



Lanvision Lite DVR system

User's Guide

Contents

Chapter1 Start up and Main Interface.....	11
1.1 Preparation & Uninstallation	11
<i>1.1.1 Installation.....</i>	<i>11</i>
<i>1.1.2 Uninstallation</i>	<i>11</i>
1.2 Disk management.....	11
1.3 Start up	14
1.4 Main Interface.....	15
<i>1.4.1 Show tips.....</i>	<i>15</i>
<i>1.4.2 Screen menu.....</i>	<i>15</i>
<i>1.4.3 Interface description</i>	<i>21</i>
<i>1.4.4 System Menu</i>	<i>23</i>
<i>1.4.5 PTZ Control panel.....</i>	<i>33</i>
<i>1.4.6 Color and Audio adjustment.....</i>	<i>36</i>
<i>1.4.7 Matrix & display.....</i>	<i>37</i>
<i>1.4.8 DI/DO Control.....</i>	<i>37</i>
Chapter2 Local setup	40
2.1 System setup	40
<i>2.1.1 System setup.....</i>	<i>41</i>
<i>2.1.2 Network setup</i>	<i>42</i>
<i>2.1.3 Boot setup</i>	<i>44</i>

2.2 Camera setup	45
2.2.1 Camera setup.....	45
2.2.2 Group setup.....	49
2.3 Sensor setup.....	51
2.3.1 Sensor setup.....	51
2.3.2 Group setup.....	51
2.4 PTZ & Linkage setup.....	53
2.4.1 PTZ protocol setup.....	53
2.4.2 Motion detection relay & remote client alert.....	54
2.5 E-mail & SMS setup	55
2.5.1 EMAIL setup.....	58
2.5.2 SMS setup	58
2.6 Display setup	59
2.7 Password setup.....	60
2.7.1 User information.....	60
2.7.2 User right setup.....	61
Chapter3 IP Camera Setup	63
3.1 Functional buttons.....	63
3.2 Server setup	64
3.3 Channel setup.....	65
3.4 PTZ control.....	67

3.5 Sensor setup	70
3.6 Alarm setup.....	71
Chapter4 Playback.....	73
4.1 Main interface	73
4.2 Select playback channel.....	74
4.2.1 <i>Select date</i>	74
4.2.2 <i>Select Record Type</i>	74
4.2.3 <i>Select camera</i>	75
4.2.4 <i>Select file</i>	77
4.3 Play file and related operations	78
4.4 Capture picture.....	79
4.5 Backup.....	79
4.5.1 <i>Create file clip</i>	80
4.5.2 <i>Backup by time</i> :.....	81
4.5.3 <i>View Backup file</i>	83
4.5.4 <i>Burn video file to DVD/CD</i>	83
4.6 Search captured picture	84
4.7 POS Playback	85
4.8 ACU Playback.....	86
4.9 ICON Playback	88
Chapter5 IE client	89

5.1 Functions of IE Client	89
5.2 Main interface	89
5.2.1 <i>Connection operations</i>	90
5.2.2 <i>Connection/Record status</i>	90
5.2.3 <i>Partition mode</i>	90
5.2.4 <i>PTZ Control</i>	90
5.2.5 <i>Quit program</i>	91
5.3 Local search	91
5.3.1 <i>Display setup and data information</i>	91
5.3.2 <i>Playing operation area</i>	92
5.4 Remote search.....	92
5.4.1 <i>Fast download record data</i>	93
Chapter6 Mobile Client.....	95
6.1 Recommended Mobile Phone Requirements	95
6.2 Download software	95
6.3 Install and connect.....	96
6.3.1 <i>Installation</i>	96
6.3.2 <i>Connection</i>	96
6.4 Login Interface.....	96
6.5 Camera List.....	97
6.6 PTZ control.....	97

Chapter7 Appendixes	99
7.1 Appendix A: Fast key reference	99
7.2 Appendix B: Audio preview.....	101
7.3 Appendix C: Update drivers of compressed card	102
7.4 Appendix D: How to use “Copy File” folder.....	103
7.5 Appendix E: Frequent Asked Questions	103
7.6 Appendix F: Dual Monitor	104
7.7 Appendix G: Sony Camera Setup	105

Introductions

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

Users should read this manual thoroughly before you install or utilize the DVR system.

System features

- Support multi-brand of mobile client
- Support 64bit OS installation
- Support multi-brand of IP cameras, such as Mobotix, Sony, Acti, Arecontvision etc.
- Support H.264 compression and low HDD cost
- Access web 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 happen
- System operating and alarm logging
- Alarm before recording
- Remote recording
- Send alarm message automatically.
- Send 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 & 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
- Support six types of resolution (1024*768 pixels, 1440*900 pixels, 1280*1024 pixels, 1280*768 pixels, 1680*1050 pixels and 1920*1080 pixels)

Important Information:

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

- 1) Recommend that divide your hard disk into two partitions at least (e.g.: C and D). The first partition is used to install Windows OS and system software, the others for storing record files.
- 2) Please use appropriate motherboard and display card. Contact your dealers or our support engineers if you have any questions.

Recommend System Environment

Chipset: Intel 875PE, 915P, 945P, 965P

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: x86 dual core 2GHz or better

Memory: 512MB minimum, 2GB optimum

Chapter1 Start up and Main Interface

1.1 Preparation & Uninstallation

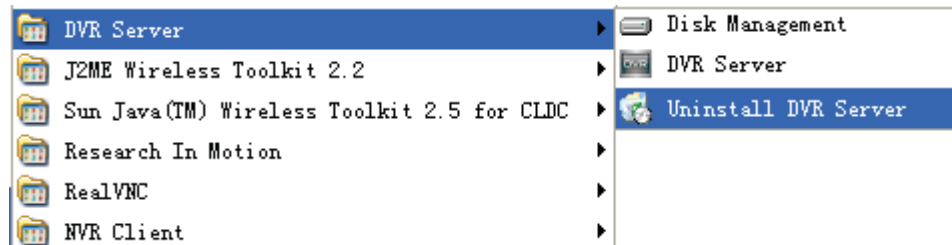
1.1.1 Installation

Before you run DVR system, please be sure following issues:

1. All connectors are firmly connected;
2. Install the driver of compression cards correctly. For detailed information, please refer to [Appendix C: Update drivers of compression card](#);
3. Set the resolution of monitor equal to or bigger than 1024*768 pixels.

1.1.2 Uninstallation

When you want to change this version to another one, you should uninstall it. Click “Start→ All programs→ DVR server→ Uninstall DVR” to uninstall DVR.



1.2 Disk management

After installed DVR Server, you should assign space for recording, otherwise, software can't record. Actually, system will run disk management automatically after you installed DVR Server. Also, you can run disk management to assign space when you want.

However, you should input correct user name and password to get access to Disk management when manager disables the disk manage right of some operators in [Password setup](#).

Disk Management

Disk Drives	Total Size(M)	Free Space(M)	Allotted Data Packag	Residual Data Package	New Data Package
C:\ (NTFS)	10236	4232	3	16	0
D:\ (NTFS)	60000	52806	0	205	0
E:\ (NTFS)	80003	163	311	0	0
F:\ (NTFS)	88224	176	343	0	0

【Disk Drives】 :Display the disk and its format.

【Total Size(M)】 :Display the total size of the disk.

【Free Space(M)】 :Display the total free space of the disk, which is the maximum space can be assigned for recording.

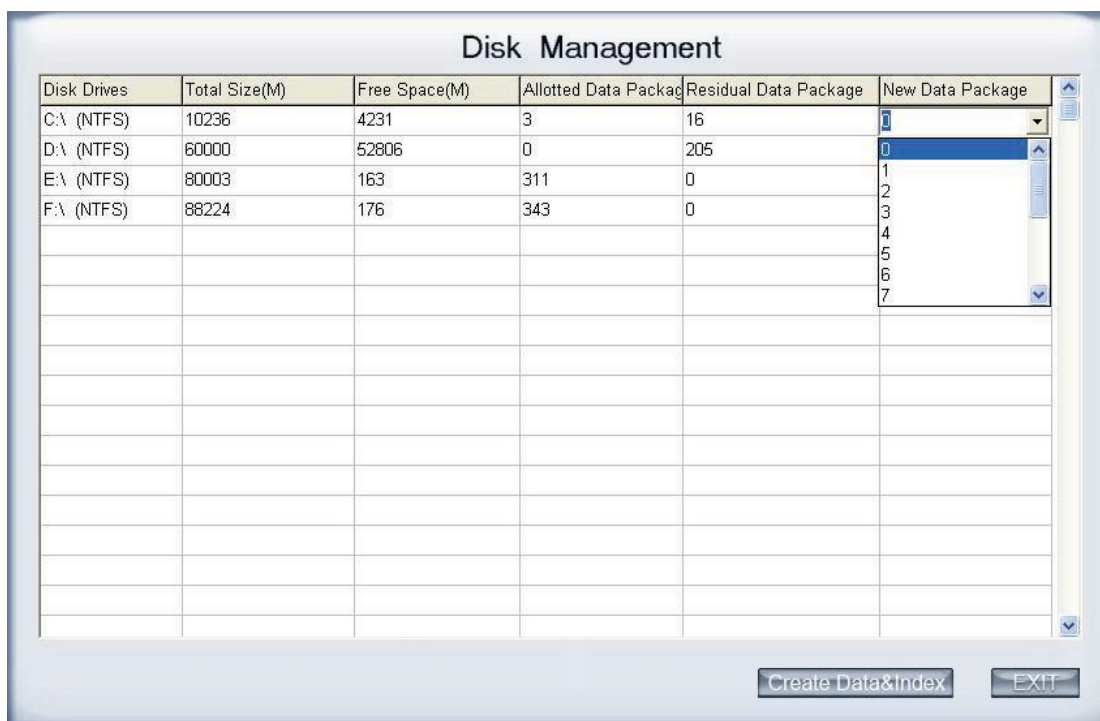
【Allotted Data Package】 : Display the number of data package, which has been assigned for recording before.

【Residual Data Package】 : Display the number of data package that can be assigned for recording.

$$\mathbf{【 Residual Data Package \】 = 【 Free Space(M) \】 /256}$$

【New Data Package】 :Select the number of the data package that user want to create for recording.

$$\mathbf{【 New Data Package \】 \leq 【 Residual Data Package \】}$$



User can select the number of data package for each disk in the drop-down list. Then user can press **Create Data&Index** button to create data package and index for recording. After that, software could calculate the rest space automatically.

Note:

- 1) Please format the whole disk thoroughly before using it to be recorded.
- 2) Each package for recording (**Recdata****.mp4**) is 256MB, and it is associated with its index file (**ReIndex****.inx**). They must work together, or user can't playback recording data correctly. Also, user can't modify them unless deleting them together manually.
- 3) By default, disk C and Disk D are used for system application, so our software will not use it (default: **【New Data Package】 = 0**) unless you change it.
- 4) Since windows will pop up information to warn when the disk has low space, by default, our software will leave 3 packages (about $256*3=768$ MB) for disks (except C and D) to avoid that information. That is to say, the default value of disks (except C and D):

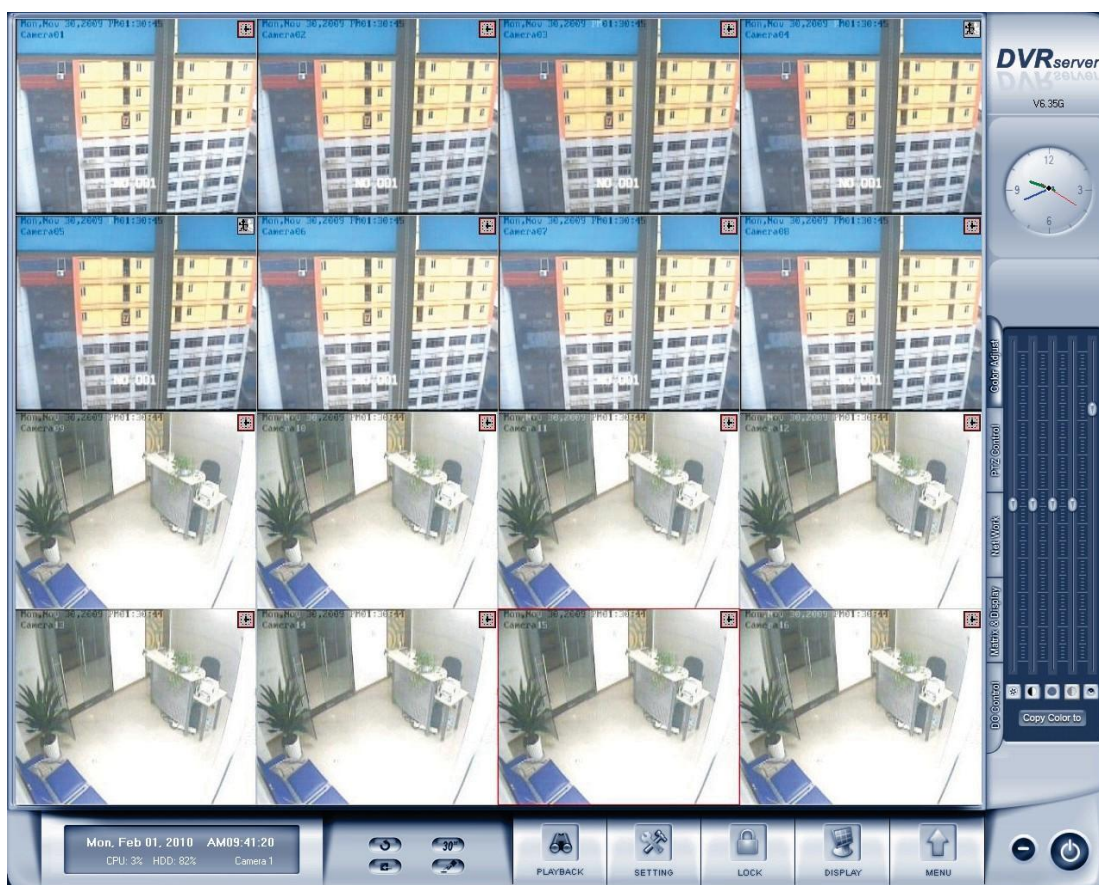
$$\mathbf{【New\ Data\ Package】 = 【Residual\ Data\ Package】 - 3}$$
- 5) Software will cost much more time to create data package and index for FAT32 system than that for NTSC.
- 6) After the data package created, user can't delete the data package through disk manager, user just can delete them manually, and it is

better to delete the whole folder “_RECORD_DATA_” under each disk. After that, the space of the disk will be released; user can assign them for recording again.

1.3 Start up



Double click shortcut icon **DVR Server** to run DVR Server. The main interface is as below:



Note:

- 1) When user run the DVR Server without a valid license for compression cards or IP products, system will pop up a dialog box to inform you. System will work under trial version; if you want to use full version, please contact your supplier or us directly to get it.
- 2) DVR Server supports several different size of main interface: 1024*768, 1280*768, 1440*900, 1280*1024, 1680*1050 and 1920*1080. System will adjust it automatically according to the current monitor resolution.

1.4 Main Interface

1.4.1 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 channel automatically, and the corresponding number 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.

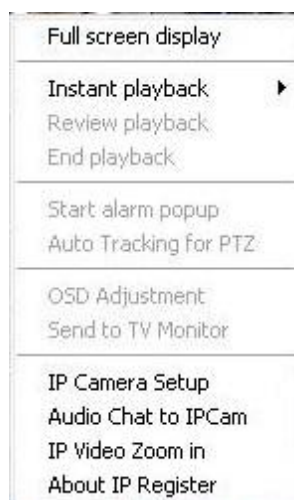
1.4.2 Screen menu

After user enable [keyboard shortcut](#), you can press **TAB** key or **Page Down** (select next camera window) and **Page UP** (select previous camera window) key on keyboard to select a window.

Users can Single-Right-Click image area (compression card camera windows, IP product camera windows and unused windows) to popup the screen menu as below:

1. Full screen

User can Single-Right-Click image area to popup the screen menu, then select **“Full Screen Display”** to view image area in full screen (or press **F12** on the keyboard). When you want to restore, you should Single-Right-Click image area and select **“Restore Display”**.



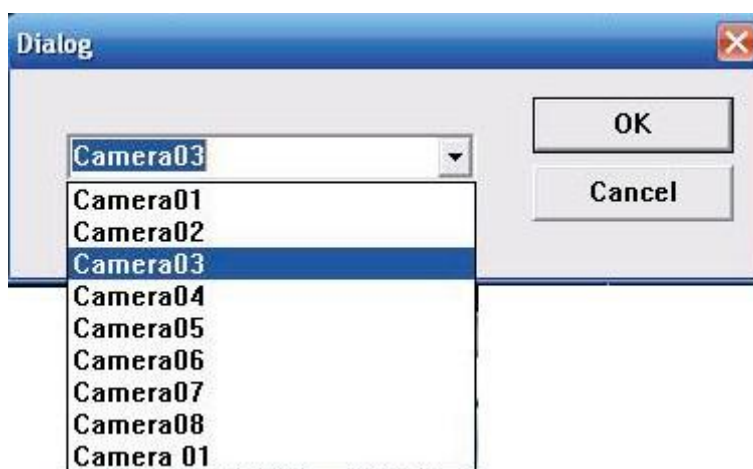
Besides, user can Double-Left-Click a selected window to enlarge it. You can restore it by the same way. You can also press [F11](#) on the keyboard to do the same operations.

2. Instant playback

Single-Right-Click desired camera window and select **Instant playback** (IP cameras included). 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 10 seconds, system will play back previous 10 seconds 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): 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 \rightarrow and \leftarrow to play next and previous frame.

Single-Right-Click the playing back window and select **End playback** to stop instant playback.

While instant playback is in processing, if you want to play it again, select **Review playback** function. Press Space key to switch the play/pause status or direction. In pause status, you can press key \rightarrow and \leftarrow to play next and previous frame. when the screen plays, you can press \uparrow and \downarrow to control the speed of playing, also, in play status you can press \rightarrow and \leftarrow to play in normal speed and play it again.

3. 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 is a motion detection alarm (set in [PTZ & Linkage setup](#) and [Motion detection setup](#)) or an alarm triggered by sensor (set in [Sensor setup](#)), system will display alarm cameras in sequence. When you want to end this function, you can Single-Right-Click video image area and select "Pause alarm popup".



4. Auto Tracking for PTZ


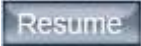
This function is only available to intelligence PTZ.

5. 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. You can drag time or channel

name to where you want directly in screen, then press  button to save it or press  button to resume time and channel name to default position.

6. IP Camera setup

For this function, it is only available when you Right-single-Click image of IP camera. It will describe in [IP Camera Setup](#).

7. Audio chat to IP Cam

Press this tool bar, you can select the “Audio Chat to IP Cam “function to chat with the IP Cam as bellow:



8. IP Video Zoom in



If you press this tool bar, you select the image zoom out function. Single click the left mouse in the image and draw an area, and then it will zoom-out as bellow:



If you want to display the normal image, you should single-right-click again and select **Image Restore**.

9. About IP Register




Select this option to get your register information as below:



1.4.3 Interface description

1. Partition mode





Press  button to set the window's partition mode of the main screen. There are many types of partitions; the available partition is determined by the total channels of cards, you can select the suitable partition according to the number of video inputs.


However, the partition mode is changing according to the size of the main interface. For example: When the size of the main interface is set as 1280*768, the partition mode will be changed.

1 View
4 View
6 View
9 View
13 View
16 View
20 View
25 View
28 View
33 View
36 View
40 View
49 View
64 View



2. Videos play in sequence mode switch

Press  button to switch among all cameras in current windows in sequence when current partition number is less than total channels. You can press  again to cancel the switch. But at first, you must confirm that *Camera Sequencing Interval* in system setup has been set enable.


3. Emergency recording button

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

4. Image capture

Press  button to save an image for selected camera to local disk for reviewing or printing. It will ask you for file name and save path when you use  to capture pictures for the first time. Next time, it will save to the previous path directly.

5. Manual record switch

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

6. Information display panel




This panel displays the current date, current time, disk usage and description of the selected camera.

Note:

Disk usage will be changed to record days when the record data package is full and the new data is overlaying the old.


7. Local setup submenu

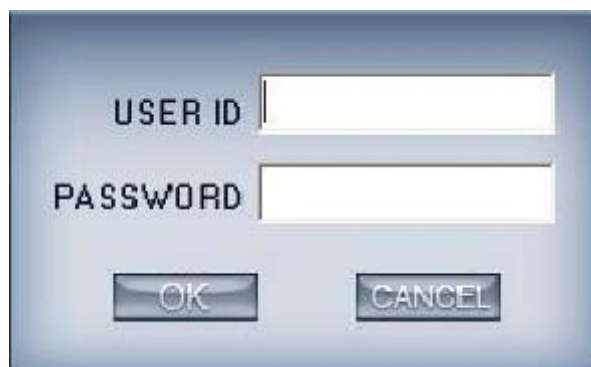
Press  button to access [Local setup](#).

8. Playback

Press  button to enter [Playback](#) to search local video/audio data.

9. System lock

Press  button to prevent unauthorized user to operate system. Click this button again, the unlock dialog displayed, input User ID and password 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



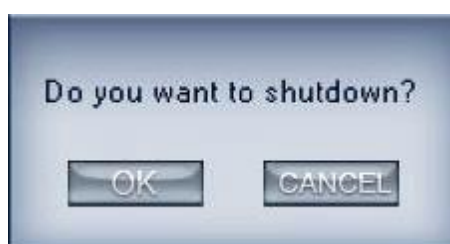
Press  button to minimize the main window (or press WIN + Z on keyboard).

11. Exit program



Press  button to exit program.

After click this button, a dialog will be displayed. Click "OK" to quit DVR system.



1.4.4 System Menu

Backup System Parameters
Import System Parameters
Restore Default Parameters
DVD/CD disc backup directly
Execute a external program
Remote chat
Write to working log
View System log
Open explorer
Open Screen Keyboard
Motion detection setup
Open electron map
DVR board work mode setup
Keyboard shortcuts setup
Add/Del IP Camera
POS Function Setup
ACU Function Setup
POS/ACU Event Monitor

1. Backup/Import System Parameters

Select this function to export/import system configuration parameters.

2. Restore Default Parameters

Select this function to restore the default parameters of system.

3. DVD/CD Disc backup directly

Select this function to burn video data to DVD or CD, which is the same as burn DVD/CD in [Playback](#).

4. Execute a external program

Select this function to execute an external program.

5. Remote chat

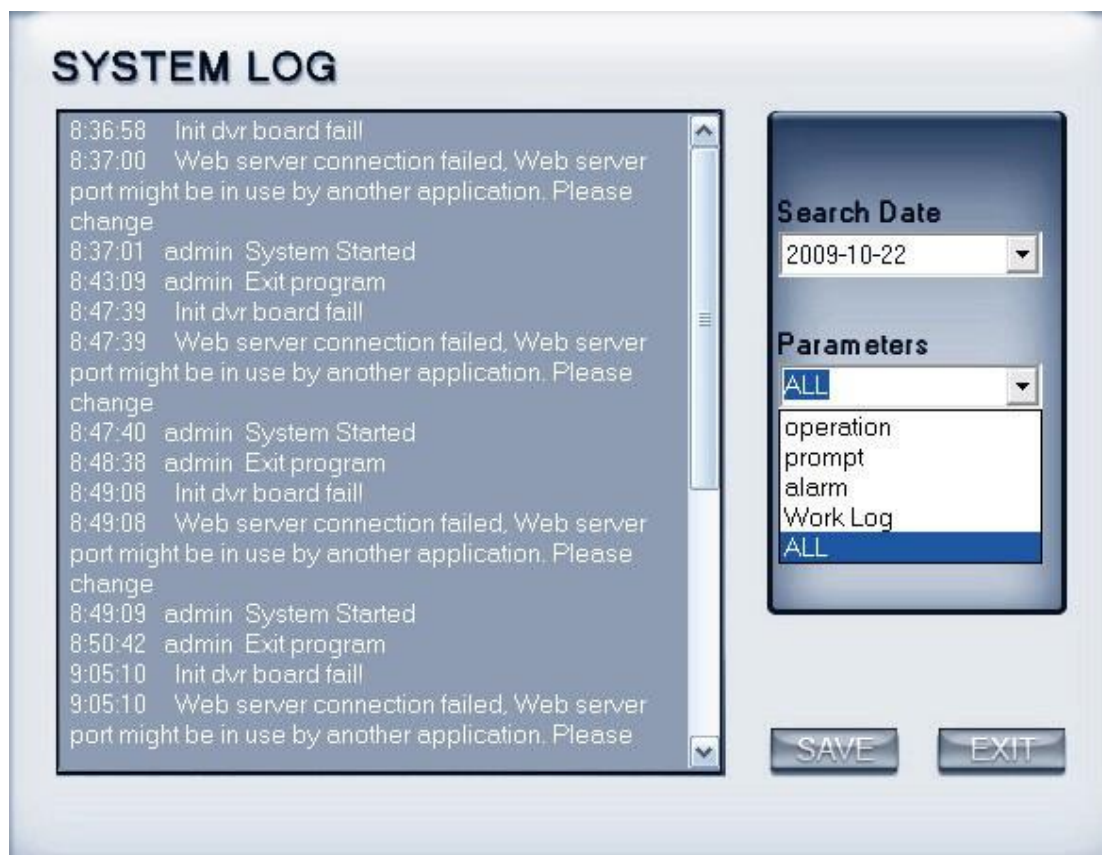
Select this option to connect a remote Client or Server for a live chatting via IP address, but please make sure audio card and Microphone have been installed.

6. Write to working log

This is useful to record events that occur during the operator's shift.

7. View system log

Select this function to view all actions of recording as well as operations. Users can search log according to the parameters, such as: operation, prompt, alarm and work log.



8. Open Explorer

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

9. Open Screen Keyboard

This function allow user to use soft keyboard. Also, in the setup interface, you can Left-Double-Click the blank to open soft keyboard.

10. Motion detection setup

You can use the motion link PTZ preset function. Select ***Motion detection setup*** to set the motion detection area.



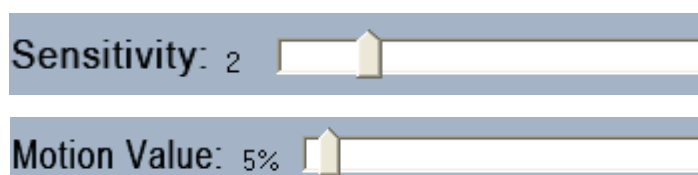
First, you should select the ptz camera and set the preset. Then, you should select the detected camera, which is showed as . Next,

select the detected area named Zone01 like the green frame. If you select the number is 64, the total of the zone is 64, you can detect the number of areas is 64. When the detected area motions, the ptz camera will link to the preset you set.

If you don't want to use the motion link ptz preset function, you should press **Link to PTZ** again, then the motion detection is enable as below:



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 **DELETE** 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 **TEST** button to test the sensitivity of motion detection. The sensitivity can be adjusted by dragging the slider bars below the motion detection window,



The Sensitivity value bar is used to adjust the sensitivity of the area you

selected. The sensitivity value is smaller the motion detection is more sensitive.

The motion value bar is used to set the minimum acreage of full screen to trigger alarm. Its unit is percent, if the acreage of motion area exceeds the setting value of the areas you selected, system will trigger alarm. The default value of Sensitivity and Motion is 2 and 5%.

Note:

Motion sensitivity value will affect the accuracy of smart search.

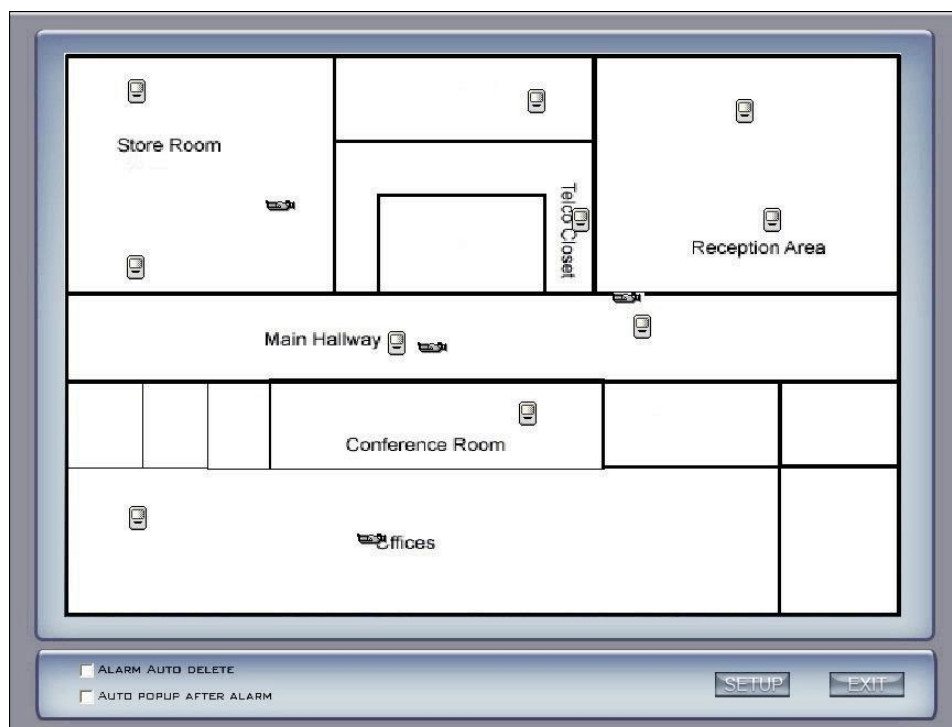
(1). Add mask/Delete mask

Press **ADD MASK** button to set the area to be shielded. 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 electron map

Click **SETUP** icon and then Right-Single-Click on the map, the setting picture will appear. You can add or delete sensors and cameras that pointed by the arrow or change the digital map.



Add Sensor
 Add Camera
 Delete all annunciator
 Change Map

If it is set to appear automatically, when the sensor is triggered, the map will appear automatically and the sensor being triggered will be marked. For triggered camera, user can Left-Double-Click it to view its video.

12. DVR board work mode setup

Each DVR system supports maximum 8 PCs VEC series card (total channel is equal to 64) series board, so user can set its work mode via this GUI.

Video Card Setup

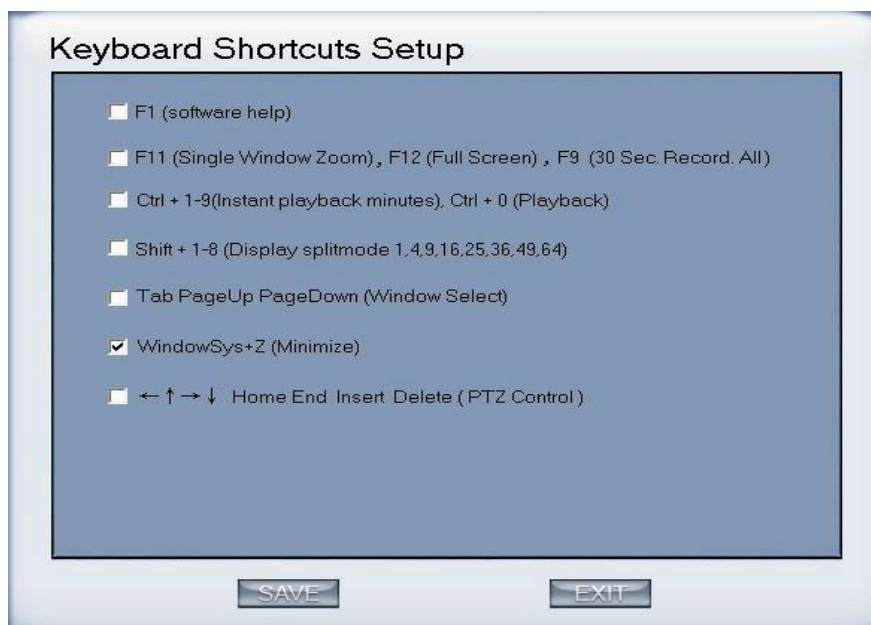
0804F	8 X CIF
	8 X CIF
	1 X D1 + 6 X CIF
	2 X D1 + 4 X CIF
	3 X D1 + 2 X CIF
	4 X D1

SAVE CANCEL

The new work mode of DVR board will take effect after rebooting DVR Server software.

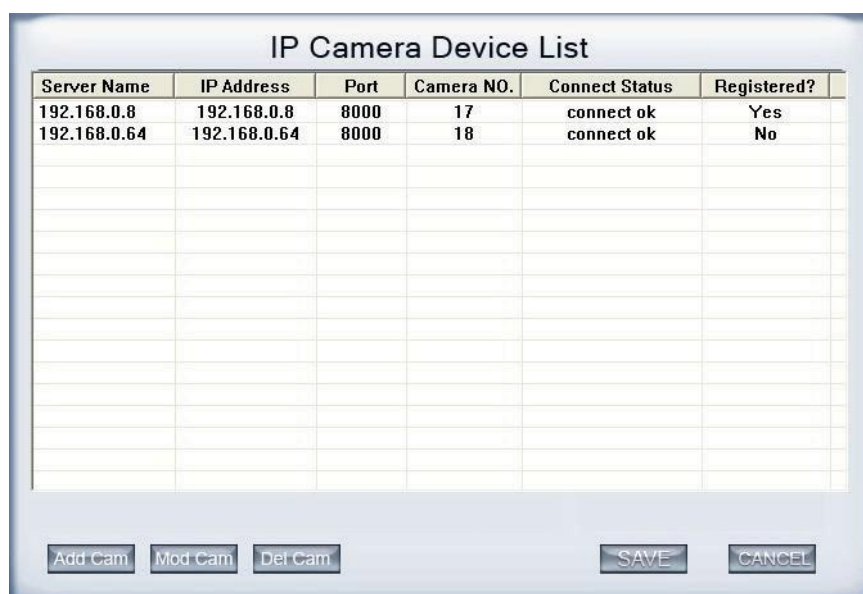
13. Keyboard Shortcuts setup

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

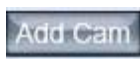


14. Add/Del IP Camera

Press this bar to add IP Module to DVR system. For resource limitation, you can add max 64 IP Modules, including DVS and EM DVR. Now our software supports the following types of IP products: NV Series IP/EMDVR, DG Series EMDVR, DG Series IPC, XL Series IP, Sony SNC110/160, ACTi Series IP, Huvion Series IP, Mobotix M12 Series IP and ArecontVision Series IP.



(1). Add IP camera device

Press  button to add an IP Camera device:

Add/Modify IP Camera

Server Name <input type="text"/>	IP Device Name <input type="text" value="NV Series IP"/>
IP Address <input type="text"/>	Video Stream Type <input type="text" value="Double Stream"/>
Connect Port <input type="text" value="8000"/>	IF Use DNS to Get IP <input type="text" value="No"/>
Login User ID <input type="text" value="admin"/>	DNS Server IP <input type="text"/>
Login Pass <input type="text"/>	DNS Server Port <input type="text" value="7071"/>

OK CANCEL

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

【IP Address】 Input the address of the IP Camera, it is an IP address or IP alias of the 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.

【Device Name】 Select the corresponding name for the IP camera. Now our software supports the following types of IP products: NV Series IP/EMDVR, DG Series EMDVR, DG Series IPC, XL Series IP, Sony SNC110/160, ACTi Series IP, Huvion Series IP, Mobotix M12 Series IP and ArecontVision Series IP.

【Video Stream type】 If you want to use the **Record sub stream** function in the IP device, you should select the data stream type **Double Stream**.

Select the Main-stream or sub-stream for the device, the main-stream and sub-stream could set in the follow interface:

【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.

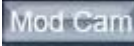
【DNS Server Port】 DNS server host's port, which is provide to connect DNS software.

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.

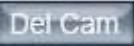
Note:

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

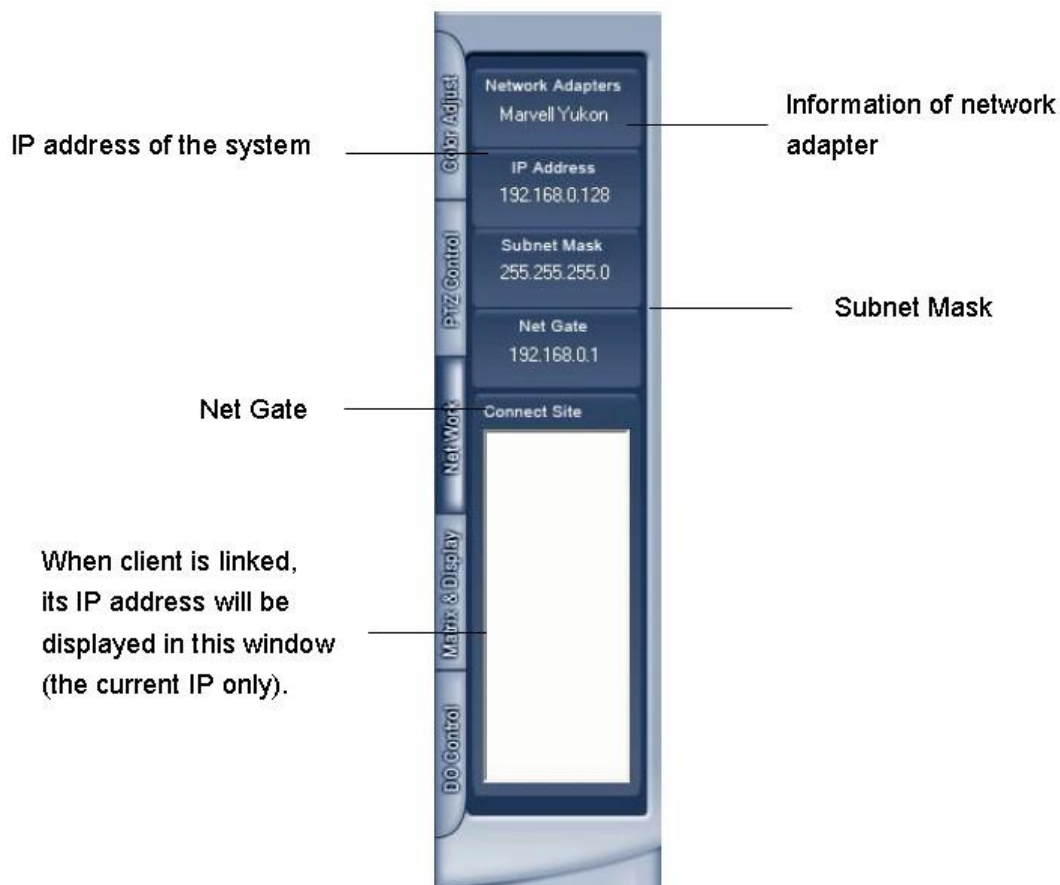
processing to add IP camera device (“connecting...”indicated in connect status column), user cannot delete that IP camera device.

15. Pos/Acu Function Setup\Event Monitor

We will introduce the Pos particularly in *Pos introduction and function*.

16. Network panel

This panel displays the network configuration of DVR system.



1.4.5 PTZ Control panel

In DVR system, there are three ways to operate PTZ:

- Panel operate;
- Operate in video area directly;
- Keyboard operate.



1. PTZ speed

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

2. 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.

3. Wiper (On/Off)

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

4. Zoom + / Zoom -

Control the zoom function of the PTZ camera.

5. Focus + / Focus -

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

6. Iris + / Iris -

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

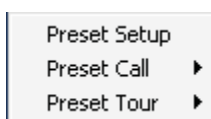


Pressing this button initiates the connected PTZ camera to do an automatic tour of 360, but for speed dome, many PTZ factories forbid this command.

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

7. Speed Dome

Press **Speed Dome** 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:

Camera ID

Add/Del. Preset

Preset Name
 Preset No.
 Call Mode

Preset Name	NO.
123	1

No PTZ action sec back
 Home Position

Tour Preset

Preset Name
 Stay Time sec

Preset Name	NO.	Time
123	1	5

I. 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.

II. 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.

III. 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.

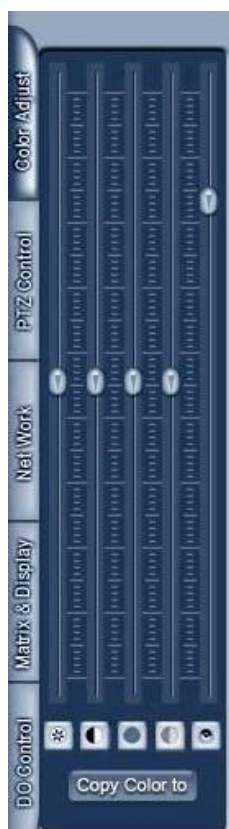
(3). Preset Tour


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.


8. Control PTZ via video window


Press and drag the mouse to the corresponding area can control the PTZ.


1.4.6 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 .

② Press 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 .

③ Press 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 .

④ Press 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 .

⑤ Press 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: pressing the  button to copy the color and audio adjustment in this camera's setting to the others.

1.4.7 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 [Digital matrix setup](#).

1.4.8 DI/DO Control



1. DI control

Press number button to check sensor all time forcibly even though user didn't set check sensor in [sensor setup](#). The channel of DI and DO is determined by the setup of DI/DO device you set in [System setup](#). The status of DI has three types:

- 2 Input channel 2 doesn't check sensor forcibly.
- 3 Input channel 3 checks sensor forcibly or has an alarm inputting.

When there is no alarm yet, user can press number button to check sensor forcibly. Press the button again to stop checking all time, then system checks sensor according to [Sensor setup](#). When there is an alarm, the corresponding button will show the alarm with green.

Note:

When you select NV 7632 and the combination is not the standard configuration (combination of NV 7608 and NV 7616 or NV 7608: total DI is less than 32), some ports are not available according to the setting of decoder address. For example: user selects NV 7632 and the combination is NV 7608 (decoder address is 1) and NV 7616 (decoder address is 2), then the DI ports 9 to 16 are not available, so that the status indication is not available.

2. DO control

Press number to open/close alarm device relay switch manually. The status of DO has two types:

2 Output channel 2 is close.

3 Output channel 3 is open.

When there is no alarm triggered out, user can press the number button to output alarm forcibly and the button will show it with green, press it again the output will be closed.

Chapter2 Local setup

The DVR System Configuration and include 7 types of configuration setup:



2.1 System setup

SYSTEM SETUP		
Number of Channels: 1	Sensor Inputs(DI): 8	Sensor outputs(DO): 8
Audio Monitoring: Disable	Use E-Map: Disable	Camera Sequencing Interval: 2 Sec
DI/DO Port: ---	System Keystroke: Allow	Save Log For: 30 Days
DI/DO Device: NV7608	Date Format: Sat,Jan 22,2005	Alarm Camera popup interval: --- Sec
POS Function: Disable	Time Format: PM 03:12:18	Default Camera Type: NTSC
ACU Function: Disable	Alarm Beep: Disable	Grab picture save to: D:\Grab ...
Language: English		
NETWORK SETUP		
Remote Connection: Enable	Remote Port: 5100	Remote Buffer Priority: smooth
PDA Connection: Disable	PDA Connect Port: 5101	Web Server Port: 80
Automatic Alarm Notification Client IP: _____	Alarm Send Port: 5300	Permit Max Connect Video Num: 128
Use DNS: Disable		
BOOT SETUP		
<input checked="" type="radio"/> Exit to Windows	<input type="radio"/> Exit and Shutdown	<input type="radio"/> Auto Shutdown: 0 H 0 M
Auto Reboot Date(Mon - Sun): 1 2 3 4 5 6 7	Reboot at: 0 H 0 M	

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).

【POS Function】 Set the pos function disable or not

【ACU Function】 Set the ACU function disable or not

【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 supports following NV serials DI/DO devices: NV7608, NV7609, NV7616, NV7616B, NV7632 and NV7632B. NV7632 includes two NV7616 (or combination of NV 7608 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, it is available when the input video is lost and for the decoder to playback local video to TV Wall.

【Window Split Mode】 Select window split mode for DVR between “Normal Mode” and “Wide Screen”. You would better select “Wide Screen” when you are using wide screen monitor. You should re-select the view window number to refresh the window split mode status.

【Grab picture save to】 Select the path to save the grabbed pictures.

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. " real-time " 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 ports. 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.

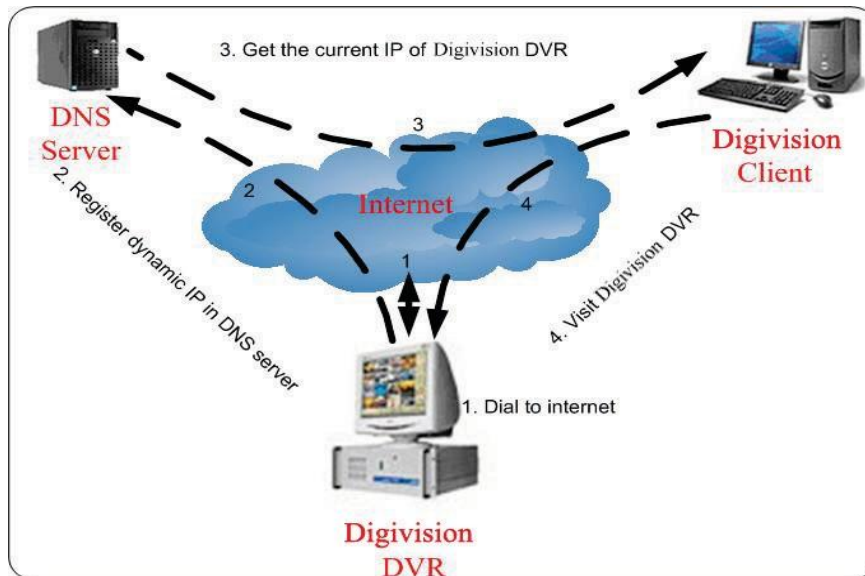
【Local Host Name】 Input the name description for DNS Server identification.

【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 required, please get DNS server software from developer.



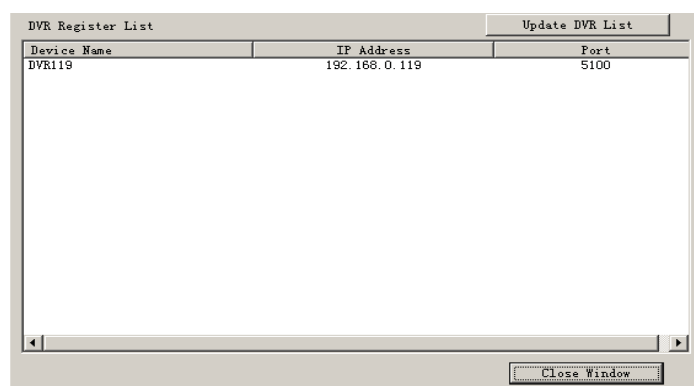
1. If your DVR is dynamic IP, you should set your DVR system as follow:

The 'Dns Setup' dialog box has the following fields and values:

- Local Host Name:
- DNS Server IP:
- DNS Server Port:
- Interval Connection Time: (dropdown menu)

Buttons: OK, Cancel

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



Device Name	IP Address	Port
DVR119	192.168.0.119	5100

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

The image shows two configuration windows. The top window is titled 'CAMERA SETUP' and contains the following settings:

- Selected Camera: Camera01
- Camera Description: PTZ_Camera
- Camera Type: PAL
- Camera: Enable
- Sub Stream F.R. (fps): 25
- BitRate: Variable
- Frame Rate(fps): 25
- Sub Stream Image Size: Disable
- Image Quality: Very Good
- Alarm Adjust(fps): Disable
- Sub Stream Quality: Best
- Image Size: 352 * 288
- OSD Date: YES
- Masking Bitmap File: (empty)
- Record Days: Auto
- OSD Contrast: 255
- Copy Setup to: ALL COPY

The bottom window is titled 'GROUP SETUP' and contains the following settings:

- Selected Group: Group01
- Record Sub Stream: Disable
- Selected Cameras: 1 2 3 4 5 6 7 8 9
- Pre-Event Record: 5 Sec
- Post Record Time: 5 Sec
- Record Audio: Video

Below these settings is a recording mode selection bar with the following options:

- Normal Rec.
- Sensor Rec.
- Motion Rec.
- Motion or Sensor Rec.
- Nomal & Motion Rec.
- Not Rec.

At the bottom is a 24-hour recording schedule grid with columns numbered 0 to 23 and rows for days of the week (SUN, MON, TUE, WED, THU, FRI, SAT). The grid is currently empty.

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 languages, it can put any language in camera description edit blank, and then press the button to set proper color (it does not support white) as below:

The image shows a dialog box titled 'TextOsdSet' with the following content:

- Text OSD advanced setup
- OSD Color (R G B value) 0 0 0
- OK button
- Cancel button

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

【Camera】 Enable or disable selected camera.

【Sub Stream Frame Rate(fps)】 Set the frame rate of the Sub Stream.


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

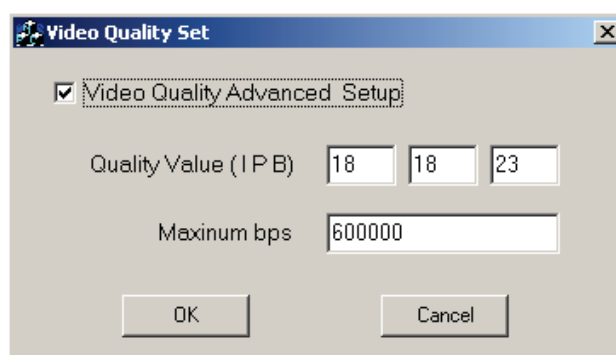
CBR allows each frame to be recorded at fixed bit rate, regardless the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【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.

【Sub Stream Image size】 Select image resolution to the Sub Stream. When you set the **【Image Size】** as 4CIF(704*576), this configuration is not available for HC series card, program will select it as 4CIF("Same as Record") automatically because DVR board does not support dual stream when it records with 4CIF resolution. When you want to use mobile client to access DVR Server, you must open dual compressing function by not selecting "same as record". When you open dual compressing function and the Mobile Client is online, whatever you select, the Clients, including NVR Client and Mobile Client, will just receive QCIF format image; when Mobile Client is offline, NVR Client will receive image as the format you set here.

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



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:


Max bps = $(\text{Maxbps}/3)*5$ Note: **Maxbps** is the CIF's value with the same configuration (I P B)

For D1:

Max bps = $(\text{Maxbps}/3)*8$ 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	
	4CIF	
Less or Equal to16	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 at 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 in the system. The maximum duration for on-line storage is 120 days. Users can select an exact number of days, or 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. E.g.: there are four cameras, the 1st camera saves 2 days, the 2nd camera saves 5 days, the 3rd camera saves 10 days, and the 4th camera we 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 from 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)", the three items are no effect, and client's parameters will be the same with 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 the same with 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.

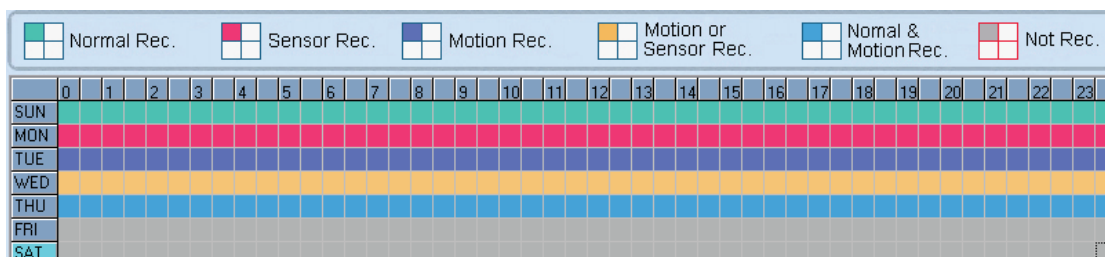
【Selected Cameras】 Select the cameras that the work mode of which are the same in a group. Cameras include local board card and IP module.



【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 triggered.

【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 (Set 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 always record video (e.g. Sun.);
2. Sensor Record (red): DVR system begins to record video only when there are POS or ACU actions(e.g. Monday);

Note:

The time setup must be corresponding with Check Alarm setups in Sensor setup otherwise it can't work properly.

3. Motion Record (Blue): DVR system begins to record video only when it detects moving object (e.g. Tuesday.);
4. Motion or Sensor Record (yellow): Combine with above **2** and **3** function (e.g. Wednesday);
5. Normal & Motion Record (light blue): DVR system records in motion detection record when it detects moving object and in normal record when there is no motion (e.g. Thursday);
6. Not Record (gray): DVR System records no video (e.g. Friday and Saturday).

2.3 Sensor setup

The screenshot displays two configuration panels: 'SENSOR SETUP' and 'GROUP SETUP'.

SENSOR SETUP:

- Select Sensor: Sensor01
- Sensor: Enable
- Sensor Position: [Empty]
- Activate PTZ Preset: Preset01
- Play Alarm Sound: [Empty] ... Test
- Link to PTZ: [Camera icon]
- DO Port: D001
- DO Port Name: DO-1

GROUP SETUP:

- Selected Group: Group01
- Sensor Type: N/C
- Alarm Write Log: Disable
- Alarm Action After It Times-out:
 - Stop Immediately
 - Do Not Stop
 - Wait 10 Secs. Then Stop
- Sensor Input: [1] [2] [3] [4] [5] [6] [7] [8]
- Start Recording Cameras: [1]
- Trigger Output Relays: [1] [2] [3] [4] [5] [6] [7] [8]
- Check Sensor: Not Check:
- Send Email: Disable
- Send SMS: Disable

At the bottom, there is a calendar grid with days of the week (SUN to SAT) and days of the month (0 to 23). The grid is currently empty.

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.

【Send email】 Set the send email alarm function disable or enable when the sensor test abnormally.

【Send sms】 Set the send sms alarm function disable or enable when the sensor test abnormally.

【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.

The screenshot shows a configuration window with the following elements:

- Two checkboxes: "Check Sensor" (checked, red) and "Not Check" (unchecked, gray).
- Two dropdown menus: "Send Email" (set to "Enable") and "Send SMS" (set to "Enable").
- A grid with columns numbered 0 to 23 and rows labeled SUN, MON, TUE, WED, THU, FRI, SAT.
- The grid cells are colored red, indicating the "Check Sensor" status is active for all hours and days.

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

The screenshot shows two main configuration panels. The top panel, titled "PTZ PROTOCOL SETUP", includes fields for PTZ COM Port (COM1), DVR Keyboard COM Port (empty), Selected Camera (Camera01), PTZ Protocol (Pelco-D(H)), PTZ Address (1), PTZ Baudrate (2400), and PTZ Position (Normal). The bottom panel, titled "CAMERA DETECTION RELAY CONTROL/ REMOTE CLIENT ALERT", includes fields for Camera Alarm Detected In (Camera01), Alarm Write Log (Disable), Send Alarm To Client (Disable), Motion Alarm Sound (empty), Video Loss Alarm Sound (empty), Trigger DO Output (1-8), Send Email (Disable), and Send SMS (Disable). Below these fields are checkboxes for Motion & Video Loss, Motion Alarm, Video Loss, and Not Check. At the bottom, there is a calendar grid for days of the week (SUN to SAT) and hours (0 to 23).

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 “-----”.

【DVR Keyboard COM Port】 Select a connecting port for DVR keyboard. If you have chosen COM1 for DI/DO Port, and you choose COM1 again for DVR keyboard, then, DI/DO Port will be changed to another port. If you want to know more details for DVR keyboard, please refer to ***DVR/NVR Keyboard Control Manual***.

【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.

Note:



- 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 addresses begin 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 select 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  button.

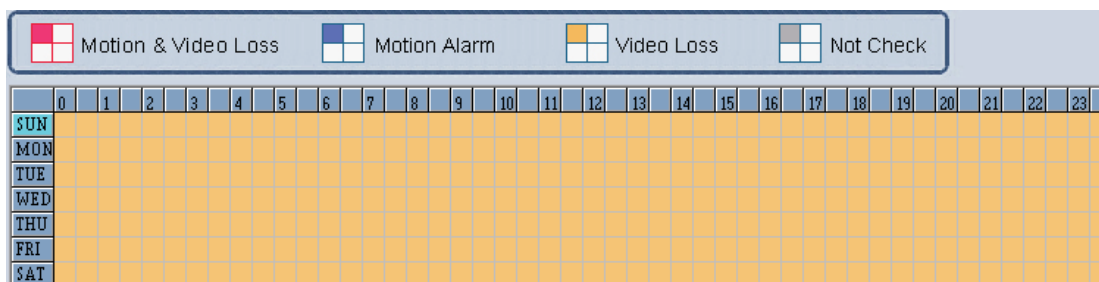
【Send email】 Set the send email alarm function disable or enable when the cameras test abnormally

【Send sms】 Set the send sms alarm function disable or enable when the cameras test abnormally.

【Video Loss Alarm Sound】 Press  button to select 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  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 & SMS setup



Press  button to access E-Mail setup.

Note:

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

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

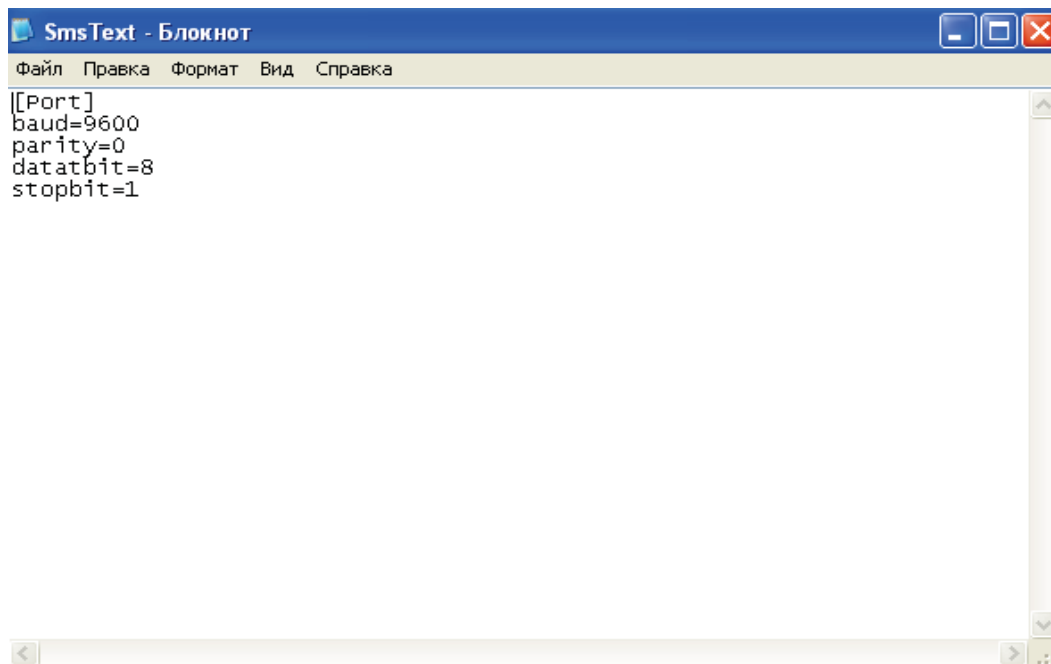
For Camera-related alarms, you should set [Motion detection setup](#) and check alarm in [Motion detection relay & remote client alert](#). For Sensor-related alarms, you should set to check sensor and select cameras to be triggered in [Sensor setup](#).

When you enable system capture image as attachment of E-mail, the system will capture a still picture of the alarm camera to be sent as an attachment of the E-mail.

EMAIL SETUP			
SMTP Server	<input type="text" value="smtp.163.com"/>	SMTP Port <input type="text" value="25"/>	Auth, Type <input type="text" value="Simple Login"/>
Login User ID	<input type="text" value="kx2008@163.com"/>	Login Pass <input type="password" value="*****"/>	<input type="button" value="Send test message"/>
Send To	<input type="text" value="support_eu@netvisiondvr.com"/>	Sender E-Mail	<input type="text" value="kx2008@163.com"/>
Copy To	<input type="text" value="netvision008@hotmail.com"/>	E-Mail Title	<input type="text" value="Alarm"/>
E-Mail ScreenShot As Attachment	<input type="text" value="Enable"/>		

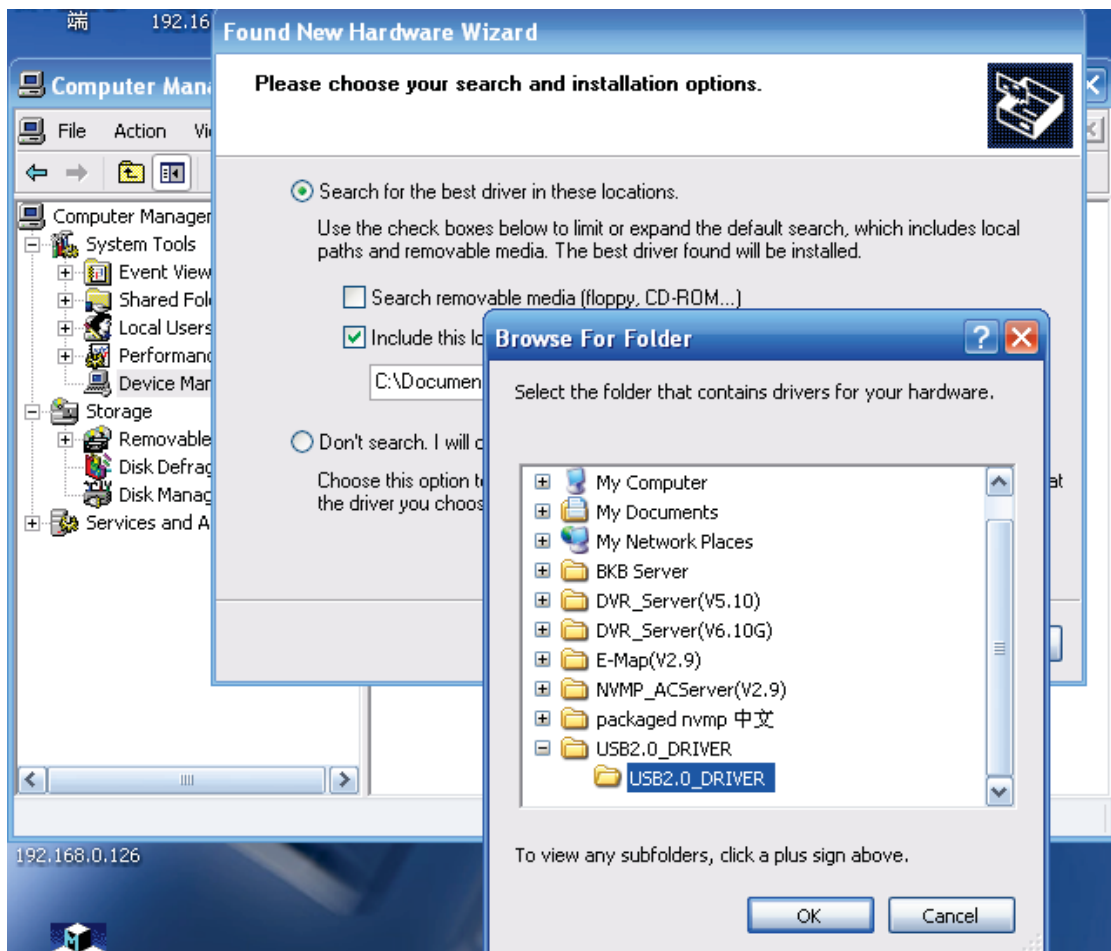
SMS SETUP				
SMS Device	<input type="text" value="SmsPdu"/>	SMS Use Com Port	<input type="text" value="COM3"/>	<input type="button" value="Send test message"/>
DVR Host Name	<input type="text" value="DVR Server"/>			
Mobile Number 1	<input type="text" value="8613594499044"/>	Mobile Number 2	<input type="text" value="8613110160410"/>	
Mobile Number 3	<input type="text" value="8613272525767"/>			

User can modify GSM modem's communicate parameters manually in C:\Program Files\DVR Server\SMS_LIB as bellow:

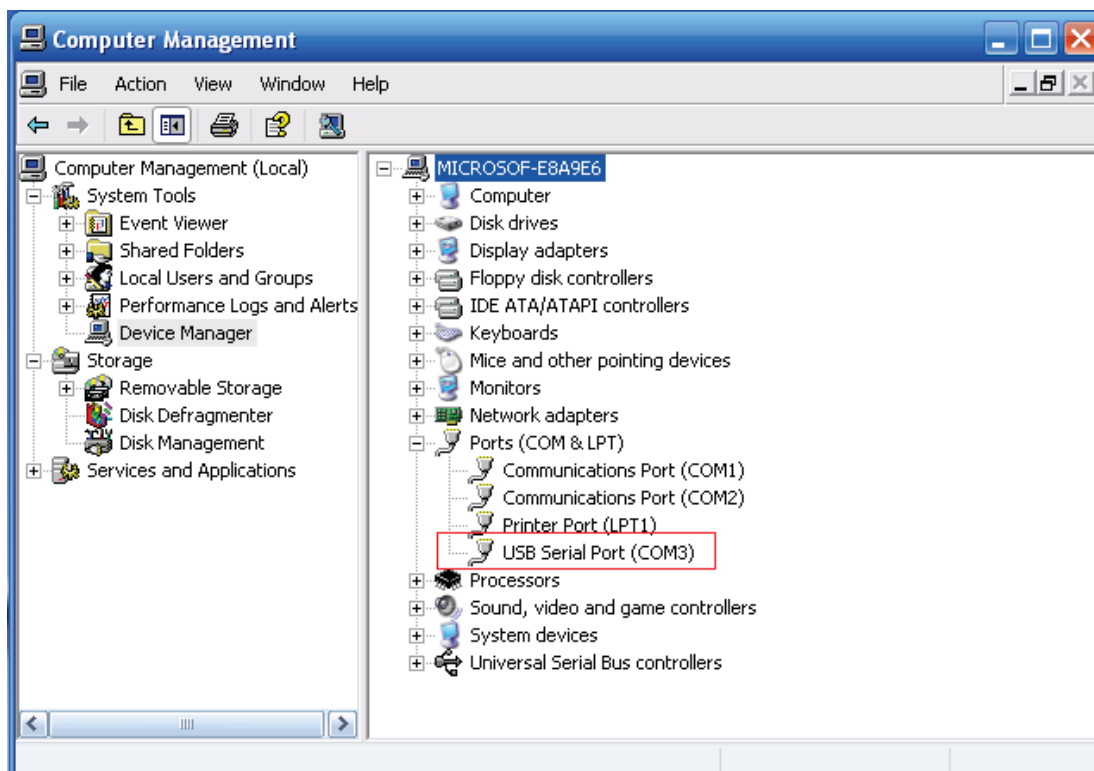


```
[Port]
baud=9600
parity=0
databit=8
stopbit=1
```

After you insert the GSM MODEM, Firstly, you should install the driver.



When the driver is installed, the interface as below will be displayed:



2.5.1 EMAIL setup

【SMTP Server】 SMTP server address, e.g.: mail.jstDVR.com,

【SMTP 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 finished setup, user can press **Send & Test** to test whether email can be sent successfully.

【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 alarm be triggered, the system will grab a picture, you can choose whether send the picture as attachment to the E-mail.

2.5.2 SMS setup

【SMS Device】 Set the sms send mode, you can select the SMS pdu mode or the sms text mode.

【SMS Use Com Port】 Set the SMS Use Com Port which the device connect.

【DVR Host Name】 Set a name to sign the dvr which on the SMS displays.

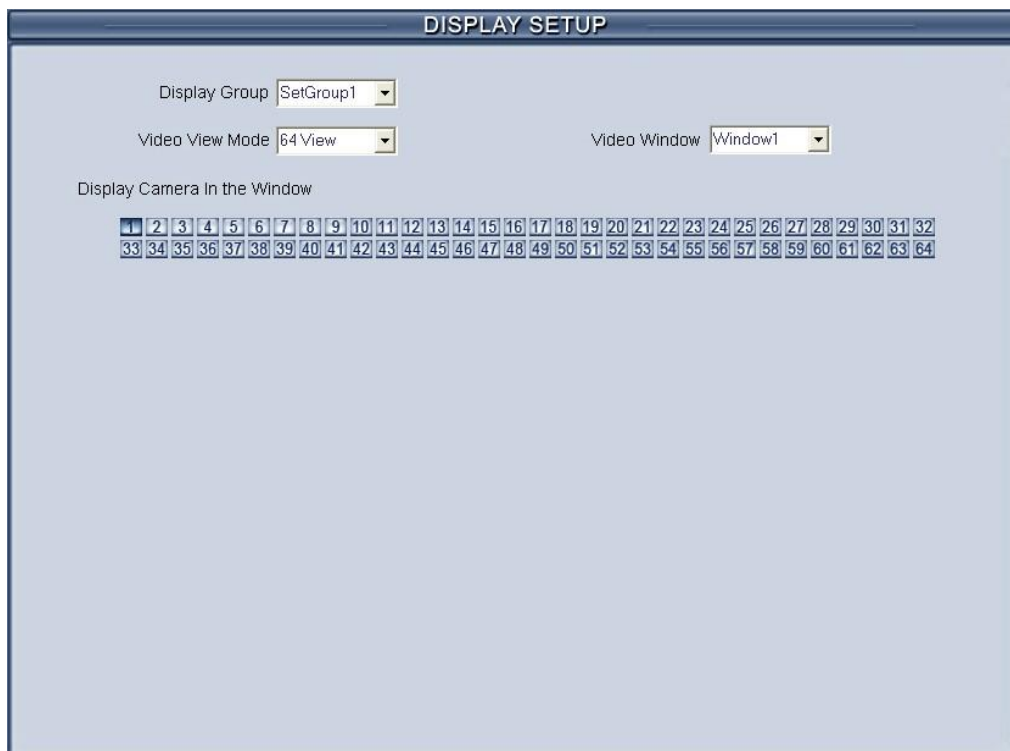
【Mobile number 1】【Mobile number 2】【Mobile number 3】 Set the mobile number to receive the SMS, SMS will be sent to the mobile which you

set. Press **Send & Test** to test whether the SMS can be sent successfully after setup.

Note:

The mobile number should be made up of the international code and mobile phone number .E.g.: In China, the mobile number is “86130****1234”.

2.6 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 are 1, 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:

One camera is only showed in one window once, but each camera can be displayed in 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.

2.7 Password setup

The screenshot shows two configuration windows. The top window is titled 'USER INFORMATION' and contains fields for Local Password (Enable), Auto Lock Time (3 minutes), and Network Password (Enable). It also has input fields for User Name (user), Auth. Level (operator), Password, Password Confirm, and Note. There are buttons for 'New User', 'Mod User', and 'Del User'. A table on the right shows the current user list:

User Name	Auth. Level
admin	Manager
user	operator

The bottom window is titled 'USER RIGHT SETUP' and contains a 'Select Setup Items' dropdown (Camera view right) and a 'Cameras View Right Lock Mode' dropdown (All user view). It features a 'Cameras' row with buttons 1 through 15. Below are sections for 'User Access Rights' and 'Setup Right', each with a grid of checkboxes for various permissions like Matrix Control, Color Adjust, Modify Network, etc.

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 Digivision 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.

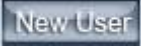
【User Name】 Input new User ID in this box when add a new user to system.

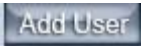
【Auth. Level】 Select user type. Only Administrator can enter User Manage Window and have the right of user management.

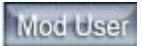
【Password】 Set new user or selected user's password.

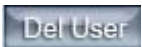
【Password Confirm】 Confirm password again.

【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 to 15 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

【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.

【User Access 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.

When manager doesn't want some operators to manage disk or backup data locally, he should not check the two rights for those users. For example, "admin" doesn't want "user" to own the two rights, he should select "user" first, and click "Modify", and then, check the "V" in front of "Disk Management" and "Local Backup".

User Access Rights	<input checked="" type="checkbox"/> Matrix Control	<input checked="" type="checkbox"/> Color Adjust	<input checked="" type="checkbox"/> Modify Network	<input checked="" type="checkbox"/> Delete File In Search
	<input checked="" type="checkbox"/> Search Log	<input checked="" type="checkbox"/> Open Map	<input checked="" type="checkbox"/> Motion Setup	<input checked="" type="checkbox"/> Minimum
	<input checked="" type="checkbox"/> DVR Board Setup	<input checked="" type="checkbox"/> DO Control	<input checked="" type="checkbox"/> Exit Program	<input checked="" type="checkbox"/> Explorer & para backup
	<input type="checkbox"/> Disk Management	<input type="checkbox"/> Local Backup		

【 Setup Right】

Select setup rights to grant or deny user privileges.

Setup Right	<input checked="" type="checkbox"/> System Setup	<input checked="" type="checkbox"/> Camera Setup	<input checked="" type="checkbox"/> Sensor Setup	<input checked="" type="checkbox"/> Linkage&PTZ
	<input checked="" type="checkbox"/> Email Setup	<input checked="" type="checkbox"/> Digital Matrix		

Chapter3 IP Camera Setup

Note:

For IP camera setup, its alarm and related setup is only available when you set remotely, the local setup of PC DVR is not available for IP Cameras except Recording Schedule in [Camera Setup](#).

The remote setup interface of NV Series IP cameras is as below:


The screenshot shows a web-based configuration interface for an IP camera. At the top, there are five tabs: 'Server', 'Channel', 'PTZ', 'Sensor', and 'Alarm Setup'. The 'Alarm Setup' tab is currently selected. The interface is divided into two columns of input fields. The left column contains: 'Server Name' (9 IP server), 'Server IP' (192.168.0.9), 'Listen Port' (8000), 'Subnet Mask' (255.255.255.0), 'Net Gate' (192.168.0.1), 'Net Cable Type' (10M/100M[5 cable]), 'Use PPPoE' (checkbox), 'PPPoE Login Name', 'PPPoE Login Pass', and 'PPPoE IP'. The right column contains: 'User name' (admin), 'User Pass' (*****), 'DNS Server IP' (192.168.0.119), 'Remote Manage IP', 'Remote Manage Port' (7071), 'Physical address' (00:40:30:4e:fd:7e), 'Software Ver.' (V2.0 build 080812), 'DSP software Ver.' (V4.0 build 080729), and 'Hardware Ver.' (0xb0000000). At the bottom of the interface, there are five buttons: 'Upgrade', 'Restart', 'Time Adjust', 'Save', and 'Exit'.

For DG Series EM-DVR, the interfaces are not exactly the same as NV Series. Remote setup for DG Series EM-DVR includes **Server**, **Channel**, **Record**, **PTZ**, **Sensor**, **Alarm** and **User**.

But the ways of set are nearly the same. For details, please refer to our DG Series EM-DVR manual.

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.

Restart Some settings will only come into effect after device reboots.

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

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

Exit Exit setup.

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

3.2 Server setup

Press **Server** button to set server parameters remotely:

Server Name	9 IP server	User name	admin
Server IP	192.168.0.9	User Pass	*****
Listen Port	8000	DNS Server IP	192.168.0.119
Subnet Mask	255.255.255.0	Remote Manage IP	
Net Gate	192.168.0.1	Remote Manage Port	7071
Net Cable Type	10M/100M[5 cable]	Physical address	00:40:30:4e:fd:7e
Use PPPOE	<input type="checkbox"/>	Software Ver.	V2.0 build 080812
PPPOE Login Name		DSP software Ver.	V4.0 build 080729
PPPOE Login Pass		Hardware Ver.	0xb0000000
PPPOE IP			

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】

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

- 【Net Gate】
- 【Net Cable Type】

【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.

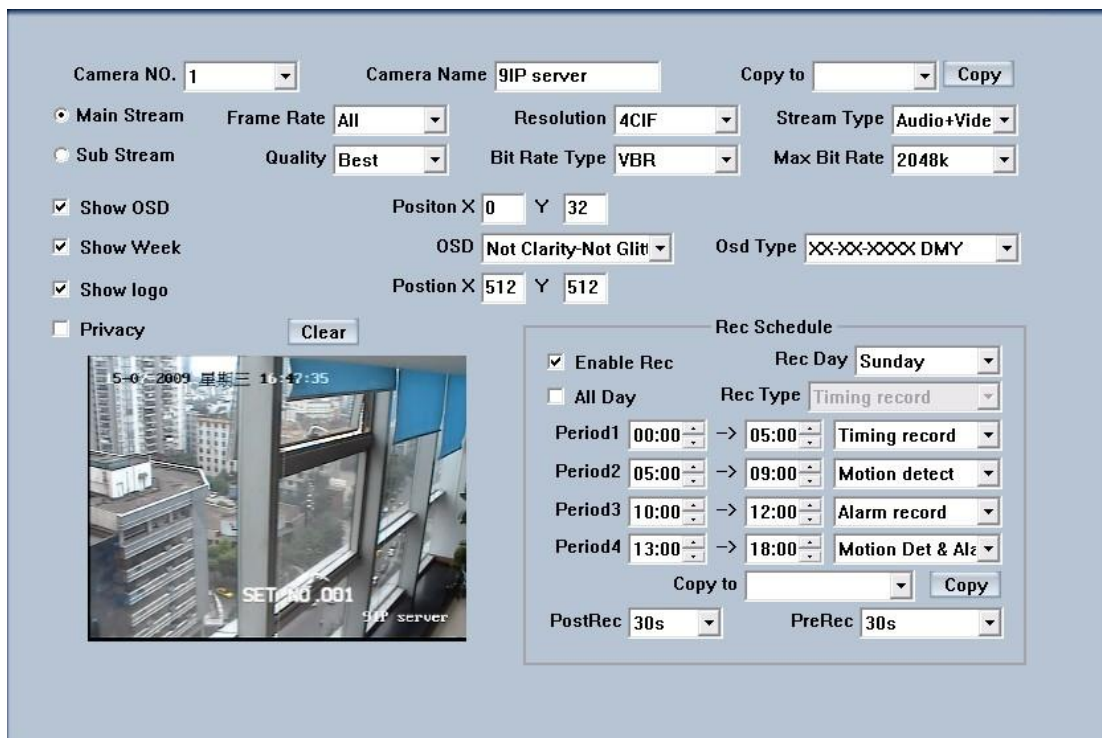
【User Pass】Set the user password of DVS remotely, after that operation you should change the Login Pass to corresponding value in Add / Modify server. Otherwise, you can't connect the DVS correctly.

【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.

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

【Main stream】【Sub Stream】 Select Main stream or Sub Stream for the current cameras.

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

【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 boxes, system will show corresponding information on screen.

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

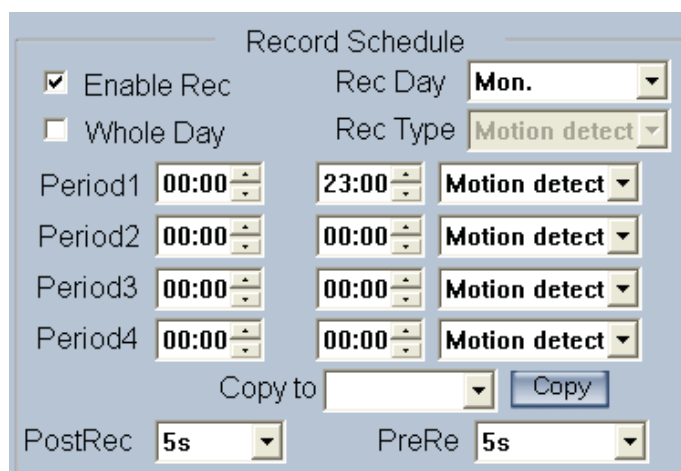
【OSD】 Set the display attribute of the OSD & LOGO. There are four types of display modes: Clarity-Glitter, Clarity-Not Glitter, Not Clarity-Glitter and Not Clarity-Not Glitter.

【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.

【Record schedule】 You can set record schedule in following chart.



The image shows a 'Record Schedule' configuration window. It includes the following elements:

- Enable Rec
- Whole Day
- Rec Day: Mon.
- Rec Type: Motion detect
- Period1: Start 00:00, End 23:00, Type Motion detect
- Period2: Start 00:00, End 00:00, Type Motion detect
- Period3: Start 00:00, End 00:00, Type Motion detect
- Period4: Start 00:00, End 00:00, Type Motion detect
- Copy to: [Dropdown menu]
- Copy button
- PostRec: 5s
- PreRe: 5s

Note:

This record schedule is only available to EM-DVR. There are 4 time segments every day. Every segment has a start time, an end time and a record type. The time segment is set in sequence; every segment can't be overlapped, included or skipped with any other.

【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 **Copy** button.

PostRec **5s** PreRe **5s**, Set the time to post or pre the record.

3.4 PTZ control

Press **PTZ** 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.

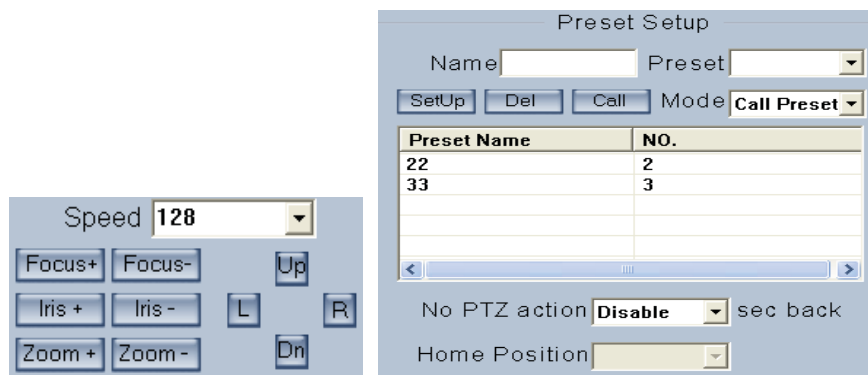
【PTZ Protocol】 Select the communication protocol for the PTZ camera from drop-list.

【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 **Copy** button.

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

【Speed】 Set the speed of the PTZ.

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



AutoPre

【Name】 Set the name for the current preset. **【Preset】** Set the preset number for the current camera **Setup** Setup the preset by current configuration. **Del** Delete the finished Preset. **Call** Call the Preset if the Mode is Call preset. The mode is save preset; you should save the preset and shouldn't call the preset.

Sch.

Preset Schedule

Preset: 2 [Add] [Del]

Call Time: Mon. 0 H 0 M

Schedule List: Mon. [Copy]

Date	Time	Preset
Mon.	00:00	2

【Preset】 It can add the preset into the Preset Schedule, the preset set completed in the Auto Pre yet.

【Call Time】【Schedule List】 Set the time of the preset should be call at that time.

Tour

Tour Setup

Tour Group: TourGroup1

[Add] Preset Name: 22

[Del] Stay Time: 2 sec

Preset Name	NO.	Time
22	2	10

Tour Group

Add the Preset cameras into the Tour Group and set the Stay Time for one tour group.

3.5 Sensor setup

Press **Sensor** 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:

On screen warning—Display the alarm information on the monitor.

Audio warning—Indicate the alarm with voice.


Upload to center—Update the alarm information to center.

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

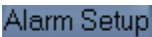
【Trigger record camera】 Set cameras to record triggered by the alarm. You can select one or more channels. When there is alarm input, the cameras will be triggered to record (the record type of the channel is Alarm Record), and the monitor will switch to preview the cameras (warning on monitor is enable).

【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:

On screen warning—Display the alarm information on the monitor.

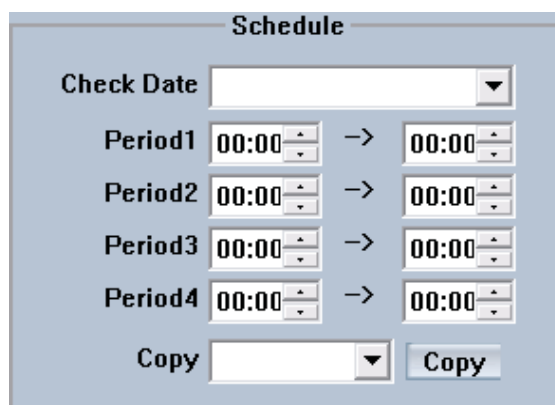
Audio warning—Indicate the alarm with voice.

Upload to center—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.



The screenshot shows a window titled "Schedule". At the top left is a "Check Date" dropdown menu. Below it are four rows, each labeled "Period1" through "Period4". Each row contains two time selection boxes (displaying "00:00") with a right-pointing arrow between them. At the bottom of the window, there is a "Copy" dropdown menu and a "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.

Press this button , the select camera will reverse playback, and press it again, the reverse playback will stop.



4.2 Select playback channel



4.2.1 Select date

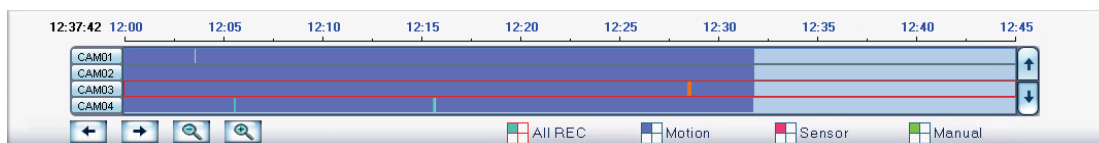
Select one window (the 1st one in default), and then click  button to show the date.


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.

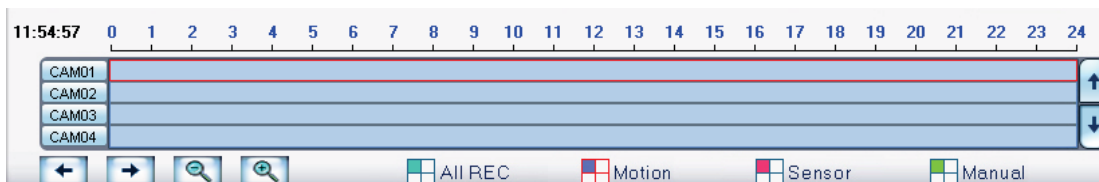
You should select the date first; otherwise, you can't entry the all sub-playback interface. The date can't be selected in the sub-playback interface.

4.2.2 Select Record Type




Press the icon  before “Motion” when you want to playback motion recording. Others are the same.


When there is no record data of the selected record type, the below picture will be shown.



4.2.3 Select camera

After date selected 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 playback recorded data from the first file.

1. Synchronic play

Click  button to synchronize the time of all playback channels. You can also keep all channels synchronically in pause and Next Frame.

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 in.

Note:

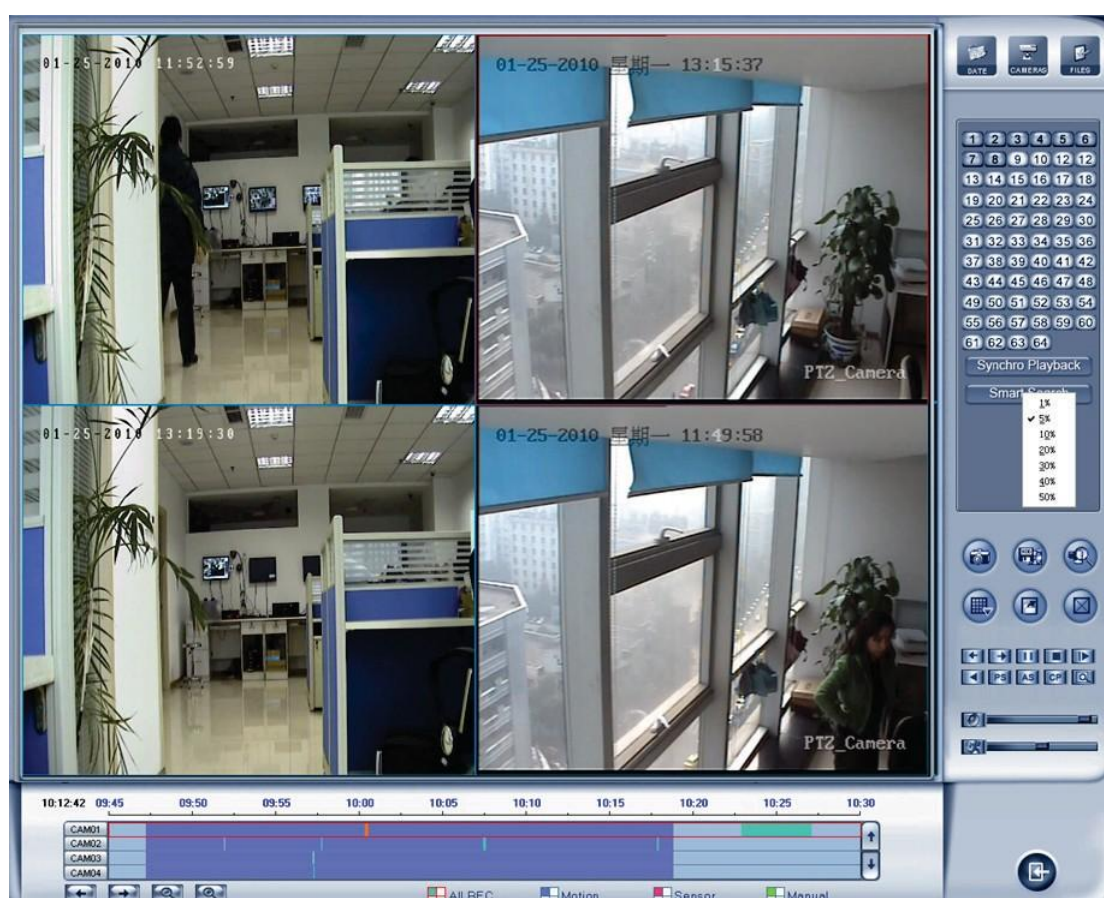
Smart Search accuracy is decided by sensitivity value and threshold in [Motion Setup](#).

(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.

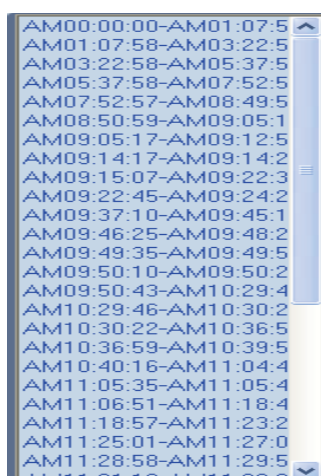



When you press the smart button, you should select the area percent by single clicking the right mouse, if the motion percent of the area above the select percent, it will be shown out.

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 very low sensitivity, system will search even that there is no motion in the specified area. Contrarily, if you set a high sensitivity, it is possible that system will not search when there are some small range motions in the specified area. So you should set the sensitivity according to the surroundings.

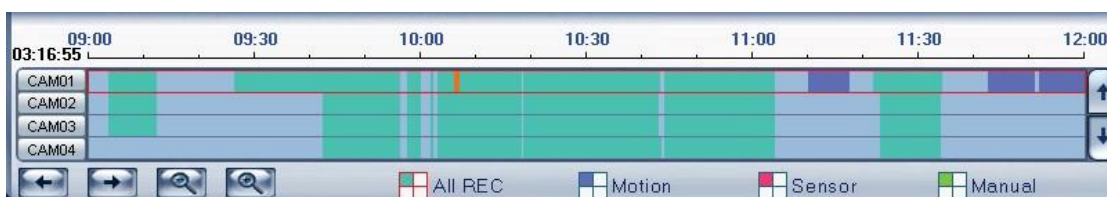
4.2.4 Select file







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

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

The camera list below the window shows the recorded data of the day you selected. Double click any time with record data, a red mark will be there. Then use  to enlarge the time bar, so that you can select an exact time you want to playback.



When there are too much record data, you can use   to select.

Press  or  button to see the recorded data of other cameras,
The red bar means the exact time when system is playing back now.

4.3 Play file and related operations



Press this button to set partition mode of Window, there are 1, 4, 9 and 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 to 16	4CIF	4
	DCIF	9
	CIF	16




Press  button to open all playback windows in sequence according to the order of the cameras.






Press this button to close all playback windows.





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


 Next frame: press this button continuously to play video next frame, the speed is determined by the following playing speed adjustment bar.


 Play/Pause: The buttons will alternate between Play and Pause. When it is playing, it shows . Press it to pause, the button will show .

When you select reverse playing, it will show  to play by pressing it.

 Stop: press this button to stop playing.

 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 be a dialog to ask for a file name. After your confirmation, you will be asked to input the save path. When you capture a picture next time, it will be saved to the previous path without ask you again. But you can modify or delete the save path in a file named system, with INI as suffix in SetPara.

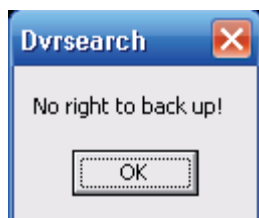
Note:

The size of the image is that of the playing window.

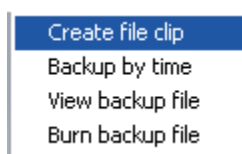
4.5 Backup

Note:

If user has no right to backup, he will be forbidden to get access to “Create video file clip” and “Backup record by time”. When he clicks the two options, the dialog as below will be shown:



Click button , there are four items to be selected as below:



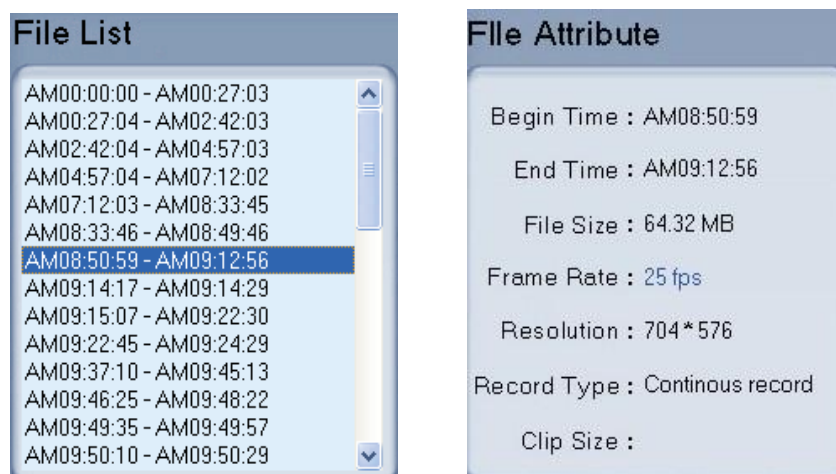
4.5.1 Create file clip

Press  to create file clip after you entered **Backup**.

【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




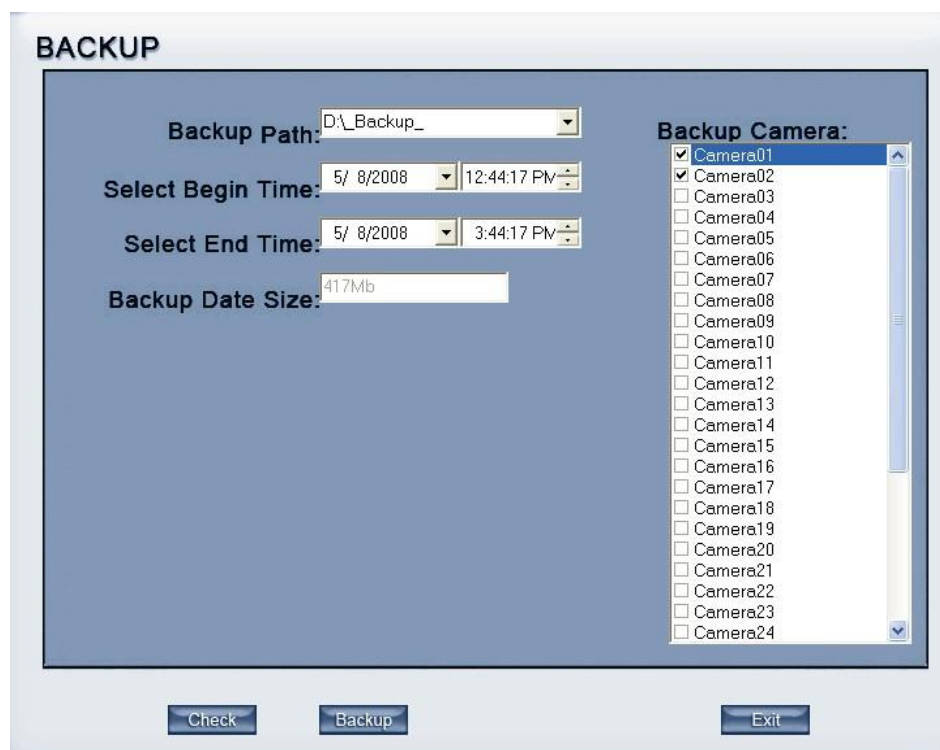
another time and press button to set it as the end time. When you finished, the file attribute on the left will show the size of the file to be created.

【 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.

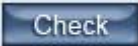


【Backup Path】 Select path for the backup file, User can backup record file to CD.

【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 is 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



Copy Player: Copy the file player in the Save path.

4.5.4 Burn video file to DVD/CD

Add File: Add selected file

Del File: Delete selected file

【Burn CD drive】 Select CD-ROM driver.

【Volume label】 Set the CD's label.

【Total file size】 Show the size of all files will be burned to CD.

Burn CD When you finish your setup, click this button to write file to CD or DVD.


Erase CD Clean up the data of CD/DVD.

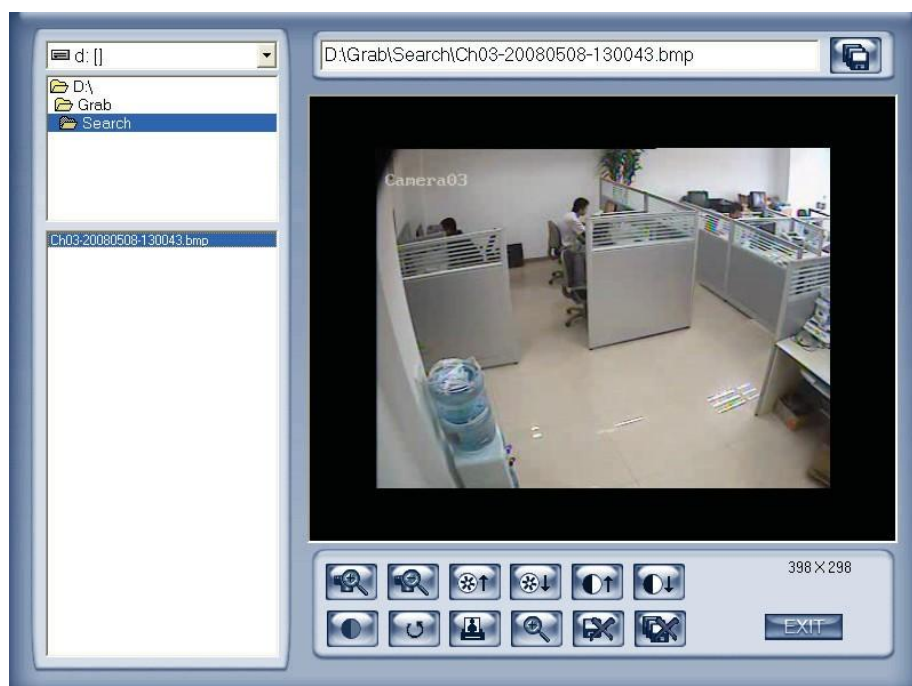
Open CD Open the CD-ROM

Close CD Close the CD-ROM

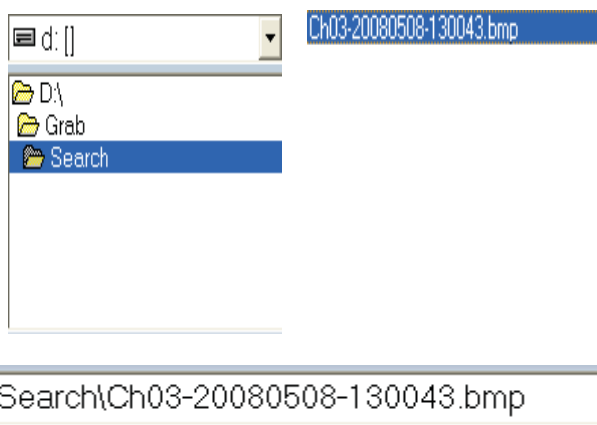
It supports DVD or CD disc backup directly, max support 4.3G DVD disc and user can erase DVD-RW disc and write again, all work needn't install third burning software.

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 POS Playback

Press the button ; you will see the interface as below:



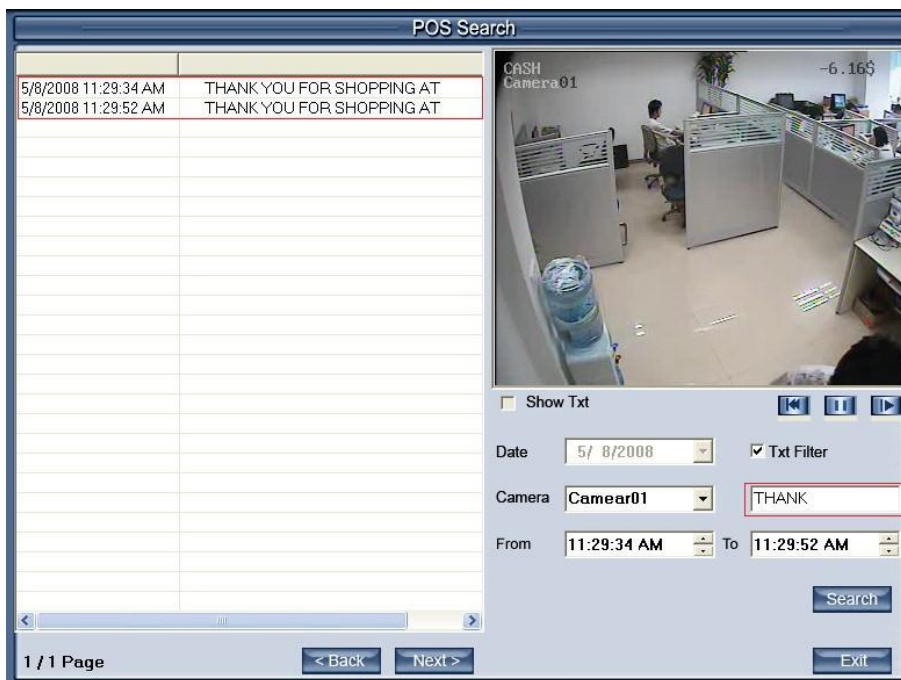
Show Txt: show the txt on the screen show the txt on the screen (if you checked "Text OSD to DVR board" in the Cam setup, the show txt would be

invalid).

【Data】 :Select the search data.

【Camera】 :Select the search camera.

【TXT Filter】 :Search the content including the word. E.g.:

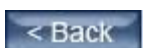


The word of the TXT Filter is THANK, then, press the Search, the content display all the Pos messages with the “THANK”

From ... To: Select the begin time and the end time.



Press this button to search the record for the setting setup.

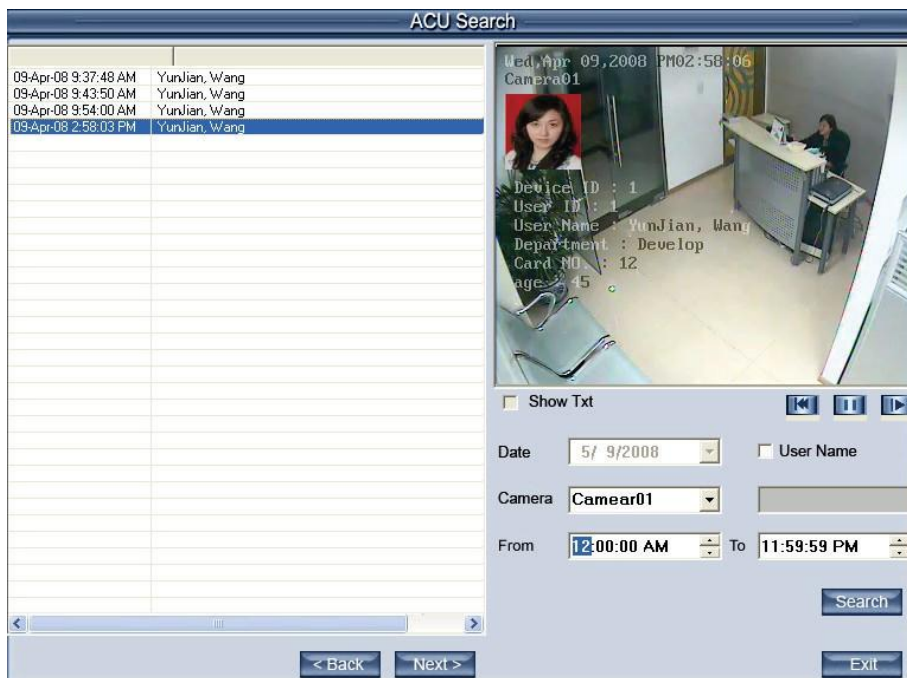


Press these button to back or next the display

page.

4.8 ACU Playback

Press the button **AS**; you will see the interface as below:



Show Txt: show the txt on the screen,(if you select txt overlay in the Cam setup, the show txt is invalid).

【Data】 :Select the search data.

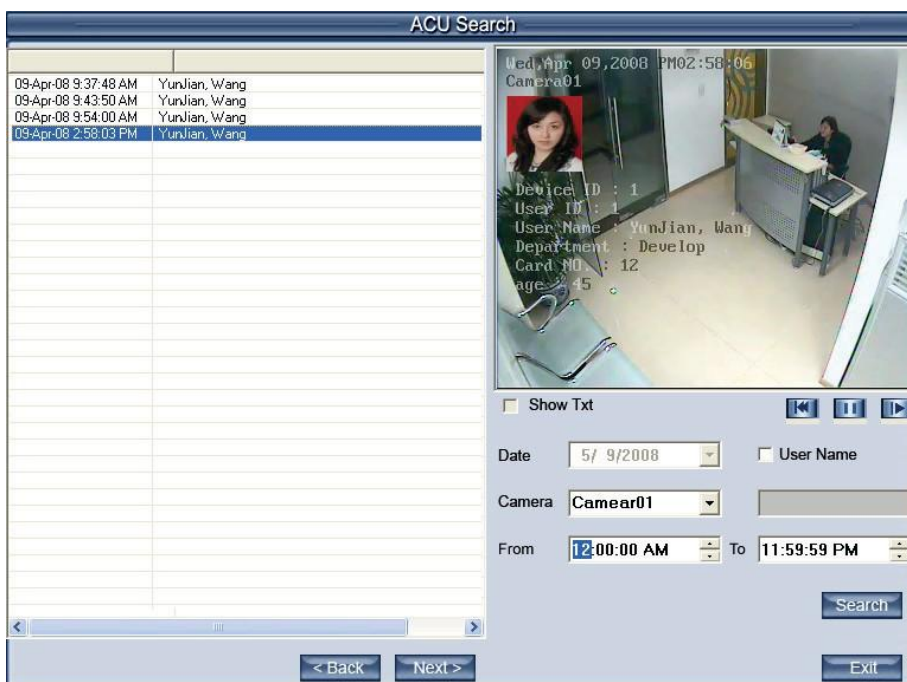
【Camera】 : Select the search camera.

【From... To:】 Select the begin time and the end time.



Press this button to search the record for the setting setup.


User Name: Search the ACU record with the name input in the blanks. E.g.:



Input "Wang" in the User Name, then press search, the content will display

all the ACU messages with the user name "Wang".

4.9 ICON Playback

Press this button , you will see the interface as below:



Camera Select the cameras

From To Set the begin time and

the end time of the record, **Time Interval** set the time of the one view plays. E.g.: as the above image, the time from 9:45 to 12:00, it include 135 minutes between the begin time and the end time, the screen is 4 views, the first view show the 0-10 minutes' record, the second view show the 10-20 minutes' record, .., when the 4 views plays end, it will play the second 40 minutes until the 135 minutes all end.

Chapter5 IE client

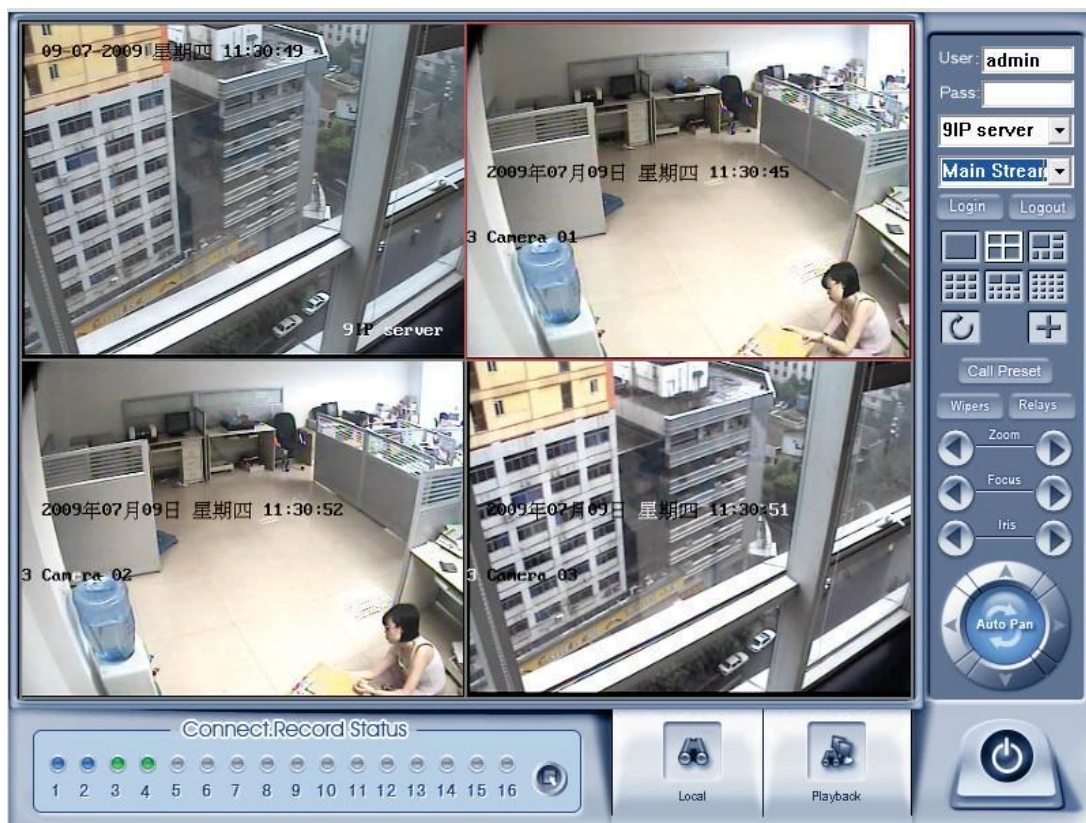
The client user can view video of DVR Server through Internet Explorer, The default web server port is 80; if [user changes it to other port](#), user should add this port number after domain name when visit the video of Server through Internet Explorer. E.g.: <http://192.168.0.119:1280>.

5.1 Functions of IE Client




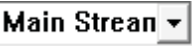


1. Video display and video storage;
2. Audio input;
3. Searching and playback video image locally or remotely;
4. Control PTZ and speed demo remotely;

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.  Select the Main Stream or Sub Stream for current cameras 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:


The screenshot displays the LV Server Lite interface. The main window shows a video feed of an office interior. The video player includes a progress bar at the top, a timestamp "2009年07月09日 星期四 11:36:10", and the camera identifier "3 Camera 02". The control panel at the bottom features a play button, a pause button, a stop button, a previous button, a next button, and a fast forward button. A callout box labeled "Playing operation area" points to this control panel. On the right side, there is a panel for display setup and data information, including a dropdown menu for "4 Partition", a date selector for "2009- 7- 9", a camera selector for "Camera03", and a list of timestamps: "11 : 28 : 58" and "11 : 36 : 7". A callout box labeled "Display setup and data information" points to this panel.

5.3.1 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.

5.3.2 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.

Window1, Camera1, 00:00:02 / 00:00:24

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

【Single frame play】   : Previous frame, next frame

【Playing speed control】  Slowly play  Fleetly play


5.4 Remote search



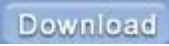
Press  to enter remote search.

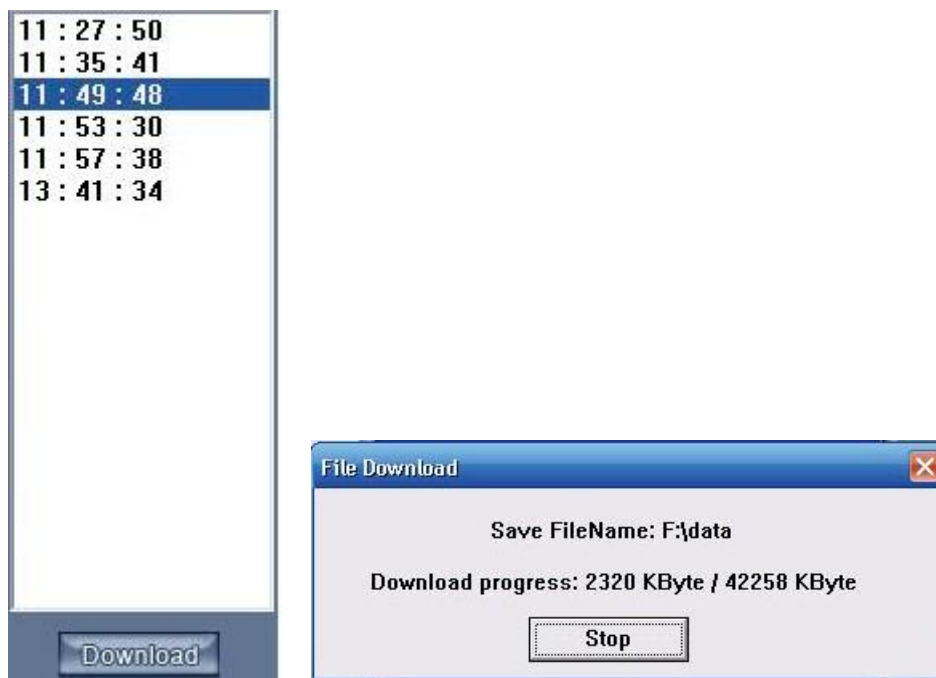
Most functions and operations of Remote search are same as [playback](#); different feature is that remote search added download feature.



When you playback remotely, you click  Save button to save video of current channel you selected. After finishing it, system will inform the save path.

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 be four partitions 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 Mobile Client

Mobile clients in our software now support different kinds of mobile phones, such as Nokia, BlackBerry and Iphone, etc. You can view any cameras, including board card cameras and IP cameas supported by our software, even megapixel cameras. And you don't have to set dual-stream now.

6.1 Recommended Mobile Phone Requirements

1. Before you run Mobile Client, please check if your mobile phone supports JAVA and comply with following applicable standards:

CLDC version: CLDC-1.0
MIDP version: MIDP-2.0
2. Your mobile telephone should have GPRS or CDMA to transport data.
3. Set Internet as the access point of your phone call.
4. When you want to view some megapixel cameras, the memory of your mobile phone should be great.
5. Select "Enable" to allow the PDA to connect With DVR server in the [Network setup](#) of the DVR system.

Note:

GPRS is charged by data flow, so shut down the MobileDVR application if you do not need view cameras.

6.2 Download software

You have following methods to download our mobile client software:

1. Download through wireless technology (in Wireless LAN) such as Blue tooth, infrared.
2. Copy mobile client software to phone directly through data cable.
3. Download mobile client software through OTA (in WAN), it will describe as follow:

Enter "http://IP:PORT/ MobileDvr.jar (and another is MobileDvr.jad)" in the address bar of the mobile telephone internet explorer to download the setup package of the Mobile Client.

Note:

IP: the IP address of the DVR server.

PORT: the Port of the IE client of the DVR server.

When you download mobile client software on WAN, you must be sure that your mobile phone connect with Internet correctly.

When you are not sure which program you should download to your phone, you can only enter <http://IP:port/mobiledvr>, then, you will enter the following interface

**Normal Mobile
client(Java):**

[MobileDvr.jad](#)

BlackBerry

client(Java):

[BlackBerry.jad](#)

Select one and then enter it. When you are using BlackBerry, you would better select the "BlackBerry.jad". If you choosed "MobileDvr.jad", the image quality will be too poor.

6.3 Install and connect

6.3.1 Installation

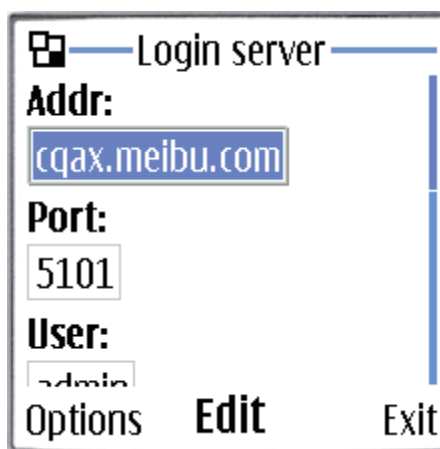
You can install the mobile client as install java games in your smart phone, install mobile client in your smart phone directly (downloaded the program in WAN or LAN) or use the application supplied by the manufacture of your smart phone to install mobile client.

6.3.2 Connection

After you installed mobile client in your smart phone, you should be sure that your smart phone connect with Internet correctly. Currently, mobile providers support WAP and WEB access point, mobile client must use Internet as access point (AP) to access DVR Server remotely.

6.4 Login Interface

After you downloaded and installed the MobileDvr software, you can run it on your mobile phone to enter the login interface.



【Adder】 Fill the IP address or domain name of the DVR server.

【Port】 Fill the port through which connects to DVR Server.

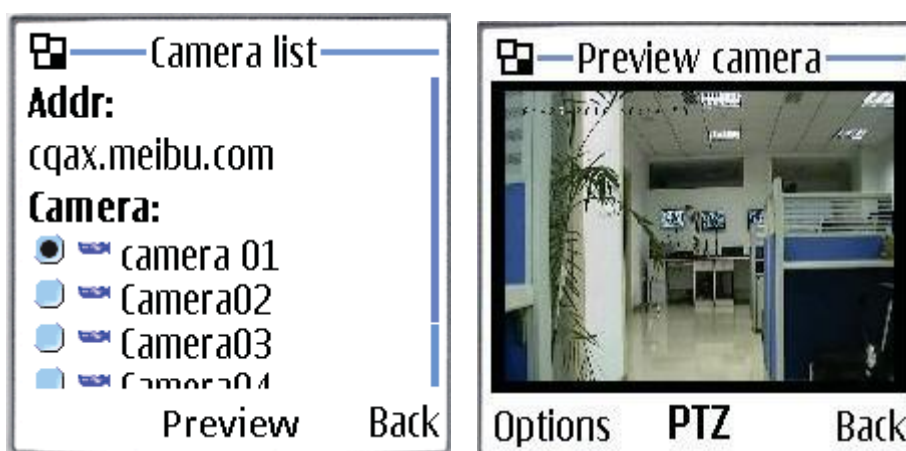
【User】 / 【Pass】 Fill the valid user with its password to visit server from MobileDvr. And the server has enabled rights management, login user ID and password from client will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

Press **Login** button to connect with the DVR server.

6.5 Camera List

The MobileDVR will enter the Camera List after you connect with the DVR server successfully.

When the camera you want to view is selected, click “Options” and then select “Preview” to enter the preview GUI.





6.6 PTZ control


Press the “Options” button and select the “PTZ” button to enter the PTZ control interface.




【Orientation control】 : Select the  button and press “OK” ,it will

change into  . After that, by pressing and holding the up, down, right and left buttons, the PTZ camera will move up, down, right and left.

【Zoom + / Zoom -】 :  Control the zoom function of the PTZ camera.

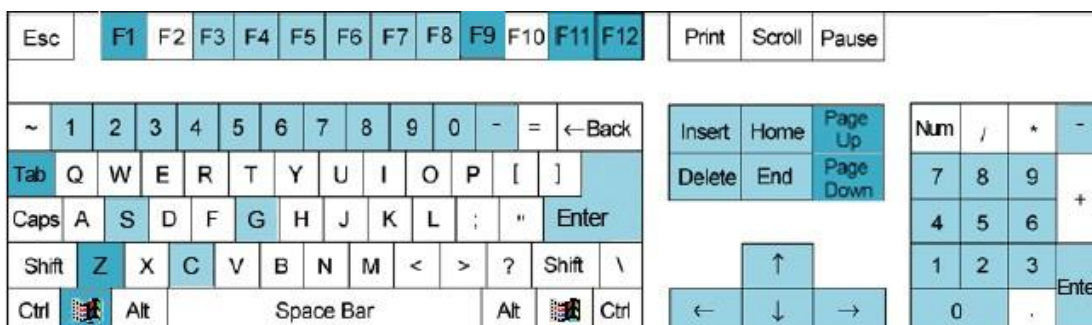
【Focus+ / Focus -】 :  Overrides the auto-focus setup of the PTZ camera, adjust focus the image.

【Iris on/off】 :  Overrides the PTZ cameras auto-iris and brighten or darken the image.


Chapter7 Appendixes

7.1 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(in the status of preview for PTZ control)
	Play in fast speed (in the status of instant playback and review playback)
↓	Down(in the status of preview for PTZ control)
	Play in slow speed (in the status of instant playback and review playback)
←	Left(in the status of preview for PTZ control)
	Play last frame(when pause in the status of instant playback)
	Play again(in play condition of review playback)
	Play last frame(in pause condition of review playback)
→	Right(in the status of preview for PTZ control)
	Play next frame(in the status of instant playback)

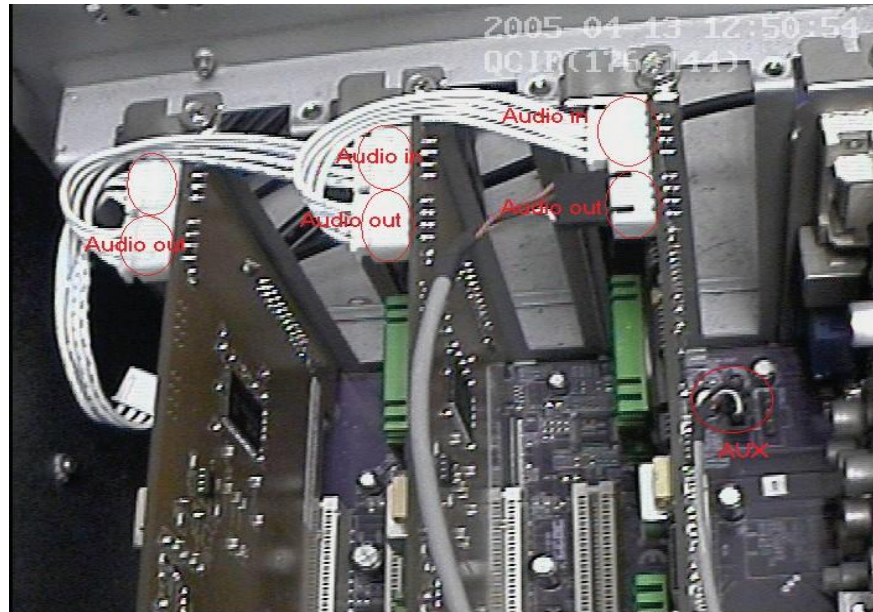
	Play in normal speed(in play condition of review playback)
	Play next frame((in pause condition of review playback)
Home	Zoom-
End	Zoom+
Insert	Focus-
Delete	Focus+
C、—、 Num0-9G、 Enter	Presets Control Operation Call preset
C、 —、 Num0-9	Presets Control Operation

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

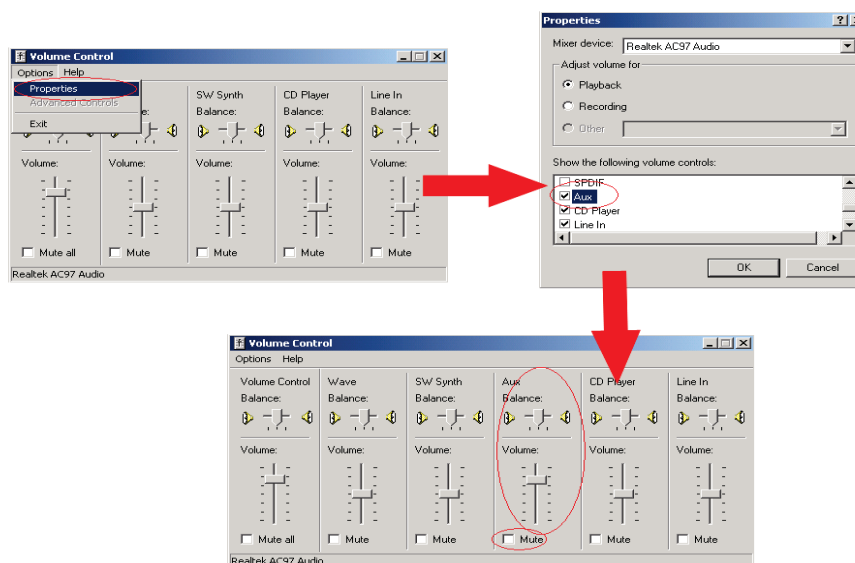
7.2 Appendix B: Audio preview

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.



7.3 Appendix C: Update drivers of compressed card

1. There shall be three files in the same directory to guarantee system proper performance. They three files are: DriverInstall.ini, inf file and sys driver program.

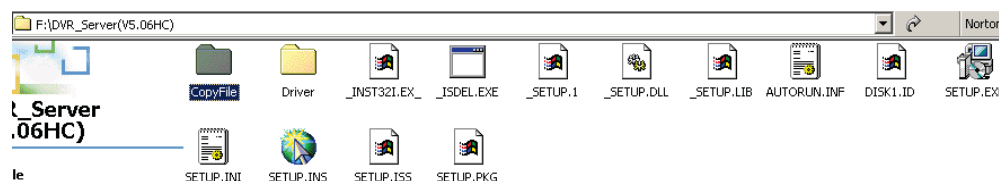


Figure 1

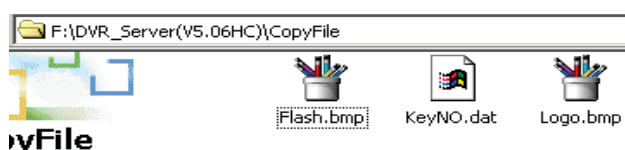
2. Detailed Connection:
 - 1) DriverInstall.ini file content shall be the full name of inf file.
 - 2) In the line 17th, line 35th, line 44th, line 71st of inf file, the dhvecwdm.sys file name shall be the sys driver program name.
 3. In Figure 1, if you want to modify the name A in the device manager, you need to modify the line 57th of the inf file. Please input the name you want to replace the DHVECW DM. Then you can delete the driver and click DriverInstall.exe to install driver again.
 4. In Figure 1, if you want to modify the name B in the device manager, you need to modify the line 6th, line 38th and then line 50th. Please input the name you want to replace the DHVECW DM. Then you can delete the driver and click DriverInstall.exe to install driver again.

7.4 Appendix D: How to use “Copy File” folder.

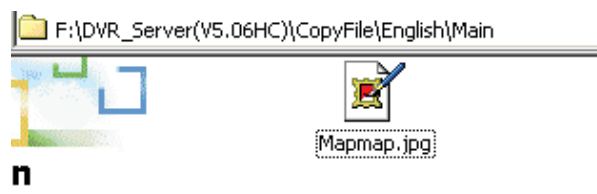
In installation CD, there is a file named “Copy File”



If you want to replace some files in installation directory, you can copy new files into “Copy File”, 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 “Copy File” folder with the installation directory.



Thus, the all files which in “Copy File” will replace the old files when you finished the installation.

Note:

If you want to replace an image, the new image’s size and name should be the same with the old image.

7.5 Appendix E: Frequent Asked Questions

1. IE client is not able to visit the server.

Possible reason: The Web Server port is shielded or has been used by other program.

2. Install one card in a PC, the server program runs ok, but it doesn’t run

when there are more than one cards.

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

3. Can't view images of cameras.

Possible reasons: To reduce the load of CPU, we use overlay as the display mode; it outputs the data from graphic card to monitor directly, please check whether the graphic card supports overlay.

7.6 Appendix F: Dual Monitor

The display card should support the dual monitor. We use ATI 9200 display card. First you should connect the dual monitor to the display card.



The system can detect the dual monitors automatically, then you should select “Stretch Desktop 1 horizontally onto monitor” and set the desktop area of each monitor as “1024x768”, the interface as below will be displayed:



The desktop area should be selected 2048x768. Now, the dual monitor is effective.

Note:

If the old ATI display card doesn't support the "CATALYST Control Center", you should download ATI Catalyst and install it, then it can enter the setting interface in ATI catalyst control center.

7.7 Appendix G: Sony Camera Setup

【Date Time Format】 Select a suitable date time format from the drop-down list.

【MPG4 Frame Rate】 Select the frame rate of the image. Selectable values are as follows: 1, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25 and 30fps.

【MPG4 Bit Rate】 Select a suitable bit rate for camera from the drop-down list. Selectable values are as follows: 64, 128, 256, 384, 512, 768, 1024, 1536 and 2048kbps. The higher the values set, the higher the image quality when the network bandwidth is ok.

【Adaptive Rate Control】 Adjusts the image frame rate or bit rate automatically to play smooth images to the connected computer environment. If **On** is selected, the MPG4 image rate is adjusted

automatically.

【Video Output Mode】 Select video output mode. When you select “IP only”, it will output via network only. Select “NTSC+IP”, it will output with NTSC signal and the image setting output from the network will be limited. When this mode is selected, Analog video setting is enabled and set. So is “PAL+IP”.

【Iris Open】 Select whether open the iris of the auto iris lens for focus adjustment.

【Color】 Select Color or Monochrome for the image.

【Camera Setting】 Select the gamma curve in the camera from the following 7 options according to the subject and shooting conditions: Standard, Scene 1, Scene 2, Scene 3, Scene 4, Scene 5 and Scene 6. “Standard” is suitable for many shooting conditions.

【Image Quality】 Select a suitable image quality for camera.

【Audio Input】 Select whether you are going to send the audio from the audio connector. Select “On” to send the audio from the network camera.

【Audio Input Level】 Set the volume level of the audio input from the audio connector. It is adjustable from -10 to +10.

【Audio Encode】 Select the bit rate when you send the audio from the audio connector. G.711 (64kbps), G.726 (40kbps), G.726 (32kbps), G.726 (24kbps) or G.726 (16kbps) can be selected.

【Audio Upload】 Select whether enable to output the audio from the speaker.

【Saturation】 Select the saturation in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest saturation.

【Sharpness】 Select the sharpness in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest sharpness.

【Contrast】 Select the contrast in 7 steps, from -3 to +3. Selecting +3 provides the image with the highest contrast.

【Custom Template】 When you select a custom template, **Exposure compensation**, **Backlight compensation** and **Gamma setting** are set optimally depending on shooting conditions.

【White Balance】 Select the white balance mode.

【R/B Gain】 While **White Balance** is selected as “manual”, R gain and B gain become active. Selectable gain values are from 0 to 255.

【Superimpose】 Select whether to superimpose **camera ID** and/or **Date &**

Time on the image or not. The superimpose function does not work when JPEG image cropping is enabled.

【Shutter Mode】 Select the type of shutter speed control. The selectable items depend on the **Lens Type** setting.

【Min. Shutter Speed】 Select the minimum value of the auto slow shutter from the drop-down list. Selectable shutter speeds are 1, 1/2, 1/4, 1/8 and 1/15 second.

【Shutter Speed】 Select the shutter speed of the camera from the drop-down list. Selectable shutter speeds are 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000 and 1/10000 second. When you select 1, 1/2, 1/4, 1/8 and 1/15, **Fixed Gain Value** becomes active. When you select 1/30, 1/50, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000 and 1/10000, **Auto Gain Max. Value, Exposure Compensation** and **Backlight Compensation** become active.

【Fixed Gain Value】 Select the fixed gain value from the drop-down list. When you select 0 dB, gain up is not performed.

【Auto Gain Max. Value】 Select the maximum gain value for auto exposure setting from the drop-down list. When you select 0 dB, gain up is not performed. When you select 0 dB, gain up is not performed.

【Exposure Compen.】 Select the exposure compensation value from the drop-down list and adjust the brightness of auto exposure setting. It is brighter when a larger value is selected, and it is darker when a smaller value is selected. Selectable values are as follows: +3.0, +2.6, +2.3, +2.0, +1.6, +1.3, +1.0, +0.6, +0.3, 0, -0.3, -0.6, -1.0, -1.3, -1.6, -2.0, -2.3, -2.6, -3.0(EV).

【Backlight Compen.】 Select the backlight compensation. You can select from **Normal, Spot** and **Off**.

Normal: The camera judges the backlight situations on the whole image. If the image is under backlight situation, the camera compensates the exposure automatically for a brighter image.

Spot: The camera judges the backlight situations in the center of the image. If the image is under backlight situation, the camera compensates the exposure automatically for a brighter image. Select this option when the center of the image is especially monitored.

Off: The camera does not perform the exposure setting according to the backlight situations.

Note:

When you set **Normal** or **Spot** in the backlight compensation, hunting may be generated depending on the situations. In this case, set it to **Off**.

Exposure

【Camera ID】 Checking this box allows you to superimpose the specified characters. Enter up to 20 characters.

【Date Time】 Checking this box allows you to superimpose the date and time.

【Style】 Select the style of the superimposed item between **Border** and **Background**.

【Position】 Select the position of the superimposed item among **Top-left**, **Top-right**, **Bottom-left** and **Bottom-right**.

【Sensor Input Mode】 Specify the detection mode of the signal input to the sensor input terminal of the camera.

Normally Open: Detects alarm when the sensor input is short-circuited.

Normally Closed: Detects alarm when the sensor input is open-circuited.

【Light Funnel Mode】Select Light funnel mode. There are 6 modes. However, switch between normally open and normally closed is the most commonly used.

Auto: Normally works in Light funnel off. It switches automatically to Light funnel on in a dark place.

Timer: Set the Light funnel on/off using the timer.

【Threshold】 Select **High** or **Low** for the brightness to switch the Light funnel on.

【Hold Time】 Select 2 sec. or 30 sec. for the response time to switch to the brightness level.

【Status】 Shows the current status of Light funnel function.

【Alarm Output NO.】The alarm output menu consists of two tabs: **Alarm Out 1** and **Alarm Out 2**.

【Alarm Output Switch】 Select whether alarm output or not.

【Alarm Output】 Select the mode of the alarm output function.

Alarm: Controls alarm output synchronizing it with an external sensor input or the built-in motion detection function. When **Alarm** is selected, the items **Sensor input**, **Motion detection**, **Alarm duration** and **Effective period** become active.

Timer: Controls alarm output using the timer.

【Sensor Input】 Select this option when you link the alarm output to an external sensor that is connected to sensor input of the camera I/O port.

【Motion Detection】 Select this option when you link the alarm output to the motion detection function.

【Alarm Duration】 Select the duration for which the alarm output is short circuited between 1 and 60 sec.

【Effective Period】 This item becomes active when Mode is set to Alarm. Set the period during which the alarm detection is effective.

Always: The alarm detection is always effective.

Schedule: You can specify the period during which alarm detection is effective. Click **Schedule** and the menu for the effective period is displayed.

Trigger Alarm Output

【Trigger Alarm】 Select the alarm output control mode from Toggle or Timer.

Toggle: Switch between **On** (short circuit) or **Off** (open).

Timer: By default, the alarm output is switched to **On** (short circuit), and will automatically switched to **Off** (open) after the time specified in **Duration** has elapsed.

【Voice Alert NO.】 The Voice alert menu consists of 3 tabs: **Voice alert 1**, **Voice alert 2** and **Voice alert 3**. You can configure an individual audio file on each tab.

【Voice Alert Switch】 To use the voice alert function linked with the sensor input or the motion detection function, select **On**.

【Voice Alert Repeat】 Select playback repeat time from 1 to 3.

【Image Memory】 To use the image memory function, select **On**.

【Built-in Memory】 The current memory space of the built-in memory is displayed.

【Over Write】 Select **On** to overwrite the file or not when there is insufficient memory space to record the image in the built-in memory.

On: Overwrite is enabled and old files will be overwritten in the order of date.

Off: Overwrite is prohibited. No recording will be performed.

【Capacity Warning】 Select **On** to send a warning mail to the Administrator when the memory space of the built-in memory is low or the memory is full. Select **Off** if you do not want to send a warning mail.

Note:

When Overwrite is set to **On**, the warning mail will not be sent to the Administrator.

【Alarm Recording】 Select **On** to record the image and audio file in the built-in memory linked with alarm detection.

【Image File Name】Type the file name you want to assign to the images to be

recorded. You can use up to 10 alphanumeric characters, - (hyphen) and _ (underscore) for naming.

【Suffix】 Select a suffix to be added to the file name.

【Sequence Number Clear】 Click Clear to reset the Sequence number suffix to 1.

【Alarm】 Select the alarm to be linked with the recording of image and audio files.

Sensor input: The external sensor that is connected to sensor input of the camera I/O port.

Motion detection: The alarm by the motion detection function.

【Effective Period】 Set the period during which alarm detection is effective.

Always: The alarm detection is always effective.

Schedule: You can specify the period during which alarm detection is effective. Choose **Schedule** and the setting menu for the effective period is displayed.

【Periodical Recording】 Select **On** when you want to use periodical recording.

【Periodical Mode】 Select the periodical recording mode.

Periodical mode: An image file is recorded periodically according to the specified Interval and Effective period.

Tour mode: An image file is recorded when the camera is moved to each preset position during the tour.

Note: You cannot record files in Tour mode while PTZ on motion detection is performed.

【Periodical Interval】 Type the interval at which you want to record an image in the memory periodically. You can set the hour (H), minutes (M) and seconds (S) between 1 second and 24 hours (one day). The actual interval may be longer than the set value depending on the image size, image quality, bit rate, or recording media.

Motion

【Threshold setting slider bar】 Set the threshold level of motion detection that is common to all the windows. The threshold level is used to judge whether or not there has been any motion in the camera image. When the motion of an object on the monitor screen has exceeded the threshold level, the camera judges that there has been a motion and a green frame is shown. An alarm is output when a green frame is added to the object displayed in one of the active windows.

【Object size】 Select the minimum size of a detectable object. Select the minimum size of a detectable object from L (Large), M (Medium) and S (Small). Each option represents the corresponding size below:

L: 64 × 64 dots

M: 32 × 32 dots

S: 16 × 16 dots