All in One DVR

3M/4M, Full HD-Realtime All in One DVR

Future of Digital Video Recording at Hand

User's Manual ver. 1.00

Safety Information

The safety information is provided for the wellness of the equipment and for the safety of the operator.
Please review and observe all instructions and warnings in this manual.

> ***Note :*** *Keep this manual handy every time you operate this equipment. Also, check with your dealer for further assistance and for the latest revision of this manual. Your dealer might provide you with a digital version of this manual.   We also ask to keep the original box and packing materials in case of return and for long-term storage of the DVR unit.*

Preparations before installation

To protect your DVR from damage and to optimize performance, be sure to keep the DVR away from dust, humidity, and area with high voltage equipment such as refrigerator.

Do not install or place equipment in areas where the air vents can be obstructed, such as in tight enclosures or small utility closet.   Keeping the unit in a temperature-controlled room with ample regulated power is highly recommended.   Do not overload the wall outlet, as this can result in the risk of fire or electric shock.

Uninterruptible power devices such as UPS power surge protectors are recommended, and the DVR units must at least be connected with UL, CUL, or CSA approved power surge protector.   Avoid direct sun light and avoid heat.

FCC Information

This equipment has been tested and found to comply with the limits of Class 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 radiates 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.   Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment under FCC rules.

UL Information

- for pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible

- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or statement in the servicing instructions.

> **CAUTION**   RISK OF EXPLOSION IF AN INCORRECT TYPE REPLACES BATTERY.
> DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION.
> THIS EQUIPMENT IS FOR INDOOR USE, AND ALL THE COMMUNICATION WIRING IS LIMITED TO INSIDE OF THE BUILDING, OR ANY SIMILAR WORD.

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Chapter 1

DVR USER MANUAL

1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

| Items	Photo	Quantity
Quick Start Guide		1 Set
CD (Manual & Software)		1 Set
12V DC Adaptor Power Cable (4- channel models)		1 Set
12V DC Adaptor Power Cable (8- and 16- channel models)		1 Set
USB Mouse		1 Set
Screws		1 Set

1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.
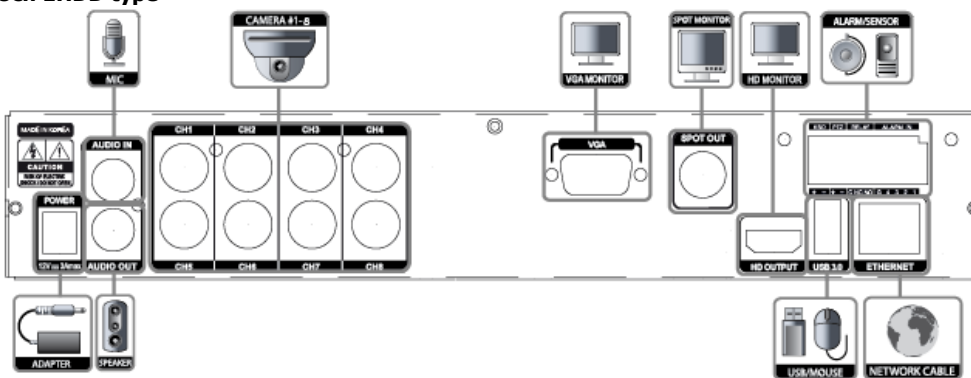
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE   Install the system in a location with good ventilation to prevent overheating.

4ch 1HDD type
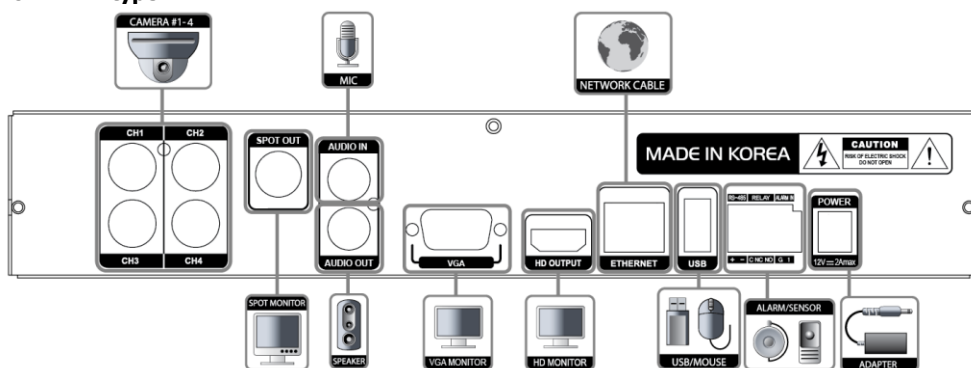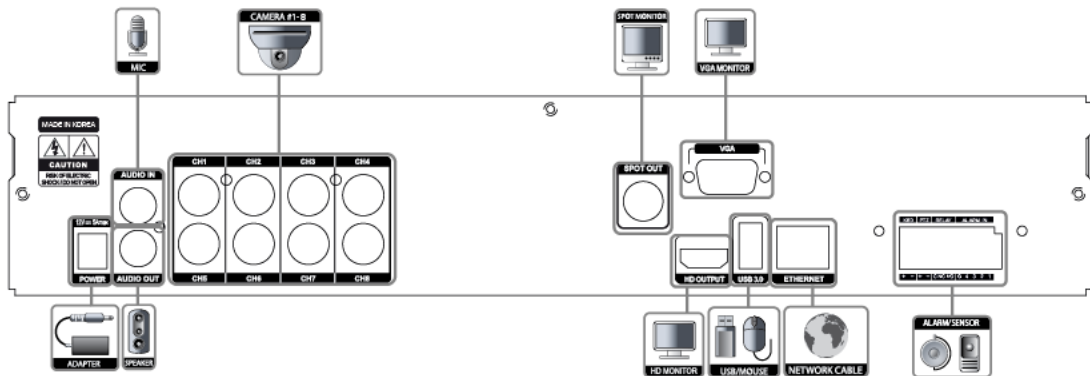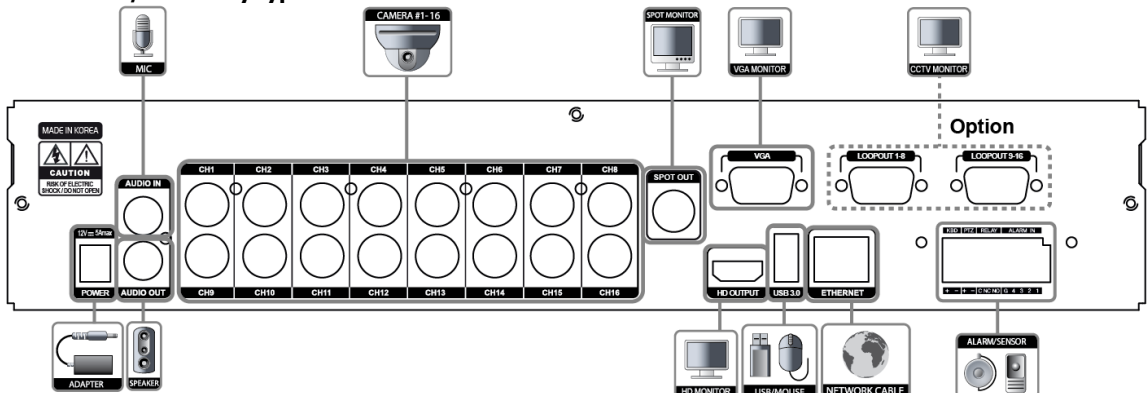

8ch 1HDD type

16ch 1HDD type
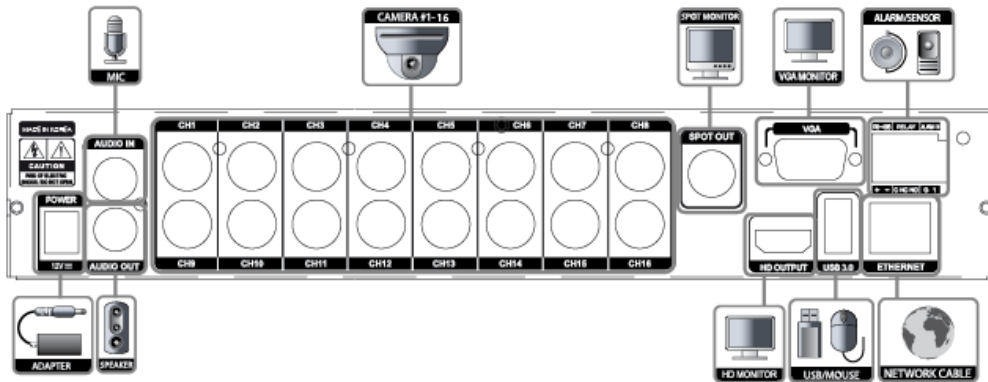
**8ch 2HDD / Front Key type**

16ch 2HDD / Front Key type

WARNING !   ※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall socket.

1.3 System Startup and Shutdown

1.3.1 System Startup

After connecting peripheral devices such as cameras, monitors and a mouse to the DVR, power up the DVR by connecting DC12V adaptor to the power jack on the rear panel. The boot log will display as shown below. Please wait until the boot process completes.
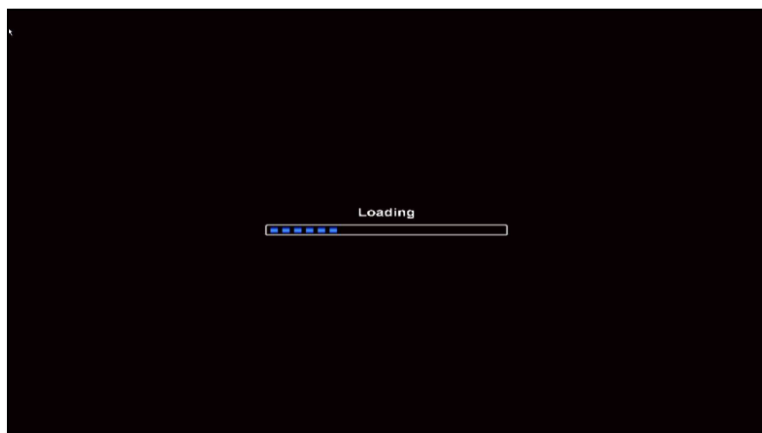
To login, right-click anywhere on the screen. This will bring up the login screen, where you can enter the username and password. There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by the Administrator can also login with a specific password set by the Administrator.
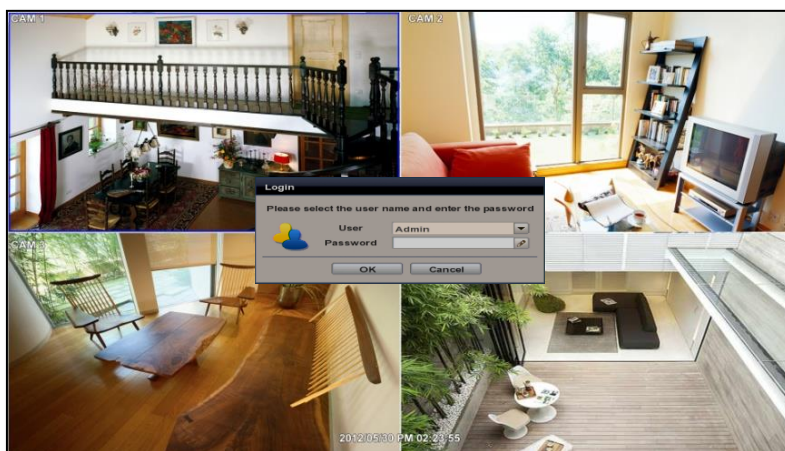
| NOTE	Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

| NOTE	The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 System shutdown and change password

To power off the DVR, follow one of the options below:

1. Right-click on the screen and select 'Shutdown' from the drop-down menu. Enter the username and password to power off the DVR.

2. Right-click on the screen and select 'Setup Menu'. Go to the System Settings sub-menu and select the 'Default' tab. Press the 'Shut Down' button at the bottom right of the window. Enter your username and password and select OK to power off the DVR.
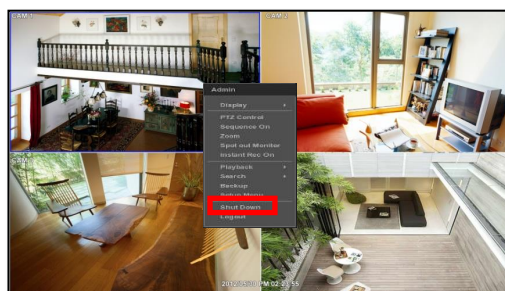
| **NOTE** | It is not recommended to disconnect the power cable abruptly from the back of the DVR because it may affect the DVR and Hard Drive. |

The default password for 'admin' account is none. Therefore, just click 'Enter' button on the dial pad. If you changed the password for 'admin' account, please type in the changed password to login.
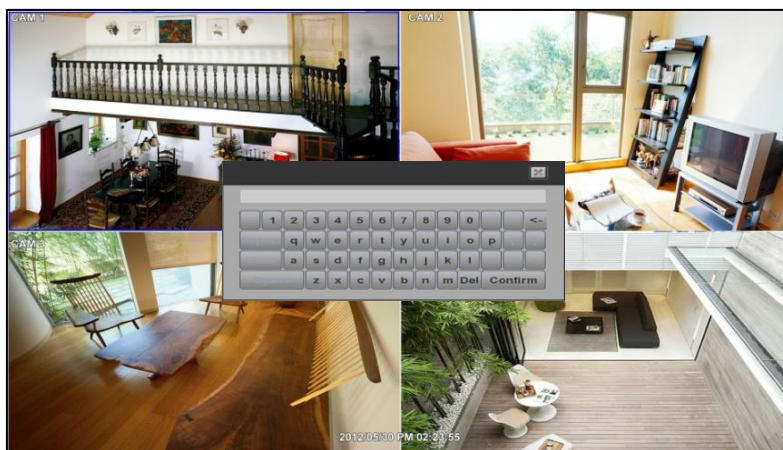
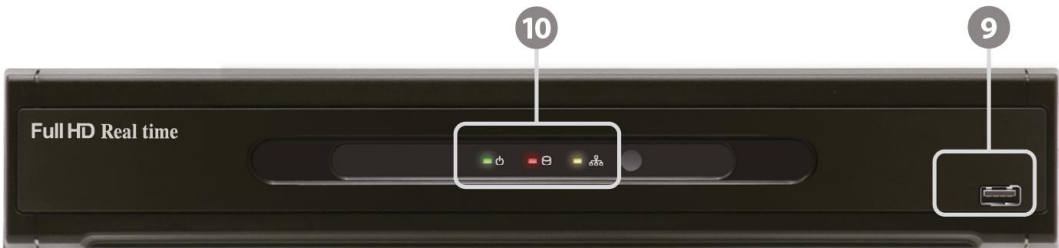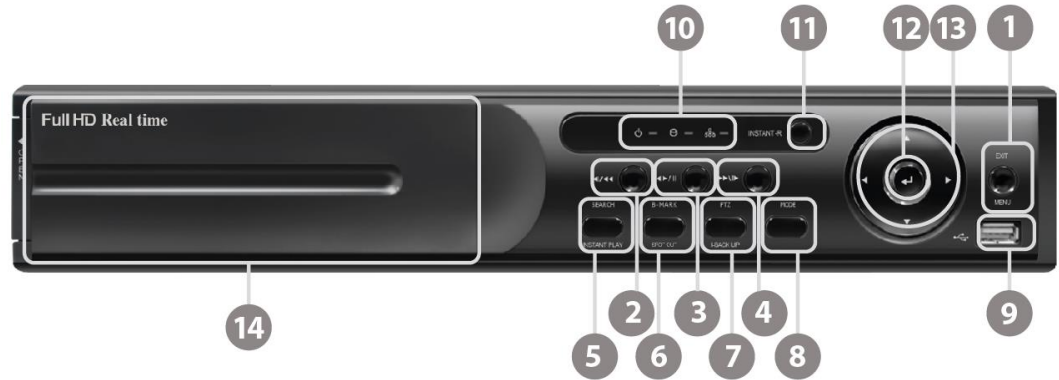| **NOTE** | User can type in the password using the virtual keyboard. |

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

4/8/16ch 1HDD type
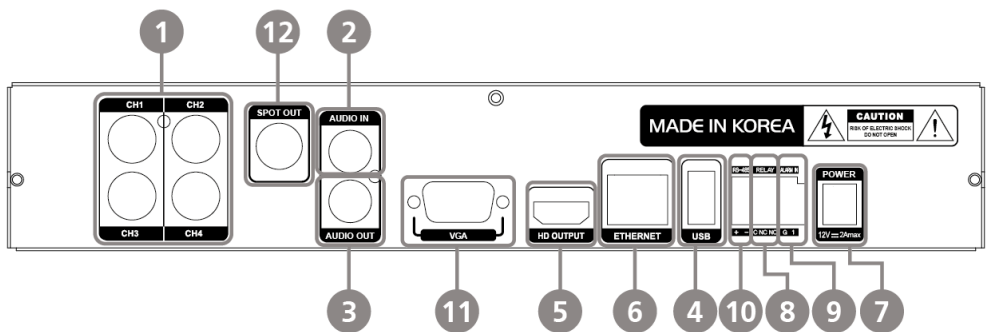

8/16ch 2HDD type

8/16ch 2HDD / Front Key type

1	Menu / Exit	Toggles On or Off Menu Setup Display
2	Playback Speed Control	Playback Speed Control(Short Press) when Playback Reverse Step Playback(Short Press) when Pause First Data Playback(Long Press)
3	Forword & Backward Play Pause	Forward play & Backward Play(Long Press) Pause(Short Press)
4	Playback Speed Control	Playback Speed Control(Short Press) when Playback Forward Step Playback(Short Press) when Pause Last Data Reverse Playback(Long Press)
5	Search / Instant play	goto Search menu(Short Press), Last Data Reverse Playback(Long Press)
6	Book-mark / Spot out	Book-Mark(Short Press) Spot out monitor(Long Press)
7	PTZ / I-backup	Bring Up PTZ Camera Control(Short Press) Used to initiate instant back up(Long Press)
8	Mode	Change screen mode(Short Press)
9	USB Port	USB port(Ver.2.0)for mouse operation or backup or F/W update
10	LED Indicator	Indicates system status Power, Record, Network
11	Instant Record	Emergency Recording
12	Enter	Select value or setting
13	Direction	Move to the direction that user wants to select
14	DVD±RW	DVD±RW door

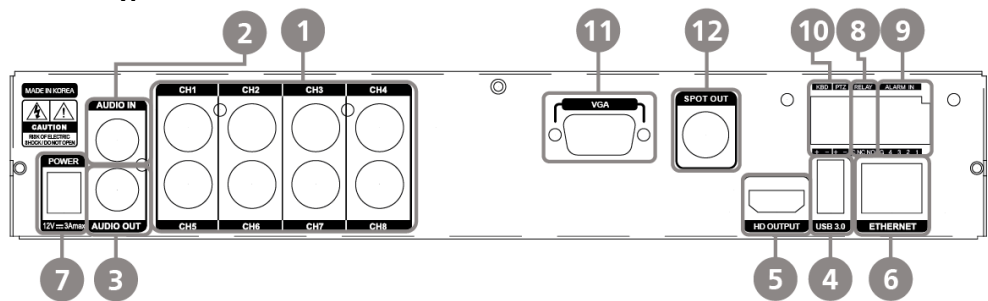**NOTE**   **I- Backup (Instant Backup)**

In playback mode, the user can press the "I-backup" button on the frontal keypad to configure both "start" and "End" time. Once the "Start" and "End" time is set, click the "Start" button to start the backup process.(Front Key type)
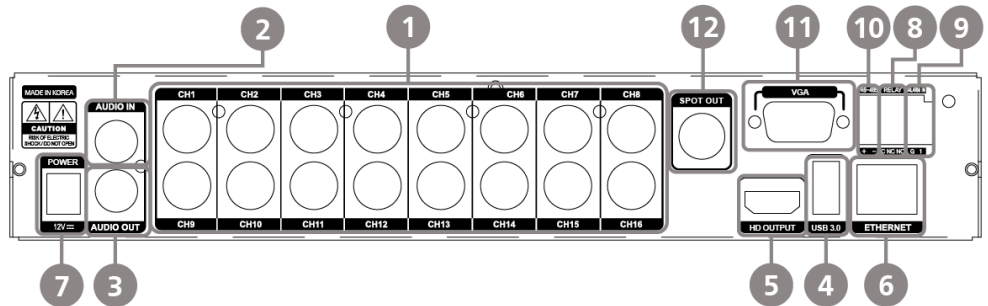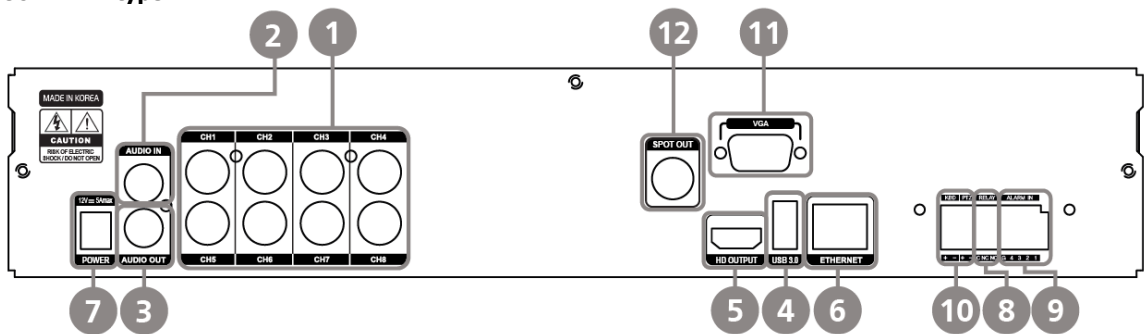
2.2 Rear Panel
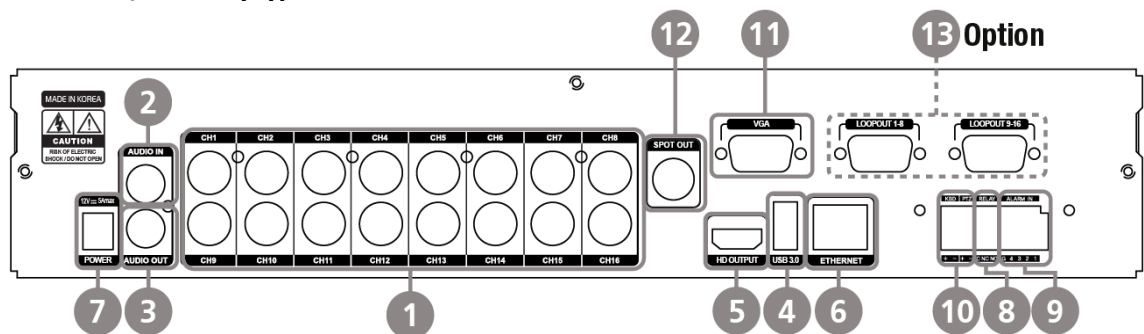
4ch 1HDD type

8ch 1HDD type

16ch 1HDD type

8ch 2HDD type

16ch 2HDD / Front Key type

No.	Name	Description		
1	Video-In	Camera inputs (Supports NTSC/PAL)		
2	Audio-In	Audio Input Device (with Amplifier)		
3	Audio-Out	Audio Output Device (with Amplifier)		
4	USB Port	USB 2.0 Port for Mouse Operation, Backup Device, or Firmware Update		
5	HD OUTPUT	HD OUTPUT		
6	LAN Port	1 x 10/100/1000M		
7	Power Input	1HDD Type	4ch : 12V/2A 8ch : 12V/3A 16ch : 12V/5A	
		2HDD/Front Key Type	8ch : 12V/5A 16ch : 12V/5A	
8	Alarm Output	Alarm Output		
9	Sensor Input	Sensor Input		
10	RS-485 Port	PTZ Dome Camera or External Keyboard Controller connection		
11	VGA	D-sub VGA Output		
12	SPOT	SPOT Output		
13	Loop out	Loops through output (Option)		

Note Carefully check whether the specifications of the peripheral devices match the DVR's specifications.
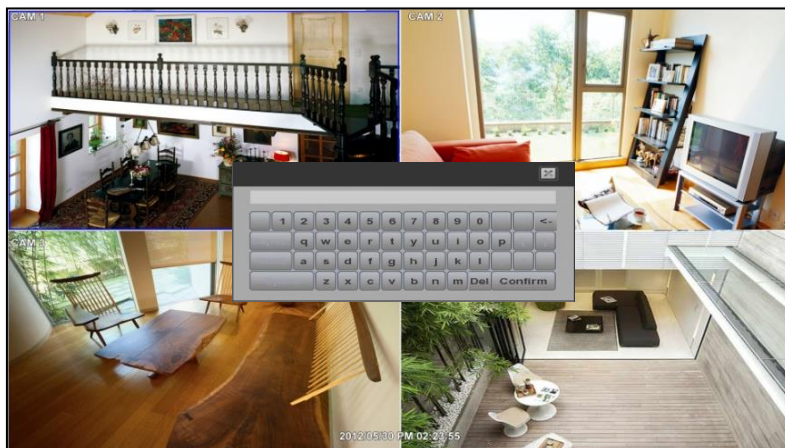
3 OPERATION

3.1 User Log-in

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.
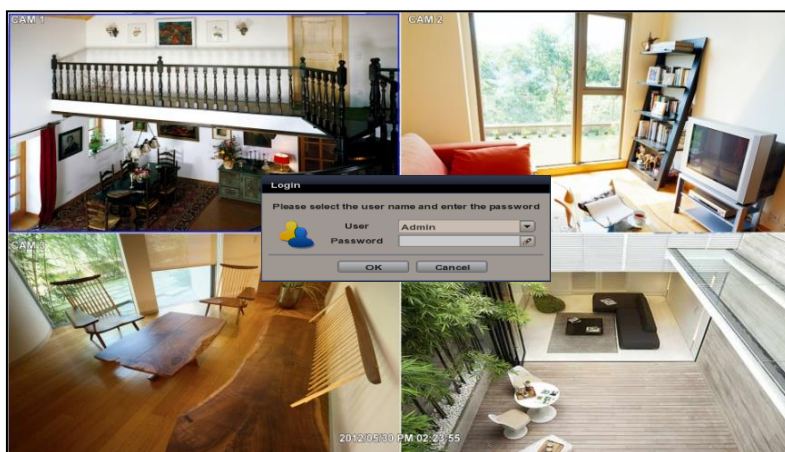
Enter the <Admin> or <User> password which had been set by using the virtual keyboard.

NOTE   1) <LOGIN> window will be displayed until user logs in with the right ID and password.
2) If the DVR is set to Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

3.2 Quick Startup Wizard

Quick Startup Wizard is specially designed to make it much easier for the major DVR settings such as Time/Date setup, Record setup, Network setup and Quick setup. When the DVR boots up, the Quick Startup Wizard operates automatically. It can be disabled by setting in the main menu.

Adjust the date & time for the DVR. Setting this before the DVR starts recording will prevent and time conflict, which may result in data loss. See section 4.1.1 System Info for more information.

See section 4.4 Network for more information on setting up the DVR for external connection.

Use the DVR recording calculator to setup the best recording parameters for your needs. See section 4.6 Quick Setup for more information.

3.3 Live Display Mode

3.3.1 Full HD(1080p) Live Display

Full HD Live Display can be supported in live mode by using its HD output.

Able to set max 4k(3840x2160) : HD output and supplied 4K monitor

NOTE   HD Resolution 4K(3840x2160) support only 8ch and 16ch. 4ch is not support 4K resolution

<Full HD Live Display>

3.3.2 Channel Selection

Channel selection can be done by following one of the steps below:

1.   CH1~CH16 buttons in the IR Remote Control.

2.   1~16 virtual buttons at the bottom of the GUI display.

The display mode can be changed by selecting the appropriate display mode from the menu bar at the bottom of the display area.

The live images can be displayed in real-time in 1, 4, 9, 16 screen splits (depending on the model and the supported channels). Whenever the left/right arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.
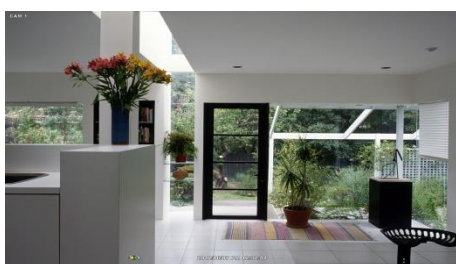
[1 Ch]
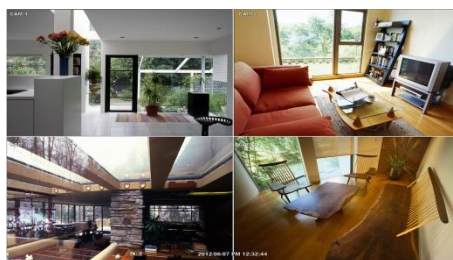
[4 Ch]

[9 Ch]
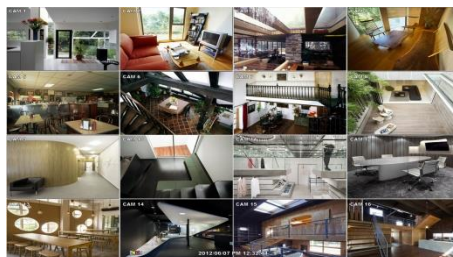
[16 Ch]

To select channel by mouse, click target channel single time to display in full screen. To return to previous display mode, click the screen again.

To view the pop-up menu, right click anywhere on the display screen.

NOTE   To select a channel using the mouse, perform a slow and clear click of the left mouse button.

3.3.3 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor:

| Icon to be shown at Left-upper corner on each channel screen		Icon to be shown at Left-bottom corner on full screen.	
C	Continuous Recording	**SEQ**	Sequence display on
M	Motion Detection Recording	**ZOOM**	Digital zoom on
S	Sensor Activating Recording	🔊	Audio Channel
C+M	Continuous+ Motion Recording		
C+S	Continuous + Sensor Activating Recording		
C	Emergency Recording		
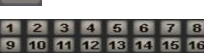
NOTE If you cannot find any colored-mark in the top right corner of the live screen mode, then the system is not set to record any image. Check the recording schedule or camera in the main setup menu.

To show the menu bar, move the mouse's cursor to the bottom of the screen. The menu bar will be displayed.

To hide the menu bar, move the mouse's cursor away from the menu bar.

Right-click the USB mouse to access the pop up menu.

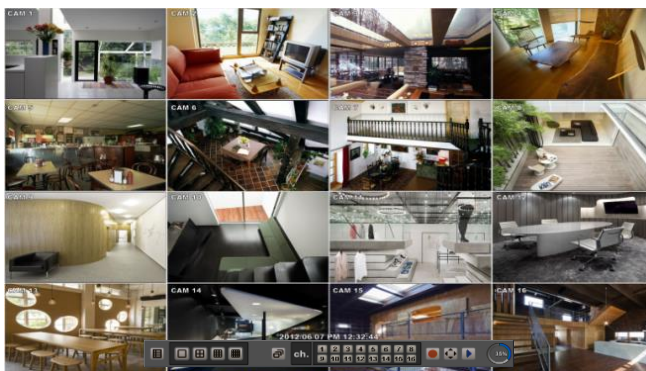| **Menu Bar**	
▦	Menu button. When pressed, System Setup, Search, Backup, Logout will appear.
▢ ⊞ ⊞ ▦	Screen split options- Select from single channel, 4 channel, 9 channel, or 16 channel display.
⊟	Sequence- if pressed, the system will start displaying all the channels in sequence mode. To stop, press the button again, or right click on the screen and select 'SEQUENCE'
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	CH. Buttons- view a specifc channel in full screen mode.
⬤	Instant (emergency) recording- The system will record video based on the panic record settings.
✥	PTZ mode- Control any supported PTZ cameras by moving the mouse pointer.
▶	Go to Instant playback.
60%	HDD usage indicator- Indicates the percentage of your HDD being used. If it shows 60%, then 60% of HDD space has been used.

3.3.4 Pop-up Menu

Right clicking anywhere on the screen will open up the pop up sub-menu as shown below.
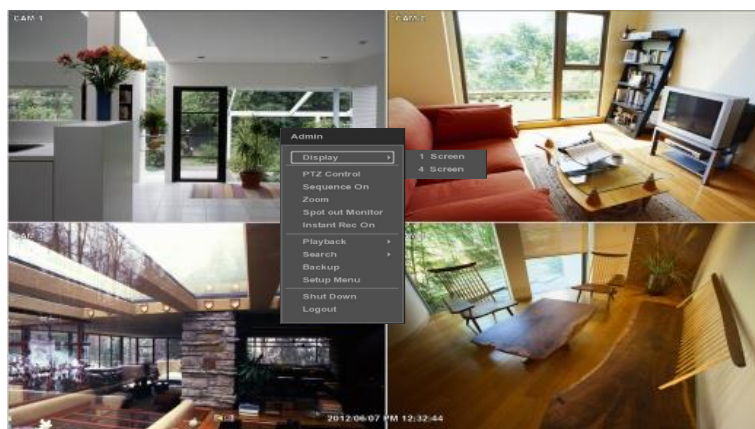
DISPLAY- Select the display split from the available options:
- 1 Screen- Single channel. Automatically displays CH1. If 1 Screen is selected again, next chronological channel will be displayed.
- 4 Screen- Quad mode. Automatically displays channels 1~4. If 4 Screen is selected again, the next chronological 4 channels (5~8) will be displayed.
- 9 Screen- Automatically displayes channels 1~9. If 9 Screen is selected again, the next cohoronological channels (10~16+1~2) will be displayed.
- 16 Screen- Displays all 16 channels (available only in 16 channel models)

PTZ CONTROL- Open the DVR's PTZ control. See section 3.3 PTZ for more information.

SEQUENCE On/Off- when selected, **SEQ** icon will appear on the bottom right corner of the screen, and the display screen will be sequentially changed.
Please note, option will be disabled if display area is in Max channel mode.

Spot out Monitor- Enter Spot out Monitor Control Mode.

ZOOM- Enables/ disables digital zoom function with x2, x4, x8 button. When enabled, **ZOOM** icon will appear and zoomed area will be displayed on the bottom right corner. The Zoom will automatically focus on the center of the camera's display. To adjust it, go to the small zoom display at the bottom of the camera display and move the yellow frame to the area you would like to view. To move the yellow frame, use your mouse to drag the lines to the desired location. To go back to live display mode, right-click on the screen and select "ZOOM" again. This feature is available in single channel mode only.

INSTANT REC On/Off- Start/ Stop Panic Recording.

PLAYBACK- Select playback option:
- 10, 15, 30, 60 seconds- start playback from the selected number of seconds ago.
- 2, 3, 5, minutes- start playback from the selected number of minutes ago.
- Open Playback Mode-   automatically go to instant playback.

SEARCH- Select video search options:
- Date/ Time- open calendar search.
- First/ Last Data- Go to the first or last recorded data.
- System/ Event Log- open log search window.
- Bookmarks- open bookmark search.

Backup - Users can archive a video clip recorded for a certain period on a selected channel.

SETUP- open the DVR's main menu.

SHUT DOWN- Power off the DVR.

LOGOUT- User logout.

As the Admin user, you can seup up multiple users with different levels of authorization. If a certain user is not allowed to view a certain camera in live or playback, then no image will appear on the display screen. To create, delete, or modify users, go to the main menu and select system settings. See section 4.1.2 User for more information.

3.4 PTZ Operation

Before starting PTZ control, please make sure the camera you wish to control is a supported PTZ camera and is installed and configured properly. See section 4.2.6 PTZ for setup information. To enter PTZ mode, follow one of the options below:

1. Right-click on the screen and select PTZ Control.

2. Click on the joystick button ⬥ in the menu bar located on the bottom of the main screen.

3. Press the PTZ button on the front key.(enable front key model)

4. Also to use UTC click the ▤ button, the camera menu display on the full screen. And user move button menu by up/down, left/right button change the setting. Enter is select menu.
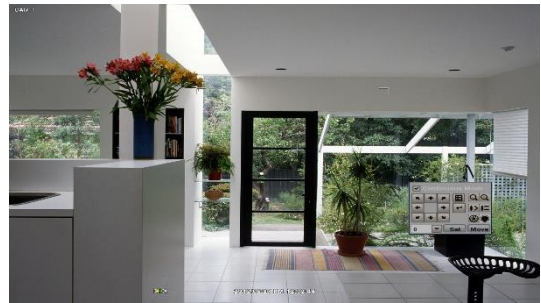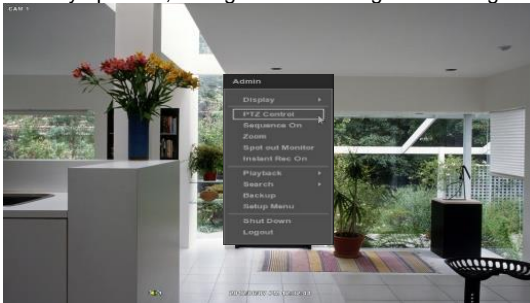
In PTZ mode, user can control PTZ operation with the USB mouse.

While pressing the left button of the mouse, drag the mouse pointer up/down, left/right to move pan/tilt position of the camera accordingly. The further away from the center of the screen you move the mouse, faster will the camera move.

> **NOTE**   Full PTZ functions are available by using USB mouse, or keyboard controller and are available only on supported PTZ cameras.

For focus control in PTZ mode, right-click to get the pop-up menu as shown below. Default mode is to "ZOOM".

The user can also select the preset button to start/ stop a preset, or exit PTZ screen model.
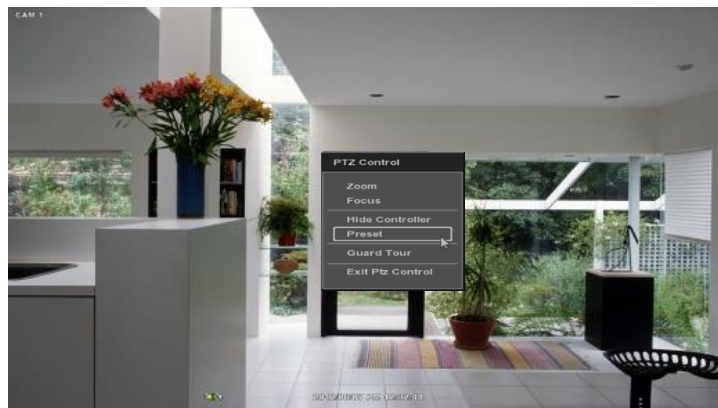
> **NOTE**   User will see numeric pad to select "Preset" number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the number of available presets may vary by camera make and model.

User can automatically switch PTZ camera positions according to defined presets by using the GUARD TOUR function. The connected PTZ camera must support touring functions. "GUARD TOUR" on the pop-up menu can be enabled only in full screen mode. See 4.2.6 PTZ for instructions on how to setup the GUARD TOUR.

CAUTION	Depending on PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval setting to a value that allows for the cameras to finish its Pan & Tilt.

3.5 Spot out Monitor

Click the right button on the mouse and select the Spot out MONITOR in order to enter call monitor control mode. The numeric panel will pop up at the center of the screen.

Click the specific channel button on the numeric panel to display full screen mode out of assigned spot out channels.

▪ Press the close button on the bottom of the numeric panel. It will go back to the previously programmed spot monitor mode.

NOTE	- A spot out monitor displays another spot out monitor's video in full screen through the function, spot out monitor. - In spot sequence setting mode, if spot out monitor is selected, spot sequence stops and selected channel pops up. - While call monitor runs, if a channel event happens, spot out monitor stops and the event pops up.

3.6 Playback of Recorded Video

To play a recorded video, press the Play button from the menu bar, or the Instant

The recorded files can be seen in rewind or fast forward modes. Press the rewind and fast-forward buttons to control the playback's speed (x 2, x4, x8, x16, x32 real time).

User can click playback ▶ to automatically play the latest video clip in rewind mode.
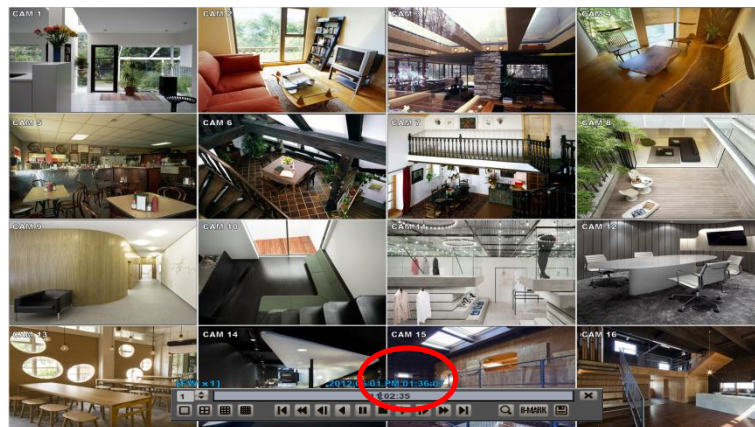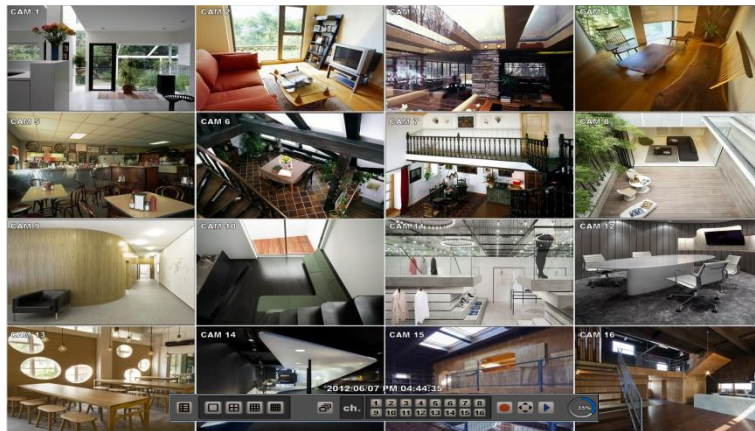
In playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.

Button	Function
	Jump to first data. If recording is set to motion, system will jump to previous recorded motion video.
	Fast rewind
	Frame-by-Frame Rewind
	Play video in rewind
	Pause video
	Exit Playback to Live mode.
	Playback video
	Frame-by Frame playback
	Fast playback
	Jump to last data. If recording is set to motion, system will jump to the next recorded motion video.
	Go to calendar search
B-MARK	Bookmark Video
	Backup
	Exit Playback to Live mode.

NOTE During playback, the DVR supports the following playback speed:
30fps in single channel view.
15fps in multi-channel view.

3.7 Quick Backup during Playback

User can easily archive video while viewing the video playback. See section **4.5 Export** for more information on manual backup from the setup menu.

1. In live mode, right-click anywhere on the screen and select 'Backup' to open the backup menu.

2. In playback mode, press the 'Backup' button on the popup menu bar to open the backup menu.
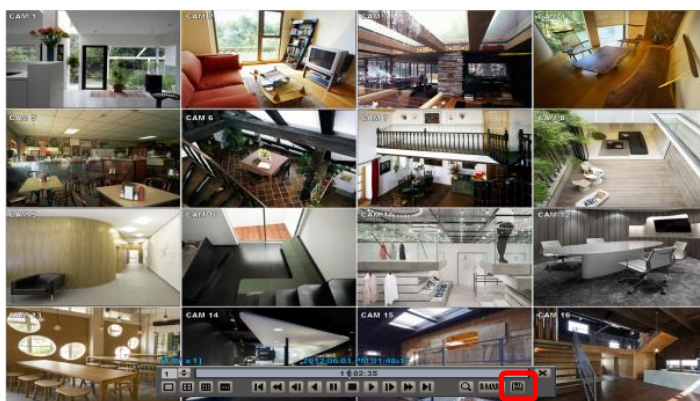
3. Adjust the following options:

    a. Select the channels to be included in the backup file.

    b. Adjust the start and end time of the backup file.

    c. Select to include the Backup Viewer with the archived file.

    d. Press the 'Calculate' button to see the expected size of the backup file.

    e. Press the 'Scan' button next to the device to find the USB drive for backup.

    f. Edit the file name and add a protection password if needed.

    g. Press 'Start' to start the backup process. A progress bar will appear on the screen.
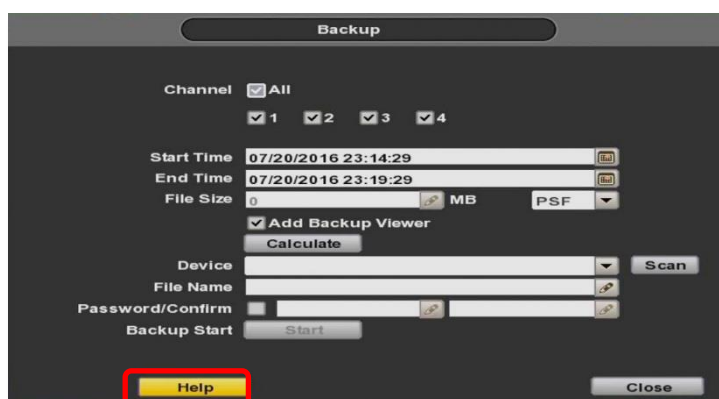
NOTE   `Help`   The "HELP" button offers interactive help, recommended settings and step-by-step instructions on how to correctly setup main functions in the DVR.

3.8 Search Recording Image

3.8.1 Date/Time Search

To search your recorded data by date/ time, follow one of the options below:

1. Click the quick Menu button at the left side of the menu bar, select Search → Date/ Time

2. Right-click anywhere on the screen, select Search → Date/ Time
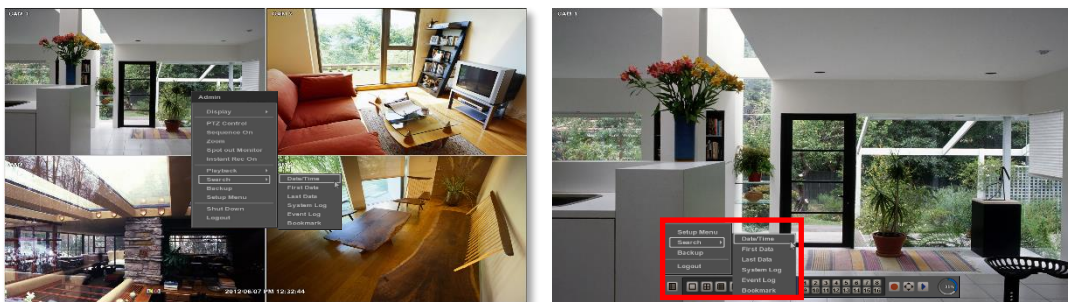
The calendar window will appear, Days with recorded data available will be indicated in RED.

1. Select from the calendar the date. If necessary, use the manual year and month options on the left side to adjust the calendar view.

2. The 'Intelli-Search Bar' at the bottom of the window will display hours when recorde data is availablein color code. Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see "the Search time" clock is also changing. When user decides the Search time, click Play to see the selected video data.
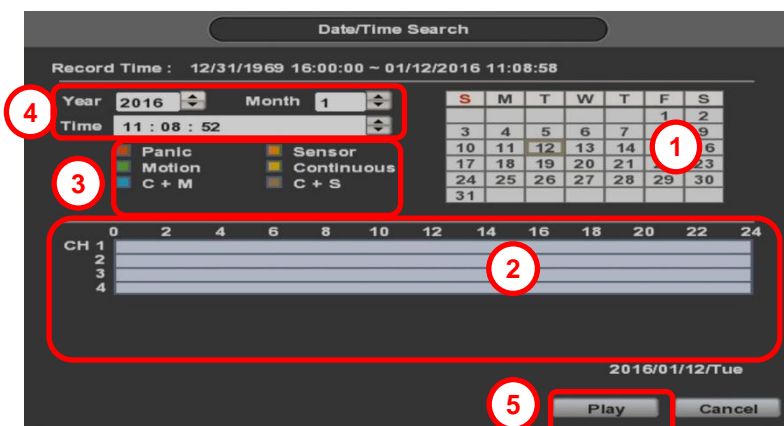
3. The recording mode will be distinguished in the time bar according to color:

Color	Recording Mode
No Color	Camera has no recorded data for the selected time.
Red	Panic recording triggered by the user.
Yellow	Continuous recording.
Green	The system records only when motion is detected
Blue	"Continuous" + "Motion"-The system records continuously and will switch to motion recording configuration if motion is detected. The system will also send a "motion event" message to the Pivot Client Software. If "MOTION ALARM" is disabled in the "DEVICE" menu, and recording is set to "CONT + MOT", the system will record with continuous recording even when motion is detected in motion area.
Orange	The system records when a sensor is triggered and only during the dwell time as set in "SENSOR" of the "DEVICE" menu. If "SENSOR" is disabled under the "DEVICE" menu, and recording schedule is set to "SENSOR", the system will not record even though a sensor is triggered.
Brown	"Continuous" + "Sensor"- The system records continuously and will switch sensor recording if a sensor is triggered during dwell time. The system will also send a "sensor event" message to the Pivot Client

	Software over the network. If "SENSOR" is disabled in the "DEVICE" menu, and recording mode is set to "CONT + SENS", the system will record with continuous recording even when a sensor is triggered.

CAUTION   **Dark Blue Color**
The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

---

4. To view video from the selected time, follow one of the options below:

   a. Use the manual hour option to view specific hours of the day.

   b. Using the table, click on the hour you would like to view in playback.

5. Press the 'Play' button at the bottom fo the window. The system will display all channels in playback mode, corresponding to the selected date and time.

3.8.2 Event Log

The Event log search allows you to search for a particular event, displaying the search results in a detailed table.

1. To open Event Log Search, perform one of the following options:

   a. Click 🔳 quick menu button, select Search→ Event Log

   b. Right-click anywhere on the screen ans select Search→ Event Log.

2. Select the date you would like to search.

3. Select which events should be included in the log report. Select from: Sensor, Motion, Video Loss, Panic Recording, HDD Full, or All.

4. Press 'Search'. The system will display all search results in the table, starting with the latest events.

5. Use the buttons on the bottom of the window to move between the log report's pages.

6. If necessary, export this log report to a USB memory device in text file format.

   a. Attach a USB memory stick to the USB port

   b. Press "SCAN" to detect the USB stick

   c. Press "EXPORT" to copy the log information to the media.

7. Click ▶ play icon to play back the selected event data.

NOTE   If an alarm or event do not appear in the envent log, check the alarm settings, and connection port at the DVR's rear panel.

3.8.3 System Log

The system log search allows you to search for any changes made to the system, displaying the search results in a detailed table.

1.   To open System Log Search, perform one of the following options:

   a.   Click 🔲 quick menu button, select Search→ System Log

   b.   Right-click anywhere on the screen ans select Search→ System Log.

2.   Select the date you would like to search.

3.   Select which events should be included in the log report. Select from: System, Setup, Network, or All

4.   Press 'Search'. The system will display all search results in the table, starting with the latest events.

5.   Export the log report to a USB memory device in text file format.

   a.   Attach a USB memory stick to the USB port.

   b.   Press "SCAN" to detect the USB stick.

   c.   Press "EXPORT" to copy the log information to the media.

3.8.4 First Data

Go to the first screen of the recorded video. This is the oldest video recorded.

3.8.5 Last Data

Go to the last screen of the recorded video. This is the latest video recorded.

3.8.6 Bookmark

Go Go to the bookmark list to search recorded video in the bookmark list. Users can make their own bookmark list by clicking the B-MARK button during playback. The first 'Bookmark' press will indicate the start time for the bookmarked video. Press the B-MARK button again to end the bookmark and save it. Click the ▶ button next to any bookmark event to playback video.
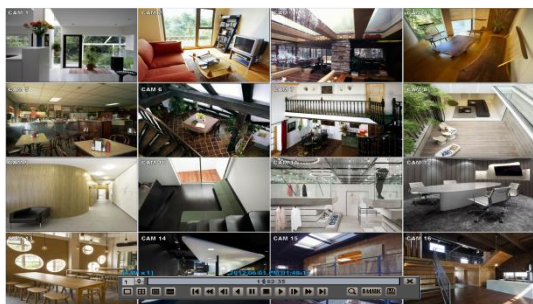
3.9 DST Setting

DST starts at 2:00 local time on 2nd day of March, and ends at 2:00 DST on 1st Sunday of November.

During DST (Daylight Saving Time) period, DVR time clock has to be adjusted according to regional time zone. That is, the DVR time clock will be shifted by one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST finishes.

To make DST setting on the DVR, go to the menu: SYSTEM > SYSTEM INFO and click "DATE/TIME" to get the DST setting window as shown below. User can setup DST "Begin & End" time after checking "USE DST" box.

Since the clock jumps from 2:00 to 3:00, when you go to search mode, you can see there is no data in all channels for one hour due to DST.

When DST ends, there is an hour of overlapped video. The overlapped video will be indicated in a dark blue color on the Intelli-Search Bar during playback mode.
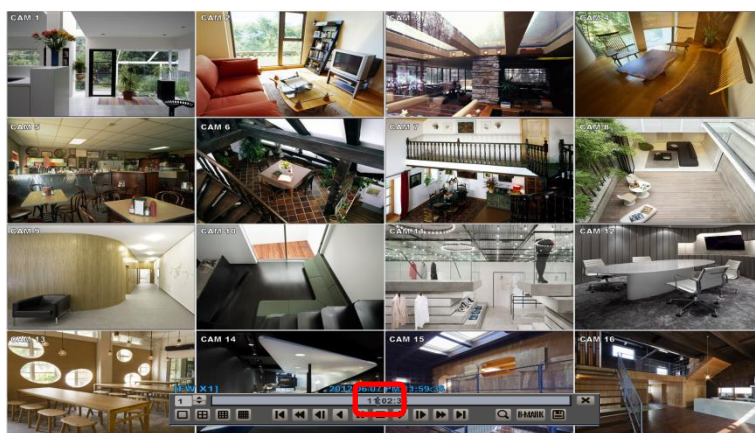
When user click the overlapped period, "Recorded video Selection" message will pop up. Select whether to play DST data or Non-DST data.

Click OK to play DST image.   Click CANCEL to play Non-DST image.
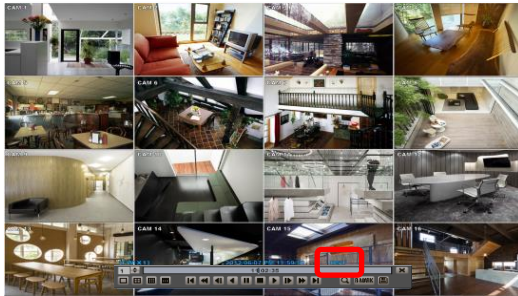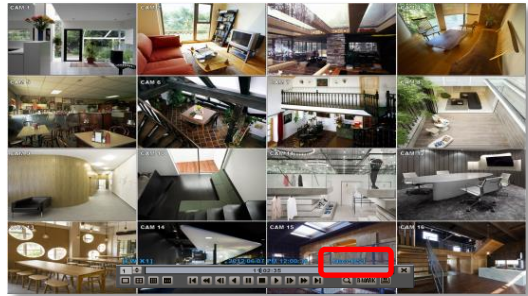
["DST" image is displayed on screen]   ["Non-DST" image is displayed on screen]

3.10 Screen Saver

The Screen Saver features protects the screen and data of the DVR by turning off after a set time of inactivity. To enable the Screen Saver, right-click anywhere on the screen and go to the menu setup: SYSTEM > SYSTEM INFO and click "SCREEN SAVER". Select HD output and set the Waiting Time from the options in the drop-down menu.
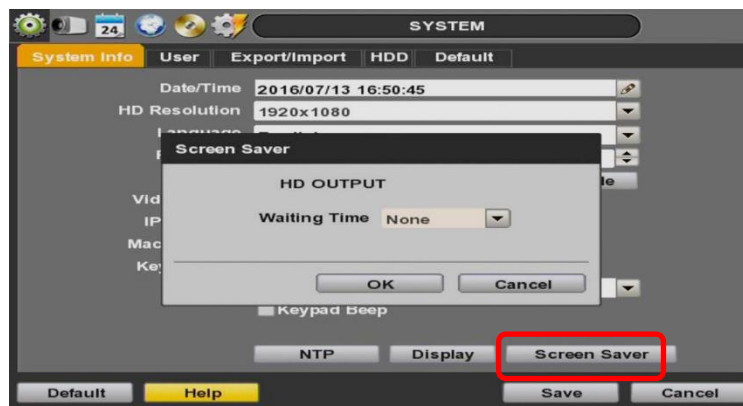
NOTE   The Screen Saver will not work if Waiting Time is set to "NONE" or the HD output box is unchecked. Screen Saver may also be disabled during a firmware upgrade, HDD format, or data backup. The system will continue to record while the monitor is off.

4 SETTING

General setting structure consists of "System", "Device", "Record", "Network", "Backup," and 'Quick Setup'

To open System Log Search, select one of the following options:

1. Click the [icon] button in the quick menu bar and select Setup Menu.
2. Right-click anywhere on the screen and select Setup Menu.

To view the sub-menu categories for each menu option, hover the mouse over the menu option. To enter the setup menu, click on the desired category.

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<BACKUP>

<Q-SETUP>

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	EXPORT/IMPORT
	HDD
	FACTORY DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	UTC/PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
	HEALTH CHECK
BACKUP	BACKUP
Q.SETUP	QUICK SETUP

4.1 System

4.1.1 System Info

The System Info sub-menu includes the following setup options: Date/ Time, HD Resolution, Language, Remote ID, Version & System Upgrade, Video Signal, IP & MAC Addresses, Keyboard Setup, NTP Setup, Display Setup, and Screen Saver Setup.

- **Date/ Time**- Using the available options, manually adjust the date and time, select the display mode for the time and the date, and select the appropriate time zone. If applicable, check the 'USE DST' box. See **3.12 DST Setting** for more information.

- **HD Resolution**- Select the DVR's output resolution. DVRs support the following video resolutions: 1024x768, 1280x1024, 1920x1080, 3840x2160(4K no support 4ch model.)
  User must set the proper resolution according to the monitor resolution

- **Language**- Select the DVR's display language from the availanle in the drop-down menu.

- **Remote ID**- Set the DVR's remote ID, which should be the same as the IR Remote Control (default ID is 1).

- **Firmware Version & upgrade**- when a new version is available use the easy upgrade menu to upgrade your DVR. It is always recommended to maintain your DVR up to date with the latest firmware to guarantee the DVR's proper functionality. To upgrade your system:

  Upgrading system using USB memory stick:

  1. Insert a USB drive with the firmware file formatted by FAT32 in any USB port of DVR (compatible with USB 2.0).

  2. Select 'USB' from the Method drop down options and press the 'Scan' button.

  3. Once the system detects the USB drive, it will display the firmware file under 'Upgrade File Name' and the 'New Ver'.

  4. Click "OK" to confirm.

Upgrading system using FTP server:

1. Select FTP in the drop-down list and type a given IP address in the Host Address . Username and password is "upgrade" (Default).
    *The FTP server address is subject to change without a prior notice.

2. Click 'Check' button then DVR will detect the latest Firmware version from the FTP server. If there is a new firmware, DVR will ask you whether you want to upgrade it or not.

3. Click 'OK' to confirm it and then click 'START' to start upgrading.

CAUTION	It is recommended to format the HDD after firmware upgrades because the data recorded by previous firmware may cause malfunction of DVR. It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance. If necessary, you can return system to its default settings.

-   **Video Signal**- Displays the video input signal to the DVR. This is a default information and will display NTSC or PAL, depending on the signal from the cameras.

-   **IP & MAC Addresses**- This information is necessary when connecting to the DVR via its web viewer or CMS Software. See section **4.4 Network** for more information and setup.

-   **Keyboard setup**- Setup the DVR's ID, baudrate and model to match the information of the keyboard you would like to use. The Keyboard's ID must match the ID set in the DVR.

-   **NTP Setup**- Setup the DVR to automatically sync with a Network Time Protocol. There are two types of TIME SYNC MODE:

    o   Client Mode- The operating DVR is set as the client DVR. Enter the IP address or URL of another DVR or Central Monitoring Software (CMS), as a Time Sync Server in "SYNC SERVER". This will cause your DVR to sync its time with a Time Sync Server in the set interval time.

-   **Display Options**- Setup OSD information in live and playback modes, transparency, spot output, sequence dwell time, spot-out dwell time, and pop-up camera
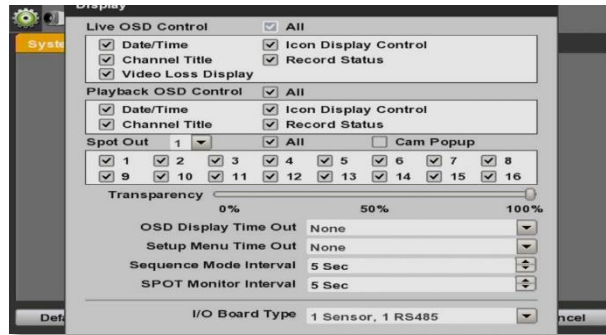
- OSD:

    - Select which information to display in the OSD on each channel in **Live**.

    - Select which information to display in the OSD on each channel in **Playback**.

- Set the OSD's transparency level. The higher the number, the more transparent the text will appear.

- Setup a dwell time for the OSD text, after which, the OSD will disappear.

- Setup a dwell time for the Setup Menu, after which, the Menu will disappear.

- Set sequence dwell time- Setup how long each channel will be displayed in Sequence mode, before switching to the next view.

- **Screen Saver Setup**- See section 3.11 Screen Saver for more information.

4.1.2 User

Master user is always the Admin with factory default of No password. This user cannot be deleted. It is recommended to change the Admin's password for extra security. The admin user can designate a new user with different permission levels by functions, menu access and live & playback.

To add a new user, go to the System Setup Menu, and select System > User.

To add a new user, press the 'Add' button.

To edit an existing user, press the 'Edit' button.

To delete an existing user, check the box next to the user and press the 'Delete' button.

User Add/ Edit Screen:

- Authority/ User – enter the user's name on the right side. Use the pencil button to open the on screen keyboard. Enter the password for the username. This is the login password to the DVR.

- Function - restrict a user's access to functions such as search, PTZ control, backup, and playback.

- Menu Access- restrict a user's access the DVR's system, device, record, network, backup, and quick setup menu options.

- Live & Playback- restrict a user's viewing of deselected channels. If a channel is deselected, user will not be able to view live or playback for that certain camera channel.


NOTE   Total number of users including administrator is 9 users.

To setup auto login for users, so they do not have to enter their password when logging to the DVR, press the 'Options' button. You can select to allow a user to auto login on DVR boot up, or setup an auto log out. If enabled, the DVR will automatically log out of a user's access after a set time of inactivity.

4.1.3 Export/Import

Copy the system configuration values from this DVR to save for your records or copy to another DVR. "Export" allows you to copy the settings to a USB memory device. "Import" allows you to apply previously saved settings from a USB device and override the current DVR settings. You can select to import or export specific settings, or copy the DVR's entire setup options. During import, make sure the firmware version of the source DVR is the same as the destination DVR.
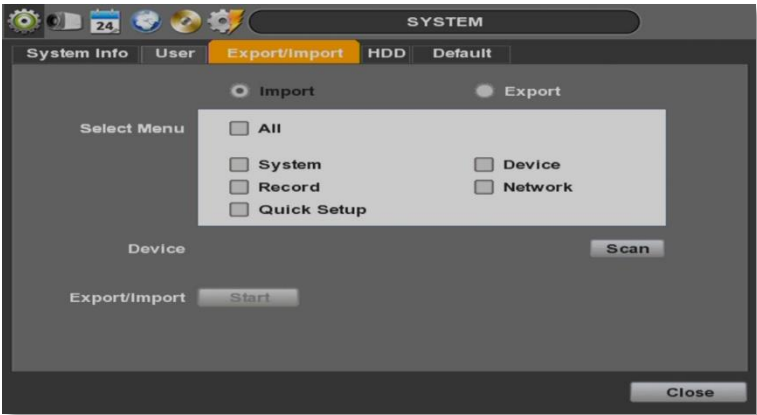
4.1.4 HDD

HDD sub-menu displays all relevant information regarding all HDDs installed in the DVR. Press 'Check' next to the HDD's name to view that HDD's health status. The system will display:

Model: Make and model of the Hard Drive.
Size: Total HDD size, in KB.
Temperature: HDD temperature. Normal operating temperatures is between 30° and 45°C degrees.
Live Time: Remaining estimated hours of operation.
Bad Sector: any unusable areas in the HDD that may affect recording.

Select "Overwrite" or "Rec Stop" when HDD is full. If 'Overwrite' is selected, new video will be recorded OVER older data when HDD is full. If 'Rec Stop' is selected, all recording will stop when the HDD is full.

To format the HDD, check the box next to the HDD, and click "HDD Clear"
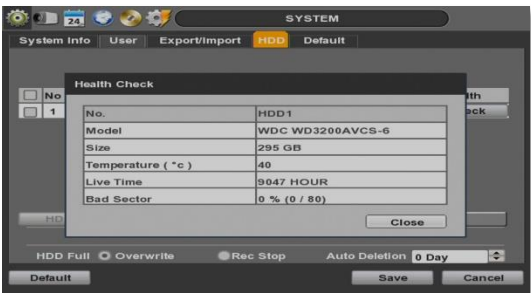
If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system resources and then try to format again.

NOTE   1) Formatting may take 40 sec for 320GB, 1 minutes for 500GB, or 7 minutes for 2TB.
       2) The system always reserves a maximum of 20GB of space in each built-in HDD for archiving effectively.

4.1.5 Factory Default

With an authorized password, you can reset the system back to its factory default configuration. You can select which configurations to reset to default, or select all for an overall factory reset. You can also chose to enable the Quick Startup Wizard after reset. See section **3.2 Quick Startup Wizard** for more information.
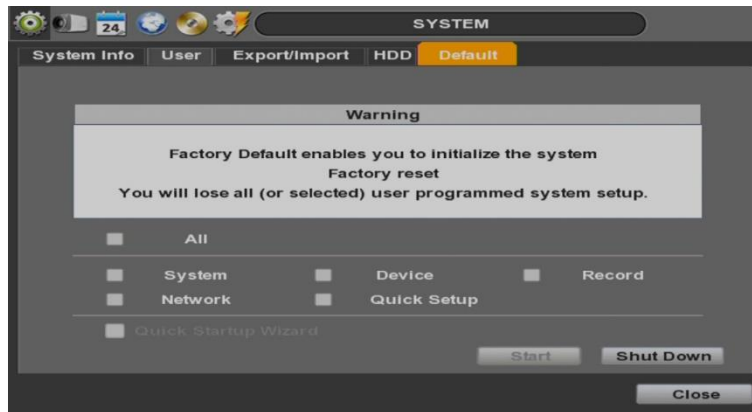
NOTE   All the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.2 Device

There are seven sub menus in the Device menu, including Camera, Audio, Sensor, Motion Alarm, Extra Alarm, and PTZ.

4.2.1 Camera

Users can setup the camera's title, brightness, contrast, color, motion sensitivity, and audio mapping. The motion area setup is the entire camera area. To disable motion detection for parts of the camera's view, uncheck the corresponding boxes, removing the yellow markers.

Audio mapping is Applies a user specified channel to audio connection.

Automatically detect the cameras such as 3M, TVI, HDA(Analog HD) and 960H. (Set Video Type as AUTO)
Most type of camera is automatically apply 3M, TVI, HDA, 960H
TVI : In case of TVI camera disconnect, Please set it manually
HDA : In case of HDA camera disconnect, Please set it manually
CVI : In case of CVI camera, please set 'CVI' manually

NOTE When Auto detection is not working well under improper environment,select type of camera directly on Video Type.

4.2.2 Audio

Users can select the audio input and output during live display and match the audio input to a designated channel. (Please refer to Section 4.3.1 Camera Record).

In addition, users can listen to the audio for both live display and playback mode through the network using Central Management System (CMS), web browser.

4.2.3 Sensor

Use the sensor setup menu to enable and assign sensor and alarm triggers to corresponding cameras. Select the sensor type, enable notifications for each sensor, assign relay action and set the dwell time

- **Type-** OFF, N/O (Normal Open) , N/C (Normal Close) The Sensor.
- **Cam-** Select the associated camera for each sensor connected to the DVR.
- **Notify-** Select how to alert when a sensor is activated or motion is triggered. The system can generate a buzzer sound and/or have a pop-up screen for the camera.

CAUTION   Relay contact can handle up to 24VDC/1A(or 125VAC/0.5A) of other devices. If connected to a circuit that is over 24VDC/1A(or 125VAC/0.5A), the system may experience problems.

- **Preset**- Assign apposition for the camera to move to when a sensor is triggered. (This option requires a PTZ camera. See section **4.2.6 PTZ** for more information).

- **Relay**- OFF/ON- enable or disable relay output when a sensor is activated.

- **Dwell Time**- Set the recording period from the start of sensor activation. During this period, the corresponding camera will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time ends.

NOTE	"Sensor" refers to the alarm connected to the DVR, triggered by a physical sensor input.

NOTE	If the sensor does not operate properly, check the setting of the sensor type (N/O or N/C). The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

NOTE	"Camera pop-up" means that if the DVR Is displaying a multi-channel view, the view will switch to single channel mode when an alarm is triggered.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

An alarm signal is sent via the selected sensor-out channel. To enable, check the box next to each channel, select the notification option (beep and/ or camera popup), select to enable a relay output when motion alarm is triggered, and set the dwell time for recording.

- ▪ **Notify**- Select how to alert when a sensor is activated or motion is triggered. The system can generate a buzzer sound and/or have a pop-up screen for the camera.

- ▪ **Relay**- OFF/ON- enable or disable relay output when a sensor is activated.

- ▪ **Dwell Time**- Set the recording period from the start of sensor activation. During this period, the corresponding camera will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time ends.

- ▪ **Copy Setting**- you can copy the settings from one sensor input to multiple sensors for easy and quick configuration. Choose the sensor you want to copy from at the "From" field. Choose the settings you want to copy by selecting the check box next to each one. Check the checkbox next to the sensor numbers to apply the copy setting(s) to on the "To" box.

NOTE   "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

4.2.5 Extra Alarm

HDD S.M.A.R.T. is triggered when the HDD is about to be out of operation. This alarm is triggered by the HDD, and therefore will not be functional if the HDD does not support HDD S.M.A.R.T notifications.

Users also set the percentage for HDD Usage. For example, when usage is 50% (DVR is 50% full), the DVR will notify by a camera popup or a beep.

You can also setup system notifications for video loss, recording failure, and fan failure.

Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.

4.2.6 UTC/PTZ

1) Connect PTZ

Full control and setup of supported PTZ cameras is available in this menu. For more information on controlling PTZ cameras in live mode, see section **3.3 PTZ**. Use this setup menu to setup a PTZ camera, adjust the camera's zoom, focus and iris (on supported models), adjust the pan, tilt and zoom control speed, or setup presets pan, tour and guard schedules.

Adding a PTZ camera: Once a PTZ camera is properly connected to the DVR using the RS485 ports, go to the PTZ setup menu and adjust the following values:
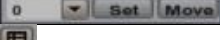
- **Protocol-** Select the proper protocol of the connected PTZ camera from the supported drop down menu options.

  HD-A / HD-TVI : In case of Menu-Enter is works preset 95 or IRIS, the connection is auto detected.

  HD-A(C) : Some of HDA camera which non-detected on the HD-A / HD-TVI, apply this protocol

  HD-TVI(C) : Some of TVI camera which non-detected on the HD-A / HD-TVI, apply this protocol

  HD-CVI(C) : CVI apply this protocol.(To Be Determined)

- **Address-** Set the PTZ driver address of the connected camera. This address must match the PTZ's address.

- **Baud rate-** User can select the baud rate level from 1,200bps up to 115,200bps.

- **Troubleshooting**- if the camera is unresponsive, check the following:

  1. The protocol of the PTZ camera is correct and matches the one selected on the DVR.

  2. The communication settings, including the baud rate, of the PTZ camera are in accordance with the assigned values on the DVR.

  3. The address of the PTZ camera is correct and matches the one selected on the DVR.

  4. The wiring to the PTZ controllers are correct and the cables are intact.

2) PTZ set up

- Controlling a PTZ camera: To check the 'USE PTZ MENU' mode on the UTC/PTZ tab. Once the camera is properly connected and configured, use the following setting options as needed:

- **Zoom, Focus and Iris**- on supported models, use the + and –to adjust the camera's lens.

- **Directional arrows**- use these arrows to move the camera to a desired position or control the camera's OSD menu (on supported models).

- **Pan, Tilt and Zoom speed**- Use the bars for each option to adjust the control speed. The higher the number, the more sensitive the camera will be to control commands from the DVR, and move faster.

PTZ Control mode

Continuous Mode	If check the Continuous, The command is entered in quick succession
(arrow pad)	Control any supported PTZ cameras by moving the mouse pointer.
I>I=	Focus
(iris icons)	Iris
0 ▼ Set Move	Select the preset number and 'Set' button, 'Move' button is move to setting area
(menu icon)	Activate the PTZ menu
↵	Enter
Q Q	Zoom In/Out

1) UTC set up

UTC is remotely set to camera OSD menu in the DVR. Select the proper protocol of the connected camera. Check the 'USE PTZ MENU' mode, set the menu and adjust as below.

▪ Menu : Activate the camera OSD menu for setup and adjust

▪ Up/Down arrow : move to categories

▪ Right/Left arrow : Adjust the camera settings

▪ Enter : Select the camera settings or enter the subcategories

2) To use UTC in the Live Mode

Select the single channel which adjust the camera set and change the PTZ Control mode.
Click the right button of mouse and select PTZ menu for activating UTC

click the (menu icon) button, the camera menu display on the full screen. And user move button menu by up/down, left/right button change the setting. Enter is select menu.

4.3 Record

Users can configure various record settings such as Continuous, Event, and Panic for each individual channel in the Record Setup menu

4.3.1 Record Setup

1.   1. Locate Go to Record Setup. If Quick Setup is selected, record setup will be disabled. To enable, go to Setup Menu > Quick Setup and disable the 'Use Quick Setup' option.

2.   Choose the desired resolution, frame rate, quality and recording type for continuous recording.

3.   Choose the desired resolution, frame rate, quality and recording type for Event recording.

4.   Configure each channel separately, or use the 'Copy Settings' button to apply one channel's settings to multiple channels.

   a.   Choose the camera you want to copy from at the "From" field.

   b.   Choose the settings you want to copy by selecting the check box next to each one.

   c.   Check the checkbox next to the cameras to apply the copied setting(s) to on the "To" box.

NOTE   **2nd Stream- S**etting the 2nd stream resolution.

4.3.3 Panic Record

Configure Panic Record settings. These settings are when emergency or panic recording is enabled by a user. To start

emergency recording during live view, click the [icon] icon from the menu bar at the bottom of the screen. It is highly recommended to use the maximum resolution, FPS, and quality for this recording type.

Panic Active

To prevent involuntary panic recording such as press the recoding button on the remote, this feature can be enabled/disabled through this check box.

4.3.4 Schedule

Setup a recording schedule by applying a multiple recording modes to each camera according to date and time.

1. Select a channel you want to setup be pressing the channel number. You can also select the 'All' button to apply the recording schedule to all the channels.

2. Select a recording mode from the available options by checking the box next to it.

3. Click on the corresponding date and time boxes to enable recording. You can also click-and-drag to select multiple time boxes. Selected boxes will appear with the color associated with the selected recording mode.

Repeat steps 2-3 as needed to add multiple recording modes to different parts of the schedule. Press 'Save' to save all changes.

4.3.5 Holiday

Setup a specific day as a holiday to assign it different recording schedules.

1. Go to the 'Holiday' tab.

2. Select a day from the calendar by clicking on it.

3. Select the repeating options. Select to repeat this holiday settings for the same day every year, or for the same day of the week of that month.

All days selected as holidays in the holiday setup page will have the recording settings according to the ones assigned in the schedule setup page.
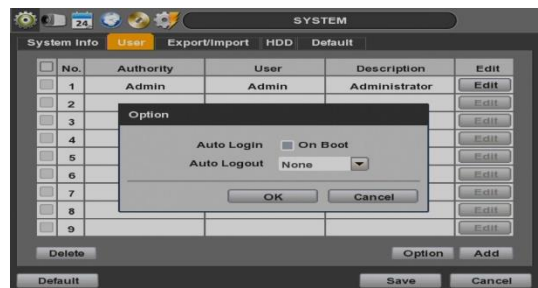
4.4 Network

Use the Network Setup page to configure the DVR's network settings (for remote connections), DDNS address, and e-mail and software notifications and setup the DVR's true health check options.

4.4.1 Network

- **Network Type**- Select network connect type. Select either Static IP or DHCP for dynamic IP.

NOTE   For proper network setup and configuration of the DVR, please contact your Network Administrator for more information.

If DHCP is selected, the DVR will automatically configure the network settings according to the current network requirements. If DHCP is selected, click 'IP DETECT' button to detect automatically all the network settings.
If Static IP is selected, manually enter all necessary network settings. For proper configuration, it is recommended to assign the DVR a DHCP address and let it auto discover all the proper network settings, and then change the Network Type back to Static IP and save the changes.

- **IP Address**- displays the DVR's IP address. If DHCP is selected, the IP address will automatically adjust to match the network's requirements. You can also manually change the IP address as needed.

- **Subnet Mask**- Subnet Mask address classifies the system's subnet. Standard address is 255.255.255.0.

- **Gateway**- This is the IP address of the router or gateway server. It is required when connecting to the DVR through the external router over the internet (from another network). For more information, consult your network administrator or your internet provider.

- **DNS Server 1 & 2**- Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS).

- **Network Port**- Enter the port number to use when connecting locally or remotely, or via the free mobile app. Default port is 80.

- ▪ **Bandwidth Limit**- you can limit the Mbps used by the DVR. This is recommended for networks with limited bandwidth. Contact your network administrator for more information.

- ▪ **UPnP (Universal Plug and Play)** - UPnP is a plug-and-play feature that allows the DVR to be automatically discovered by a PC on the same network. To locate the DVR, go to "My Network" on your PC. The computer will scan your network for all supported devices. The first five characters of the file name of a detected DVR represent the model number, followed by the DVR's IP address

DVR-04   DVR-05   DVR -06

Once the PC discovered the DVR, double click on the icon to open the DVR's web client. Enter your User ID and Password to login and click 'Connect' to connect. See section **5. Web Surveillance** for more information.
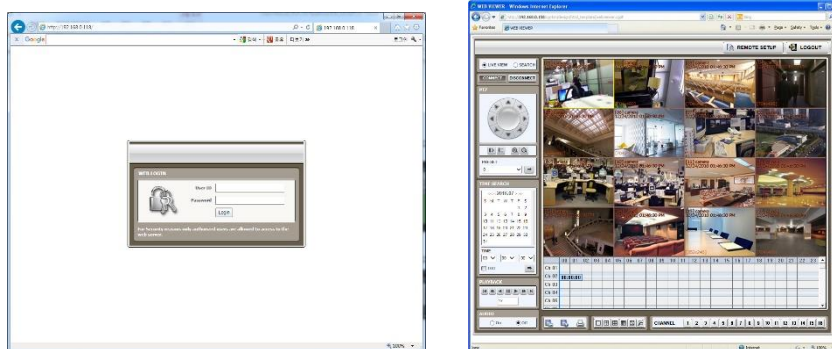
- ▪ **Auto Private IP Setup (NAT Traversal) -** Automatically setup a router if you want to connect to the DVR remotely over the internet. The router will need to be setup to support communication to the DVR from an external network by opening the corresponding ports. Settings need to be done individually for each DVR in the network.
The router must support UPnP NAT Traversal for the function to work. Check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself. Contact your network administrator for more information.

NOTE   The DVR transfers video at real-time over the network even if no recording options are setup.

4.4.2 DDNS

This allows you to assign the DVR a URL address rather than a long complicated IP Address.

This simplified the connection process to the DVR. To setup DDNS:

- Check the box "Use DDNS" to enable registration.

- **DDNS Server**- select an appropriate DDNS server from the available options. joinip2.net is DDNS serve service. You may also select dyndns if you have a paid account.

- **TCP/IP Port**- this by default is set to port 80. Some networks have that port disabled. Contact your network administrator for more information.

- **Host Name**- assign the DVR a unique name. This will be the unique identifying part of the URL associated with your DVR.

- **ID and Password**- If necessary, assign an additional username and password to access the DDNS address.

- Press the 'Request' button. The system will check to make sure the hostname is available. If the name is available and registration is completed, 'Success' will appear at the bottom of the screen.
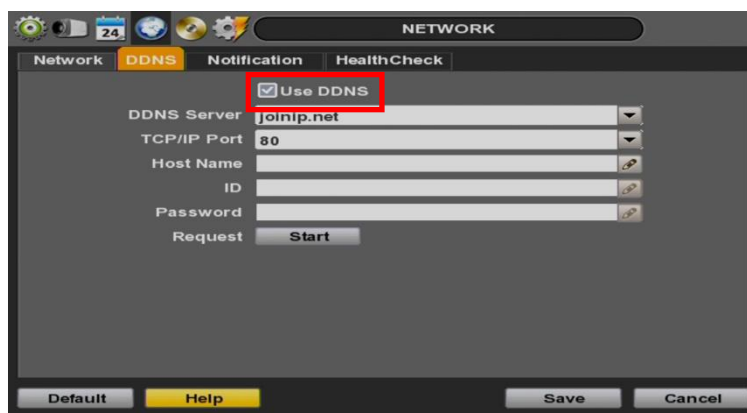
| NOTE | The standard DDNS domain name is joinip.net, and users can use joinip2.net or dyndns.com by drop-down list. |

4.4.3 Notification

On this setup menu, you can setup the DVR to send event notifications to a remote software or an e-mail address.

- Notifications Setup- the DVR's outbound notifications messenger needs to be setup in order to send notifications.

    1. **DVR Name**- This is the name that will appear in the notification's sender information. Make sure it is associated with the DVR for easy identification.

    2. **SMTP Server**- Enter the server information associated with the sender's email account.

    3. **Port**- Enter notifications port info. Consult your network administrator for more information

    4. **Username and password**- These are the username and password for the sender's e-mail information.

    5. **From**- This is the identification for the e-mail sent from the DVR. This should be the sending e-mail account.

    6. **Interval**- setup an interval between every notification sent from the DVR. The DVR will then send one notification, and wait the set interval time before sending another notification, even if the same event is occurring during that time.

    7. **User SSL**- Check this option to use a Secure Socket Layer (encrypted) option.

    8. **AVI Video Clip**- Check the box to include a short AVI video clip of the event with the notification
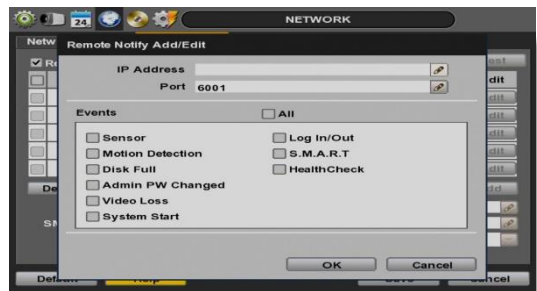
- **Push Setup**

Push notification setting
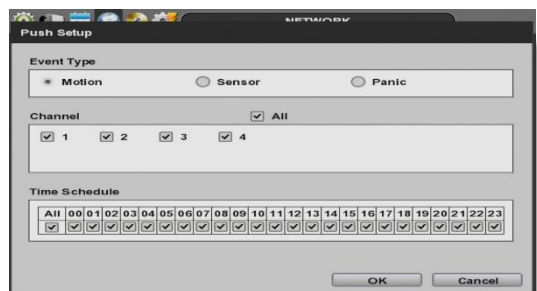
1. Check to "Remote Notify" and click "Push Setup" button

2. Check "Event Type", "Channel", "Time Schedule" for notification to Mobile app and CMS.

- Remote Notify- The system can send event notification to an Advanced Client Software over the network.

    1. To enable, check the box next to 'Remote Notify'.

    2. Press the 'Add' button to add a notification rule.

    3. Enter the IP Address of the PC running the receiving client software and the port information. Additional setup in the router may be needed so it is recommended to consult your network administrator.

    4. Chose the alarm types that will trigger a notification. Select the options by checking the box next to each event type.

- E-mail Notify- The system can send event notification to an E-mail address.

    1. To enable, check the box next to 'E-mail Notify'

    2. Press the 'Add' button to add a notification rule.

    3. Enter the receiving E-mail Address or phone number.

    4. Chose the alarm types that will trigger a notification. Select the options by checking the box next to each event type.

    5. Select what event information to include in the notification.

    6. For text messages, select the length of the message.

NOTE	The system will not send alarm messages or email notification upon motion alarm or sensor unless the recording schedule is set to record according to that event. For example, if user sets "Continuous" only for "Schedule Setup" of the "RECORD" menu and marks the "All" checkbox in "REMOTE NOTIFY", then the system will not send alarm messages. In this case, user has to set "C + M", "MOTION", "SENSOR" or "C+ S" for REMOTE NOTIFY or E-Mail NOTIFY to function properly.

4.4.4 Health Check

The DVR offers a true DVR health monitoring, with pop-up messages and e-mail notification on video loss, recording failure, and storage failure.

To setup:

1. Check the box next to "Enable Health Check"

2. Check the box next to the conditions you would like to be notified on.

3. Set the occurrence intervals.(For Example: when video loss occurs more than 1 time a minute)

4. Select whether to receive a popup message when conditions are met.

5. Go to Network→ Notifications.

6. Under e-mail notifications, make sure the Health Check option is enabled.

When any condition occurs beyond the set intervals, the system will display a popup alert and send an e-mail notification.

4.5 Backup

4.5.1 Backup

Archive video from the DVR's files to an external storage device. You can also backup video using the "Quick Backup" during playback. See section **3.7 Quick Backup during Playback** for more information.

1. Connect USB drive (USB HDD, USB-CD/DVD) with sufficient storage to the DVR and press 'Scan'. Backup device should be a well-known major brand USB thumb drives formatted by FAT/FAT32 for proper backup.

2. Select which channels to include in the backup file.

3. Set the start and end time to backup.

4. Select to include the backup player on the USB or not.

5. Press 'Calculate'. The system will display estimated necessary storage space for the set start and end time. If necessary, adjust the times to adjust the file size.

6. You can also limit the backup file according to the file size.

7. Edit the file name and if necessary, add a password to play the backup file.

8. Press 'Start' to initiate the backup process. Data files are in PSF format in the folder.

NOTE   Backup device shall be a well-known major brand of USB thumb drives formatted by FAT/FAT32 for proper backup. Please check the USB format type on the File system. It must be set the FAT32
If user need to high-capacity memory format, Please use the utility such as 'USB disk storage format tool' or 'FAT 32 Formatter'

4.5.2 Backup Video Retrieve

If backup player was added to the backup file:

1. Access the backup USB device and select the "Player Launcher.exe" file.

2. Press 'Open'.

3. Select the backup files you want to view.

You can print, capture, zoom in and out, or make an ASF file, from the backup player's menu.

NOTE   You may also playback backup videos using the Central Management System.

4.6 Quick Setup

Quick Setup simplifies recording configuration by allowing the user to set all cameras to record according to how many days of data you want, or by resolution.

If the 'Use Quick Setup' box is checked, all recording options under the Record menu will be disabled.

▪   Quick Recording Setup according to days of storage- You can select how many days of recorded storage you want to have. Based on the DVR's internal storage, the system will automatically setup the recommended recording resolution, frame rate and video quality to match those settings.

▪   Quick Recording Setup- You can select to set all channels of the DVR to record at a specific resolution, frame rate and quality, regardless of events. Manually enter the options for each of the Recording Settings. Total recorded days based on those selections will appear below the settings.

NOTE   After the user marks "Use Quick Setup" to define settings, the system will ignore all other configurations set by full menus.

5 WEB SURVEILLANCE

The DVR has a built-in web server.
Using an ordinary web-browser over a network, users can always stay connected to the system for live monitoring, playback, or remote configuration without installing any remote client software.

5.1 Web Login

In order to connect to the DVR's web client, the DVR's network settings and ports in the router must be properly setup. See section **4.4 Network** and contact your network administrator for more information. See the Appendix for information on network setup for external connection.

After allowing the download of the Active-X file (see section **5.3 Web Monitoring**), enter the username and password to access the DVR. The DVR's default user ID and password are "admin" and No password.

NOTE   Web ACS require to install Active X, Please use only IE
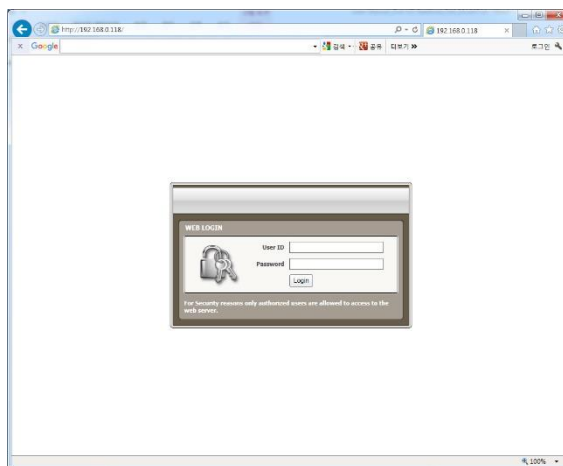
It is recommended to use an Internet Explorer web page.

Then, simply enter the DVR's IP address or DDNS address in the address bar and click on the ▭ on the tool bar of the web viewer.

If you are running Internet Explorer 8 or higher, make sure the DVR's address is added to the compatibility list.

5.2 Web Configuration

The DVR can be remotely configured using the web client. This option is available only when connecting to the DVR remotely using the 'admin' user.

To enter the DVR's remote setup, press the 'Remote Setup' button on the top right side of the screen. The menu options will be identical to those available on the DVR itself. See **4. Settings** for more information

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
QUICK SETUP	QUICK SETUP

After logging in with the right ID and password, users can make various configuration changes in the Web Configuration window seen below. This Web Configuration menu is only available to the "admin" account.

[System]

[Device]

[Record]   **[Network]**

[Quick Setup]

NOTE   This web GUI screen is directly supported from the built-in web server in the DVR, regardless of Internet connection.

5.3 Web monitoring

5.3.1 ActiveX Installation

The first time you access your DVR via the Web viewer, you will be asked to install an Active-X file before monitoring live video. Please follow the installation process to complete the Active-X installation. Without it, you will not be able to view video from the DVR.

NOTE   Web ACS require to install Active X, Please use only IE
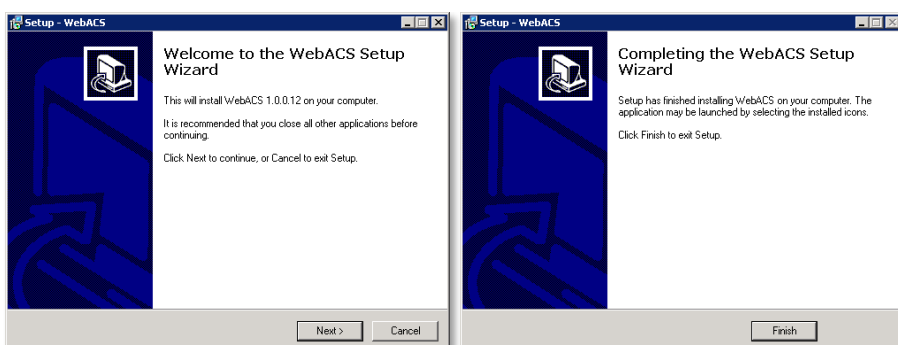
[Web Active X Install]

Once the ActiveX files have been properly installed, and you login to the DVR using the proper username and password, you will access the web client page. To connect to the DVR, select the viewing mode (Live/ Playback) and click "Connect" on the top left corner of the screen.
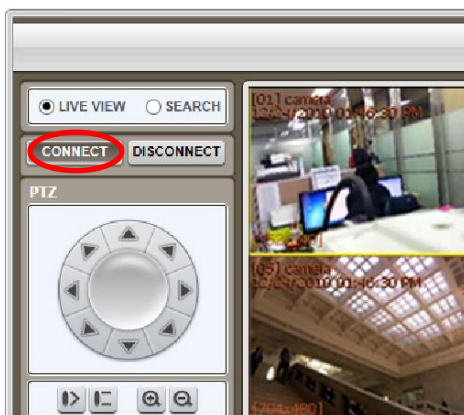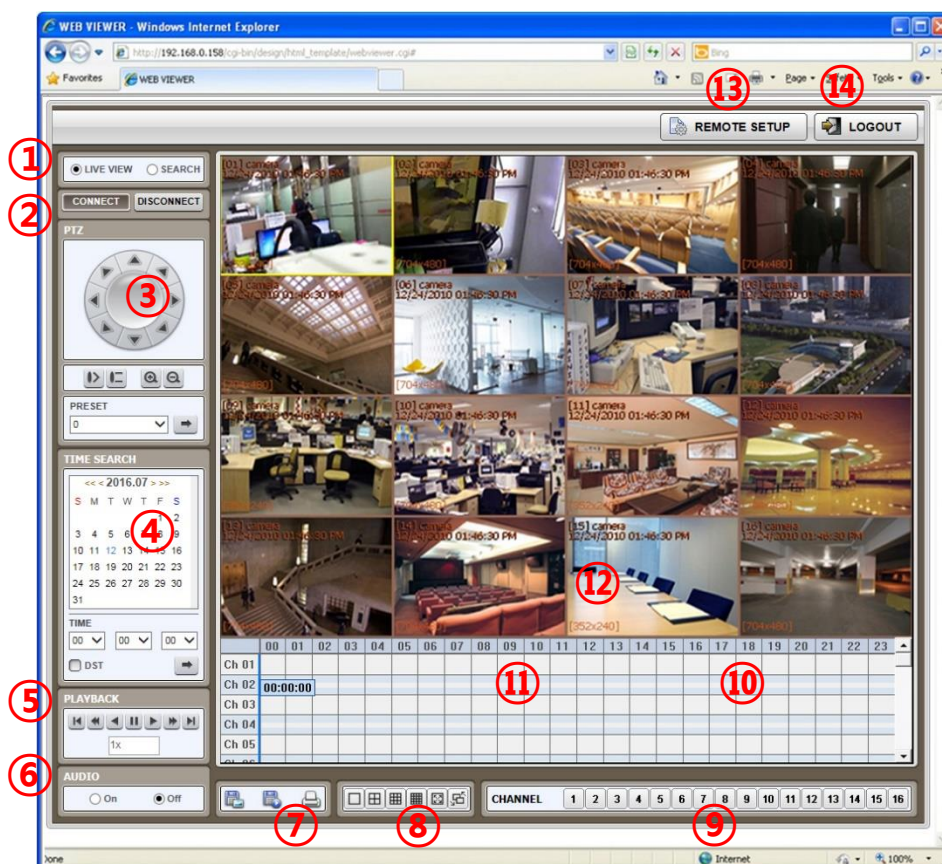
No.	Title	Function
1	Connection Mode	View the DVR in Live or Playback Mode.
2	Connection Option	Connect or Disconnect from the DVR. High quality(Main Stream) or low quality(Second Stream)
3	PTZ	PTZ control options, including virtual direction arrows, zoom, focus, and preset management.
4	Calendar	Date & time search.
5	Playback Controllers	First data, fast rewind speed, play rewind, pause, play, fast forward speed, and last data.
6	Audio	Enable/ disable audio.
7	Export Options	Export an image, video, or print a still image with notes of a selected channel.
8	Display Options	Single channel, 4-channel, 9- channel or 16-channel viewing mode.
9	Channel Selection	Select a specific channel to view in single channel mode.
10	Time bar	In playback mode, indicates available recorded video for each channel for the 24 hours of the selected day.
11	Time indicator	Use the time line indicator to update playback video.
12	Main Display Area	View live or playback from the DVR.
13	Remote Setup	Remote DVR setup options (See **5.2 Web Configuration**). Available for admin users only.
14	Logout	Exit connection from the DVR.

5.3.1 Web Client Operation

User can monitor live video in 1, 4, 9 or 16 screen modes. If user wants to see single channel in full screen, user can double-click on the left mouse button when the cursor is positioned on the live video screen. User can change to single mode by clicking the mode icon located at the bottom left.
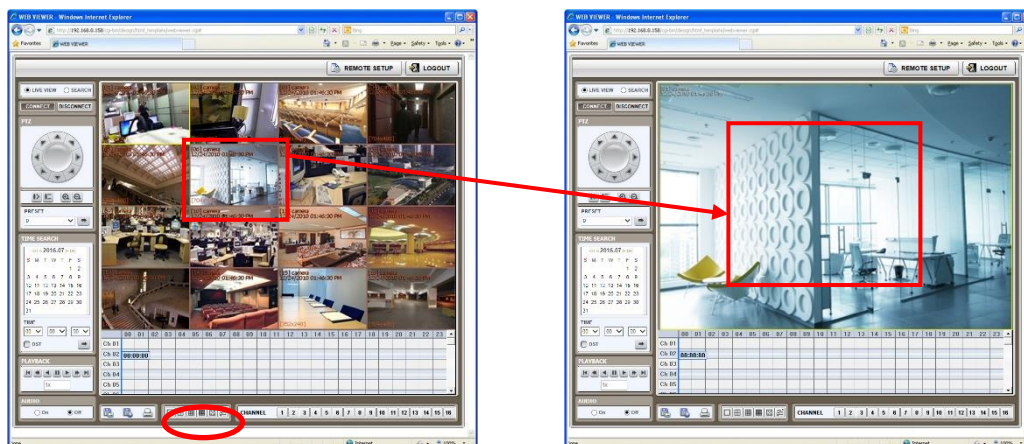
NOTE If live image is not properly shown on IE web browser due to network traffic jam or narrow bandwidth, it is recommended to close and re-open the IE web browser.

5.4 Web Playback

Using the DVR's web client, you can remotely playback video from the DVR by clicking "SEARCH" in the top of the left side panel. To connect to the DVR in search mode:

1. Check the box next to 'Search'

2. Press the "Connect" button below the viewing mode.
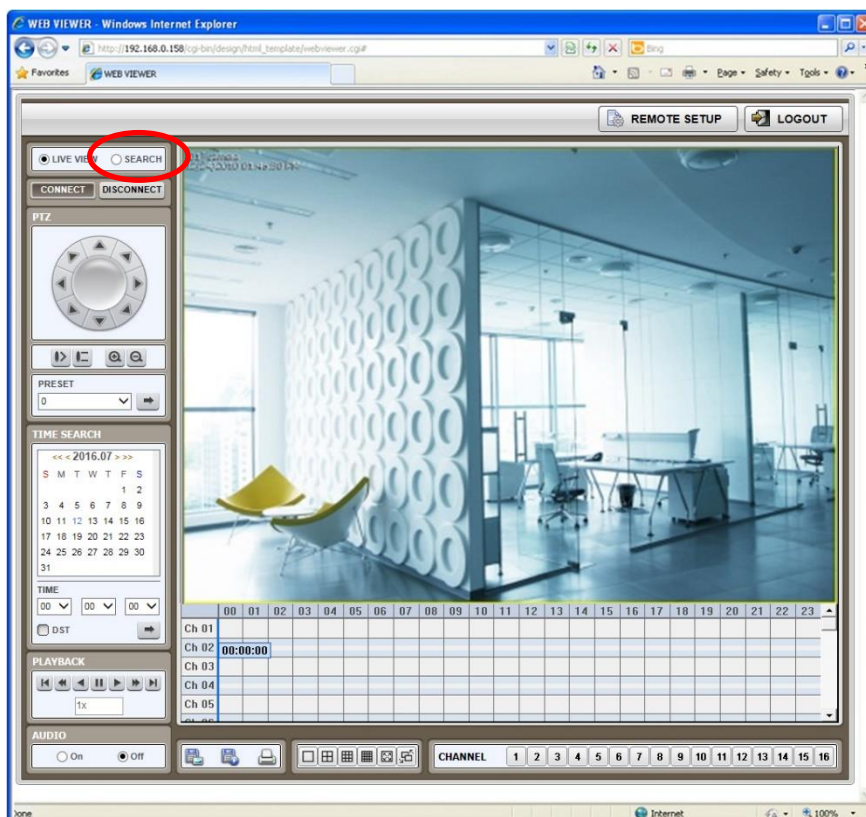
3. Select the date and time using the calendar on the left side panel. Days with recorded data will appear in Red. Click the ➡ button to apply the day selection to the time bar.

4. Play DST- Check this box to play overlapped images during DST (Daylight Saving Time) period. For further details, please refer to Section **3.9 DST Settings** for more information.

5. Once a day has been selected, the time bar below the main display will show recorded data for each channel for the selected day. Use the vertical timeline to move playback along the time bar. The colors on the time bar indicate different recording mode. See **3.8.1 Date/ Time Search** for more information.

6. Use the playback control keys to play, pause, fast forward or rewind the video.

Chapter

CMS USER MANUAL

CMS USER GUIDE

1. PC REQUIREMENT

Recommended PC Requirement

OS	Window 7
CPU	Intel i5 3.40 GHz or higher
VGA	1024X768, 256MB supporting DirectX
RAM	4GB
HDD	20MB for installation, 10GB for Remote Backup

Minimum PC Requirement.
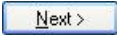
OS	Window XP
CPU	Intel Dual-Core 2.93 GHz
VGA	1024X768, 64MB 24bit color graphic card
RAM	1GB
HDD	20MB Free Space

2. INSTALL
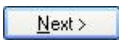
Run **CARA Setup.exe** saved in the included CD.

When clicked, the Setup Menu will appear

Press [Next >] to move to the next step.

Choose Components
Choose which features of Cara you want to install.

Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.

Select components to install:
- ☑ Cara (required)
- ☑ With Install VC Redistribu
- ☑ Start Menu Shortcuts
- ☑ Desktop Shortcut

Description
Position your mouse over a component to see its description.

Space required: 66.9MB

Cara CMS

[< Back] [Next >] [Cancel]

Press [Next >] to move to the next step.

Choose Install Location
Choose the folder in which to install Cara.

Setup will install Cara in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.

Destination Folder
C:\Cara   [Browse...]

Space required: 66.9MB
Space available: 11.0GB

Cara CMS

[< Back] [Install] [Cancel]

Press [Browse...] if you want to install the program in a different directory.

Click [Install] to begin installation. When the installation is completed, the below message will appear.
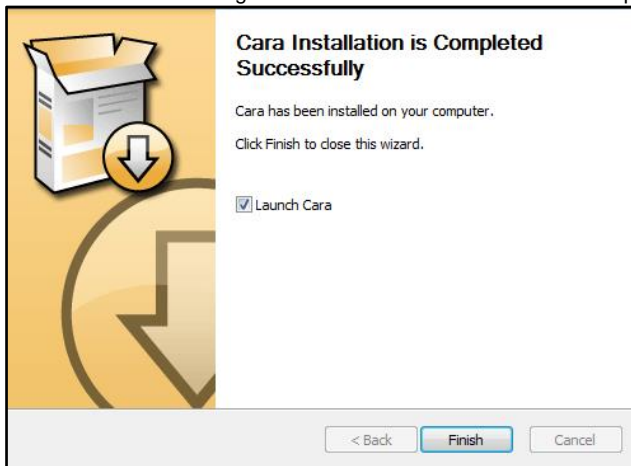
3. UNINSTALL

To uninstall CARA, press **UNINSTALL CARA** from Start Menu of your PC.
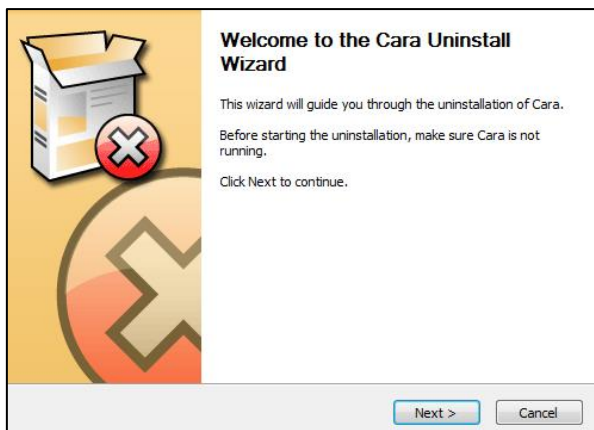
Pop-up screen appears in Windows7 or Windows Vista. Press **YES** to begin the process. The following window will appear.
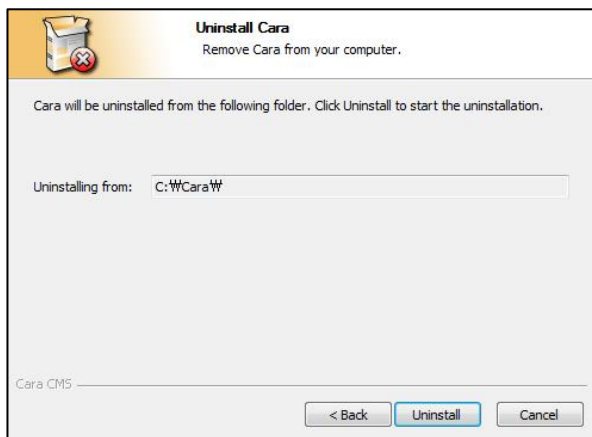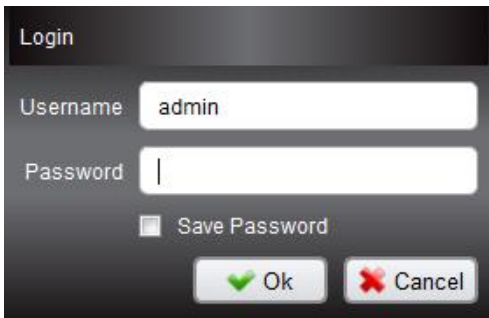
When the process is completed, the below message will appear.
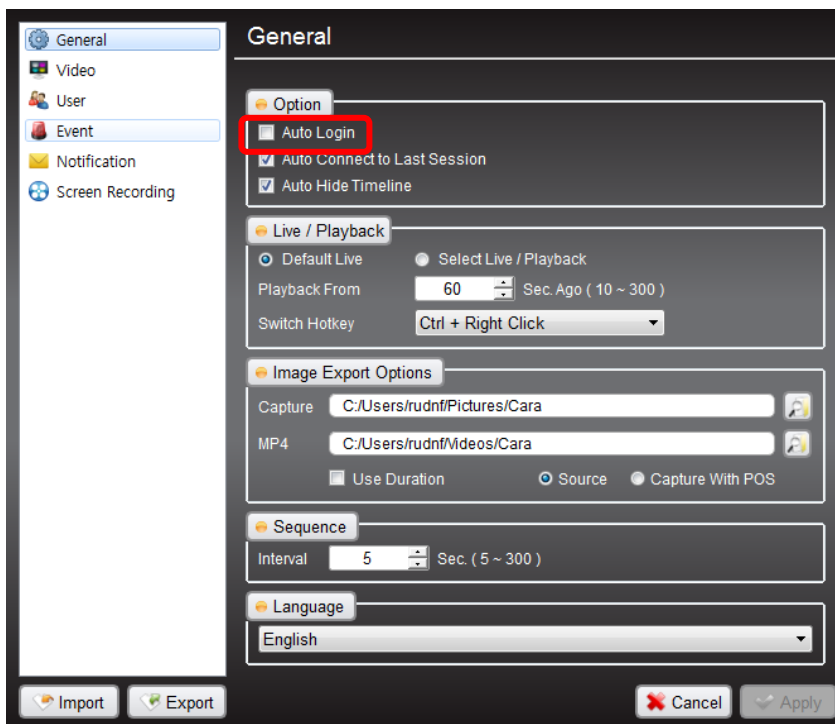
4. BASIC OPERATION

4.1 Log In

The default ID is Administrator (->admin), and there is no default password so please leave it blank. The administrator account has the highest level of authority on the CMS.

To save login details, select the *Auto-Login* option. When Client launch again, it will connect to the Server automatically through the pre-established login and password combination.
If preferred, change to Auto Login by entering 'CMS Settings -> CMS Settings -> General'

4.2 Screen Layout

Layouts are a powerful and flexible way to represent video data in CARA. **Layout** can contain an unlimited number of videos: **Cameras**, **Local videos** or **Images**, which are not restricted in terms of location, size or orientation.
Initially, **Layout** is created and configured by **Administrator**. Then it can be assigned to **Viewers**. Viewers can create its own **Layouts** based on the available **Resources** (Devices and Local files).
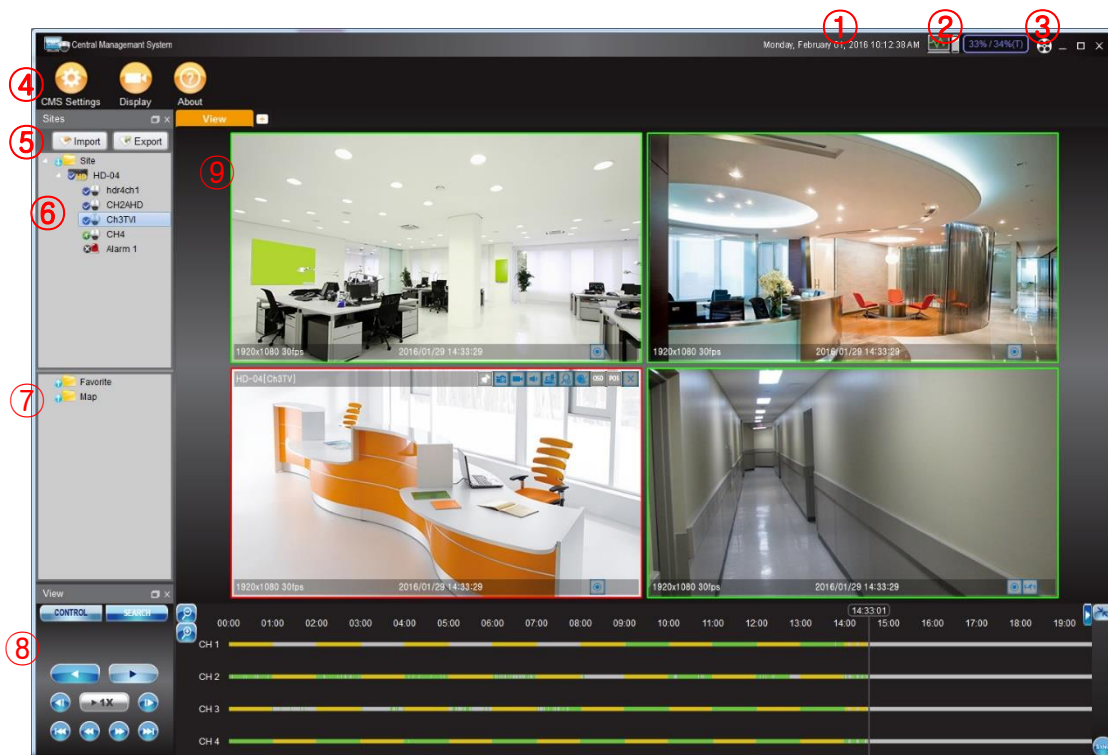
No	Item	Description
1	Current Date and Time	You can see current date/time.
2	CPU Usage Indicator	You can see the CPU allocation on the program.
3	Screen Recording	Screen Recording start/stop. (Save the MP4 to the storage or other setting is "CMS Settings" > "Screen Recording")
4	Program Menu	You can control CMS setting, site management…etc.
5	Import / Export	You can save import/export site list setting.
6	Site (DVR / NVR / IP Cam.) List	You just look what site is connected.
7	Favorite List	You can connect easily where users watch frequently.
8	Playback Search and Control, Timeline area	In this area, you can search the play back that you want to see.
9	Display area	You can see the camera image of the area.

4.3 Main Toolbar (CMS Settings)
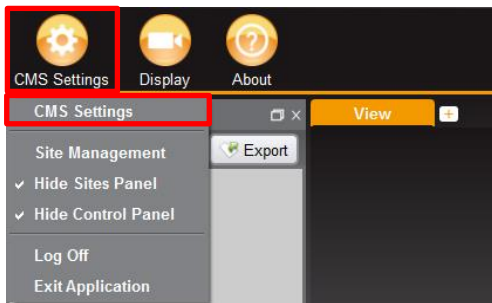
4.3.1 General
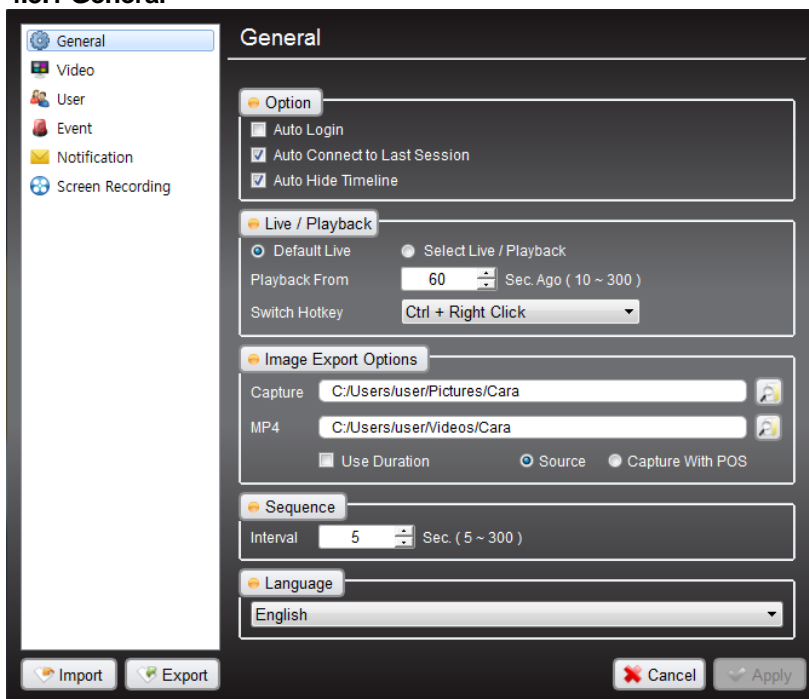
Option	Decide whether to use or not of the Auto Login
Live / Playback	Default value of Live/Playback
Image Export Options	Determine the route to Image Capture and MP4 Recording
Sequence	Set Sequence Interval
Language	Language selection

4.3.2 Video
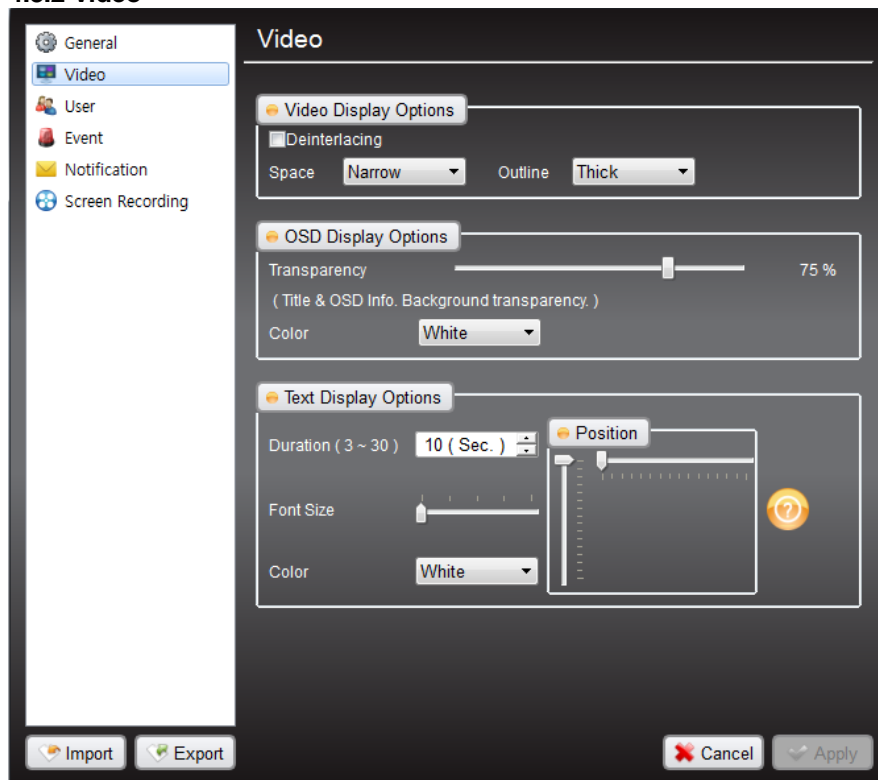
Image Display Options	Determine whether to use or not the Deinterlacing Filter Set the intervals between the sites
OSD Display Options	Choose the clearance of screen OSD area and the color of letter (White/Red/Green/Blue/Black)
Text Display Options	You can adjust pop up text display options in screen.

4.3.3 User

CMS user registration and permission settings

4.3.4 Event

When selected event occur, Setting related Event Popup
provides a powerful notification mechanism for notifying **Users** of **Events** that occur.
Check the type in the **Event** section When Event occurs, Event pop-up dialog be shown or display the screen pop up
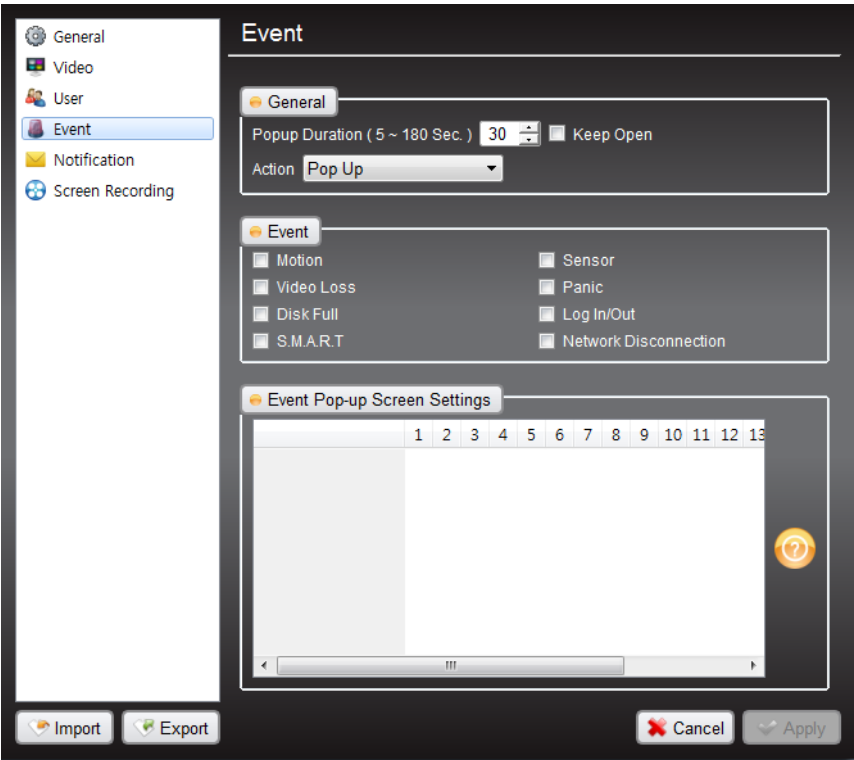
General	You can select Pop Duration and Action
Event	You can let the event under what conditions you selected.
Event Pop-up Screen settings	You can apply the settings to the camera you want.

4.3.5 Notification
Available to send E-mails to **Users** or to additional addresses when below **Events** occur.

To List	See the what notification is come	
SMTP	Simple Mail Transfer Protocol. You see the SMTP sever that is sending the e-mail by SMTP protocol.	
Account	Log in in your ID, just put in your ID and password	
Event	You can let the event under what conditions you selected.	

4.3.6 Screen Recording

Recording Folder	You can select the location you want to save the recorded file.
Capture Mode	You can select the capture mode such as application window, in screen, full screen.
Additional Options	You can choose capture cursor or/and recording audio.
Quality	You can adjust the resolution and continuity of operations.

4.4 Main Toolbar (Site Management)
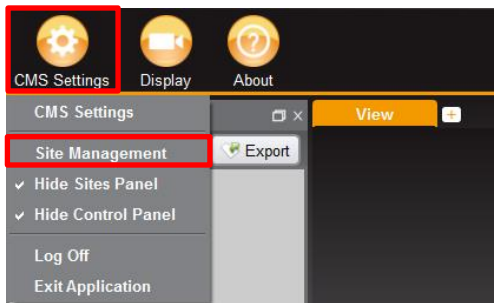
CMS Settings -> Site Management and register or select Site Folder from the Site List and right-click and Site Manager and register.
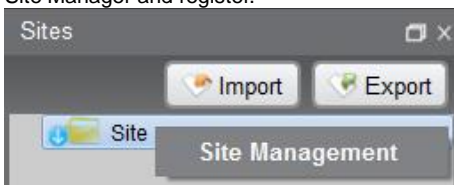
Select one in the Auto Site Discovery List or input site information directly and click 'Add' button. It will try to access the system and will be registered if the log-in process succeeds or shows error pop-up if it fails.
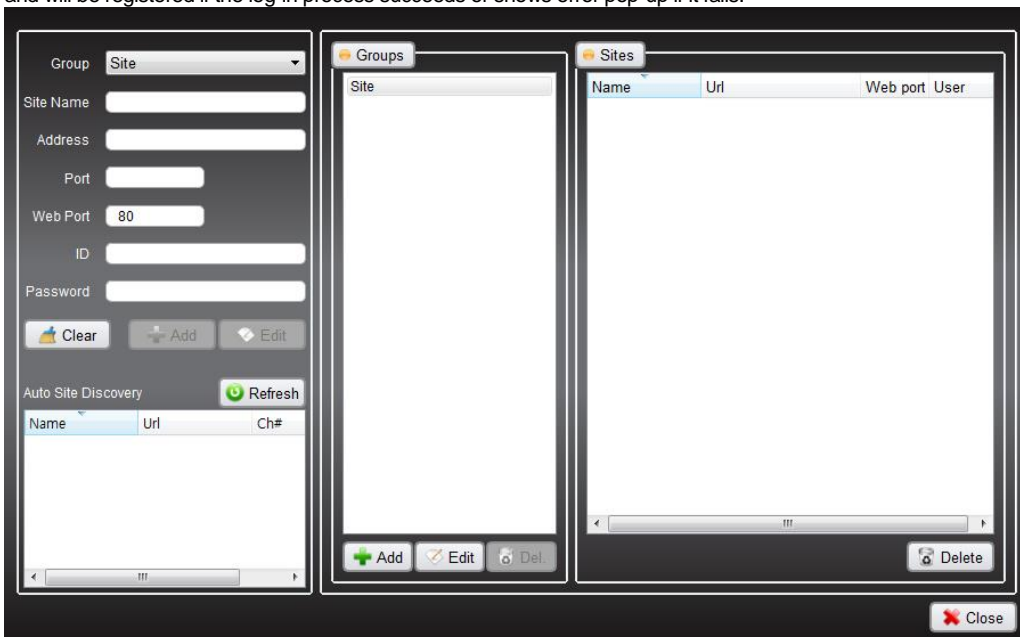
When you connect to the system, blue-colored checks are displaying. Also when there is any event, the event will be shown.
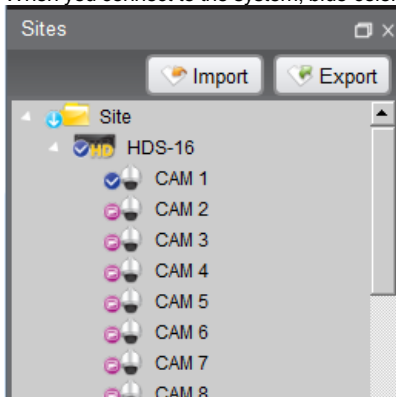
- Channel Status Indicators

❌	Not used
✔	You can see the live video continually
📷	Even though the camera is connected, we can't see the video.
🏃	You can see the live video

4.5 Main Toolbar (Hide Sites Panel)
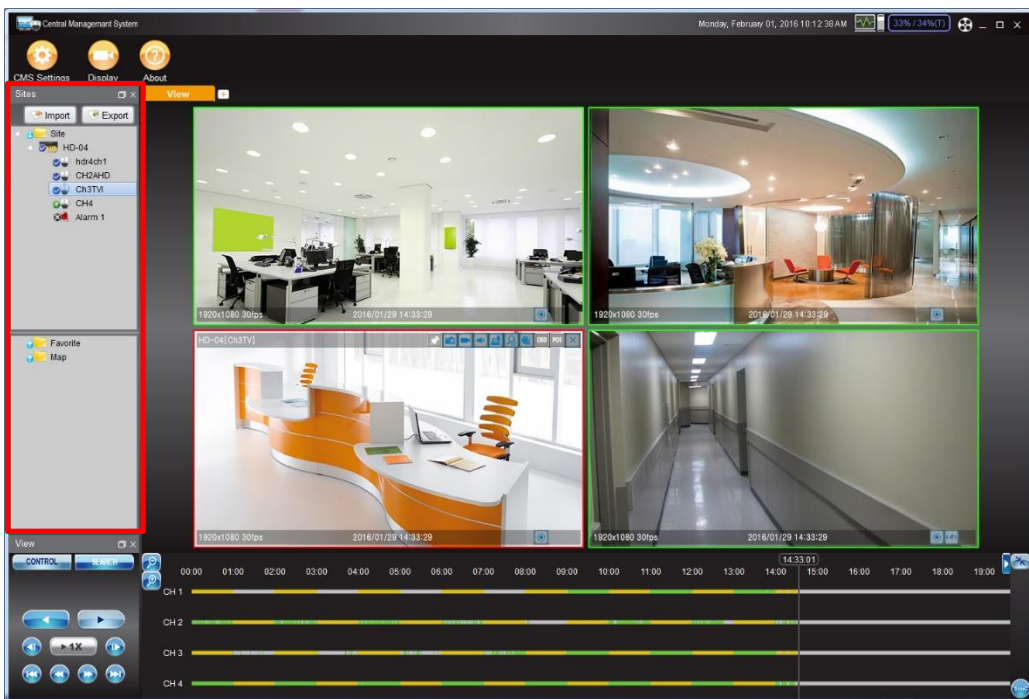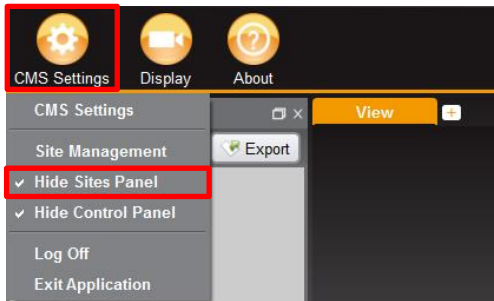
- **Show Sites Panel**: if you want to see the site panel, click the Show Sites Panel
- **Hide Sites Panel**: if you don't want to see the site panel, click the Hide Sites Panel

4.6 Main Toolbar (Hide Control Panel)
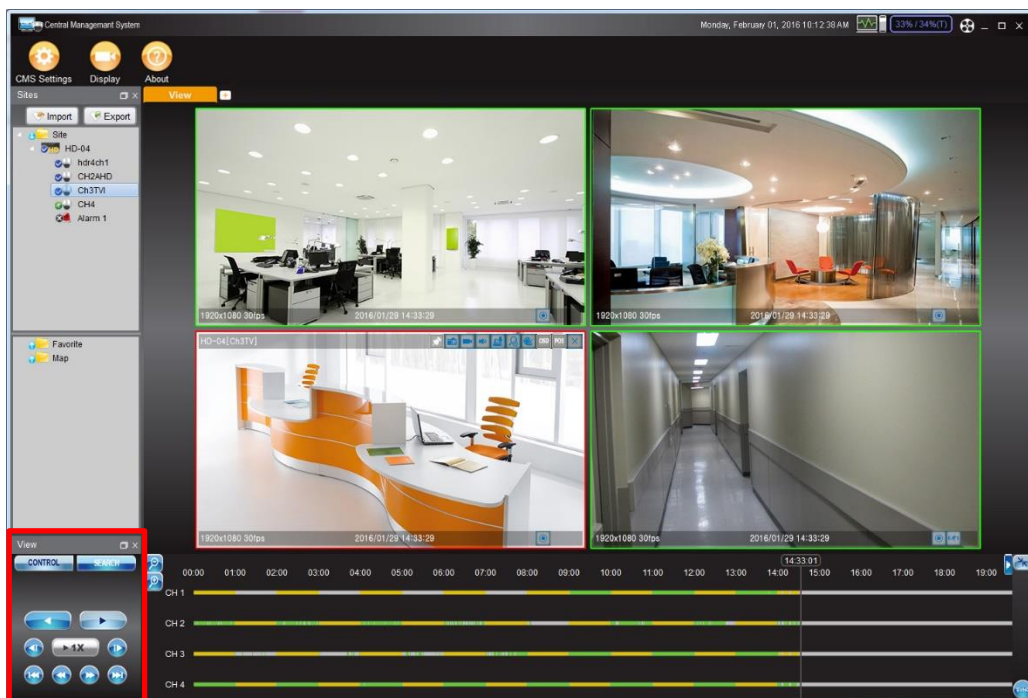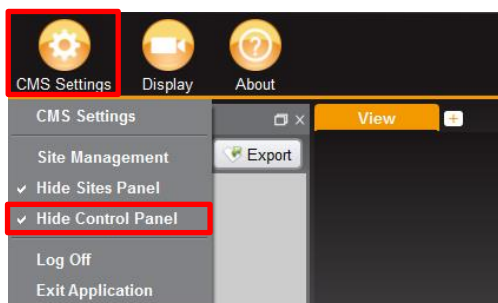
- Show Control Panel: Click the Show Control Panel in top of the screen, Control Panel is pop up
- Hide Control Panel: Click the Hide Control Panel in top of the screen, Control Panel is disappeared

4.7 Main Toolbar (Log Off)

- Log off: if you want logout, just click the "log off", then User log out
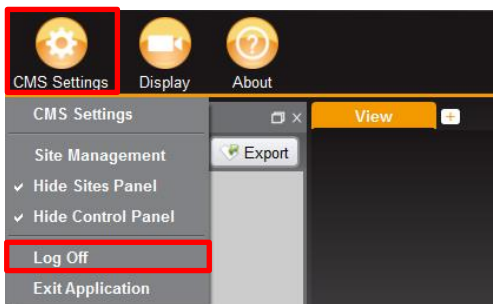
4.8 Main Toolbar (Exit Application)

- Exit Application: click the "Exit Application". Then you exit the application.
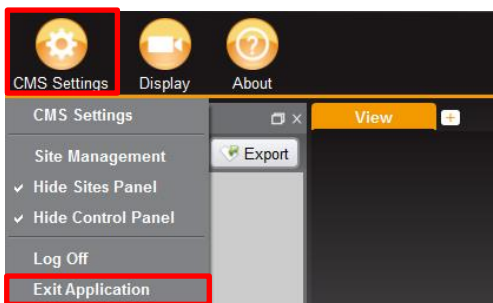
4.9 Main Toolbar (Display)
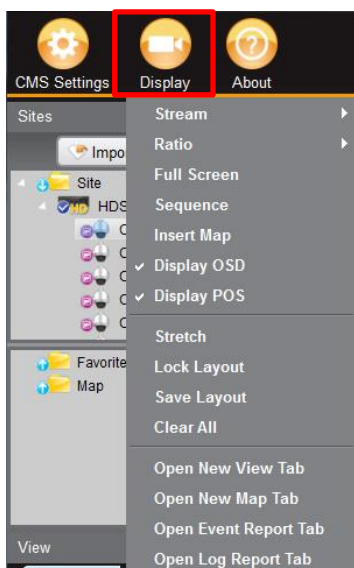
Stream	Stream adjustment
Ratio	Change the Ratio in the screen
Sequence	Convert screen at the desired time
Insert map	Import the floor plan
Display OSD	View settings in the screen
Display POS	View POS settings in the screen
Stretch	Stretch the Screen
Lock Layout	Lock the Layout that you have selected
Save Layout	Save the Layout that you have selected
Clear ALL	Clear All layout
Open New View Tab	Just Open New View Tab, so you can see other layout in new tab
Open New map Tab	Just Open New map Tab, so you can see other map in new tab
Open Event report Tap	If the new event is come. That report is send to new tab
Open Log report Tap	If you change the Setting, You can see the Log in report tab.

4.10 About Menu

Basic information and program version
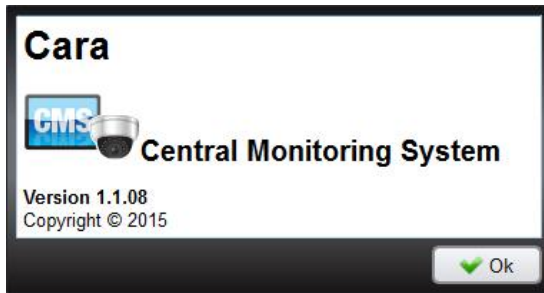
4.11 Site Registration

1) CMS Settings -> Site Management and register or select Site Folder from the Site List and right-click and Site Manager and register.
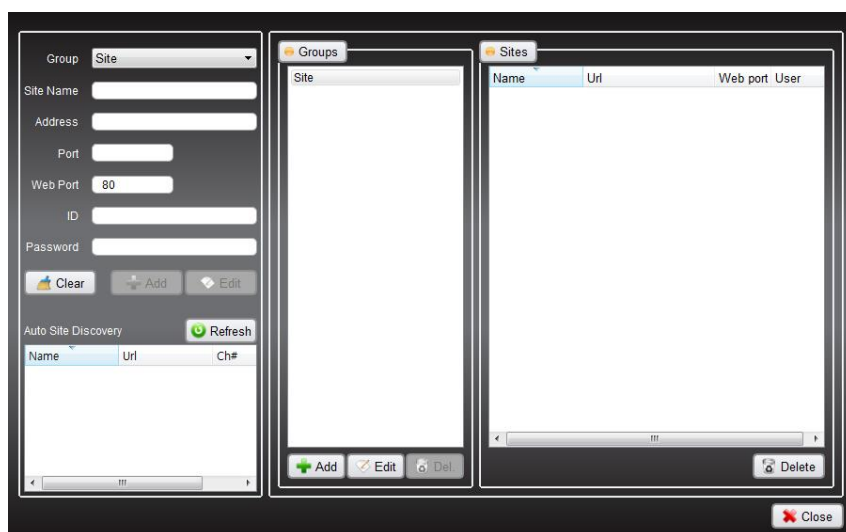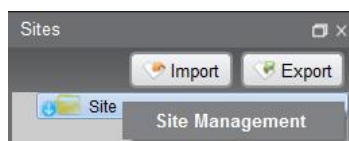
2) Select one in the Auto Site Discovery List or input site information directly and click 'Add' button. It will try to access the system and will be registered if the log-in process succeeds or shows error pop-up if it fails.
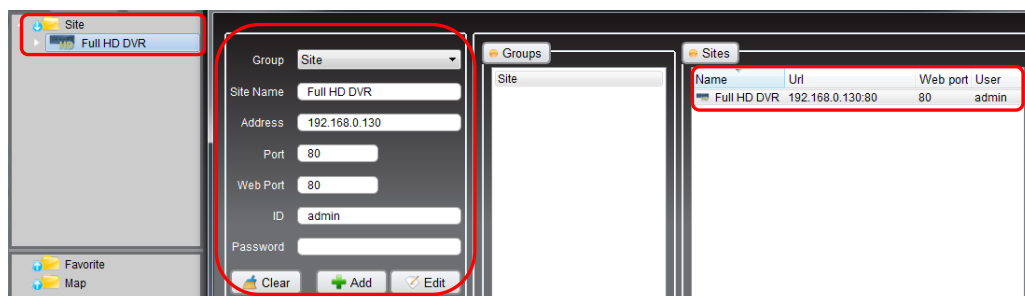
3) When you are being to connect to the system, blue-colored checks are displaying. Also when there is any event, the event will be shown.
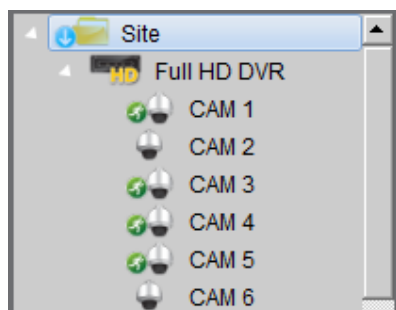
4.12 Display Layout

1) Drag and drop the target site or the channel to the display area, then Live/Playback Menu will be shown. You may select any function you need from this menu.
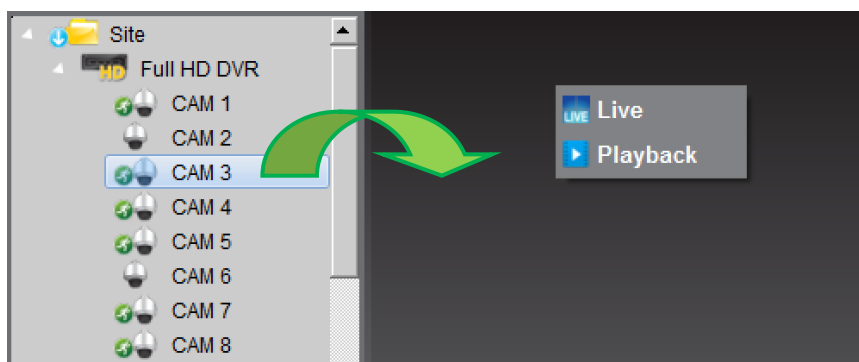
2) Move your mouse cursor to the right upper corner of your target screen, then it will be changed into the Layout Modifier. You may now change the size of the screen as you wanted.
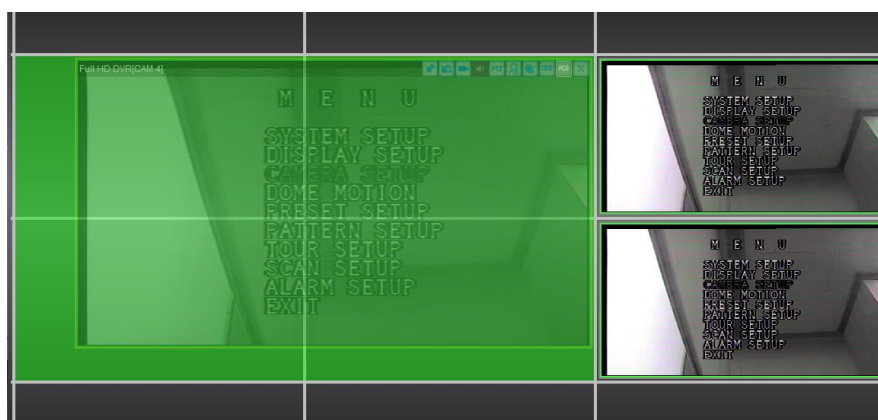
3) If there is already other screen displayed on the area you have selected, the screen will be turned to red and your request will be canceled.

4) Moving Sites: Click the area to which you want to move your target site, then you may change the display layout.
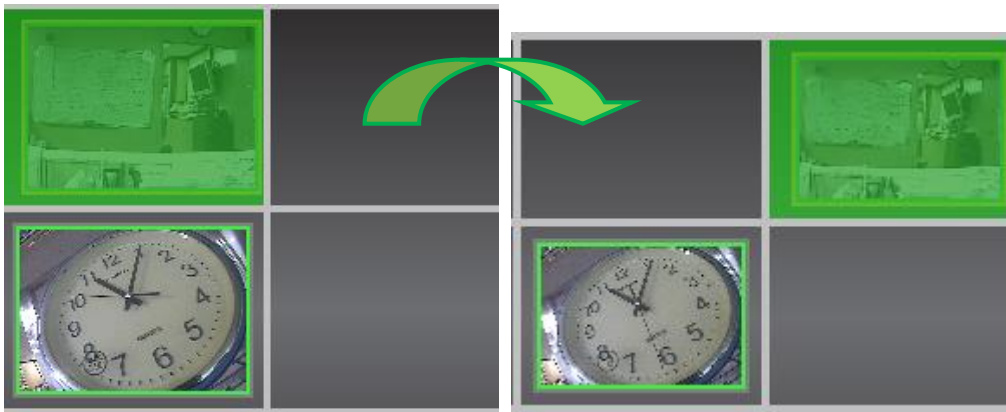
5) Exchanging Sites: When you are done with selecting the area to which you want to exchange your target site, it will be displayed as blue if the exchange is possible.
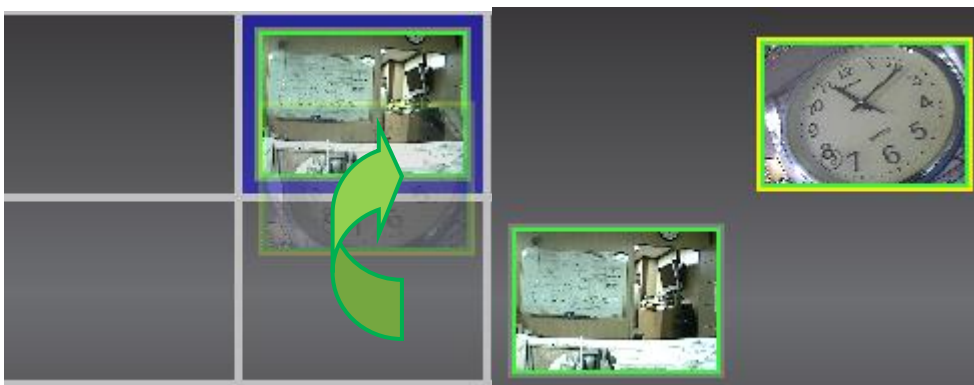
6) You may select several sites simultaneously and move or close them. Use your mouse and click to move or select sites.
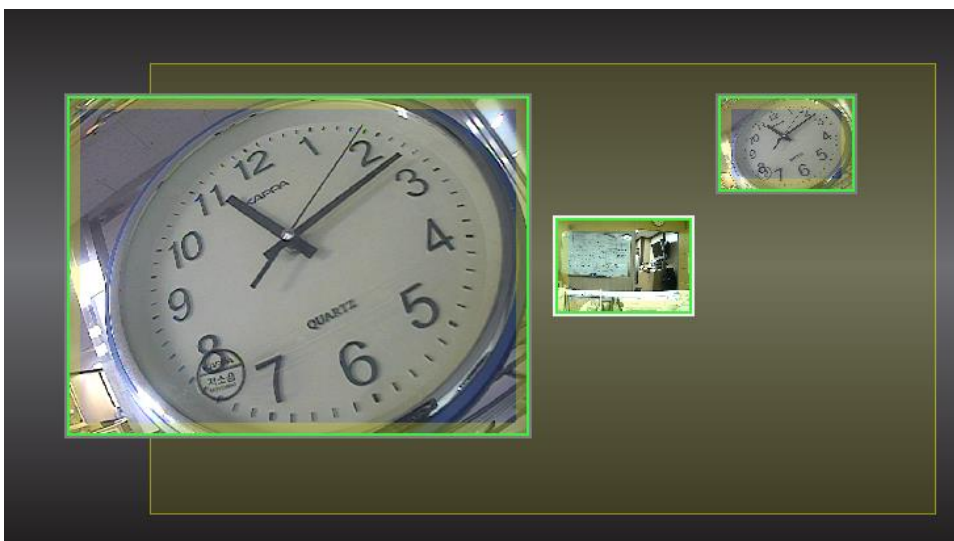
7) Changing positions under 'coincident selection'
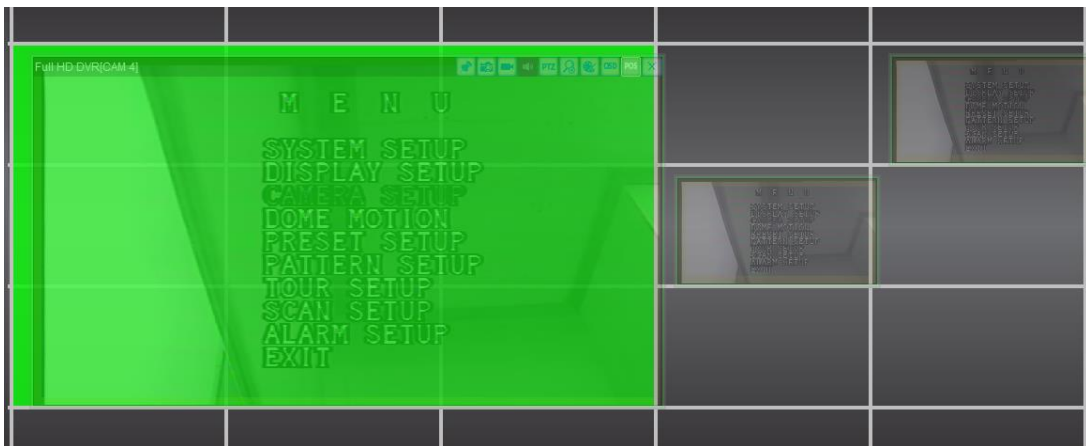
8) When you click 'Delete' key under the situation of 'coincident selection', message window like below will be shown. Click 'Ok' if you want to close the selected sites.
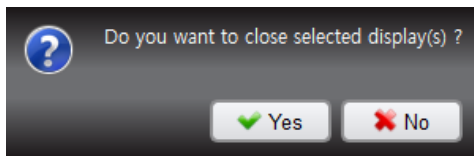
4.13 Favorite Registration

1) When the user want to store and utilize the current screen composition.

2) Right-click on the empty screen, then the context menu as below will be shown.   You may register current screen state for the Favorite Registration when you click the 'Add Layout to Favorite' button.
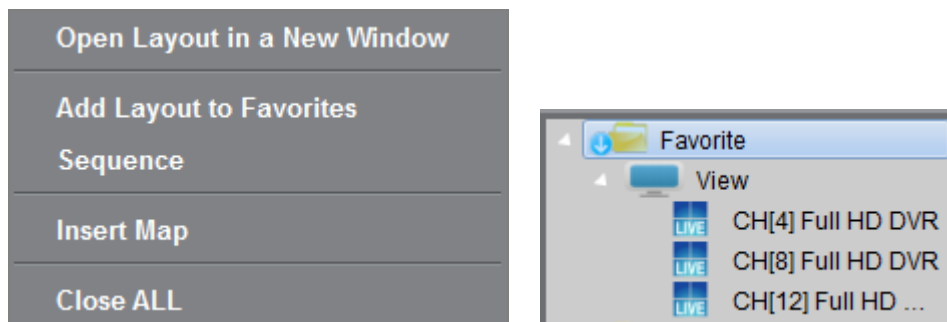
3) Favorite Registration can be displayed by drag and drop.
If there is an identical name for the display composition, a message window will be shown like below. If you click 'OK' button, current composition will be closed and the previously registered state will be activated.
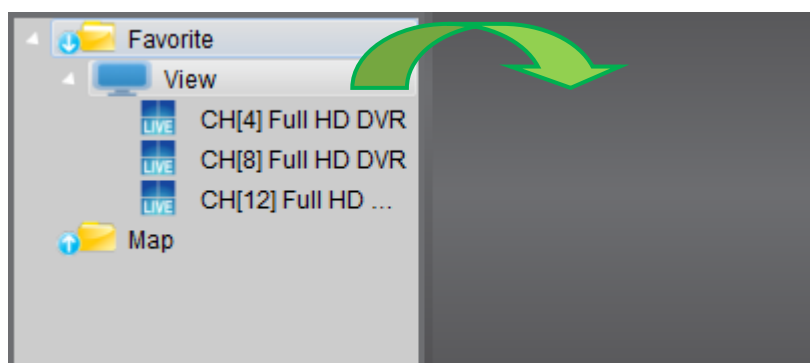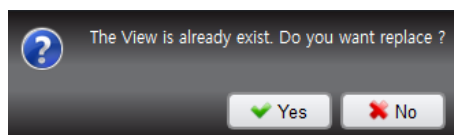
4.14 PTZ control panel

PTZ camera control is only available in Live mode.
Before starting PTZ control, please make sure the camera you wish to control is a supported PTZ camera and is installed and configured properly.

Virtual PTZ	If Virtual PTZ is activated, able to control PTZ camera such as movement, Zoom and Focus. PTZ can be controlled by clicking mouse on channel screen directly.
8 directional arrows	8 directional arrows allow the user to move the PTZ camera. The PTZ Camera is moved when one of these arrows are pressed to the direction desired, and stops the movement if mouse button is released.
Zoom	Zoom In and Zoom Out.
Focus	Adjust the focus of PTZ camera.
Iris	Adjust the Iris open or close
Preset	Set PTZ presets on current view.
Speed	Adjust PTZ camera response speed. Getting Slower as moves to the right.
Menu	Activate the camera OSD menu for setup and adjust
Enter	Select the camera settings or enter the subcategories
Goto	Go to the preset location.

4.15 Playback panel

CMS provides powerful and intuitive playback system. It includes seamless transition from live to archived footage, smooth archive playback, extensive search capabilities, local files playback, etc. All playback operations can be performed within the **Playback Panel**:

CONTROL	PTZ controller
SEARCH	Search the time table
⏮	Go to First.
⏪	Reverse Playback : decrease speed x 2, x4, x8, x16, x32
◀‖	Step Backward.
◀	Reverse Playback.
PAUSE	Pause. Or Display the play speed
▶	Forward Playback.
‖▶	Step Forward
⏩	Forward Playback : Increase speed x 2, x4, x8, x16, x32
⏭	Go to Last.

4.16 Search Panel

The Search panel is activated only in Search mode.
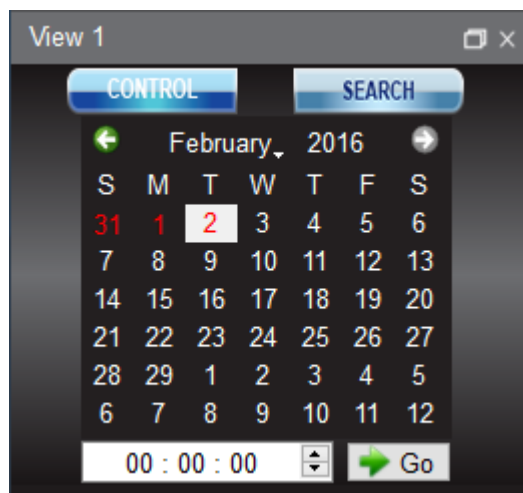
When you connect to a site in Search mode, the date is highlighted in Red color in the calendar, if the recorded data exist. Select a specific date and time in the calendar and then recording information will be shown in the table.

 (Go button) should be pressed to start playback from the selected time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

Each record mode is similar to below.

No Record   White

Continuous (Yellow Color)

Panic (Red Color)

Alarm (Orange Color)

Motion (Green Color)

Click the time or move the time bar to the time you want to playback in the search panel.

For a more detailed search like below, double-click the time that you want to jump into.

Detailed search is available on a 5 minute.

4.17 Display Menu

- Top of Display menu

📌	Auto Hide and Lock the Pin Task bar(Tools) Display
📷	Capture current Image by JPEG
🎥	Save the Export video by MP4 (Save the MP4 to the storage or other setting is "CMS settings" > "General" > "Image Export Options")
🔊	Audio On/Off – active : blue, disactive : gray
PTZ	PTZ On/Off – active : blue, disactive : gray

🔍	When click the Digital Zoom button, the mouse cursor change the +, dragged zone will be shown on the new tap(max.16 tab)
	  i. Zoom In/out use mouse scroll.
	  ii. Move to another section, click and move on the display

🎨	Image Adjust
OSD	OSD On/OFF
POS	POS On/OFF
X	Close

- Bottom of Display menu

⦿	Continuous Recording
(ᯆ)	Motion event
◉	Sensor event

4.18 Add tab

If you open a new tab view, press the plus. Press the puls icon [+] next to the veiw.

(if your mouse is on the plus icon [+], Add tab text box will appear.)
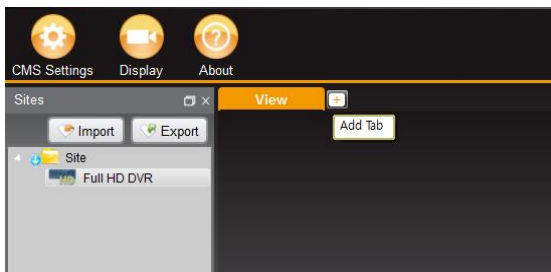
4.18.1 Open New View Tap
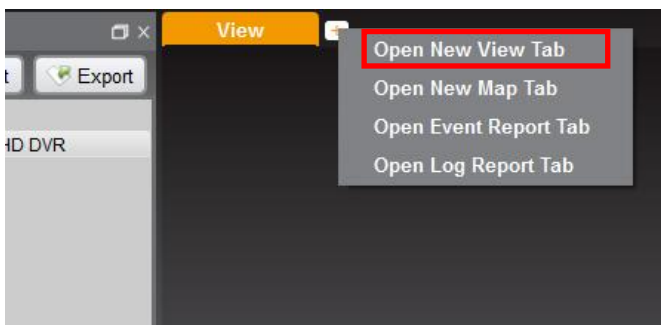
Click the plus icon [+], you can see the four menu.
Just click Open New View Tab.
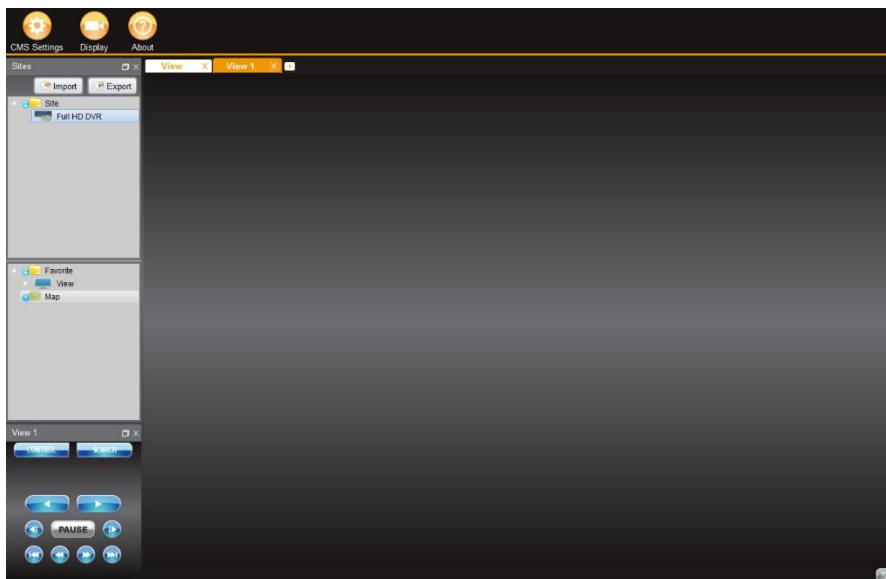
As like above picture, new view tab will appear.

4.18.2 Open New View Tap
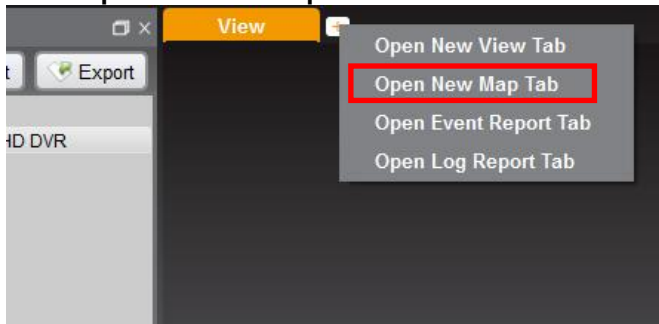
If you want see New floor plan in another tab, Click the plus icon [+] after than click Open New Map Tab..

Import the floor plan image you want to see.

As like above picture, the floor plan image you want to see appeared in another tab.

4.18.3 Open Event Report Tap
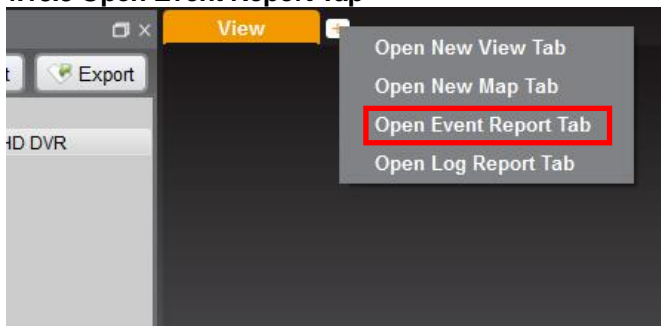
To see the event report, please click on the Open Event Report Tab.
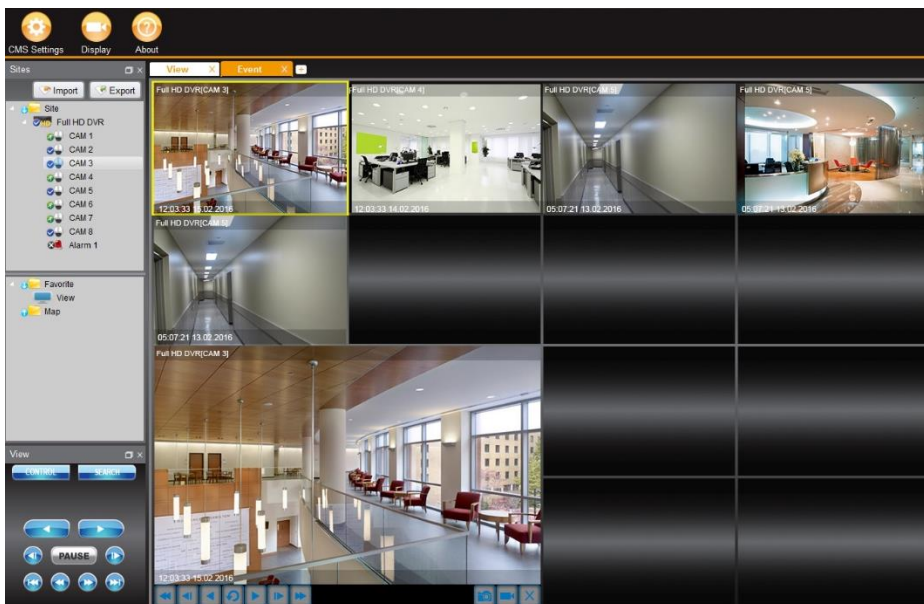
As like above picture, you can see the Site event which was taken place in live mode
If you click the camera you want to see, you can see recent event in playback mode

4.18.4 Open Log Report Tap
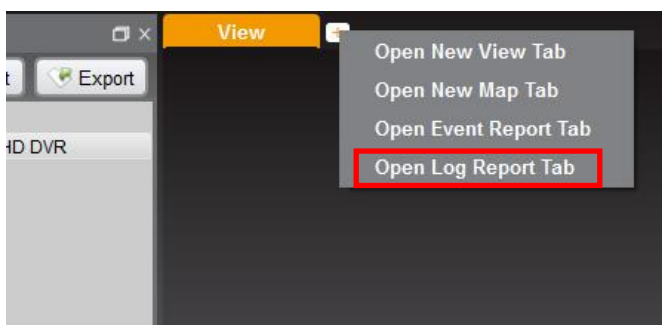
If you want see related events log in CMS settings or related POS data (Such as Site, Text, CH, Date/Time), click the Open Log Report Tab.
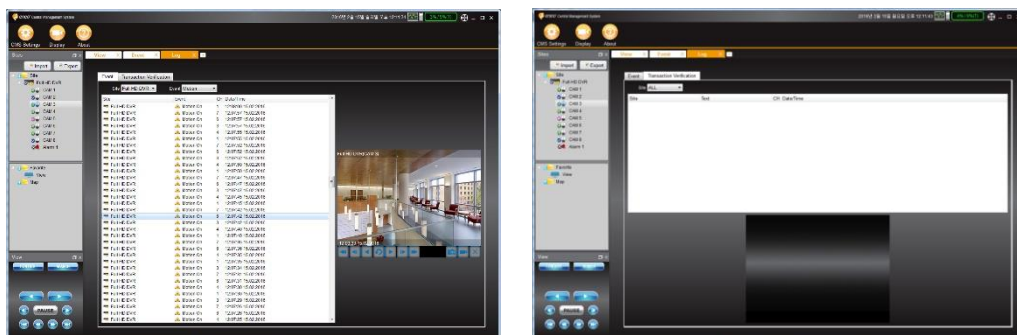
As like above picture, see the See related events log in CMS settings or
See related POS data (Such as Site, Text, CH, Date/Time) in Transaction Verification tab.

4.19 Site list pop-up menu

Pop-up menu is shown, Right-click on site name

4.19.1 Site Management
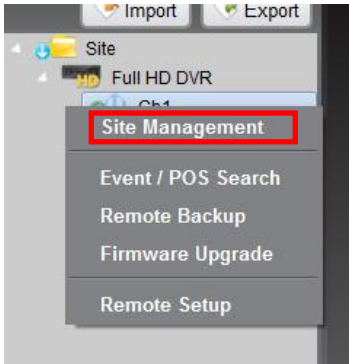
Refer to 4.4 Main Toolbar (Site Management)

4.19.2 Event / POS Search
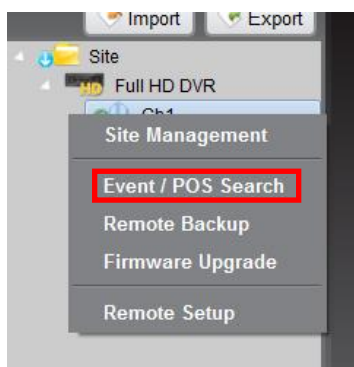
Search the events, System log and POS setting in CMS
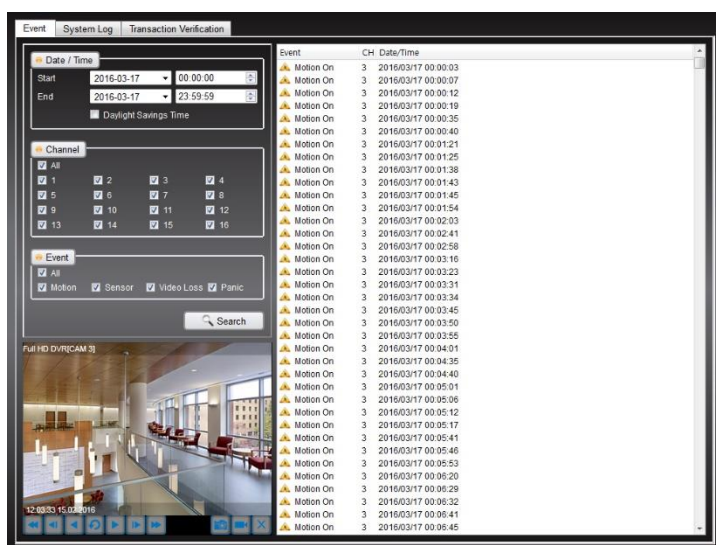
Event : Search the Date/Time range, select the channel and Event Type
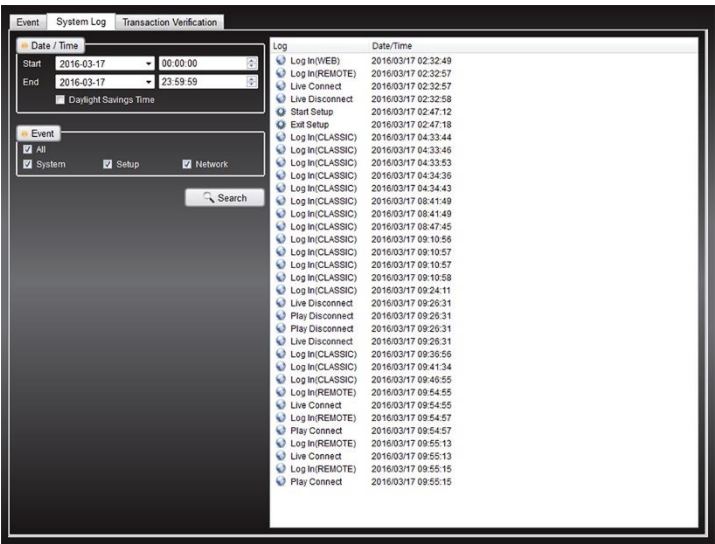
System Log : Search the Date/Time range and select Log Type
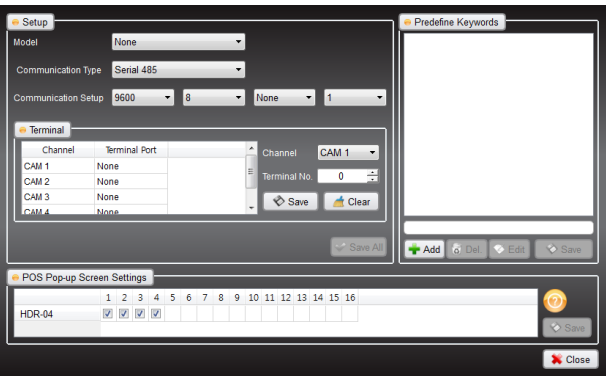
Transaction Verification : Search the Date/Time range, POS Setup

4.19.3 Remote Backup
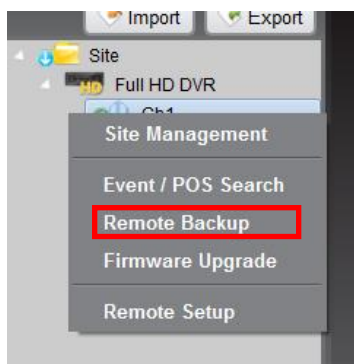
Set Start ~ End Time, Select Channel(s) and File Name and Path.

Estimate the backup file size.
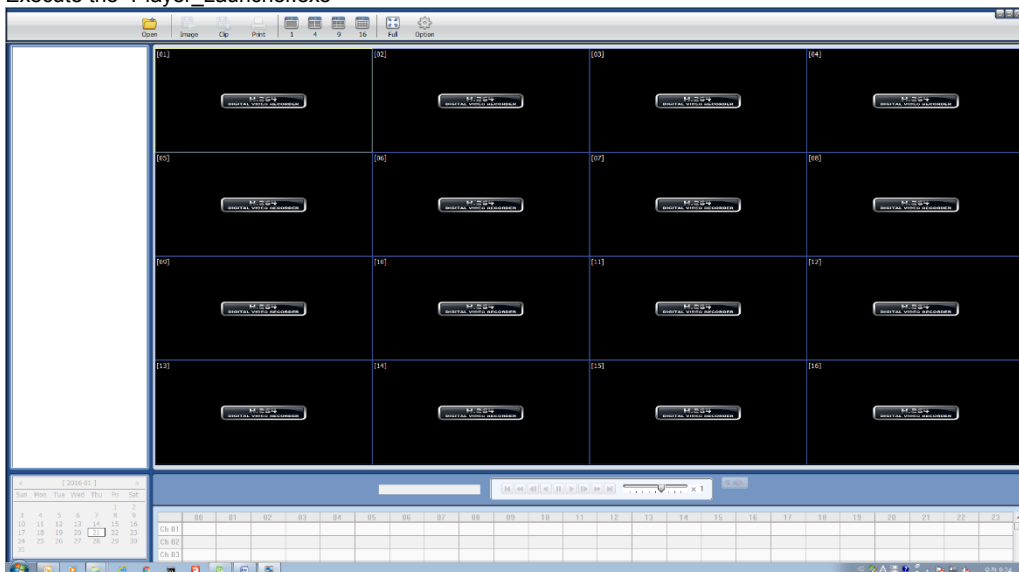

Start button click

Backup finished

Open set the folder

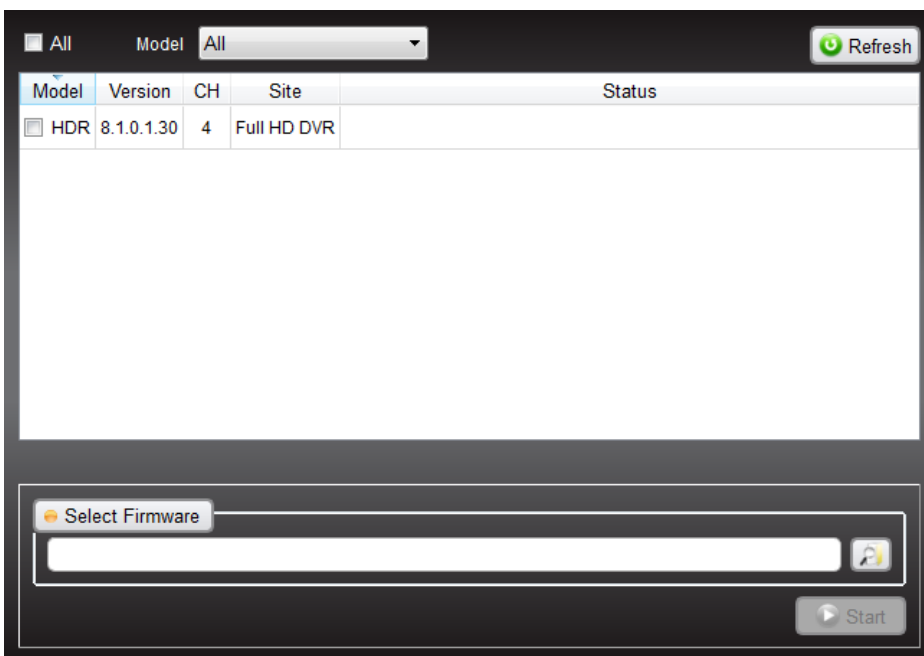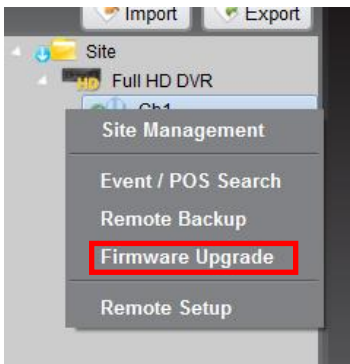Execute the "Player_Launcher.exe"

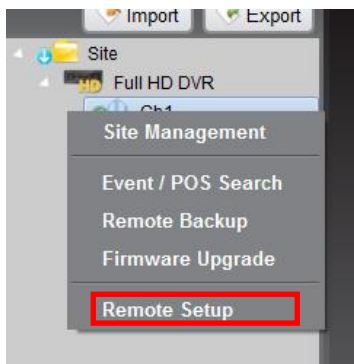If necessary, Change the language. This Application is support the Deutsch.

Option button click -> Misc. -> Select Language -> Restart this Application

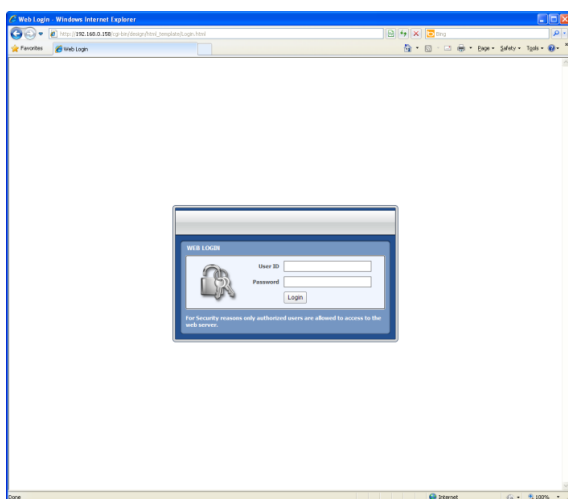### 4.19.4 Firmware Upgrade

If you need firmware upgrade, Select Firmware file to the 'Select Firmware' and Click the Start

4.19.5 Remote Setup

'Remote Setup makes user change setting in the DVR remotely.

After allowing the download of the Active-X file, users can findthe login page view seen below. Default USER ID is "admin" and No password.
It is recommended to use an Internet Explorer web page.

To open the DVR's web viewer on a Google Chrome web viewer, please install the IE Tab add on option.

Chapter 3

MAC ACS CLIENT SOFTWARE USER MANUAL

7 ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

| OS	Mac OS X 10.6(snow leopard)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

Minimum System Requirement.

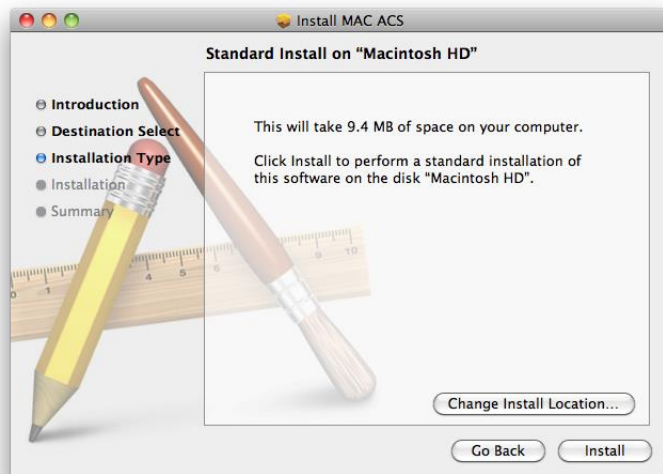| OS	Mac OS X 10.5(Leopard)
CPU	Built-in Intel CPU MAC
VGA	64MB
RAM	512MB
HDD	20 MB Free space

7.2 Install

a. Run MAC ACS.pkg on CD, and a Setup Menu appears as below.

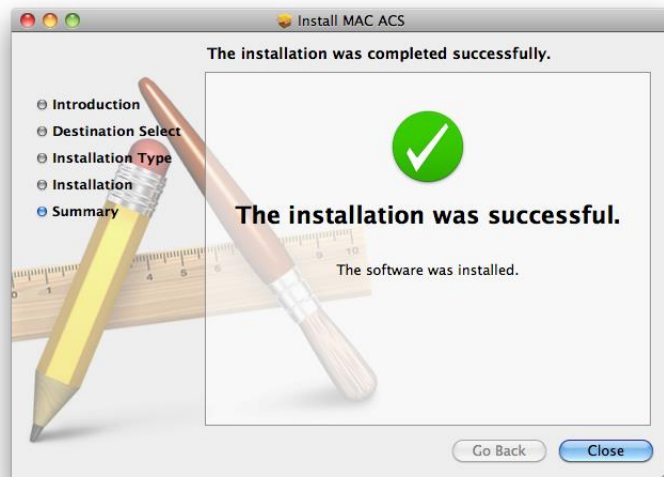b.   Select the HDD to be installed. Press the [Continue] button to move to the next screen.
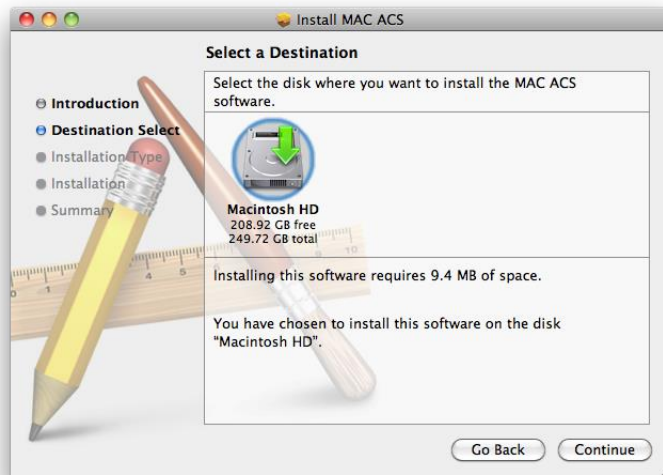
c.   Press the [Continue] button to move to the next screen

d.   Press the [Install] button to Install MAC ACS.

e. Put in the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.
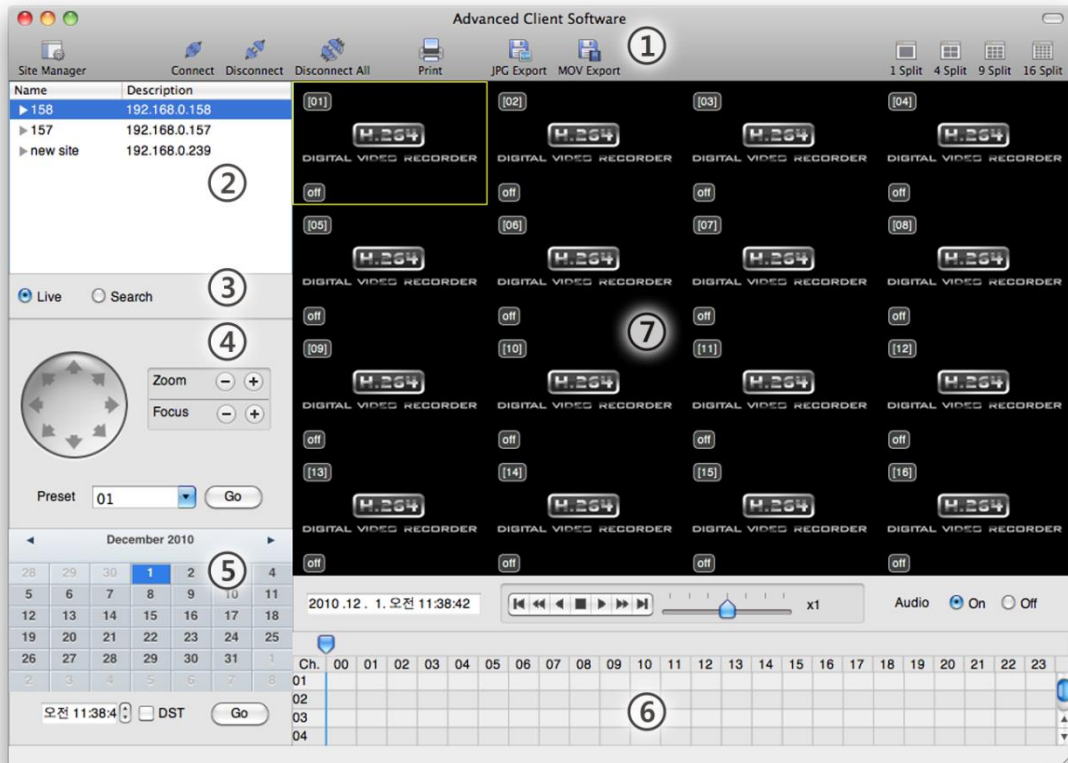

7.3 Basic Operation

Click on ACS icon on Application Folder

7.3.1 Screen Layout

No.	Item	Description
1	Main Toolbar	AVS Setting, Live and Search Connect, Disconnect, Image Save, Screen Mode and Change
2	DVR List Panel	Registered DVR Site List. Possible to connect by Dragging
3	Live or Search Connect Panel	Click Live or Search mode to connect the panel
4	PTZ Panel	PTZ Camera Control in Live mode
5	Calendar Panel	Search by Time and Date
6	Search Panel	Recorded information is shown in search mode. Control the speed of Playback and Audio as well
7	Display Panel	Transmitted Camera images are shown (Live and Playback)

7.3.2 Main Toolbar
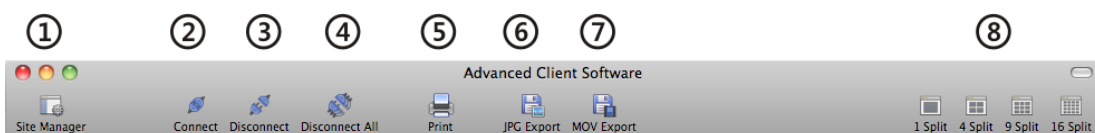
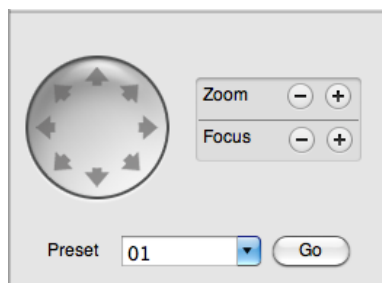| No.	Button	Description
1	Site Manager	Register or Delete DVR on the list
2	Connect	Connect to a site that is listed on the DVR list panel (Select Live and Search mode at Connect Mode Panel)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels
5	Print	Print out still image
6	JPG Export	Save a selected image to the desktop as JPEG format
7	Movie Export	Save a selected video clip to the desktop as mov format
8	Split	Single Channel, 4-Split, 9-Split, 16-Split

7.3.3 Site List Panel

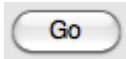The site list panel shows registered DVR lists. To connect, Drag & Drop the site.

Before you connect the site, Select the Live or Search mode first in the connection mode panel.

16 different On-Screen DVR, a mixture of different connection modes can be monitored.

7.3.4 PTZ Panel

PTZ camera controls in Live Mode. PTZ Camera can control if the channel is activated on PTZ operation.

| No.	Button	Description
1	Navigation Key	PTZ camera can be moved in 8 directions and Whenever click the direction key, it moves slowly.
2	ZOOM	Zoom In and Zoom Out
3	FOCUS	Adjust the focus of PTZ camera
4	PRESET	Select the preset location
5	Go	Go to the preset location

7.3.5 Calendar Panel

Activated in Search Mode
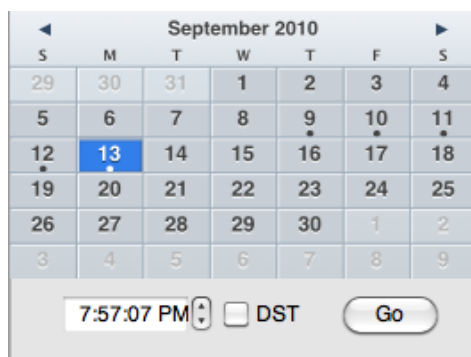
The recorded data will be shown in blue bold with the dot which is located below the number

When you click the recorded date on the search mode, the playback time will be detected automatically
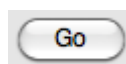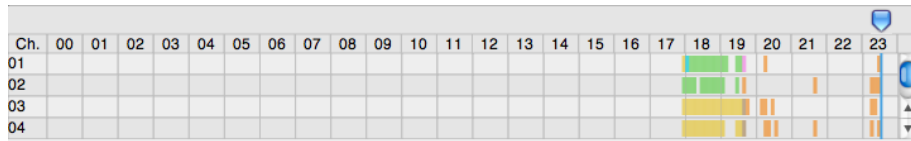
Go (Go Button) should be pressed to start playback from the selected date and time

If DST is enabled, the earlier one-hour overlapped video will be shown first.

7.3.6 Search Panel

Activated in Search Mode

- The Search panel shows the record information for each channel.

- Each record mode is like below.

No Record	Background Color
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	
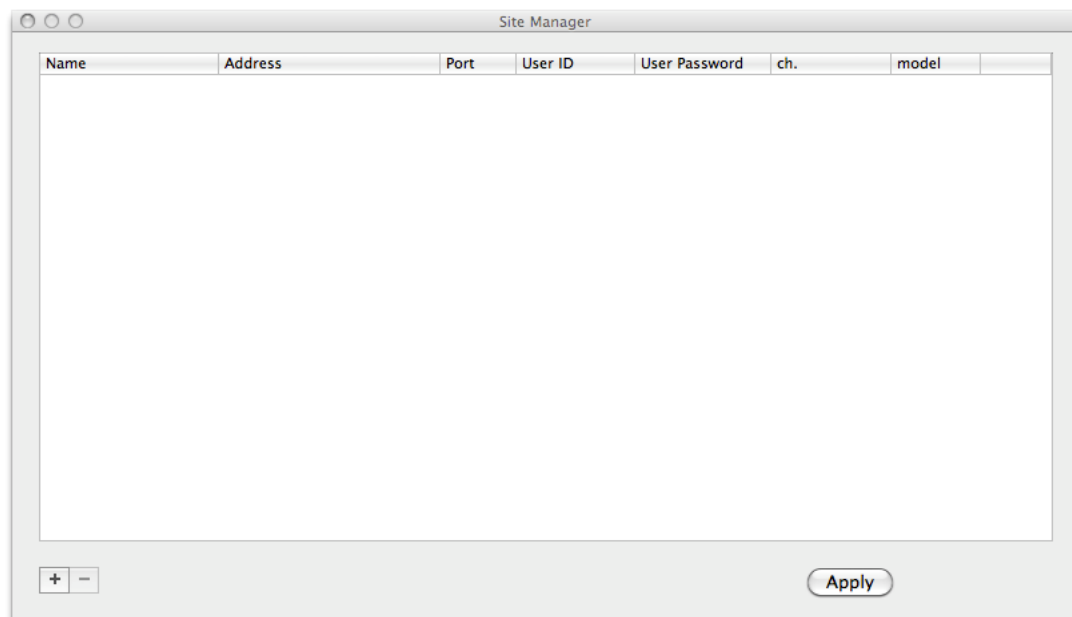
- Click the time or move the time bar to the time you want to playback in the search panel.

- Playback control panel

No	Button	Description
1		Go to first
2		Forward Playback : Decrease the Speed / Reverse Playback : Increase the Speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
7		Go 10 seconds before the end of the data.
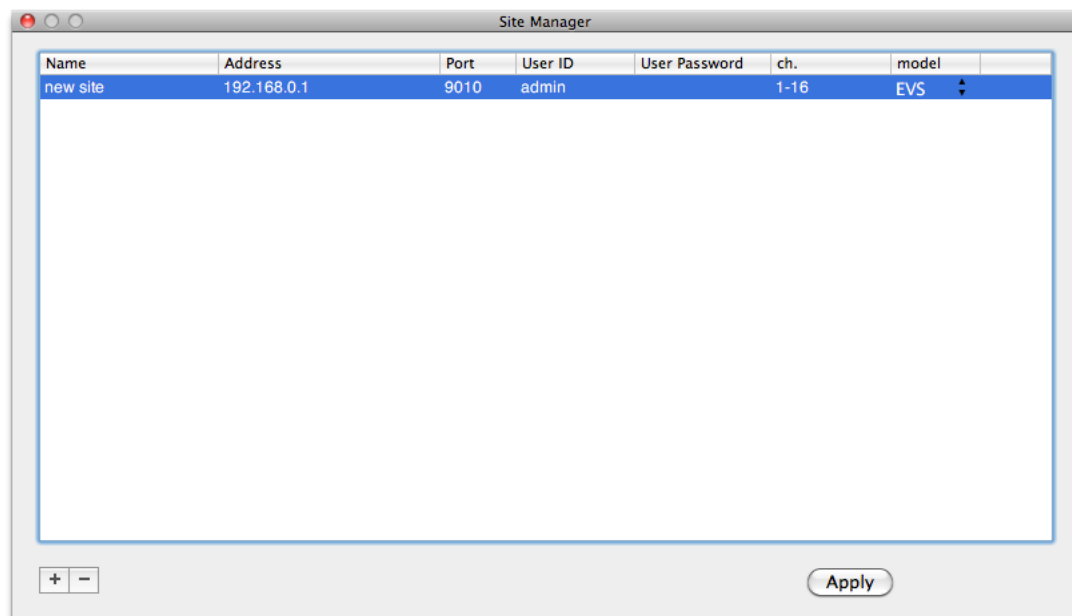
7.3.7 Site Manager

Add or Modify or Remove DVR site information.

Press [+] to register the DVR as follows : The default value is registered

To fix, Double-Click on the item. For example, Double-click " New Site " to change the name.
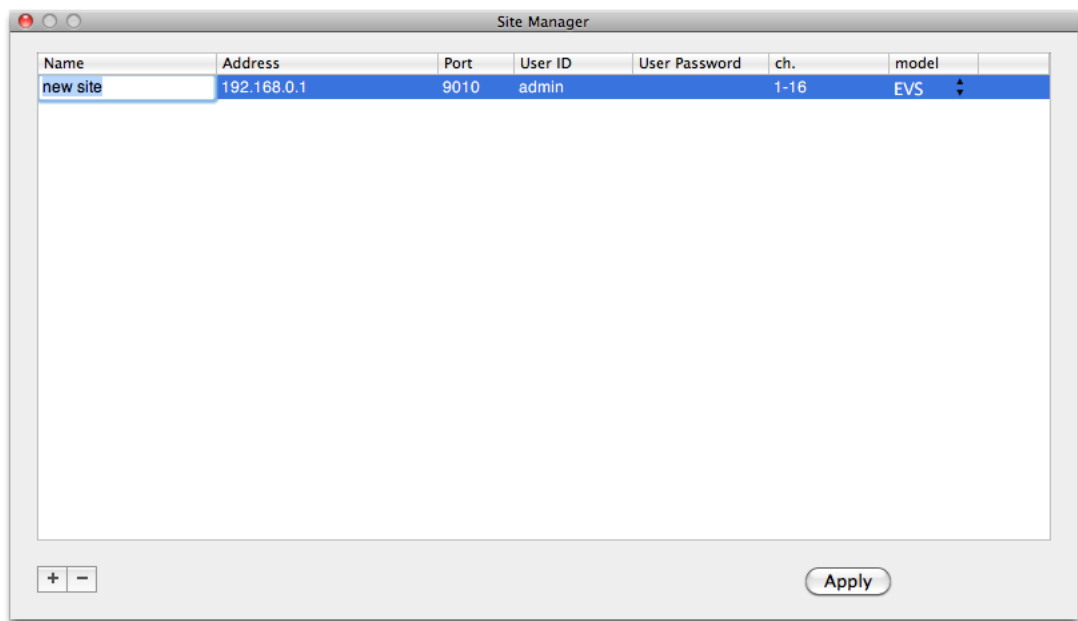
After modifications have been made, press

No.	Function	Description
1	Name	Fill in the name of the site to be registered
2	IP	Fill in the IP of the site to be registered
3	Port	Fill in the PORT No of the site to be registered (Default 9010)
4	User ID	Fill in the ID of the DVR to be connected
5	User Password	Fill in the PW of the DVR to be connected
6	Ch.	Fill in channel of the site to be registered (ex, 16 Ch DVR: 1-16 or Registered by Camera : 1,3,5,7,9)
7	Model	Select Model name of the DVR to be registered

Please double click the items, if you want to change the item from the registered information.

If you want to delete the registered DVR information, Select the DVR and click

After modifications have been made, press
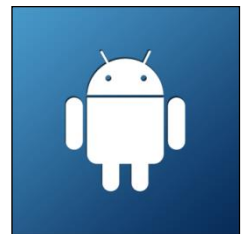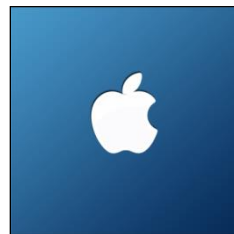
Chapter 4

MOBILE PHONE SOFTWARE USER MANUAL

8 MOBILE PHONE SOFTWARE USER GUIDE

1. Android application software

1.1 Mobile App Install

1. Click 'APP Store' and Click 'Search' to Search the 'Mobile ACS+' application in the App store.
2. Type in 'Mobile ACS+' and click 'Search', then you will see the application icon on the screen.
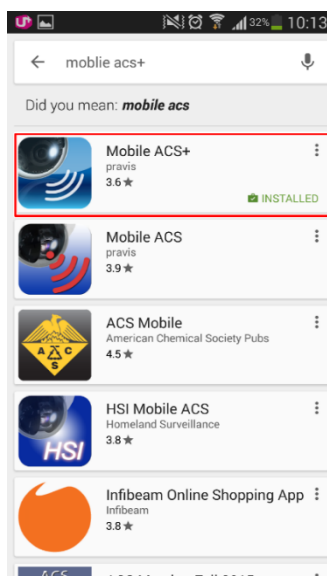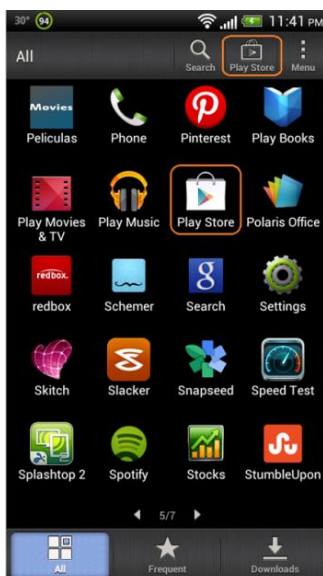
3. Now you can see the detail information about the 'Mobile ACS+' application.
   Click the 'INTALL' button and the Click the 'ACCEPT' button to proceed.
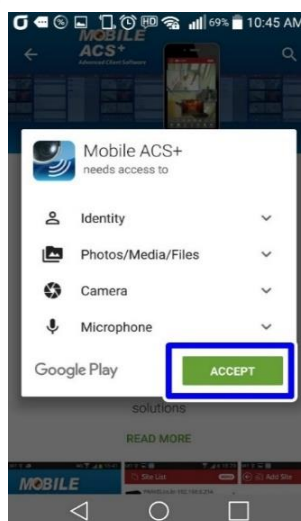
2. BASIC OPERATION

2.1 Site registration

1. When mobile application is installed successfully, you will see the 'Mobile ACS+' icon on your Phone and the loading page will be also seen before you connect to the mobile application after you click the icon.
2. Press 'MENU' button and then Click the 'Add Site' to add desired device.
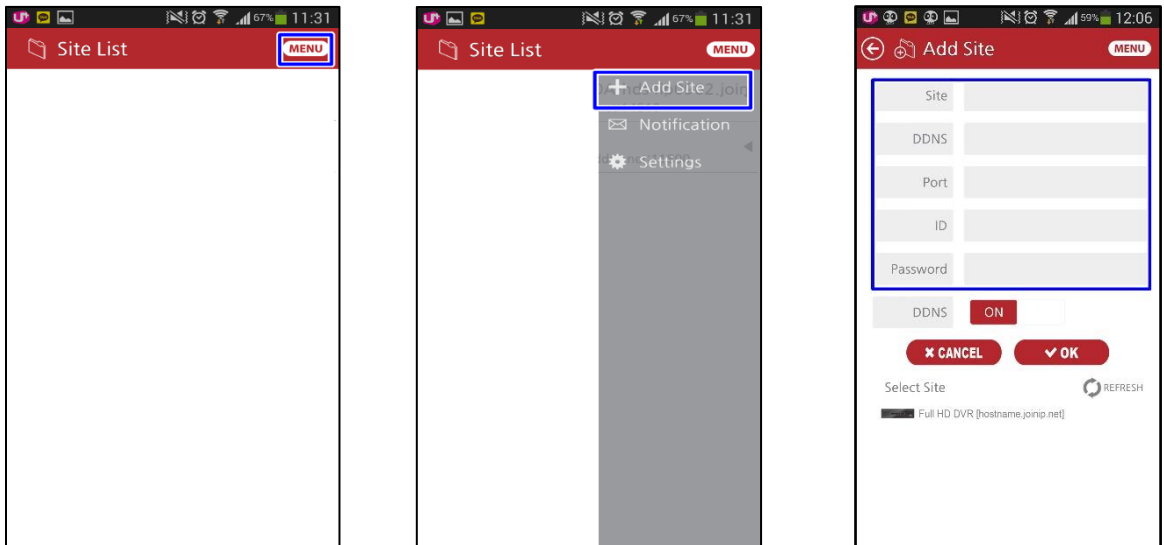
3. Fill in the new site information correctly and press "OK" button to save.
   (Default - DDNS : hostname.joinip.net , Port number : 80, ID : admin)
4. You can see site list you registered, after then you can click the site you want see.
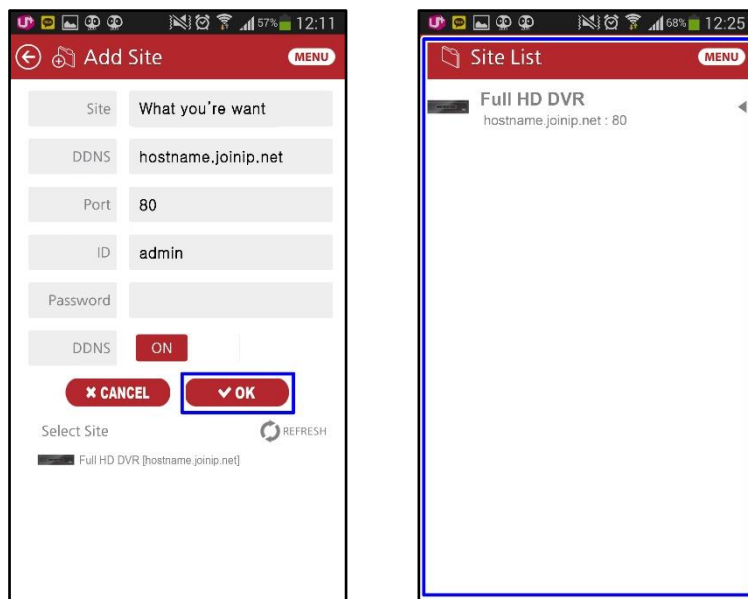
2.2 Display

1. User will have live screen view and can also select the desire layout
2. Select "DIVISON" icon, it can search up to 16channels simultaneously.

2.3 Multiple Layout / Pinch Zoom

1. Drag/switch Function : User can Drag/Switch function to switch the screens
2. Select desired channel and make it full screen. Then you can use Pinch Zoom function.
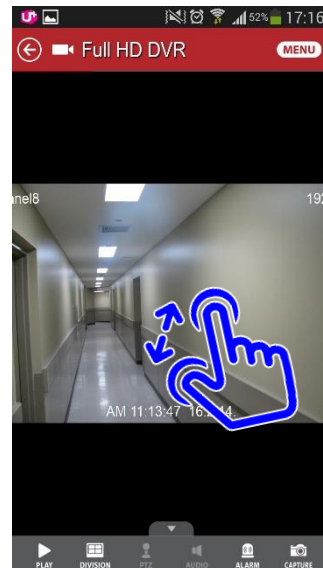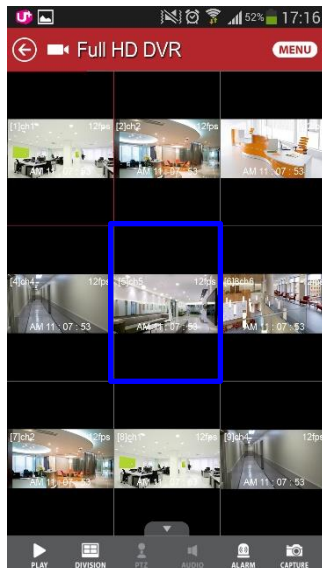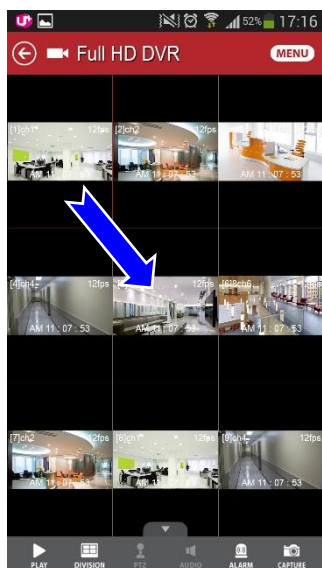
2.4 Search

1. Time and date search is available by click the "play" and then click the "search". Screen
2. Including calendar and time is turn up. You will choose date/time you want to see. And Click the "search"
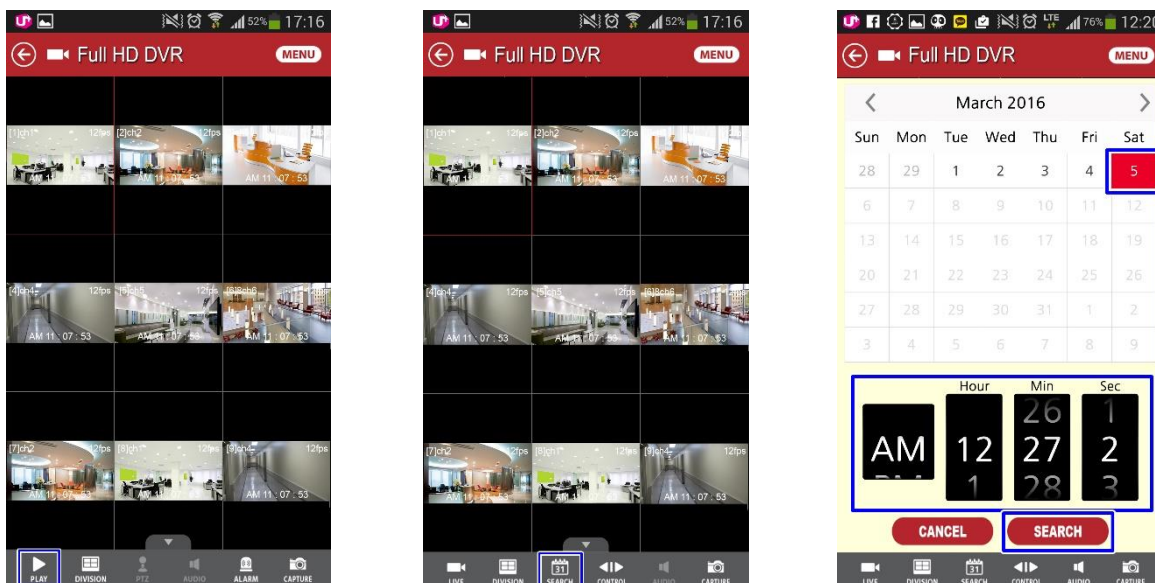
2.5 Playback / Thumbnail

1. If you want control playback spot or speed, click the "CONTROL"
2. Thumbnail search allows you to view key frames across the time bar View key changes in a scene without leaving live display use the Thumbnails view to navigate through recorded data.
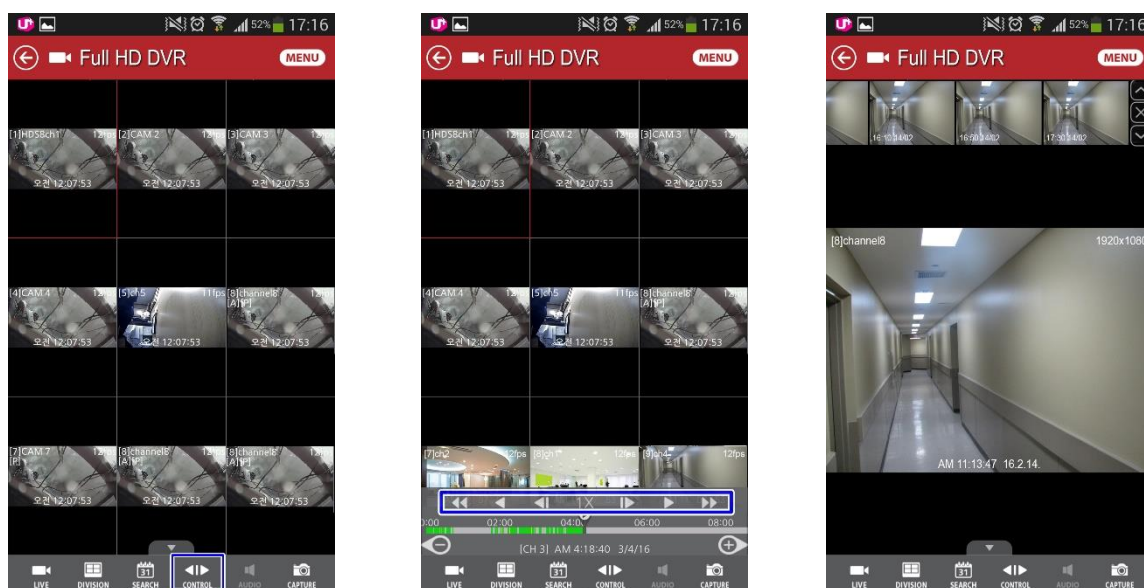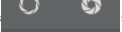
2.6 PTZ / UTC control

1. How to control PTZ control : PTZ is simply controlled by using touch screen.
   First, PTZ control is available when selected channel is set for PTZ camera.
   PTZ camera can be moved into desired position by pressing directional arrow icons.

   Also Zoom in and out can be controlled by "⊕ ⊖"icon in sub menu.

2. You will focus some stuff or people you want to see. Click "◈ ◈"icon in the middle of the sub menu.
   And you will control the diaphram so that you can accommodate it through camera.

   Click "○ ⊙"icon in the right of the sub menu.

3. How to control UTC control : If you want change the setting in the camera, Click the" [wrench icon] " icon.
   And select the move. Move Default is 95. After finishing these process, Click the "ok"
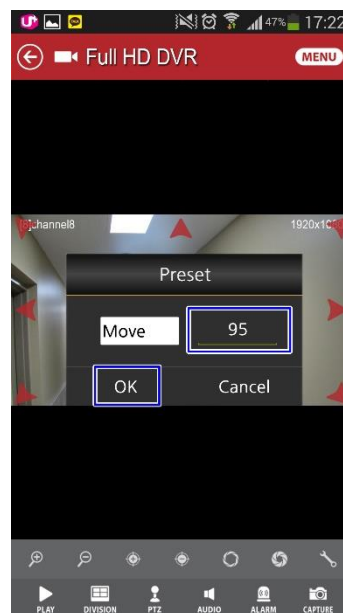
4. You can adjust exposure, color, day/night, function, privacy, setup and save&exit through the setting in the camera.

2.7 Audio control

Active or Inactive audio during live video.(Only selected 1 channel available)
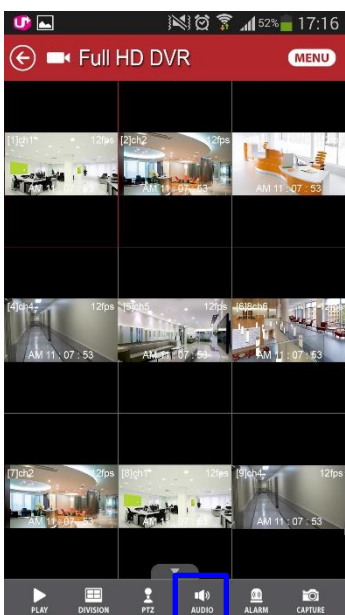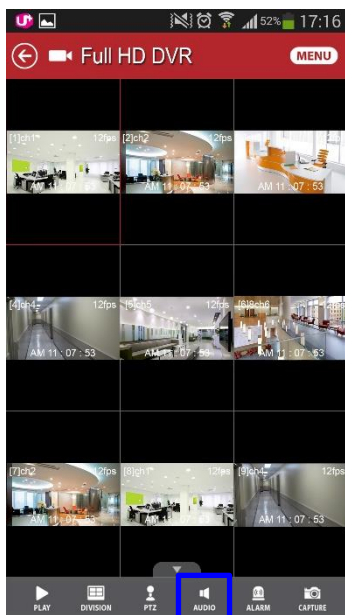
2.8 Alarm

You can also on/off the alarm in specific camera you choose. Click the "ALARM" in the bottom of screen.
After then you will choose on/off in specific camera you choose.
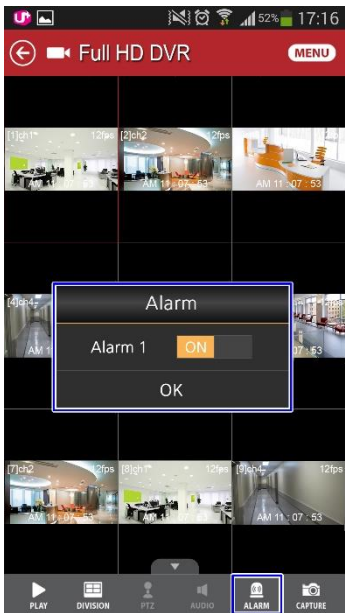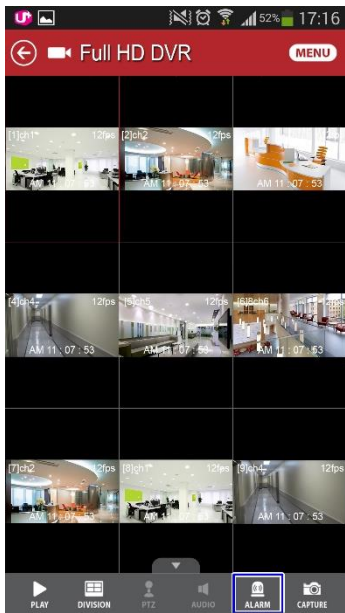
2.9 Capture

User can use Capture function by pressing Capture icon on the bottom of screen.
After then the information that tell you where picture was saved.
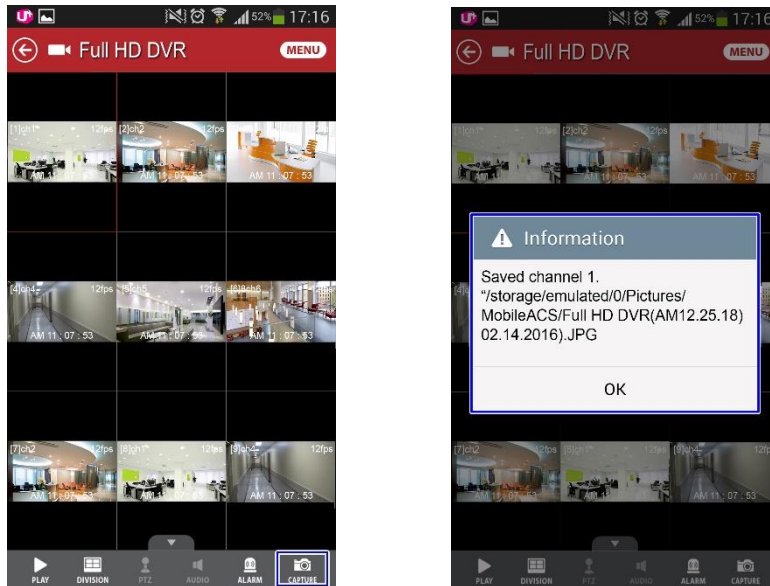
2.10 Push Notification

If you want see the notification which was sent by system, Click the " MENU " icon in the top of the picture.
And gray menu is poped up in right of the picture.
Then you can select the "notification" in top of the gray menu. Finally You can see the notification.
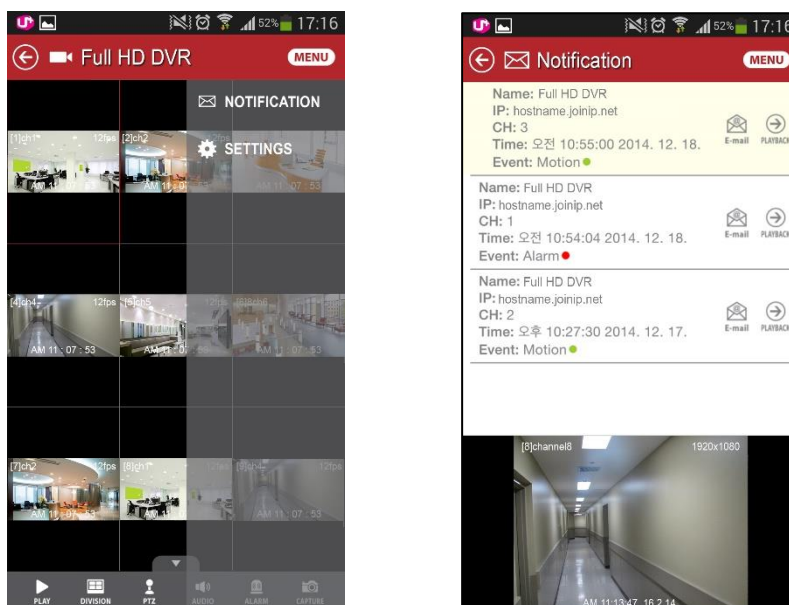
2.11 Setting

You can also check Version, Licenses and change the option such as stream, OSD, screen Ratio, Push Notification, utilities.

Click the "MENU" icon in the top of the picture.
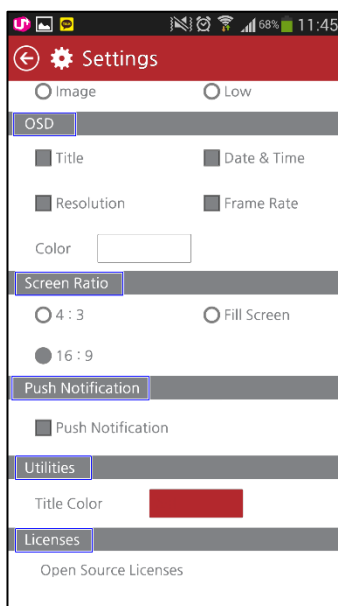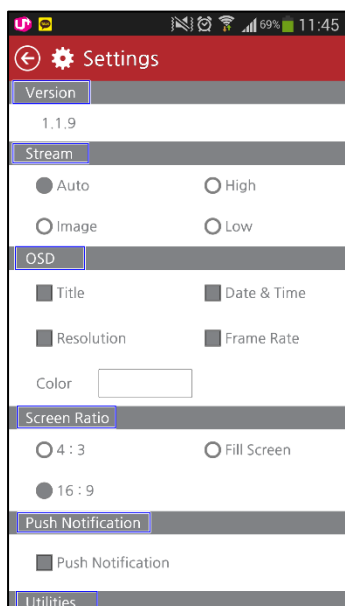
And gray menu is poped up in right of the picture.
Then you can select the "setting" in top of the gray menu.
Finally you check and change everything what it was referred to.

3. iPhone application software

1. Click 'APP Store' and Click 'Search' to Search the 'Mobile ACS+' application in the App store.
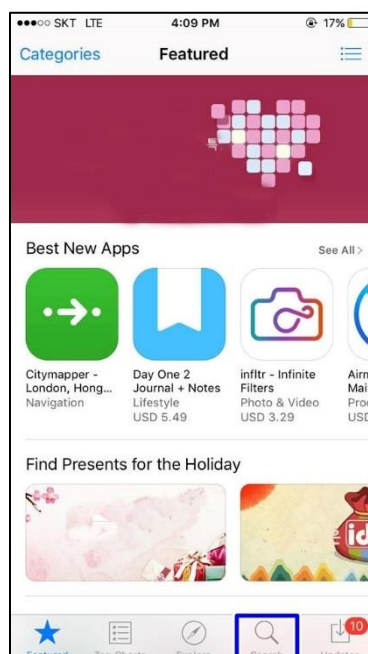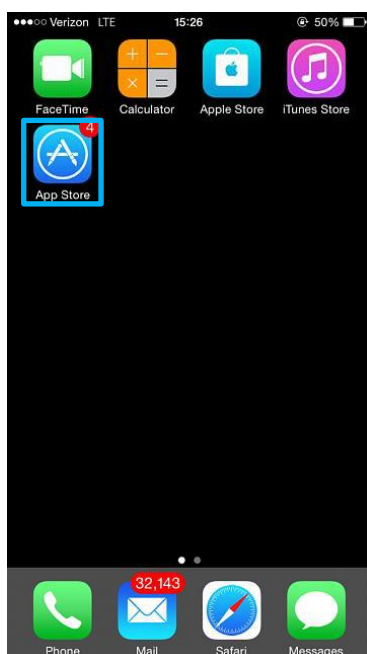
2. Type in 'Mobile ACS+' and click 'Enter', then you will see the 'Mobile ACS+' application icon on the screen.
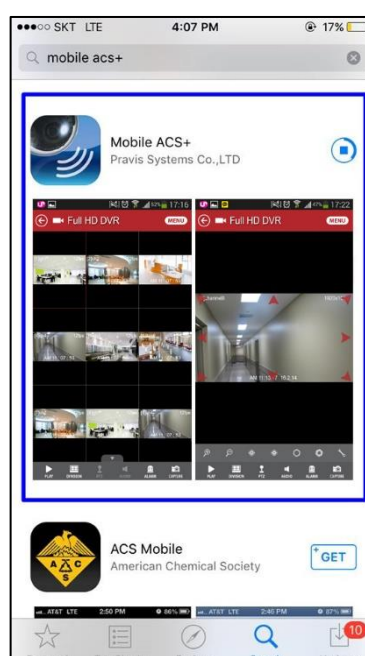
3. Now you can see the detail information about the 'Mobile ACS+' application.
   Click the 'Get' button then it will proceed to install.
   When mobile application is installed successfully, you will see the 'Mobile ACS+' icon on your iPhone.
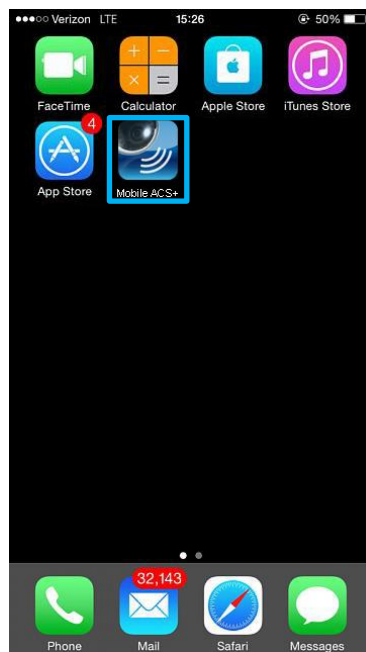
4. The next proceed is shown above.

APPENDIX : DYNDNS SITE REGISTRATION

1) Go to www.dyndns.com

2) Log in to the Site after registration
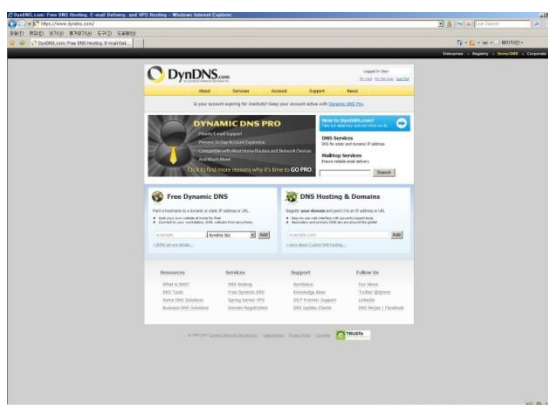
3) Click " Add Hostname" button on "Host Services"
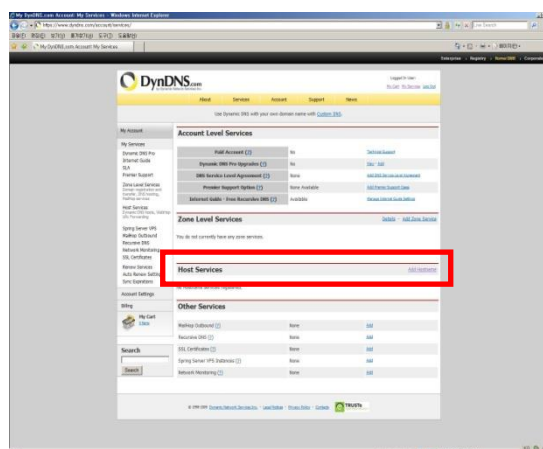
4) Put in the IP address and Host name on the blank
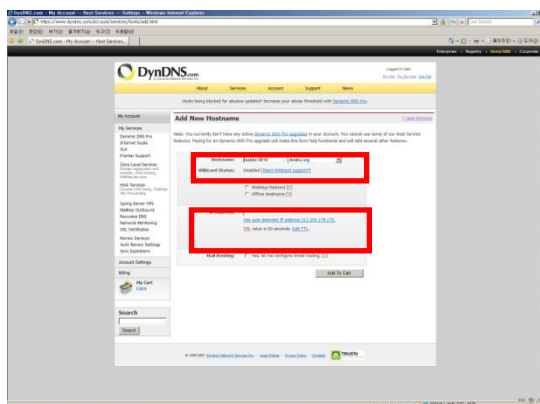
5) Click "NEXT" Button
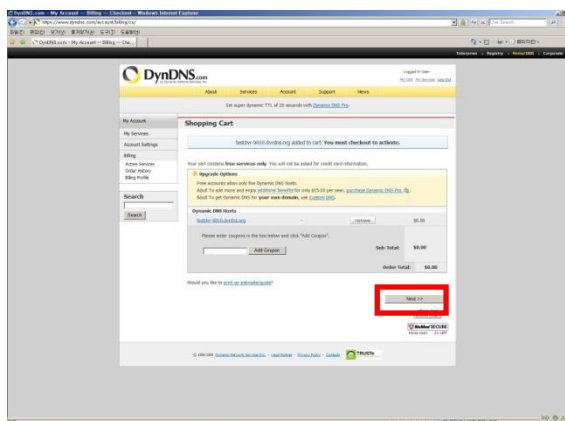
6) Click "Activate Services" button
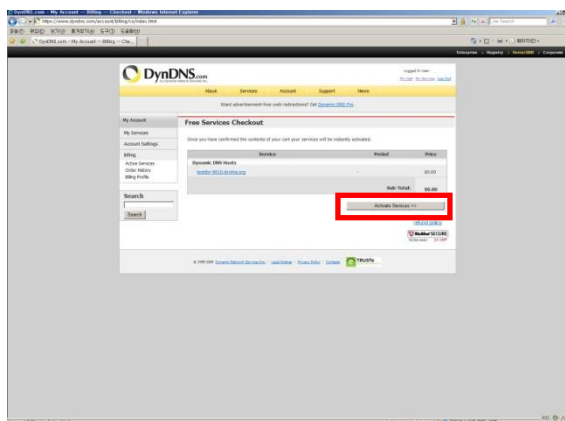
7) Confirm the domain name and IP address
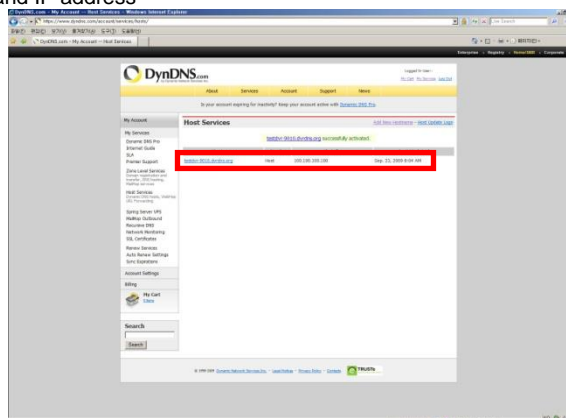
8) Check the connection status
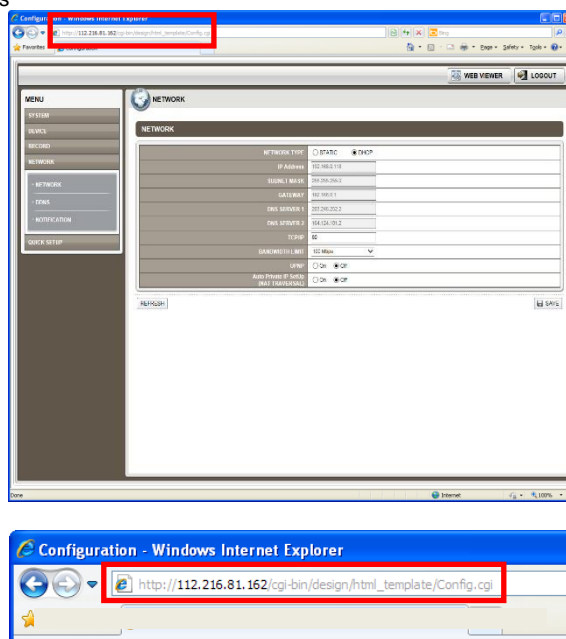
- **Tip**

1. It may take a little time to be completely done for DNS deployment after changed sub domain.

2. Please recheck DVR's IP address registered in the My Service Menu, if you can't access DVR using dyndns.

3. If you are using dyndns to change the IP address for the DVR to the update request, dyndns update by the circumstances that may be late.

4. Dyndns domain is registered by the policy. If the update occurs frequently, it may be blocking.
   Please recheck DVR's service status registered in the My Service Menu, if you don't access dyndns.

5. If you don't access dyndns for a long time, domain will be deleted automatically.
   To prevent this, please access it regularly, or you will have to pay for it again.
   For more information, please contact to dyndns directly

9 APPENDIX : NETWORK SETUP FOR EXTERNAL USAGE

Please note: The following information are general guidelines. These may vary by networkand router specifications. Contact your installer or ISP for additional information.

If you are not connecting to your DVR from within the same network, you will have to perform port forwarding on your router to be able to access the DVR externally, via the internet.

1. In the [Network] menu set "Network Type" to [Dynamic IP] and click [IP DETECT]. The system will automatically detect the correct settings for the network where the DVR is installed.

2. Once the system generates all the information based on your network requirements, change the Network Type to Static and save all the changes as static.
    A static IP address will not be changed by the network. Contact your Internet Service Provider or Network Administrator for additional information and to obtain a static IP address from them.
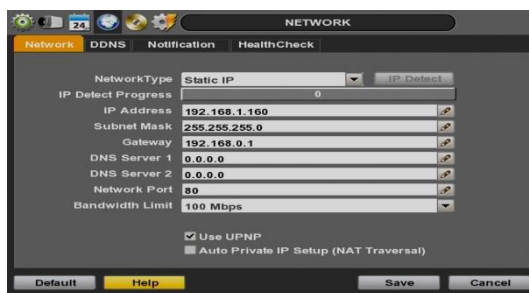
3. Some internet service providers block port 80 in their customer's routers. It is recommended to change the web port number to 81 or 82.

4. Access your router by entering its external IP address in your web browser. This information can be found by running an ipconfig command on your computer's Command Prompt. The router's external IP address is the GATEWAY address.

5. Check the DHCP settings in your router and setup the DVR for external connections by performing port forwarding. It is highly recommended that you contact your Network Administrator for more information and proper handeling of your router. Port forwarding will tell the router that all data received via those specific ports, will be redirected to the DVR. For the DVR, you will need to port forward the two following ports:

    a. Network Port:80 (Default)

6. Visit www.portforward.com for additional information on performing port forwarding on specific router models.

7. Visit www.yougetsignal.com to test whether the ports have been properly opened. Please allow up to five (5) minutes for the router to update.

8. Once the router settings have been configured correctly, open an internet explorer page and enter your router's external IP address:DVR's port number (Example: 72.243.193.215:81).

10 APPENDIX : SPECIFICATION

1HDD Type Model		4ch	8ch	16ch
Front Image				
Compression		H.264		
HDD Interface		1 x SATA		
Operation System		Embedded Linux		
Video	Input	4BNC	8BNC	16BNC
	Output	1 HD Output, 1 VGA OUT, 1 SPOT OUT		
Video Mode		NTSC/PAL		
Display Speed		120/100fps@1080P	240/200fps@1080P 120/100@4k	480/400fps@1080P 240/100@4k
Screen Split		1, 4	1, 4, 9	1, 4, 9, 16
Recording Speed (NTSC/PAL)	Main Stream	Max.120fps@1080P / Max.100fps@1080P	Max.240fps@1080P / Max.200fps@1080P	Max.480fps@1080P / Max.400fps@1080P
Recording Resolution		NTSC: 480x240, 960x240, 960x480 / 720P, 1080P, 3M, 4M, 5M PAL: 480x288, 960x288, 960x576 / 720P, 1080P, 3M, 4M, 5M		
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instant(Panic) Record		
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32		
	Function	1, 4 (Multi-Channel Playback)	1, 4, 9 (Multi-Channel Playback)	1, 4, 9, 16 (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log		
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack		
Alarm Input / Relay Output		1 x In / 1 x Relay Out	4 x In / 1 x Relay Out	1 x In / 1 x Relay Out
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)		
		RS 485 Port 1ea (PTZ, Keyboard Controller)	RS 485 Port 2ea (PTZ, Keyboard Controller)	RS 485 Port 1ea (PTZ, Keyboard Controller)
LAN		1 x 10/100/1000Mbps Gigabit Ethernet		
Network Transmission		Video Dual-Stream (Local Recording & Network Transmission)		
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)		
		Remote & E-Mail Notification Remote System Reboot by Client(CMS)		
Mobile S/W		Android, iPhone		
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris		

1HDD Type Model		4ch	8ch	16ch
Remote Management Backup Device	**S/W**	Central Management System		
	Web(IE)	Live monitoring, Playback & System Configuration		
	Internal	N/A		
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support		
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function Import & Export & Instant File Backup Warning Alarm for System Over-Temperature		
System Operation		Mouse		
Power		12V x 2A D/C	12V x 3A D/C	12V x 5A D/C
Temperature & Humidity	**Storage**	-20 ~ 60℃ / 20 ~ 95%RH		
	Operating	5 ~ 40℃. 20 ~ 80%RH		
Cerification		CE, FCC, WEEE, RoHS, KC		
Dimension(W x H x D)		280 x 48 x 245		

2HDD Type Model		8ch	16ch
Front Image			
Compression		H.264	
HDD Interface		2 x SATA	
Operation System		Embedded Linux	
Video	Input	8BNC	16BNC
	Output	1 HD Output, 1 VGA OUT, 1 SPOT OUT	
Video Mode		NTSC/PAL	
Display Speed		240/200fps@1080P 120/100@4k	480/400fps@1080P 240/100@4k
Screen Split		1, 4, 9	1, 4, 9, 16
Recording Speed (NTSC/PAL)	Main Stream	Max.240fps@1080P / Max.200fps@1080P	Max.480fps@1080P / Max.400fps@1080P
Recording Resolution		NTSC: 480x240, 960x240, 960x480 / 720P, 1080P, 3M, 4M, 5M PAL: 480x288, 960x288, 960x576 / 720P, 1080P, 3M, 4M, 5M	
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instant(Panic) Record	
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32	
	Function	1, 4, 9 (Multi-Channel Playback)	1, 4, 9, 16 (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log	
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack	
Alarm Input / Relay Output		4 x In / 1 x Relay Out	
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)	
		RS 485 Port 2ea (PTZ, Keyboard Controller)	
LAN		1 x 10/100/1000Mbps Gigabit Ethernet	
Network Transmission		Video Dual-Stream (Local Recording & Network Transmission)	
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification Remote System Reboot by Client(CMS)	
Mobile S/W		Android, iPhone	
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris	

2HDD Type Model		8ch	16ch
Remote Management Backup Device	**S/W**	Central Management System	
	Web(IE)	Live monitoring, Playback & System Configuration	
	Internal	N/A	
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support	
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function Import & Export & Instant File Backup Warning Alarm for System Over-Temperature	
System Operation		Mouse	
Power		12V x 5A D/C	
Temperature & Humidity	**Storage**	-20 ~ 60℃ / 20 ~ 95%RH	
	Operating	5 ~ 40℃. 20 ~ 80%RH	
Cerification		CE, FCC, WEEE, RoHS, KC	
Dimension(W x H x D)		360 x 66 x 356	

Front Key Type Model		8CH	16CH
Front Image			
Compression		H.264	
HDD Interface		2 x SATA	
Operation System		Embedded Linux	
Video	Input	8BNC	16BNC
	Looping	N/A	2 X Loop out port
Video Mode		NTSC/PAL	
Display Speed		120/100fps@1080P	240/200fps@1080P
Screen Split		1, 4, 9	1, 4, 9, 16
Video	Monitor	1 x HD Output (1080p Live Display)	
Recording Speed (NTSC/PAL)	Main Stream	Max.240fps@1080P / Max.200fps@1080P	Max.480fps@1080P / Max.400fps@1080P
Recording Resolution		NTSC: 480x240, 960x240, 960x480 / 720P, 1080P, 3M, 4M, 5M PAL: 480x288, 960x288, 960x576 / 720P, 1080P, 3M, 4M, 5M	
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instant(Panic) Record	
Play back & Search	Speed	x1/32, x1/16, x1/8, x1/4, x1/2, x1, x2, x4, x8, x16, x32	
	Function	1, 4, 9 (Multi-Channel Playback)	1, 4, 9, 16 (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, System log	
Audio Input / Output		In: 1 x RCA Jack / Out: 1 x RCA Jack	
Alarm Input / Relay Output		4 x In / 1 x Relay Out	
PTZ Control and Port		Virtual Joy-Stick Control on screen(by mouse)	
		RS 485 Port 2ea (PTZ, Keyboard Controller)	
LAN		1 x 10/100/1000Mbps Gigabit Ethernet	
Network Transmission		Video Dual-Stream (Local Recording & Network Transmission)	
		Live monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification, Remote System Reboot by Client(CMS)	
Mobile S/W		Android, iPhone	
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris	

Model		8CH	16CH
Remote Management Backup Device	**S/W**	Central Monitoring Software	
	Web(IE)	Live monitoring, Playback & System Configuration	
	Internal	N/A	
	External	Local backup by USB memory stick (2ea) , Network backup by CMS support	
Advanced Function		Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Import & Export & Instant File Backup Warning Alarm for System Over-Temperature	
System Operation		Mouse	
Power		12V x 5A D/C	
Temperature & Humidity	**Storage**	-20 ~ 60℃ / 20 ~ 95%RH	
	Operating	5 ~ 40℃. 20 ~ 80%RH	
Cerification		CE, FCC, WEEE, RoHS, KC	
Dimension(W x H x D)		360 x 66 x 356	

NOTE   The specifications are subject to change without notice