LANVISION®

Hybrid NDVR system

USER'S GUIDE

XtendLan

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Introductions

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

Users should read this manual thoroughly before you install/utilize the Hybrid NDVR system.

New Functions

1. Add Fast Playback Function in context menu. Refer to Page 19.
2. Add IP Camera Motion Setup in context menu. Refer to Page 23.
3. Onvif supported. Refer to Page 35.
4. Select to disable or enable dual monitor in Setup. Refer to Page 52.
5. Handle sensor alarm sent from IP cameras. Refer to Page 61.
6. User can set the interval of Motion Send Email/SMS to be up to 3 minutes. Refer to Page 64.
7. Select which group to display in Matrix & Display and decide whether one camera will be displayed. Refer to Page 71.
8. New user (operator) can set its own password when login in the first time. Refer to Page 73.
9. Auto Backup function is removed from Backup & Video Convertor Program. User can also backup and convert video manually in playback as in Menu. Refer to Page 95.
10. View up to 4 channels via iPhone mobileclient.
11. Ipad supported.
12. Webclient updated. Refer to Page 103.

For 10 and 11, please refer to our iPhone user manual for details.

System Features

-Support Backup manually or by schedule. Manual backup data can be played by TV, DVD or windows media player directly without plugins. Please refer to Backup Manual for details.

-Support plug and play disks.

-Support dual-monitor and multi-monitor in different desktop display mode.

-Support NV series board cards and DG series cards inserted on the same PC

-Support multi-brand of mobile client, like Android, iPhone and Blackberry etc.

-Support 64bit OS installation

-Support multi-brand of IP cameras, such as Mobotix, Sony, Acti, Arecountvision, Vivotek and SanYo 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/F & speed demo control on keyboard

-Search/playback by date/time directory (random-access)

-Backup & burn CD directly

-Remote talking between server and client or server and server

-Support eight types of resolution (1024*768 pixels, 1280*768 pixels, 1280*1024 pixels, 1366*768 pixels, 1440*900 pixels, 1600*900 pixels, 1680*1050 pixels and 1920*1080 pixels)

Important Information

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

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. Each partition should not be larger than 2.5TB.

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, Intel 3, Intel 4, Intel 5 series.

Motherboard: Intel: D915/945PCY, D865PERL, G31, P31, P35, P43, P45, P55.

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

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

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

Processor: Intel Pentium 4 2.4GHz or better

Memory: 512MB minimum

This is the lowest requirements to run the system. If you want to have more channels, higher quality and quicker speed, please upgrade your system. However, there is also a limitation. Not always the higher configuration will perform the better.

Note: When you are going to upgrade the computer hardware of your system, please make sure you have tested these hardware by keep running your system for 2-3 days.

Also, due to the new Intel 6 series chipsets do not support those PCI cards with PCI bridge connection, you should not make up the system with motherboard based on Intel 6 series chipsets.

Chapter1 Start up and Main Interface

1.1 Preparation & Uninstallation

1.1.1 Preparation

Before you run Hybrid NDVR system, please be sure following issues:

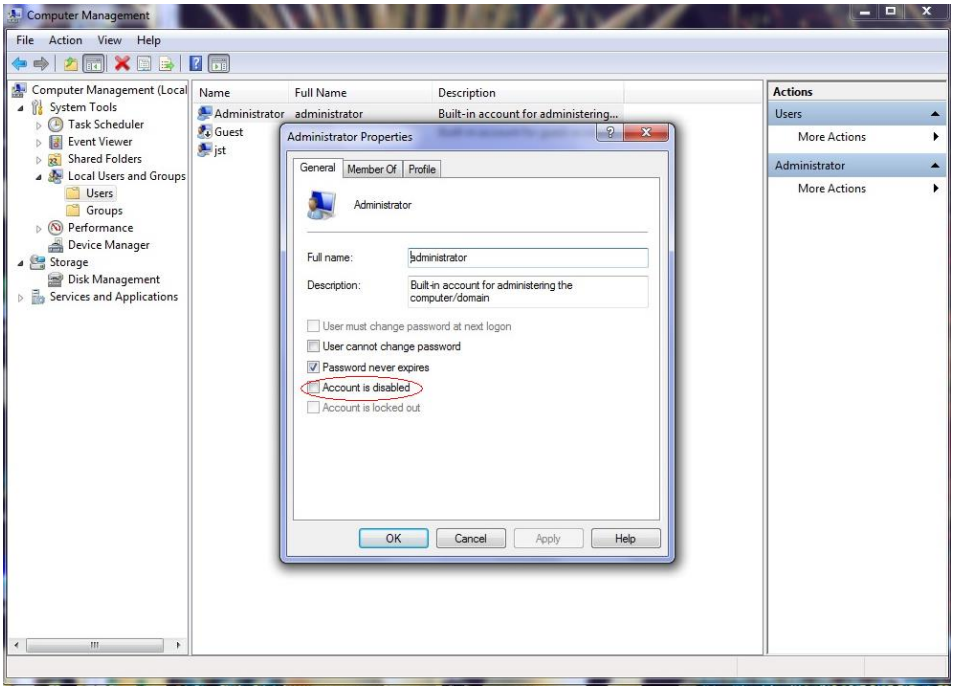
1. All connectors are firmly connected;
2. Install the driver of compression cards correctly. For detailed information, please refer to Appendix C: Driver Installation Manual;
3. Set the resolution of monitor equal to or bigger than 1024*768 pixels.

In order to make Hybrid NDVR server run normally in windows 7 OS, please take note one of the following things must be done:

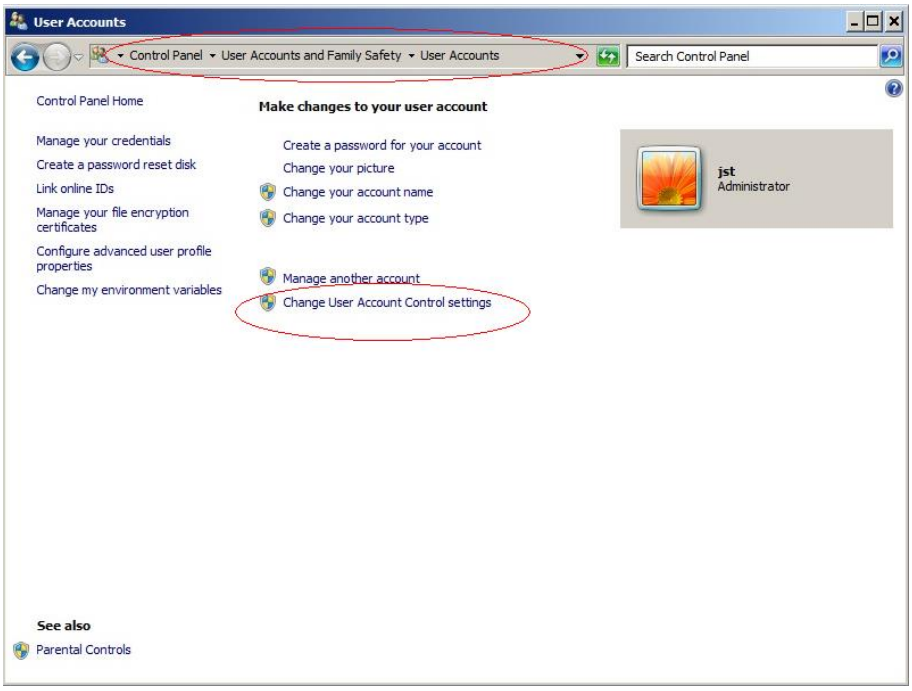
1. Activate "administrator" to do all the operations, such as install software, operate software, etc. The steps to activate are as below:

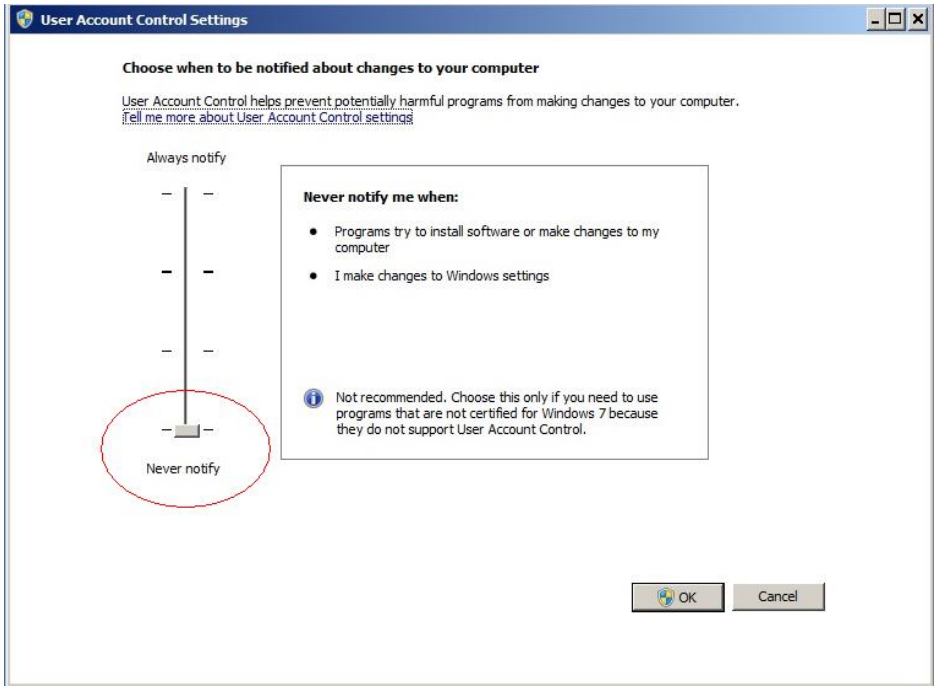
First, single-right-click “Computer” icon->Manage->Local Users and Groups->Users->Administrators->not to check “Account is disabled”.

Then, switch user or log off to log in with Administrator.



2. Adjust UAC settings to "Never notify", shown in the below pictures:





To 64 bit OS, you have to download and install two patches: KB978637 and KB976264. You should download them from MSDNAA manually. They can't be installed automatically when system updates.

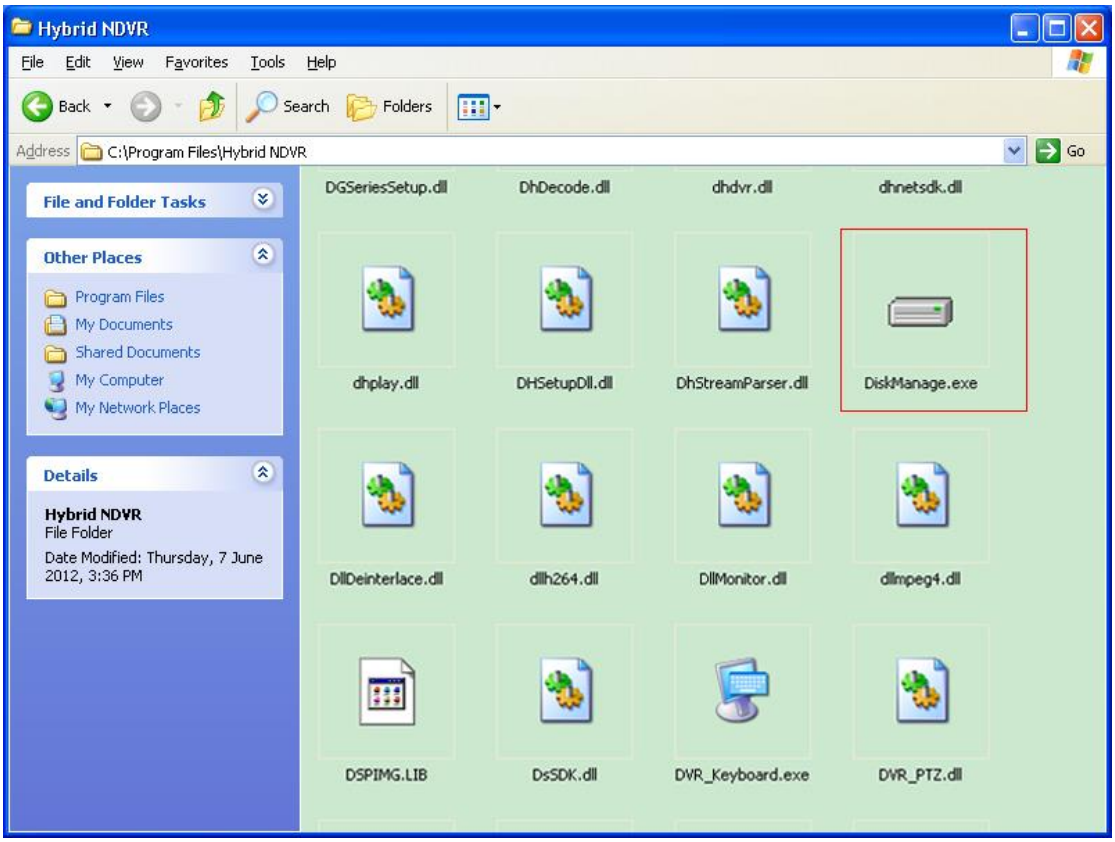
1.1.2 Uninstallation

When you want to change this version to another one, you should uninstall it. Click "Start→ All programs→ Hybrid NDVR server→ Uninstall Hybrid NDVR" to uninstall Hybrid NDVR.

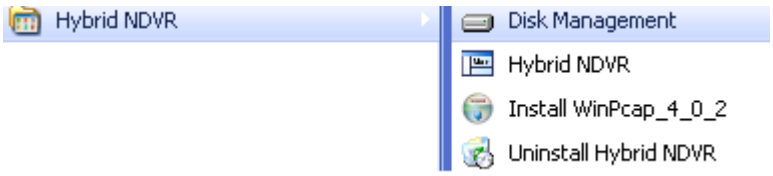
1.2 Disk Management

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

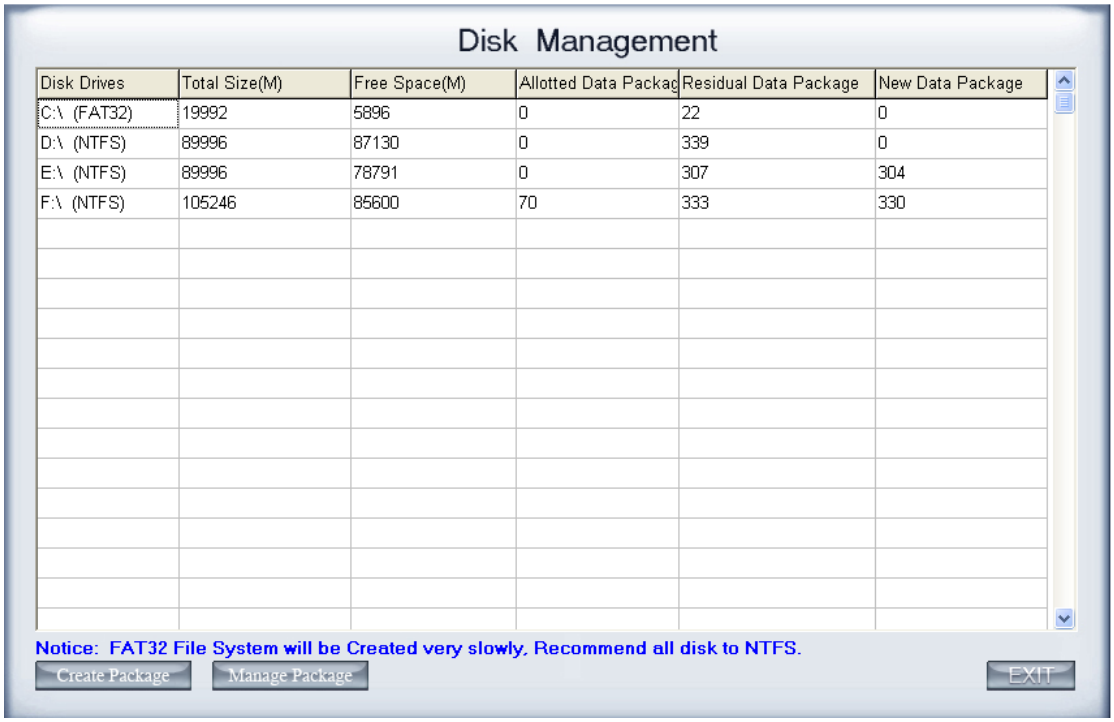
You can directly run the Diskmanage.exe under the installation directory.



You can also get access the disk management by clicking “Start→ All programs→ Hybrid NDVR→ Disk Management”



Note: 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 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.

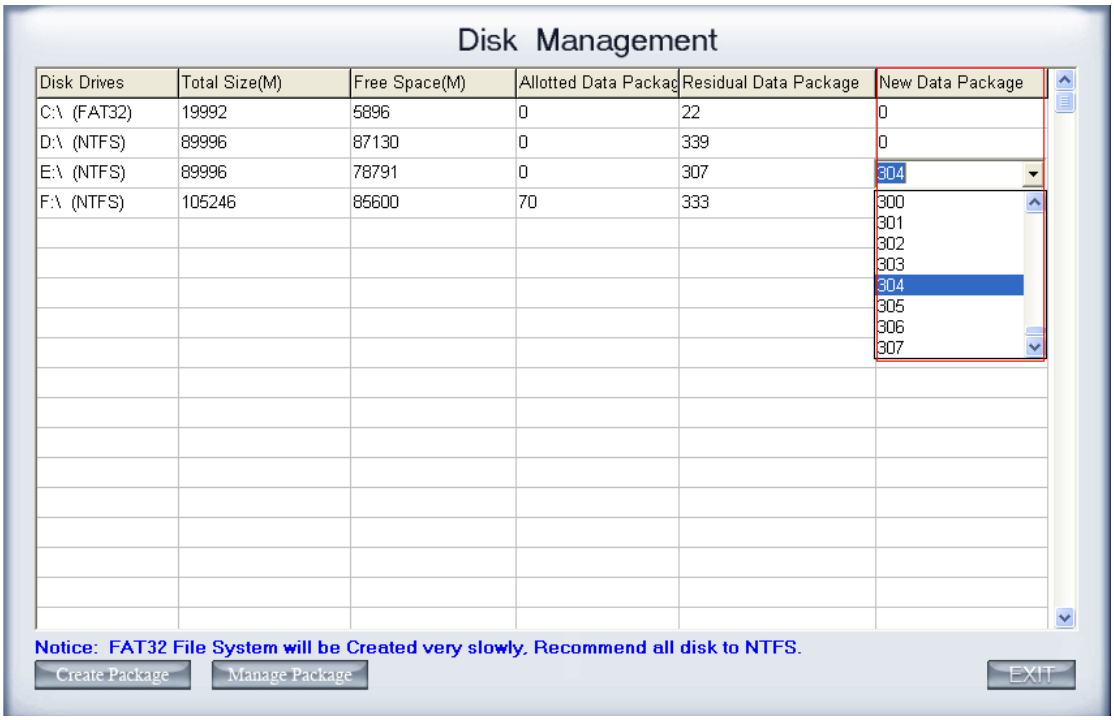
【Residual Data Package】:Display the number of data package that can be assigned for recording.

【Residual Data Package】 = 【Free Space(M)】/256

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

【New Data Package】 ≤ 【Residual Data Package】

1.2.1 Create Package



User can select the number of data package for each disk in the drop-down list. Then user can press

button to create data package and index for recording. After that, software could calculate the rest space automatically.

Note:

Please format the whole disk thoroughly before using it to be recorded.

Each package for recording (Recdata****.mp4) is 256MB, and it is associated with its index file (RecIndex****.inx). They must work together, or user can't playback recording data correctly. Also, user can't modify them unless deleting them together manually.

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.

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):

【New Data Package】 = 【Residual Data Package】-3

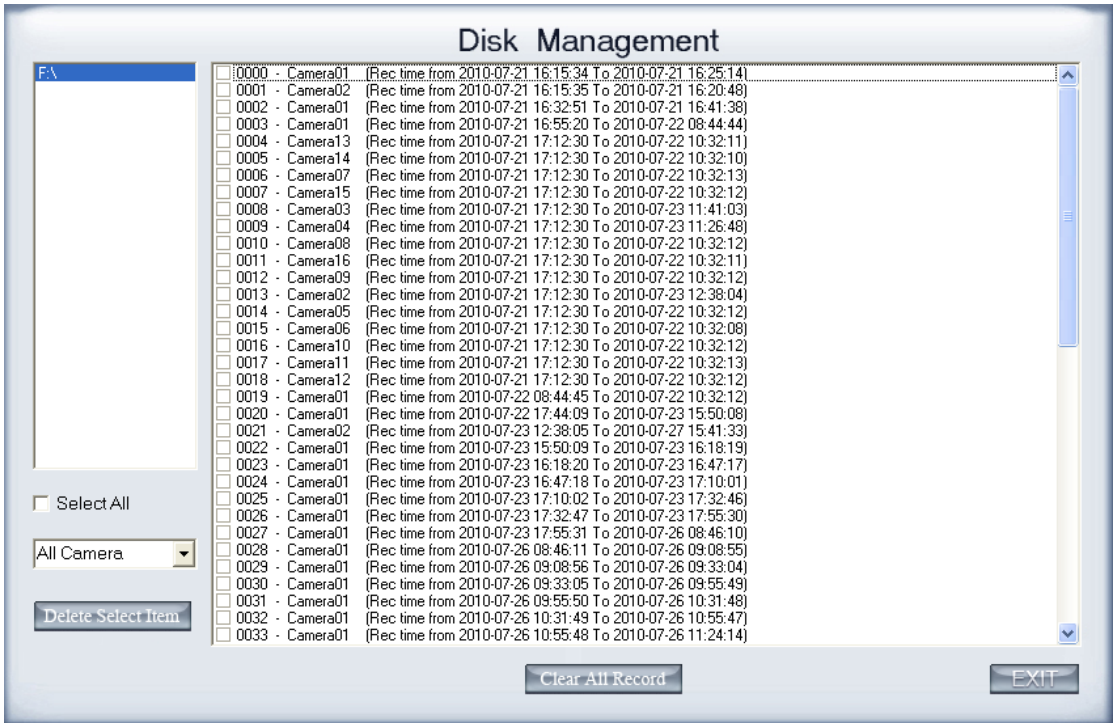
Software will cost much more time to create data package and index for FAT32 system than that for NTSC.

【Note】: Each record drive must be less than 2.5T, or software will have some problem while recording.

1.2.2 Manage Package

After the data package is created, user can click

to delete the data package manually. After that, the space of the disk will be released; user can assign them for recording again.

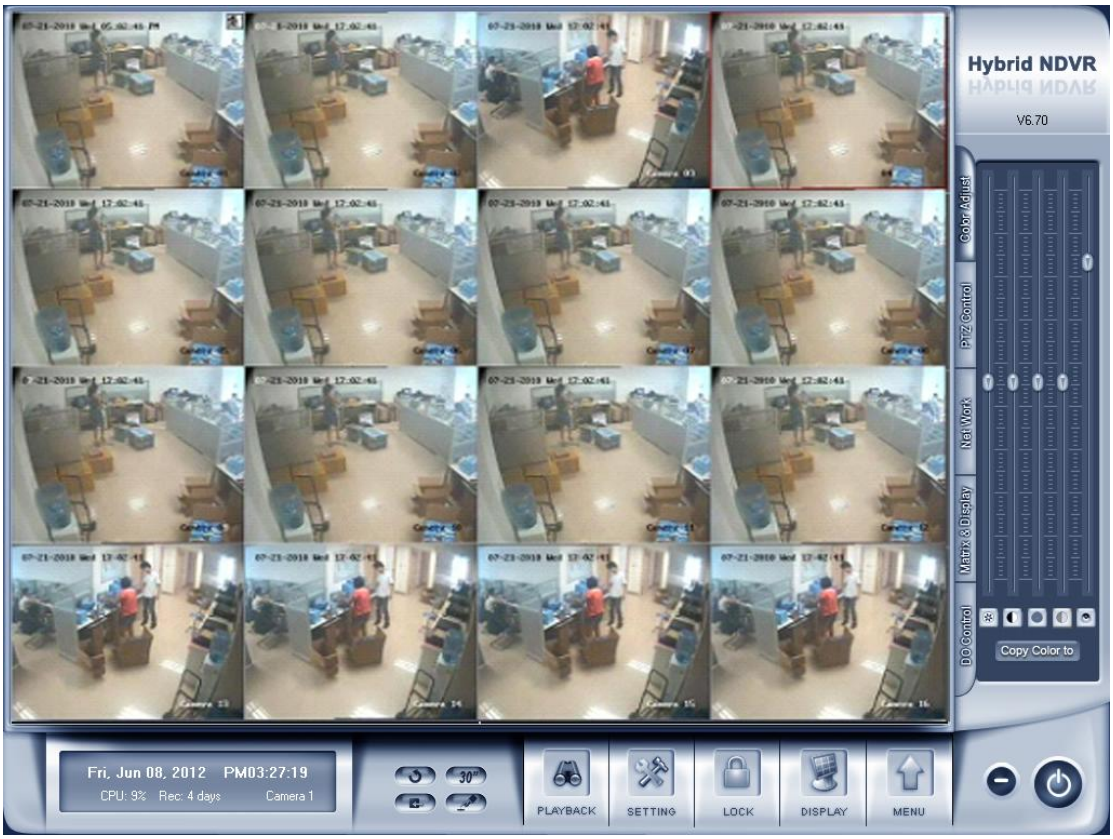


You can delete all the record files by “Clear All Record”. You can also delete the files according to time or camera number.

1.3 Start up

Double click shortcut icon

to run Hybrid NDVR Server. The main interface is as below:



Main interface of Hybrid NDVR Server

Note:

1) When user run the Hybrid NDVR 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) Hybrid NDVR Server supports several different size of main interface: 1024*768 pixels, 1280*768 pixels, 1280*1024 pixels, 1366*768 pixels, 1440*900 pixels, 1600*900 pixels, 1680*1050 pixels and 1920*1080 pixels. When you want to run Hybrid NDVR, the resolution should be set as 1024*768 at least.

1.4 Main Interface

New function released from V6.71:

Users can scroll the mouse to zoom in / out the video. When selecting a playing camera, scroll your mouse, software will zoom in / out part of the video use the point mouse stops as center.

1.4.1 Show Tips

When the mouse moves closely or stops above a button, a text tip will be

shown to interpret its function immediately;

Zoom in/out video image: Left-Double-Click a camera window to zoom in/out video image (Or press F11 on the keyboard);

System will detect cards and read the total channel number automatically, and the corresponding serial number of active will be displayed on information display panel.

Recording status:

-- The system is recording continuously;

-- The system is recording manually;

-- The system is recording in motion detection alarm;

-- The system is recording in event alarm.

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 pop up the screen menu as below:

1. Full Screen

User can Single-Right-Click image area to pop up 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. Close/Open Image Display

Single-Right-Click desired camera window and select ***Close/Open Image Display*** (IP cameras included) to close/open the image displayed in current window.

The camera will continue to record even if it's not displayed.

3. 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 1min, system will play back previous 1 minute video data of current camera in current window). Also, you can play back video data of one current live camera in a window that is not used by any cameras (always black background with no "Video Loss" information): Select a window, and then Single-Right-Click it to select "Instant playback". Finally, choose a time and the camera you want to playback, and then system will play back video data in current window according to your selection.

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

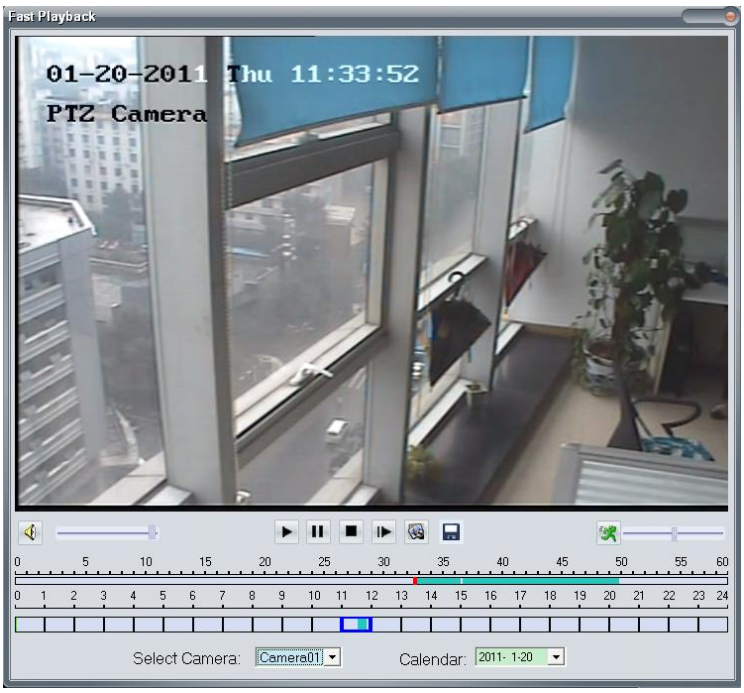
In the course of the instant playback, you can press **Space** key to switch the **play/pause** status or direction key → and ← to play next and previous frame.

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 → and ← to play next and previous frame. when the screen plays, you can press ↑ and ↓ to control the speed of playing, also, in play status you can press → and ← to play in normal speed and play it again.

4. Fast Playback

The following interface will be shown after you clicked Fast Play in context menu if there is record data.



It will pop up to tell you no recording data was found and ask you to change the play time when there is no record data to the selected camera.

Button Description

Play, Pause, Stop

Next Frame

Play Speed Control: Drag the slider bar to the left to slow down or to the right to speed up.

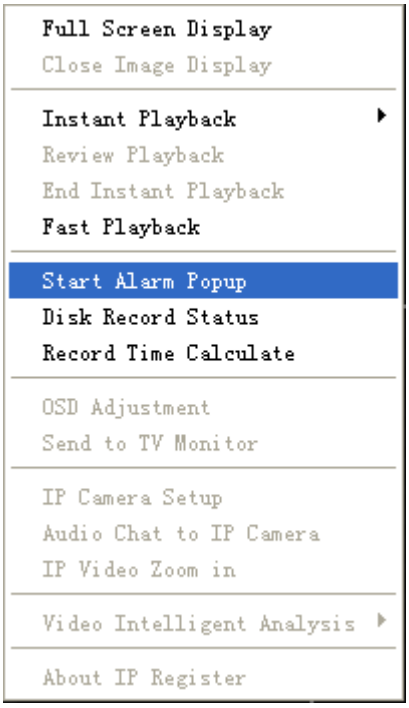
Grab Picture: The captured pictures will be saved in the same path as you set in system setup.

Save Record Data: Press this button to begin to save record data and press it again to end.

5. Start Alarm Pop up

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”.

This function is also suitable for IP camera.

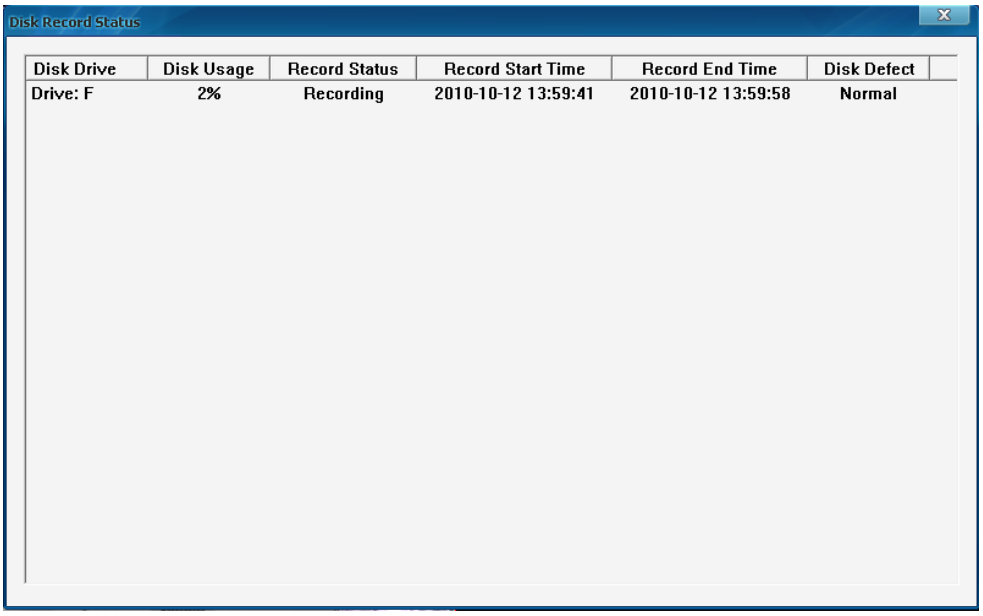


Note:

The five functions as above are suitable for both of the compression card camera and the IP camera.

6. Disk Record Status

Click this item to view the disk record status of your PC.

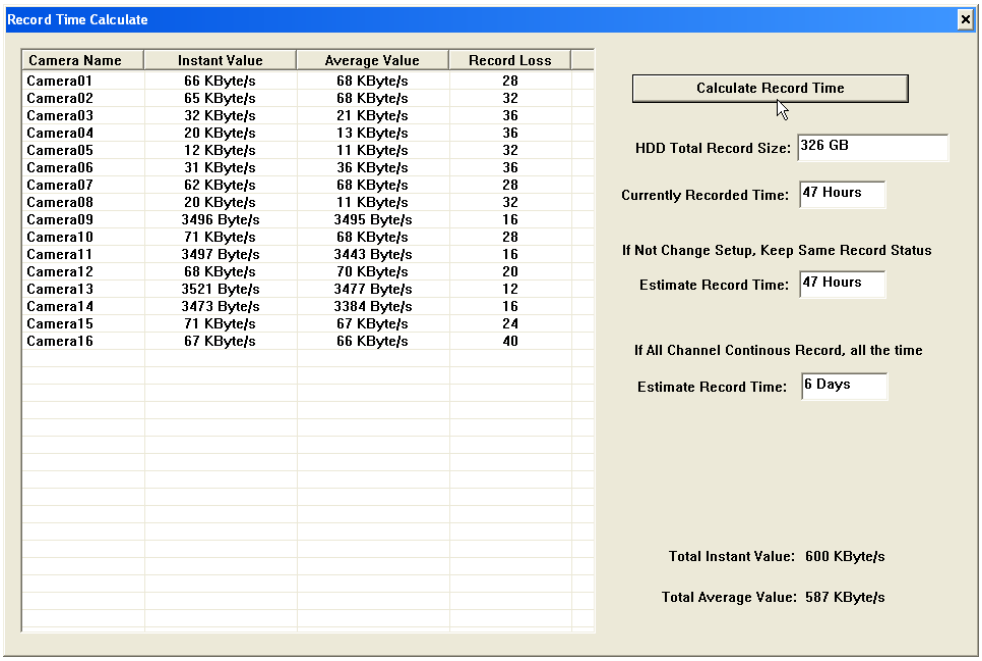


Also, you can view the disk record status of your Hybrid NDVR remotely via CMS. Please refer to CMS client user manual for details.

7. Record Time Calculate

Click “Record Time Calculate” to calculate the record time of your cameras.

It will calculate only the registered cameras.



Note: Here are 4 columns, Camera Name / Instant Value / Average Value / Record Loss. They will show the Instant data value / Average data value / accounts of the lost data package for corresponding cameras. Record loss will cause the video & time in playback to jump.

8. 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.

9. Send to TV Monitor

Send to Monitor: Send the current camera to the selected Monitor. Stay Time: Select the time to stay.

When there is a NV42XXHFV card used in the system, there will be one more video output port listed. For example, there will be 3 video ouput listed when there are one NV4002MD and one NV4208HFV.

Note:

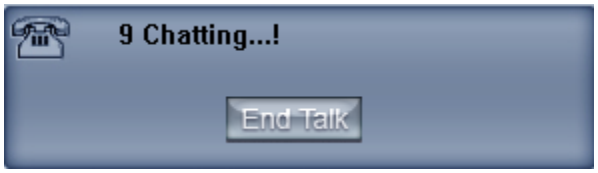
The 2 functions as above are only suitable for the compression card camera. If you want to adjust the OSD, you can set it in IP Camera Setup remotely. And when you enable the decode function in the add IP device interface, ***Send to TV Monitor*** is also available to IP devices.

10. IP Camera Setup

For this function, it is only available when you right click image of IP camera. It will describe in IP Camera Setup.

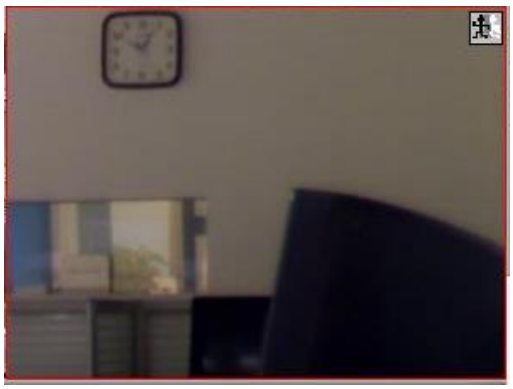
11. Audio Chat to IP Cam

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



12. 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 be zoom-out as bellow:

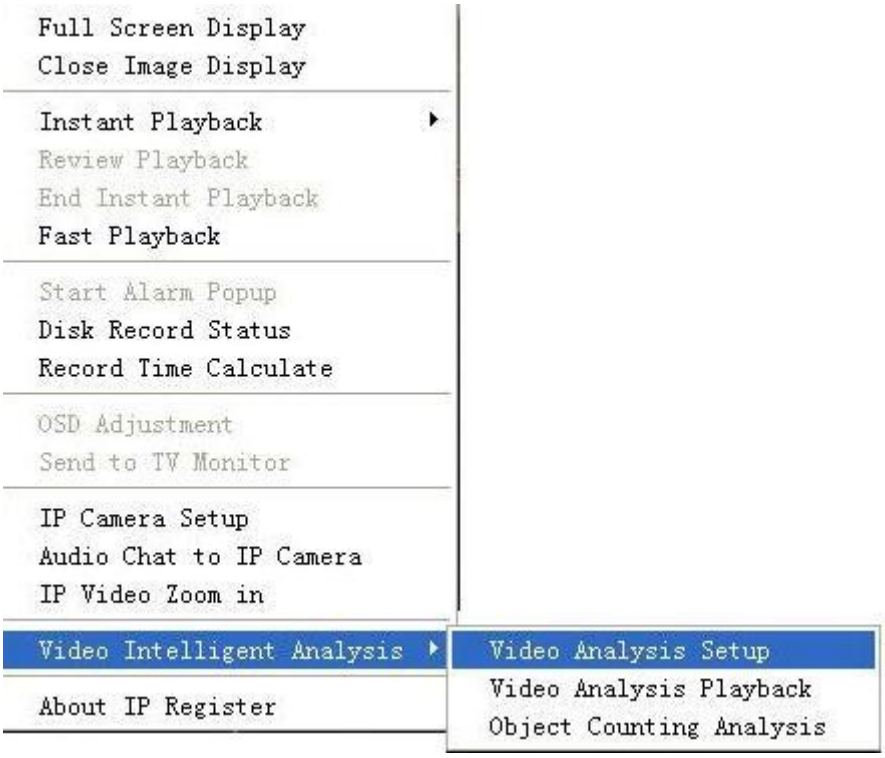


If you want to display the normal image, you should single-right-click again and select ***IP Video Restore.***

Note:

The 4 functions as above are only suitable for the IP camera.

13. Video Intelligent Analysis



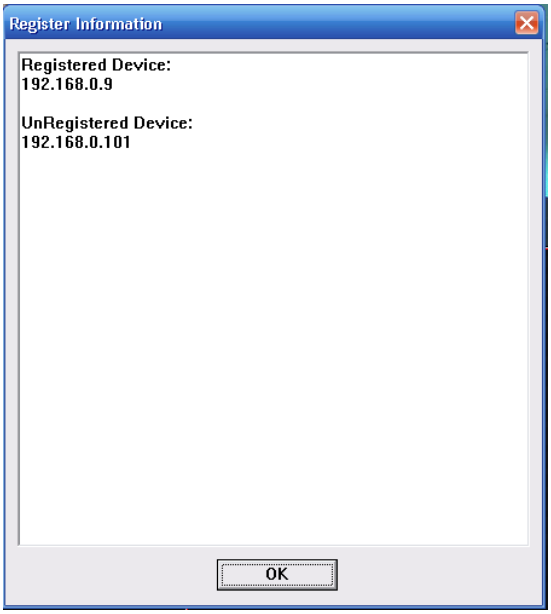
We programmed Intelligent Video Analysis function including:

- Face Detection
- Intrusion Detection
- Movement Direction Detection
- Unattended Object Detection
- Missing Object Detection
- Tripwire Detection
- Object Counting
- Smoke and Fire Detection

Each Intelligent Video Analysis record video can be searched in Video Analysis Playback, please refer to Intelligent_Video_Analysis_manual for details.

14. About IP Register

Select this option to get your register information as below:



System will display the serial number of unregistered NV series IPC, DG series EMDVR and DH series IPC. And display the server name only when they are registered. To other series, system will display their USB dog serial number when they are registered. Otherwise, it will only display the server name.

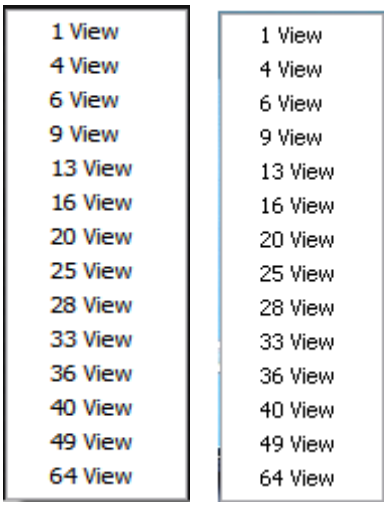
1.4.3 Interface Description

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.



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

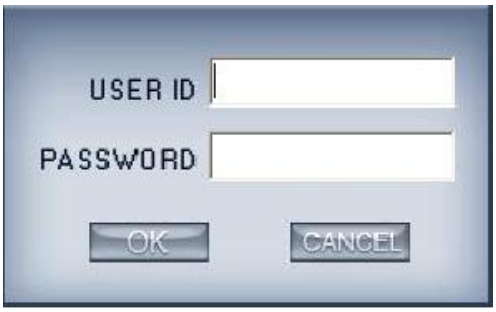
Press button to access Local Setup.

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 Hybrid NDVR 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 Hybrid NDVR system.

1.4.4 System Menu

1. Backup/Import System Parameters

Select this function to export/import system configuration parameters.

2. Restore Default Parameters

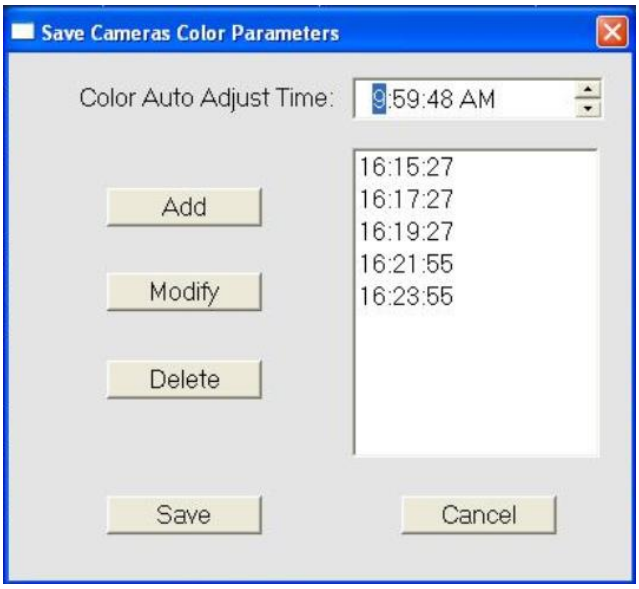
Select this function to restore the default parameters of system.

3. Backup/Video Convertor

Please refer to our Backup User Manual for details.

4. Save Cameras Color Parameters

Save the color settings for the cameras, and users can set a plan to call this setting at a customize time. Showed as below:



Step 1, set the Brightness / Contrast / Hue / Saturation for cameras.

Step 2, click Menu and select “Save Cameras Color Parameters”. Your settings will be saved.

Step 3, Set the “Color Auto Adjust Time”, here you can set the software to call the color settings saved in step 2 at a customize time. (Just adjust the time and click “Add” to set a new plan, also you can delete the plans.)

Note: Each time you set the color and select “Save Cameras Color Parameters”, the previous setting will be covered, then new added “Color Auto Adjust Time” will only call the last color settings. And, when you click on the time added in step 3, software will call the plan to show you what color setting this plan is.

5. 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.

6. Execute an External Program

Select this function to execute an external program.

7. Remote Chat

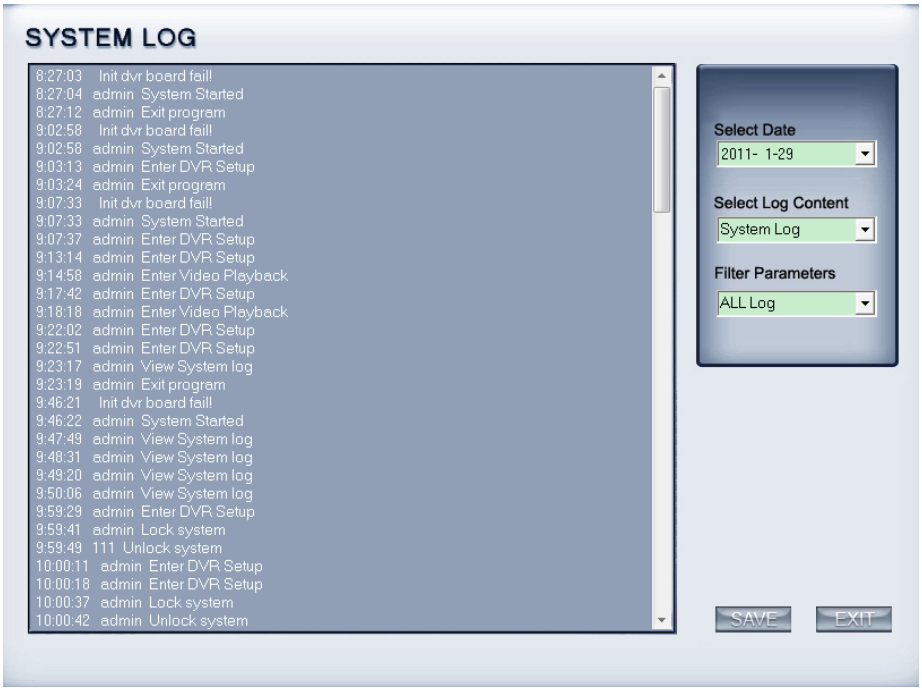
Select this option to connect a remote Client or Server for a live chatting via IP address, but please make sure audio card and Microphone have been installed.

8. Write to Working Log

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

9. 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.



10. Open Explorer

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

11. 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.

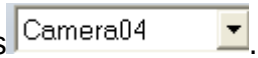
12. Motion Detection Setup

(1). Sound Alarm

Enable Sound Alarm and select a value from the dop-down list for the alarm. When the sound is detected over the value you selected, then the software will take it as a motion alarm.

(2). Motion Link to PTZ

You can press “Link to PTZ” button to activate 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.

(3). Motion Setup

If you don't want to use the motion link PTZ preset function, you should press 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

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

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

I. Add Mask

Press

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.

II. Delete Mask

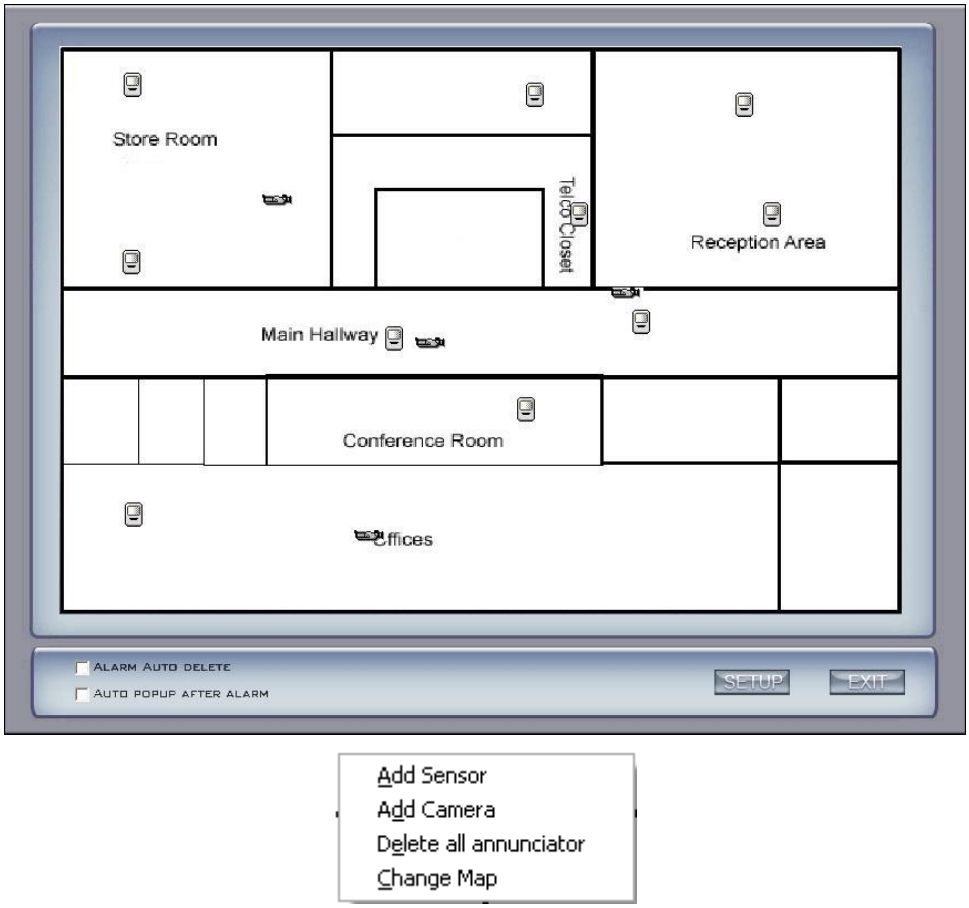
Press

button to delete all cover areas.

13. Open Electron Map

Click

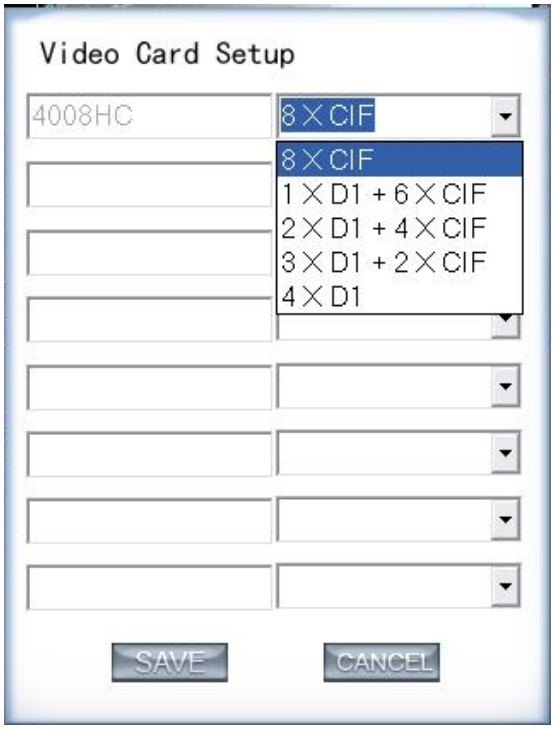
icon and then Right-Single-Click on the map, the setting picture will appear. You can add or delete sensors and cameras that pointed by the arrow or change the digital map.



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.

14. Hybrid NDVR Board Work Mode Setup

Each Hybrid NDVR system supports maximum 8 PCs 400XHC (total channel is equal to 64) series board, so user can set its work mode via this GUI.



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

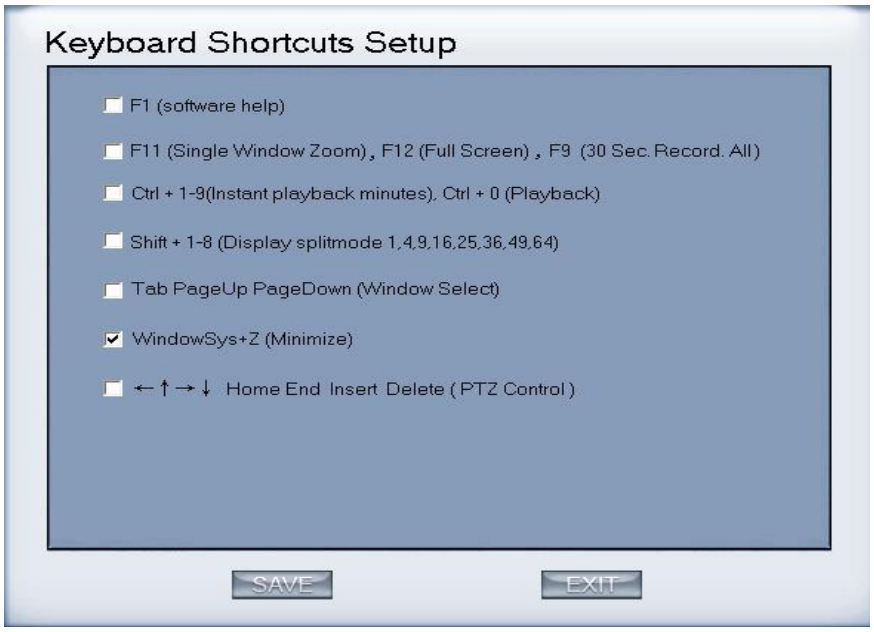
15. Keyboard Shortcuts Setup

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

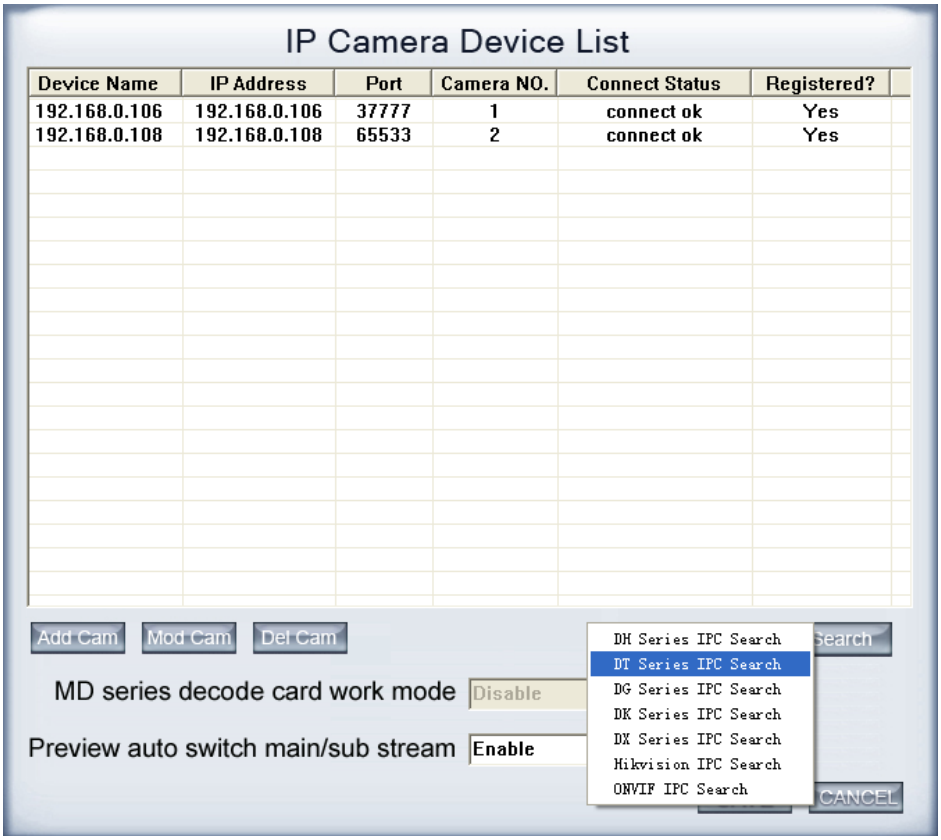
Note:

Please be sure to enable F12 before you display video in full screen mode. Otherwise, you may not be able to return to main GUI when system is locked in full screen mode. In this situation, you have to press Ctrl+Alt+Del to end Hybrid NDVR program in task manager. If F12 is enabled, you can just press F12 to back to main GUI.

Hybrid NDVR system will be locked when "Local Password" is enabled and the "Auto Lock Time" set in Password Setup is up. However, system will not be locked when there is video loop.



16. Add/Del IP Camera



Press this bar to go into add / delete IP devices interface. For resource limitation, you can add max 64 IP cameras, including DVS and EMDVR. Now our software supports the following types of IP products:

DH Series IP/EMDVR, DT Series IPC, DG Series IPC, DK Series IPC, DX Series IPC, NV Series IP/EMDVR, Sony ch_dh_rh_rs , Sony DM110/160, ACTi Series IPC, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IPC,

Camtron Series IPC, Axis Series IPC, Vivotek Series IPC, SanYo Series IPC,ONVIF Protocol IPC,CNB Series IPC, Sunell Series IPC and Panasonic Series IPC.

Note:

All cameras support ONVIF can also be supported by our software. You can add them to our software as normal IP cameras. The only difference is you have to select ONVIF IPC as the device type.

Also we integrated DH IPC, DT IPC, DK IPC, DX IPC, DG IPC NV IPC and scan tools into software, now customers can use these tools to search for the DH / DT / DG / DK / DX / NV Series IPC, config them, and add them into Hybrid NDVR Server software directly.

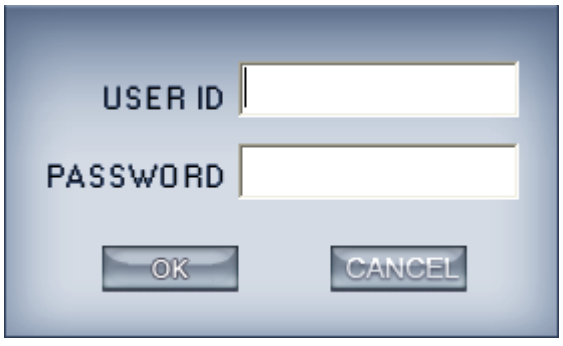
MD series decode card work mode: Select D1 work mode or CIF work mode to decode IP cameras when there are MD cards. Only NV series normal IP devices and NV 40 series cards can be decoded. Megapixel cameras and NV 42 series cards can't be decoded. If you don't want to decode IP devices, you should disable this function.

Preview auto swith main/sub stream: If this function is enabled and cameras are connected by double stream, then, it will switch to view sub stream automaticaly when there are many cameras being viewed. And it will switch to main stream automatically when you maximize only one window.

Note:

You can lock "Add/Del IP Camera" function to avoid other users managing it. For example, you can creat a new user named "user1" and diable "Add/Del IP Camera" for it.

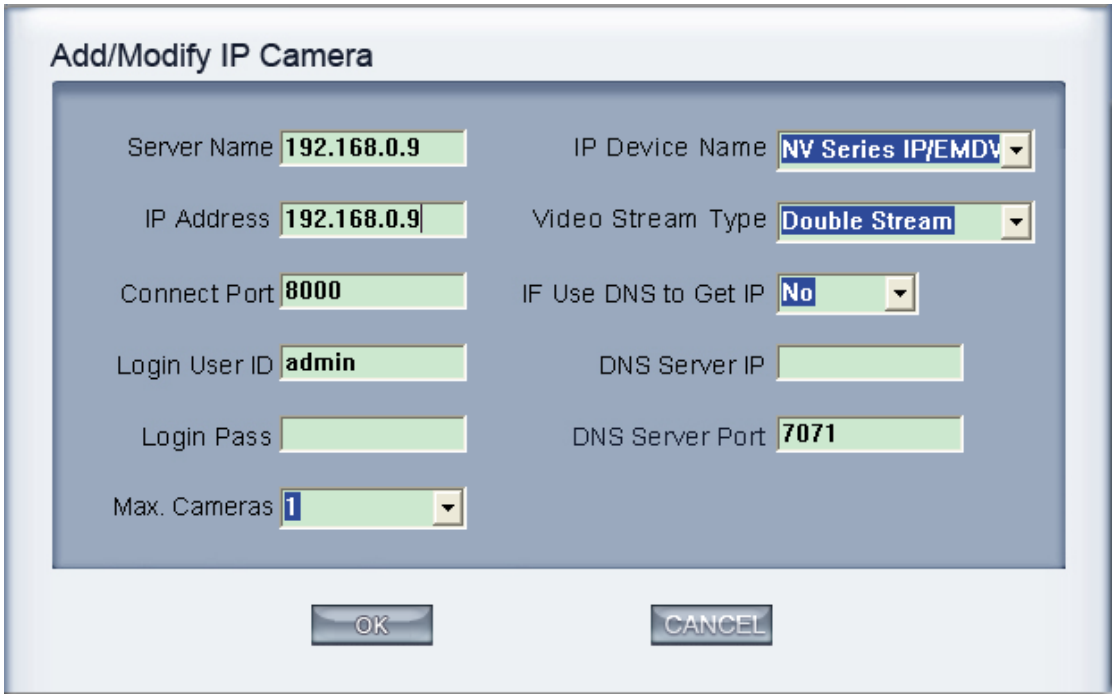
Then, when some one logs in with any other user ID except "admin" and tries to enter "Add/Del IP Camera", there will be a dialog shown as below to confirm the user ID and password. If you input "user1" and its password, you will not be able to enter the function. And there is no prompt.



(1). Add IP camera device

I. Add IP device (except DG series)

Press Add Cam button to add an IP Camera device (except DG series IP camera):



【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.

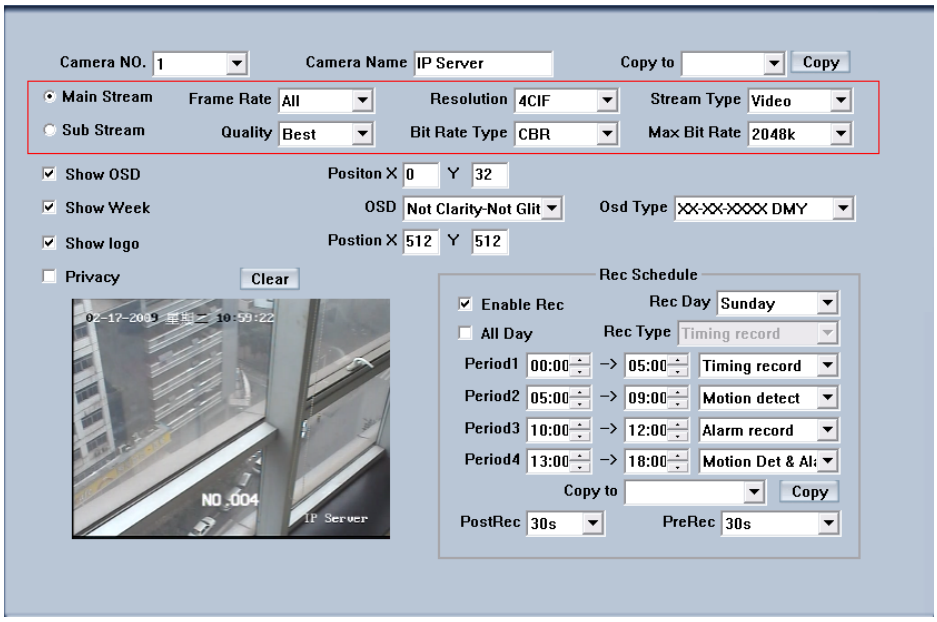
【Login user ID/Login Pass】When the user want to visit IP Camera and the server has used the function of rights management, login user ID and password will be checked. If the user has no right to visit that camera, the connection will be cut down automatically.

【Max.Cameras】Set the number of channels you want to connect.The max is 32 channels.

【Device Name】Select the corresponding name for the IP camera. Now our software supports the following types of IP products: DH Series IP/EMDVR, DT Series IPC, DG Series IPC, DK Series IPC, DX Series IPC, NV Series IP/EMDVR, Sony ch_dh_rh_rs , Sony DM110/160, ACTi Series IPC, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IPC, Camtron Series IPC, Axis Series IPC, Vivotek Series IPC, SanYo Series IPC,ONVIF Protocol IPC,CNB Series IPC ,Sunell Series IPC and Panasonic Series IPC.

【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 be set in the following 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.

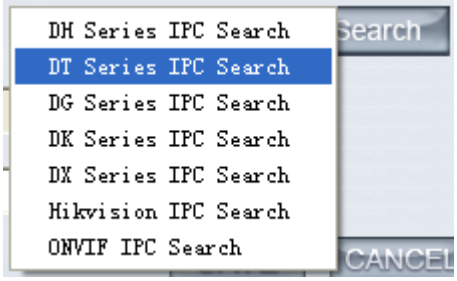
【DNS Server IP】Set IP address of DNS server host.

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

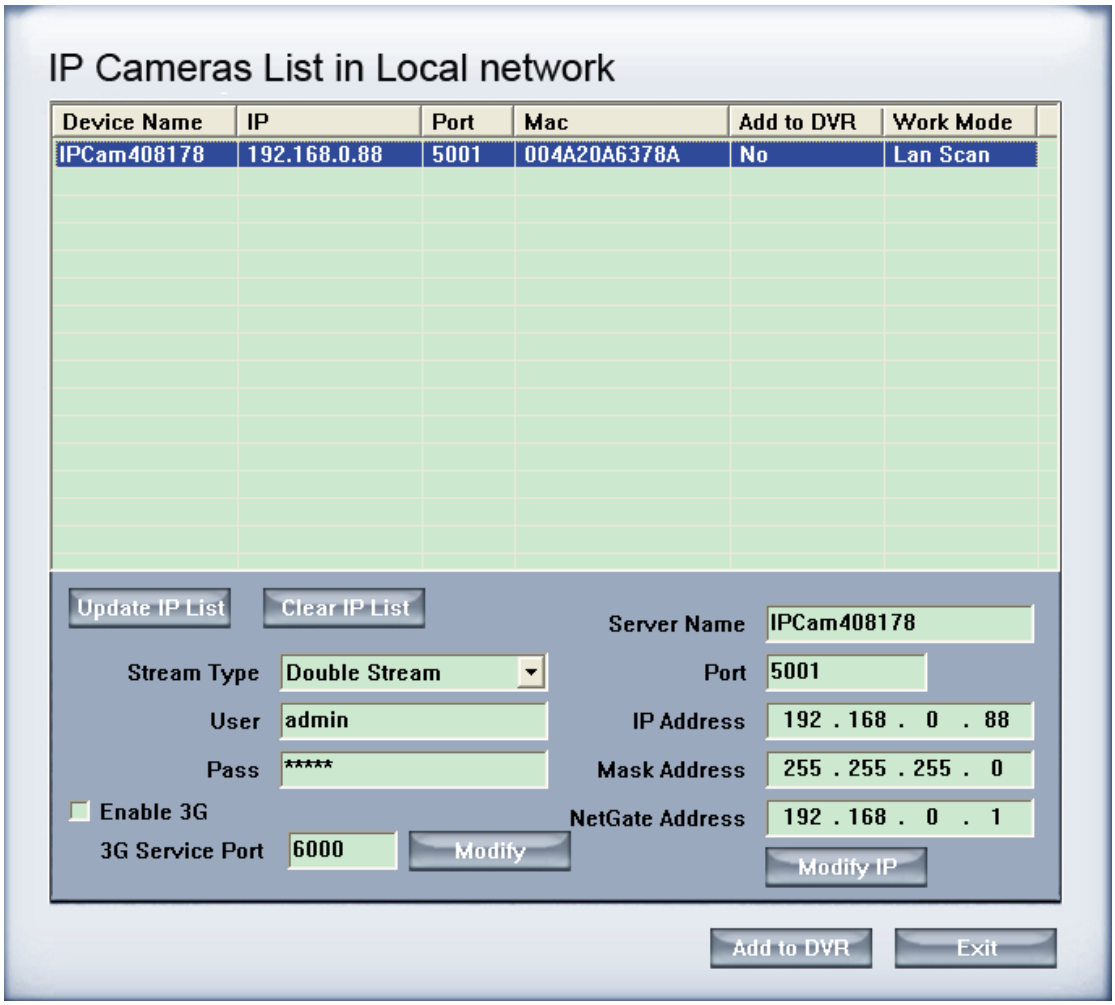
II. Add IP Device by Searching

Click

button to add IP device. Then, this list will pop up.



Select DG Series IPC Search, the following interface will be shown.



The interface here displays all the IP devices can be searched and connected. When there is a new DG IP camera connected but you can't find its IP address in the list, please press Update IP List. Also, you can press Clear IP List to make sure all the IP cameras those are not available at this moment will be cleared from the list.

You can also modify IP of the searched IPC. Click

button after you input the IP address, Mask and Net Gate you want.

Check the box in front of Enable 3G to use the 3G function of DG series IP cameras. For details, please refer to Appendix E.

You can add DH / DT / DG / DK / DX / NV Series IPC or ONVIF IP cameras in the similar way.

Note:

Because the search tool is using multicast protocol and the firewall forbids the multicast data packet, so please close the firewall first to make sure DG series IP devices can be found.

When there is a new DG IP camera connected but you can't find its IP address in the list, please press Update IP List. Also, you can press Clear IP List to make sure all the IP cameras those are not available at this moment will

be cleared from the list.

Select one device from the list and click

button to add it to the Hybrid NDVR system.

When you finished adding IP Camera to Hybrid NDVR 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 Hybrid NDVR 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 Hybrid NDVR 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.

(4). Decode card work mode

Hybrid NDVR system supports playing video of IP Camera to TV wall directly, and then it uses the hard decoding function of decoder, so you should set the work mode of decoder. If you don't use hard decoding, you can't output video of IP Camera real-time, user can only play back recording data to TV monitor by selecting Playback to TV Monitor function.

Note:

Each NV4002MD card can decode 2 channels D1 or 4channels CIF.

Each NV4004MD card can decode 4 channels D1 or 8 channels CIF.

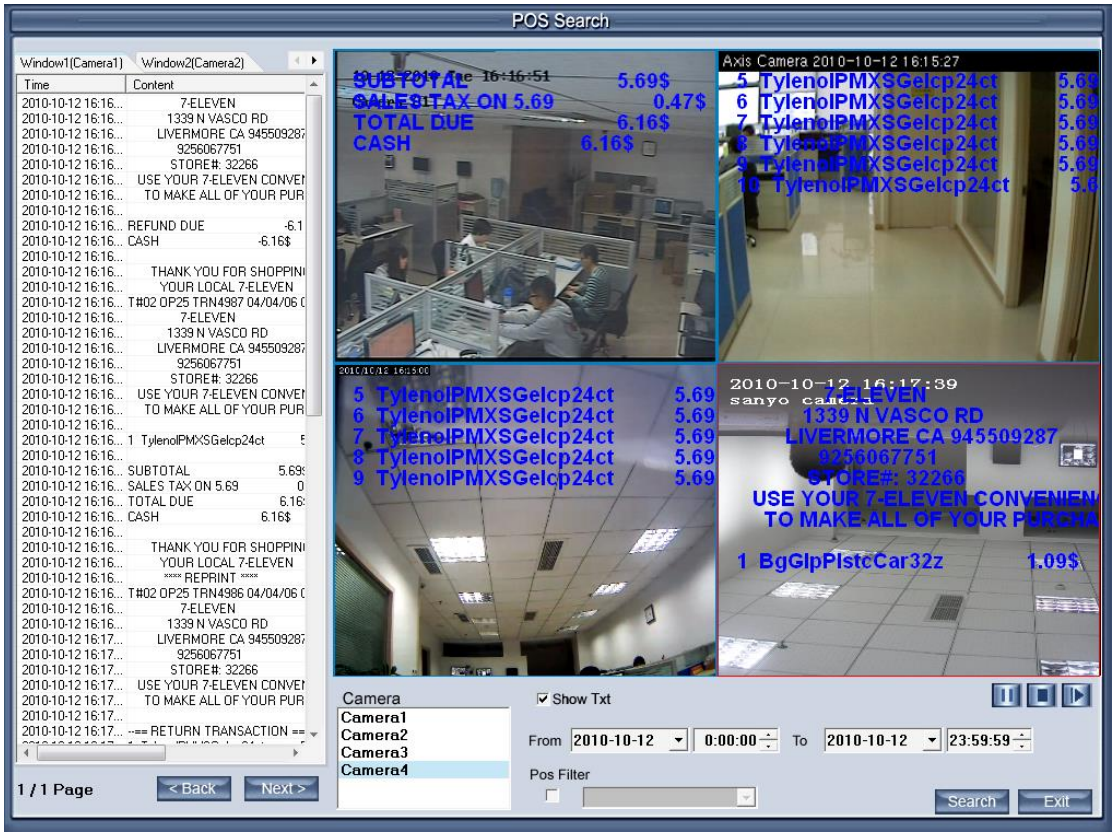
When you select the work mode, system will send out corresponding channels of IP camera from the first IP camera. It will not influence soft decoding for cameras of local board cards. If you enable hard decoding, then all the images of cameras will be displayed in overlay model, adversely, all the images of cameras will be displayed in off screen model.

17. Pos/Acu Function Setup\Event Monitor

We will introduce the Pos particularly in Pos Manual.

18. Multi-Channel POS Search

Click this tool bar to enter multi-channel POS search page, shown as below.



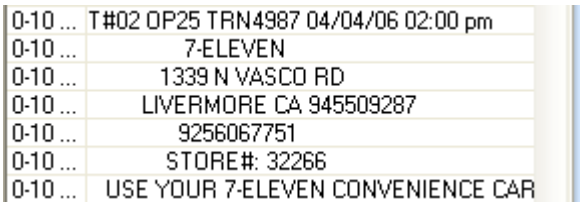
You can search as many as four channels together in several days. After one window is selected via clicking the black window on the right, you can double click the camera in the frame to display its video and text. You can display any camera in any window.

POS Filter

Check the box in front of the rectangle to enable POS filter. You can type any word according to the POS text to display the lines you want. For example, if you want to display all the lines less than 5$, then you can type “<5$” as the filter.

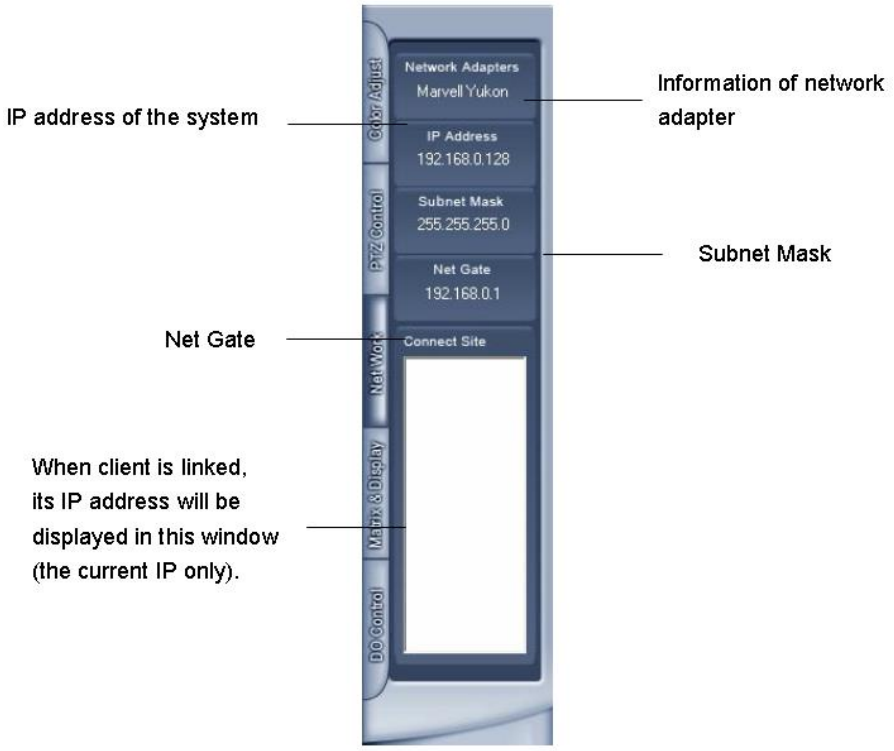
Note:

If you type in “<$5”, you will get the same result as “<5$”. Besides, please notice it will compare the absolute value only. For example, if “>5$” is typed in as the filter, the lines with “-6.69$” will be displayed, too. If there is no “$”after “5”, the program will display all the lines with a number more than 5, like below:



1.4.5 Network Panel

This panel displays the network configuration of Hybrid NDVR system.



1.4.6 PTZ Control Panel

In Hybrid NDVR system, there are three ways to operate PTZ:

1. Panel operate;
2. Operate in video area directly;
3. 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 –

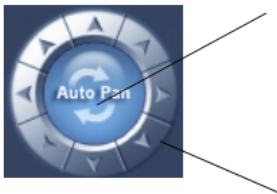
Control the zoom function of the PTZ camera.

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

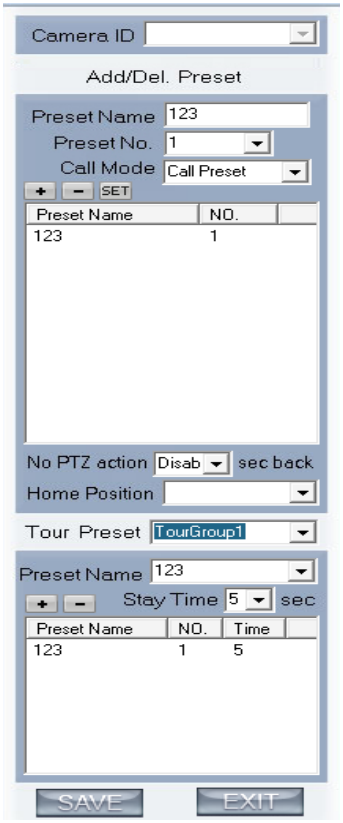
button to operate the speed dome, including Preset Setup, Preset Call and Preset Tour:

For IP camera, the preset should be set remotely in IP Camera Setup. But you can also use Preset Call and Preset Tour function here after you set them

remotely.

(1). Preset Setup

In this screen you can set the preset position:



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.

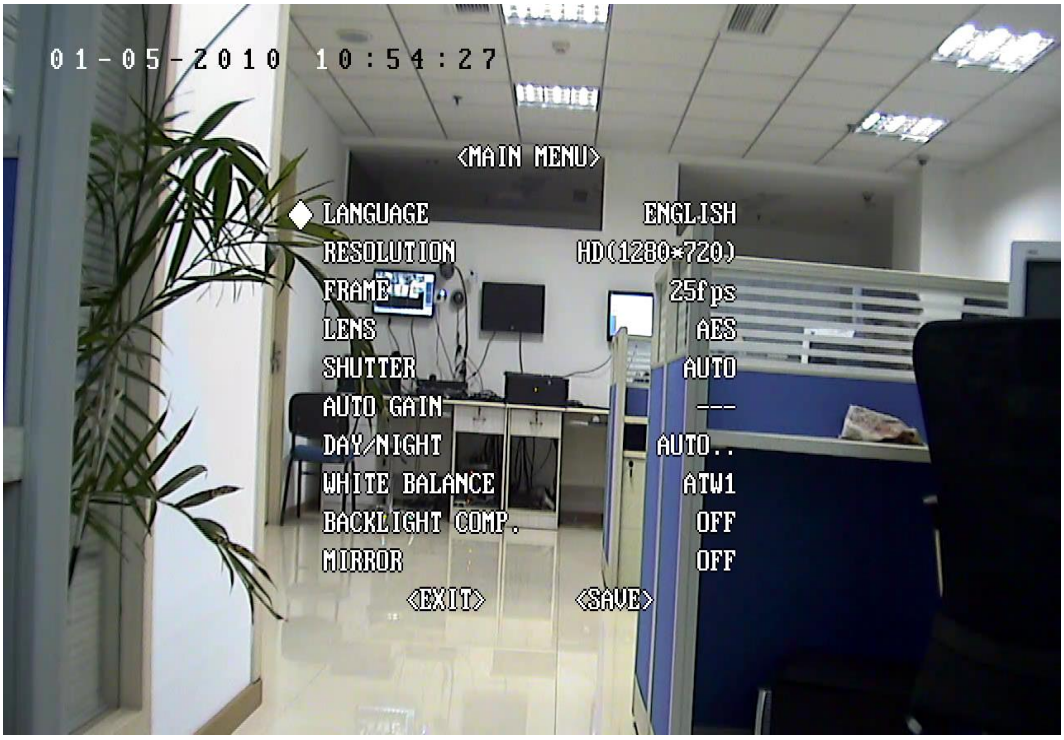
(2). Preset Call

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.

If the views are the PTZ&IP camera and mega pixel IP camera, when you call preset 95, you can see:



When you enter the menu, you can control it by

, using up, down, left and right buttons. Press

(close Iris) to enter the sub menu. When you use up or down to move to “exit”, press “open Iris” to exit the menu.

For details, please refer to Chapter 4 in ***Network_Camera_Menu*** for details.

8. Control PTZ via Video Window

Press and drag the mouse to the corresponding area can control the PTZ when there is a decoder.

1.4.7 Color and Audio Adjustment

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

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

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

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

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

Copy Color To: pressing the Copy Color to button to copy the color and audio adjustment in this camera's setting to the others.

1.4.8 Matrix & Display

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

1.4.9 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. There are two types of status to DI:

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. There are two types of status to DO:

2 Output channel 2 is close.

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 Hybrid NDVR System Configuration and include 7 types of configuration setup:

System Setup

Camera Setup

Sensor Setup

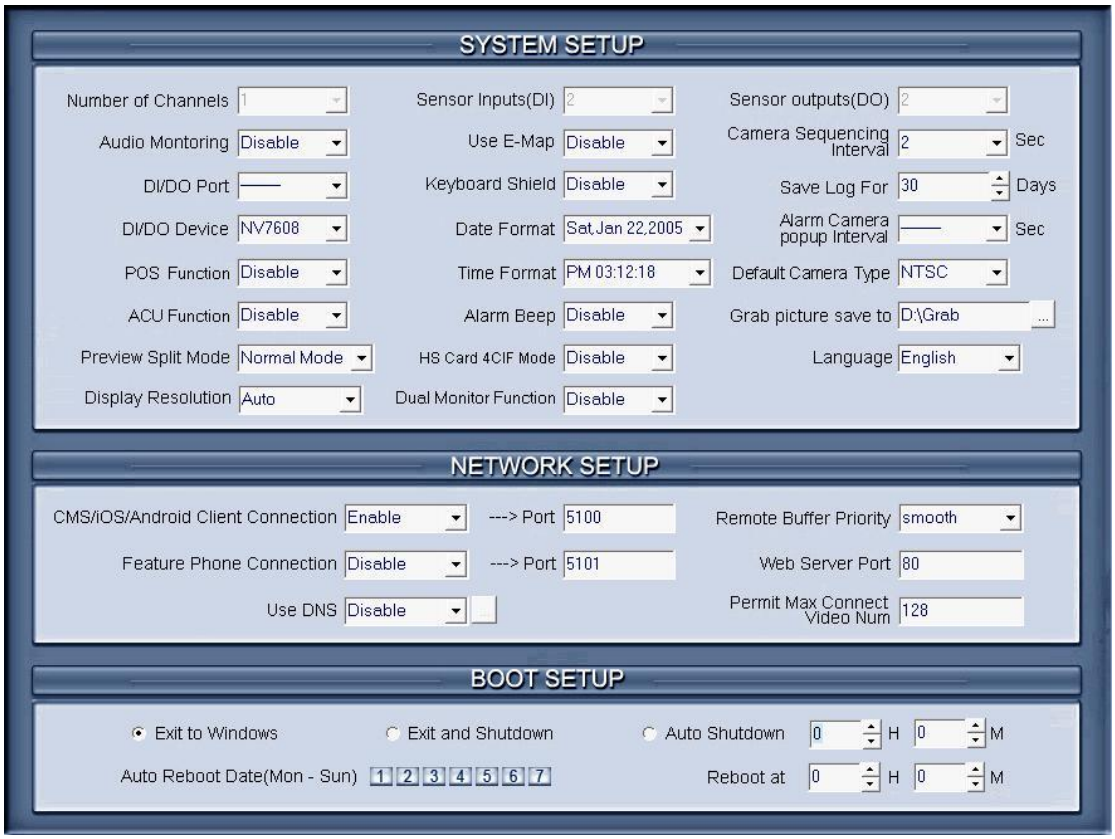
PTZ & Linkage Setup

Email & SMS Setup

Matrix & display Setup

User Setup

2.1 System Setup



2.1.1 System Setup

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

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

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

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

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

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

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

【**Keyboard Shield**】System keystroke. When it is enable, functions of some system keys will be disabled.

【**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 Hybrid NDVR 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.

【**Grab picture save to**】Select the path to save the captured pictures.

【**Preview Split Mode**】Select window split mode for Hybrid NDVR between “Normal Mode” and “Wide Screen”. You should re-select the view window number to refresh the window split mode status.

【**HS Card 4CIF Mode**】Select the HS Card 4CIF Mode function disable or enable.

【**Language**】Select one kind of language to use. Generally speaking, there is “English” only. But we can add some other kinds of language according to your requirement.

【**Display Resolution**】Select display resolution among ***Auto, 1024*768, 1280*768, 1280*1024, 1366*768, 1440*900, 1600*900, 1680*1050 and 1920*1080***. When ***Auto*** is selected, the software will adjust its display resolution according to the resolution of desktop. When the desktop resolution is any of the resolution mentioned above, it will be displayed as that resolution. If it’s not any of them, the software will select the closest one. For example, when the desktop resolution is set as 1280*960 and ***Auto*** is selected, then, Hybrid NDVR will be displayed as 1280*768.

It will take effect after the software is restarted.

【**Dual Monitor Function**】Select to disable or enable dual monitor function.

Note:

If you want to use dual monitor, you have to make sure the hardware and the system support the dual monitor first. When there are more than two monitors connected and all the settings are done, the software can realize dual-monitor function automatically after you enabled this function. For more details about dual-monitor, please refer to Dual Monitor User Manual. You can ask our sales to send you the link to download the manual.

2.1.2 Network Setup

【**CMS / iOS / Android Client Connection**】and

Select remote connection port for CMS Client, or iPhone / iPad / Android Phone / Pad Clients.

【**Remote buffer Priority**】Select among ***Smooth, Normal and Realtime***. “Smooth” demands there is large buffer in the system. “Realtime” demands there is enough bandwidth. Otherwise, the data will be off and on when it is sent through the network.

【**Feature Phone Connection**】Select whether allow Feature Phone connect to Hybrid NDVR system. If select “disable”, it will not permit any Feature Phone devices to connect with this Hybrid NDVR system.

Select remote connection port for Feature Phone device.

【**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 Hybrid NDVR 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 Hybrid NDVR server, then user can access Hybrid NDVR server via IE Client like this: http://IP: 1280 (IP can be a static IP or dynamic domain name).

【**Network Listen Service Adapters IP**】Setup the network adapter through which the Client software can connect. For details, please refer to Dual Network Adapter Guide.

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

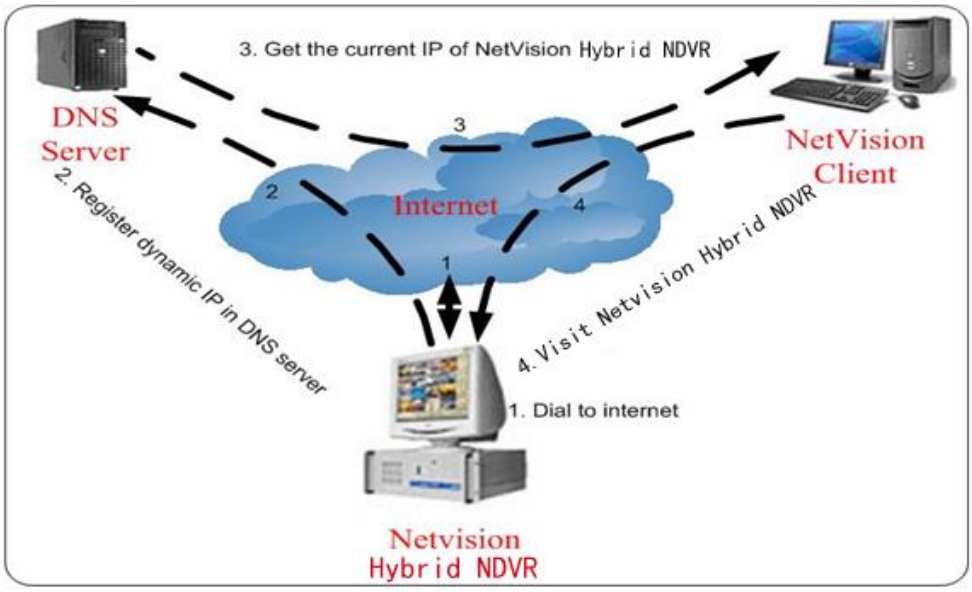
【**Local Host Name**】Input the name description for DNS Server identification.

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

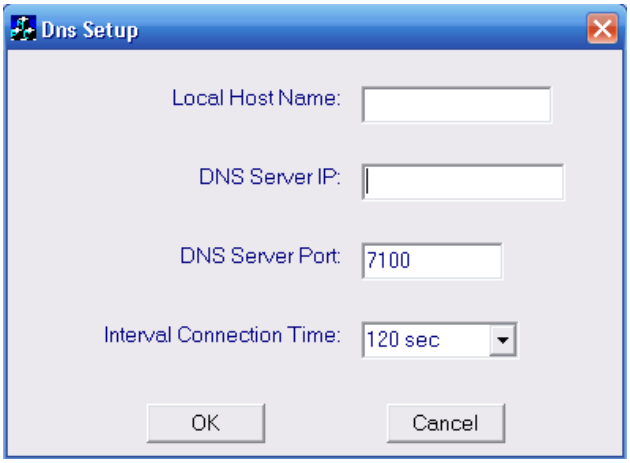
【**DNS Connection Port**】DNS server host port ,it is used to connect DNS server.

DNS server work mode:

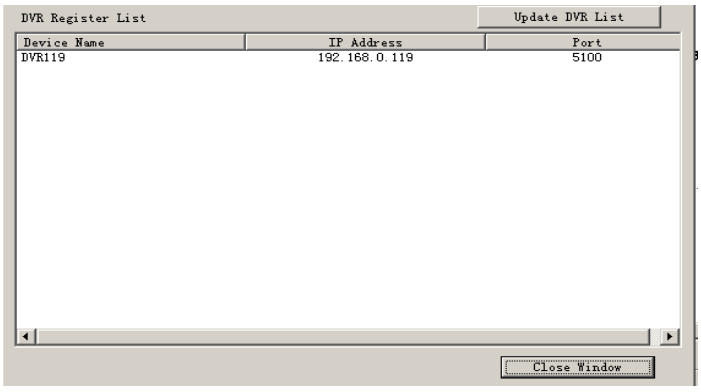
If it is required, please get DNS server software from developer.



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



2. DNS server will get domain name and current IP of your Hybrid NDVR, CMS Client can connect Hybrid NDVR server through this domain name.



3. CMS Clients get IP of Hybrid NDVR through DNS server according to its domain.

4. CMS Clients visit Hybrid NDVR 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 Hybrid NDVR server. The number can select according to the network bandwidth. The maximum is 256. For example: one Hybrid NDVR server own 2Mbit network bandwidth, if all video channel compress base on CIF resolution (max data bit rate is 500Kb).To get better video effect, we can set 4 as the permit max connect video number.

2.1.3 Boot Setup

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

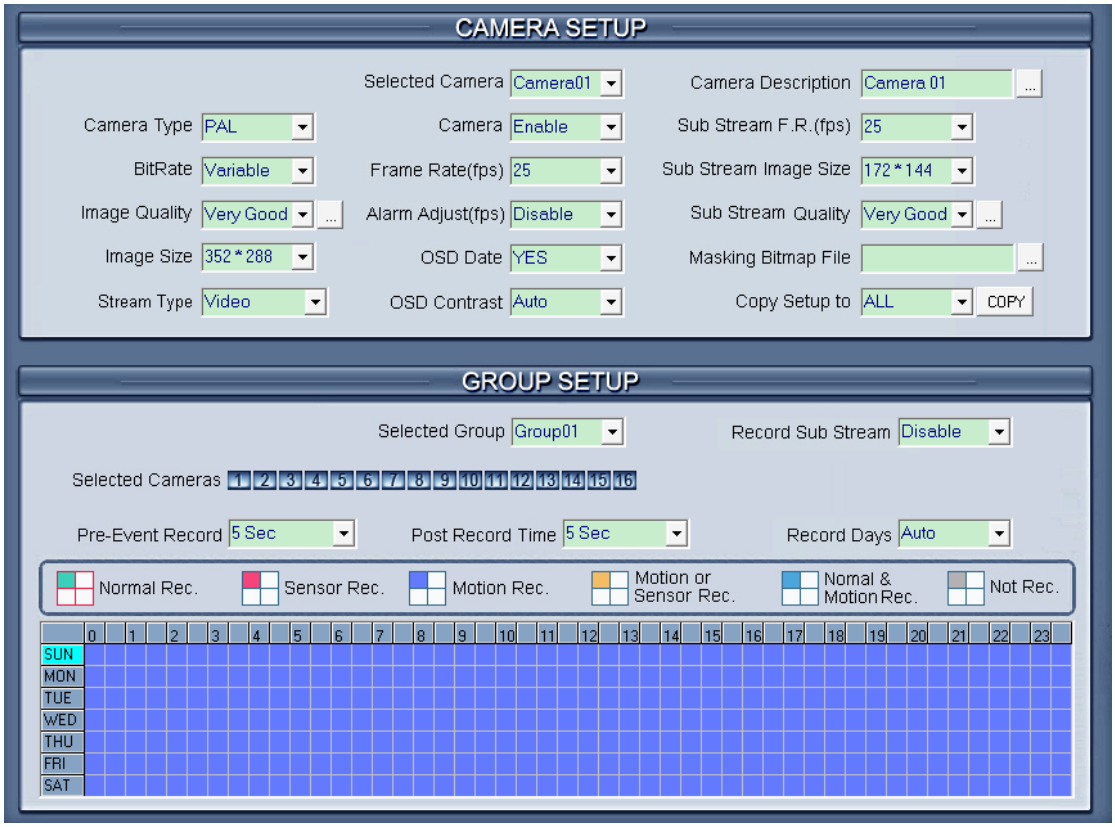
【Exit and Shutdown】User can exit program and shut down computer.

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

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

【Reboot at】Set auto-reboot time.

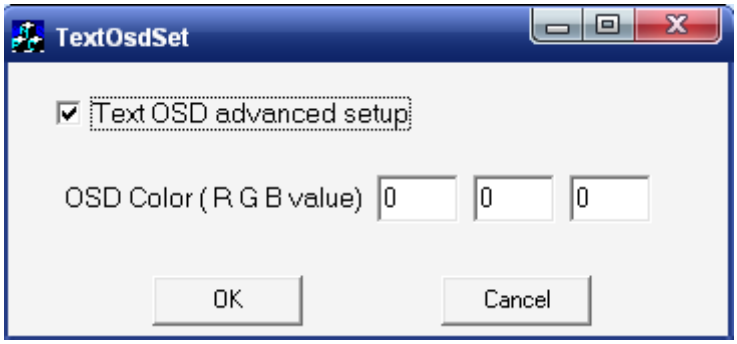
2.2 Camera Setup



2.2.1 Camera Setup

【**Selected Camera**】To set the parameters for a camera, select the camera from the drop-down list. The cameras you can select are only the cameras of the local board card except for IP Cameras. 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:



【**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.

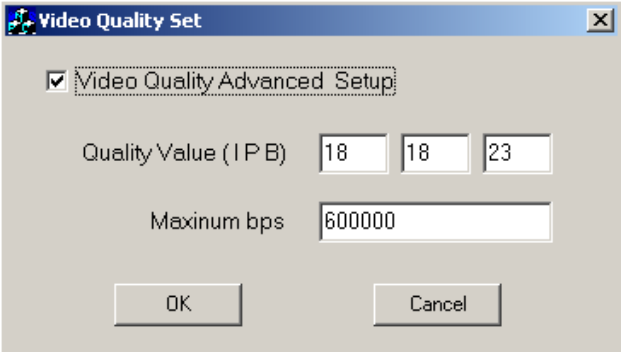
CBR allows each frame to be recorded at fixed bit rate, regardless the scene activity. In many cases, this limits detail (resolution). The benefit of CBR is its ability to accurately estimate the total video capacity.

【**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.

【**Image Quality**】Set 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 = (Maxbps/3)*5

Note:

Maxbps is the CIF's value with the same configuration (I P B)

For D1:

Max bps = (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:

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

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

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

【Stream Type】Select 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.

【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 Hybrid NDVR system is in Motion Detect mode or Sensor Detect mode, it can record video before the alarm is trigged.

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

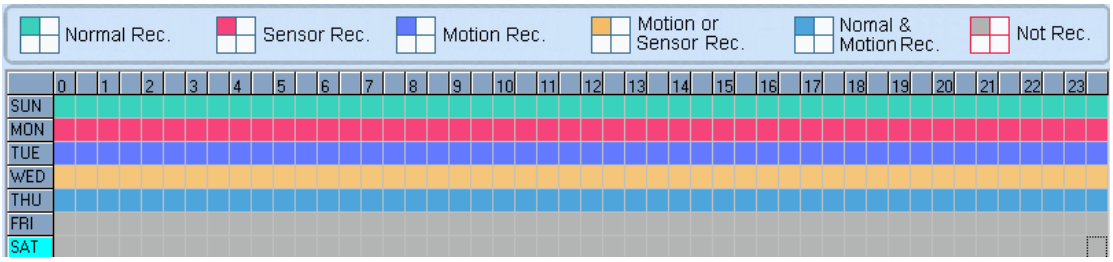
【Record Days】This section allows users to determine how long the record data of each camera should be kept in the system. The maximum duration for on-line storage is 120 days. Users can select an exact number of days, or select "auto" mode. If select "auto", system will auto-delete the

recorded data of the earliest days when there is no enough space.

Note:

When 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.

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

Note:

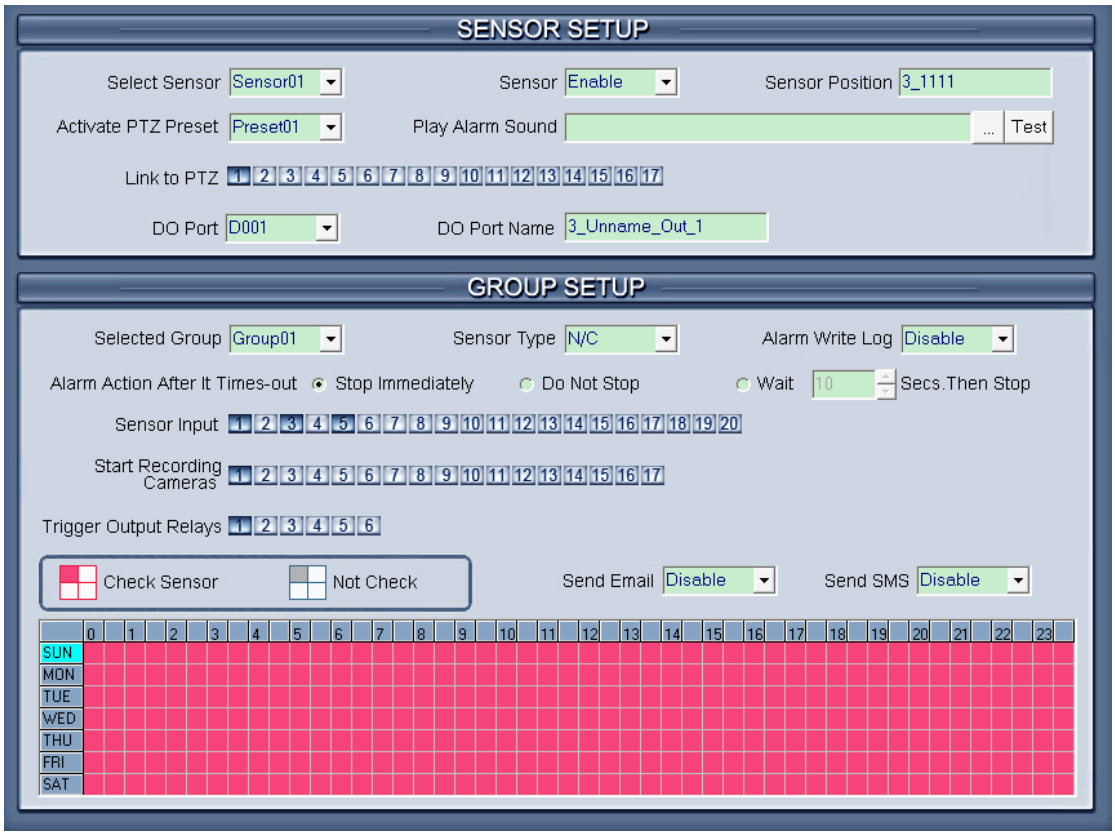
The time setup must be corresponding with Check Alarm setups in Sensor setup otherwise it can’t work properly.

3. Motion Record (Blue): Hybrid NDVR 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): Hybrid NDVR 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): Hybrid NDVR System records no video (e.g. Friday and Saturday).

2.3 Sensor Setup



2.3.1 Sensor Setup

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

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

【Sensor Position】 Enter the description for easy identification.

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

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

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

【DO Port】 Select a DO port that is related to this sensor alarm. You can set sensor alarm for single sensor via the Sensor and DO Port here.

【DO Port Name】 Fill in the description for the DO port.

2.3.2 Group Setup

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

【**Selected Group**】Select group number. You can set sensor alarm for a group here.

【**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.

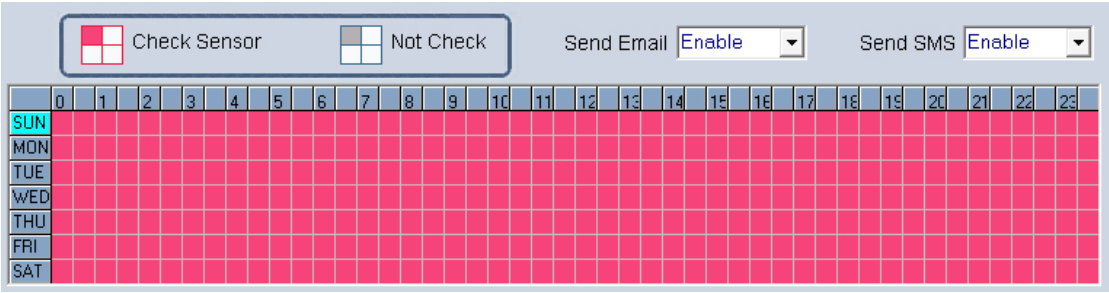
【**Send email**】Set the send email alarm function disable or enable when the sensor test abnormally.

【**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.



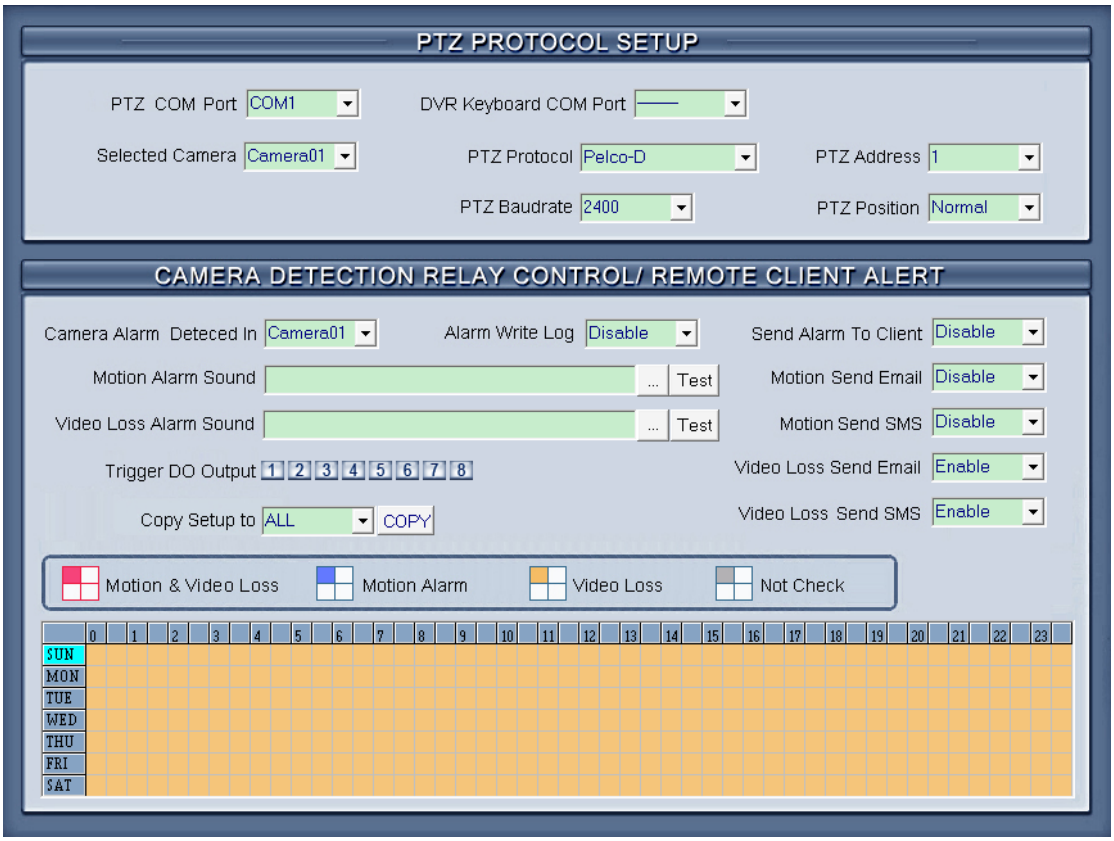
Check Alarm (Red): Hybrid NDVR System responds with sensor during this time (00:30 to 12:00 from Sun. to Sat.);

Not Check (gray): Hybrid NDVR System doesn’t respond with sensor during this time.

Note:

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

2.4 PTZ & Linkage Setup



2.4.1 PTZ Protocol Setup

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

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

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

【**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 Hybrid NDVR Server or CMS Client.

【**Camera Alarm Detected in**】Selects camera to be set from dropdown list.

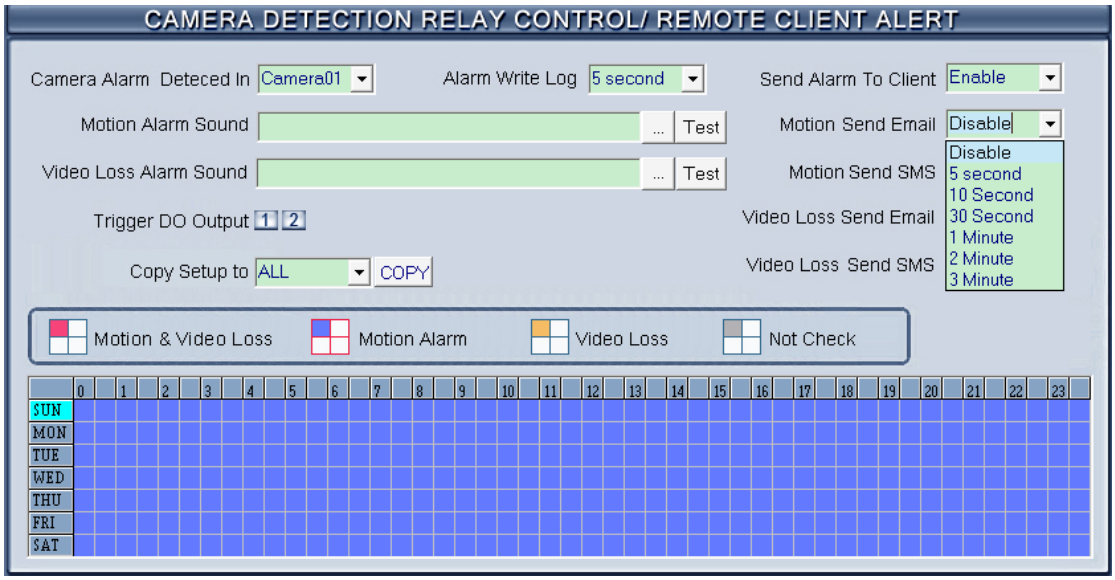
【**Alarm Write Log**】Select write alarm log or not when there is an alarm triggered. You can set the interval to write log as 5s, 10s, 30s, 1min, 2min or 3min to enable writing log when there is alarm triggered.

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

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

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

【**Motion Send Email**】Set sending Email disable or enable when there is mtion alarm triggered. You can set the interval to send an email as 5s, 10s, 30s, 1min, 2min or 3min to enable sending email.



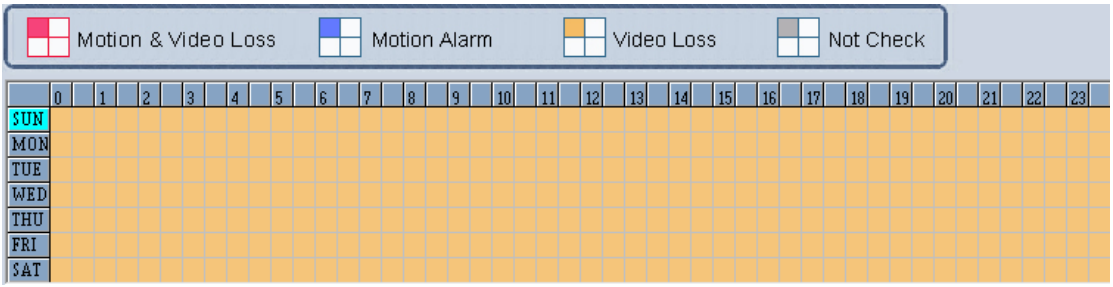
【**Motion Send SMS**】Set sending SMS disable or enable when there is motion alarm triggered. You can set the interval to send a SMS as 5s, 10s, 30s, 1min, 2min or 3min to enable sending SMS.

【**Video Loss Send Email**】Set sending Email disable or enable when video loss.

【**Video Loss Send SMS**】Set sending SMS disable or enable when video loss.

【**Trigger DO Output**】Select 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): Hybrid NDVR System responds with Motion Detection and Video Loss alarm in specified time;
2. Motion Alarm (Blue): Hybrid NDVR System only responds with Motion Detection alarm in specified time;
3. Video Loss (Yellow): Hybrid NDVR System only responds with Video Loss alarm in specified time;
4. Not Check (gray): Hybrid NDVR 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 Detection 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.

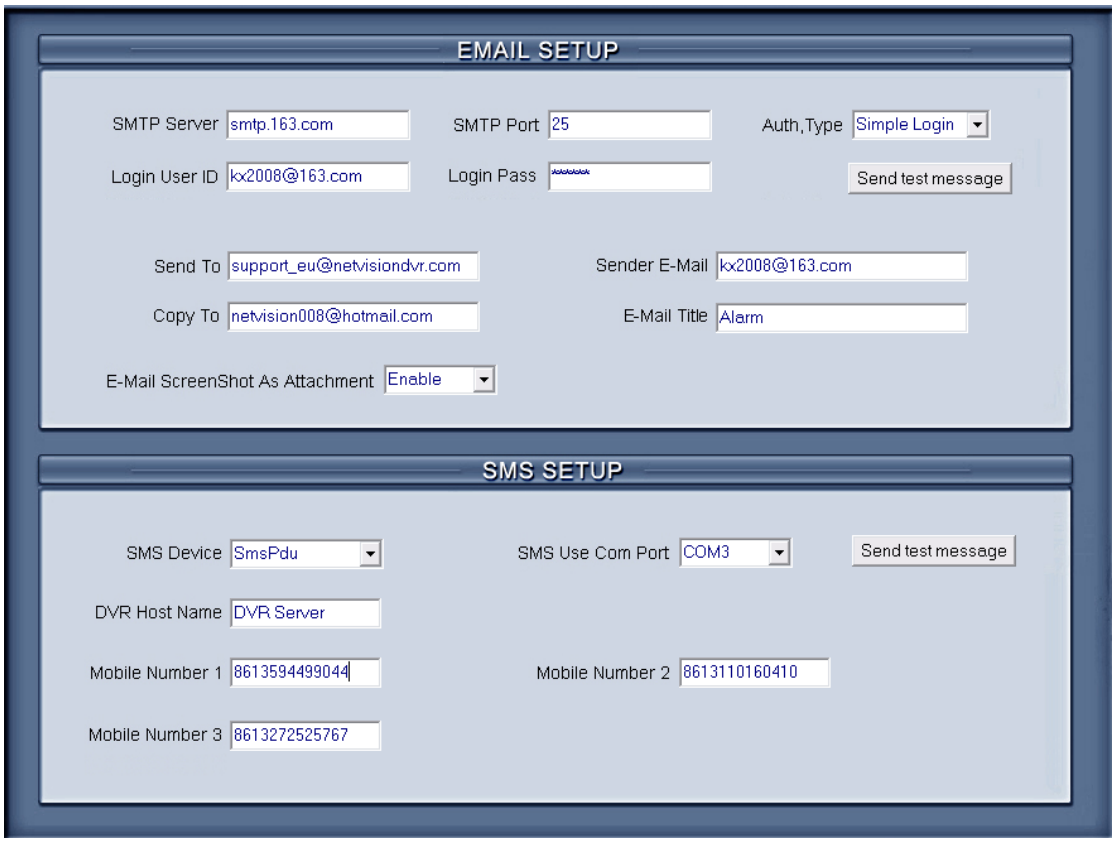
Note:

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.

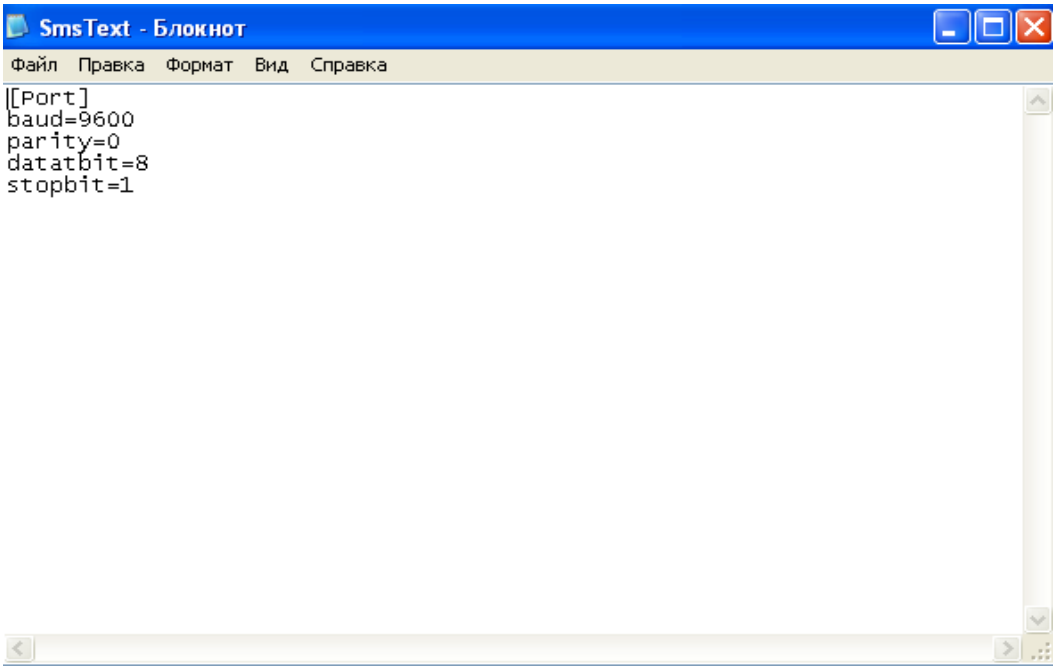
For Camera-related alarms, you should set in Motion Detection Setup and check alarm in Motion Detection Relay. For Sensor-related alarms, you should set to check sensor and select cameras to be triggered in Sensor Setup.

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.

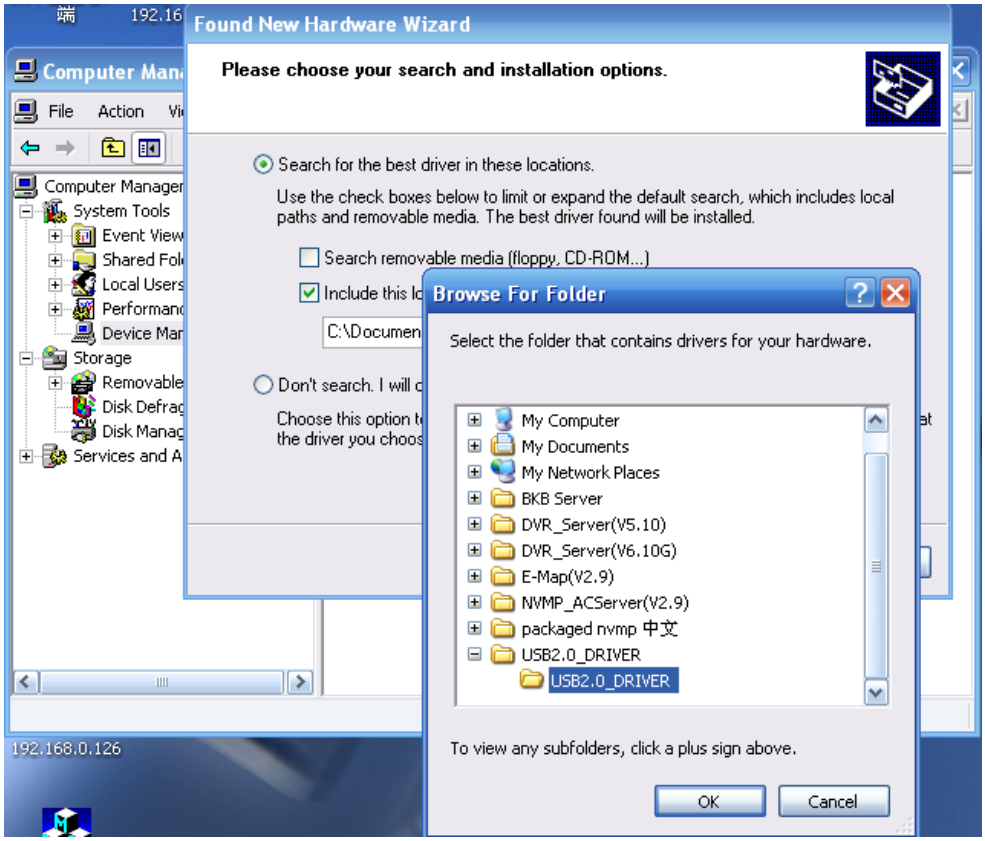


User can modify GSM modem's communicate parameters manually in

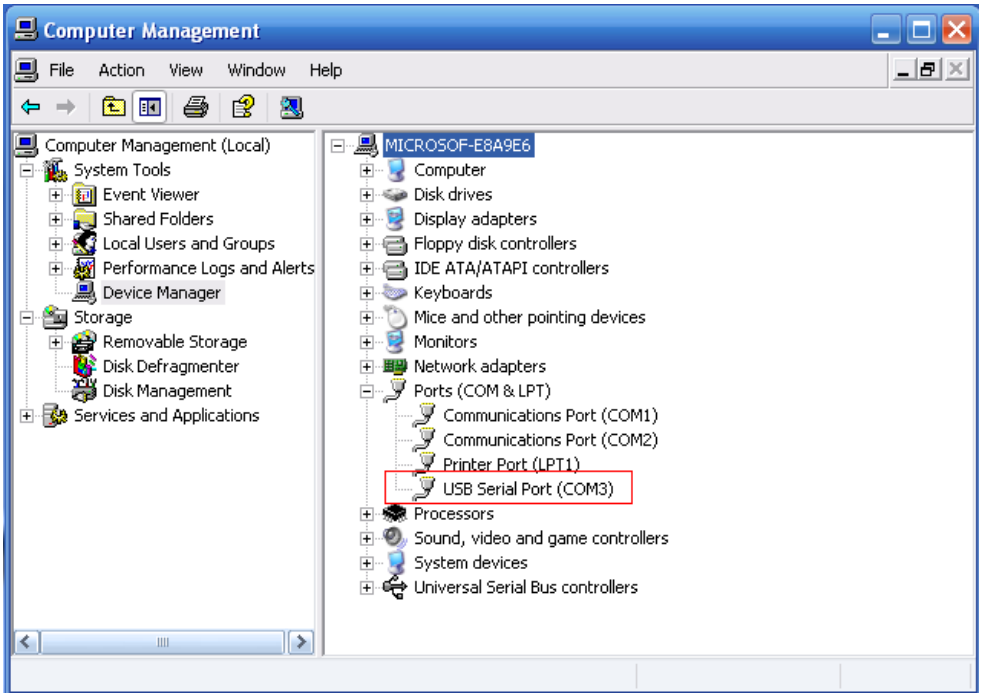
C:\Program Files\Hybrid NDVR Server\SMS_LIB as bellow:

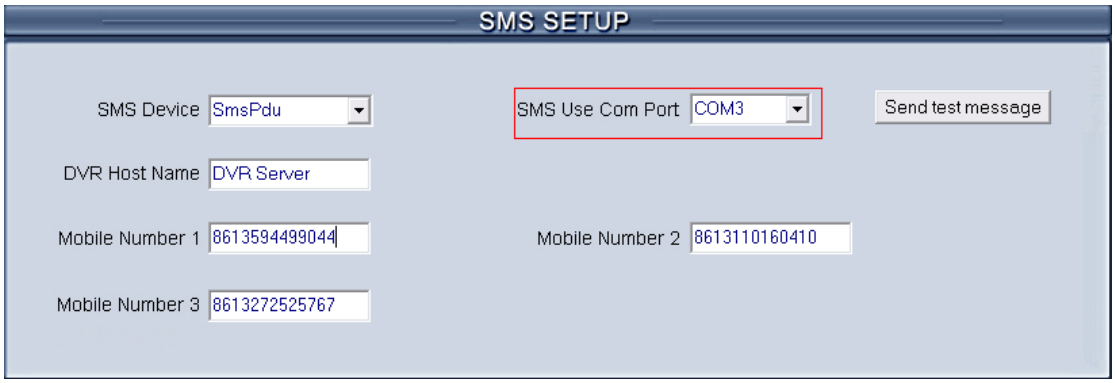


After you insert the GSM MODEM, Firstly, you should install the driver.



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





2.5.1 EMAIL Setup

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

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

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

【Login User ID】Mailbox's ID.

【Login Pass】Mailbox's password.

After 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.

When setup is finished, user can press Send test message to test the function.

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.

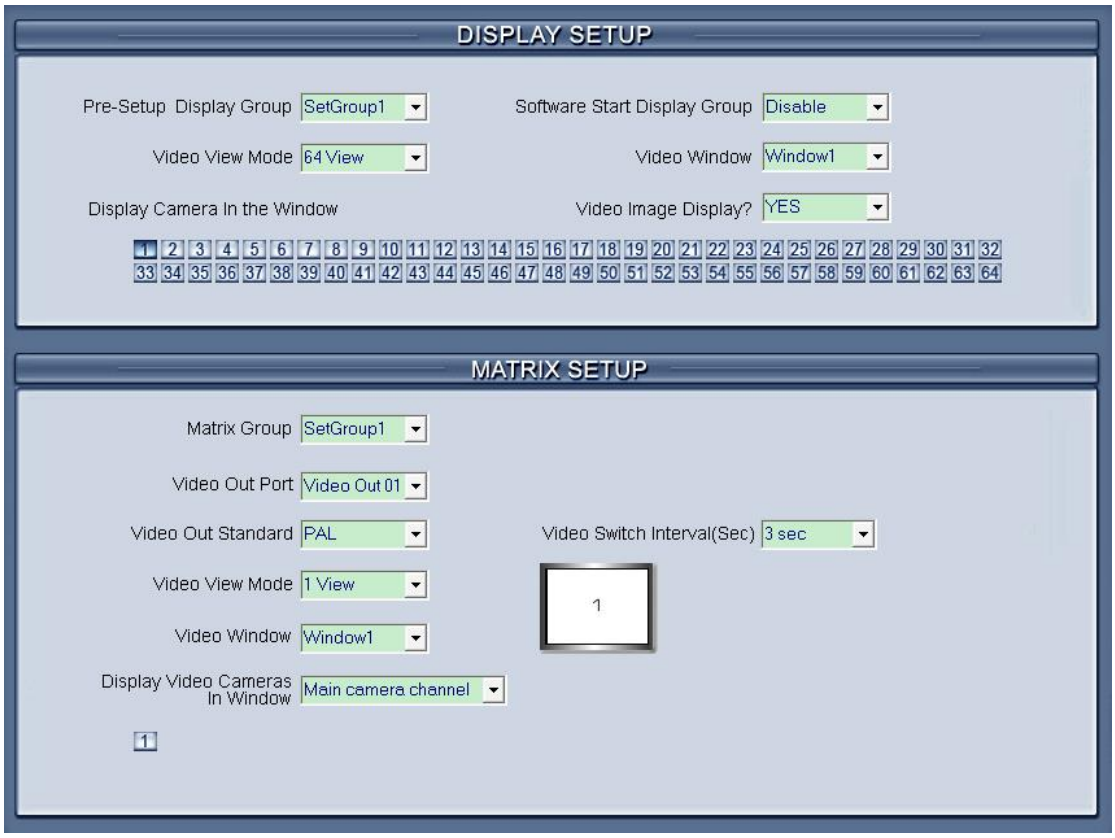
【**Hybrid NDVR Host Name**】Set a name to sign the Hybrid NDVR which on the SMS displays.

【**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 message 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 Digital Matrix Setup



2.6.1 Matrix Setup

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

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

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

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

【Video Window】【Display Video Camera in window】After selecting video split mode, there will have corresponding display video window, select one camera or several cameras to show in the window. The Video cameras you can select are cameras of the local board card and IP Cameras. For cameras of board card, system use soft decoding to play to TV Wall, total channels of them is not influenced by decoding channel. For IP cameras, system use hard decoding, total channels of them are influenced by decoding channels. For different work mode, the channels you can used are different,

the available certain channels must be the first certain channels. If you disable hard decoding, you can't output real-time video of IP camera to TV Wall.

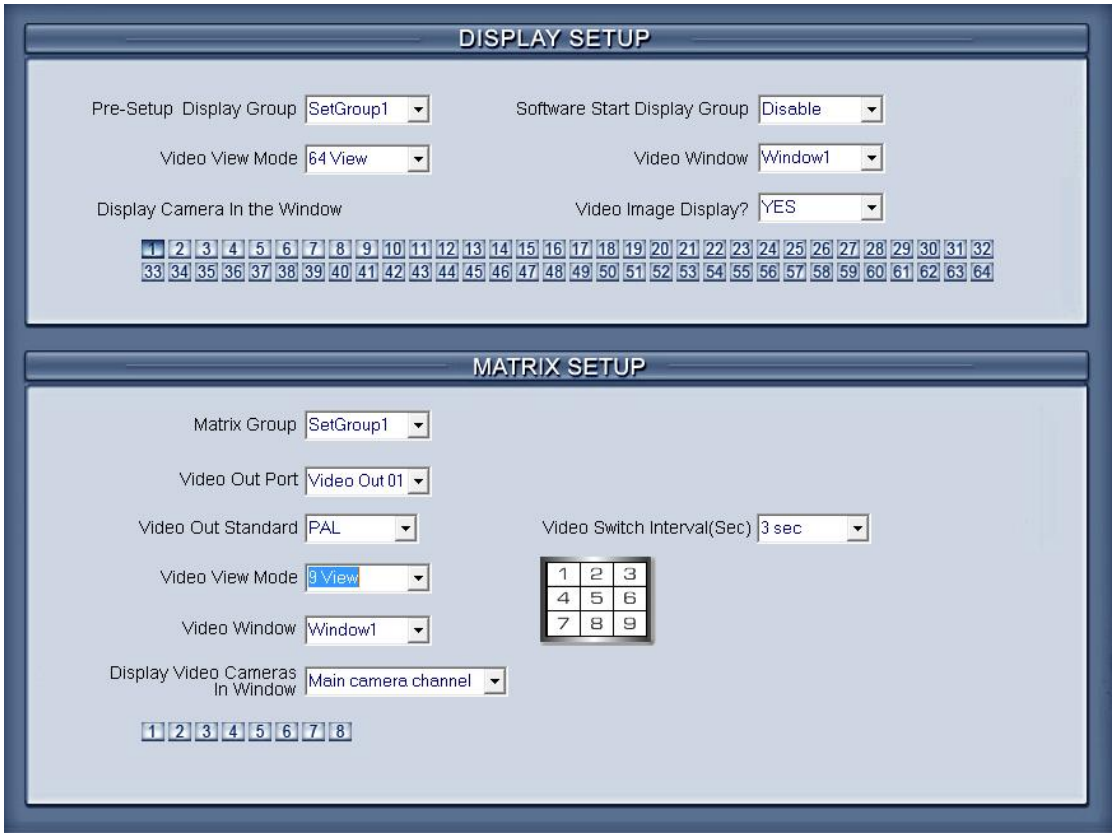
【**Video Switch Interval(sec)**】Set interval that each window shows cameras circularly when there have more than one camera in it.

Note:

1. One camera is only shown in one window once. But you can show one camera in 2 windows through switching the *main camera channel* and *sub camera channel*. Also, you can show several cameras in one window after you set the "Video Switch Interval".
2. MD card can only decode the data of 40 series card and some IP cameras. When it is used to decode 42 series card or Mega IP cameras, there will be no data output.

2.6.2 Matrix Setup for DG42xxHF cards

Our new series DG42xxHF cards support to output video from the card itself to a TV monitor, the setup for this function is similar to the settings for NV series Matrix cards.



【**Matrix Group**】System operator can set groups of video images to be sent out through the TV output port of DG42xxHF card, each group has different display modes. Up to 16 groups you can set.

【**Video Out Port**】Select the output port of DG42xxHF card that you want to set, only one port is available for each DG42xxHF card**.**

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

【**Video View Mode**】Select video output display mode, there are 1split , 4 splits , 9 splits and 16 splits are supported by DG42xxHF cards, others are not available.

【**Video Window**】【**Display Video Camera in window**】After selecting video split mode, there will be corresponding display video window, select one camera or several cameras to show in a window. The Video cameras you can select are from the same card of the TV output port, others are invisible.

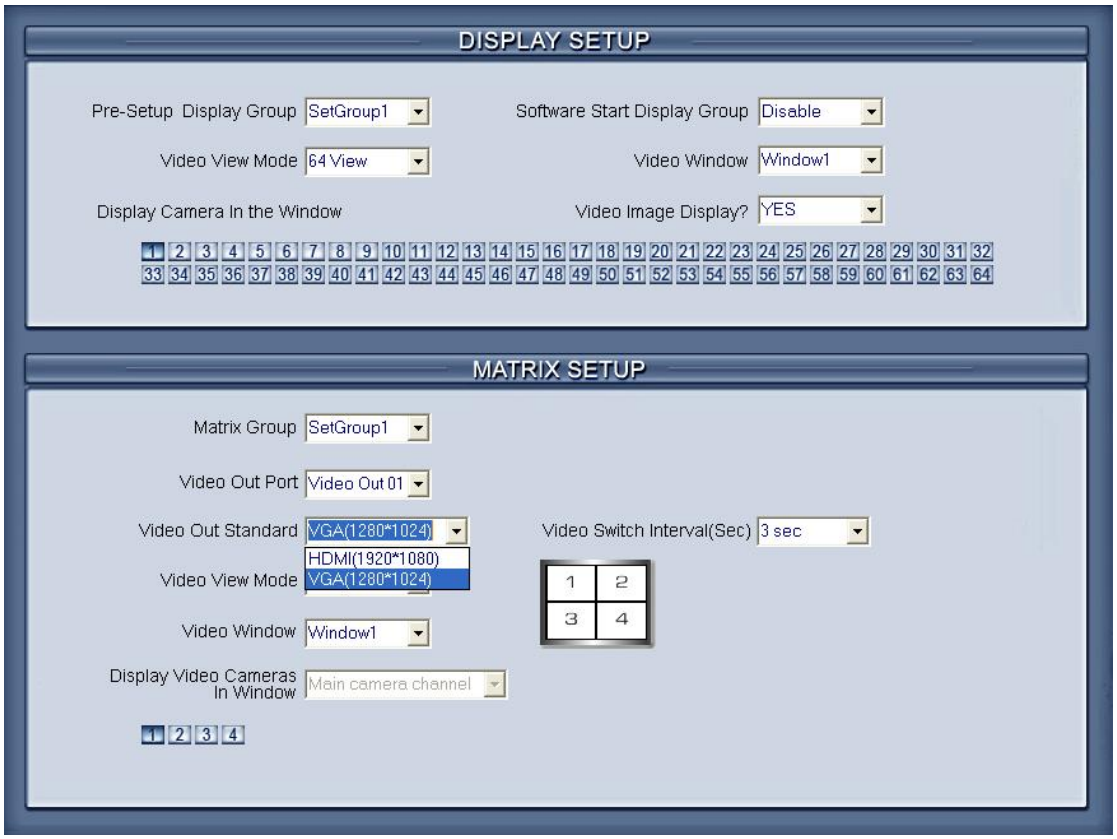
【**Video Switch Interval(sec)**】Set interval that each window shows cameras sequent when there are more than one camera in it.

Note:

1. One camera can only be shown in one window once. But, you can show several cameras in one window after you set the “Video Switch Interval”.
2. For DG4216HF card, there are two TV Output ports, they can work at the same time (Note: when the two TV Output ports are working at the same time, Video Out 1 can only Output channel 1 to channel 8, Video Out 2 can only Output channel 9 to channel 16.), or just use Video Out 1 to out put all 16 channel video of the card. Also, Video Out 2 can only output video channel 9 to channel 16(can never output video from channel 1 to channel 8).

2.6.3 VGA/HDMI Output Setup for DG4204HD card & VGA Output Setup for DG42xxHF cards.

Our new DG4204HD card support VGA or HDMI output, the setting is as below:



Here you can select to output 1/4 split mode, then select to display camera in corresponding output window. Tour function is supported. Other related operation is similar to the Matrix settings for DG42xxHF cards.

New version software supports the VGA output for DG42xxHF cards, the settings are samilar to the Matrix settings. If you find there is frame loss for recording while doing VGA output, please adjust the resolution/image quality/frame rate properly.

2.6.4 Display Setup

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

【Software Start Display Group】Select to display the default order or the order you set in one group. You can select any group you set from the drop down list. After the settings, the system will display the group you selected when restart the next time.

Note:

If this function is disabled, the system will display SetGroup1 after reboot. So, it's suggested not to change the display order of SetGroup1. User should change the display order from SetGroup2.

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

64 partition mode.

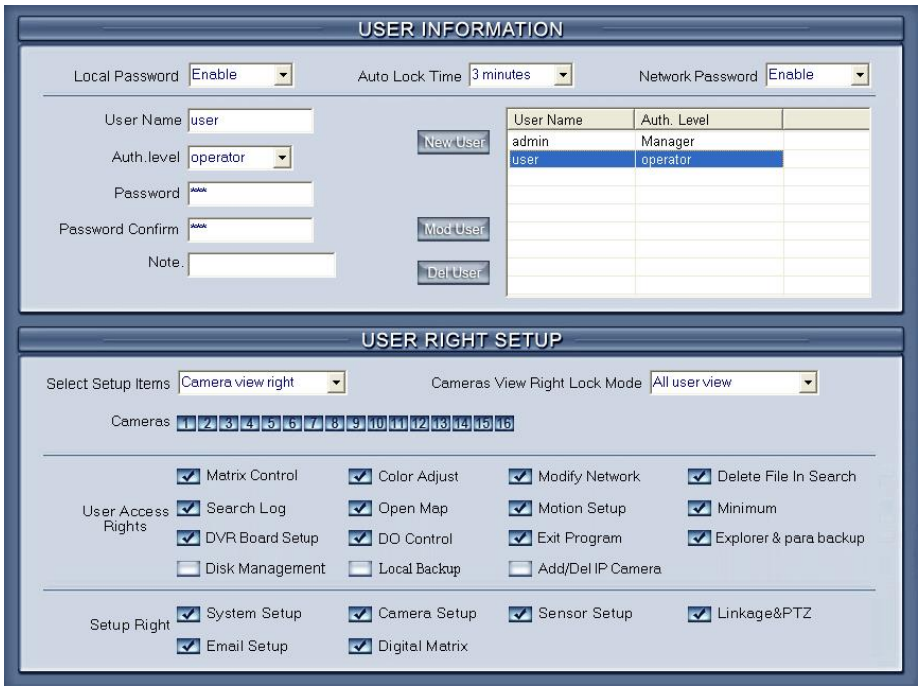
【**Video Window**】【**Display Camera in the window**】After video split mode is set, there will be corresponding windows in the drop down list. Select one camera among 1-64 to be shown in a selected window from the list.

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.

【**Video Image Display**】Select between YES or NO to display the camera in current window or not. You can also use Close/Open Image Display in context menu.

2.7 Password Setup



2.7.1 User Information

【**Local Password**】Select “Enable” to enable User Manage mode for local Hybrid NDVR, and activate the lock button in main window. Only authorized user can log into Netvision 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**】Select “Enable” to enable User Manage mode for Client. When you enable this function, client must pass the authentication to connect with Hybrid NDVR.

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

【**Auth. Level**】Select user type. Only Manager 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

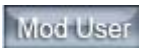
button to edit the user you want to add in the 【**User Name**】Blank. Input User Name and select Auth. Level (Administrator or Operator) and then click Add to add a new user.

Note:

1. Only Administrator has the right to add or delete a user. However, Administrator has no right to manage the password of any user.
2. The default password is null, only the Administrator can modify it. When user login in the system at the first time, he can type in a password as he like. Then, system will pop up a message to ask him whether he wants the system to remember the password for next login.He can click YES to remember the password that he must input the same password to get into the system,on the other hand,he can also choose NO to give up the operation previous.
3. There is no way to restore but delete the user if user forgets his password.

【**Add User**】 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 the whole 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.

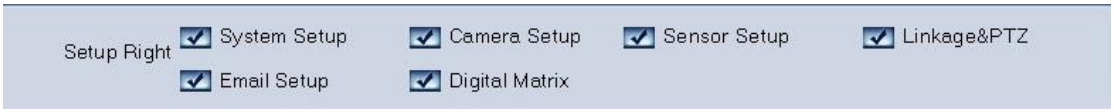
【Camera Audio Right】Select cameras whose audio can be heard by the use you are setting. The cameras you can select include the cameras of local board card and IP Cameras. By default, every user is granted to check audio of all cameras. To deny access, you can click the desired camera button and the color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

【Setup Right】Select setup rights to grant or deny user privileges.

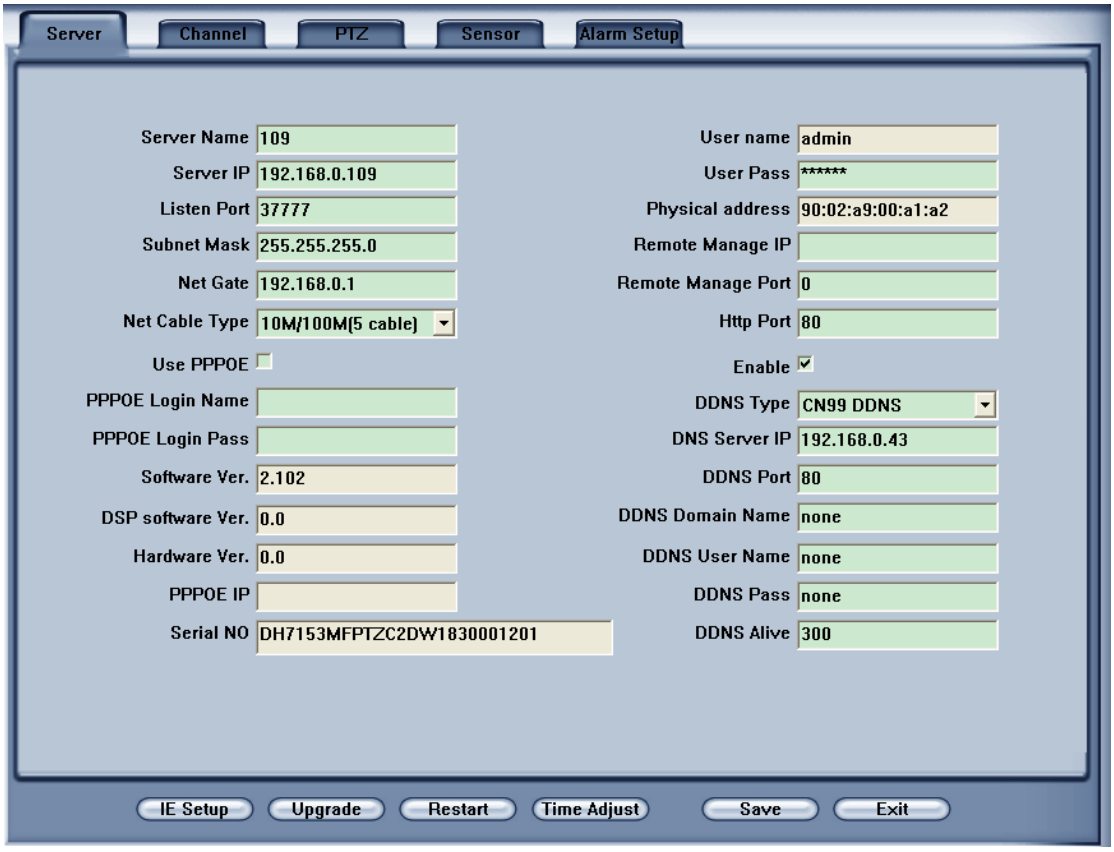


Chapter3 IP Camera Setup

Note:

For IP camera setup, its alarm and related setup is only available when you set remotely. The local setup of PC Hybrid NDVR is not available for IP Cameras except Recording Schedule in ***Camera Setup.***

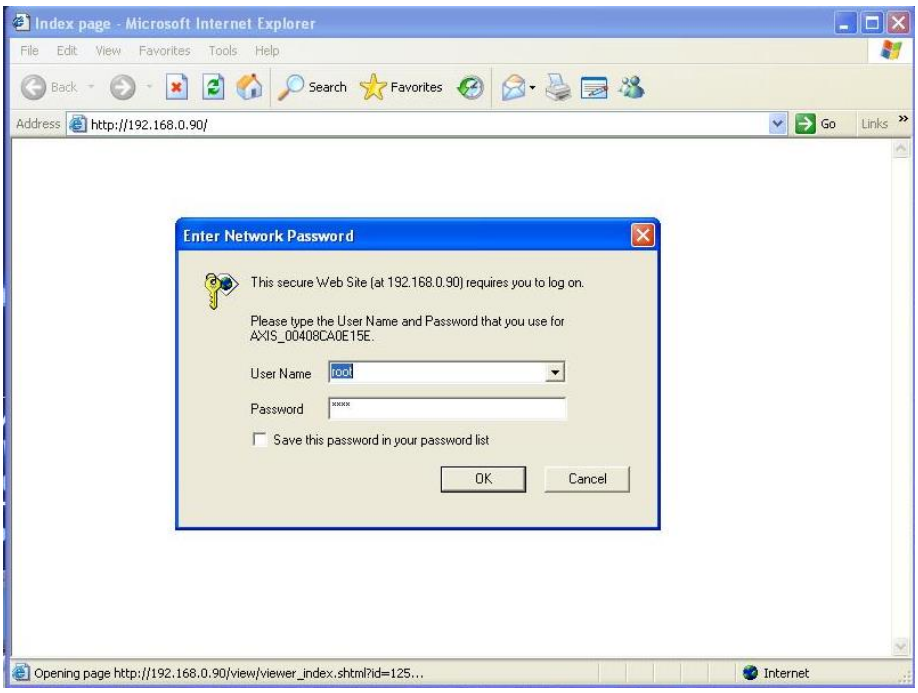
The remote setup interface of DH Series IP cameras is as below:

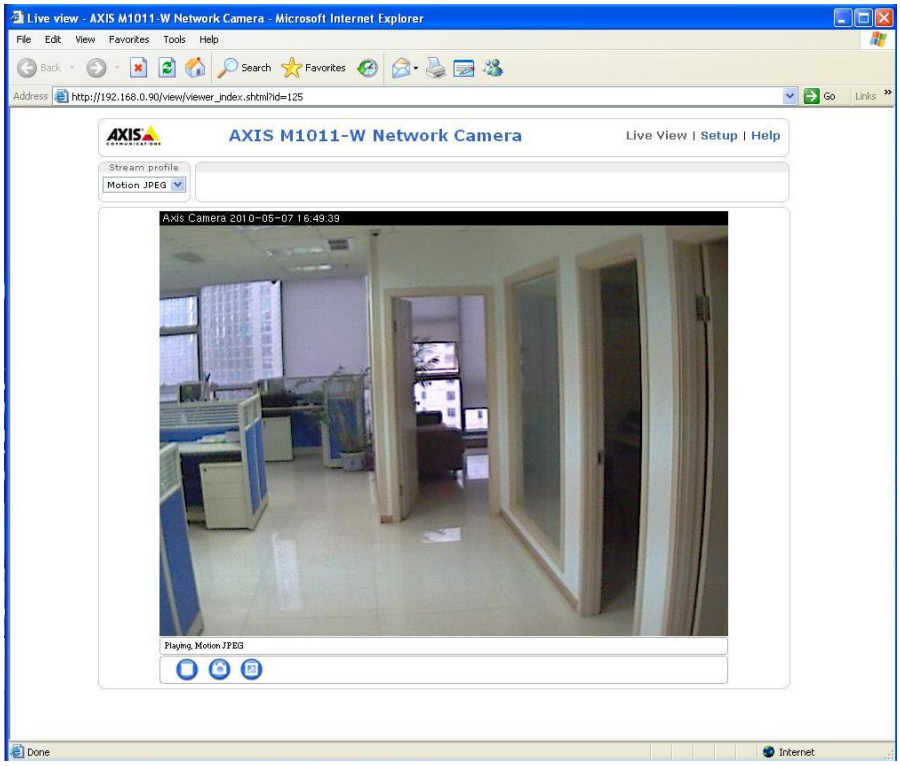


For DG Series EM-DVR, the interfaces are not exactly the same as DH Series. Remote setup for DG Series EM-DVR includes **Server, Channel, Record, PTZ, Sensor, Alarm and User.** But the ways of set are nearly the same. For details, please refer to our DG Series EM-DVR manual.

For DG Series IPC, please refer to our DG Series IPC user manual.

For other series IP cameras, such as Sony SNC110/160, ACTi Series IP, Huviron Series IP, Mobotix M12 Series IP, ArecontVision IP, Camtron Series IPC and Axis Series IPC, you will enter the IE interface automatically when you press “IP Camera Setup”. You have to install ActiveX too.





Remote Setup Interface of Axis IP Camera

3.1 Functional Buttons

There are 6 buttons in each page. They are Upgrade, Restart, Time adjustment, Save and Exit.

IE Setup Get into the IE client of IPC.

Upgrade 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 rebooted.

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

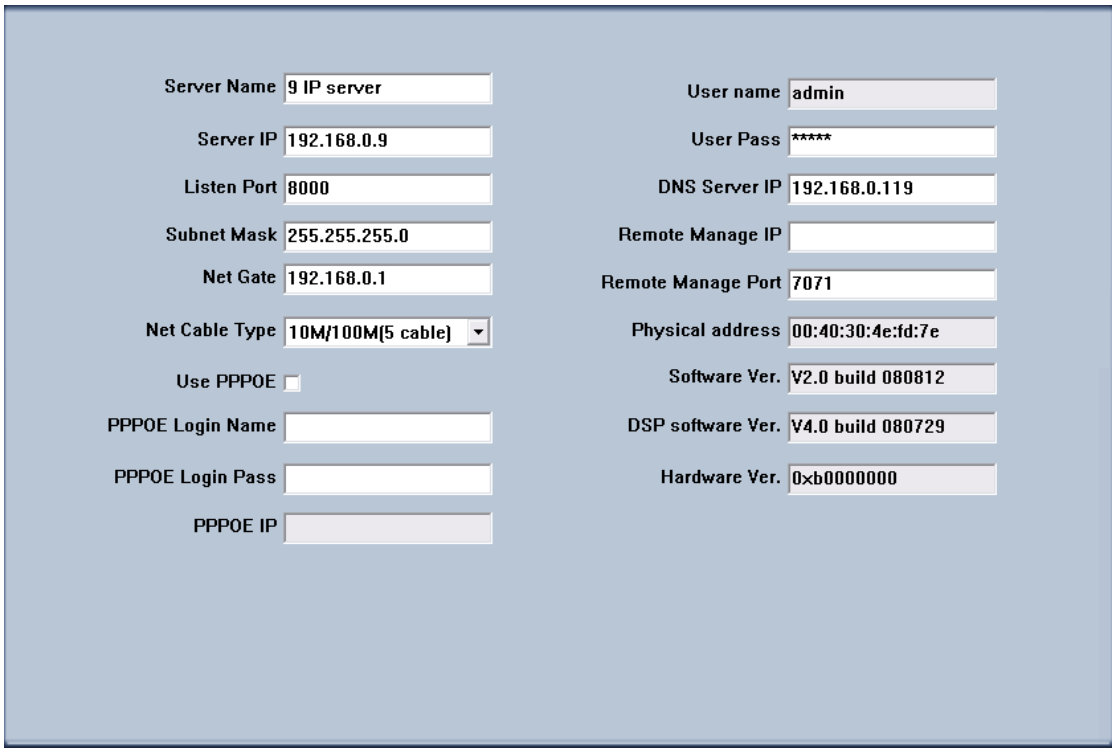
Save After setup is finished, click this button to save the setup.

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:



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

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

used.

【IP configuration and related】

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

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

【Connection configuration and related parameter】

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

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

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

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

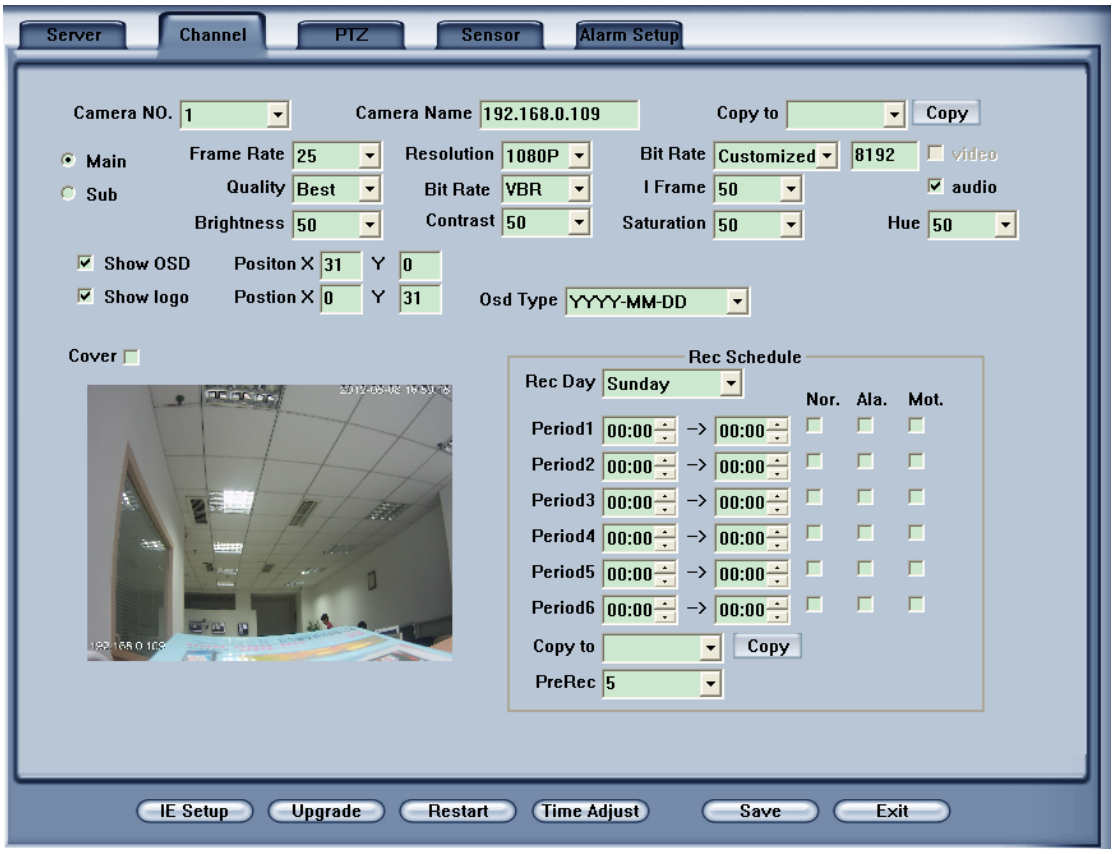
【Remote manage】
【Remote manage IP】
【Remote manage port】

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

3.3 Channel Setup

Press

button to set channel parameters.



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

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

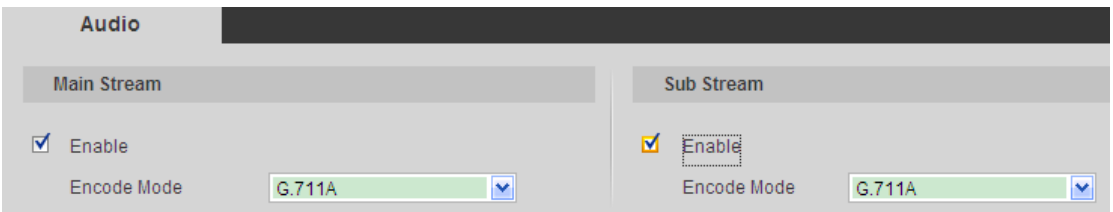
【Camera Name】Enter a name description for easy identification.

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

【Midstream】【Sub Stream】Select Midstream 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. If you want to preview and record audio, please connect a sound pick-up to your IP camera. Besides, you have enable the audio of your selected stream in IE setup.



【**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.

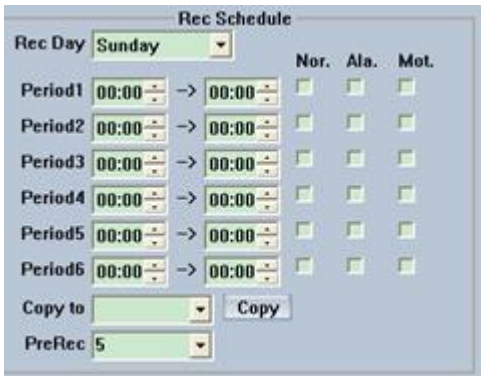
【**OSD**】Set the display attribute of the OSD & LOGO. There are four types of display modes: Clarity-Glitter, Clarity-Not Glitter, Not Clarity-Glitter and Not Clarity-Not Glitter.

【**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.



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.

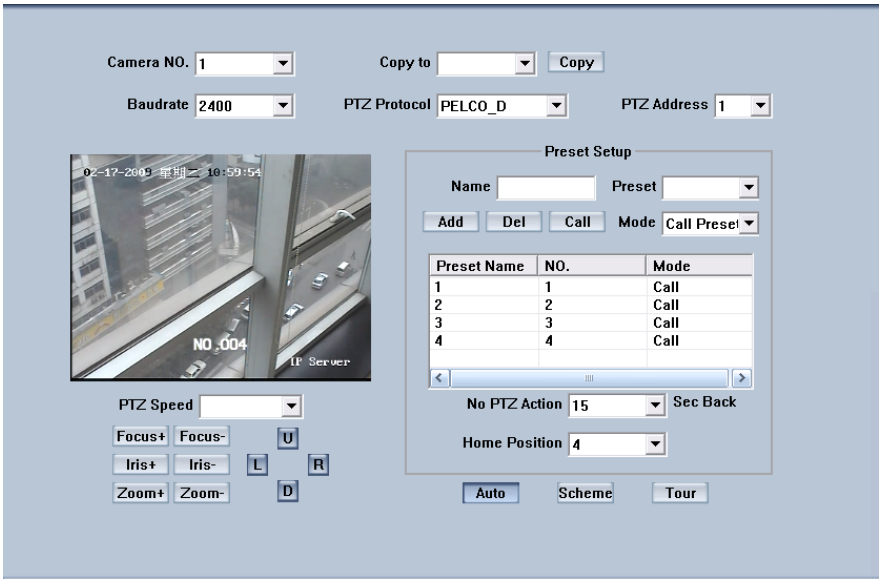
【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press

button.

, 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.

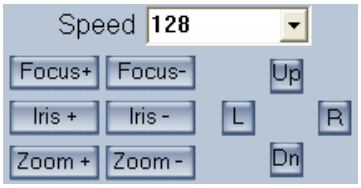
【**Baud rate**】Set baud rate according to PTZ protocol from the drop- list.

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

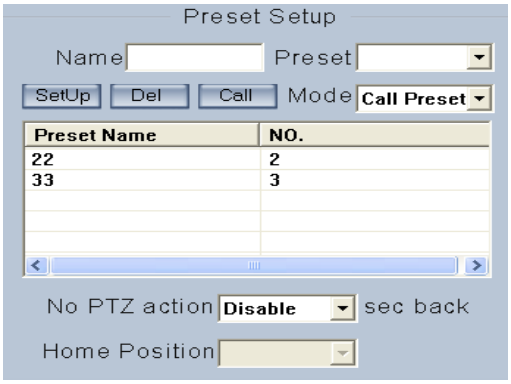
【**Copy to**】After finishing one channel, if you want to set any other channels' configuration as the same as this camera, you can select channel number from drop-list, and press Copy button.

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

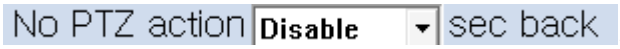
【**Speed**】Set the speed of the PTZ.



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

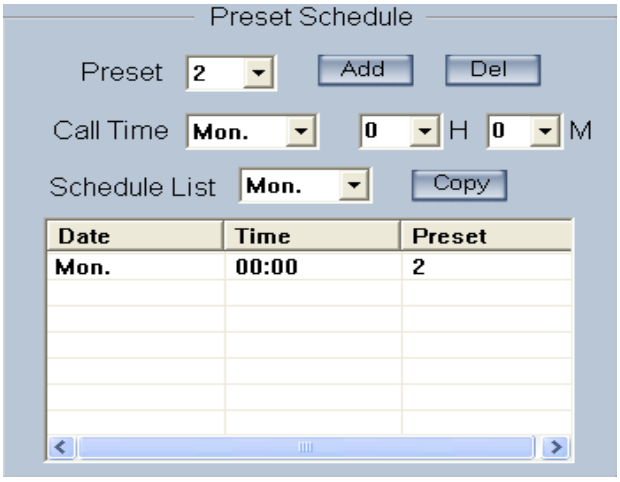


【**Name**】 Set the name for the current preset. 【**Preset**】 Set the preset number for the current camera SetUp Setup the preset by current configuration. Del Delete the finished Preset. Call Call the Preset if the Mode is Call preset. The mode is save preset; you should save the preset and shouldn't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



Set disable or how long the PTZ will come back to the home position when there is no PTZ action.

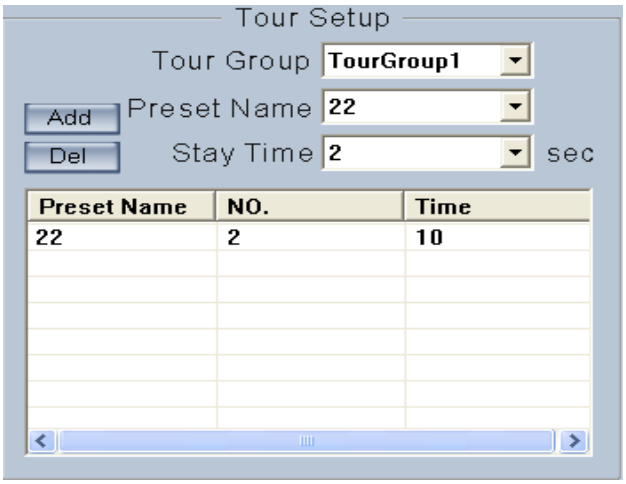
Sch.



【**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

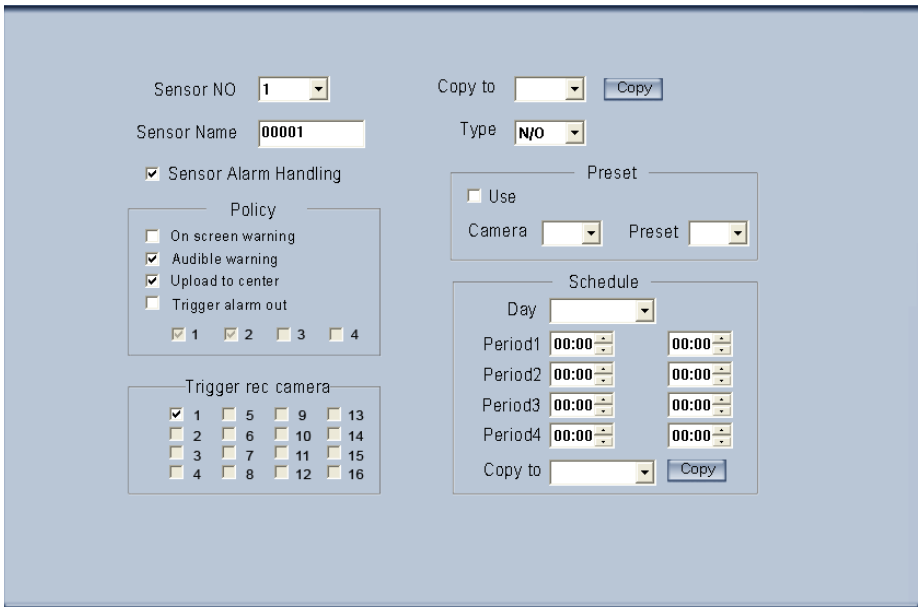


Tour Group

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.

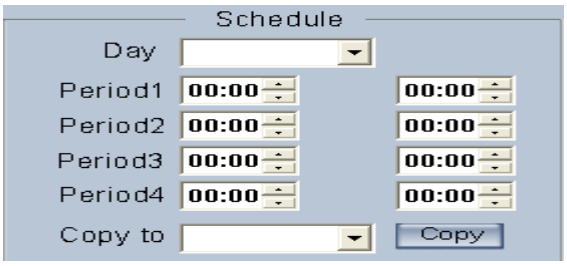
Upload to center—Update the alarm information to center.

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.

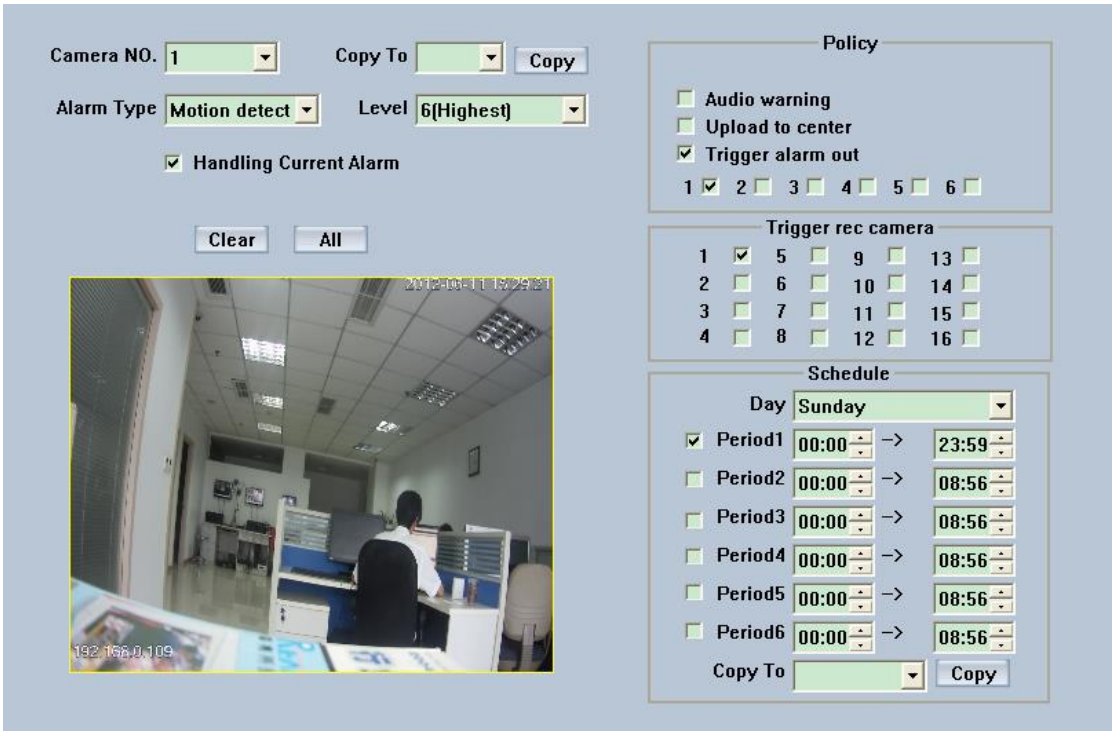
【Schedule】Set alarm input precaution time firstly, then set time segment according to the sequence. The time of each segment should not overlap the others and no skips are allowed. After the precaution time of a certain day is set, you can copy the parameter to other dates by select a day and press copy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

3.6 Alarm Setup

Press Alarm Setup 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 1 (the lowest level) to 6 (the highest level) for the alarm.

【**Set motion detection areas**】Left-click mouse and drag it on the screen to select severals motion detecting areas, you can also select the whole area by pressing the All button. Of course,you can clear the selected area by clicking the Clear 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.

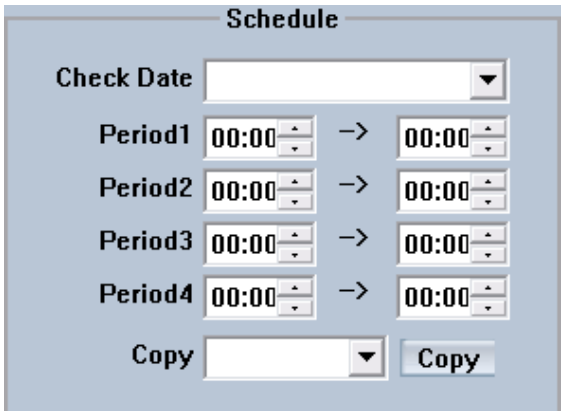
Upload to center—Update the alarm information to center.

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 selecting a

day and pressing copy button.



【**Copy to**】After finishing one channel, you can copy the current setup to the selected channel from the drop-list by pressing

button.

Chapter4 Playback

4.1 Main Interface

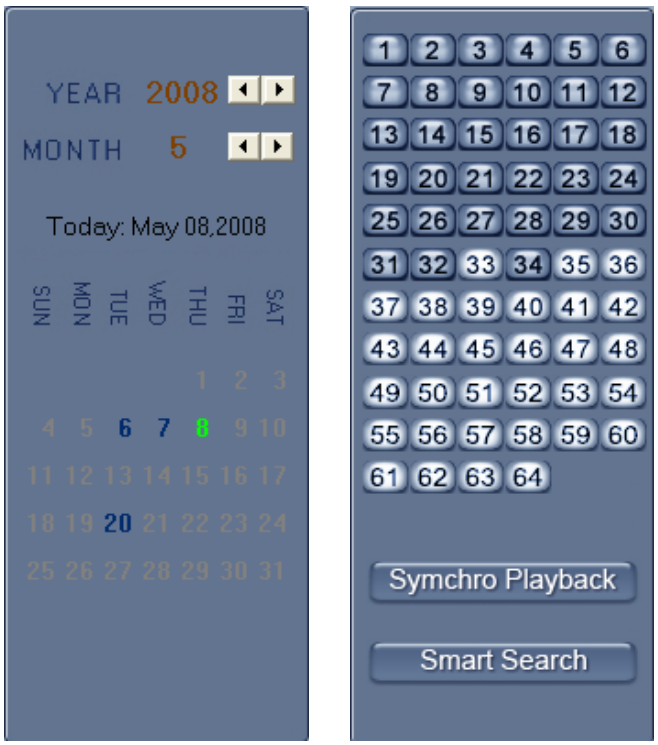
New function released:

Users can scroll the mouse to zoom in / out the video in local playback. When selecting a played camera, scroll your mouse, software will zoom in / out part of the video use the point mouse stops as center. Also when you click on the time bar and scroll your mourse, you can zoom in / out the time bar.

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 Playback



4.2.1 Select Date

Select one window (the 1st one in default), and then click

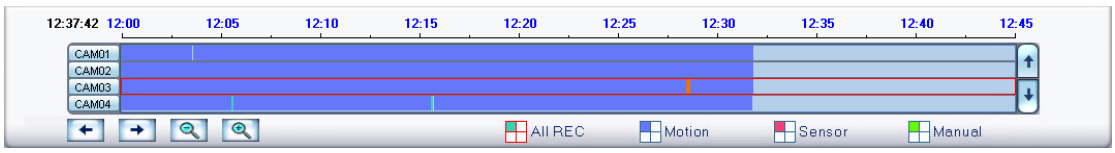
button to show the date.

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.

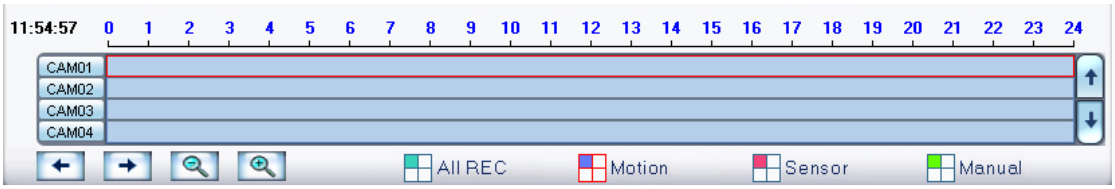
You should select the date firstly;otherwise, you can't entry the all sub-playback interface. The date can't be selected in the sub-playback interface.

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 CAMERAS 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, Hybrid NDVR system will play back recorded data from the first file.

1. Synchronic Play

Click Symchro Playback 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.

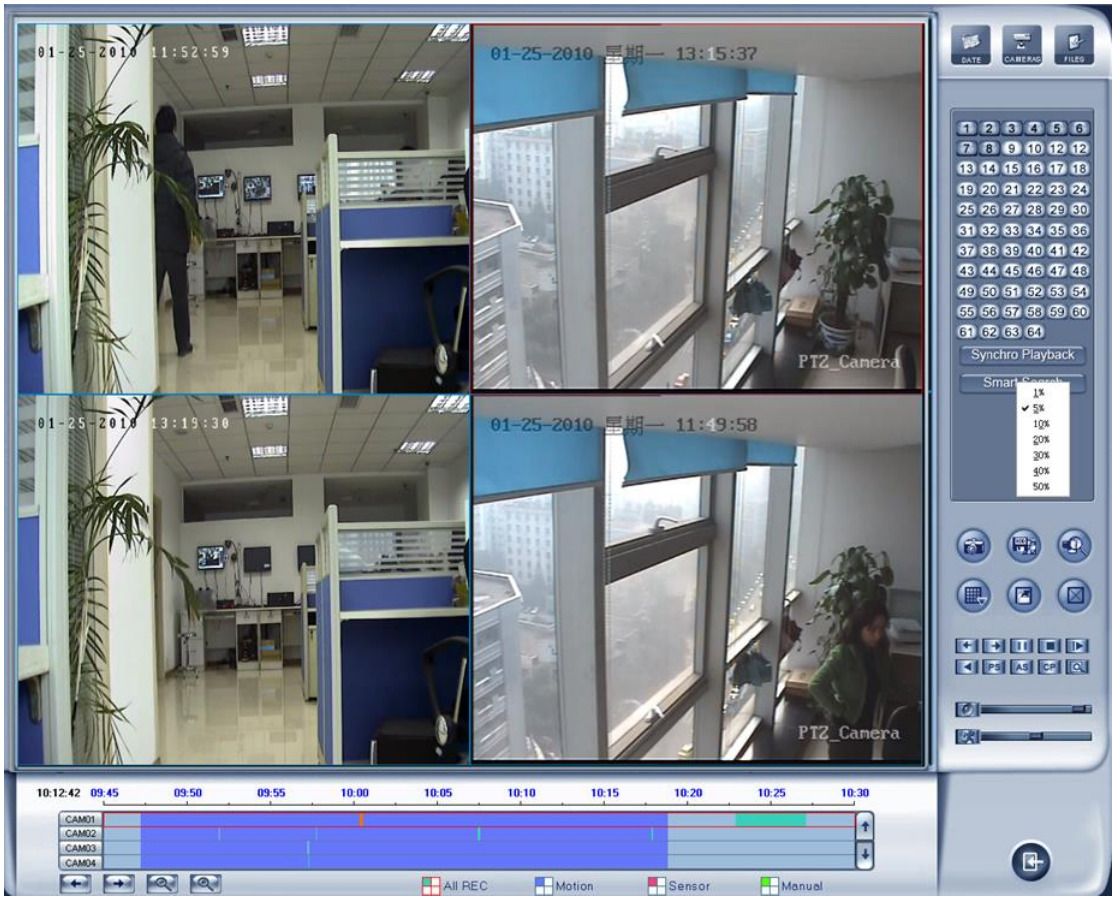
(2). Operation and Example

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.

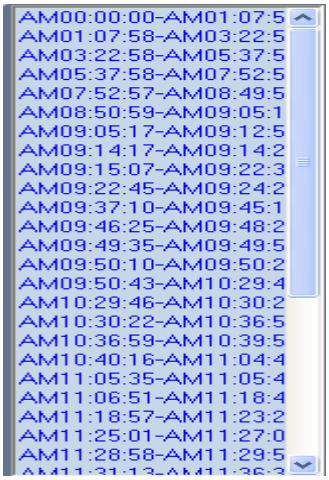
Note:

Press synchronic button while smart search is running, system will end smart search;

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

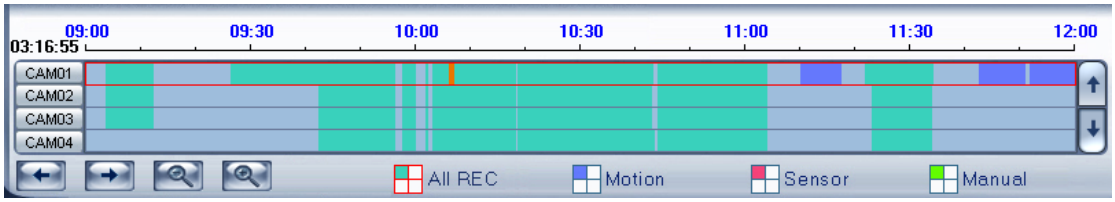
button to show all the files of this camera.

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.

Note:

This interface is changed to show the cameras played in each window in New File System Version software. And users can click the option and select the camera to play in the window.

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

Computer configuration:

CPU: Intel Pentium 4 2.4GHz

Motherboard: ECS 848P-A

Graphic Card: ATI 9550 128MB

Memory: 512MB

HDD: 120G (IDE)

Recommended channel configuration for playback:

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

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

Note:

If you press this button as soon as you enter the playback interface, all the cameras will be played back from the beginning of this day when there is record data. For example, there is record data from 8:00 AM to all cameras, then, they will be played back from 8:00 AM. If you select a point of time on the time bar and then press this button, then, all the cameras will be played back from that time.

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

Stop: press this button to stop playing.

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 an 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.

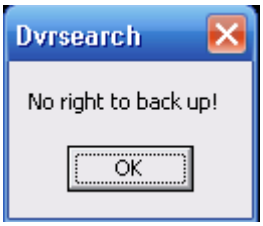
Note:

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

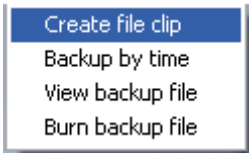
4.5 Backup

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:

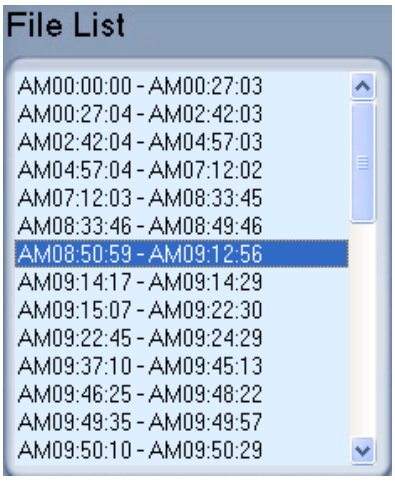


4.5.1 Create File Clip

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.

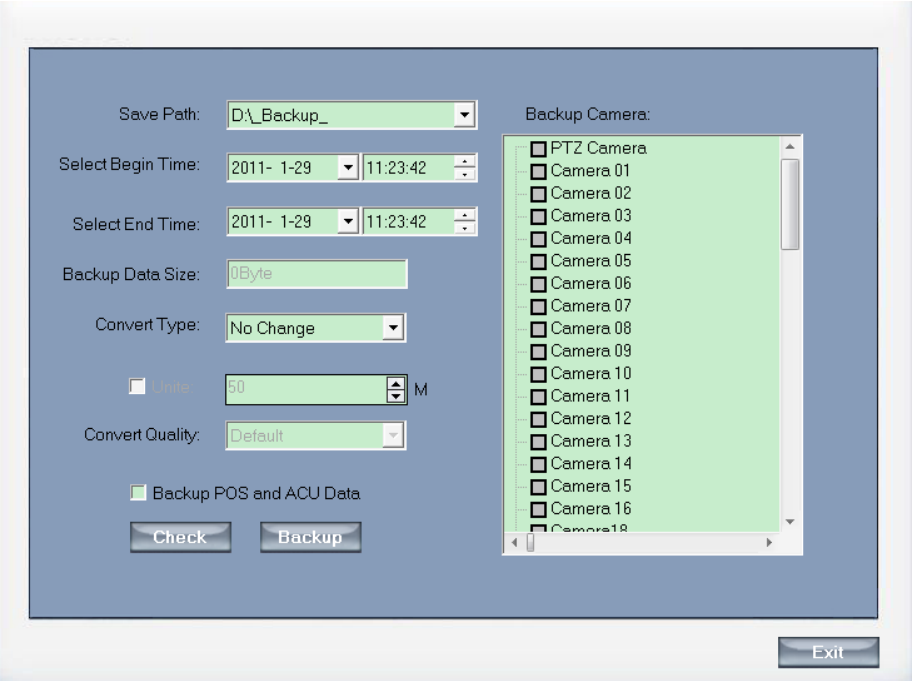
【Voice control】Click to control voice, press it to clear voice.

Note:

This function is not available in New File System Version software (The version with “N”).

4.5.2 Backup by Time

Press Backup by time 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 Check button to show its total value.

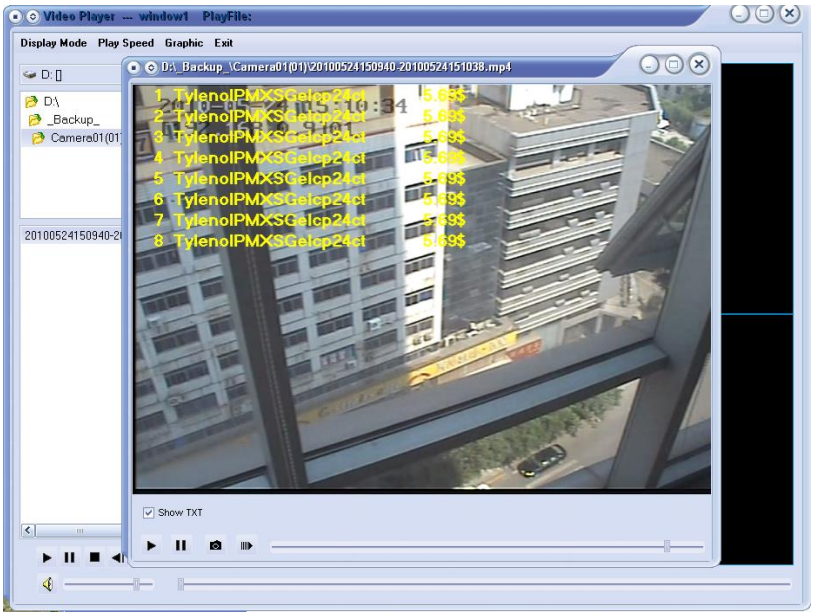
【Backup Date Size】 Show the size of the backup file. If user backup recording file to CD directly, the date size should not more than 650M.

【Convert Type】There are three convert types: No Change, AVI (H.264) and MSMPG4.

When "No Change" is selected and there is POS or ACU data, "Backup POS and ACU Data" can be checked. Also, when "Backup POS and ACU Data" is checked, "No change" will be selected as the default convert type. The other two types can't be selected.This type of backup data can only be played

by our player named player.exe. Only “No Change” supports backup audio to the disk.

When there is POS data in the backup data, it will be played in a detached window as below:



If AVI (H.264) is selected before backup, then, backup data can be played by TV and DVD etc. without plugins.

If MSMPG4 is selected before backup, then, backup data can be played by windows media player without plugins.

Note:

When AVI (H.264) or MSMPG4 is selected, the data can be united. The size should be 50M to 500M. If you input a number out of the scope, for example, less than 50M, then, it will be adjusted to be 50M. Of course, when the number you input is more than 500M, then, it will be adjusted to be 500M.

The data is united according to the converted data. For example, suppose the size is set to 50M, the source data is 76M and the converted data is 3M, then, there will be only one .avi file in the backup folder.

Don’t forget to press “Check” button before you press “Backup”.

【Unite】Set the size for each file. You can set it to be 50M to 500M.

【Convert Quality】Select among High, Default and Low.

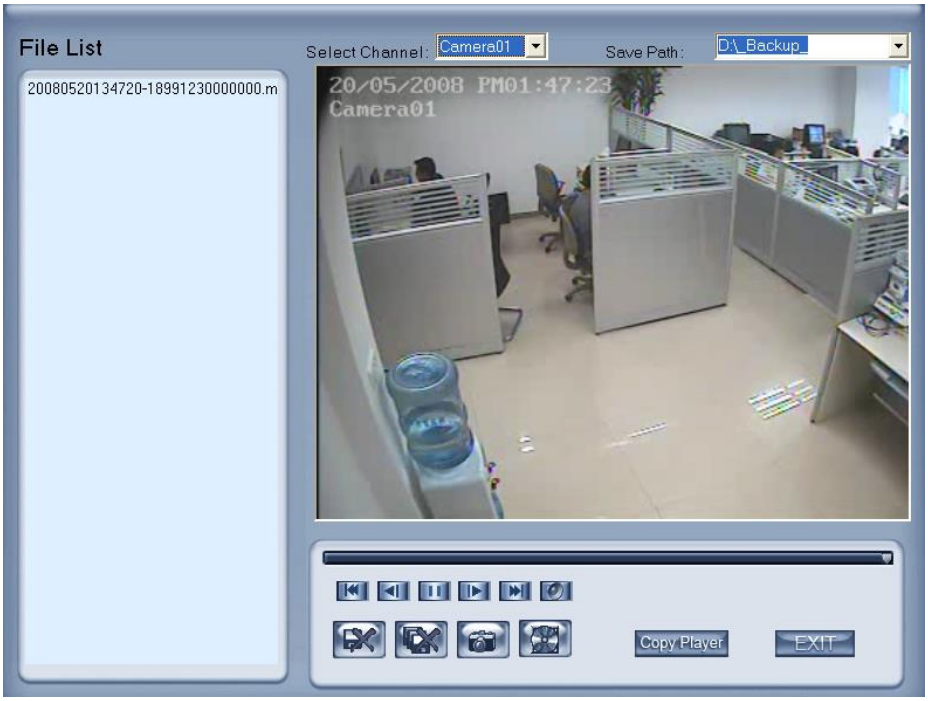
Note:

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.

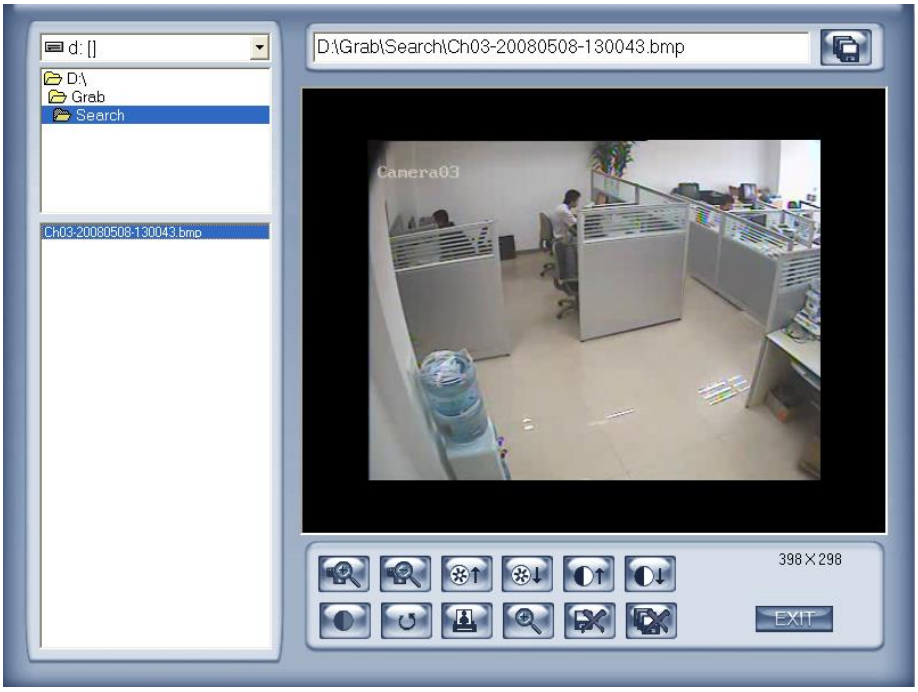
Open CD Open the CD-ROM.

Close CD Close the CD-ROM.

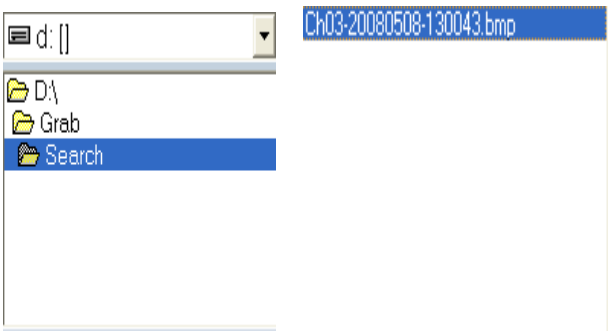
It supports DVD or CD disc backup directly, max support 4.3G DVD disc and user can erase DVD-RW disc and write again, all work needn't install third burning software.

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:

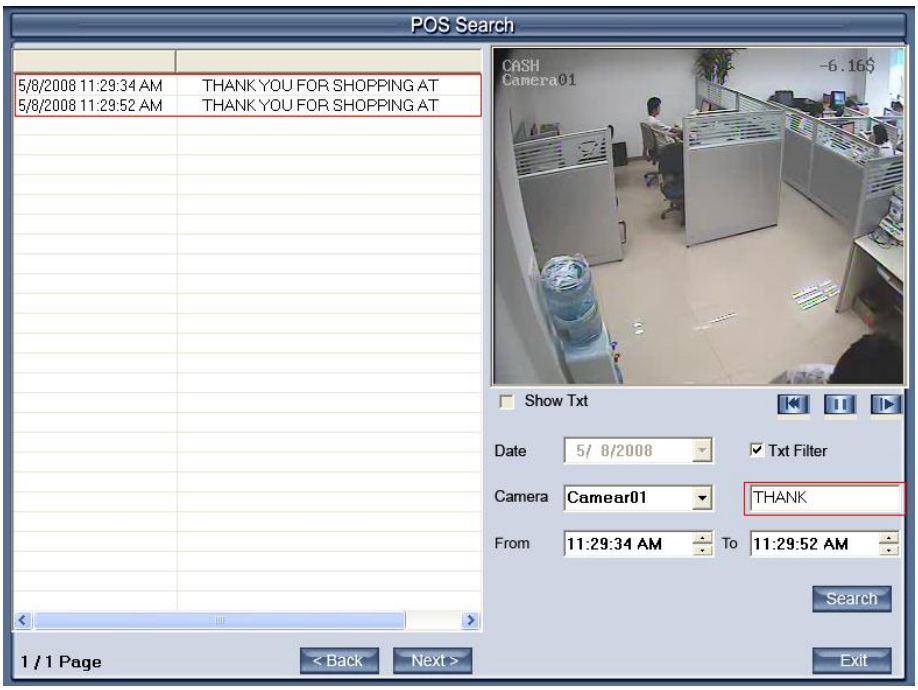
Show Txt: show the txt on the screen (if you checked “Text OSD to Hybrid NDVR board” in the Cam setup, the show txt would be invalid).

【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”.

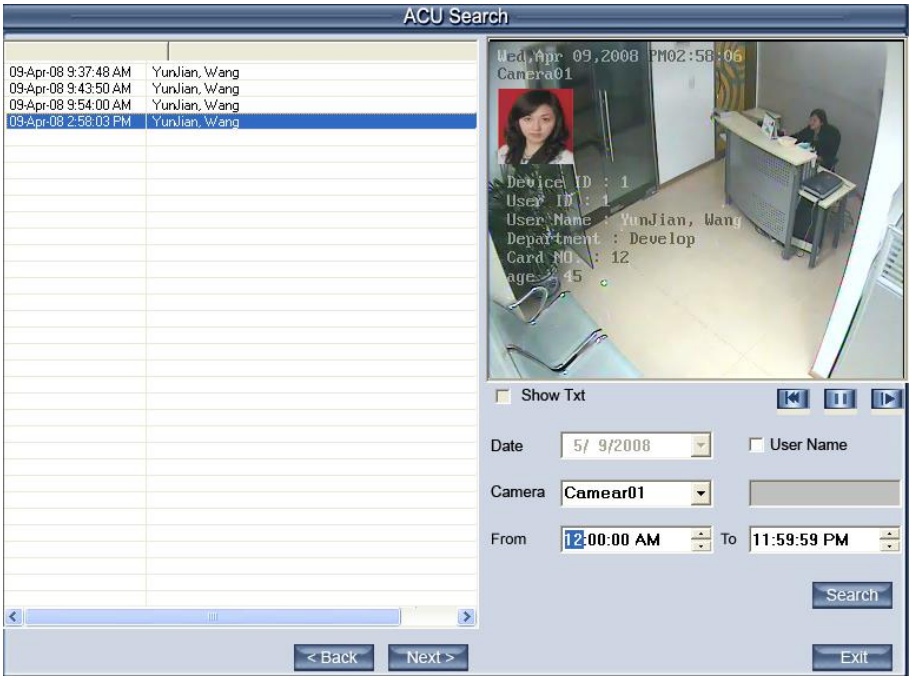
From ... To: Select the begin time and the end time.

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

< Back Next > 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.

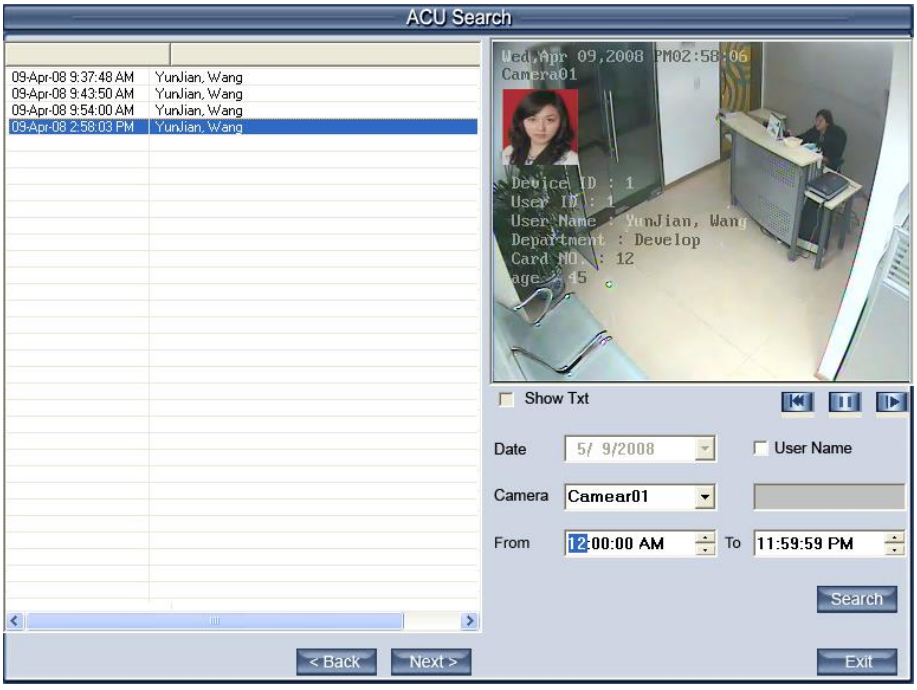
【Data】:Select the search data.

【Camera】: Select the search camera.

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

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

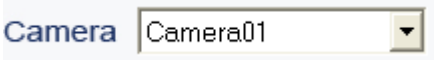
User Name: Search the ACU record with the name input in the blanks. E.g.:



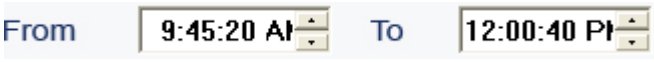
Input “Wang” in the User Name, then press search, the content will display all the ACU messages with the user name “Wang”.

4.9 ICON Playback

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



Select the cameras.



Set the begin time and the end time of the record,

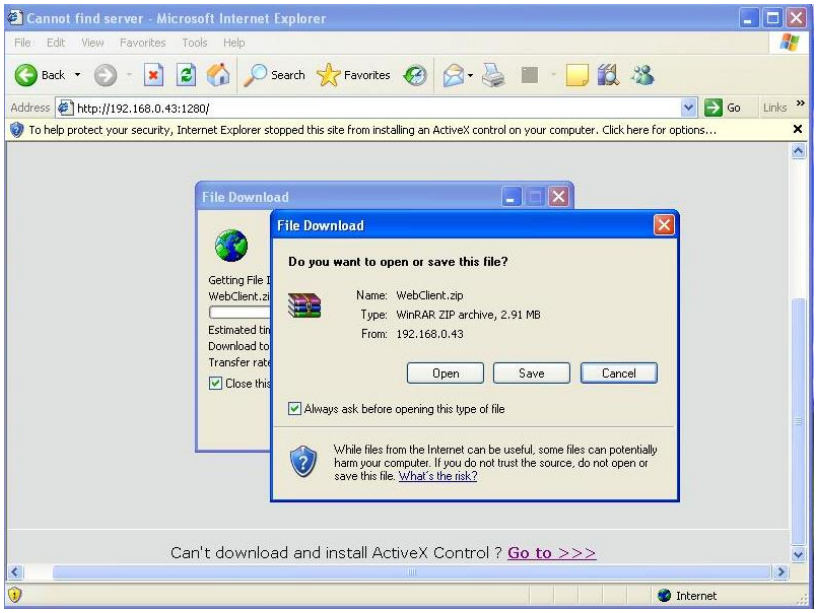
set the time of the one view plays. E.g.: as the above image, the time from 9:45 to 12:00, it include 135 minutes between the begin time and the end time, the screen is 4 views, the first view show the 0-10 minutes' record, the second view show the 10-20 minutes' record, .., when the 4 views plays end,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

Chapter5 IE client

The client user can view video of Hybrid NDVR 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.

Note:

Webclient is updated from this version. If you can't download and install Activex automatically, you can download webclient.zip manually via clicking "Go to". Then, the following interface will be shown:



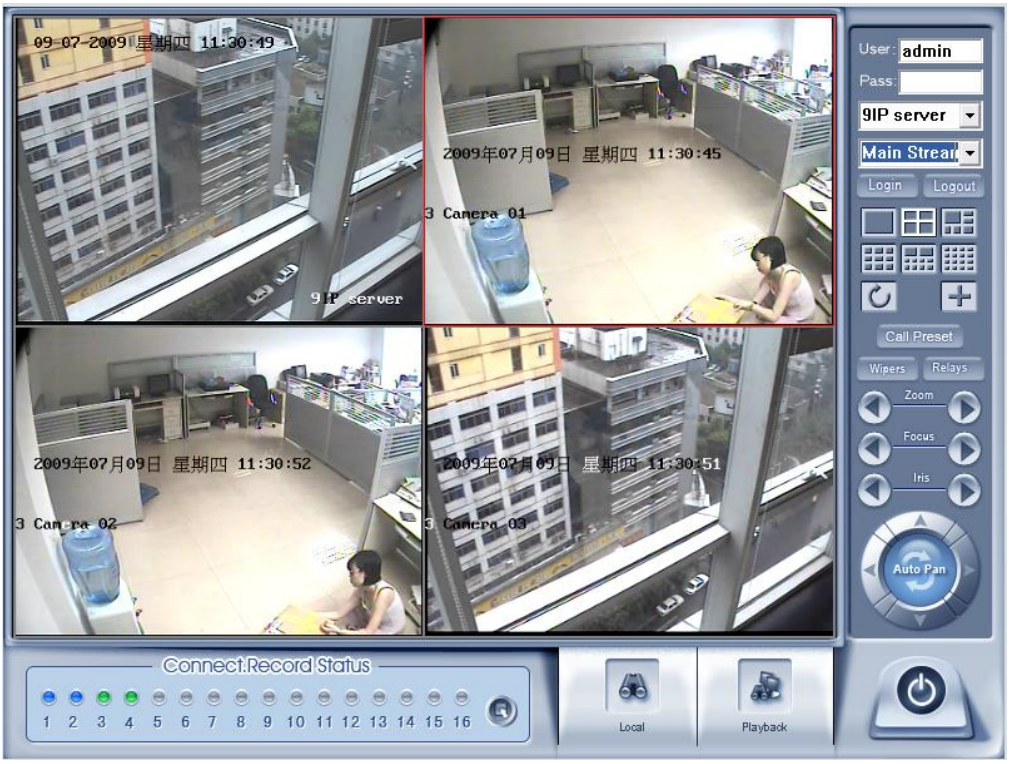
Save and install webclient on your PC, so that you can install ActiveX successfully later.

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 right up of the interface to acquire rights to play video and other operations. If you can't connect it, you can refer to ***help***.



5.2.1 Connection Operations

Press Login will connect the Hybrid NDVR Server's camera video from Camera01 and press Logout will disconnect all connections. If Hybrid NDVR Server's channel is more than channels that you selected partition mode, you can use button to display Hybrid NDVR 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 Hybrid NDVR Server.

5.2.5 Quit Program

Press

button to shut down the IE Client.

5.3 Local Search

Press

button to enter local search:

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.

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

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

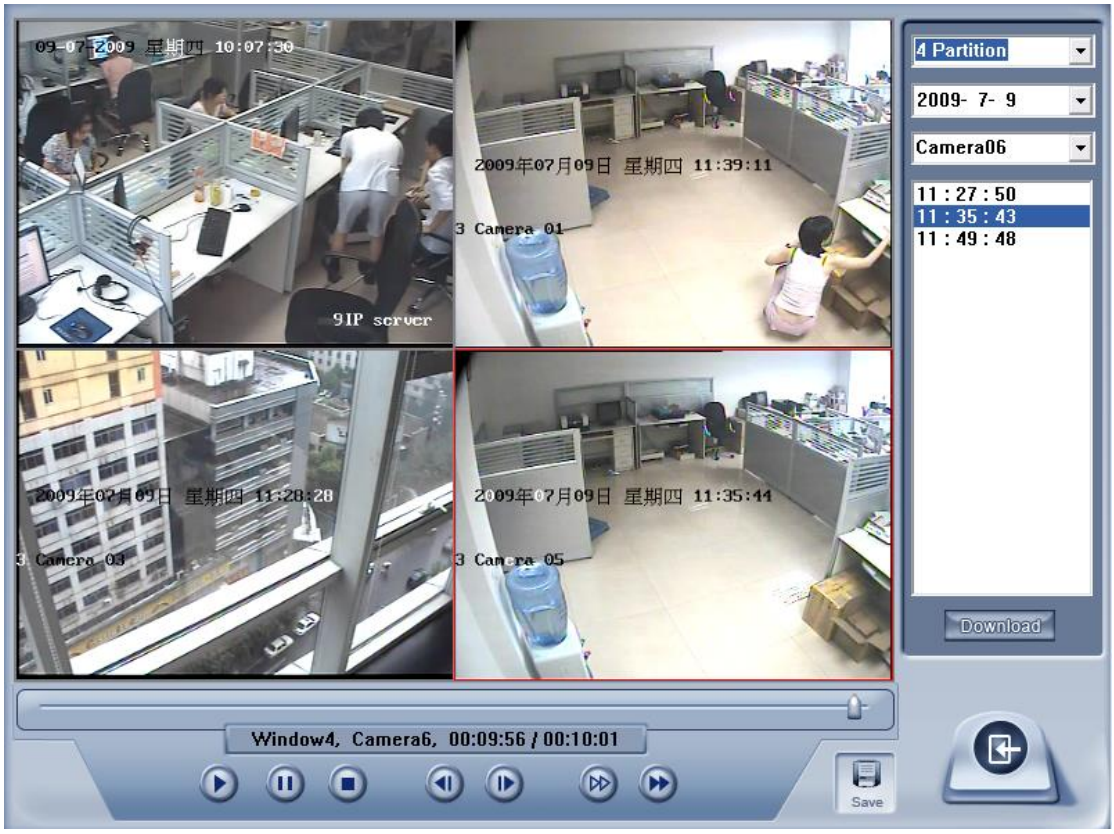
【**Playing speed control**】 : Slowly play : Fleetly play

5.4 Remote Search

Press

to enter remote search.

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



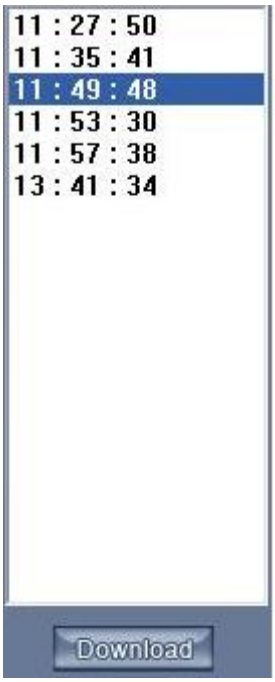
When you playback remotely, you click

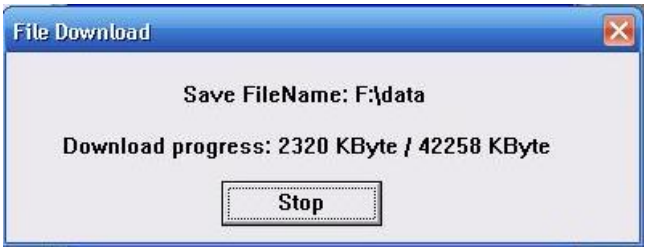
button to save video of current channel you selected. After finishing it, system will inform the save path.

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

button, the selected data file will download fast.





Note:

When user use IE client to visit Hybrid NDVR 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 cameras supported by our software, even megapixel cameras. And you don’t have to set dual-stream now.

In this chapter, we will take normal mobile as an example to show you how to operate and use the mobile client.

For how to download and install iPhone mobile client, please refer to Download&Installation of MobileClient for iPhone.

For BlackBerry, if you can't connect to the Hybrid NDVR, please check your setup of APN. Try the following steps: Option->Advanced option->TCP->APN:

1. Hit the menu button and select Setup;
2. Scroll down to "Enable Personal setting" and check that box;
3. In APN field enter the name of your APN.

For how to use Android phones, please refer to the manual named Mobile client Android.

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 Hybrid NDVR server in the Network Setup of the Hybrid NDVR system.

Note:

GPRS is charged by data flow, so shut down the Mobile Hybrid NDVR 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.

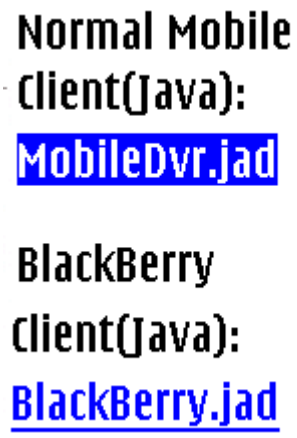
Note:

IP: the IP address of the Hybrid NDVR server.

PORT: the Port of the IE client of the Hybrid NDVR 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



Select one and then enter it. When you are using BlackBerry, you would better select the “BlackBerry.jad”. If you chosen “MobileDvr.jad”, the image quality will be more 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 Hybrid NDVR 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 Hybrid NDVR server.

【Port】Fill the port through which connects to Hybrid NDVR 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 Hybrid NDVR server.

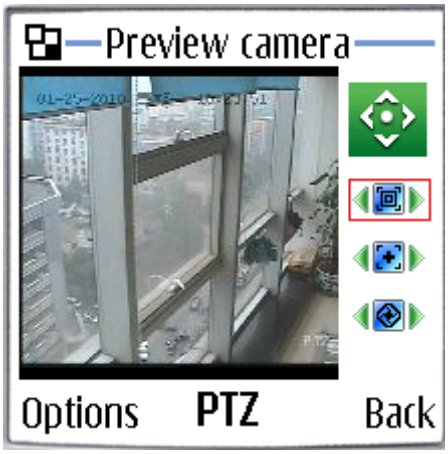
6.5 Camera List

The MobileDVR will enter the Camera List after you connect with the Hybrid NDVR 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.

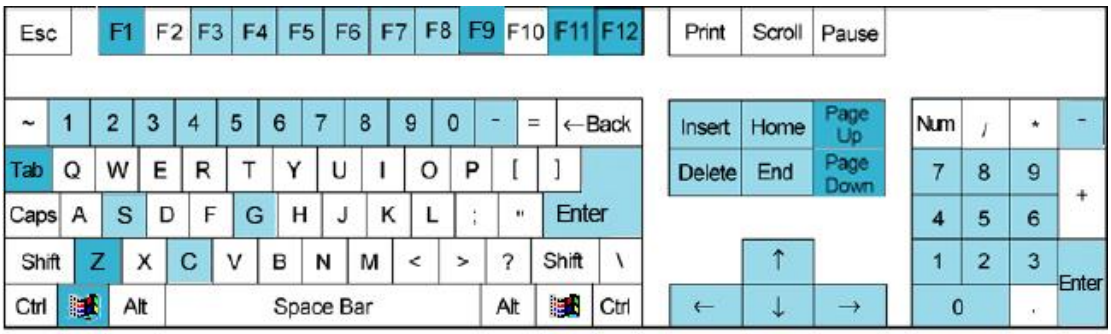
【Zoom + / Zoom -】: Control the zoom function of the PTZ camera.

【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.

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

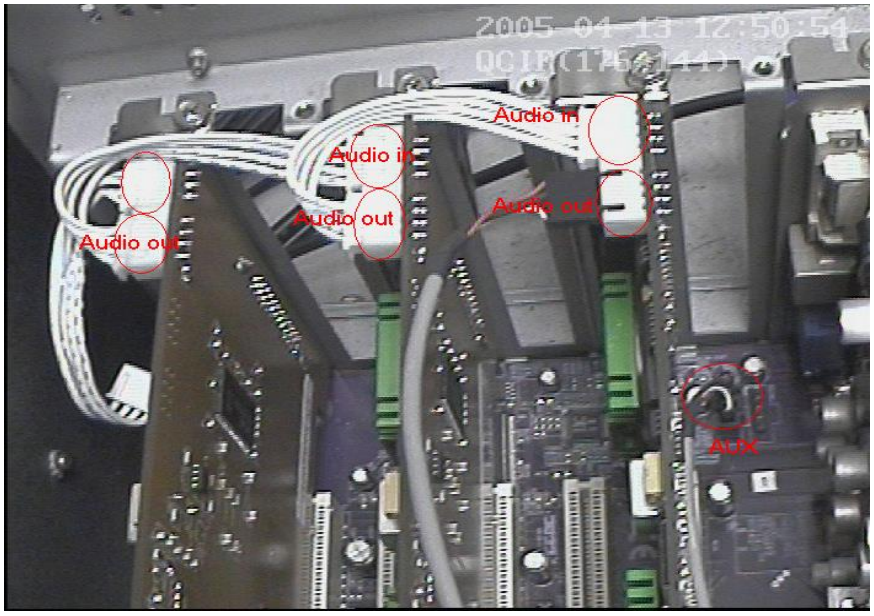
Other controls:

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

Appendix B: Audio Preview

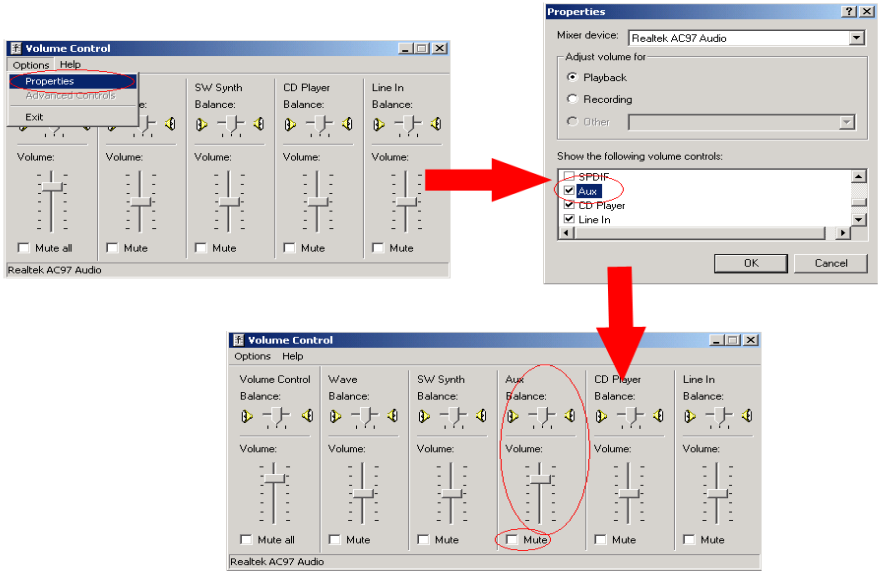
NV Series Card Audio Preview

To 40 series card, please connect the card use the cable in the box 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.



Note:

To NV 42 series card, there is no need to connect the “audio in” and “audio out” cable. However, a sound pick-up is necessary if you want to hear and record the sound, no matter what’s the type of the card.

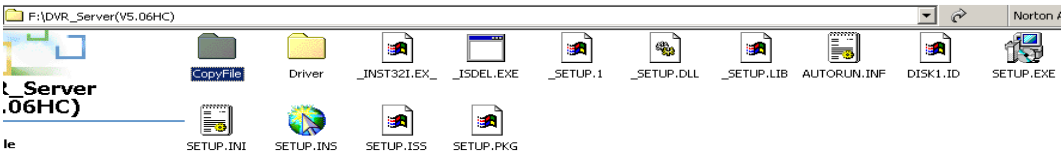
DG Series Card Audio Preview

The connection is same as NV 40 series card.

To audio preview and record of IP cameras, please refer to page 76.

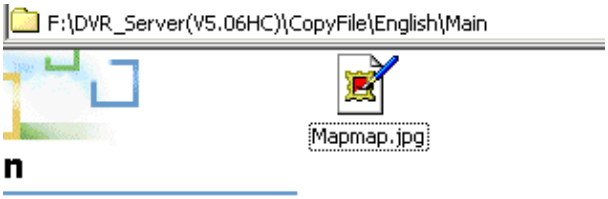
Appendix C: How to Use “Copy File” Folder

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.

Only the files put before installation can be replaced.

Appendix D: Hybrid NDVR Board Explanation

This Hybrid NDVR System manual is suitable for all NV and DG series Hybrid NDVR boards, including: NV400XHC, NV400XHF, NV400XHS, NV4016HCS, NV4216HCI and NV42XXHFV; DG40XXHC, DG40XXHC–E, DG4108HC (N) and DG4108HF, etc.

NV Series Board Cards

NV400XHC: Support dual-stream. However, when “image size” is selected as D1, NV400XHC card can only single encoding.

NV400XHF: Support dual-stream.

NV400XHS: Support single encoding only.

NV4016HCS: Support single encoding only.

NV4216HCI: Support dual-stream.

NV42XXHFV: Support dual-stream and X channels real time encoding. Support single channel video output to TV monitor.

DG Series Board Cards

DG40XXHC (-E): Support multiple resolution recording: 4CIF, 2CIF, CIF, QCIF; and supports 4CIF recording with 12fps (PAL)/15fps (NTSC) for all channels. Dual-stream supported. DG40XXHC-E complies with HCI-Express 1.0 (1X) standard.

DG4108HC (N): Support 8 channels CIF or 2 channels 4CIF (D1) real-time recoding and 8 channels 4CIF (D1)/2CIF/HD1 non-real time recoding (DG4108HN without audio encoding).

DG4108HF: Support 8 channels 4CIF (D1)/2CIF/HD1/CIF/QCIF real-time recoding and dual-stream supported.

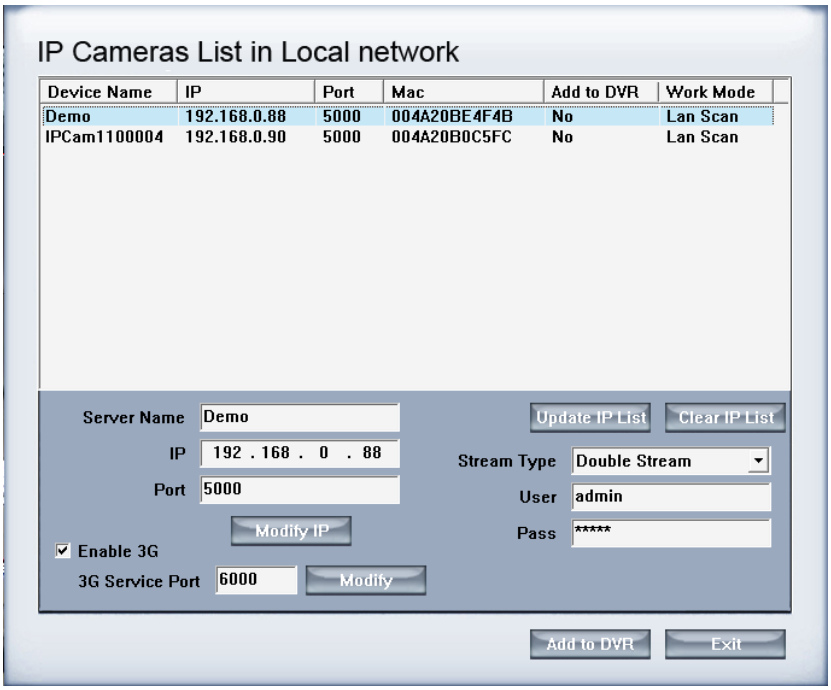
DG4208/4216HF: Support 8/16 channels 4CIF (D1)/2CIF/HD1/CIF/QCIF real-time recoding and dual-stream supported.

DG4204HD: Support 4 channels 1080P(1920×1080), 720P(1280×720), 1080P/4:(960×540), 720P/4:(640×360), 1080P/16:(480×270), 720P/16:(320×180) real-time recoding and dual-stream supported.

For details, you can ask your supplier to offer the corresponding specification.

Appendix E: How to Use 3G Function

For a DG camera supports 3G function, you can enable its 3G function in our Hybrid NDVR software by checking the box in front of Enable 3G.



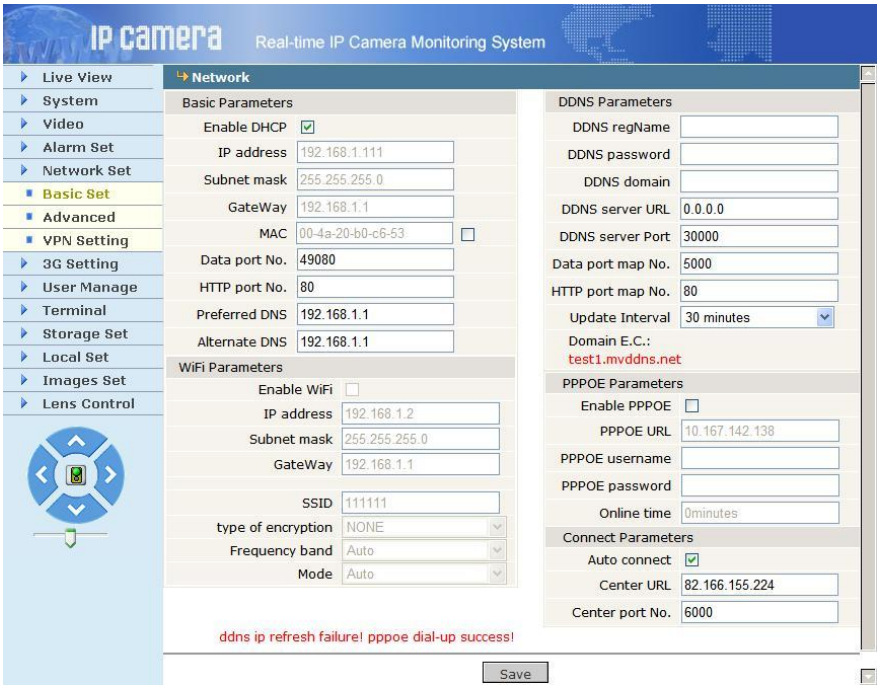
The steps to config 3G function are as below:

First of all, forward 3G server port to your router if you want to use 3G function in WAN. The port is 6000 as default. You can change it to others.

The second is to visit the DG series IP camera via IE. Go to Network Set->Basic Set and you will get the following interface. Fill the Hybrid NDVR IP in the blank of Center URL on the bottom right. You can fill either LAN IP or WAN IP here. But if you hope to use 3G function in WAN, you have to fill in the WAN IP. Please note the Center Port NO. should be the same with the 3G Server Port you set in the Hybrid NDVR server.

Note:

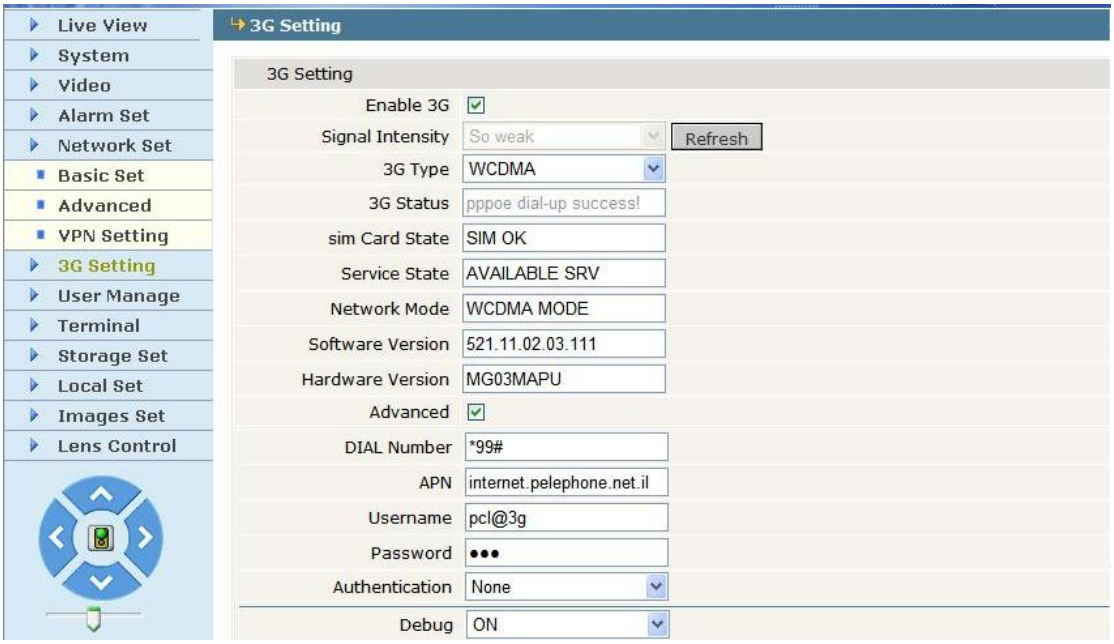
Don’t forget to check the box after “Auto Connect”. Otherwise, the IP camera will not be able to login the Hybrid NDVR server automatically.



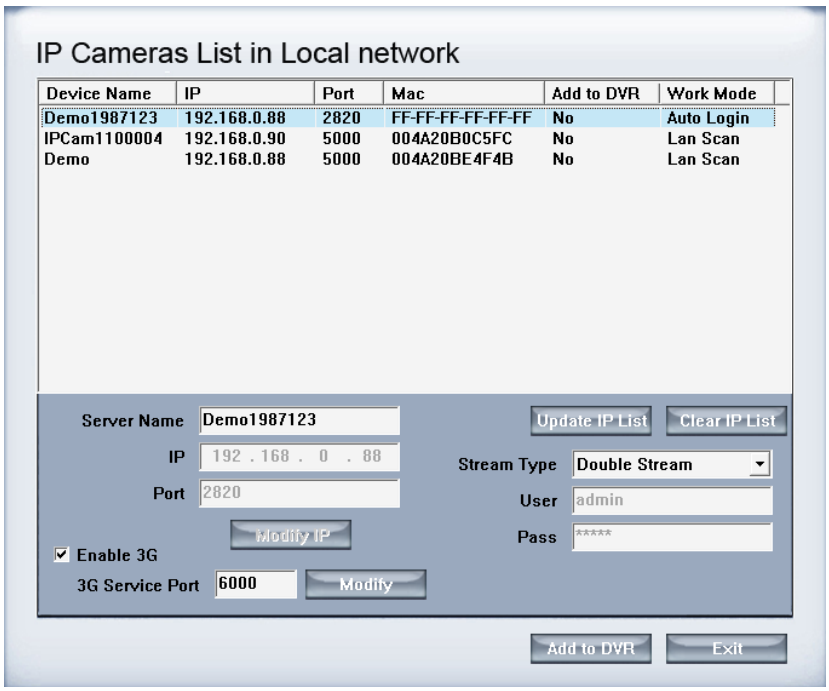
The third is to enter 3G Setting to config 3G function.

Insert a card in the camera first. Then, you should select a 3G type according to your phone from WCDMA, TD-SCDMA and CDMA2000. Check the box after Advanced to set APN according to your phone.

The 3G Status will turn to be “pppoe dial-up success!” and the sim Card State will be “SIM OK” after all the settings are done.



The fourth is to enter “Add DG IPC” again. Then, there will be an IP camera whose work mode is Auto Login and Mac address is not available. When it is selected, click “Add to Hybrid NDVR” to add it to the Hybrid NDVR software.



Note:

You can't modify the camera once it is connected to the Hybrid NDVR. If you want to change the stream type, you should delete first and then re-add it. You have to modify its stream type before it is added to the software.