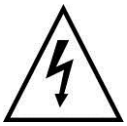
— DVR —

This document contains preliminary information and subject to change without notice.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of unprotected “Dangerous voltage" within the product's enclosure that may be strong enough to cause a risk of electric shock.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

NOTE: This equipment has been tested and found to comply with the limits for a class digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Notice: Ghosting or fractured images may occur on the screen when there is a suddenly surge or lightning stroke which cause damage on IC in the DVRs.

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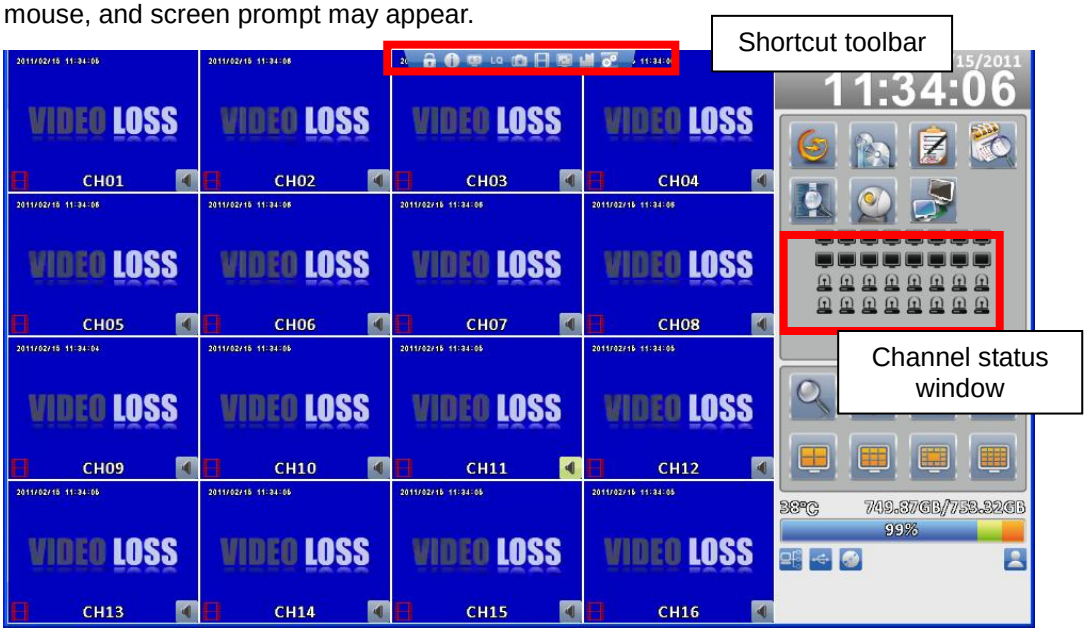
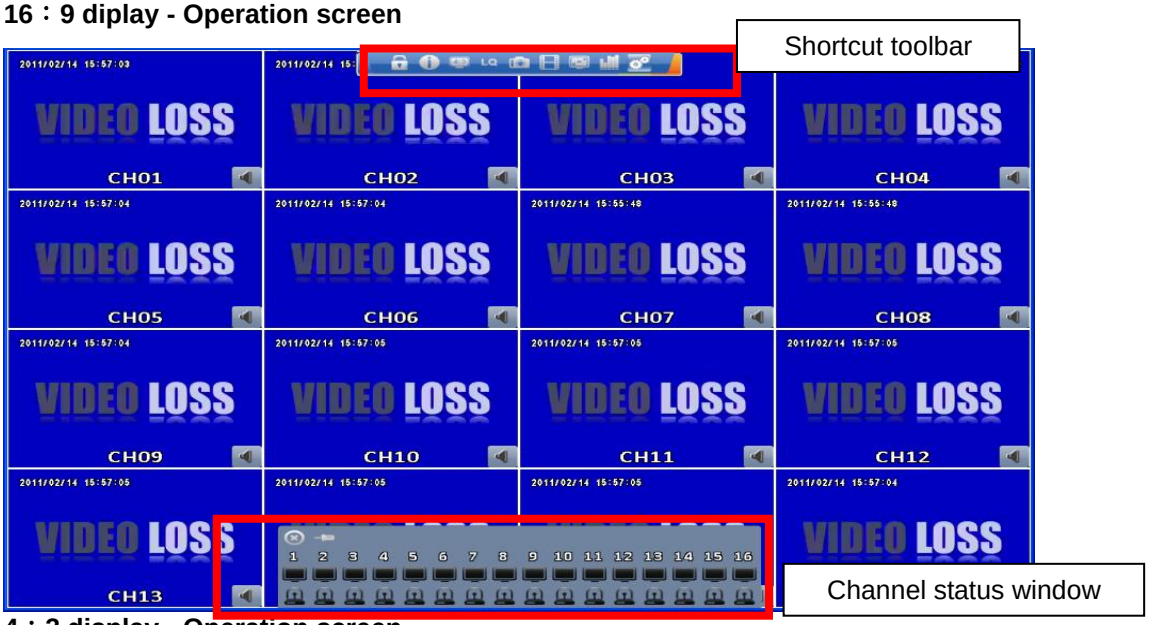
Note： The number of channel, sensor, relay, split screen, and resolution in the following graphs are just for reference. The real graphs differ from different models.

Chapter 1 LIVE OPERATIONS

In live mode, you can monitor all the channels screen, listen to live audio, as well as the operation of the screen, and provide support for 4:3, 16:9 screen aspect ratio. In live mode, you can monitor all the channels screen, listen to live audio, as well as the operation of the screen, and provide support for 4:3, 16:9 screen aspect ratio. 16:9 display mode: the main menu and the DVR system state appears in the right; 4:3display mode: Right-click to display the main menu. Under any of the display, move the mouse above the screen, the shortcut toolbar will appear. In 4:3 mode, move the mouse below the screen, there will be prompt window of the channel state. The following describes the live mode, the remote control operation with the mouse, and screen prompt may appear.



16：9 diplay - Operation screen



4：3 display - Operation screen

Table 1-1 Icon description in live mode

Icon	Description
	Recording is activated
	Live audio is activated
	Live audio is not activated
	Video signal is Normal
	Event recording is active in this channel
	Motion detection is triggered in this channel
	Alarm is triggered in this channel
	Alarm is not triggered in this channel
	The channel video loss alarm has been triggered
	USB device has been detected
	DVD device has been detected
	Network has been detected
	Network has not been detected
	Displays the current user
	Displays the current disk space has been used (99% of the representatives have to use 99%, and the remaining 1%), upper left corner is the hard disk temperature
	Local playback, remote live, remote playback, backup video, each channel will display the time

Chapter 2 MAIN MENU SETUP

To enter the main menu and set up DVR, log-in account and user password are required.
The default password of the administrator is “**123456**”. Please check the “Account Setup” for related setup of other log-in users.

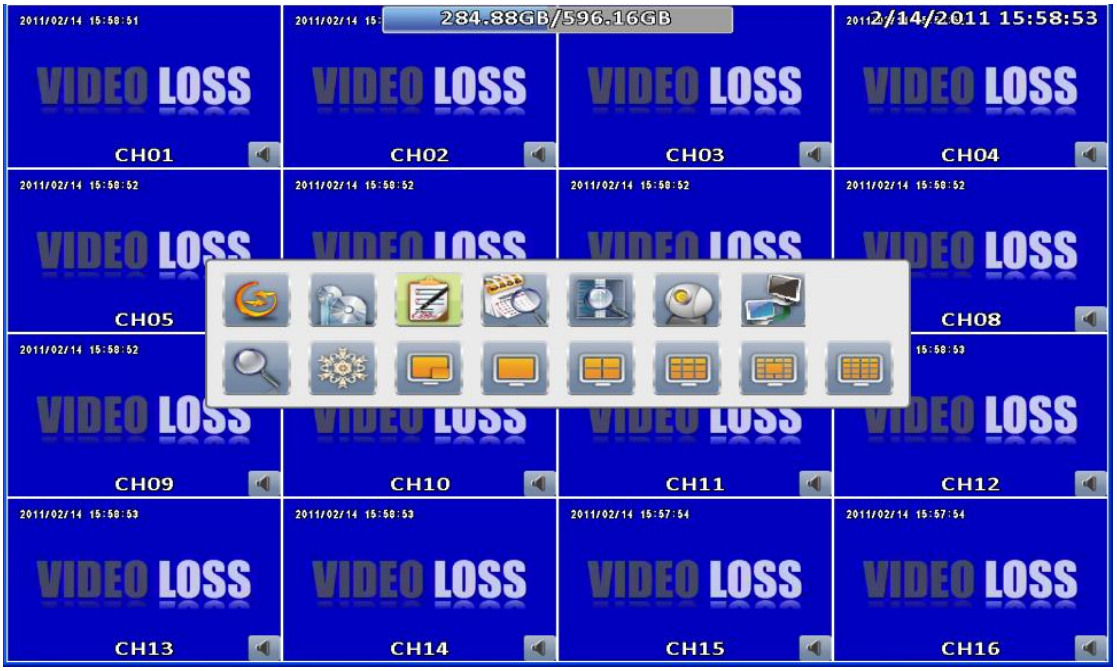
Table 2-1 Some definition of virtual keyboard

Icon	Description
/	Switch between capital and small letters.
.?123 / ABC	Switch between numbers and letters
	Delete the last character。
	Enter to identify the password. It will enter the setup menu, If the password is verified
	Space key

Table 2-2 The operation of remote control under the setting menu

Item	Description
◄ ►	Switch to different options under one item
▲ ▼	Switch to different items
MENU	Save setup and back to LIVE mode
ESC	Back to Upper level of menu without saving
ENTER	Enter the menu, or display virtual keyboard

16:9 display, the main menu on the right of the screen



4:3 display, right-click on the screen to display the main menu

Table 2- 3 Function description

Icon	Description
	Auto channel switch menu
	Backup menu Backup video data from DVR HDD

	Configuration menu Recording settings, event settings, camera settings, account settings, network settings, storage settings, system configuration, and information
	Time search menu Choose a specific time of the video data playback
	Event search menu DVR will automatically record the event. The event list will show the event occurred time, event category, channel events, and other information.
	Enable PTZ mode
	SPOT mode ◦ SPOT on the second monitor
	Zoom in Enlarge video image, 2x to 8x digital zoom
	Enable image freeze function
	Disable image freeze function
	Enable/Disable PIP
	Switch to single screen
	Switch to 4-split display

	Switch to 9-split display
	Switch to 13-split display
	Switch to 16-split display

2-1 Auto Sequential

16:9 display

4:3 display

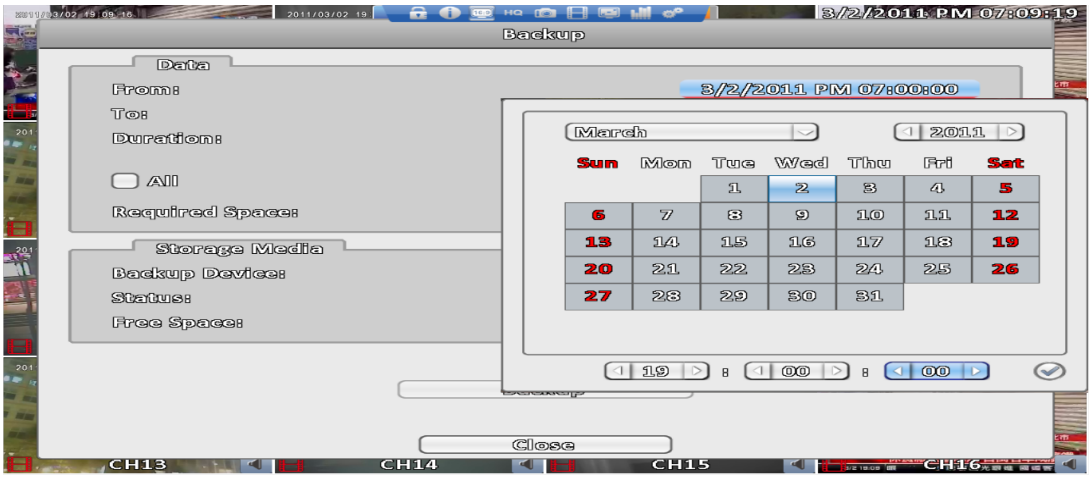
Item	Description
Interval	In SPOT mode, the number of seconds to stay
Single Screen Division	Automatic sequential switch channel by setting the number of seconds, each channel is displayed in a single screen
Video Loss	In single screen switch, whether mask the loss channel
Quad-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in quad-screen division
9-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 9-screen division
16-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 16-screen division

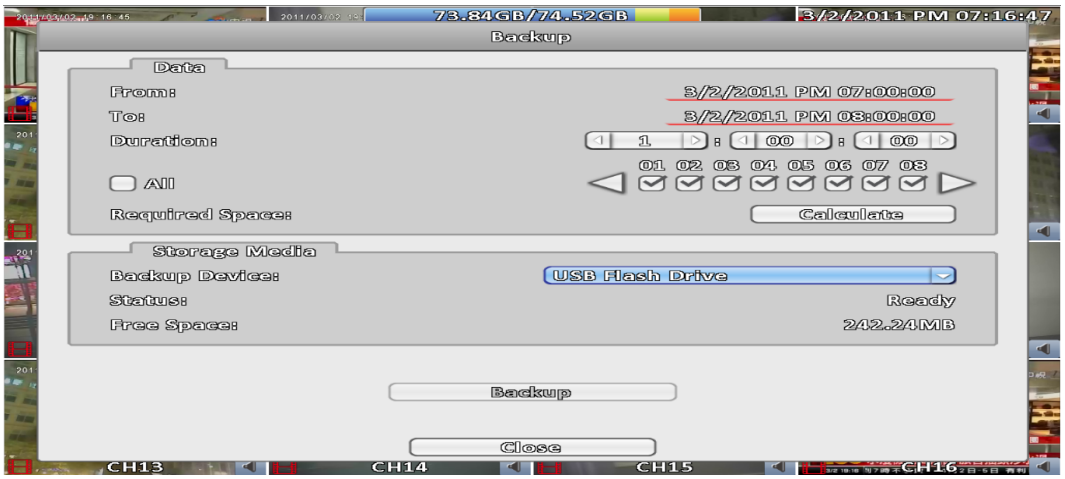
2-2 Backup

User can backup any segment of recorded data in a specified time frame. To do so, either a CD R/W or storage device, like USB, must be connected to the DVR

2-2.1 Selection

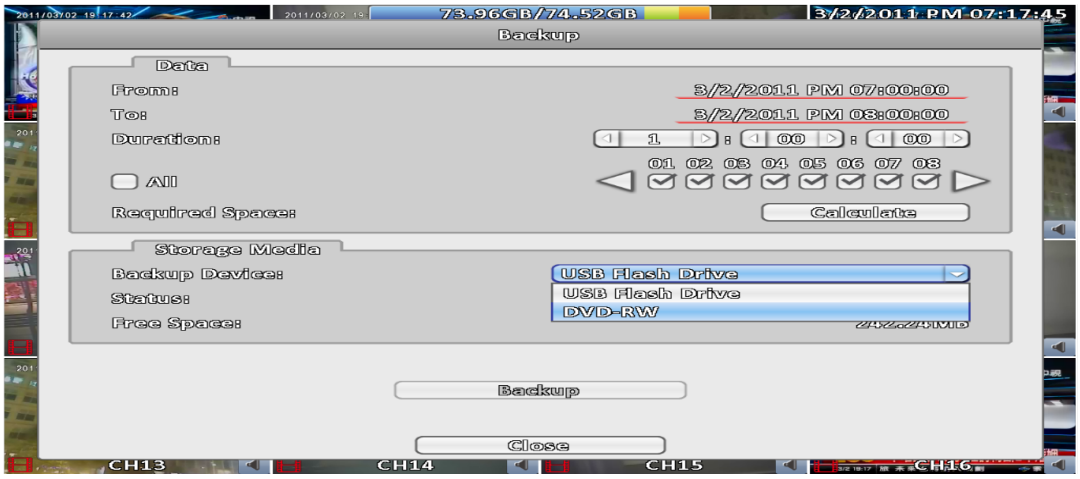
Item	Description
From	The start time of backup file
To	The end time of backup file
Duration	The time of backup file
All	It can select the desired all or part of the channel to backup
Required Sapce	Show the size of the backup file

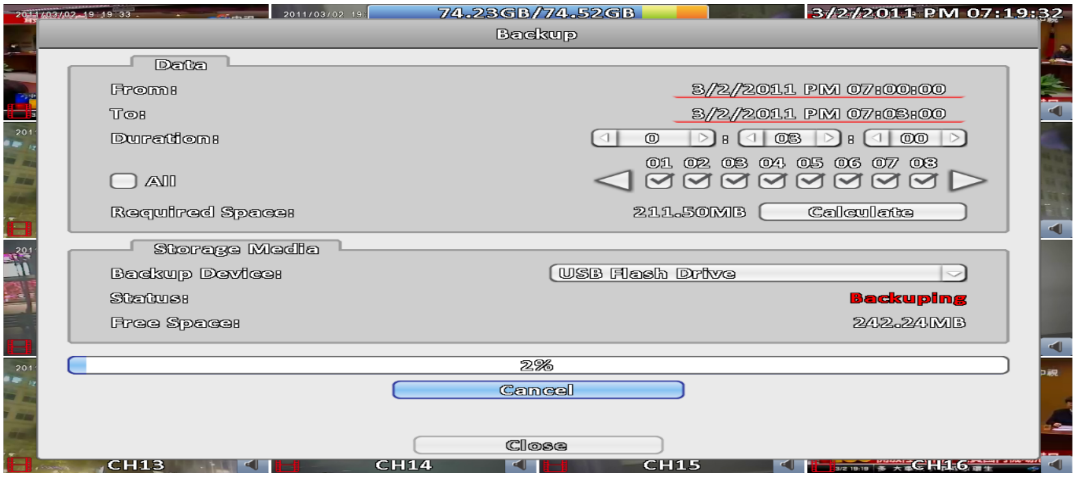




2-2.2 Select Backup Device

Item	Description
Backup Device	Select backup device (USB/DVD-RW) 。
Status	Backup device status
Free Space	The available space in your backup device. (not available for PC backup)
Backup	Start backup operation. **Be sure to calculate the size of backup file BEFORE operating backup.**





Do not unplug the USB device or turn off the DVR during the backup process to avoid unrecoverable error.

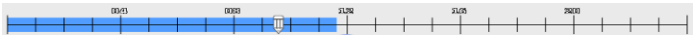
2-3 Cconfigure

Enter to configuration menu, recording settings, event settings, camera settings, account settings, network settings, storage settings, system configuration, and information. Please refer to chapter 3 for detail.

2-4 Time Search

TIME SEARCH can search for the specific time of recording data to playback. Note that dates with recording data are marked with a blue square. System will start playing back according to the date you selected. Calendar will be shown by using mouse to click on “year” and “month”.

Click “date” to display recording time of that specific date with time bar. You can change time (hour/minute/second) or click on a specific time of time bar by mouse then press “ok”. DVR will playback the selected recording data.

選項	說明
	Playback button, start playback.
	Select playback time, the timeline scale of 24 for 24 hours, by sliding the position of the cursor to the specified time, a blue box represents video data.

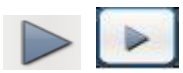
16:9 playback

4:3 playback

Table 2-4 Remote control functions under the PLAYBACK mode

Button	Description
ENTER/ MODE	Switch to full screen or multi split display.
MENU / ▮▮	Turn on/off PAUSE.
PLAY	Play back at normal speed.
▲ / SLOW	Play back at slower speed. The speed will be slowed to 1/2, 1/4, 1/8, by each pressing of the button till the slowest limitation of the normal speed.
◀◀ / ◄	Fast rewind. Each press increases the speed to the next level. There are six speeds: 2x, 4X, 8X, 16x, 32X and 64X.
▶▶ / ►	Fast forward. Each press increases the speed to the next level. There are six speeds: 2x, 4X, 8X, 16x, 32X and 64X.
▼ / ■	Stop playback.

表 2-5 The mouse operation under the PLAYBACK mode.

Icon	Description
	Stop play, back to previous page
	Play
	Pause
	Fast rewind, speed 4x, 8x, 16x, 32x
	Fast forward, speed 4x, 8x, 16x, 32x

	Slow playback, speed 1/2x, 1/4x, 1/8x
	Step plaback
	Zoom-in display, 2x~8x digital zoom
	Full screen display
	Quad display
	9 screen display
	16 screen display

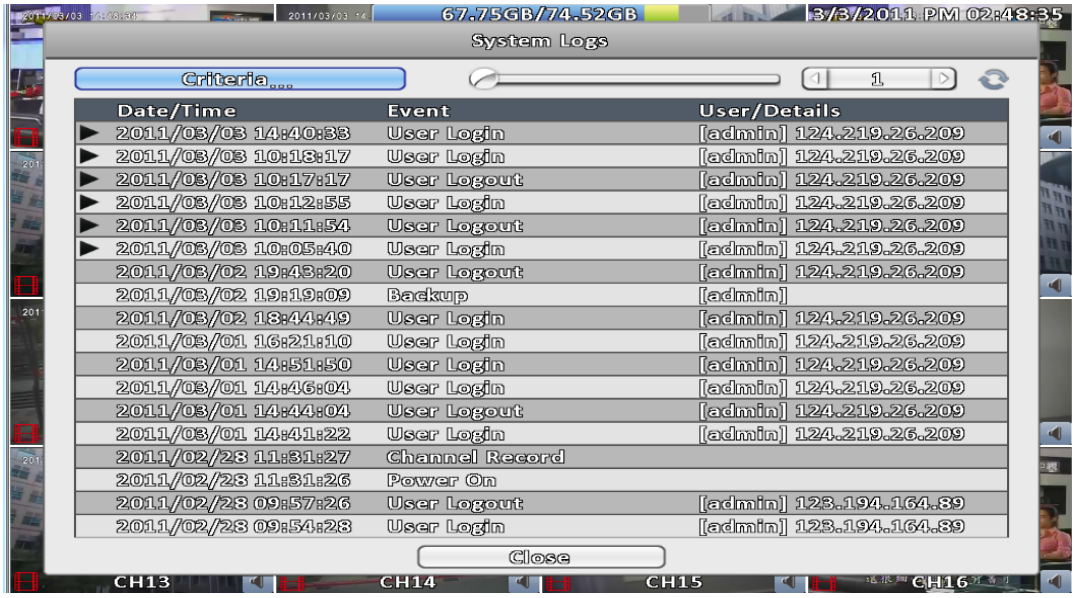
If you want to monitor single channel, please choose a channel and click left button of mouse two times.

16:9 enlarged playback screen

4:3 enlarged playback screen

2-5 System Logs

DVR will record the event automatically. The event list will show the incident occurred at a time, event category, and channel events and other information. If the event video recorded, there is a gray video symbol " " on the lef of the date. Move the cursor to the line and press "ENTER", or left click mouse button, DVR playback this record video.



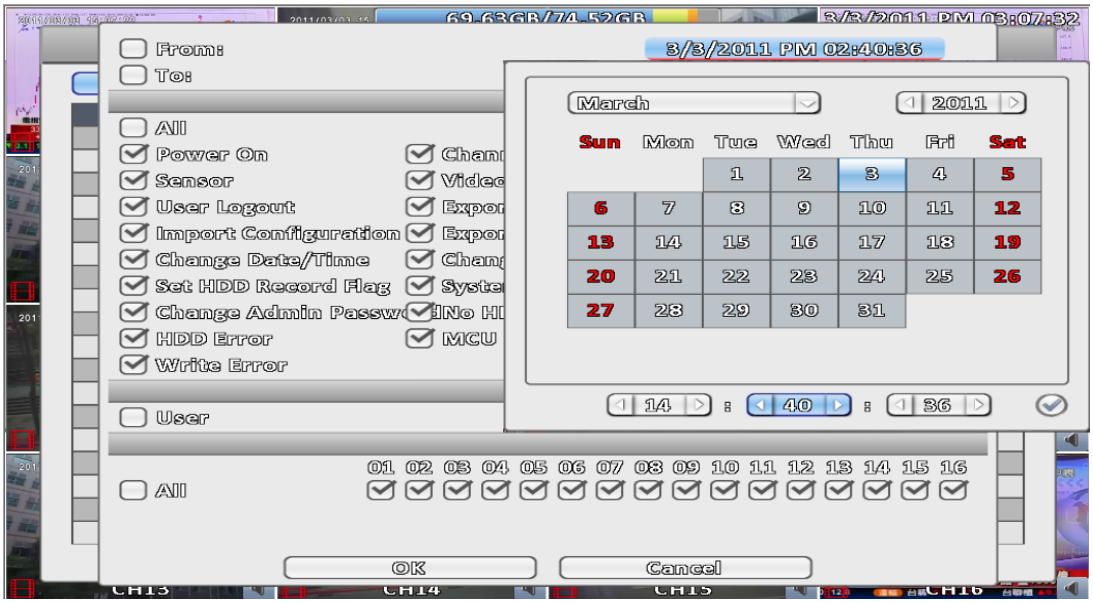
Note: Hard disk is not installed or not start recording, it will produce the event record, but it can not play after the click

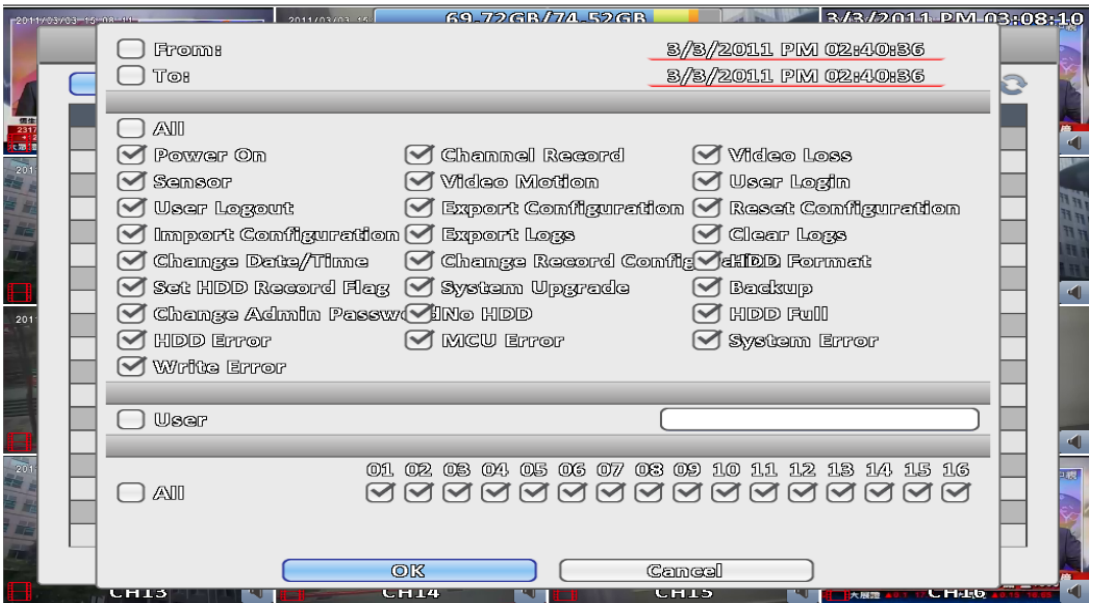
Item	Description
Criteria	Set the conditions for the event search
	Hold down the control box and sliding the event log the number of pages to display. The right numbers will show the corresponding page numbers

	Press left and right arrow keys or enter the page number directly. It will go to the event log of the specified number of pages
	Refresh system log

2-5.1 Search Criteria

The number of event is up to thousands, therefore, to set "conditions" to facilitate rapid classification of events. If the start time and end time is checked, the event list will only display the events within the time record. If you uncheck the event and press the "OK ", the lists will only appear at this time which has been checked the event log. If you uncheck the channels, the event list will filter out uncheck the channels automatically.





2-6 PTZ Operation

Set up the camera PTZ settings in advance (refer to 3-3.1). Enter the PTZ mode, PTZ control panel will appear the camera PTZ setting. There is a red cross on the center of the screen. Move the mouse and hold down the left mouse button on the screen to move in any direction. It can control the PTZ camera in the direction.

Rotate Video

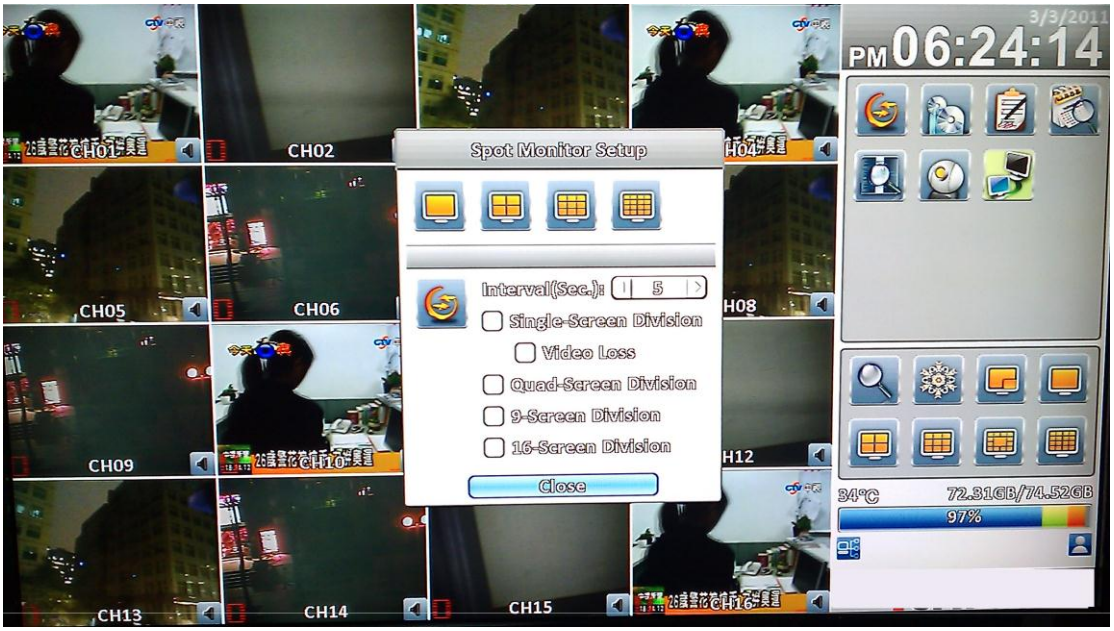
16:9 display mode of operation of PTZ functions

4:3 display mode of operation of PTZ functions

Table 2-6 Function description

Item	Description
	ZOOM. Press + / - or move the circle to adjust the PTZ focal length
	FOCUS. Press + / - or move the circle to adjust the PTZ focus
	IRIS. Press + / - or move the circle to adjust the PTZ iris
	Press left and right arrow keys to select the default point number, and then press to set the default point
	Press left and right arrow keys to the preset points, and then press forward to the default point
Rotate Video	Image upside down

2-7 SPOT



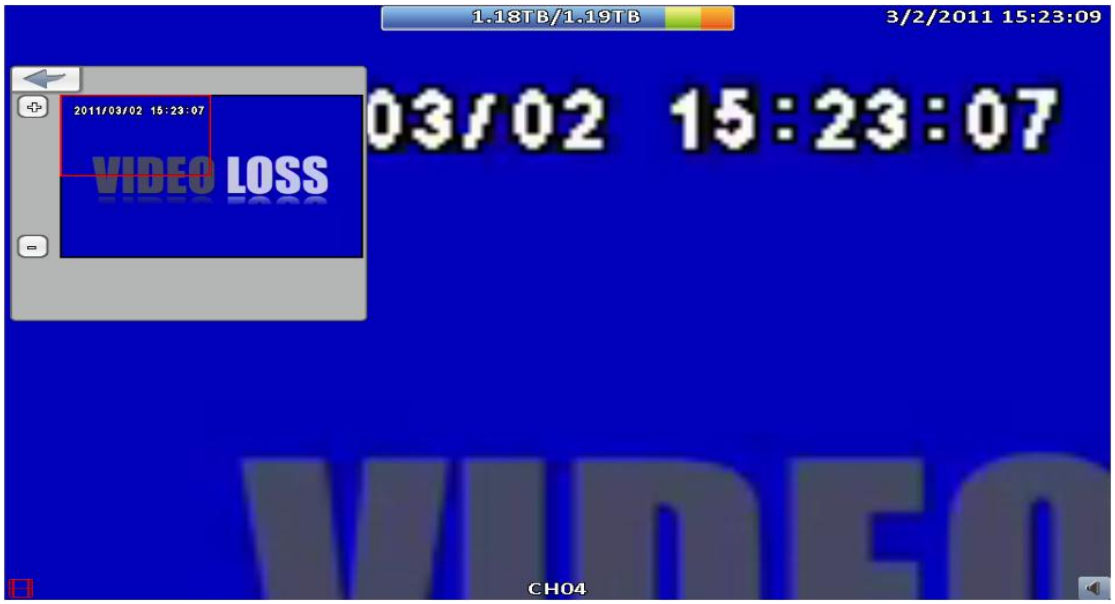
Item	Description
	Single Screen Division
	Quad-Screen Division
	9-Screen Division
	16-Screen Division
Interval	In SPOT mode, the number of seconds to stay
Single Screen Division	Automatic sequential switch channel by setting the number of seconds, each channel is displayed in a single screen
Video Loss	In single screen switch, whether mask the loss channel
Quad-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in quad-screen division
9-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 9-screen division
16-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 16-screen division

2-8 Zoom

Into the digital zoom mode. Using the mouse to move the red rectangle control

screen showing the zoom area.

16:9 display zoom

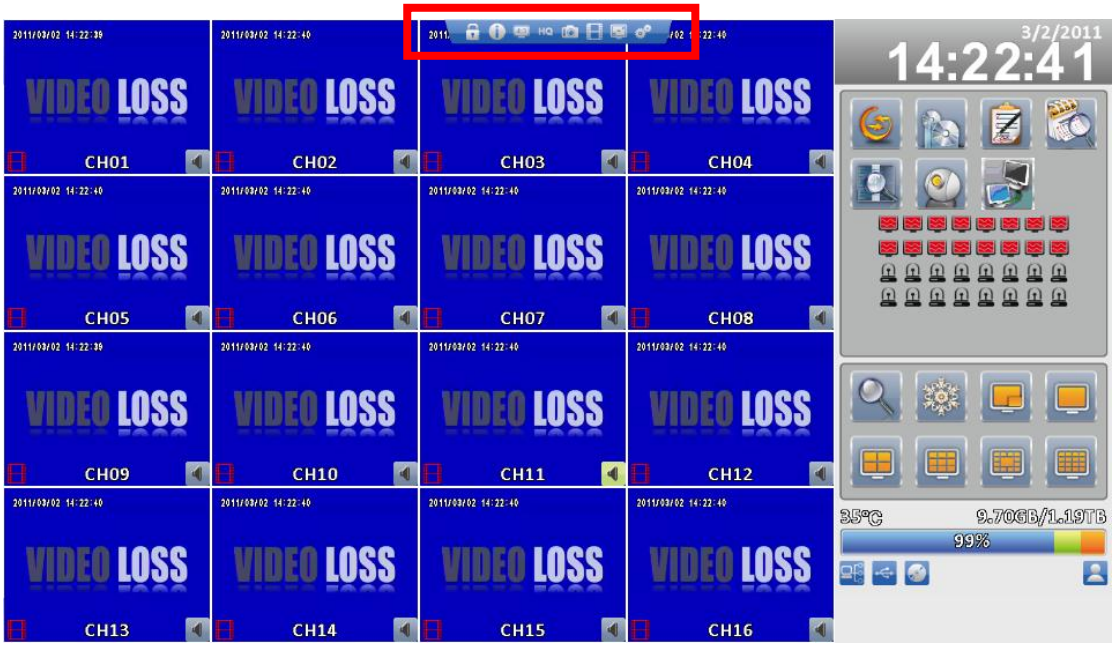


4:3 display zoom

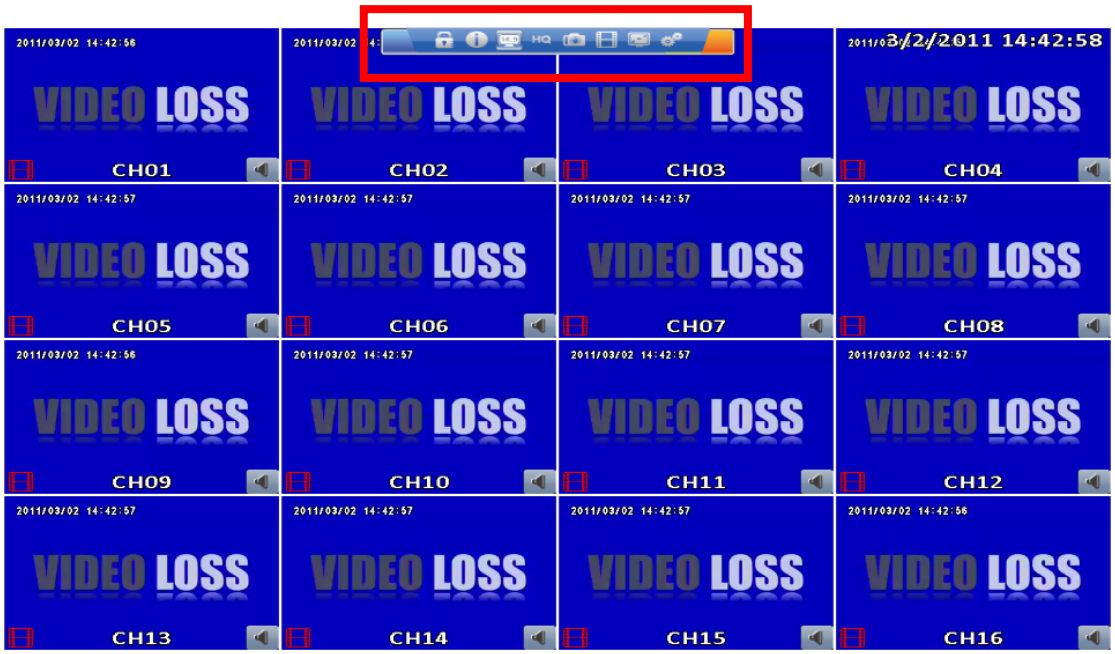
Item	Description
	Screen enlarges range of the area circled in red rectangle.
	Screen reduces range of the area circled in red rectangle.
	Exit zoom mode

2-9 Shortcut toolbar

In live mode, describe the operation of the shourtcut toolbar which moves the mouse above the window.



16：9 display



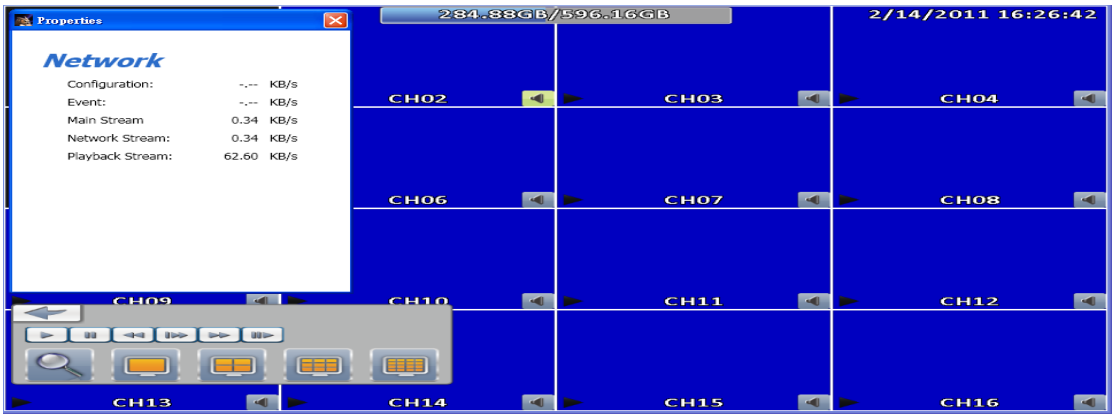
4：3 display

Icon	Description
	User login / out: using auto-lock
	System Information: The model name, version, IP address, MAC, and hard disk information
	Wide-screen switching: switch 4:3 / 16:9 display.
	Screenshot

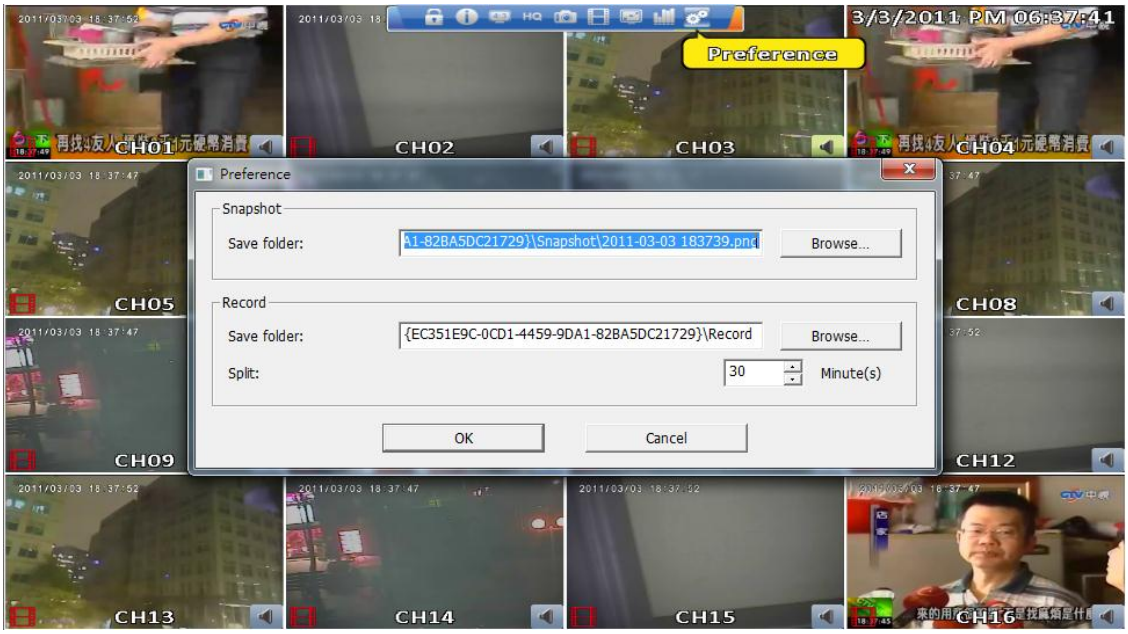
HQ LQ	Internet Streaming: Display high quality (flow), lower quality (flow)
	Enable / Disable recording function
	Full screen
	Network traffic statistics
	Options: Change the path of PC screen snapshots, video storage.

※ Note: streaming, video recording, full screen, statistics, option only for remote use

2-9.1 Network Traffic Statistics



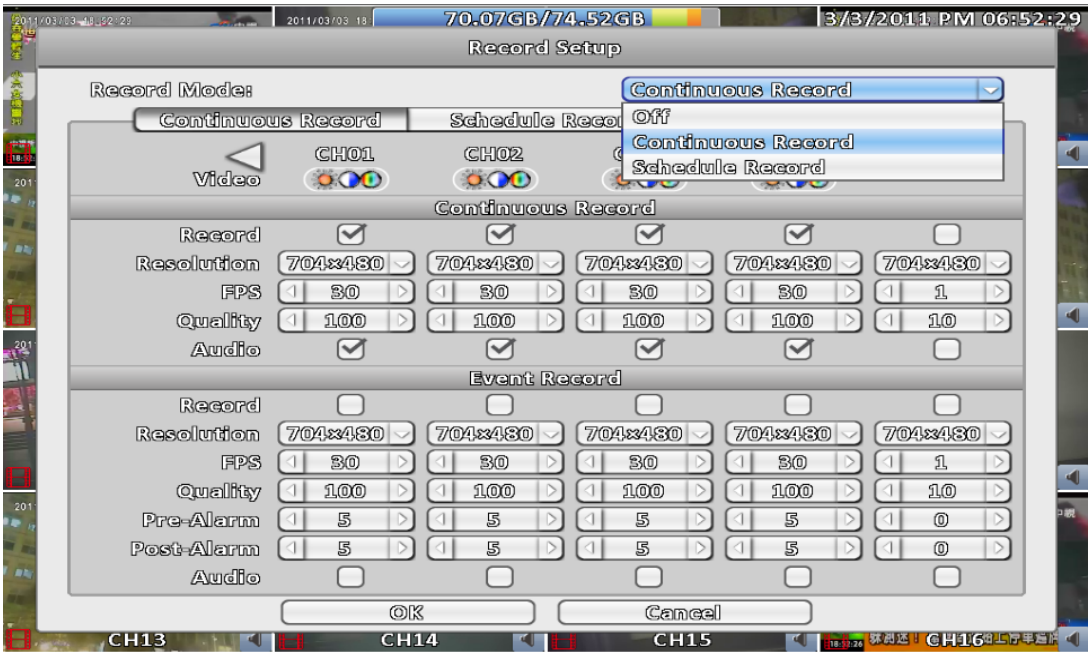
2-9.2 Options



Chapter 3 CONFIGURATION MENU

*PS. The initialization of new-installed HD is required before recording, please refer to "**UTILITY SETUP**" for detail.*

3-1 Record Setup



Item	Description
Record Mode	Continuous Record/ Schedule Record/ Stop Record

3-1.1 Continuous Record

Item	Description

Video	Click icon, it will go to the image screen of this channel (below). In settings menu, press to svae, press go back to the original video settings menu
Record	Enable/Disable recording for this channel
Resoultion	Recording resolution selection NTSC: 352x240、704x240、704x480 PAL: 352x288、704x288、704x576
FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Audio	Enable/Disable recording audio

3-1.1.1 Video Settings

16:9 display video settings

4:3 display video settings

Item	Description
Sharpness	Adjust sharpness from 0 to 255
Brightness	Adjust brightness from 0 to 255
Contrast	Adjust contrast from 0 to 255
Saturation	Adjust saturation from 0 to 255
Hue	Adjust hue from 0 to 255
Volume	Adjust voume from 0 to 255

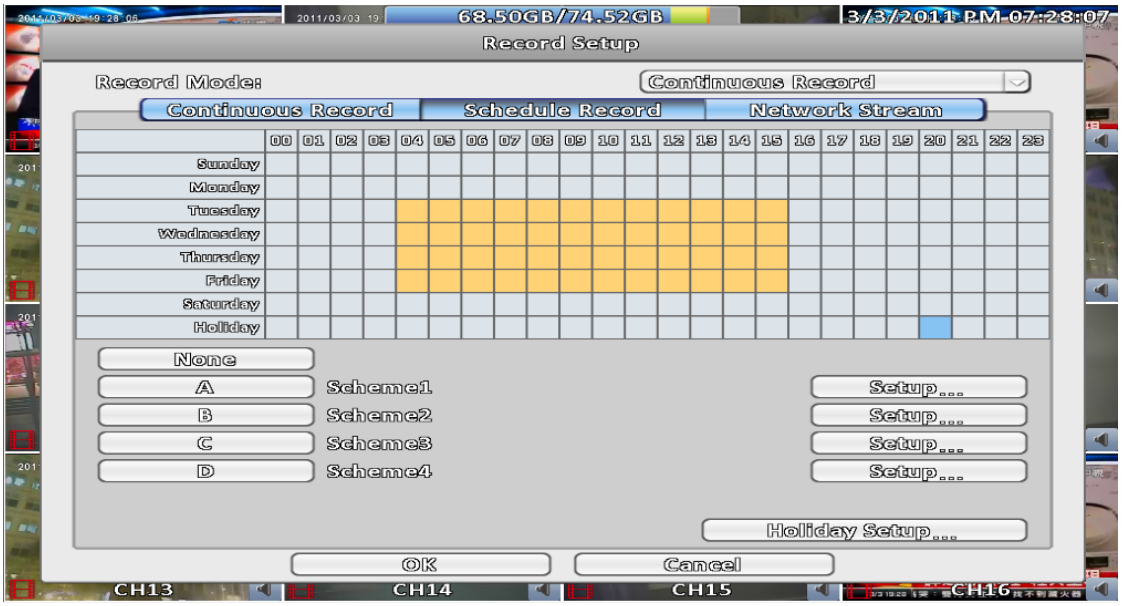
3-1.1.2 Event Recording

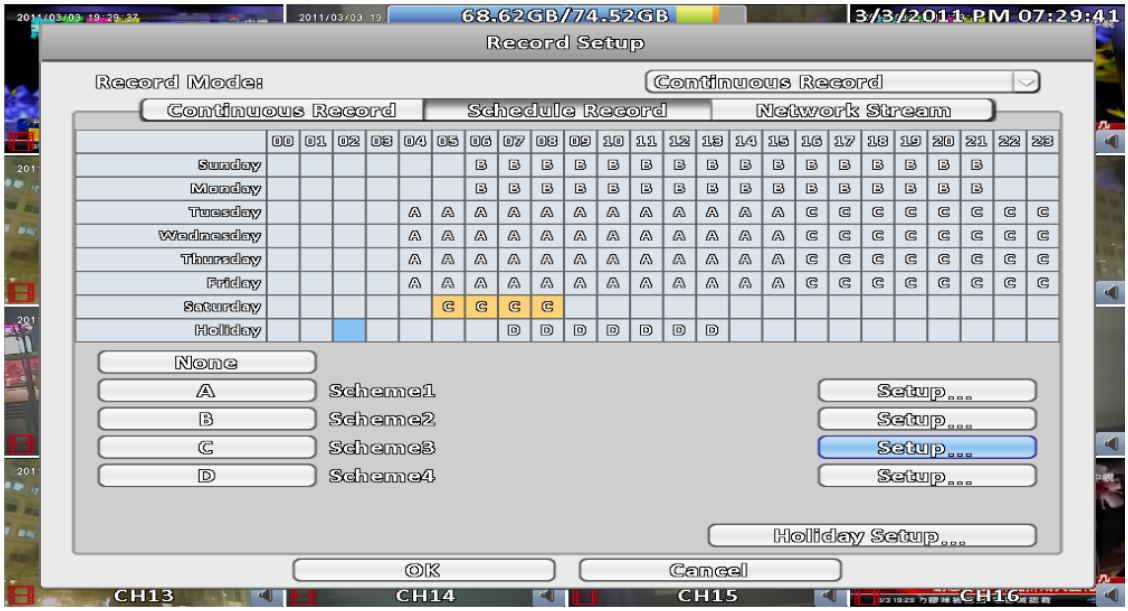
Item	Description
Record	Enable/Disable recording for this channel
Resoultion	Recording resolution selection NTSC: 352x240、704x240、704x480 PAL: 352x288、704x288、704x576
FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Pre-Alarm	Set the playback seconds before the event, from 0 to 5.
Post-Alarm	Set the playback seconds after the event, from 0 to 100
Audio	Enable/Disable recording audio

3-1.2 Schedule Recording

Schedule recording can configure recording time by week and time. Provided A,

B, C, D four settings, users can set different recording in accordance with the configuration requirements. In the week and time grid map, select the schedule time zone, and then press A, B, C, D one of the buttons to specify the video settings.





3-1.2.1 Configuration

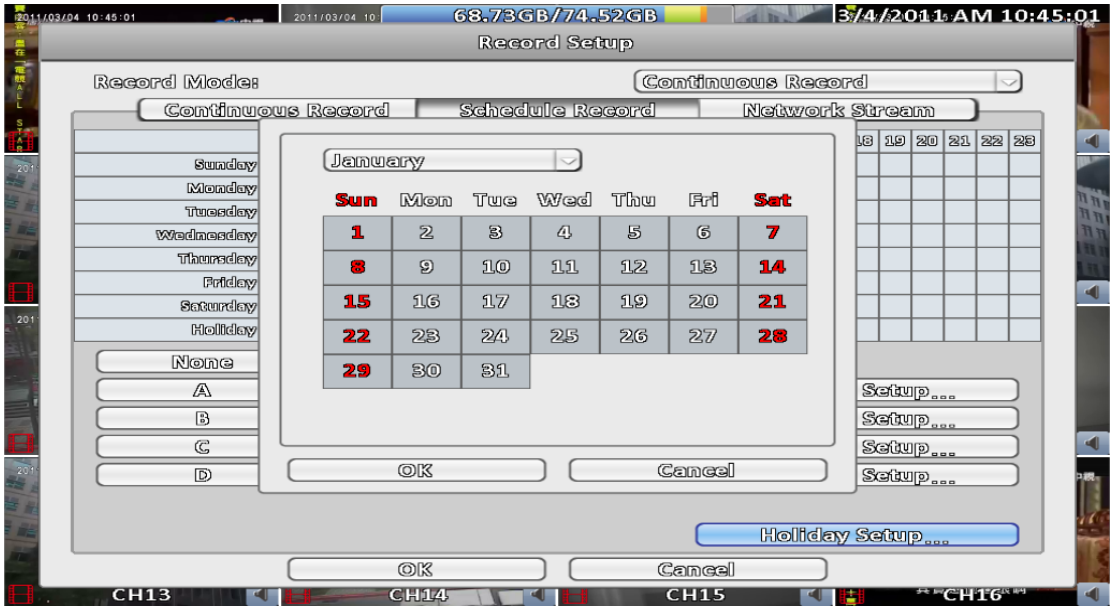
Item	Description
Name	Change the recording name of the channel

For the rest, please refer to 3-1.1 Continuous Record

3-1.2.2 Holiday Configuration

The number of holiday is up to 50. When the time comes to specify the holidays, it will record by holiday configuration.

Since holidays are different by different country and region, you can setup the holiday of your location accordingly.



3-1.3 Network Stream

Item	Description
Record	Enable/Disable recording for this channel
Resoultion	Recording resolution selection NTSC: 352x240、704x240、704x480 PAL: 352x288、704x288、704x576
FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Audio	Enable/Disable recording audio

3-2 Event Setup

3-2.1 Video Loss

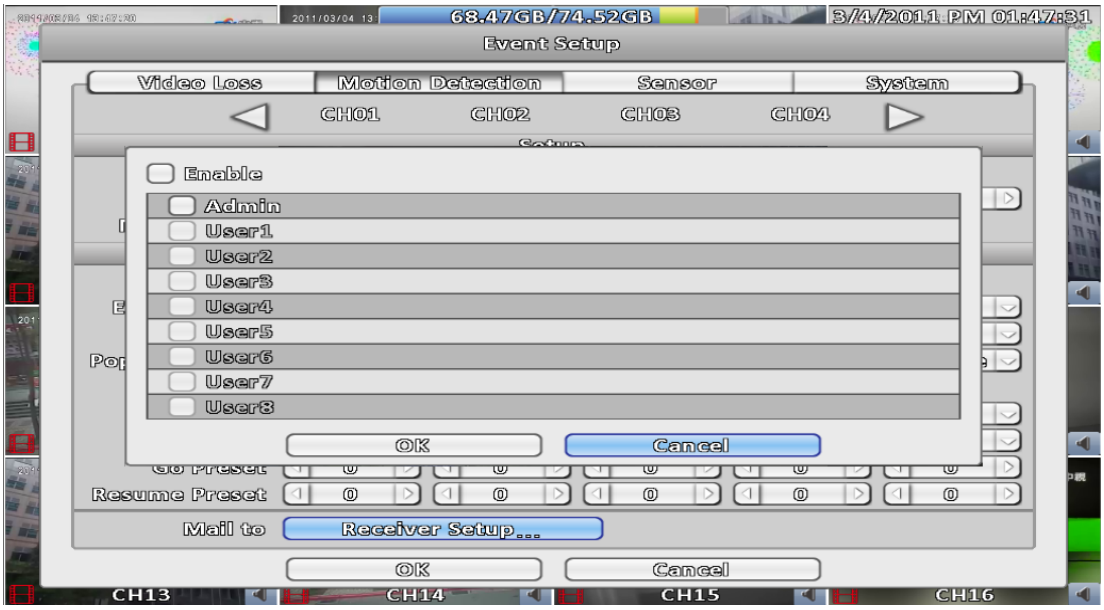
3-2.1.1 Configuration

Item	Description
Enable	Enable/Disable video loss detection function

3-2.1.2 Event Handling

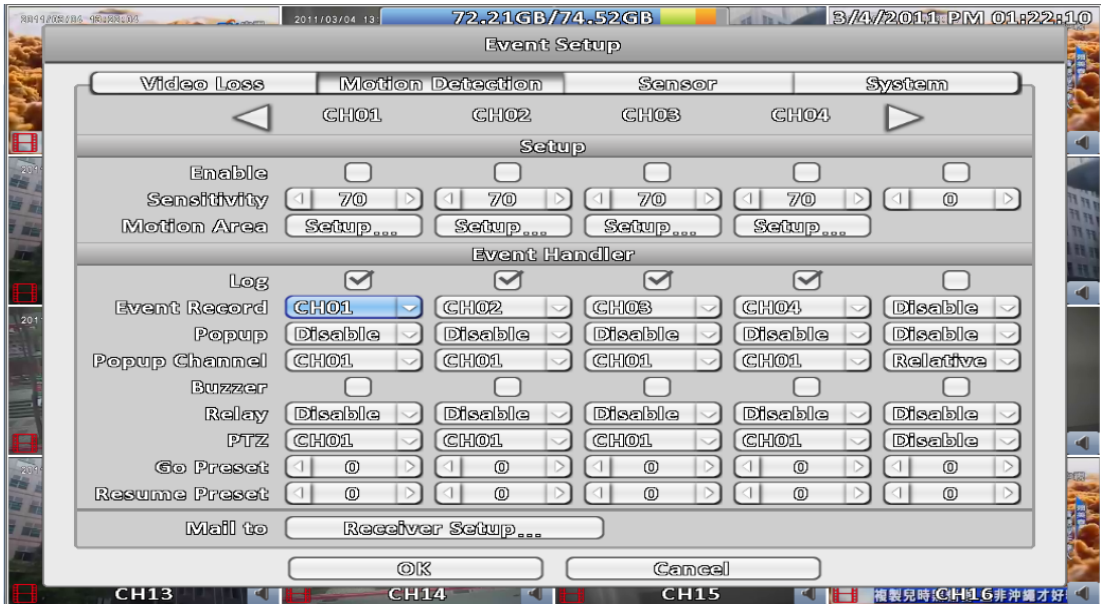
Item	Description
Log	Event occurs, whether written to the event log
Event Record	Select channel for event recording when event occurs. The video setup corresponds to the "Configuration → Recording Settings → Event Video Recording" (refer to 3-1-1-2 Evnet Record) 。
Popup	In live mode, if motion detection is detected, it will pop up the channel full screen. You can specify a warning window display. 1: the main screen, 2: the second screen
Popup Channel	Event occurs, pop up the channel display
Buzzer	Event occurs, whether to activate the buzzer
Relay	Event occurs, to activate the relay.
PTZ	Event occurs, the display switches to the PTZ.
Go Preset	Event occurs, the display switches to the PTZ preset point, values from 0 to 255.
Resume Preset	After event, the display switches to the PTZ preset point, values from 0 to 255.

3-2.1.3 Receiver Setup



Item	Description
Enable	Event occurs, whether enable send e-mail notifications.
Admin / Users	To activate the selected account

3-2.2 Motioin Detection



3-2.2.1 Configuration

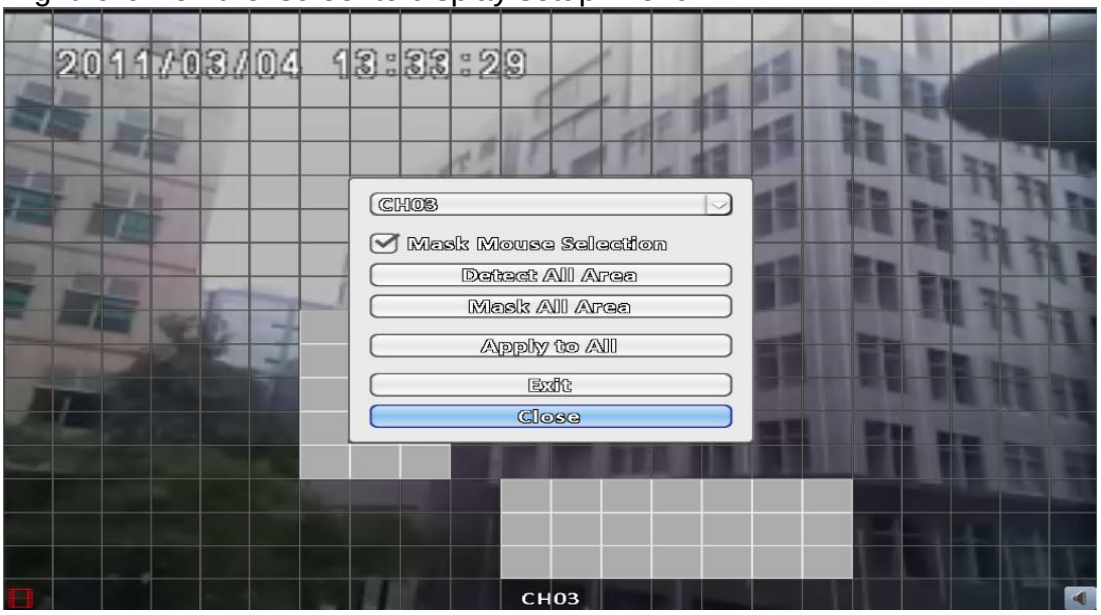
Item	Description
Enable	Enable/Disable the motion detection function of this channel
Sensitivity	Value from 0 to 100 for each channel. The higher value you set the higher sensitivity it will be.
Motion Area	Enter to setup motion detection area

3-2.2.1.1 Motion Area Setup

The motion detection has been divided into 22x18 grids. The default detection area is full screen as it marked in transparent for local DVR and purple for remote access. Areas deselected not for motion detection are marked in grey for both local and remote site.

16：9 display

Right click on the screento display setup menu.



4：3 display

Item	Description
CH01~CH16	Select channel for motion detection
Mask Mouse Selection	Switch between “select” and “deselect” for cursor-dragging function
Detect All Area	Select entire screen as detection area.
Mask All Area	Deselect entire detection area.

Apply to All	Apply the current settings to all channels
Exit	To leave and save settings, and back to motion detection menu.
Close	To leave and save settings

3-2.2.2 Event Handling

Please refer to 3-2.1.2 Event Handling

3-2.2.3 Receiver Setup

Please refer to 3-2.1.3 Receiver Setup

3-2.3 Sensor

※The name of each sensor can be modified to any languages remotely

3-2.3.1 Configuration

Item	Description
Enable	Enable/Disable sensor
Polarity	N.C: Sensor has not been triggered. When connected, sensor will be turned on
	N.O: Sensor has been triggered. When connected, sensor status will be turned off

3-2.3.2 Event Handling

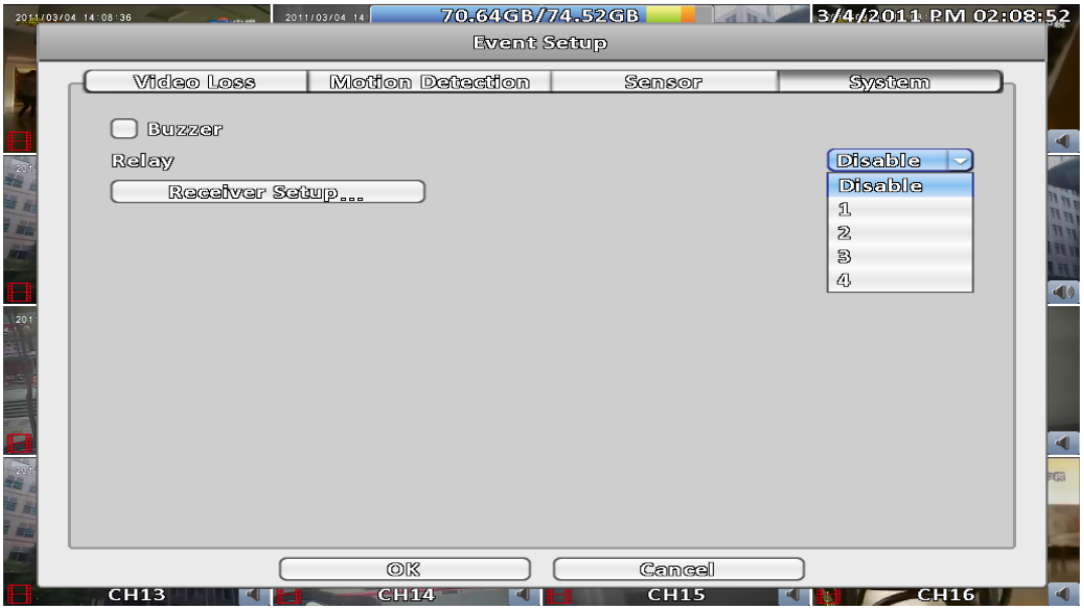
Please refer to 3-2.1.2 Event Handling

3-2.3.3 Receiver Setup

Please refer to 3-2.1.3 Receiver Setup

3-2.4 System

When the system event occurs, give a notice or warning bye the settings of relay and e-mail. If the buzzer is enabled, only an error in the video (such as hard drives can not write or not install the hard drive), it will continue to sound the alarm. Other system events (such as login, log out or boot, etc.) will not respond.

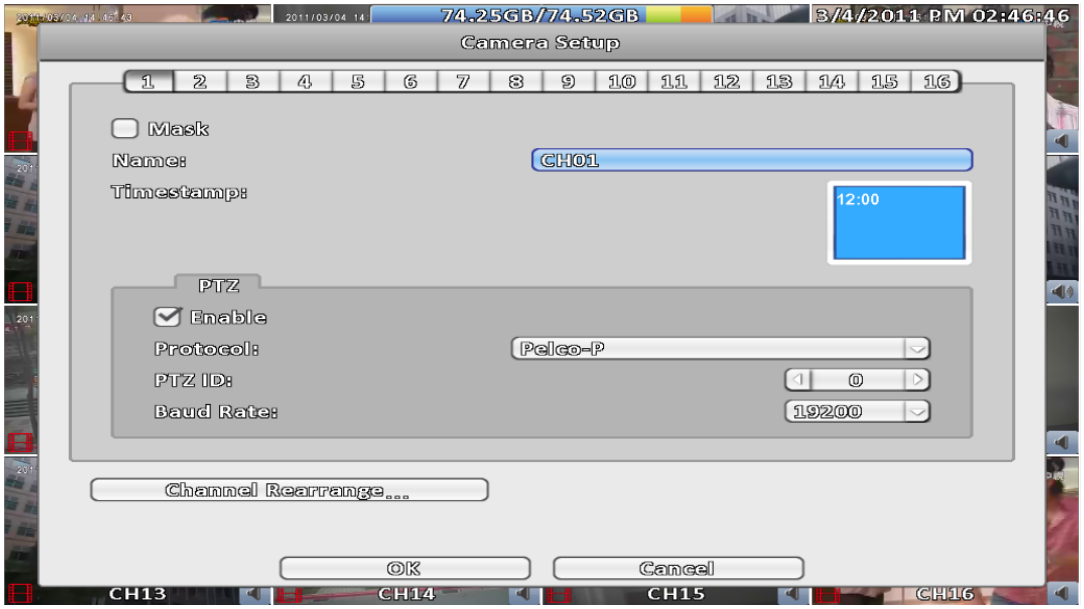


Item	Description
Buzzer	Enable buzzer alarm when recording error
Relay	When system event occurs, whether enable relay

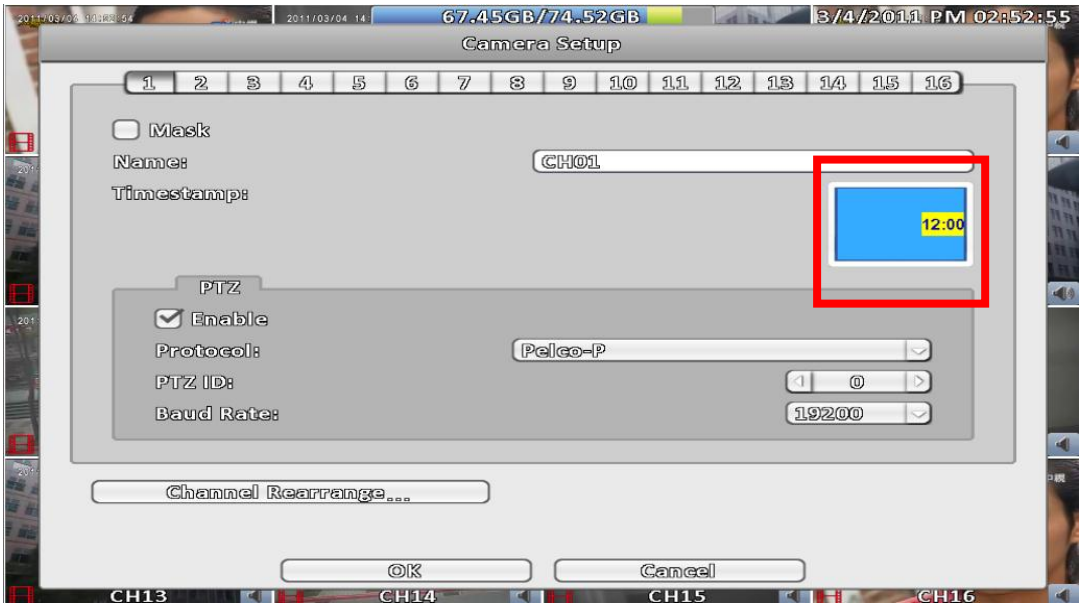
3-2.4.1 Receiver Setup

Please refer to 3-2.1.3 Receiver Setup

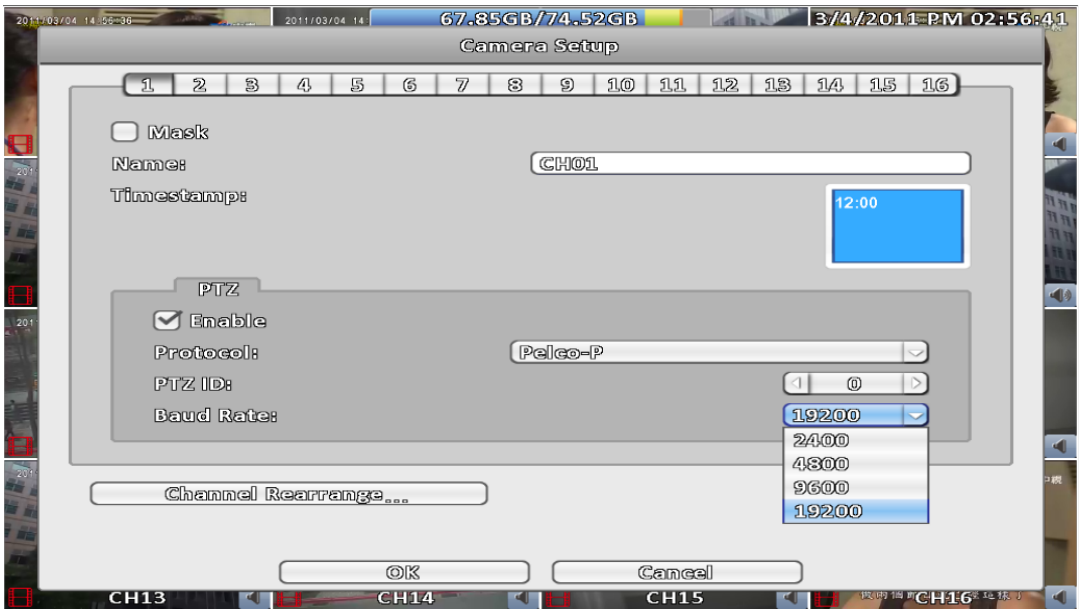
3-3 Camera Setup



Item	Description
Mask	Check the box to Enable/Disable mask function for LIVE mode
Name	Channel name
Timestamp	Click on the right screen to set position

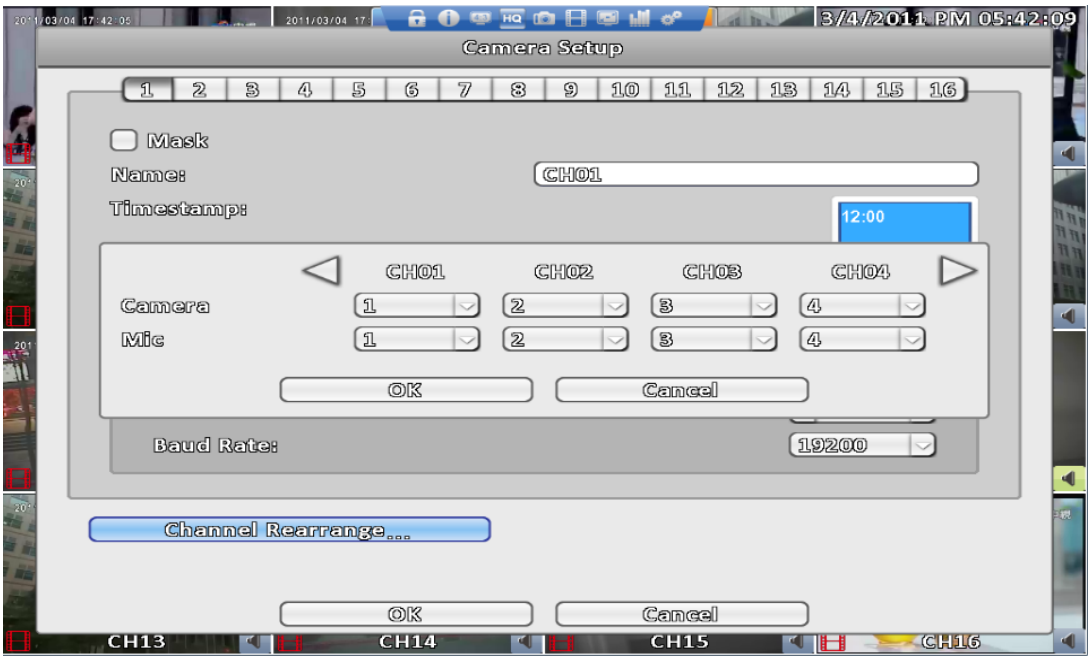


3-3.1 PTZ Setup



Item	Description
Enable	Click the box to Enable/Disable PTZ function.
Protocol	Set up the protocol of PTZ cam. The supported protocol are: PELCO-D、PELCO-P、Merit LiLin 1、Merit LiLin 2、SAMSUNG、LG-MultixE
PTZ ID	Set up PTZ ID. The valid ID value is from 0 to 255.
Baud Rate	Select Baud Rate for PTZ from 2400, 4800, 9600,19200

3-3.2 Channel Rearrange



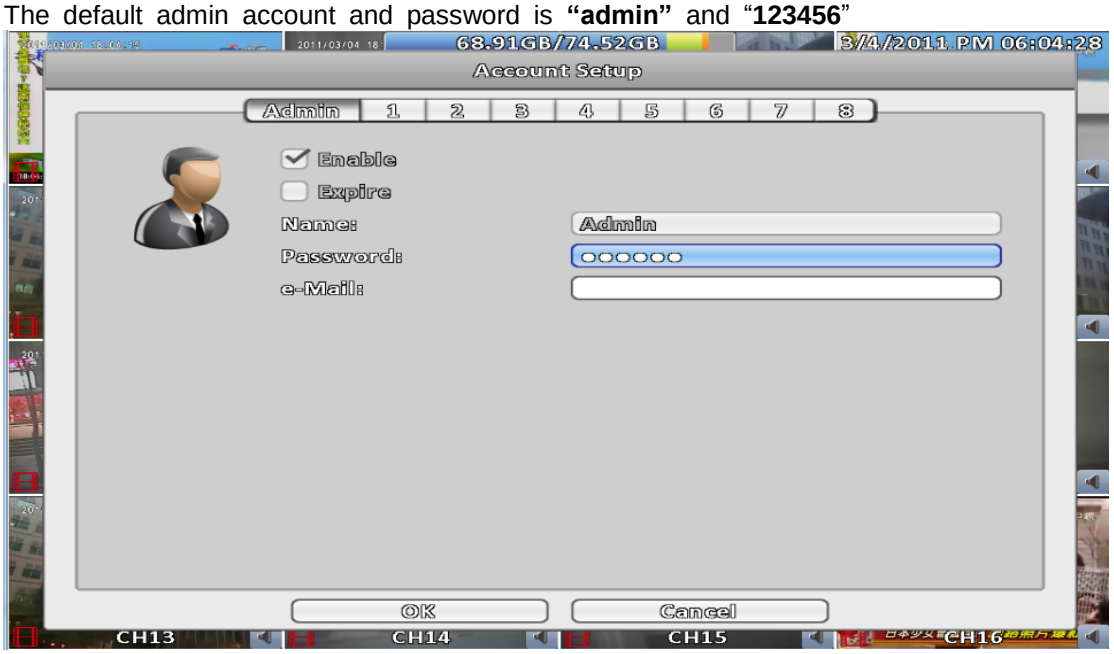
* Choose the channel display and audio (can't duplicate with other channels)

3-4 Account Setup

You can set the user password and permissions in 9 groups. DVR local operation, remote applications login DVR, CMS login DVR, mobile device application software login DVR, you can log in by these accounts to distinguish between different permissions.

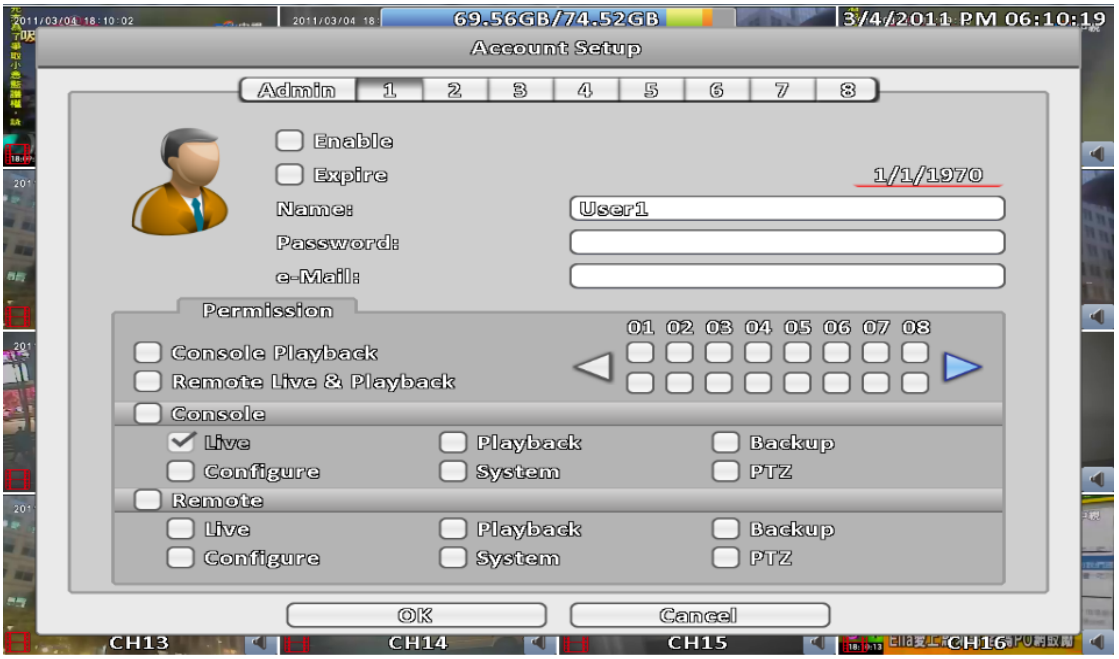
3-4.1 Administrator

The default admin account and password is **"admin"** and "**123456**"



Item	Description
Enable	Check to activate the user's account.
Expire	Enable and set the user account is valid, expired can not login
Name	Set up username
Password	Set up password for each user Password can be mixed by letters and numbers with case-sensitive. Letters can be mixed with capitals or lowercases.
e-Mail	Set up user email

3-4.2 Other Users



Item	Description
Enable	Check to activate the user's account.
Expire	Enable and set the user account is valid, expired can not login
Name	Set up username
Password	Set up password for each user Password can be mixed by letters and numbers with case-sensitive. Letters can be mixed with capitals or lowercases.
e-Mail	Set up user email

3-4.2.1 Permission

The Account Setup is set to provide individual user role-based permissions, including access to Setup menu, Network operation, PTZ function, Playback, Utility, Backup, Password expiry date and Mask on specific channels while playing back.

Item	Description
Console Playback	Select the permissions to playback channel in local side
Remote Live & Playback	Select the permissions to live monitor/playback channel in remote side
Console	Select the permissions to operate in local side (Live, Playback, Backup, Configure, System, PTZ)
Remote	Select the permissions to operate in remote side (Live, Playback, Backup, Configure, System, PTZ)

※ Be sure to check the option respectively in the local, remote permission

3-5 Network Setup

Item	Description
Connected to	Setup mode for network connection: (DHCP、Static IP、PPPoE、3G)
DHCP	IP address will be assigned by DHCP server automaticall
Static IP	Enter to set up Static IP
PPPoE	Enter to set up PPPoE
3G Setup	Enter to set up 3G
HTTP Setup	Enter to set up HTTP
DDNS	Enter to set up DDNS
NTP	Enter to set up NTP
Mail Setup	Enter to set up mail

3-5.1 Networking Setup

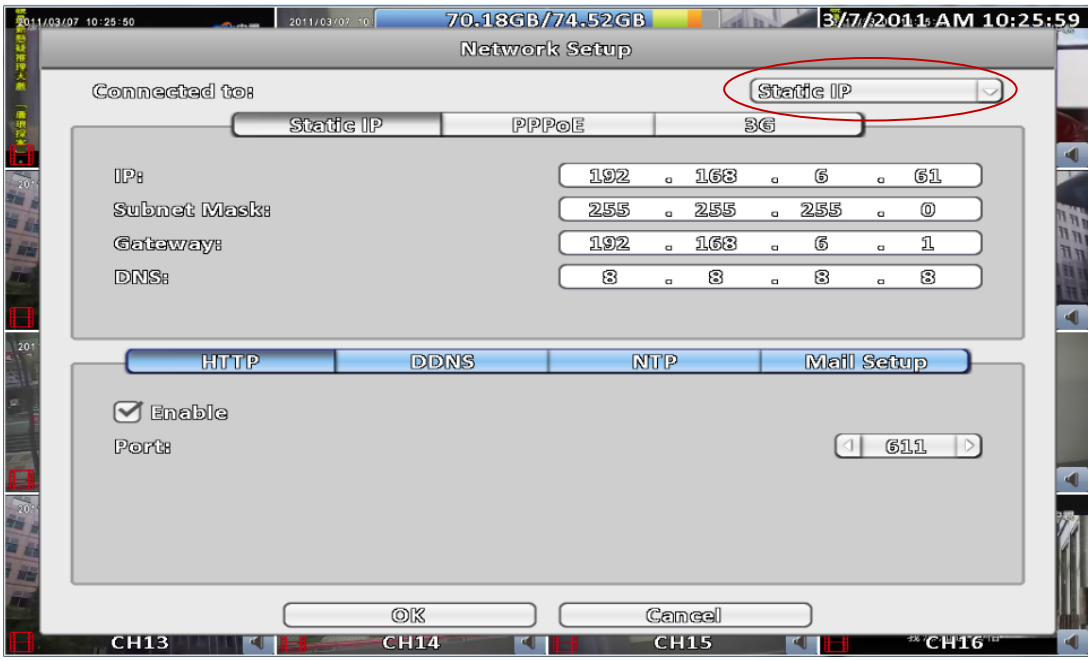
There are three ways to connect to the network as followed.

3-5.1.1 DHCP Setup

When DHCP is selected, IP address will be assigned by DHCP server automatically.

3-5.1.2 Static IP Setup

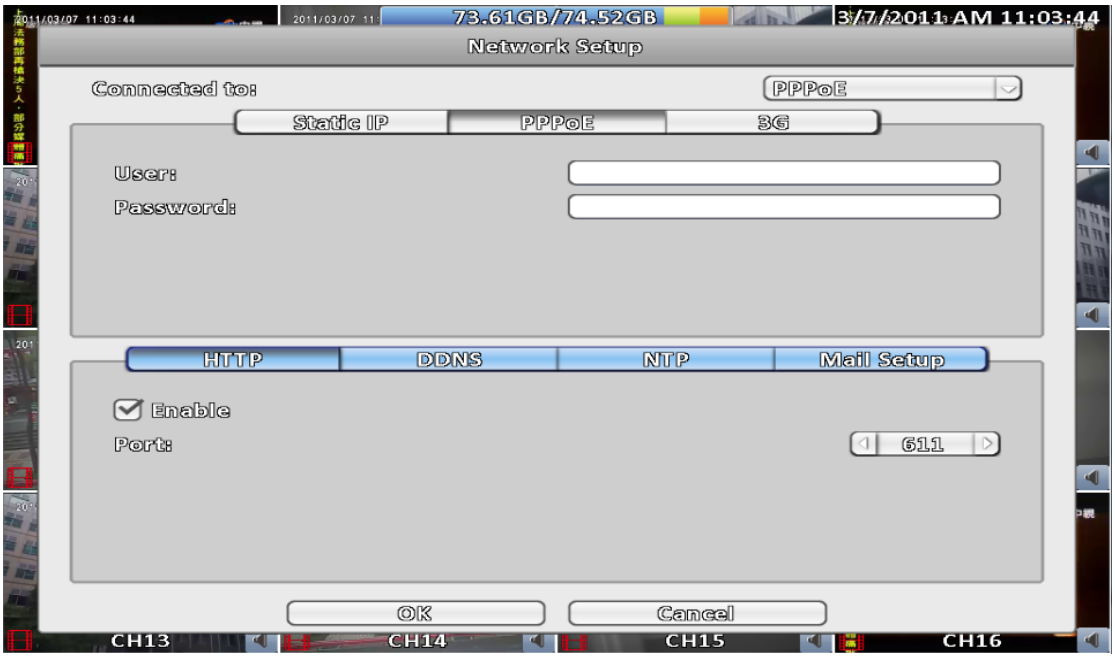
Select Static IP for network connection, the following information is required.



Item	Description
IP	Enter IP address provided by ISP
Subnet Mask	Enter IP address of Subnet Mask provided by ISP
Gateway	Enter IP address of Gate way provided by ISP
DNS	Enter DNS address provided by ISP. **(Note: The correct DNS address must be entered for DDNS function).**

3-5.1.3 PPPoE Setup

Select PPPoE for network connection, the following information is required.

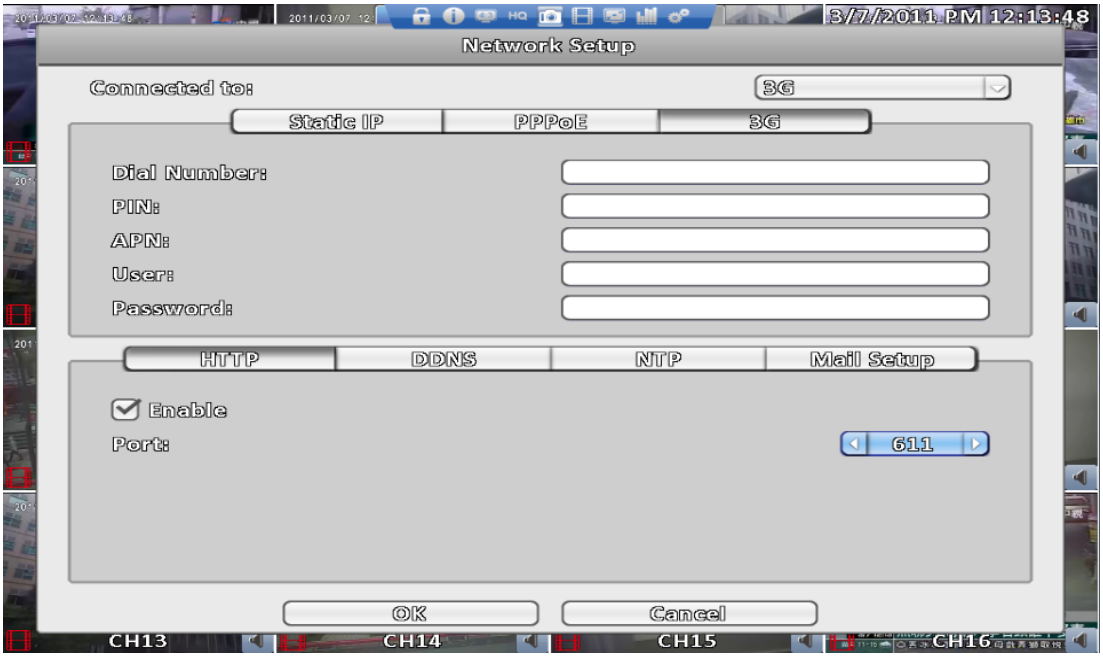


Item	Description
User	Enter user name provided by ISP
Password	Enter password provided by ISP

3-5.1.4 3G Setup

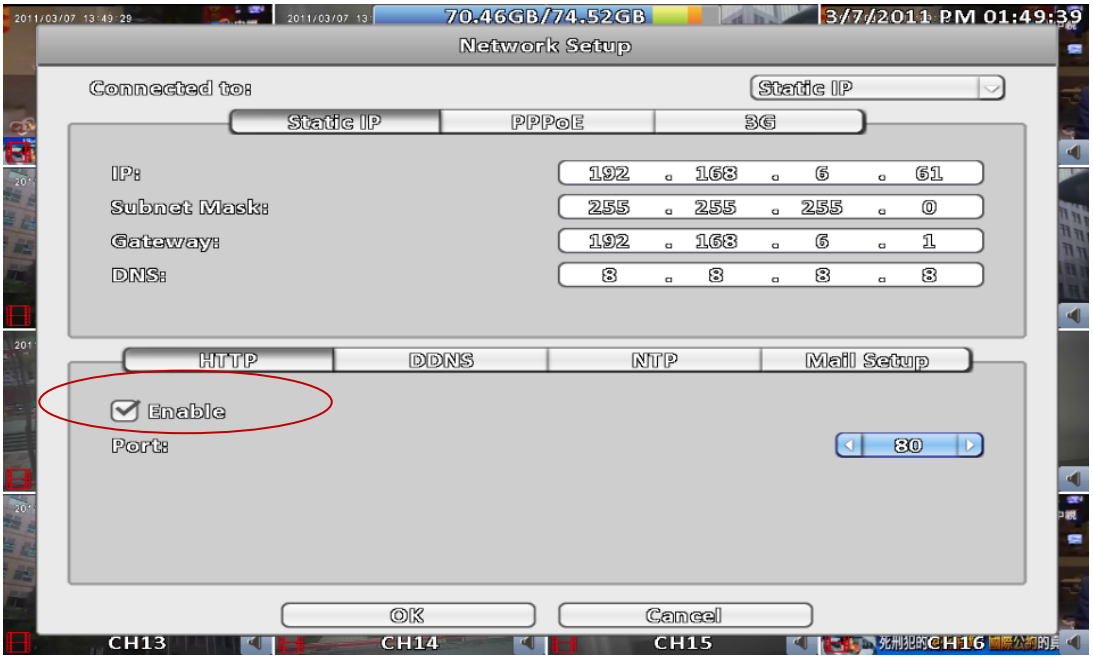
Using the USB wireless card and a 3G mobile phone SIM card network services to link the network

PS: only supports the Huawei 3G card currently



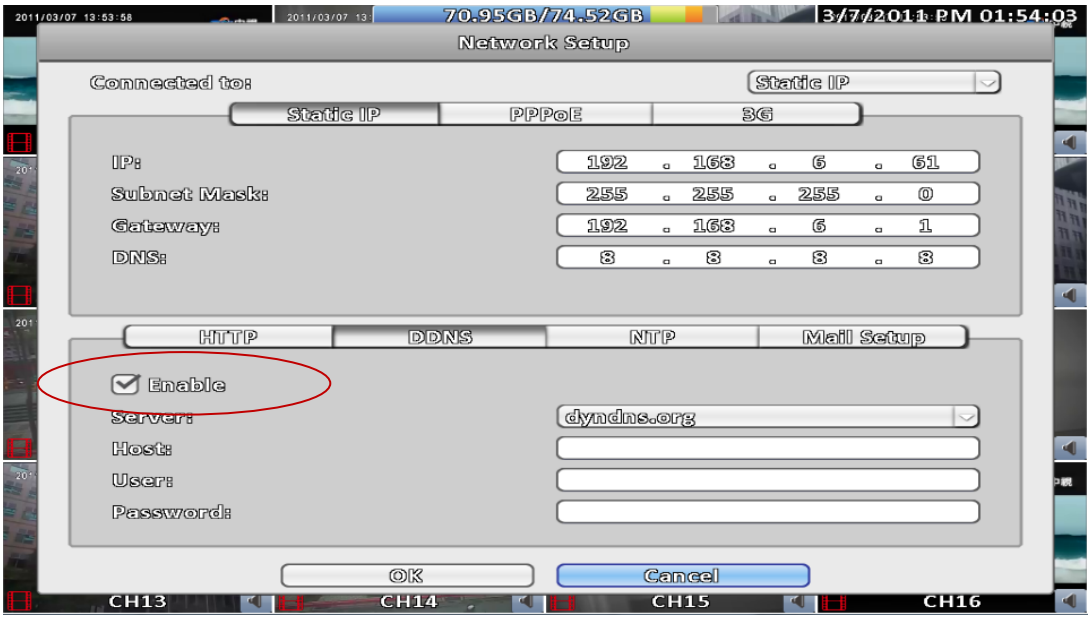
Item	Description
Dial Number	Dial-up Number，Determined as the ISP
PIN	Enter SIM card password
APN	Enter ”internet”
User	Enter ISP username
Password	Enter ISP password

3-5.2 HTTP Setup



Item	Description
Enable	Check to enable HTTP server. Users can remotely access into the DVR over the network if the HTTP function is activated.
Port	Enter a valid port value from 1 up to 65535. The default value is 80

3-5.3 DDNS Setup

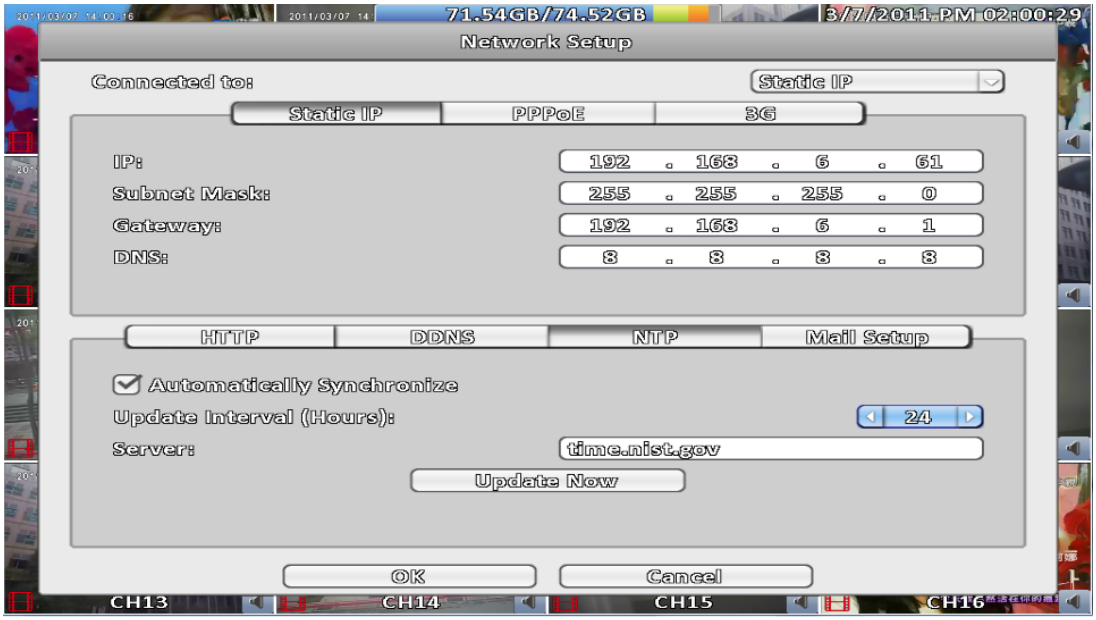


Item	Description
Enable	Enable/disable DDNS function.
Server	Enter the registered SMTP Server: ez- dns.com、i-dvr.net、dyndns.org
Host	Enter the completed registered SMTP Server. (Including username + Server) If the user name is h.264 and you choose i-dvr as your server, you should enter: h.264.i-dvr.net
User	Enter user name.
Password	Enter password.

＊For more detailed I-DVR.NET operation instruction, please refer to appendix Ⅰ、Ⅱ

3-5.4 NTP Setup

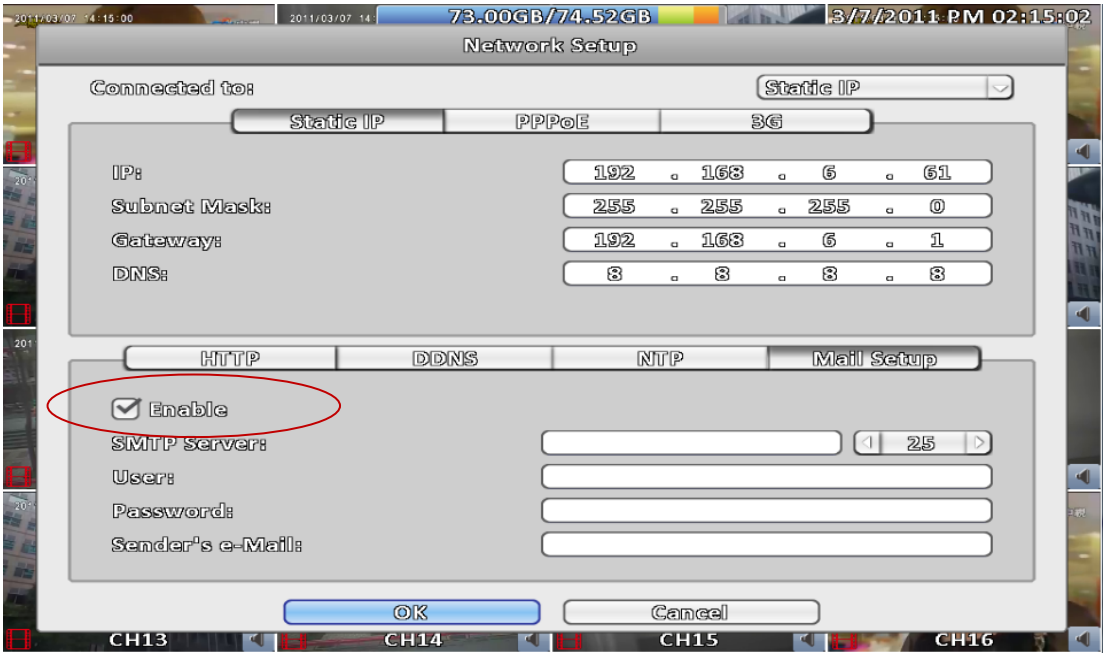
Setup DVR time and network time synchronization.



Item	Description
Automatically Synchronize	Check to enable DVR automatic synchronization function when rebooting
Update Interval (Hours)	Setup interval for time synchronization
Server	Setup time server address
Update Now	Effectively, Date and Time show on DVR will immediately correspond with those in internet server

3-5.5 Mail Setup

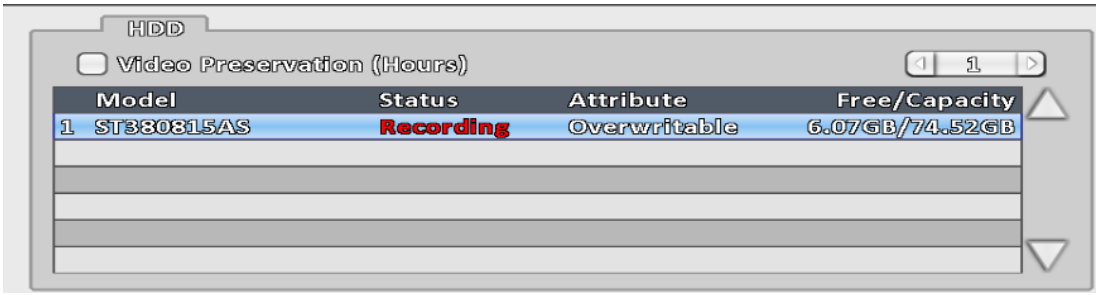
When event occurs, email will be sent to the receiver account automatically.



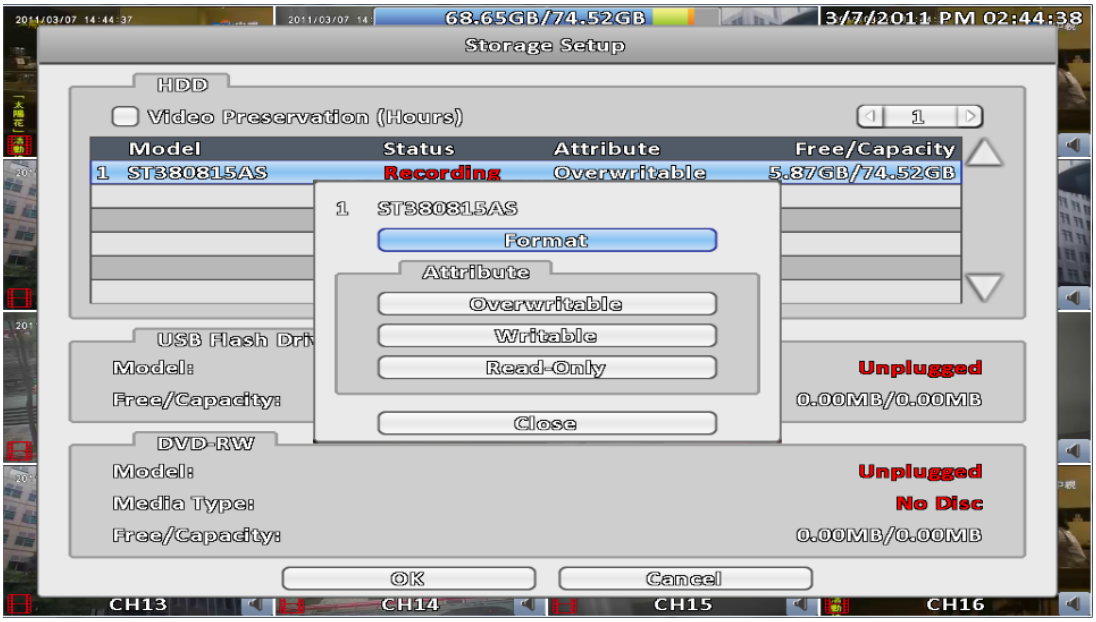
Item	Description
Enable	Check the box to enable/disable E-mal Notification function
SMTP Server	Set up SMTP Server name and port
User	Enter to set up User Name.
Password	Enter to set up Password.
Sender’s e-Mail	Enter to set up e-mail address of receivers.

3-6 Storage Setup

3-6.1 HDD Setup



※ Click the status bar to change the properties of the hard disk



Item	Description
Video Preservation (Hours)	Setup the video preservation period. Recorded video will be deleted automatically after expiry of preservation period.
Format	Select hard disk and press the "Start", DVR began to clear the hard disk data. Status bar appears "successful" and the hard disk initialization is complete! Enter the menu, it will display all of the hard disk information (model, capacity).
Model	Display HDD model
Status	Display HDD status (Recording/Error)
Attribute	Display HDD Attribure (Overwritable/Writable/Read-Only)
Free/Capacity	Didplay HDD capacity (Free/Capacity)

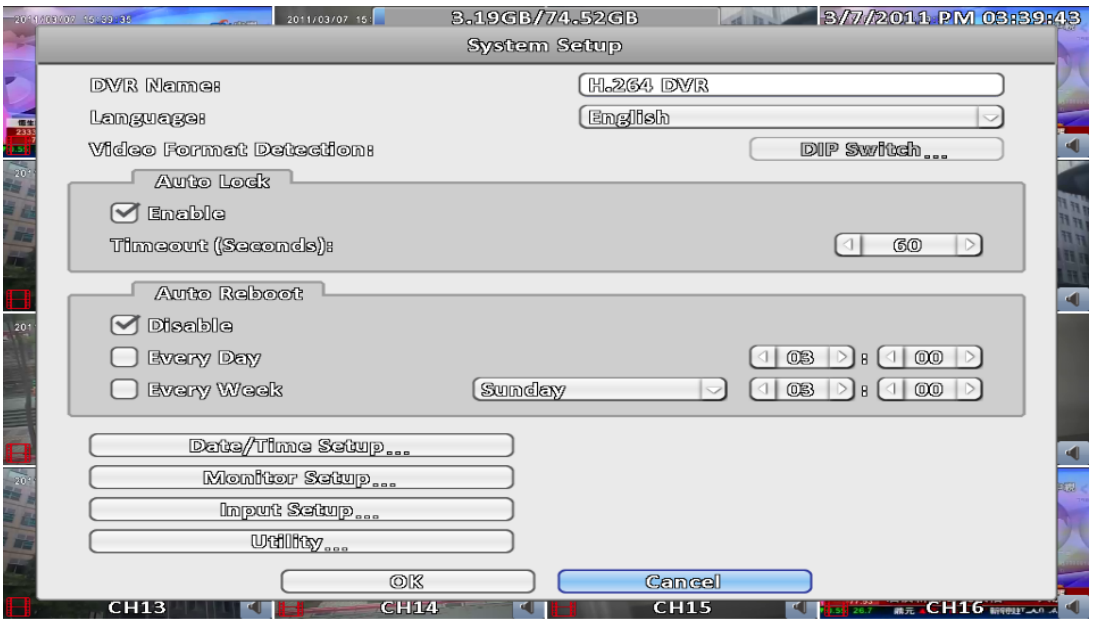
3-6.2 USB Flash Derive Setup

Item	Description
Model	Display USB flash drive model
Free/Capacity	Didplay USB flash drive capacity (Free/Capacity)

3-6.3 DVD-RW Setup

Item	Description
Model	Display DVR-RW model
Media Type	Display disk type
Free/Capcaity	Didplay DVR-RW capacity (Free/Capacity)

3-7 System Setup



Item	Description
DVR Name	The name of DVR will be shown when users login from remote access
Language	Click or press ▼ to select OSD language.
Video Format Detection	DVR specified video format detection (auto-detect, NTSC, PAL), and require a reboot to take effect

3-7.1 Auto Lock

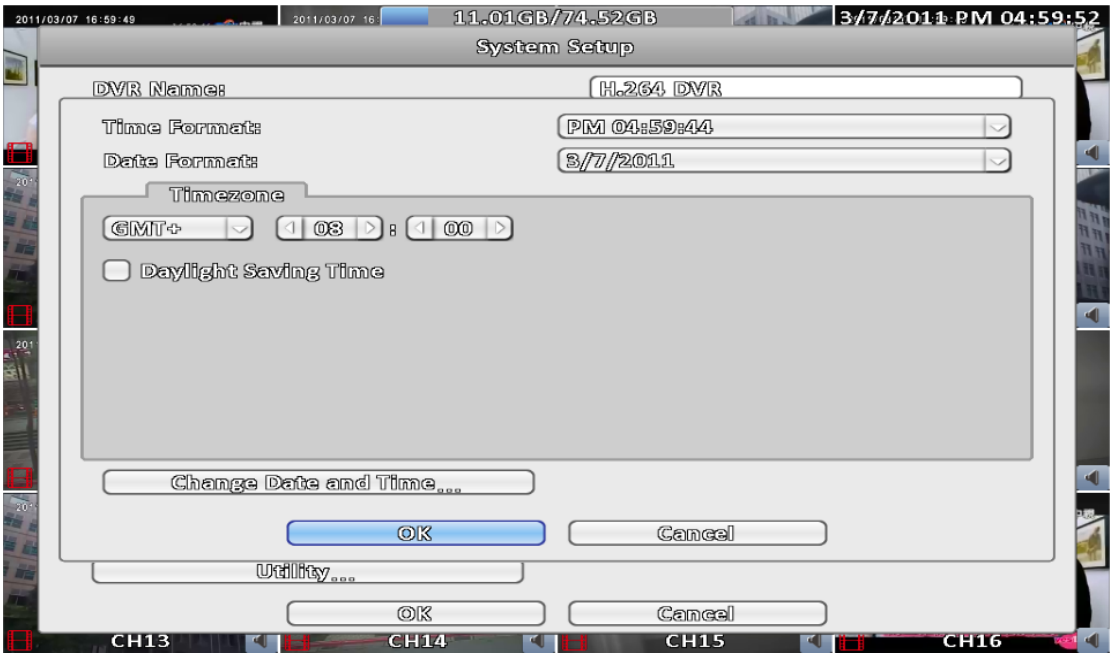
Item	Description
Enable	Enable/Disable Auto Lock
Timeout（Seconds）	Set the number of seconds to wait. It there is no action, the panel will be automatically locked and the switch to log out. When the automatic log out, it only supports basic operations, such as picture freezing, PIP, picture, zoom, auto switch channel, split window switch ... and so on. To enter the setup menu, search menu, backup menu, status query, playback, and other operations, you need to select the identity and password. 10 to 9999 seconds

3-7.2 Auto Reboot

Item	Description
Disable	Enable/Disable Auto Reboot
Every day	Setup auto reboot time everyday

Every Week	Setup auto reboot time everyweek

3-7.3 Date/Time Setup

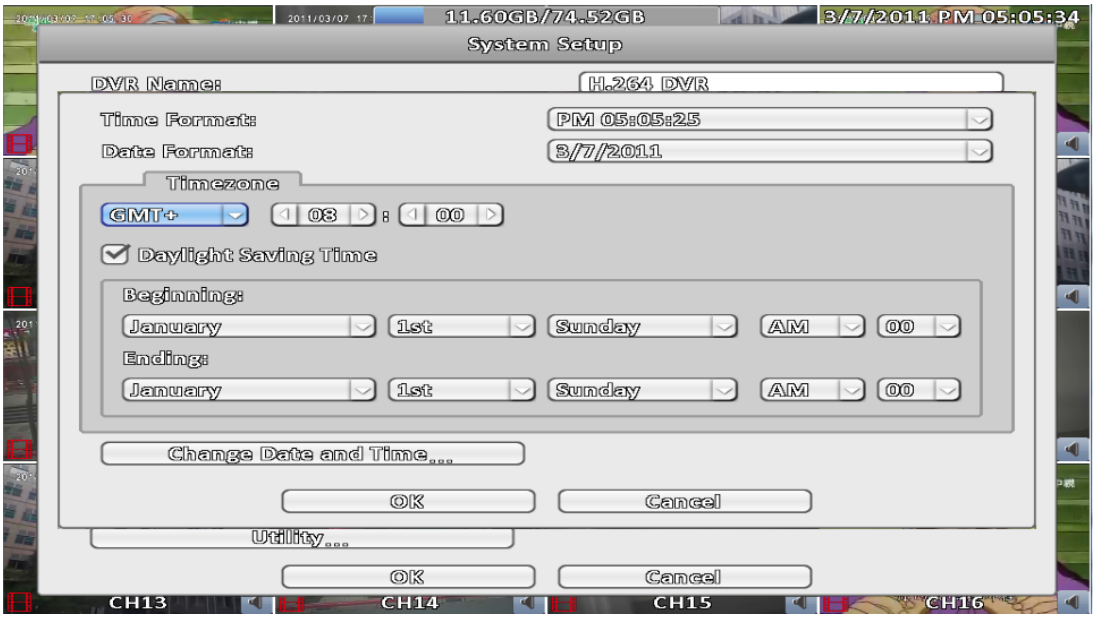


Item	Description
Hour Format	12HOURS/ 24HOURS
Date Format	MM-DD-YY/DD-MM-YY/YY-MM-DD

3-7.3.1 Timezone

Item	Description
Time Zone Setup	Set up GMT, from GMT - 13 ～ GMT+ 13。
Daylight Saving Time	Enable/Disable Daylight Saving Time

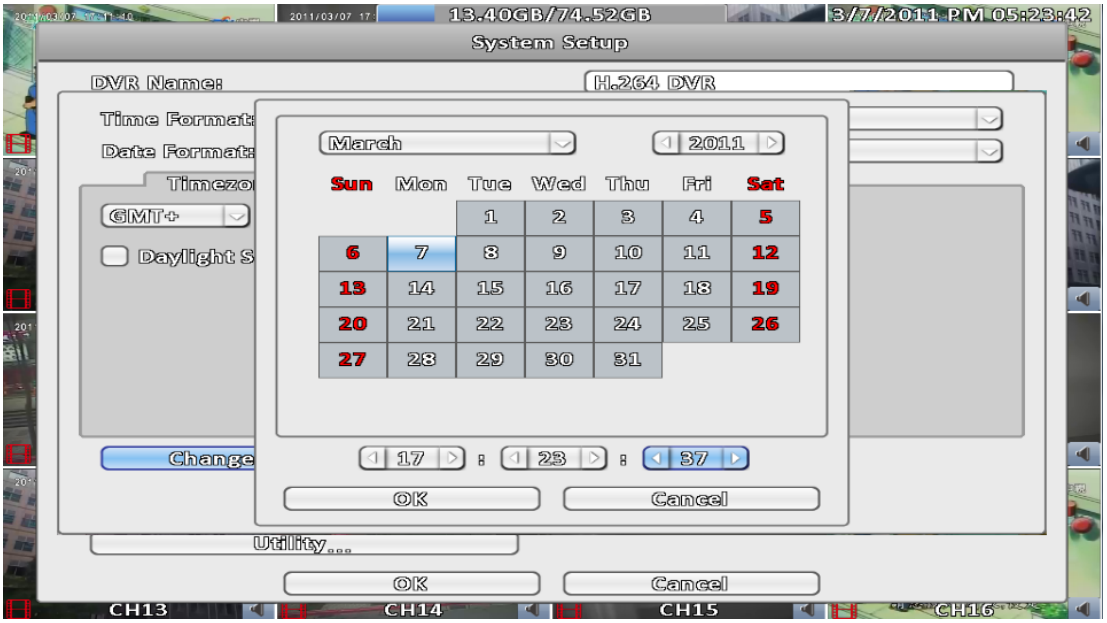
3-7.3.2 Daylight Saving Time Setup



Item	Description
Beginning	Setup Daylight Saving Time beginning time
Ending	Setup Daylight Saving Time ending time

3-7.3.3 Change Date and Time

Setup date and time of DVR manually according to user's local time.



3-7.4 Monitor Setup

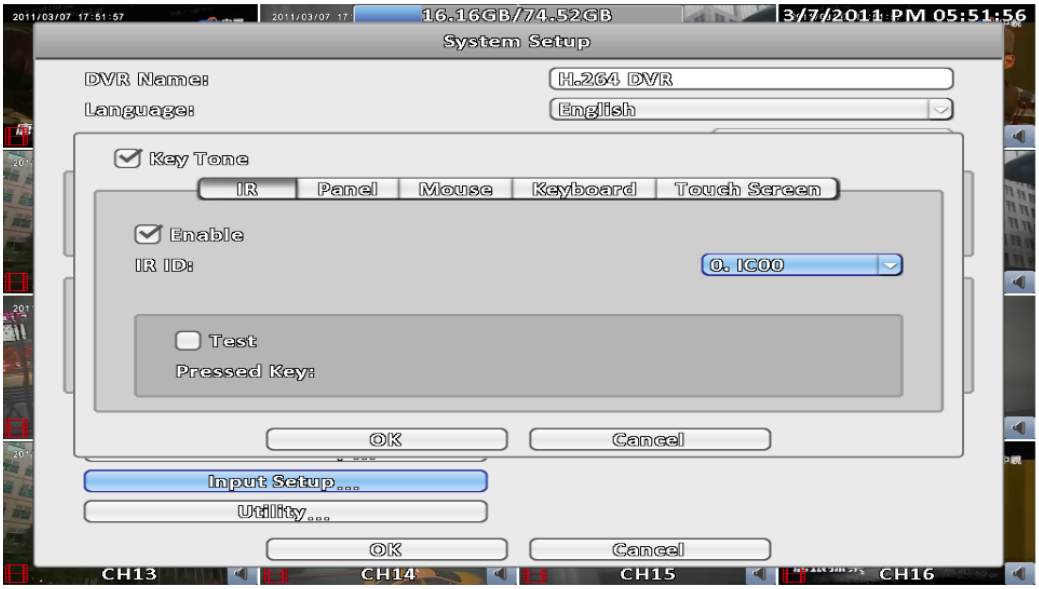
16：9 monitor setup

4：3 monitor setup

Item	Description
1、2	Setup the main screen(1), sub-screen (2) the setting of screen display respectively
Resolution	Setup resolution
Border Color	Setup border color
Luminance	Setup screen luminance, form 0 to 100
Contrast	Setup screen contrast, form 0 to 100
Saturation	Setup screen saturation, form 0 to 100
Hue	Setup screen hue, form 0 to 100

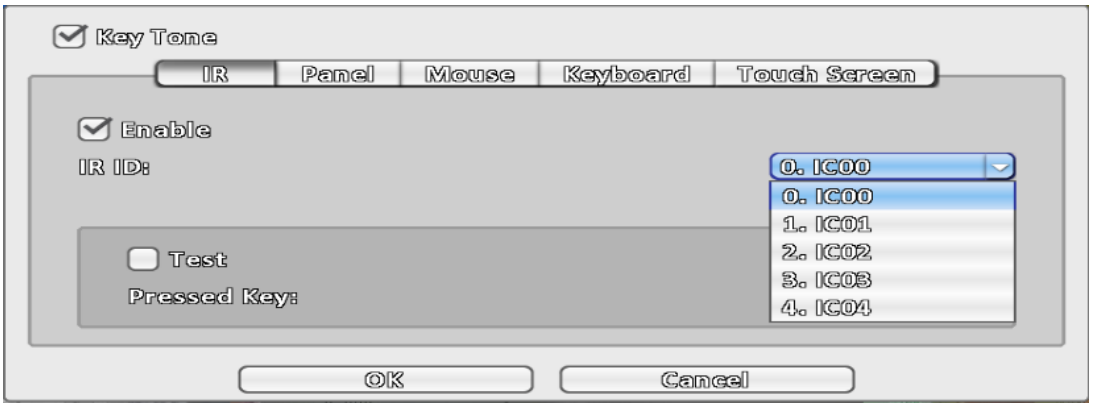
3-7.5 Input Setup

Setup input device (Key Tone, Remote control, Panel, Mouse, Keybord, Touch screen)



Item	Description
Key Tone	Enable/Disable Key Tone

3-7.5.1 Remote Control Setup

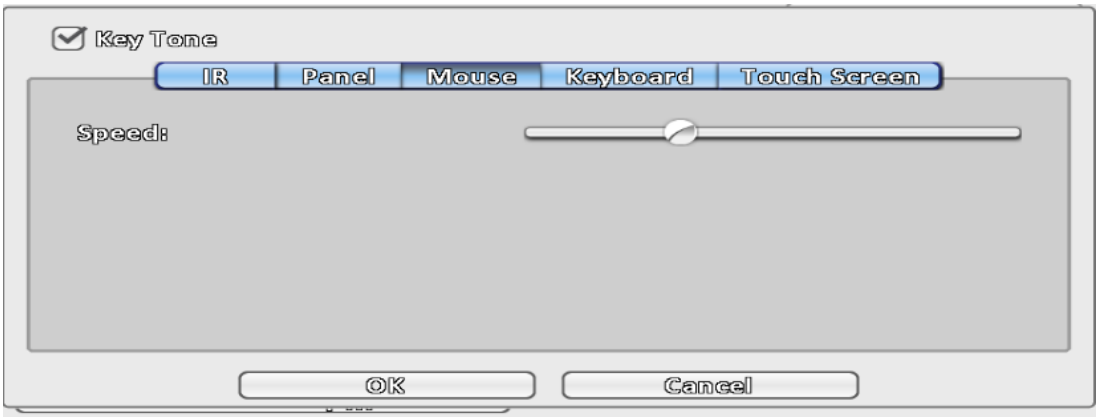


Item	Description
Enable	Enable/Disable remore control
IR ID	Default ID is 0. DVR is controlled by standard remote control; For one to many remote control, remote control on the number corresponding to theDVR numbers (DVR1 → IC01, DVR2 → IC02)
Test	Enable/Disable test function
Pressed Key	Display pressed key information

3-7.5.2 Panel Setup

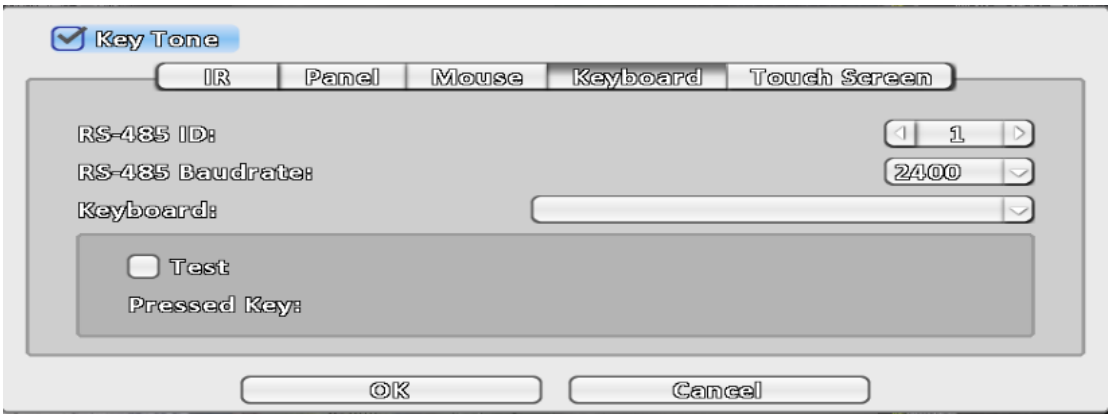
Item	Description
Panel ID	DVR Panel ID
Test	Enable/Disable panel button test function
Press Key	Display press key information

3-7.5.3 Mouse Setup



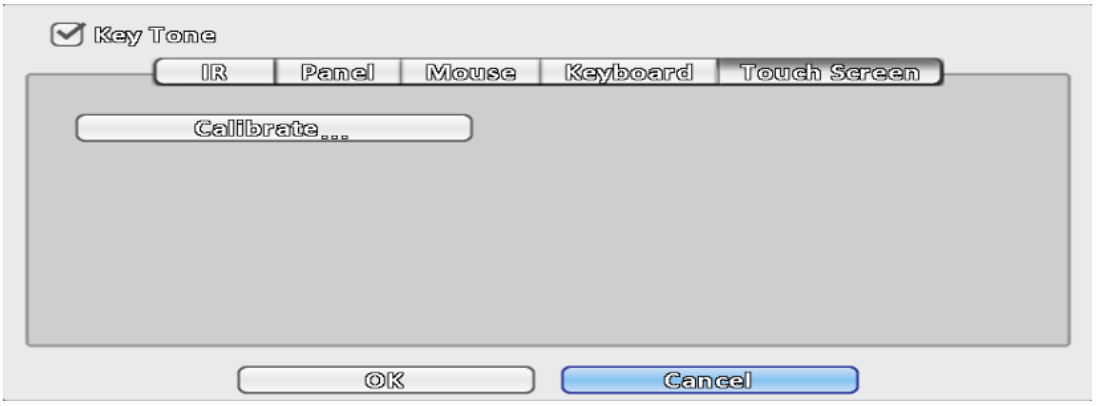
Item	Description
Speed	Setup the mouse cursor speed, the more the faster to the right. (Only valid when operating local)

3-7.5.4 PTZ Keyboard Setup

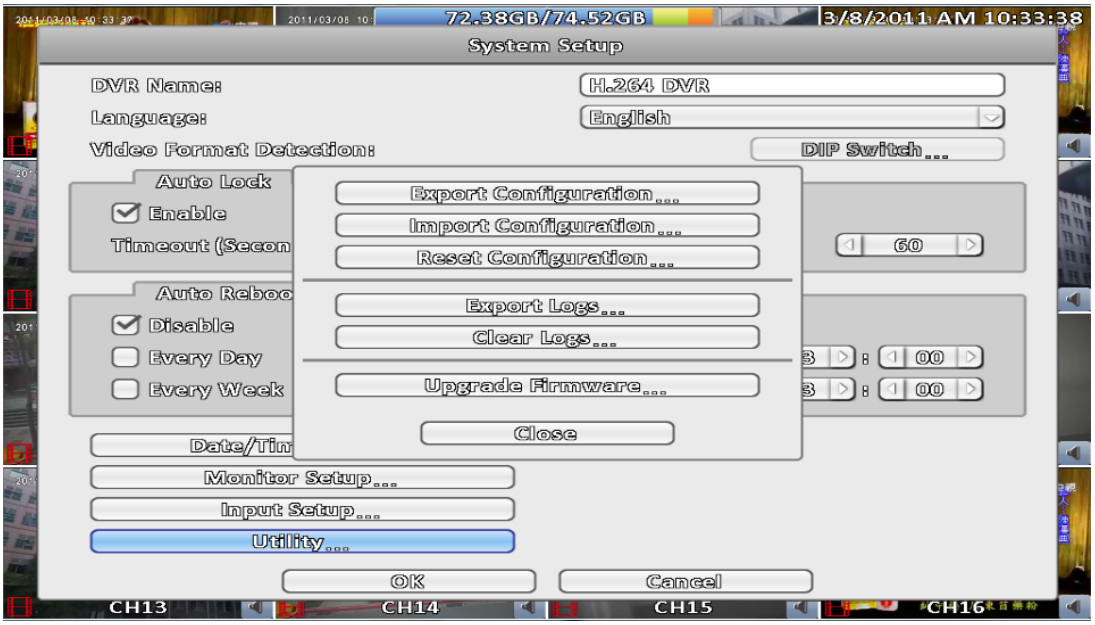


Item	Description
RS-485 ID	RS-485 ID, valid values range from 1 to 64
RS-485 Baudrate	RS-485 Baudrate , 2400, 4800, 9600, 19200
Keyboard	Select PTZ Keyboard
Test	Enable/Disable keyboard test function
Press Key	Display press key information

3-7.5.5 Touch Screen Setup



3-7.6 Utility Setup

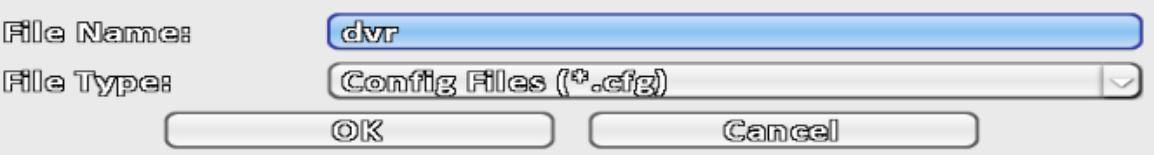


Item	Description
Export Configuration	Save DVR configuration to USB flash drive or PC
Import Configuration	Store USB flash drive or PC configuration to DVR
Reset Configuration	Reset system configuration
Export Logs	Save DVR system log to USB flash drive or PC
Clear Logs	Clear all DVR system log
Upgrade Firmware	Upgrade DVR through USB Please stop recording and backup setup configuration before upgrading **System will reboot automatically when the upgrade is completed.**

3-7.6.1 Export Configuration

Save DVR system log to USB flash drive

a. Export to USB Flash Drive: The default filename is “dvr.cfg”



b. Save as…：Export configuration to PC

3-7.6.2 Import Configuration

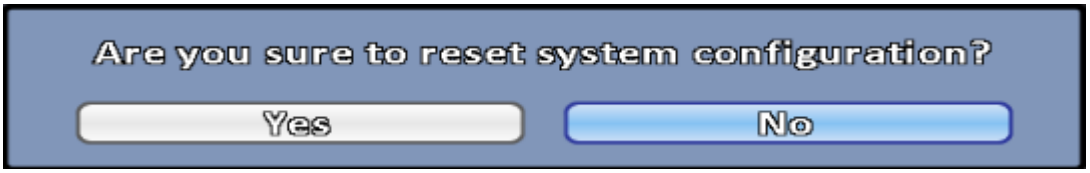
Store USB flash drive configuration to DVR.

a. Import from USB Flash Drive: Choose from a USB flash drive to import the configuration file “*. cfg”

b. Open…：store *.cfg configuration file from PC

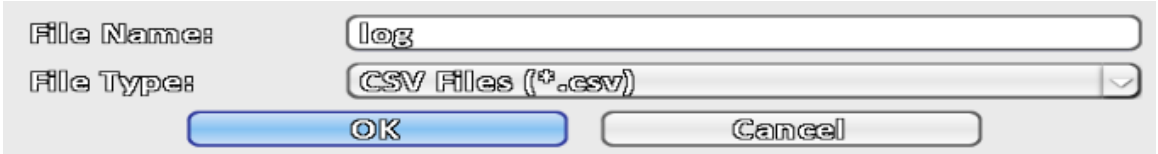
3-7.6.3 Reset Configuration

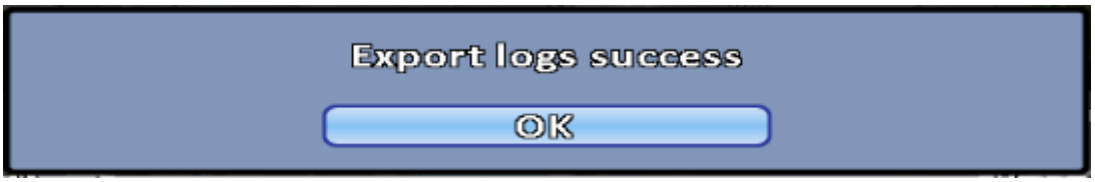
Reset system to default settings.



3-7.6.4 Export Logs

a. Export to USB Flash Drive: Export logs to USB flash. The default file name is “log.csv”

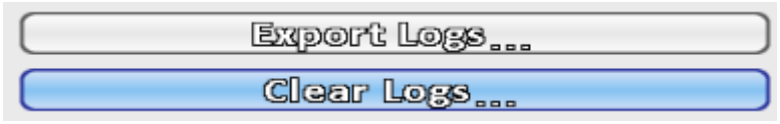


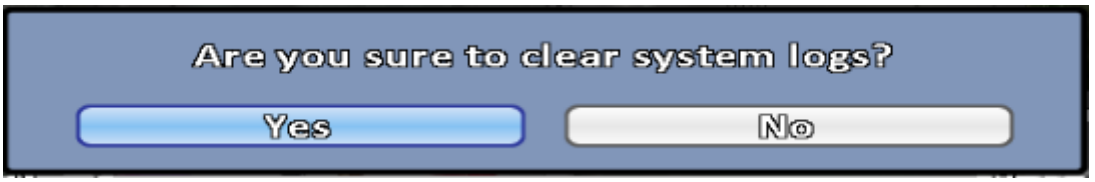


b. Save as…：Export logs to PC

3-7.6.5 Clear Logs

Clear system logs.





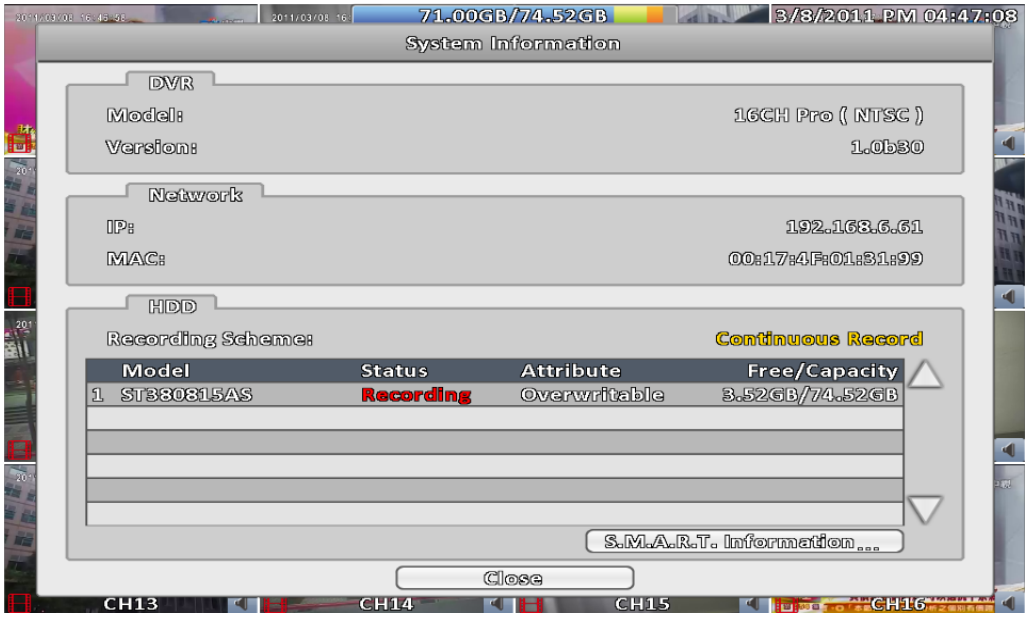
3-7.6.6 Upgrade Firmware

Notice! DO NOT TURN OFF POWER OR UNPLUG USB DEVICE DURING THE UPGRADE as it may cause incomplete firmware upgrade and damage to the DVR.

a. Upgrade from USB Flash Drive...: Choose the firmware from USB flash drive to upgrade

b. Open…：Upgrade firmware from PC

3-8 System Information



3-8.1 DVR Information

Item	Description
Model	DVR model name and video type
Version	DVRFirmware version

3-8.2 Network Information

Item	Description
IP	DVR IP address. If no connection, it will show "Network is not connected.
MAC	DVR MAC address

3-8.3 HDD Information

Item	Description
Recording Scheme	Display installed HDD recording type
Model	Display installed HDD model
Status	Display installed HDD recording status
Attribute	Display installed HDD attribute (Overwritable/Writable/Read-Only)
Capacity	Display installed HDD capacity (Free/Capacity)

3-8.4 S.M.A.R.T Information

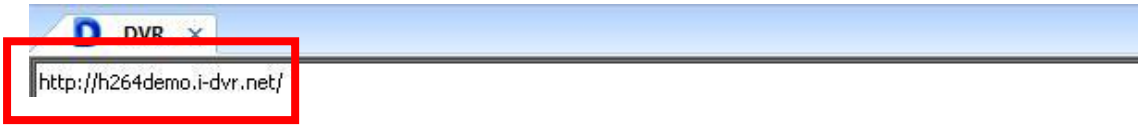
Chapter 4 REMOTE SOFTWARE INSTALLATION and SETUP

It can allow you to remotely access and control the DVR from PC by 「Bubo Bubo」or IE v6.0 or above.

p.s. Operation system currently supports Windows XP SP2 or above and Windows Vista, Windows 7.

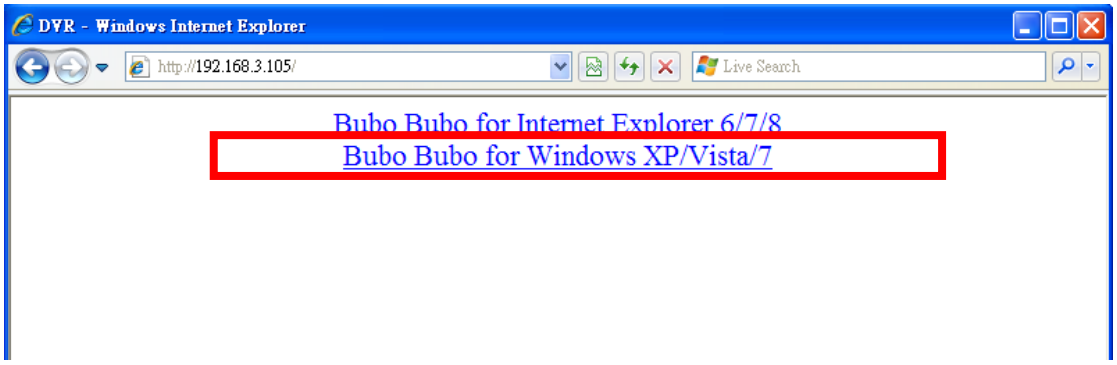
4-1 Application Software Connection

Step 1：Enter the IP address of DVR in IE browser.



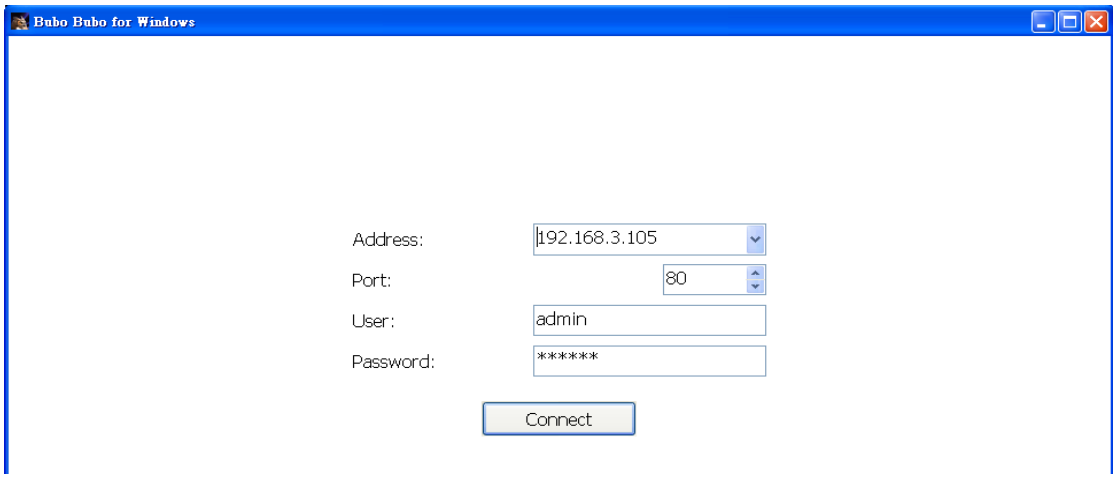
Step 2：Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Other related setup about user account and password, please check **"Account Setup**. "

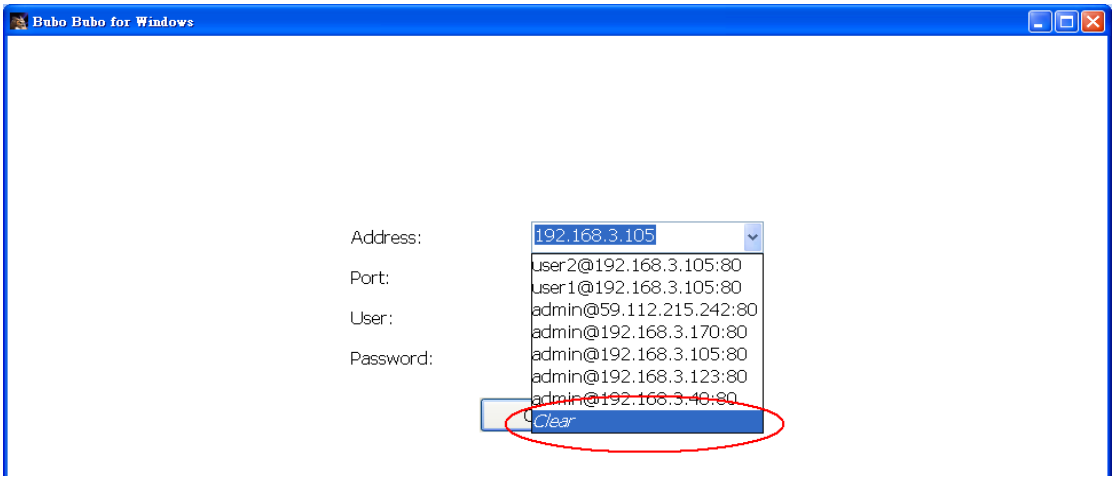
Step 3：Click on the link "**Bubo Bubo for Windows XP/Vista/7"** to start downloading the AP software.



Step 4：Click on the link to start downloading the AP software.

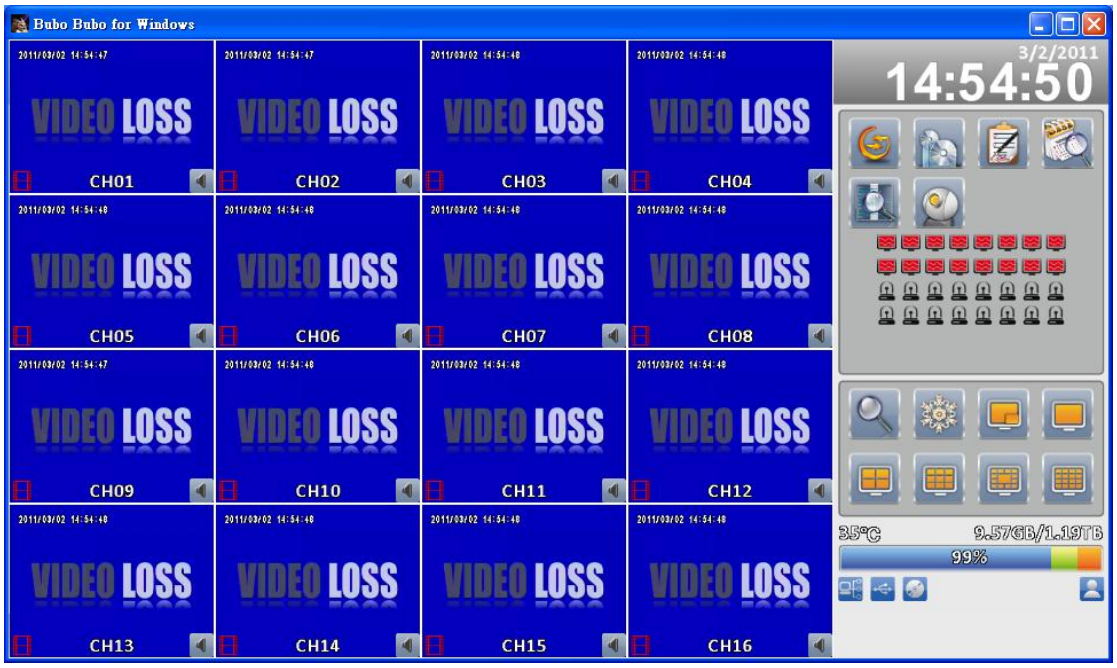
Step 5：If you choose to run the software, Start window will be shown up. Please enter information of login DVR: IP, Port, Username and Password.





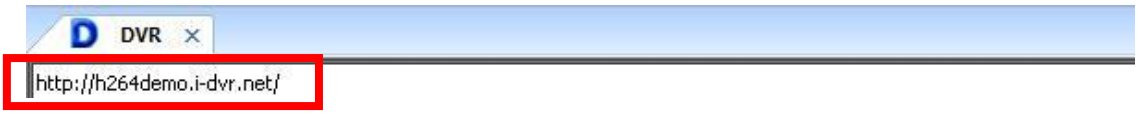
The drop-down menu can be used to record IP address. Press “Clear” to clear IP address.

Step 6：You’ve logged into the DVR



4-2 IE Connection

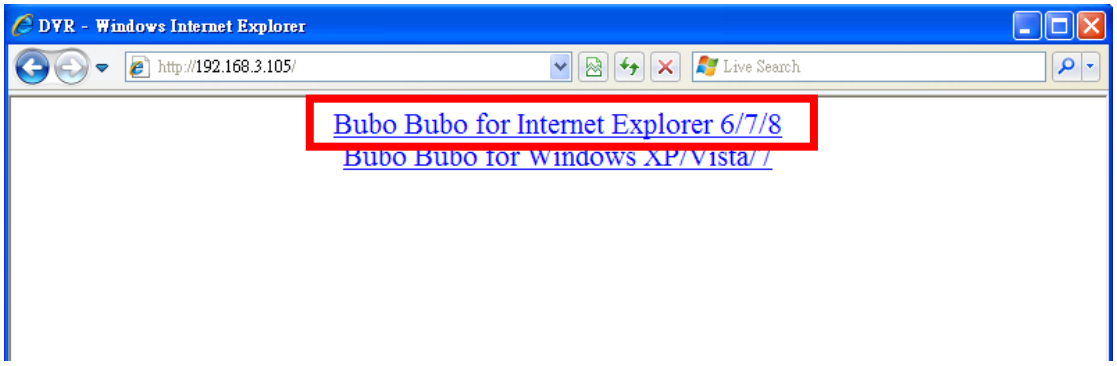
Step 1：Enter the IP address of DVR in IE browser. The address appeared in this image is only for demonstration. Actual address is depending on the setup of on-site DVR



Step 2：Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Other related setup about user account

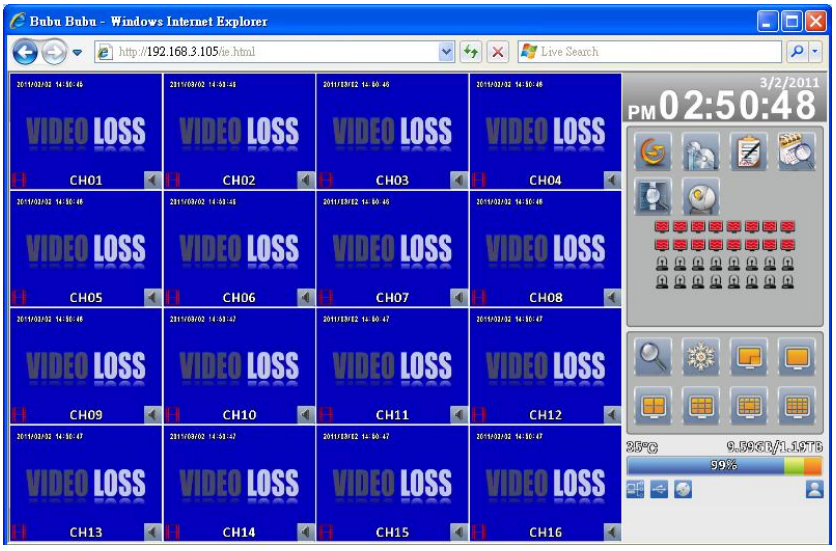
and password, please check **“Account Setup**. “ The user name and password appeared in this image is only for demonstration. Actual user name and password depend on the setup of on-site DVR.

Step 3：Click on**”Bubo Bubo for Internet Explorer 6/7/8 ”.**



p.s. There will be IE connection security issue when clicking this link for the first time. Please refer to index III for Remote Monitoring IE ActiveX Control Installation Instruction.

Step 4：DVR images appear.◦ Default is 16:9 display.



4-3 AP Software and IE Connection Operation

Table 4-3.1 System Requirements

CPU	Intel Pentium 4 above
OS	Microsoft Windows 7、Windows Vista、Windows XP SP2 above
RAM	512M above
VGA Card	Needed to support DirectX9.0 (Above) Note 1
Anti-virus software (firewall)	Connection to be open IE and AP PORT 80 (according to the HTTP PORT settings)
Others	DirectX 9.0 above

Note 1:
Known VGA card that support DirectX9.0 currently:
NVIDIA: Geforce FXseries, Geforce 6series, Geforce 7series, Geforce 8series, Geforce 9series, Geforce 200series, etc.
Or
visit:http://en.wikipedia.org/wiki/Comparison_of_Nvidia_graphics_processing_units
ATI: Radeon R300series, Radeon R400series, Radeon R500series, Radeon R600series, Radeon R700series, Radeon HD 3xxx IGPseries, Mobility Radeonseries (9500 above), Mobility Radeon Xseries, Mobility Radeon HDseries, or FireGL Vseries etc.
Or visit: http://en.wikipedia.org/wiki/Comparison_of_ATI_graphics_processing_units
SiS: SiS 67Xseries, or SiS 77Xseries etc.
Or visit: http://www.sis.com/support/support_compare.htm
Intel: 91Xseries, 94Xseries, 96Xseries, G3Xseries, or G4Xseries, etc.
Or visit: http://en.wikipedia.org/wiki/Intel_GMA

Chapter 5 SPECIFICATIONS

Camera Input			16 CH
Video	**HDMI**		1 (Video Output [1024x768, 1280x1024, 1366x768, 1440x900] + Audio Output)
	Input		16
	Output		1VGA (1024x768, 1280x1024, 1366x768, 1440x900) + 1BNC (720x480 / 720x576) for SPOT Monitor
Audio	**Input**		16 RCA
	Output		2 RCA
System	**Operating System**		Embedded Linux OS
	Internal HDD		Supports Max. x 4 SATA Devices (HDDx4, HDDx3+DVDx1, HDDx3+eSATAx1, HDDx2+DVDx1+eSATAx1)
	External HDD		1 x eSATA
	Sensor In (NO, NC) Relay Out		Sensor-in x16 Relay-out x4
	Serial Interface		RS-485 (Inx1, Outx1)
	USB		2 x USB2.0
	Dimension (mm)		442(w)x92(h)x438(d)
	Weight (w/o HDD/DVD±RW)		5KG
	Power		110V/220V
	Power Source		220W
Display	**Speed**		480 fps
	Resolution (Pixel)		720 X 480(NTSC), 720 X 576(PAL)
	Split Screen		1,4,9,13,16, SEQ.
	Auto Channel Switching		Switching time : 1 ~ 99 sec
	Mode		Zoom (Digital x2~ x8), PIP, Auto SEQ.
Recording	**Compression**		H.264 ASP (Internet Transmission: H.264)
	Dual Stream Resolution (Pixel)	**Main (Recording)**	704 X 480, 704 X 240, 352 X 240 (NTSC) / 704 X 576, 704 X 288, 352 X 288 (PAL)
		Sub (Network)	352 x 240, 176 x 120 (NTSC), 352 x 288, 176 x 144 (PAL)
	Picture Quality		10~100 levels for adjustment
	Mode		Continuous, Event and Schedule
	Speed	**NTSC**	D1 480 fps(704 x 480) HD1 480 fps(704 x 240) CIF 480 fps(352 x 240)

		PAL	D1 400 fps(704 x 576) HD1 400 fps(704 x 288) CIF 400 fps(352 x 288)
	Pre-Alarm		1 ~ 10 SEC
	Post-Alarm		1 ~ 100 SEC
	Watermark		YES
Playback	**Display**		1, 4, 8, 16
	Search Mode		Time, Log
	Zoom		Digital (x2 ~ x8)
	Snapshot		YES
	Control		Play, Pause, Stop, Slow(1/2, 1/4, 1/8), FF(4, 8, 16, 32), REW(4, 8, 16, 32), Frame Step, Seek Bar, Focus
	Device		Int. HDD
Network	**Network Interface**		10/100 Ethernet
	Protocol		TCP/IP, SMTP, HTTP, DHCP, PPPoE(ADSL), NTP
	Application		Windows XP/VISTA/7, Mac OS X (PC Client system)
	Remote Software		Licensed Application Software, IE Browser
	Account		1 Admin + 8 Users
	CMS		CMS for Windows XP, Windows Vista, Windows 7
	3G / GPRS		iPhone, iPad, Android, Windows Phone 7
	Event Transport		E-mail
Backup	**Interface**		USB 2.0 or SATA
	Audio Backup		YES
	Network		YES
	Backup Device (Optional)		Remote Software, USB Flash Drive, USB DVD±RW, SATA DVD±RW
Alarm	**Motion Detection**		Detected Frames: Unlimited / Channel
			Sensitivity : 100 levels for each channel
			Area : Programmable individually
	Alarm Hold Time		1 ~ 100 SEC
	Search (Event Criterion)		YES
	Event Log		Up to the 10000 events (Sensor, Motion, video Loss, power on, remote login, logout, HDD error, HDD full)
OSD & DVR Control	**GUI**		16-bit True Color
	Multi-Language		English, Traditional Chinese, Others
	Camera Title		Multi-Language
	USB Mouse		YES
	Touch Panel		Touch Panel LCD Monitor (USB Interface, EETI Chipset Only)

	Remote Controller	IR Remote Control (Max. 4 Device)
	System Upgrade	USB Flash Drive, Remote Software
	Hard Key	Front Panel
	Pan/Tilt/Zoom Control	Control From RS485 Interface (Pelco P, Pelco D, Samsung, LG, LiLin)