KIKO Consulting
DVR Server
USER'S Manual

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Introductions:

Thank you for purchasing our DVR system. This operation manual is to introduce how to set DVR system and explain each function of DVR system for you to use the system effectively and stably.

Operators should go through this manual thoroughly before you install/utilize this DVR system. You can get this manual from your dealer or contact us directly.

Note: Please set the resolution of monitor as 1024*768 pixels before using this system.

System features:

-Hardware support H.264 compression, low HDD cost
-Web access through LAN or WAN.
-Real time full-motion video-capture & display (Up to 64 channel video input)
-Real time high-speed recording: Up to 30 fps per channel
-Synchronous audio recording (optional)
-Motion detection (Whole area or up to 12 detection zones per channel)
-Normal recording (continuous) and event recording (Motion detection or external sensor)
-Electron Map pop-up when alarm happens
-System operating and alarm logging
-Alarm-before recording
-Remote recording
-Sending alarm message automatically.
-Sending alarm image to email box as attachment automatically
-Matrix display and group display
-Duplex mode (Recording while playback)
-Network support (Remote access via LAN, Ethernet, PSTN, ISDN, ADSL)
-P/T/Z/F & speed demo control on keyboard
-Search/playback by date/time directory (random-access)
-Backup & burn CD directly
-Remote talking between server and client or server and server

Important Information:

For optimal performance of your system, it is important to follow these recommendations.

1 We recommend that you divide your hard disk into two partitions (E.g. C and D:) at least. The first partition is used to install Windows OS and system software, the other for storing record files.

2 Please use appropriate motherboard and display card. Contact your dealers or our support engineers if you have questions.

Recommended System Requirements

Chipset: Intel 845PE, 865PE, 875PE, 915P, 945P

Motherboard: Intel: D915/945PCY, D865PERL

Asus: P4P800SE, P5P800 MSI: 865PE Neo2-F, 915/925/945;

Gigabit: GA-865GME, GA-945PL-G etc

Video Card: ATI Radeon 9250 128MB, ATI Radeon 9550 128MB, ATI X500, X550, X700 etc;

Processor: Intel Pentium 4 2.4GHz or better

Memory: 512MB minimum

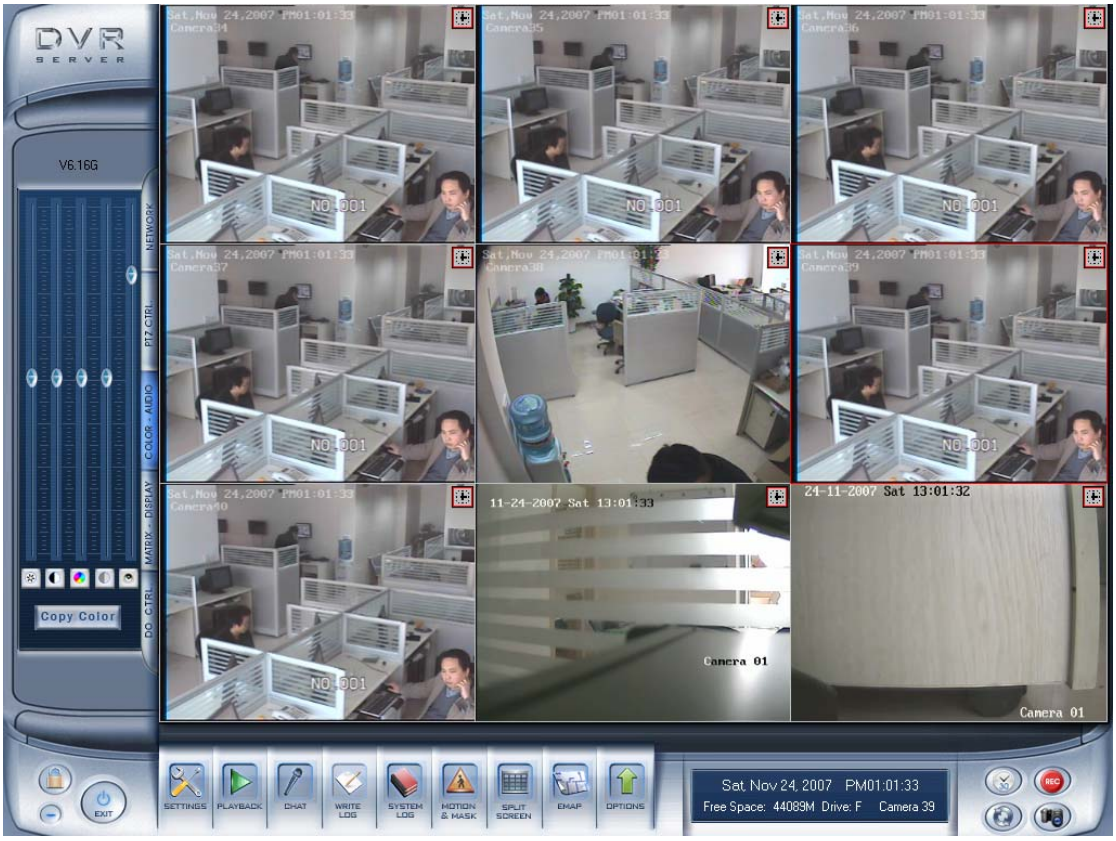
Chapter1 Start up and Main Interface

1.1 Start up

1).Before you run DVR server, please check all connectors are firmly connected.

2).By default, DVR Server application will run and initialize cards automatically (total time is determined by the number of channel, about 4-10s). Otherwise, you should Left-Double-Click shortcut icon

to start it. The main interface is as follow:



Note:

When you run the system first time and you do not have the valid register of the cards, system will popup a dialog to show that you work in test mode. After you confirm it, system will work in test mode normally.

1.2 Main Interface

1.2.1 Show tips

1. When the mouse moves closely or stops above a button, a text tip will be shown to interpret the function of it immediately.
2. Zoom in/out video image: Left-Double-Click a camera window to zoom in/out video image (or press **F11** on the keyboard).
3. System will detect cards and read the total number automatically, and the corresponding number buttons will be displayed dynamically.
4. Recording status:

a. This icon means the system is recording normally.

b. This icon means the system is recording manually.

c. This icon means the system is recording in motion detection.

d. This icon means the system is recording in sensor detection.

1.2.2 Screen menu

Press TAB key or Page UP (select next camera window) and Page Down (select previous camera window) key on keyboard to select one live camera window.

1.Full screen

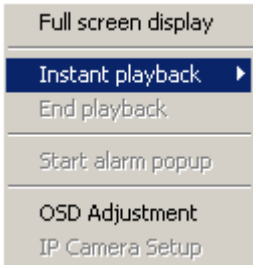
Single-Right- Click image area, it will popup a menu, then select "full screen" to change display mode to full screen (or press F12 on the keyboard). When you want to resume origin mode, you should Single-Right- Click image area and select "Restore display".

2.Instant playback

Single-Right-Click desired camera window and select "Instant playback" (except IP Camera, it can just play back instantly in the window that is not used). After that, choose a time from the submenu, and then system will play back video data of current camera in current window according to your selection (E.g.: you select 1min, system will play back previous 1 minute video data of current camera in current window). Also, you can play back video data of one current live camera in a window that is not used by any cameras (always black background with no "Video Loss" information, IP

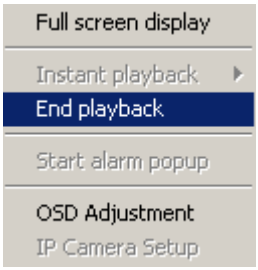
Camera can only play back instantly in those windows): Select a window, and then Single-Right-Click it to select "Instant playback". Finally, choose a time and the camera you want to playback, and then system will play back video data in current window according to your selection.

The window that is playing back video data will indicate a yellow border to be different from the live windows.



In the course of the instant playback, you can press **Space** key to switch the **play/pause** status or direction key → and ← to play next and previous frame.

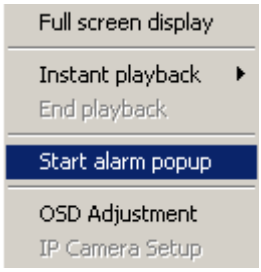
If you want to stop the instant playback, you can Single-Right-Click the play backing window, and select "End playback".

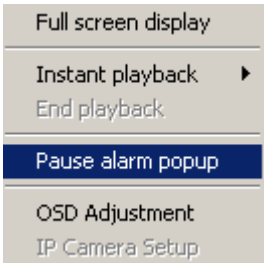


2.Alarm popup

Single-Right-Click video image area in main interface and select "Start alarm popup" after you set "Alarm camera popup interval" in system setup, otherwise, it can't be selected with gray. After that when there has a motion detection alarm (set in PTZ & Linkage setup) or an alarm triggered by sensor (set in Sensor setup), system will display alarm cameras in sequence. But this function does not include IP camera, even IP camera have alarms, there images will not pop up. When you want to end this function, you can

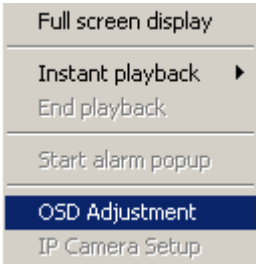
Single-Right-Click video image area and select "Pause alarm popup".





3.OSD Adjustment

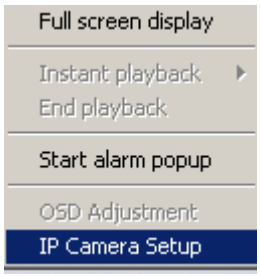
Single-Right-Click video image area in main interface and select "OSD Adjustment" to adjust the position of OSD (IP Camera does not have this function; you can set the OSD position in IP Camera setup remotely).



OSD includes time and channel name. In this screen you can press time or channel name and drag them to where you want directly, after that you can press SAVE button to save and press Resume button to resume time and channel name to default position.

4.IP Camera setup

For this function, it is only available when you Right-single-Click image of IP camera.



It will describe in details in IP Camera Setup.

5.Change record disk

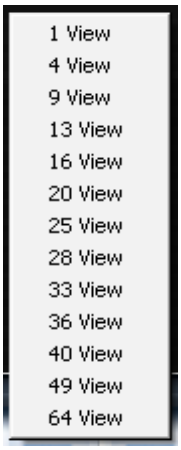
From the information display panel you can see the current recording disk, and when you Single-Click corresponding of the panel, it will show the available disk with its total free spaces. Also you can change the recording disk by selecting the disk directly. The system will check the disk per 10s, and it is recommended that you change the recording disk to local disk when system is writing data into removable disk before you remove it.

When the capacity of HDD is not enough or there has some mistakes while recording, system will pop up information to inform the failure of recording and the corresponding camera will stop recording.

1.2.3 Interface description

1.Partition mode

Press button to set the window's partition mode of the main screen. There are many types partition; the available partition is determined by the total channels of card, you can select the suitable partition according to the number of video inputs, the partition number which is bigger than total channel is not available with gray.



2.Videos-play-in-sequence mode switch

Press button to switch between playing all cameras in current windows in sequence and not when the current partition number is smaller than the total channels of card.

3.Emergency recording button

Press button to trigger recording of all cameras for 30 seconds even if they have been set to record by any other modes. This function is useful to deal with emergency where quick response is required.

4.Image capture

Press button to save a still image of selected camera to local hard disk for reviewing or print.

5.Manual record switch

Press

button to record manually and press it again to stop manual recording for selected camera.

6.Information display panel

This panel shows day of the week, current date, current time, total free hard disk space, current record disk and description of selected camera.

7.Local setup submenu

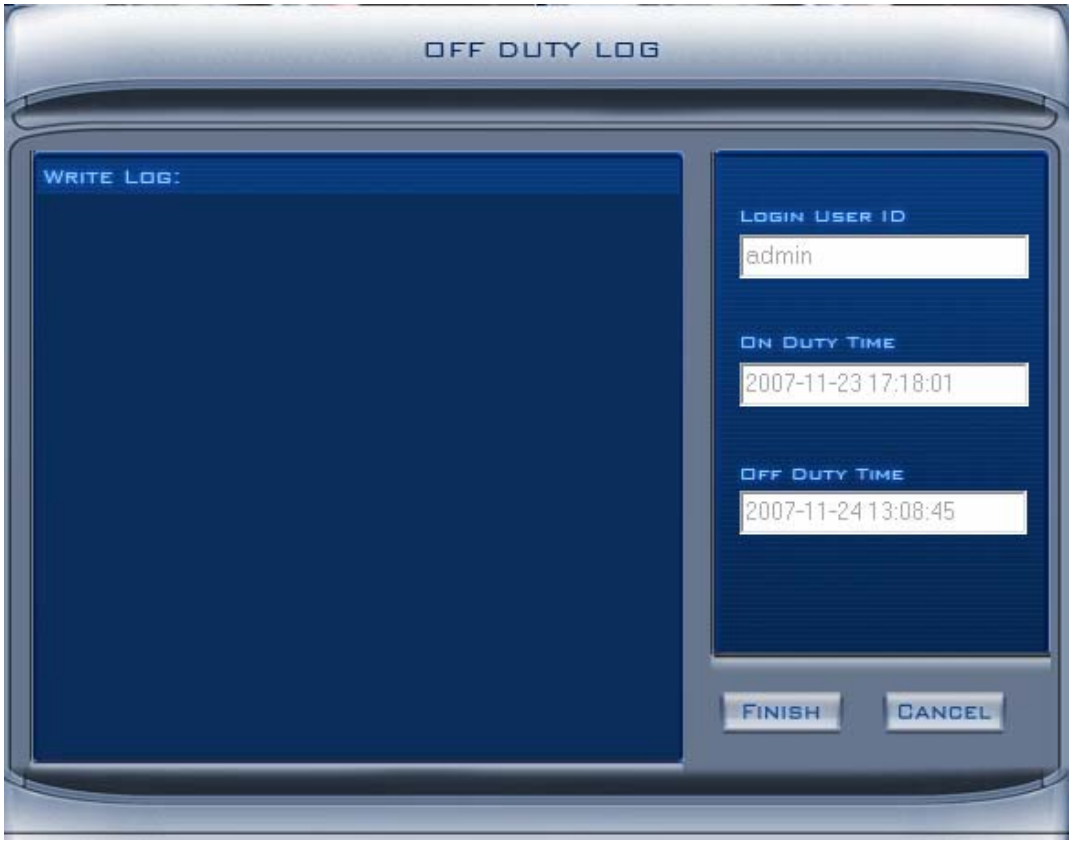
Press button to enter Local setup submenu.

8.Playback submenu

Press button to enter Playback submenu to search local video/audio data.

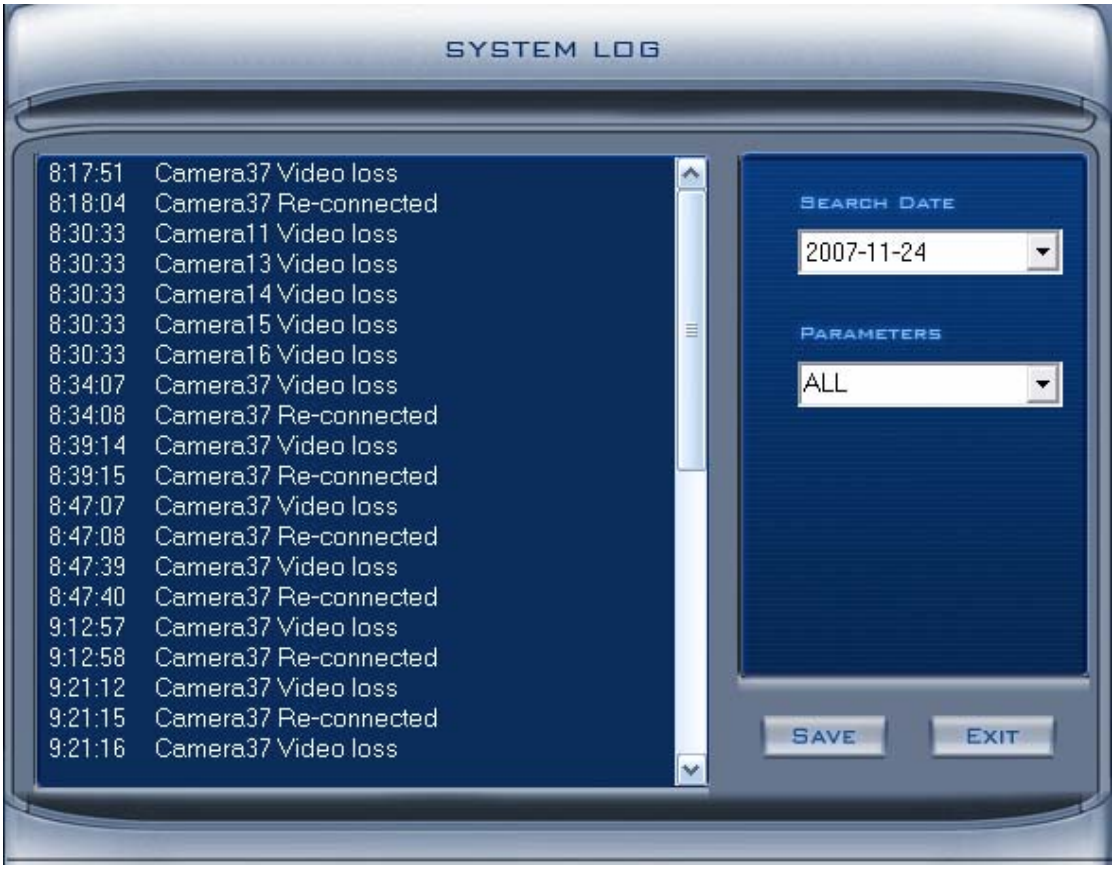
9.Write working log

Press button to record events that occur during the operator's shift.



10.View system log

This function allow user to view all actions of recording as well as operations. System log keeps a record of system events such as program startup and shutdown, changing camera setup and all Operator or System daily activities according to time and date. Users can look log by date and system parameters. System parameter includes operations, system prompts, alarms and other activities.



9.System lock

Press button to prevent unauthorized user to operate system. Press this button again; the unlock dialog box will be displayed. Input your User ID and password then press OK to unlock it.

Default User ID is "admin", no password.

Note: If the DVR system is not configured as User Manage Mode, the lock button will be unusable and allow any client's access (even in client program, user name and password will be useless)

10.Minimize button

Press button to minimize the main window (or press WIN + Zon keyboard).

11.Exit program

Press button to exit program.

After clicking this button, a dialog will display. Click "OK" to quit DVR system.

1.2.4 System Menu

Press to list other functions

1.Backup System Parameters

Select this function to export system configurations.

2.Import System Parameters

Select this function to import system configurations.

3.DVD/CD Disc backup directly

Select this function to burn video data to CD, it is same to burn CD function in Playback and burn DVD

4.Execute a external program

Select this function to execute a external program

5.Remote chatting`

Select this function to connect a remote Client or Server for a live chatting via IP address, but first, you should be sure you have installed audio card and Microphone in each PC.

6.Open Explorer

When keyboard is locked, Users can operate window resource via explorer.

7.Open Screen Keyboard

This function allow user to use soft keyboard, you can press this bar to open the screen keyboard. Also, in the setup interface you can Left-Double-Click the blank to open this keyboard. User can close this keyboard manually.

8.Motion detection area & Cover setup

This function allow user to set the built-in motion detection.

By default, the entire screen is set as motion detection area where is indicated with green border around the image. To mask a specific area, you can click

button to cancel the full screen detection border; then Left-Single-Click and drag a rectangle. A green rectangle will mark the area of it. Also, you can set any other areas. Any activities in the motion detection areas will trigger recording, depending on the reaction mode; and alarms may be generated along with electronic map icons flashing in alert mode. Click

button to test the sensitivity of motion detection. The sensitivity can be adjusted by dragging the slider bar below the motion detection window.

Figure1— 1

(1) Add mask / Delete mask

Press ADD MASK button to add mask. If there are some areas that you don't want to show, you can draw those areas with mouse till they change to be black. You can set several cover areas. Press this button again to finish adding

Press DEL MASK button to delete all cover areas.

11.Open Electronic map

Click SETUP icon and then click the right arrow on the map, the picture on the right of the map will appear. You can add or delete sensors and

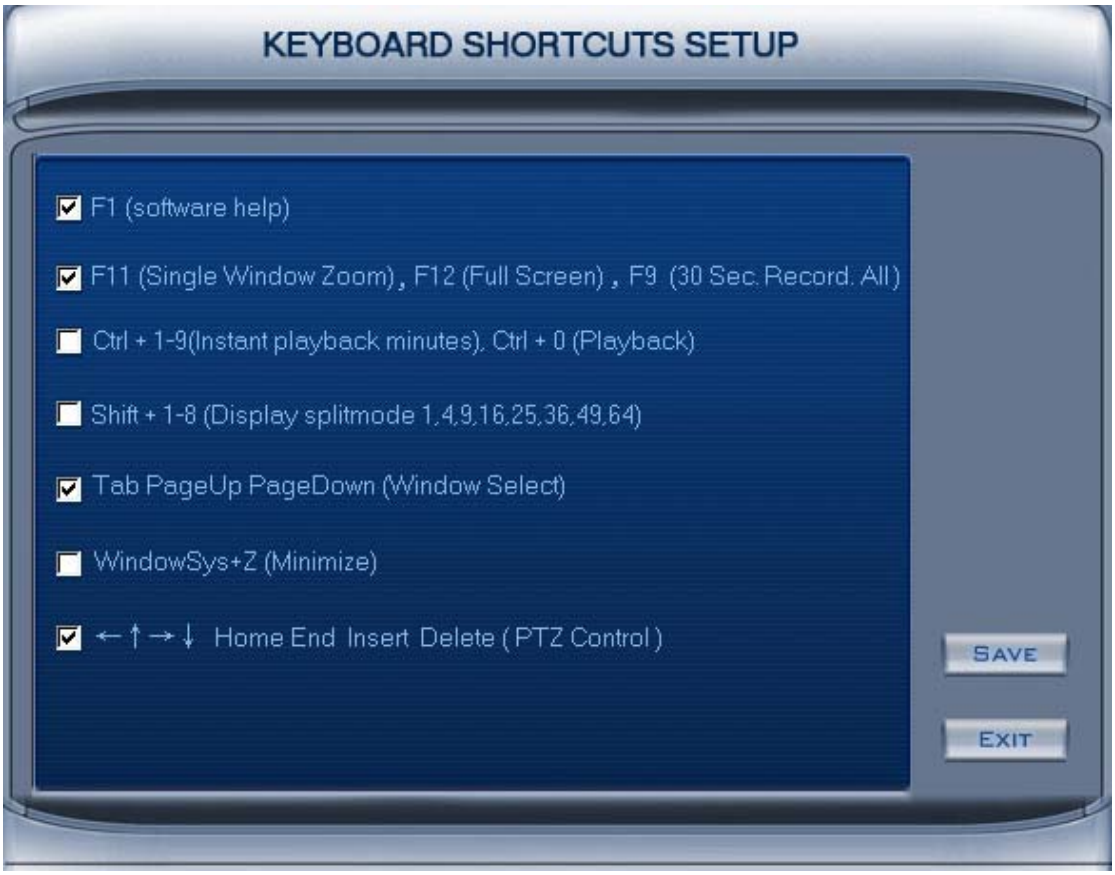
cameras (the cameras are those pointed by the arrow). You can also change the digital map (as following):

Figure1— 2

If it is set to appear automatically, when the sensor is touched, the map will appear automatically and the sensor being touched will be marked

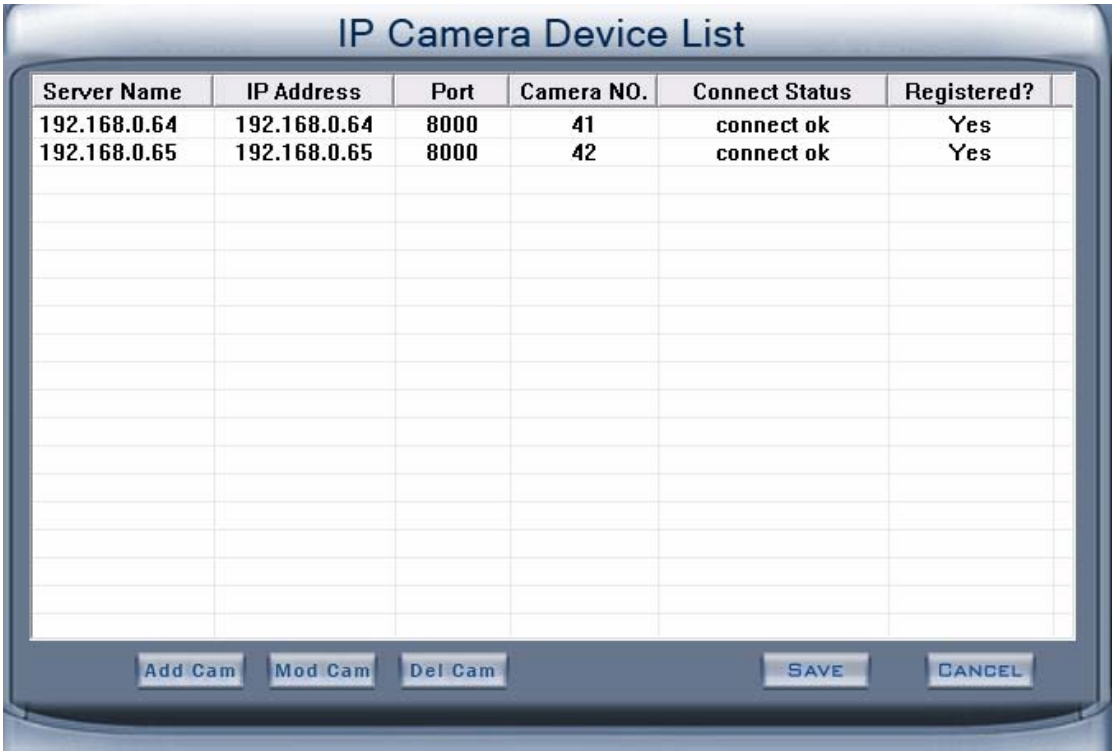
12.Keyboard shortcuts setup

If you don't want to use certain shortcut keys, you can disable the shortcut functions and save the setup.

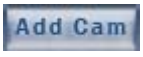


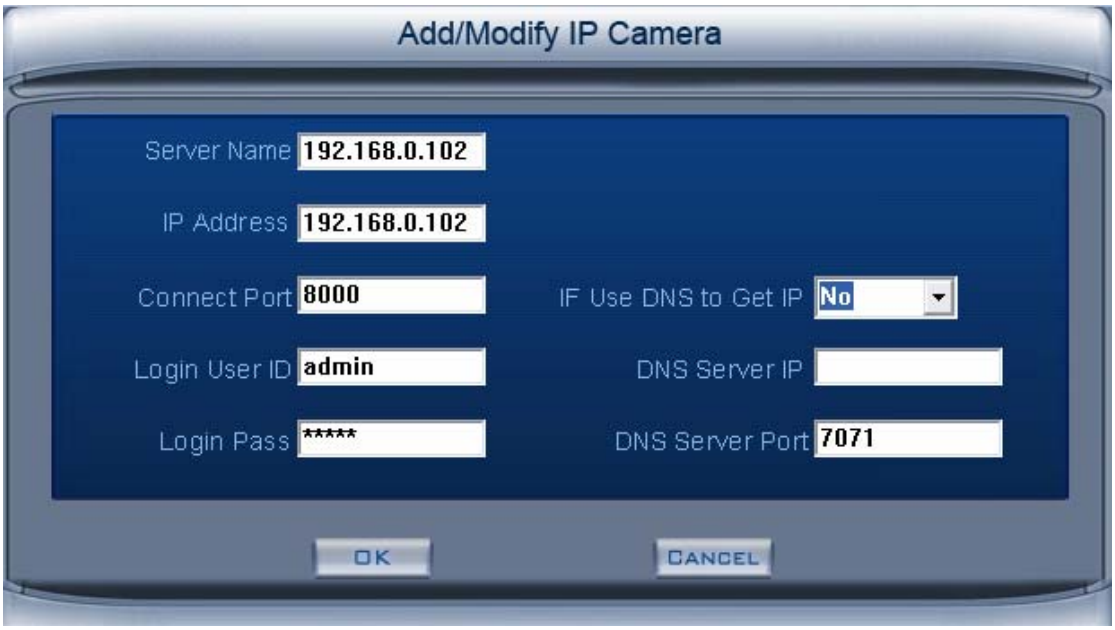
13.IP Camera Device List

Press this bar to add IP Module to DVR system. For resource limitation, you can add max 16 IP Modules, including DVS and EM DVR, but every device can only add one channel to DVR system.



(1) Add IP camera device

Press  button to add an IP Camera device:



【Server Name】Set a name for the new IP camera device.

【IP Address】Input the address of the IP Camera, it is an IP address or IP alias of an IP camera which is connected through DNS Server.

【Connect Port】Set the port through which connects to IP Camera.

【Login user ID/Login Pass】When the user want to visit IP Camera and the server has used the function of rights management, login user ID and password will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

【If use DNS to get IP】Select whether use DNS to get IP or not, if the server end is the dynamic IP address, users need use DNS to get the server's IP.

【DNS Server IP】Set IP address of DNS server host.

【DNS Server Port】DNS server host's port, which is provide to connect DNS software.

When you finished adding IP Camera to DVR system, it will show the status of that camera, including Sever name, IP Address, connect port, sequence number for IP Camera, connect status and register information.

Note:

1. Currently our DVR server can maximums add 16 channels IP cameras. For each device, system allows to connect maximum 4 cameras.

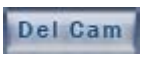
2. After you add IP cameras to DVR system, they will be collocated sequence numbers after local board cards. The sequence numbers of the IP camera change dynamically according to the total numbers of local board cards and the sequences of the IP cameras to be added. For example, if there have 32 channels local board card, then you adds 2 IP cameras, they will be collocated 33 and 34 as their sequence number. Then if you add another board card (4 channels), the sequence number of them will change to 37and 38 dynamically.

(2) Modify IP camera

Press

button to modify IP camera's information, its interface is same as Add IP Camera.

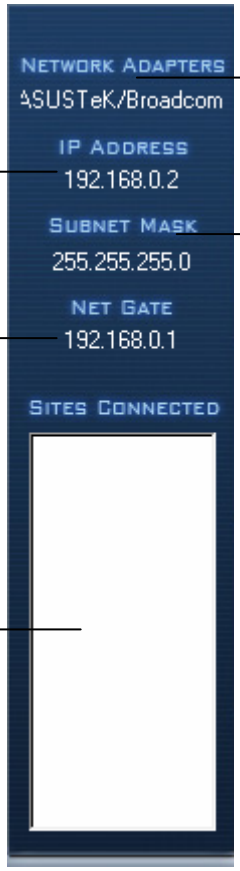
(3) Delete IP camera device

Press 

button to delete connected server. When system is in processing to add IP camera device ("connecting…"indicated in connect status column), user can not delete that IP camera device.

1.2.5 Network panel

This panel displays the network configuration of DVR system.



Information of network adapter

IP address of the system

Subnet Mask

Net Gate

When client is linked, its IP address will display in this window (the current IP only).

1.2.6 PTZ Control panel

In DVR system, it has three ways to operate PTZ;

a. Panel operate;
b. Operate in video area directly ;
c. Keyboard operate

1.Relay (On/Off)

Control the PTZ cameras internal relay (relay1) or the decoder's relay (relay 1). Used to turn on a light or control an access gate.

2.Wiper (On/Off)

If using the PTZ cameras corresponding wiper control relay, this toggles the relay/wiper on and off.

3.Zoom + / Zoom –

Controls the zoom function of the PTZ camera.

4.Focus + / Focus –

Overrides the auto-focus setup of the PTZ camera, adjust focus the

image.

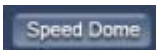
5.Iris + / Iris –

Overrides the PTZ cameras auto-iris and brighten or darken the image.

Pressing this button initiates the connected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factory forbid this command.

By pressing and holding these buttons, the PTZ camera will move up, down, right and left as well as other directions.

6.Speed Dome

Press 

button to operate the speed dome, including Preset Setup, Preset Call and Preset Tour:

(1) Preset Setup

In this screen you can set the preset position:

PTZ speed setup

Press and drag the slider bar to adjust the speed of PTZ.

Add/Delete preset

In this section you can set the preset name with its sequence number, then you can press +/− button to add/delete a preset, when you want to modify the preset you can press SET button to confirm your modification. For different cameras, they have different commands to open and set, so you can choose the call mode in the drop-list for different cameras.

Home position

You can set a home position for the PTZ. When there have no PTZ actions after the setting time system will call the PTZ to the home position.

Tour preset

In this section you can set the tour schedule. First you can choose a group, and then set the track for this schedule; you can press + / − button to add/delete a preset to it. After you choose the preset name you can set the time to keep on.

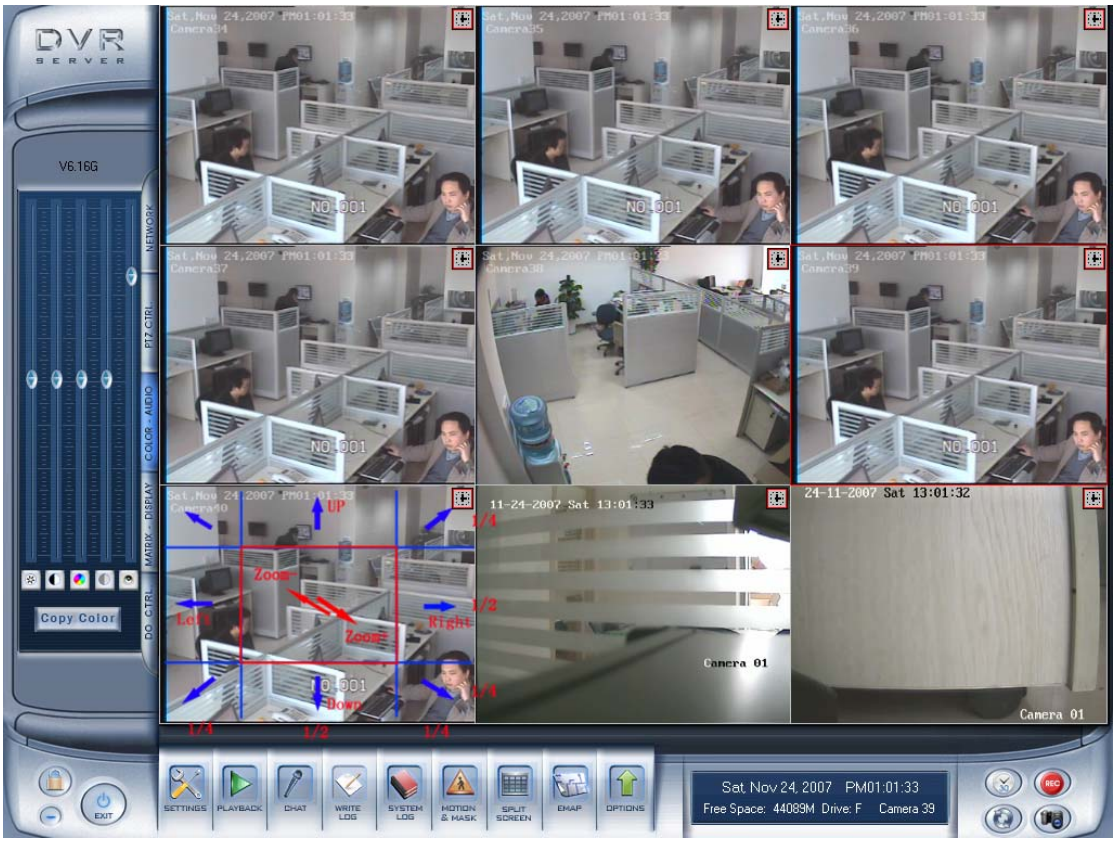
(2) Preset call

When you select this function, system will show all the preset names you set in Preset Setup menu; you can click one to move to it.

(3) Preset Tour

When you select this function, system will show the entire tour groups you set in Preset Setup menu; you can click one to execute it.

7.Control PTZ via video window



On the Image 3, each rectangle area is the effective area of every action. Arrow denotes the direction of the action. Pressing and dragging the mouse to the corresponding area can control the PTZ.

1.2.7 Color and Audio adjustment

① Press the first button and drag to adjust the brightness of the image that you selected, and you can resume its default value by pressing .

②Press the second button and drag it to adjust the contrast of the image that you selected and you can resume its default value by pressing .

③Press the third button and drag it to adjust the hue of the image that you selected, and you can resume its default value by pressing .

④Press the fourth button and drag it to adjust the saturation of the image that you selected, and you can resume its default value by pressing .

⑤Press the fifth button to switch sound of the audio that related to the image you selected and drag the bar to adjust the volume, and you can resume its default value by pressing .

Copy Color To: By pressing the Copy Color button to copy the color and

audio adjustment in this camera to the other.

1.2.8 Matrix & display

This panel includes matrix group and display group. Each group includes 16 numeric buttons; each button denotes one type of matrix or display. This will describe in System setup.

1.2.9 Do Control

Press number to open/close alarm device relay switch manually.

Chapter2 Local setup

Click in the main system screen to enter the DVR local system setup. It includes 7 types configuration setup (in the bottom of the interface):

System setup

Camera setup

Sensor setup

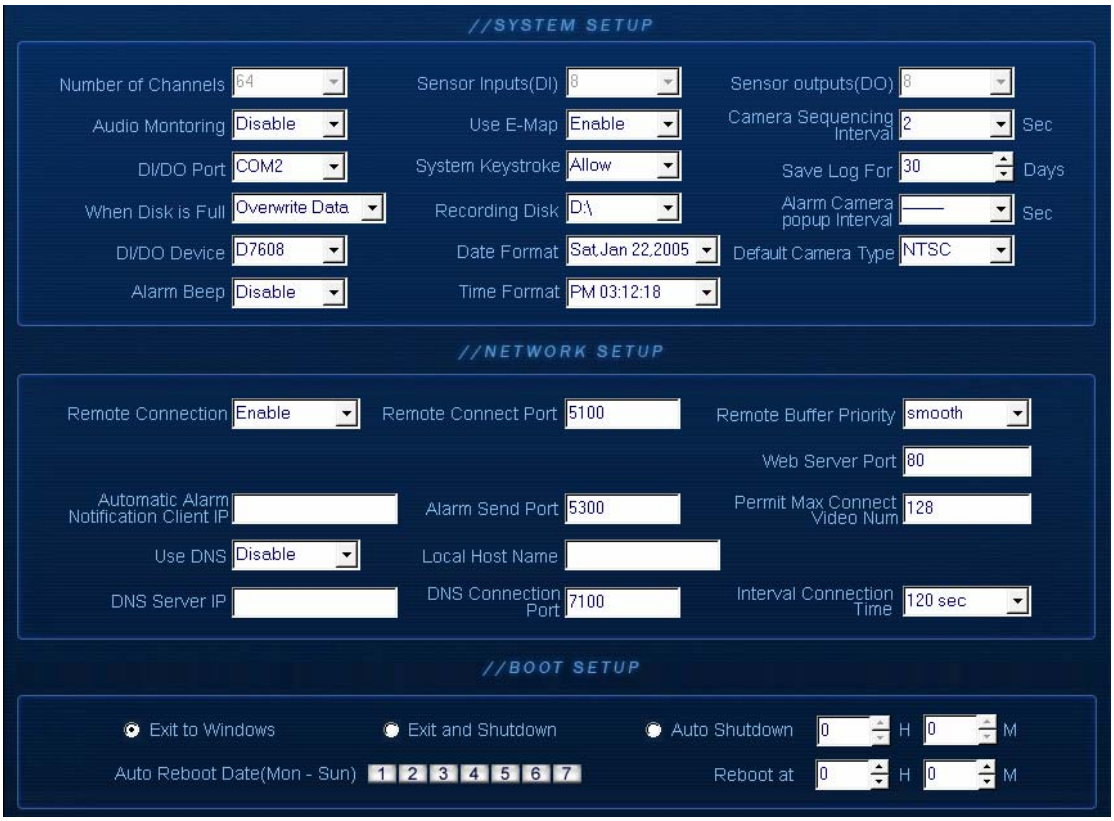
PTZ & linkage setup

Email setup

Matrix & display setup

User setup

2.1 System setup



2.1.1 System setup

【**Number of Channels**】Display total channels of.local board card, the number of IP Camera is not included. For IP Camera, you should set it remotely in IP Camera setup.

【**Sensor Input(DI)**】 Display number of sensors (DI).

【**Sensor output(DO)**】Display the number of alarms(DO).

【**Audio Monitoring**】Select real-time monitoring audio or not.

【**Use E-Map**】Select use Electron Map or not.

【**Camera sequencing interval**】Set auto-split changing interval time.

【**DI/DO Port**】Select sensor/alarm driver connecting port, it must be different from PTZ Port. If you do not use alarm input, you can close this function. To avoid conflicts to the PTZ port, you should set and use the different ports for these two functions.

【**System Keystroke**】System keystroke. When it is enable, functions of some system keys will be disabled (Ctrl+Alt+Del included).

【**Save Log for() Days**】Log save days(max 100 days).

【**When disk is full**】Select record mode when there is not enough HDD free space. If select "Overwrite data", DVR system will delete the recorded data of the oldest day automatically to free HDD space for new record. If select "Stop recording" DVR system will stop recording and give a warning message

Notice: each disk will reserve 1000M space.

【**Recording Disk**】Select the first disk from which the DVR system saves data. The previous disks of this one will not be used to record and it will not be checked by the system. When the capacity of HDD is not enough or there has some mistakes while recording, system will inform the failure of recording and the corresponding camera will stop to record.

【**Alarm camera popup interval**】Set the interval of alarm camera, if you select"—",you can't select function "Start alarm popup".

【**DI/DO Device**】Select receive alarm device type. When you change the type of alarm device, you should reboot the system to update the device information in DI/DO control panel.

Note: Currently, system support following NV serials DI/DO devices: NV7608, NV7609, NV7616, NV7616B, NV7632 and NV7632B. NV7632 includes two NV7616 (or combination of NV7608 and NV 7616), and NV7632B includes two NV7616B. When you select these two selections you must set their decoder address as 1 and 2, and they should connect with PC through RS 485 converter after they connect parallel with each other.

【**Date Format**】Select the way to display date. It decides the date display mode of DVR system, including the information panel on the main screen, the date panel of the playback window and OSD date in video.

【**Alarm Beep**】Select disable or enable from drop-down list. If select "enable", when there is an alarm, system will make beep voice.

【**Time Format**】Select time format from the drop-list. After you change the format it will affect the OSD format, information in information display panel and file lists.

【**Default Camera type**】Set the default mode of video from PAL and NTSC.

【**Grab picture save to**】Save the pictures to the files,the default file is D:\Grab\

2.1.2 Network setup

【**Remote Connection**】Select using network or not. If select "disable", it will not permit any client connect this DVR system;

【**Remote Connect Port**】Select remote connection port for Clients.

【**Remote buffer Priority**】There are three items selected. " smooth" demands the system have large buffer. " realtime " demands there have enough bandwidth. Otherwise, the data off and on when it is sent from the network.

【**Automatic Alarm Notification client IP**】Assign a network client to receive alarm message when there is an alarm. The alarm channel image will auto display in the client software. But user must be sure that client is running on that IP address.

*Note:

Alarm auto connection to IP is used to input alarm automatically. When sensor, normal or motion record is set to input and there is IP address, the system will check if the client has connected with this system. If there is no connection, the system will try to connect with it through Port 5300(preset). While it cannot be connected, the system will keep trying till the connection is OK. So please ensure that your client's program is in use, Port 5300 is listening and the network is in good condition. If not so, the system will not be stable.

【**Alarm Send Port**】This is the alarm message connecting port, which is used to send alarm from DVR Server to Client.

【**Web Server Port**】The IE client connecting port. Default value is 80 for http access; but for some windows XP edition, it shields 80 port. In this case, user should modify this port to other port, such as 1280. After that, user must reboot DVR server, then user can access DVR server via IE Client like this: http://IP: 1280 (IP can be a static IP or dynamic domain name).

【**Use DNS**】 Select use DNS or not, support dynamic IP.

【**Local Host Name**】Input the name description for DNS Server identification.

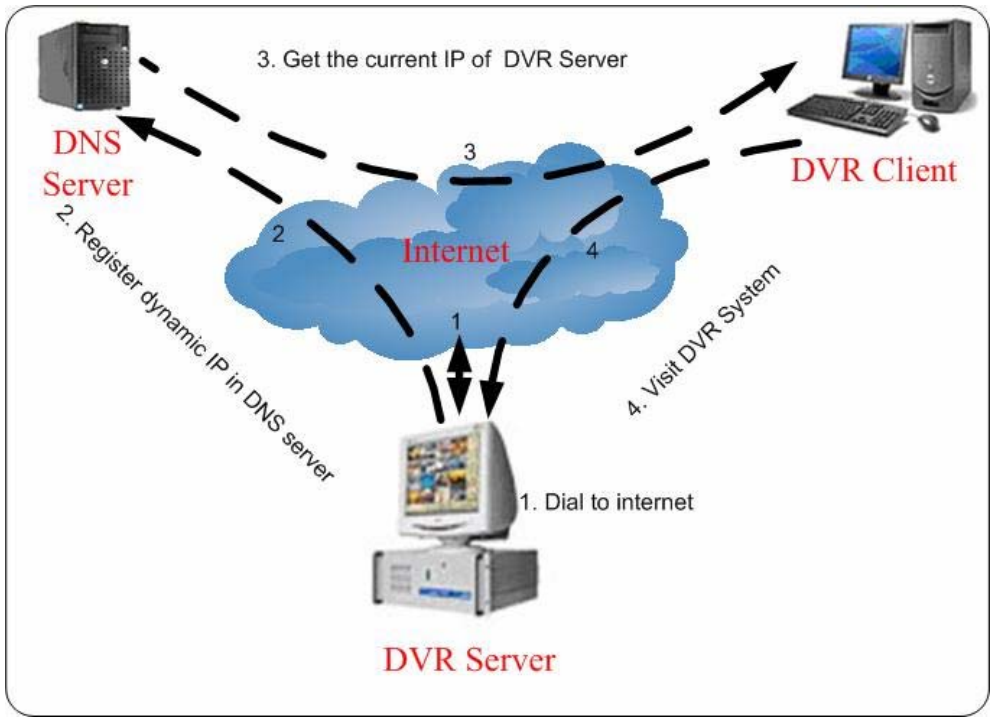
【**DNS Server IP**】DNS server host IP.

【**DNS Connection Port**】DNS server host port ,it is used to connect

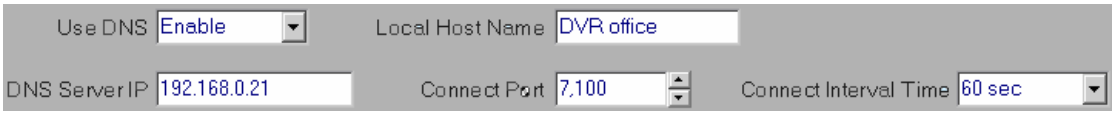
DNS server.

DNS server work mode:

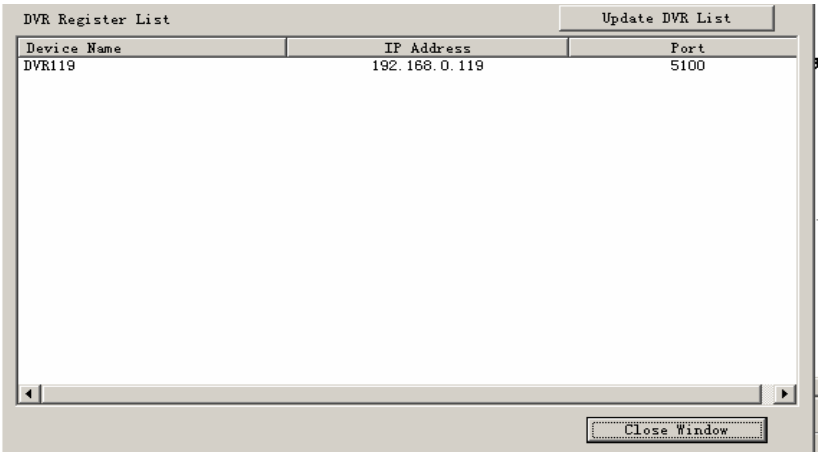
If it is require, please get DNS server software from developer.



1. If your DVR is dynamic IP, you should set your DVR system as follow:



2. DNS server will get domain name and current IP of your DVR, NVR Client can connect DVR server through this domain name.



3. NVR Clients get IP of DVR through DNS server according to its domain.

4. NVR Clients visit DVR through the IP that get from DNS server.

【Interval Connection Time】 Set the interval time to connect DNS automatically.

【Permit Max Connect Video Num】The maximum number of video that permit to the client to connect the DVR server. The number can select according to the network bandwidth. The maximum is 256. For example: one DVR server own 2Mbit network bandwidth, if all video channel compress base on CIF resolution (max data bit rate is 500Kb).To get better video effect, we can set 4 as the permit max connect video number;

2.1.3 Boot setup

【Exit to Windows】 User can exit program and back to windows desktop.

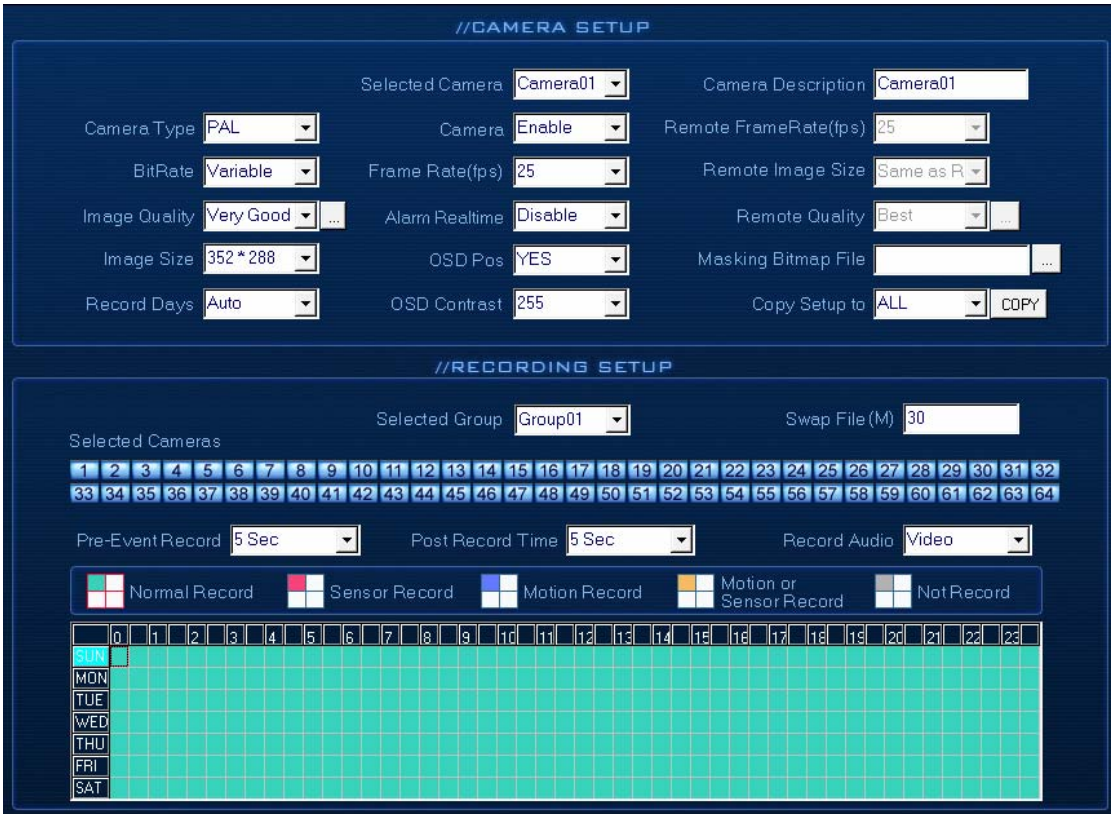
【Exit and Shutdown】User can exit program and shut down computer.

【Auto Shut Down】Set the time to shut down the computer .

【Auto Reboot Date(Mon-Sun)】Select auto reboot date.

【Reboot at】Set auto-reboot time.

2.2 Camera setup



2.2.1 Camera setup

【Selected Camera】 To set the parameters for a camera, select the camera from the drop-down list. The cameras you can select are only the cameras of the local board card, IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【Camera Description】 Input the description for easy identification. osd text can support any language，it can put any language in camera description edit then press the button to set proper color (it do not support white).

【Camera Type】 Select camera type from drop-down list. Users can choose from PAL and NTSC.

【Camera】 Enable or disable selected camera.

【Remote Frame Rate(fps)】 Set the frame rate of the client.

【Bit Rate】 Set recording mode. Variable Bit Rate (VBR) or Constant Bit Rate (CBR) Recording.

VBR allows each frame to be recorded at a dynamic bit rate depending on the image complexity, activity and color.

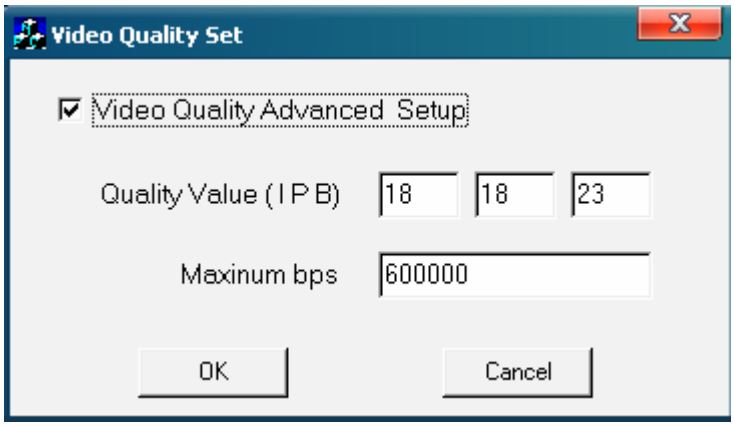
CBR allows each frame to be recorded at fixed bit rate, regardless the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【Frame Rate(fps)】 Set the recording rate for selected camera. For Frames per Second (fps), the frame rate should be from 1 to 30 fps. While image size is set "704*576", the frame rate should be set around 1 to 15 frame.

【Remote Image size】 Select image resolution to be transmitted to clients. When you set the **【Image Size】** as 4CIF(704*576), this configuration is not available for HC series card, program will select it as CIF automatically because DVR board does not support dual stream when it records with 4CIF resolution.

【Image Quality】 Sets the quality of the image to be recorded. Select from Poorest, Poor, Medium, Very good and Best.

Click this button to make advanced setup for video quality, you can set I B P frame and maximum bit rate.



(Note: If you don't familiar with those features, we advise you not to revise them)

Recommend setup:

For CIF:

Image	I frame	P frame	B frame	Max bps
Best	12	12	17	900000
Good	15	15	20	750000
Medium	18	18	23	600000
Low	21	21	26	450000
Lowest	24	24	29	300000

For DCIF:

Maxbps = (Maxbps/3)*5 Note: Maxbps is the CIF's value with the same configuration(I P B)

For D1:

Maxbps = (Maxbps/3)*8 Note: Maxbps is the CIF's value with the

same configuration(I P B)

【**Alarm Adjust fps**】Select enable or disable, If select "enable", when alarm occurred, the camera will record with real-time frame rate(25fps or 30fps) ,even though 【**Frame Rate(fps)**】 has been set other values(eg:5fps).

【**Remote Quality**】Set the image quality of the clients to be recorded from Poorest, Poor, Medium, Very good and Best.

Click this button, users can make advanced setup for video quality of client end, also can setup I B P frame and adjust maximum bit rate according to the network bandwidth.

【**Image Size**】Set the resolution for local record. There is an item "704*576(12fps)", each channel can be set "704*576", but not real time, system will select frame rate automatically around to 12-15fps。To get best effect, you should set the resolution of local record according to your CPU configuration. There is a referenced configuration sample as below:

Computer configuration：

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB,

Memory: 512MB

HDD: 120G (IDE)

Recommended resolution configuration for different channels:

DVR Board Channels	Recommended Resolution	Remark
64	CIF	Continuous recording is not recommended
48	CIF	
40	DCIF	
	CIF	
32	DCIF	
	CIF	
24	DCIF	
	CIF	
Less or Equal to16	4CIF	
	DCIF	
	CIF	

【**OSD Date**】Select whether display the OSD date on the screen or not. When you select "Not", the date will not display on the screen of corresponding channel.

【**Masking Bitmap File**】Watermark function ,the logo picture must be edited ad 128*128 pixels file size and saved as bmp format.

【**Record Days**】This section allows users to determine how long the

record data of each camera should be kept by the system. The maximum duration for on-line storage is 120 days. Users can select exact number of days, or can select "auto" mode. If select "auto", system will auto-delete the recorded data of the earliest days when there is no enough space.

*NOTE: If there is no enough space of HDD, system will delete the record data according to the length of saving time of each camera. Eg: there are four cameras, the 1st camera save 2 days, the 2nd camera save 5 days, the 3rd camera save 10 days, and the 4th camera we will set "auto" mode. If there is enough space, the 4th camera's record data will save in HDD, while there are no enough space, system will delete data automatically. If the 4th camera's record data has been saved more than 10days, system will delete the 4th camera's data, if the 4th camera's record data has been saved less than 10 days, but the 3rd camera's data is more than 10 days, system will delete the 3rd camera's data. So, even if you set the 3rd camera's record data saving 10 days, the data that is saved less than 10 days become possible. System will delete the record data from the earliest date.

【OSD Contrast】 Set OSD displaying brightness & position. An "auto" item in OSD Contrast's drop-down list will make OSD suit the background's color automatically.

【Copy Setup to】 Set other cameras with the same setup.

Notes:

1. If less than 64 cameras are used, many of them can't provide pictures sometimes and an alarm will appear (beep to tell you some video information is missing). Set the camera with no picture disabled and the alarm will disappear. When you want to use them later, set as enabled again.
2. The unit of the swap file should be MB. The range is 2 to 50.
3. Set the position and contrast of the date shown on the screen. Sometimes the date cannot be clearly seen for its color is similar with the background. You can change its position or color when this happens.
4. Image size is the format used when recording. Remote image size is the format used when these images are transmitted to client sides.
5. Remote Frame Rate, Remote image size and Remote Quality are the parameters of the client side. ①When the server's image size is set as "704*576(12fps)", these three items are no effect, and client's parameters will be same as server. ②When the server's resolution is set as others (except "704*576(12fps)"), if Remote image size is set as "Same as Rec", Remote frame rate (fps) and Remote Quality are no effects, the client's parameters will be same as server.
6. Variable digital rate table

Image quality	record environment	occupied disk space (/com/hour)
Poorest	low action, indoor	about 45Mb
	high action, road	about 95Mb
medium	low action, indoor	about 70Mb
	high action, road	about 180Mb
best	low action, indoor	about 160Mb

	high action, road	about 320Mb

Invariable digital rate can't improve image quality but it is helpful for calculating disk space. Variable digital rate recording is recommended.

2.2.2 Group setup

Note: If you set a camera into several groups, only the last setup is available.

【Selected Group】 Select group number.

【Swap File】 Set recorded video file size saved in HDD. For easy backup, don't set too large file size. Up to 512M can be set, but 30M is recommended.

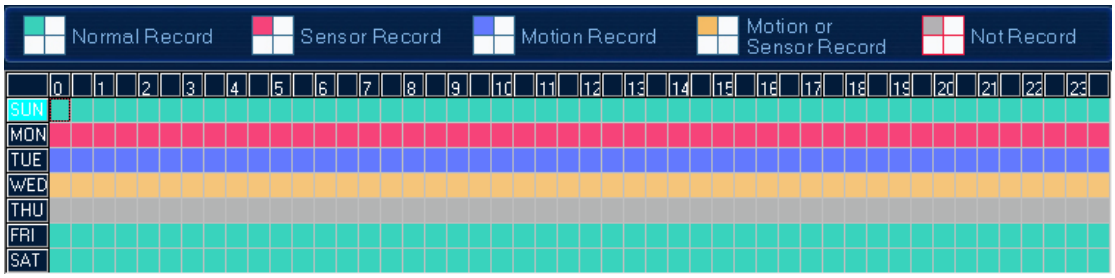
【Selected Cameras】 Select the camera that have the same work mode with group. Cameras include local board card and IP module

【Pre-Event Record】 Select the start time of record when there is an alarm. When DVR system is in Motion Detect mode or Sensor Detect mode, it can record video before the alarm is trigged.

【Post Record Time】 Select the end time of record when there is an alarm. When the system is in Motion Detect mode or Sensor Detect mode, it can record video after the alarm end.

【Record Audio】 Selects whether program record audio data or not, this setting is not available for IP Cameras, for stream type of IP Camera, you should set it remotely in IP Camera setup.

Recording Schedule Setup (setting for cameras of local board cards and IP Cameras.)



Tips: One block of pane means half an hour. Firstly click record mode icon, then click schedule diagram, hold down the mouse and move it to select large area (Drag & Drop).

1. Normal Record (Green): DVR System is always recording video. (e.g. Sun. Fri. Sat.)

2. Motion Detect (Blue): DVR System begins to record video only when it detect moving object. (e.g. Mon.)Click "Motion Detect" icon, then select your schedule time by drag & drop. For example, the above picture means: on Monday it is motion detect record, on

Sunday it is normal record, but on TUE, WED and THU from 3:30 to 11:00 it is sensor record, from 14:00 to 22:30 it changes to both motion detect record mode and sensor detect record mode, other time is normal record.

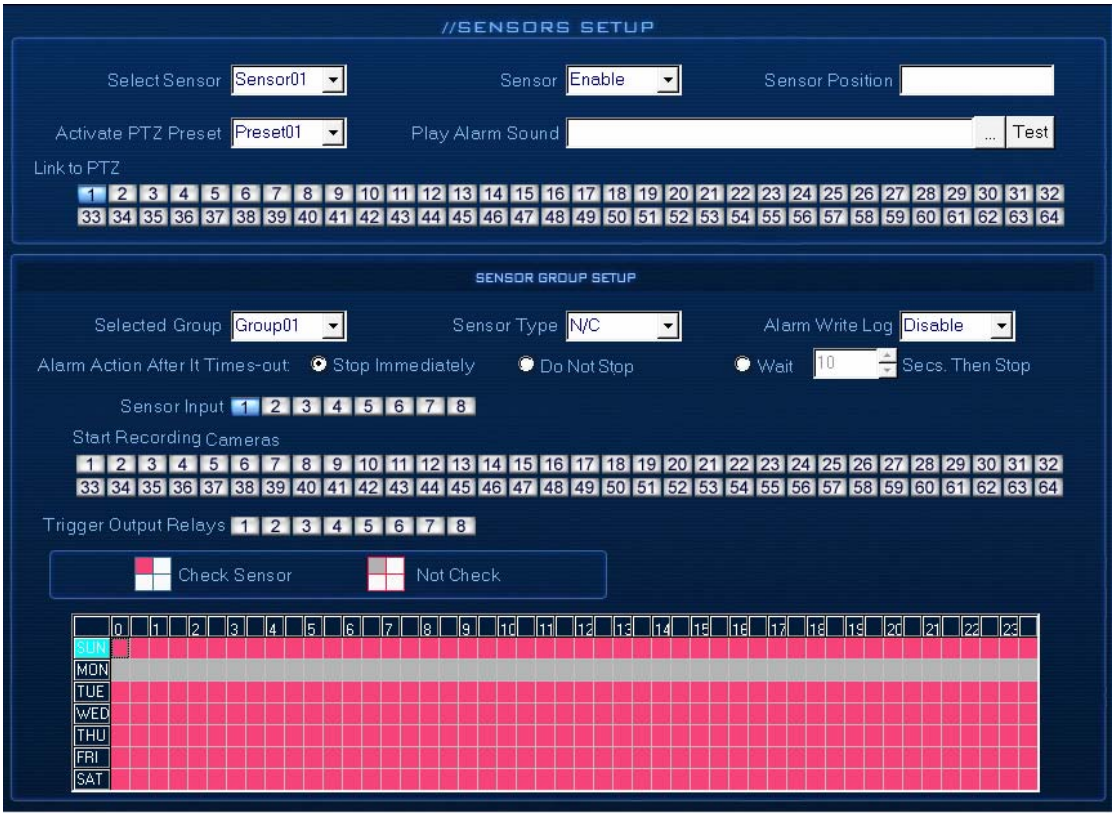
3. Sensor Record (red): DVR System begins to record video only when there is a sensor alarm. (3:30 to 11:00 in Tue. Wed. Thu.)

Note: The time setup must be correspond with Check Alarm setups in Sensor setup otherwise it can 'ot work properly.

4. Motion or Sensor Record (yellow): Combine with above **2** and **3** function.

5. Not Record (gray): DVR System does not record video.

2.3 Sensor setup



2.3.1 Sensor setup

【Select Sensor】 Select the sensor from the drop-down list in order to set the parameters for it.

【**Sensor**】 Select this sensor port to use or not.

【**Sensor Position**】Enter the description for easy identification.

【**Activate PTZ Preset**】 Select linkage of Speed Dome preset number . Speed Dome will move to this preset number automatically when there is an alarm. (Speed Dome installation needed).

【**Play Alarm sound**】 Select a sound of .wav for a sensor, if there is an alarm, the sound file will play.

【**Link to PTZ**】Select camera that is related to this sensor alarm.

2.3.2 Group setup

Sensor group setup is very similar to the group setup of camera recording.

【**Selected Group**】Select group number.

【**Sensor Type**】Select NC or NO alarm type.

【**Alarm Write log**】Select write alarm log or not.

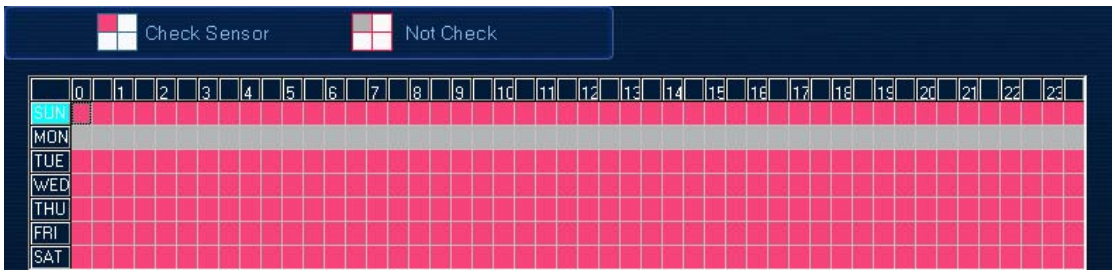
【**Alarm Action After It Times-Out**】Select system alarm linkage mode when an alarm stops. "Stop Immediately" means the system stop alarm immediately after the alarm driver stops an alarm. "Do Not Stop " means the system don't stop alarm after the alarm driver stops an alarm. "Wait" means the system will stop alarm at your setting time after the alarm driver stops an alarm.

【**Sensor input**】Add sensor to selected group.

【**Start recording cameras**】Set cameras that to be related to this sensor group. They will start recording and connect remote network client automatically when there is an alarm**.** The cameras just include the cameras of local board card; IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【**Trigger Output Relays**】Add alarm devices (alarm out port) to this group such as siren, light. All connecting devices will send alarm message when there is an alarm.

Schedule Setup (Example for below figure)

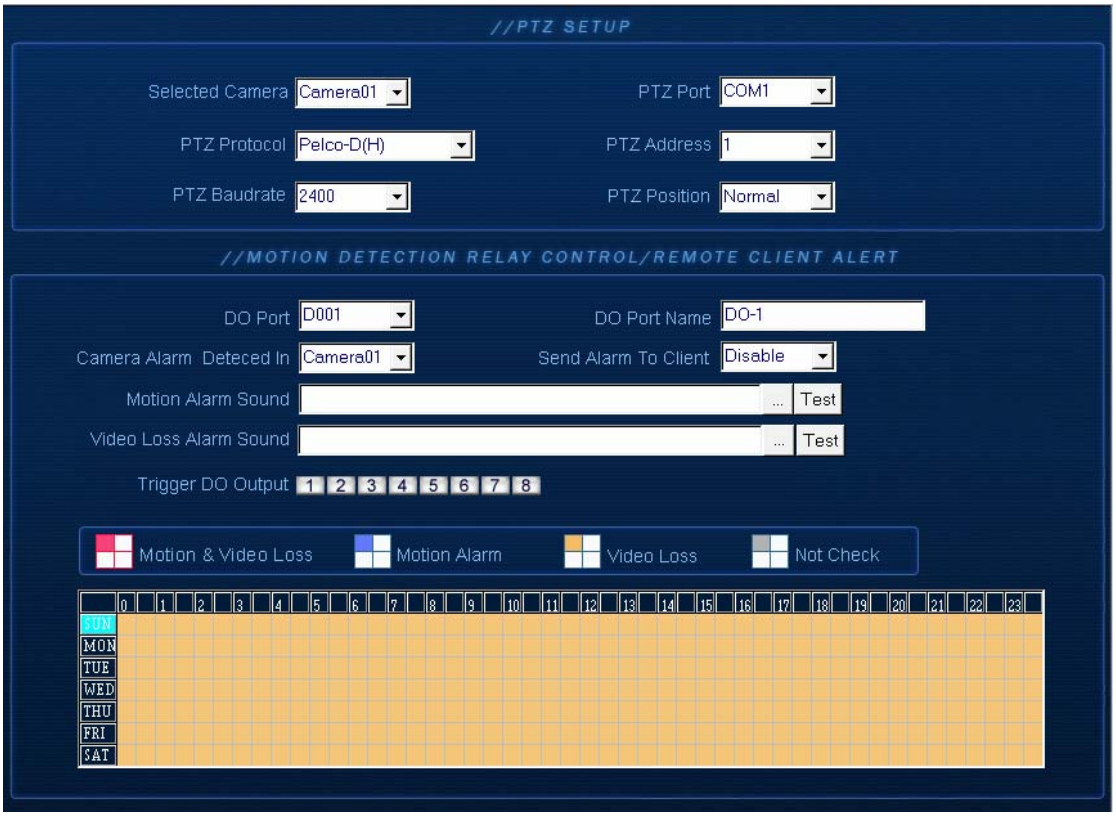


1. Check Alarm (Red): DVR System responds with sensor during this time. (00:30 to 12:00 from Sun. to Sat.)

2. Not Check (gray): DVR System doesn't respond with sensor in this time.

Note: If you set a camera in several groups, only the last setup is available.

2.4 PTZ & Linkage setup



2.4.1 PTZ protocol setup

【**Selected Camera**】Select the camera from the drop-down list to be set the parameters. The cameras just include the cameras of local board card; IP Cameras are not included. For IP Camera, you should set it remotely in IP Camera setup.

【**PTZ Port**】Select PTZ connecting port, when you do not use PTZ port, please choose "------".

【**PTZ Protocol**】Selects the PTZ protocol for the PTZ camera.

【**PTZ Address**】Set the camera ID number of the PTZ camera being controlled.

Note: The PTZ camera has a dipswitch to set the PTZ address. The PTZ camera ID number must be matched with the number of this dipswitch.

【**PTZ Baud rate**】Select PTZ Baud rate for the PTZ camera.

【**PTZ Position**】Select the installation mode of the PTZ according to its

installation mode.

Notes:

1. PTZ position will influence PTZ control. E.g.: if you set it as obverse and press left, then it will turn left. If you set it as inverse and press left, then it will turn right.
2. If there is (H) after the PTZ protocol, it has the high speed of Preset function. If there is no (H), it only has ordinary functions.
3. The PTZ address will be sent as a message option. Take care that some address begins from 0. That is to say，when the address number is 1, the real address is 0. So we must set it according to their relations.

2.4.2 Motion detection relay & remote client alert

【DO Port】【DO Port Name】 Select a DO port and set its name to identify the various DO port. It will be shown as a tip when the mouse moves closely or above the DO button in DVR Server or NVR Client.

【Camera alarm detected In】 Selects camera to be set from dropdown list.

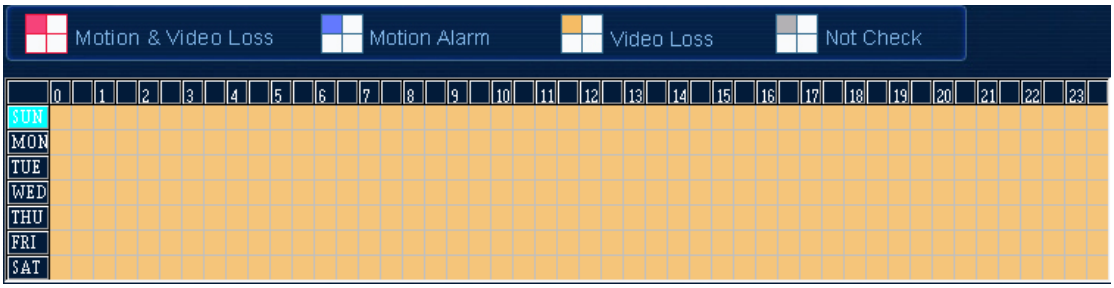
【Send Alarm to client】 Select sending alarm to network clients or not.

【Motion Alarm Sound 】 Press ··· button to selects a ".wav" sound File for a motion alarm. If there is a motion alarm, the sound file will be played. Also, you can test it by pressing Test button.

【Video Loss Alarm Sound 】 Press ··· button to selects a ".wav" sound File for a video loss alarm. If there is a video loss alarm, the sound file will be played. Also, you can test it by pressing Test button.

【Trigger DO Output】 Selects which DO ports will be triggered by above camera alarms.

Schedule Setup (setting for cameras of local board cards, IP Cameras are not included.)



1. Motion & Video Loss (Red): DVR System responds with Motion

Detection and Video Loss alarm in specified time.

2. Motion Alarm (Blue): DVR System only responds with Motion Detection alarm in specified time.

3.Video Loss (Yellow): DVR System only responds with Video Loss alarm in specified time.

4.Not Check (gray): DVR System doesn't respond with any alarms in specified time.

Note:

Check Alarm Setup (including Motion & Video Loss, Motion Alarm and Video Loss) does not take affection to Motion Detect Record. It is only alarm setup. It takes affection to motion detect alarm out and motion detect alarm to network.

2.5 E-mail setup

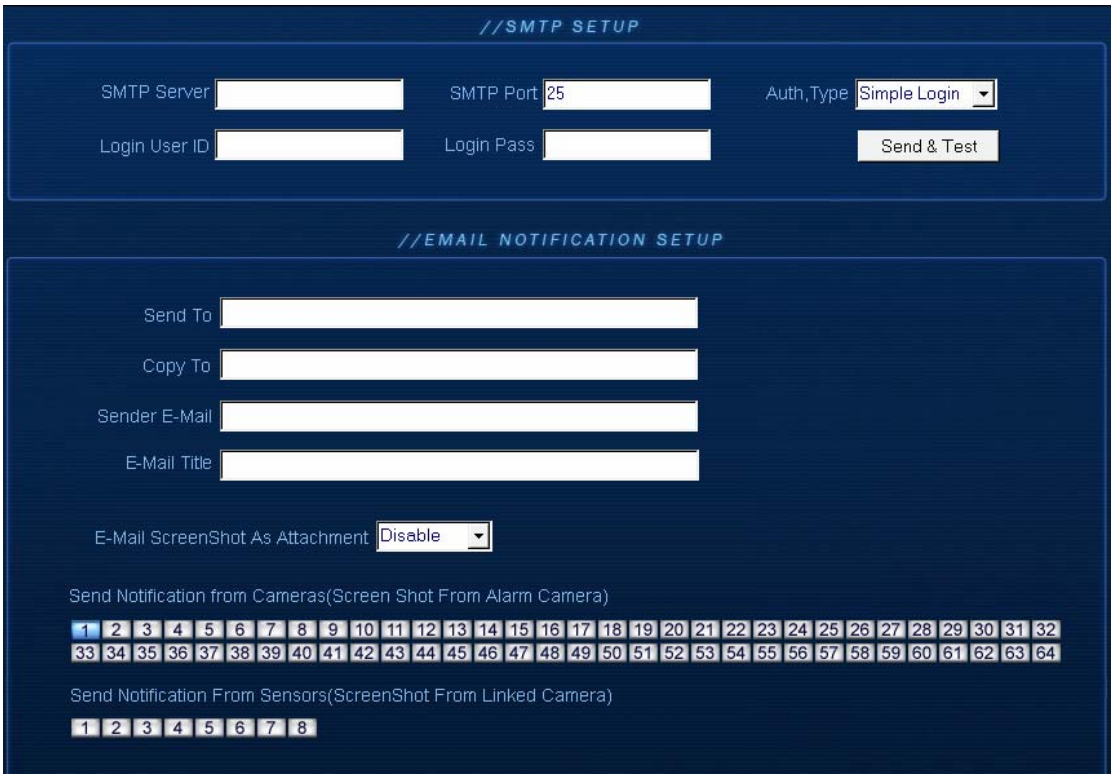
Press button to enter E-Mail setup:

Note: Before you set the E-mail setup, you should pay attention to several points as below:

The alarm to trigger E-mail sending includes two types: Camera-related alarms (Motion detection alarm & Video loss alarm) and Sensor-related alarms.

For Camera-related alarms, you should set Motion detection area & Cover setup and to check alarm in Motion detection relay & remote client alert. For Sensor-related alarms, you should set to check sensor and select cameras to be triggered in Sensor setup.

When you enable system capture image as attachment of E-mail, the system will capture a still picture of camera for Camera-related alarms or related camera for Sensor-related alarms to be sent as an attachment with E-mail.



2.5.1 SMTP setup

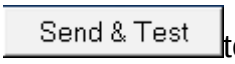
【SMPT Server】SMTP server address, eg: mail.jstDVR.com,

【SMPT Port】SMTP listen TCP's port for connect request.

【Auth.Type】Logon mailbox, operator will select SMTP authentic type. Or select "simple login".

【Login User ID】Mailbox's ID.

【Login Pass】 Mailbox's password.

After user setup finished, can press 

to test the function.

2.5.2 E-Mail setup

【Send To】Set address of receiver.

【Copy To】Set another address of receiver to whom system sends E-mail.

【Sender Email】 Enter email address of sender.

【Email Title】Enter title of the E-Mail to be sent.

【Email Screenshot As Attachment】When there is alarm, the system will grab picture, operator can select whether send the picture as attachment

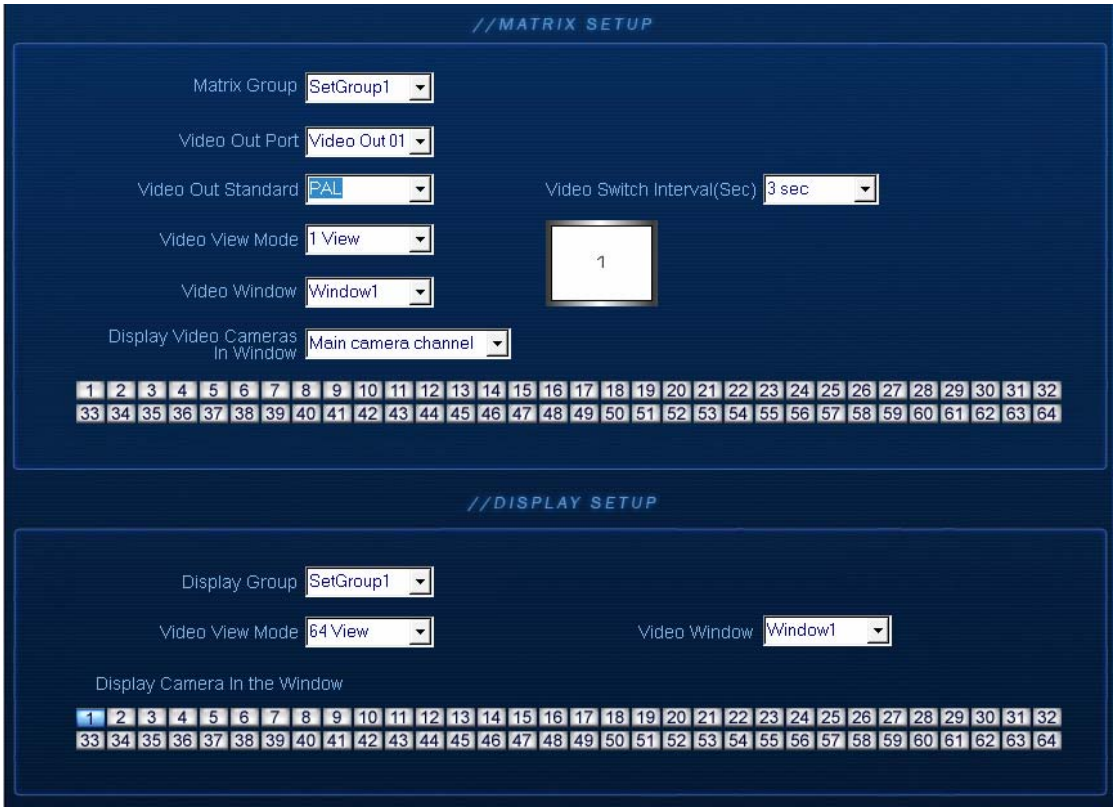
of the E-mail.

【Send Notification from Cameras(Screenshot From Alarm Camera)】 Operator can select the cameras, which will trigger to send E-mail when they have alarms. The cameras you can select are only the cameras of the local board card, IP Cameras are not included.

【Send Notification from Sensors(Screenshot From Linked Camera)】 Operator can select the sensor, which will trigger to send E-mail when they have alarms.

*NOTE: If send the grab picture as the attachment, you should check alarm of the camera or the sensor, and set "alarm send to network" to be enabled.

2.6 Digital matrix setup

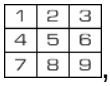
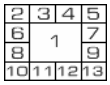
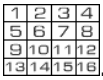


2.6.1 Matrix setup

【Matrix Group】 System operator can set a groups of video images to be sent out through matrix decode card, each group has different display mode. Up to 16 groups you can set.

【Video Out Port】 Select the output port of Matrix card that you want to set, the total number of channels is decided by Matrix Decoder card.

【**Video Out Standard**】Set Matrix video out standard, you can select from PAL and NTSC.

【**Video View Mode**】Select video output display mode, there are 1split , 2split , 4split , 9split  , 13split  and 16 split  .

【**Video Window**】【**Display Video Camera in window**】After selecting video split mode, there will have corresponding display video window, select one camera or several cameras to show in the window. For IP cameras, system use hard decoding, total channels of them are influenced by decoding channels. For different work mode (set in IP Camera list), the channels you can used is different, the available certain channels must be the first certain channels.

* NOTE: one camera is only showed in one window once.

【**Video Switch Interval(sec)**】Set interval that each window shows cameras circularly when there have more than one camera in it.

2.6.2 Display setup

【**Display Group**】 System operator can set a groups of cameras to display for fast preview, including its display mode and cameras. Up to 16 groups can be set.

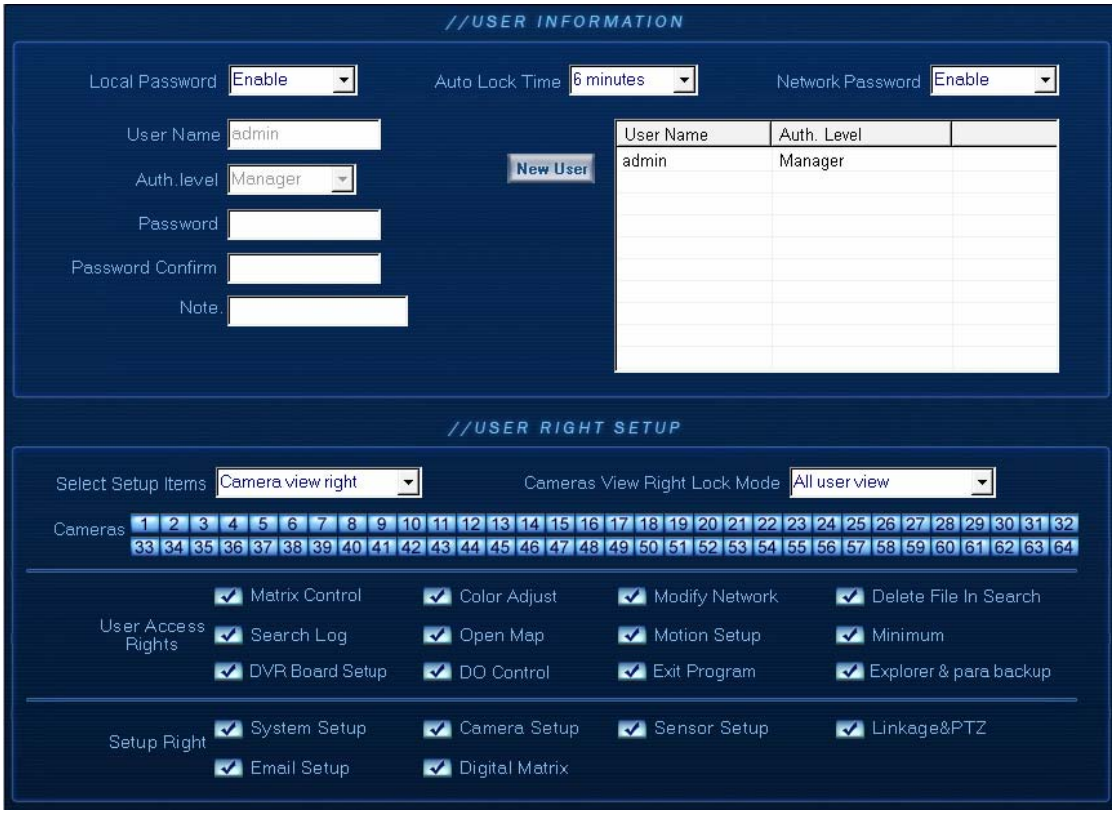
【**Video View Mode**】Set the split mode, the split mode is same as main window's display split mode. There are1, 4,9,13,16,20,25,28,33,36,40,49 and 64 partition mode.

【**Video Window**】【**Display Camera in the window**】After selecting video split mode, there will have corresponding windows, select one camera show in per window. The cameras include 64 cameras (the biggest of the system limitation), when the total channels (cameras of local board card and IP Cameras) are less than 64, some channels do not have image with black window.

* NOTE(1): One camera is only showed in one window once, but each camera can display any window discretionarily. E.g.: The 1st camera has been displayed in window1, and the 2nd camera has been displayed in window2. When change the 1st camera to be displayed in window2, the 2nd camera will be exchanged in window 1 automatically.

* NOTE (2):Digital matrix setup is not supported temporarily.

2.7 Password setup



2.7.1 User information

【Local Password】 Check to enable User Manage mode for local PC DVR, and activate the lock button in main window. Only authorized user can log into DG System at User Manage Mode.

【Auto lock time】 Select a time to enable system to lock automatically when there have no actions after this time.

【Network Password】 Check to enable User Manage mode for Client. When you enable this function, client must pass the authentication to connect with PC DVR.

【User Name】 Input new User ID in this box when add a new user to system.

【Arht. Level】 Select user type. Only Administrator can enter User Manage Window and have the right of user management.

【Password】 Set new user or selected user's password.

【Password Confirm】 Confirm password again.

【**Note**】Input your description of this user.

【**New User**】Press

button to edit the user you want to add in the 【**User Name**】blank. Input User Name, Note Name, Password, and Confirm Password. Select Manage Right (Administrator or Operator), and then click Add User to save.

【**Add User**】Up to15 users can be added to system except Admin. Click

icon to add new user you edited to user list.

【**Modify User**】Select a user from user list, then click

button to modify it.

【**Delete User**】 Select a user from user list, then click

button to delete it.

2.7.2 User right setup

【**Select setup items**】Select an item from the drop-list and then choose the cameras for the users. These items include【Camera View Right】, 【Camera Playback Right】,【Camera Audio Right】, 【PTZ Control Right】.

【Camera View Right】Select cameras can be viewed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to access all live images. To deny access, you can click the desired cameras button and the color will change from blue to gray (by default, user "admin" is super user, you can't modify its rights, it has entries rights).

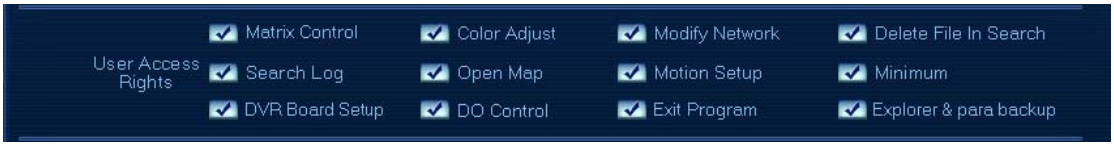
【Camera Playback Right】Select the cameras can be play backed by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to playback video data of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【Camera Audio Right】 Select cameras whose audio can be heard by the use you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to check audio of all cameras. To deny access, you can click the desired camera button and the color will change from blue to gray.

【PTZ Control Right】 Select the cameras that related PTZ can be controlled by the user you are setting. The cameras you can select include the cameras of local board card and IP Cameras.

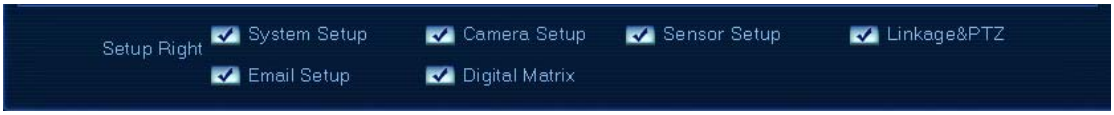
【**Operation Right**】Select operational tasks, granting or denying rights. Operational tasks are normally reserved for administrative, privileged

accounts. Operators are rarely granted rights to adjust camera color, exit program, explore files etc.



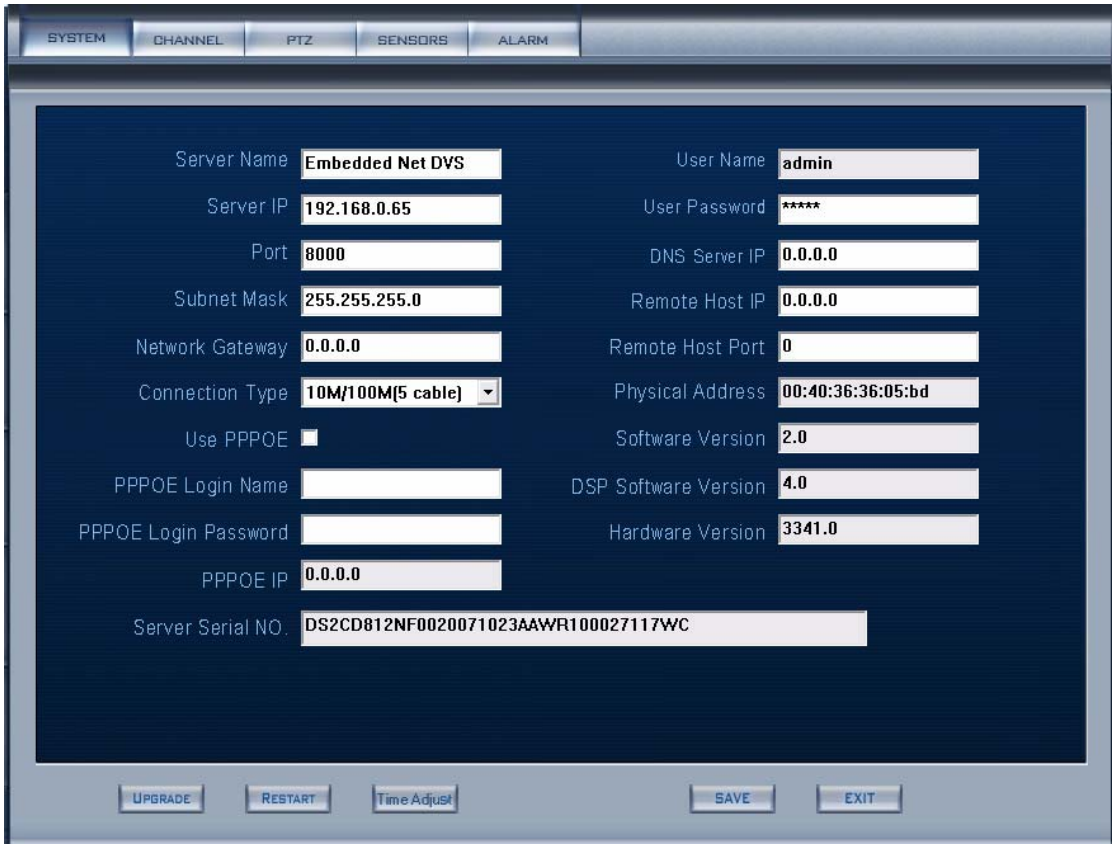
【Setup Right】

Select setup rights to grant or deny user privileges.



Chapter3 IP Camera Setup

Note: for IP camera setup, its alarm and related setup is only be available when you set remotely, the Local setup of PC DVR is not available for IP Cameras except Recording Schedule in Camera Setup



3.1 Functional buttons

There are 5 buttons in each page. They are Upgrade, Restart, Time adjustment, Save and Exit.

The system can upgrade to the server remote. Click this button, and select the right file.

Some setting will only come into effect after device reboots.

Adjust date and time of DVS or EMDVR. The new date and time will accordant with NVR client computer.

After setup is finished, click this button to save the setup.

Exit setup.

Remote setup for DVS including Server, Channel, PTZ, Sensor and Alarm.

3.2 Server setup

Press

button to set server parameters remotely:

In the server window, some blanks' background are gray. Those parameters are read from foreside server, you can't modify them. Other blanks whose background is white, you can set them remotely.

【Server Name】 Enter the name description for easy identification. This name delegates the foreside server. If use DNS to get IP, this name will be used.

【IP configuration and related】

【Server IP】
【Port】
【Subnet Mask】
【Net Gate】
【Net Cable Type】

These are network configuration; you can set LAN or Internet IP according to your need.

【Connection configuration and related parameter】

【If use PPPOE】
【PPPOE Login Name】
【PPPOE Login Pass】

If system uses PPPOE to connect with web, please select it and input the PPPOE login ID and password.

【User Pass】 Set the user password of DVS remotely, after that operation you should change the Login Pass to corresponding value in Add / Modify server. Otherwise, you can't connect the DVS correctly.

【DNS Server IP】 If use DNS, input the DNS host IP address.

【Remote manage】

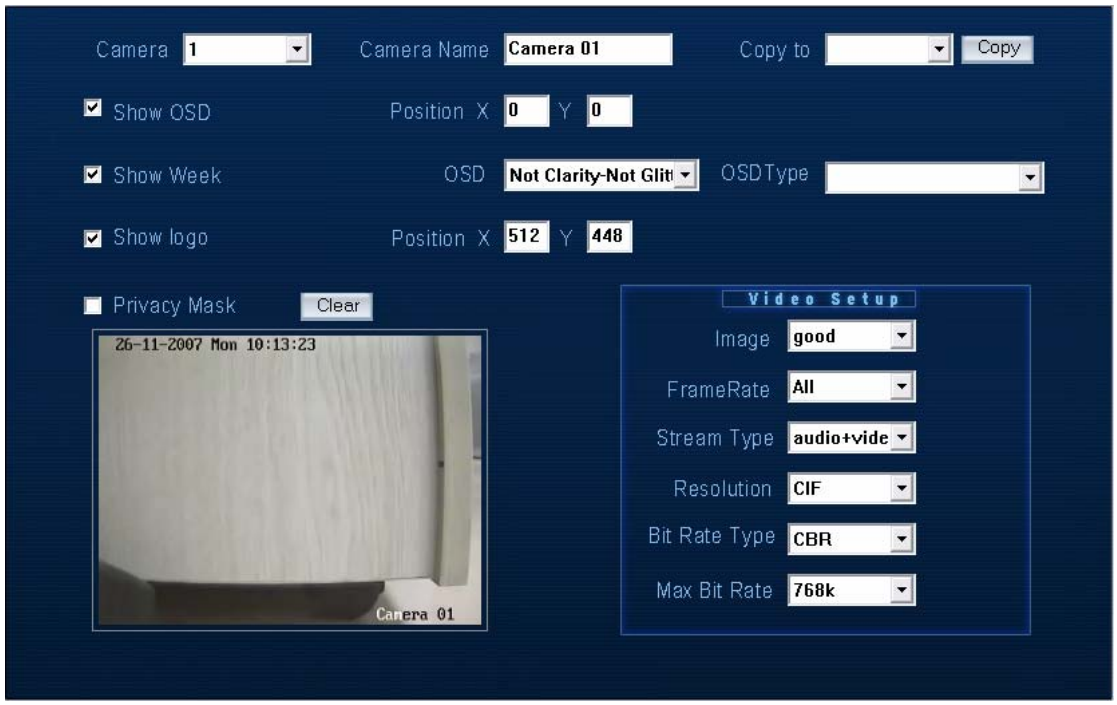
【Remote manage IP】
【Remote manage port】

Set the IP address and port of host server who will receive the message upload from foreside server

3.3 Channel setup

Press

button to set channel parameters.



This section contains the parameters to designate a name for every camera connected, to enable or disable show LOGO and OSD, and to set display type of OSD & LOGO as well as record resolution, record type, record quality and frame rate, etc.

【Camera】 Select the camera to be set from the drop- list.

【Camera Name】 Enter a name description for easy identification.

【Video setup】

【Frame Rate】Select the record rate of camera from drop-list.

【Resolution】Set the resolution at which the video files will be recorded. Choices are DCIF, CIF, QCIF, 2CIF and 4CIF. The higher resolution, the more disk space.

【Stream Type】Select video and audio or only video record.

【Image】Set the quality of the image to be recorded. Select from worst, worse, normal, good and Best.

【Bit Rate Type】Select bit rate type from Variable Bit Rate (VBR) and Fixed Bit Rate (FBR) record:

VBR range= Poorest, Poor, Medium, Good, Best.

FBR range = 45 Megabytes/Hour to 400 Megabytes/Hour.

【Max Bit Rate】Select the maximum bit rate for Variable Bit Rate (VBR) record.

【Show LOGO/ OSD/ Week】 If you check those box, system will show corresponding information on screen.

【Position】 Set the position of OSD or Logo by entering the X and Y coordinate directly.

【OSD】 Set the display attribute of the OSD & LOGO. There are four types display modes: Clarity-Glitter, Clarity-Not Glitter, Not Clarity-Glitter and Not Clarity-Not Glitter.

【OSD Type】 Select the type of OSD for the Week.

【Privacy Mask】 You can check this box to set the privacy mask on the below image directly, and you can clear some privacy masks by pressing

button.

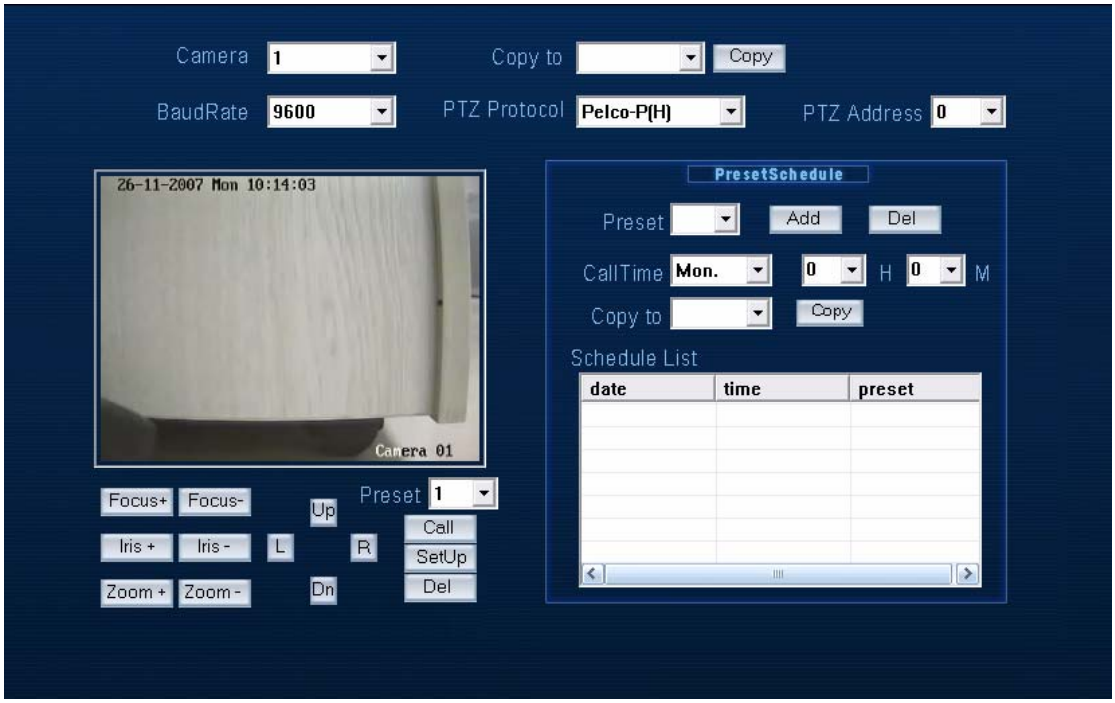
【Copy to】 After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

3.4 PTZ control

Press

button to set PTZ



In this screen, you can define the PTZ protocol and set the Preset Position as well as the plan to execute them automatically.

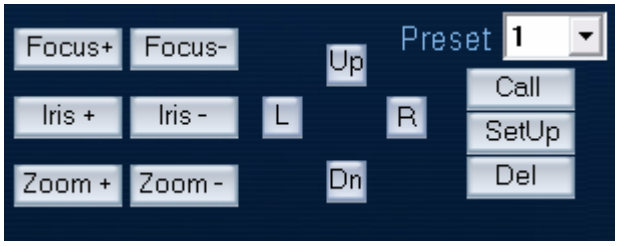
【**Camera**】Select the camera to be set from the drop- list.

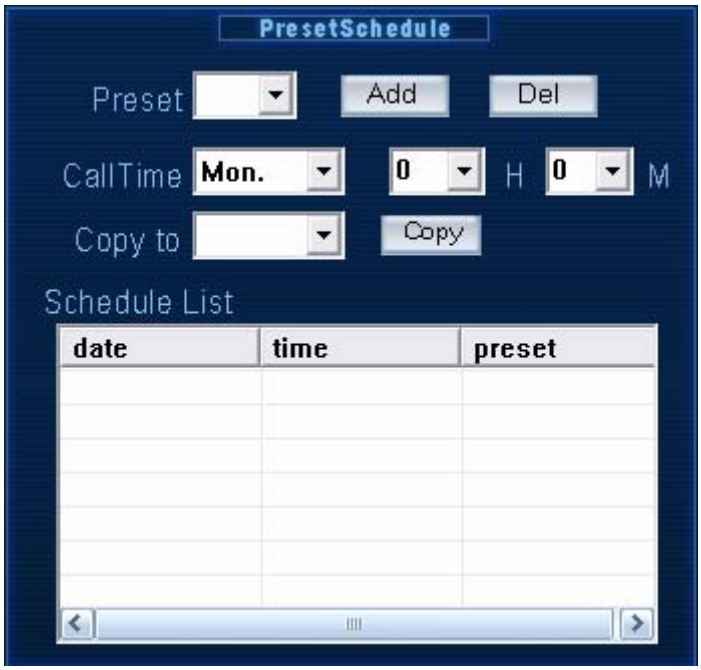
【**Baud rate**】Set baud rate according to PTZ protocol from the drop- list.

【**PTZ Protocol**】Select the communication protocol for the PTZ camera from drop-list.

【**PTZ Address**】Set the address of the decoder, which must be matched with the value of dipswitch in the PTZ.

【**Preset position & schedule setup**】Define preset position and set time to call preset position automatically. System can add and delete plan time.





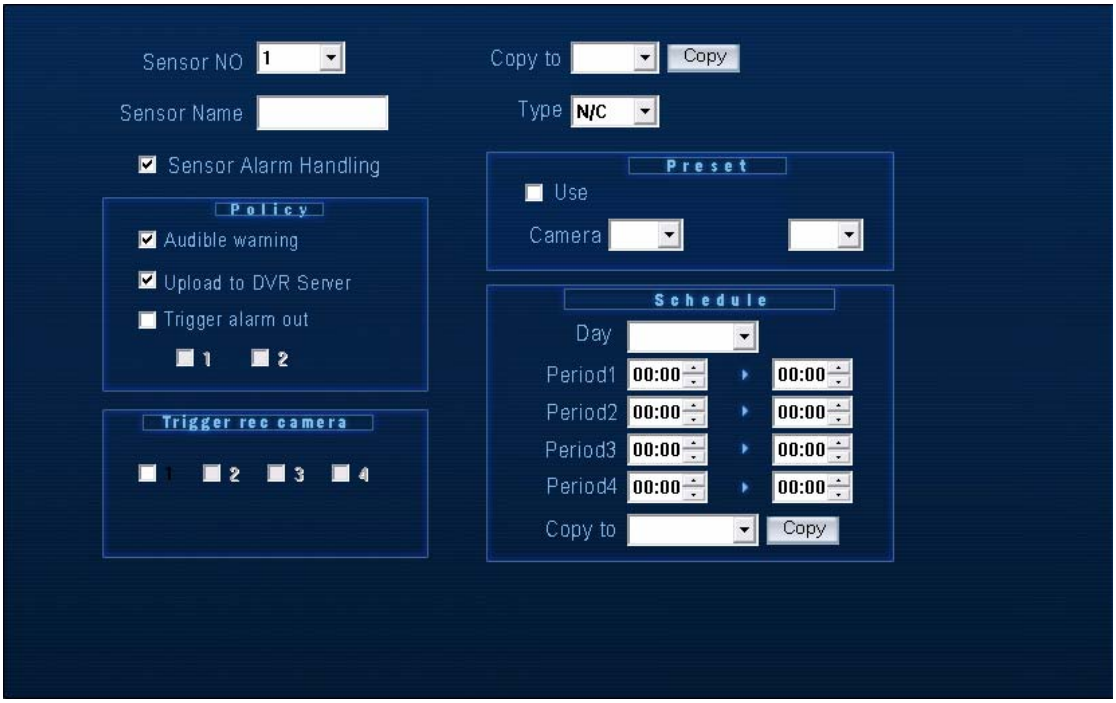
【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

3.5 Sensor setup

Press

button to set sensor parameters.



【**Sensor NO**】Select one sensor to be set.

【**Sensor Name**】Enter the name description of the sensor.

【**Type**】Select alarm type (sensor type) from "NO"(Normally Open) or "NC"(Normally Close).

【**Policy**】Selecting "Sensor Alarm Handling" firstly, handling policies will be available as follows:

Audible warning—Indicate the alarm with voice.

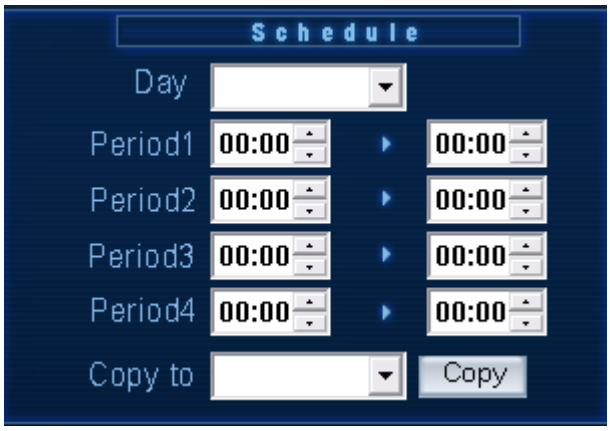
Upload to DVR server—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【**Trigger record camera**】Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【**Preset**】Set camera that will move to its one preset position when the alarm happened.

【**Schedule**】Set alarm input precaution time firstly, then set time segment according to the sequence. The time of each segment should not overlap the others and no skips are allowed. After the precaution time of a certain day is set, you can copy the parameter to other dates by select a day and press copy button.



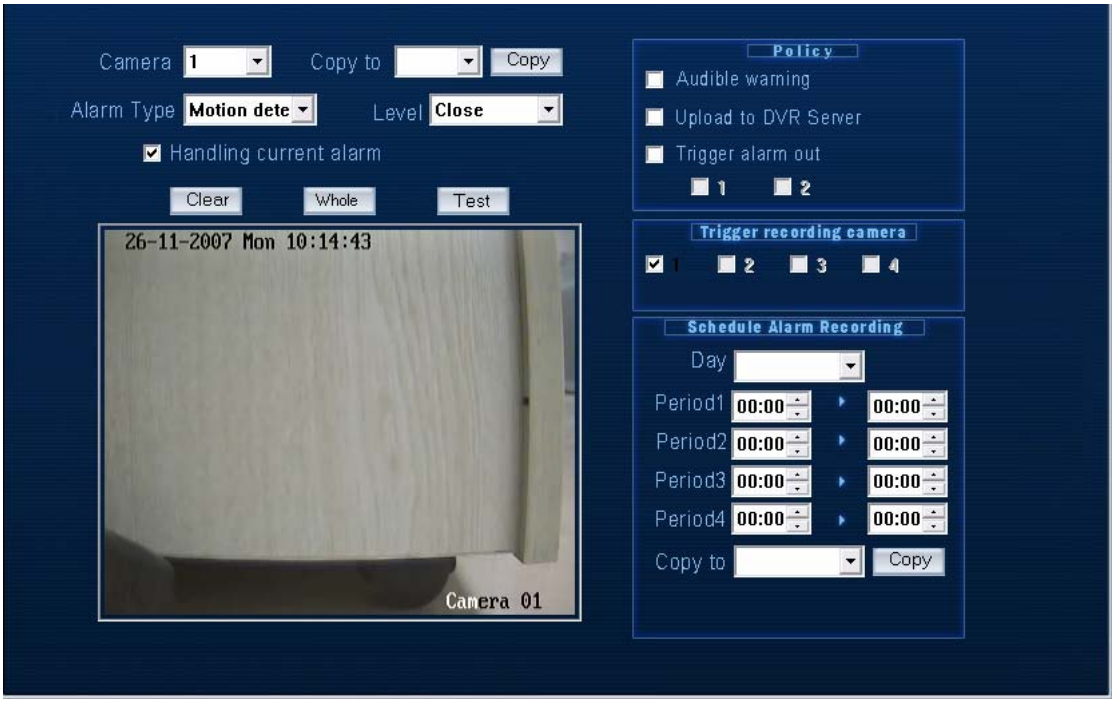
【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

3.6 Alarm setup

Press

button to set alarm parameters.



【**Camera**】Select a camera to be set from the drop-list and you can copy the configuration to the other cameras by clicking copy button.

【**Alarm Type**】Select alarm type: Motion detection, Tempering alarm and Video Loss.

【**Level**】Select sensibility levels from 0 (the lowest level) to 5 (the highest level) for the alarm.

【**Set motion detection areas**】Left-click mouse and drag it on the screen to select motion detect area, you can select the whole area or many areas. Also, you can clear one or whole area by press the button clear and test the effect by clicking test button.

【**Policy**】Selecting "Handling current alarm" firstly, handling policies will be available as follows:

Audible warning—Indicate the alarm with voice.

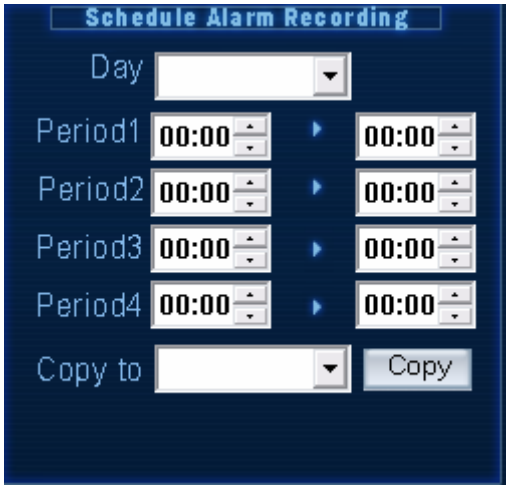
Upload to DVR server—Update the alarm information to center.

Trigger alarm out—Trigger alarm box to output the alarm.

【**Trigger record camera**】Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【**Schedule**】Set alarm input precaution time. Select date firstly, then set time segment according to the sequence. The time of each segment should not overlap the others and no skips are allowed. After the precaution time of a certain day is set, you can copy the parameter to other dates by select a day

and press copy button.



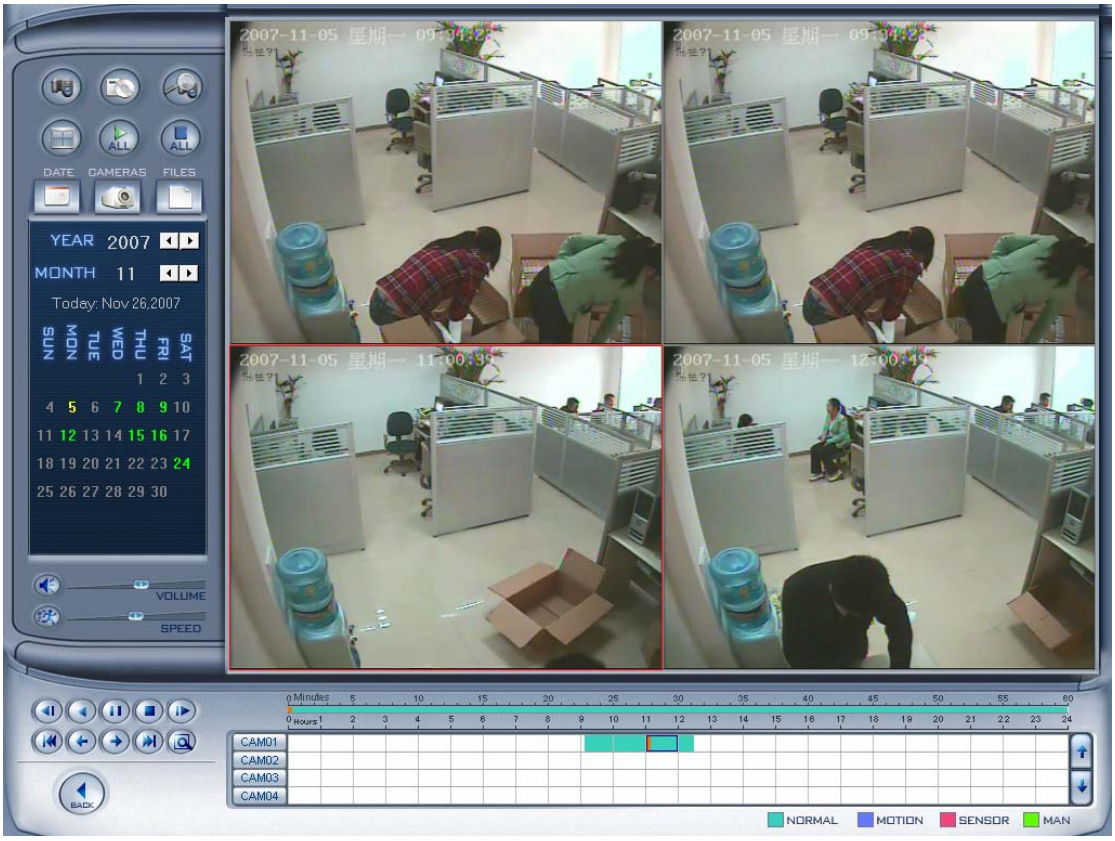
【Copy to】 After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

Chapter4 Playback

4.1 Main interface

Click button in main interface to enter playback interface.



4.2 Select playback channel

4.2.1 Select date

Select one window (the 1st one in default), and then click button to show the date .

The blue dates contain recorded data. The green date is the current date. The gray dates signify no data. Only those blue ones can be selected and when they are selected the camera window will appear automatically to show which cameras has record data.

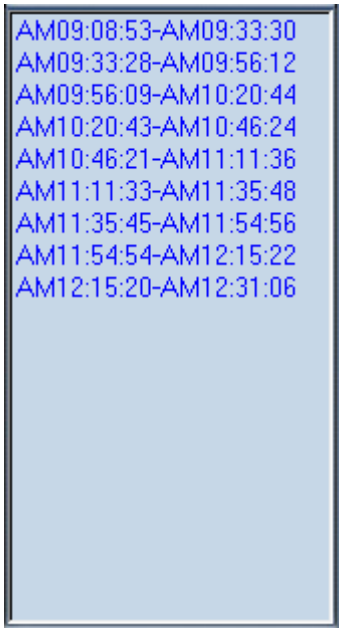
Click or to change month and year of search data.

4.2.2 Select camera

After selecting date system will show the camera state of corresponding day, or click

button directly to show the cameras state of current day . The number button with navy blue means this channel has record data. By pressing it directly on the numerical panel , DVR system will play back recorded data from the first file.

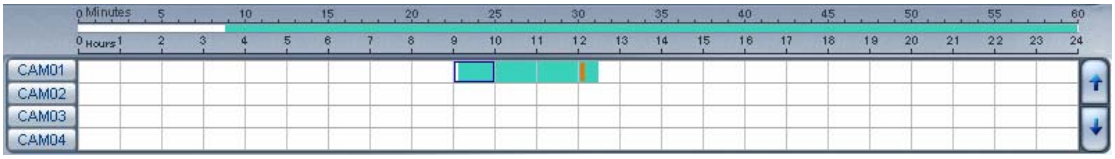
4.2.3 Select file



After selecting the camera to play user can click button to show all the files of this camera.

In default, system will play back video file from the first one. In this screen you can change the file you want to play by clicking it directly.

The camera list below the window will show the recorded data of the day you select. Double clicking one hour of that day ,system will play back data from the beginning of the hour via the window you select.



Press or button to see the recorded data of other cameras ,

Click any minute of that hour , immediately, the system will turn to play back that time via the window you select.

The red bar of the minutes list and hour list means the exact time which system is playing back now.

Tips: Right click the picture to perform digital zoom function.
Different color will show information of all cameras. You can see all kinds of record, their time and length according to recorded data.

4.3 Play file and related operations

Press this button to set partition mode of Window, i there are 1，4，9and 16 splits. To reduce the load of CPU and get best effect, you should select the partition mode according to the record channels amount and resolution. There is a referenced configuration sample as below:

Computer configuration：

CPU: Intel Pentium 4 2.4GHz
Motherboard: ECS 848P-A
Graphic Card: ATI 9550 128MB
Memory: 512MB
HDD: 120G(IDE)

Recommended channel configuration for playback:

DVR Board Channels	Record Resolution	Recommended Playback Channels
64	CIF	4
48	CIF	4
40	DCIF	4
	CIF	4
32	DCIF	4
	CIF	9
24	DCIF	9
	CIF	16
Less or Equal to16	4CIF	4
	DCIF	9

	CIF	16

Press this button to open all playback windows Press this button to close all playback windows.

/ Previous / Next frame: press this two buttons to look previous or next frame.

Reverse play: press this button continuously to play video reversely, the speed is determined by the following playing speed adjustment bar.

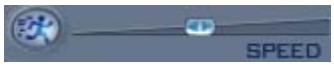
Play/Pause: This button will alternate between Play and Pause. When it is playing, it will show and press it to stop, and then the button will show .. When you select reverse playing, it will show to play by pressing it.

Stop: press this button to stop playing.

First frame of that day, Previous minute, Next minute and Last frame of that day.

Image zooms out. Press this button, Left-Single-Click an image; quarter of the image will be enlarged. Right-Single-Click the image again, it will resume the normal.

Adjust the voice: drag the bar to adjust the voice and click the left button to clear the voice.



Adjust playing speed: drag the bar to adjust the playing speed and click the left button to resume normal playing speed.

*Note: It is not suggested that multi-channel (more than 10 channels) record or playback coinstantaneous unless your PC has a advanced configuration, because the data throughput of HDD is huge in that case. Multi-channel search in client and server are the same except their paths. In client, they are in local; in remote search, it searches among the record data in server in the local network.

4.4 Capture picture

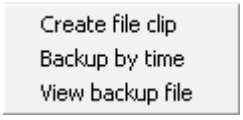
Click capture button to capture a still picture. When one is captured, there will display a dialog to ask for a file name. After your confirmation, you will be asked to input the save path.

*Note: the size of the image is that of the playing window.

4.5 Create clip file

Click button , there are three items to be selected as below.

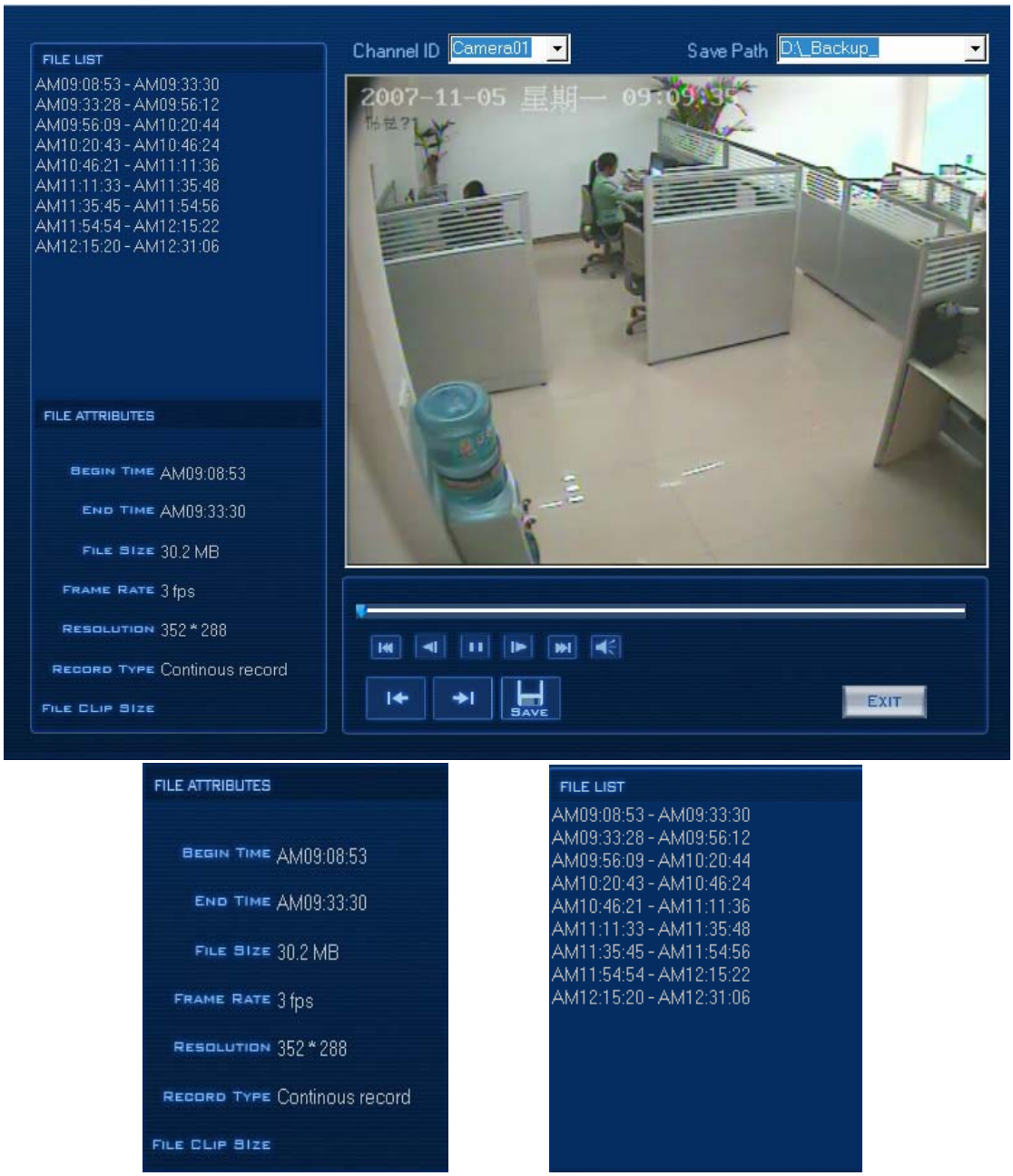
4.5.1 Create file clip

Press 

to create file clip.

【Select channel and save path】 Select channel and save path of the backup file on the top of interface.

【File list and attribute】 Select a file and double-click it to play and its attribute will display below the list , including begin time, end time, file size, resolution, frame rate etc.



【Play control button】 User can press and drag slider on to control the player time.

【Beginning and stop position setup】 After you select a time, press button to set it as the beginning time, and then drag the bar to select another time and press button to set it as the end time. When you finished, the file attribute on the left will show the size of the file to be created.

【**Save file**】After you set the beginning and end time press

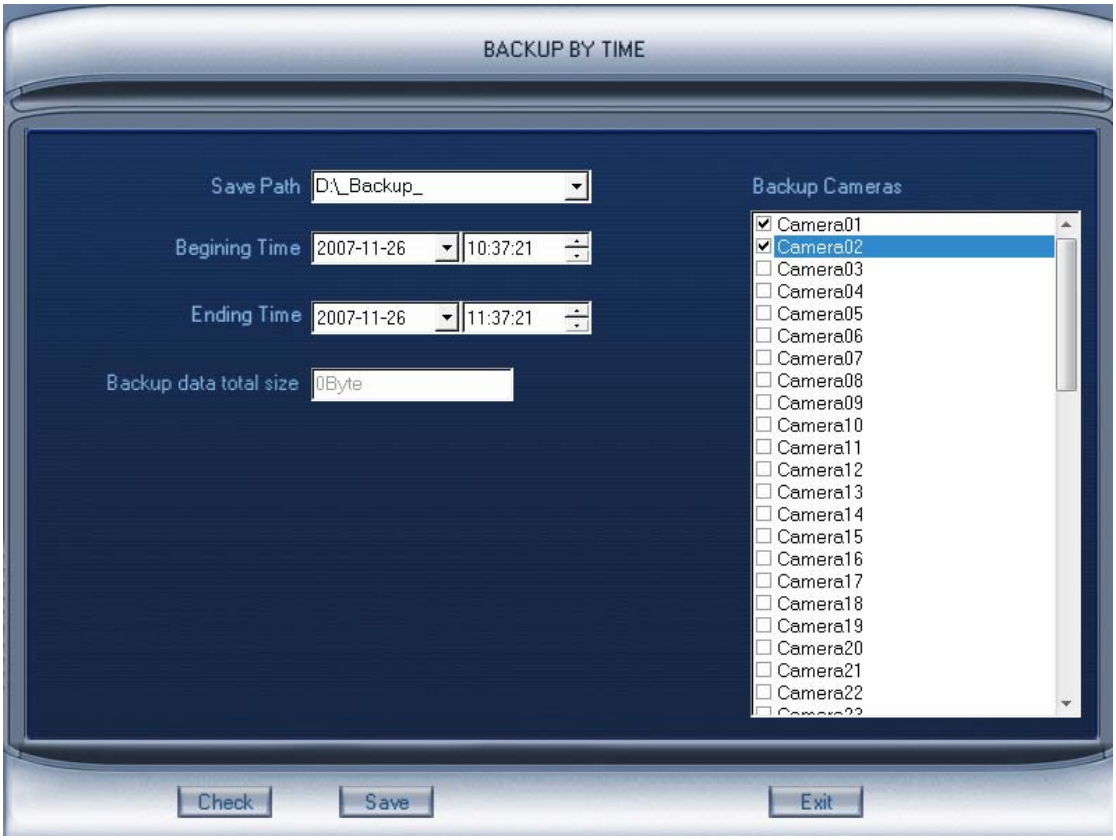
button to save the file, and it will ask for the file name named by you.

【**Voice control**】Click to control voice, press it to clear voice.

4.5.2 Backup by time:

Press

to enter backup by time feature.



【**Backup Path**】Select path for the backup file, User can backup record file to CD.

【**Backup Camera**】Select the backup camera. User can select more than one camera at one time.

【**Select begin time**】【**Select end time**】Select the beginning time and end time of the file to backup.

It can backup the data feature and remove file unite function when backup, so that backup procedure is faster.

You can check the file's value by pressing

button to show its total value.

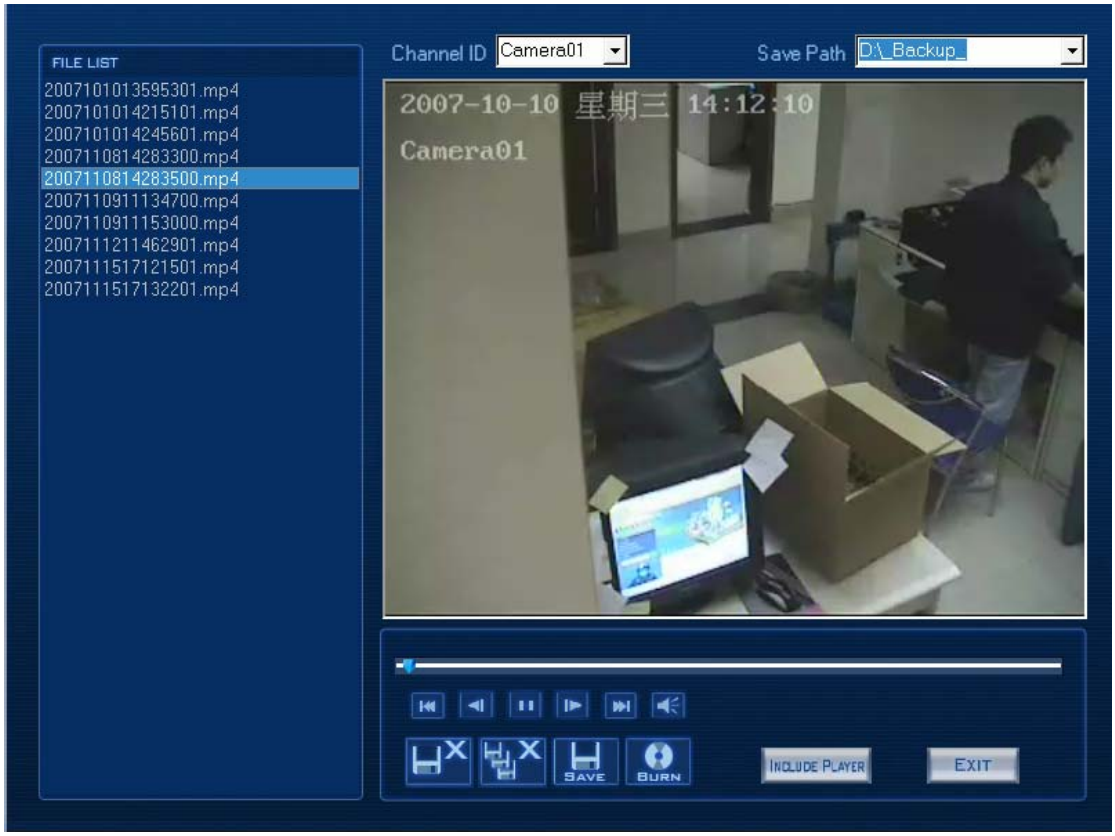
【Backup Date Size】 Show the size of the backup file. If user backup recording file to CD directly, the date size should not more than 650M.

NOTE: If user backup recording file to CD directly, the system disk volume's(C volume in general) free space should not less than twice of the backup date size. Because system volume will be used buffer area when burn CD. For example, if the backup date size is 450M,so, the system volume's free space should more than 900M.

The process of burning CD:

1. Select the CD-ROM as backup path, and select the camera and time.
2. Check the backup file value.
3. Backup the file to the temporary file in the last volume if there have enough free space. Otherwise, write backup file to the last second volume.
4, Write data to buffer.
5. Write CD.
6. Delete buffer and temporary file.

4.5.3 View Backup file



【Select channel and path】 Select channel and path of the backup file in local disk on the top of interface. The file in this path will show in file list in the left of interface.

【Play file and related operations】 The most operations in this interface are same as Create file clip in Create clip file It adds any other functions as follow:

①**Delete file**

Press button to delete current file.

Press button to delete all files in the file list.

②**Burn CD**

Press button to burn CD

:Add selected file to ready for burning

:Delete selected file from the box

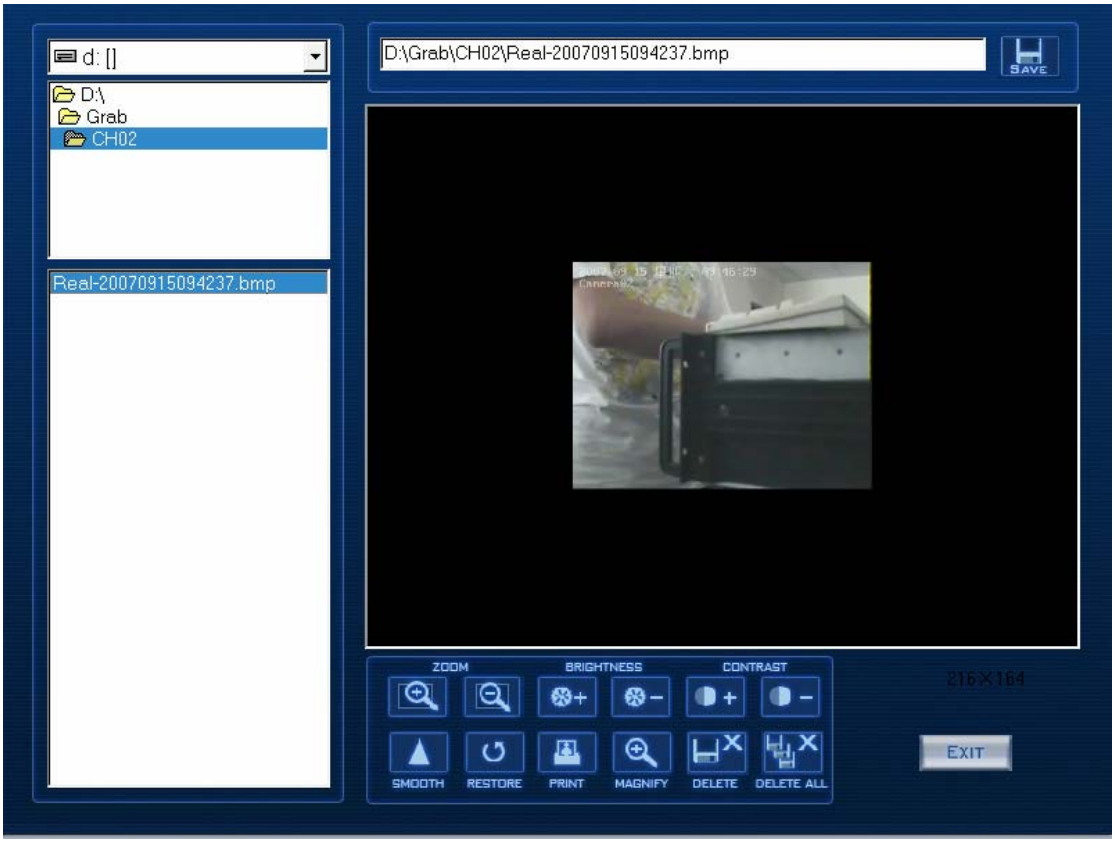
【Burn CD drive】 Select CD-ROM driver.
【Volume label】 Set the label of CD.
【Total file size】Show the size of all files will be burned to CD.

When you finish your setup, click this button will write file to CD.

Press this button to copy the player to the catalog of the backup file.

4.6 Search captured picture

Click to enter the search captured picture window:



【Select pictures from directory and file list】You can select a captured picture from directory list and file list in local disk and the file name

will show in the top of the window.

Note:

If you want to save the reworked picture in another file, you can change its name and path here, with BMP or JPG as suffix. Then click the button

.

【Related operations】

Save the reworked picture.

Functional buttons of picture disposal.

When the result of disposal is not good click it to the default.

Print picture, when the image is wider than 400 pixels, it will be printed smaller. On the other hand, it will be printed bigger.

When it's bright, with the mouse moving, part of the picture will be enlarged.

Delete current file or delete all files.

4.7 Fast search

Click

button to show the date:

The green date is the current date. The gray dates signify no data. Only those blue and green ones can be selected and when they are selected the camera window will appear automatically to show which cameras has record data.

Click or to change month and year of search data.

4.8 Camera status

Click button to show the cameras state. If the number is bright, it means there has record data in this channel.

1.Synchronic play

Click

button to synchronize all playback channels time.

2.Smart search

(1) Function introduction:

This function allows users to draw a zone on a video image and do a search for any motions, missing objects, or unattended object events occurred in that zone. It can help you find recorded video you are interested.

Notice: Smart Search accuracy is decided by sensitivity value in Motion Setup

(2) Operation and example

Press SMART SEARCH button, then select a search area, the system will play all motion occurred within this area from previous 3 seconds to next 3 seconds when the motion occurred. Pressing this button again will end smart search.

E.g.:

1.There is a telephone on the desk (Picture ①).

2.But it disappeared now (Picture ②).

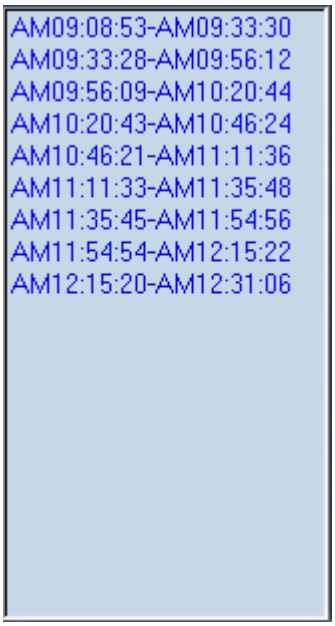
3.If you want to know where the telephone is, you can select this area on the image to do a smart search when playback the video.

Note:
1. Press synchronic button while smart search is running, system will end smart search.
2. The sensitivity of the smart search is same as motion detection. If you set a high sensitivity, system will search even that there is no motion in specified area. Contrarily, if you set a low sensitivity, it is possible that system will not search when there is some small range motion in specified area. So you should set the sensitivity according to the surroundings.

4.9 Show files

Click

button to show all the files of current cameras.



Last frame, Start, Pause, Stop and Next frame

First frame of that day, Last min., Next min. and Last frame of that day.

Image zoom out. Press this button, single click the left mouse button on a image, quarter of the image will be enlarge. By thereafter, single click right mouse button on the image ,it will resume the normal.

Adjust the voice, click the button to clear the voice.

Adjust playing speed, click the button to resume

normal playing speed.

*Note:

1.It is not suggested that multi-channel(more than 10 channels) record and playback coinstantaneous unless your PC has a wonderful configuration, because the data throughput of HDD is huge.Multi-channel search in client and server are the same except their paths. In client there are local and lan search. In lan search, it searches among the record data in the local network of server.

Chapter5 IE client

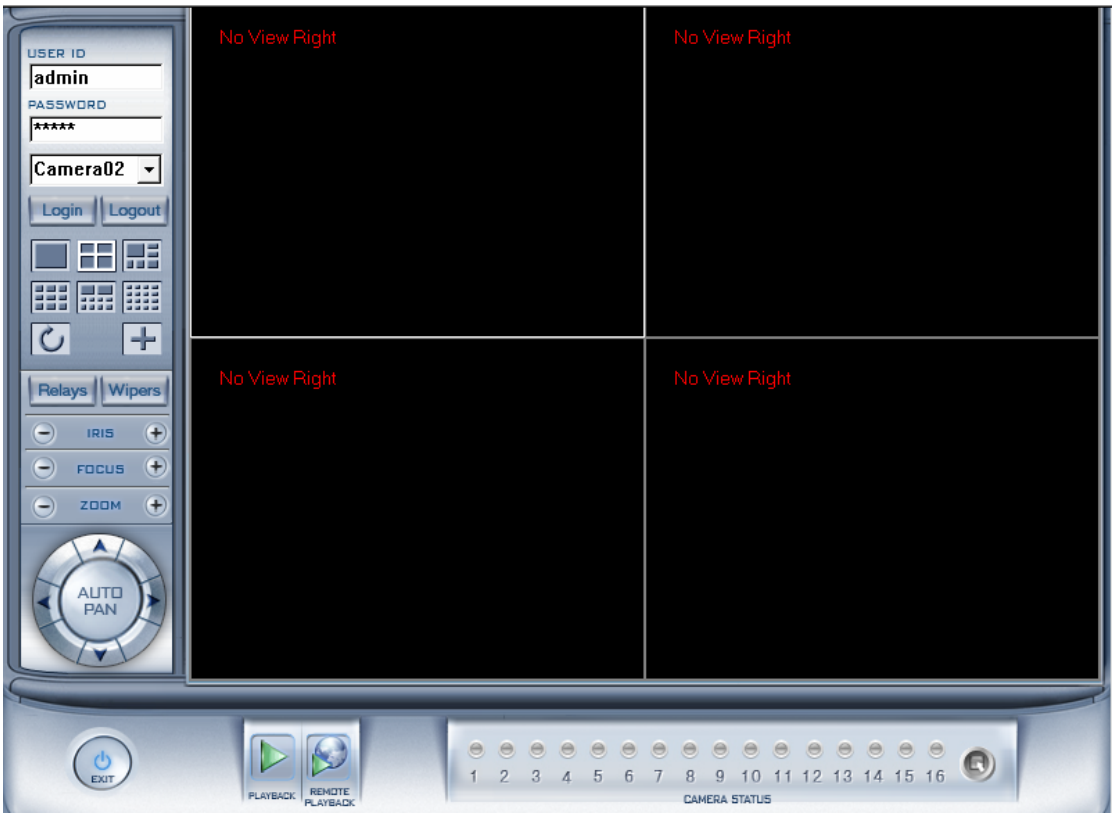
The client user can view video of DVR Server through Internet Explorer, The default web server port is 80; if user changes it to other port, user should add this port number after domain name when visit the video of Server through Internet Explorer. E.g.: http://192.168.0.119:1280.

5.1 Functions of IE Client

1. Video display and video storage;
2. Audio input;
3. Searching and playback video image locally or remotely;
4. Control PTZ and speed demo remotely;

5.2 Main interface

When you connect foreside server successfully, you should input valid User ID and password in left up of the interface to acquire rights to play video and other operations.



5.2.1 Connection operations

Press

will connect the DVR Server's camera video from

and press

will disconnect all connections. If DVR Server's channel is more than channels that you selected partition mode, you can use button to display DVR Server's video in sequence. Pressing button will switch full screen mode and Right-Single-Click image can back to normal mode.

5.2.2 Connection/Record status

This icon indicates the current connection and their record status:

Gray: Not connected;

Navy blue: Connected with no recording;

Green: Connected with recording.

You can change the record status by pressing corresponding number button or change status of all connections at the same time by pressing button.

5.2.3 Partition mode

You can set the partition mode by pressing corresponding button on the right of main interface. It has follow partition modes:

——1partition mode;

——4partition mode;

——6partition mode;

——9partition mode;

——10partition mode;

——16partition mode.

5.2.4 PTZ Control

Most functions of PTZ control are same as PTZ Control panel in DVR Server.

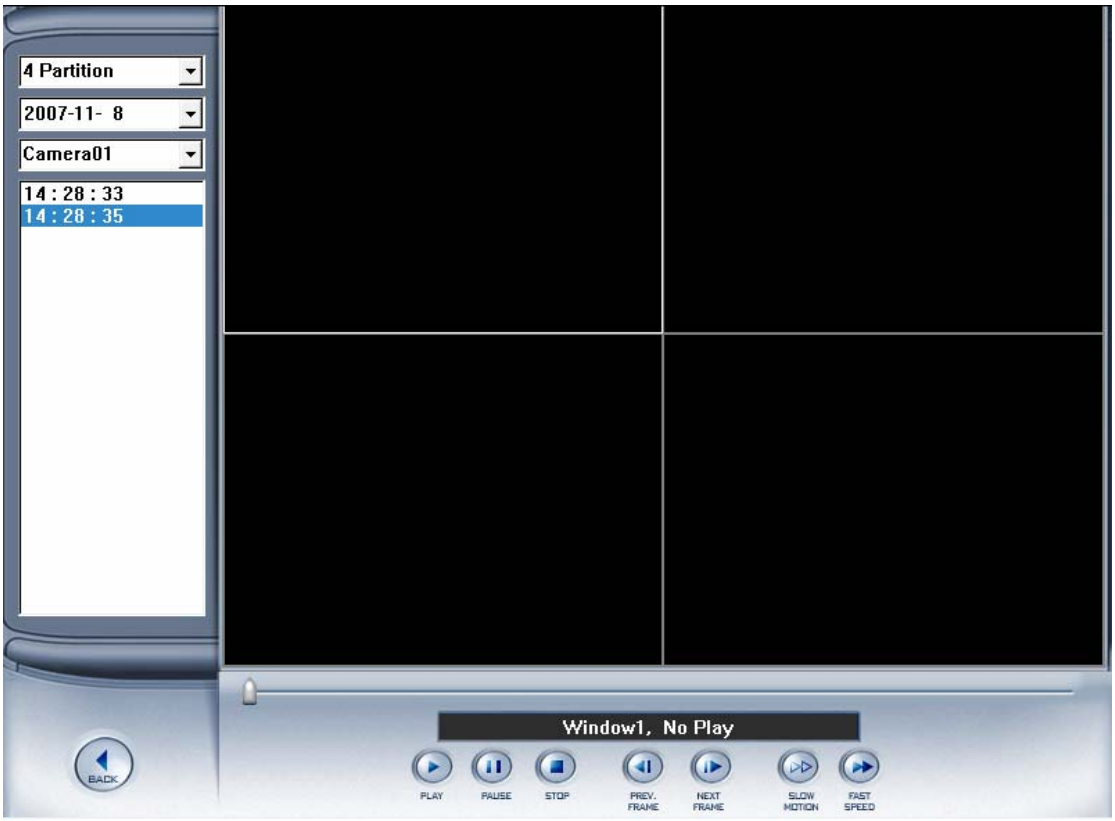
5.2.5 Quit program

Press

button to shut down the IE Client.

5.3 Local search

Press button to enter local search:



1.Display setup and data information

In this area, you can select display partition mode, date, video channel and its video file named according to time.

2.Playing operation area

In this area, you can operate video playing:

【**Video-playing time adjustment**】Press and drag slider bar to adjust video-playing time

【**Information display panel**】Display current window name, camera name and record data information.

【**Playing-control buttons**】 : Play, Pause, Stop.

【**Single frame play**】 : Previous frame, next frame

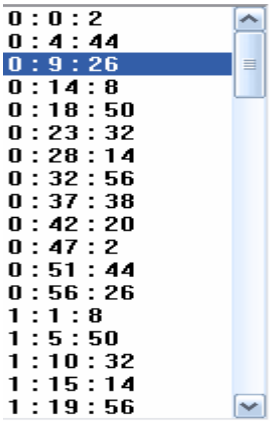
【**Playing speed control**】 Slowly play Fleetly play

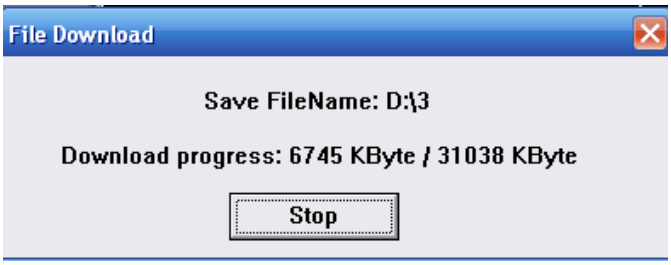
5.4 Remote search

Most functions and operations of Remote search are same as playback; different feature is that remote search added download feature

5.4.1 Fast download record data

In the playback mode, select one camera that has record data, open file list panel, select one record data file, and click Download button, the selected data file will download fast.





NOTE:

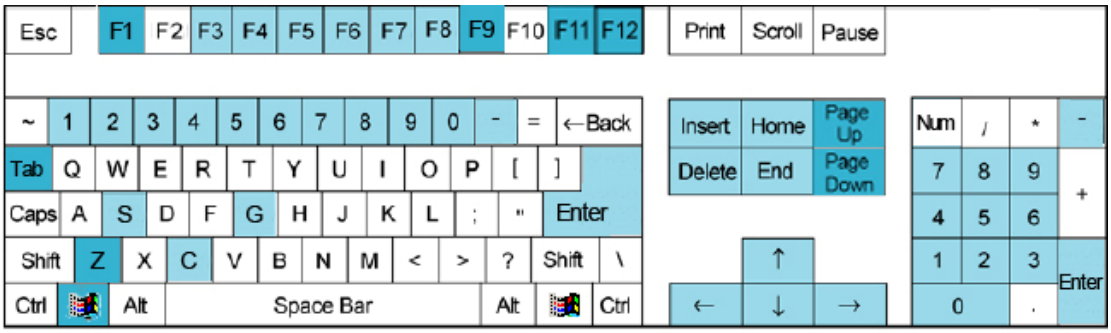
When user use IE client to visit DVR server, If connect successfully, there will appear four partition blue window. If connect unsuccessfully, the reasons possibly are:

①. The Web server port has been used by other programs.
②. Your computer didn't download the player plug normally. The reason may be the jurisdiction of your computer is too high, or your computer has plug filter.

Chapter6 Appendixes

6.1 Appendix A: Fast key reference

Please refer to shortcuts keyboard setup



This color key denotes PTZ control.

This color key is other function control.

PTZ control:

Key	Function
↑	Up
↓	Down
←	Left(in the status of preview)
	Play last frame(in the status of instant playback)
→	Right(in the status of preview)
	Play next frame(in the status of instant playback)
Home	Zoom-
End	Zoom+
Insert	Focus-
Delete	Focus+
C、—、 Num0-9G、	Presets Control OperationCall preset

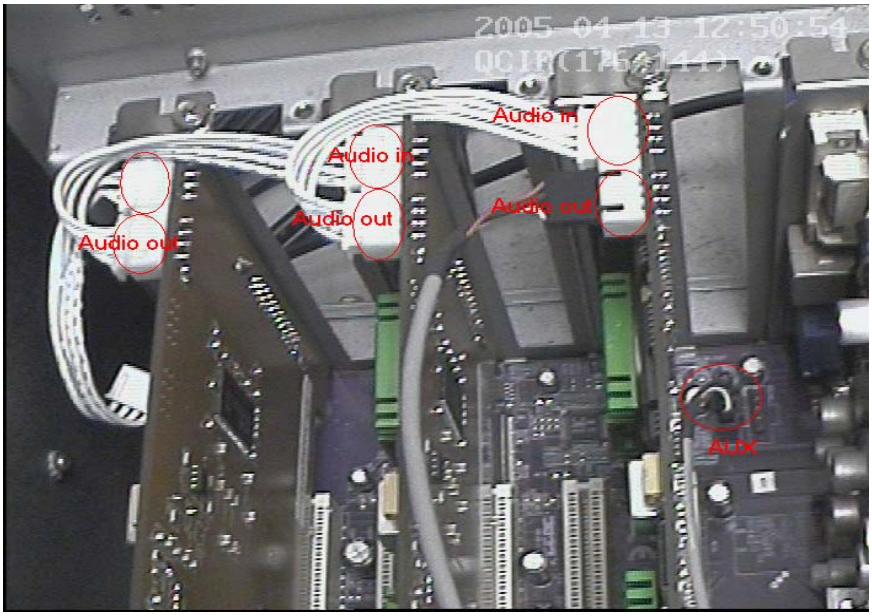
Enter	
C、—、 Num0-9	Presets Control Operation

Other controls:

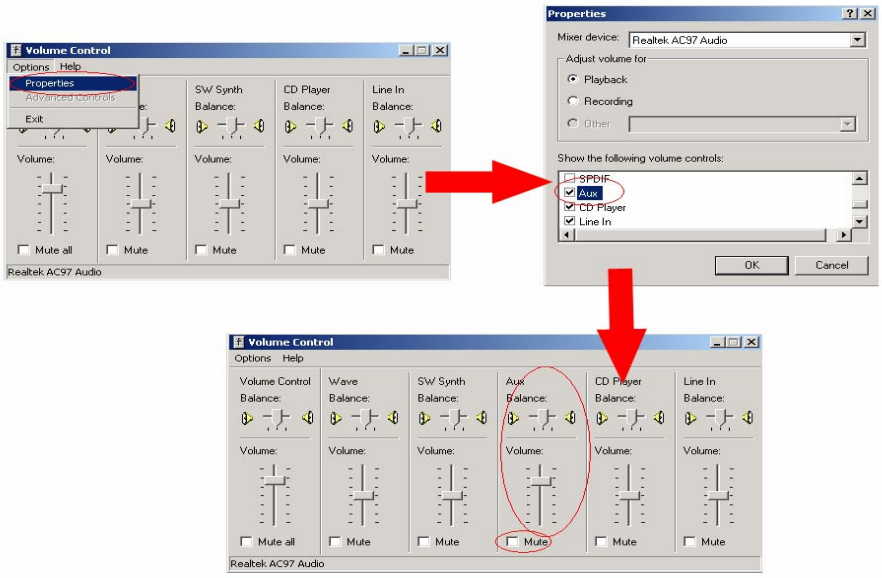
Key	Function
F1	System Help
Tab	Switch the camera channel
Page Down	Next screen
Page UP	Previous screen
F9	All cameras recording 30 Sec emergency
F11	Zoom in/out the single camera view
F12	Switch to Full screen mode (Equivalent to pressing space key except Instant Playback mode)
Ctrl + 0	Enter playback
Ctrl + 1-9	Instant playback minutes
Shift + 1-8	Select screen partition 1,4,9,16,25,36,49,64
WIN+ Z	Minimize the Main System window

6.2 Appendix B: Audio preview

First, connect the card use the cable, as follows:



NOTE: Sometimes there is no preview sound, Solution: double click the volume control of in the taskbar, open the properties dialog box, and check AUX control.



6.3 Appendix C: Update drivers of DG40xx Series cards

6.3.1 Installation steps (Normally)

Before you run DVR program, you must install correct drivers for DVR boards at first.

First, Double-click the driver installation program "DriverInstall.exe", a dialog will

display.

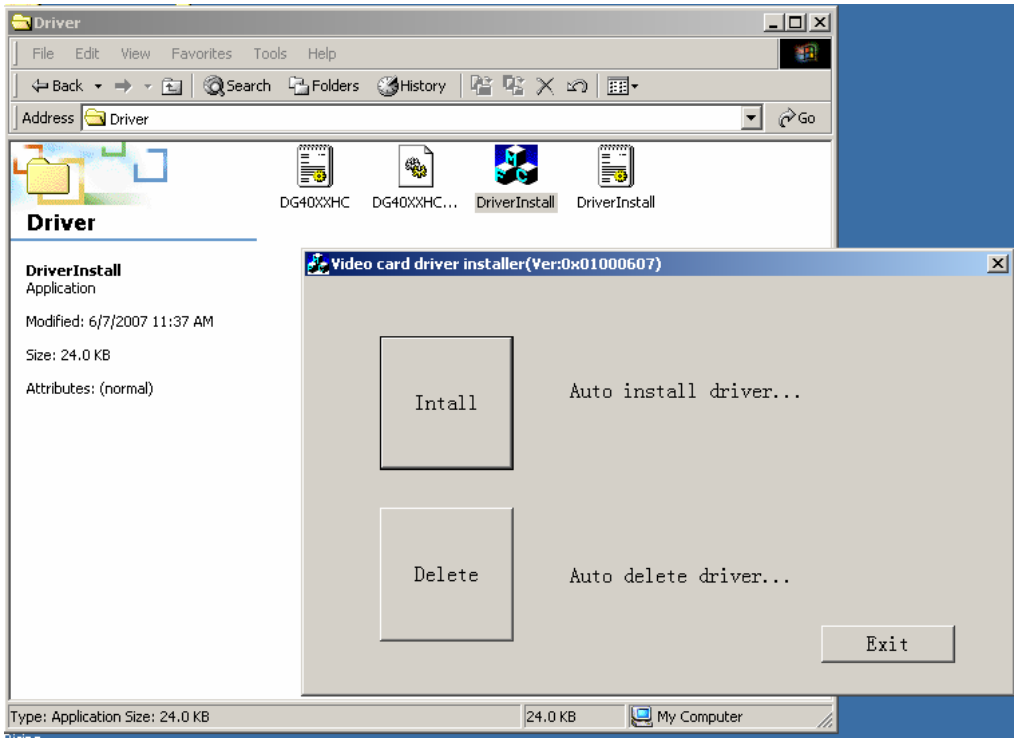


Figure 1:Double-Click "DriverInstall.exe"

Click "Install" to install drivers. When it informs that all drivers have been installed successfully, you can click "OK" button to exit the program.

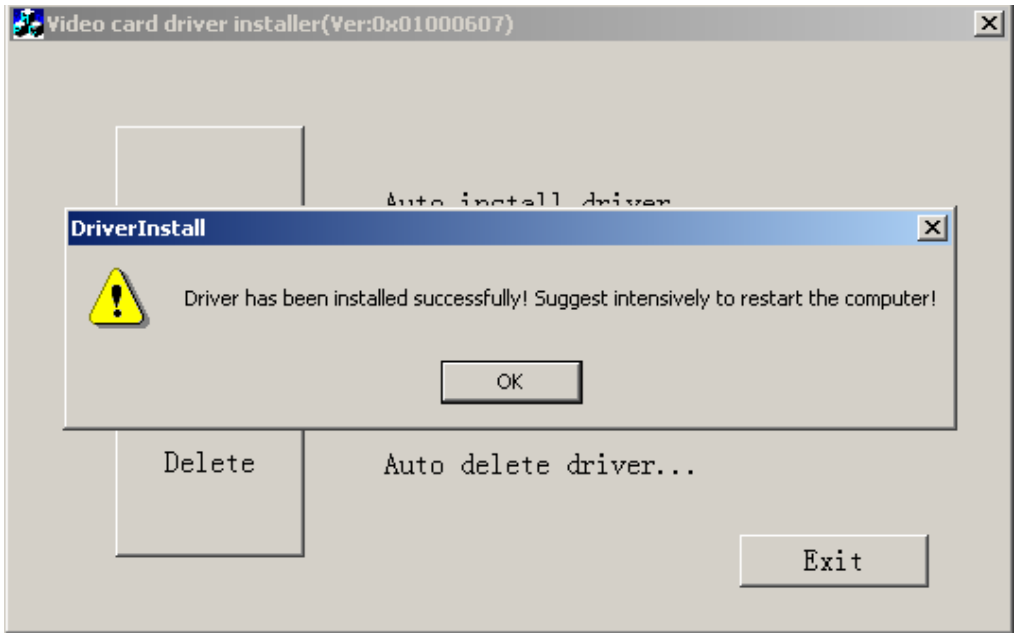


Figure 2: Finish installation

After the Drivers has been installed. When we open the Device Manager, we will see the following window. "H.264 DVR CARD" sign Driver has been installed

successfully. Each board DSP chipset will own one driver here.

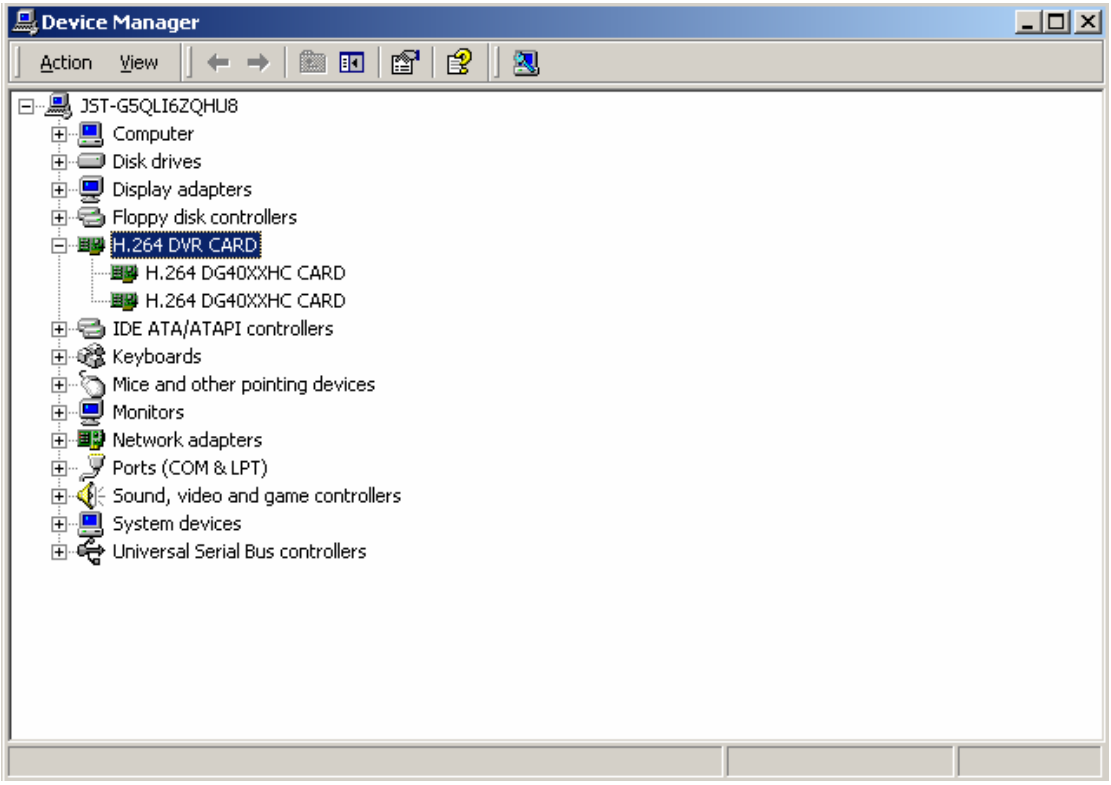


Figure 3: Check drivers had been installed

6.3.2 Attention:

If our PC has installed DS series board (Hikvision series board) before you install DG40XXHC series board, maybe windows will install its drivers as DS series board. So you must reinstall DG40XXHC series board as following steps:

First, Single-Right-Click "My computer" and choose "Properties". In the window click "Hardware", and then Single-Left-Click "Device Manager". We will find the "DS 40xxHC Series", which signs our board has installed as DS series board.

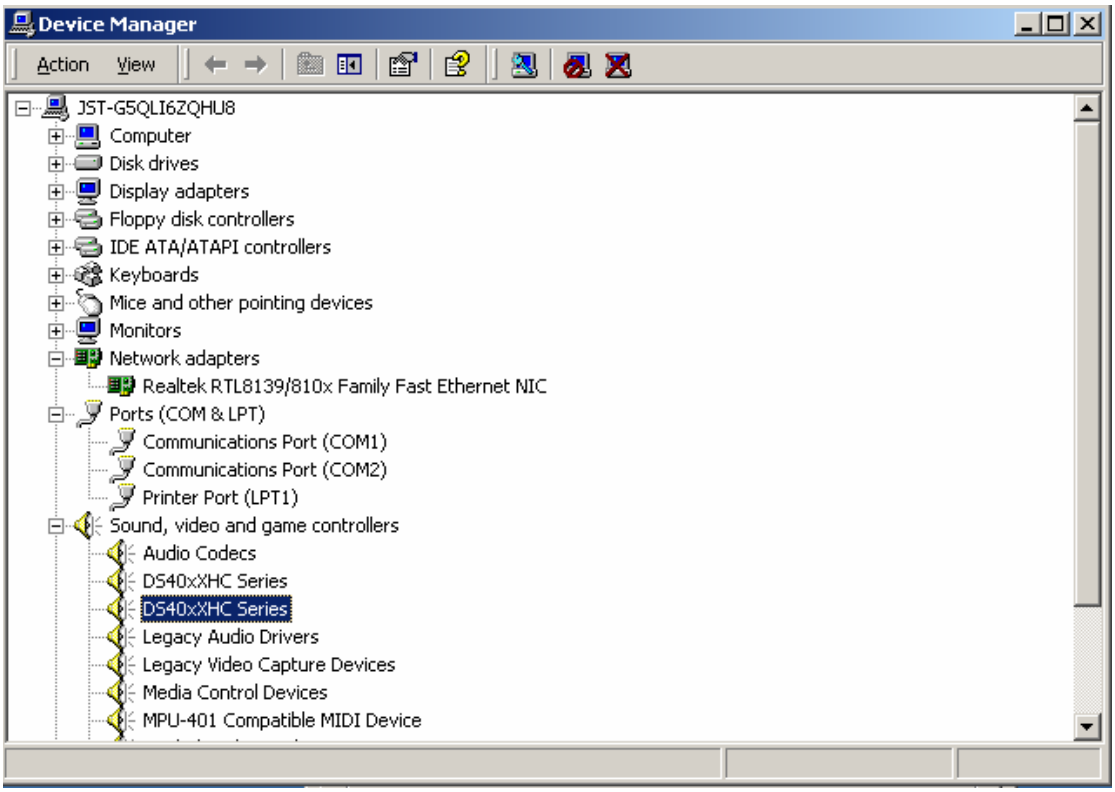


Figure 4 Check drivers

Then you should Single-Right-Click "DS 40xxHC Series" and choose "Properties"

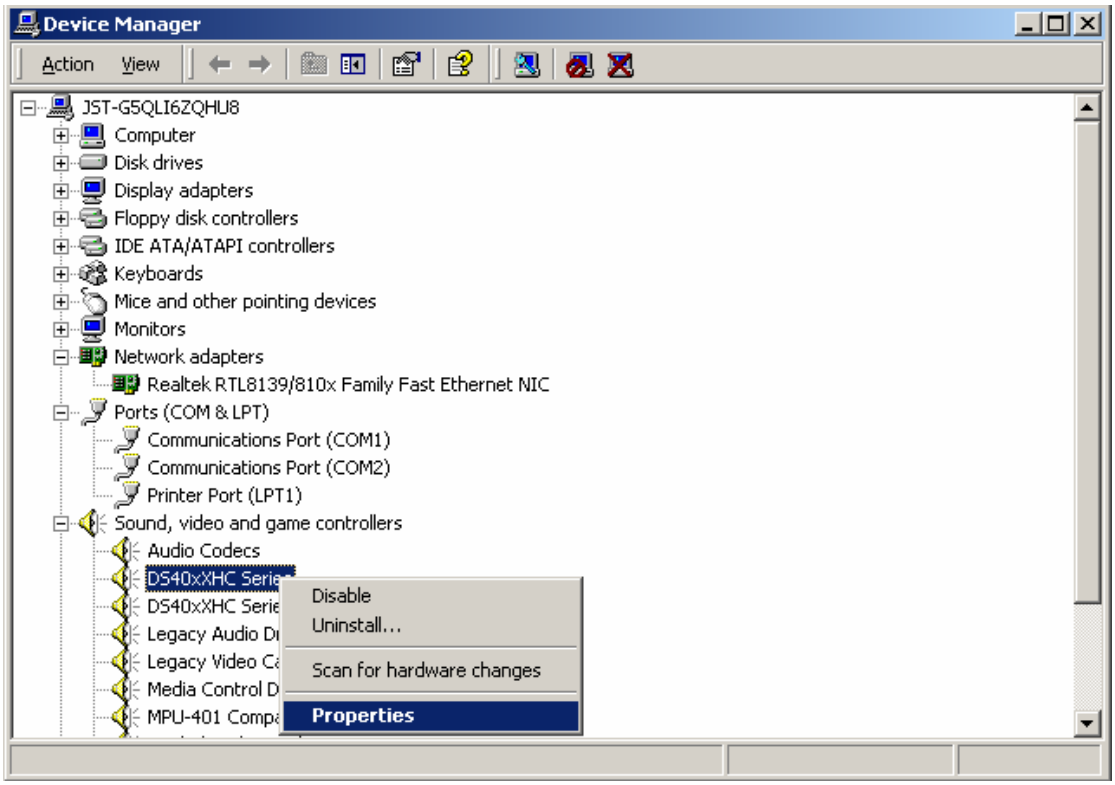


Figure 5: Check properties of DS series driver

The figure 6 will be showed. Now in this window we click the "Driver" and choose the

option "Update Driver"

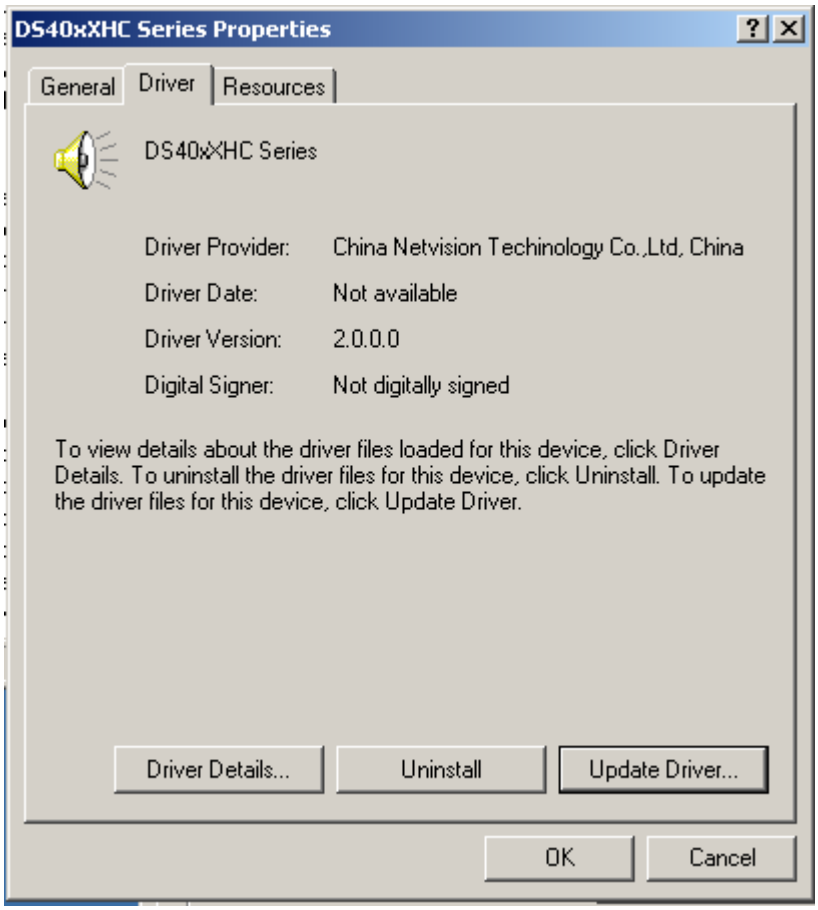


Figure 6: Select update driver

After the above operations the dialog Figure 7 will display. Figure 7 enable us to choose a specific driver. You can choose the second option and click "Next" button

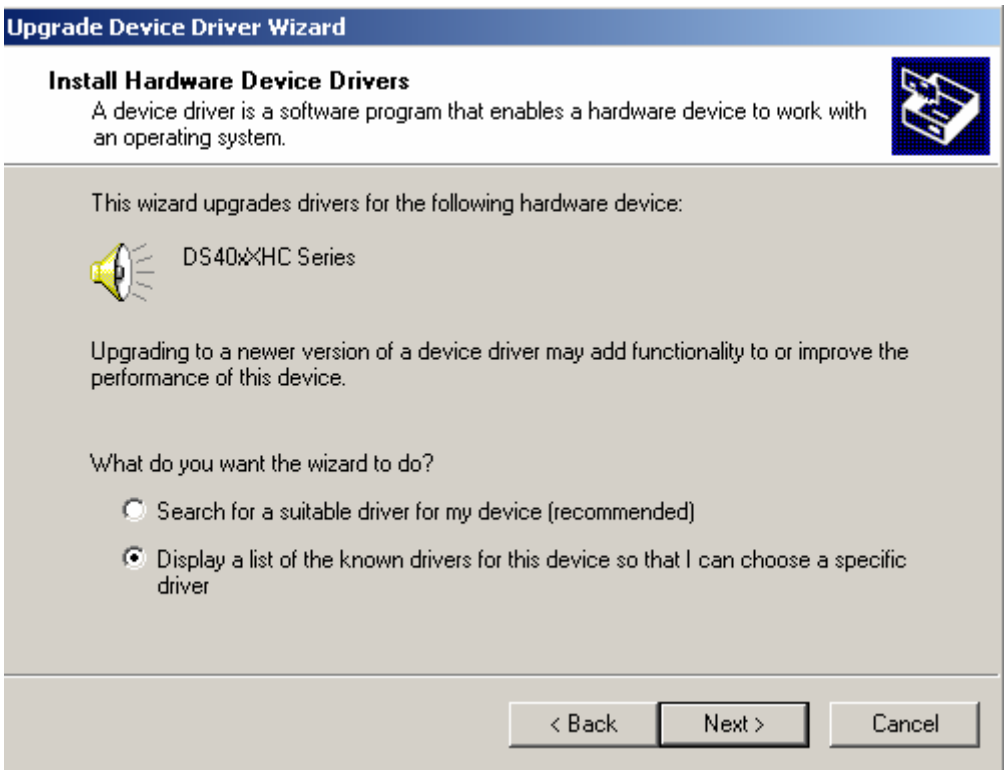


Figure 7：To choose a specific driver

We will find available drivers for this device. If the correct driver (DG40XXHC) is not included in this list, we should search the compatible hardware manually.

By clicking the "Show compatible hardware" option and "Have Disk…" button, you can select the correct driver file in local disk and install it. The figures 8,9 and10 show the operation steps:

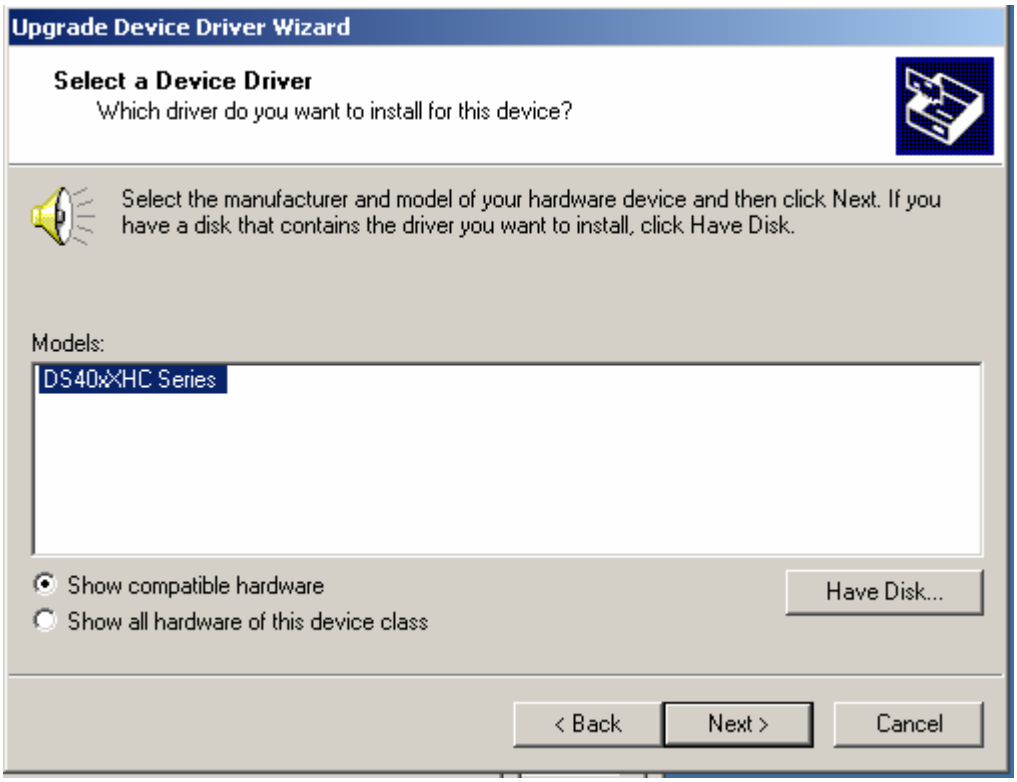


Figure 8: To select correct driver file

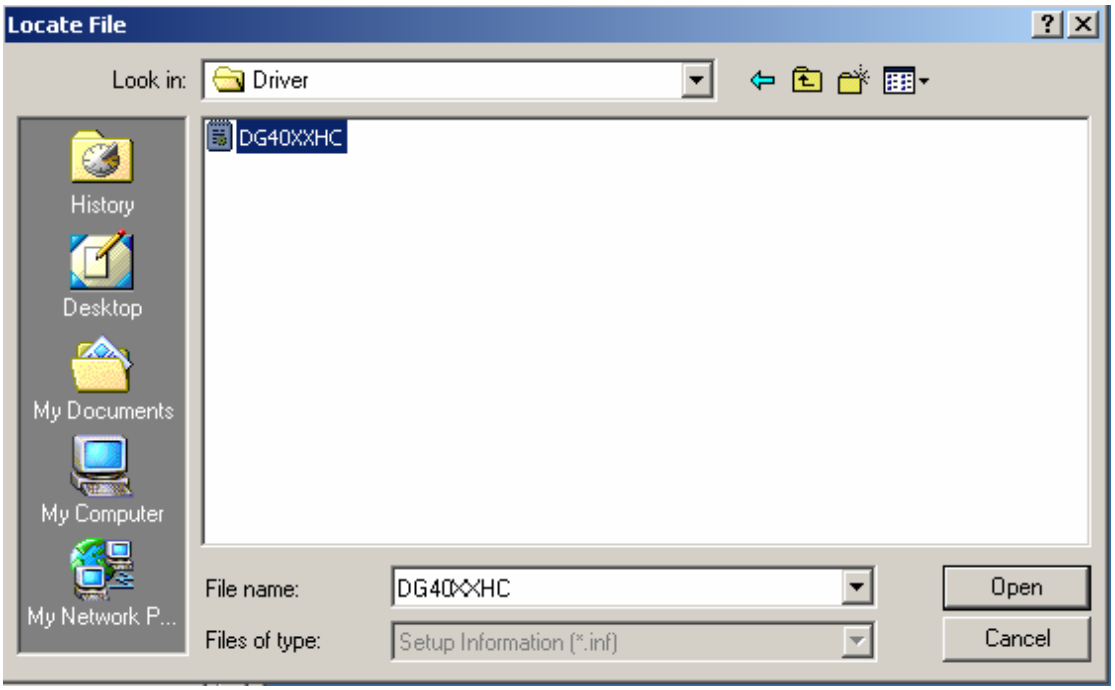


Figure 9: Select correct driver file

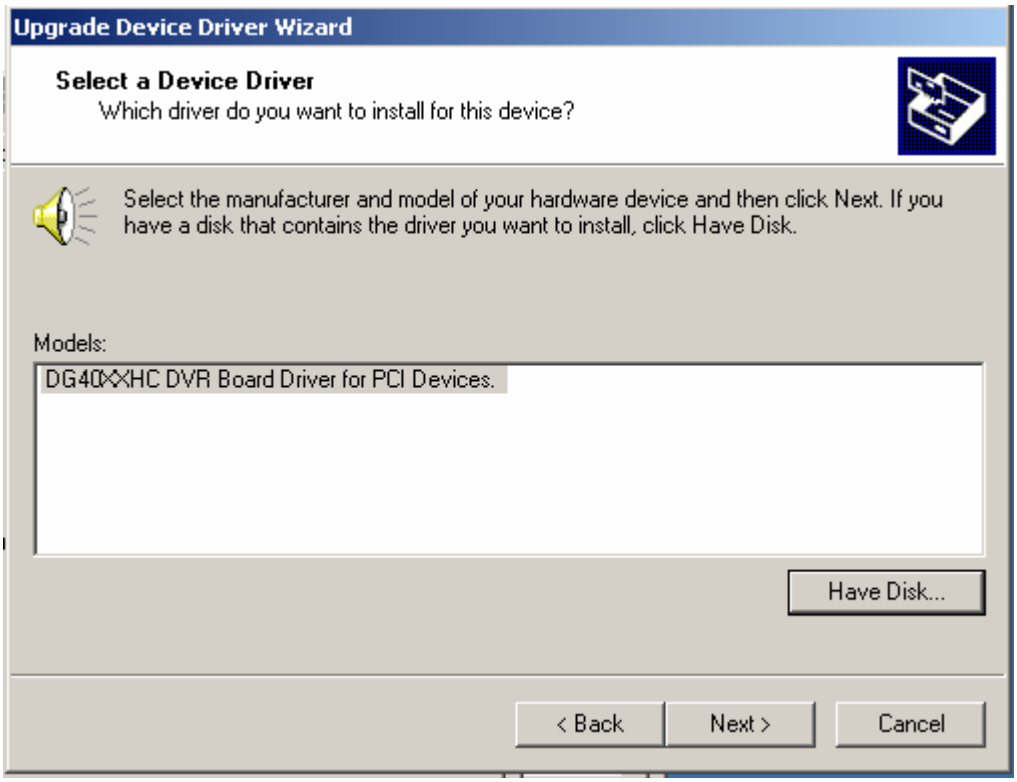


Figure 10: Add correct driver file

When all above operations are completed, the "DG 40xxHC DVR Board Driver for PCI Devices" will be added to the device driver list. Then you can choose the "DG 40xxHC……" and click "Next" button to install this driver.

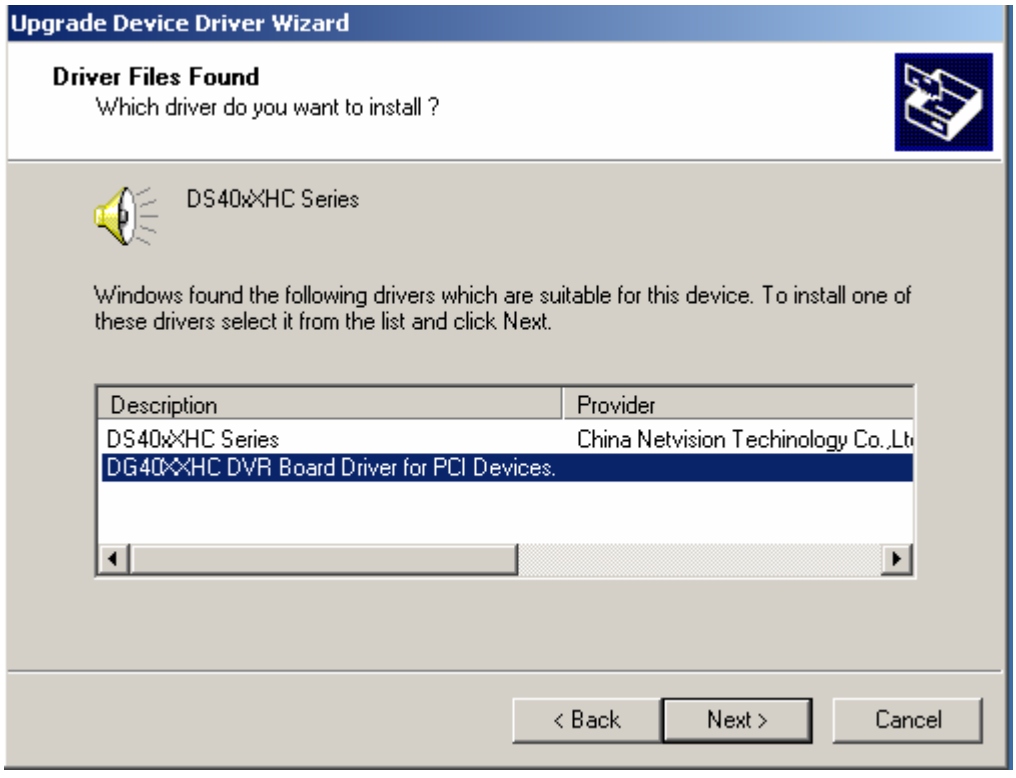


Figure 11: Install correct driver

After our board driver has been installed correctly. You can open the device manager to check the driver; we will see the following window. The H.264 DVR CARD sign driver has been installed successfully.

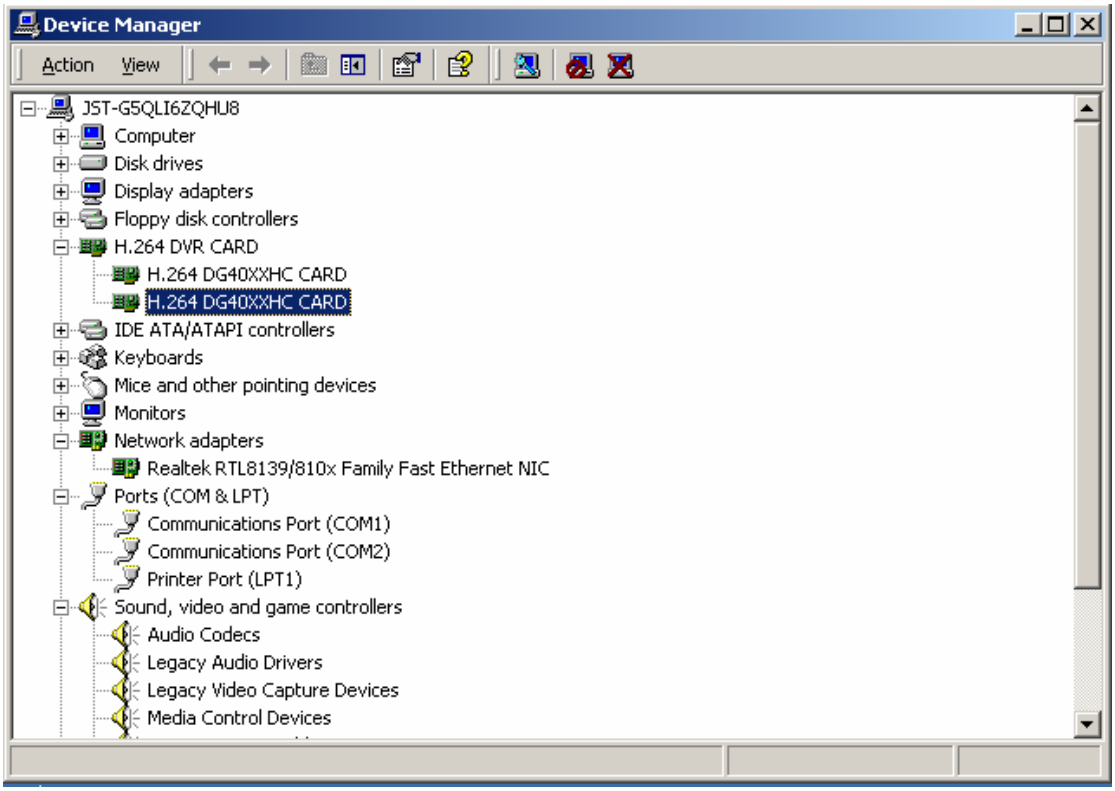
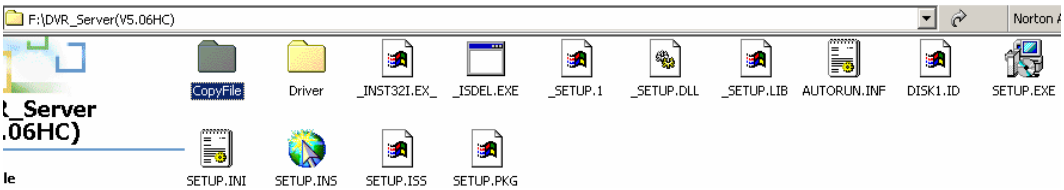


Figure 12: Check drivers

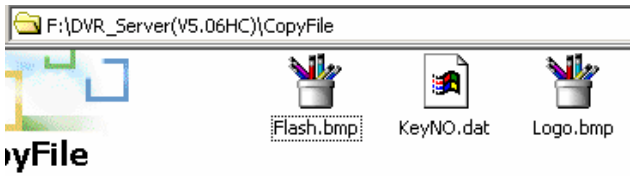
After you finished driver installation, you can run DVR program now.

6.4 Appendix D: How to use "Copy File" folder.

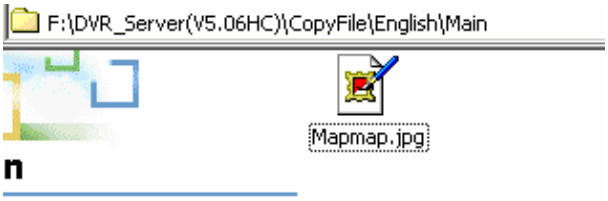
In installation CD, there is a file named "CopyFile"



If you want to replace some files in installation directory, you can copy new files into "CopyFile", when you finished the installation, the new files will replaced the old files.



If you want to replace some files in sub directory of installation directory, you can create the same directory in "CopyFile" folder with the installation directory.



Thus, when you finished the installation, the all files which in "CopyFile" will replace the old files.

Note: If you replace the image, the new image's size and name should be same with old image.

6.5 Appendix E: Explanation about DG series DVR board.

This DVR System manual is suitable for all DG series DVR board

(DG400XHC,DG4016HCS)

DG400XHC: Support double encoding, when "image size" was selected "D1 Auto F",DG400XHC card only single encoding.

DG4016HCS: Single encoding..

6.6 Appendix F: Frequent Asked Questions

1) IE client does not visit the server.

Possible reasons: The Web Server port was shielded or has been used by other program.

2) Install one card in a PC can run the server program, but install more cards can't run the server program.

Possible reasons: PC Motherboard compatibility issue, please change other brand Intel chipset motherboard and display card.

3) Can't view image of cameras

Possible reason: for reduce the load of CPU, we use overlay as the display mode; it

output the data from graphic card to monitor directly, please check whether the graphic card support overlay.