

Mobile DVR User's Manual

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Welcome

Thank you for purchasing our DVR!

This operating manual is designed to be a reference tool for the installation and operation of your system.

Here you can find information about this series DVR features and functions, as well as a detailed menu tree.

Before installation and operation please read the following safeguards and warnings carefully!

Important Safeguards and Warnings

1 . Electrical safety

All installation and operation here should conform to local electrical safety codes. We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

2 . Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3 . Installation

Keep upwards. Handle with care.

Do not apply power to the DVR before completing installation.

Do not place objects on the DVR

4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.

We are not liable for any problems caused by unauthorized modifications or attempted repair.

5 . Environment

The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

6. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included:

1 FEATURES AND SPECIFICATIONS

		Specification	
System	OS		LINUX
	Operation Interface		Graphic user interface
	Operation Method		1.Remote control 2.Mouse 3.Network keyboard 4.Network
	External Interface		1.Power input port 2.Audio/Video input port 3.Video output port 4.Audio output port 5.High-speed USB2.0 port 6.RS232 port 7.RJ45 network port
	Storage Device		2.5 inches HDD as the main storage device
	Record Mode		1.Automatically begin record once boots up 2. Schedule auto record. Delayed turn off. 3.Activation record once alarm occurs
	Playback Mode	Search(support search engineers)	1.Time 2.Alarm 3.Channel
		Playback Control	1.Freely switch video playback file 2. Integrate multiple playback speeds such as normal playback, slow speeds or fast speeds.
Record	Record	Video	4-Ch real-time record
		Audio	4-ch audio input
	Video Input Format/Standard		PAL (625 Line, 50f/s) /NTSC (525 Line, 60f/s)
	Video Input Port Parameter	Port	BNC
		Input Resistance	75Ω
		Input Signal	1.0Vp-p
	Video Output Port Parameter	Port	BNC
		Output Resistance	75Ω
		Output Signal	1.0Vp-p
	Real-time Monitor Video Resolution		704×576 (PAL) /720×480 (NTSC)
	Real-time Monitor Plane Definition		440 TV Line
	Record Compression Method		H.264
	Video Record Speed		PAL: 1-25f/s(Adjustable) NTSC: 1-30f/s(Adjustable)
	Record Resolution	CIF	PAL: 352×288
			NTSC: 360×240
	Record Video Quality		1-6 level (Adjustable)
	Playback Plane Resolution		240 TV Line
	Record Video Information		Time information
		Channel information	
		Vehicle information	

	Record Backup Method		Plate number
			Temperature
			High-speed USB2.0 mobile device support local backup.
	Record Video Bit stream		1-ch CIF: 40~460MB/H (Depends on the video content)
	Record file Way		Create a file at 10M/15M/20M/30M/60M
	Audio Input Port Parameter	Port	BNC
		Input Resistance	20K Ω
		Input Signal	200~2800mV
	Audio Output Port Parameter	Port	BNC
		Output Resistance	1K Ω
Output Signal		200~2800mV	
Audio Output Signal to Noise Ratio		≥ 75 dB	
Audio Sampling	Sampling Frequency	8KHz	
	Sampling Bit	16-bit	
Audio Encode Method		PCM	
Audio Bit Stream		56.25MB/H	
Auxiliary Function	Scheduled boot up		Support scheduled boot up function to make sure there are recorded video in the specified period,
Others	Vibration		≥ 8 H@ frequency 0~100Hz, Extent:10MM
	Rated Power		+12V / +24V / +42V (+8V~+60V)
	Rated Current		≤ 1 A (Including HDD)
	Start Current		≤ 1.5 A
	Average Power		10W (Including HDD)
	Temperature		0 $^{\circ}$ C~+60 $^{\circ}$ C (Ordinary HDD)
	Humidity		10%~95%
	Atmosphere Pressure		86Kpa~106Kpa
	Net Weight		1.7Kg (Including HDD)
	Unit Dimension		179(W) \times 54(H) \times 185(D) mm
Installation		Rack Installation	

Features and specification are subject to change without prior notice.

2 OVERVIEW AND CONTROLS

This section provides information about front panel and rear panel. If you install this series DVR for the first time, please refer to this part first.

2.1 Front Panel

This series DVR front panel is shown as in Figure 2-1 .

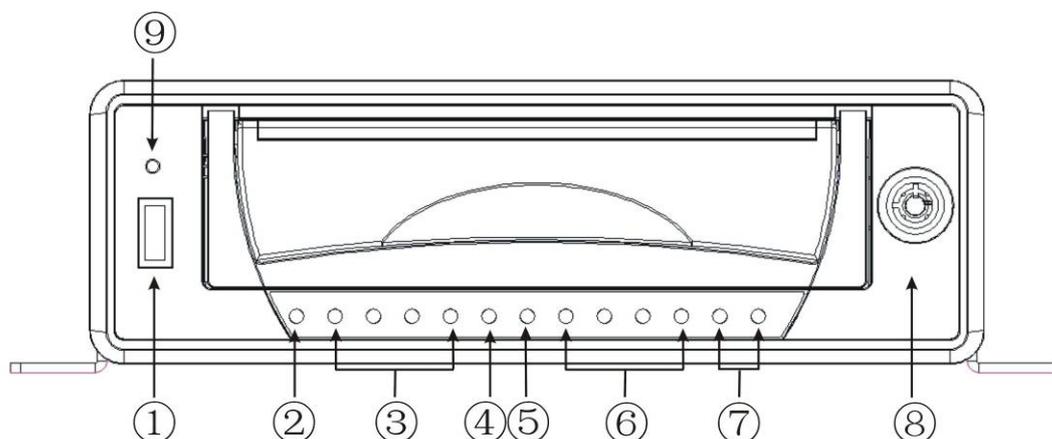


Figure 2-1

- ① USB 2.0 data port
- ② Power indication light: It becomes on when connect device to the power.
- ③ 1-4ch record status indication light: It becomes on when record. It flashes when there is abnormal situation.
- ④ backup indication light: It flashes when system backups. It becomes on when backup completes.
- ⑤ Upgrade indication light.
- ⑥ 1-4ch alarm input light. It becomes on when there is input alarm.
- ⑦ .2-ch alarm output indication light. It becomes on when there is output alarm.
- ⑧ Door key
- ⑨ IR remote control receiver.

2.2 Remote Control

The remote control interface is shown as in Figure 2-2.

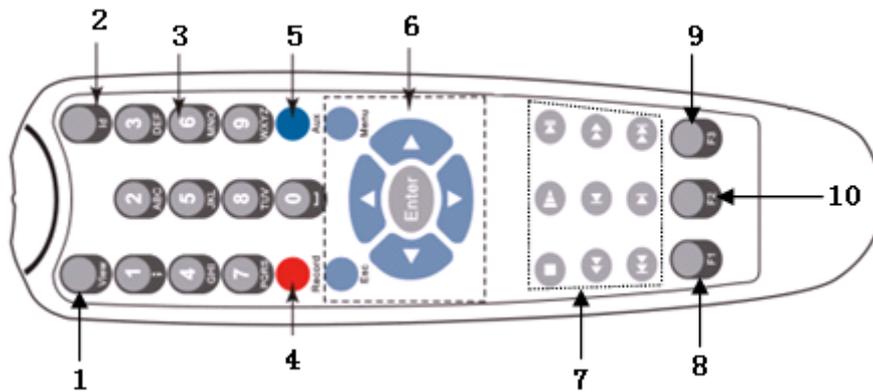


Figure 2-2

SN	Name	Function
1	View	Video switch
2	ID	Press this button and then input DVR serial number to control this DVR
3	Numeral	0-9 number key. You can input password, numeral or switch channel
4	Record	Record video
5	Aux	Auxiliary key
6	Enter	Confirm /menu key
	Menu	Pop up menu
	Esc	Cancel
	▲	Direction keys
	◀ ▶	Direction keys in PTZ control
	▼	
7	■	Stop
	◀▶	Zoom- in PTZ control
	▶	Slow play
	▶	Playback/Pause
	◀◀	Zoom + in PTZ control
	◀◀	Backward
	◀	Previous section
	▶▶	Forward
	◀◀	Slow forward: Various slow play speeds and normal Playback mode. Focus- in PTZ control
	▶	Next section
	▶▶	Fast forward: Various fast forward speeds and normal playback mode. Focus + in PTZ control
8	F1	One-key backup button
9	F2	Reserved for future use
10	F3	Reserved for future use

2.3 Mouse Control

Left click mouse	System pops up password input dialogue box if you have not logged in.
	In real-time monitor mode, you can go to the main menu.
	When you have selected one menu item, left click mouse to view menu content.
	Implement the control operation.
	Modify checkbox or motion detection status.
	Click combo box to pop up drop down list
Left click mouse	In input box, you can select input methods. Left click the corresponding button on the panel you can input numeral/English character (small/capitalized). Here ← stands for backspace button. _ stands for space button.
	In English input mode: _stands for input a backspace icon and ← stands for deleting the previous character.
	
	In numeral input mode: _ stands for clear and ← stands for deleting the previous numeral.
Left click mouse	When input special sign, you can click corresponding numeral in the front panel to input. For example, click numeral 1 you can input"/" , or you can click the numeral in the on-screen keyboard directly.
	
Double left click mouse	Implement special control operation such as double click one item in the file list to playback the video.
	In multiple-window mode, double left click one channel to view in full-window. Double left click current video again to go back to previous multiple-window mode.
Right click mouse	Exit main menu and go to the preview interface.
	Exit current menu without saving the modification.
Press middle	In numeral input box: Increase or decrease numeral value.
	Switch the items in the check box.

button	Page up or page down
Move mouse	Select current control or move control
Drag mouse	Select motion detection zone
	Select privacy mask zone.

3 Installation and Connections

Note: All the installation and operations here should conform to your local electric safety rules.

3.1 Check Unpacked DVR

When you receive the DVR from the shipping agency, please check whether there is any visible damage to the DVR appearance. The protective materials used for the package of the DVR can protect most accidental clashes during transportation. Then you can open the box to check the accessories.

Please check the items in accordance with the list on the warranty card. Finally you can remove the protective film of the DVR.

3.2 Device installation

Please refer to *Vehicle DVR Installation Manual*.

4 Overview of Navigation and Controls

Before operation, please make sure you have properly installed HDDs and all the cable connections.

4.1 Login, Logout & Main Menu

4.1.1 Login

Turn the key to ACC, you can see power indication light becomes on and DVR boots up (DVR boots up might take several seconds). System is in multiple-window preview mode after boots up and record setup is continuous record mode. You can see corresponding channel indication light becomes on and record indication light becomes on too.

After the system boots up, default video display is in multiple-window mode. Click Enter or left click mouse, you can see the login interface. See Figure 4-1. System consists of four accounts:

- Username: **admin**. Password: **admin**. (administrator, local and network)
- Username: **888888**. Password: **888888**. (administrator, local only)
- Username: **666666**. Passwords: **666666**(Lower authority user who can only monitor, playback, backup and etc.)
- Username: **default**. Password: **default**(hidden user)

For your system security, please modify your password after first login.

You can use USB mouse, front panel, remote controller or keyboard to input.

About input method: Click **123** to switch between numeral, English character (small/capitalized) and denotation.



Figure 4-1

4.1.2 Main Menu

When you logged in, the system main menu is shown as below. See Figure 4-2. There are total six icons: search, information, setting, backup, advanced and shutdown. Move the cursor to highlight the icon, then left click mouse to enter the sub-menu.

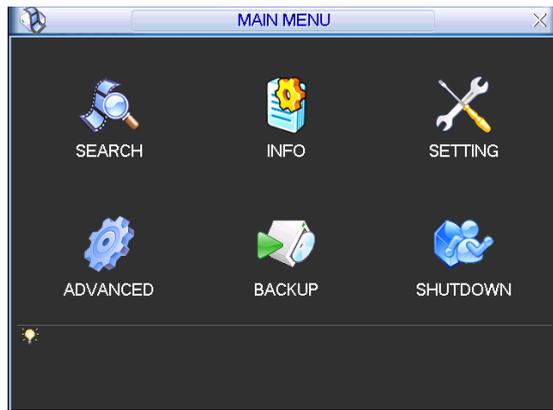


Figure 4-2

4.1.3 Logout

There are two ways for you to log out.

One is from menu option:

In the main menu, click shutdown button, you can see an interface is shown as below. See Figure 4-3.

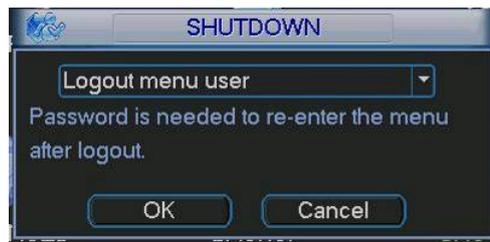


Figure 4-3

There are several options for you. See Figure 4-4.

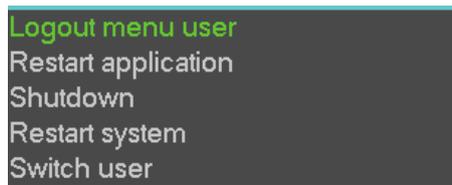


Figure 4-4

The other way is to press power button on the front panel for at least 3 seconds, system will stop all operations. Then you can click the power button in the rear panel to turn off the DVR.

System supports ACC delaying function. The value ranges from 0 to 255(Unit: minute). System can delay shutting down for the specified time and then turn off.

4.1.4 Auto Resume after Power Failure

The system can automatically backup video and resume previous working status after power failure.

4.2 Recording Operation

4.2.1 Live Viewing

After you logged in, the system is in live viewing mode. You can see system date, time and channel name. Here you can also view longitude, latitude and vehicle speed.

If you want to change system date and time, you can refer to general settings (Main Menu->Setting->General). If you want to change the channel name, please refer to the display settings (Main Menu->Setting->Display). See Figure 4-4.



Longitude/latitude and vehicle speed

Figure 4-5

1		Recording status	3		Video loss
2		Motion detection	4		Camera lock
5	LON	longitude	6	LAN	Latitude
7	SOG	Vehicle speed			

Note: Please refer to the following sheet for channel status. stands for opening switch function, stands for closing switch function.

4.2.2 Manual record

Note:

You need to have proper rights to implement the following operations. Please make sure the HDDs have been properly installed.

4.2.2.1 Manual record menu

There are two ways for you to go to manual record menu.

- Right click mouse or in the main menu, Advanced->Manual Record.
- In live viewing mode, click record button in the front panel or record button in the remote control.

Manual record menu is shown as in Figure 4-6.

4.2.2.2 Basic operation

There are three statuses: schedule/manual/stop. Highlight icon “○” to select corresponding channel.

- Manual: the highest priority. After manual setup, all selected channels will begin ordinary recording.
- Schedule: channel records as you have set in recording setup (Main Menu->Setting->Schedule)
- Stop: all channels stop recording.



Figure 4-6

4.2.2.3 Enable/disable record

Please check current channel status: “○” means it is not in recording status, “●” means it is in recording status.

You can use mouse or direction key to highlight channel number. See Figure 4-7.



Figure 4-7

4.2.2.4 Enable all channel recording

Highlight ○ below All, you can enable all channel recording.

- All channel schedule record

Please highlight “ALL” after “Schedule”. See Figure 4-8.

When system is in schedule recording, all channels will records as you have previously set (Main menu->Setting->Schedule).

The corresponding indication light in front panel will turn on.



Figure 4-8

- All channel manual record

Please highlight “ALL” after “Manual.” See Figure 4-9.

When system is in manual recording, all scheduled set up you have set in will be null ((Main menu->Setting->Schedule)).

You can see indication light in front panel turns on, system begins manual record now.



Figure 4-9

4.2.2.5 Stop all channel recording

Please highlight “ALL” after “Stop”. See Figure 4-10.

System stops all channel recording no matter what mode you have set in the menu (Main menu->Setting->Schedule)



Figure 4-10

4.3 Search & Playback

4.3.1 Search Menu

There are two ways for you to go to search menu.

- Click Pause/Play button in the remote control.
- Click search in the main menu.

Search interface is shown as below. See Figure 4-11.

Usually there are three file types:

- R: regular recording file.
- A: external alarm recording file.
- M: motion detection recording file

There are several playback windows. This System supports 1-ch playback.

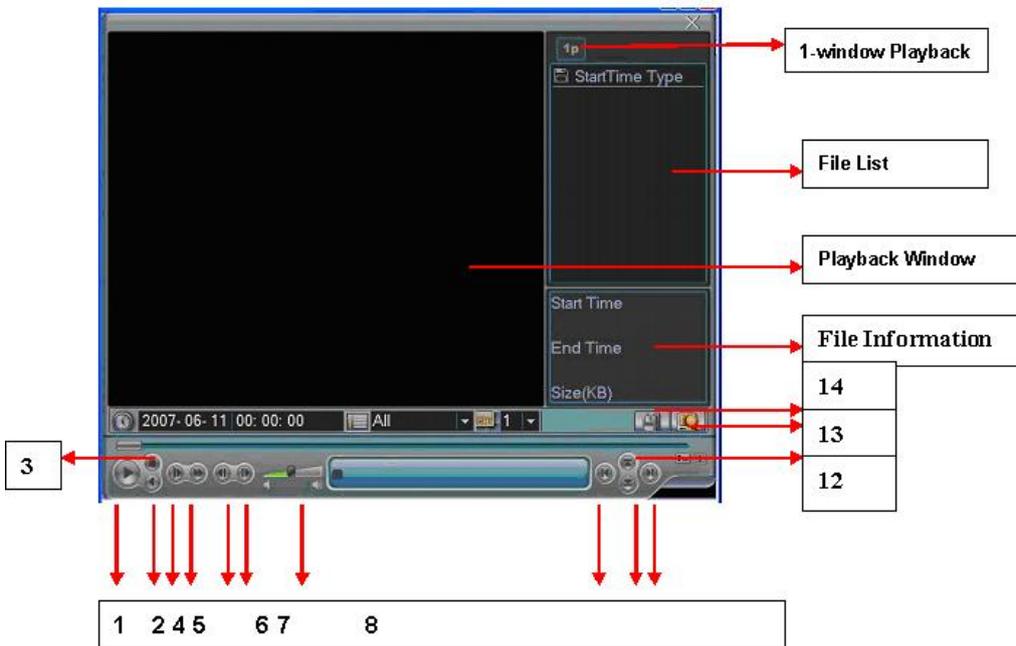


Figure 4-11

Please refer to the following sheet for more information.

Serial Number	Function
1	Play
2	Backward
3	Stop
4	Slow play
5	Fast play
6	Previous frame
7	Next frame
8	Volume
9	Previous file
10	Next channel
11	Next file
12	Previous channel
13	Search
14	Backup

4.3.2 Basic Operation

4.3.2.1 Playback

There are various search modes: video type, channel number or time. The system can max display 128 files in one screen. You can use up/down button to turn page.

Select the file name and double click mouse (or click enter button), you can view file content.

4.3.2.2 Accurate playback

Input time (h/m/s) in the time column and then click playback button, system can operate accurate playback.

4.3.2.3 Synchronized playback function when playback

During playback process, click numeral key, system can switch to the corresponding channel video of the same time.

4.3.2.4 Digital zoom

When the system is in full-screen playback mode, drag your mouse in the screen to select a section and then left click mouse to realize digital zoom. You can right click mouse to exit.

4.3.2.5 File backup

System supports backup operation during search. You can draw a ✓ before file name (multiple choices). Then click backup button (Button 14 in Figure 4-11).

Note:

All the operations here (such as playback speed, channel, time and progress) have relationship with hardware version. Some series DVRs do not support some functions or playback speeds.

4.4 Record Setup (Schedule)

When the system boots up, it is in default 24-hour regular mode. You can set record type and time in schedule interface.

4.4.1 Schedule Menu

In the main menu, from setting to schedule, you can go to schedule menu. See Figure 4-12.

There are three record types: R-Regular, MD-Motion detection, A- Alarm.

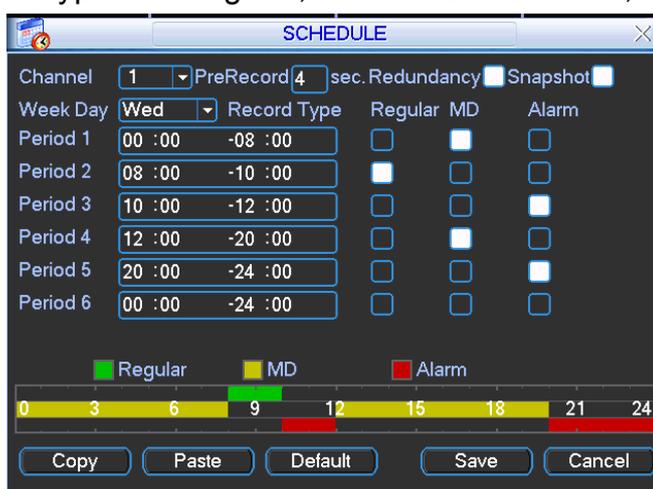


Figure 4-12

4.4.2 Basic Operation

There are total six periods. See Figure 4-12.

- Channel: Please select the channel number first. You can select “all” if you want to set for the whole channels.
- Week day: There are eight options: ranges from Saturday to Sunday and all.

- Redundancy: System supports redundancy backup function. You can highlight Redundancy button to activate this function. Please note, before enable this function, please set at least one HDD as redundant. Refer to the manual for detailed information.
- Prerecord: System supports prerecord function. The previous one to three seconds video before alarm occurs can be included in recorded video.
- Snapshot: You can enable this function to snapshot image when alarm occurs.
- Record types: There are three types: regular, motion detection (MD) and Alarm.

Please highlight icon  to select the corresponding function. After all the setups please click save button, system goes back to the previous menu.

At the bottom of the menu, there is a color bar for your reference. Green stands for regular recording, yellow stands for motion detection and red stands for alarm recording.

4.4.1.1 Quick Setup

This function allows you to copy one channel setup to another. After setting in channel 1, you can click paste button and turn to channel 2 and then click copy button. You can finish setting for one channel and then click save button or you can finish all setup and then click save button to memorize all the settings.

4.4.1.2 Redundancy

Redundancy function allows you to memorize record file in several disks. These files are created, packaged and closed simultaneously. When there is file damage occurred in one disk, there is a spare one in the other disk. You can use this function to maintain data reliability and safety.

In the main menu, from Setting to Schedule, you can highlight redundancy button to enable this function. See Figure 4-12.

In the main menu, from Advanced to HDD management, you can set one or more disk(s) as redundant. You can select from the dropdown list. See Figure 4-13.

System auto overwrites old files once hard disk is full.

Please note only read/write disk or read-only disk can backup file and support file search function, so you need to set at least one read-write disk otherwise you can not record video.

Note:

About redundancy setup please note:

- If current channel is not recording, current setup gets activated when the channel begin recording the next time.
- If current channel is recording now, current setup will get activated right away, the current file will be packet and form a file, then system begins recording as you have just set.

After all the setups please click save button, system goes back to the previous menu.



Figure 4-13

Playback or search in the redundant disk.

There are two ways for you to playback or search in the redundant disk.

- Set redundant disk(s) as read-only disk or read-write disk (Main menu->Advanced->HDD management). See Figure 4-13. System needs to reboot to get setup activated. Now you can search or playback file in redundant disk.
- Dismantle the disk and play it in another PC.

4.5 Detect

4.5.1 Go to Detect Menu

In the main menu, from Setting to Detect, you can see motion detect interface.

See Figure 4-14.

4.5.2 Detect

Detection menu is shown as below. See Figure 4-14.

- Channel: select the channel you want to implement motion detection.
- Event type: from the dropdown list you can select motion detection type.
- Channel: select the channel to activate recording function once alarm occurred. Please make sure you have set MD record in encode interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)
- Latch: when motion detection completed, system auto delays detecting for a specified time. The value ranges from 10-300(Unit: second)
- Region: Click select button, the interface is shown as in Figure 4-15. Here you can set motion detection zone. There are 396(PAL)/330(NTSC) small zones.
- Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Send email: System can send out email to alert you when alarm occurs.
- PTZ activation: Here you can set PTZ movement when alarm occurs. Such as go to preset, tour & pattern when there is an alarm. Click “select” button, you can see an interface is shown as in Figure 4-16.
- Period: Click set button, you can see an interface is shown as in Figure 4-17. Here you can set for business day and non-business day. In Figure 4-17, click set

button, you can see an interface is shown as in Figure 4-18. Here you can set your own setup for business day and non-business day.

- Anti-dither: Here you can set anti-dither time.
- Sensitivity: there are six levels. The sixth level has the highest sensitivity.
- Alarm output: when alarm occurred, system enables peripheral alarm devices.
- Tour: Here you can enable tour function when alarm occurs. It is a one-window tour. Please go to chapter 5.3.9 Display for tour interval setup.
- Snapshot: System can snapshot when alarm occurs.

Please highlight icon  to select the corresponding function. After all the setups please click save button, system goes back to the previous menu.

Note:

In motion detection mode, you can not use copy/paste to set channel setup since the video in each channel may not be the same.

In Figure 4-15, you can left click mouse and then drag it to set a region for motion detection. Click Fn to switch between arm/withdraw motion detection. After setting, click enter button to exit.

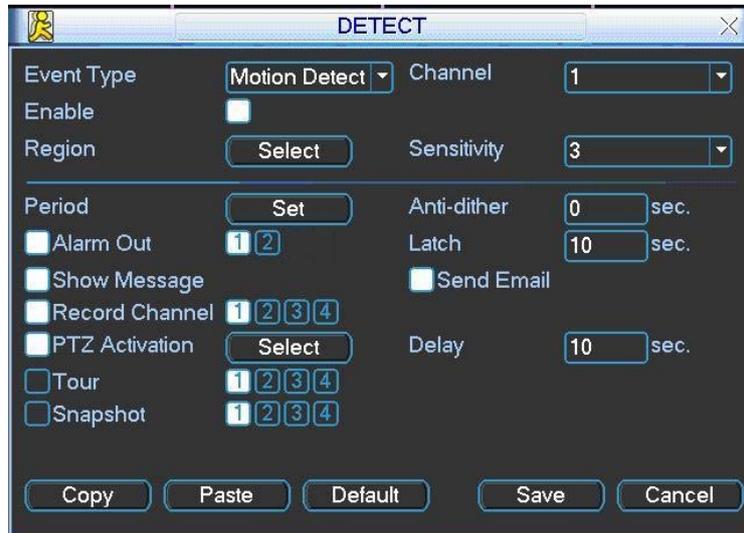


Figure 4-14

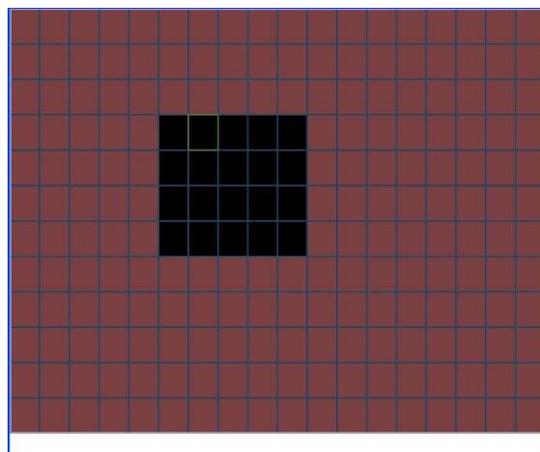


Figure 4-15



Figure 4-16

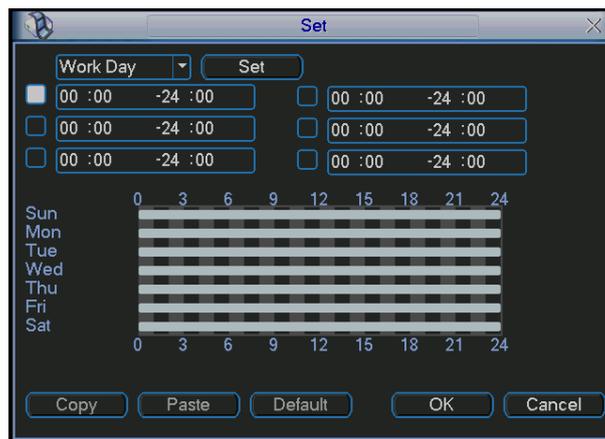


Figure 4-17

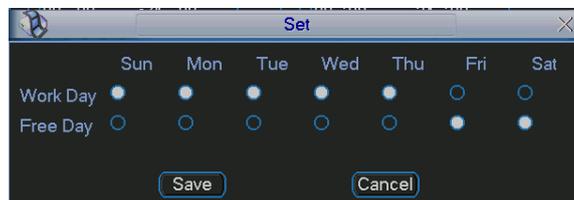


Figure 4-18

4.5.3 Video Loss

In Figure 4-14, select video loss in the Type item. You can see the interface is shown as in Figure 4-19. This function allows you to be informed when video loss phenomenon occurred. You can enable alarm output channel and then enable show message function.

- Channel: select the channel you want to enable lens shading alarm.
- Event type: please select video loss.
- Channel: select the channel to record when video loss occurred.
- Alarm output: activate peripheral alarm device when video loss occurred.
- Latch: when motion detection complete, system auto delays detecting for a specified time. The value ranges from 10-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Send email: System can send out email to alert you when alarm occurs.

- PTZ activation: Here you can set PTZ movement when alarm occurs. Such as go to preset, tour & pattern when there is an alarm. Click “select” button, you can see an interface is shown as in Figure 4-16.
- Period: Click set button, you can see an interface is shown as in Figure 4-17. Here you can set for business day and non-business day. In Figure 4-17, click set button, you can see an interface is shown as in Figure 4-18. Here you can set your own setup for business day and non-business day.
- Sensitivity: there are six levels. The sixth level has the highest sensitivity.
- Alarm output: when alarm occurred, system enables peripheral alarm devices.
- Tour; Here you can enable tour function when alarm occurs. It is a one-window tour. Please go to chapter 5.3.9 Display for tour interval setup.
- Snapshot: System can snapshot when alarm occurs.

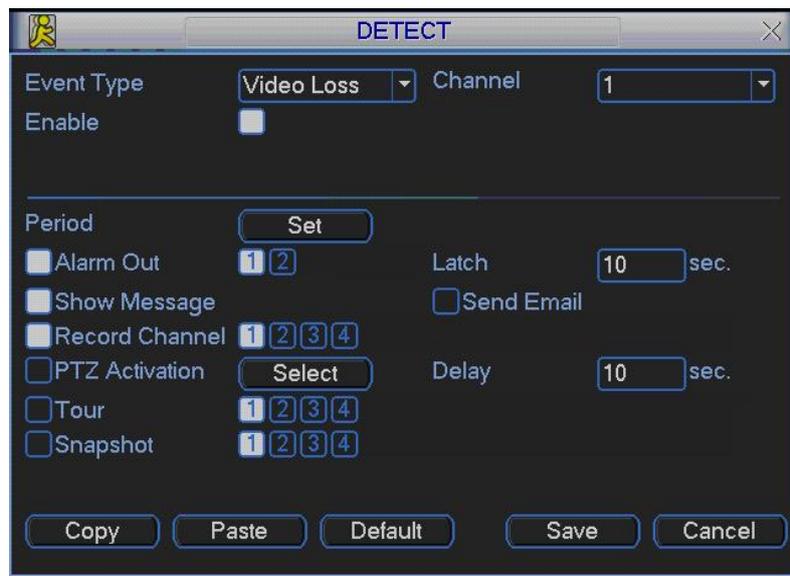


Figure 4-19

4.5.4 Camera Mask Detect

When someone viciously masks lens, the system can alert you to guarantee video continuity. Camera mask detection interface is shown as in Figure 4-20.

- Channel: select the channel you want to enable camera mask detection function.
- Event type: please select camera mask detect from the dropdown list.
- Channel: select the channel to record when camera mask occurred.
- Alarm output: activate peripheral alarm device when camera mask occurred.
- Enable tour: Here is for you to activate tour between different cameras.
- Latch: when motion detection complete, system auto delays detecting for a specified time. The value ranges from 10-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Send email: System can send out email to alert you when alarm occurs.
- PTZ activation: Here you can set PTZ movement when alarm occurs. Such as go to preset, tour & pattern when there is an alarm. Click “select” button, you can see an interface is shown as in Figure 4-16.

- Period: Click set button, you can see an interface is shown as in Figure 4-17. Here you can set for business day and non-business day. In Figure 4-17, click set button, you can see an interface is shown as in Figure 4-18. Here you can set your own setup for business day and non-business day.
- Sensitivity: there are six levels. The six-level has the highest sensitivity.
- Alarm output: when alarm occurred, system enables peripheral alarm devices.
- Tour: Here you can enable tour function when alarm occurs. It is a one-window tour: Please go to chapter 5.3.9 Display for tour interval setup.
- Snapshot: System can snapshot when alarm occurs.

Note:

In this interface, copy/paste function is only valid for the same type, which means you can not copy a channel setup in video loss mode to camera mask detect mode.



Figure 4-20

4.6 Alarm Setup and Alarm Activation

Before operation, please make sure you have properly connected alarm devices such as buzzer.

4.6.1 Go to alarm setup interface

In the main menu, from Setting to Alarm, you can see alarm setup interface. See Figure 4-21.

4.6.2 Alarm setup

Alarm interface is shown as below. See Figure 4-21.

- Alarm in: here is for you to select channel number.
- Event type: there are two types. One is local input and the other is network input.
- Type: normal open or normal close.

- PTZ activation: Here you can set PTZ movement when alarm occurs. Such as go to preset, tour & pattern when there is an alarm. Click “select” button, you can see an interface is shown as in Figure 4-25.
- Period: Click set button, you can see an interface is shown as in Figure 4-23. Here you can set for business day and non-business day. In Figure 4-23, click set button, you can see an interface is shown as in Figure 4-24. Here you can set your own setup for business day and non-business day.
- Anti-dither: Here you can set anti-dither time.
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Send email: System can send out email to alert you when alarm occurs.
- Record channel: you can select proper channel to record alarm video (Multiple choices). At the same time you need to set alarm record in schedule interface (Main Menu->Setting->Schedule) and select schedule record in manual record interface (Main Menu->Advance->Manual Record).
- Latch: Here is for you to set proper delay duration. Value ranges from 10 to 300 seconds. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.
- Tour: Here you can enable tour function when alarm occurs. It is a one-window tour: Please go to chapter 5.3.9 Display for tour interval setup.
- Snapshot: System can snapshot when alarm occurs.

Please highlight icon  to select the corresponding function. After completed all the setups please click save button, system goes back to the previous menu.

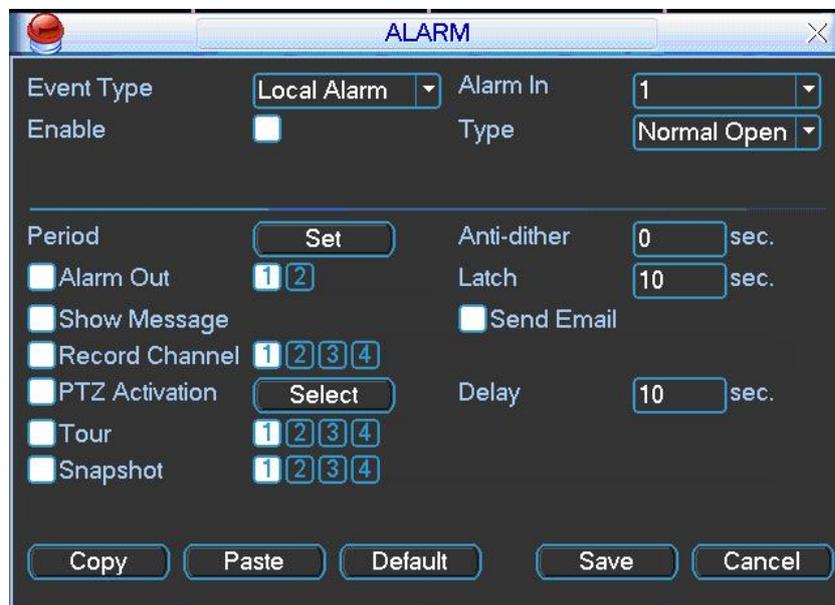


Figure 4-21

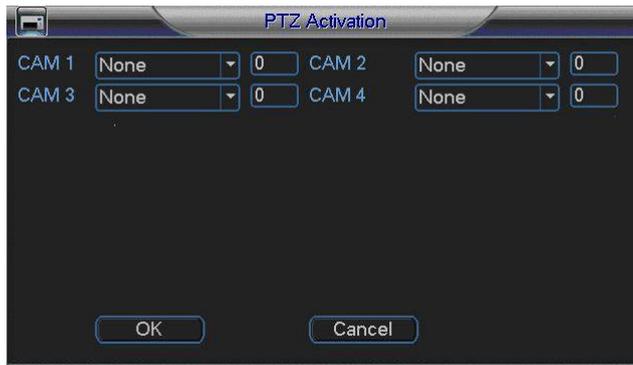


Figure 4-22

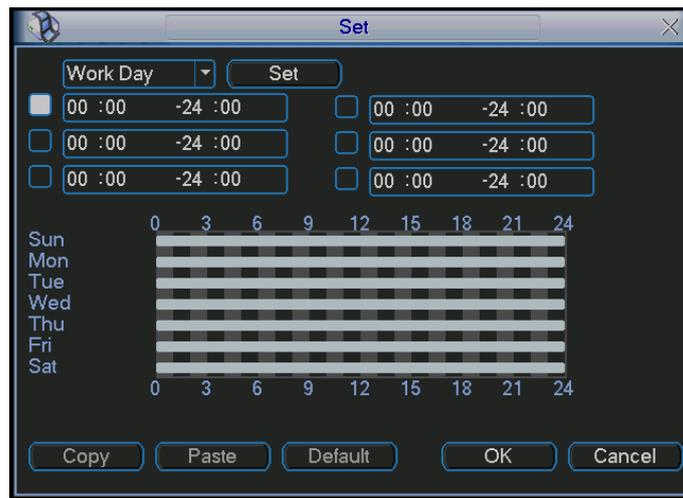


Figure 4-23

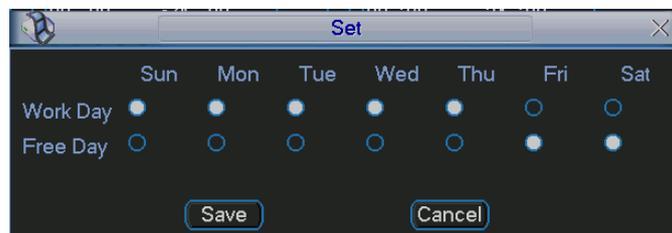


Figure 4-24

4.7 Backup

Click backup icon in the main menu, there are two function items: detect device and backup files.

This series DVR support can realize file backup via USB port. Usually the USB backup device format is FAT32. In one-key backup function, the file is in the first sub-area.

4.7.1 Detect Device

Here is for you to view devices information. See Figure 4-25.

The backup device can be flash disk or portable device. Here you can also view device total space and free space.

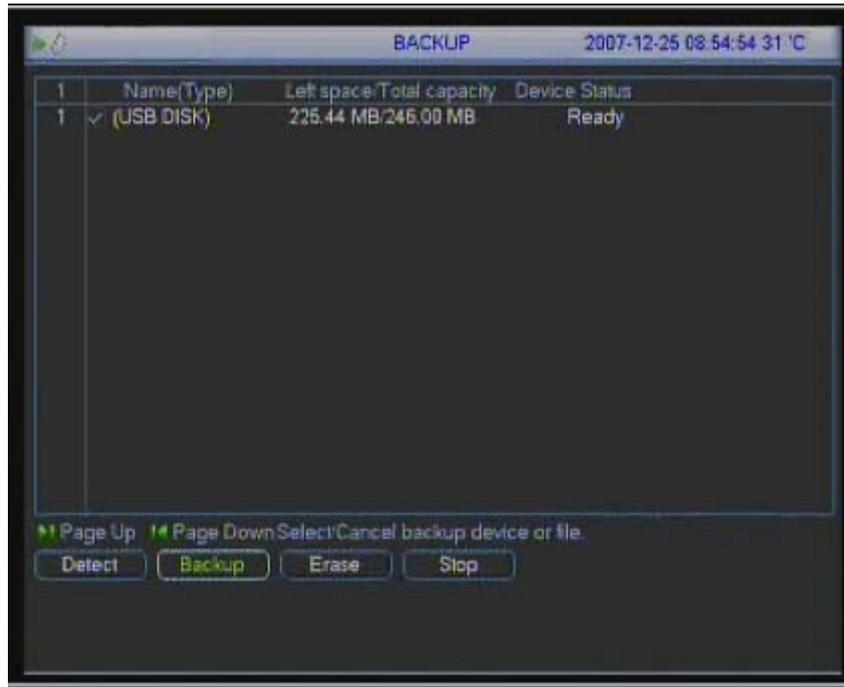


Figure 4-25

4.7.1 Backup (Including one-button backup)

Select backup device and then channel, file start time and end time.

Click add button, system begins search. All matched files are listed below.

System automatically calculates the capacity needed and remained. See Figure 4-26.

system only backup files with a ✓ before channel name. You can use Fn or cancel button to delete ✓ after file serial number.

Click backup button, you can backup selected files. There is a process bar for you reference.

When the system completes backup, you can see a dialogue box prompting successful backup.

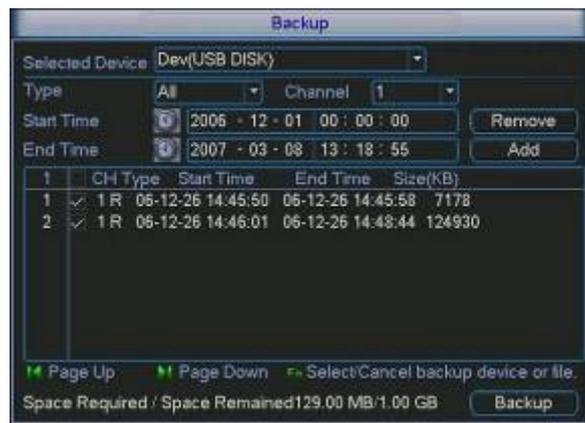


Figure 4-26

Click backup button, system begins burning. At the same time, the backup button becomes stop button. You can view the remaining time and process bar at the left bottom. See Figure 4-27.



Figure 4-27

Tips:

During backup process, you can click ESC to exit current interface; but the system will not terminate backup process.

Note:

When you click stop button during the burning process, system can backup the data before you click stop button. For example, if there are ten files, you click stop when backup the fifth file, system only save the previous five file data in the device. But you can still see ten file names

The file name format usually is: SN_CH+channel number+time Y+M+D+H+M+S. In the file name, the YDM format is the same as you set in general interface. (Main Menu ->Setting ->General).

4.7.1.1 One-key backup function

When there is no displayer connected, you can use one-key backup function. See Figure 4-28.

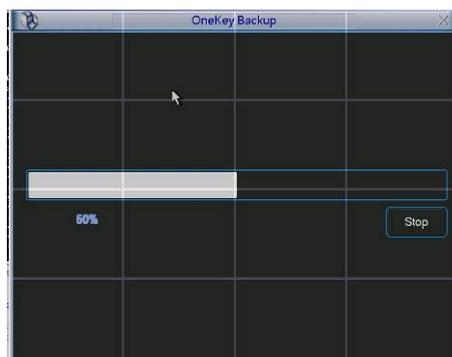


Figure 4-28

Please follow the steps listed below.

- Default backup day is 1 day.
- Click the F1 button in the remote control, you can see one-key backup interface. The initial progress bar is 0%. If system meets all the conditions, system automatically begin backup.
- If you want to terminate the backup during the whole process, you can click “stop” button and then remove backup device.

Backup up status and corresponding prompts.

When there is no backup operation. Backup indication light (LED6) is off. During the backup process, the indication light (LED6) flashes. The indication light (LED6) is on after successfully completed the backup.

Importance Notice:

- **Please insert backup device when system is working properly.**
- **Once starting back up, do not remove the backup device during the whole process. It may result in file damage or USB device malfunction.**
- **After completed backup, please remove the backup device and then turn off the power or shut down the system.**

4.8 PTZ Control and Color Setup

Note: All the operation here is based on PELCO protocols. For other protocols, there might be a little difference.

4.8.1 Cable Connection

Please follow the procedures below to go on cable connection

- Connect the dome RS485 port to DVR 485 port..
- Connect dome video output cable to DVR video input port.
- Connect power adapter to the dome.

4.8.2 PTZ Setup

Note: The camera video should be in the current screen. Before setup, please check the following connections are right:

- PTZ and decoder connection is right. Decoder address setup is right.
- Decoder A (B) line connects with DVR A (B) line.

Boot up the DVR, input user name and password.

In the main menu, click setting, and then click Pan/Tilt Control button. The interface is shown as in Figure 4-29. Here you can set the following items:

- Channel: select the current camera channel.
- Protocol: select corresponding PTZ protocol(such as PELCO)
- Address: default address is 1.
- Baud rate: select corresponding baud rate. Default value is 115200.
- Data bits: select corresponding data bits. Default value is 8.
- Stop bits: select corresponding stop bits. Default value is 1.
- Parity: there are three options: odd/even/none. Default setup is none.



Figure 4-29

After completed all the setups please click save button.

In one window display mode, right click mouse (click “Fn” Button in the front panel or click “Fn” key in the remote control). The interface is shown as in Figure 4-30.



Figure 4-30

Click Pan/Tilt/Zoom, the interface is shown as below. See Figure 4-31.

Here you can set the following items:

- Step: value ranges fro 1 to 8.
- Zoom
- Focus
- Iris

Click icon  and  to adjust zoom, focus and iris.



Figure 4-31

In Figure 4-31, please click direction arrows (See Figure 4-32) to adjust PTZ position. There are total 8 direction arrows.



Figure 4-32

4.8.3 3D Intelligent Positioning Key

In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 4-33.

Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. It can realize PTZ automatically.



Figure 4-33

Here is a sheet for you reference.

Name	Function key	function	Shortcut key	Function key	function	Shortcut Key
Zoom		Near			Far	
Focus		Near			Far	
Iris		close			Open	

4.9 Preset/ Patrol/Pattern/Scan

In Figure 4-31, click the “set” button. The interface is shown as below. See Figure 4-34.

Here you can set the following items:

- Preset
- Tour
- Pattern
- Border



Figure 4-34

In Figure 4-31, click page switch button, the interface is shown as in Figure 4-35.

Here you can activate the following functions:

- Preset
- Tour
- Pattern
- Auto scan
- Auto pan
- Flip
- Reset
- Page switch



Figure 4-35

Note: The following setups are usually operated in the Figure 4-31, Figure 4-34 and Figure 4-35 .

4.9.1 Preset Setup

In Figure 4-31, use eight direction arrows to adjust camera to the proper position.

In Figure 4-34, click preset button and input preset number. The interface is shown as in Figure 4-36.

Now you can add this preset to one tour.



Figure 4-36

4.9.2 Activate Preset

In Figure 4-35, please input preset number in the No. blank, and click preset button.

4.9.3 Patrol setup (Tour Setup)

In Figure 4-34, click patrol button. The interface is shown as in Figure 4-37. Input preset number and add this preset to a patrol (tour). For each patrol (tour), you can input max 80 presets.



Figure 4-37

4.9.4 Activate Patrol (tour)

In Figure 4-34, input patrol (tour) number in the No. blank and click patrol button

4.9.5 Pattern Setup

In Figure 4-34, click pattern button and then click “begin” button. The interface is shown as in Figure 4-38. Then you can go to Figure 4-31 to modify zoom, focus, and iris.

Go back to Figure 4-38 and click “end” button. You can memorize all these operations as pattern 1.



Figure 4-38

4.9.6 Activate Pattern Function

In Figure 4-35, input mode value in the No. blank, and click pattern button.

4.9.7 Auto Scan Setup

In Figure 4-34, click border button. The interface is shown as in Figure 4-39. Please go to Figure 4-31, use direction arrows to select camera left limit. Then please go to Figure 4-39 and click left limit button. Repeat the above procedures to set right limit.



Figure 4-39

4.9.8 Activate Auto Scan

In Figure 4-35, click “Auto Scan” button, the system begins auto scan. Correspondingly, the auto scan button becomes to stop button. Click stop button to terminate scan operation.

4.10 Flip

In Figure 4-35, click page switch button, you can see an interface is shown as below. See Figure 4-40. Here you can set auxiliary function. Click page switch button again, system goes back to Figure 4-31.

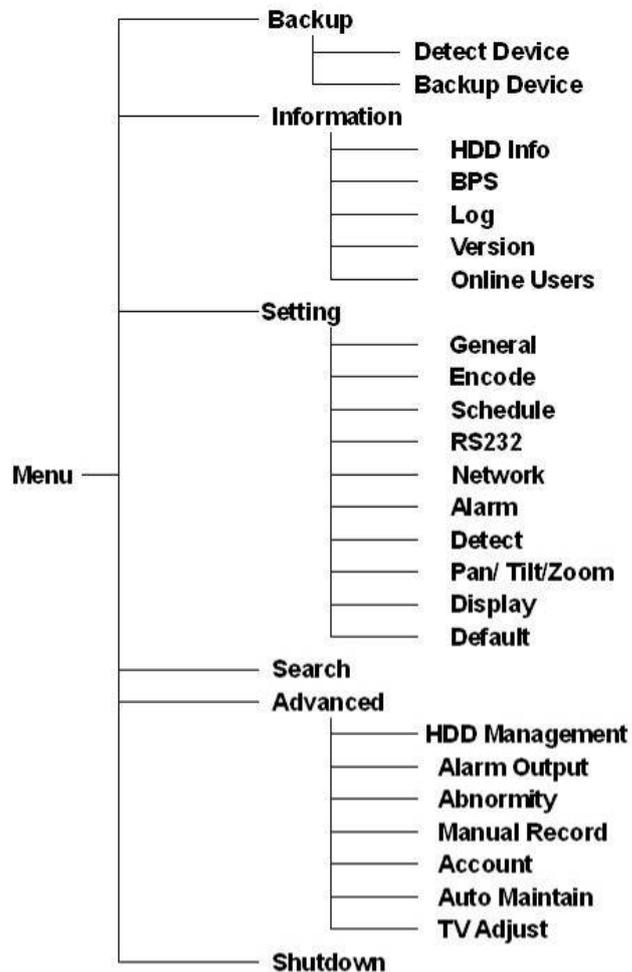


Figure 4-40

5 Understanding of Menu Operations and Controls

5.1 Menu Tree

This series DVR menu tree is shown as below.



5.2 Main Menu

After you logged in, the system main menu shows as below. See Figure 5-1 . There are total six icons: search, Information, setting, backup, advanced and shutdown. Move the cursor to highlight the icon, then double click mouse to enter the sub-menu.

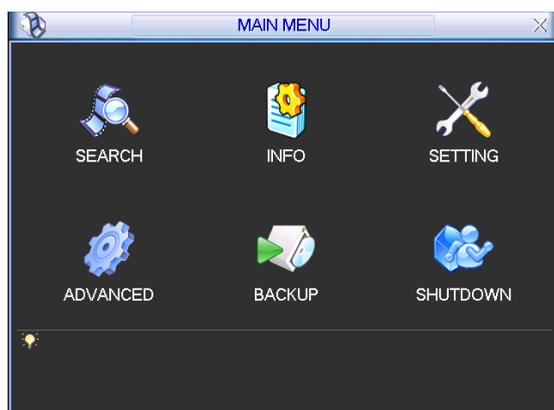


Figure 5-1

5.3 Setting

In main menu, highlight setting icon and double click mouse. System setting interface is shown as below. See Figure 5-2.



Figure 5-2

5.3.1 General

General setting includes the following items. See Figure 5-3.

- System time: here is for you to set system time
- Date format: there are three types: YYYY-MM-DD: MM-DD-YYYY or DD-MM-YYYY.
- Date separator: there are three denotations to separate date: dot, beeline and solidus.
- Snapshot: Here you can set image upload interval.
- DST: Here you can set DST time and date. Please enable DST function and then click set button. You can see an interface is shown as in Figure 5-4. Here you can set start time and end time by setting corresponding week setup. In Figure 5-4, enable date button, you can see an interface is shown as in Figure 5-5. Here you can set start time and end time by setting corresponding date setup.
- Time format: there are two types: 24-hour mode or 12-hour mode.
- Language: system supports various languages: Chinese (simplified), Chinese (Traditional), English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)

- HDD full: Here is for you to select working mode when hard disk is full. There are two options: stop recording or rewrite.
- Pack duration: Here is for you to specify record duration. Default value is 60 minutes.
- DVR No: when you are using one remote control to control several DVRs, you can give a name to each DVR for your management.
- Video standard: There are two formats: NTSC and PAL.
- Auto logout: Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.

Note:

Since system time is very important, do not modify time casually unless there is a must!

After completed all the setups please click save button, system goes back to the previous menu.

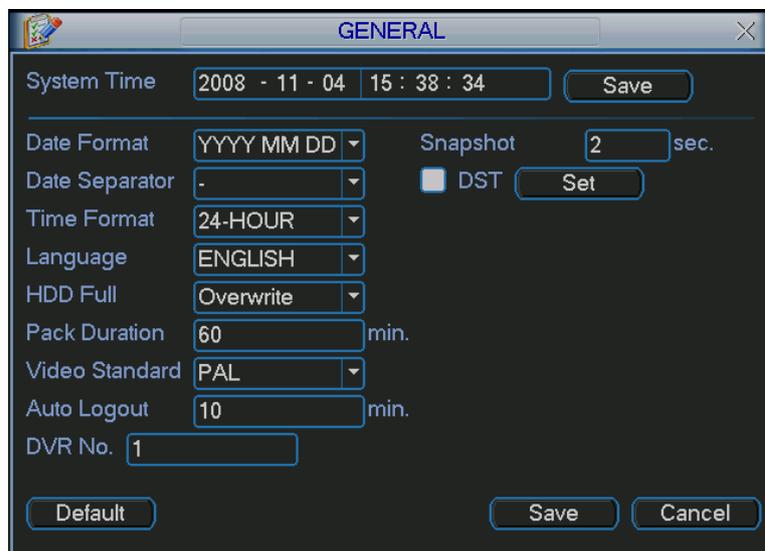


Figure 5-3

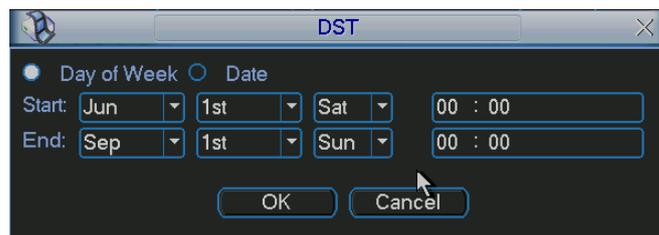


Figure 5-4



Figure 5-5

5.3.2 Encode

Encode setting includes the following items. See Figure 5-6.

- Channel: Select the channel you want.
- Compression: system supports H.264. Or you can select from the dropdown list.
- Resolution: System supports various resolutions, you can select from the dropdown list. For this model, we can support D1/CIF.
- Bit rate: system supports two types: CBR and VBR. In VBR mode, you can set video quality.
- Quality: There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Frame rate: there are six levels: 1 f/s,2f/s,3f/s, 6f/s,12f/s,25f/s. (Some series DVRs only support PAL 25f/s)
- Video/audio: you can enable or disable the video/audio respectively for the main stream and extra stream.
- Overlay: click overlay button, you can see an interface is shown in Figure 5-7.
- ✧ Cover area (Privacy mask): Here is for you to set window blanking section. You can drag you mouse to set proper section size.
- ✧ Preview/monitor: privacy mask has two types. Preview means the privacy mask zone can not be viewed by user when system is in preview status. Monitor means the privacy mask zone can not be view by the user when system is in monitor status.
- ✧ Time display: You can select system displays time or not when you playback.
- ✧ Channel display: You can select system displays channel number or not when you playback.
- ✧ Car No. display: You can select system displays car number or not when you playback.
- ✧ GPS display: You can select system displays latitude and longitude or not when you playback.

You need to enable the corresponding function and then click set button to set the specified position to display the information.

- Snapshot: Click snapshot button, you can see an interface is shown as in Figure 5-8.
- ✧ Mode: There are two types: one is timing and the other is activation (trigger).
- ✧ Image size: D1/HD1/BCIF/CIF.
- ✧ Image quality: level1 to level 6.
- ✧ Snapshot frequency: Here you can set the snapshot frequency. The value ranges from 1s/p to 7s/p.

System default setup is:

- Channel:1
- Compression:H.264
- Resolution: CIF/D1
- Bit rate: CBR
- Quality: 4
- Frame rate: 25f/s

Please highlight icon  to select the corresponding function.

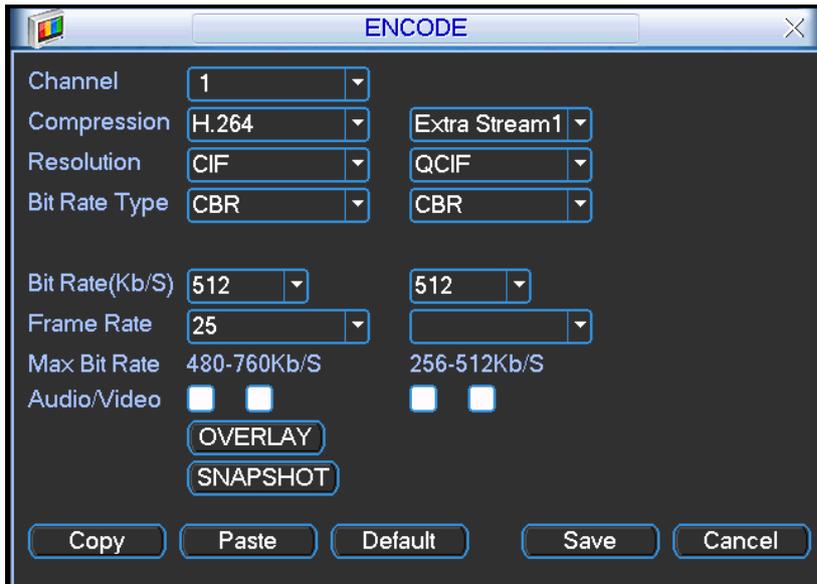


Figure 5-6

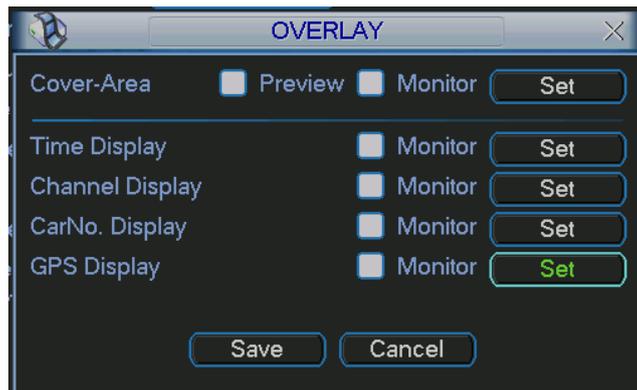


Figure 5-7

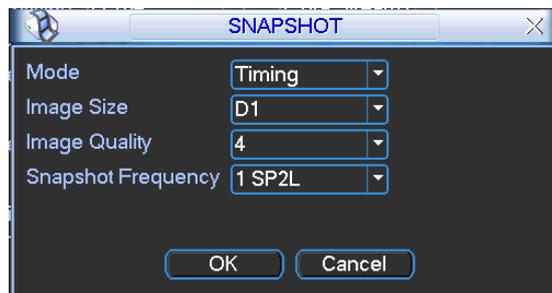


Figure 5-8

5.3.3 Schedule

Please refer to chapter 4.4 schedule.

5.3.4 RS232

RS232 interface is shown as below. Here are five items. See

Figure 5-9.

- Function: There are various devices for you to select.
- Baud rate: You can select proper baud rate.
- Data bit: You can select proper data bit.
- Stop bit: There are three values: 1/1.5/2.
- Parity: there are three choices: none/odd/even.

System default setup is:

- Function: COM
- Baud rate: 115200
- Data bit: 8
- Stop bit: 1
- Parity: None

After completed all the setups please click save button, system goes back to the previous menu

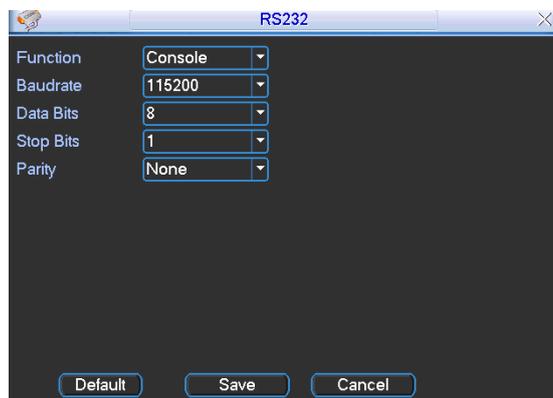


Figure 5-9

5.3.5 Network

Here is for you to input network information. See Figure 5-10.

- IP address: Here you can input IP address.
- DHCP: It is auto search IP function. When enable DHCP function, you can not modify IP/Subnet mask /Gateway. These values are from DHCP function. If you have not enabled DHCP function, IP/Subnet mask/Gateway display as 0. You need to disable DHCP function to view current IP information. Besides, when PPPoE is operating, you can not modify IP/Subnet mask /Gateway.
- TCP port: Default value is 37777. (System server port 37778 is reserved for network UDP use.)
- UDP port: Default value is 37778.
- HTTP port: Default value is 80.
- Max connection: system support maximal 10 users. 0 means there is no connection limit.
- Transfer mode: Here you can select the priority between fluency/video qualities.
- Network download: System can process the downloaded data first if you enable this function.

After completed all the setups please click save button, system goes back to the previous menu.

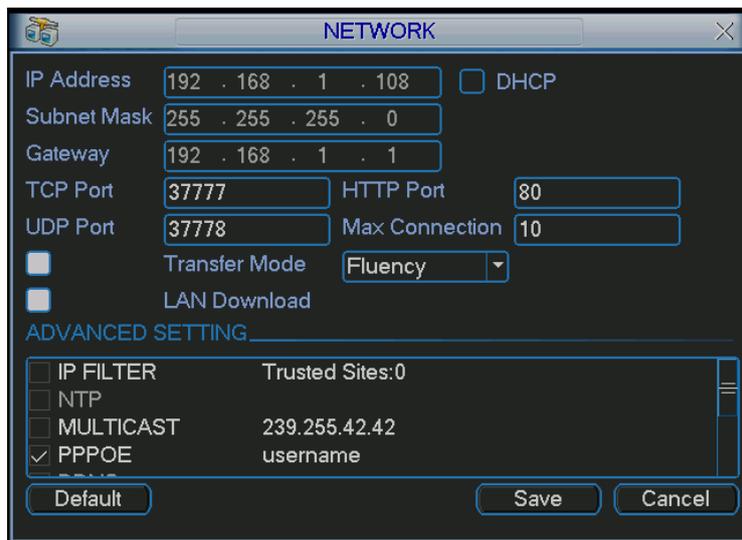


Figure 5-10

5.3.5.1 Advanced Setup

Advanced setup interface is shown as in Figure 5-11. Please draw a circle to enable corresponding function and then double click current item to go to setup interface.

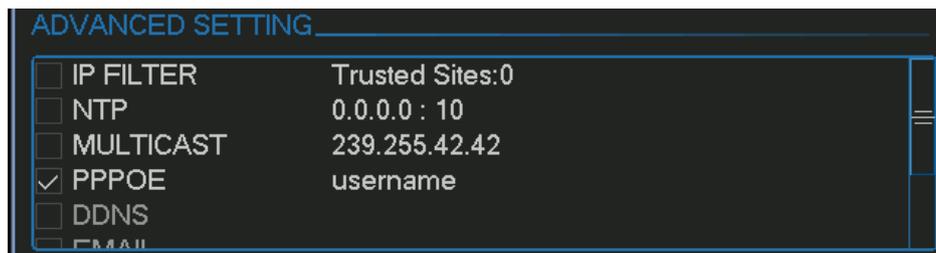


Figure 5-11

5.3.5.2 IP Filter

IP filter interface is shown as in Figure 5-12. You can add IP in the following list. The list supports max 64 IP addresses.

Please note after you enabled this function, only the IP listed below can access current DVR.

If you disable this function, all IP addresses can access current DVR.

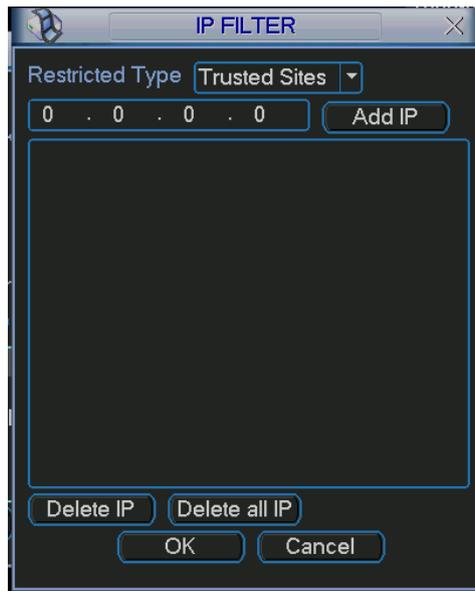


Figure 5-12

5.3.5.3 Multiple Cast Setup

Multiple-cast setup interface is shown as in Figure 5-13.

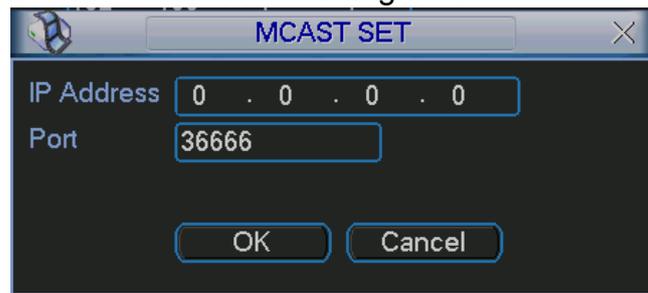


Figure 5-13

Here you can set a multiple cast group. Please refer to the following sheet for detailed information.

- IP multiple cast group address
 - 224.0.0.0-239.255.255.255
 - “D” address space
 - The higher four-bit of the first byte=“1110”
- Reserved local multiple cast group address
 - 224.0.0.0-224.0.0.255
 - TTL=1 When sending out telegraph
 - For example
 - 224.0.0.1 All systems in the sub-net
 - 224.0.0.2 All routers in the sub-net
 - 224.0.0.4 DVMRP router
 - 224.0.0.5 OSPF router
 - 224.0.0.13 PIMv2 router
- Administrative scoped addressees
 - 239.0.0.0-239.255.255.255
 - Private address space

- Like the single broadcast address of RFC1918
- Can not be used in Internet transmission
- Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, you can use other addresses. For example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

5.3.5.4 PPPoE

PPPoE interface is shown as in Figure 5-14.

Input “PPPoE name” and “PPPoE password” you get from your ISP (Internet service provider).

Click save button, you need to restart to activate your configuration.

After rebooting, IP camera will connect to internet automatically. The IP in the PPPoE is the DVR dynamic value. You can access this IP to visit the unit.

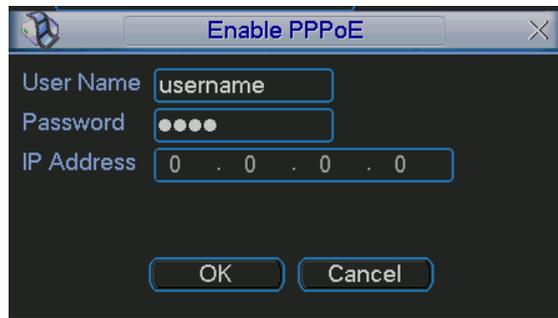


Figure 5-14

5.3.5.5 NTP Setup

You need to install SNTP server (Such as Absolute Time Server) in your PC first. In Windows XP OS, you can use command “net start w32time” to boot up NTP service.

NTP setup interface is shown as in Figure 5-15.

- Host IP: Input your PC address.
- Port: This series DVR supports TCP transmission only. Port default value is 123.
- Update interval: minimum value is 15(Unit: minute)
- Time zone: select your corresponding time zone here.

Here is a sheet for your time zone setup.

City /Region Name	Time Zone
London	GMT+0
Berlin	GMT+1
Cairo	GMT+2
Moscow	GMT+3
New Deli	GMT+5
Bangkok	GMT+7
Beijing (Hong Kong)	GMT+8
Tokyo	GMT+9
Sydney	GMT+10
Hawaii	GMT-10
Alaska	GMT-9
Pacific Time(P.T)	GMT-8

American Mountain Time(M.T)	GMT-7
American Central Time(C.T)	GMT-6
American Eastern Time(E.T)	GMT-5
Atlantic Time	GMT-4
Brazil	GMT-3
Middle Atlantic Time	GMT-2

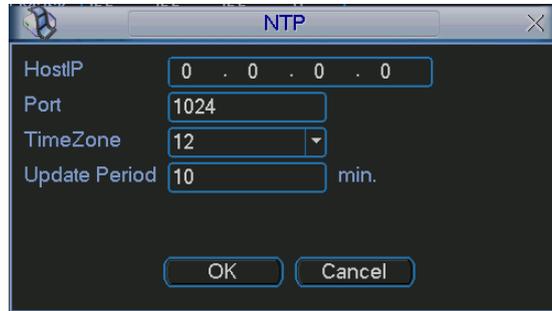


Figure 5-15

5.3.5.6 Email Setup

Email setup interface is shown as in Figure 5-16. Here you can set email server information.

Note:

You need to get the email address from your email service provider first. Please use semicolon to separate the addresses.

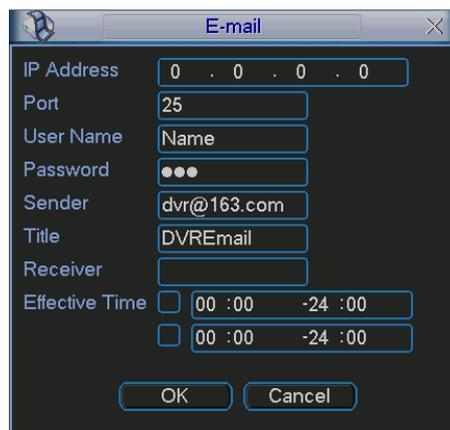


Figure 5-16

5.3.5.7 DDNS Setup

DDNS setup interface is shown as in Figure 5-17.

You need a PC of fixed IP in the internet and there is the DDNS software running in this PC. In other words, this PC is a DNS (domain name server).

In network DDNS, input your PPPoE name you get from you IPS and server IP (PC with DDNS) . Click save button and then reboot system.

Click save button, system prompts for rebooting to get all setup activated.

After rebooting, open IE and input as below:

http: //(DDNS server IP)/(virtual directory name)/webtest.htm

e.g.: http: //10.6.2.85/DVR _DDNS/webtest.htm.)

Now you can open DDNSServer web search page.

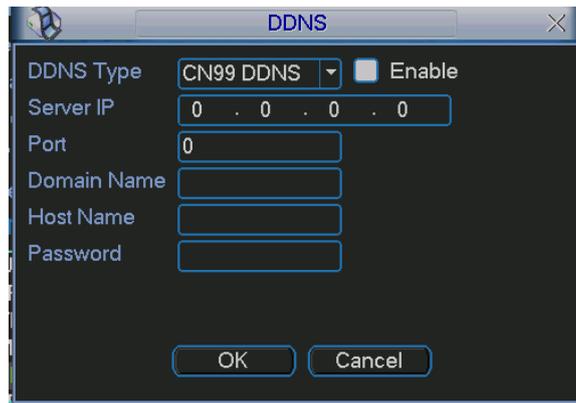


Figure 5-17

5.3.5.8 Alarm Server

You can set alarm in accordance with different alarm protocols. System can inform the alarm server when alarm occurs. See Figure 5-18.

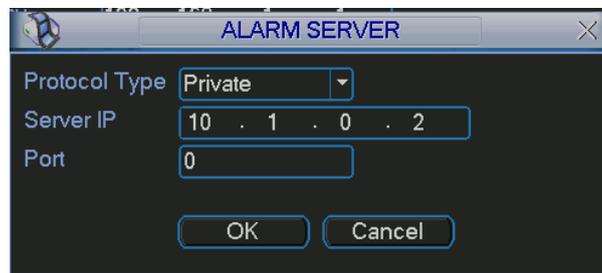


Figure 5-18

5.3.5.9 FTP

You need to download or buy FTP service tool (such as Ser-U FTP SERVER) to establish FTP service.

Please install Ser-U FTP SERVER first. From “start” -> “program” -> Serv-U FTP Server -> Serv-U Administrator. Now you can set user password and FTP folder. Please note you need to grant write right to FTP upload user. See Figure 5-19.

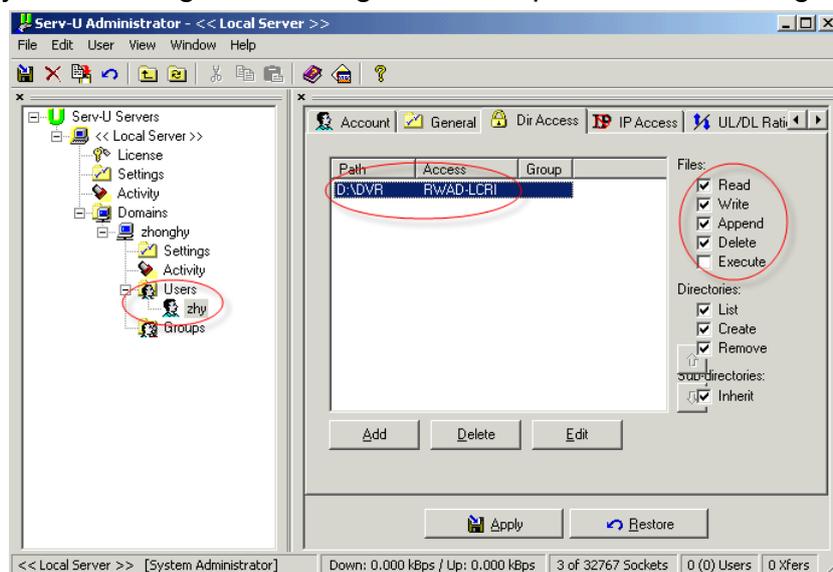


Figure 5-19

You can use a PC or FTP login tool to test setup is right or not. For example, you can login user ZHY to [FTP://10.10.7.7](ftp://10.10.7.7) and then test it can modify or delete folder or not. See Figure 5-20.



Figure 5-20

System also supports upload multiple DVRs to one FTP server. You can create multiple folders under this FTP. In Figure 5-10, select FTP and then double click mouse. You can see the following interface. See Figure 5-21.

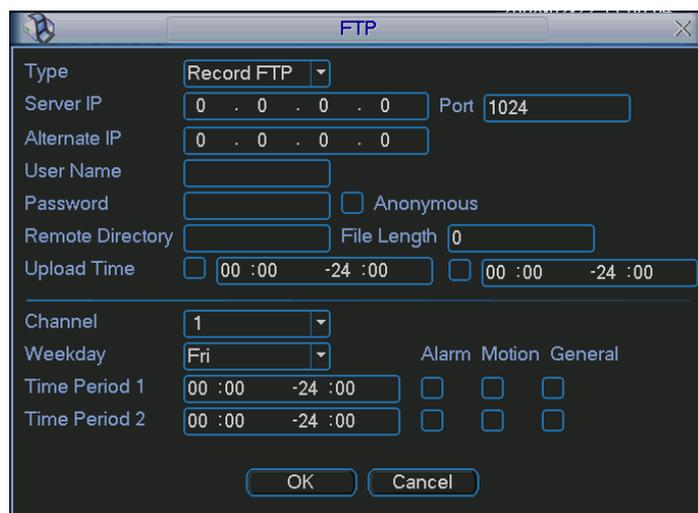


Figure 5-21

Please highlight the icon in front of Enable to activate FTP function. Now FTP can upload alarm video and motion detection video. Please note, when you are using this function, please make sure current upload channel is in motion detection or alarm record status and there is video available. Here you can input FTP server address, port and etc.

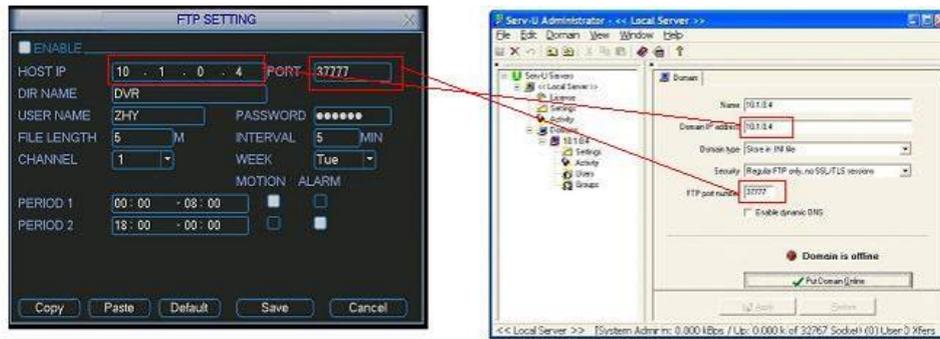


Figure 5-22

- File length: upload file length. When setup is larger than the actual file length, system will upload the whole file. When setup here is smaller than the actual file length, system only uploads the set length and auto ignore the left section.
- When interval value is 0, system uploads all corresponding files.
- Period 1 and period 2: you can set two periods for one each channel.

System file name is shown as in Figure 5-23.



Figure 5-23

5.3.6 Alarm

Please refer to chapter 4.6 Alarm Setup and Activation.

5.3.7 Detect

Please refer to chapter 4.5 Detect.

5.3.8 Pan/Tilt/Zoom

The pan/tilt/zoom setup includes the following items. Please select channel first. See Figure 5-24.

- Protocol: select corresponding PTZ protocol such as PELCO.
- Address: input corresponding PTZ address.
- Baud rate: select baud rate.
- Data bit: select data bit.
- Stop bit: select stop bit.
- Parity: there are three choices: none/odd/even.

After completed all the setups please click save button, system goes back to the previous menu.

For detailed setup, please refer to chapter 4.9 preset/patrol/pattern/scan.



Figure 5-24

5.3.9 Display

Display setup interface is shown as below. See Figure 5-25.

- Transparency: Here is for you to adjust transparency. The value ranges from 128 to 255.
- Channel name: Here is for you to modify channel name. Please note all your modification here only applies to DVR local end. You need to open web or client end to refresh channel name.
- Time display: You can select to display time or not when system is playback.
- Channel display: You can select to channel name or not when system is playback.
- Overlay information: System displays some information in the screen for your reference.
- Display mode: you can select from the dropdown list: self-adaptive/VGA/TV.
- Enable tour: activate tour function.
- Interval: Input proper interval value here. The value ranges from 5-200 seconds. In tour process, you can use mouse or click Shift to turn on window switch function.  Stands for opening switch function,  stands for closing switch function.
- Motion tour type: System support 1/4 window tour.
- Alarm tour type: System support 1/4 window tour.

Please highlight icon  to select the corresponding function.

After completed all the setups please click save button, system goes back to the previous menu.

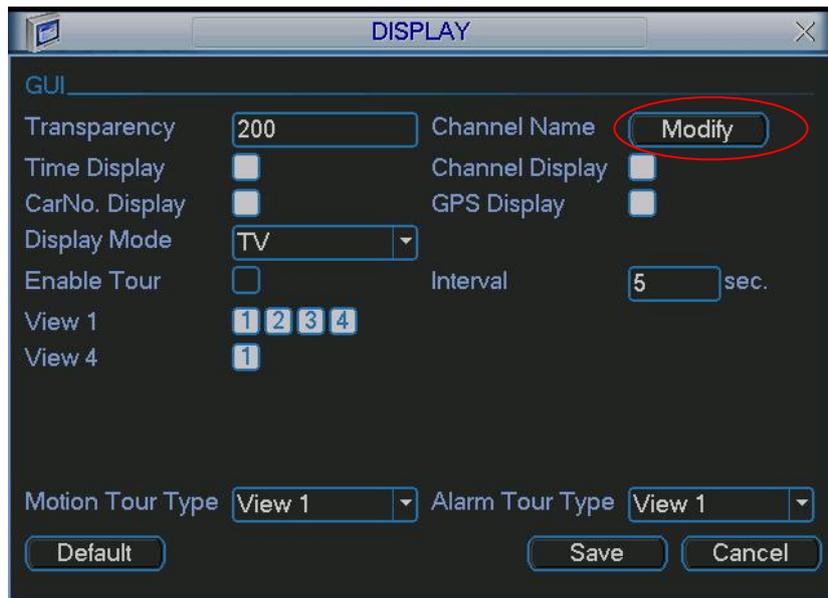


Figure 5-25

In Figure 5-25, click modify button after channel. You can see an interface is shown as in Figure 5-26. Please note all your modification here applies to local end only. You need to refresh web or client-end to get the latest channel name. System max support 25-digital character.



Figure 5-26

In tour mode, you can see the following interface. On the right corner, right click mouse or click shift button, you can control the tour. There are two icons:  stands for enabling window switch and  stands for enabling window function. See Figure 5-27.



Figure 5-27

5.3.10 Default

Click default icon, system pops up a dialogue box. You can highlight  to restore default factory setup. See Figure 5-28.

- Select all
- General
- Encode
- Schedule
- RS232
- Network
- Alarm
- Detect
- Pan/tilt/zoom
- Display
- Channel name

Please highlight icon  to select the corresponding function.

After all the setups please click save button, system goes back to the previous menu.

Warning!

System menu color, language, time display mode, video format, IP address, user account will not maintain previous setup after default operation!



Figure 5-28

5.4 Search

Please refer to chapter 4.3 Search.

5.5 Advanced

Double click advanced icon in the main window, the interface is shown as below. See Figure 5-29. There are total seven function keys: HDD management, alarm output, abnormality, manual record, account, auto maintain, and TV adjust.



Figure 5-29

5.5.1 HDD Management

Here is for you to view and implement hard disk management. See Figure 5-30. You can set proper mode for each hard disk from the dropdown list.

When you use redundant backup function, you can set one or more redundant HDD(s).

Please note you need to set at least one read-write disk, otherwise system will not record video. For detailed information you can refer to chapter 4.4 Schedule.

After all the setups please click save button, system needs to reboot to get all the modification activated.



Figure 5-30

Click alarm set button, the interface is shown as below. See Figure 5-31(This interface is just like the abnormality setup).

Please highlight icon  to select the corresponding function.

You can enable one or more alarm setups. The lower limit ranges from 1% to 99%.

Alarm channel number ranges from 1 to 6. Delay value is from 0 to 240 seconds.

Please note when HDD capacity is not full system only alarms once!

After completed all the setups please click OK button, system goes back to the previous menu

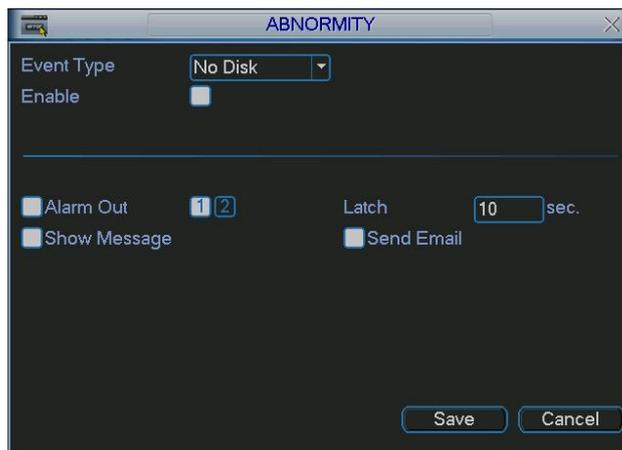


Figure 5-31

5.5.2 Alarm Output

Here is for you to set proper alarm output.

Please highlight icon to select the corresponding alarm output.

After all the setups please click OK button, system goes back to the previous menu. See Figure 5-32.

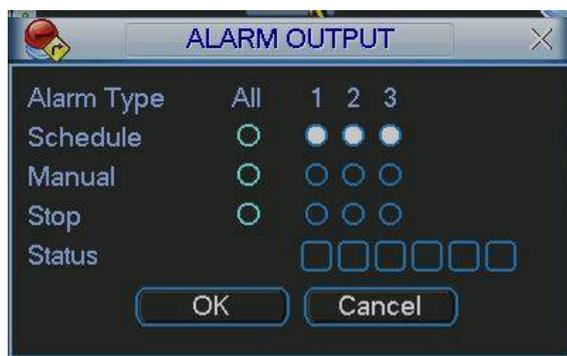


Figure 5-32

5.5.3 Abnormity

Abnormity interface is shown as in Figure 5-33.

- Event type: There are several options for you such as disk error, no disk and etc.
 - ✧ System may reboot when there is no HDD or HDD error.
 - ✧ When HDD space is insufficient, you can set to overwrite or stop record.
 - ✧ Battery is not sufficient; system can shut down automatically when system reaches the specified threshold.
 - ✧ System can alarm you when the temperature is too high,
- Alarm output: alarm activation output port (multiple choices), among which the 3rd-ch is controllable 12V output.

- Latch: here you can set corresponding delaying time. The value ranges from 10s-300s. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.
- Show message: system can pop up the message in the local screen to alert you when alarm occurs.
- Send email: System can send out email to alert you when alarm occurs.

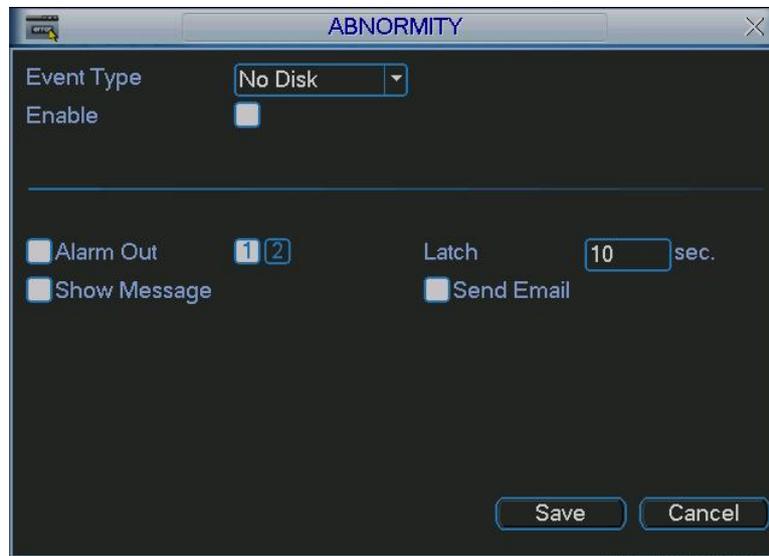


Figure 5-33

5.5.4 Manual Record

Please refer to chapter 4.2.2 manual record.

5.5.5 Account

Here is for you to implement account management. See Figure 5-34. Here you can:

- Add new user
- Modify user
- Add group
- Modify group
- Modify password.

For account management please note:

- System account adopts two-level management: group and user. No limit to group or user amount.
- For group or user management, there are two levels: admin and user.
- The user name and group name can consist of eight bytes. One name can only be used once. There are four default users: admin/888888/666666 and hidden user "default". Except user 6666, other users have administrator right.
- Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
- One user should belong to one group. User right can not exceed group right.
- About reusable function: this function allows multiple users use the same account to login.

After completed all the setups please click save button, system goes back to the previous menu.

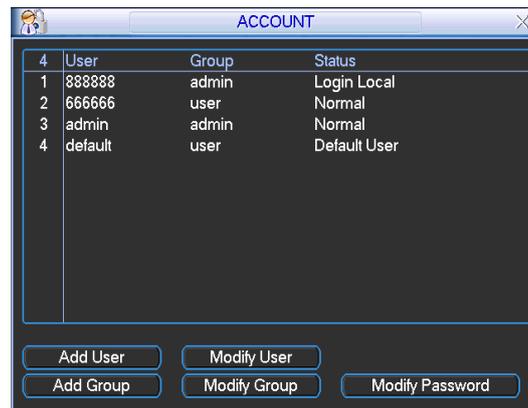


Figure 5-34

5.5.6 Auto Maintain

Here you can set auto-reboot time and auto-delete old files setup. See Figure 5-35. You can select proper setup from dropdown list.

Acc delay value ranges from 0 to 255 (unit: minute.) Please note you need to disable auto shutdown system function if you want to enable acc delay.

After completed all the setups please click save button, system goes back to the previous menu.

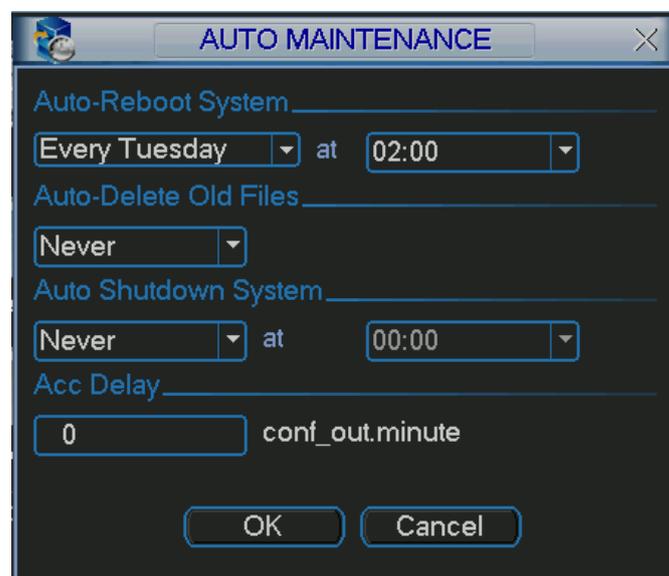


Figure 5-35

5.5.7 TV Adjust

Here is for you to adjust TV output setup. See Figure 5-36.

Please drag slide bar to adjust each item.

After completed all the setups please click OK button, system goes back to the previous menu.



Figure 5-36

5.6 Information

Here is for you to view system information. There are total five items: HDD (hard disk information), BPS (data stream statistics), Log and version, and online user. See Figure 5-37.

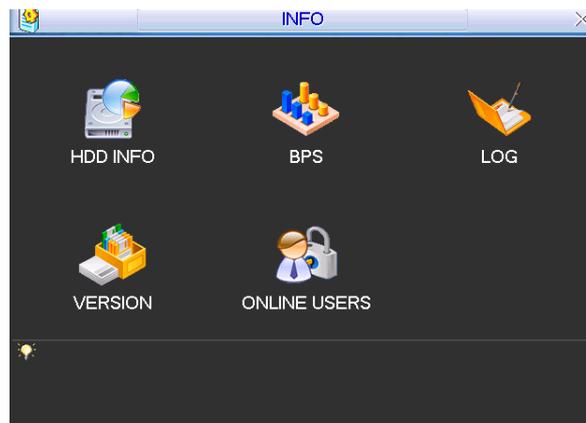


Figure 5-37

5.6.1 HDD Information

Here is to list hard disk type, total space, free space, video start time and status. See Figure 5-38.

Note:

Please remove the broken hard disk before you add a new one.

Once there is a hard disk confliction, please check hard disk time and system time is the same or not. Please go to setting then general to modify system time. At last, reboot the system to solve this problem.

If disk is damaged, system shows as “?”

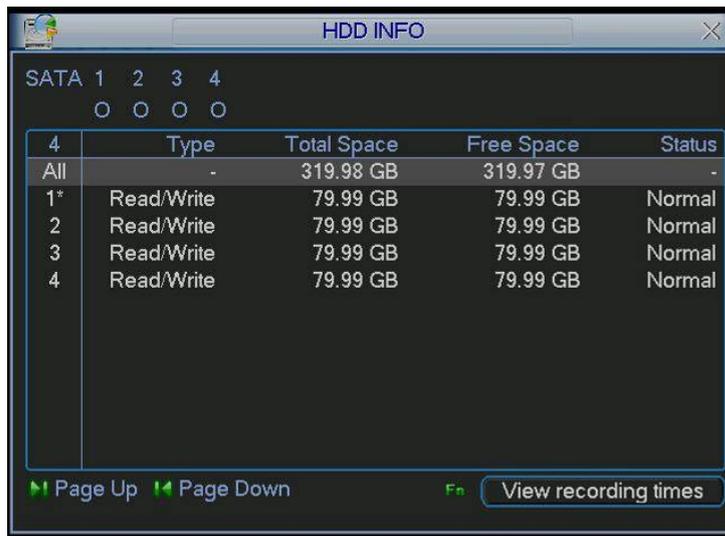


Figure 5-38

5.6.2 BPS

Here is for you to view current video data stream (KB/s) and occupied hard disk storage (MB/h). See Figure 5-39.



Figure 5-39

5.6.3 Log

Here is for you to view system log file. System lists the following information. See Figure 5-40.

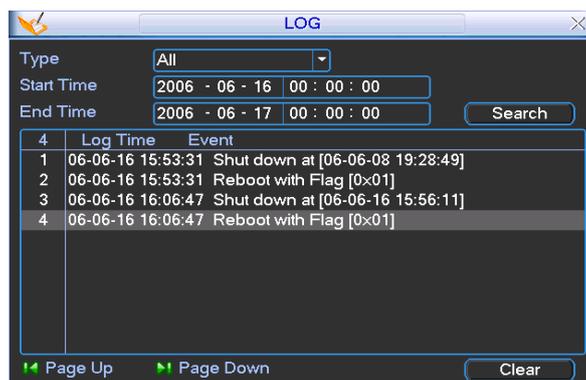


Figure 5-40

5.6.4 Version

Here is for you to view some version information. See Figure 5-41.

- Channel
- Alarm in
- Alarm out
- System version:
- Upgrade

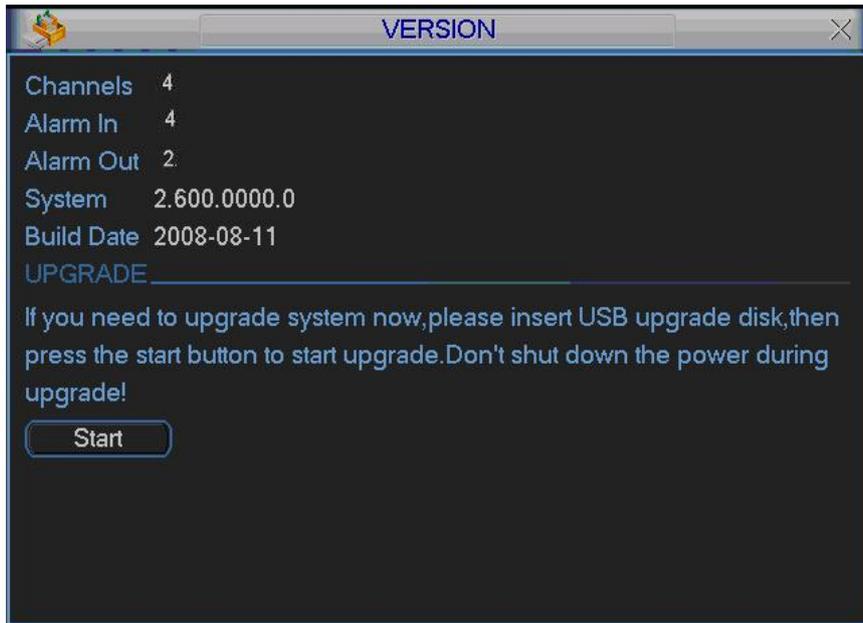


Figure 5-41

5.6.5 Online Users

Here is for you manage online users. See Figure 5-42.

You can disconnect one user or block one user if you have proper system right.

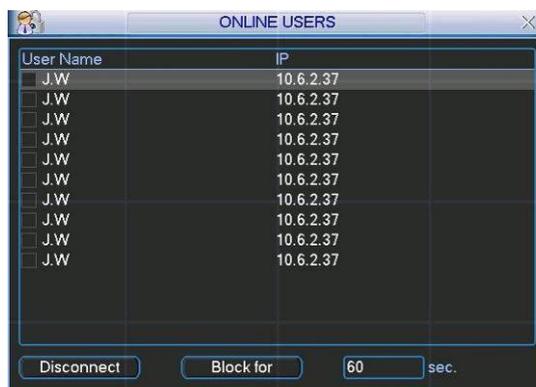


Figure 5-42

5.7 Exit

Double click exit button, system pop up a dialogue box for you to select. See Figure 5-43.

- Logout menu user: log out menu. You need to input password when you login the next time.
- Restart application: reboot DVR.
- Shutdown: system shuts down and turns off power.
- Restart system: system begins rebooting.
- Switch user: you can use another account to log in.

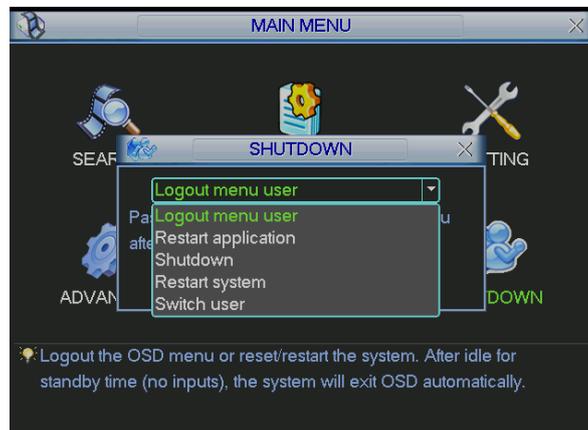


Figure 5-43

6 WEB CLIENT OPERATION

Please note, all the operation here is taking 16-ch DVR as an example. There might be slightly difference in the interface due to different series.

6.1 Network Connection

Before web client operation, please check the following items:

- Network connection is right
- DVR and PC network setup is right. Please refer to network setup(main menu->setting->network)
- Use order ping `***.***.***.***`(* DVR IP address) to check connection is OK or not. Usually the return TTL value should be less than 255.
- System is compatible with WIN VISTA web control right now. But you need to disable user account control function. Double click user account and then disable user account control. After completed setup, please reboot the PC.
- System can automatically download latest web control and the new version can overwrite the previous one.
- If you want to un-install the web control, please run `uninstall web.bat` to un-install. Please note, before you un-install, please close all web pages, otherwise the un-installation might result in error.

6.2 Login

Open IE and input DVR address in the address column. For example, if your DVR IP is 10.10.3.16, then please input `http:// 10.10.3.16` in IE address column. See Figure 6-1

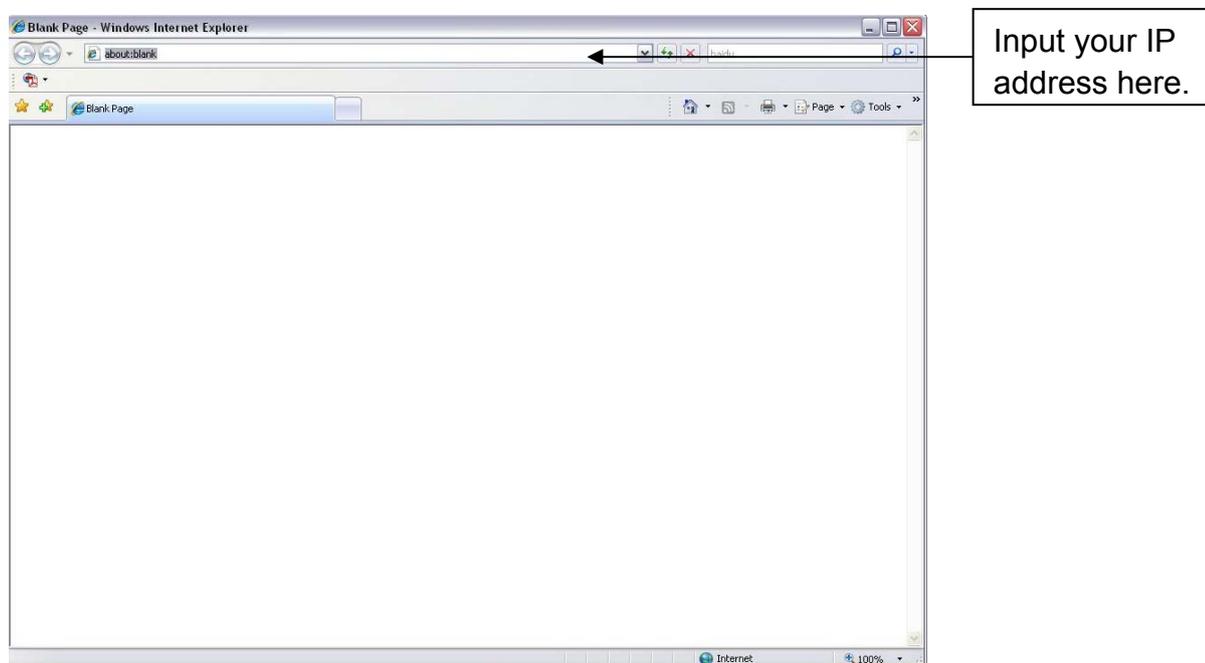


Figure 6-1

System pops up warning information to ask you whether install webrec.cab control or not. Please click yes button.

If you can't download the ActiveX file, please modify your settings as follows. See Figure 6-2.

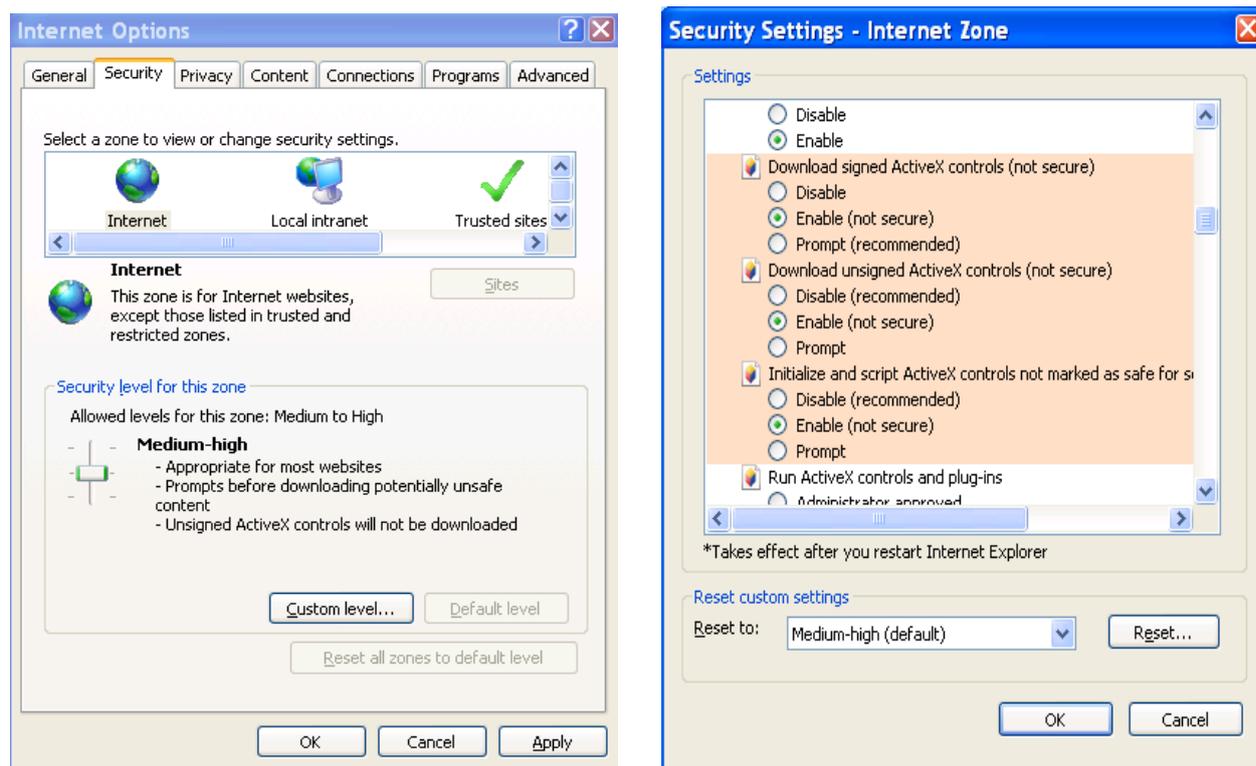


Figure 6-2

After installation, the interface is shown as below. See Figure 6-3.

Please input your user name and password.

Default factory name is admin and password is admin.

Note: For security reasons, please modify your password after you first login.

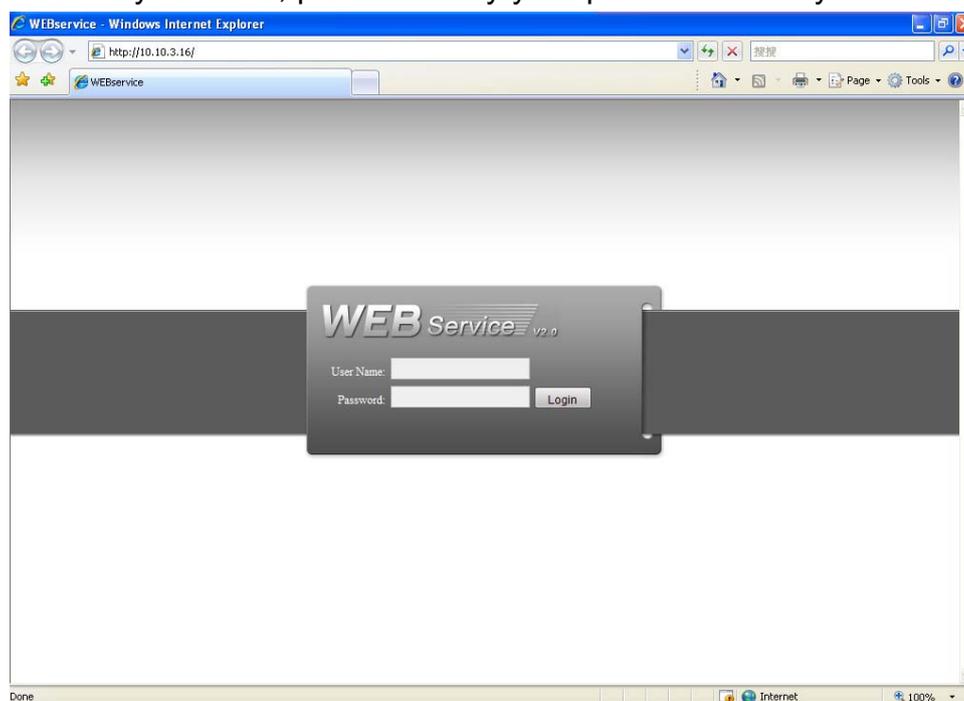


Figure 6-3

After you logged in, you can see the main window. See Figure 6-6.

This main window can be divided into the following sections.

- Section 1: there are five function buttons: configuration (chapter 7.3), search (chapter 7.4), alarm (chapter 7.5), about (chapter 7.6), log out (chapter 7.7).
- Section 2: there are channel number and three function buttons: refresh, start dialog and local play.
- Section3: there are PTZ (chapter 7.2.2), color (chapter 7.2.3) button and you can also select picture path and record path.
- Section 4:real-time monitor window. Please note current preview window is circled by a green rectangle zone.
- Section 5: Here you can view window switch button. You can also select video priority between fluency or real-time.
 - ◇ System monitor window switch supports full screen/1-window/4-window/6-window/8-window/9-window/13-window/16-window/20-window/25-window/36-window. See Figure 6-4.



Figure 6-4

- ◇ Preview window switch. System support 1/4/8/9/16-window real-time preview. Please you need to have the proper rights to implement preview operation. You can not preview if you have no right to preview the either channel. See Figure 6-5.



Figure 6-5

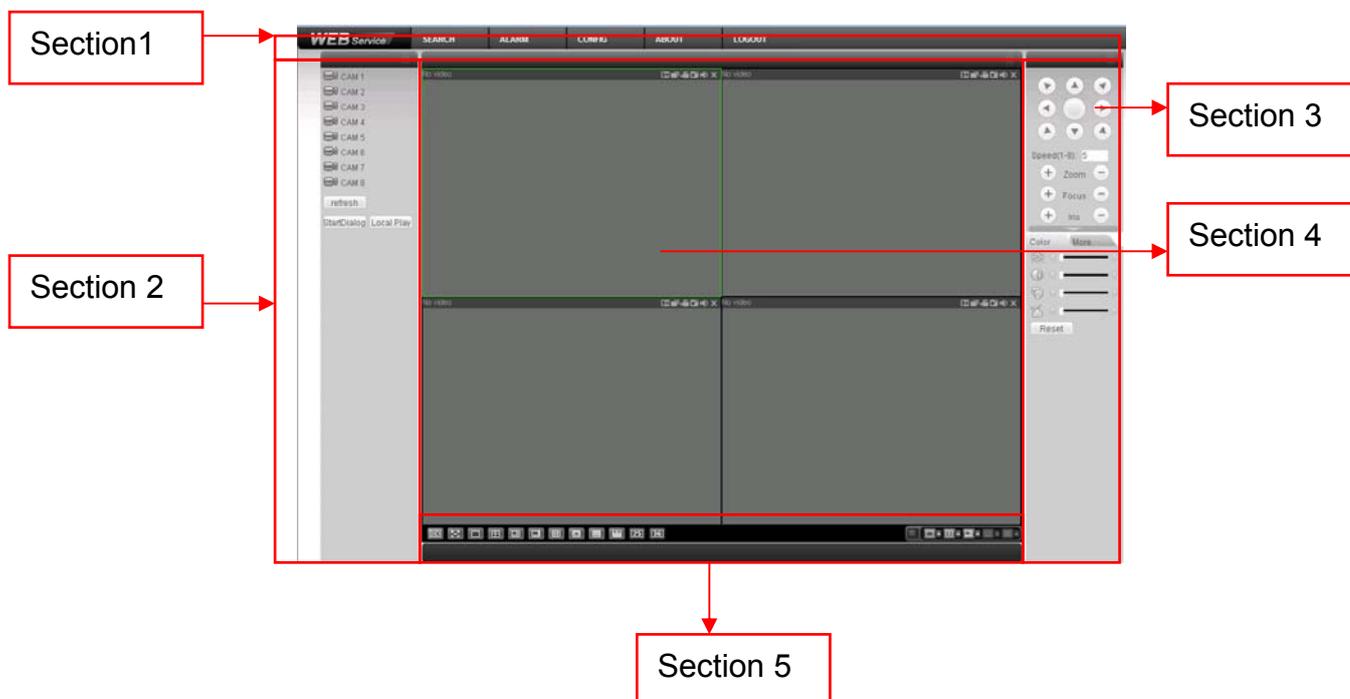


Figure 6-6

6.2.1 Real-time Monitor

In section 2, left click the channel name you want to view, you can see the corresponding video in current window.

For detailed function key information, please refer to Figure 6-7.

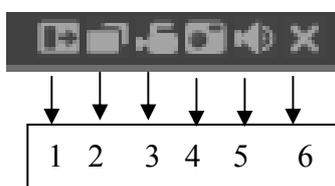


Figure 6-7

- 1: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. right click mouse system restores original status.
- 2: Change show mode: resize or switch to full screen mode.
- 3: Local record. When you click local record button, the system begins recording and this button becomes highlighted. You can go to system -.local record to set video file path.
- 4: Capture picture. You can snapshot important video. All images are memorized in system client folder \download\picture (default).
- 5: Audio :Turn on or off audio.(It has no relationship with system audio setup)
- 6: Close video.

Please refer to Figure 6-8 for main stream and extra stream switch information.



Figure 6-8

Refresh

You can use this button to refresh camera list.

Start Dialogue

You can click this button to enable audio talk.

Local Play

Click local play button, system pops up the following interface for you to select local play file. See Figure 6-9.



Figure 6-9

6.2.2 PTZ

Before PTZ operation, please make sure you have properly set PTZ protocol. (Please refer to chapter 7.3.2 Setting-> Pan/Tilt/Zoom).

Click PTZ button, the interface is shown as in Figure 6-10 .

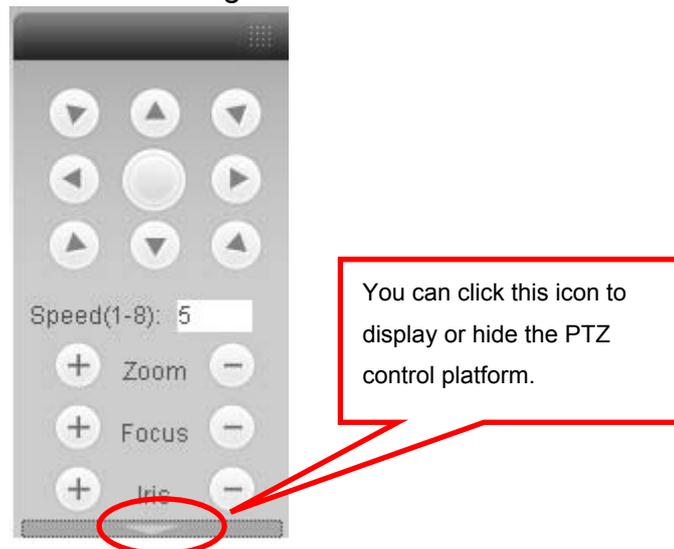


Figure 6-10

6.2.2.1 Direction key and 3D positioning key

In Figure 6-10, there are eight direction keys.

In the middle of the eight direction keys, there is a 3D intelligent positioning key.

Click SIT button, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. It can realize PTZ automatically.

6.2.2.2 Speed

System supports eight-level speed. You can select from the dropdown list. Speed 2 is faster than speed 1.

6.2.2.3 Zoom/Focus/Iris

Here is a sheet for you reference.

Name	Function key	Function	Function key	Function
Zoom		Near		Far
Focus		Near		Far
Iris		close		Open

Then click triangle icon in Figure 6-10, you can see the following interface. See Figure 6-11.

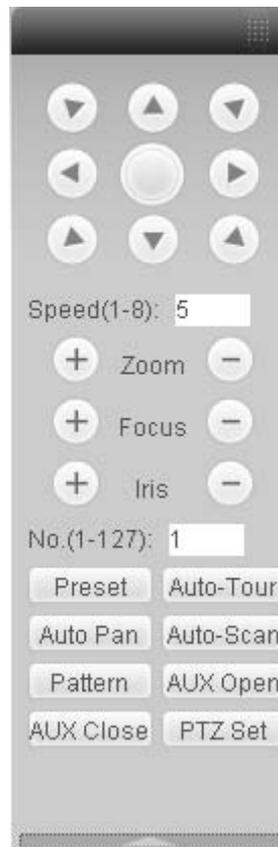


Figure 6-11

In Figure 6-11, click PTZ setup button you can see the following interface. See Figure 6-12.

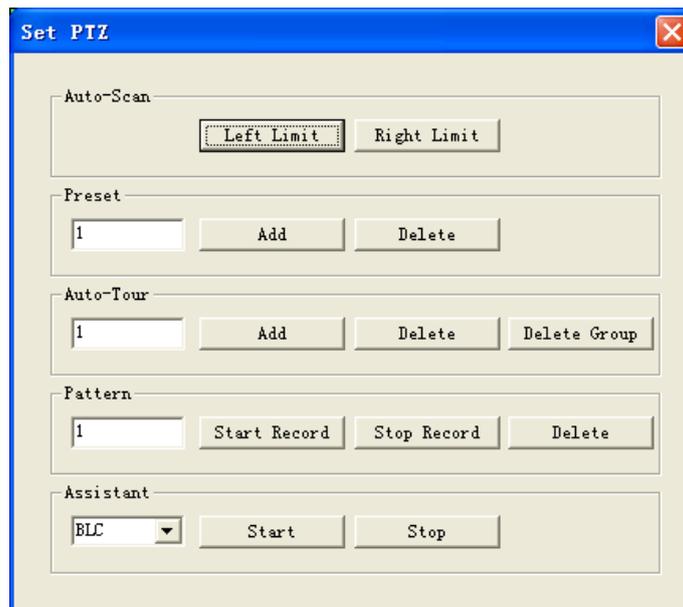


Figure 6-12

6.2.2.4 Auto Scan

In Figure 6-12, move the camera to your desired location and then click left limit button.

Then move the camera again and then click right limit button to set a right limit.

6.2.2.5 Pattern

In Figure 6-12, you can input pattern value and then click start record button to begin PTZ movement. Please go back to Figure 6-11 to implement camera operation.

Then you can click stop record button. Now you have set one pattern.

6.2.2.6 Preset

In Figure 6-12, move the camera to your desired location and then input preset value. Click add button, you have set one preset.

6.2.2.7 Auto tour

In Figure 6-12, input auto tour value and preset value. Click add button, you have added one preset in the tour.

Repeat the above procedures you can add more presets in one tour.

6.2.2.8 Assistant

You can select the assistant item from the dropdown list. See Figure 6-13.

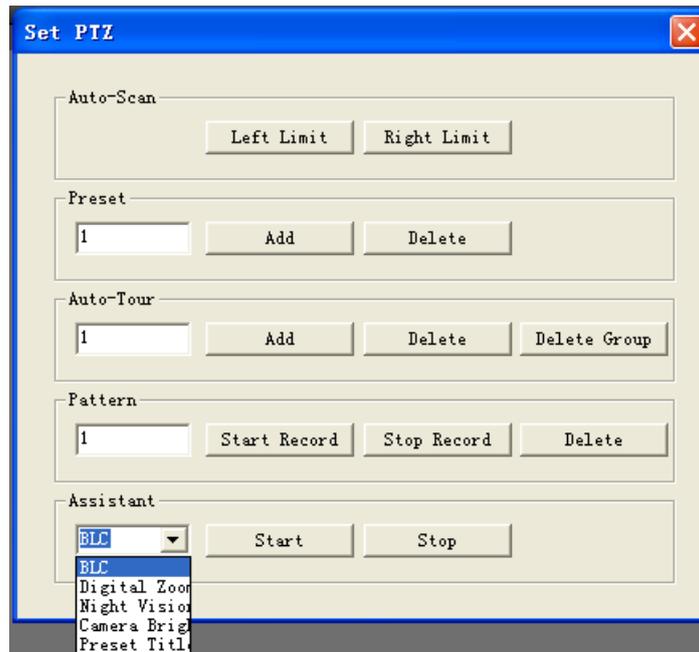


Figure 6-13

6.2.3 Color

Click color button in section 3, the interface is shown as Figure 6-14.

Here you can select one channel and then adjust its brightness, contrast, hue and saturation. (Current channel border becomes green).

Or you can click default button to use system default setup.

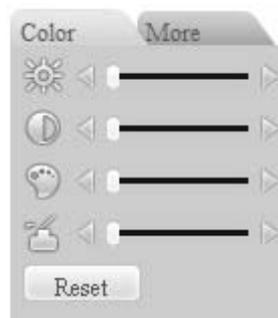


Figure 6-14

6.2.4 Picture Path and Record Path

Click more button in Figure 6-14, you can see an interface is shown as in Figure 6-15.



Figure 6-15

Click picture path button, you can see an interface is shown as in Figure 6-16.

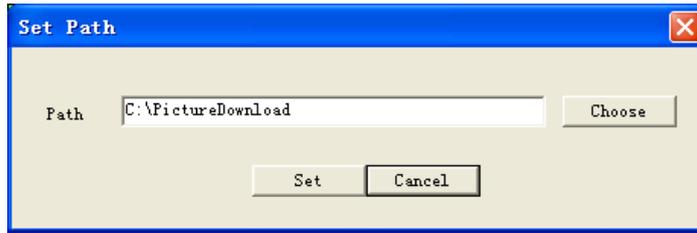


Figure 6-16

Click record path button, you can see an interface is shown as in Figure 6-17.

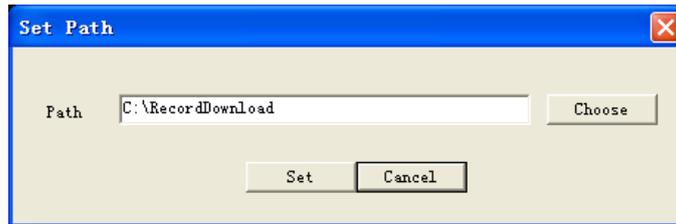


Figure 6-17

6.2.5 Menu Interface Switch

Put your mouse on the PTZ control bar until you see the following icon. See Figure 6-18.



Figure 6-18

Left click your mouse and then drag it to the channel control status bar. You can see the two menus interface switched. See Figure 6-19. You can compare the following interface with Figure 6-6.

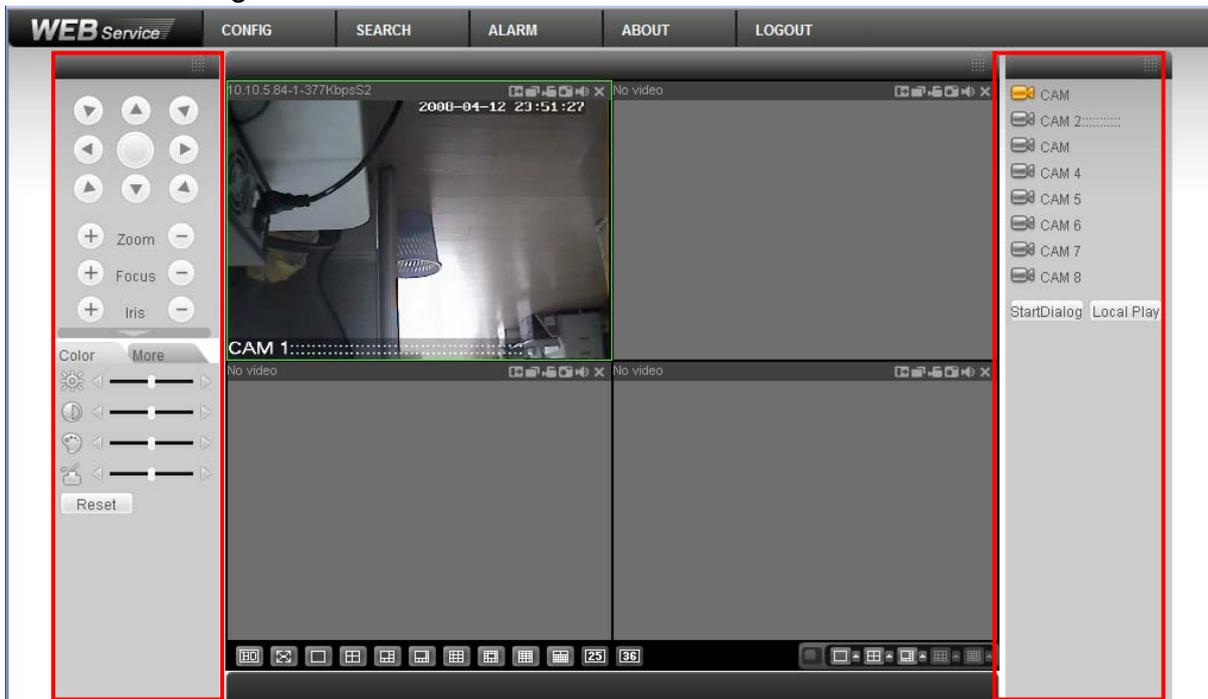


Figure 6-19

6.3 Configure

In the main window, click config button, you can see an interface is shown as in Figure 6-20.

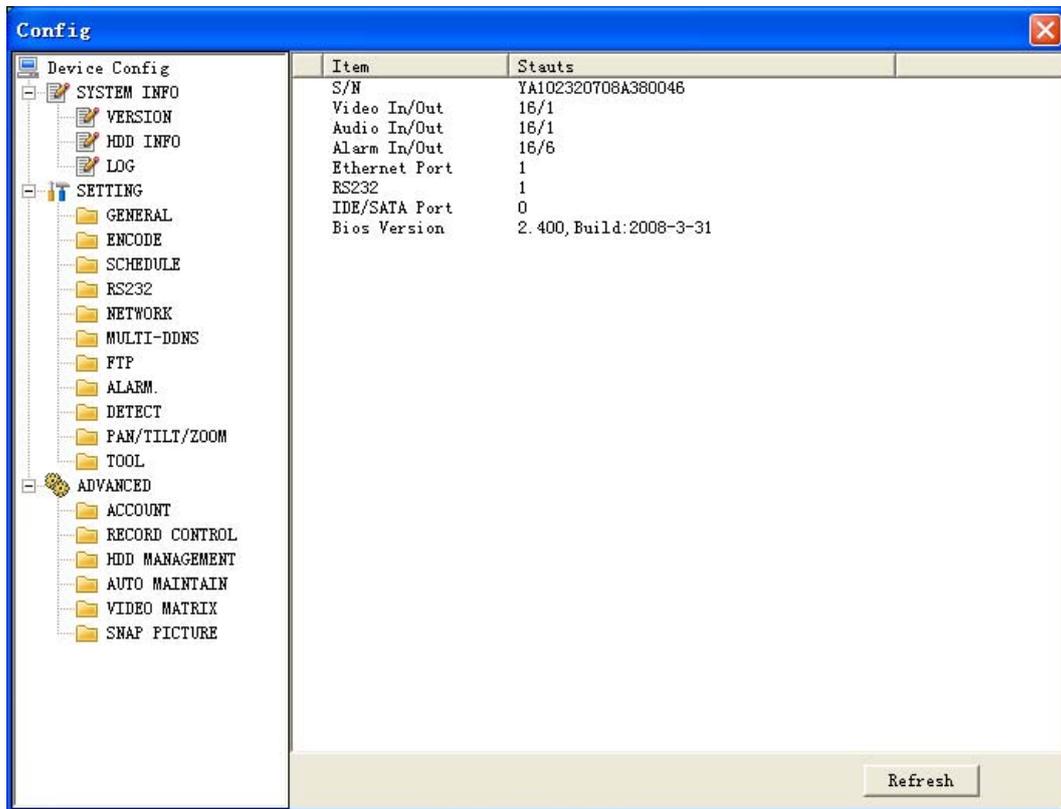


Figure 6-20

6.3.1 System Information

Click device configuration button, you can see the following interface. See Figure 6-21.

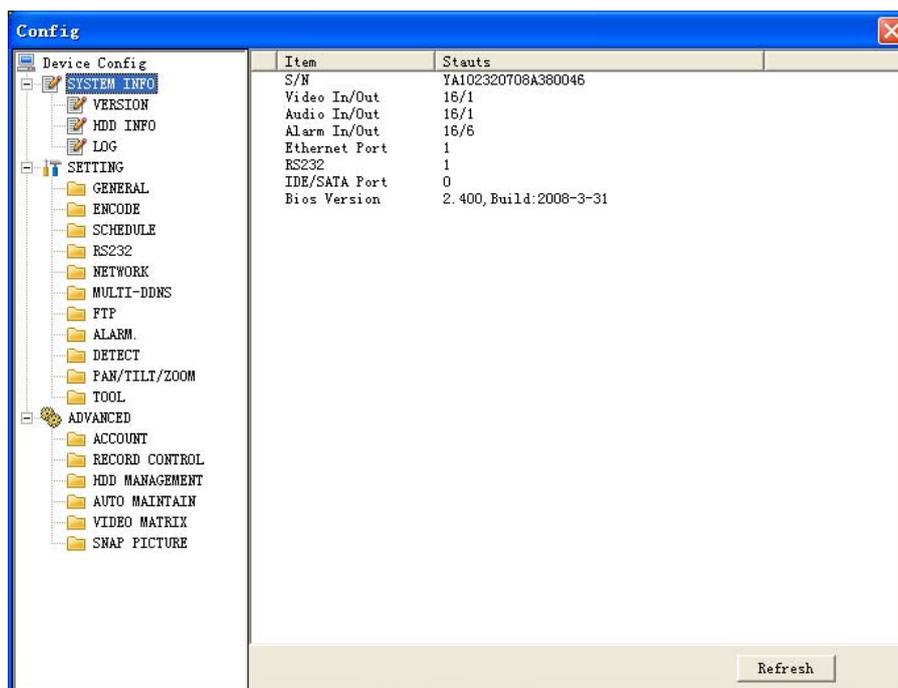


Figure 6-21

- **Version**

Click version button, you can see corresponding HDD information for your reference. See Figure 6-22.

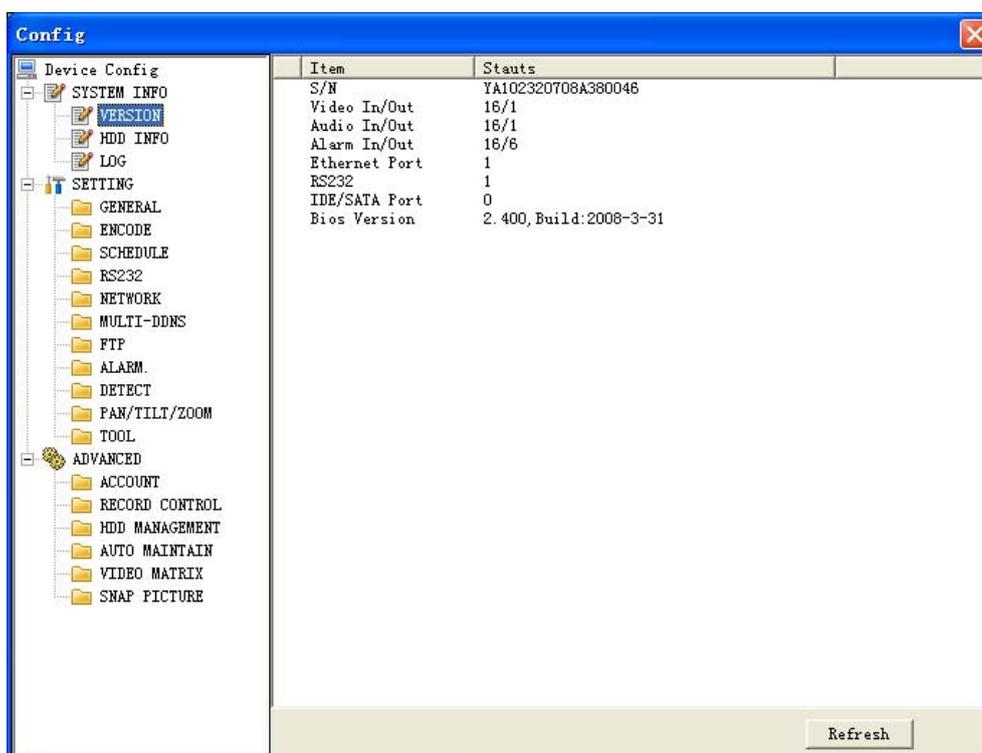


Figure 6-22

- **HDD Information**

Here you can view HDD amount, HDD status, total volume and free space. See Figure 6-23.

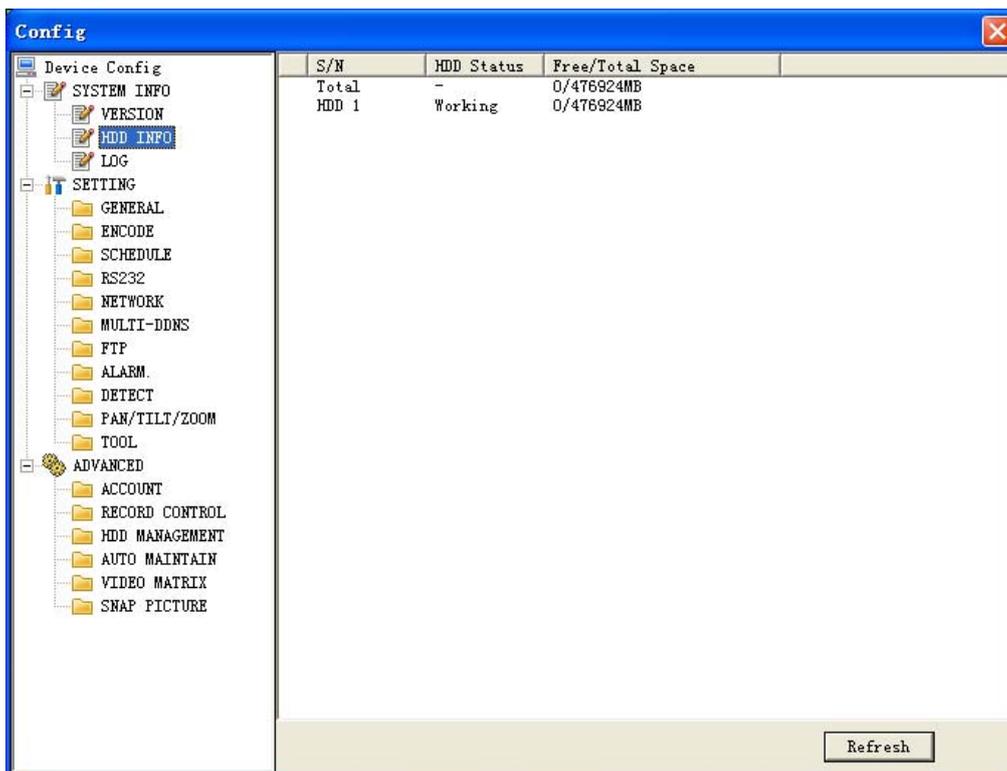


Figure 6-23

- **Log**

Click log button, you can see an interface is shown as in Figure 6-24. Here you can view current device log information.

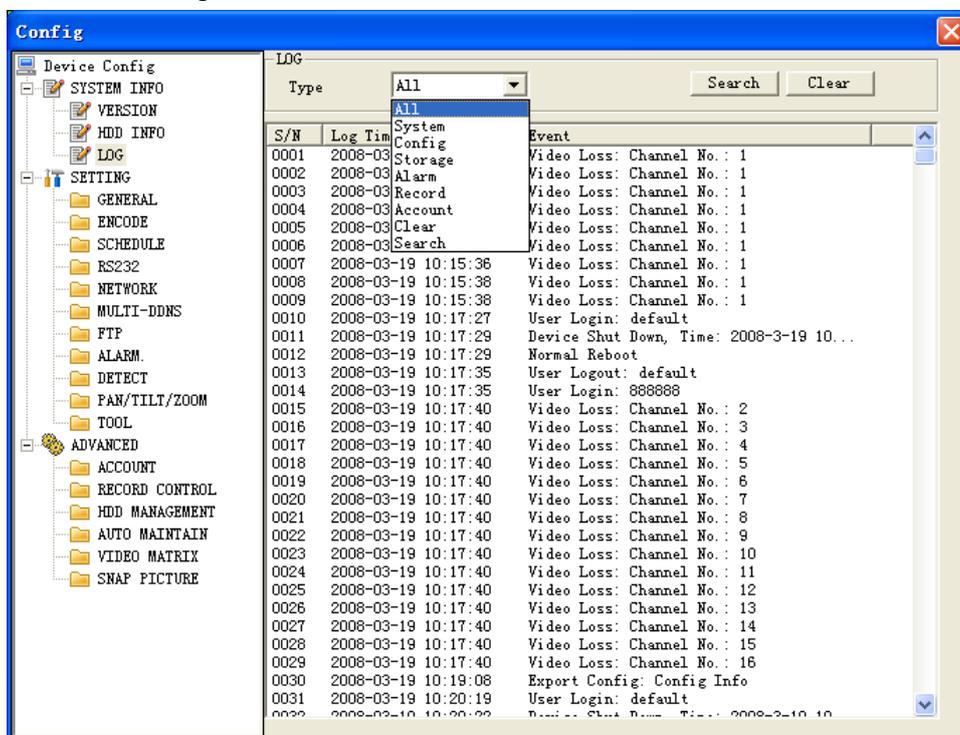


Figure 6-24

6.3.2 Setting

Setting includes the following items:

- ✧ General
- ✧ Encode setup
- ✧ Schedule
- ✧ RS232
- ✧ Network
- ✧ MUL-DDNS
- ✧ FTP
- ✧ Alarm setup
- ✧ Detect
- ✧ Pan/Tilt/Zoom
- ✧ Tool

Please note: setups for different device series may vary. Please refer to the corresponding user's manual.

● **General**

General interface is shown as in Figure 6-25.

- ✧ System time: Here is for you to modify system time. Please click Save after your modification
- ✧ Data format: Here you can select data format from the dropdown list.
- ✧ Data separator: Please select separator such as – or /.
- ✧ Time format: there are two options: 24-H and 12-H.
- ✧ HDD full: there are two options: stop recording or overwrite the previous files when HDD is full.
- ✧ Pack duration: Here you can select file size. Default setup is 60 minutes.
- ✧ Device No.: when you are using one remote control to manage multiple DVRs, you can give these DVRs serial numbers respectively. Click address button in your remote control and then input the correct device number, now you can control the DVR now.
- ✧ Video standard: PAL. (for your reference only)

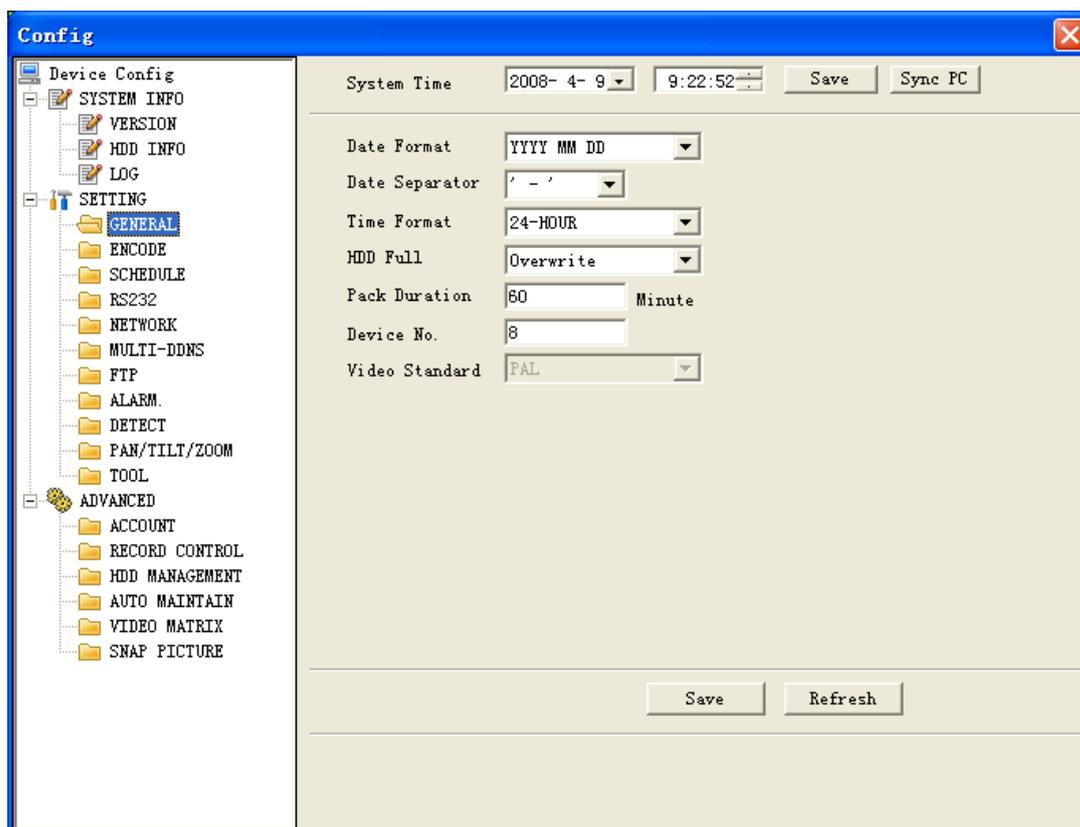


Figure 6-25

● Encode

Encode setup includes the following items. See Figure 6-26.

Here you can select

- ✧ Channel: Here is for you to select a channel.
- ✧ Channel name: Modify channel name.
- ✧ Data stream: Regular and extra data stream.
- ✧ AV enable: Video/Audio. System only displays video by default. You need to manually enable audio function.
- ✧ Bit rate: There are two options: CBR and VBR. You can only set video quality in VBR mode.
- ✧ Frame rate: The value ranges from 1f/s to 25f/s (PAL) and 1f/s to 30f/s (NTSC).
- ✧ Compression: There are two options: H.264 and MPEG 4.
- ✧ Resolution: D1/HD1/DCIF/CIF
- ✧ Quality: The value ranges from 1 to 6. The level 6 is the best video quality.

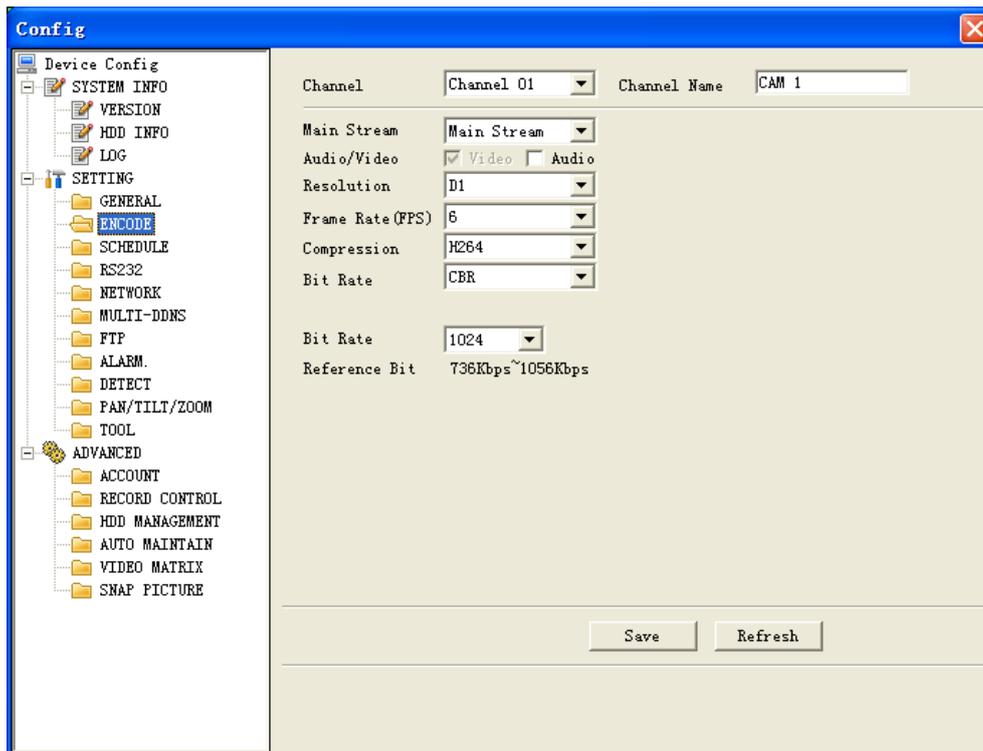


Figure 6-26

- **Schedule**

Schedule includes the following interface. See Figure 6-27.

When DVR boots up, it is in 24-hour continuous record. In this interface you can set record type, record time and period. Record type includes regular record(R), motion detection record (M) and alarm record (A).

- ✧ Channel: select the channel number you desire.
- ✧ Week: you can select from the dropdown list. Or you can select at the bottom of the interface.
- ✧ Prerecord: system can record the three to five seconds video before activating the record operation into the file.(Depends on data size)
- ✧ Period: There are six periods for you to set. Please click set button of the corresponding period. See Figure 6-28.Please note all the setup here shall be in one day. E.g. 00.00 to 24.00.

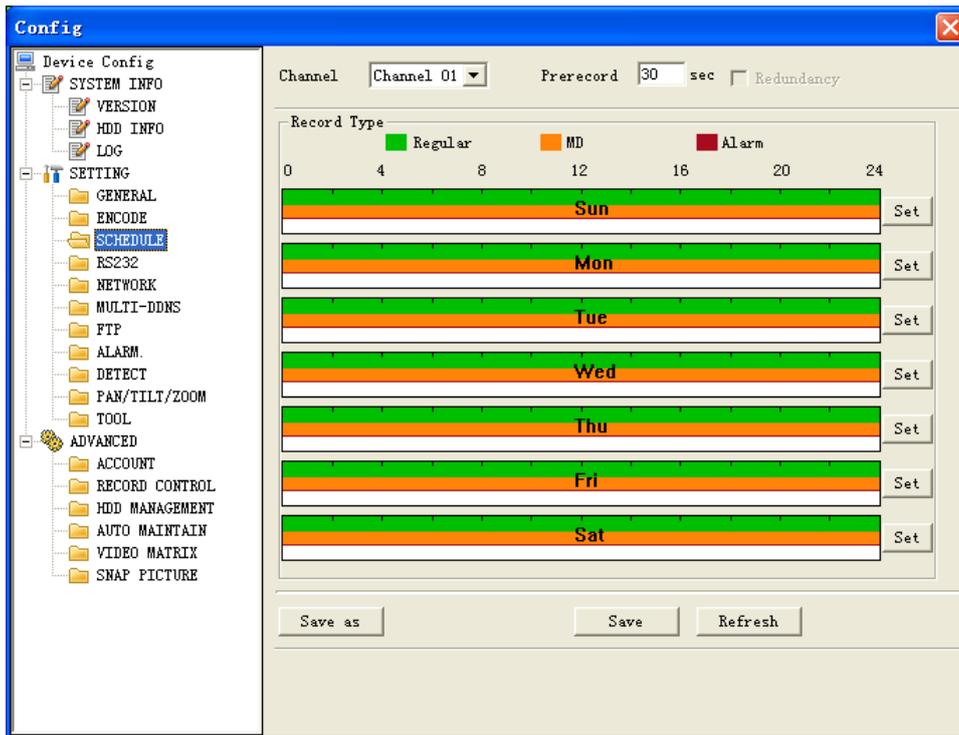


Figure 6-27

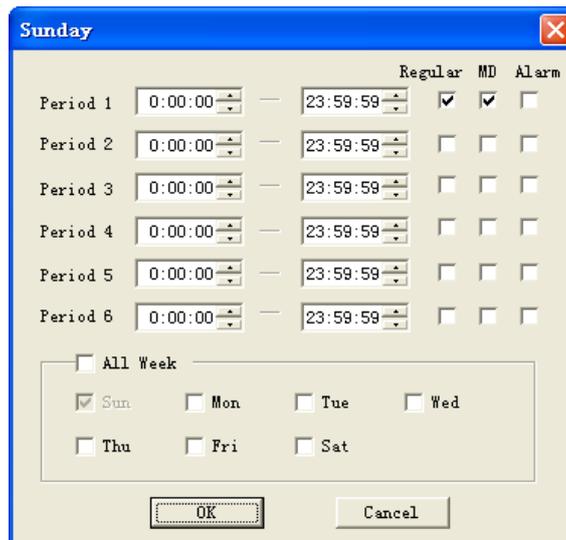


Figure 6-28

Tip:

After you finished setup for one channel, you can click “save as” button, system pops up the following interface. See Figure 6-29. Now you can copy one channel setup to other channels.



Figure 6-29

● **Network**

Network interface is shown as in Figure 6-30.

This interface includes the following items:

Max: Here you can set max connection amount. The value ranges from 0 to 10. 0 means no network connection is allowed.

TCP port: default setup is 37777. Please note port 37778 is for network UDP port use only.

HTTP port: default setup is 80.

Transfer: here you can select the priority between fluency/video quality.

✧ **Enable PPPoE**

In remote item, enable PPPoE function and then input “PPPoE name” and “PPPoE password” you get from your ISP (Internet service provider). See Figure 6-30.

Click save button, you need to restart to activate your configuration.

After rebooting, DVR will connect to internet automatically. The IP displayed in the IP address item is the dynamic value. You can use client-end software to visit current IP now.

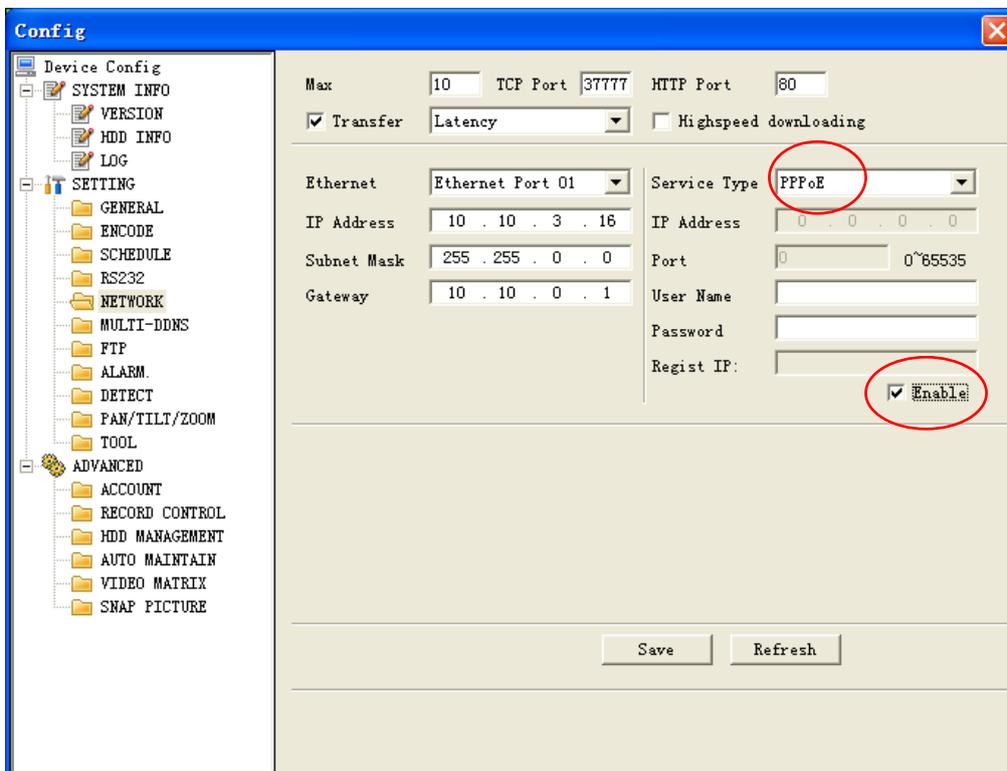


Figure 6-30

✧ **Enable DDNS**

You need a PC of fixed IP in the internet and there is the DDNS software running in this PC. In other words, this PC is a DNS (domain name server).see Figure 6-31.

Please enable DDNS function and then input PC IP. Click save button and then reboot device. Now you can login via DDNS. Please open IE and then input http:

//(DDNS server IP)/ DDNServer / default.htm. for example, input http:

//10.5.2.149/DDNServer/default.htm, you open a DDNS server web page.

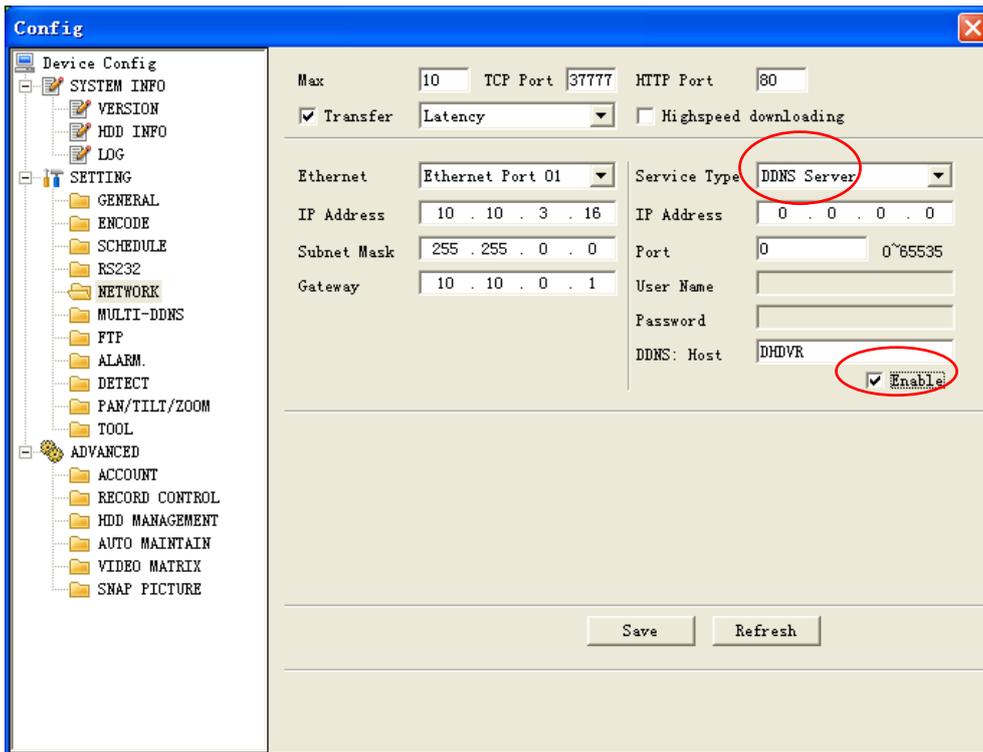


Figure 6-31

● **RS232**

RS232 includes the following items. See Figure 6-32.

- ✧ Function: There are various devices for you to select. Console is for serial port or min-end platform to upgrade program. Keyboard is for you to use special keyboard to control current device.
- ✧ Baud rate: Please select as you desire.
- ✧ Data bit: The value ranges from 5 to 8.
- ✧ Stop bit: There are three options: 1/1.5/2.
- ✧ Parity: There are three options: none/odd /even.

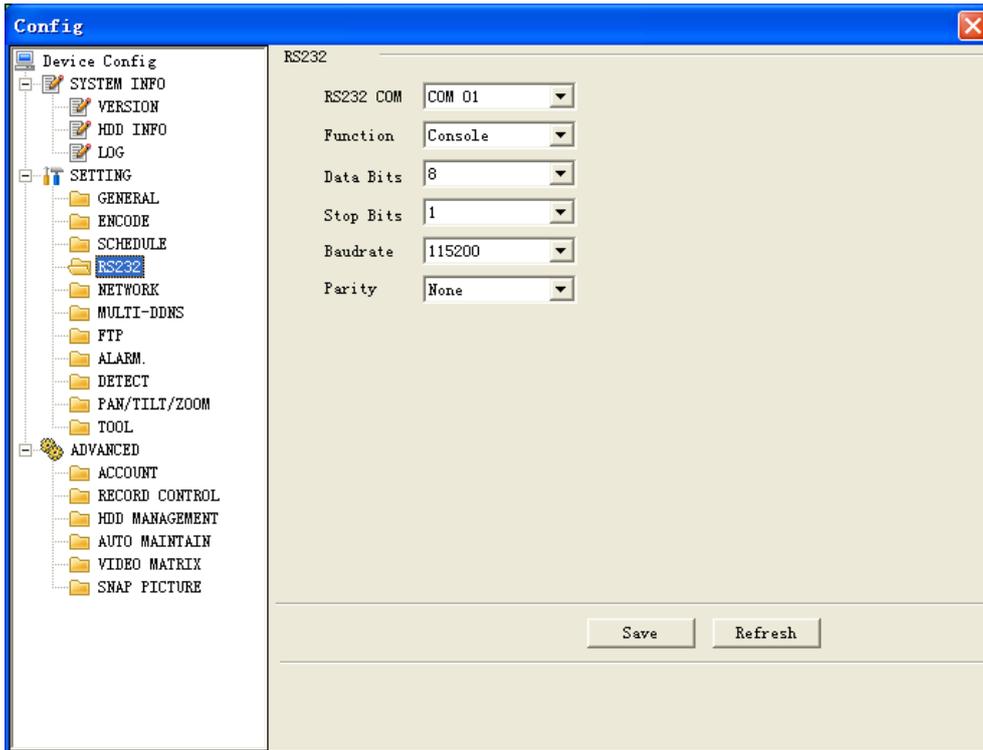


Figure 6-32

- **Mul-DDNS**

Here you can select DDNS type. This operation needs DVR device supported. See Figure 6-33.

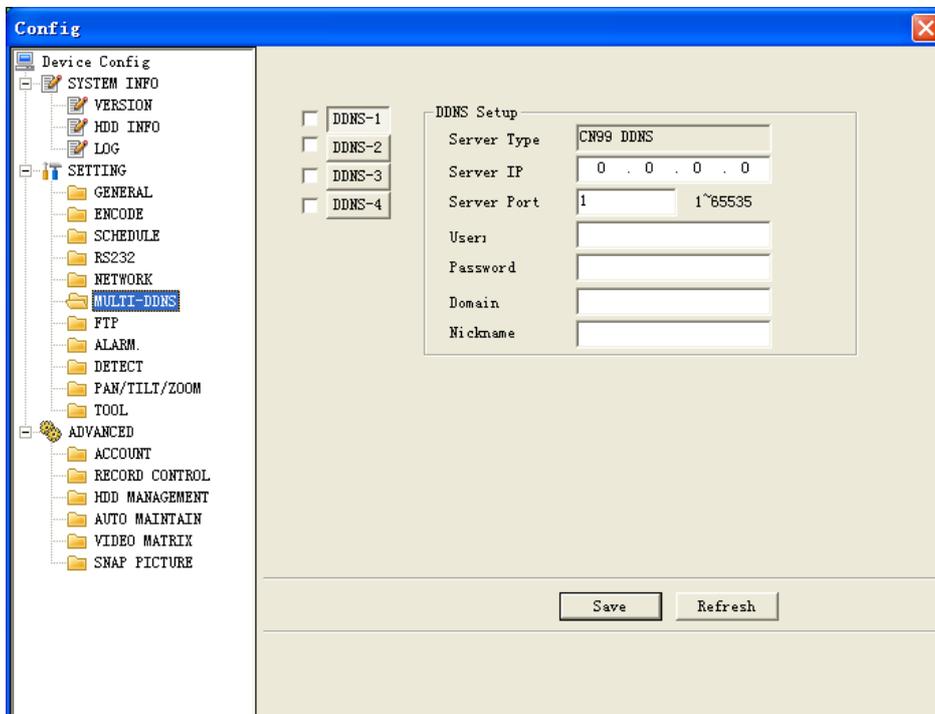


Figure 6-33

- **FTP**

After you completed setup here, system upload scheduled data to the specified FTP server regularly. Need device supported.

In Figure 6-34, you need to input FTP server address, port, log in user name and password. Then you need to specify the destination directory to save files.

- File: here you can input uploaded file length (Unit: MB) if the file is smaller than the setup value here, system upload the whole file. If the file is larger than the setup value, system only uploads the setup value data and ignores the rest data.
- Interval: for one channel of the same record type if there is more than one alarm, system only uploads the first file. For example, if the interval is five minutes, then system only uploads the first alarm or motion detection file even though there are several alarms in these five minutes. If the setup is 0, then system upload all files.
- Time period: Click set button, you can an interface as in Figure 6-35. You can check the box to select the file type. System supports multiple choices.

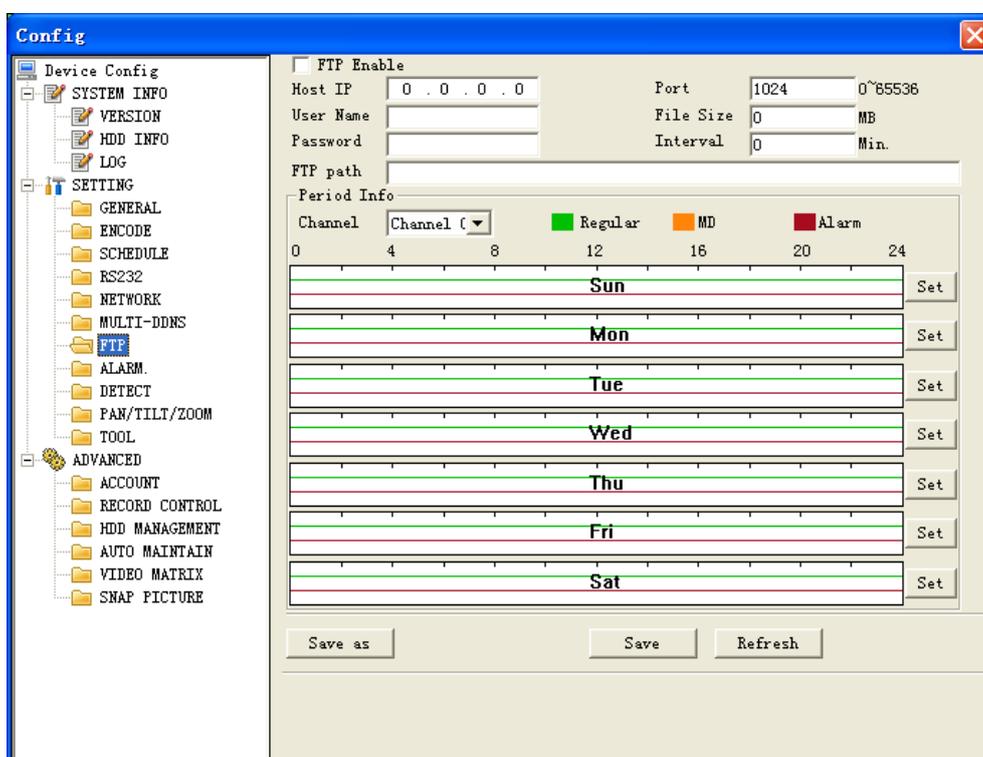


Figure 6-34

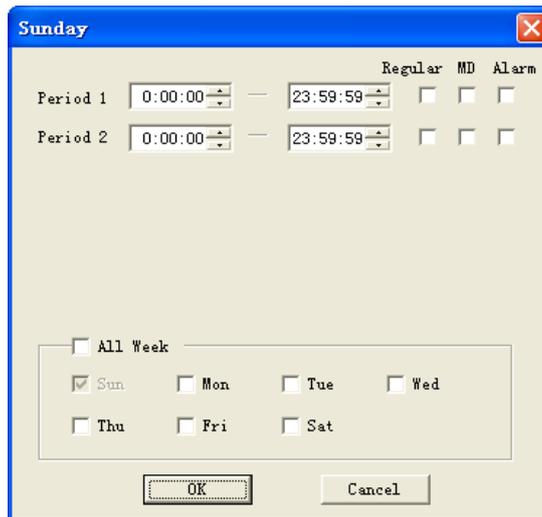


Figure 6-35

● Alarm

Please note before alarm setup, you need to properly connect alarm input and output device, send address and receive address. Click save button confirm current setup. Alarm setup includes the following items. See Figure 6-36.

- ✧ Event Type: you can select event type from the drop down list: Local alarm/Net alarm.
- ✧ Alarm in: Select corresponding alarm in channel
- ✧ Type: There are two options: normal open and normal close.
- ✧ Record channel: select record channel when alarm occurs. Please note you need to select alarm record in DVR schedule interface and enable schedule function in manual record interface.
- ✧ Alarm output: select alarm activation channel when alarm occurs. Please note channel 3 is to control +12V output.
- ✧ Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- ✧ Email: System can send out email to alert you when alarm occurs.
- ✧ PTZ activation: Here you can set PTZ movement when alarm occurs. Such as go to preset x when there is an alarm. Click set button, the interface is shown as in Figure 6-37.
- ✧ Tour: Here you can enable tour function when alarm occurs. System supports multiple-window tour. Please go to chapter 5.3.9 Display for tour interval setup.

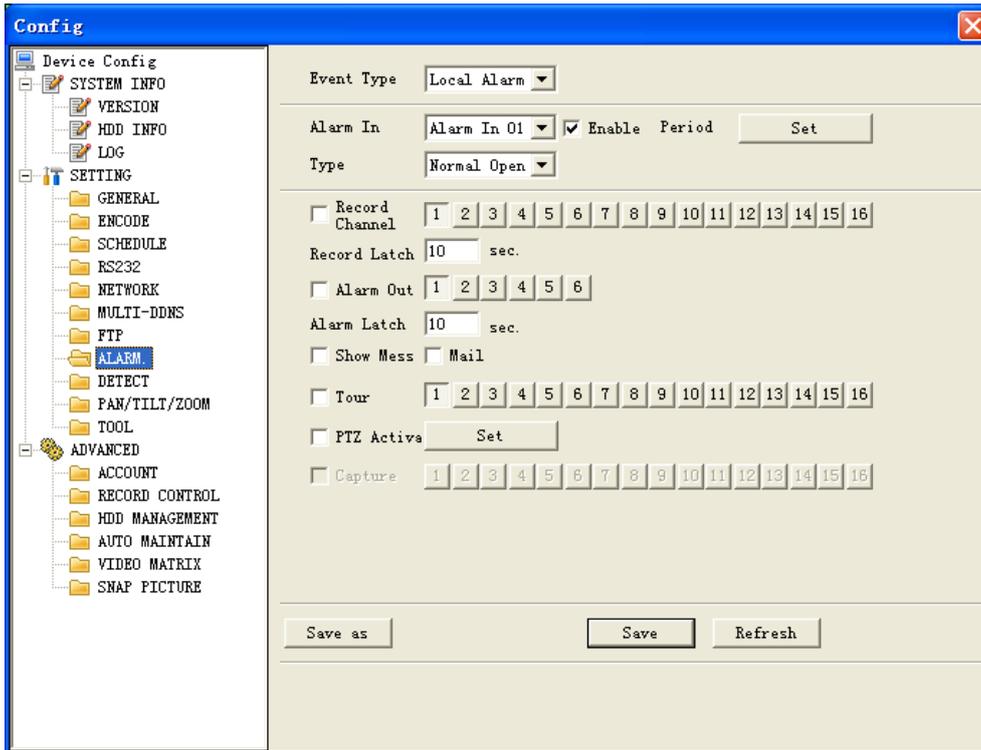


Figure 6-36



Figure 6-37

● **Detect**

Detect interface is shown as in Figure 6-38.

Here includes the following items:

- ✧ Channel: Select channel name from the dropdown list.
- ✧ Type: There are three types: motion detection/Video loss/Camera mask detection.
- ✧ Record channel: Here you can select record channel (Multiple choices). Please make sure you have set MD record in encode interface(Main Menu->Setting->Schedule) and schedule record in manual record interface(Main Menu->Advanced->Manual Record)

- ✧ Period: Here is for you to set record period. Click set button, you can see an interface is shown as in Figure 6-39. In Figure 6-39, click time set button, you can see an interface is shown as in Figure 6-40. Here you can set time period.
- ✧ Sensitivity: There are six levels. The sixth level has the highest sensitivity.
- ✧ Region: If you select motion detection type, you can click this button to set motion detection zone. The interface is shown as in Figure 6-41. There are 192 zones (16*12). Right click mouse you can go to full-screen display mode. Do remember clicking OK button in Figure 6-41 to save your motion detection zone setup.
- ✧ Alarm output: Here you can select activated external peripheral device when alarm occurs.
- ✧ Show message. System can alert you on the local screen if you enabled this function.
- ✧ Mail: system can send out email to alert you when alarm occurs.
- ✧ Tour: Here you can enable tour function when alarm occurs in corresponding channel. System supports multiple-window tour. Please go to chapter 5.3.9 Display for tour interval setup.
- ✧ PTZ activation: Click set button, you can see an interface is shown as in Figure 6-42. System can go to corresponding preset when alarm occurs.

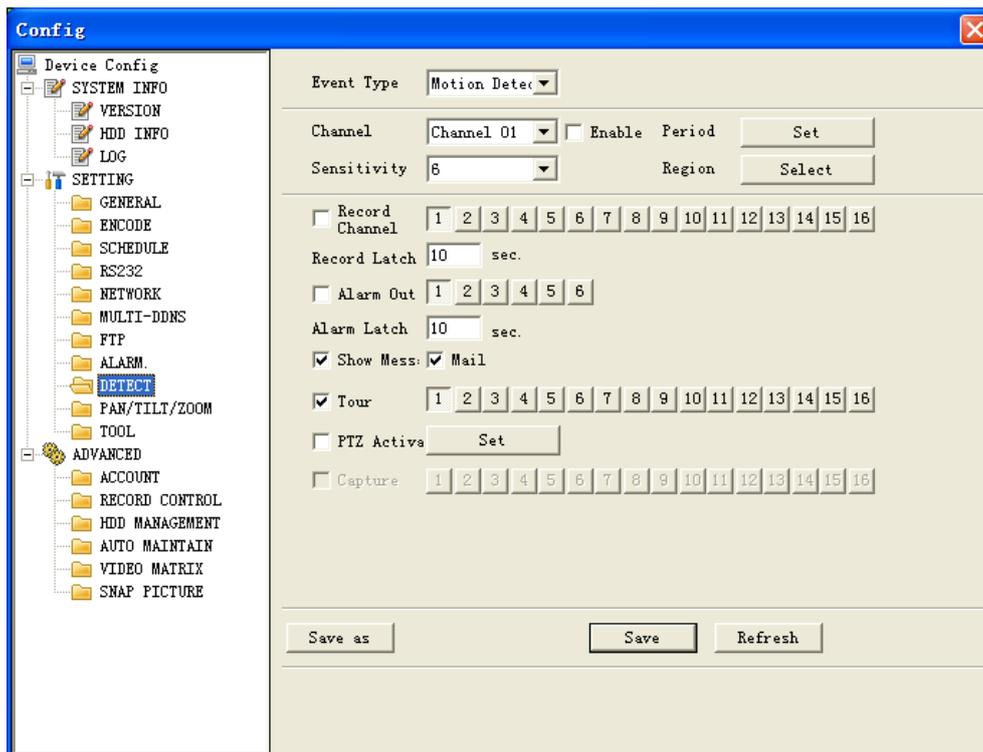


Figure 6-38

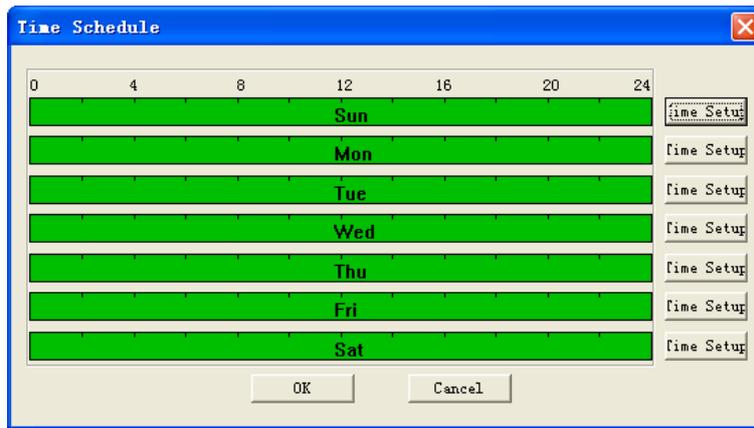


Figure 6-39

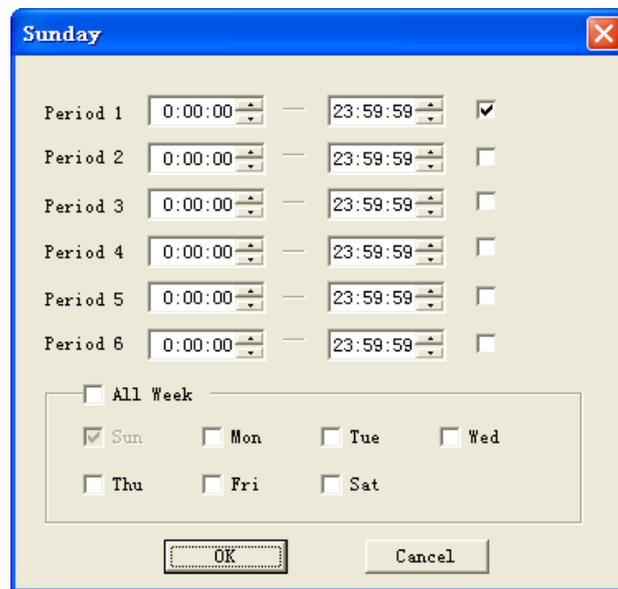


Figure 6-40

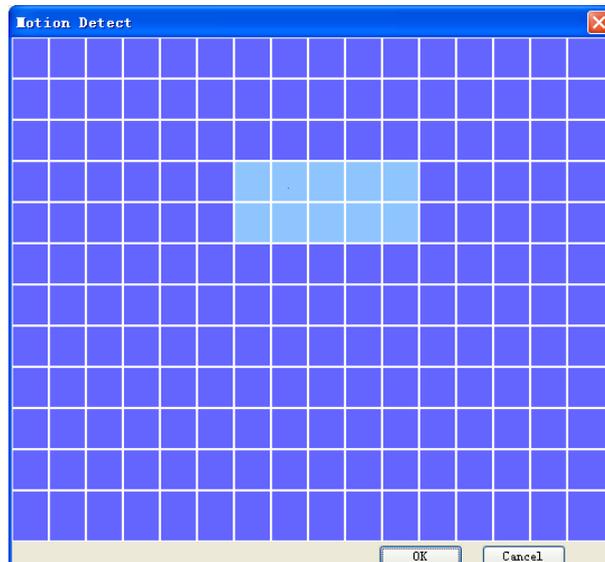


Figure 6-41



Figure 6-42

● **Pan/Tilt/Zoom**

Pan/Tilt/Zoom interface is shown as in Figure 6-43.

Please note you have properly set dome address and all connections are right.

- ✧ Decoder: Select the dome connected channel.
- ✧ Protocol: select the corresponding dome protocol.(such as Pelco)
- ✧ Address: Set corresponding dome address. Default value is 1. Please note your setup here shall comply with your dome address; otherwise you can not control the speed dome.
- ✧ Baud rate: Select the dome baud rate. Default setup is 9600.
- ✧ Data bit: Default setup is 8.
- ✧ Stop bit: Default setup is 1.
- ✧ Parity: Default setup is none.

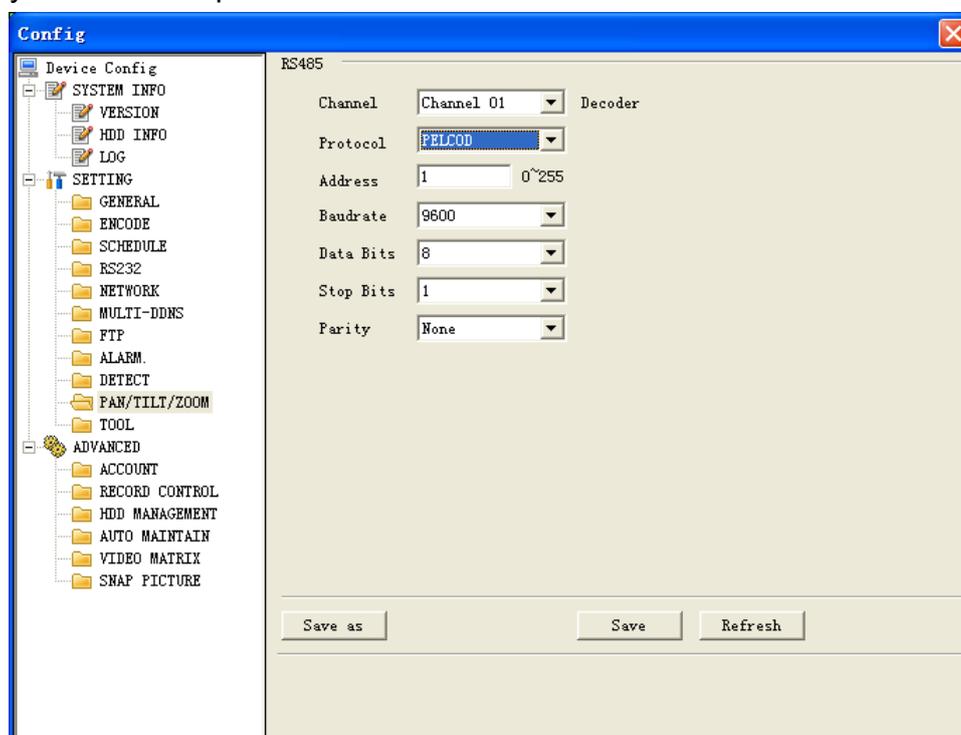


Figure 6-43

● **Tool**

Here you can export or import configuration information. See Figure 6-44.

Save configuration data: Click export config button to save current setup as a file. Extension name is CFG. See Figure 6-45.

Load configuration data: Click import config button, you can load a setup file.

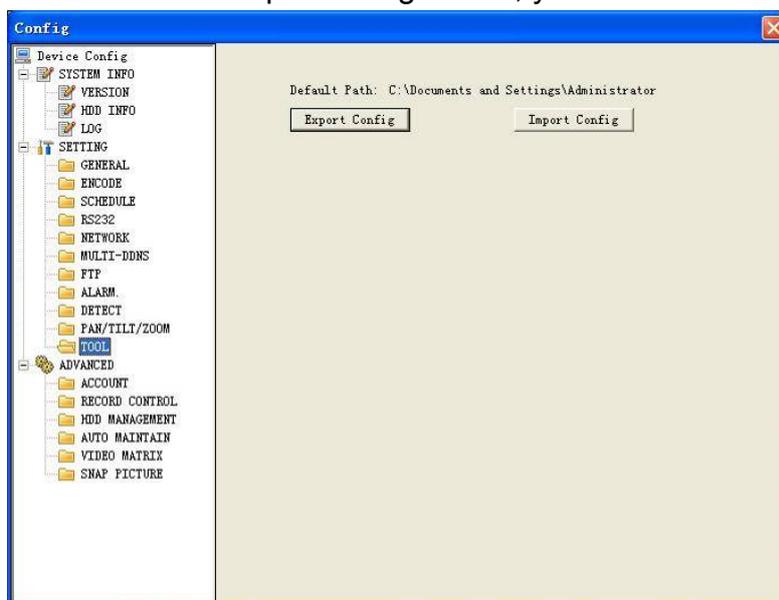


Figure 6-44

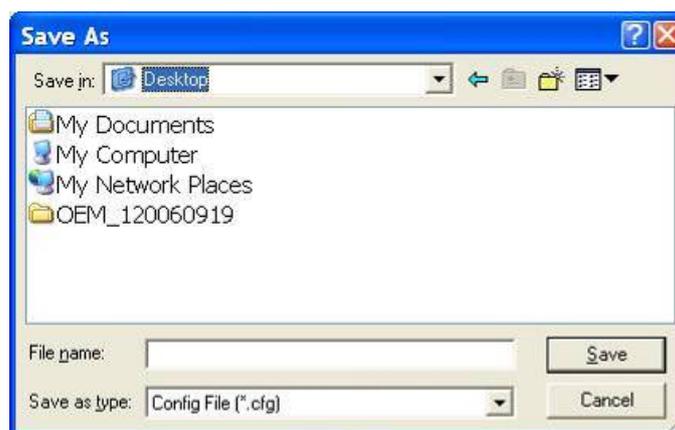


Figure 6-45

6.3.2.1 Advanced

Advanced includes the following items. See Figure 6-46.

- ✧ Account
- ✧ HDD management
- ✧ Alarm input
- ✧ Alarm output
- ✧ Auto maintain
- ✧ Video matrix
- ✧ Snapshot
- **Account**

Account interface is shown as in Figure 6-46. Here you can add/delete user, add/delete group, modify user or group right, modify user password.

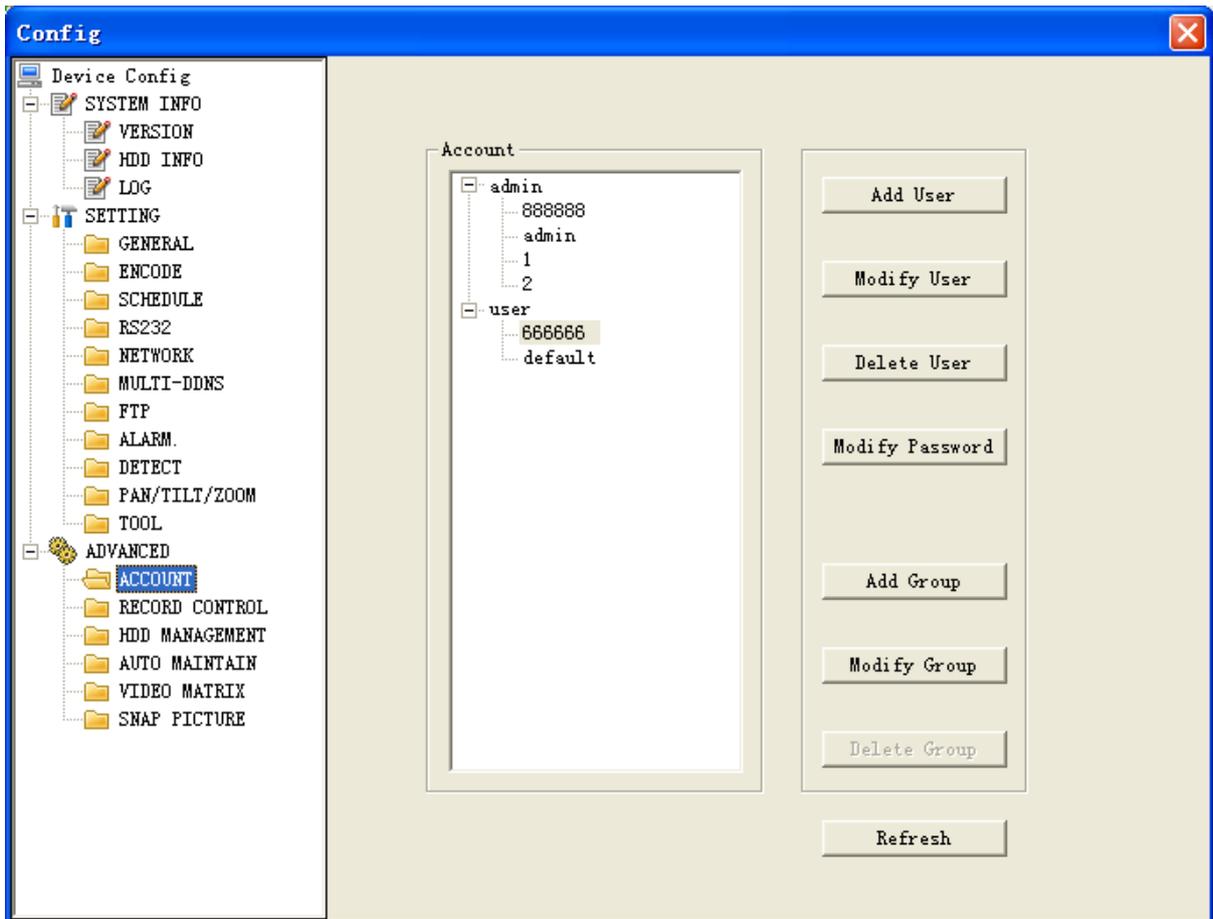


Figure 6-46

Click add group button, you can see the following interface. See Figure 6-47. Here you can add one new group, and then select corresponding rights for the whole group accounts.

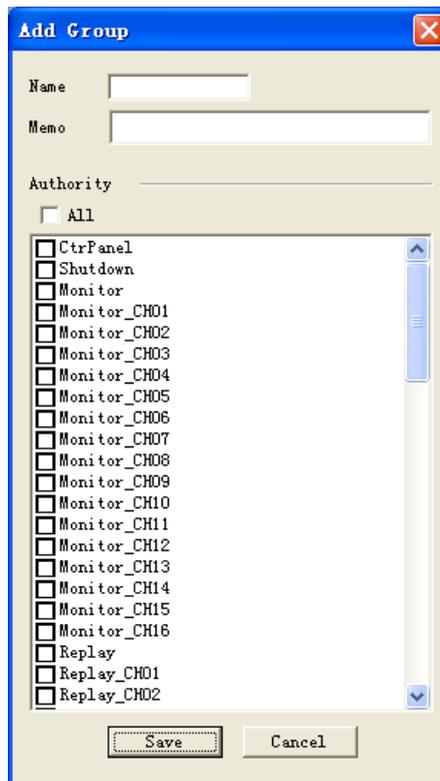


Figure 6-47

Click add user button, you can see the following interface. See Figure 6-48. Here you can input a new user and then select corresponding rights. Please note one user must belong to one group and user right shall not exceed group rights limit.

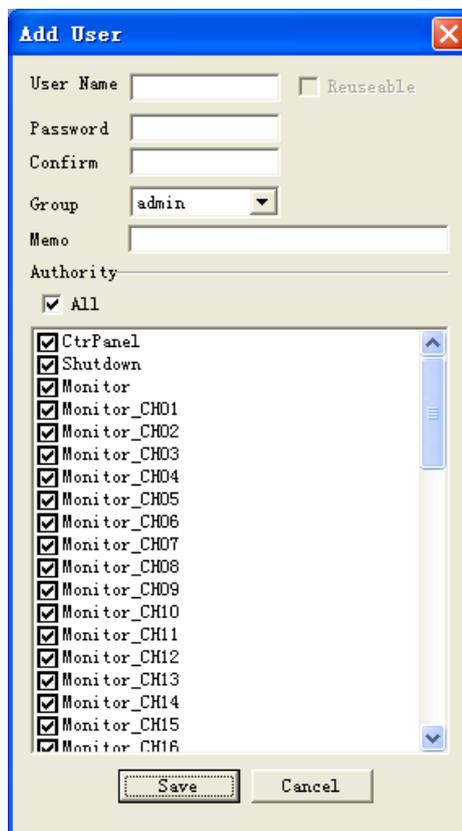


Figure 6-48

- **Record Control**

Record control interface is shown as in Figure 6-49.

Record control: Here you can enable record status for corresponding channel.

Alarm output channel: Here you can select alarm output channel. DVR output channel can not support large overload. (It shall be less than 1A). Too heavy current may result in relay damage. Please use contactor if necessary.

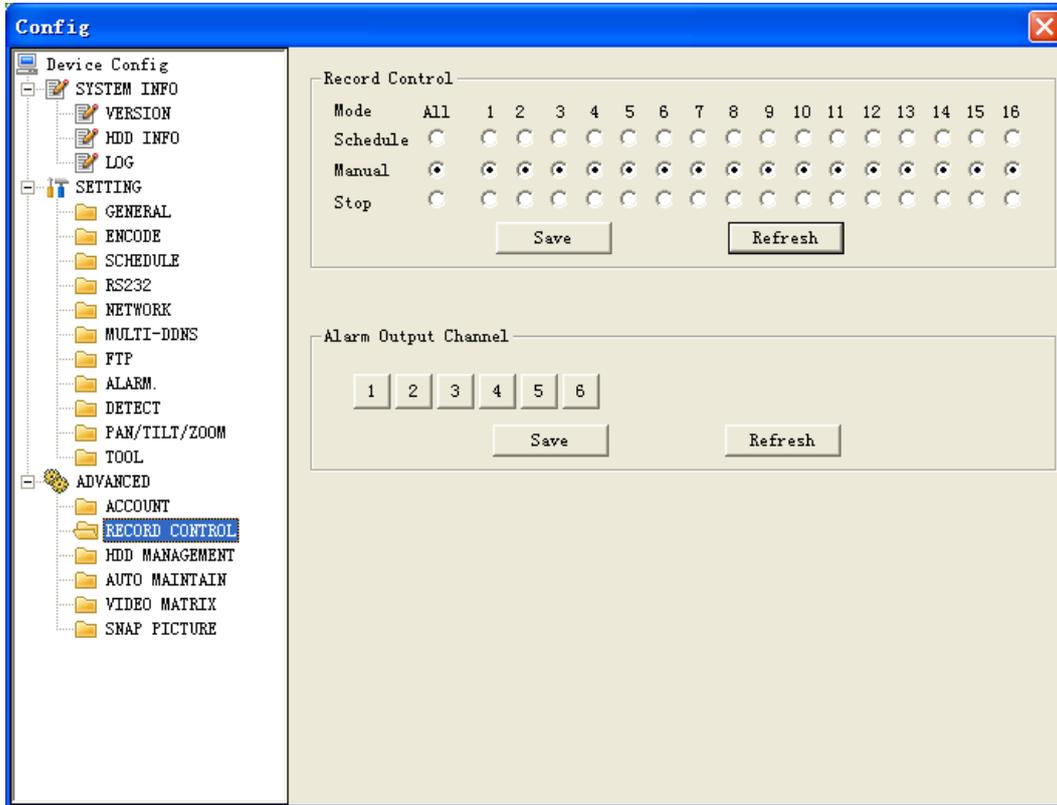


Figure 6-49

- **HDD management**

This function needs DVR device supported.

Please select the HDD first and then you can see the items on your right become valid. You can check the corresponding item here. See Figure 6-50.

After you completed setup, please click control HDD button, you can see the DVR begins restarting.

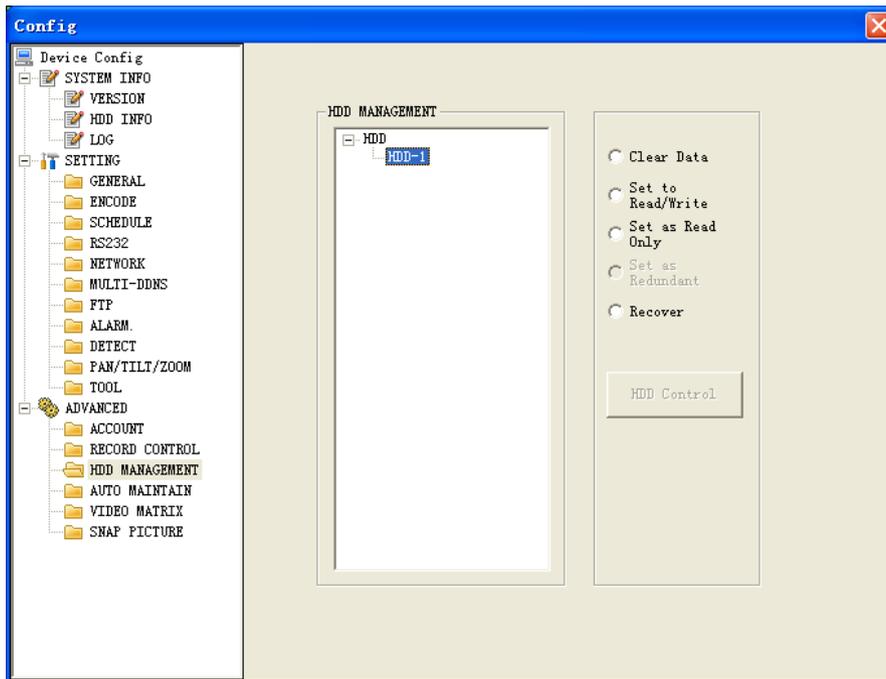


Figure 6-50

- **Auto maintenance**

Auto maintenance interface is shown as in Figure 6-51. Here you can enable auto reboot or auto delete old files function. (Need DVR supported)

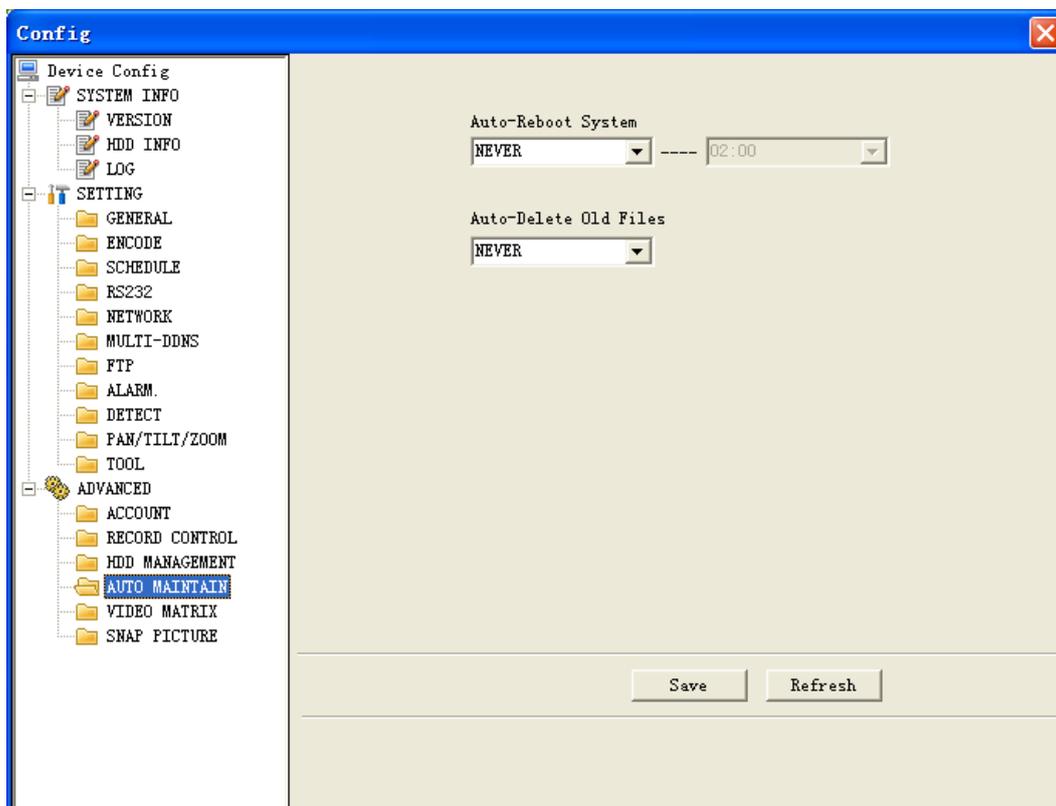


Figure 6-51

- **Video Matrix**

Video matrix interface is shown as in Figure 6-52. Please note this function needs DVR supported.

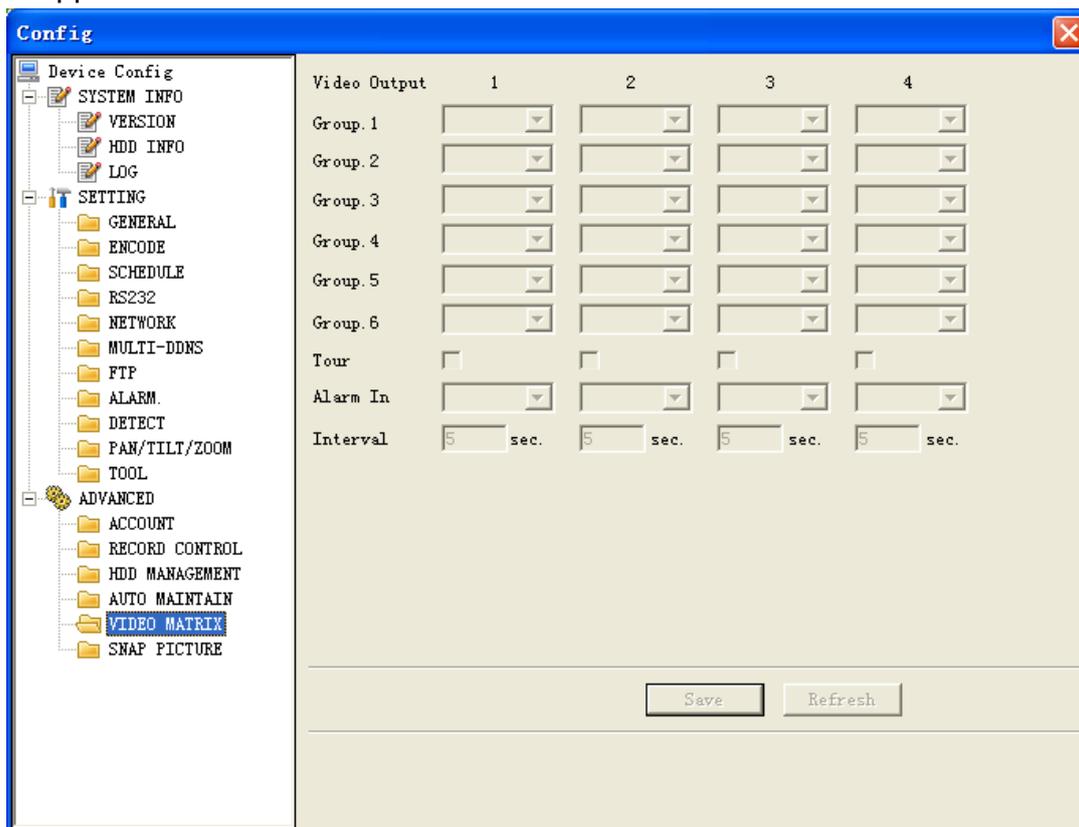


Figure 6-52

- **Snap Picture**

Snapshot interface is shown as in Figure 6-53. Please note this function needs DVR supported.

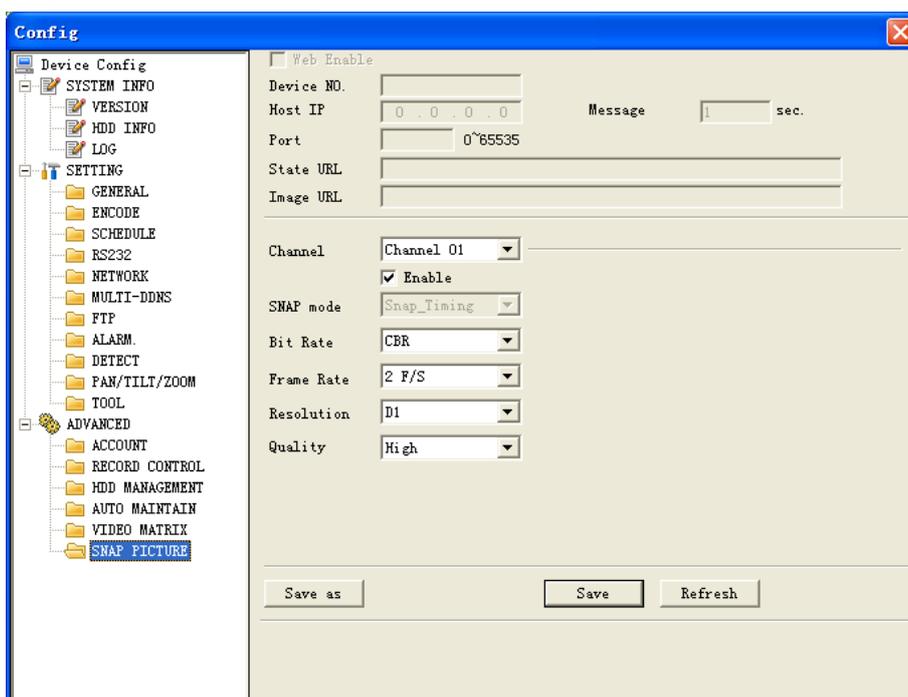


Figure 6-53

6.4 Search

Here you can select video type, channel number and time to search the file you want.

Click search button, the interface is shown as below. See Figure 6-54

Please use page up/down key to view the search results.

Double click file name, you can view the file and system will automatically backup the image in you installation directory.

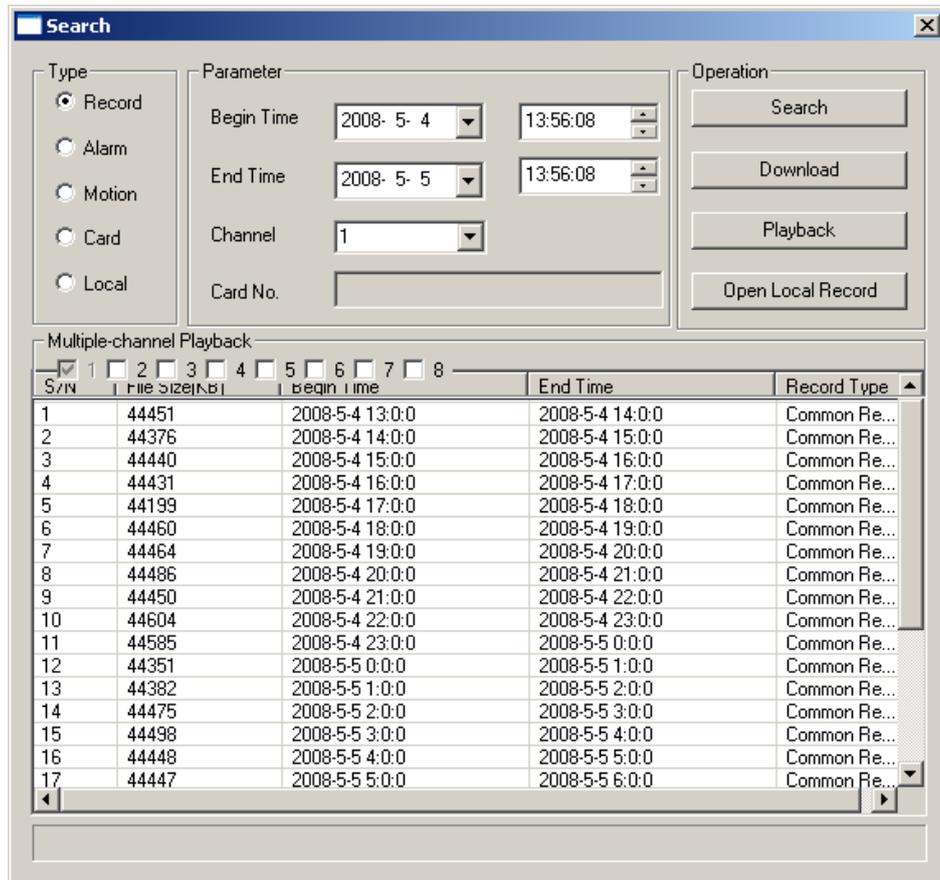


Figure 6-54

In the search result interface, you can select one or more files to download to your local PC.

The playback bar is shown as below. See Figure 6-55.

- 1: Play
- 2: Pause
- 3: Stop
- 4: Slow play
- 5: Fast play



Figure 6-55

6.4.1 Download

You can select one or more files you want to download and then click down load button. System pops up a dialogue box asking you specify directory. See Figure 6-56.

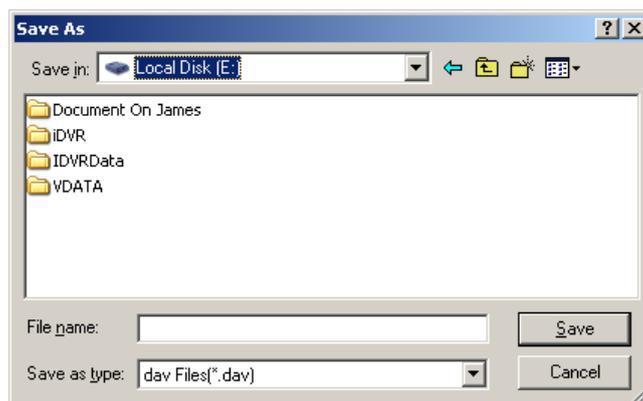


Figure 6-56

Then you can input file name and click save to backup file in your local pc. During the download process, there is a process bar for you reference. See Figure 6-57.



Figure 6-59

6.7 Log out

Click log out button, system goes back to log in interface. See Figure 6-60.

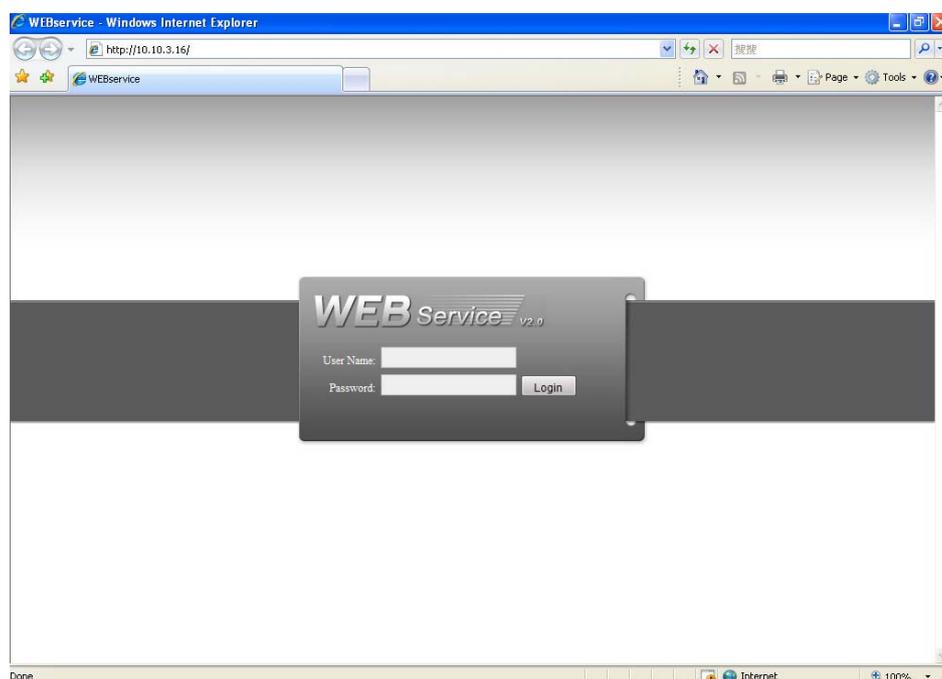


Figure 6-60

6.8 Un-install Web Control

You can use web un-install tool “uninstall web.bat” to un-install web control.

Please note, before you un-installation, please close all web pages, otherwise the un-installation might result in error.

Slight difference may be found in user interface.

All the designs and software here are subject to change without prior written notice.

Please visit our website for more information.

Appendix A HDD Capacity Calculation

Calculate total capacity needed by each DVR according to video recording (video recording type and video file storage time).

Step 1: According to Formula (1) to calculate storage capacity q_i that is the capacity of each channel needed for each hour, unit Mbyte.

$$q_i = d_i \div 8 \times 3600 \div 1024 \quad (1)$$

In the formula: d_i means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage capacity m_i , which is storage of each channel needed unit Mbyte.

$$m_i = q_i \times h_i \times D_i \quad (2)$$

In the formula:

h_i means the recording time for each day (hour)

D_i means number of days for which the video shall

be kept

Step 3: According to Formula (3) to calculate total capacity (accumulation) q_T that is needed for all channels in the DVR during **scheduled video recording**.

$$q_T = \sum_{i=1}^c m_i \quad (3)$$

In the formula: c means total number of channels in one DVR

Step 4: According to Formula (4) to calculate total capacity (accumulation) q_T that is needed for all channels in DVR during **alarm video recording (including motion detection)**.

$$q_T = \sum_{i=1}^c m_i \times a\% \quad (4)$$

In the formula: $a\%$ means alarm occurrence rate

Appendix B Compatible USB Drive List

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below. If you use the USB drive, please confirm the format FAT or FAT32.

Manufacturer	Model	Capacity
Sandisk	Cruzer Micro	512M
Sandisk	Cruzer Micro	1G
Sandisk	Cruzer Micro	2G
Sandisk	Cruzer Freedom	256M
Sandisk	Cruzer Freedom	512M
Sandisk	Cruzer Freedom	1G
Sandisk	Cruzer Freedom	2G
Kingston	DataTraveler II	1G
Kingston	DataTraveler II	2G
Kingston	DataTraveler	1G
Kingston	DataTraveler	2G
Maxell	USB Flash Stick	128M
Maxell	USB Flash Stick	256M
Maxell	USB Flash Stick	512M
Maxell	USB Flash Stick	1G
Maxell	USB Flash Stick	2G
Kingax	Super Stick	128M
Kingax	Super Stick	256M
Kingax	Super Stick	512M
Kingax	Super Stick	1G
Kingax	Super Stick	2G
Netac	U210	128M
Netac	U210	256M
Netac	U210	512M
Netac	U210	1G
Netac	U210	2G
Teclast	Ti Cool	128M
Teclast	Ti Cool	256M
Teclast	Ti Cool	512M
Teclast	Ti Cool	1G
Teclast	Ti Cool	2G

Appendix C Compatible CD/DVD Burner List

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below. And you can use the USB cable with the model recommended to set USB burner.

Manufacturer	Model	Interface	Type
Sony	AW-G170S	SATA	DVD-RW
Samsung	TS-H653A	SATA	DVD-RW
Panasonic	SW-9588-C	SATA	DVD-RW
Sony	DRX-S50U	USB	DVD-RW
BenQ	5232WI	USB	DVD-RW