NVR User Manual

For H.264 4-channel network video recorder

CAUTION

- Please read this user manual carefully to ensure that you can use the device correctly and safely.

- We do not warrant all the content is correct. The contents of this manual are subject to change without notice.

- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using the same. Kindly remove the cables from the power source if the device is not to be used for a long period of time.

- Do not install this device near any heat sources such as radiators, heat registers, stoves or other devices that produce heat.

- Do not install this device near water. Clean only with a dry cloth.

- Do not block any ventilation openings and ensure proper ventilation around the machine.

- Do not power off the NVR when the device is functioning. The correct operation to shut down the NVR is to first stop recording and then use "shut-down" button from the menu, and finally switch off the main power.

- This machine is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine's case, please turn off the device immediately and get it checked by a qualified technician.

- Do not try to repair the device by yourself without technical aid or approval.

- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google shall belong to the above-mentioned companies.

- This manual is suitable for 4-channel network video recorders. All examples and pictures used in the manual are from 4-channel NVR.

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1 Introduction

1.1 NVR Introduction

This model NVR (Network Video Recorder) is designed specially for CCTV system. It adopts high performance video processing chips and embedded Linux system. Meanwhile, it utilizes many most advanced technologies, such as standard H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., which ensure its powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, and irrigation and so on.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality

LIVE SURVEILLANCE

- Support HDMI/CVBS/ VGA output
- Support channel security by hiding live display
- Display the local record state and basic information
- Support USB to make full control

RECORD MEDIA

- Support one SATA HDDs to record for a longer time without any limitation

BACKUP

- Support USB 2.0 devices to backup
- Support saving recorded files with AVI standard format to a remote computer through internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Support recycle after HDD full
- Support 1080P/720P/VGA recording
- Resolution, frame rate and picture quality are adjustable
- Two record search mode: time search and event search.
- Support 4 screen playback simultaneously
- Support deleting and locking the recorded files one by one
- Support remote playback in Network Client through LAN or internet

ALARM

- 1 channel alarm output and 4 channel alarm input available
- Support schedule for motion detection and sensor alarm
- Support pre-recording and post recording
- Support linked channels recording once motion or alarm triggered on certain channel

SECURITY

- Customize user right: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, and playback.
- Support 1 administrator and 63 users.
- Support event log recording and checking, events unlimited

NETWORK

- Support TCP/IP, DHCP, PPPoE, DDNS protocol
- Support IE browser to do remote view
- Support setup client connection amount
- Support dual stream. Network stream is adjustable independently to fit the network bandwidth and environment.
- Support picture snap and color adjustment in remote live

- Support remote time and event search, and channel playback with picture snap
- Support remote full menu setup, changing all the NVR parameters remotely
- Support mobile surveillance by smart phones , symbian, WinCE, Iphone or Gphone, 3G network available
- Support CMS to manage multi devices on internet

2 Hardware Installation

Notice: Check the unit and the accessories after getting the NVR.
Please don't power up the unit till the physical installation is complete.

2.1 Install Hard Drive

Notice: 1. This series supports one SATA hard drives. Please use the hard drive the manufacturers recommend specially for security and safe field.

2. Please calculate HDD capacity according to the recording setting. Please refer to "Appendix B Calculate Recording Capacity".

Step1: Unscrew and Open the top cover.
Step2: Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1.
Step3: Screw the HDD as Fig 2-2.

Note: Please connect the power and data cables firstly, and then screw to fix.

Fig 2-1 Connect HDD   **Fig 2-2 Screw HDD**

2.2 Front Panel Descriptions

Notice: The front panel descriptions are only for reference; please make the object as the standard.

Item	Type	Name	Description
1	Work state indicator	Power	Power Indicator, when connected, the light is blue.
		HDD	The light turns blue when reading/writing HDD.
		Net	The light turns blue when it is able to access the network.
		Backup	The light turns blue when backing up files and data.
		Play	The light turns blue when playing video.
		REC	The light turns blue when recording
2	Compound button	MENU/+	1. Enter menu in live 2. Increase the value in setup
		BACKUP/-	1. Decrease the value in setup 2. Enter backup mode in live
		RECORD/FOCUS	1. Record manually 2. FOCUS function enables at PTZ mode.
		REW/SPEED	1. Rewind key 2. SPEED function enables at PTZ mode
		SEARCH/ZOOM	1. Enter search mode 2.ZOOM function enables at PTZ mode.
		PLAY /IRIS	1. Enter play interface 2. IRIS function enables at PTZ mode
		FF/ P.T.Z.	1. Fast forward 2. Enter PTZ mode in live
		STOP/ESC	1. Quit play mode 2. Exit the current interface or status
3	Input button	Direction button	Change direction to select items
		Multi-screen	Change screen display mode
		Enter button	Confirm selection
4	IR receiver	IR	For remote controller
5	USB	USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse

2.3 Rear Panel Instructions

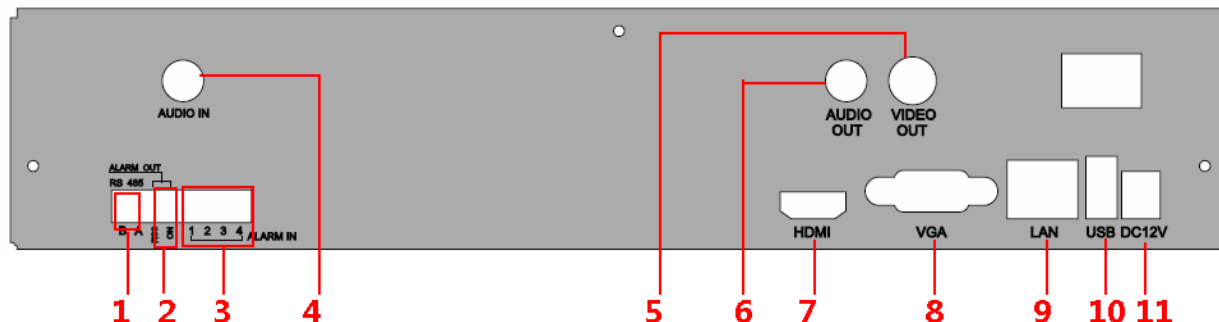The rear Panel interface for 4-ch is as shown in Fig 2-3:

Fig 2-3 Rear Panel for 4-ch

Item	Name	Description
1	K/B	Connect to Keyboard, K is TX+, B is TX-
2	Alarm Out	Relay Output. Connect to external alarm.
3	Alarm in	Alarm Inputs for connecting sensors
4	Audio in	1 CH audio input
5	Video out	Connect to monitor
6	Audio out	Audio output, connect to the sound box
7	HDMI port	Connect to high-definition display device
8	VGA port	VGA output, connect to monitor
9	LAN	Network port

Item	Name	Description
10	USB port	Connect to external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse
11	DC12V	Power input

2.4 Remote Controller

It uses two AAA size batteries.

- Open the battery cover of the Remote Controller.
- Place batteries. Please take care of the polarity (+ and -).
- Replace the battery cover.

Note: Remote controller can be selected depending on the product model. Here we take the bigger remote controller as an example to describe.
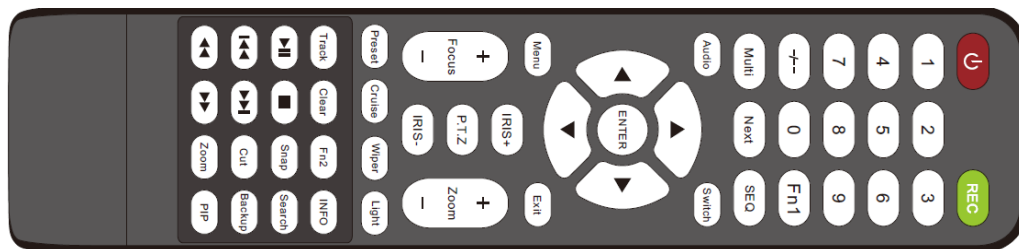
Fig 2-4 Remote Controller

Button	Function
⏻ Power Button	Switch off—to stop DVR. Use it before turning off the power
Record Button	To record manually
-/-- /0-9 Digital Button	Input number or choose camera
Fn1 Button	Unavailable temporarily
Multi Button	To choose multi screen display mode
Next Button	To switch the live image
SEQ	To enter into auto dwell mode
Audio	To enable audio output in live mode
Switch	To switch the output between BNC and VGA
▲◀▼▶ Direction button	To move cursor in setup or pan/title PTZ
Enter Button	To confirm the choice or setup
Menu Button	To enter into menu
Exit Button	To exit the current interface
Focus/IRIS/Zoom/PTZ	To control PTZ camera. Move camera/zoom/IRIS/Focus
Preset Button	To enter into preset setting in PTZ mode
Cruise Button	To enter into cruise setting in PTZ mode
Track Button	To enter into track setting in PTZ mode

Wiper Button	To enable wiper function in PTZ mode
Light Button	To enable light function in PTZ mode
Clear Button	To return to the previous interface
Fn2 Button	Unavailable temporarily
Info Button	Get information about DVR like firmware version, HDD information
▶∥ ■ ◄◄ ▶▶∣ ◄◄ ▶▶	To control playback. Play/Pause/Stop/Previous Section/Next Section/Rewind/Fast Forward
Snap Button	To take snapshots manually
Search Button	To enter into search mode
Cut Button	To set the start/end time for backup in playback mode
Backup Button	To enter into backup mode
Zoom Button	To zoom in the images
PIP Button	To enter into picture in picture setting mode

Note: Key points to check in case the remote doesn't work.

1. Check batteries polarity.
2. Check the remaining charge in the batteries.
3. Check IR controller sensor for any masking.
4. Check the ID of the remote with respect to the NVR.

If it still doesn't work, please try using a good known remote, or contact your dealer.
The interface of remote controller is shown in Fig 2-4 Remote Controller.

Operation processes with remote controller to control multi-NVR
The default device ID of the NVR is 0. It's not necessary to reset the device ID when a remote is to be used to control a single NVR. However when controlling multiple NVRs with multiple remote controllers, you would need to configure the device ID, please refer to below steps:

• Activate remote controller to control the NVR: Turn the IR sensor of the remote controller towards the IR receiver on the front

panel, press the number key 8 twice on the remote, then input device ID of the NVR to be controlled (Range from: 0-65535; the default device ID is 0) press ENTER to confirm.

- You can check the device ID of a NVR from System Setup→Basic→Device ID. You can also set multiple NVRs with the same device ID however this can cause interference if the NVRs are kept close to each other.

2.5 Control with Mouse

2.5.1 Connect Mouse

It supports USB mouse through the ports on the rear panel.
Notice: If mouse is not detected or doesn't work, check below steps:
 1. Make sure the mouse is plugged in the USB mouse port not the USB port on the front panel.
 2. Try with a good know mouse.

2.5.2 Use Mouse

During live:
Double-click on any camera window for the full screen mode. Double-click again to return to the previous screen mode.
Right click to reveal the control menu on the screen. Right click to hide the control menu.

In Configuration:
Click to enter a particular option. Right click to cancel the option or to return to the previous menu.
In order to input a value in a particular screen, move cursor to the input box and click. An input window will appear as Fig 2-5. It supports digits, alphabets and symbols as inputs. Click Shift button to input Capital letters and symbols; click Shift button again to return.
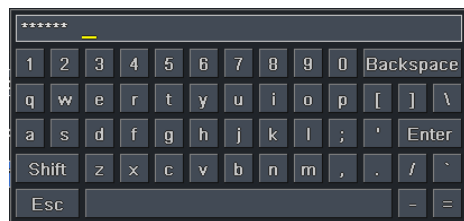

Fig 2-5 Digital Numbers and Letters Input Window

You can change some values using the mouse wheel, such as time. Move cursor onto the value and roll the wheel when the value blinks.

It supports mouse drag. For e.g. setting up motion detection area, click customized, hold down the left button and drag to set motion detection area.

Setting up Schedule: hold left button and drag to set schedule time.

In Playback:

Click to choose the options. Right click to return to live mode.

In Backup:

Click to choose the options. Right click to return to previous picture.

In PTZ Control:

Click left button to choose the buttons to control the PTZ. Click right button to return to live.

Note: Mouse is the default tool for all operations unless an exception, as indicated.

3 Basic Function Instruction

3.1 Startup and Shutdown

Please make sure all the connections are done properly before you power on the unit. Proper startup and shutdown are crucial to expanding the life of your NVR.

3.1.1 Startup

Step1: Connect with the source power.
Step2: The device will boot and the power LED would turn blue.
Step3 A WIZZARD window will pop up and show some information about time zone，time setup，network configuration, record configuration and disk management. You can setup here and refer to the concrete setup steps from the corresponding chapters. If you don't want to setup Wizard, please click Exit button to exit.

Note: The default output is HDMI output. This NVR can only display options on either VGA /HDMI monitor or CVBS monitor at a given point of time, if there is live image display without menu options then please check if there is display on other device/monitor, or long press ESC key to wait for login dialog box to appear. Long press ESC key can switch the output between CVBS and VGA/HDMI.

3.1.2 Shutdown

You can shut down the device by using IR remote controller and mouse.

By IR remote controller:

Step1: Press Power button. This will bring up a shutdown window. The unit will shut down by clicking "OK" button.
Step2: Disconnect the power.

By mouse:

Step1: Enter into ![icon]Menu and select "Shut Down" icon. This will take you to a shutdown window.

Step2: Click OK. Then the unit will power off after a while.

Step3: Disconnect the power.

3.2 Login

You can login or log off the NVR system. Once logged off you cannot do any other operation except changing the multi-screen display.

Notice: The default user name and password is "admin" and 123456".

For complete operational steps for changing password, adding or deleting user please refer to section 5.7 User management Configuration.

Fig 3-1 Login

3.3 Live preview

Fig 3-2 Live Preview Interface

Symbol	Meaning
Green	Manual record
Yellow	Motion detection record
Red	Sensor Alarm record
Blue	Schedule record

3.3.1 Live playback

Click Play ▶ button to playback the record. Refer to Figure 3-3. You can do complete operation by clicking the buttons on screen.
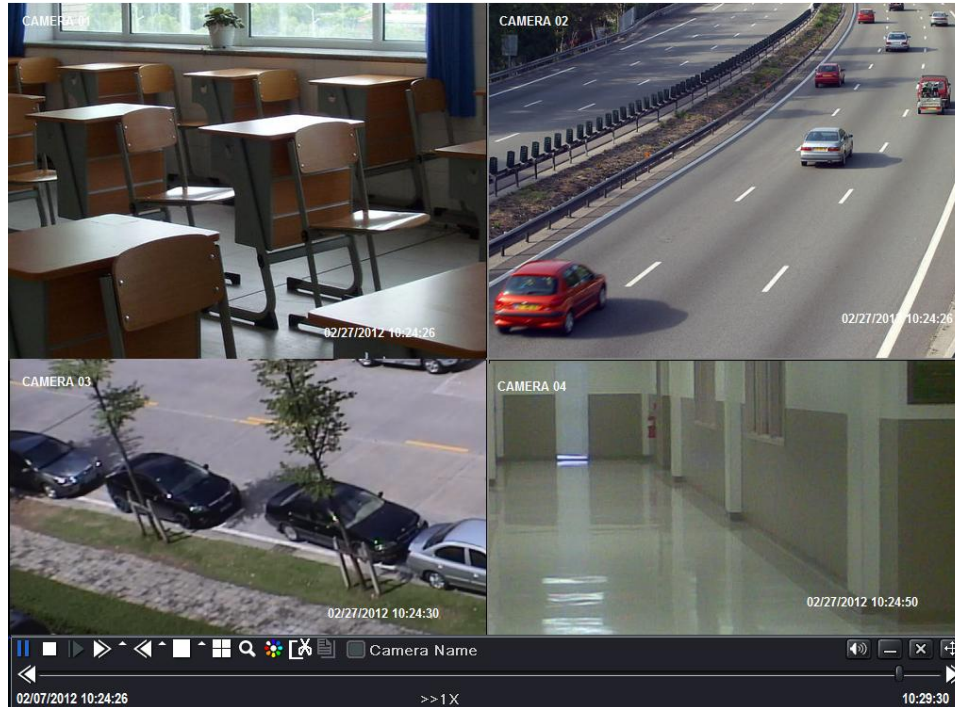
Fig 3-3 Live Playback

4 Add IP Cameras

This chapter mainly introduce how to connect multiple IP cameras through NVR. Once you finish adding IP cameras, you can see the live images through the monitor of NVR.

To add IP cameras:

Step 1: Please Enter into Menu→IP Camera tab. Refer to Fig 4-1. Click "Search" button to search the devices in the same network.

CH	Device NetAddress	Manufacturer	Product Model	Status

0/0

Add Setup Delete Search Apply Exit

Fig 4-1 Device Management

ADD DEVICE

Manufacturer	Product Model	IP Address	Port
XXX	XXX	192.168.6.17	9008
XXX	XXX	192.168.6.23	9008
XXX	XXX	192.168.6.28	9008
XXX	XXX	192.168.6.24	9008
XXX	XXX	192.168.6.6	9008

1/1   All

Refresh OK Cancel
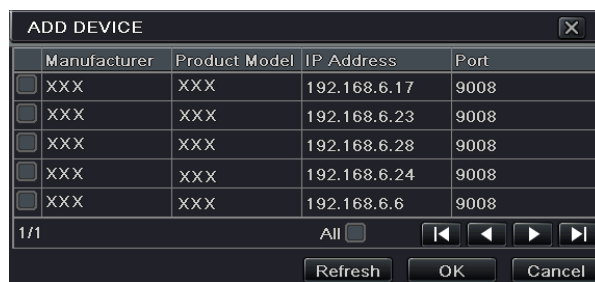
Fig 4-2 Search Devices

Step 2: Enter into the search tab. Click "Refresh" to refresh the searched devices and then check the device you want to add or check "All" to add all devices.

Step 3: Click "OK" button to save these devices.

Step 4: Click "Setup" button to enable this device. Refer to Fig 4-3. Check the "enable" checkbox, select channel and input the username and password of this device. Then click "OK" to save settings.

Of course, you can add devices manually. The steps are as follows: Click "Add" button in the device management tab. This will bring up a window similar to Fig 4-3. You need to check "Enable" box, select channel, manufacturer and product model and input server port, username and password of this device. All of these information you can check in the relevant user manual.

Fig 4-3 Add Device

Note: If IP cameras and NVR are in LAN, their IP address must be in the same network segment. For example: If the IP address of NVR is 192.168.006.067, the IP address of IP camera must be 192.168.006.XXX. If the NVR is connected through PPPoE, the IP camera can be connect through PPPoE. If the LAN IP address is used in the IP camera, you shall forward the IP address and port of the device in the router, otherwise, the NVR cannot connect this IP camera.

5   Main Menu Setup Guide

Click right mouse or press ESC button on the front pane to display the main menu toolbar on the bottom of the screen. Refer to Fig 5-1:
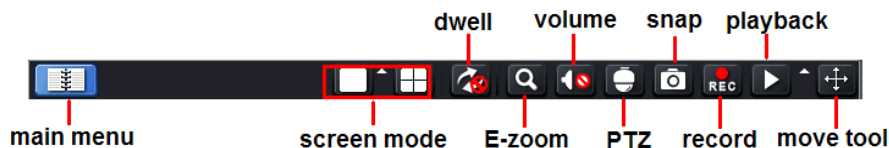
Fig 5-1 Main Menu Toolbar

Click the ▲ icon beside the screen mode to display a channel select dialog.

Dwell: Dwell means to display live images from different cameras in a sequence. The images may be displayed as a single channel or in a grid fashion from different cameras. Dwell mode is enabled only when the chosen display mode is not able to display all the available cameras.

Color: If this button is enabled, you can adjust the color of live images.

Zoom: Single channel large screen electronic amplification.

Volume: Enable sound.

PTZ: Click the PTZ button to control rotation position, speed and auto scan of the PTZ connected to the IP camera.

Record: Click this button to start/stop recording.

Playback: Click this button to playback the recorded files.

You can click ⊕ button and drag it anywhere with the left mouse to move the main menu bar anywhere.

Click Menu ▼ button to pop up a window as Fig 5-2; you can also press MENU button on the front panel or operate with remote controller to display the main menu. Clicking Setup icon will pop-up the configuration menu:
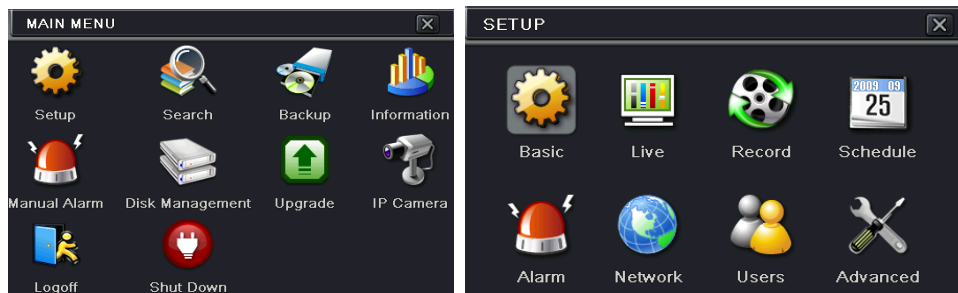
Fig 5-2 System Setup

5.1 Basic configuration
Basic configuration includes three sub menus: system, date & time and DST.

5.1.1 System
Step1: Enter into Menu→Setup→Basic→System. Refer to Fig 5-3:
Step2: In this interface you can setup the device name, device ID, video format, max network user, VGA resolution and language. The definitions for every parameters display as below:

Device Name: The name of the device as it may display on the client end or on CMS, this would help the user to recognize the device remotely.

Device ID: This ID is used to map the NVR with IR remote controller and speed dome cameras.

Video Format: Two modes: PAL and NTSC. User can select the video format according to the cameras being used.

Fig 5-3 Basic Configuration-Basic

Password Check: If enabled the user would need to input the user name and the password for performing corresponding operations.

Show System Time: If selected, displays the current time during live monitoring.
Max Online Users: To set the maximum number of concurrent user logins in the NVR.
Show wizard: If selected, the GUI would launch the startup wizard on every boot, allowing the   to do basic setup.
Video Output: Resolution of live display interface, ranges from: VGA800*600, VGA1024*768, VGA1280*1024,CVBS and HDMI.

Note：**Switching between HDMI/VGA and CVBS will change the menu output mode. Please connect to relevant monitor.**

Language: To setup the menu language.

Note: After changing the language and video output, the device needs to login again.

Logout After (Minutes): You can setup the screen interval time (30s, 60s, 180s, 300s). If there is no any operation within the setting period, the device will auto logout and return to the login interface.
No Image When Logout: If selected, there will be no image showing when logout.

5.1.2 Date & Time
Step1: Enter into Menu→Setup→Basic→Date & Time tab. Refer to Fig 5-4:
Step2: Set the date format, time format, time zone in this interface; checkmark "sync time with NTP server" to refresh NTP server date.
You can adjust system date manually
Step3: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Fig 5-4 Basic Configuration-Date & Time

5.1.3 DST
Step1: Enter into Menu→Setup→Basic→DST interface. Refer to Fig 5-5:
Step2: In this interface, enable daylight saving time, time offset, mode, start & end month/week/date, etc.
Step3: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.
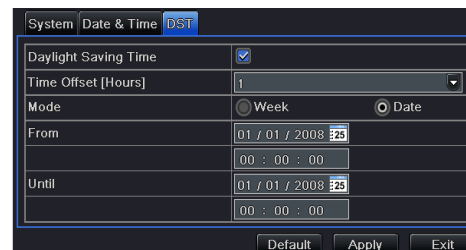
Fig 5-5 Basic Configuration-DST

5.2   Live Configuration

Live configuration includes three submenus: live, main monitor and mask.

5.2.1 Live

In this interface, you can setup camera name, adjust colors including brightness, hue, saturation and contrast.

Step1: Enter into Menu→Setup→Live interface. Refer to Fig 5-6:

Note: A soft keyboard will pop up by clicking the camera name. You can self-define the camera name.

Step2: For a particular camera/channel setting, please click "Setting" button to see a window as Fig 5-7:

Step3: In this interface, you can adjust brightness, hue, saturation and contrast in live; click "Default" button to restore default setting, click "OK" button to save the setting.

Step4: Select "All" to setup all channels with the same parameters.
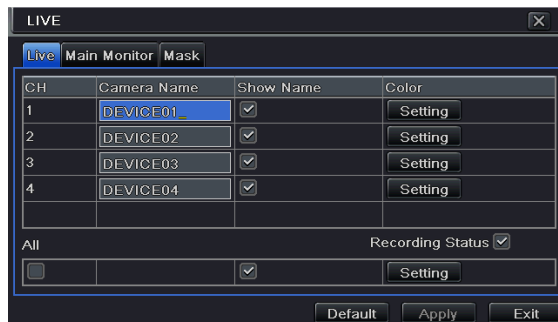
Fig 5-6 Live Configuration→Live   **Fig 5-7 Live-Color Adjustment**
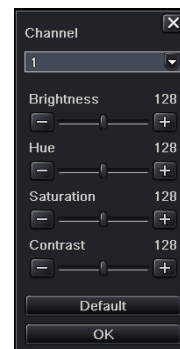
5.2.2 Main Monitor

Step1: Enter into Menu→Setup→Live→Main Monitor tab. Refer to Fig 5-8:

Step2: Select split mode: 1×1、2×2、2×3、3×3、4×4 and channel. Click

![button] button to setup the previous channel group. Click ![button] button to set the latter channel group.

Step3: Set the dwell time.

Step4: Click "Default" to restore default setting; click "Apply" to save the setting; click "Exit" to exit the current tab.

Fig 5-8 Live Configuration – Main Monitor

5.2.3 Mask

You can setup private mask area on the live image picture. For a given channel a maximum of three areas can be masked.

Setup mask area: Click Setting button, enter into live image to press left mouse and drag mouse to set mask area. Please refer to the below picture. Right click to exit. Click Apply button to save the setting.

Delete mask area: Select a certain mask area and double click to delete that mask area. Then click Apply button to save the setting.

Fig 5-9 Live Configuration-Mask   **Setup Mask Area**   **Live Image Mask Area**

5.3 Record Configuration

Record configuration includes five sub menus: enable, record bit rate, time, stamp and recycle record.

5.3.1 Enable

Step1: Enter into Menu→Setup→Record→Enable tab. Refer to Fig 5-10:

Parameter	Meaning
Record	To enable/disable recording for the channel
Audio	To enable/disable audio recording for the channel

Fig 5-10 Record Configuration-Enable

Step2: Checkmark record and audio.
Step3: Select All to setup the same settings for all channels.

5.3.2 Record Bitrate

Step1: Enter into Menu→Setup→Record→Record Bitrate interface. Refer to Fig 5-11:
Step2: Setup rate, resolution, quality, encode and max bit stream
Step3: Select "All" to set the same settings for all channels.
Step4: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.
Note: If the rate value set is beyond the available resources of the device, the value will be adjusted automatically.

Parameter	Meaning
Rate	Range from: 1-30（NTSC）1-25(PAL)
Resolution	Supports 1080P, 720P, VGA
Quality	Unavailable
Encode	CBR
Max bit stream	Ranges from 256 ~12288 kbps

Fig 5-11 Record Configuration-Record Bit rate

5.3.3 Time

Step1: Enter into Menu→Setup→Record→Time interface. Refer to Fig 5-12:

Pre-alarm record time: The record time prior to actual triggering of an alarm i.e. record time before motion detection or a sensor alarm was triggered.

Post-alarm record: Set the post recording time after the alarm is finished, five options: 10s, 15s, 20s, 30s, 60s, 120s, 180s and 300s.

Expire time: The time till which the records would be retained. If the set date is overdue, the recorded files will be deleted automatically.

Fig 5-12 Record Configuration-Time

Step2: Select "All" to setup all channels with the same parameters.

Step3: Click "Apply" to save the setting; click "Exit" to exit the current interface.

5.3.4 Stamp

Stamp : This provides an option to enable or disable the Camera Name and the Time stamp on the video. You can also choose a position for the stamp on the screen**.**

Step1: Enter into Menu→Setup→Record→Stamp interface. Refer to Fig 5-13:

Step2: Checkmark camera name and time stamp; click Setting button. You can use cursor to drag the camera name and time stamp at random positions. Please refer to below Figures:

Step3: Select "All" to setup all channels with the same parameters.

Fig 5-13 Record Configuration-Stamp

| **Before Drag** | **After Drag** |
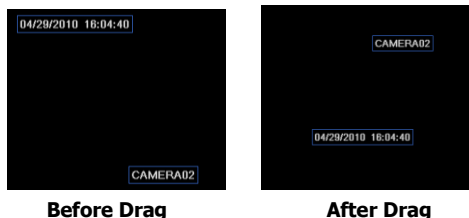
5.3.5 Recycle Record

This option is used to recycle the HDD space once it is full. If enabled, the system will automatically delete the old records (FIFO, recycling space) and recycle the space if it is completely utilized. The setting steps are as follows:

Step1: Enter into Menu→Setup→Record→Recycle Record tab.

Step2: Checkmark the 'recycle record' box to activate the auto recycling.

Step3: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Note: If the option is disabled or not selected, the NVR would stop recording once the HDD is full.

5.4 Schedule Configuration

Schedule configuration includes three sub menus: schedule, motion and alarm.

5.4.1 Schedule

This tab allows defining schedule for normal recording for seven days of a week, 24 hours of a day. Every row denotes an hourly timeline for a day. Click the grid to do relevant setup. A highlighted area denotes selected timeline.

Step1: Enter into Menu→Setup→Schedule tab. Refer to Fig 5-14.

Step2: Select channel and double-click to pop up a window as Fig 5-15. Now you can edit week schedule:

Click " d" button to add a certain day schedule; click " " button to delete the selected schedule;

Copy: Copy the specified schedule to other dates.

If you want to copy the schedule settings of a channel to other or all channels, you just need to select channel and click "Copy" button.
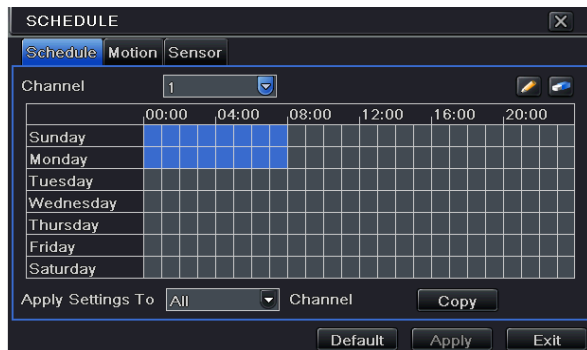
Fig 5-14 Schedule Configuration-Schedule   **Fig 5-15 Week Schedule**
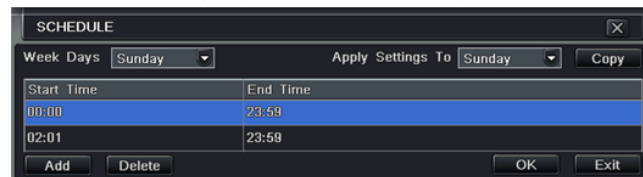
5.4.2 Motion

This tab allows to setup schedule for motion based recording.

Step1: Enter into Menu→Setup→Schedule→Motion tab. Refer to Fig 5-16:

Step2: The setup steps for schedule for motion based recording are similar to normal schedule setup. You can refer to 5.4.1 Schedule for details.

Note: The default schedule of motion based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables motion based recording for 24x7. If you want to activate motion based recording, you must enable motion alarm and setup schedule for motion alarm (Refer to Chapte5 5.5.2 Motion Alarm for more details).

Fig 5-16 Schedule Configuration-Motion

5.4.3 Sensor

This tab allows to setup schedule for sensor based recording.

Step1: Enter into Menu→Setup→Schedule→Sensor tab. Refer to Fig 5-17:

Step2: The setup steps for schedule for sensor based recording are similar to normal schedule setup (Refer to 5.4.1 Schedule for details).

Note: The default schedule of sensor based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables sensor based recording for 24x7. If you want to activate sensor based recording, you must enable sensor alarm and setup schedule for sensor alarm (Refer to Chapter 5.5.1 for more details).

Fig 5-17 Schedule Configuration-Sensor

5.5 Alarm Configuration

Alarm configuration includes four sub menus: sensor, motion, other alarm and alarm out.

5.5.1 Sensor Alarm

Sensor includes three sub menus: basic, alarm handling and schedule.

Operate the following steps to configure sensor alarm:

Step1: Enter into Menu→Setup→Alarm→Sensor→Basic interface. Refer to Fig 5-18:

Step2: Enable channels by checking the checkboxes beside the desired channels .

Step 3: Set the alarm type according to triggered alarm type. Two option: NO and NC.

Step4: Click "Apply" button to save settings.

Step5: Enter into Alarm Handling tab. Refer to Fig 5-19.

Select hold time and then click Setting button. A dialog box will pop-up as Fig 5-20:
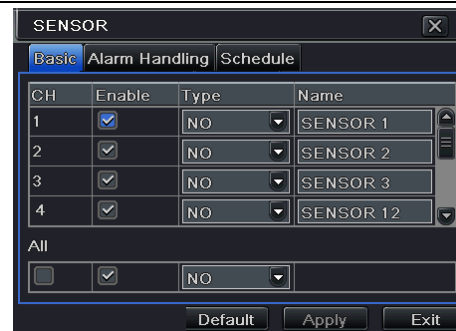
Fig 5-18 Alarm Configuration-Sensor-Basic

Fig 5-19 Alarm Configuration-Sensor-Alarm Handling

Fig 5-20 Alarm Handling-Trigger

Step 6: Enter into alarm tab to select the options to handle alarm.

Buzzer: If selected, the local buzzer would be activated on an alarm.

Full screen alarm: If selected, there will pop up the chosen channel on the monitor on an alarm trigger.

To alarm out: If selected, this would trigger the external relay output on detecting a sensor based alarm.

Email: If you select this option, the NVR will send an email alert to the preconfigured email address in case of a sensor based alarm from the particular input.

Step 7**:** Enter into To Record tab. Select recoding channels. It would be recorded in case of an alarm. Click OK button to save the setting.

Fig 5-21 Sensor-Schedule

Step 8: Enter into Schedule tab. Refer to Fig 5-21. The setup steps for schedule for sensor based alarm are similar to normal schedule setup. You can refer to Chapter 5.4.1 Schedule for more details. This step is very important for sensor based alarm. Although you have enabled the sensor based alarm for all channels and setup the trigger, you will not see the result of sensor based alarm if no schedule is added.

If you have set the schedule for senor based recording in the same timeline, recordings can also be triggered.
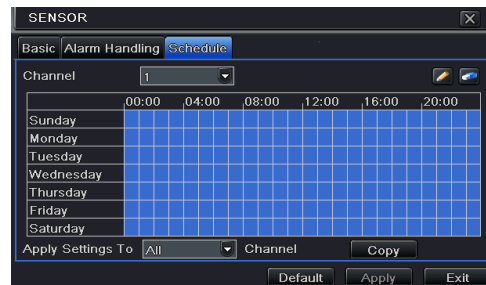
5.5.2 Motion Alarm

Motion includes two sub menus: motion and schedule.

The steps to set up motion alarm are as follows:

Step1: Enter into Menu→Setup→Alarm→Motion tab. Refer to Fig 5-22:

Step2: Enable motion alarm, set alarm hold time which refers to the time till which the system will wait for further detection of motion. Eg. If the holding time is set to 10 seconds, once the system detects a motion, it will go into alarm but would not detect any other motion alarm (specific to channel) until 30 seconds. If there is other motion detected during this period, it is considered it as continuous movement, otherwise it will be considered as a single motion.
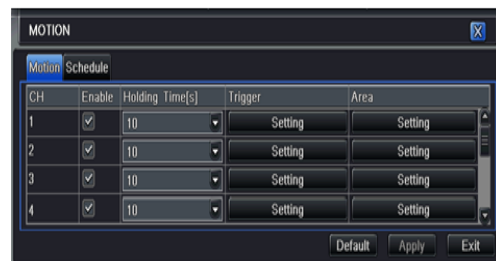
Fig 5-22 Alarm Configuration-Motion

Step3: The setup steps of motion trigger are similar to 'Alarm Handling'. You can refer to Chapter 5.5.1 Sensor →Alarm Handling for more details.

Step4: Click "Setting" button under the Area to display the following picture as shown in Fig 5-23:

Step5: In the Area tab, you can drag slide bar to set the sensitivity value (1-8). The default value is 6. The higher the value is the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Click ⬆ icon to set the whole area as detection area. Click 🗑 icon to clear the set detection area. Click 👤 icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click 💾 icon to save the setting. Click ✖ icon to exit the current interface.

Note: Prior to setting motion detection field it is recommended that you click 🗑 icon to clear the existing field and set afresh.

Fig 5-23 Motion-Area

Step6: Select "All" to setup all channels with the same parameters.

Step7:Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Step 8: Enter into Schedule tab. Refer to Fig 5-24: The setup steps for schedule for motion based alarm are similar to normal schedule setup; you can refer to 5.4.1 Schedule for details.

This step is very important for motion alarm. Although you have enabled the motion based alarm for all channels and setup the trigger, you will not see the result of motion based alarm if no schedule is added.

If you have set the schedule for motion based recording in the same timeline, recordings can also be triggered.
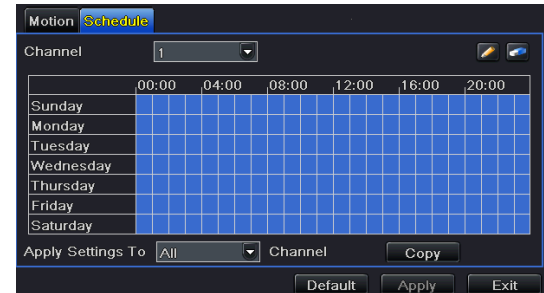
Fig 5-24 Alarm Configuration-Schedule

5.5.3 Other alarm

This tab gives a choice to configure alarm for Disk Full, IP Conflict, the Disconnect event or Disk Attenuation.

Step1: Enter into Menu→Setup→Alarm→Other Alarm interface. Refer to Fig 5-25:

Step 2: Use the dropdown menu and select the event or the alarm.

Step 3: Check the required trigger options.

If the selected event is "Disk Full", then use the drop down box for "Disk Shortage Alarm" to choose a threshold value for remaining HDD space. If the threshold value is reached, the system will trigger the Disk Full Alarm.

Click "Apply" to save settings; Click "Exit" to exit the current interface.

Fig5-25 Other Alarm

5.5.4 Alarm out

Alarm out includes three sub menus: alarm out, schedule and buzzer

To setup alarm out:

Step 1: Enter into Menu→Setup→Alarm out tab. Refer to Fig 5-26. Input relay name and hold time.

Step 2: Select the Schedule tab. This will bring up the schedule setup interface. The setup steps for schedule for alarm out are similar to normal schedule setup; you can refer to 5.4.1 Schedule for details.

This step is very important for alarm out. Even if you have enabled alarm out in the motion based alarm or sensor based alarm, you will not see the result of alarm out if no schedule is added here.
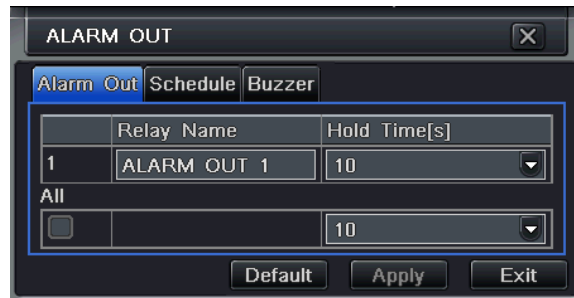
Fig 5-26 Alarm Out

Buzzer

It is an inbuilt alarm output device. To setup Buzzer:

Step1: Enter into Menu→Setup→Alarm out →Buzzer tab;

Step2: Checkmark Buzzer and set buzzer alarm hold time. This would trigger the buzzer when the system is in alarm.

5.6 Network Configuration

Network configuration includes three submenus: network, Email and other settings. Network settings must be configured if NVR is used for monitoring over network.

5.6.1 Network

Step 1: Enter into Menu→Setup→Network→network tab. Refer to Fig 5-27:

Step 2: HTTP port: the default value is 80. If the value changed, you need to modify the IP address in the IE address .i.e. if HTTP port is set to 82 and IP address is, 192.168.0.25, then you shall input IP address as http://192.168.0.25:82 in IE browser.

Fig 5-27 Network Configuration-Network

Server port: Communication port.

Step 3: Connect internet. If you have a DHCP server running and would like your NVR to automatically obtain an IP address and other network settings from that server, check the checkbox beside "Obtain an IP address automatically". Then the device will distribute IP address, subnet mask, and gateway IP and DNS server. If you want to configure your own settings, please input the IP address, Subnet mask, Gateway DNS server manually. You can also check the PPOE checkbox to enable this feature and then enter username and password. Once the setup is completed, your NVR will automatically dial up into your network.

Step 4: No matter what kinds of way to connect internet, you should test the effectiveness of the network by clicking "Test" button after you setup the network.

Step 5: If the network is well connected, please click "Apply" button to save settings.

5.6.2 Email

Step 1: Enter into Menu→Setup→Network→Email tab. Refer to Fig 5-28:

SMTP Server/Port: The name and port number of SMTP server. Check the SSL checkbox if the server requires a secure connection (SSL); user can setup mail servers (such as Gmail) as required.

Send address/password: Sender's email address/password

Receive address: Receiver's email address. Here user can add at least three mail addresses. Click TEST button to test the validity of the mailbox.

Attaching image: After selecting it, the system will attach images when sending the emails.

5.6.3 Other Settings

If your NVR is setup to use PPPoE as its default network connection, you may setup DDNS to be used in connection. The setting steps are as follows:

Step 1: Select Other Settings tab. Enable DDNS server.

Step2: Select DDNS server.

Step 3: Input user name, password and host domain name registered in the DNS website (See the following example).

Step 4: Click TEST to test the effectiveness of the relevant information.

Step 5: Click "Apply" button to save the settings.

Note: The domain name server that selected by user is a banding domain name of NVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply for a domain name on line.

Once applied, user can access the server from the IE client by using that domain name.

Fig 5-28 Network Configuration-Email
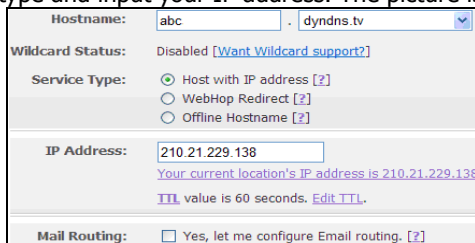
Fig 5-29 Other Settings

● How to apply for a domain name?

Here we take www.dyndns.com for example.
Step 1: Input www.dyndns.com in the IE address bar. Click "Free Trial of DynDNS Pro"→"Start the trial" to register.
Step 2: Input hostname, select service type and input your IP address. The picture is shown as follows:
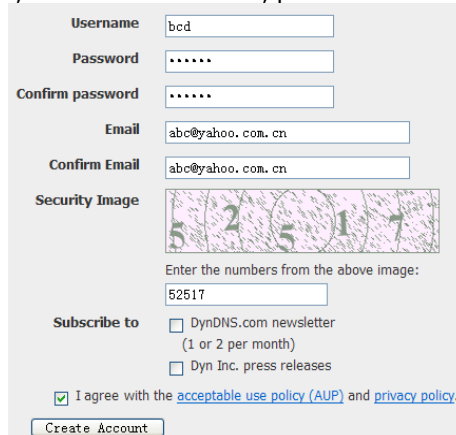
Step 3: Click "Add to cart". Then Dynamic DNS Hosts dialog box will be displayed.
Step 4: Create user account. For example, the username is "bcd", password is "123456".

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Click" Create Account" button to create user account. After that, you shall provide your card number, card expiration and security code as well as billing address. Finally click "sign up for trial" button.

Now, according to the domain name registration of "DDNS" , the domain name for NVR is "abc.dyndns.tv", username is "bcd" and password is "123456"

Connect NVR via network:
Step 1: Enter into Main menu→Network→other settings, checkmark DDNS, select "Dyndns" at the DDNS Sever pull down list box and input user name and password.
Step 2: Login IE browser and input registered domain name "http://www.abc.dyndns.tv" to connect NVR.

Definitions and descriptions of network configuration:

DDNS server	
DDNS server	Website provided by dynamic domain name supplier. The optional: www.meibu.com , www.dyndns.com, www.no-ip.com and mintdns type.
User name	User name for log in the website of domain name supplier
Password	Password for log in the website of domain name supplier
Host domain	The domain name user registered at the supplier's website.
Update interval	The interval time of upgrading NVR IP address

5.7 User Management Configuration
This tab allows you to add normal or advanced users. To add user and setup user authority:
Step 1: Enter into Menu→Setup→User management configuration. Refer to Fig 5-30:
Step 2: Click Add button to display a dialog box as Fig 5-31
Step 3: In General tab, input username, password and select user type. You can also check 'Binding PC MAC Address' and input this address.

Step 4: Click 'OK' button to save settings.

Note: When the default value of binding PC MAC address is 0, the user is not bound with the specified computer. If the bind option is used, the user would be able to log into the NVR only through the specific computer (carrying the MAC address).
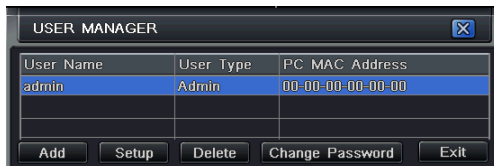
Fig 5-30 User Management Configuration　　　　　　　　　　　**Fig 5-31 Add-General**
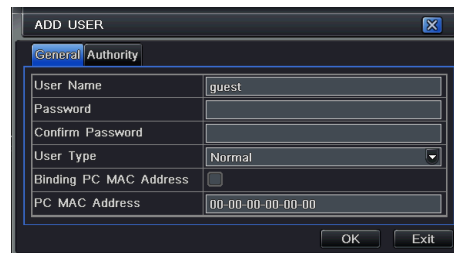
Step 5: Select Authority tab and then assign the operation rights for particular user. Refer to Fig 5-32.
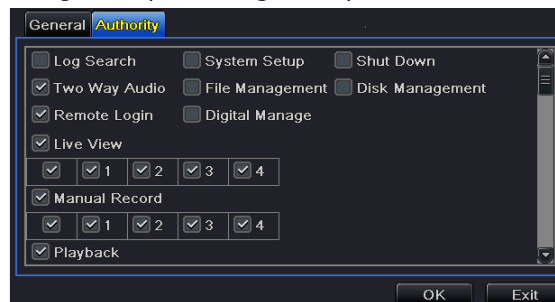
Fig 5-32 Add User-Authority

If you want to delete the user, please select the user you want to delete in the user list box and then click "Delete" button.
If you want to modify the user, please select the user you want to modify in the user list box and then click "Setup" button to modify its general information and authority.

If you want to change password of a user, please select the user in the user list box and then click "Change Password" button.

5.8 Advanced

Advanced configuration includes three submenus: Reset, Import/Export and Block/Allow list.

5.8.1 Reset

This would reset the system to factory defaults and reboot the NVR.

5.8.2 Import/Export

User can export the data files into mobile storage devices as backup and can also import specified data files from mobile storage device to NVR.

5.8.3 Block/Allow list

Here authorized user can prohibit computer users within a certain IP address range from accessing NVR or allow computer users within a certain IP address range to access NVR. For example, if an admin don't want computer users within IP address range from 196.168.000.002 to 196.168.000.004 to access the NVR, he can checkmark 'Block list' option, and then input such IP address range. If it is required that computer users within a certain IP address range access NVR, they can checkmark "Allow list option", and then do the required configuration.

Fig 5-33 Block/Allow List

6   Search, Playback & Backup

Search configuration includes three submenus: time search, event search and file management.

6.1 Time Search

Step1: Enter into Menu→Search →Time search tab. Refer to Fig 6-1:
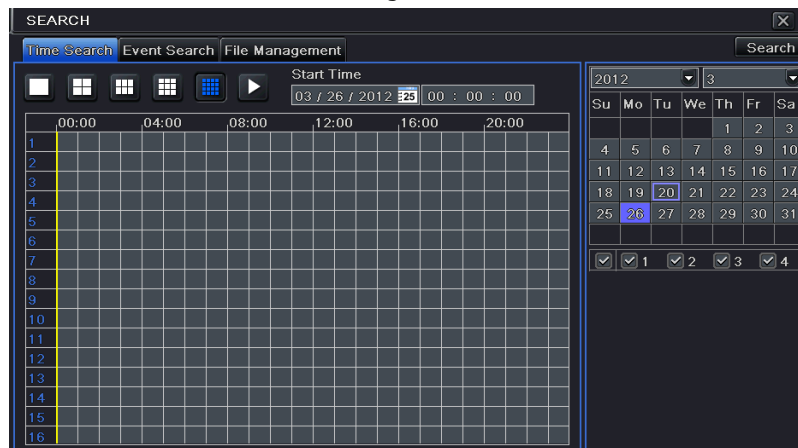
Fig 6-1 Search Configuration-Time Search

Step2: Select date and channels on the right hand side and press "Search" button. A date with highlighted borderline indicates presence of data.

Step3: Set the start time by clicking a particular grid or by entering the specific value in the start time field.

Step4: Select the channel display mode and click ▶ button to play record. Use the playback toolbar to control the playback.

Playback Buttons

Note: When the monitor resolution is set to VGA800*600, part of the time search interface will be hidden. Click the "Expand to" button to expand the whole interface.

6.2 Event Search

Step1: Enter into Menu→Search→Event Search tab. Refer to Fig 6-2:

Fig 6-2 Search Configuration-Event Search

Step 2: Select date and channels on the right hand side. A data with highlighted borderline indicates presence of data.
Step 3: Then checkmark Motion, Sensor or All accordingly. You can search for motion based recording and sensor based recording.
Step 4: Press "Search" button to display the searched event information in the event list box.
Step 5: Double click the event item to play the record.

6.3 File Management

Step1: Enter into Menu→Search→File Management tab. Refer to Fig 6-3:
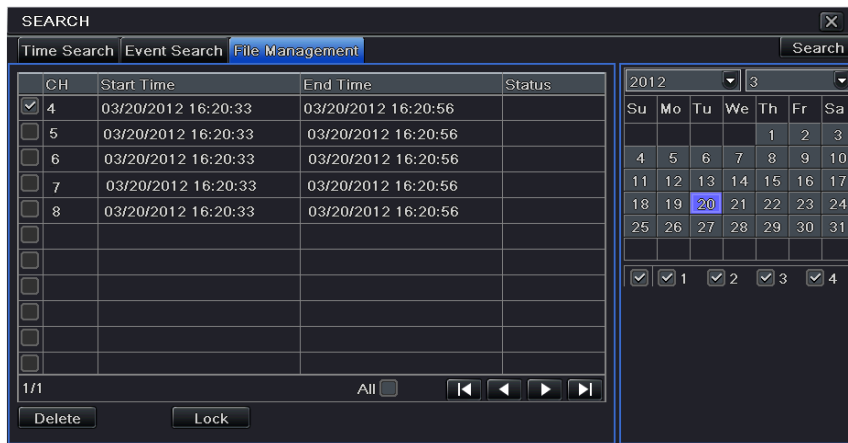
Fig 6-3 Search Configuration-File Management

Step 2: Select date and channels. The date with highlighted borderline indicates presence of data.
Step 3: Press "Search" button to display the searched files in the file list box.
Lock: Select a file and click Lock button to lock this file. Once locked, the file cannot be deleted.

Unlock: Select a locked file and click Lock button to unlock this file.

Delete: Select an unlocked file and click Delete button to delete this file.

Step 4: Use "All" button to lock/unlock or delete all files in the file management column.

Step 5: Double click an unlocked item to playback.

6.4 Backup

Step1: Enter into main menu → Backup interface. Refer to Fig 6-4:

Fig 6-4 Backup Configuration

Step2: Set the start & end time, select channels and click Search button to display the searched data in the data backup list box

Step3: Select a required file or checkmark "All" to select all data files. Click Backup button to display Backup information window.

Step4: In the backup information interface, user can check the relevant options for backing up files. These options include storage Media, backup player and save file type. Then click Start button to start backup.

Note : If the backup files are saved in DVR format, please check backup player. Only this player can play these files in DVR format. If the backup files are saved in AVI format, you can play these files with common media player.

7   Manage NVR

7.1 Check System Information

Check system information includes five submenus: system, event, log, network and online user.

7.1.1 System Information

In this interface, user can check the hardware version, MCU version, kernel version, device ID, etc.

7.1.2 Event Information

In this tab, you can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search. This report can further be saved on a USB flash drive as an html file using the export button.

7.1.3 Log Information

In this tab, you can search for relevant logs as per the set date and event which includes operation, setup, playback, backup, search, check information and error. This report can further be saved on a USB flash drive as an html file using the export button.

7.1.4 Network Information

In this interface, you can check relevant parameters of network.

7.1.5 Online Information

In this tab, you can check the details of the connected online users.

Refresh: refresh the current interface.

Disconnect: Disconnect the online users to access NVR. If this function is used by the admin, the particular PC will not be able to access the device for five minutes.

7.2 Manual Alarm

In this interface, user can trigger a manual alarm.

7.3 Disk Management

1.   Format the disk

Step1: Enter into disk management tab.

Note: please format the hard disk before recording. If not formatted, it will show the status of the disk-free space, and total space at the bottom of screen.

Step2: Click Refresh button to refresh the disk information in the list box.

Step3: Select a hard disk and click Format button to start format.

Note: All recorded files in the hard disk will be lost once it is formatted.

2.   Advanced

User may check model, S/N, firmware, health status of the disk in this interface. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

7.4 Upgrade

The NVR can be upgraded by using USB flash drive. Get the upgrading software from your vendor when there is a new software version.

Upgrade Steps:

Step 1: Copy the upgrade software which gets from vendor into the USB storage device.

Step 2: Connect the USB flash drive to the USB port.

Step 3: Enter Menu→Upgrade tab. Then the upgrade software name would be displayed in the upgrade list box.

Step 4: Select that software and then click upgrade button. It will upgrade automatically.

Note: Please wait for a while when the system reboots. Never cut off power during upgrading. The original configuration will be reserved after upgrade.

7.5 Logoff

Enter into Menu → Logoff tab. A log off dialogue box will popup. The device will log off by clicking "OK" button. If you want to log in again, click ⬚ icon to enter into user name and password to re-login.

8   Remote Surveillance

8.1 IE Remote Surveillance

In order to view the NVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly. Please refer to 5.6 Network Setup. This NVR supports IE browser, on Windows XP and Vista platform.

8.1.1 On LAN

Step 1: Enter into the NVR's Main Menu→Setup→Network tab to input IP address, Subnet Mask, etc .If using DHCP, please enable DHCP in both the NVR and the router.

Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.

Step 3: Open IE on a computer on the same network. Input the IP address of the NVR in IE address bar and press enter.

Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window.

Notice: If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82.

User name and password here are the same with that used on the NVR. The default is admin and 123456.

8.1.2 On WAN

There are two ways for the NVR to connect to internet.

1. Connect the NVR to internet through router or virtual server

Step 1: Enter into the NVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the NVR and router.

Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server. Configure the firewall to allow accessing the NVR.

Note: Port forwarding settings may be different in different routers and server. Please refer to the router's manual for details.

Step 3: Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address or domain name.

Step 4: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

**Note: If you cannot download and install ActiveX, please refer to FAQ Q8.**

Fig 8-1 View with IE Browser

2. Connect the NVR to internet through PPPoE directly.

Step 1: Enter into the NVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The NVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of NVR, user can input WAN IP to access directly (user can enter into Main

menu→Information→Network interface to check IP address).

Step 3: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the NVR or router. Then add to the NVR or router.

Step 4: The following setting steps are as the same as Step3 and Step 4 in Point 1.

8.2 Remote Surveillance through Apple PC

Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped.

The Setting steps are as follows:

First: Right click safari icon and select "Show in Finder".

Second: Select Applications→Right click "Safari. App"→Select "Get Info".
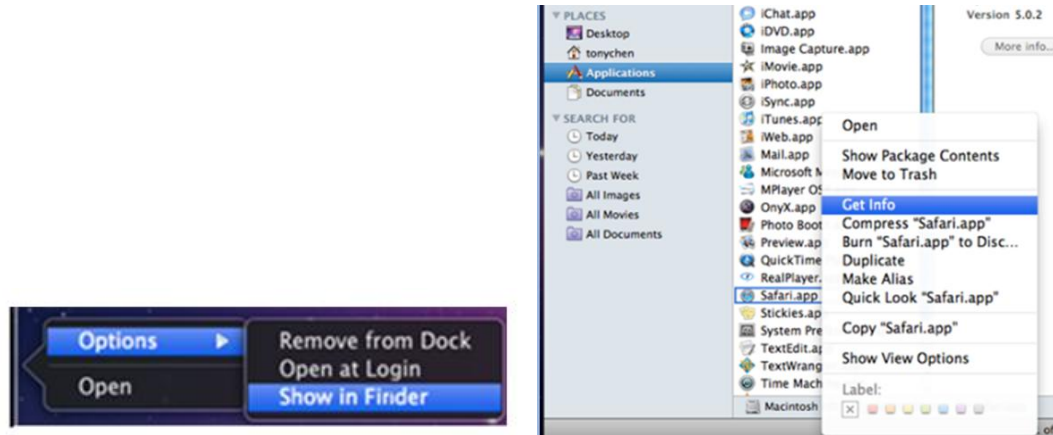
Third: Select "open in 32- bit mode".
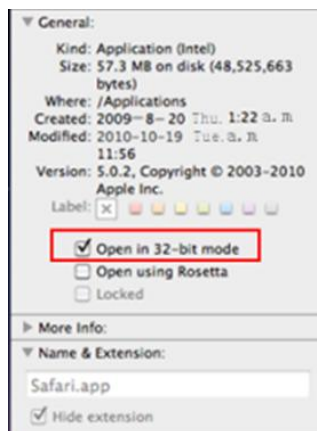
8.2.1 On LAN

Step 1: After starting Apple computer, click Apple icon. The following window will pop up. Please select "System Preferences"→"Internet &Wireless"→click "Network" .

Step 2: Enter into Network interface and then click "Ethernet Connected" to check the internet connection of Apple PC.

Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the NVR's Main Menu→Setup→Network interface to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the NVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input http://192.168.1.100:81(here 192.168.1.100 is LAN IP of NVR, 81 is the http port of NVR). Click " ↻ "button, the browser will download Active X control as shown below:

Step 5: Click ⬇ icon and then select the Active X control, the welcome interface will be shown. Click "Continue"→"Install"

button，the following window will pop up :
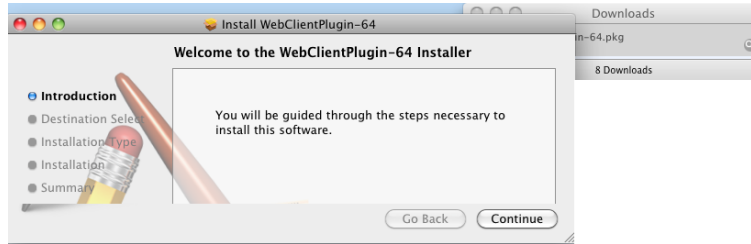
Input the name and password of Apple PC and then click "OK" to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click Safari icon on the desktop and then select "Quit" button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of NVR.

8.2.2 On WAN

There are also two ways for NVR to connect to Internet.

1. Connect the NVR to internet through router or virtual server.

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

2. Connect the NVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port or domain name in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

8.3 Remote Preview
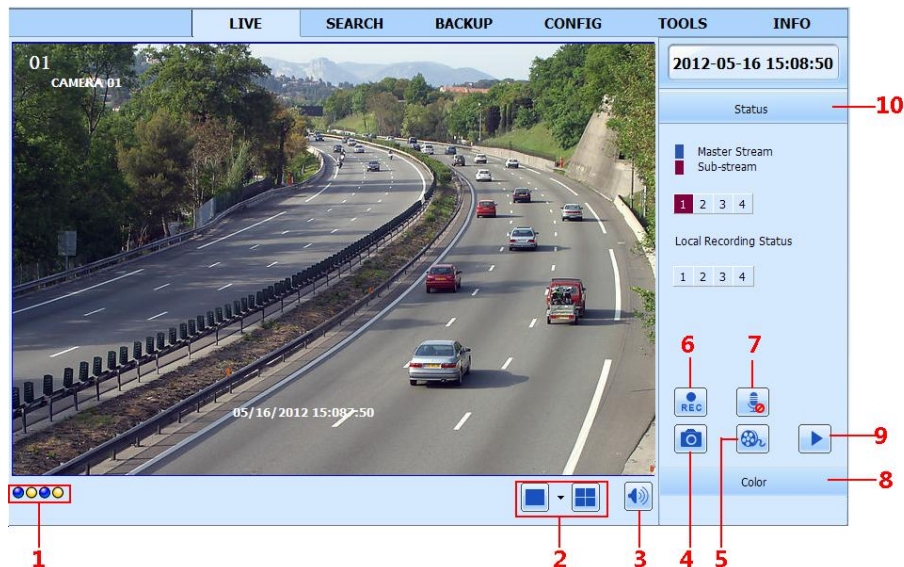
Fig 8-2 Remote Live Preview

Symbol and function Definitions:

①	Channel indicator	②	Screen display mode	③	Volume
④	Snap	⑤	Start IE record	⑥	Start manual record
⑦	Start Talk	⑧	Color	⑨	Playback
⑩	Master/sub stream status				

NVR User Manual

Note: Click **button to record manual and the record file will be saved in user's PC.**
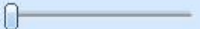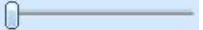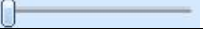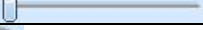
Screen display mode:

Snap pictures

The system will automatically capture pictures and save those pictures in the computer by clicking "Snap" icon, User should set up the path for those picture in the Configuration→Local configuration.

Color adjustment:

Drag the slide bar to adjust Brightness, Contrast, Hue, and Saturation. Click Default to reset them to original value.

Buttons	Description
	Drag the scroll bar to adjust the brightness of channel
	Drag the scroll bar to adjust the contrast of channel
	Drag the scroll bar to adjust the saturation of channel
	Drag the scroll bar to adjust the hue of channel
	Click this button to recover the default value of brightness, contrast, saturation and hue.
	Save the adjustment

Click the right mouse on the live interface to display a pull-down menu as below.

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Fig 8-3 Right Key Sub Menu

Stream: The NVR supports master stream and sub stream. Master stream has higher frame rate, max 25 fps (PAL)/30 fps (NTSC) for every channel, but it needs higher network bandwidth; second stream has low frame rate, max 6FPS (PAL)/7FPS(NTSC) for every channel, but it requires low network bandwidth as compared to the master stream. Therefore, users can select the stream according to their bandwidth.

All to sub stream: Set all channel to master stream or sub stream.

Enable audio: Enable or disenable audio.

Full screen: The live preview picture will display in full screen and the tool bar will be hidden; double click left or click right mouse to return.

Zoom in: Single channel large screen electronic amplification. Click the channel which needs to be zoomed. Right click to select zoom in button to zoom in the image. Double click or right click to exit.

8.4 Remote Playback & Backup

8.4.1 Remote Playback

Click button to enter into record playback interface. Refer to Fig 8-4:

Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and preview the picture.
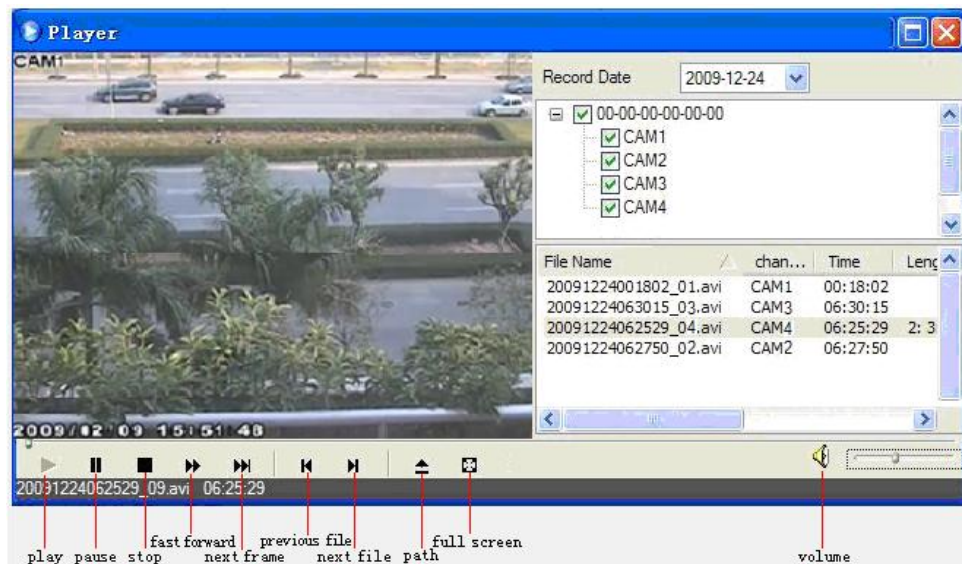
Fig 8-4 Play Record File Interface

This NVR supports remote time search, event search and file management.

By Time Search:
Step1: Enter into Search→Time search. Refer to Fig 8-5:
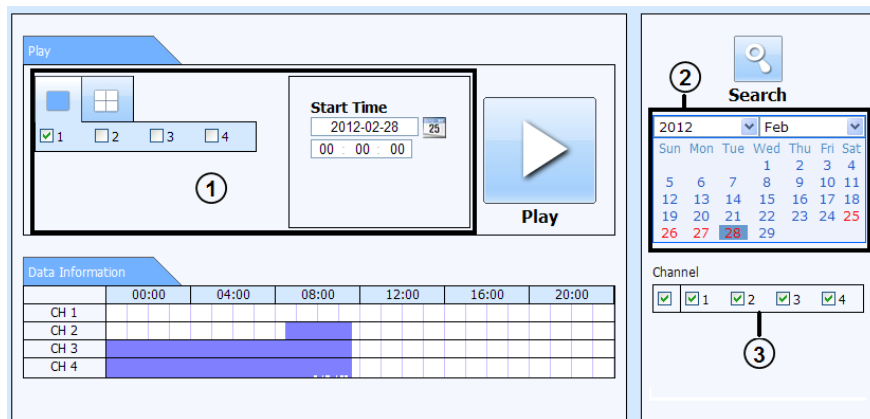
Fig 8-5 Time Search Interface

Step2: The highlight date in the area② indicates recorded data. Select the date in the area ② and record channels in area③.

Step3: Click "Search" button. The record data will be displayed in the data information list box.

Step 4: Set the Start time and display mode in the area① as required.

Step 5: Click "play" button to playback.

Step 6: Click the relevant buttons in the interface for operation, like FF, pause, change channel mode, research, etc. Please refer to Fig 8-6:
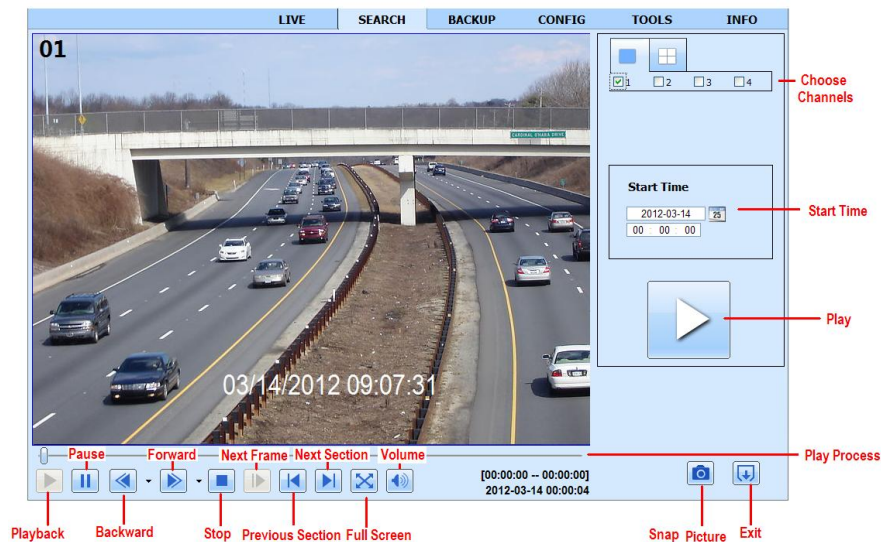
Fig 8-6 Time Search Playback

By Event Search:
Step1: Enter into Search→Event Search. Refer to Fig 8-7:

Fig 8-7 Event Search Interface

Step 2: Click the highlight date and select record channels.
Step 3: Checkmark the event type: motion and sensor.
Step 4: The events will be display in the event list box by clicking Search button.
Step 5: Double-click certain item to playback.

File Management
Step 1: Enter into Search→File management. Refer to Fig 8-8:
Step 2: Select highlighted date and channels.
Step 3: Click "Search" button to search the recorded files.

Fig 8-8 File Management Interface

Lock: Select certain file item in the file list box and then click "Lock" button to lock this file that ca not be deleted or overlaid.
Unlock: Select a locked file and then click "unlock" button to unlock this file.
Delete: Select an unlock file and then click "delete" button to delete this file from file list.

8.4.2 Remote Backup

Click Backup button to enter into backup interface. Refer to Fig 8-9:

Fig 8-9   Remote Backup Interface

Step1: Select channels, set the start and end time and then click "search' button to display the file information in the file list box
Step2: Select backup files and click "browse" button to set the path. Then click "backup" button to start backup. The backup files will be saved on user's PC.

8.5 Remote System Configuration

You can do remote setup of the device which includes functions like basic configuration, live configuration, record configuration, schedule configuration, alarm configuration, network configuration and user configuration. You should select an option from the menu list on the left and then setup the relative parameters. Only one user can do configuration setup at a given point of time. Click Config tab to enter into the below interface as Fig 8-10:
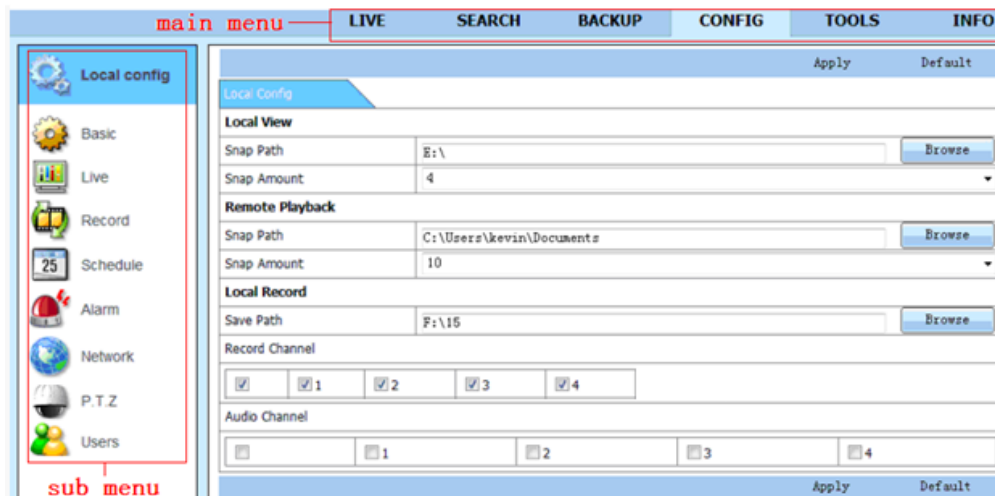
Fig 8-10 Remote System Configuration

The sub menu list and the options in every menu are similar to that of the NVR. Please refer to Chapter 5 Main Menu Setup Guide for more details.

8.6 Tools

Click on tool's tab to access the disk management tool. You can view the status of the HDD, change/view the read/write properties and can also format the HDD remotely.

8.7 Remote Information

The Info tab provides a web based interface to access the general information pertaining to the NVR's settings. It includes five submenus: System, Event, Log, Network and Online users. The sub menu list and the options in every menu are similar to that

of the NVR. Please refer to Chapter 7 System information for more details.

Fig 8-11 Remote Information Search

Note: There may be slight differences ith respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.

9 Mobile Surveillance

This NVR supports mobile surveillance by phones with android, Iphone OS. If you want to make mobile surveillance, please enable network service on the NVR first and refer to Chapter 5.6 Network configuration. The below is the use instructions on mobile client end for two OS.
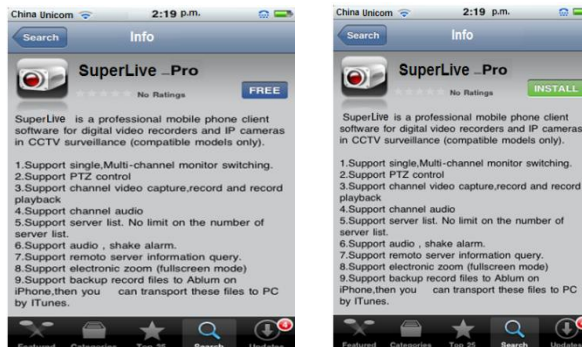
9.1 By phones with Iphone OS

1. Install through Iphone

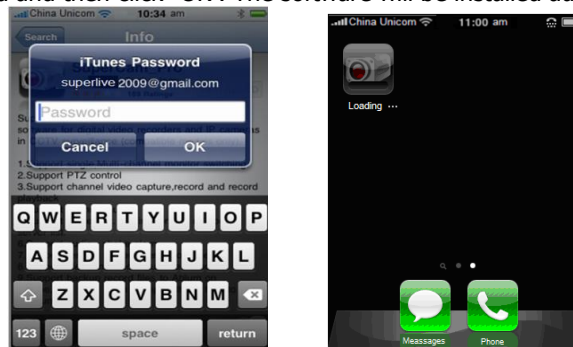Step 1. Open App Store function of Iphone.
Step 2. Enable "search" 🔍 function to search "Superlive".
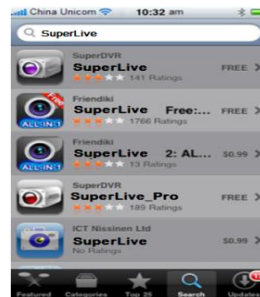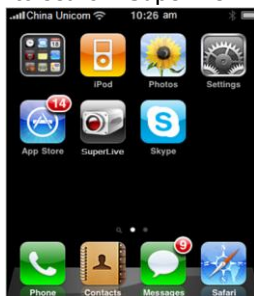
Step 3: Click Superlive-pro, enter into "introduce" interface and then click "FREE", it will change into "INSTALL".

Step 4: Input iTunes Store password and then click "OK". The software will be installed automatically.

Note: If it is the first time for user to operate, please enter user ID; if there is no Store account, user needs to apply for one.

2. Install through PC.

Step 1: Install iTunes store in PC and then login.   Step 2: Connect iPhone and PC.

Step 3: Enable "search"   function to search "Superlive-Pro".   Step 4: Click "free application" button.
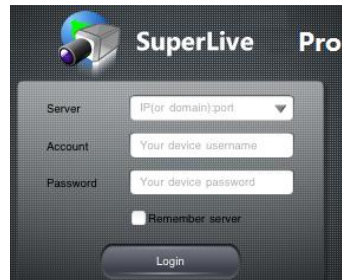
Step 5: Input apple ID and password, then click "acquire".

Step 6: Checkmark "synchronously apply program" and "Superlive-pro", and then click "apply" button .

Operation Instruction for Superlive-Pro

1. Login interface

Enter server's IP address (or domain name), user name and password Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

2. Main Interface

🛞	Image view	⊞	Four channel
🎞	Playback	⌾	Snap
⚙	Setting	🎞	Record
ⅲⅱ	Information view	🔊	Audio
🗐	Server list	🎤	Talk
🏃	Logoff	❀	Color
⬜	Single channel		

3. Image View

After the image is snapped, you can click 🛞 icon to enter into the image view interface. Select the image and click it to amplify this image. Then you can copy or delete the image. Click 'close' button to return to the previous interface.
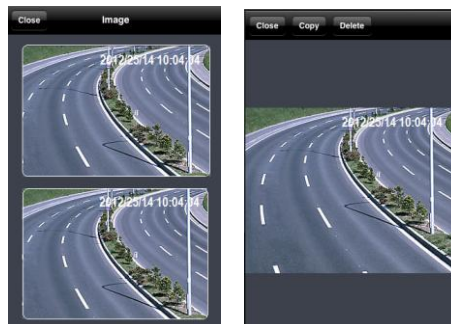
4. Playback

Click ![icon] icon to enter into the playback interface. Then click 'Search' button, select the time and channel to playback and click ![icon] button. Now you can see the local file list. Select a file and click play button to playback. You can also copy or delete the file. Finally, click 'Close' button to return to the previous interface.


You can also search file to playback through time search, event search and remote file search. Please click the related button.

5. Server list

Click ![icon] button to enter into server list interface. You can click ![icon] icon to add a server list. After you add the list, you can click ![icon] icon to edit the server information and click ![icon] icon to delete this server information.

6. Configuration interface
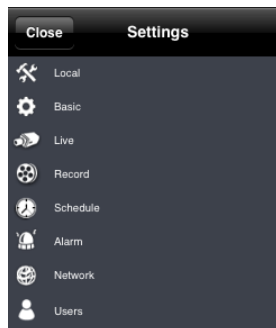
Click ![icon] icon to enter into Settings interface. You can set many properties, such as local, basic, live, record, schedule, alarm, network, etc. Please see chapter 5 in respect of setting steps for more details.

7. Information View Interface

Click ![icon] icon to enter into information view interface. You can check the information of system, network and online users. In the system interface, you can see the information of device name, device ID, hardware version, MCU version and so on. In the network interface, you can see the information of http port, server port, IP address, gateway, network status, etc. In the online users interface, you can see the information of the current online users.

9.2 By phones with Android OS

Software Installation
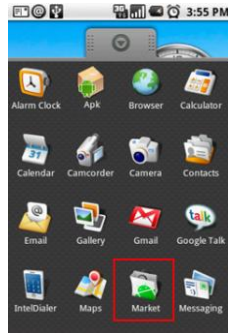
Step 1: Run Google Market program.
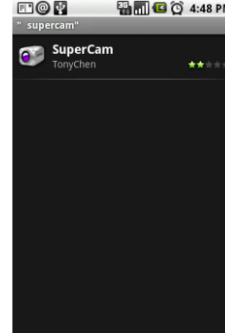
Step 2: Search"Supercam".
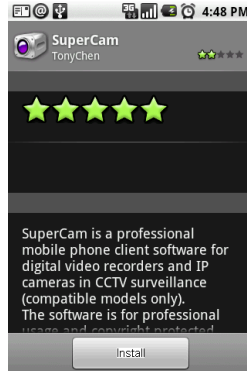
Step 3: Press "Install" button.
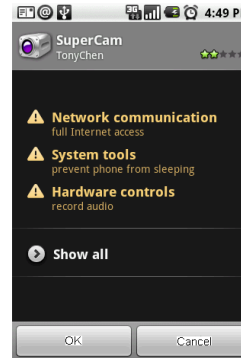
Step 4: Click "OK" button.
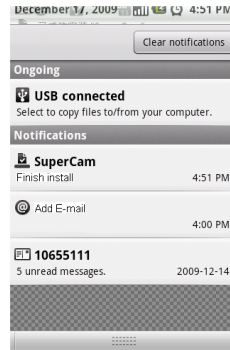
Step 5: User can view the download and install process in notifications; Once finishing downloading, the software will install automatically.

Login
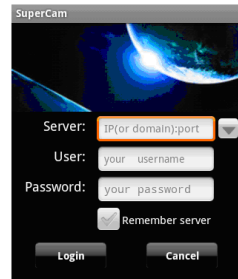
Enter into server's IP address (or domain name), user's ID and password.

Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

Main menu
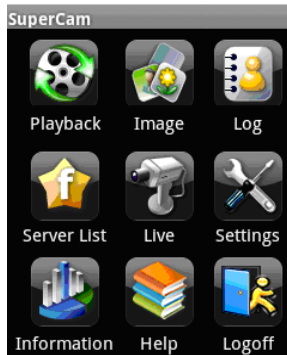
【Playback】	playback record file	【Image】	image view
【Log】	log record	【Server List】	device list
【Live】	live view	【Settings】	software setting
Information】	device information view	【Help】	software help center
【Logoff】	logoff and return to login interface		

Live view

■	Stop playing	▣	Single channel display
	Screen mode	⊞	Four channels display
◎	Snap	REC	Record
☎	Talk		Hide
🔊	Live audio		

Image view

	⏮	The first picture
	◀	The previous picture
	▶	Next picture
	⏭	The last picture
	🔍	Zoom in
	🔍	Zoom out
	🗑	Delete

Record playback
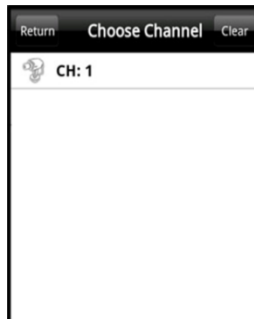
❚❚	Play/Pause
◼	Stop
»	Fast forward
«	Slow play

Click Playback icon in the Main Menu interface to enter into the playback interface. First, choose channel. Second, select the record file and click it to playback. Finally, click 'Return' button to return to the previous interface.

Server list

Add	Add a server list
Modify	Modify a server list
Delete	Delete a server list
Return	Return to the previous interface

Config interface
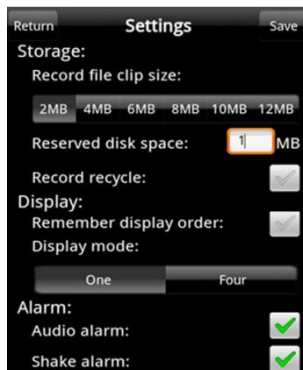
Alarm setting	If Audio alarm is enabled, when Video Loss/Sensor/Motion happen , sound alarm will be triggered; If shake Alarm is enabled, when Video Loss/Sensor/Motion happen , shake alarm will be triggered.
Storage setting	User can setup the relevant parameters of mobile video. This function can be valid only insert SD card.
Display setting	User can setup display order or display mode.

Information view

Appendix A FAQ

Q1. Why the NVR doesn't turn on even after connecting to the power?

a. The power adapter could have gone bad. Please change a new power adapter.

b. The power from the adapter may be not enough for operating the NVR. Please use the power adaptor supplied along with the NVR.

c. It could be a hardware problem.

Q2. There is no menu displayed and only has live image display.

a. Check whether the monitor is connected to the main video out . The monitor might be connected to VGA /HDMI port whereas the NVR may be set for output through BNC or vice versa. Long press ESC key to toggle the output modes.

Q3. The NVR LED turns on, however there is no output.

a. The power from the adapter may be not enough for operating the NVR. Please use the power adaptor supplied along with the NVR.

b. It could be a wiring issue. Please check the connection for the same.

c. Check the monitor settings.

Q4. Why are no images displayed on few or all the channels of the NVR?

a. It could be a wiring issue. Please check the cable and the ports of the cameras.

b. The problem can also be related to cameras. Please check the same.

c. Please make sure that you have added and enabled the cameras.

Q5. No HDD can be found.

a. The power from the adapter may be not enough for operating the NVR. Please use the power adaptor supplied along with the NVR.

b. It could be a wiring issue. Please check the power and data cables of the HDD.

c. The HDD could have gone bad. Change a new one.

Q6. The system cannot record.
a. Make sure the HDD was formatted prior to use.
b. Maybe the user hasn't enabled the record function or has done incorrect setup. Please refer to Chapter 5.
c. Maybe HDD is full and thus the NVR is not able to record. Check HDD information from Disk management and if required, please enable the recycle function.
d. Check the attributes of the HDD. It might be set to read only mode.
e. The HDD could have gone bad. Please change another one.

Q7. Mouse does not work.
a. The mouse should be connected to the USB port at the rear side.
b. After connecting the mouse, allow the NVR to detect the mouse for seconds. If not detected, try restarting the NVR.
c. The mouse may be incompatible or faulty. Please change a mouse.

Q8. ActiveX control cannot be downloaded.
a. IE browser blocks activeX. Please do setup as per the steps mentioned below.
① Open IE browser. Click Tools-----Internet Options….
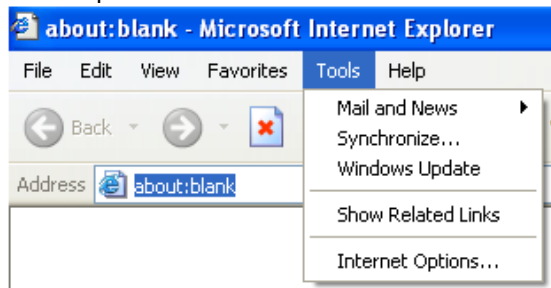
② select Security------Custom Level….Refer to Fig 8-1.

③ Enable all the sub options under "ActiveX controls and plug-ins". Refer to Fig 8-2.

④ Then click ok to finish setup.

b. Other plug-ins or anti-virus may block ActiveX. Please disable or do the required settings.

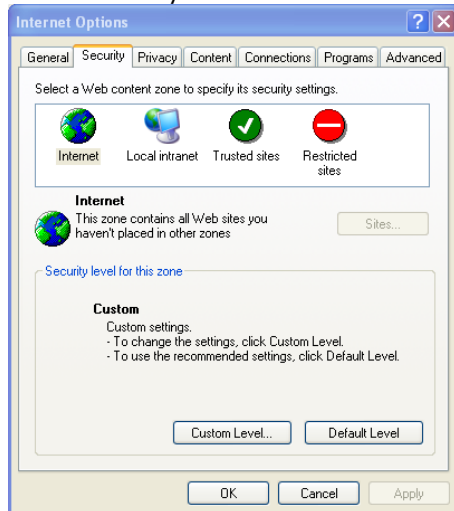Fig 8-1   Fig 8-2
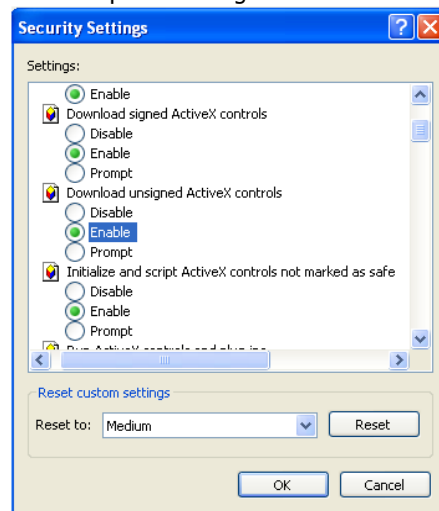
Q9: NVR displays "please wait…"all the time.

a.HDD power cable and data cable may not be well connected. Please check the connections for HDD.

b. It is also possible that the NVR was forced to stop because HDD has a bad sector and it may have caused the system to halt. Check with a good known HDD or try formatting the existing HDD.

Q10: How to input password and numbers in the interface?
Click the password or the input box a small keyboard will pop up. Please select characters to be input (the initial password is 123456), or you can use the digital keys on the front panel, or the digital keys on the remote controller.

Q11: A hard disk is being identified as a new device however it was being used with another NVR of same model. Should it be formatted prior use?
It is possible to migrate an HDD from one NVR to another provided that the NVRs are of the same model and that the HDD being migrated would be used as the sole disk in the new NVR. However in cases where the new NVR already contains a HDD, the migrated disk being installed would have to be formatted. In general migrating disks from one NVR to another is not recommended.

Q12: What is the minimum configuration required for remote monitoring?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200 ATIRADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA
DirectX	9.0

Q13: How to handle the situation that the codec Control is blocked when downloading in the VISTA or Win7 system?
This problem can be fixed in two ways:

a. Enter Control Panel→User Account and Family Safety → User Account Control (refer to Fig 13-1); click Turn User Account on or off. Cancel Use User Account Control (UAC) to help protect your computer.
b. Right click IE browser (refer to Fig 13-2), select Run as administrator to run browser.
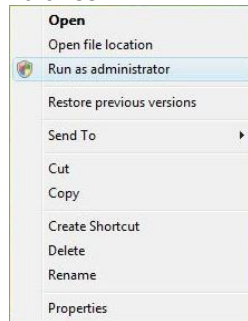

Fig 13-1   Fig 13-2

Q14. How to play the backup file?

a. Insert your USB device where the backup files are saved in the USB port of PC. If your files are saved in NVR format, you must have already downloaded the backup player box before doing backup. Then double click to open your USB disk to find your backup files and backup player. Double click icon to install backup player.

b. After you install it, open this player and click "Open Path" button to open your backup file. Next, click play button to play the backup file. Double click the image and then right click to enable audio. If you save your backup files in AVI format, you can directly open your file by using the media player which supports this format.
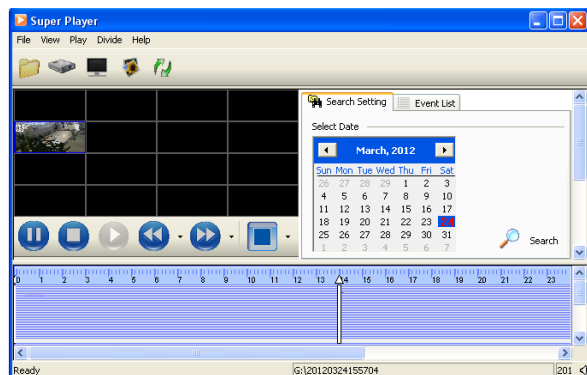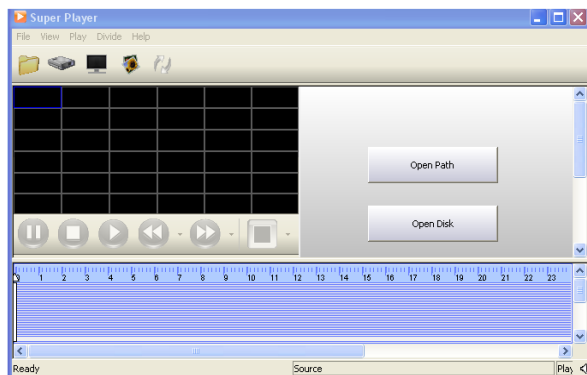
Appendix B   Calculate Recording Capacity

You can calculate the size of hard disk according to the saving time and NVR recording settings. The NVR uses fixed video bit rate. The below are the details at different settings. The used space (MB/H) = Bitrate ÷ 8× 3600 ÷ 1024.

Resolution	Bit Rate (kbps)	Used Space(MB/h)
1080P	12M	5400
	8M	3600
	7M	3150
	5M	2250
	3M	1350
720P	6M	2700
	4M	1800
	2M	900
	1M	450
	256	113

The calculation format is: **Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) × recording time (hour) ×channel numbers**
For instance, one customer set resolution to1080P, frame rate to 25fps, bitrate to 2048kbps Lowest for enabling total 4 channels. He wants the unit to record continuously in a month. Below is the calculation:
Total Recoding capacity =900 (mb/h) X 24(hours/day) X30(days) X4 (channels)= 2592000 (MB)=2531.25(GB)
Therefore, customers just install one SATA HDDs with 2.5TB, it can almost record for one month.

Appendix C   Compatible Devices

1. **Compatible USB drive after test.**

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB
Aigo	2GB
Smatter vider	1GB
SanDisk	4GB

2. **Compatible HDD list**

Brand	Capacity
Seagate Barracuda	80G/160G/250G/320G /1.5T/2TB
Seagate SV35.3	1T
Seagate Pipeline HD.2	500G
Maxtor Diamondmax	160G
HITACHI Deskstar	80G/160G
WD WD1600JS	160G
Samsung HD161HJ	160G

Appendix D   Specifications

Compression format	H.264
Video output	Composite：1.0V p-p/75Ω BNC×1, VGAX1, HDMI×1
HDMI/VGA Resolution	1920*1080/1280*1024/ 800*600
Record Resolution	1080P/720P/VGA
Display Frame Rate	100fps (PAL); 120fps (NTSC)
Record Frame Rate	100fps (PAL); 120fps (NTSC)
Audio input	RCA X1
Audio output	RCA X1
Alarm Input	NO or NC 4CH
Alarm output:	1CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2 (one for backup, another for USB mouse)
Disk info	SATA x 1
Remote controller	YES
Power Supply	DC12V
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤30W