



Real-time
HD-SDI DIGITAL VIDEO RECORDER
User's Manual

Visit our website for detailed product spec

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Regulatory Information



FCC compliance: This equipment has been tested and found to comply with the limits for a 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.

FCC Conditions This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.



Attention! This is a class A product which may cause radio interference in domestic environment; in this case, the user may be urged to take adequate measures.

Safety Precautions

- To reduce risk of fire or electric shock, do not expose this appliance to rain or moisture.
- Do not place the appliance near to heaters, other heat sources or under direct solar irradiation.
- Make sure the ventilation slot on the appliance is not covered during operating.
- To prevent risk of electric shock, connect only to a proper earth grounded outlet. Do not operate appliance with other none specified power supplies.
- Do not attempt to modify or use the supplied AC power cord if it is not the exact type and rating required.
- Do not attempt to disassemble the appliance. Contact qualified service personnel for maintenance.
- Handle the appliance with care. Do not strike or shake, which may damage the appliance.

Notice

- Information in this document is subject to change without notice.

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1 Introduction

The 4/8/16 channel HD-SDI DVR transmits the uncompressed Full HD (1080P) video image over coaxial cables. It performs the high definition image with zero loss and low latency of image data when viewing the video. The DVR provides the easy-to-install benefit that allows users to view the HD megapixel image without requiring having the complicated knowledge of IP based system. It is the ultimate solution for high-quality and reliable surveillance system.

1.1 Features

- Dual-Core CPU demonstrates the extreme and industry-leading performance in recording, playback and networking.
- Support 4CH/8CH/16CH 1080p30 real time recording and 4CH simultaneous real time playback.
- High-Speed Gigabit network interface.
- Support dual streaming.
- Remote access through Web, CMS, Mobile App (Android & iOS).
- Easy archive via USB, CD/DVD-RW or network.

1.2 Product Specification

4CH HD-SDI DVR

System	
Operating System	Embedded Linux
Operations	Live, Recording, Playback, Backup & Remote access
Control Mode	USB mouse, IR remote control, Webpage
Video	
Compression	4x1080p30 H.264 HP/MP/BP (with dual streams)
Audio	
Input	4 x RCA
Output	1 x RCA
2-way Audio	Support
Display	
Display mode	Full screen/Multi-screen/PIP/Sequence
Output	1x HDMI(1920x1080p60), 1xVGA(up to 1920x1080, 60Hz)
Sequence	Support
OSD	GUI
Recording	
Recording Mode	Continuous, scheduled, alarm, motion
Recording Capability	Up to 120 fps at Full HD(1920x1080)
Pre Recording	5 seconds
Post Recording	300 or above seconds
Playback & Backup	
Display mode	Full screen/Multi-screen
Playback control	Play/Pause/Step/Fast forward/Rewind/Fast rewind
Search Control	By Date/Time, Alarm search
Export	Through USB/Webpage
Mobile Viewing on Smartphone/Tablet PC	Yes ; iOS, Android
Internal Storage	2xHDD, 1xDVD(optional)
External Storage	e-SATAx1
Network	
Support	TCP/IP, SMTP, DHCP, DDNS, PPPoE, UDP, SSL, RTP, RTSP, NTP
Ethernet	1x10/100/1000Mbps
I/O	
USB	2; 1 for mouse control and 1 for backup
Alarm	4 Alarm in/ 1 Alarm out
RS485	1; Support Pelco D, Pelco P
Security	
Watermark	Yes
User Privilege	3 Levels of User Access Support
Environmental	
Power	12VDC input
Temperature	0°C ~ 40°C
Weight	2.5Kg

Note: The specifications are subject to change without any notice.

8CH HD-SDI DVR

System	Description
Operating System	Embedded Linux
Operations	Live, Recording, Playback, Backup & Remote access
Control Mode	USB mouse, IR remote control, Webpage
Video	
Compression	8x1080p30, H.264 HP (w/dual streams)
Audio	
Input	8 x RCA
Output	1 x RCA
2-way Audio	Support
Display	
Display mode	Full screen/Multi-screen/PIP/Sequence
Output	1x HDMI(1920x1080p60), 1xVGA(up to 1920x1080, 60Hz)
OSD	GUI
Mobile Viewing on Smartphone/Tablet PC	Yes; iOS, Android
Video Loopout	8 (optional)
Recording	
Recording Mode	Continuous, scheduled, alarm, motion
Recording Capability	Up to 240 fps at Full HD(1920x1080)
Pre Recording	5 seconds
Post Recording	300 or above seconds
Network	
Support	TCP/IP,SMTP,DHCP,DDNS,PPPoE,UDP,SSL,RTP,RTSP,NTP
Ethernet	1x10/100/1000Mbps
Playback & Backup	
Display Mode	Full screen/Multi-screen
Playback Capability	Up to 8 channel simultaneous playback
Playback Control	Play/Pause/Step/Fast forward/Rewind/Fast rewind
Search Control	By Date/Time,Events,Channel
Export	Through USB/Webpage/CMS
Mobile Viewing on Smartphone/Tablet PC	Yes ; iOS, Android
Internal Storage	Up to 6 SATA ports
I/O	
USB	4; 2 in the front panel, 2 in the back panel
Alarm	16 Alarm in/ 4 Alarm out
RS485	1; Support Pelco D, Pelco P
Security	
Watermark	Yes
User Privilege	3 Levels of User Access Support
Environmental	
Power	AC100-240V
Dimension	430 (W) x 72.5 (H) x 393 (D) mm ± 5mm
Temperature	0°C ~ 40°C

Note: The specifications are subject to change without any notice.

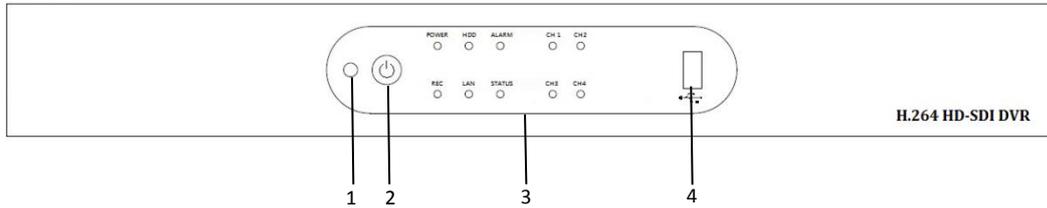
16CH HD-SDI DVR

System	Description
Operating System	Embedded Linux
Operations	Live, Recording, Playback, Backup & Remote access
Control Mode	USB mouse, IR remote control, Webpage
Video	
Compression	16x1080p30, H.264 HP (w/dual streams)
Audio	
Input	16 x RCA
Output	1 x RCA
2-way Audio	Support
Display	
Display mode	Full screen/Multi-screen/PIP/Sequence
Output	1x HDMI(1920x1080p60), 1xVGA(up to 1920x1080, 60Hz)
OSD	GUI
Mobile Viewing on Smartphone/Tablet PC	Yes; iOS, Android
Video Loopout	16 (optional)
Recording	
Recording Mode	Continuous, scheduled, alarm, motion
Recording Capability	Up to 480 fps at Full HD(1920x1080)
Pre Recording	5 seconds
Post Recording	300 or above seconds
Network	
Support	TCP/IP,SMTP,DHCP,DDNS,PPPoE,UDP,SSL,RTP,RTSP,NTP
Ethernet	1x10/100/1000Mbps
Playback & Backup	
Display Mode	Full screen/Multi-screen
Playback Capability	Up to 16 channel simultaneous playback
Playback Control	Play/Pause/Step/Fast forward/Rewind/Fast rewind
Search Control	By Date/Time,Event and Channel
Export	Through USB/Webpage/CMS
Mobile Viewing on Smartphone/Tablet PC	Yes ; iOS, Android
Internal Storage	Up to 6 SATA ports
I/O	
USB	4; 2 in the front panel, 2 in the back panel
Alarm	16 Alarm in/ 4 Alarm out
RS485	1; Support Pelco D, Pelco P
Security	
Watermark	Yes
User Privilege	3 Levels of User Access Support
Environmental	
Power	AC100-240V
Dimension	430 (W) x 72.5 (H) x 393 (D) mm ± 5mm
Temperature	0°C ~ 40°C

Note: The specifications are subject to change without any notice.

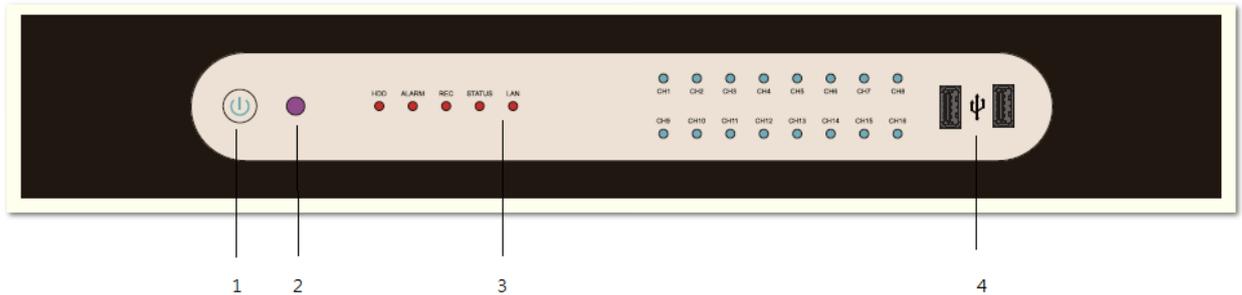
1.3 Front Panel

4CH HD-SDI DVR front panel includes:



1. IR receiver – Receiver for IR remote.
2. Power button – Power On/Off DVR.
3. Status indicators –
 - Power : Indicator turns on when DVR power on.
 - REC : Indicator turns on when DVR is recording.
 - HDD : Indicator turns on when system is accessing hard disk.
 - LAN : Indicator turns on when network access is connected.
 - Alarm : Indicator turns on when alarm is detected.
 - Status : Indicator turns on when system exception alert is detected, such as disk full, disk error, no disk, network disconnect, illegal login, disk over temperature, fan fail, network fail, power loss and IP conflict.
 - CH1~CH4 : Indicators turn on when the video is connected to the system.
4. USB port – USB port for connecting devices, such as USB mouse or USB flash device.

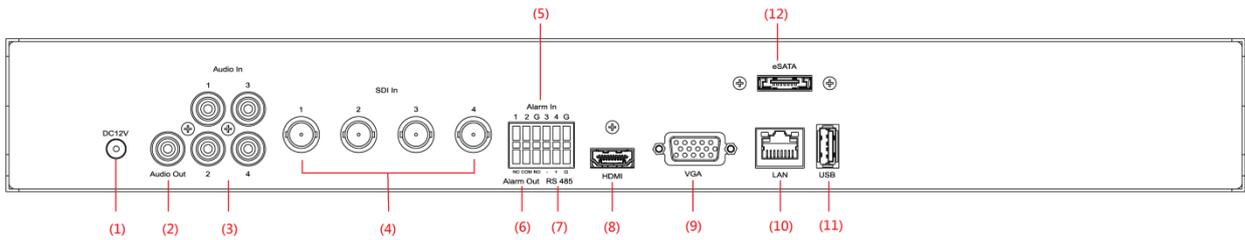
8CH/16CH HD-SDI DVR front panel includes:



1. Power button – Power On/Off DVR
2. IR receiver – Receiver for IR remote
3. Status indicators –
 - REC : Indicator turns on when DVR is recording.
 - HDD : Indicator turns on when system is accessing hard disk.
 - LAN : Indicator turns on when network access is connected.
 - Alarm : Indicator turns on when alarm is detected.
 - Status : Indicator turns on when system exception alert is detected, such as disk full, disk error, no disk, network disconnect, illegal login, disk over temperature, fan fail, network fail, power loss and IP conflict.
 - CH1~CH16 : Indicators turn on when the video is connected to the system.
4. USB port – USB port for connecting devices, such as USB mouse or USB flash device.

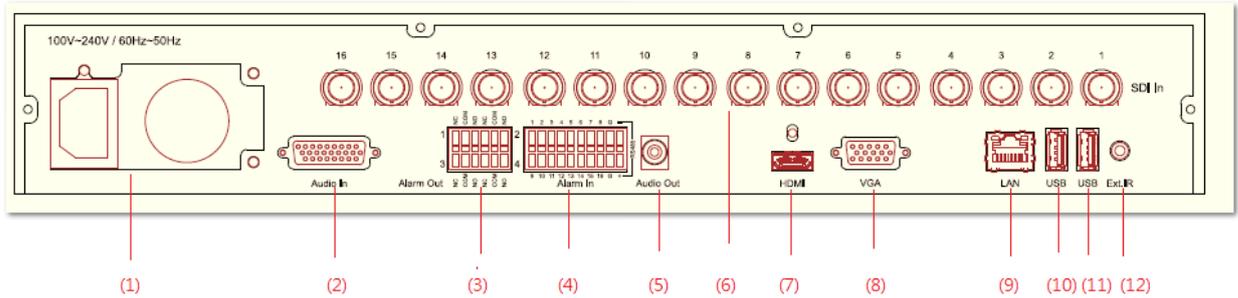
1.4 Rear Panel

4CH HD-SDI DVR rear panel connectors are:



- (1) Power: Plug the DV12V power source into the power socket.
- (2) Audio Out: Connect a speaker or other audio output device to the audio output connector.
- (3) Audio In: Connect the microphone or camera audio output to the audio input connectors.
- (4) SDI In: Connect HD-SDI camera's video output to the SDI video input connectors.
- (5) Alarm In: Connect up to 4 alarm inputs to the alarm input connectors.
- (6) Alarm Out: N.C or N.O type alarm signal out.
- (7) RS485: Connect a Pan/Tilt/Zoom camera to the RS485 port.
- (8) HDMI: Connect a HDMI monitor to the HDMI output connector.
- (9) VGA: Connect a VGA monitor to the VGA output connector.
- (10) LAN: For RJ-45 network connection.
- (11) USB: For connecting devices, such as USB mouse or USB flash device.
- (12) eSATA: For connecting to external SATA HDD or disk array.

8CH/16CH HD-SDI DVR rear panel connectors are:



- (1) Power: Plug the power source into the power socket.
- (2) Audio IN: Connect the microphone or camera audio output to the audio input connectors.
- (3) Alarm Out: N.C or N.O type alarm signal out.
- (4) Alarm In: Connect up to 16 alarm inputs to the alarm input connectors.
- (5) Audio Out: Connect a speaker or other audio output device to the audio output connector.
- (6) SDI In: Connect HD-SDI camera's video output to the SDI video input connectors.
- (7) HDMI: Connect a HDMI monitor to the HDMI output connector.
- (8) VGA: Connect a VGA monitor to the VGA output connector.
- (9) LAN: For RJ-45 network connection.
- (10), (11)USB: For connecting devices, such as USB mouse or USB flash device.
- (12) Ext. IR: Connect IR extension cable to Ext. IR port to increase the range of an infrared signal.

1.5 Remote Control (Optional)

The DVR can be operated through the remote controller. The remote control operation is showing in below figure. Batteries (2xAAA) must be installed before operating.



1. **ID Button:** Press ID button + number key to switch to the DVR that user would like to control. Press a number between 1 and 9 corresponding to the unit ID you wish to control. The user ID must be set in the device before operating.
2. **Export Button:** Enable/disable Export menu.
3. **F1/F2 Button:** Reserved.
4. **ACK Button:** Alarm acknowledged.
5. **Alphanumeric Buttons**
6. **Display Button:** Press to switch the display mode.
7. **Sequence Button:** Press to enable/disable sequence display mode.
8. **Zoom Button:** For digital zoom in/out operation under digital zoom mode. Or for zoom in/out control under PTZ mode.
9. **Focus Button:** For focus control under PTZ mode.
10. **PTZ Button:** To enable/disable PTZ control menu.
11. **Direction/Enter Button:** The Direction buttons are used to navigate the focus display windows or select items in the menu. The Enter button is used to confirm the selection.
12. **Search Button:** To enable/disable playback mode.
13. **Menu Button:** To enable/disable configuration menu.
14. **Playback Control Buttons:** Same as playback operation on playback mode.
15. **PTZ control Buttons:** Same as PTZ control operation on PTZ mode.

1.6 Packing Detail and Installation

1.6.1 Packing

4CH HD-SDI DVR packing includes the below.

Digital video recorder x 1

IR remote control x 1

User manual disc x 1

Power adapter x 1

Power cord x 1

Alarm terminal block x 2

SATA connection cable x 2 (*)

Hard drive mounting bracket x 4 (*)

Screws for mounting hard drive x 8 (*)

Screws for mounting bracket x 8 (*)

(*) The accessory quantity may be different for some models.

8CH/16CH HD-SDI DVR packing includes the below.

Digital video recorder x 1

IR remote control x1

User manual disk x1

Power cord x 1

Alarm terminal block 6P x 2

Alarm terminal block 10P x 2

SATA connection cable x 6

Hard drive mounting bracket x 6

Screws for mounting hard drive x 28

Screws for mounting bracket x 15

DSUB Cable to RCA 8P x 1 for 8CH HD-SDI DVR

*Remark: DSUB Cable to RCA 16P x1 for 16CH HD-SDI DVR

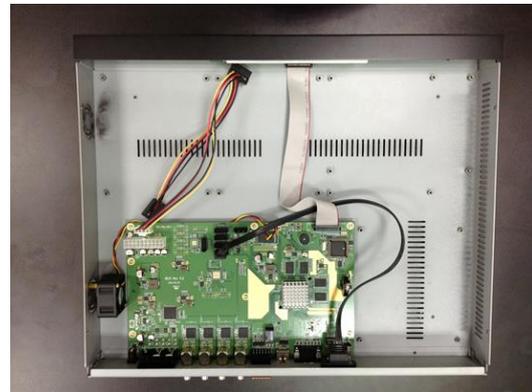
1.6.2 Hard Disk Installation

Hard disk installation steps for 4CH HD-SDI DVR.

Step1. Take out the screws on the back panel and two sided as shown in the pictures.



Step2. Slide open the top cover.



Step3. Use the HDD mounting screws attached in the accessory pack to fix the mounting brackets to the hard drive.

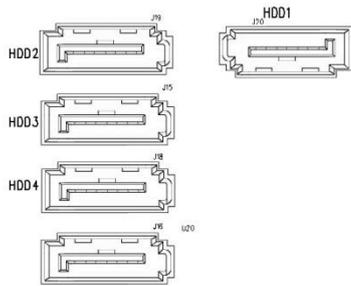
Fix the hard drive to the screw holes indicated as in the below pictures to make sure the hard drive is well installed for mounting to the chassis.



Step4. Connect SATA & Power wire to Hard Disk and put it on right position of the case. Use the HDD mounting screws attached in the accessory pack to fix the hard drive with bracket firmly on to the chassis.



Step 5. Connect the SATA cables to the SATA connectors on the main board. Please refer to the below for the hard drive port numbers and connect the HDD accordingly. The DVR will recognize the hard drives according to the SATA port numbers for the disk management.



* The SATA port number will be varied for some models.

Step 6. Complete all the installation, put the cover back and secure the screws on the back panel and side panels as indicated in the step 1.

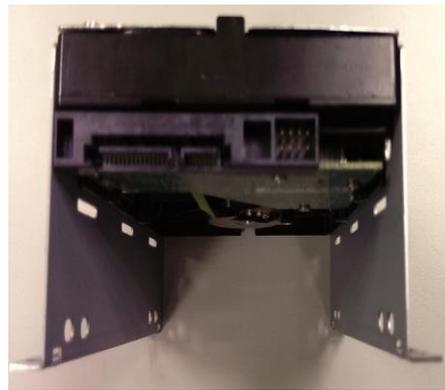
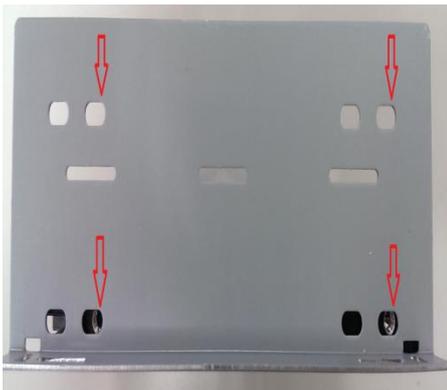


Hard disk installation steps for 8CH/16CH HD-SDI DVR.

Step 1. Remove the harddisk mounting bracket and hard disk screws from the accessory pack.



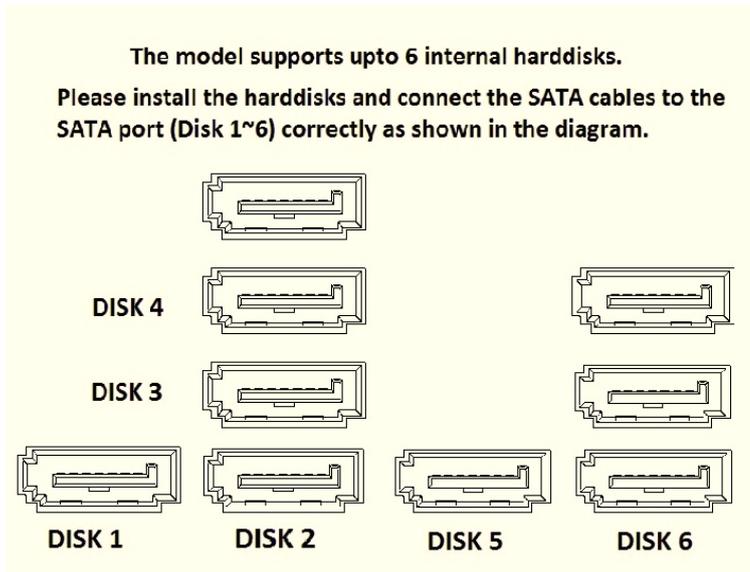
Step 2. Fix the harddisk on to the harddisk mounting bracket and fix the screws on to the screw holes as indicated in the diagram. Each set of harddisk brackets can mount 2 harddisks.



Step 3. Remove the screws on the top cover and slide open the top cover. Place the harddisks with brackets into the unit and use the attached harddisk mounting screws to fix the brackets on to the unit.



Step 4. Connect the SATA cables to the SATA connectors on the main board. Please refer to the below for the hard drive port numbers and connect the HDD accordingly. The DVR will recognize the hard drives according to the SATA port numbers for the disk management.



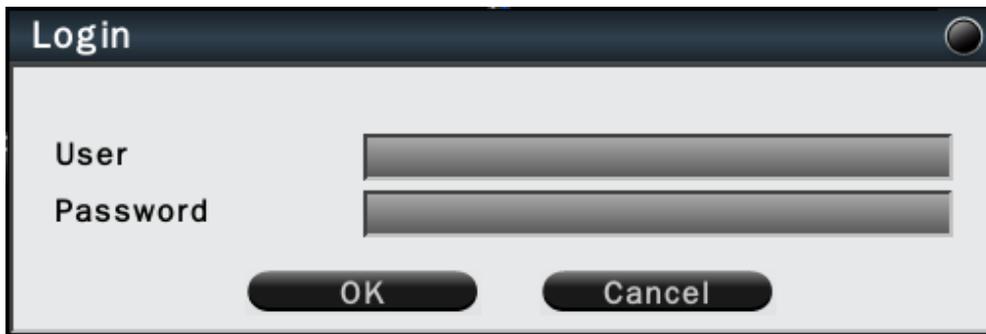
Step 5. Connect the harddisk power cable and SATA cable on to each harddisk. Reassemble the top cover and fix the screws back once all the harddisks are well installed.



2 General Operation

2.1 Login

It is requested to login after boot up if the user authentication is enabled.



Click on the User and Password column to bring up the virtual keyboard to enter the preset user account and password to login to the system.



The default user name/password is:

Administrator: admin/admin

Operator: operator/operator

Guest: guest/guest

If Auto logout is enabled, the system will automatically logout after the preset time. To login to the system, left click on the mouse to bring up the login menu.

The functions available can be limited by setting passwords.

Access to the unit's functions is determined by the user level of the user logged in.

Authority Instructions based on 3 levels of users

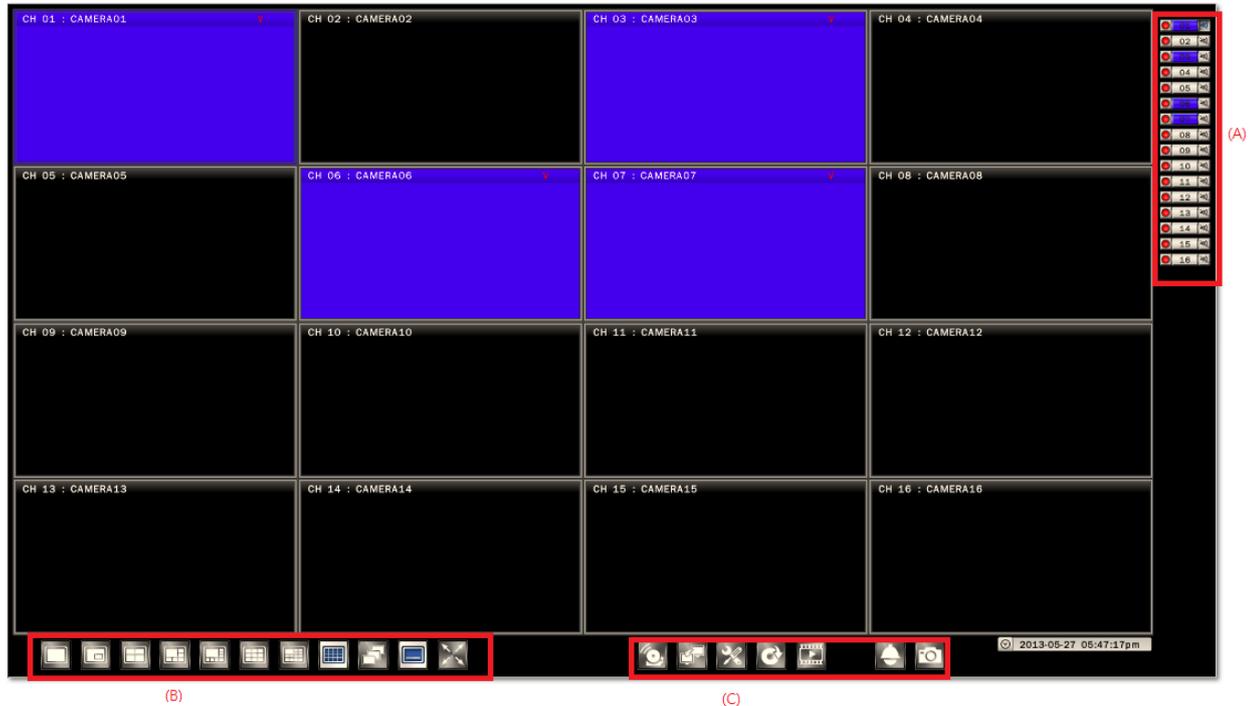
	Administrator	Operator	Guest
View live	Yes	Yes	Yes
OSD	Yes	Yes	Yes
Live Multiple-up	Yes	Yes	Yes
Zoom	Yes	Yes	Yes
Pan/Tilt/Zoom (PTZ)	Yes	Yes	No
Playback	Yes	Yes	No
Export	Yes	Yes	No
Acknowledge Alarm	Yes	Yes	No
Configuration	Yes	No	No

2.2 Live Viewing

2.2.1 Basic Operation

The DVR will enter into the Live View mode after user login to the system.

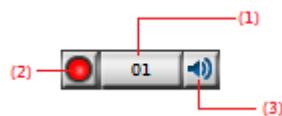
Use mouse to double click on any video channel to bring it up to full screen display.



The basic operation icons are showing on the main screen, the functions are:

(A) System indicators, Channel selection and Audio output selection

The system indicator is showing general system status for each input channel.



(1) The color of the button stands for the status for each channel as listed:

White – Normal, the camera input is installed and enabled.

Grey – The video input is disabled.

Blue – Video Lost.

Yellow – Motion triggered.

Red – Alarm triggered.

(2) Recording status indicator

Red – Recording

White – Not Recording

(3) Audio output selection

Click on the Audio icon on the channel you would like to display, the audio output will switch to the selected channel.

- (4) To switch channel in the display window, move the focus channel to the selected window, click on the channel button you wish to display, the channel will be switched.

(B) Display mode control :



Single view display mode



PIP display mode



Quad display mode



1+5 display mode



1+7 display mode



9-up display mode



1+12 display mode



16-up display mode



Sequence display mode



Show/Hide OSD



Switch display to full screen display mode

(C) Function Control



Alarm acknowledge, click to disable buzzer when alarm is triggered



Click to bring up Call Monitor Setup menu



Click to enable/disable Setup menu



Click to bring up Export menu



Click to switch to search and playback mode



Click to switch to search and playback mode



Under full screen mode, click the button to enable Digital Zoom function.
Right click on the mouse to drag on the screen to zoom in the selected area.



Click to bring up the PTZ control panel



Click to Logout from the current user's privilege.

2.3 Search and Playback Operation

2.3.1 Basic operation



To search and playback the video, click “Playback” icon  on the main page to switch to playback mode as show below.



The display mode controls are the same as under Live View mode.

The function controls are as below:



Click to bring up the Export menu



Under full screen mode, click to enable Digital Zoom function.

Right click on the mouse to drag on the screen to zoom in the selected area.



Click to switch to live view mode



Click to take the picture of the selected video

2.3.2 Calendar

The calendar on the screen shows the recorded data contains in the hard drives. The date highlighted in orange means there's recorded data of the date in the hard drives. The red highlighted date indicates the current search date. Click on the calendar to select the date user would like to search.



2.3.3 Search operation

The recorded file list is showing in the column below, the files can be searched by "Time", "Channel" and "Event". Select the search type and the results will show in the list below. Double click on the selected file then the video will start to play on the display window.

2.3.3.1 Search by Time



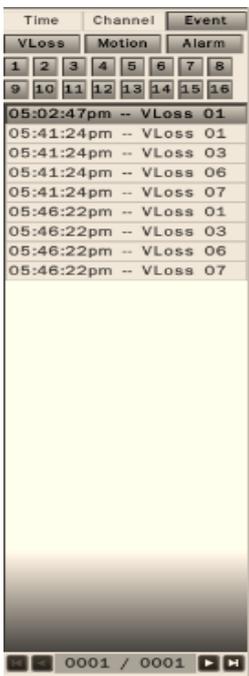
Select Time Search, all the video files of the selected date will be shown in the list. Each file contains maximum 60 minutes of the video. Select the time range user would like to view and double click the item to start to play on the display window.

2.3.3.2 Search by Channel



Select the channel that user would like search. All the event video files of the selected date and channel will be shown in the list. Select the event video user would like to view and double click the item to start to play on the display window.

2.3.3.3 Search by Event



The system provides the option to search the video by each event type and channel. All the event video files of the selected event type and channel will be shown in the list. Select the event video user would like to view and double click the item to start to play on the display window.

2.3.4 Playback operation

Please refer to the below for the playback control function:



The progress bar shows the current playback status and timeline. Drag the time indicator on the progress bar to move to the selected timeline to playback. On the time bar, it also indicates the initial and end time of the current playback section.



Click to playback video



Click to pause video



Click to reverse playback



Click to switch to fast forward playback, use  and  to adjust playback Speed, in x0.25, x0.5, x1, x2, x4 and x8.



Pause the video and click the button to step forward playback.



Click to fast forward to the next section



Click to switch to fast reverse playback, use  and  to adjust playback speed, in x1, x2, and x4 and x8.



Pause the video and click the button to step reverse playback.

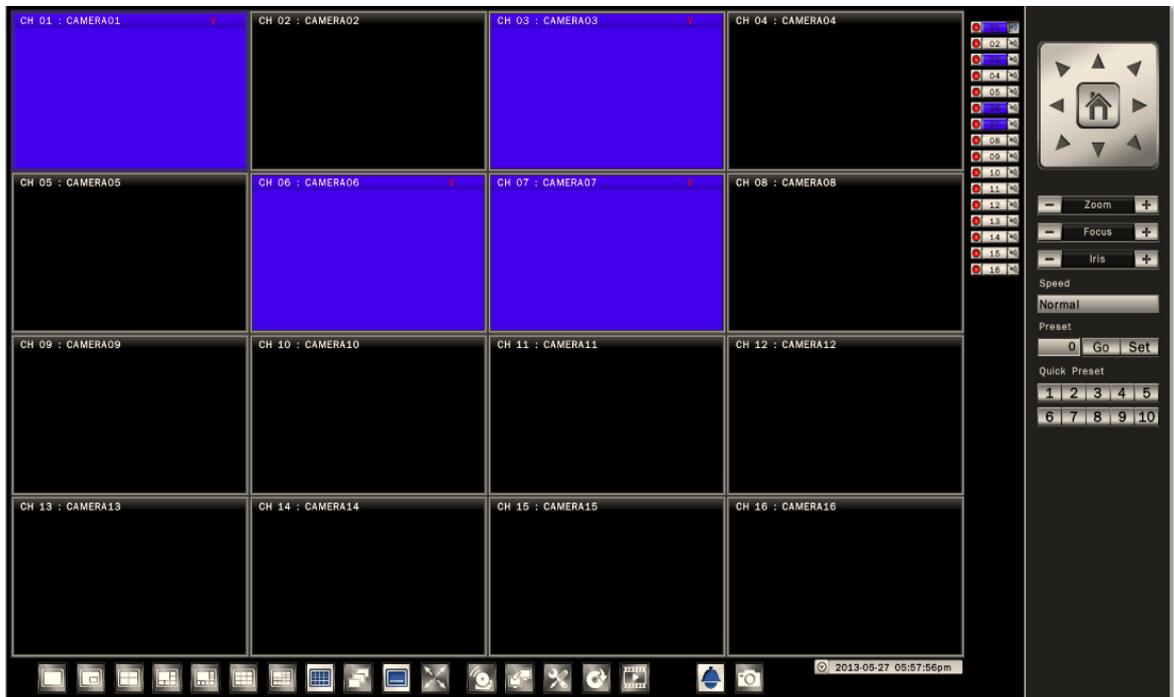


Click to fast backward to the previous section

3 PTZ Control



Click on the “PTZ” icon to enable the PTZ control panel as shown below.



The PTZ control will apply the PTZ command to the current focus camera channel if it's connected to a PTZ device.

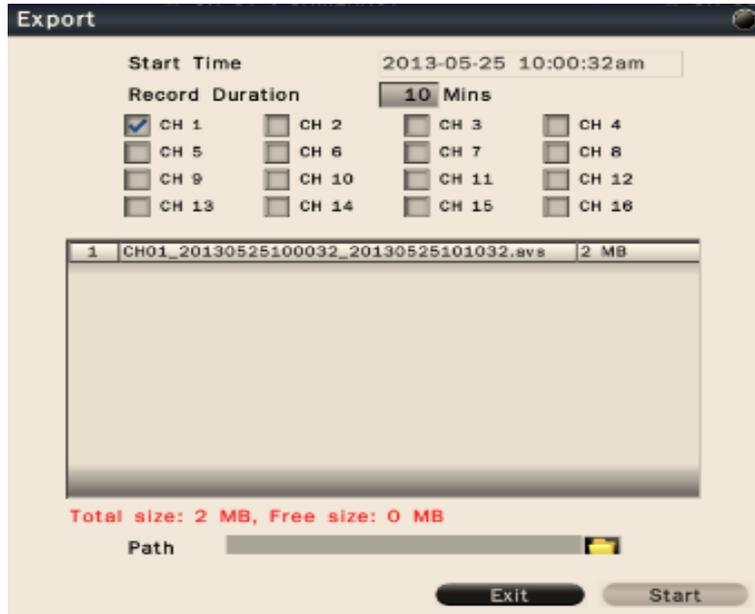
The functions are:

- 8 way pan/tilt control: To pan/tilt the PTZ device to up/down/left/right/up right /up left /down right / down left.
- Zoom + / - : Zoom in or Zoom out
- Focus + / - : To adjust focus to near or far
- Iris + / - : To adjust Iris to open or close
- Speed : There are five levels of speed (Lowest/Low/Normal/High/Highest) can be applied when press the pan/tilt control.
- Set: To save the current PTZ position as it's internal preset position.
- Go : Go to the preset position
- Quick Preset 1 - 10 : The quick button to go to the preset positions.

4 Export Video



To export the video from DVR hard disk to external device, click “Export” icon to bring up the Export menu shown as below.



Connect the external storage device to the USB port on the unit before executing the exporting process.

- Start time: Click on the date/time, the calendar will pop up on the screen for user to select the date and input the start time.
- Record Duration: Input the data duration to be exported.
- Channel: Select the channels to be exported.

The data contents will be shown in the list. The total data size and available external storage size will be shown under the list.

User can assign the recording path by clicking the “ Open Folder” icon. Click Start to execute the exporting process.

User can view the exported video by the Export Player. Click Export Player to download to the pen drive if the user does not have the Export Player installed.

5 Export Player

The Export Player allows user to view video exported from the DVR or Web viewer on a PC.

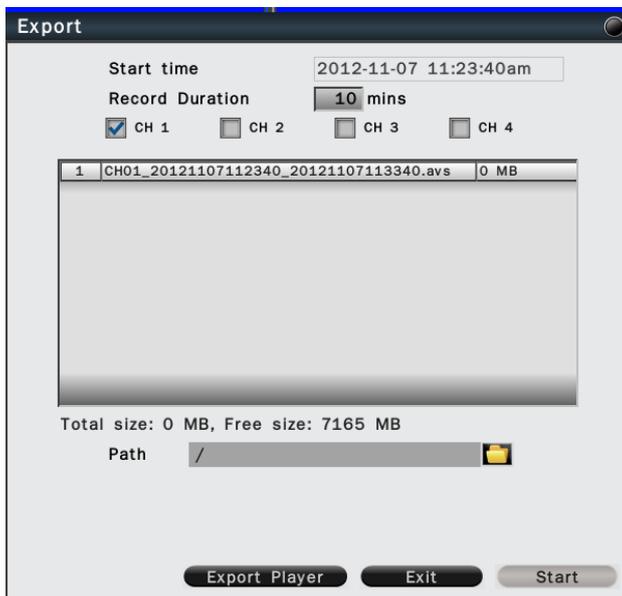
(System operating platform: Windows XP, Windows Vista, or Windows 7.)

5.1 Installation

The Export Player can be downloaded from DVR or Web Viewer.

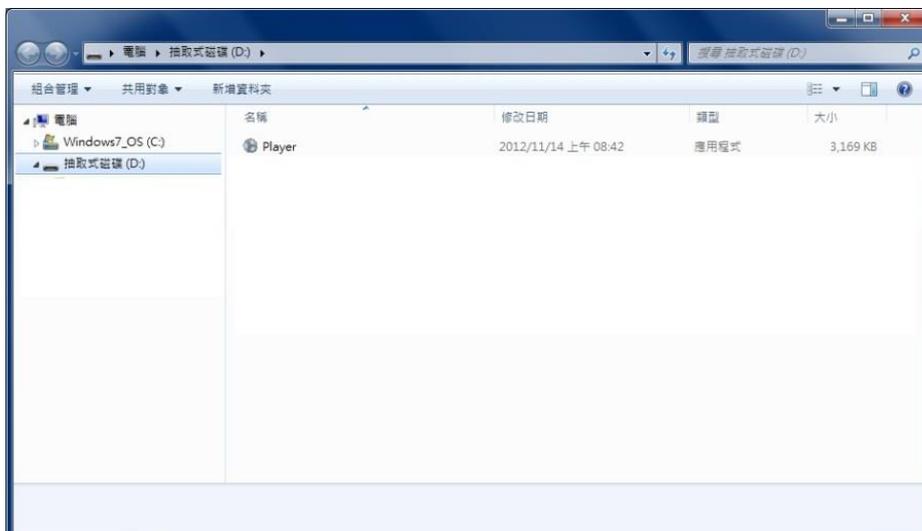
On the DVR, insert the USB pen drive then start the Export page as shown below.

Click Export Player button and the system will automatically store the Player in the pen drive.



5.2 Starting the Program

Double click on the Player.exe file to start the program.



The Player will be displayed as shown below:



To open a video export file, click Open button to select the exported file. Drag the files to the window that would like to display. The Player will automatically start to play the video.

Note: The Player can only play multiple channels that are within the same time duration.

The main functions are:



Single view display mode



Quad display mode



Under full screen mode, click to enable Digital Zoom function.

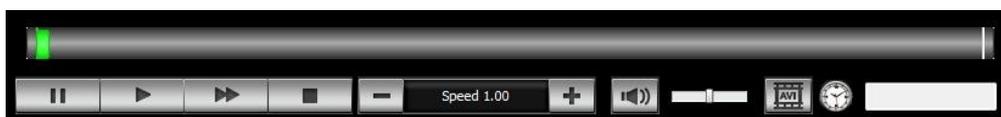
Right click on the mouse to drag on the screen to zoom in the selected area.



Click to take a snapshot of the selected video.



Click watermark icon to verify the video is authentic or not.



The progress bar shows the current playback status and timeline. Drag the time

indicator on the progress bar to move to the selected timeline to playback.



Click to playback video



Click to pause video



Click to switch to fast forward playback, use  and  to adjust playback speed, in x0.25, x0.5, x1, x2, x4 and x8.



Click to stop playback video



Click to enable or disable audio playback. Drag the slide bar to adjust the volume. When audio is on, the user can move the focus window to the select the channel that would like to play.



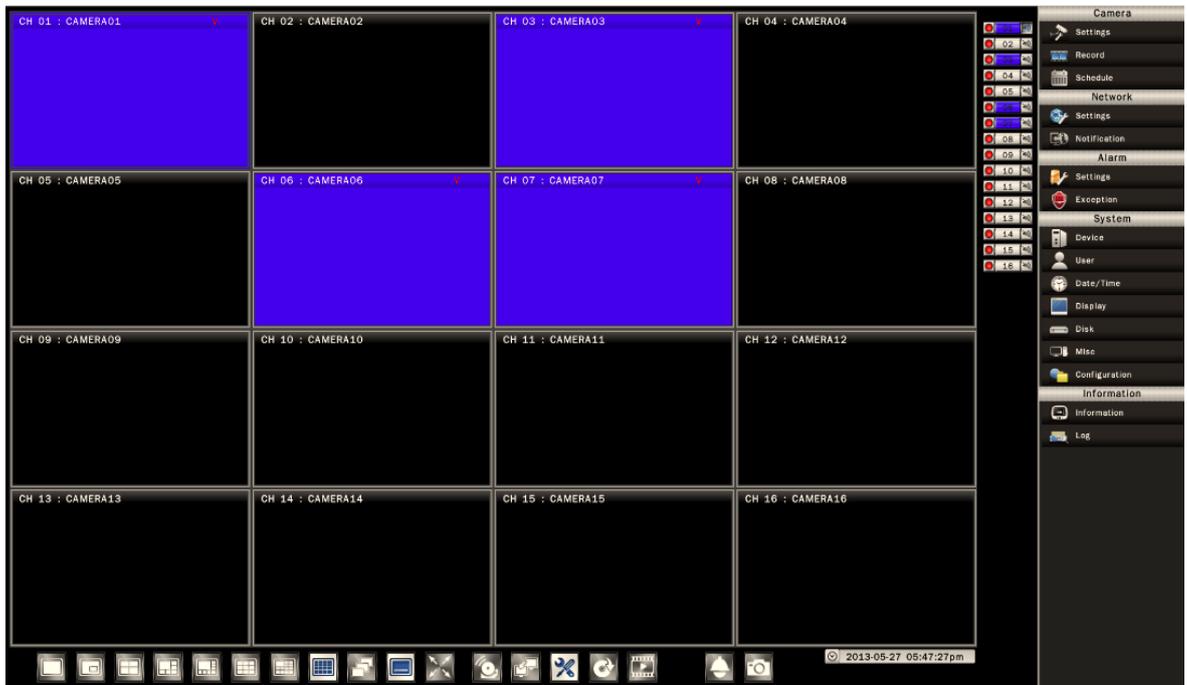
Click to convert the video file of the selected channel to AVI format.

6 System Setup Menu



Click the “Settings” icon , the setup menu will be enable and shown as below.

Please refer to below for the setup menu functions



6.1 Camera

The camera setup menu allows user to configure the behaviors related to the input video.

6.1.1 Settings

Display the current camera connecting status, including camera title, camera type and camera status.

If user changed settings on camera, it is suggested to reload the camera status by clicking the “Manual detect” button.

ID	Camera Title	Camera Type	Status
01	CAMERA01	HD-SDI: Unknown	VLoss
02	CAMERA02	HD-SDI: 1080P30	Normal
03	CAMERA03	HD-SDI: Unknown	VLoss
04	CAMERA04	HD-SDI: 1080P30	Normal
05	CAMERA05	HD-SDI: 1080P30	Normal
06	CAMERA06	HD-SDI: Unknown	VLoss
07	CAMERA07	HD-SDI: Unknown	VLoss
08	CAMERA08	HD-SDI: 1080P30	Normal
09	CAMERA09	HD-SDI: 1080P30	Normal
10	CAMERA10	HD-SDI: 1080P30	Normal
11	CAMERA11	HD-SDI: 1080P30	Normal
12	CAMERA12	HD-SDI: 1080P30	Normal
13	CAMERA13	HD-SDI: 1080P30	Normal
14	CAMERA14	HD-SDI: 1080P30	Normal
15	CAMERA15	HD-SDI: 1080P30	Normal
16	CAMERA16	HD-SDI: 1080P30	Normal

Manual Detect

Click on the camera for detail setup of each camera.

6.1.1.1 Basic Setting

Camera

CH 1

Basic | Advanced | Video Loss Handle | Motion Handle | PTZ

Enabled OFF ON

Camera Title

Copy Back Apply

- Enabled – To enable or disable the selected camera.
(Note: When disable the selected camera, DVR will stop recording for the selected camera.)
 - Camera title – Click on the column, the virtual keyboard will pop-up for user to input the camera title.
 - Copy – Click Copy to copy the settings to other cameras.
- Click “Apply” to save all the changes, or Back to back to the previous setup page.

6.1.1.2 Advanced Setting

The advance setting allows user to configure the privacy mask and motion detection area.

6.1.1.2.1 Privacy Mask Settings

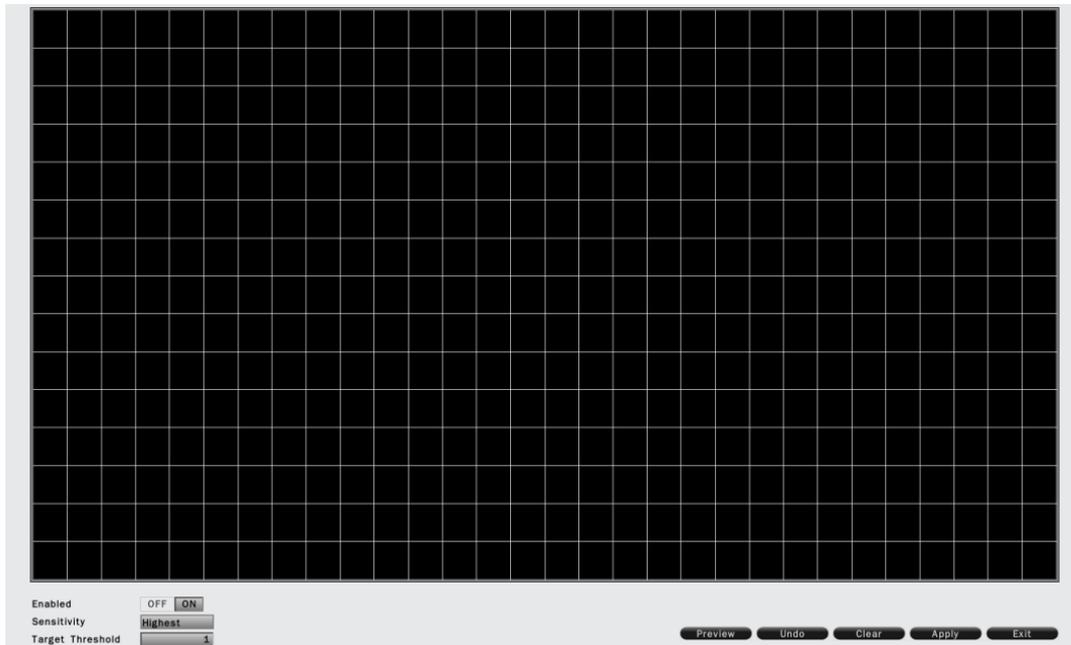
Click Privacy Mask Setting button to bring up the privacy mask setup page.



- Enabled – To enable or disable privacy mask for the selected channel. Click on the mouse to drag the area that would like to be masked. Click Undo to undo the step, Clear to clear all the set area, Exit to leave the setting page.

6.1.1.2.2 Motion Area Settings

Click Motion Area Setting button to bring up the motion area setting page as below.

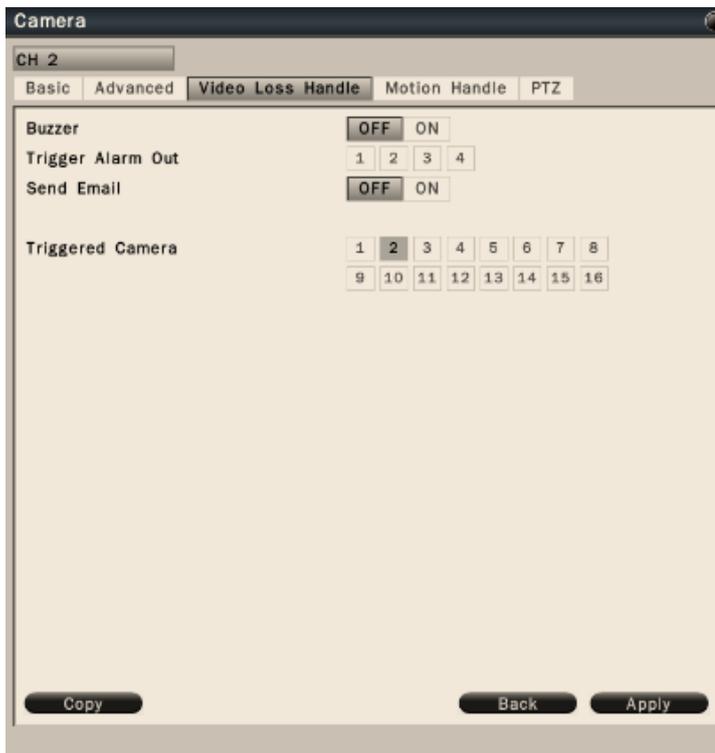


- Enables – Select On/Off to enable or disable the option.
- Sensitivity – Select the sensitivity, from lowest to highest.
- Target Threshold – The target quantity to trigger the motion.

Click “Apply” to apply the setting, Undo to undo the step, Clear to clear all settings, Preview to view the current settings, Exit to leave the setup page.

6.1.1.3 Video Loss Handle Settings

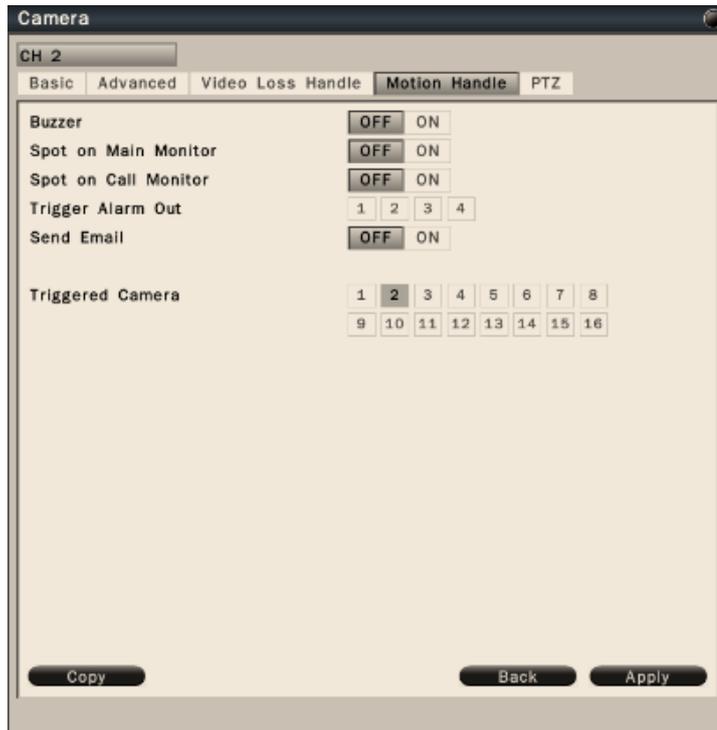
Allows user to define the system behaviors while there's video loss triggered.



- Buzzer – Select On to trigger buzzer when video loss is detected.
- Trigger Alarm Out – The corresponding alarm output setting.
- Send E-mail – Select On to send e-mail to the preset mail account when video loss is detected.
- Send Alarm Notification – Select On to send alarm notification when video loss detected. (Reserved)
- Triggered Camera – The system allows user to trigger multiple cameras for event recording, select the cameras that would like to be triggered when video loss is detected.

6.1.1.4 Motion Handle Settings

Allows user to define the system behavior while there's motion triggered.



- Buzzer – Select On to trigger buzzer when motion is detected.
- Trigger Alarm Out – The corresponding alarm output setting.
- Send E-mail – Select On to send e-mail to the preset mail account when motion is detected.
- Send Alarm Notification – Select On to send alarm notification when motion detected. (Reserved)
- Triggered Camera – The system allows user to trigger multiple cameras for event recording, select the cameras that would like to be triggered when motion is detected.

6.1.1.5 PTZ settings

Allows user to configure the settings if it is connected to a PTZ camera.



The screenshot shows a configuration window titled "Camera" with a sub-tab "CH 2". The "PTZ" tab is selected. The settings are as follows:

Enabled	OFF ON
PTZ Type	RS485 PTZ
PTZ Protocol	PelcoD PelcoP
Baud Rate	9600
Data Bit	7 8
Parity	None Odd Even
Stop Bit	1 2
Address	2

At the bottom of the window, there are three buttons: "Copy", "Back", and "Apply".

- Buzzer – Select On to enable PTZ setting if it is connected to a PTZ camera.
- PTZ Type – Select the PTZ camera type
- PTZ Protocol – Select the correct PTZ protocol type.
- Baud Rate – Select the speed used to transmit instruction or information through the RS485 port on the DVR.
- Data Bit - The data bit used for transferring. This can be set to 8 or 7.
- Parity: This selects the transmission level of the connection. Choose either None, Odd, or Even.
- Stop Bit - This field is to set the stop bit for the RS485 connection. This can be set to 1 or 2.
- Address - The address must set to the same address of that PTZ camera.

6.1.2 Record Settings

User can define the recording behavior in the record setup menu. Each channel can be configured independently.



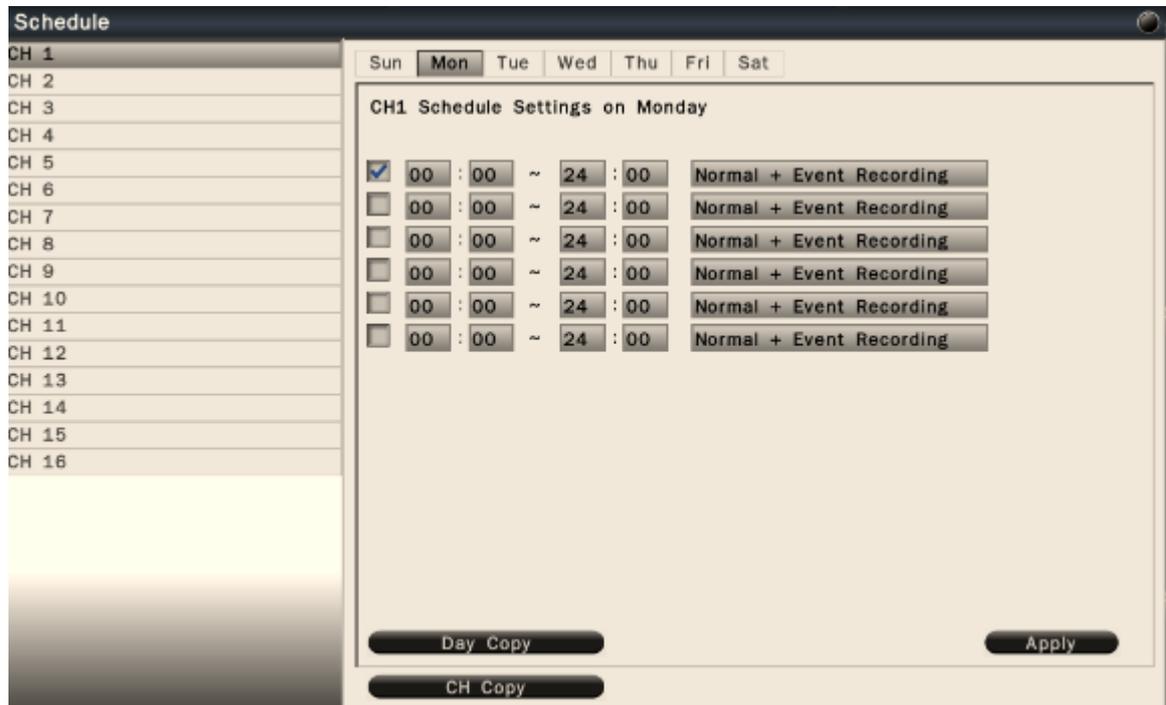
Click on the selected channel to bring up the setup page.

- Bitrate Type – VBR for Variable bitrate, CBR for Constant bitrate.
- Record Audio – Enable or Disable the audio recording.
- Pre-event – Set the pre-event recording duration. The maximum pre-recording duration is 5 seconds.
- Post-event – Set the post-event recording duration.
- Normal record – Set the recording resolution, frame rate and quality under normal record condition.
- Event record – Set the recording resolution, frame rate and quality under event record condition.
- Record timestamp – Select to enable or disable timestamp and set the position on the recording data.
- Copy – To copy the setting to the other channels.

Click “Apply” to save the settings.

6.1.3 Schedule Settings

User can define the recording schedule and recording behavior for each channel in the below page.



To setup schedule, select the channel from the left column, the recording option for the channel will be shown in the right column.

Click on the day you would like to set schedule, check in the column to enable the timelines and select the recording behaviors.

User can configure multiple timelines for each day.

Click “Apply” to save the setting.

To copy the setting, click “Day Copy” to select the day you would like to copy to.

“Channel Copy” allows user to copy the settings of the whole week from one channel to other channels.

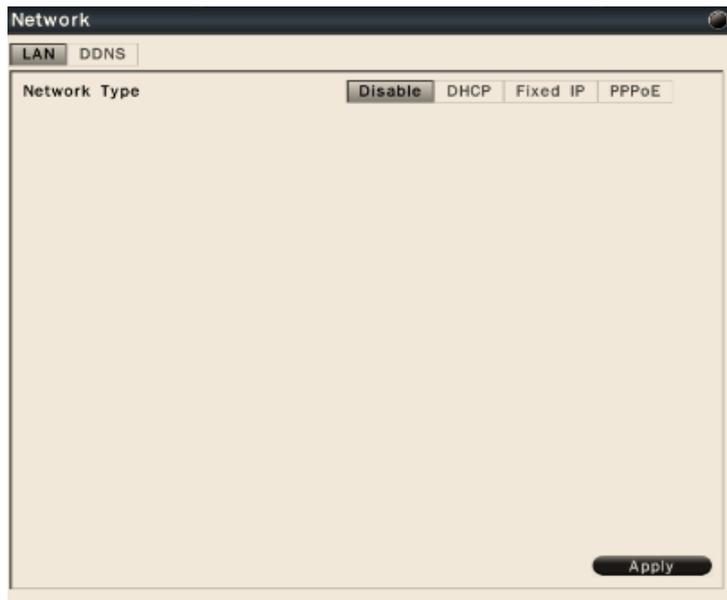
6.2 Network

6.2.1 Network Settings

The Network function must be enabled and configured properly in order to access the DVR over the network.

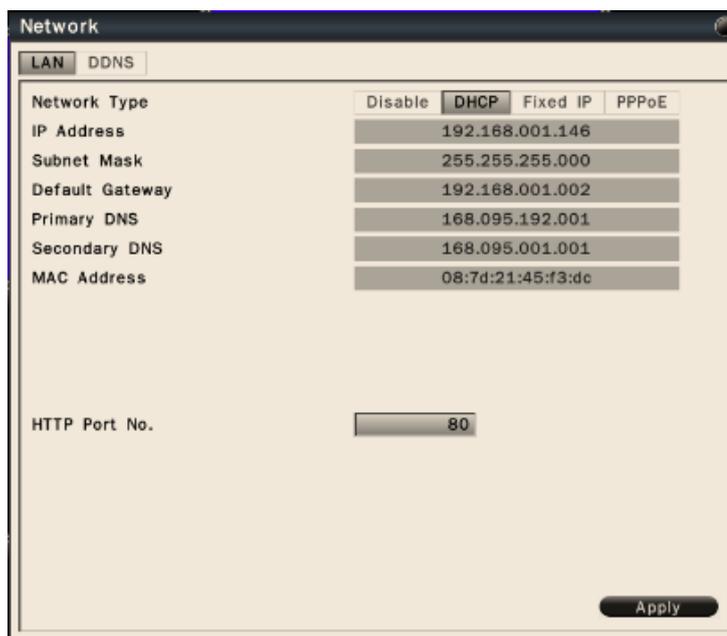
6.2.1.1 LAN Setting

The DVR provides the options for user to access to the DVR through DHCP, Fixed IP or PPPoE. Select the option you would like to use to enable and configure the settings.



6.2.1.1.1 DHCP

If user has a DHCP server set in the network environment, select DHCP and the DVR will automatically obtain the IP address and other network setting showing as below.

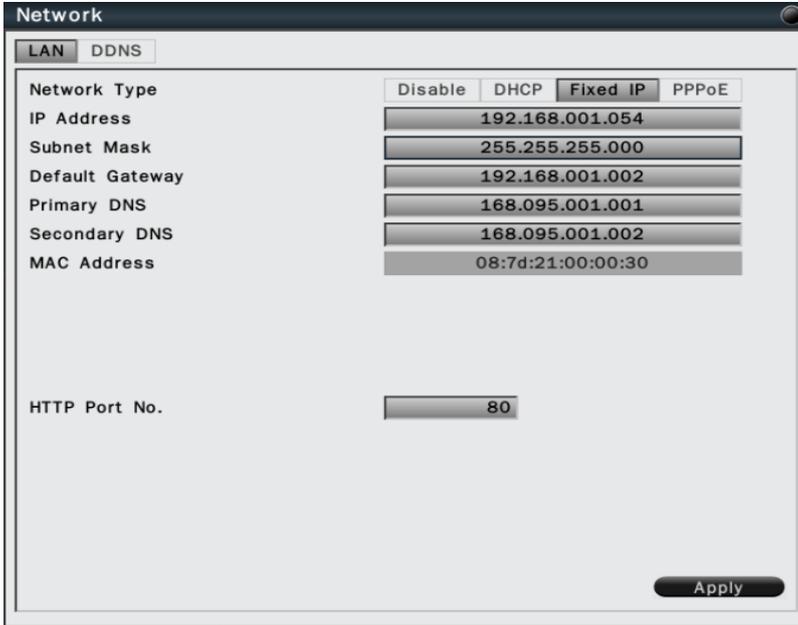


Click Apply to save the settings.

6.2.1.1.2 Fixed IP

Select “Fixed IP” to enable and configure the fixed IP settings.

Enter the network information and click Apply to save the settings.

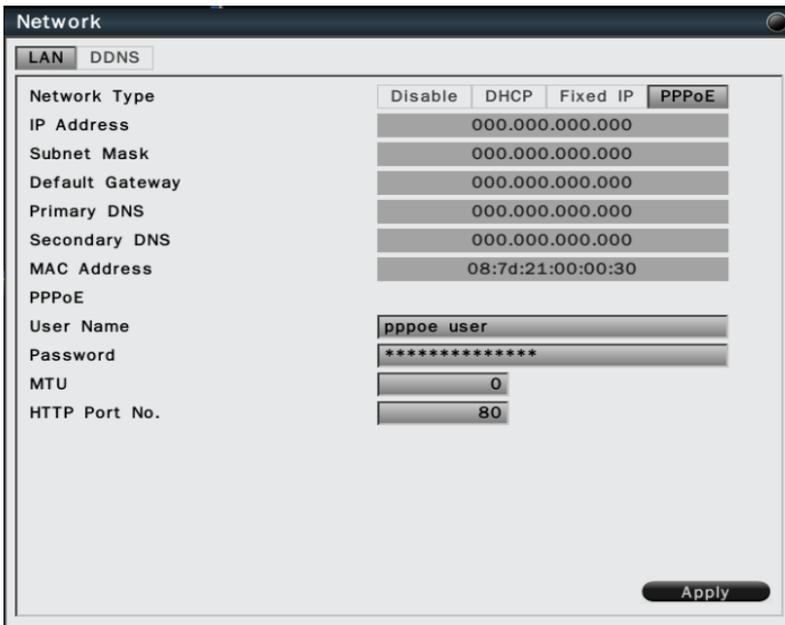


The screenshot shows a 'Network' configuration window with two tabs: 'LAN' and 'DDNS'. The 'LAN' tab is active. At the top, there are four radio buttons for 'Network Type': 'Disable', 'DHCP', 'Fixed IP' (which is selected), and 'PPPoE'. Below this, several fields are filled with values: 'IP Address' is 192.168.001.054, 'Subnet Mask' is 255.255.255.000, 'Default Gateway' is 192.168.001.002, 'Primary DNS' is 168.095.001.001, 'Secondary DNS' is 168.095.001.002, and 'MAC Address' is 08:7d:21:00:00:30. At the bottom, 'HTTP Port No.' is set to 80. An 'Apply' button is located in the bottom right corner.

6.2.1.1.3 PPPoE

The DVR also allows user to use Point-to-Point Protocol over Ethernet (PPPoE) service.

Select “PPPoE” to enable and configure the settings.



The screenshot shows the same 'Network' configuration window, but now the 'PPPoE' radio button is selected. The 'Network Type' section now shows 'Disable', 'DHCP', 'Fixed IP', and 'PPPoE' (selected). The IP-related fields are all set to 000.000.000.000. The 'MAC Address' remains 08:7d:21:00:00:30. Below the 'PPPoE' section, there are new fields: 'User Name' is 'pppoe user', 'Password' is masked with asterisks, 'MTU' is 0, and 'HTTP Port No.' is 80. The 'Apply' button is still in the bottom right corner.

Click Apply to save the settings.

6.2.1.2 DDNS Settings

Select DDNS to configure the Dynamic DNS, the setup page is shown as below.

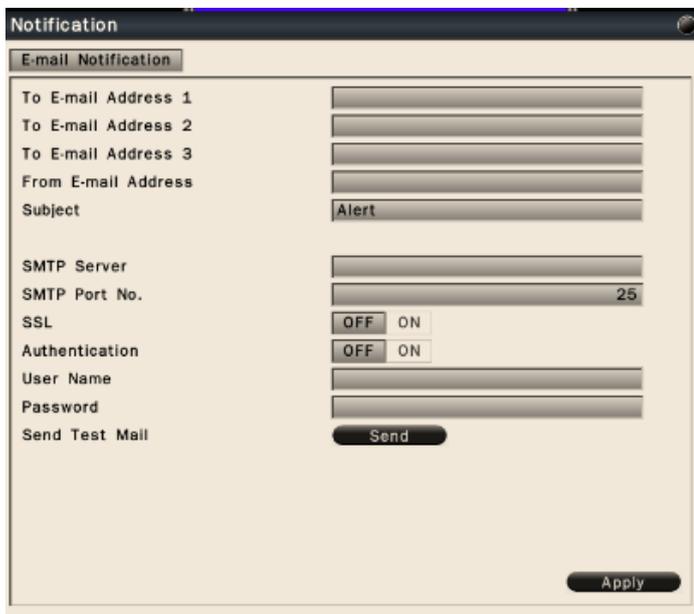


The screenshot shows a window titled "Network" with a sub-tab "DDNS". The "Enabled" checkbox is currently set to "OFF". The "DDNS Provider" dropdown menu is set to "DynDNS -- http://dyn.com/dns". Below this, there are three empty text input fields for "Domain Name", "User Name", and "Password". An "Apply" button is located at the bottom right of the window.

Select On to enable DDNS. Input DDNS provider and enter the required information. Click Apply to save the settings.

6.2.2 Notification

6.2.2.1 E-Mail Notification



The screenshot shows a window titled "Notification" with a sub-tab "E-mail Notification". It contains several fields for configuring email alerts: "To E-mail Address 1", "To E-mail Address 2", and "To E-mail Address 3" (all empty); "From E-mail Address" (empty); "Subject" (set to "Alert"); "SMTP Server" (empty); "SMTP Port No." (set to "25"); "SSL" (set to "OFF"); "Authentication" (set to "OFF"); "User Name" (empty); and "Password" (empty). There is a "Send" button for testing and an "Apply" button at the bottom right.

- To Email address 1-3: Allows user to input up to 3 email address for alarm message to send to.
- From Email address : Input the Email address of the sender (DVR)
- Email Subject: Input email subject.

- SMTP Server: Assign the SMTP (e-mail) server's name.
 - SMTP Port: Assign the port number used by the SMTP server.
 - SSL: To enable SSL if mail server needs to be encrypted by SSL.
 - Authentication: To enable if the SMTP server requires authentication.
(user name / password).
 - User name / Password : Input the login user name and password if the SMTP server requires authentication.
 - Send test mail : Click to send the test email according to the current settings.
- Click "Apply" to save the settings.

6.3 Alarm Settings

6.3.1 Alarm Input Settings

User can define the alarm behaviors and the corresponding actions for triggered alarm.

The screenshot shows a software interface for configuring alarm settings. On the left, a vertical list contains 16 items labeled 'Alarm Input 1' through 'Alarm Input 16'. The right pane is titled 'Alarm' and contains several sections of controls:

- Enabled:** Two buttons, 'OFF' and 'ON', with 'ON' selected.
- Alarm Name:** A text input field containing 'Sensor 01'.
- Alarm Type:** A dropdown menu showing 'N.O.'.
- Trigger Duration:** A dropdown menu showing 'Timeout' and a text input field containing '30' followed by the label 'Seconds'.
- Alarm Handle:** A section with several sub-controls:
 - Buzzer:** 'OFF' and 'ON' buttons, with 'ON' selected.
 - Spot on Main Monitor:** 'OFF' and 'ON' buttons, with 'ON' selected.
 - Spot on Call Monitor:** 'OFF' and 'ON' buttons, with 'ON' selected.
 - Trigger Alarm Out:** Four buttons labeled '1', '2', '3', and '4', with '1' selected.
 - Send Email:** 'OFF' and 'ON' buttons, with 'ON' selected.
- Triggered Camera:** A 2x8 grid of buttons labeled '1' through '16', with '1' selected.

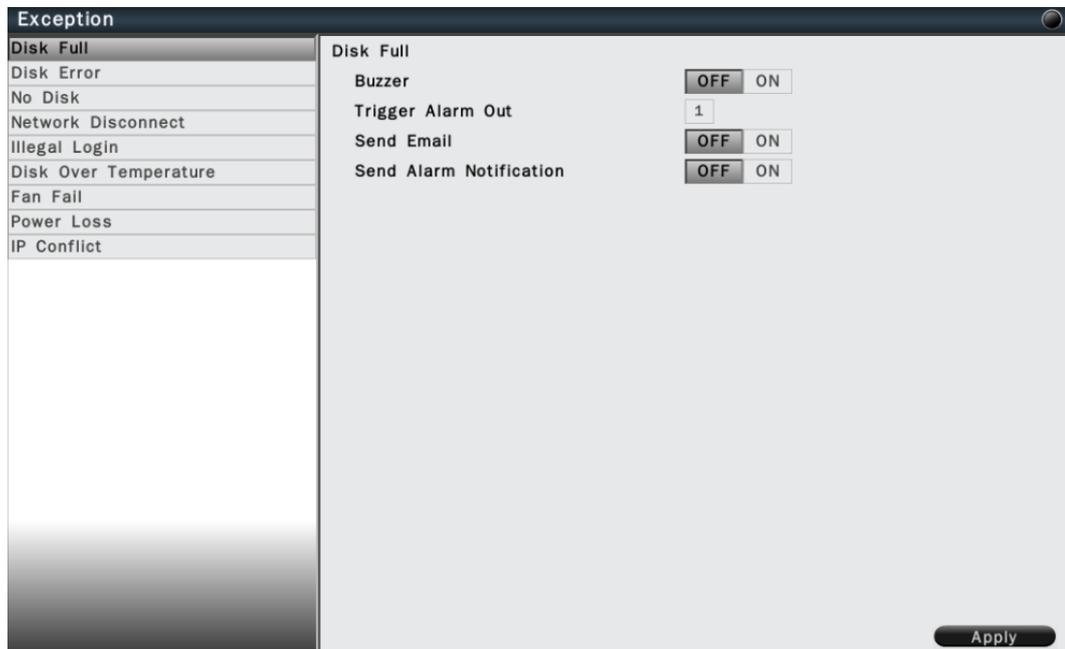
An 'Apply' button is located at the bottom right of the window.

- Alarm input: Select the alarm input number from 1 to 4, the corresponding settings will show in the window.
- Enabled: Select On to enable the alarm.
- Alarm name : Input the name for the alarm.
- Alarm type : Select the alarm trigger type.
N.O. – Normal open contact, N.C – Normal Close contact
- Trigger Duration : Select the trigger type and time duration
Timeout – The alarm will last for the set time duration.
Transparent – The alarm output remains active until the triggered event ends.
Non-Stop – The alarm will be continuously active until user presses “ACK” key.
- Alarm Handle : To configure the system monitor and alert behavior when the alarm is triggered. The settings include buzzer, spot option, trigger alarm out, send Email, send alarm notification.
- Triggered Camera : The system allows user to trigger multiple cameras for event recording, select the cameras that would like to be triggered when alarm is detected.

Click “Apply” to save the settings.

6.3.2 Exception Management

The section allows user to define the system behavior when there's an exceptional event occurred.



The exceptional events are including Disk full, Disk error, No disk, Network disconnect, Illegal Login, Disk over temperature, Fan failed, Power loss and IP conflict. Select the exception and define the behaviors as below:

- Buzzer – Select On to enable buzzer when the exceptional events occur.
- Trigger Alarm Out – Select the Alarm out to trigger when the exceptional events occur.
- Send Email – Select On to send Email when the exceptional events occur.
- Send Alarm Notification – Select On to send alarm notification when the exceptional events occur. (Reserved)

6.4 System Settings

6.4.1 Device Setting



Device Name	device hdspi4
Device No.	255
Language	English
IR Remote Controller	ID #7
Enable Authentication	<input type="radio"/> OFF <input type="radio"/> ON

Apply

- Device Name: Input the name for the DVR.
- Device No. Input the number for the DVR.
- Language: Select from the list for the language to be use on the DVR.
- IR Remote: Set the IR remote control ID for remote control use. Each IR remote controller can control up to 9 DVRs.
- Enable Authentication: Select On to active the user login. If user select Off, no User name or password is required to access the system, and all users operate with administrator's right.
Click "Apply" to save the settings.

6.4.2 User Settings

User setting page is where user can add or delete users on the system.



The screenshot shows a window titled "User" containing a table with three columns: "ID", "User Name", and "Group". The table lists several users, with some having specific names and groups, while others are represented by dashes. The rows are numbered from 01 to 23.

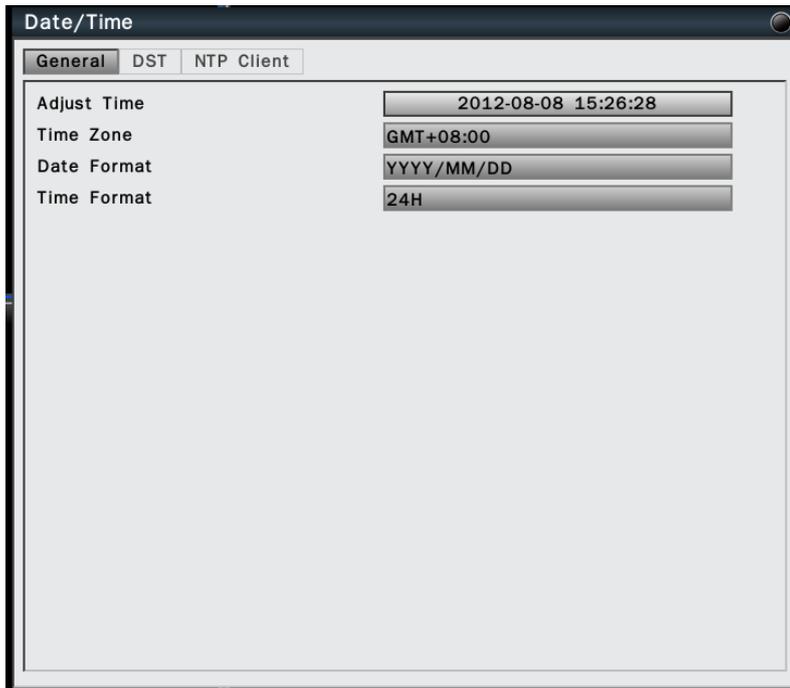
ID	User Name	Group
01	admin	admin
02	1	admin
03	2	guest
04	4	operator
05	3	admin
06	----	----
07	----	----
08	----	----
09	----	----
10	----	----
11	----	----
12	----	----
13	----	----
14	----	----
15	----	----
16	----	----
17	----	----
18	----	----
19	----	----
20	----	----
21	----	----
22	----	----
23	----	----

The default user name / password are “admin/admin”, “operator/operator” and “guest/guest”.

- Double click the selected user or click on  to edit the user settings.
- Click on  to delete the user. However, at least one administrator is required to operate the system.
- Click on  to add new user.

6.4.3 Date/Time Settings

6.4.3.1 General Setting

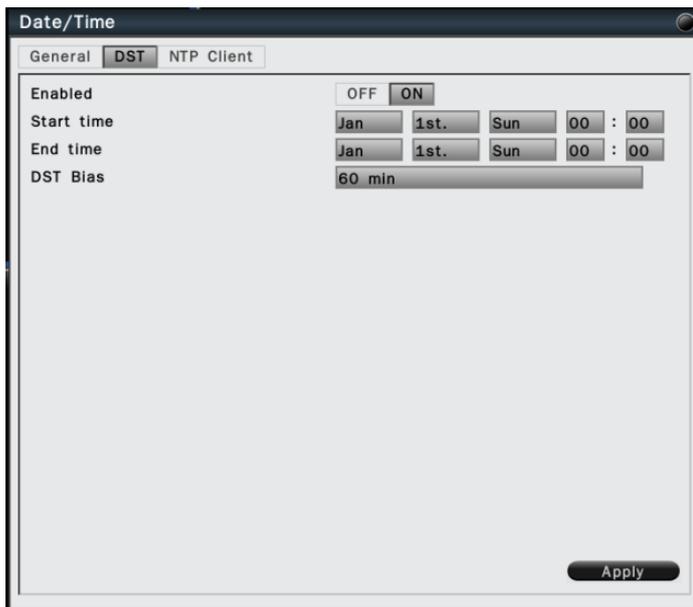


The screenshot shows a window titled "Date/Time" with three tabs: "General", "DST", and "NTP Client". The "General" tab is selected. It contains four settings:

Adjust Time	2012-08-08 15:26:28
Time Zone	GMT+08:00
Date Format	YYYY/MM/DD
Time Format	24H

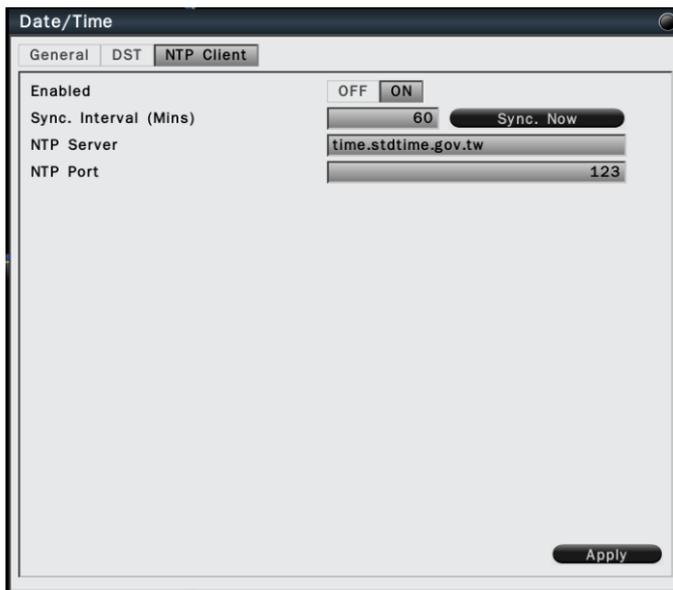
- Adjust Time : Click on the column and the Calendar will pop up on screen for user to adjust the system date and time. Click Apply to enable the settings.
- Time Zone: Set the time zone that the DVR adjusts to when updating from the time server.
- Date Format: Select date format from DD/MM/YYYY, MM/DD/YYYY or YYYY/MM/DD.
- Time Format: Select time format between 12 Hours and 24 Hours.

6.4.3.2 DST Settings (Daylight Saving Time)



- Enabled: Select On to enable daylight saving time.
- Start time: Set the start date and time of daylight saving time.
- End time: Set the end date and time of daylight saving time.
- DST Bias: This allows users to select the amount of time to move forward from the standard time for daylight saving time. Available options are 30, 45, 60, 90 and 120 minutes

6.4.3.3 NTP Client Settings



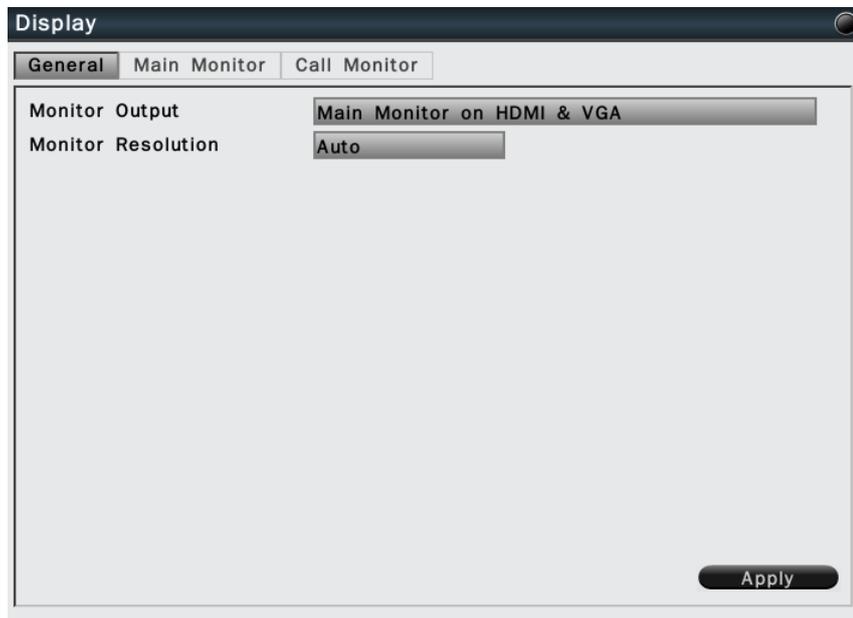
- Enabled: Select On to enable NTP synchronization.
- Sync. Interval (mins): Input the frequency that the system automatically updates the time. Click the button “Sync Now” if immediately synchronization is needed.
- NTP Server: Input the time server address for time synchronize. The default NTP server is “time.stdtime.gov.tw”.
- NTP Port: The default setting is “123”, user can define NTP port according to the network environment.

Click “Apply” to save the settings.

6.4.4 Display

The Display setting allows user to define the monitor output behavior.

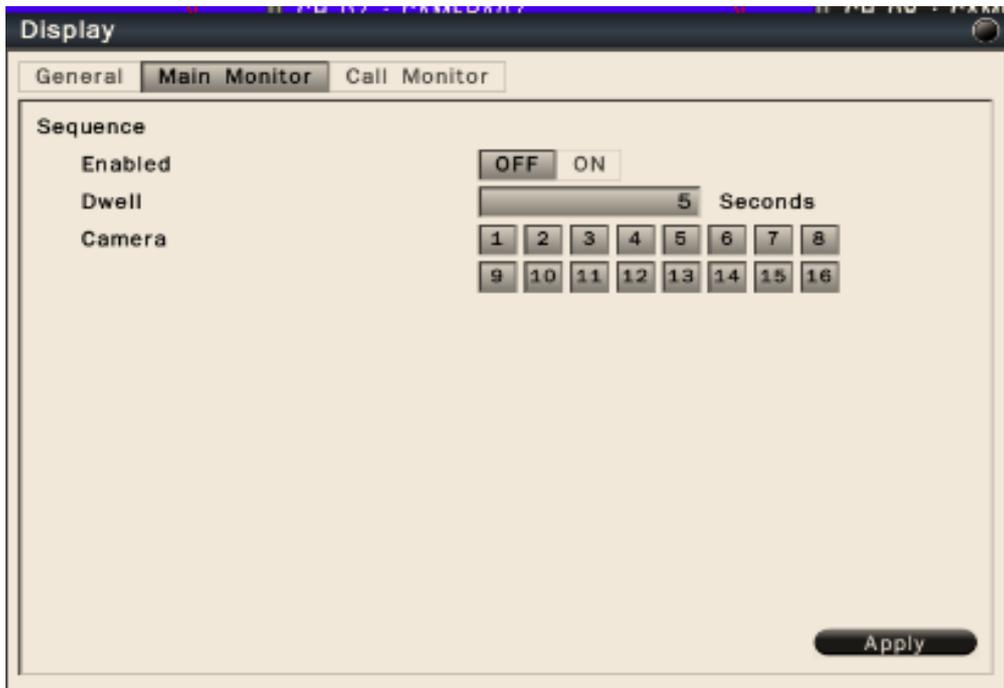
6.4.4.1 General Settings



- Monitor Output: To define the monitor display type for HDMI and VGA output. Both monitor output can be for main monitor or call monitor output.
- Monitor resolution: Select the proper resolution for the connected monitor output. The supported resolutions are: 1920x1080, 1440x900, 1366x768, 1280x1024, 1024x768. Select Auto for system to identify resolution automatically.

6.4.4.2 Main Monitor Settings

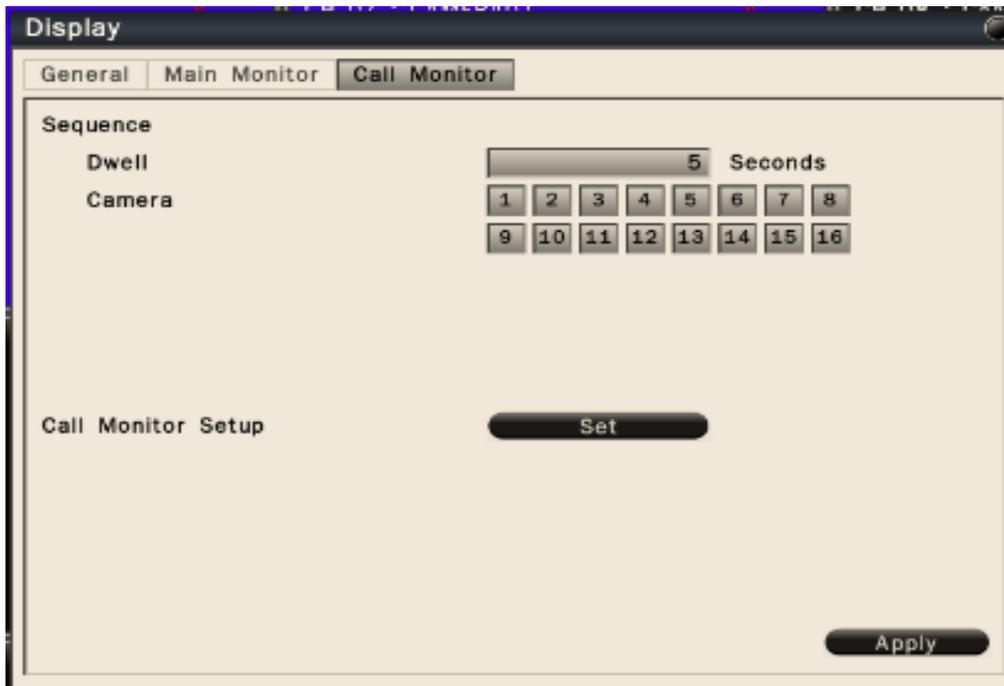
To configure the main monitor display mode and the contents.



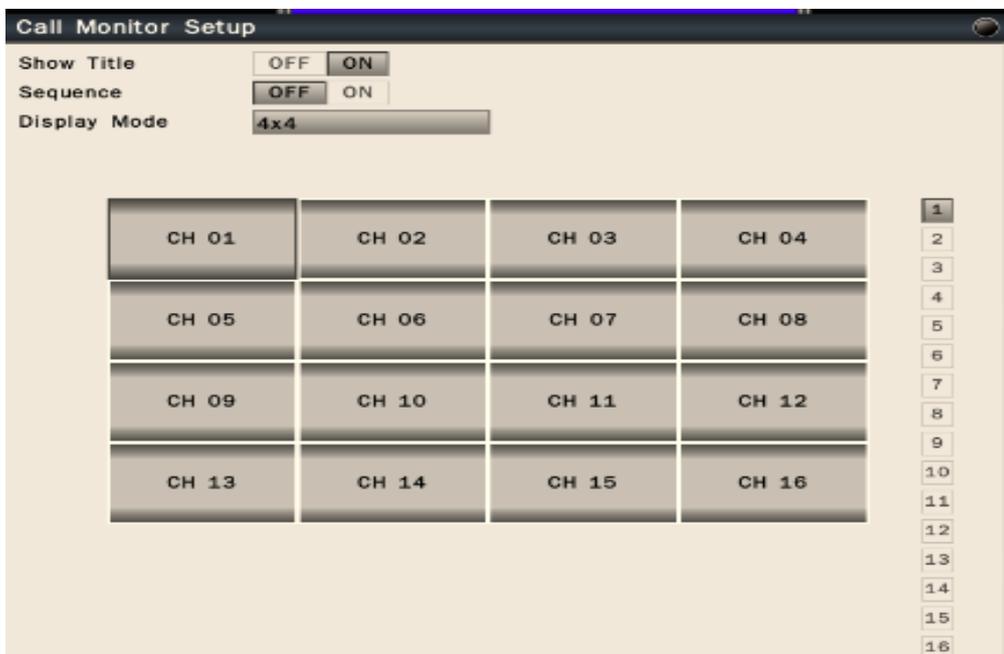
- Sequence enabled: Select On to enable sequence display on main monitor.
- Dwell: Input the dwell time in seconds for sequence display.
- Camera: Select the cameras to be appeared on the sequence display.

6.4.4.3 Call Monitor Settings

To configure the call monitor display mode and the contents.



- Sequence Dwell: Input the dwell time in seconds for sequence display.
- Camera: Select the cameras to be appeared on the sequence display.
- Call monitor setup: Click to bring up the call monitor setup menu as below.



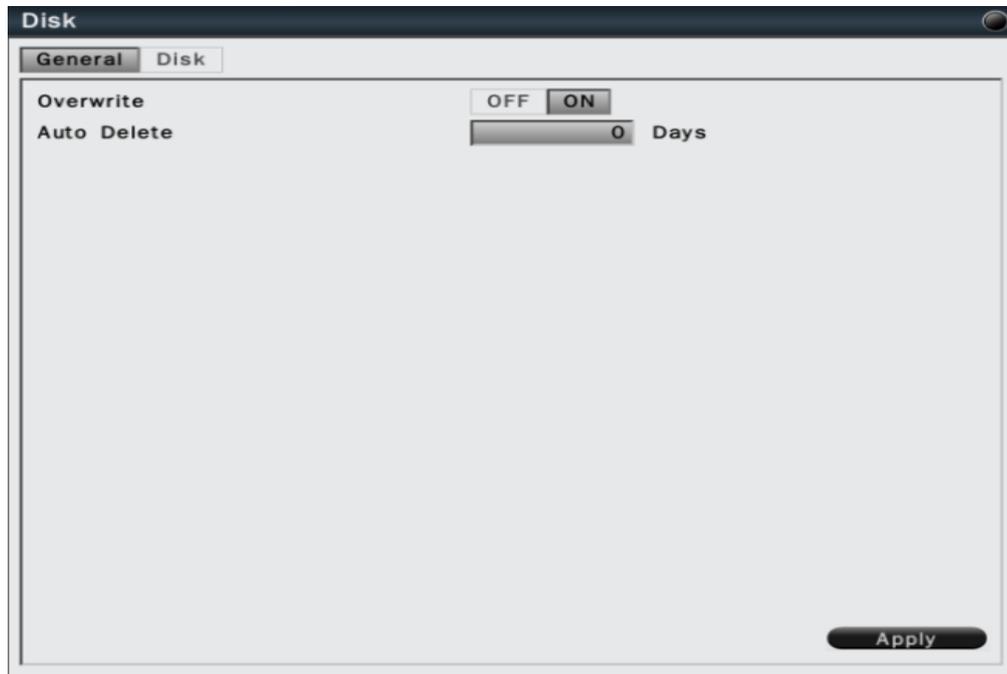
- Show Title: Select On to enable display title on call monitor.
- Sequence: Enable or disable the sequence display mode.
- Display mode: Under sequence display, the display mode will be 1 up.

User can select 1 up or 4 up if sequence display is disabled. Also user can assign the display video in each cameo by clicking the channel icons on the right side.

6.4.5 Disk

This menu is for user to review and manage the hard disk settings of the DVR.

6.4.5.1 General Settings

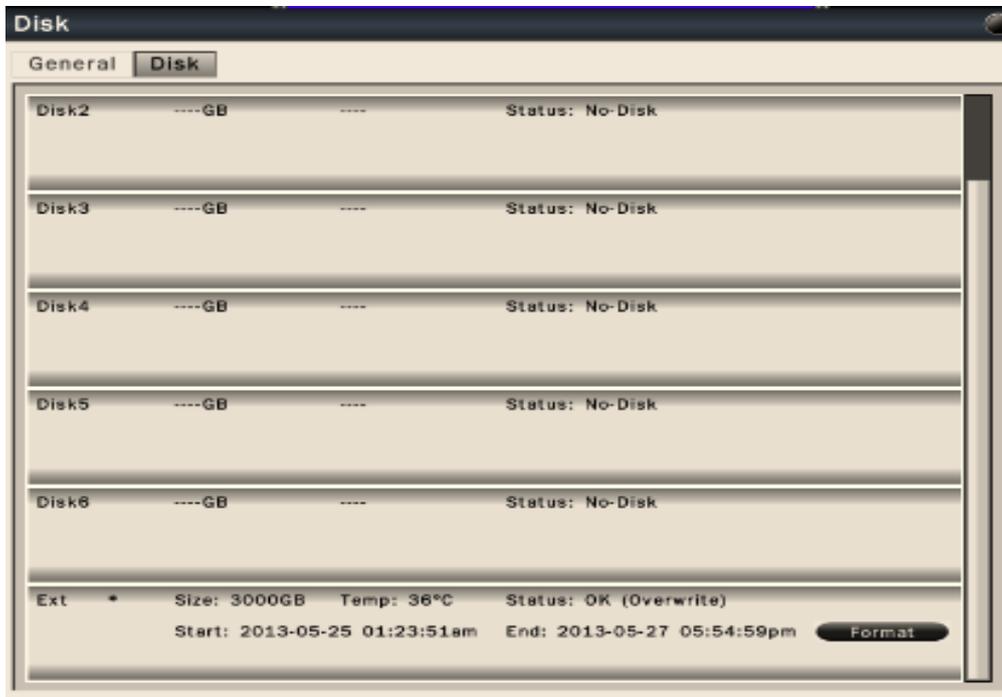


- Overwrite: Select On to enable hard disk overwrite when it's full.
- Auto delete: The hard disk will automatically erase the data after the selected number of days. Select "0" to disable the function.

Click "Apply" to save the settings.

6.4.5.2 Disk Management

This page is to manage and display the information of all the available hard disk. The information is including the hard disk total storage size, current temperature, usage status, available data start/end time.



- Click Format to format the selected hard disk.

WARNING: Format the hard disk will erase all existing data!

6.4.6 Miscellaneous

6.4.6.1 Shutdown

User can select to reboot or shutdown the system from this page.



6.4.6.2 Firmware Upgrade



To upgrade the firmware, connect a USB flash device which contains the firmware version you would like to update. Click “Upgrade” to start the firmware upgrading. The system reboot is required to complete the firmware upgrade.

NOTE: Do not disconnect USB device or turn off the power during the upgrading.

6.4.7 Configuration

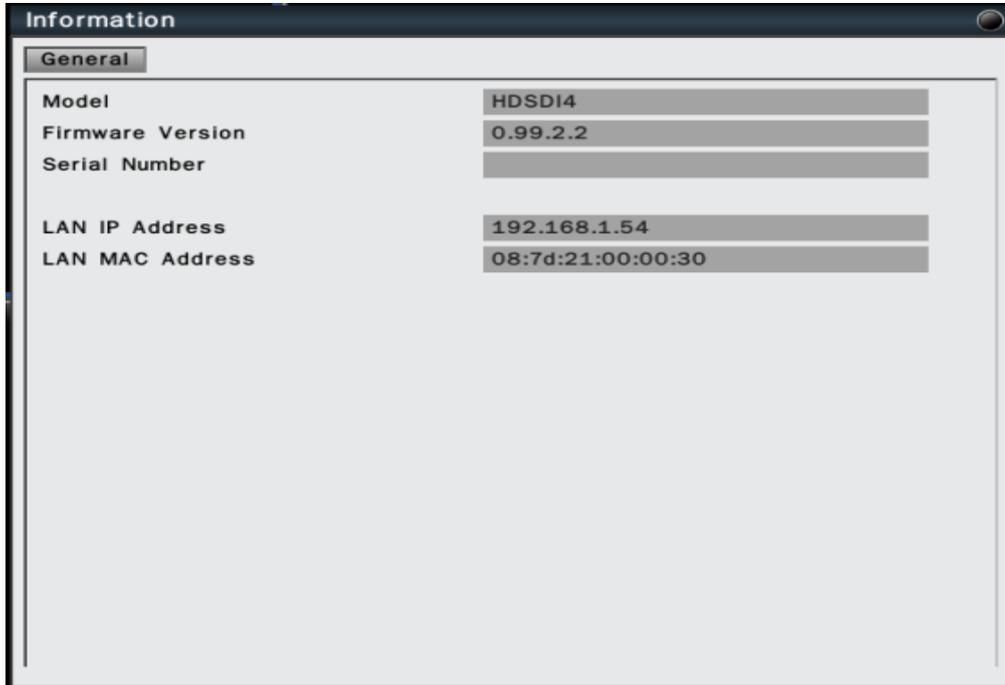


- Restore Factory Default: User can load factory default by clicking “Restore” button. Select the items that would like to be excluded from back to the factory default, the selected items will remain as the current values
- User Configuration: Select the configuration name and click “Save” to save the current configuration settings. Or user can select the configuration from the list and click “Restore” to restore the selected settings.
- Import Configuration: Click “Load from USB” button to upload DVR configuration settings from a USB flash device.
- Export Configuration: Click “Save to USB” to save the current DVR configuration settings to a USB flash device.

6.5 Information

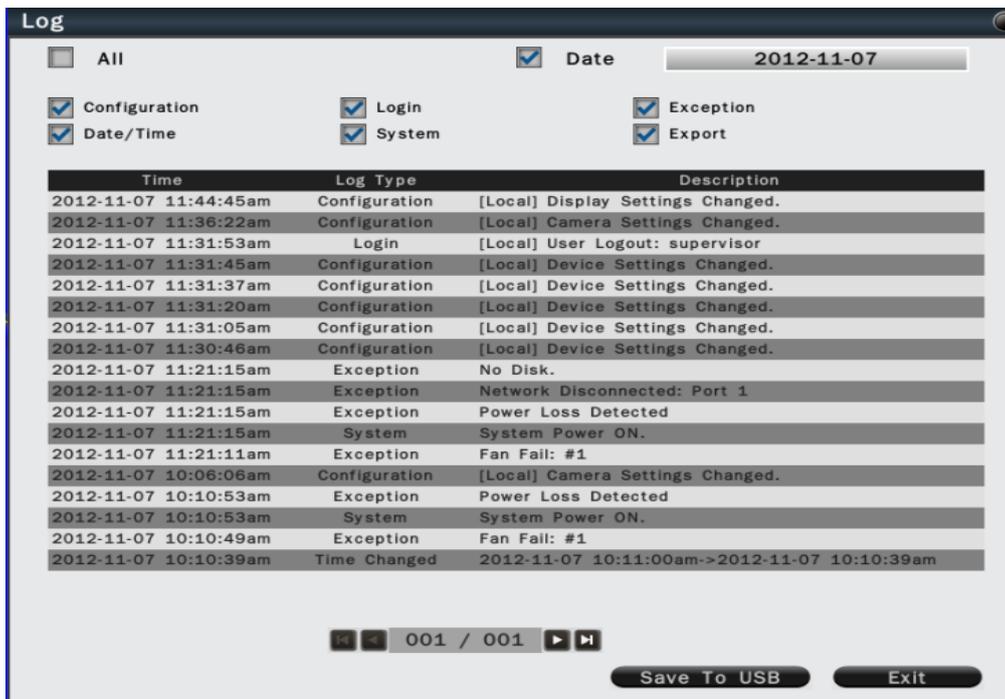
6.5.1 General Information

This page displays the general system information. The information includes model name, firmware version, serial number, LAN IP address and MAC address.



6.5.2 Log

This page allows user to filter and review the system event log.



Click the date column and the calendar will pop up for user to select the day to be

displayed. Click the items you would like to review and to show in the event log.

The filtered log will be displayed in the page.

Click “Save to USB” with a USB flash device connected to the unit, the filtered log will be saved to the USB device.

7 Web Viewer Operation

7.1 Connecting to DVR

Users can remote access the DVR through Microsoft Internet Explorer to view live/recorded video and manage the DVR. Before accessing the web viewer, make sure that the PC and DVR are both connected to the internet and the network feature is enabled.

For DVR network setup, please refer to Configuration⇒Network⇒Settings.

System Requirement

The following are minimum system requirements for web viewer.

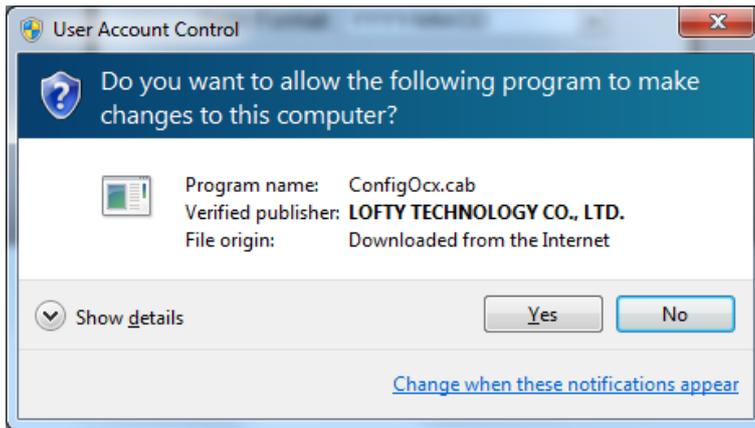
- Operating System: Microsoft Windows XP, Windows Vista, Windows 7
- Support Internet Explorer 8 and above (32 bit)
- CPU : Minimum Intel i3 or higher
- RAM: Minimum 4GB of RAM
- Independent Graphic Card: Minimum 128MB

7.2 Login

Open IE browser and input DVR IP address in the address bar.

When accessing this feature for the first time, you will be prompted by the browser to install Active X. The browser will pop up the below dialog for installation, click“Yes” to accept and start the installation.





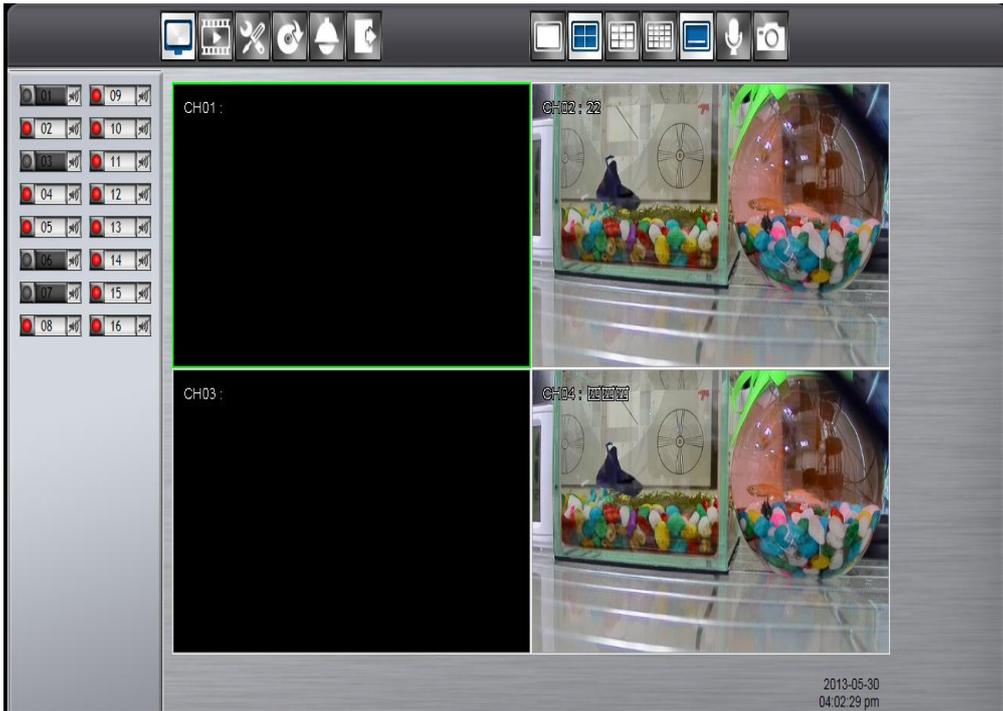
After installing the Active X, the login page will be displayed for users to enter the User name and Password. Users can also select the OSD language, date format and time format from the login page. Click “Login” to enter the web viewer.



The user name/password are the same as the DVR login, the defaults are:

Administrator: **admin/admin**
Operator: **operator/operator**
Guest: **guest/guest**

7.3 Remote Live View



After login to the system, the web viewer will automatically display a 4-screen live video. Double click on a video display window and it will display full screen in the selected channel.

The system indicators on the screen show the system status, channel status and for user to control the audio display channel. Please refer 2.2.1 Basic Settings.

The basic operation icons are showing on the main screen, the functions are:



Click for Live view mode



Click to switch to search and playback mode



Click to switch to Setup menu



Click to switch to Export mode



Click to enable the PTZ control panel



Click to Logout from the current user's privilege.



Full screen display mode



Quad display mode



9-up display mode



16-up display mode



Show/Hide OSD



Two-way audio



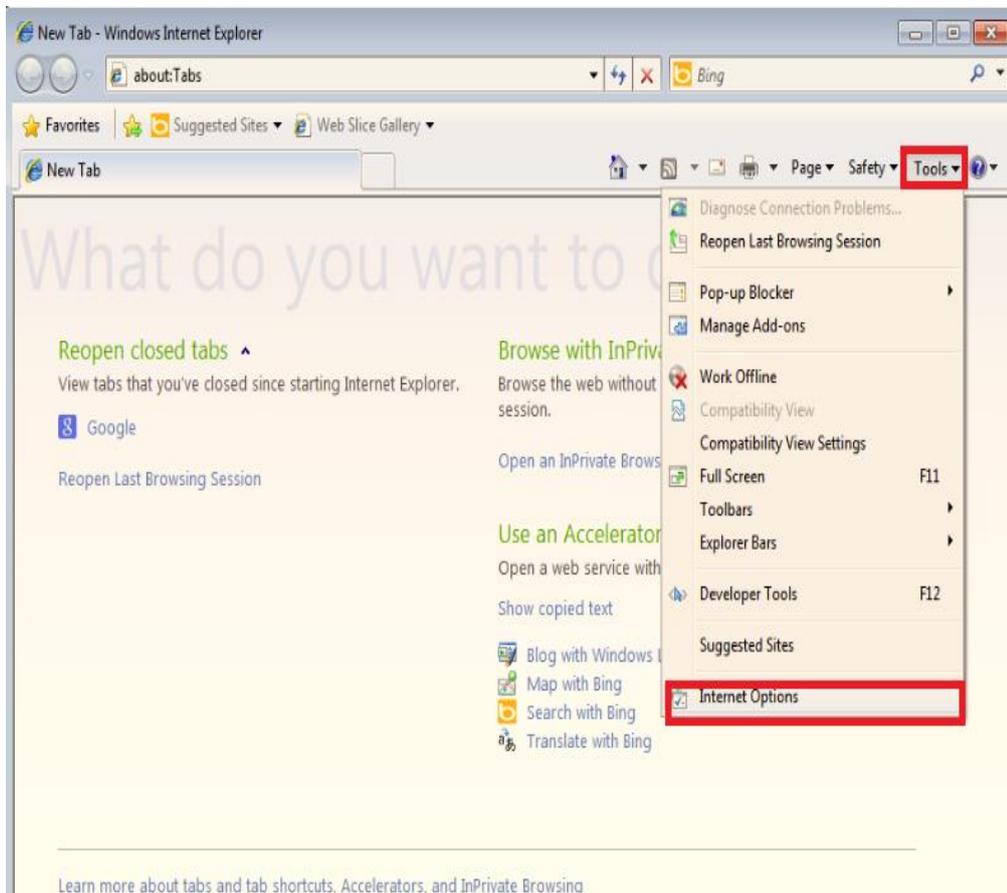
In full screen, click to zoom in/out of the selected video in 2x, 4x and 8x.



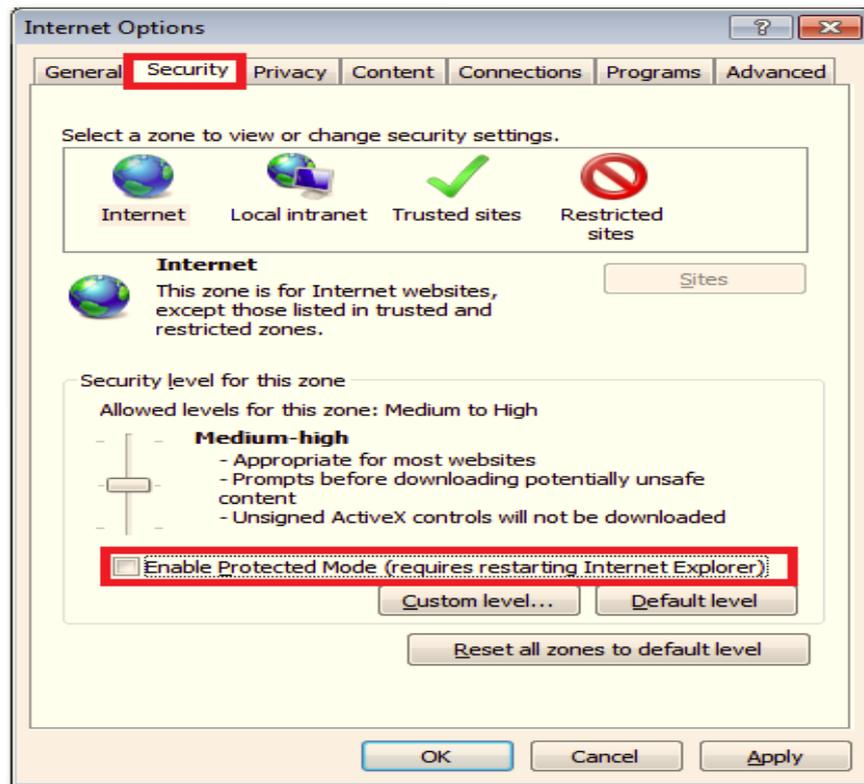
Click to take a snapshot of the selected video.

Note: For remote snapshot, please disable the protected mode in the IE browser as below 2 steps to ensure the remote snapshot perform normally.

Step 1. Please click IE browser “Tools-Internet Options”.



Step 2. Please un-click “Enable Protected Mode” to disable protected mode. Then snapshot will perform normally in un-protected mode.

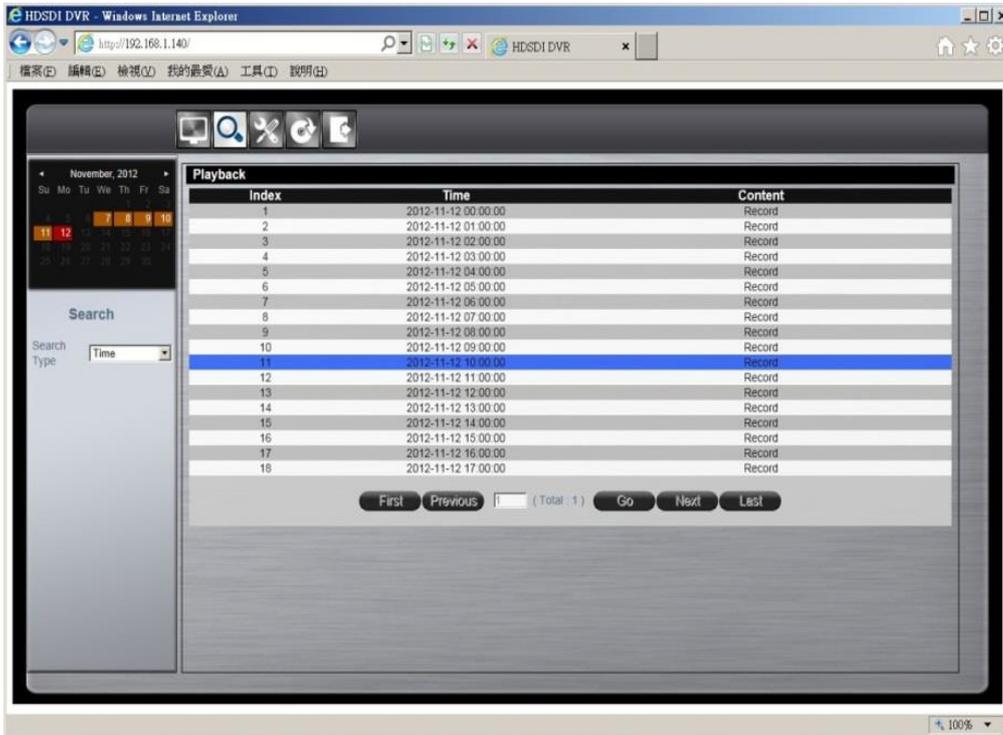


7.4 Remote Search and Playback



Click the “Playback” button  to switch to playback mode. The video can be searched by Time, Channel and Event, select the search type to start searching.

7.4.1 Search by Time



The calendar on the screen shows the recorded data contains in the DVR hard drives. The date highlighted in orange means there's recorded data of the date in the hard drives. The red highlighted date indicates the current search date. The recorded section list of the current selected day will be shown on the screen. Double click on the selected recorded file to start the playback.

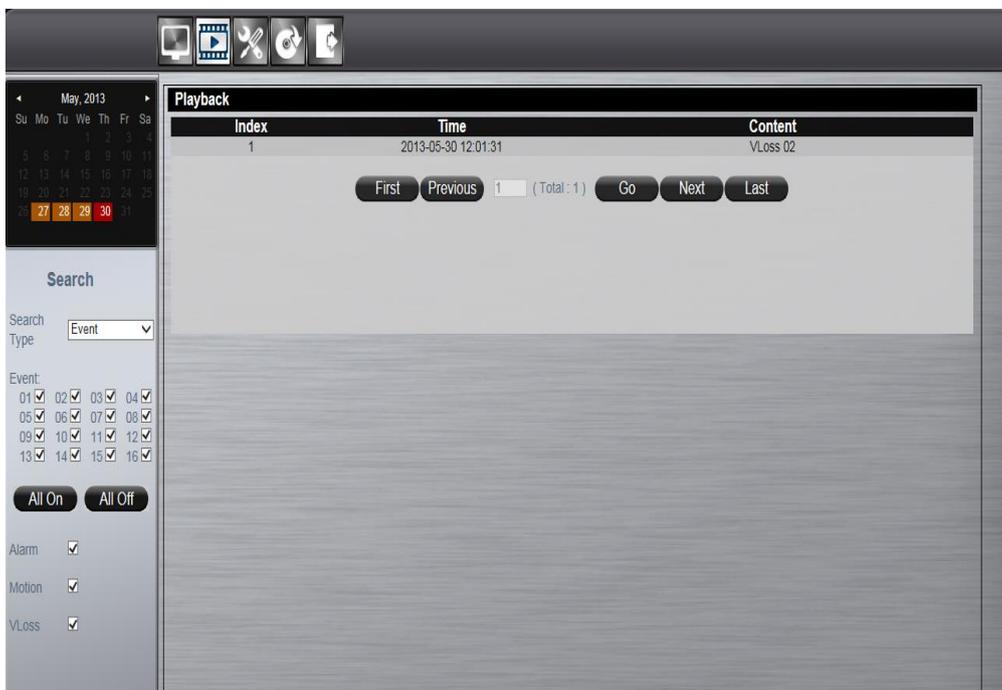
7.4.2 Search by Channel



Search by Channel allows user to search the event video by channel. Select the date from the calendar, and select the channel user would like to view. The event video list of the selected channel will be shown on the screen.

Double click on the selected recorded file to start the playback.

7.4.3 Search by Event



Search by event allows user to search the event video list by channel and by event type. Select the channel user would like to view (user can also click All On or All off to

enable or disable all channels), then select the event type (Alarm, Motion and Video Loss), the event video list of the selected channel and event type will be shown on the screen. Double click on the selected recorded file to start the playback.

7.4.4 Web Viewer Playback Operation

The basic playback operations are as below.



The progress bar shows the current playback status and timeline. Drag the time indicator on the progress bar to move to the selected timeline to playback. On the time bar, it also indicates the initial and end time of the current playback section.



Click to playback video



Click to pause video



Click to switch to fast forward playback (2x), user can also control the playback speed by clicking **+** and **-**, in x0.25, x0.5, x1, x2, x4 and x8.



Click to fast forward to the next section

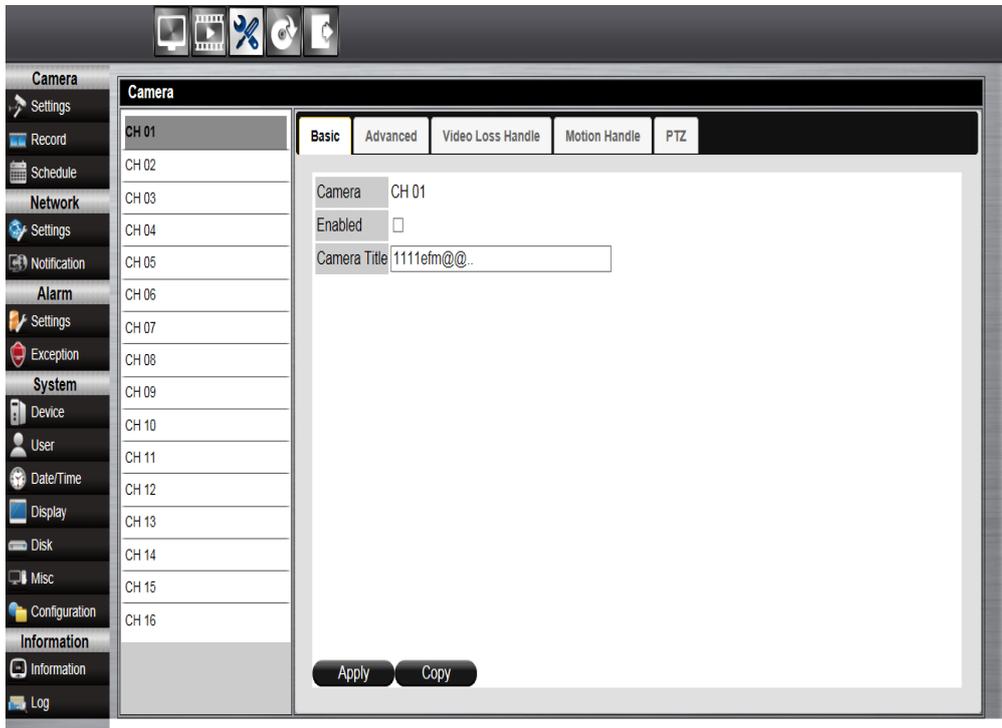


Click to fast backward to the previous section

7.4.5 Web Viewer Setup Menu



Click on the “Config” menu icon to switch to the setup menu page as below.

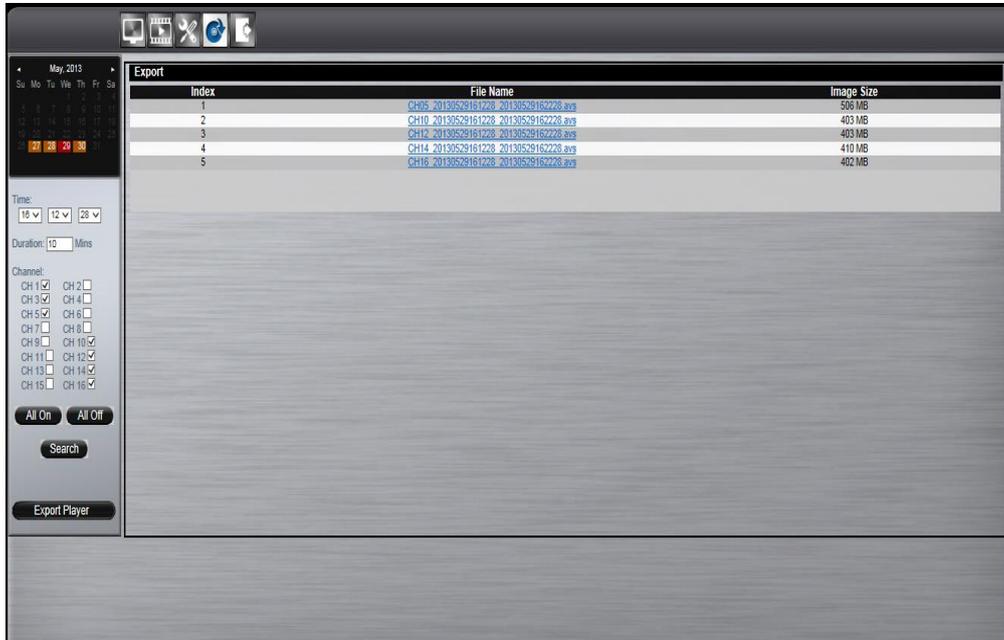


User can configure all the DVR settings remotely through the web viewer. The setup menu operation is the same as in the DVR. Please refer to the Chapter 6 System Setup Menu for the setup details.

7.4.6 Remote Export



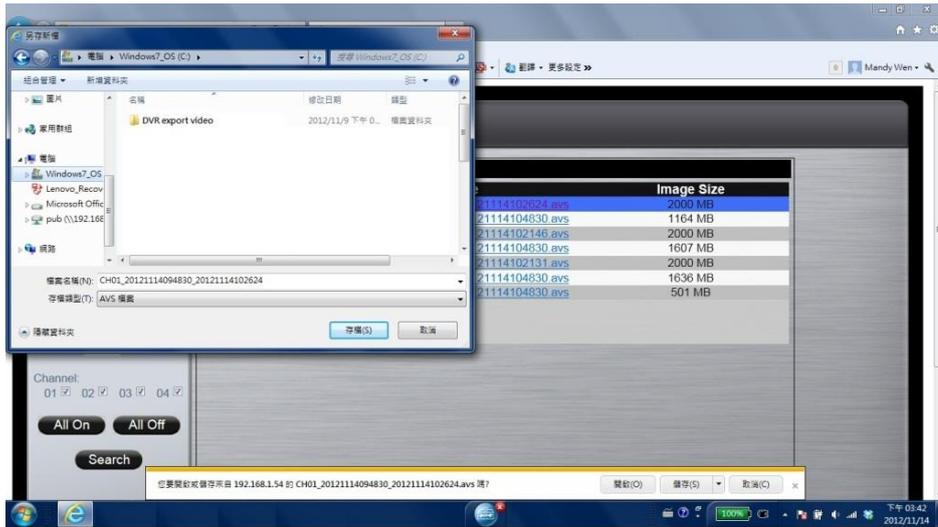
Click on the “Export” icon  to bring up the remote export menu, this allows user to export the video file from the DVR.



To export the video, select the date from the calendar, the starting time of the video and channels that user would like to export. (Click All On or All off to enable or disable all channels.) Input the duration time you would like to export, the maximum search duration is 60min. Click Search to start, the searched video files will be listed on screen.

The maximum video file size is 2000MB, the system will automatically create new file if the searched result is over 2000MB.

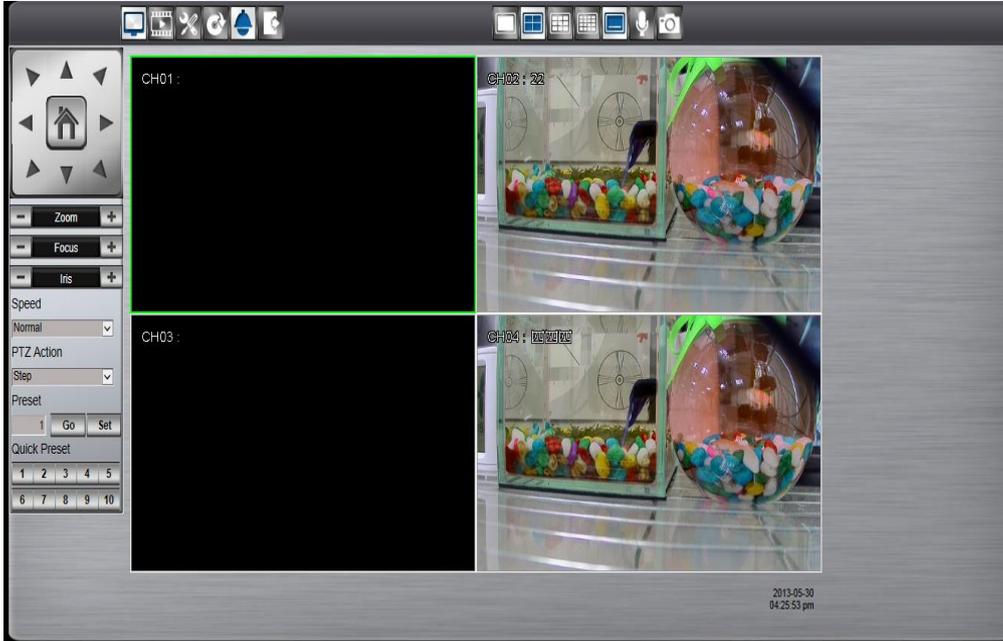
Double click on the selected item and the system will pop up message as below, select the location user would like to store then click Save to execute the downloading.



User can view the exported file on the Export Player. If the user does not have the Player installed in the PC, click Export Player button to download the player to the PC. Please refer to Chapter 5 for Export Player operation.

7.4.7 Remote PTZ Control

Click the “PTZ” icon  to enable the PTZ control panel. This allows user to control the connected PTZ camera.

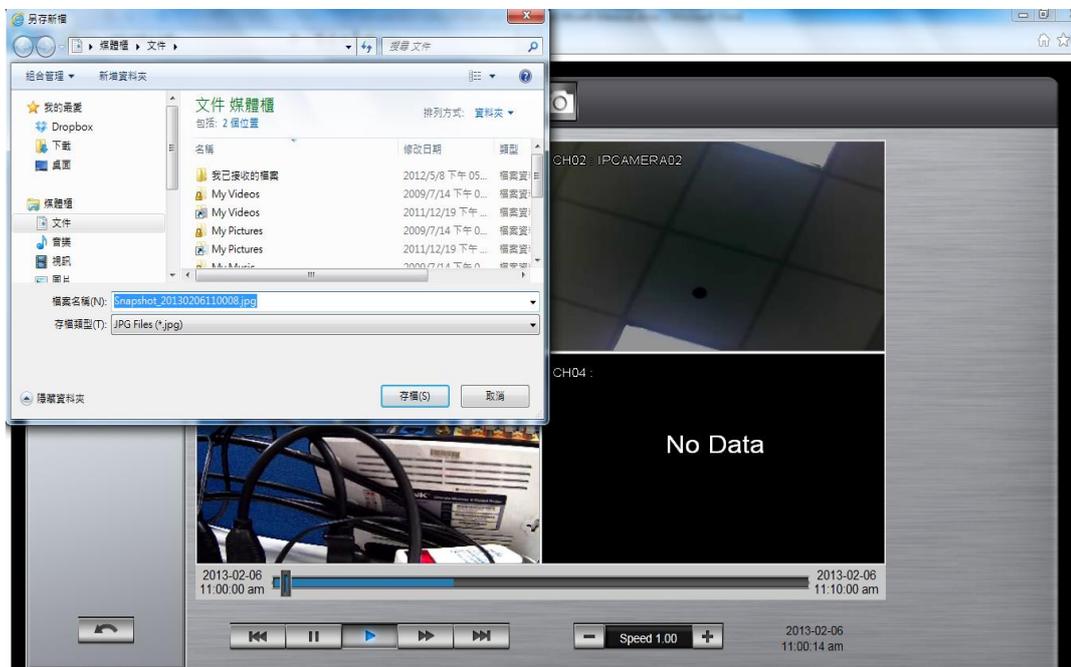
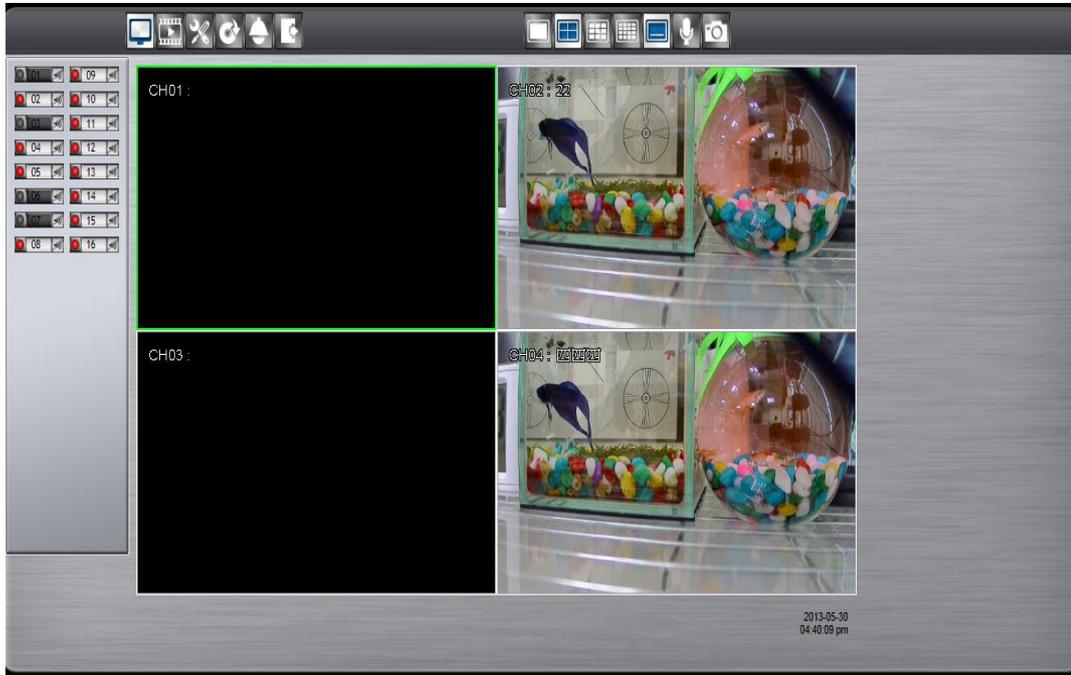


The basic operation is the same as the DVR PTZ control. Please refer to Chapter 3 for detail operation.

7.4.8 Remote Snapshot



Click the “Snapshot” button in live mode or playback mode to store the current image as a still image and save in the PC folder.



7.4.9 Remote Digital Zoom

The function allows user to enlarge the live video at 2x, 4x and 8x in live mode or in

playback mode. Move the focus to the selected video. Click “Full Screen”  button

first and then click “Digital Zoom”  icon and the selected area which user would like to enlarge.



8 VS Viewer for iOS and Android

8.1 Android System

System requirement

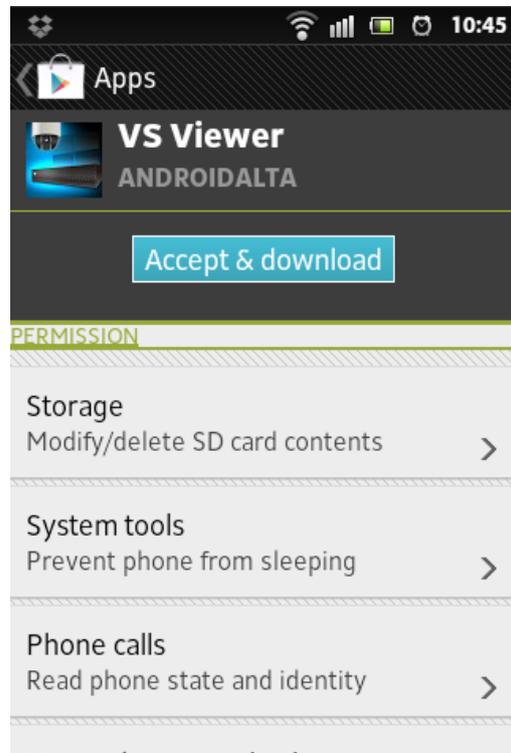
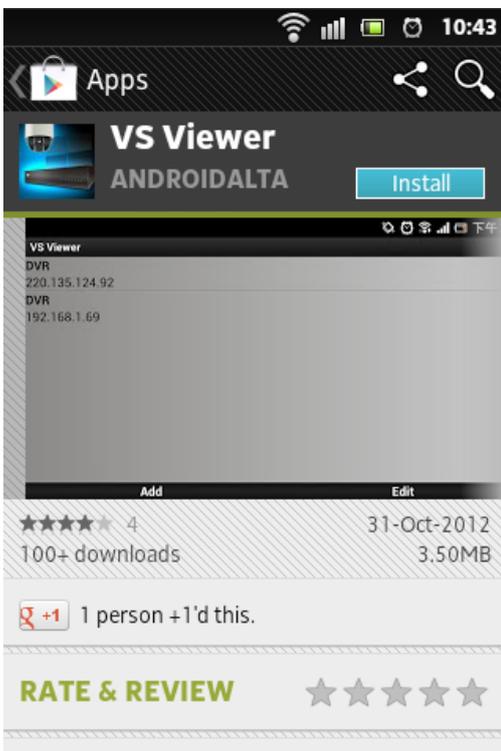
To be able to install and run VS viewer, please make sure your Android device is running Google Android 2.2 or later, and the device is with wireless network supported.

Download the APP

Step1. Launch “Google Play Store”



Step2. Search for “VS Viewer”, tap Install, the system will pop-up the menu for user to Accept & download the APP. The download should then begin. The VS Viewer icon will show on the device after the download is completed.



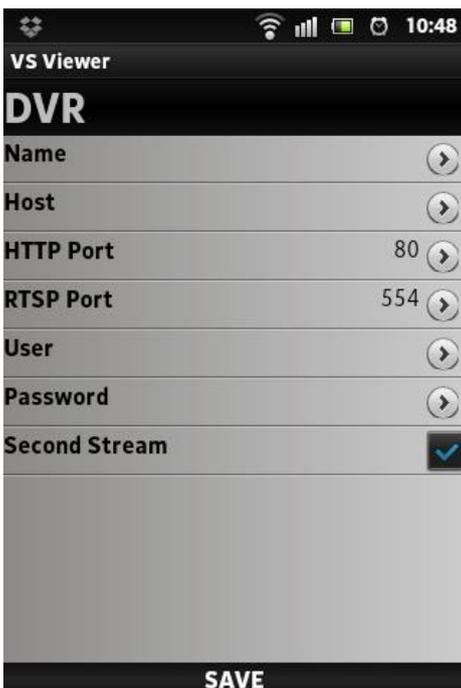
Step3. Tap “VS Viewer” icon to launch the APP.



Step4. Tap “Add” to add new DVR.



Step5. Input DVR name, Host (IP Address), Port, User name and Password. Tap on “Save” to activate the settings.



To operate the APP

Tap on the DVR or NVR that user would like to open the view window.



Rotate the screen, the orientation of the screen rotates with the tablet as you turn it.

To select the view channel

Tap on  to switch the display mode between full screen and quad screen display. Select the display mode, and indicate the channel by tap on the number that user would like display in the selected display window.

Tap on  again to hide the selections.



PTZ Control

Tap on  in full screen to enable PTZ control.

- 8 way pan/tilt/zoom control: To pan/tilt the PTZ device to up/down/left/right/up right /up left /down right / down left.

  : Tap to Zoom in or Zoom out

  : To adjust focus to near or far

  : To adjust Iris to open or close

 : Tap to go to Home position.



- Preset: Tap on **Preset** to bring up the preset menu for operations.



Others



To enable/disable audio display



Under full screen mode, tap on the icon to enable the digital zoom function.

To operate, place two fingers at once on the display window and pinch them together to zoom out, or spreading them apart to zoom in. The zoom in/out display ratio will be shown on the screen. (from 0.2X to 25X)



Tap on Snapshot icon to store the current image as a still image and save in the device folder.

8.2 iOS System

System requirement

To be able to install and run VS Viewer Pro, please make sure your iOS device is running iOS 5.1 or later version, and the device is with wireless network supported.

Step1. Select “App Store”



Step2. Search for “VS Viewer Pro”, tap on “Install APP”, the system will pop-up the request for user to enter login password to start downloading. The downloading should then begin. The VS Viewer Pro icon will show on the device after the download is completed.



Step3. Run “VS Viewer”



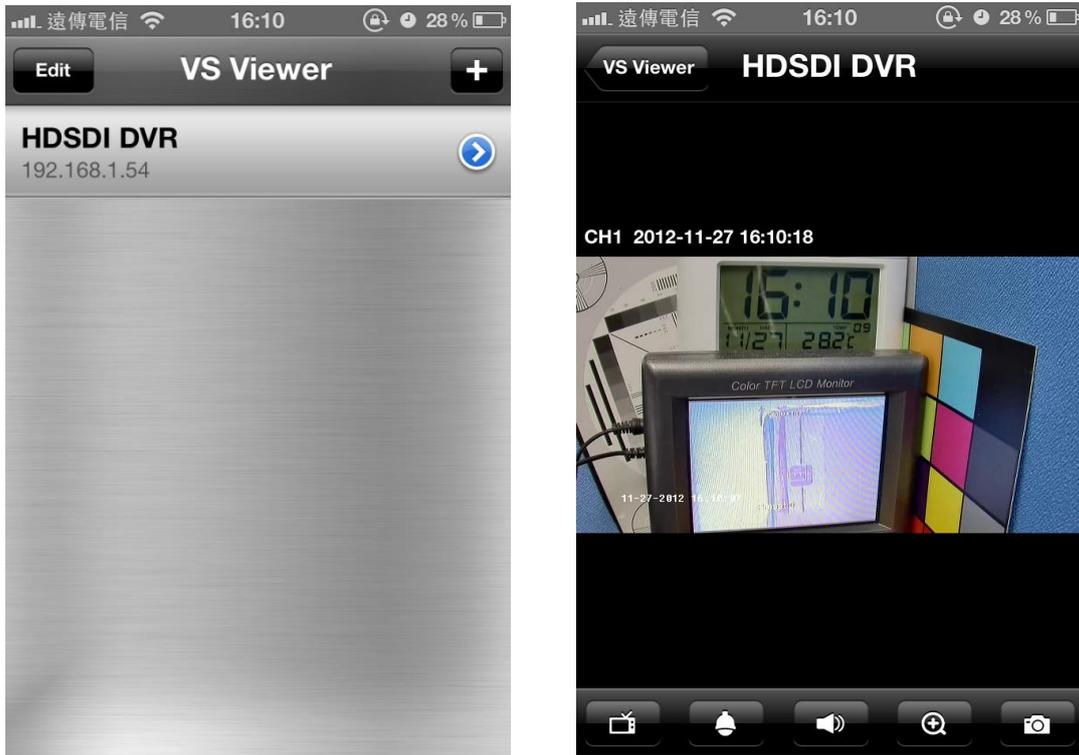
Step4. Tap on  to add new DVR or NVR.

Step5. Input DVR/NVR name, Host (IP Address), Port, User name and Password.
Tap on “Save” to activate the settings.



To operate the APP

Tap on the DVR or NVR that user would like to open the view window.



Rotate the screen, the orientation of the screen rotates with the tablet as you turn it.

To select the view channel

Tap on  to switch the display mode between full screen and quad screen display. Select the display mode, and indicate the channel by tap on the number that user would like display in the selected display window. Tap on  again to hide the selections.

PTZ Control

Tap on  in full screen to enable PTZ control.

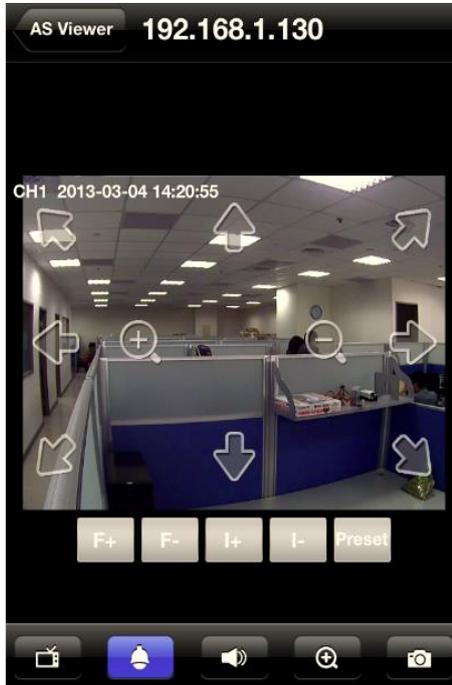
- 8 way pan/tilt/zoom control: To pan/tilt the PTZ device to up/down/left/right/up right /up left /down right / down left.

  : Tap to Zoom in or Zoom out

  : To adjust focus to near or far

I+ **I-** : To adjust Iris to open or close

Home : Tap to go to Home position.



- Preset: Tap on **Preset** to bring up the preset menu for operations.



Others



To enable/disable audio display



Under full screen mode, tap on the icon to enable the digital zoom function.

To operate, place two fingers at once on the display window and pinch them together to zoom out, or spreading them apart to zoom in. The zoom in/out display ratio will be shown on the screen. (from 0.2X to 25X)



Tap on Snapshot icon to store the current image as a still image and save in the device folder.

9 CMS Pro Operation

9.1 Begin Installation



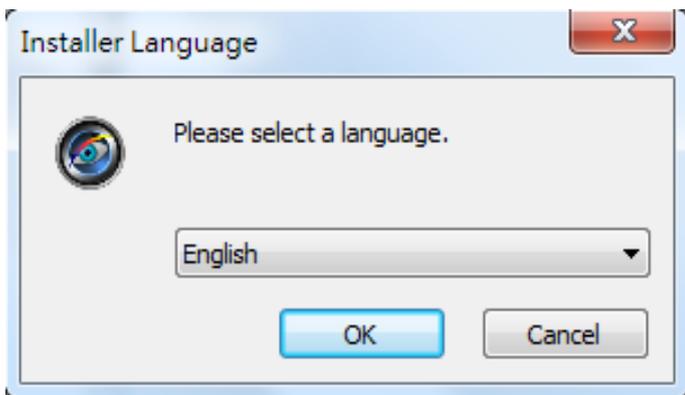
Simply double click user's CD-ROM drive icon "Setup.exe" to launch the installer. Once the CMS Pro installer starts, it should begin to check the compatibility with the operating system user are running this installation on.

System Requirement

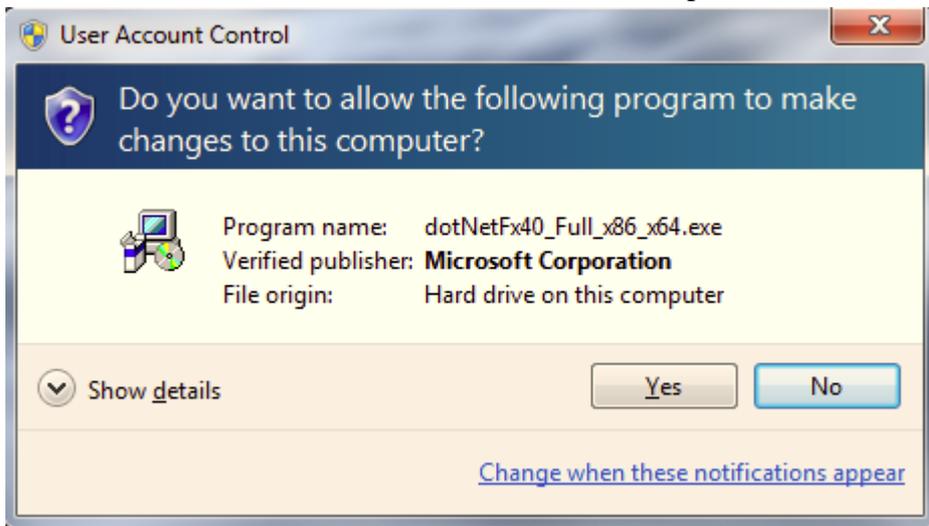
The following are minimum system requirements for CMS.

- Operating System: Microsoft Windows XP, Windows Vista, Windows 7
- CPU : Minimum Intel i5 or higher
- RAM: Minimum 4GB of RAM
- Independent Graphic Card: Minimum 512MB

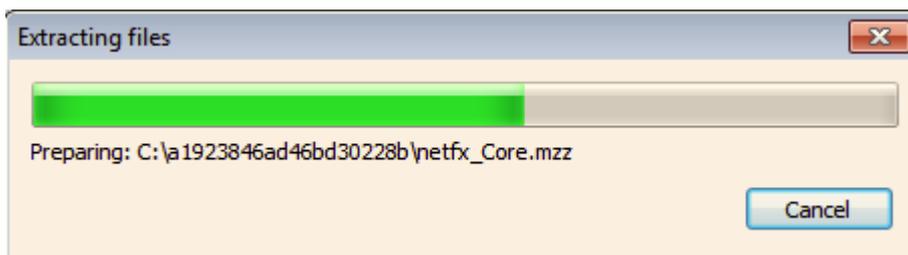
The CMS Pro installer is in multi-language. User can choose the installer language.



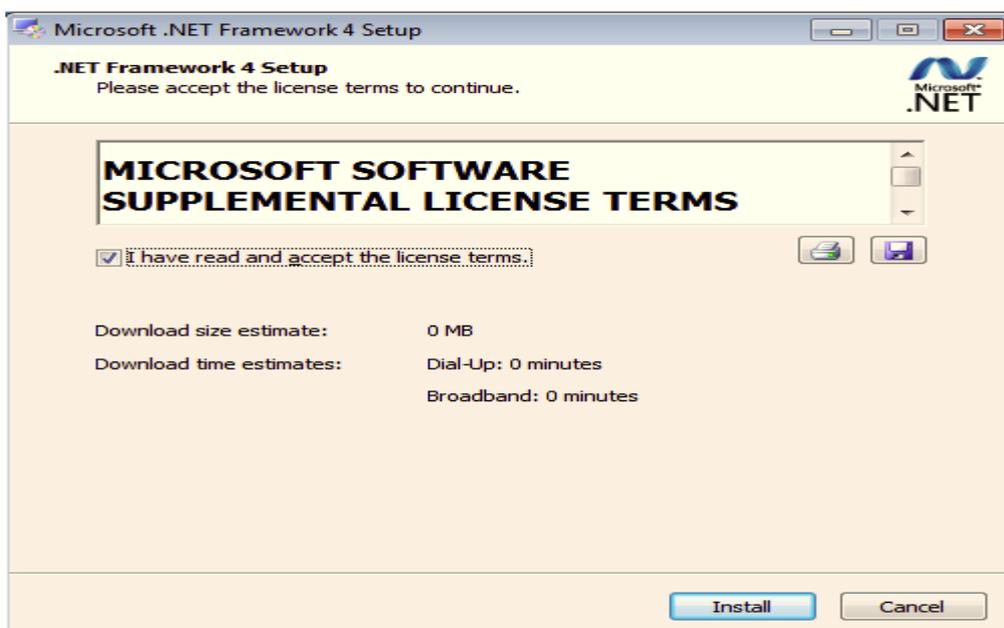
If user's software is without .NET Framework 4.0, the CMS Pro installer will require user to install .NET Framework 4.0 to ensure CMS operation.



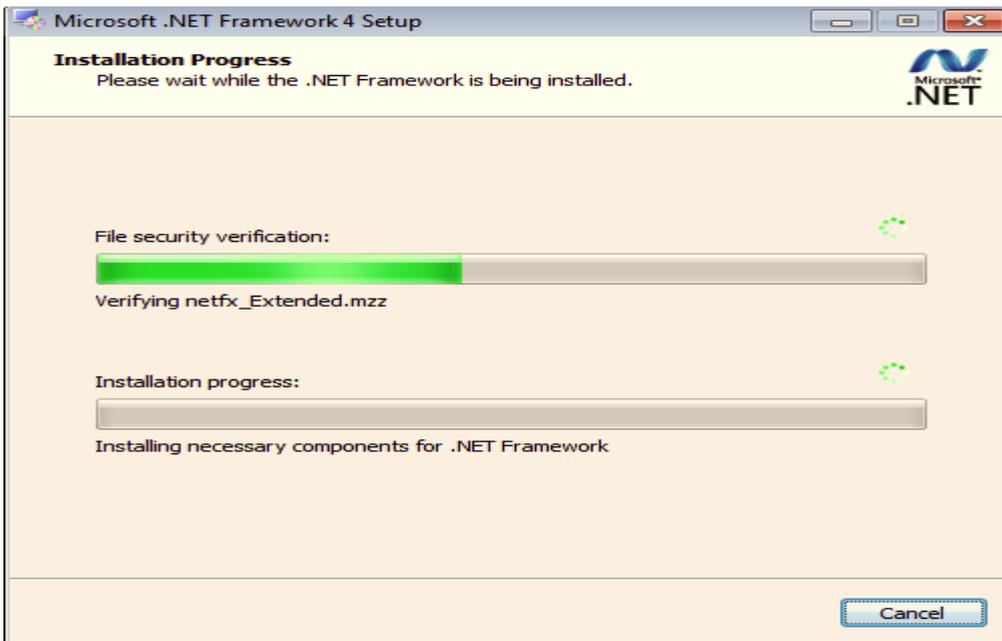
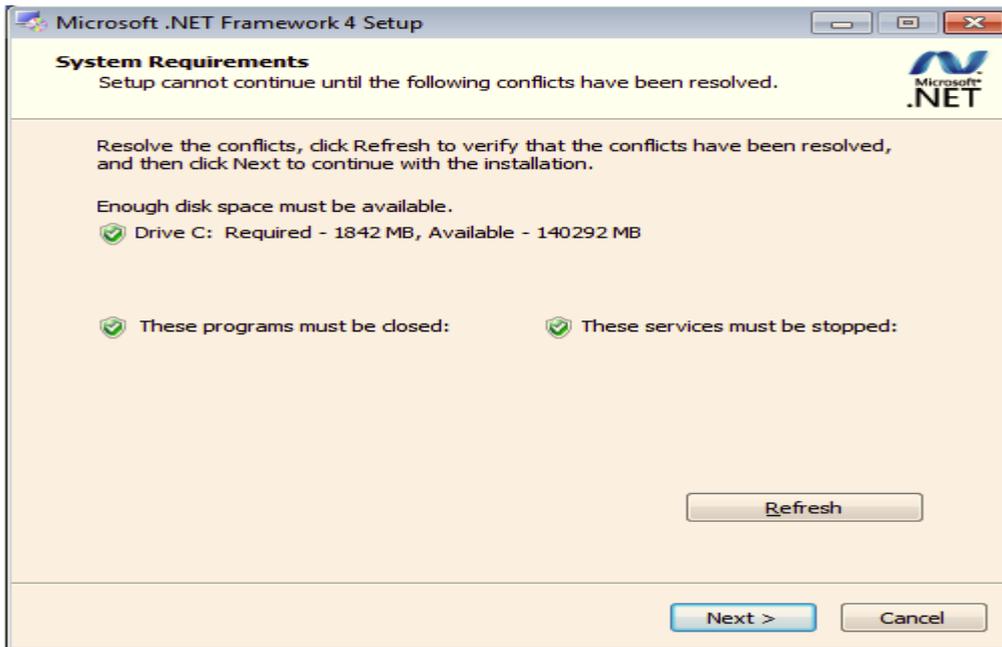
After click yes, there will pop up the installation progress bar to indicate the progress.

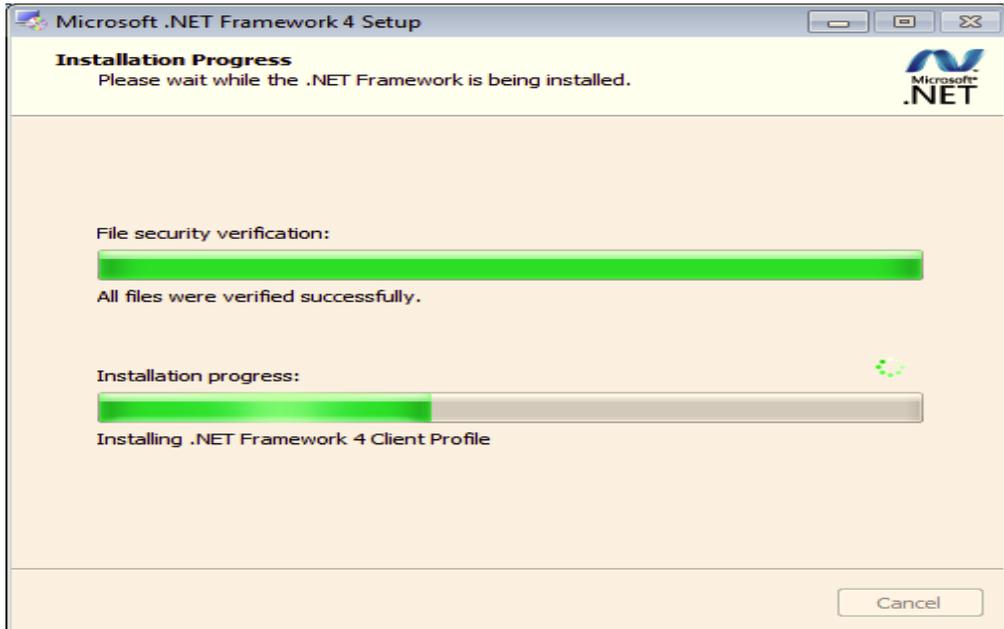


The .NET Framework 4.0 installer will ask user to review the license terms. After user accept the license terms, please click "Install" to proceed further.

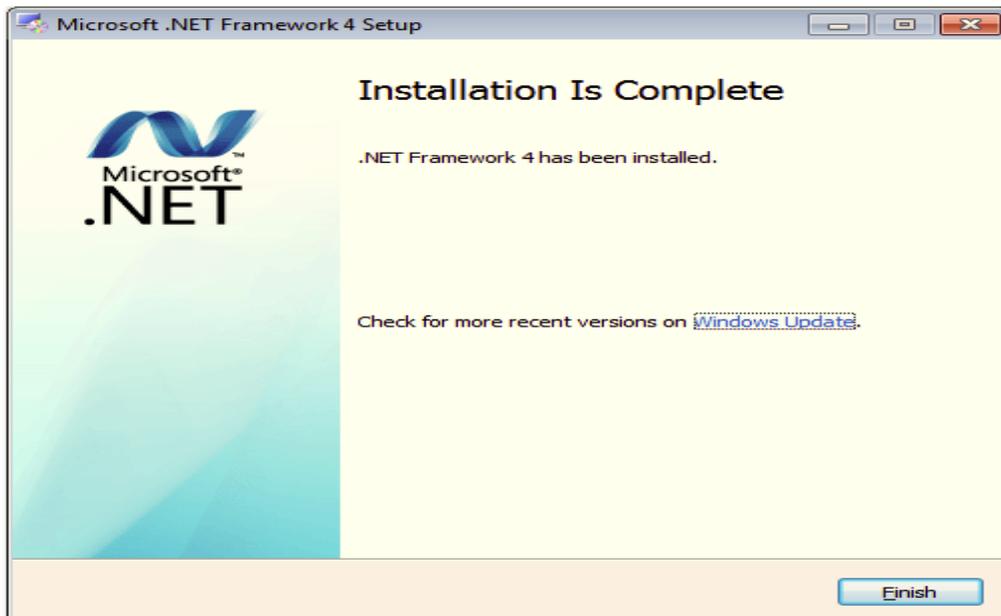


Please click "Next" to proceed further.





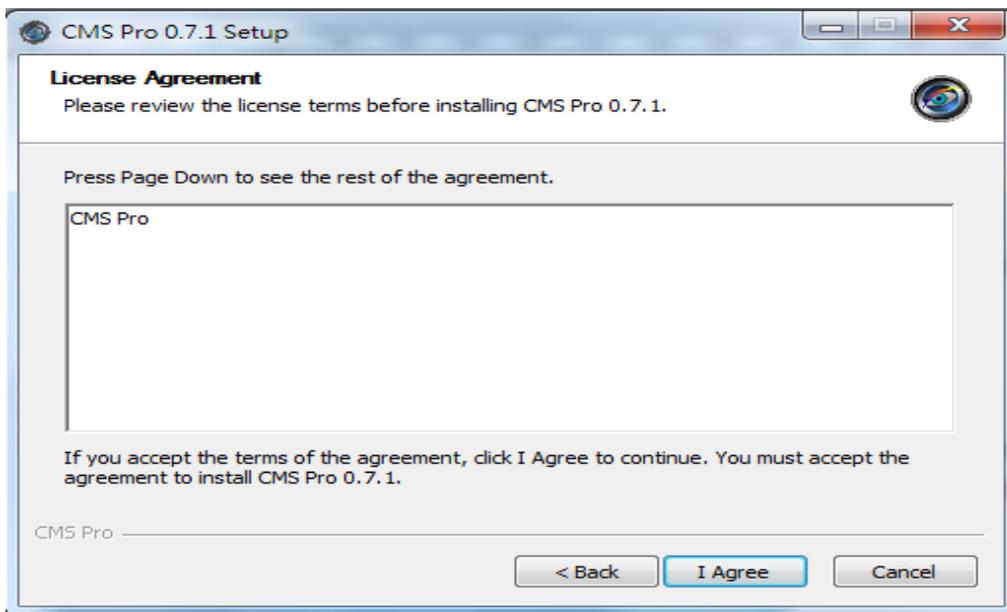
Once .NET Framework 4.0 software install successfully, it will pop up the below complete message. Then user can begin to install CMS Pro software.



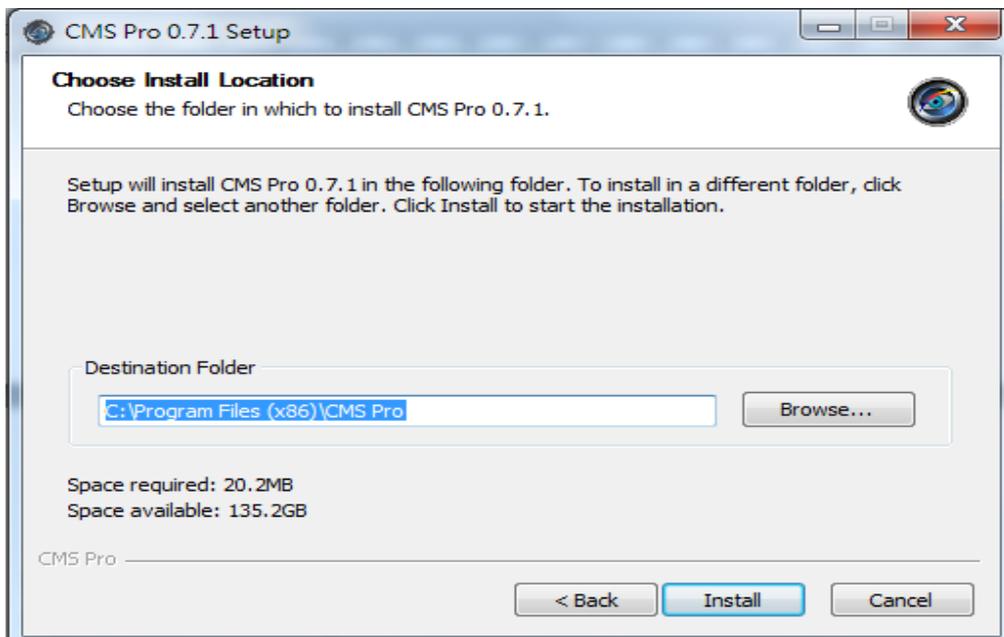
Once the .NET Framework 4.0 install successfully, user can begin the installation by clicking “Next”.



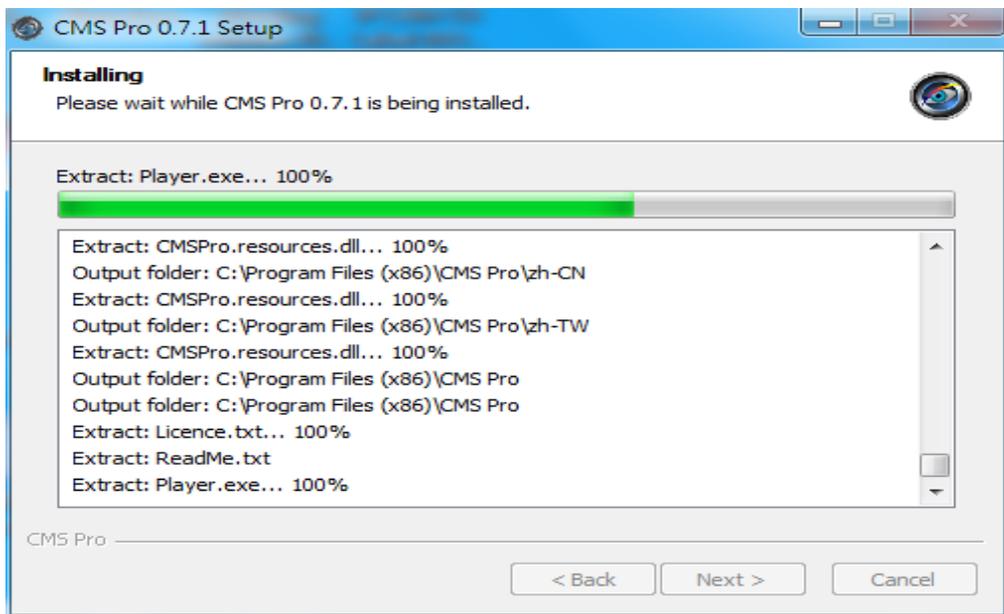
The CMS Pro installer will ask user to review the license terms. After user accept the license terms, please click “ I Agree” to proceed further.



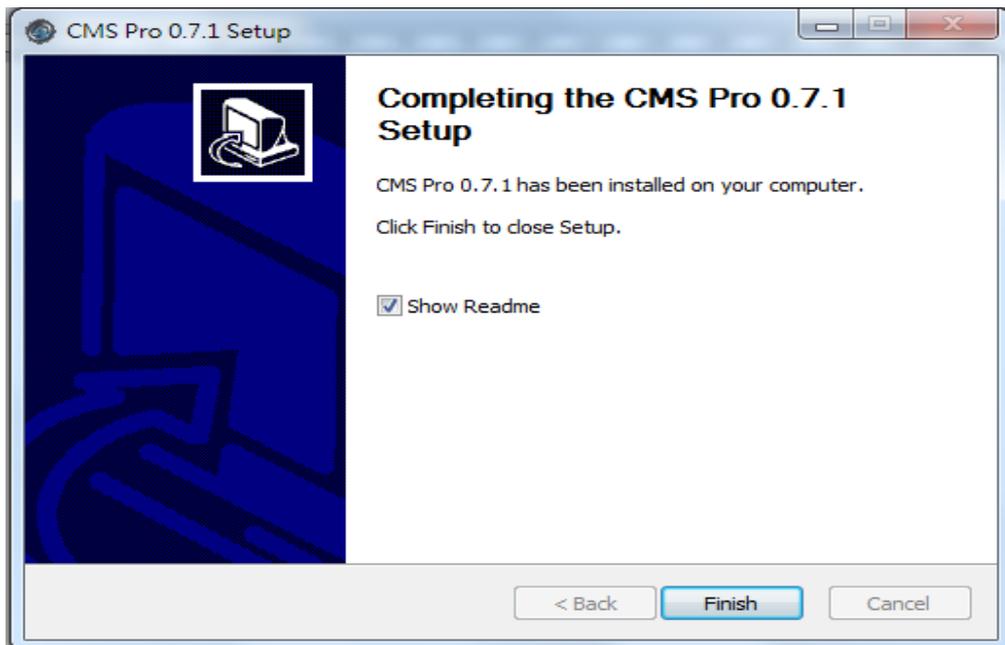
The CMS Pro installer will install the program in a default directory. User can either accept the default or choose the directory user would like to save the installer. And click “install” to proceed with the installation.



The CMS Pro installer will show the installation process.



Once the installation is complete, click “Finish” to exit the CMS Pro installer.

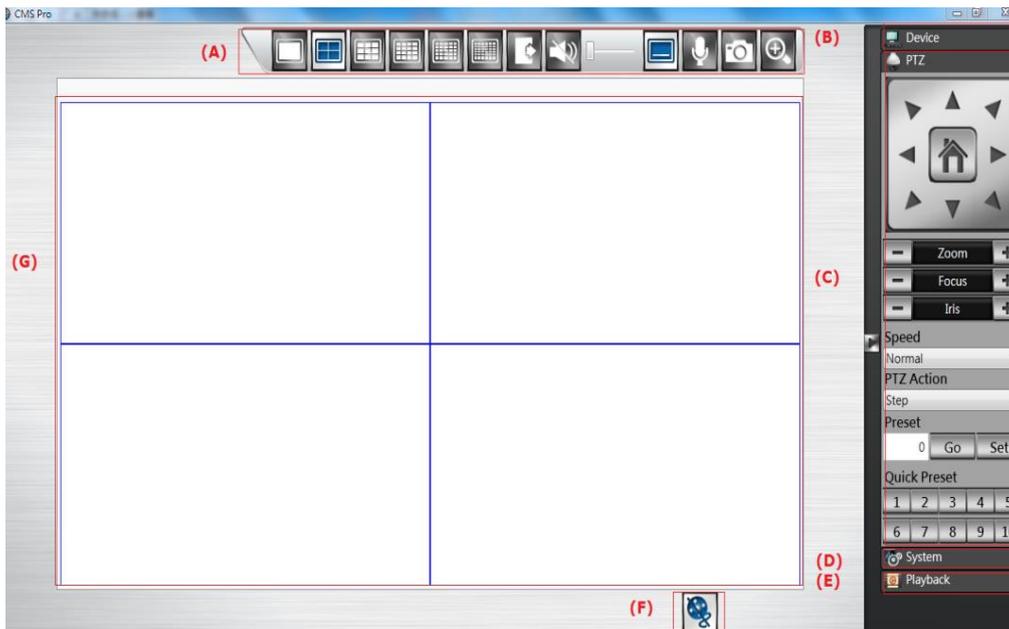


9.2 Start CMS Pro from the PC

The program automatically creates a shortcut icon on user's PC after CMS Pro install successfully. Simply double click the icon to launch the program.



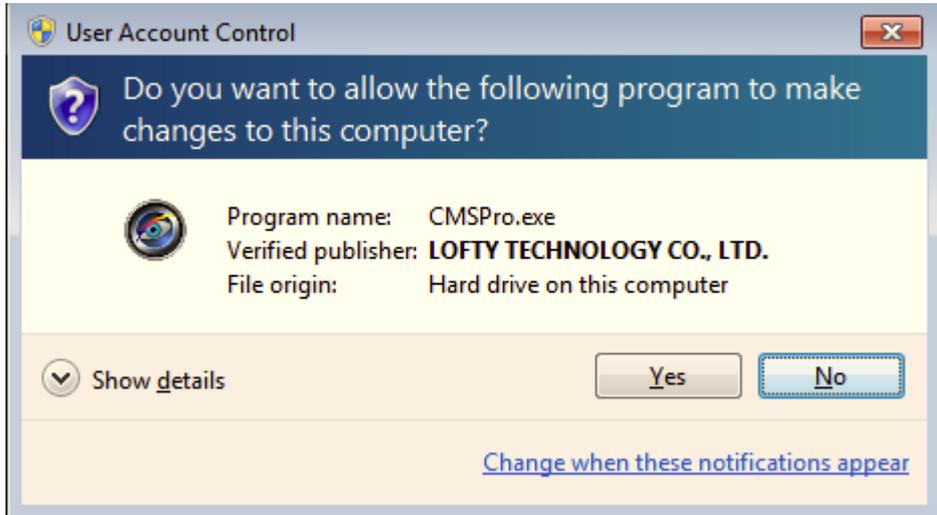
9.3 CMS Pro UI Overview



- (A) Menu Bar: This is where user can access all functions of the software.
- (B) Device List: This is where user can add or delete or edit device group.
- (C) PTZ Control Panel: This is where user can pan, tilt, zoom the selected PTZ cameras.
- (D) System Information: It provides the information of CMS version. User can change the date format, time format and login authentication per user's requirements.
- (E) Playback: Once user press the playback, it will launch playback control UI to have the further operations.
- (F) Play or Stop: This is to play or stop the video streaming.
- (G) Video: This is where the video are displayed.

9.4 Login

After installing the below digital signature, the login page will be displayed for users to enter the User name and Password. Click “OK” to enter CMS Pro Software.



The default user name/password for CMS Pro is:

Administrator: admin/admin

The program provides multi-language support. To change the display language, please select the desired language from the CMS language drop-down menu.

9.5 Connect the program with device

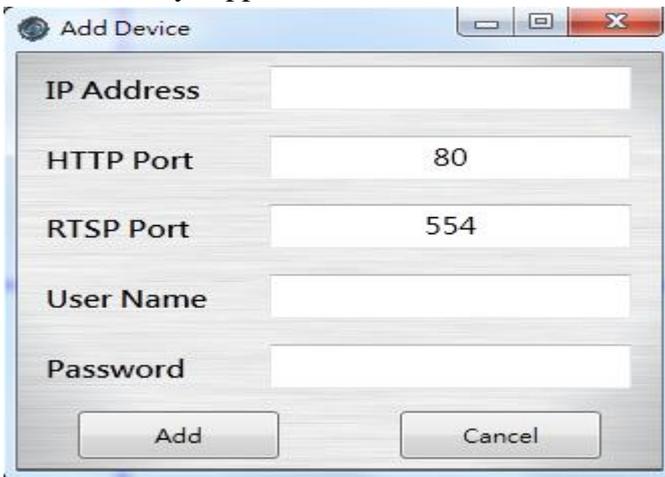
The main purpose of the CMS Pro software is to manage multiple devices. User would need to tell the program which device user need to manage. User do that by adding one or more devices through the device list.

9.5.1 Add Device Manually

Click the mouse right button on the “Device List” icon and “Add Device” will pop up in the same page to add it manually.



It is required for the information shown below before successfully adding the device to the program. Please input device IP address, HTTP Port, User Name and Password. CMS Pro only supports RTSP Port at 554.

A screenshot of the 'Add Device' dialog box. The dialog box has a title bar with the text 'Add Device'. It contains five input fields: 'IP Address', 'HTTP Port' (with the value '80'), 'RTSP Port' (with the value '554'), 'User Name', and 'Password'. At the bottom of the dialog box, there are two buttons: 'Add' and 'Cancel'.

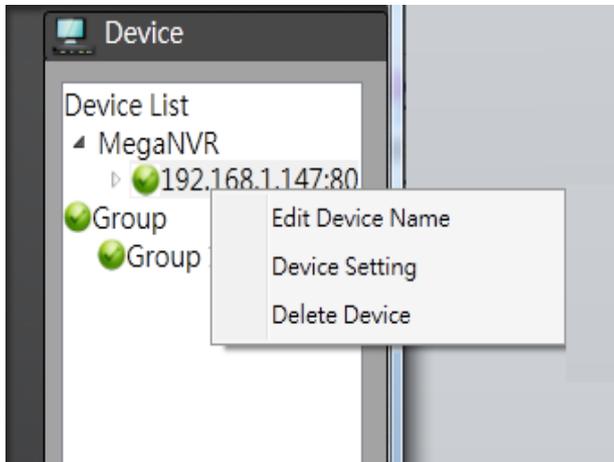
Please note user need to use the CMS Pro administrator’s user name and password of the selected device. Without administrator privilege, user is unable to add the selected device.

The default user name/password for CMS Pro is:

Administrator: admin/admin

9.5.2 Remove or Edit device setting

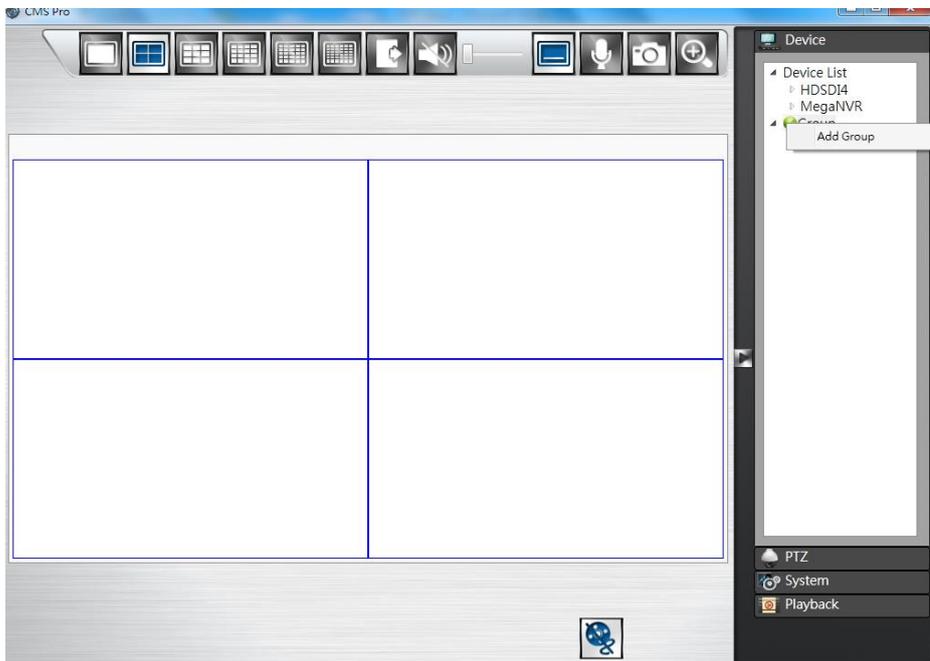
Once user have one or more devices added to the program, the “Edit Device Name”, “Device Setting” and “Delete Device” will become available. Simply click on the mouse right button on the selected device from the list and choose the corresponding buttons to edit device name, edit device setting or delete the device.



- Edit Device Name – User can edit the device name by simply click on the mouse right button on the selected device to “Edit Device Name”. After input the new device name, click”Edit” and the new device name will be updated to the device list.
- Device Setting – Once the IP address, user name or password of the selected device has been changed, user can input the new information by clicking on the mouse right button on the selected device.
- Delete Device – User can remove the device from the device list by clicking on the mouse right button on the selected device.

9.5.3 CMS Pro Group Video

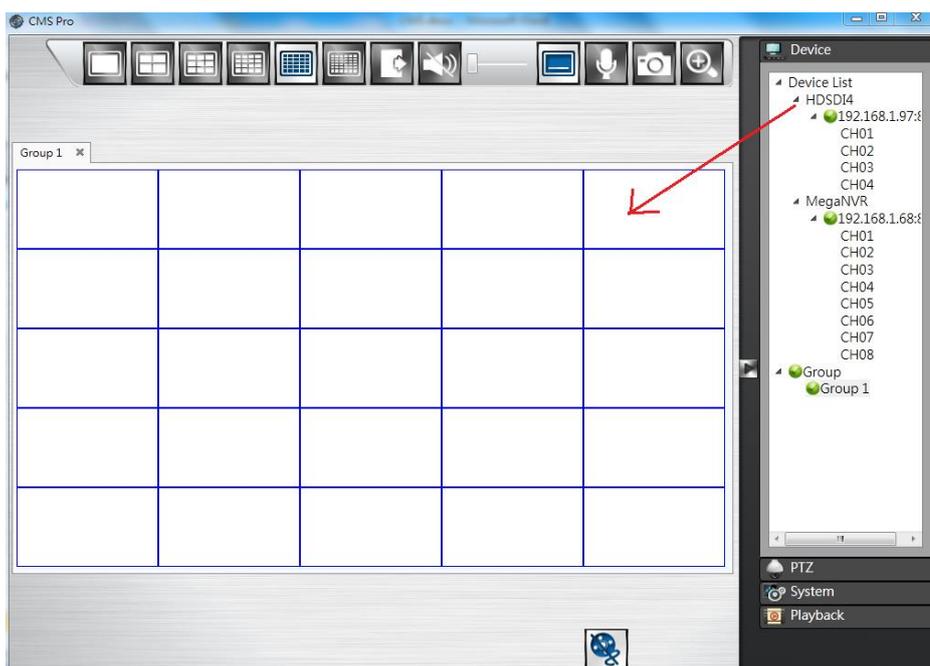
User can create the group to contain different videos from different devices. Click the mouse right button on the “Group” and it will pop up “Add Group”.



Press “Add Group” and the default “Group 1” will be generated. The group number is increased by numerical order. Click the mouse right button on “Group 1” and the below drop-down menu will be displayed.

9.5.3.1 Edit Group Content

Before edit group content, user need to stop stream first. Then user can drag and drop either devices or channels from the device list to the desired video windows.

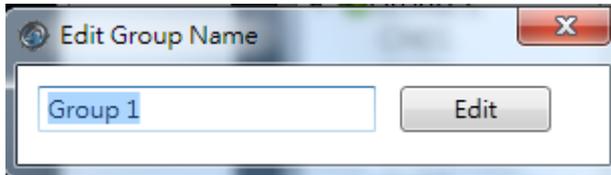


9.5.3.2 Open Group Stream

After finish the edit group content, click “Open Group Stream” on the desired group to play the video streaming.

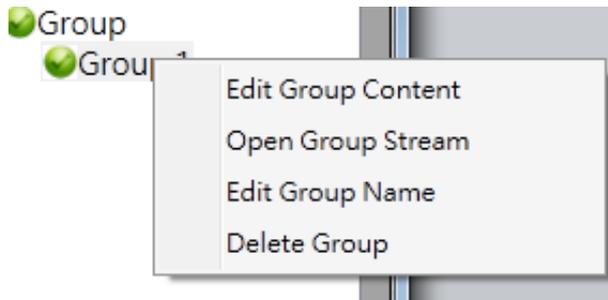
9.5.3.3 Edit Group Name

User can modify the group name.



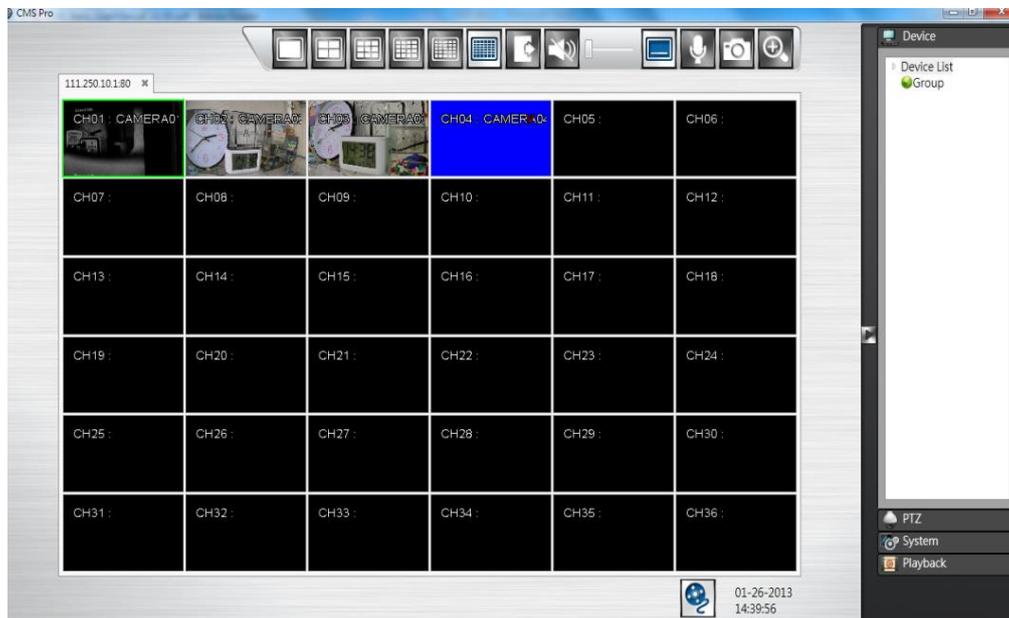
9.5.3.4 Delete Group

User can remove the group from the group list by clicking on the mouse right button on the selected group.



9.6 Live Video

This page basically provides user the ability to view, and manage the video streams of each channel.



The menu bar is available for each video window. The menu bar provides the following functions:

The basic operations are showing on the main screen, the functions are:



Full screen display mode



Quad display mode



9-up screen display mode



16-up screen display mode



25-up screen display mode



36-up screen display mode



Click to Logout from the current page



Click to turn on/off live audio



Show/Hide OSD



Two-way audio



Click to take a snapshot of selected live video

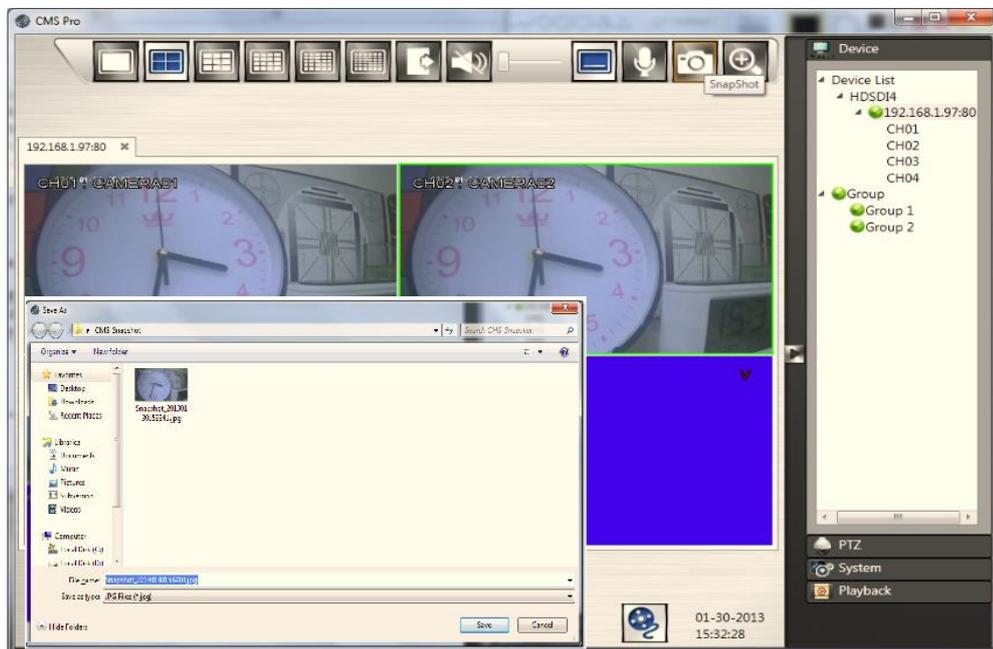


Click to digital zoom the selected live video

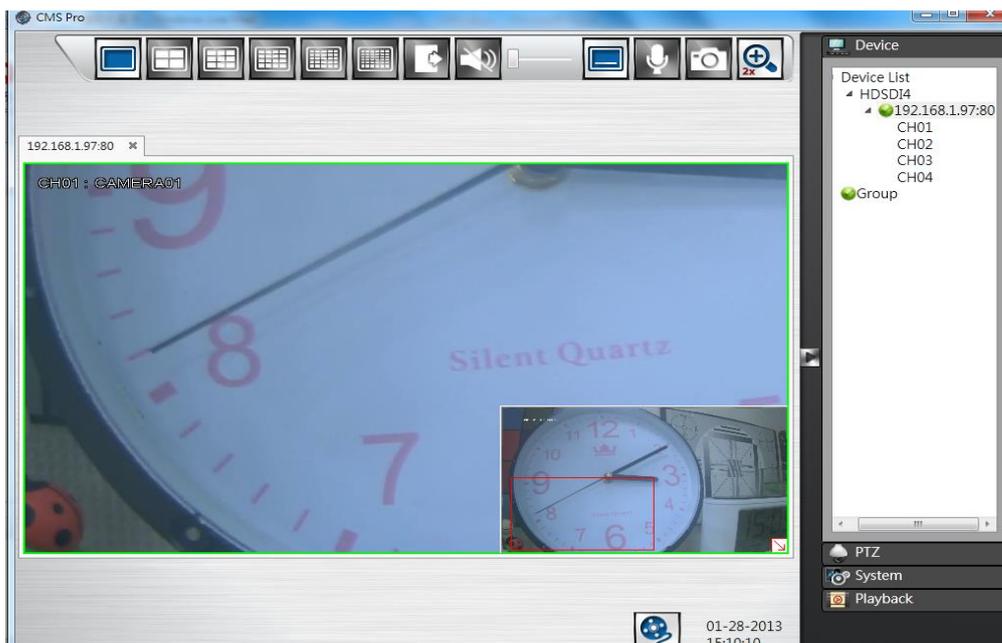


Click to stop or play the live video

- Take a snapshot: The function allows user to take the snapshots of the live video and save them on user's local computer. Move the focus to the selected video and click "Snapshot" icon. User can save the file to a desired directory.



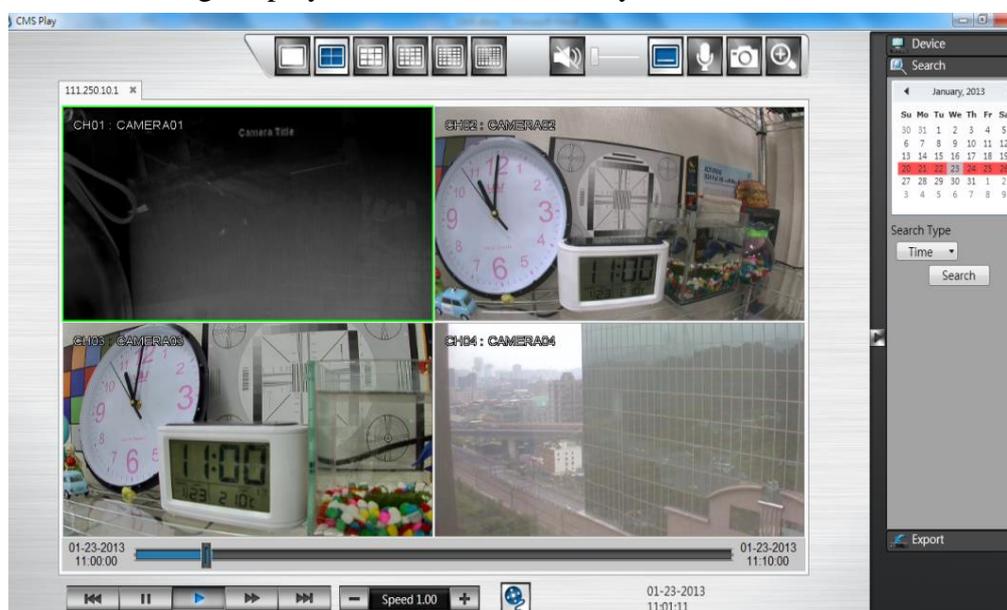
- Digital Zoom: The function allows user to enlarge the live video at 2x, 4x and 8x. Move the focus to the selected video. Click "Full Screen" icon. Then click "Digital Zoom" icon and the selected area which user would like to enlarge.



If user click the “Minimize” icon in the live mode, user will see the icon display on the tool bar of user’s computer.

9.7 Playback Video

The program supports 1 device synchronous playback in full screen or multi-screen view. To start looking for playback videos, click “Playback” button  first.



The menu bar is available for each video window. The menu bar provides the following functions:

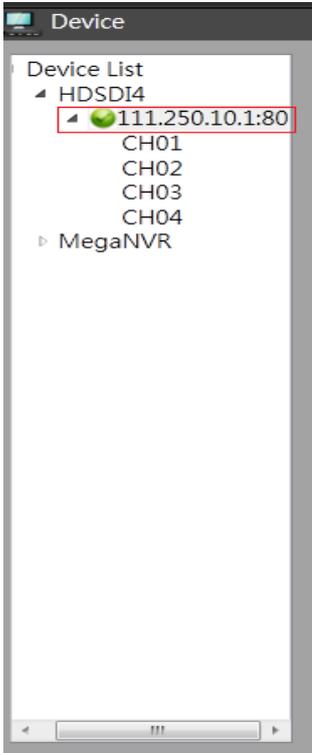
The basic operations are showing on the main screen, the functions are:

-  Full screen display mode
-  Quad display mode
-  9-up screen display mode
-  16-up screen display mode
-  25-up screen display mode
-  36-up screen display mode
-  Click to turn on/off recorded audio
-  Show/Hide OSD
-  Two-way audio
-  Click to take a snapshot of selected recorded video
-  Click to digital zoom the selected recorded video
-  Click to stop or play the recorded video

If user click the “Minimize” icon in the playback mode, user will see the  icon display on the tool bar of user’s computer.

9.7.1 Search for Playback Videos

Simply select a device from the drop-down device list and double click the selected device. It will pop up the calendar.



9.7.1.1 Calendar

The calendar on the screen shows the recorded data contains in the hard drives. The date highlighted in red means there's recorded data of the date in the hard drives. The gray highlighted date indicates the current search date. Click on the calendar to select the date user would like to search.

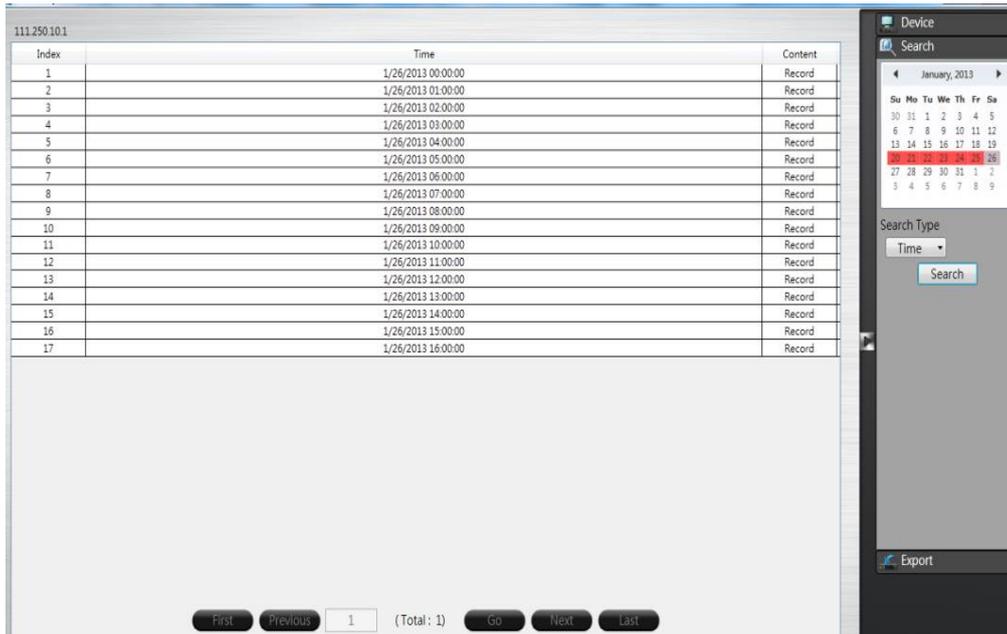


9.7.2 Search operation

The recorded file can be searched by “Time”, “Channel” and “Event”. Select the search type first, choose a date, and click “Search” button. The results will show in the list. Double click on the selected file then the video will start to play on the display window.

9.7.2.1 Search by Time

The recorded section list of the current selected day will be shown on the screen. Double click on the selected recorded file to start the playback.



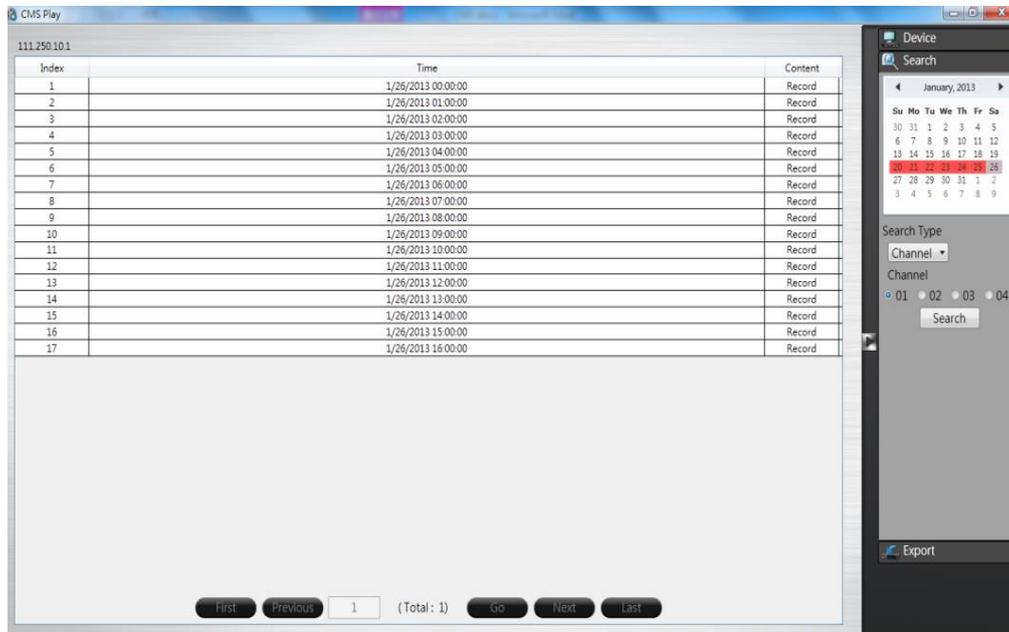
The screenshot displays a software interface for searching recorded files. The main window shows a table with the following data:

Index	Time	Content
1	1/26/2013 00:00:00	Record
2	1/26/2013 01:00:00	Record
3	1/26/2013 02:00:00	Record
4	1/26/2013 03:00:00	Record
5	1/26/2013 04:00:00	Record
6	1/26/2013 05:00:00	Record
7	1/26/2013 06:00:00	Record
8	1/26/2013 07:00:00	Record
9	1/26/2013 08:00:00	Record
10	1/26/2013 09:00:00	Record
11	1/26/2013 10:00:00	Record
12	1/26/2013 11:00:00	Record
13	1/26/2013 12:00:00	Record
14	1/26/2013 13:00:00	Record
15	1/26/2013 14:00:00	Record
16	1/26/2013 15:00:00	Record
17	1/26/2013 16:00:00	Record

The interface also includes a sidebar on the right with a search panel. The search panel shows a calendar for January 2013, with the 26th highlighted. Below the calendar, there is a "Search Type" dropdown menu set to "Time" and a "Search" button. At the bottom of the main window, there are navigation buttons: "First", "Previous", "1", "(Total: 1)", "Go", "Next", and "Last".

9.7.2.2 Search by Channel

Search by Channel allows user to search the event video by channel. Select the date from the calendar, and select the channel user would like to view. The event video list of the selected channel will be shown on the screen. Double click on the selected recorded file to start the playback.



9.7.2.3 Search by Event

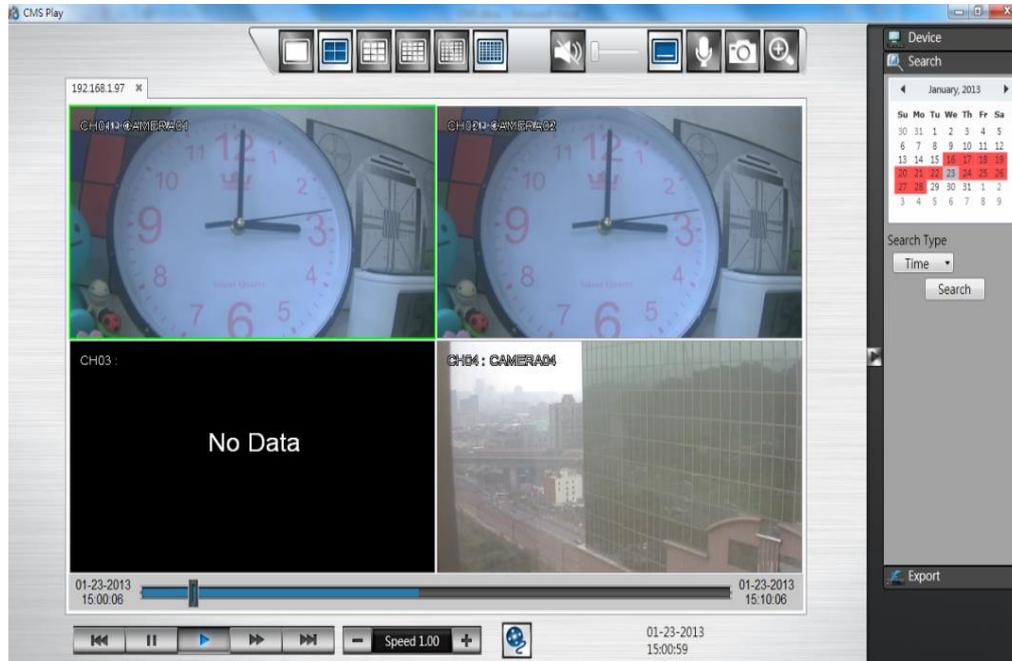
Search by event allows user to search the event video list by channel and by event type. Select the channel user would like to view (user can also click All On or All off to enable or disable all channels), then select the event type (Alarm, Motion and Video Loss), the event video list of the selected channel and event type will be shown on the screen. Double click on the selected recorded file to start the playback.

The screenshot displays a web-based interface for video management. The main area features a table with 17 rows of search results. The table has three columns: 'Index', 'Time', and 'Content'. All 'Content' entries are 'Record'. Below the table is a navigation bar with buttons for 'First', 'Previous', '1', '(Total: 1)', 'Go', 'Next', and 'Last'. On the right side, there is a 'Device' search panel. It includes a calendar for 'January, 2013' with the 26th highlighted. Below the calendar, there is a 'Search Type' dropdown set to 'Event', a list of event types with checkboxes for '01', '02', '03', and '04', and buttons for 'All On' and 'All Off'. At the bottom of the panel are checkboxes for 'Alarm', 'Motion', and 'VLoss', along with a 'Search' button and an 'Export' button at the very bottom.

Index	Time	Content
1	1/26/2013 00:00:00	Record
2	1/26/2013 01:00:00	Record
3	1/26/2013 02:00:00	Record
4	1/26/2013 03:00:00	Record
5	1/26/2013 04:00:00	Record
6	1/26/2013 05:00:00	Record
7	1/26/2013 06:00:00	Record
8	1/26/2013 07:00:00	Record
9	1/26/2013 08:00:00	Record
10	1/26/2013 09:00:00	Record
11	1/26/2013 10:00:00	Record
12	1/26/2013 11:00:00	Record
13	1/26/2013 12:00:00	Record
14	1/26/2013 13:00:00	Record
15	1/26/2013 14:00:00	Record
16	1/26/2013 15:00:00	Record
17	1/26/2013 16:00:00	Record

9.8 CMS Playback Operation

The basic playback operations are as below.



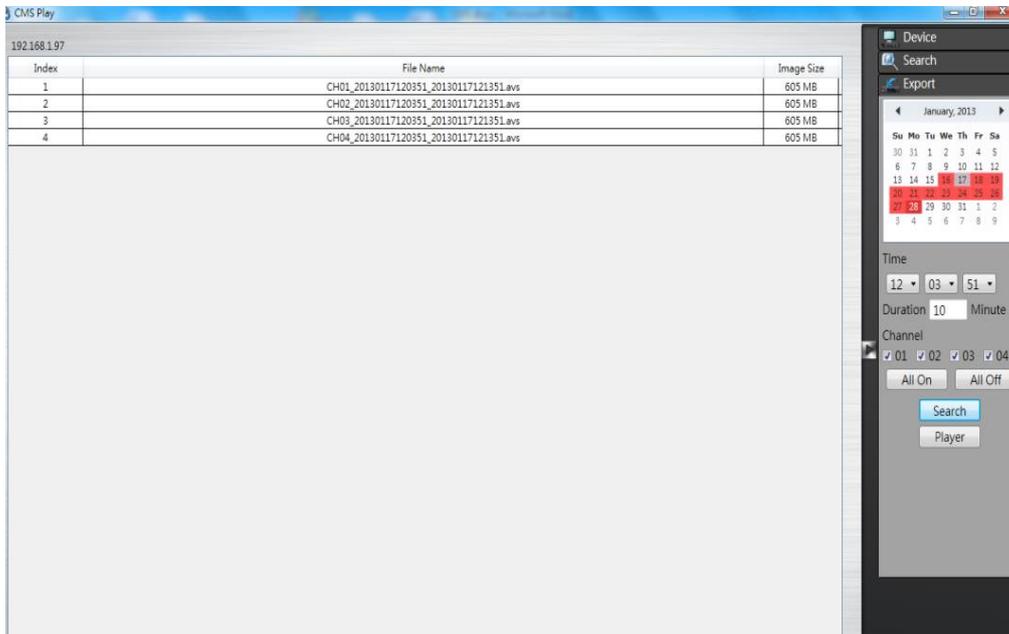
The progress bar shows the current playback status and timeline. Drag the time indicator on the progress bar to move to the selected timeline to playback.

On the time bar, it also indicates the initial and end time of the current playback section.

-  Click to playback video
-  Click to pause video
-  Click to switch to fast forward playback (2x), user can also control the playback speed by clicking  and , in x0.25, x0.5, x1, x2, x4 and x8.
-  Click to fast forward to the next section
-  Click to fast backward to the previous section

9.9 CMS Export

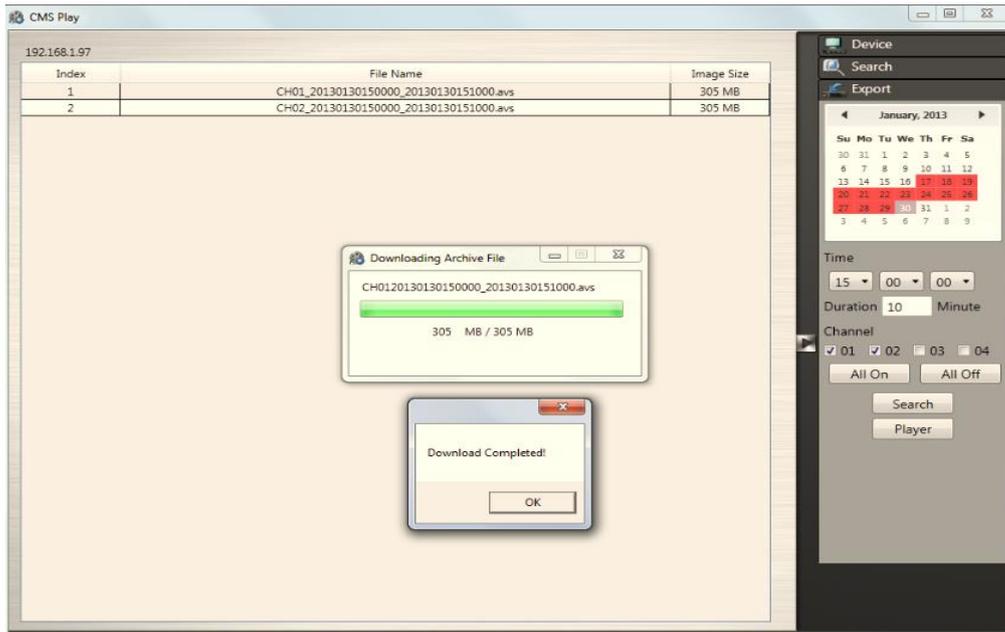
Click on the “Export” button  to bring up the export menu, this allows user to export the video file from the device



To export the video, select the date from the calendar, the starting time of the video and channels that user would like to export. (Click All On or All off to enable or disable all channels.) Input the duration time user would like to export, the maximum search duration is 60min. Click Search to start, the searched video files will be listed on screen.

The maximum video file size is 2000MB, the system will automatically create new file if the searched result is over 2000MB.

Double click on the selected item and the system will pop up message as below, select the location user would like to store then click Save to execute the downloading.

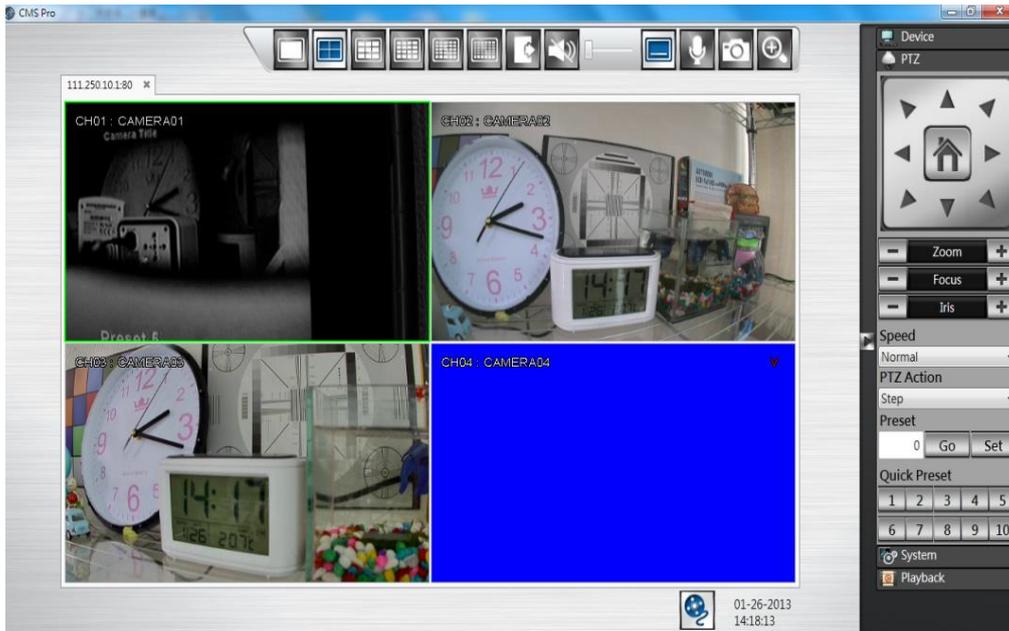


User can view the exported file on the Export Player. If the user does not have the Player installed in the PC, click Export Player button to download the player to the PC. Please refer to Chapter 5 for Export Player operation.

9.9 CMS PTZ Configuration

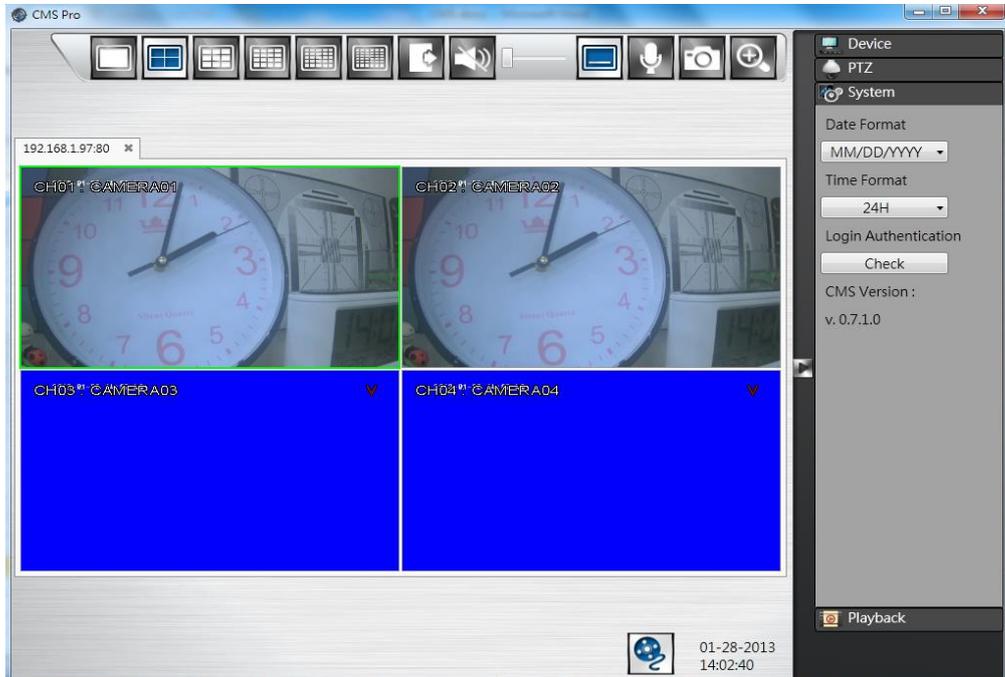
User can synchronize PTZ settings from all cameras connected to the NVR on the network or user can create and add new PTZ preset points to those cameras through CMS Pro.

The basic operation is the same as the NVR PTZ control. Please refer to Chapter 3 for detail operation.

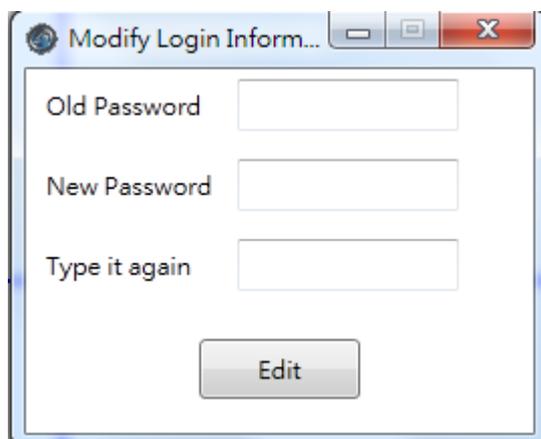


9.10 CMS System

Click on the “System” button  to bring up the system menu, this allows user to change the Date Format, Time Format, Login Authentication and CMS Version.



- Date Format: Select date format from DD/MM/YYYY, MM/DD/YYYY or YYYY/MM/DD.
- Time Format: Select time format between 12 Hours and 24 Hours.
- Login Authentication: User can change CMS Pro password. Please input the old password and input the desired new password and reconfirm it. After confirmation, click “Edit”, the new password has been updated. The new password will be required when next time user login again.



- CMS Version: It indicates CMS Pro current version.