. You can name this partition as “backup”, system will not keep record files to “backup” partition.

[Auto login system] please info 2.2.3

[Send sound signal when video signal lost]: when any channel video signal lost, system will output beep sound

[Send sound signal when alarm triggered]: confirm this selection to send out beep sound when motion detect or sensor alarm

[Video auto switch]: confirm this selection and set switch time. System will switch display if current display channels less than total channels.

[Alarm triggered record time]: system will record the video signal as the set time when motion detect or sensor alarm

[Switch to alarm window when alarm triggered]: system will switch video signal to alarmed channels when motion detect or sensor alarm

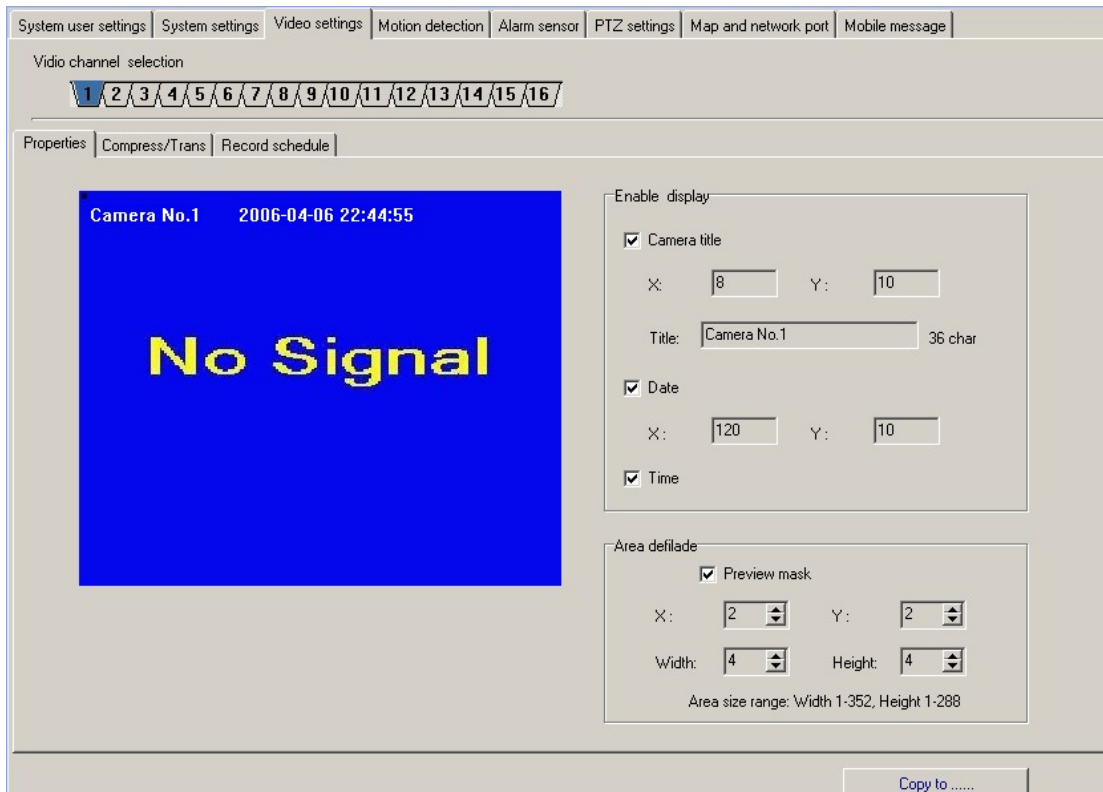
[Alarm total output port]: default setting is null. This function use to output a high-voltage or low-voltage alarm signal from an appointed alarm output channel, when sensor alarmed.

[Center has highest priority to alarm sensor]: this function use to set the priority surveillance center. For example: client side. So, only client side set the alarm, this system will start alarm function.

[Sensor manual set up defenses, cancel timetable]: this function use to start manual alarm, confirm this function to stop schedule alarm.

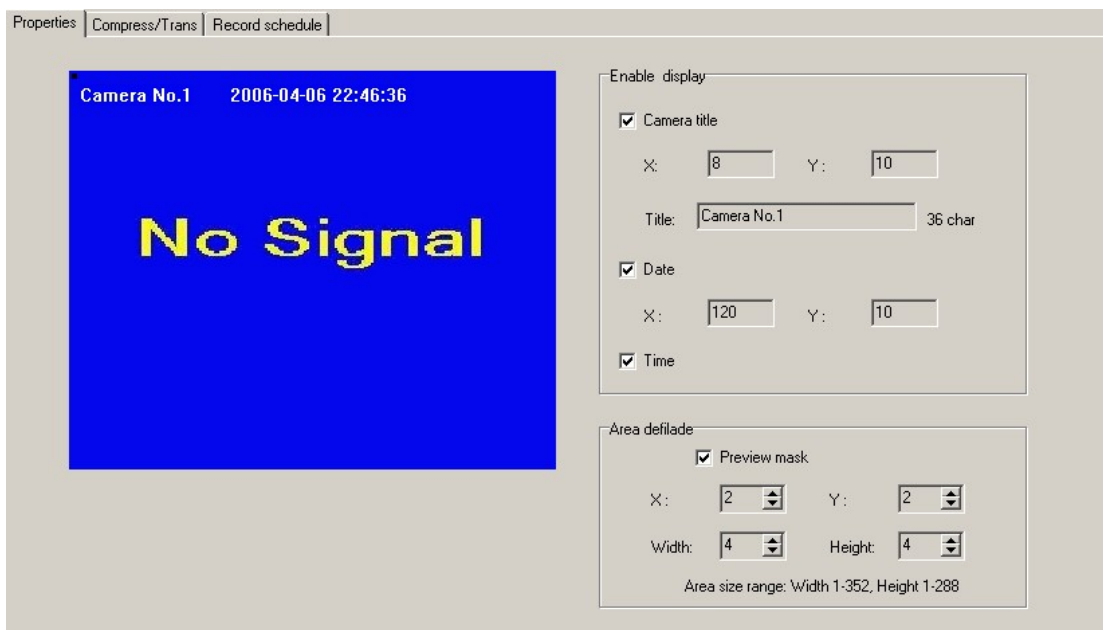
[Allow auto change state]: this function use to lock the system after limited time no action on mouse or keyboard.

3.7.3 Video setting



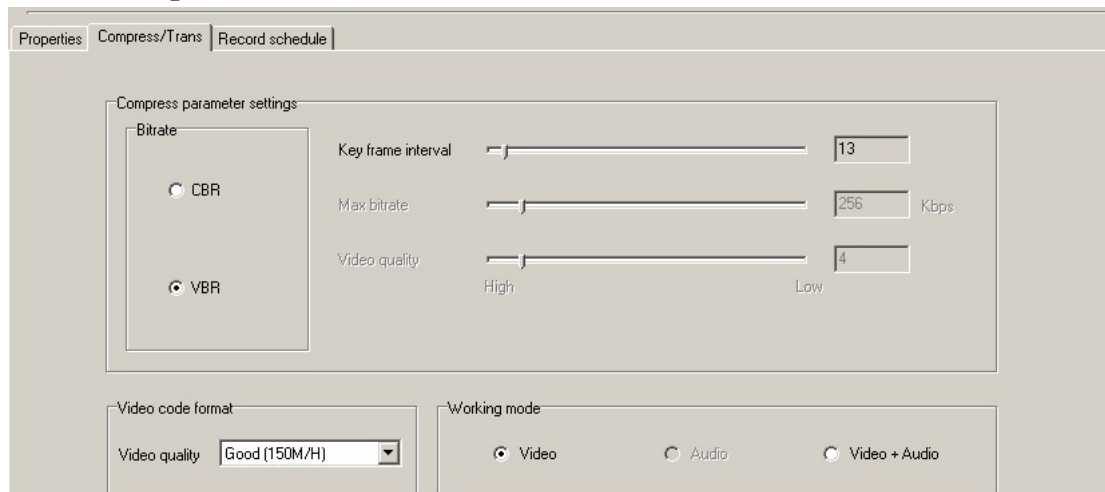
Please use the number labels to select channel you want set. System will display the labels base the channels system had.

3.7.3.1 Video settings



Properties label use to set the label on screen and add defilade area. Confirm preview mask, selected area will be defilade in display. But record file not defilade.

3.7.3.2 Compression / transfer



[Bit rate]: this compression format support CBR and VBR to mode compression format. CBR format will fix the bit rate. VBR mode will be dynamic bit rate based the motion of video signal.

We can see key frame interval, max bit rate can setting if selected CBR mode

Max bit rate: when bit rate set to CBR mode. Video compression will keep the size of video signal around the max bit rate. When bit rate set to VBR mode. Video compression wills dynamic, but max size will not more the set max bit rate.

ATT: larger bit rate will make better preview and playback image quality, but it will cost more HDD space.

Key frame interval: key frame used frame inside compression technology, so. It has very good picture quality. But picture size will be larger. This key frame use to be the original consult frame, key frame interval is the frames between two key frames. Key frame number will decide the image quality. Lesser key frames interval will make better image quality. But the size of video signal will be larger. So. Please set the key frame interval carefully, usually keeps it at default setting 100.

Video quality: now support 3 levels quality:

Standard: 90M/ hour

Good: 130M/ hour

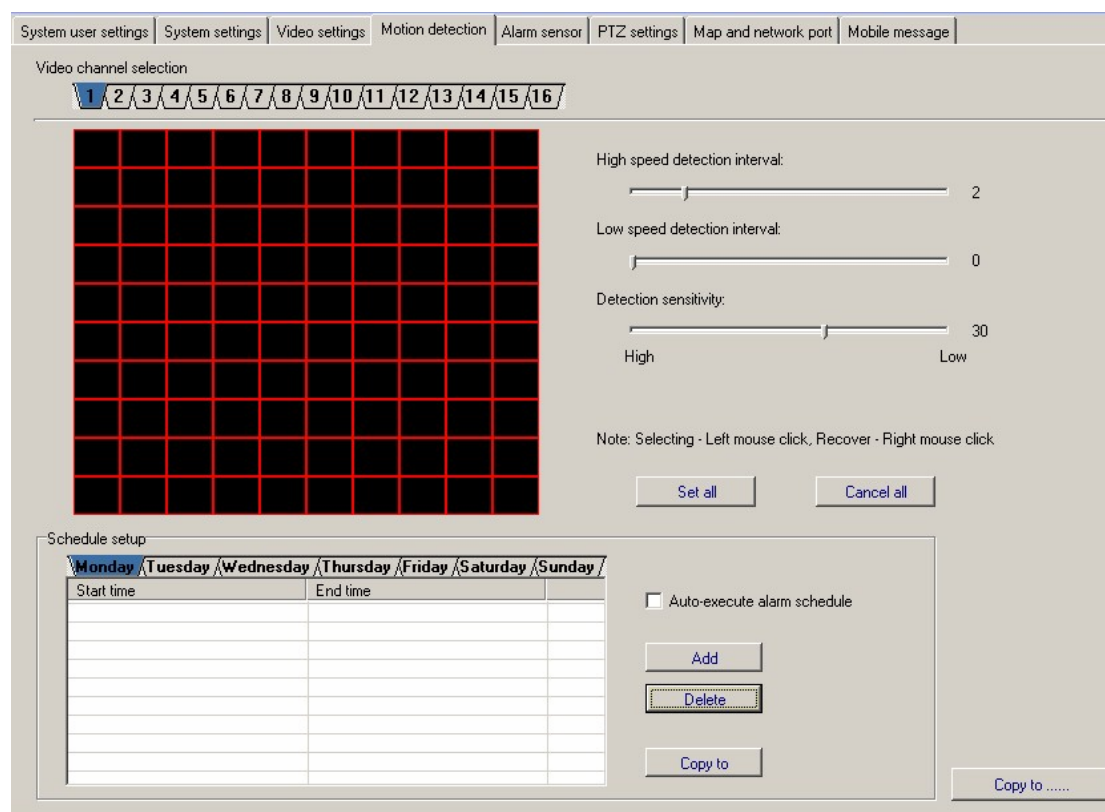
Best: 200M/ hour

Working mode: include video, video+ audio. Video+ audio mode only based the card build in audio function. If the card without audio function. please select video mode

3.7.3.3 Record schedule

Please info 3.2.2

3.7.4 Motion detection



Motion detect is the function to detect the motion video signal and output alarm signal to user.

This function need set the detect area at first, alarm area buildup by 11 x 9 units, left click on each unit to set it be detect mode (click on set all to set all units be detect mode). Right click to cancel detect (click on cancel all to set all units be normal mode), after set the detect area. Move the scroll to set the detection sensitivity.

High speed detection interval: range from 0-12, 0 mean not action, default: 2

Low speed detection interval: use in low or normal speed motion, 0 means not action

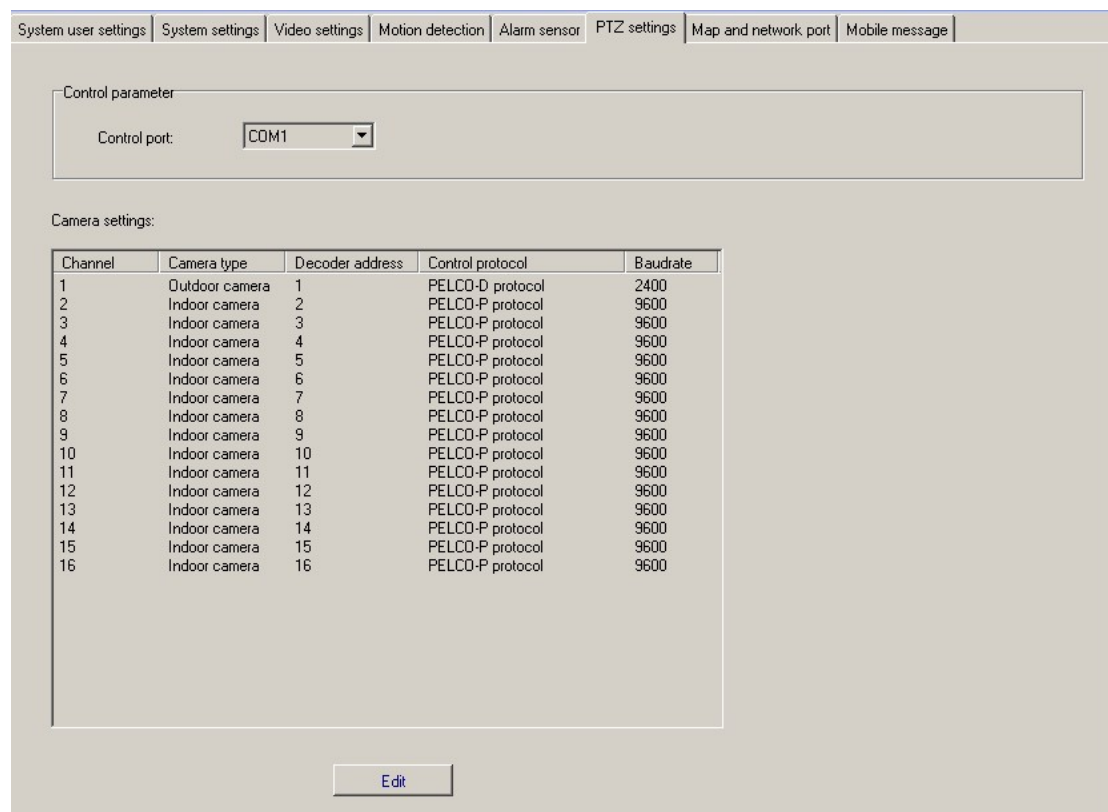
Detect sensitivity: control the sensitivity for motion detection. 0 mean most sensitive. 6 mean at latest, recommend level: 5

ATT: after set the detect area, must set the alarm schedule, if not. Motion detection will not working.

3.7.5 Alarm sensor settings

Please info 3.4.2

3.7.6 PTZ settings



front devices include cameras and decoders. Those devices control by diff port or protocol. So, need set it as the picture. double click on channel into edition mode. You can set the decoder address, control protocol and baud rate here

Control parameters:

PTZ control port: PTZ control means that move the camera up, down, left, right, auto pan and zoom, focus, iris light, wiper control, from system to decoder use STP wire, through 232-485 converter connect in system.

Camera settings:

System will show all numbers of cameras for current had, here can set the camera type, decoder address code, control protocol and baud rate.



3.7.7 Map and network port:

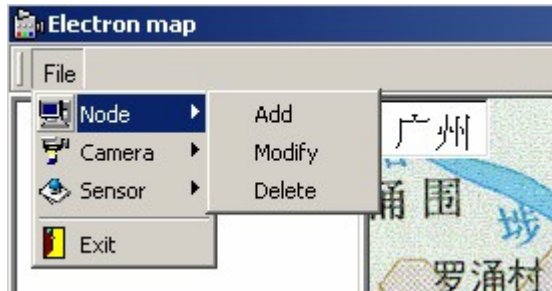


Use this label to set the map and network port.

3.7.7.1 Electronics map

If [edit map] bottom be gray color, please change setting in system user label. Add the use map function to current user

Click on [edit map] bottom:



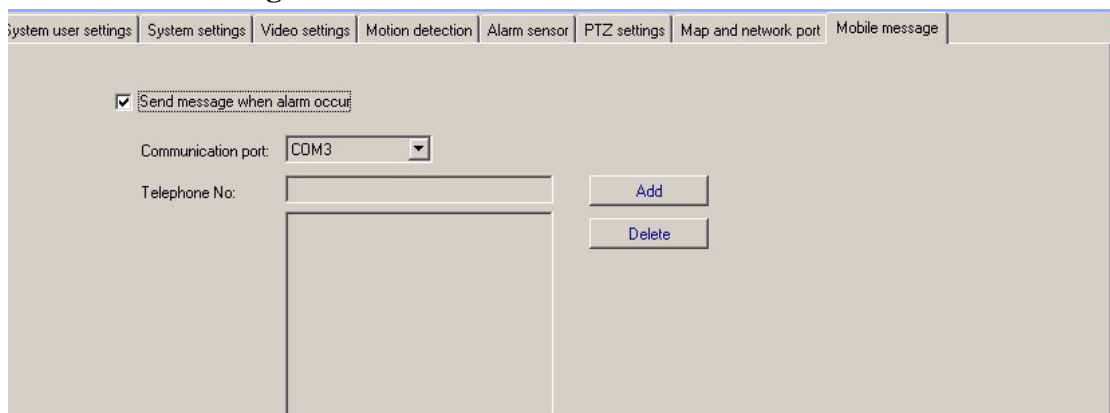
Upside is the tools bar, left side is tree navigation bar, right side is electronics map edition area

Tree navigation bar display the configuration of electronics map. Node means that area map (sensitive area). Camera node mean the location of the camera, user can double click on one node to enter the location of this node. Also. Can use menu for right click to add, delete, modify operate.

3.7.7.2 Network port

Network transfer port, HTTP port please do not change it but if you want forward the ports to router.

3.7.8 Mobile message




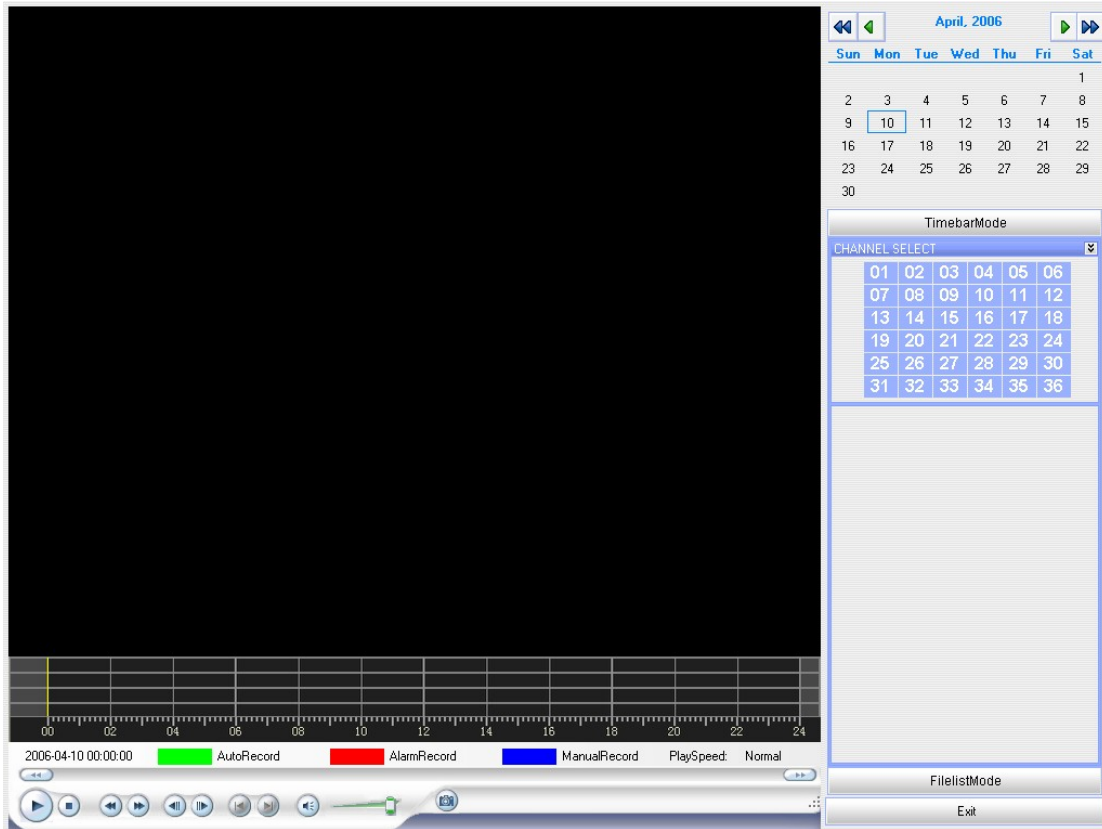
Mobile message: need GSM sender and SIM card support

After confirm send message when alarm occur, select the communication port, system will send message to appointed mobile phone when alarm

3.8 Playback



Press on , playback dialog window like following:



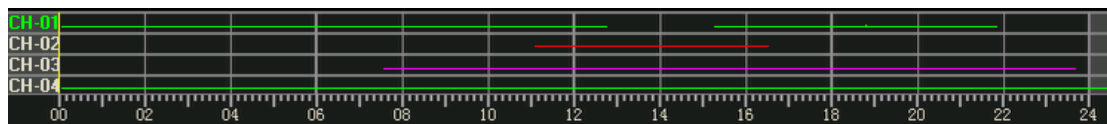
Playback window include playback area, right control area and bottom control area

Playback area: support 4 channels playback

Right control panel: “timebarmode” and “filelistmode” two searching mode

Bottom control panel: following is timebarmode and filelistmode:

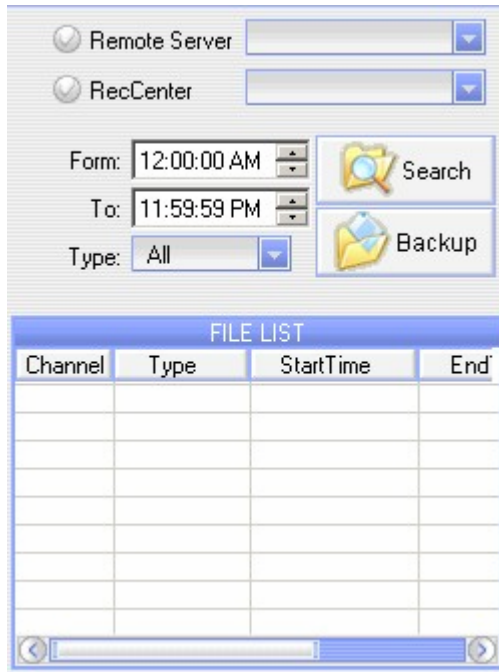
Time Bar Mode:



Vertical line under 00-24 number icons is times for 24 hours, green horizontal line is Auto record files, red line is alarm record files, rose line is manual record files

After selected the date and channels on right control panel, use mouse click on lines to playback recorded files to select the files want to playback. Click on play button to playback the files. When you click on other time in this list. It wills playback other files at once.

File list mode:




This mode is diff with time bar mode. Use can appoint the time segment and files type(All, Auto, Manual, Alarm), click on search, system will display all files at file list base the requested. Double click on file can playback it.

ATT: If want playback record files on remote server, please confirm remote server and input the IP address for it.

3.9 Snap

3.9.1 Snap

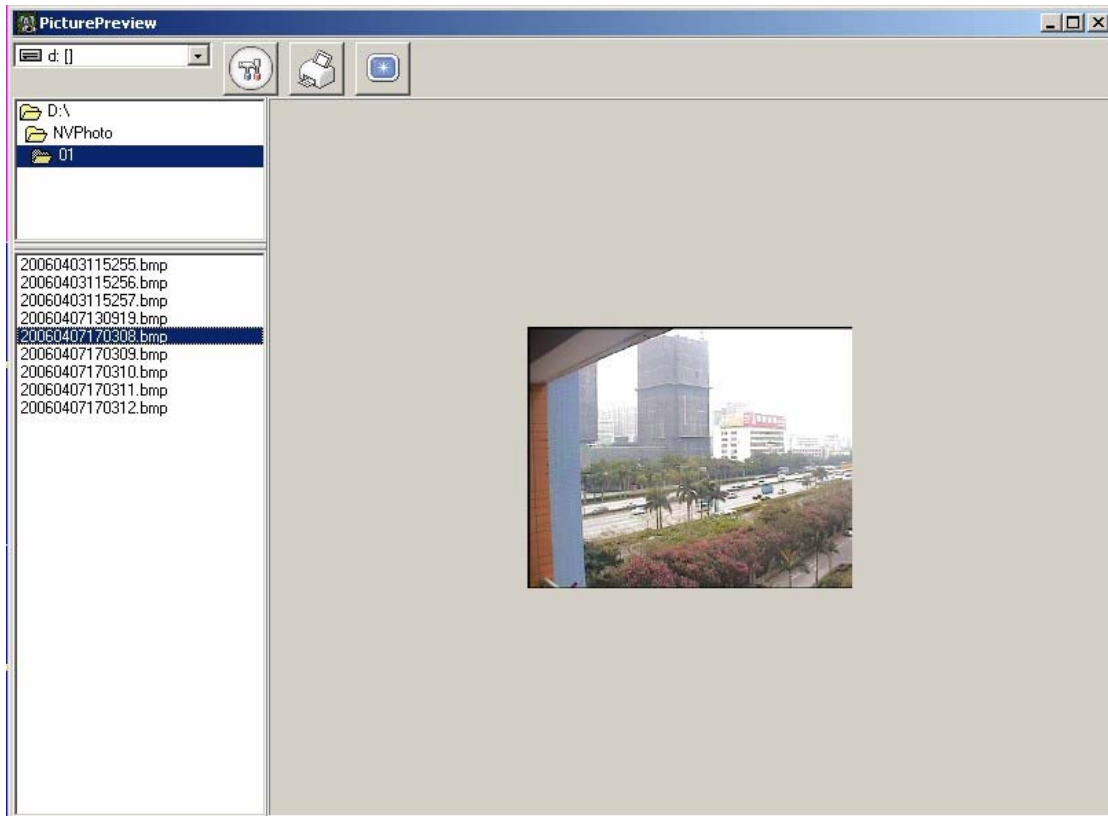


Select the channel you want snap: press on , system will put the snap picture to appointed folder.

3.9.2 Snap picture browse



Press on , select photo browse:

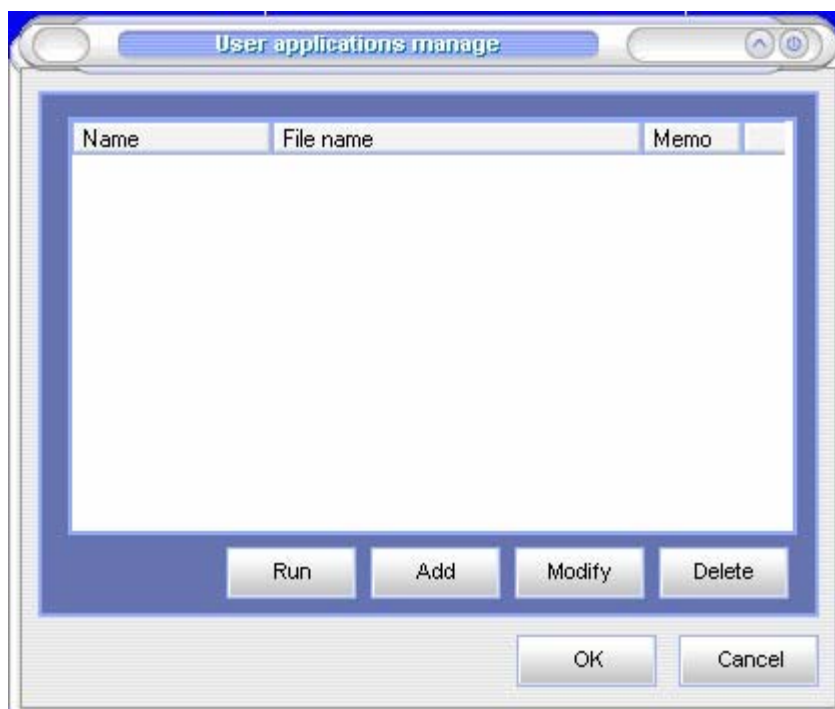


After you open the folder and selected the file. It can show at right side.

3.10 User applications management




Press on , select user application

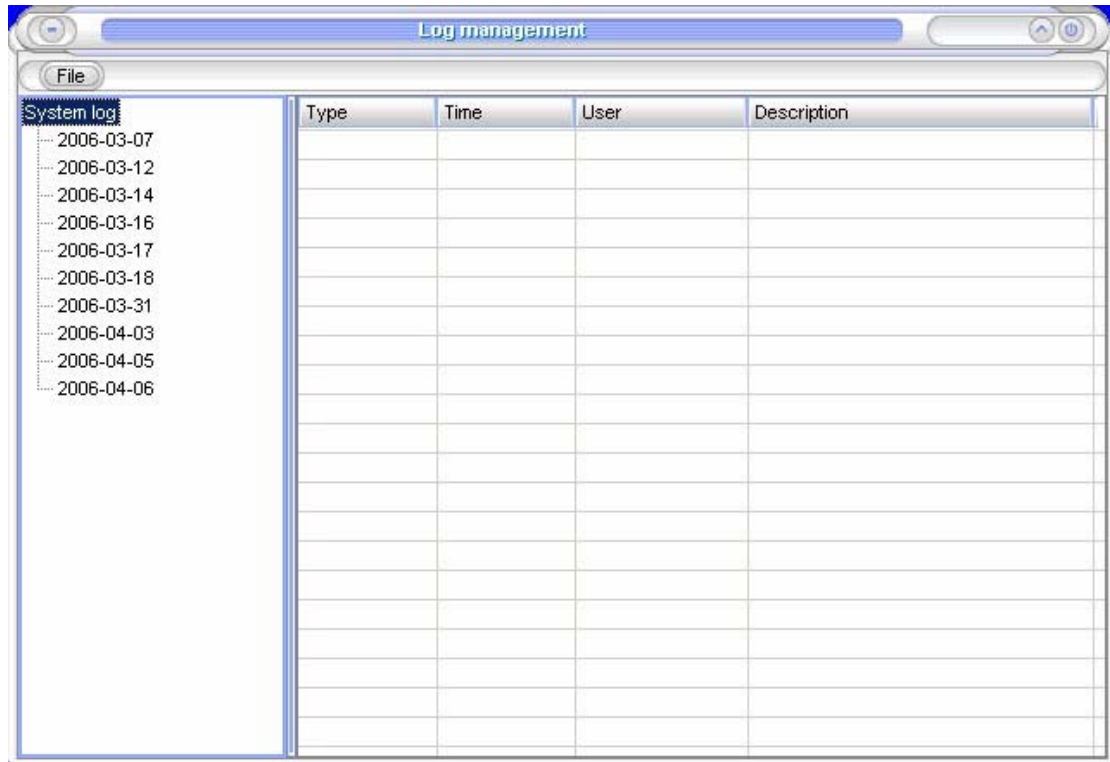


This function use to [Add], [Run] other applications

3.11 Work log management




Press , select log management



This function use to check the work log.

3.12 Exit

Press , system will ask whether exit system.

4. Problem and solution

4.1 servers

A: DVR card initialization fault.

This message means that DVR card driver not install correct. 2 possible reasons:

1. Driver not install correct or not restart PC after driver install
2. Driver not compatible with the hardware, this matter always happened when software updated.

B: Can preview, but can not record

Few systems cannot install the compression engine automatic when 1st time installs

the software. Please install the compression engine manually to solve the matter. (compression engine in directory XVID Ver 110 under system directory, run Txvidinstall.exe may solve this matter)

C: System turns very slow after surveillance system running

This matter because the taken too many CPU recourse, please check the CPU used information. If used more than 90%. Please change to faster CPU.

ATT: If build more than 16 channels system. Must use Celeron D 2.66 or higher CPU

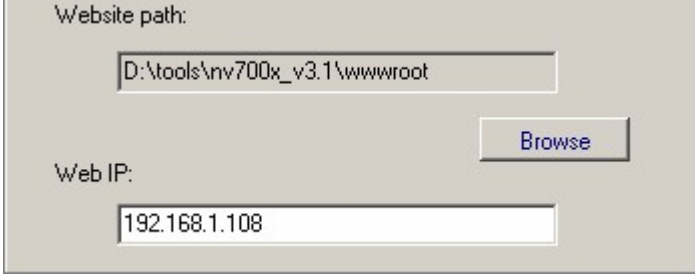
D. System run error or auto exit when client side or IE browser connects in

This matter because the taken too many CPU recourse, please check the CPU used information. If used more than 90%. Please change to faster CPU.

ATT: If build more than 16 channels system. Must use Celeron D 2.66 or higher CPU

4.2 Remote side

A. Type in the IP for server to IE, display can not open this page



The image shows a configuration window with two text input fields and a button. The top field is labeled 'Website path:' and contains the text 'D:\tools\nv700x_v3.1\wwwroot'. To the right of this field is a button labeled 'Browse'. The bottom field is labeled 'Web IP:' and contains the text '192.168.1.108'.

Please check Web server main directory and IP setting.

Website path: please link to “wwwroot” folder in system directory

Web IP: if only need LAN function, please input LAN IP address, if need WAN function, please input DNS address here.

ATT: WAN video transfer. But system is not the gateway, please forward the port numbers to router.:

80: HTTP server

5050, 5051: video transfer

6789: PTZ control

B: Use the client side receives the video signal. Can not get the picture after click on connect

This matter because the network setting wrong or network can not work

If all setting correct, still can not get the picture, please check the compression engine. Few PC need manually install the compression engine (compression engine in directory XVID Ver 110 under system directory, run Txvidinstall.exe may solve this matter)