



Management Software
Control Center Standard
(Ver 3.0)

User's Manual
(EN Rev 1.0)

Control Center

Installation and Operation Manual

This user guide is explaining usage of Control Center.

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Contents of this manual could be different based on software upgrade and product design along with specification can be subject to be changed without any pre-notice to users.

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Product Overview

Basic Information

Control Center is managing software that can control max 1,024 units installed in remote area.

It provides functions such as real-time monitoring, search and backup of recorded image and setting. It also supports dual monitor with 64 split screen and can monitor max 128 channels simultaneously. It can be done with designated motion area, and text search is also possible.

Multichannel monitoring, optimal can be monitored even when multi-streaming WEBGATE's advantage of partitioned to fit on the screen and the ability to automatically select a stream.

This feature is to show HD Stream (1080p, 720p) in single screen mode and SD Stream (D1, Half, CIF) in 16 split or more smaller split screen mode to reduce unnecessary consumption of network resources and to help efficient use of CPU resources. This feature works automatically so no need to set user to transfer images directly or wait.

Through this technology is applied in the distributed connection management, and it uses less CPU and network load, real-time management of many units..

With more than 8channels of 1080p/30fps video can be smoothly monitored using a high-performance display engine newly mounted from the Control Center 3.0 version, and other programs lack the performance of the PC by momentarily, it turns channel monitoring only minimal frame rate to reduces to guarantee the stability of the system, and when the performance restored, the system always returned to the monitoring of the original frame rate automatically.

There are several way to notified and able to cope the situation that occurs in the registered units in real time, it also provides the ability to store and retrieve the events that occurred and when an event occurs, it pops-up the related video.

The Control Center provides Viewset and Map grouping function to efficiently and conveniently managing the number of units.

Viewset function is to let user wish to select the channels with a new name from several units.

And the Map feature is to placing the camera, sensor, MIC and relay in the map to managing the units and you can operate each device icon to view the image and control.

In addition, since it supports dual monitor, so you can monitor and control units at the same time, and also you can check the units status in real-time such as event, alarm log,

Main Features

Support FULL HD Video

Control Center supports live monitoring/playback and backup with SD CIF/HALF/D1 normal image and also HD 1080p(1920x1080), 720p(1280x720) high quality image.

- ✓ **Support up to 8ch at 1080p with 30fps each channel in live real-time monitoring**
- ✓ **Support up to 50ch at CIF with 30fps each channel in live real-time monitoring**

Live Monitoring

Support various monitoring screen and high quality image display without delay for each channel.

- ✓ **Supports various screen split for monitoring "1/4/9/16/25/36/49/64"**
- ✓ **Full Screen Mode**
- ✓ **Can add the image to the desired position by drag-and-drop operation with mouse**
- ✓ **Function for management of group viewset**
- ✓ **Layered map function**
- ✓ **Auto Sequence**
- ✓ **Event Pop-up**
- ✓ **Real-time audio output**
- ✓ **Support Mic**

Playback

Support convenient function for search and playback.

- ✓ **Support 16 split screen playback simultaneously**
- ✓ **Full Screen Mode**
- ✓ **Search by Calendar/time line/text/smart/thumbnail**
- ✓ **Playback by time, date, channel**
- ✓ **Playback by event image separately**
- ✓ **Support various speed playback (Max. 64x)**
- ✓ **Support watermark check**
- ✓ **Support image adjustment by channel**
- ✓ **Digital Zoom In/Out**
- ✓ **Playback/Search/Backup by direct connect DVR's HDD to PC**

Recording and Back-up

Support the function to store the image recording or real-time video monitoring, schedule and real-time backup unit's recorded data.

- ✓ **Support Quick Recording and Image save for monitoring's image**
- ✓ **Real-time backup of unit's recorded image**
- ✓ **Auto backup via schedule backup**
- ✓ **Event log record/search/backup**

Others

- ✓ **Support all WEBGATE models which are IP Camera, SD DVR, HD DVR, NVR, WinDVRs, WinRDS**
- ✓ **Max. 1024 units can be connected**
- ✓ **Support user rights, user operating limitation and user log-in**
- ✓ **Support saving of unit's setting information**
- ✓ **Import/Export setting information**
- ✓ **Support Keyboard hotkey and joystick**
- ✓ **Support Jog/Shuttle device for playback**

Installation

System Requirements

Recommended system requirements for running Control Center.

Items	Min. Requirements	Recommended
CPU	Intel Core2Duo	Intel i7 2.8GHz or higher
Main Memory	2GB	4GB or higher
Video Card	128MB Graphic Card	Radeon HD6800 or higher
Display Resolution	1280 x 1024 (with 32bit color) or higher	1920 x 1080 (with 32bit color) or higher
HDD	100GB or higher	500GB or higher
OS	Windows XP 32bit	Windows 7 32Bit
Others	DirectX 11 or higher	DirectX 11 or higher

Notice before installation

Control Center Pro is optimized for Microsoft Windows7 and 32bit operating system.

It is highly recommended to install Windows Update and virus detection program so that you can protect a virus and serious security code.

The PC's resource will be decreased due to a large amount of event occurred by registered device in Control Center. In order to improve the PC's performance, you need to change the unit's setting to prevent unwanted event occurs.

In case using the video driver which is provided from Microsoft, the display in user's screen could be seriously flickering and its efficiency can decrease, so do not use DirectX, or establish the up-to-date driver which is provided from the video card manufacturing company.

<Note>

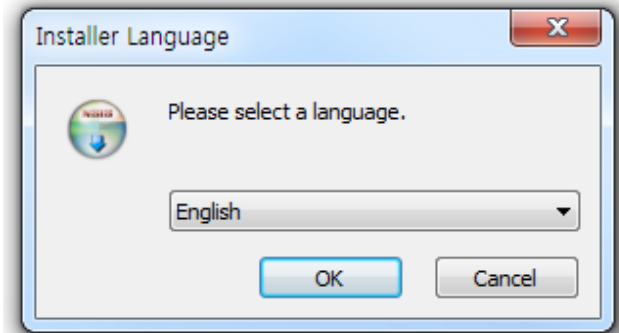
1. The PC user who has no permission to set the path to the folder that cannot write.
2. May not work properly if two or more users through the transition from one system to run the program from the account. It is recommended that only one account to use to install the program.
3. When you upgrade from version v3.x or below, the sub log storage method is changed. And when you first log after the upgrade, the search time will take longer time.
4. In order to avoid a conflict with the program that is used in the PC, close all programs that are running and encouraged to proceed with the installation.
5. Exit the program or web viewer provided by WEBGATE, and must to be proceed with the installation.

Installation Program

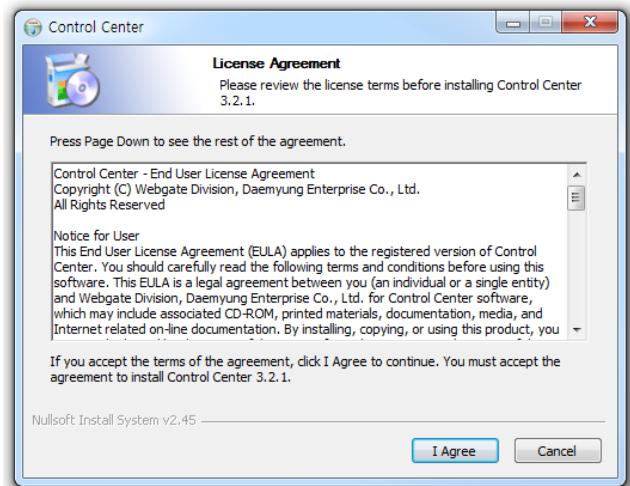
Installation

Execute the install program to installing Control Center in PC.

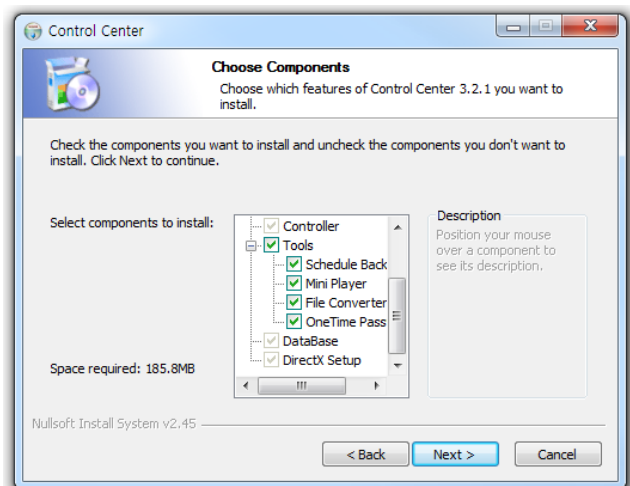
- 1) Run "Control Center Pro 3.x.x.x Setup.exe" file from the Control Center Setup CD or PC, and select the language that you wish to install and click **[OK]** button.



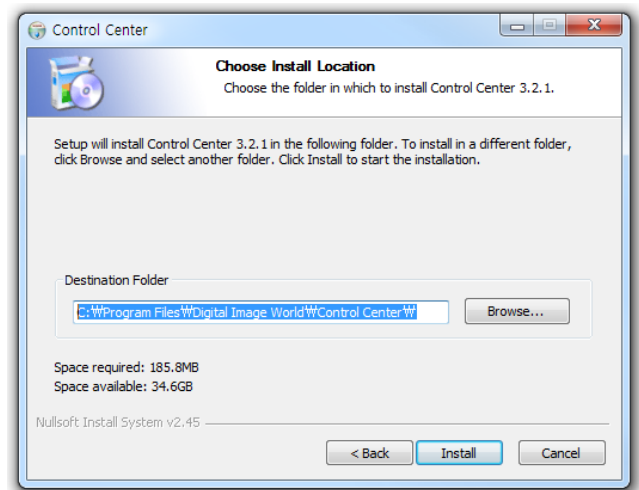
- 2) Click **[I Agree]** button to continue to do installation.



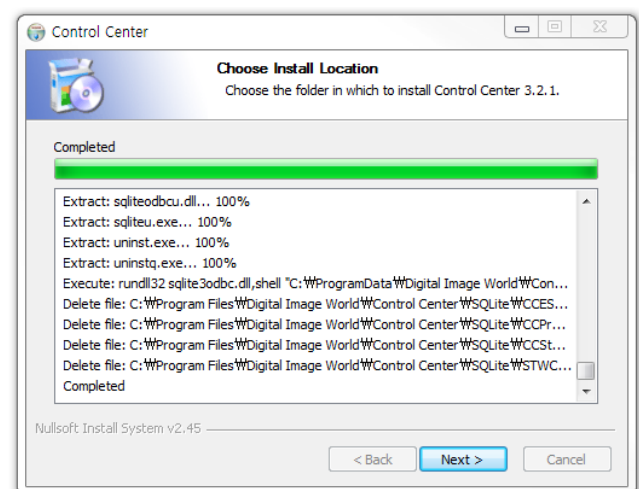
- 3) Select the additional program that you wish to install with default program and click **[Next>]** button.



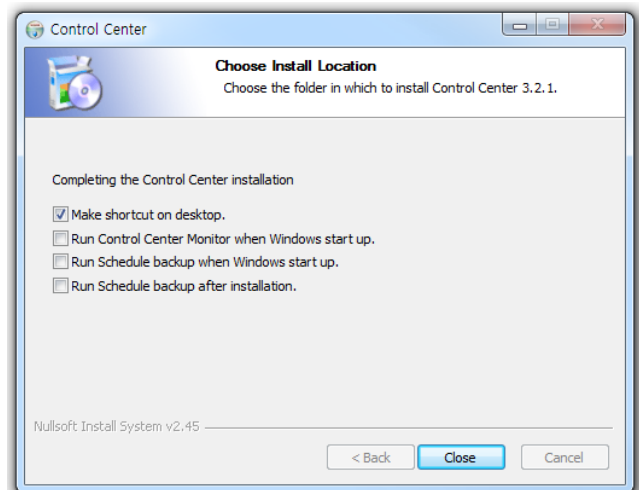
1) Select folder and click **[Install]** button.



2) Click **[Next>]** button once installation completed.



3) Select additional options and click **[Close]** button to complete the installation.



Upgrading

In case the Control Center already installed on your PC, upgrade directly without going through the process of deleting the program file to run the program, the upgrade is possible.

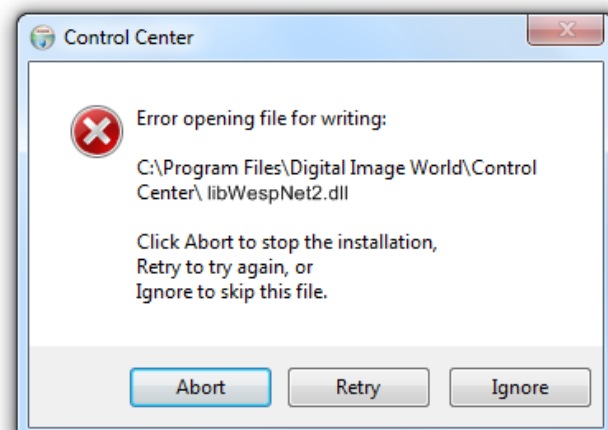
The installation process is same as "new install" and it will keep exist setting during the program upgrading.

How to solve the problems that has occurred during installation

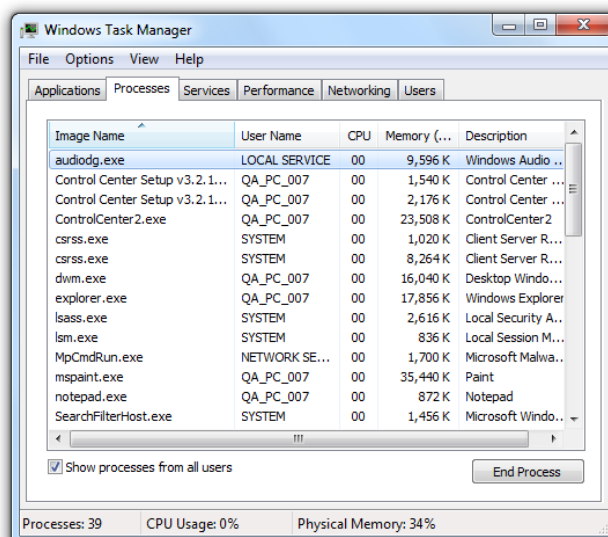
Other programs are being used in PC, the installation will be stopped and an error occurs in the process of installing the Control Center. Process and conflict management in the Windows system can be generated, at

this time follows the progress of the installation process terminates and normally you can proceed with the installation.

- 1) Do not click **[Abort]** or **[Ignore]** when you get the error as shown in the picture and open the "Windows Task manager".



- 2) Select "display all users process" option from bottom of the Windows Task Manager.
- 3) Select "ControllerService.exe" and "Controller.exe" and click **[End Process]** to close process.
- 4) Click **[Retry]** to continue to do installation.



To verify the results of the installation

To check whether Control Center installed in properly after completed the installation.

- 1) Go to Start → All program.
- 2) If the Control Center installed in proper way, you will notice the "Digital Image World" folder with "Control Center" and other related programs.
- 3) The programs under the Tools folder which you selected during the installation.

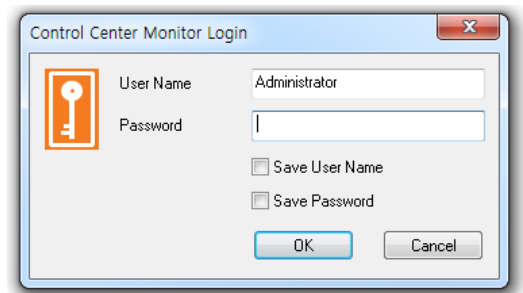


Getting Started

Running Program/Log-in

You need to log-in before using Control Center.

- 1) Double the "Control Center Monitor" icon from PC.
- 2) Type in the User ID and PW.
 - Default User ID : **Administrator**
 - Default PW : **admin**
- 3) Click **[OK]** button.
- 4) You can save user ID/PW by selecting the Save User ID/Save Password option, and you won't need to type in again when you log-in next time.



◆ if you set the option to "do not ask information when you log-in" then the program won't ask any information and log-in directly.


<Warning>

1. There is a risk of exposure to the default password, after you install the product change to a new password. Responsible for the security of other problems caused by the use of default password to the user.
2. If several people use the same PC or installed where other users access other administrators, please careful about what you are used to check the password stored.

Unit Registration

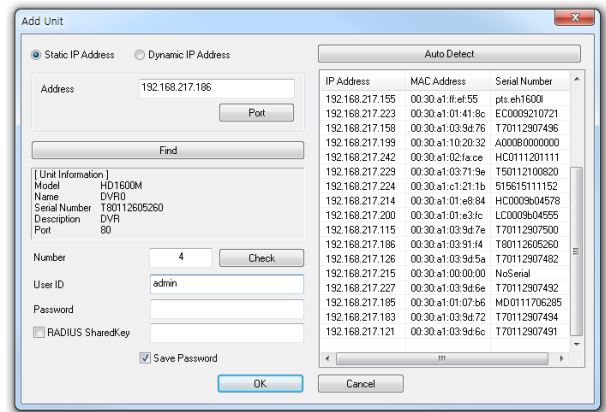
To register/edit/delete the unit only can do it from Control Center Monitor program, and the registered unit will be displayed from "My Unit" and this registered unit can be used both in Playback and Configuration Tools program. It is easy to manage several units in one folder which if you can create folder to add them.

Add Unit

Click the **[Add]**  icon or [Action] item from the tool bar or menu at the top of the Monitor Program, or place the mouse on the "my unit" and clicking the right button of mouse and select **[Add Unit]** from menu. In case the unit is in the local network area then just drag the unit to "my unit" to add the unit.

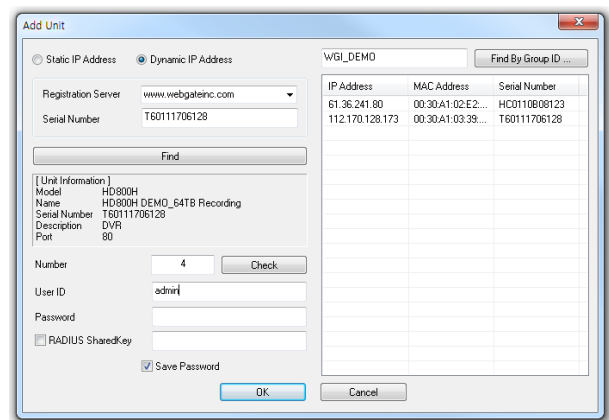
Add Fixed IP Unit

- 1) Select the fixed IP when the unit registration window executed.
- 2) Type in IP address and click **[Find]** button. If the unit is in the LAN then click the **[Auto Detect]** button.
- 3) Check the information that you wish to add the unit.
- 4) Type in user ID and PW and click **[OK]** button.
- 5) The added unit will be shown in the "my unit" list.



Add Dynamic IP Unit

- 1) Select the dynamic IP when the unit registration window executed.
- 2) Type in dynamic IP server in "Registration Server" and type in Group ID.
- 3) Click **[Find By Group ID ...]** button.
- 4) The unit will be shown in the list and select one of them that you wish to add unit.
- 5) Check the information that you wish to add the unit.
- 6) Type in user ID and PW and click **[OK]** button.
- 7) The added unit will be shown in the "my unit" list.




<Remarks>

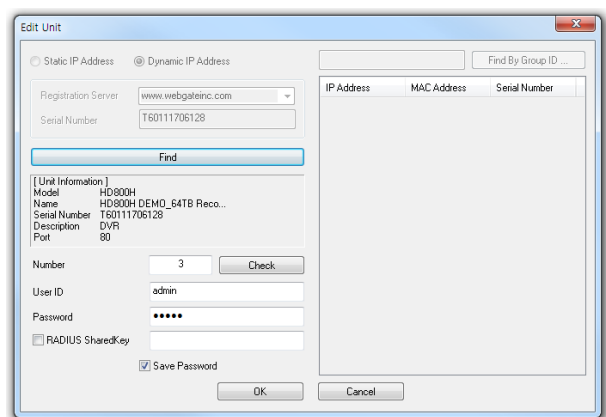
1. Currently the WEBGATE has it's own DDNS server, you can use www.webgateinc.com.

Edit Unit


You can edit port, number, user ID, PW, and RADIUS key of the unit that is registered in the "My Unit".

By click the **[Edit]**  icon or [Action] item from the tool bar or menu at the top of the Monitor Program, or place the mouse on the "my unit" and clicking the right button of mouse and select **[Edit unit]** from menu.

- 1) Edit the information that you wish to change and click **[OK]** button.
- 2) The edited information will be saved to the unit.



Delete Unit

You can delete the unit that is in the "My unit" list. And you can re-add deleted unit again without any limitation. Click the **[Delete]**  icon or [Action] item from the tool bar or menu at the top of the Monitor Program, or place the mouse on the "my unit" and clicking the right button of mouse and select **[Delete Unit]** from menu. and click **[Yes]** to confirm delete or click **[No]** to cancel.


RADIUS Key

In case you wish you use RADIUS Key then you need to have separate server that has installed RADIUS software. And after that you need to log-in by entering the ID & PW, Shared Key that has registered on the RADIUS server grants received from the administrator of the RADIUS Key and check the items you wish to log-in using a RADIUS authentication server. But in that case the unit must support RADIUS function and it should be turned to be ON.

<Remarks>

1. RADIUS (Remote Authentication Dial-In User Service) is client/server protocol software that the RAS(Remote Access Server) connect through a dial-up modem to authenticate users and to grant access to the requested system or service to them to be able to communicate with central server.

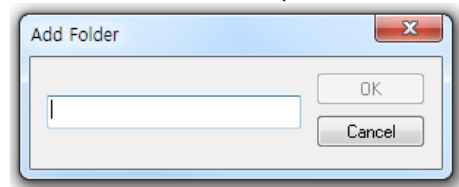
Update Unit Information

You can use  icon from tool bar or place the mouse on the unit item window and click right button of mouse and select **[Refresh]** option to update unit information. You can use it for edit information or checking the network status.

Add Folder

Place the mouse on the "my unit" and click right button of mouse and select **[Add Folder]** option.

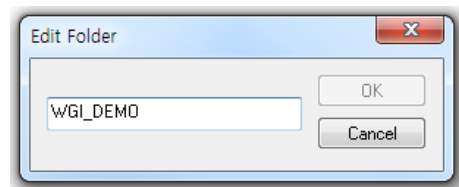
- 1) Type in folder name and click OK button to add the folder.
- 2) The folder will be shown in the "My Unit".



Edit Folder

You can edit the folder name by select the folder and click right button of mouse and select **[Edit Folder]** option.

- 1) Edit the name of folder and click OK button.
- 2) The folder name changed shown in the "My Unit".



Delete Folder

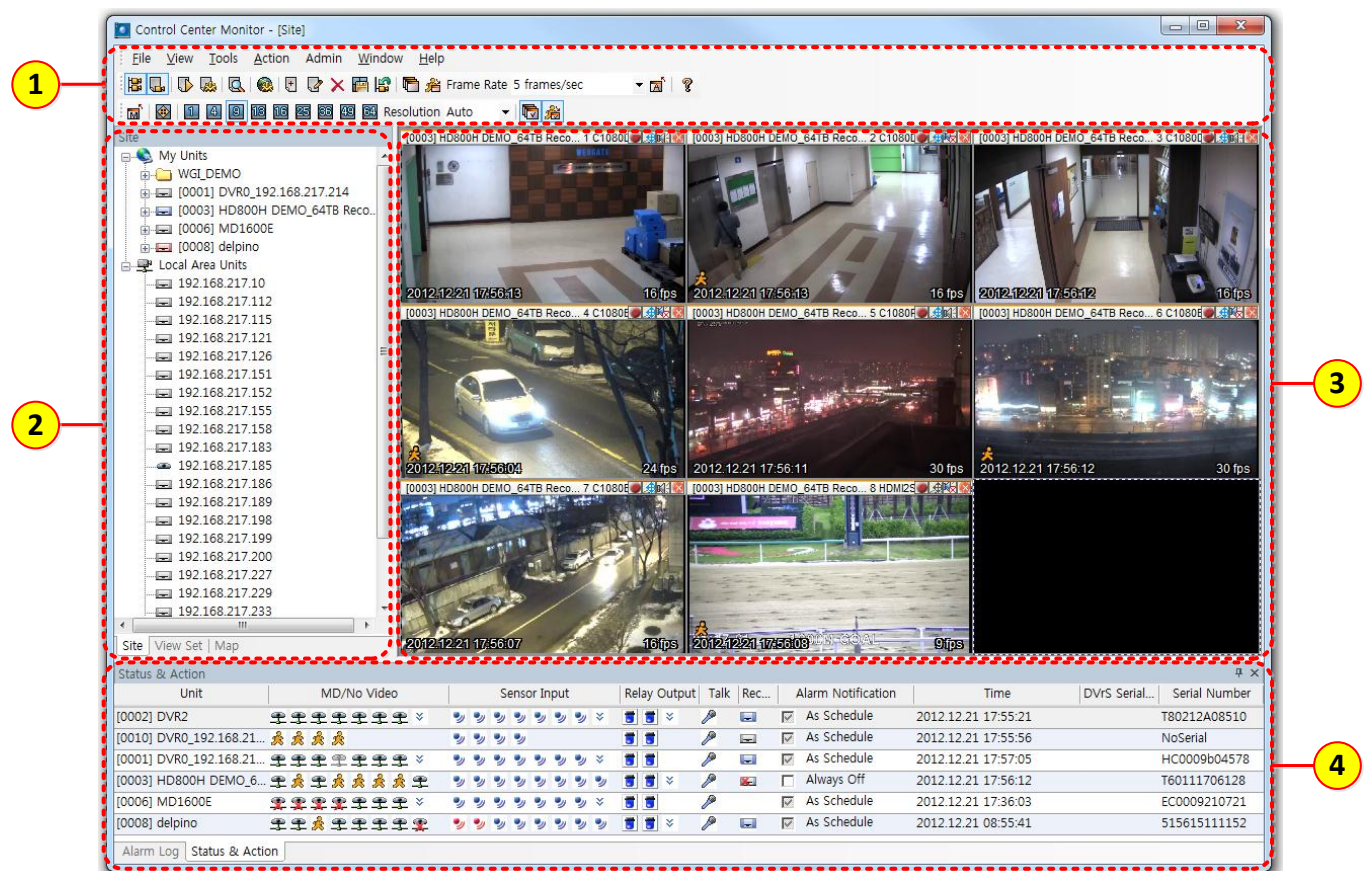
User can delete folder registered in "my unit". Please be noted that if folder is deleted, units registered in sub folder will be deleted together. Deleted folder will be removed from list and it can be registered with no limit later on at anytime. Choose folder with mouse then click on right button to select **[Delete Folder]** to run confirmation window of folder delete. Click **[Yes]** to delete folder and to cancel delete, please click **[No]**.

Live Viewer (Monitor)

Monitor program of Control Center can enable user to monitor real time image of connected unit and manage site or user. Also it is possible to check real time event information and system log along with supporting convenient and easy operation with external device such as keyboard joystick and other external device.

Screen structure and name of functions

Screen structure



Item	Description	
1	Menu/Toolbar	This is menu and function button used in program
2	Unit list window	This indicates unit/viewset/map registered in program. User can click on the list to show image
3	Image window	This indicates live monitoring image
4	Status & Action window	This indicates status of unit, event information and alarm log

Indication information of image window

User can configure indication information to be indicated on live image through caption configuration. Click on caption bar icon in monitor viewer mode of "including caption area" set as default to use "record", "PTZ" and "listen audio" function and click on "close" icon to end connection of live image.



Item		Description
1	Unit name	Show unit name of the channel
2	Channel number	Show number of the channel
3	Channel name	Show name of the channel
4	Time	Show time of the unit
5	Event	Show event information of the channel
6	Speed	Show monitoring image frame of the channel
7	Time zone	Show time zone setting value of the channel
8	Number of user	Show number of users connected to the unit
9	Function button	Execute record /PTZ / listen audio / close window

Icon function explanation

Unit list window

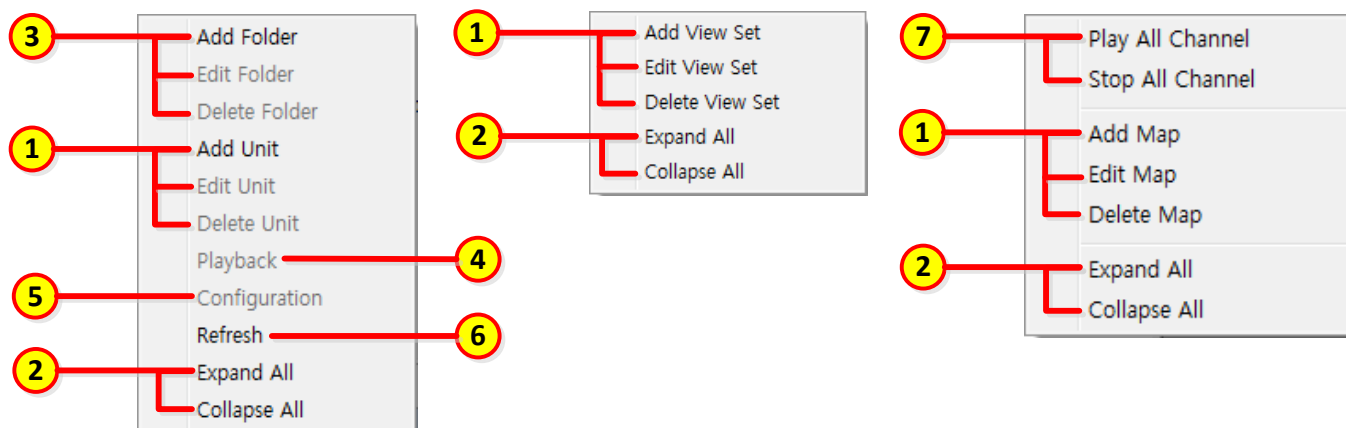
Icon	Description
	Folder to register and manage unit
	Show unit which is not registered in "My units" but detected in local network.
	Registered unit can be managed by sub folder made by user
	Connection fail of no HDD unit
	Login fail of IP camera or encoder
	Login successful of IP camera or encoder
	Blinks for 5 sec when alarm comes in
	All video channels of unit is under monitoring
	DVR with HDD
	WinDVRs, WinRDS unit
	Video channel
	Sensor
	Relay out
	Audio out (talk)
	Viewset
	Map
	Sub folder of map (channel, relay, sensor, audio out)

Tool bar

Button	Function
	Hide unit list window
	Hide even viewer window
	Change the view area to full screen of PC monitor
	Run Control Center Playback
	Run Control Center Configuration Tool
	Search on saved event by date, unit, category
	Run option configuration window
	Add unit, viewset, map
	Edit Unit/Viewset/Map.
	Delete Unit/Viewset/Map
	Save current status of monitor as a viewset
	Refresh information of unit tree (connection status, unit list detected in local area)
	Auto sequence on registered unit, viewset for monitoring
	On/Off alarm popup
5 frames/sec ▾	Change monitoring frame speed
	Close all connection monitoring or map window
	Decide map to be located at the top level among various map in map mode
	Close all connection monitoring or map window
	Arrange various maps in step style
	Arrange various maps in tile style
1 ~ 64	Divide monitor screen into 1, 4, 9, 13, 16, 25, 36, 49, 64 division
Auto ▾	Change the resolution of monitor (in case of multi monitor, there will be separated menu)
	Select if current monitor is used in sequence mode
	Select if current monitor is used as alarm popup monitor
	Show information about Control Center Monitor version and Copyright

Description of unit list window popup

Click right button of mouse on each unit list window of site / viewset / map mode to popup menu. It is possible to register, edit, delete unit and folder management, open unit list functions can be used.



Site mode



Site connection

Click to unit in the "my unit" that registered in the list, it can see live view of the unit via window video, basically, you can see all the channels of the unit is shown in split mode and you can get any individual channel which you want, In addition, it's possible to see the video by dragging the unit icon or camera icon. Such a operation, it may be same with viewset and map mode



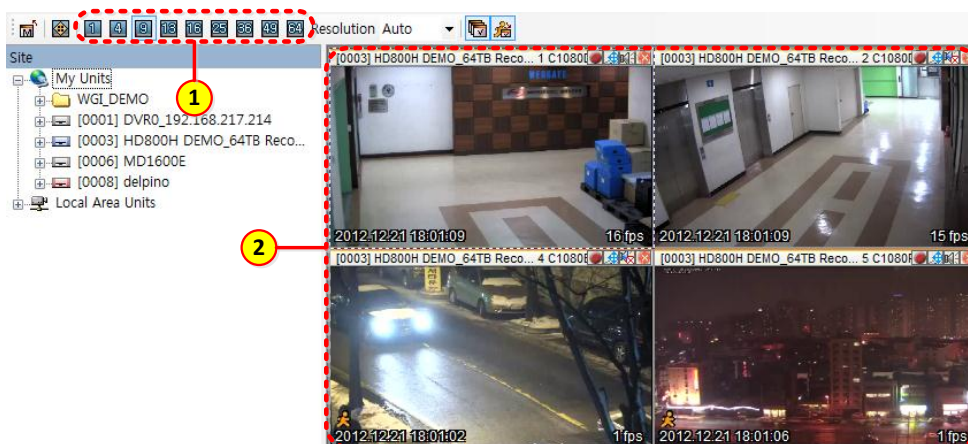
- 1) Like above, click or dragging ① unit to the ② area, video are shown in the video window.

Video connection end

There are 2 ways to end video connection, click to  icon to end all of monitoring video connection, click to  icon to end the corresponding video connection..


Video split mode change

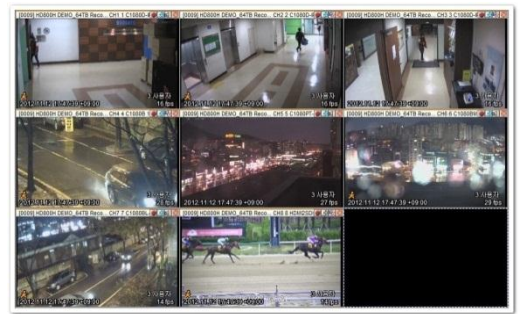
Split mode is 1~64 split and switch the channel by clicking the split mode icon or double clicking the video window.



- 1) Like above, click to ① split mode icon or double click to ② video window to switch single or multi channels.

Full screen mode

it supports full split screen that hides Control Center's control, click  [Full Screen] to execute full screen mode and finish full screen mode by [ESC] key.



Move image position

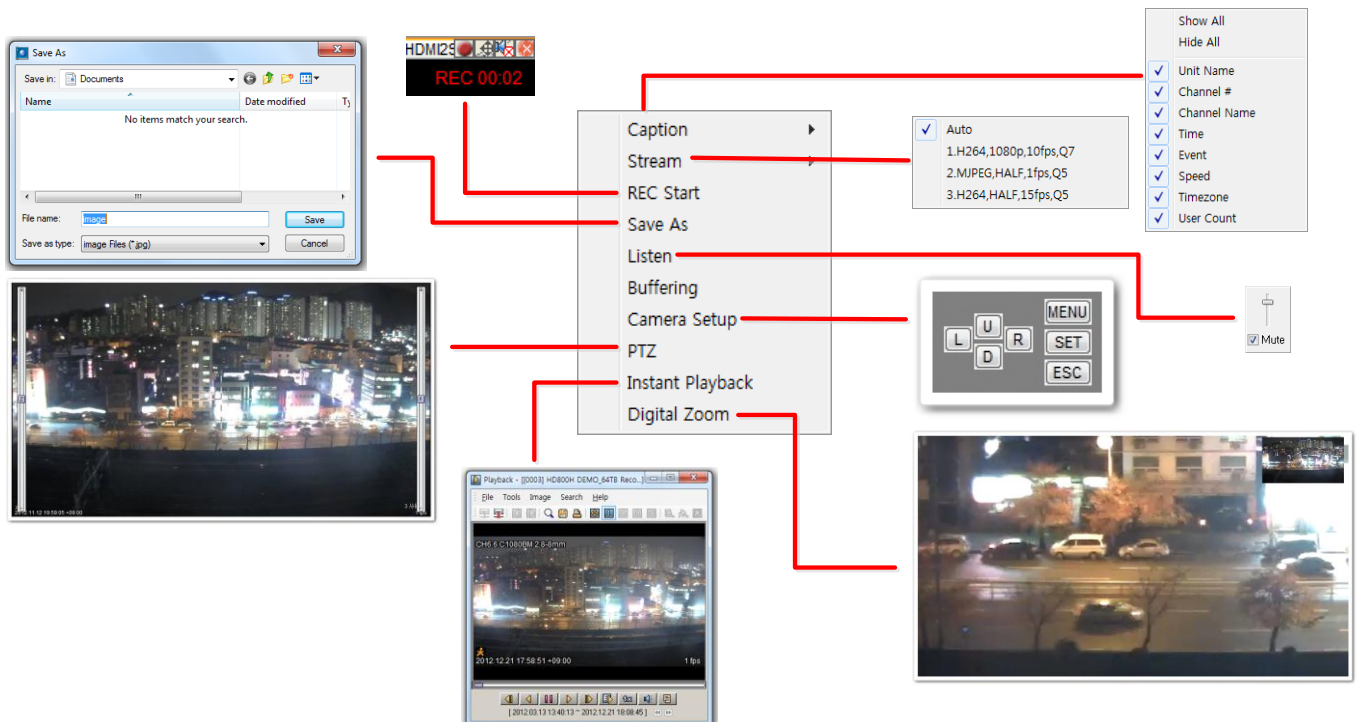
To move image position, it drags the image and drop it where you want on mouse and it can move it freely at different monitor image. .



1) Like above, drag ① to ② position, ① and ② picture position is shown interchangeably.

Video window pop-up menu

the mouse on the image and click right to see pop-up menu and it can use main function quickly on the video, this function applies to the channel only.



Item		Description
1	Caption	It can set caption list. When you reconnect the video, depending on the setting of the option, the caption will be displayed.
2	Stream	It can change vide stream. When you reconnect the video, depending on the size of window, the stream will be displayed.
3	REC start	It can record live video by RE4 format, max 10 minutes record available
4	Save As	It can save live video on JPEG, BMP format.
5	Listen	It can on/off audio out and adjust volume.
6	Buffering	When it is not showing natural video on low bandwidth environment, it can make natural video using on buffering function.
7	Camera setup	It can control camera menu that connects on DVR.
8	PTZ	It can control PTZ camera on mouse.
9	Instant Playback	It can playback the video of 10 minutes ago.
10	Digital Zoom	It can zoom in the image by mouse drag in the single-mode and see the entire video footage shows. it can also click on the minimap to move the zoom area.

<caution>


1. Transmission frame rate can be reduced at low system requirements. Uncheck caption Options or the image of the pop-up menu, in this case, uncheck caption of the popup menu , you can see better transmission frame rate.

Status & Action

It can check the status and action of units that are registered on the "my unit". In addition, it can schedule using the microphone and alarm notification.

Status & Action										
Unit	MD/No Video	Sensor Input	Relay Output	Talk	Recording	Alarm Notification	Time	DVRs Serial Number	Serial Number	
[0002] DVR2						<input checked="" type="checkbox"/> As Schedule	2012.12.21 18:12:54		T80212A08510	
[0010] DVR0_192.168.217.215						<input type="checkbox"/> Always Off	2012.12.21 18:13:46		NoSerial	
[0001] DVR0_192.168.217.214						<input checked="" type="checkbox"/> Always On	2012.12.21 18:15:20		HC0009b04578	
[0003] HD800H DEMO_64TB Reco...						<input type="checkbox"/> Always Off	2012.12.21 18:13:50		T60111706128	
[0006] MD1600E						<input checked="" type="checkbox"/> As Schedule	2012.12.21 17:36:03		EC0009210721	
[0008] delpino						<input checked="" type="checkbox"/> As Schedule	2012.12.21 09:13:22		515615111152	

Item		Icon status	Description
1	Unit		It displays unit name in the unit list window.
2	MD/No Video		It displays video channels that supports at unit It displays all the units that are supported by the video channel and channel to display the connection status, and motion detection. (camera connect, video loss, camera inactivated, motion detected)
3	Sensor Input		It displays units that are supported by the sensor and sensor operating status. (sensor OFF / sensor ON)
4	Relay Output		It displays units that are supported by the relay and relay operating status, it can control the relay clicking the icon. (relay inactivated, relay off, relay on)
5	Talk		It can send audio on audio output by pressing microphone icon. (Microphone OFF , microphone ON)
6	Recording		It displays unit HDD status. (Not Recording / No Error, Recording / No Error, Not Recording / Error,

			Recording / Error)
7	Alarm notification	<input checked="" type="checkbox"/> As Schedule <input type="checkbox"/> Always Off <input checked="" type="checkbox"/> Always On	It can set alarm notification action status and depending on setting, it works audio alarm and monitor display
8	Time		It displays current date and time.
9	DVRs Serial Number		It displays series number of DVRs / WinRDS
10	Serial Number		It displays serial number of unit..
11	Auto Hide / Close		It can set or close auto hide mode of window.

Video view

Double click to the list, it monitor all channels of the unit. The number of channels that are supported by the unit is set to show split-screen, in case of map mode, monitor window was shown on pop-up.

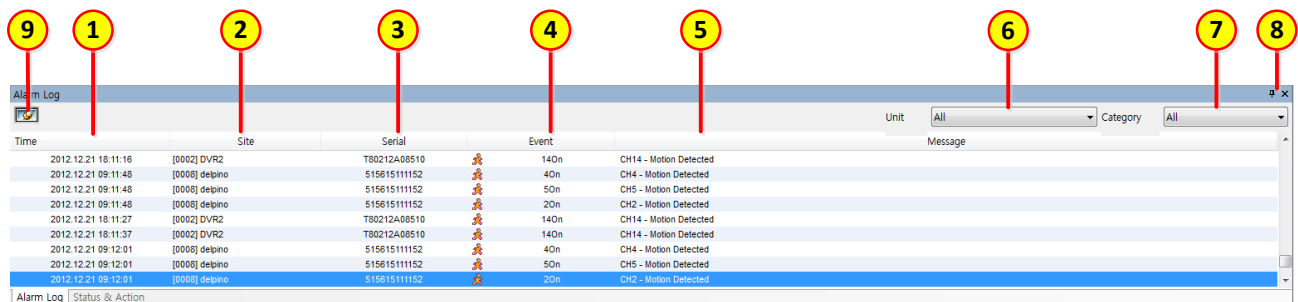
Alarm notification setup

In the right-most "alarm notification" for each unit by alarm notification methods can be set. Three ways, "schedule applies," "Always On" "Always Off", for the unit, alarm notification policies.

Set the alarm notification and schedule setup at menu option> Alarm Notifications tab,.

Alarm log

"my unit" are registered on the list can check alarm log of the unit.. it displays real time log and can set to see only the information that users may want.



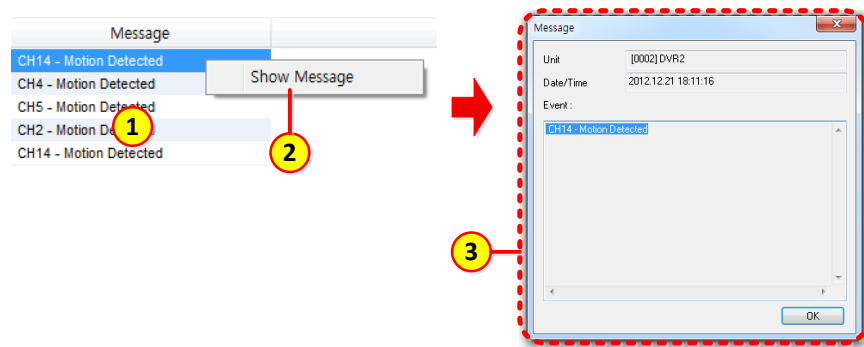
Item	Icon Status	Description
1	Time	It displays alarm occurred date and time
2	Site	It displays alarm occurred unit name.
3	Serial	It displays serial number of alarm occurred unit.
4	Event	It displays icon and number on alarm occurred information. (motion detected, sensor off, sensor on, alarm on, video connect, video disconnect, text input, login fail, setup changed)
5	Message	It displays message on alarm occurred information
6	Unit	Alarm log can be sorted by unit, Select only one unit can be selected, and all are registered in all units of the alarm log can be shown.
7	Category	Alarm log can be viewed by selecting the event, error, status, text. Select only one unit can be selected, and all are registered in all units of the alarm log can be shown.
8	Auto Hide / Close	It can setup or close auto hide mode of window
9	List fix	It can fix updated alarm log list and keeps the fixed list even the new alarm information comes.

Video view

Double click the list, it'll be monitoring the channel of unit that occurred event.. in case of motion detection, is monitoring the channel that detected motion only.. in case of sensor or relay, is playback whole channel of the unit, will change split channels belongings. the selected channel is already being monitored, this unit will change monitor focus. In case of map mode, will pop up the monitor window

Message view in detail

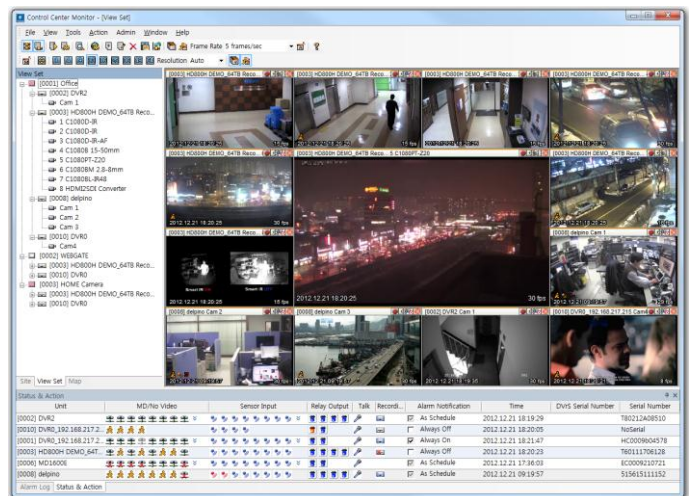
In case of long message, only printed a part of the message, if want to get whole message, you can get from "message view"





1) In the ① list, click right mouse for ② [Show Message], it will be shown ③ message window.

Viewset mode

Click viewset tap to switch viewset mode. viewset mode can manage cameras on group and display event status to confirm admin.

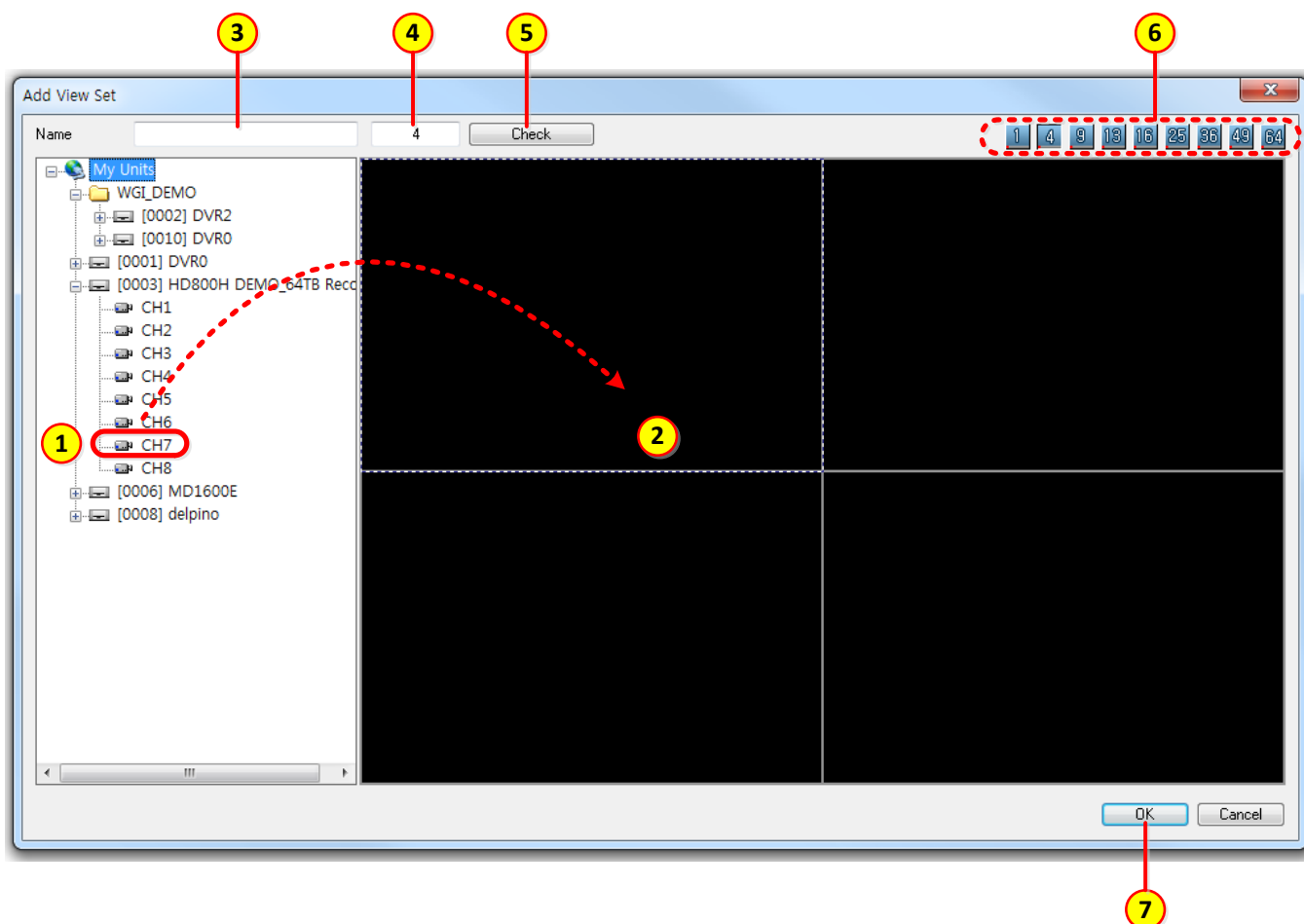


Viewset registration

Click  [Add] icon at viewset or click right mouse of [Add View Set] to register it. click  icon at site mode to register it

Register at viewset mode

In the toolbar at the top of the viewset mode or [add] icon or [Action] menu item in the menu click  [Add] icon or [Add View Set] the right button of a mouse viewset list window

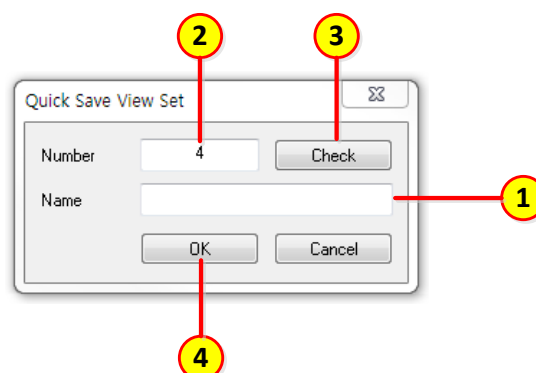


- 1) In the viewset add, click video window and choose ① camera or drag ① icon drop ②, the camera is registered. Click ⑥ icon to change split mode.
- 2) Register camera, input viewset name to ③, click ⑤ **[Check]** to designated ④ for double check.
- 3) Click ⑦ **[OK]** to save at viewset list window, if cancel to register, click **[cancel]**.

Register at site mode

In the site ode, click  icon of above tool bar.

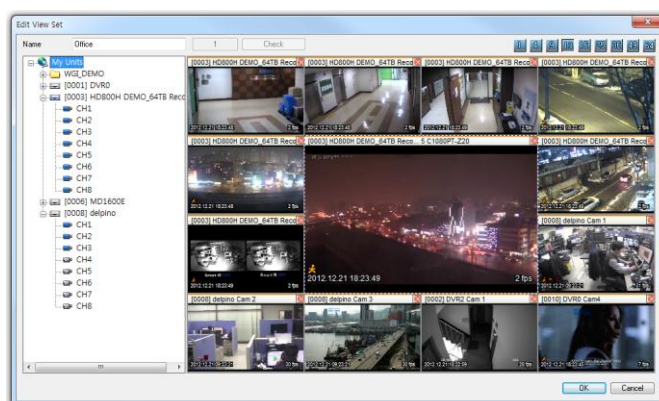
- 1) In the "viewset quick save" window, input viewset name to ①, click ③ to double check designated ②.
- 2) Click ④ **[OK]** to save at viewset window if cancel to register, click **[cancel]**.



Viewset edit

Choose viewset list, click  [edit] or mouse right to edit [viewset edit] in the menu

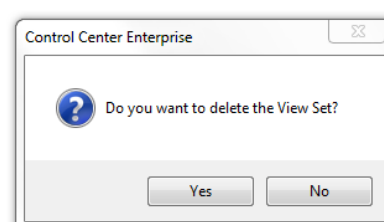
In the "viewset edit", it can change viewset name, split mode, video allocation. The edit is same way with viewset registration on same operation.



Viewset delete

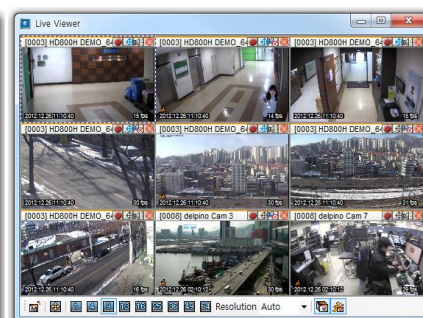
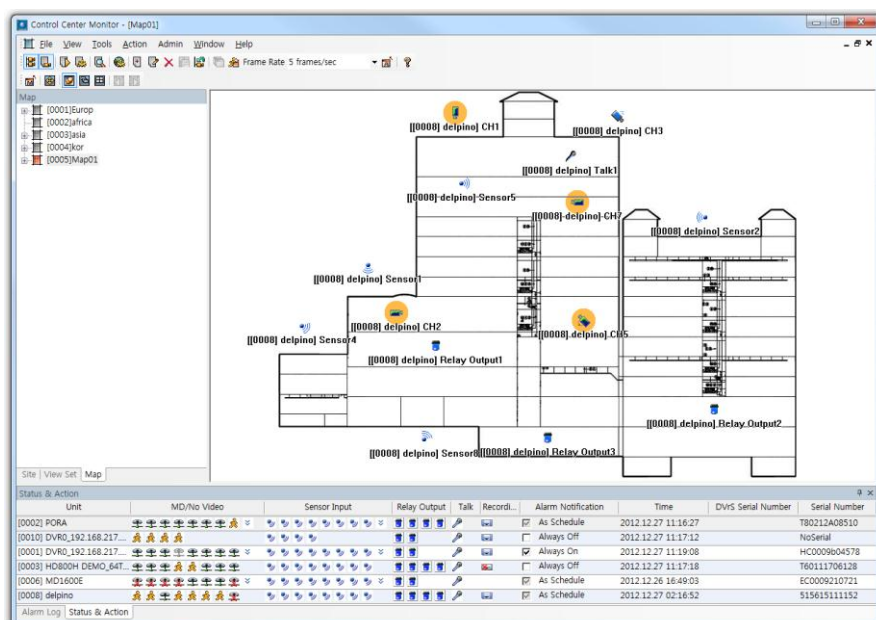
Choose viewset list, click  [delete] icon or mouse right click to select [viewset delete] to delete.

In the viewset delete confirm window, click [Yes] delete viewset in the list , click [No] to cancel the delete.



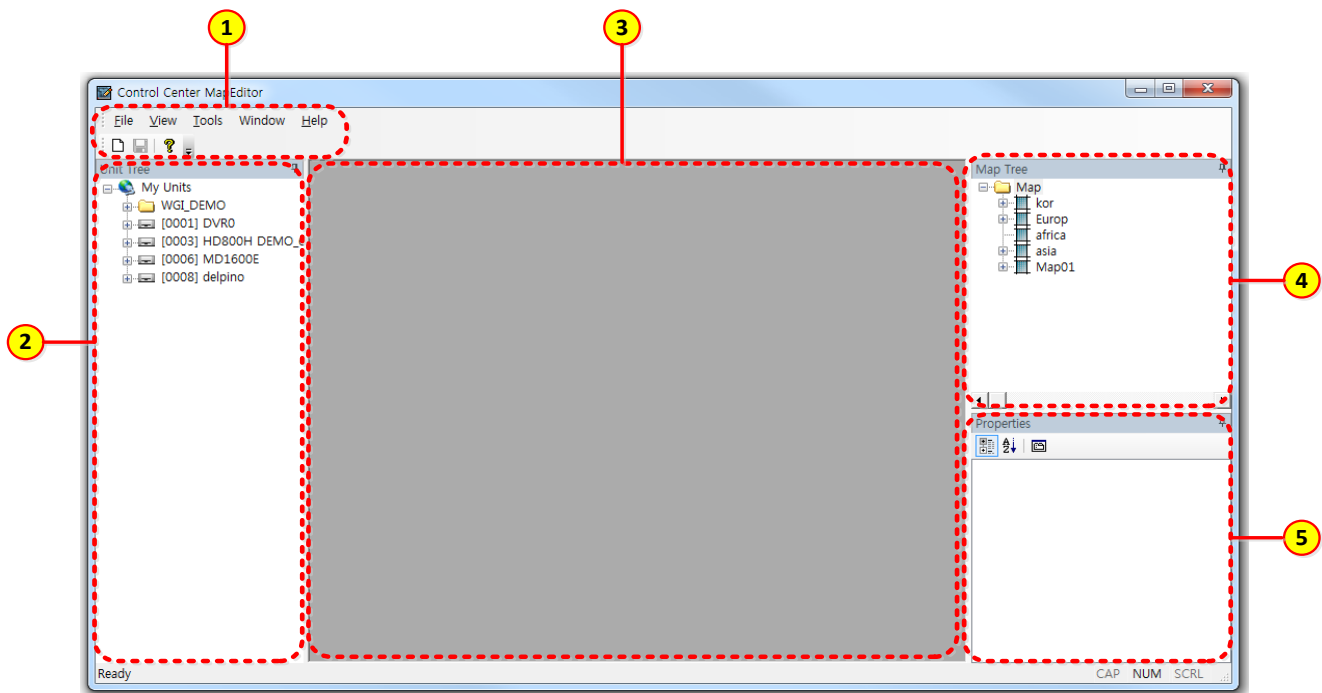
Map mode

You can change into the MAP MODE by click the "MAP" tap on the bottom of the unit list window. In the MAP MODE, you can register and control the camera, audio out, relay out, sensor, and microphone on the map, and it offers the convenience by registering the smaller map and extending it to the layer type. The registered installations display the operational status, or event occurrence, it makes administrator to check it in real time.



Map editor

Select the toolbar of Tools > [MapEditor] in the MAP MODE, and it is possible to add, edit or delete the map through "Map Editor".

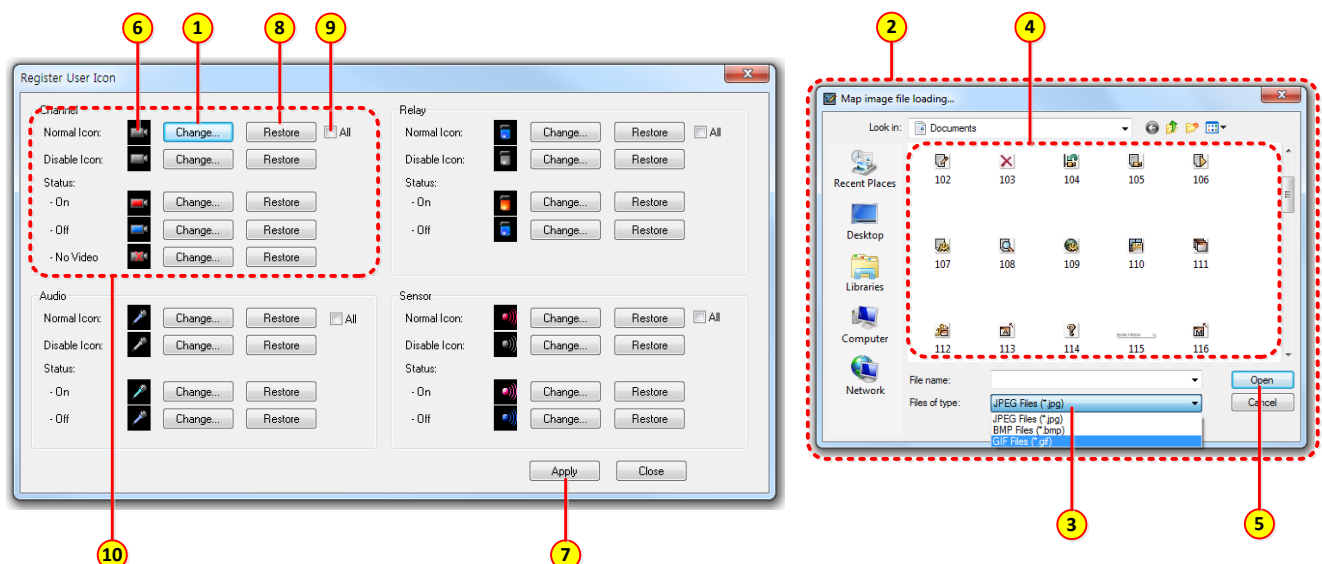


Item	Description
1	Menu/tool bar
2	Unit list window
3	Map window
4	Map Tree window
5	Properties window

USER ICON REGISTRATION

You can register and use the installation icon that is registered on the map as you want.

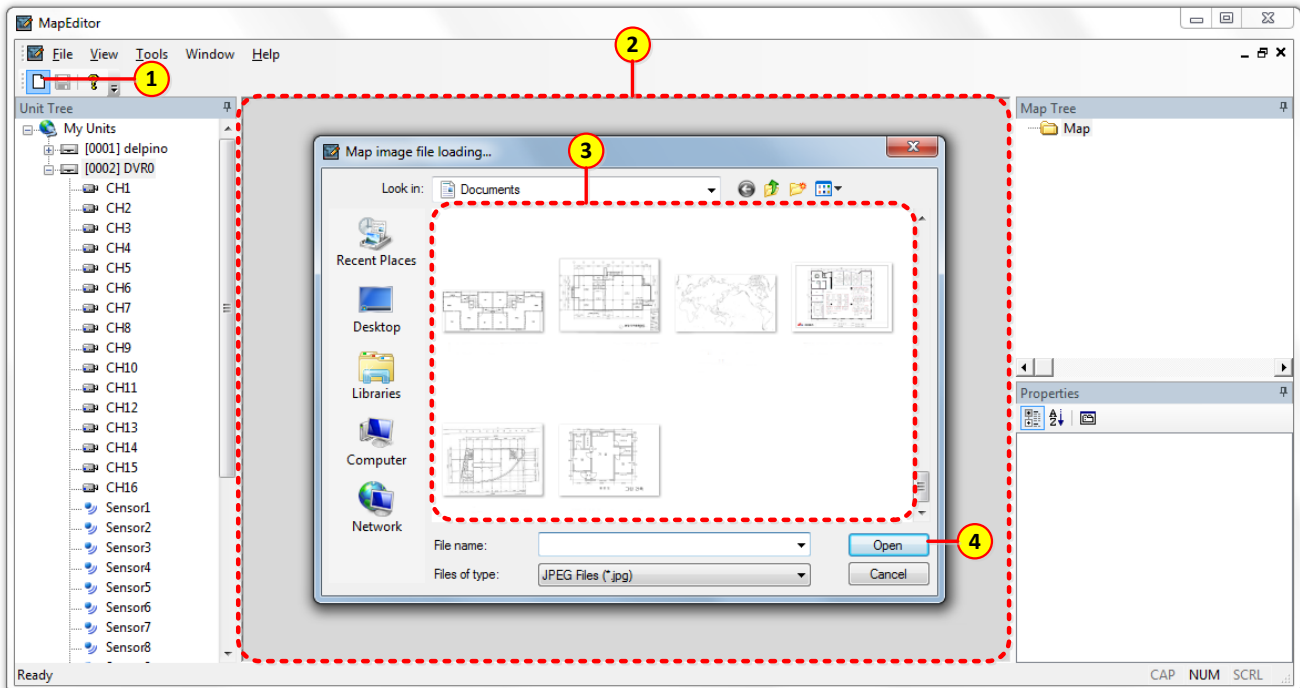
Select the **[Register User Icon]** on the menu toolbar, and "Register User Icon" window pop-ups.



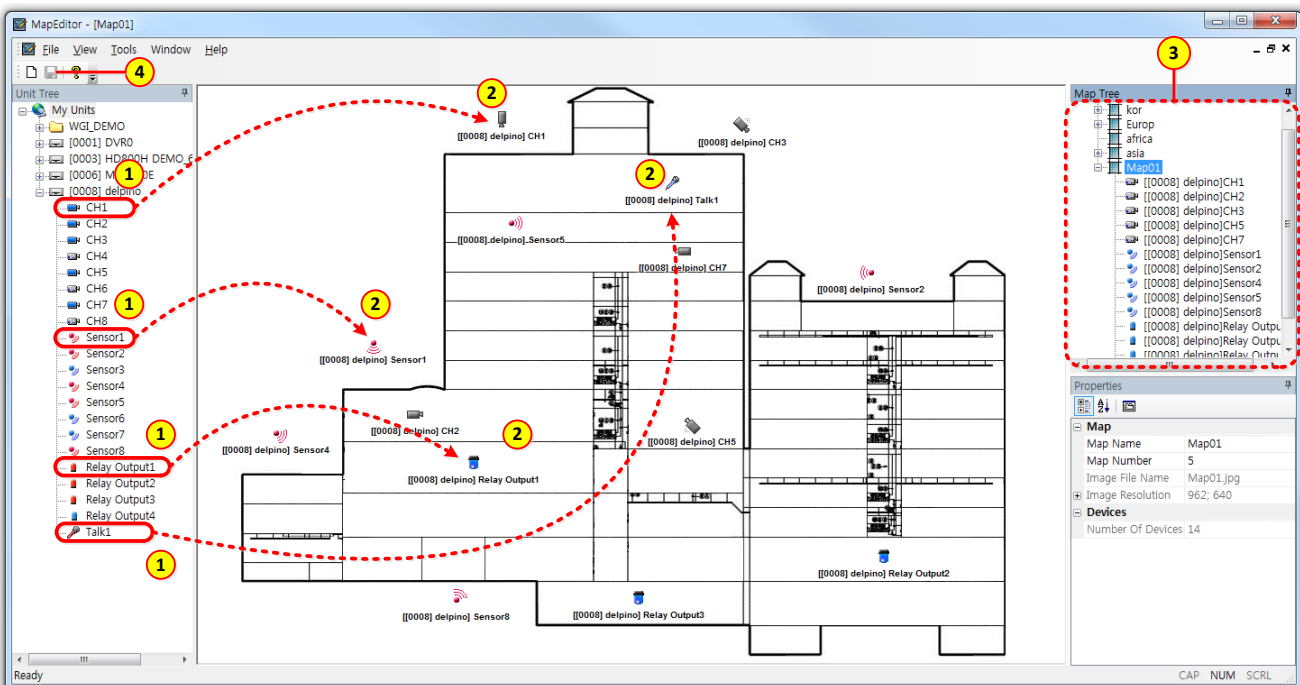
- 1) In User icon registration, ① click the **[Change]** button, ② It pop-ups "Map image file loading" window, ③ select the type of file
- 2) Among the file of designated type ④ Select the file, ⑤ click the **[Open]** button, ⑥ icon is set up to new one. ⑦ When you click the **[Apply]** button below, it is applied to these items.
- 3) ⑧ When you click the **[Restore]** button, it returns to the default icon, ⑨ when you select **[All]**, ⑩ all icons in a group are set up to new ones.

MAP ADDITION

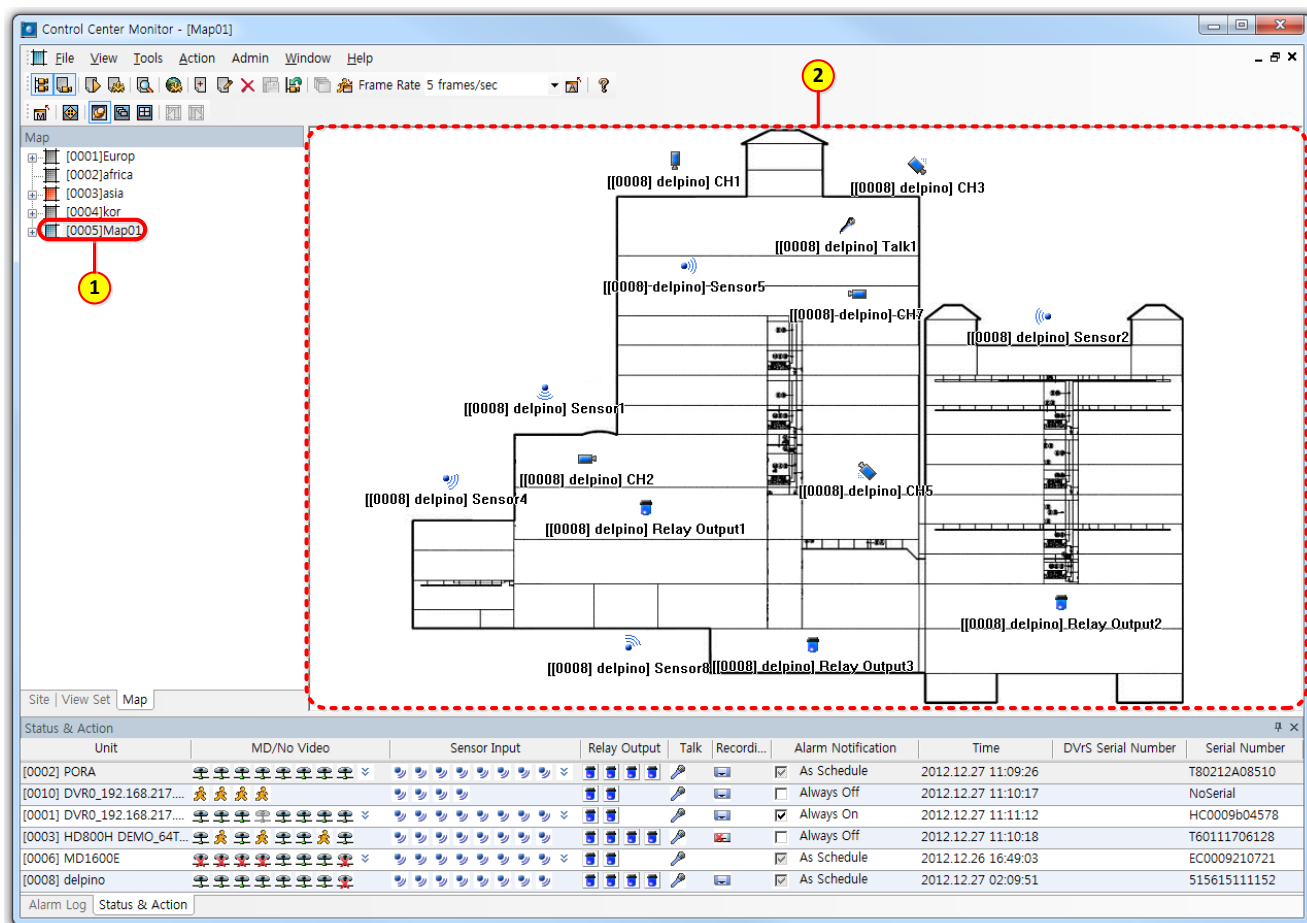
In the Map mode, when you click **[Add]** icon or select the **[Add Map]** on menu by clicking with the right mouse button, the map editor runs. You can add the new map through map editor.



- 1) In the map editor, when you click the icon ①, it displays "Map image file loading" window, you select the route that has a map, ③ select the map file, ④ click **[Open]** button and make it display the map you want to use on the map window.




- 1) Drag ① icon of "my unit" to the map, it registers on ② map, and it is also shown at ③ Map Tree.
- 2) After setting up the map click ④ **[Save]** icon on the map.



- 1) In the "map editor" registered map has been shown at map list, click ① map's icon, it is shown at ② map window.
- 2) The devices registered at map are shown real time action and event status

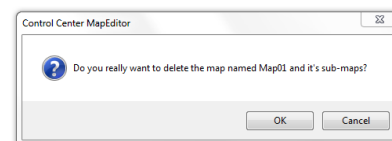
Map editor

In the popup of map list window, choose **[Map editor]** or click  **[Editor]** icon, it executes "Map editor", how to edit is same operation with map addition.

Map delete

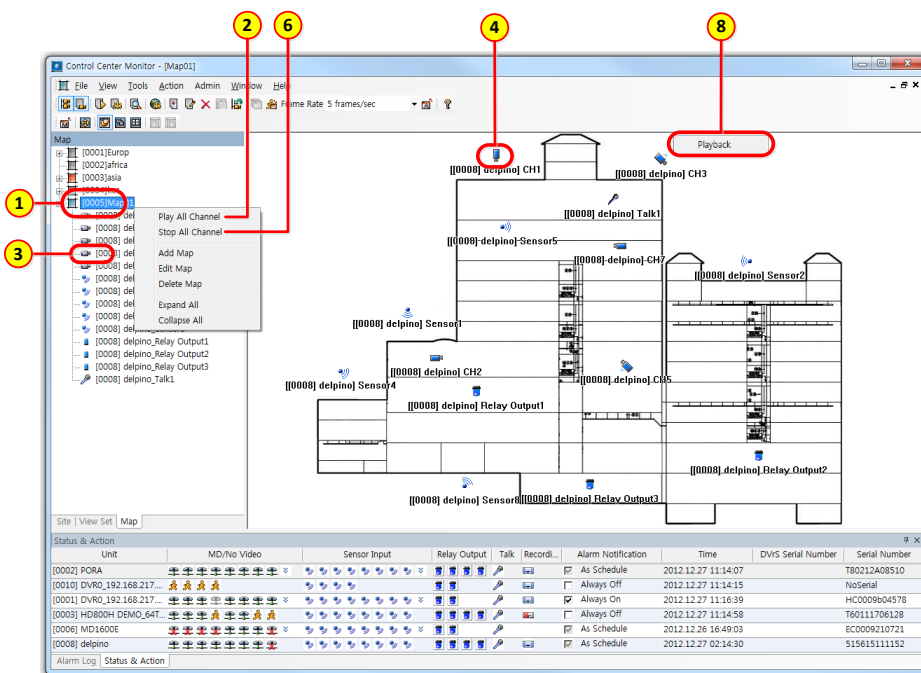
To delete map, it should execute map editor. In the map editor map list, click right mouse to popup menu and click **[delete]**.

In the map delete confirmation window, click **[Yes]** to delete the map at the list, click **[No]** to cancel the delete.



Map video view


to select the map that is registered in the camera or video camera which is registered on the map, select the map you can see the video



- 1) Like above, choose ① map, click right mouse ② **[Play All Channel]** it is shown all camera video at ⑤ live viewer.
- 2) In the map device list click ③ camera or click ④ camera at map window, you can get video, click again to connect video.
- 3) In the popup menu, click ⑥ **[Stop All Channel]**, it disconnect all channel and now shown at ⑦ live viewer.
- 4) Choose camera icon and click right mouse for popup menu, click ⑧ **[Playback]** it executes Control Center Playback program and connect the unit, you can see recorded data by search.

PTZ control

Pan, Tilt control

In the popup menu, choose "PTZ" menu or  button. Cross mark in the display, it can control pan, tilt by mouse control. Click left/right direction at the center, it can control pan, click up/down, it can control tilt.. As you click away from the center portion of the Pan / Tilt will run faster.



Area Zoom In control

In case of dotted box at the center, it's area zoom mode. drag zoom in area. Interface is changed to support units that operate only zoom in area. in the Area Zoom In mode, go to pan tilt and clock mouse when "shift" key enter. choose "Normal PTZ Mode" at popup menu, it changes to control mode..



Zoom, Focus control

Move the mouse to the left, to the right edge of the control for Zoom, Focus window is shown.. Unit of Area Zoom In available is at Zoom Zero operation button.

Preset move

In case of preset, "Goto Preset" is displayed in the pop-up menu, select a preset list will move to the selected preset position.

Auxiliary action

In case of preset, "Auxiliary" in the pop-up menu to add the registered menu is displayed, select the appropriate action is performed.

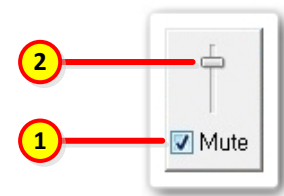
Group mode

In case of group mode, Group mode operation of PTZ to Enable in the upper right-hand corner of the screen ("GM") is displayed.

Audio control



In case of Audio connected channel, "audio listening" is available or the icon of video window is available. Default is Mute status and mute off to control audio volume. You can get mixed multiple channel audio.

- 1) Click right mouse at video popup and choose **[Listen]** and recheck ① Mute, audio is available and move ② volume bar to adjust volume.



Auto switch



Live monitoring of video conversion cycle for each monitor by setting the time auto switching can be operated.. Site / viewset / map mode and can be used both in the corresponding mode has been registered by using the channel, viewset, map auto-switching action

To monitor the first automatic switching action, choose  **[Use as sequential switching monitor]**. Terminate the choice, the auto switch will not operated even it starts auto switch, click  **[Sequential Switcher]** automatically switch "duration time" by option. The default is 10 seconds

Alarm popup


it may see a pop-up video of each monitor channel alarm occurred.

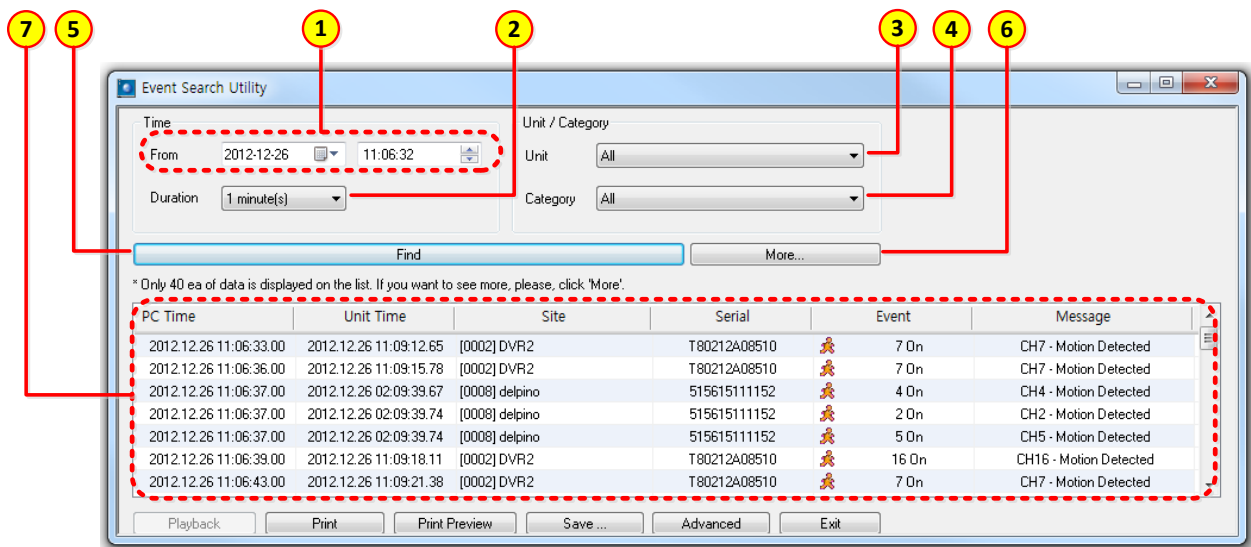
Site / viewset / map mode and can be used both in the pop-up when an event occurs in the channel has been registered by the appropriate mode operation.

- 1) To monitor the first automatic switching action, choose  **[Use as alarm popup monitor]**. Terminate the choice, the alarm popup will not operated even it starts alarm popup
- 2) click  **[Alarm Popup On/Off]** icon, alarm popup will start, is shown the channel that event occurred. When the event occurred at event list of alarm popup option, the alarm popup will be operated by "duration time"
- 3) during alarm popup operation, the alarm of other channel has occurred, it'll be shown added video with legacy video, the duration time is fitted by the last alarm time.

Event search

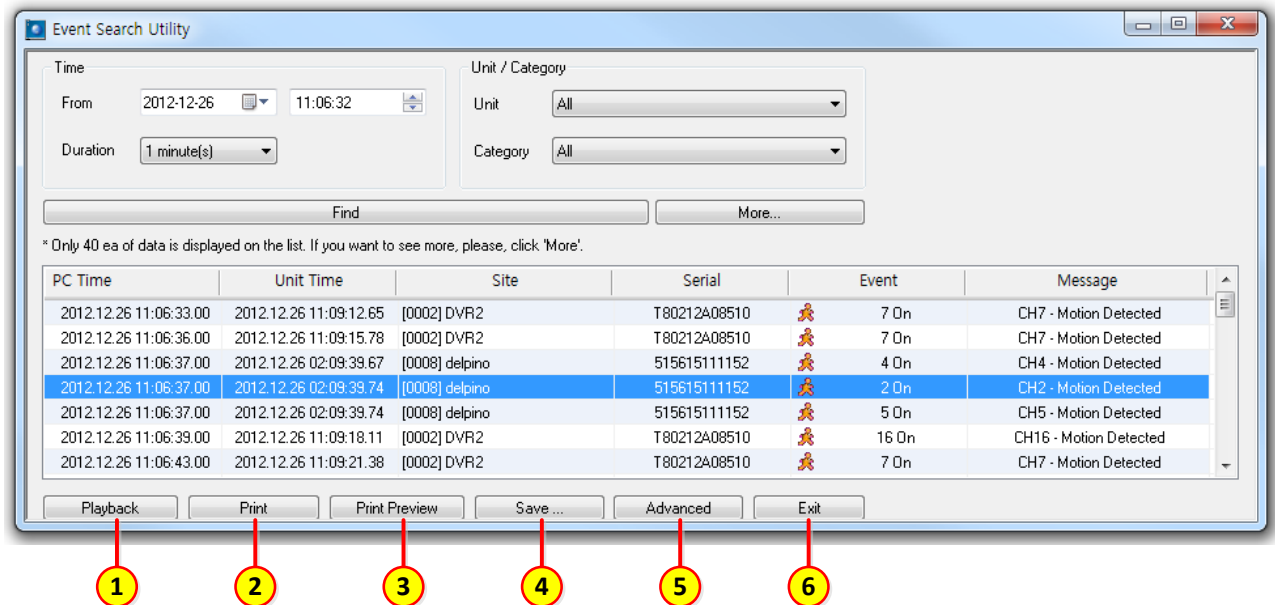
Event logs can be searched using the event search utility.. Search by selecting a specific unit or classification and search results can be printed or saved.

click  **[Event Search Utility]** or choose **[Event Search Utility]** at tool tap.



- 1) In the "Event Search Utility", select ① start time, ② duration, ③ unit and ④ event category.
- 2) All the information is set to search, click ⑤ **[Find]** to start the search. Search cancel while the search is in progress, showing the search progress window appears
- 3) After search is completed, you can see the ⑦ search results. The search result is listed 40 each and click ⑥ **[More]** to check another results.

It can print or playback event search through the results of a search. Through the Advanced menu, you can delete the log and print settings..



Item		Description
1	Playback	Playback will be executed for the selected video.
2	Print	Print out the results.
3	Print Preview	Preview the results.
4	Save	Save on CVS file of the results.
5	Advanced	Log delete (all / section / MD delete only) and print set is available.
6	Exit	Finish event search utility

Config information export/import

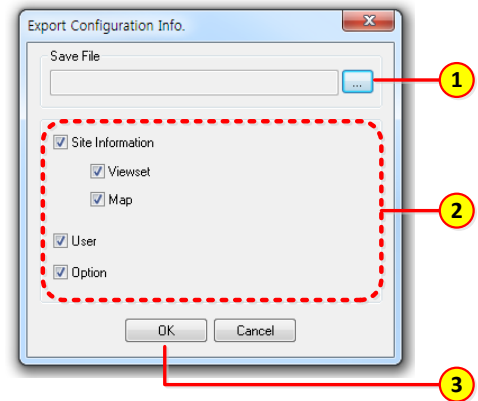
It can export/import the configuration information of Control Center.

export

- 1) At the file tab of menu, choose **[Export Configuration Info.]**.
Set ① save file path, name, and choose ② options.
- 2) Click ③ **[OK]** to save it on zip file.

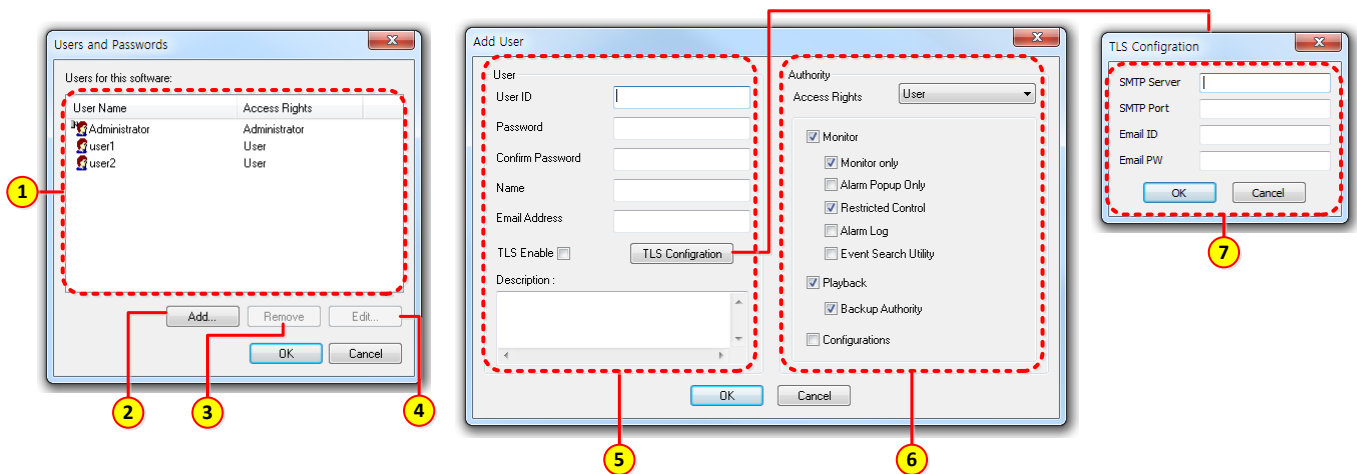
import

- 1) At the file tab of menu, choose **[Import Configuration Info.]**.
The window is executed, choose the saved zip file and click **[Open]** then confirmation window will appear to restart the program. Click **[OK]** to complete the import.



User set

Registered users can use the program to change the administrator or management information can be used. At Admin tab, select **[Users and Passwords]** from the menu, below window appears.



Item		Description
1	Users for this software	It displays user list registered at program, the default admin can't delete and change the user account information
2	Add	User added window is appeared, input user information to add account of the user and it's up to 100 account available..
3	Remove	Choose user list and click button to delete the user.
4	Edit	Choose user list and click button to show edit window, edit user information and save it to get updated one
5	User	It sets user's account information, the confirmation of user ID, PW, PW confirmed should be required, if not, you can't register account.
6	Authority	Access rights
		It can choose User and Administrator, if choose Administrator, it would be registered admin account with all right
		Monitor
		It can execute Control Center monitor program.
		Monitor only
		It can't change layout badge, using admin's site' view set/ map list
		Alarm Popup Only
		It can use alarm popup function only.
		Restricted Control
		It can use a same unit information with administrator.
		Alarm log
		It displays alarm log information at alarm log window.
		Event Search Utility
		It can execute to use event search utility

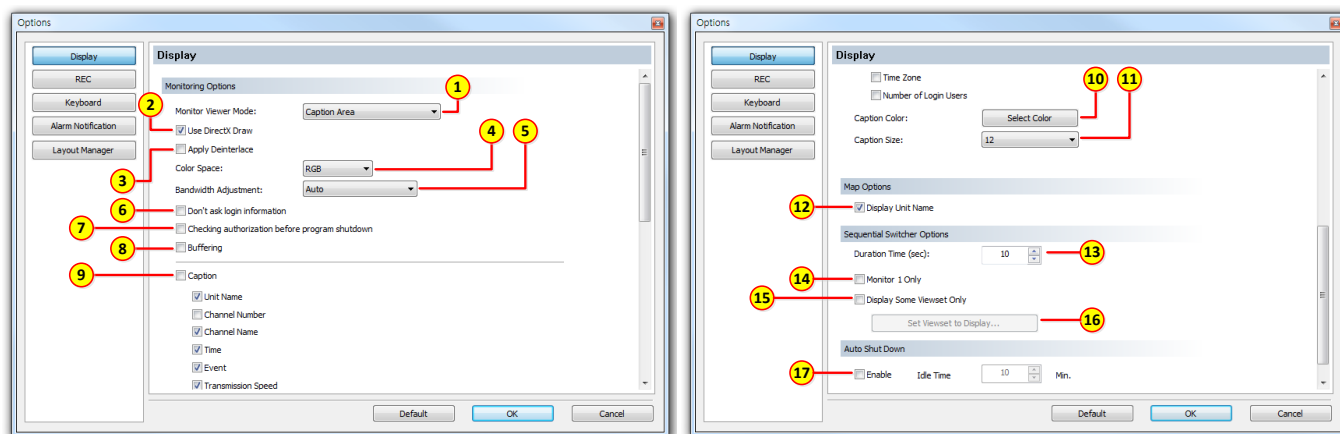
		Playback	It can execute Control Center Playback program.
		Backup Authority	It can backup recorded data.
		Configurations	Control Center Configuration Tools 프로그램을 실행할 수 있습니다.
7	TLS Configuration	TLS security server and account security server information	

Option Configuration

User can configure some of function options. If you click  [Option] icon on Tool bar or select [Option] on Tools tap, Option window will be shown.

Display

Monitor option and Map option are able to be configured and together with Live viewer configuration such as Log in / Program shutdown authorization / Auto shutdown.



Item			Description
1	Monitoring Options	Monitor Viewer Mode	Caption Area inclusion
			Adjust ratio
			Full
2		Use DirectX Draw	Show video using DirectX
3		Apply Deinterlace	In monitoring mode, apply De-interlace function on D1

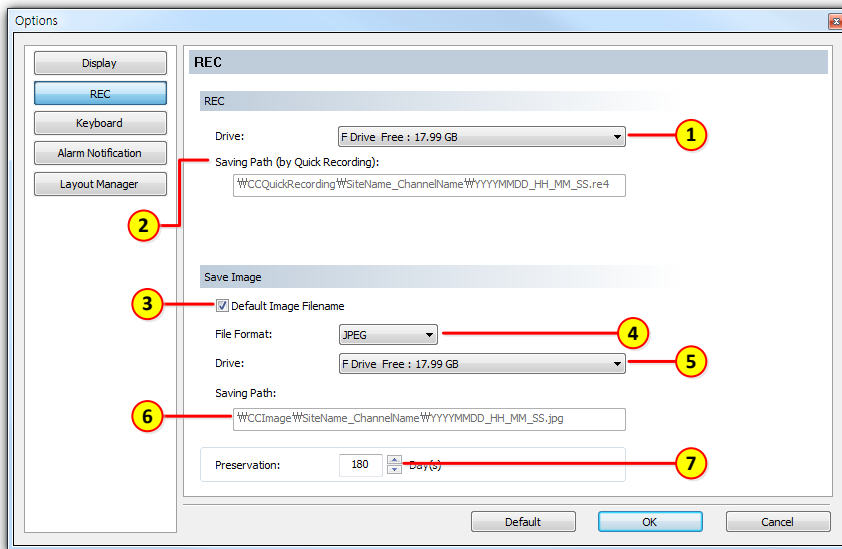
				resolution video
4		Color Space	YUV	It maximizes monitoring performance. For Live view, app. 8ch at 1080p/30fps or 12ch at Half D1/30fps or 50ch at CIF/30fps is possible.
			RGB	When PC system does not support YUV mode, user can use RGB mode. However its performance will be down respectively. On RGB mode, 3ch at 1080p/30fps or 4ch at Half D1/30fps or 10ch at CIF/30fps is possible.
5		Bandwidth adjustment	Auto	System diagnoses automatically CPU possession and if it is over 80%, for best performance, system changes monitoring mode into low frame monitoring. If there is frame delay due to network bandwidth, system changes monitoring mode into low frame monitoring. Low frame monitoring mode is applied per channel from the last channel which problem occurs. If network possession is down or CPU possession is under 70%, low frame monitoring mode will be back to normal automatically.
			Low Bandwidth Mode	According to device, its mode requires JPEG video for low bandwidth under low frame monitoring mode and it is not changed by user control
			Off	It keeps original video framerate from device regardless network delay or PC load. In case that video delay is getting worsen and PC performance is down, monitoring program can not work properly.
6		Don't ask login information		When running program, user can access it without login window.
7		Checking authorization before program shutdown		Before program shutdown, user certification is shown and after certification, it will be closed.
8		Buffering		Gathering live video in Buffer and show video smoothly in order.
9		Caption		Configure if some of information such as unit name, channel number, channel name, time, event, video display speed, time zone, the number of login user will be shown or not.
10		Caption color		Configure Caption color
11		Caption size		Configure caption font size
12	Map Option	Display Unit Name		Display registered unit name on Map.
13	Sequential	duration time (Sec)		Configure auto sequence duration time
14	Switcher Options	Monitor 1 Only		Monitor 1 is only switched. But in viewset mode or Map mode is not available.
15		Display Some Viewset Only		User selects registered viewset at discretion and it works only in selected viewset.
16		Set Viewset to Display		Select viewset to use auto sequence.
17	Auto Shut Down	Enable		If there are no user action during Idle time, program will shutdown automatically.

<Caution>

Monitoring performance depends on system performance like CPU, graphic card or memory etc.

Recording

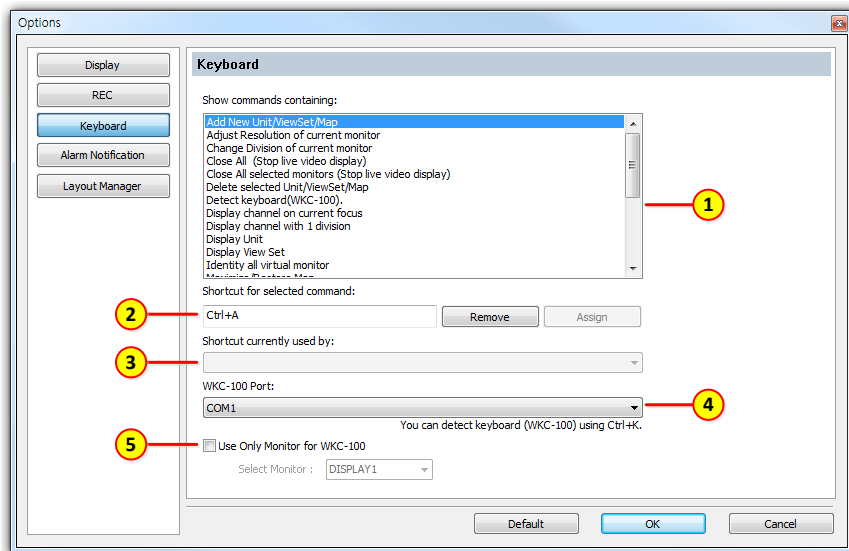
It is the configuration for file save route



Item			Description
1	Recording	Drive	Select Drive for recording. CCQuickRecording folder will be created in selected drive.
2		Saving Path (by Quick Recording)	Display folder route which recorded video file will be saved.
3	Save Image	Default Image Filename	Image file will be saved automatically
4		File format	BMP JPEG
5		Drive	Select Drive for image saving. CCIimage folder will be created in the selected Drive.
6		Saving Path	Display folder route where image file will be saved.
7		Preservation	Delete saved file automatically after configured duration date.

Keyboard

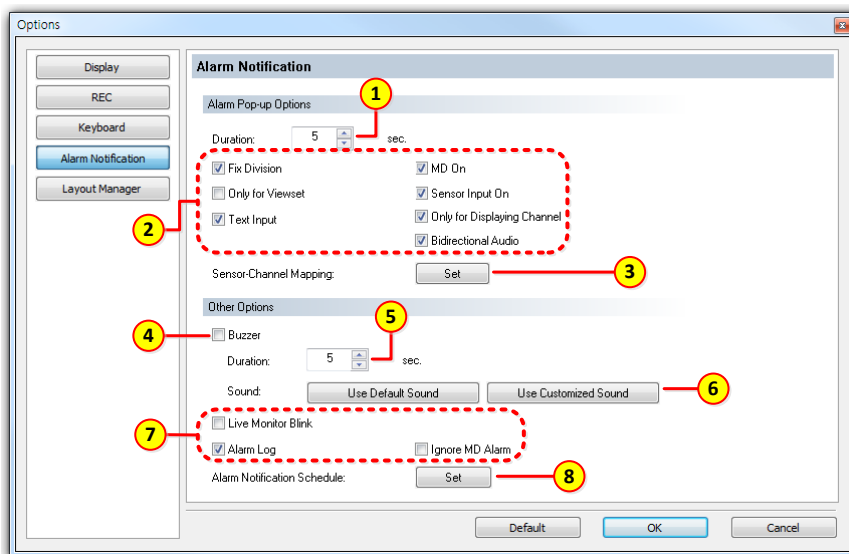
Shortcut key and PTZ keyboard(WKC-100) will be configured. If external device supports shortcut key, user can configure like below.

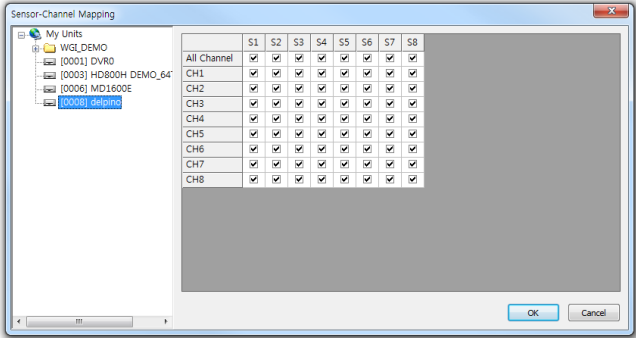
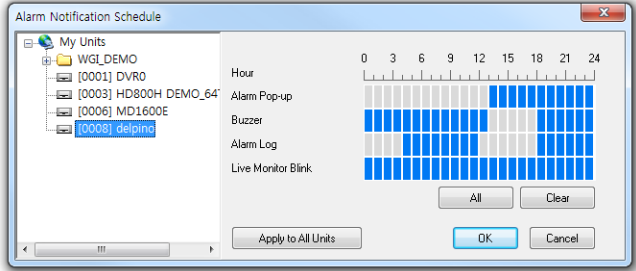


	Item		Description
1	Keyboard	Show commands containing	Display command list to control with shortcut key. If selecting the list, configured shortcut key value will be shown.
2		Shortcut for selected command	Input box
		Remove	Delete shortcut key value in the selected list.
		Assign	Configure shortcut key value in the selected list
3		Shortcut currently used by	Display command of input shortcut key value. With pressing shortcut key, user can easily search the configured command.
4		WKC-100 port	Select connected port of keyboard. And can control keyboard through the selected port.
5		Use Only Monitor For WKC-100	Limit keyboard user environment to control keyboard only on the configured monitor

Alarm Notification

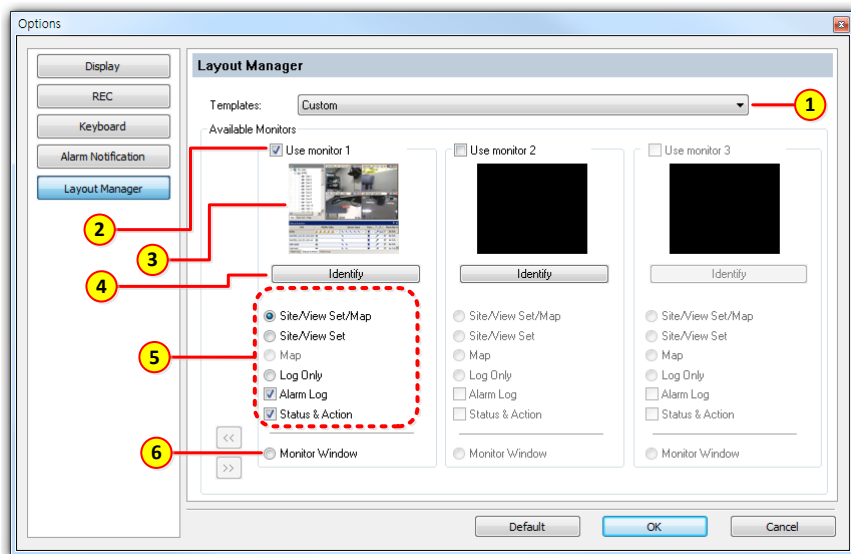
This configuration is for video popup / popup event/ buzzer / schedule etc with Alarm signal



		Item		Description
1	Alarm Pop-up Options	Duration		Keep alarm popup screen during the configured time.
2		Configuration item	Fix Division	Shows pop-up video on the selected screen division
			Only for Viewset	Camera only registered in viewset will be run.
			Text Input	With text input event
			MD On	With motion detection event
			Sensor Input On	With sensor event
		Only for Displaying Channel		Alarm popup only in monitoring video
3		Sensor-Channel Mapping		 <p>Sensor can be mapping to channel per unit. Sensor event alarm popup will appear in accordance with the configured mapping.</p>
4	Other Options	Buzzer		Buzzer will ring once alarm occurs.
5		Duration		Buzzer will ring during the configured duration time
6		Sound	Use Default Sound	Configure default alarm sound.
			Use Customized Sound	Configure alarm sound with user choice.
7		Live Monitor Blink		Display red frame line on the alarm video
		Alarm Log		Save alarm log
		Ignore MD Alarm		MD event is not dealt with alarm.
8		Alarm Notification Schedule		 <p>Schedule can be configured per 1 hour and configure alarm popup and buzzer and alarm log and video monitor display.</p>

Layout manager

Control Center Monitor layout can be configured. Using template, user can expand monitor up to 2 monitors quick and easily.



		item	Description	
1	Layout manager	Templates	It displays monitors according to the number of connected monitors, and you can check the monitor to use.	
2		Available Monitors	Use monitor	Configure monitor to be available.
3			Preview window	Display real monitor screen according to monitor configuration
4			Identify	Display Control Center monitor number on PC monitor and user can check monitor connection status.
5			Composition	Select monitor composition to use
6			Monitor window	Configure monitor as exclusive use.

<Reference>

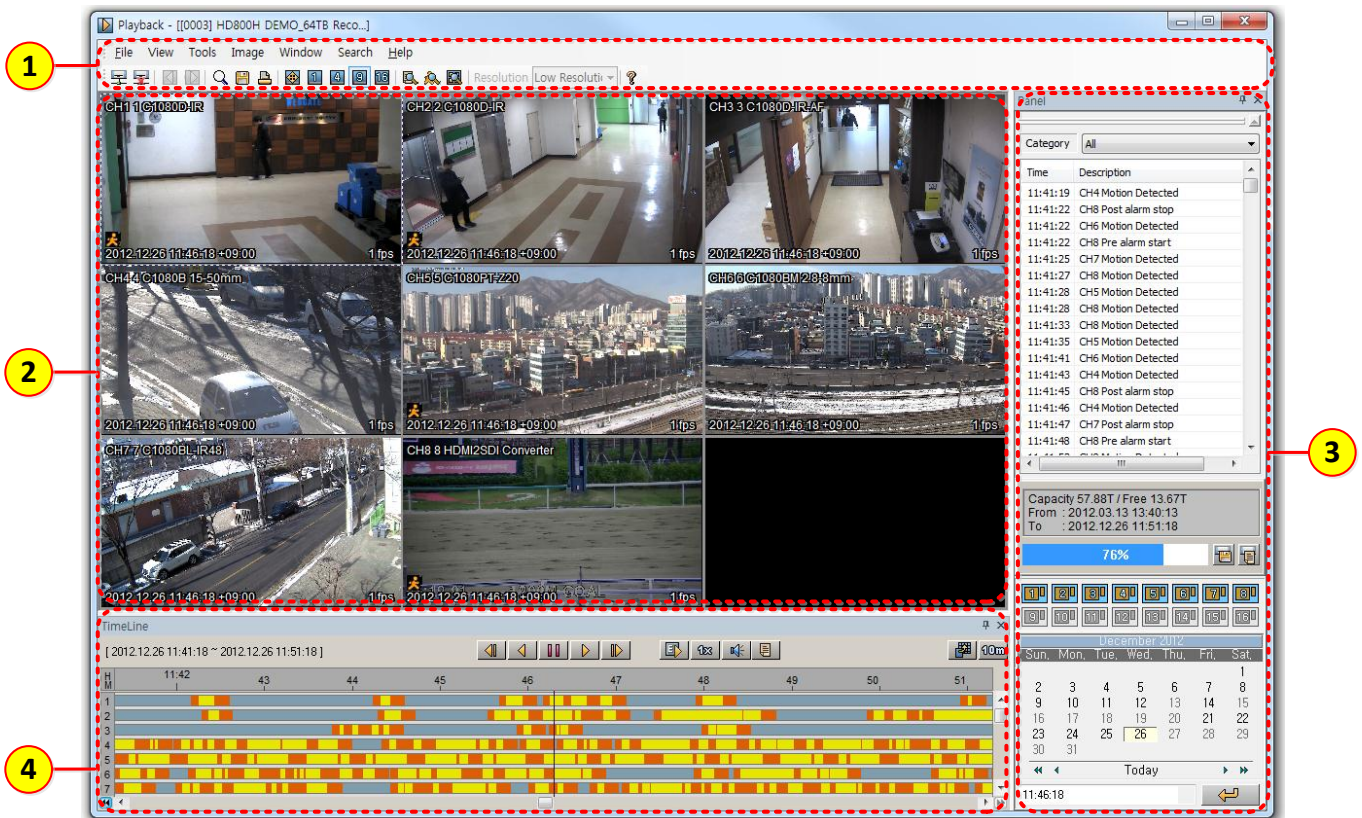
1. Layout expansion can be possible up to 6 monitors with Control Center Pro. For Control Center Pro purchase, please, contact us.

Playback Viewer

Control Center provides dynamic UI for easy docking and monitor control with mouse movement. Therefore, user can compose the best screen configuration. (Please, refer to Layout manager)

Screen Composition and Function name

Screen structure



Item		Description
1	Menu/Toolbar	Display menu and function button.
2	Video window	Display playback video
3	Log viewer	Display log related to the loaded timeline section.
	Disk info	Display disk use information and whole recording section
	Channel selection	Select channel for playback
	Calendar / Time search	Select the date from calendar and search the data.
4	Playback control button	Control playback function using button.
	Timeline	Display saved information of unit and search time line.

Video window display information

Configure display information on playback video via caption configuration



Item		Description
1	Channel number	Show the channel number
2	Channel name	Show channel name
3	Time	Show the time of unit
4	Event	Show the event information of the channel
5	Time Zone	Show time zone configuration value
6	Speed	Show video playback frame information of the channel

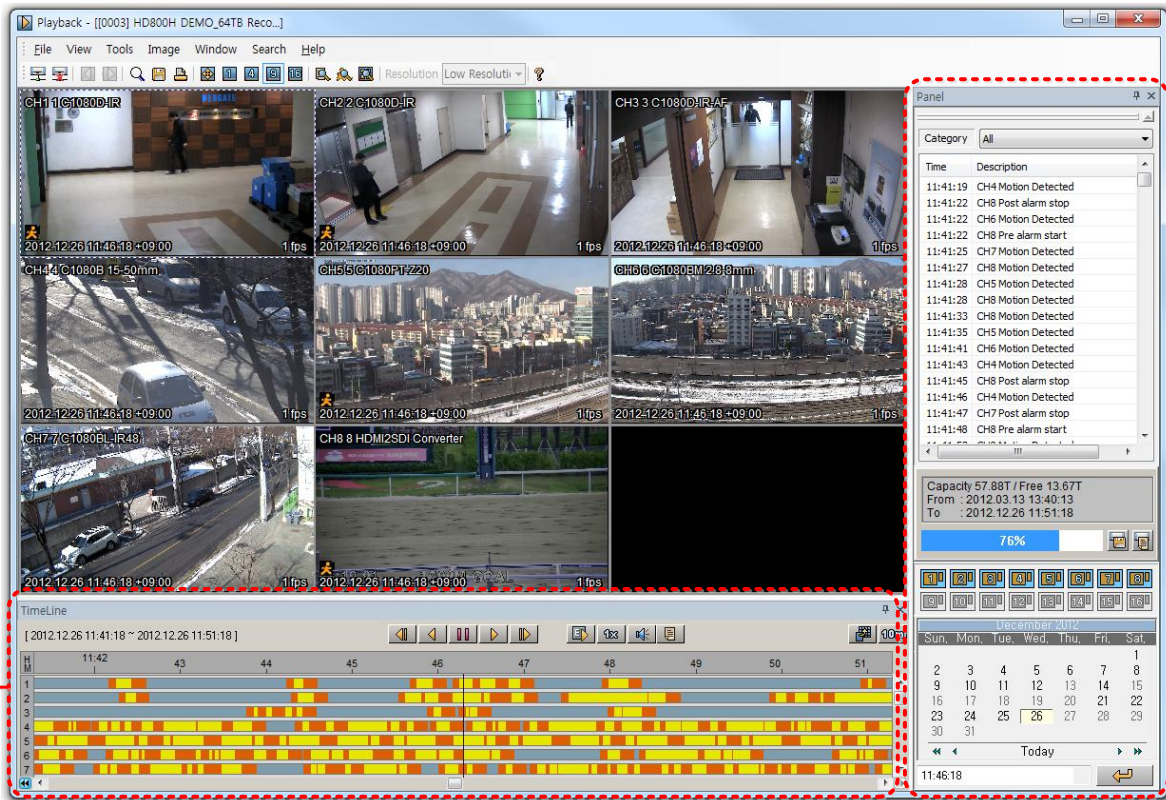
Icon function

Toolbar

Button	Description
	Open saved file or connect to Site
	Terminate the current connection
	Select button for backward
	Select button for forward
	Adjust Brightness, Contrast, De-interlace
	Save the current playback image as JPEG or BMP type. And selected caption, name, date/time, event information can be saved.
	Print the currently selected playback video. Basically print video and channel name and recording date and event information and even caption memo.
	Show full screen of view area
	Divide playback screen into 1,4,9,16. And can do search playback up to 16 channels together
	Search text in accordance with search section and channel keyword
	Appoint Motion area and search video with motion.
	Search thumbnail with search area and interval.
	It displays the version of Control Center Monitor and copyright information

Control arrangement

User can compose the best screen changing live viewer internal structure.



- 1) If dragging control title bar of ①, ② above, docking guide icon will be shown and controller will be moved to the ending point of drag.
- 2) Live viewer program can be moved to Up/Down/Left/Right and if user wants, Live viewer program can be separated and arranged to outside independently.

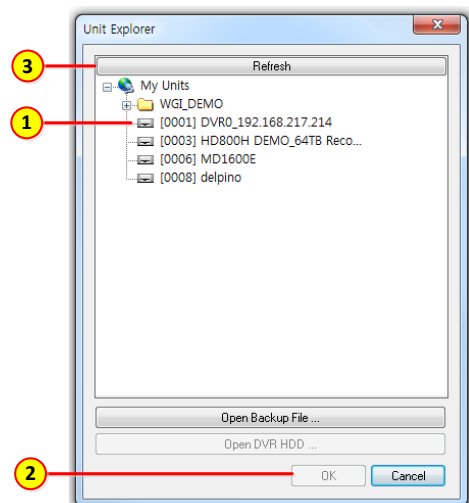
Unit connection and File Open

Using search playback viewer, user can access to the registered unit and playback the recording video. Also, user can open backup file and recording video in DVR HDD directly connecting to PC. If clicking top toolbar or **[Open]** icon in [File] menu, 'Unit explorer' will be run

Unit Connection

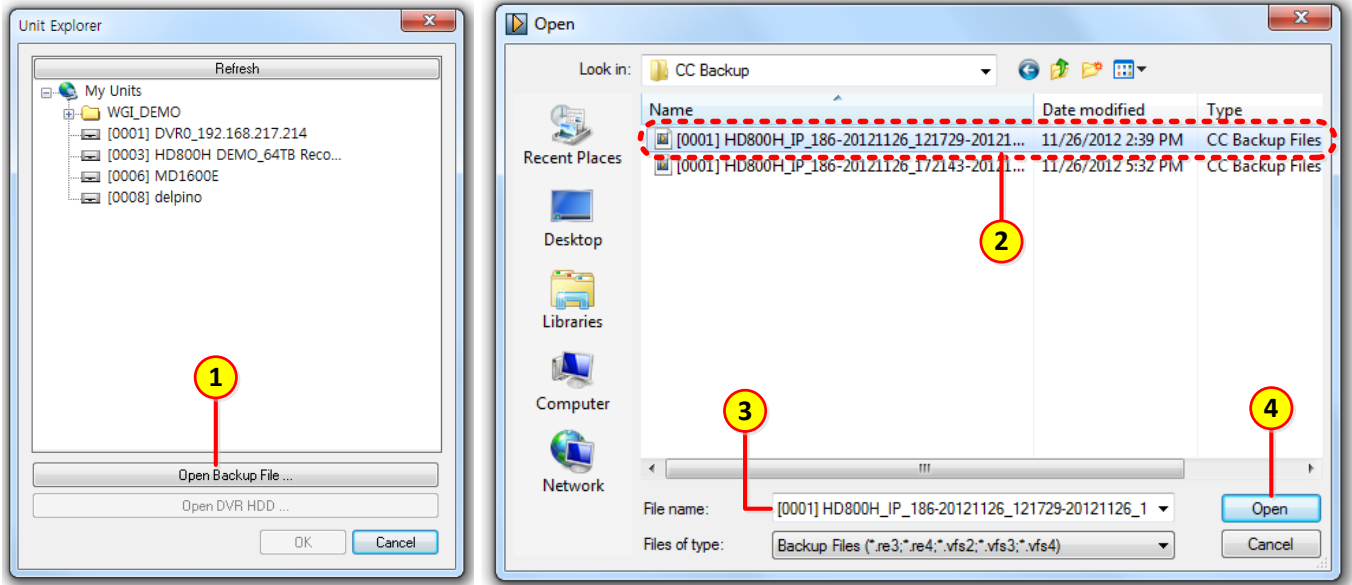
User can playback after accessing to the unit registered in 'My unit'.

- 1) Select Unit ① and click ② **[OK]** or double clicking ① unit in 'My unit'. If then, saved recording information and log information will be shown.
- 2) click ③ **[Refresh]** button for unit list refresh.



File Open

User can playback recording video with opening backup file. Available backup file are "re3, re4, vsf2, vsf3, vsf4" and other format is not supported. User can see all the same information like direct unit connection.

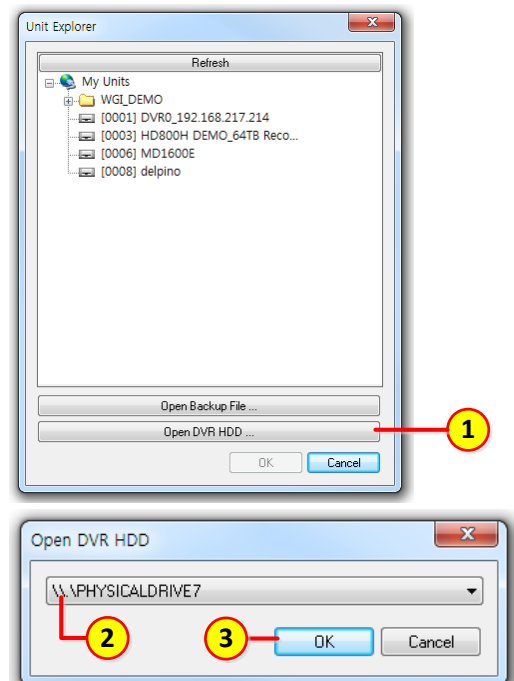


- 1) if clicking ① **[Open Backup File]** in Unit explorer, search window will be shown. In the selected folder, if selecting ② file and ③ file name will be shown.
- 2) If clicking ④ **[Open]** button, recording information and log information will be shown.

DVR HDD Open

DVR HDD can be connected directly to PC and user can playback the recorded video in DVR HDD. If running search playback viewer with 'Administrator authorization', 'DVR HDD open' button will be active.


- 1) In Unit explorer, if clicking ① **[Open DVR HDD]**, user can select DVR HDD.
- 2) In DVR HDD list, if selecting ② HDD and clicking ③ **[OK]** button, recording and log information will be seen.



<Caution>

1. DVR HDD open can be available over H.264 SD DVR v2.14.10 and all HD DVR. But MPEG SD DVR is not supported.
2. Do not format or edit DVR HDD partition or factory default. After DVR HDD connection, run search playback viewer program and 'DVR HDD open'.

Connection termination (Disconnect)

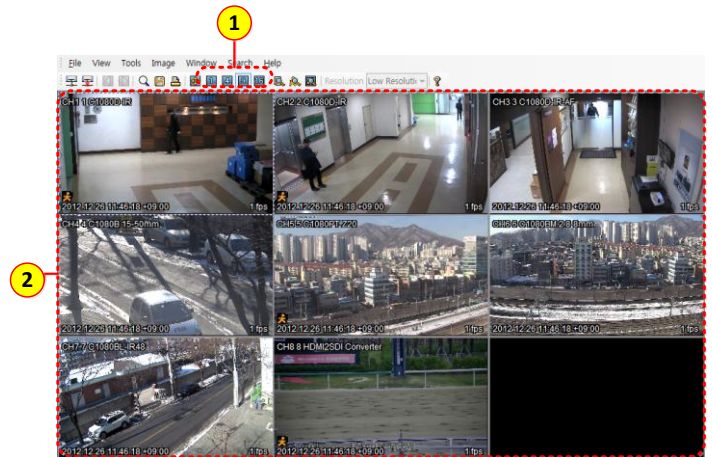
If clicking  [Disconnect] icon in top toolbar, user can close DVR HDD connection or unit or backup file.

Basic control


Screen division mode change

The maximum screen division is 1 to 64 division.

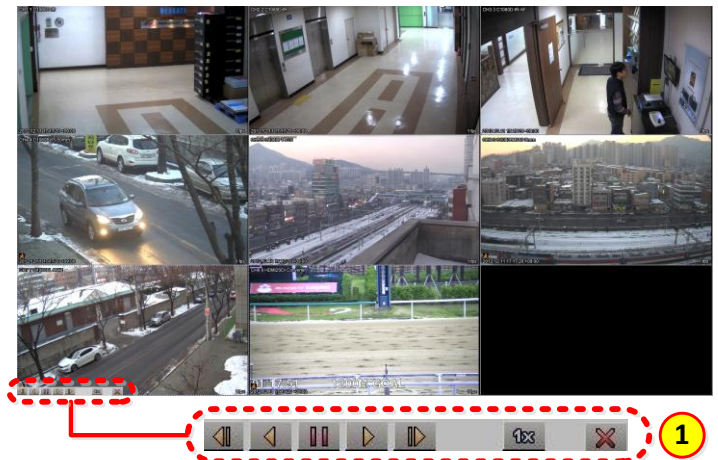
- 1) If clicking ① division icon or ② double clicking ② the certain channel, Single or division mode will be shown.



Full screen mode

If clicking  [Full Screen Mode] icon, user can run full screen mode and close it with [ESC] button.

Using ① playback control button displayed on left button of full screen mode, user can control playback speed. If clicking [X] button, Full screen mode will be closed.



Video position change

To move video position, select video with mouse and drag it to the position user wants. Position change in between different monitor is also possible.



- 1) Do mouse dragging ① video to ② position, ① and ② will be changed each other.

Video window popup menu

If pushing mouse right button on the video, menu will be shown and user can use major function. This action is only applied to the selected video only.



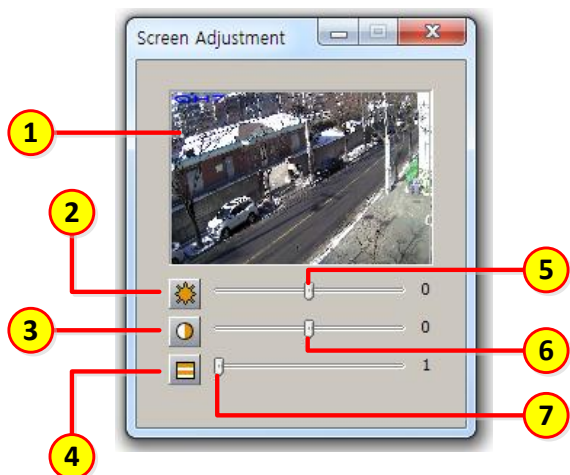
Check Watermark

Digital Zoom



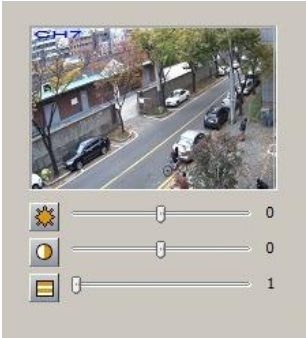
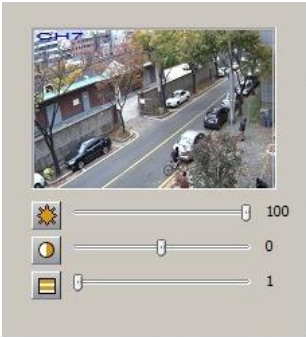

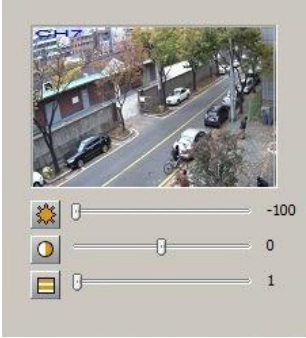


Item		Description
1	Check Watermark	Display if original data is damaged or not.
2	Digital Zoom	In single mode, using mouse dragging, user can zoom in video and if clicking minimap, user can change zoom area.

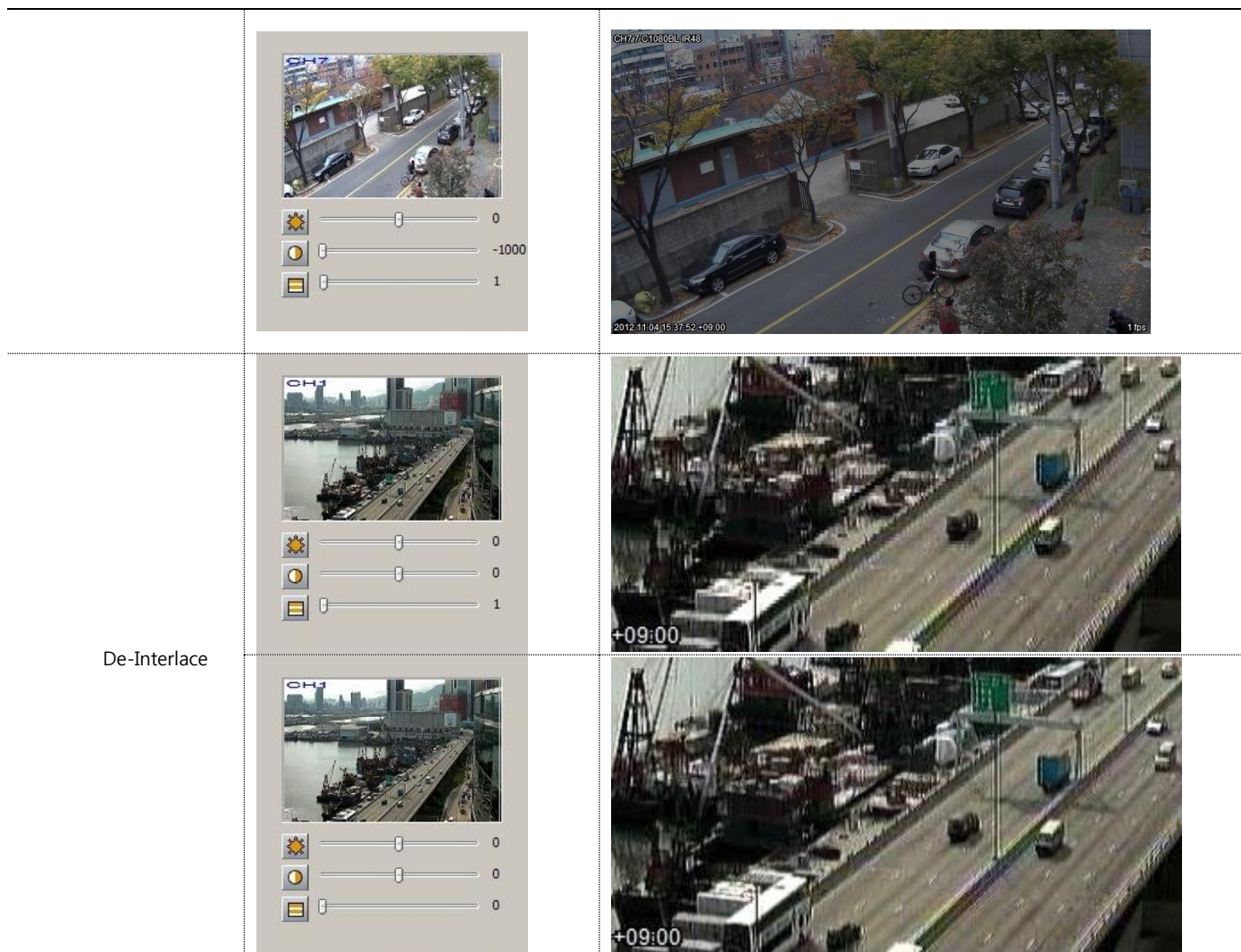
Image Control



Item		Description
1	Video View	It displays the selected video channel.
2	Default Brightness	Brightness turns to the default value. Default value is 0.
3	Default Contrast	Contrast turns to the default value. Default value is 0.
4	Default Deinterlace	Deinterlace turns to the default value. Default value is 1.
5	Brightness Control Bar	It controls the brightness of video. Available range is -100 to 100.
6	Contrast Control Bar	It controls the contrast of video. Available range is -1000 to 1000.
7	Deinterlace Control Bar	It controls the use of deinterlace function. 0 means de-interlace off, and available range is 0 to 100.

Example of Image control

Item	Description	
Default		
Brightness		
		
Contrast		



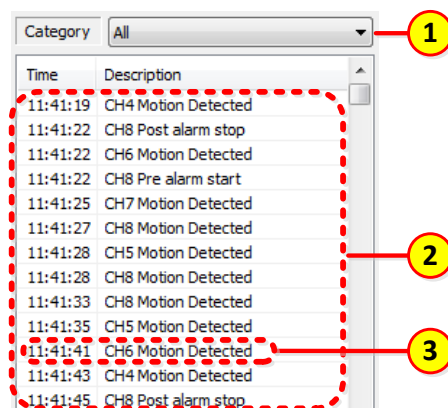
Control Panel

In the control panel, there are information of connected disk, whole recorded section along with log of searched section and user can select playback section through channel selection and calendar search. Also information in the disk can be backed up via image and log backup utility.

Log Viewer

There are log lists for searching section loaded on time line in the log viewer. Log information for selected channel will be shown and user can select classification to classify them. Double click on log in the log list to move to recorded data of the log to check its recorded image.

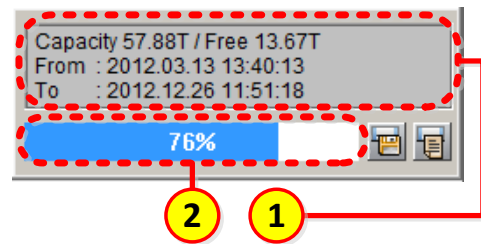
- 1) There are log lists ② for loaded section on timeline in log viewer window.
- 2) Select All/Status&Control/Text/Motion/Alarm in classification ① to classify and see preferred log data.
- 3) Double click on log list ③ to move to playback section of the log to see recorded image for the log.



Disk amount used and recorded section indication

It is information about disk amount used and recorded section.


- 1) Total disk amount / extra space area , record start / record End are shown at the top ①. Used disk space information is indicated by status bar ②.



Backup

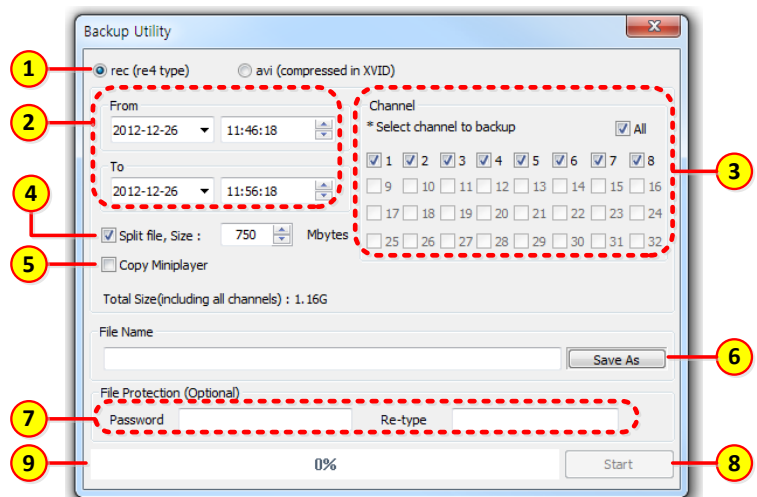
Access to registered unit in search, playback viewer then back up recorded data or log information. Also open backup file or file of DVR's HDD then select specific section for back up.

Image backup

There are 2 types of backup RE4 and AVI type. RE4 type support multi channels backup along with backup for event information and other information. AVI backup support playback in widely used player, only single channel using XVID compression method. Click on  **[Backup]** icon in control panel on the left side of program to execute "Backup utility".

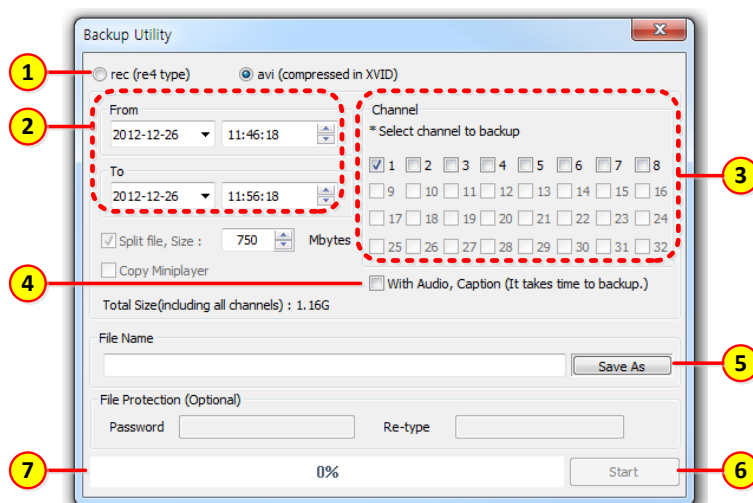
RE4 Backup

- 1) Select ① **[RE4]** in backup utility window and set ② start and end time for backup section. Start time must not be set later than end time. If wrong time setting by user, program will automatically adjust time in order end time is later than start time.
- 2) Select ③ backup channel then set up ④ file size partition. It will save backup file based on partition setting.
- 3) If select ⑤ Miniplayer copy, Backup file will be saved along with Miniplayer in same location.
- 4) If click on ⑥ **[Save As]**, "Save in other name" window will come up and file name will be shown as default (unit number-unit name-backup start-end time). Set up location and file name for backup file then click on **[Save]** button.
- 5) ⑦ Password can be set and the max 14 letters used for password. Click on ⑧ **[Start]** button to start backup once all setting is done. ⑨ backup status is shown as %.




AVI Backup

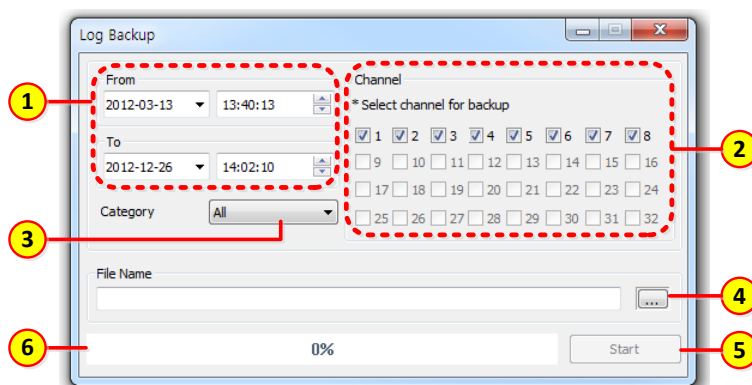
- 1) Select ① **[AVI]** then ② start and end time for backup section. Start time must not be set later than end time. If wrong time setting by user, program will automatically adjust time in order end time is later than start time.
- 2) Select ③ backup channel, ④ caption, audio inclusion option. Click ⑤ **[Save As]** button then "Save in other name" window will come up and the file name is shown as a default (unit number-unit name-backup start-end time).
- 3) Set up save location and file name for backup file then click on **[Save]** button. The "save in other name" window will be closed and file save location and name will be shown.
- 4) Click on ⑥ **[Start]** button to start backup. ⑦ Backup process status is shown as %.



Log Backup

Log backup can be done per channel preferred and selected by user in CVS file. Run "backup utility" by click on  **[Log Backup]** icon in control panel located on the left side of program.

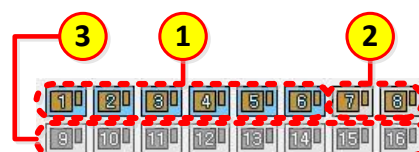
- 1) Set ① start and end time for backup section in log backup window. Start time must not be set later than end time. If wrong time setting by user, program will automatically adjust time in order end time is later than start time.
- 2) Select ② backup channel and ③ item (all, event, status&control, text) in ④ classification menu.
- 3) If click on ④ **[...]**, "save in other name" window come up then enter location and file name and click on **[Save]** button to close window and confirm file save location and name.
- 4) Log file is saved in CSV format. Click on ⑤ **[Start]** button to start backup. ⑥ Backup process is shown as %.



Channel

It shows recorded channel and status of activated channel. Only selected channel can be playback.

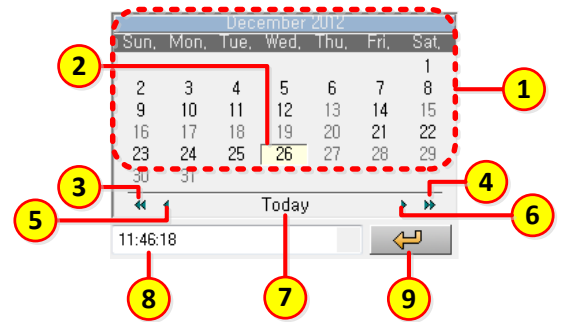
- 1) Firstly, it shows ① activated and selected for playback channel is shown. ② Activated but not selected for playback is shown.
- 2) It shows ③ not activated channel.



Calendar Search

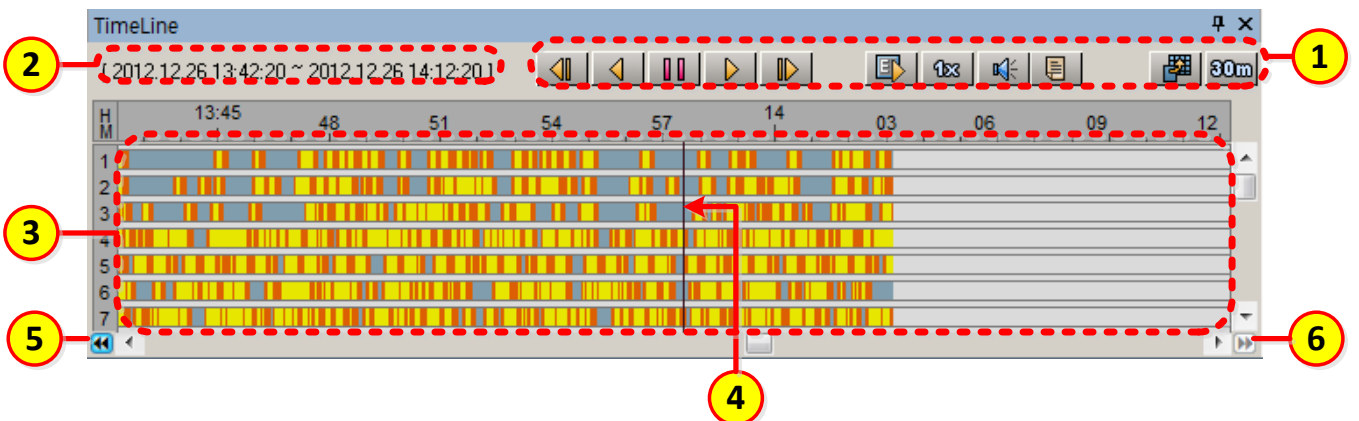
It indicates recorded date. Selecting date or enter time to search recorded data directly.

- 1) Calendar is shown and ① recorded date will be market in block letter in connected disk so user can select date. Selected date is shown by ② marking.
- 2) Move to ③ previous year. Move to ④ next year. Move to ⑤ previous month. Move to ⑥ next month. Move to ⑦ today's calendar. ⑧ Enter the time in selected date for search.
- 3) Click on ⑨ the button to search based on entered time then show it on timeline.









Timeline







Timeline viewer support graphical indication for normal recorded and event recorded section. User can select preferred section using mouse and user can select various function and control related to playback in this timeline window.



- 1) Image playback control can be done using ① playback control buttons in timeline viewer. Please refer to below table to know description of playback control buttons.
- 2) It indicates date/time information for searching section shown in ② timeline.
- 3) Timeline is shown in ③ graph and playback is enabled by selecting search section using ④ slide bar. The log properties of timeline are classified in different color (Grey: normal record, Yellow: motion detection, Red: sensor input, Orange: event pre/post, Wine: text).
- 4) Click on ⑤ button to maintain search time with one day back, ⑥ button with one day forward.
- 5) Timeline will re load and show information about time of moved date.

Description on playback control button

Button	Description
	Shows one step back image
	Playback image in reverse
	Stop playback.
	Playback image in forward.
	Shows one step forward image
	Playback all recorded section showing images. If click on this button, only "event triggered images playback" will be achieved

	It shows image for only event triggered section. If click on this button, it turn into "all image playback" mode.
 ~ 	It can control playback speed (0.5x, 1x, 2x, 4x, 8x, 16x, 24x, 32x, 64x, all). Select [all] to enable playback in max playback speed. The rest of playback speed will be following selected playback speed. Playback speed is following real-time as much as possible but will be affected by performance of PC, Network speed. So playback speed might create any margin of error based on them.
	Select whether record status for all channels or selected channel will be shown. Select channel for playback then click on this will show log for selected channel on the timeline then playback.
 ~ 	Section (10min, 30min, 1hour, 3hour, 6hour, 12hour, 24hour) to be shown in timeline can be selected. There will be popup window marking record section of selected time on the timeline and showing loading status of log. User can cancel this while timeline log is loading.

Use of Jog & Shuttle

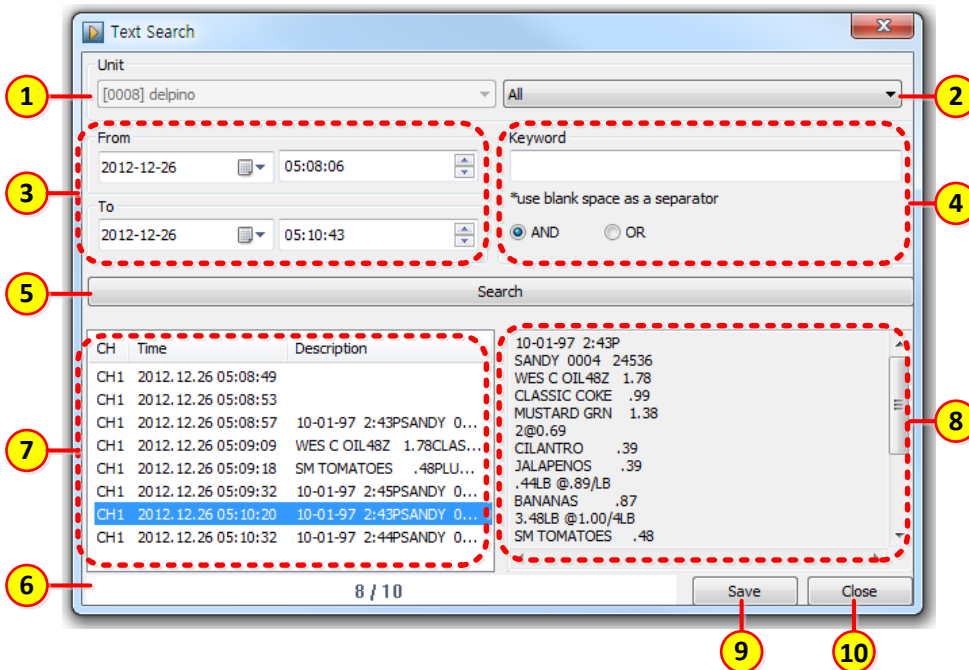
Control Center Playback supports key shortcut and various controller connected can operate playback with this shortcut. Device for playback control such as controlling Jog & Shuttle by entering key shortcut can be used by setting key shortcut.

Key map			
Input	Value	Action	Key Value
Jog	Clockwise	Forward Frame Play	Alt+Shift+Right
	Counter-clockwise	Backward Frame Play	Ctrl+Shift+Left
Shuttle	Move and center	1x Backward Play	Ctrl+Shift+`
	Left1	2x Backward Play	Ctrl+Shift+1
	Left2	4x Backward Play	Ctrl+Shift+2
	Left3	8x Backward Play	Ctrl+Shift+3
	Left4	16x Backward Play	Ctrl+Shift+4
	Left5	32x Backward Play	Ctrl+Shift+5
	Left6 or over	64x Backward Play	Ctrl+Shift+6
	Right1	2x Forward Play	Alt+Shift+1
	Right2	4x Forward Play	Alt+Shift+2
	Right3	8x Forward Play	Alt+Shift+3
	Right4	16x Forward Play	Alt+Shift+4
	Right5	32x Forward Play	Alt+Shift+5
	Right6 or over	64x Forward Play	Alt+Shift+6
Buttons	Leftmost	Backward Frame Play	Alt+Shift+Left
	Left	Backward Play	Alt+Shift+<
	Center	Pause	Alt+Shift+?
	Right	Forward Play	Alt+Shift+>
	Rightmost	Forward Frame Play	Alt+Shift+Right

Search

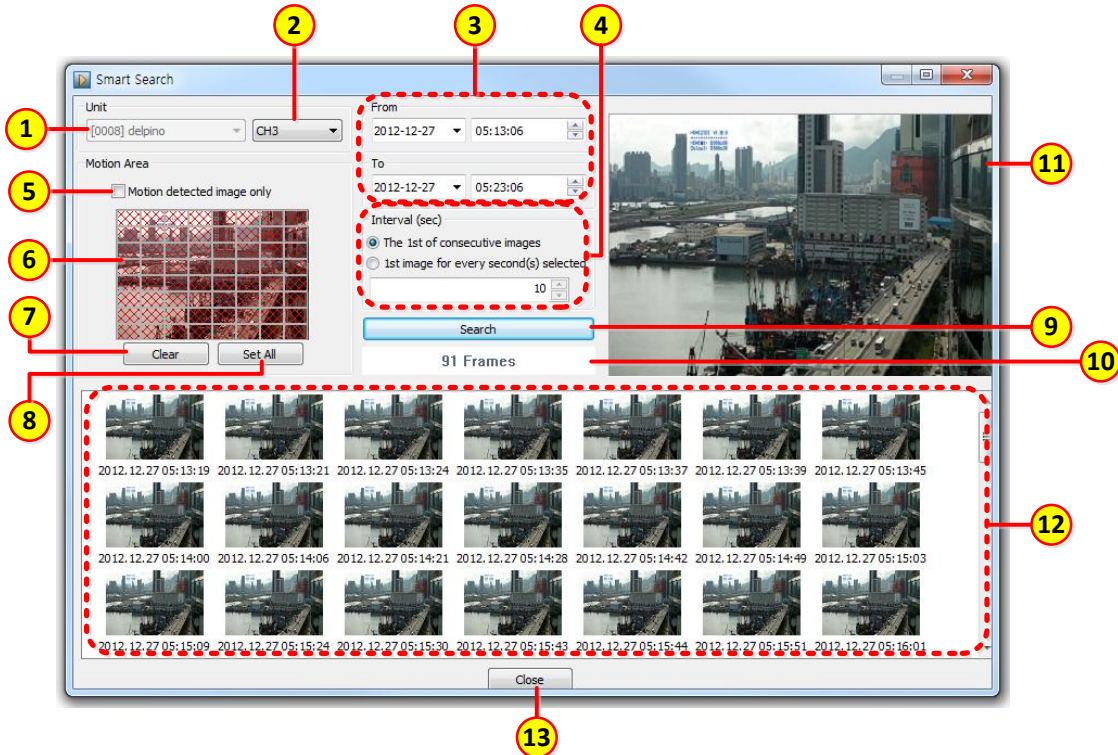
Various search modes are supported in search and playback viewer for user to search quickly and with ease. Text search can search test recorded in specific time, Smart search can detect image of motion detected and Thumbnail search can be made on specific search section set by user.

Text Search



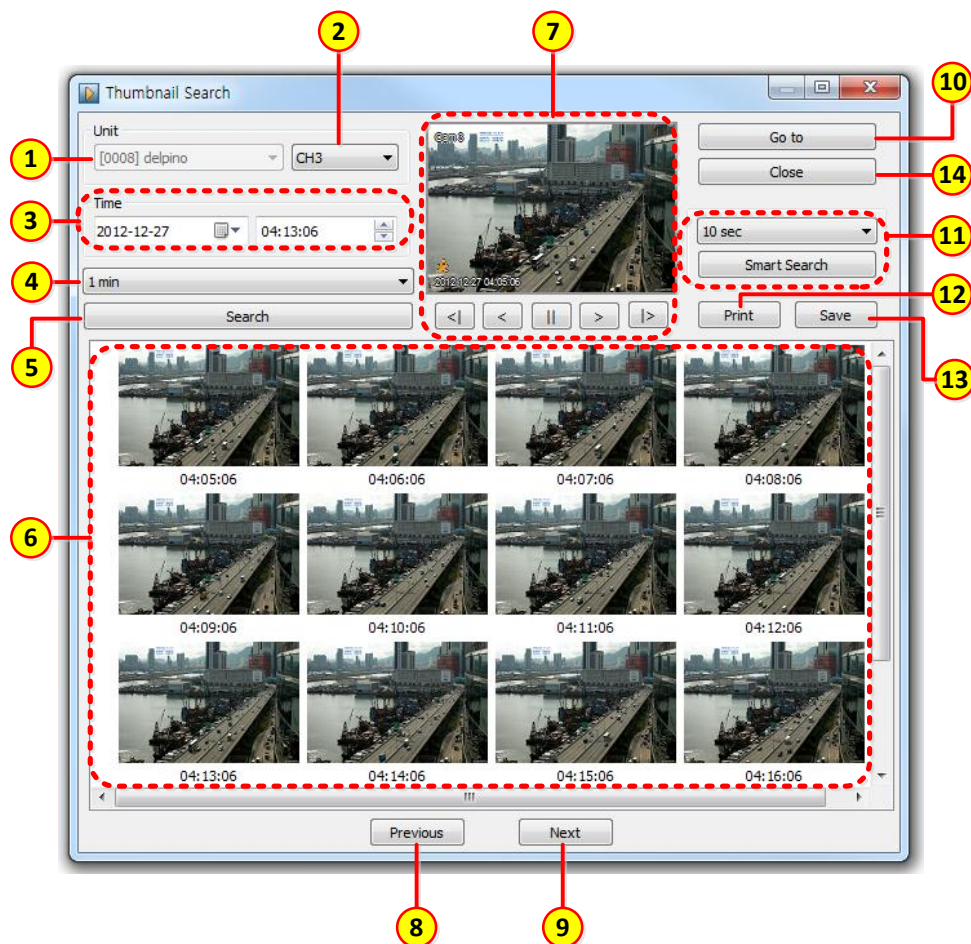
- 1) Shows ① connected unit name in text search window.
- 2) Select ② search channel then set ③ start and end time for search section. At this time, Start time must not be set later than end time. If wrong time setting by user, program will automatically adjust time in order end time is later than start time.
- 3) ④ Keyword search is possible, if user doesn't want keyword search, just leave this space empty then click on ⑤ **[Search]** button. There will be ⑥ status bar showing search status and ⑦ searched text lists will be shown once search is done.
- 4) Select text list to see ⑧ text description. Double click on the lists to move to the timeline and show image related with text.
- 5) Click on ⑨ **[Save]** button to save searched text in TXT file format then click on ⑩ **[Close]** button to complete text search and close window.

Smart Search



- 1) Indicates ①connected unit name in smart search window.
- 2) Select ②search channel and set ③ start and end time for search section. At this time, Start time must not be set later than end time. If wrong time setting by user, program will automatically adjust time in order end time is later than start time.
- 3) ④Search interval can be set. If select "all image examine" , it will search motion image in all images and if select "configured time interval examine", it will search motion image at configured sec, hour time interval.
- 4) Select ⑥motion detect area to search only section containing motion in selected area and select ⑤"image with motion detected search" to find out recorded images only with motion and event to improve search speed.
- 5) Click on ⑦ **[Clear]** button to clear motion detection area and click on ⑧ **[Set All]** button to select all motion detection area.
- 6) Start search by click on ⑨ **[Search]** button and ⑩ search status is shown in progress bar. Number of searched image frame will be shown once the search is done.
- 7) ⑫Searched image list is shown in Thumbnail and if user click on Thumbnail, it will enlarge image into ⑪look ahead window. Click on ⑫searched image to move to recorded time and playback image
- 8) Click on ⑬ **[Close]** button to complete smart search and close search window.

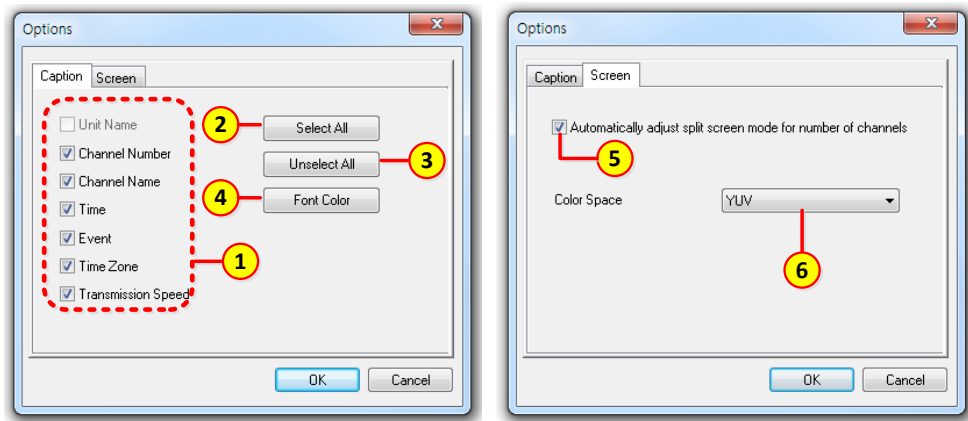
Thumbnail Search



- 1) It shows ①connected unit name in thumbnail search window.
- 2) Select ②search channel then set ③start time of search section.
- 3) Set ④search interval then click on ⑤ **[Search]** button to start search. Once search is done, ⑥searched image list will be shown in thumbnail and click on thumbnail to show image in ⑦page preview window.
- 4) Playback on recorded image of the time instantly is possible using playback control button. Search result is output as much as it can be shown in the search result window and click on ⑧ **[Previous]** and ⑨ **[Next]** button to continue to search.
- 5) Move timeline to recorded time of thumbnail then playback instantly by click on ⑩ move button. Set ⑪ search time range then click on **[Search]** button and configured search time range will be entered automatically running "smart search" so the connection search is possible.
- 6) Select thumbnail and click on ⑫ **[Print]** button for print and click on ⑬ **[Save]** button to save image.
- 7) Click on ⑭ **[Close]** button to complete thumbnail search and close search window.

Option

Option configuration for various function used in search playback viewer can be configurable. Select [option] in tool tap of menu to popup "option" window.

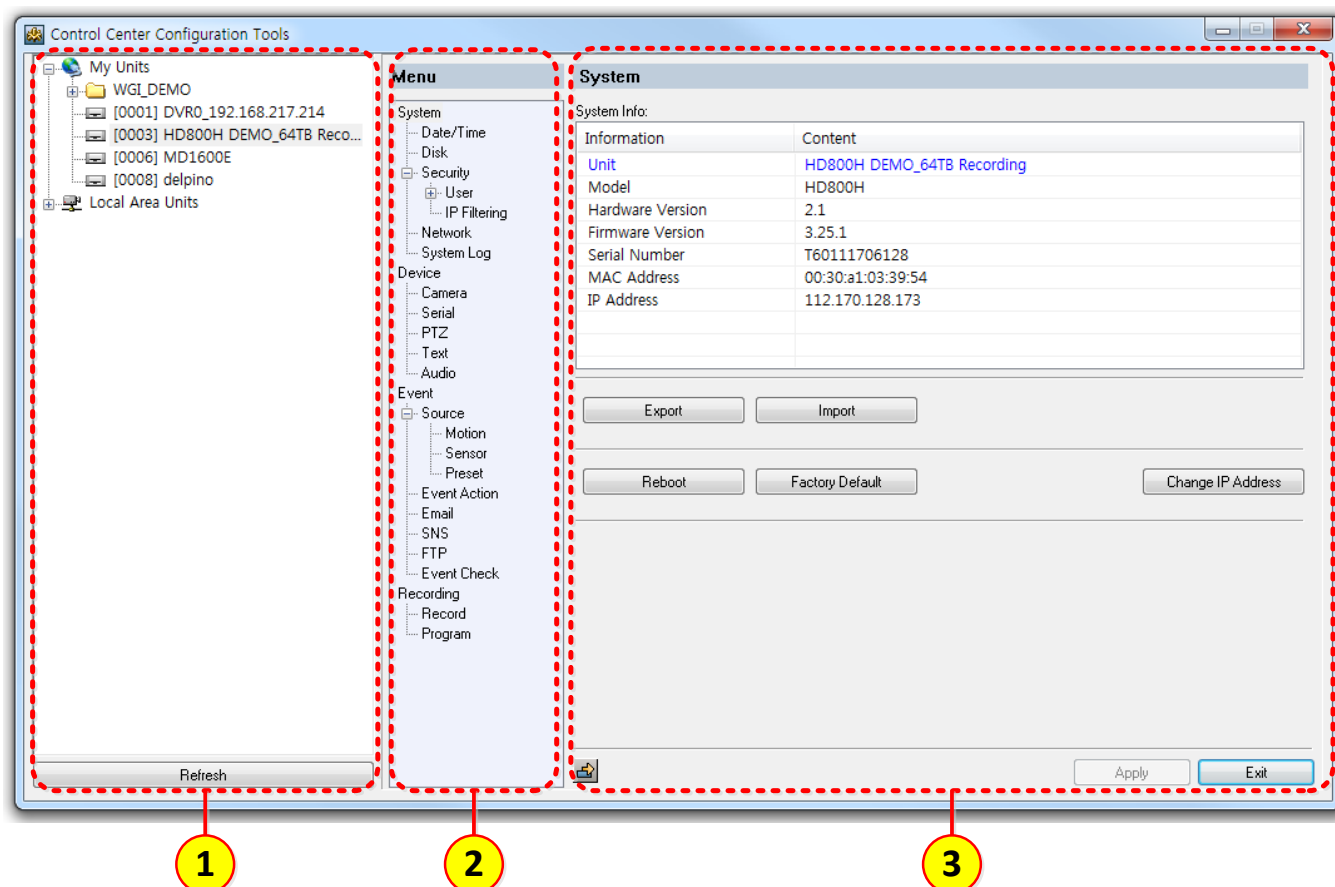


Item			Description
Caption	1	Caption list	Configures whether information about channel number, channel name, time, event, time zone, transmission speed will be displayed on image window or not.
	2	Select all	Select all caption lists.
	3	Unselect all	Clear all caption lists.
	4	Font Color	Can configure preferable color via color configuration window.
Screen	5	Automatically adjust split screen mode for number of channels	Auto screen division is executed based on number of channel when user select channel. It runs whenever channel is selected up to 16 screen division.
	6	Color Space	There are 2 modes YUV , RGB can be configurable.

Configuration Tools

Registration on Control Center or configuration on unit connected via local network is possible. It can be used for all units having WESP protocol supporting effective and integrated management.

Screen Composition

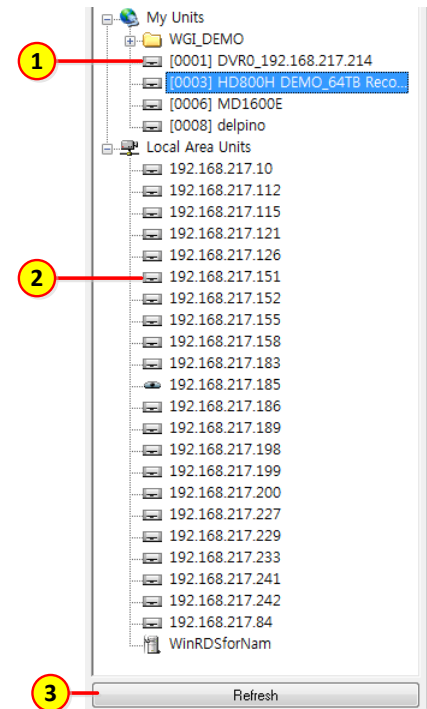


Item		Description
1	Unit list window	It shows units registered in user's account. Click on unit to access to it.
2	Menu window	It shows list of menu. Click on it to connect to the menu. Menu will be shown differently based on connected model.
3	System window	It shows configuration information of selected menu and user can change configuration value. For configuration details on each item, please refer to user guide of each model.

Unit Connection

It shares unit list registered in "my unit" of live viewer. When connect to the unit not registered in "my unit", authorization process is required for use.

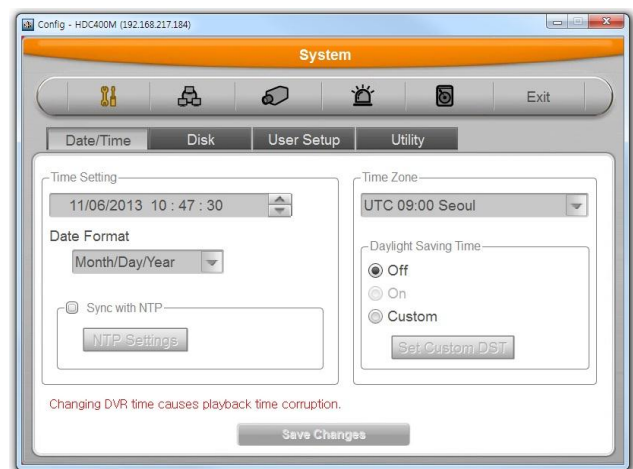
- 1) If user select unit already registered in "my unit" in unit list window, user can access to unit. If user select unit registered in "local area unit", the window asking manager password will pops up and user can access to the unit once entered password is authorized.
- 2) Once user access to the unit, the menu of the unit will be shown in menu window.
- 3) Click on ③ **[Refresh]** button to update unit list.



V4 UI use

If connected to unit of FW version over V4.x, it will supply same UI of unit's menu OSD. To use this UI, additional plugin is required but it will be downloaded and installed automatically once connected to unit.

For more information about configuration method, please refer to user's guide of each product.

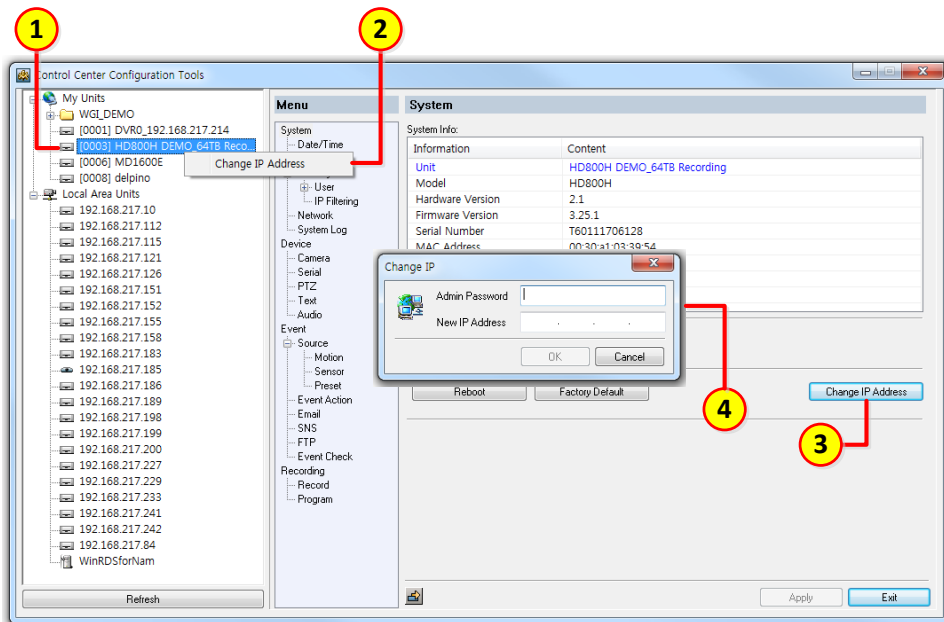


<note>

1. V4 UI is supportable only in products of FW version over v4.x.

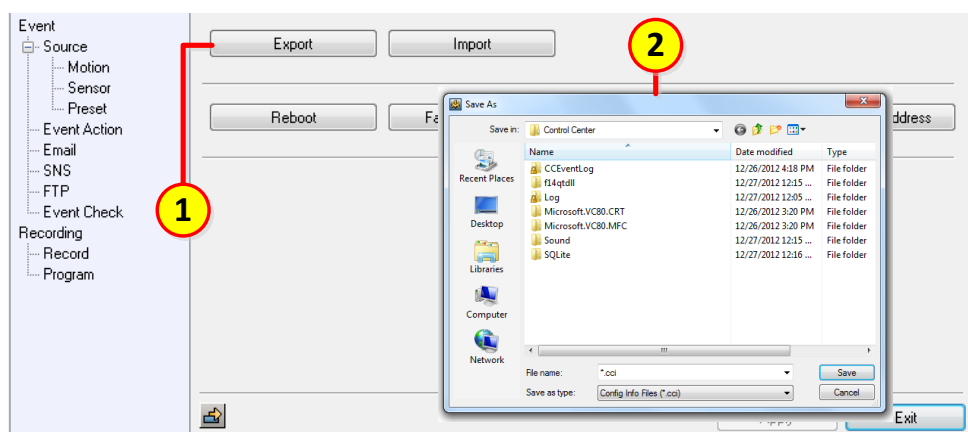
Basic Function

IP address change



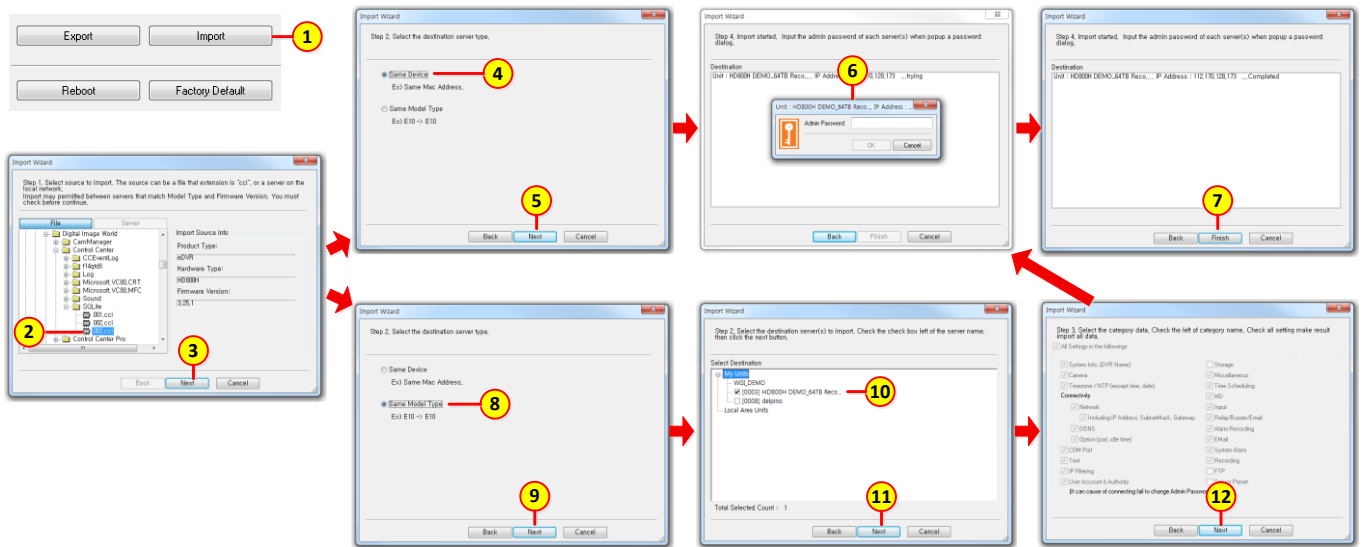
- 1) Select ① unit in unit list window and click on ② **[Change IP Address]** in popup menu or ③ **[Change IP Address]** in system information menu of configuration window by right mouse click then ④ Change IP window will pop up. Enter administrator's password and IP address to change then click on **[OK]** button to change IP address.

Export Unit Configuration



- 1) Click on ① **[Export]** button in configuration window and there will be window of ② "save in other name". Select save location, enter file name then click on **[Save]** button to save file in the location.

Import unit configuration



Import configuration of same device

- 1) Click on ① **[Import]** button in configuration window to activate import wizard. Select file saved as ② "export" then click on ③ **[Next]** button.
- 2) Select ④ **[Same Device]** in step 2 then click on ⑤ **[Next]** button.
- 3) Turn into step 4, there will be popup window asking ⑥ "admin password". Enter password and click on **[OK]** button to proceed with configuration import.
- 4) Click on ⑦ **[Finish]** button to complete configuration import and the window is closed.

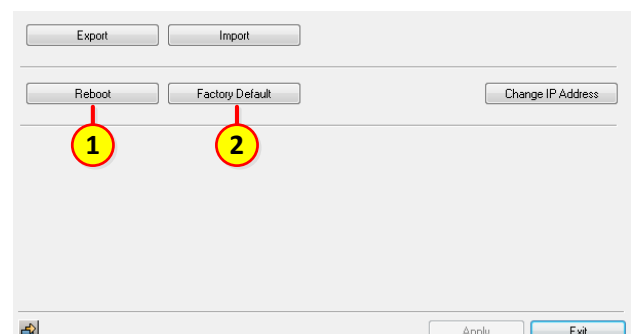
Import configuration of same product family

- 1) Click on ① **[Import]** button in configuration window to activate import wizard window. Select file saved as ② "export" then click on ③ **[Next]** button.
- 2) Select ⑧ **[Same Model Type]** in step 2 then click on ⑨ **[Next]** button. Select ⑩ unit to adopt configuration then click on ⑪ **[Next]** button.
- 3) Turn into step 3, there will be items adopting configuration shown. Click on ⑫ **[Next]** to move to step 4.
- 4) There will be ⑥ "admin password" window pops up. Enter password and click on **[OK]** button to activate configuration import.
- 5) Click on ⑦ **[Finish]** button to complete configuration import and window will be closed.




Unit restart and factory default

Unit restart and unit factory default can be controlled in configuration tool. We recommend to save configuration setting value through configuration export feature since all configuration value will not be recovered once factory default is done.

- 1) Click on ① **[Reboot]** button in configuration window then click on **[Apply]** button to restart unit.
- 2) Click on ② **[Factory Default]** button then click on **[Apply]** button to make unit to achieve factory default.



Hide tree

Click on  icon to hide unit list window and the icon will convert into  icon. Click again  icon to show unit list window again.

Tools

Schedule Backup

Recording data of DVR or WinDVRs can be backed up to a PC by Schedule Backup program. Only Administrator account can use the Schedule Backup.

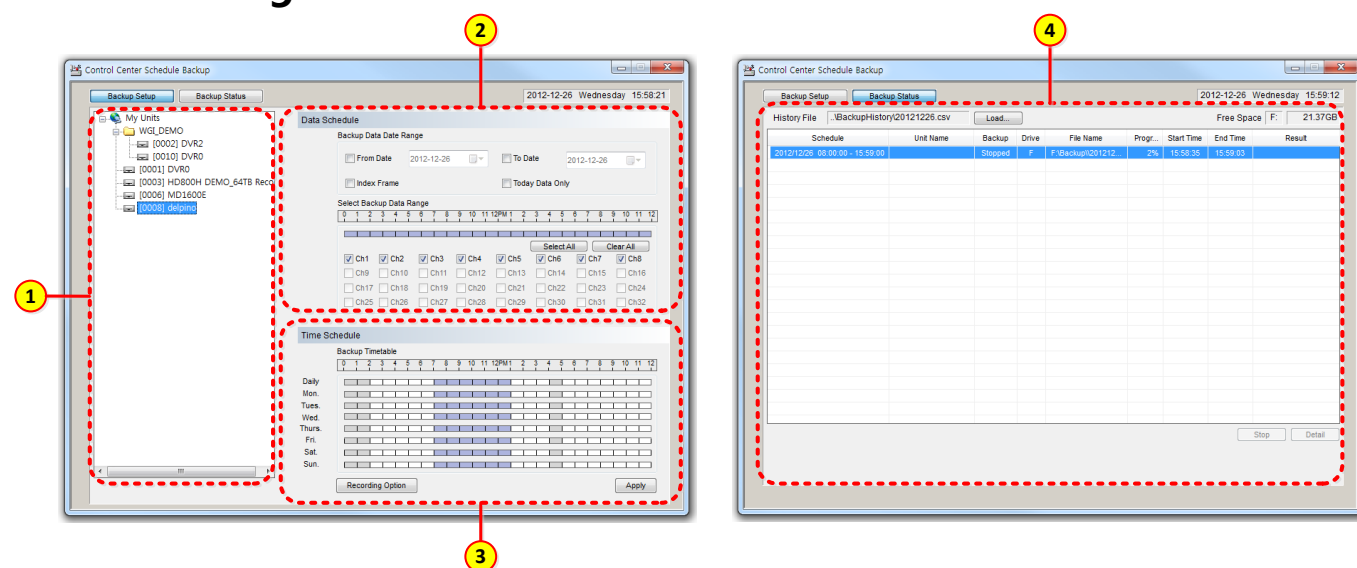
Reservation of Schedule Backup is available and it is automatically executed by reserved schedule. Schedule Backup program should be run at background to execute the backup. If Control Center was properly installed, Schedule Backup is automatically registered and it will be executed after PC booting.

Schedule Backup works at only 1 PC for only 1 unit at the same time, and regarding 1 unit, only 1 Administrator can reserve the backup. Created backup file can be played by Control Center Playback program.

<Note>

1. Schedule backup PC and DVR must have same time zone

Screen Configuration

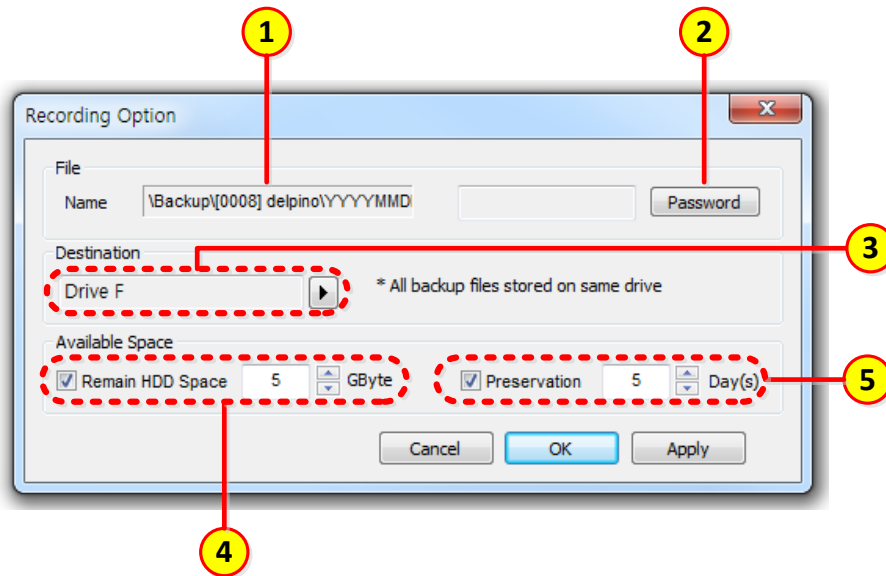


Function		Description
1	Unit List	It displays the unit list, and user can connect the unit by click.
2	Backup Data setting window	Channel to backup, Backup period can be configured.
3	Backup Schedule Setting window	Configures the time schedule. Only 1 unit can be configured at the same time.
4	Backup State Window	It shows Backup progress and completion state. User can open the history file and check the details by date.

Backup Setting

Recording Option

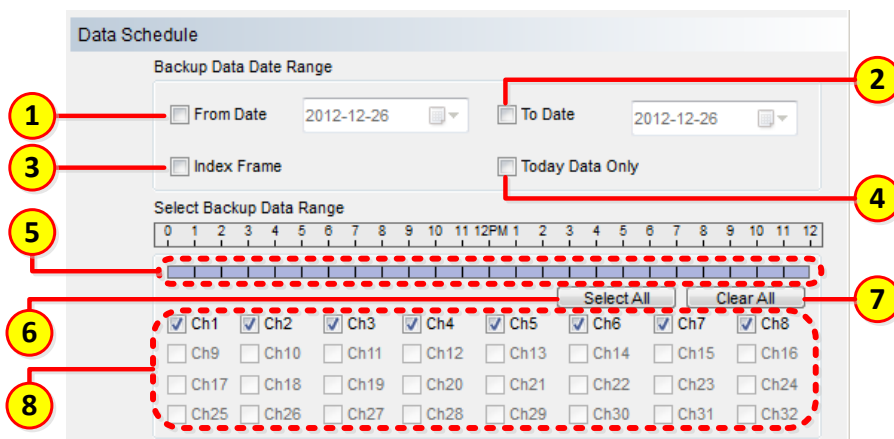
Drive to save the backup file, backup file password, conservation of minimum HDD space, retention period of backup file can be configured. Drive setting is applied to all units, but the other settings are applied to each unit separately. If **[Recording Option]** button is clicked, below Recording Option window appears.



Item		Description
1	File Path and Name	Backup file name and path is automatically decided and it can not be altered by user. Recording path is /Backup/Unit name/ and file name is assigned as YYYYMMDD_HH_MM_SS. Be careful that if unit name is changed, it also changes the recording path.
2	Password	User can assign a password to the backup file. The default condition has no password, so if you want to make a password then you have to leave the current password as blank. Password protected file can be played after proper password input.
3	Recording Drive	User can assign the drive to save the backup file. Selected drive is displayed as "Drive C,D". User can assign more than 1 drive at the same time, and this drive setting is applied to all units.
4	Available HDD Space	If there is no enough space, old backup files are automatically overwritten. If user assigns the minimum disk space to keep as GB unit, Backup process will keep the space. Available range is 1~100GB.
5	Preservation	User can assign the period to keep the backup file. Period elapsed files will be automatically deleted, and the available range is 1~365 days. Retention period is calculated by first frame's recording time of backup file.

Setting of Backup data

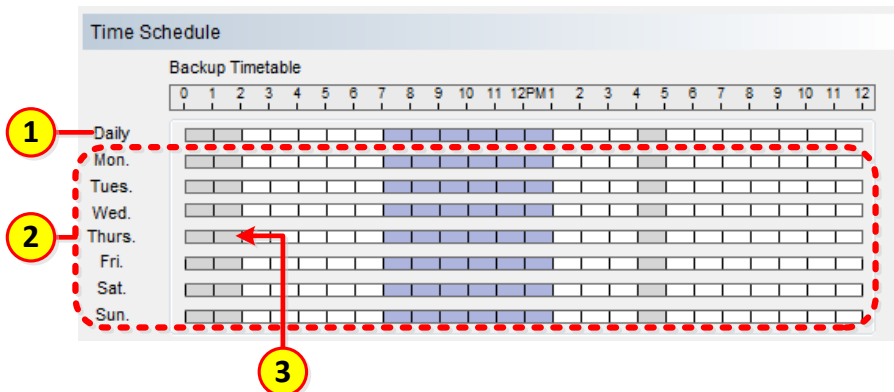
Diverse backup settings can be configured. User can decide the backup period, channels, date, time, and whether to use index frame backup per each unit.



- 1) The backup period is set based on the date which is recorded in the unit. If you check the "From Date" ①, date input box will be enabled, and you can assign the start data of backup.
- 2) If you check the "To Date" ②, date input box will be enabled and backup will executed to the assigned date. If you check the "Index Frame" ③, only index frames will be backed up. If you check the "Today Data Only" ④, only Today's recording data will be backed up.
- 3) Backup data range can be configured by hour unit. White block means no backup assigned, and if you click the white block, the color changes to blue. If you click **[Select All]** button, all 24 hours will be selected, and if you click **[Clear All]**, all assigned hours will be cleared.
- 4) ⑧ Only backup available channels will be enabled, and you can check the channels which you want to do backup.

Setting of Backup Schedule

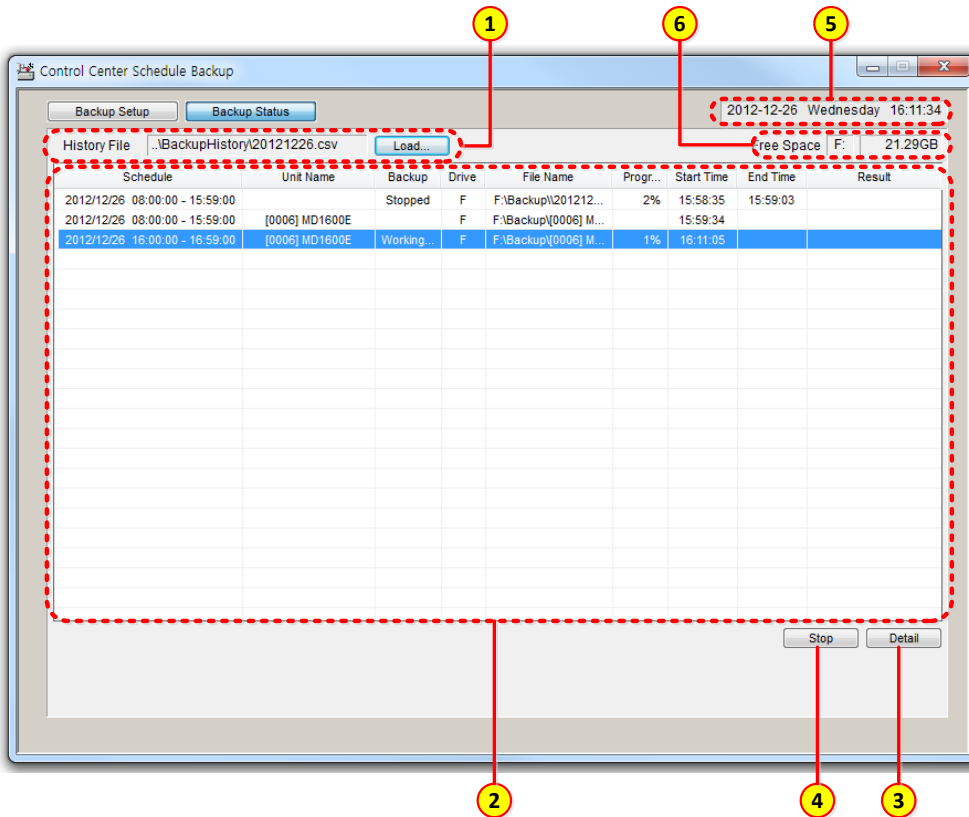
Backup schedule can be configured at PC. If a schedule is already occupied by a unit, the schedule can not be shared by another unit.

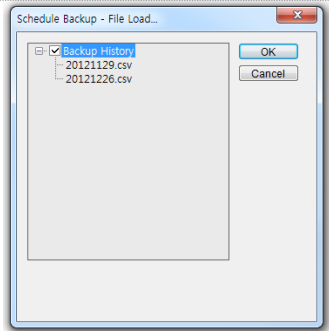
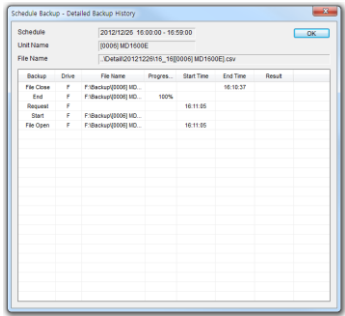


- 1) At Backup time table, white block means no backup is not assigned yet, and blue block means it is assigned for another unit's backup. If you select the white blocks by mouse, they are changed to blue to show the assigned backup schedule.
- 2) If you select ① "Everyday", all days of the week changed at the same time. Instead of that method, you can select hours of each day ②. Already backup assigned blocks are displayed as blue, and if you move the mouse to the block, tooltip shows its unit's name.



Backup Status

If you click **[Backup state]** button, you can see the backup details. All completed or ongoing backup process is shown, and you can get more details by opening the history file.



Item		Description	
1	History File	It shows the file path of history file and its name. By selecting the date, you can get the details.	
2	Backup List Window	It shows the backup state of already completed or ongoing backup.	
3	Detail	By selecting the backup list, you can check the details. It displays Backup schedule, Unit name, File name and you can see the backup progress step-by-step.	
4	Stop	It stops backup. If there are another schedules, the next backup will be started.	
5	Date/Time	It displays Date and time	
6	Backup Disk Information	It shows backup disk and its free disk space	




Tray Icon






After PC booting, schedule backup program is automatically executed and  icon is displayed at tray window. During the backup progress,  icon shows Red marking. When this icon is in display, schedule backup is run as background program. You can open the popup menu by clicking the right mouse button and you can exit or configure the schedule backup program.

MiniPlayer

MiniPlayer can play the Re4 file. It is useful when a user could not install the Control Center, so when you made a video backup, this MiniPlayer helps its easy play. After execution of the MiniPlayer, "Open" dialog box will be automatically executed, and you may select a Re4 file which you want to play.

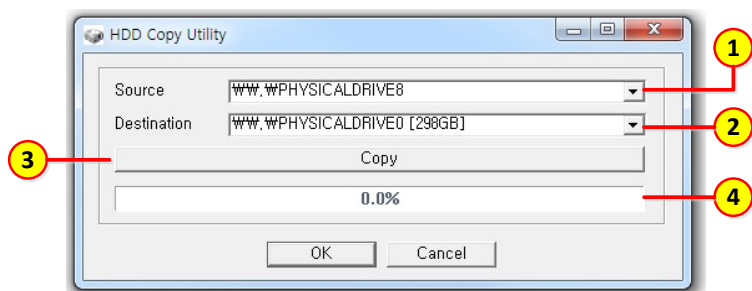


Item			Description
1	Menu	File	You can open a file or exit the program (Open / Exit)
		Window Mode	It changes the split display modes. (1 / 4 / 9 / 16 Channel)
		Filter	It can enable De-interlace mode. De-interlace mode only works for playback of D1 resolution video. (De-interlace / Screen Adjustment)
		Log	It opens log viewer. Log is recorded along with video image. (Log View)
		About...	It shows the software information like version, copyright..
2	Display window		It plays the video
3	Time line		You can move the playback position by slider bar.
4	Play, Image save, Print, Audio, Channel change buttons		You can change the play method by clicking buttons. (Step Backward / Play Backward / Pause / Play Forward / Step Forward)
			It saves the current image as JPEG, BMP format. Caption, Name, Date/Time, Event information can be saved optionally.
			It prints the current image. Along with image, Channel name, Recording

			time, Event information is printed, and you can add memo into caption.
			It shows Open dialog box. You can select a file.
			It turns on or off the audio.
			If there are another channels, this buttons move to previous/next channel.
			It controls audio volume.
5	File recording interval		It shows start and end date/time information of the selected file.

DVR HDD Manager

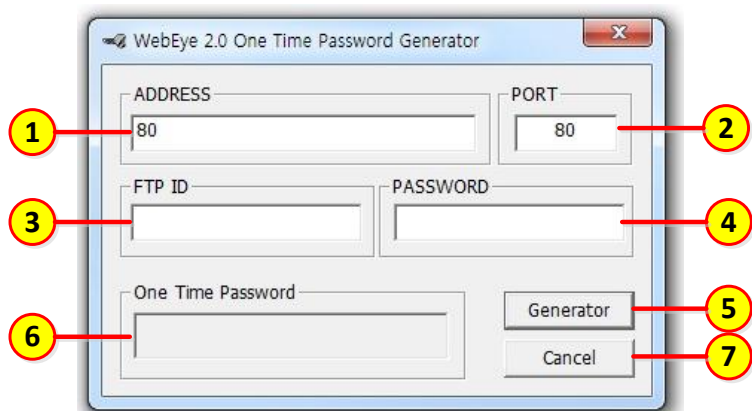
DVR's harddisk can be connected to a PC and its data can be copied. You may use this method when you want to do backup the entire disk. This is the fastest method to execute the backup.



	Item	Description
1	Source	Select a disk where the original source data is saved.
2	Destination	Select a disk where the copied data to be saved. The selected disk should have larger free space than original disk.
3	Copy	If pressed Copy button, a popup window will appear which asks whether you proceed the copy. And, after you enter the Administrator's password, copy will be started.
4	Progressive bar	It shows the progress of copying.

OneTime Password

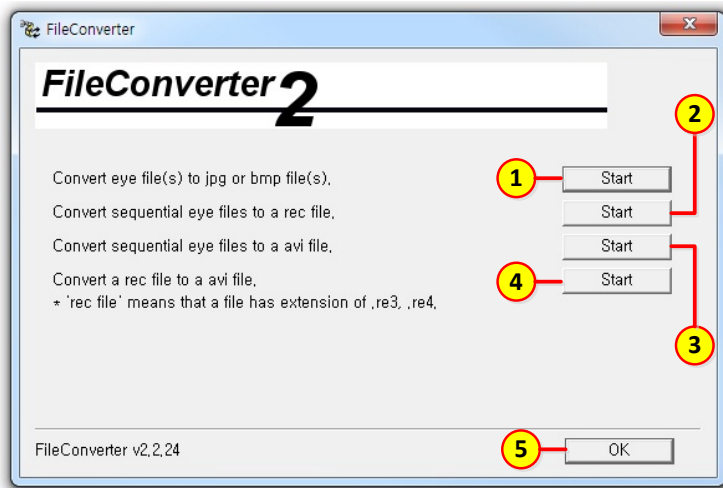
OneTime Password Generator can be used for IP camera, and you can use it by checking "Use Onetime Password" of User Account at IP camera setting. You can connect to IP camera by FTP client program, and you have to re-generate onetime password again for next connection. For the details of IP camera setting, please refer to the user's manual of the product.



Item		Description
1	Address	Enter the address of IP camera.
2	Port	Enter the port number which IP camera uses.
3	FTP ID	Enter the User ID which is assigned for FTP User Account of the IP Camera.
4	Password	Enter the Password which is assigned for FTP User Account of the IP Camera.
5	Generator	After you enter all necessary IP camera information, click it to generate One Time Password.
6	One Time Password	It shows generated One Time Password.
7	Cancel	It terminates the program.

File Converter

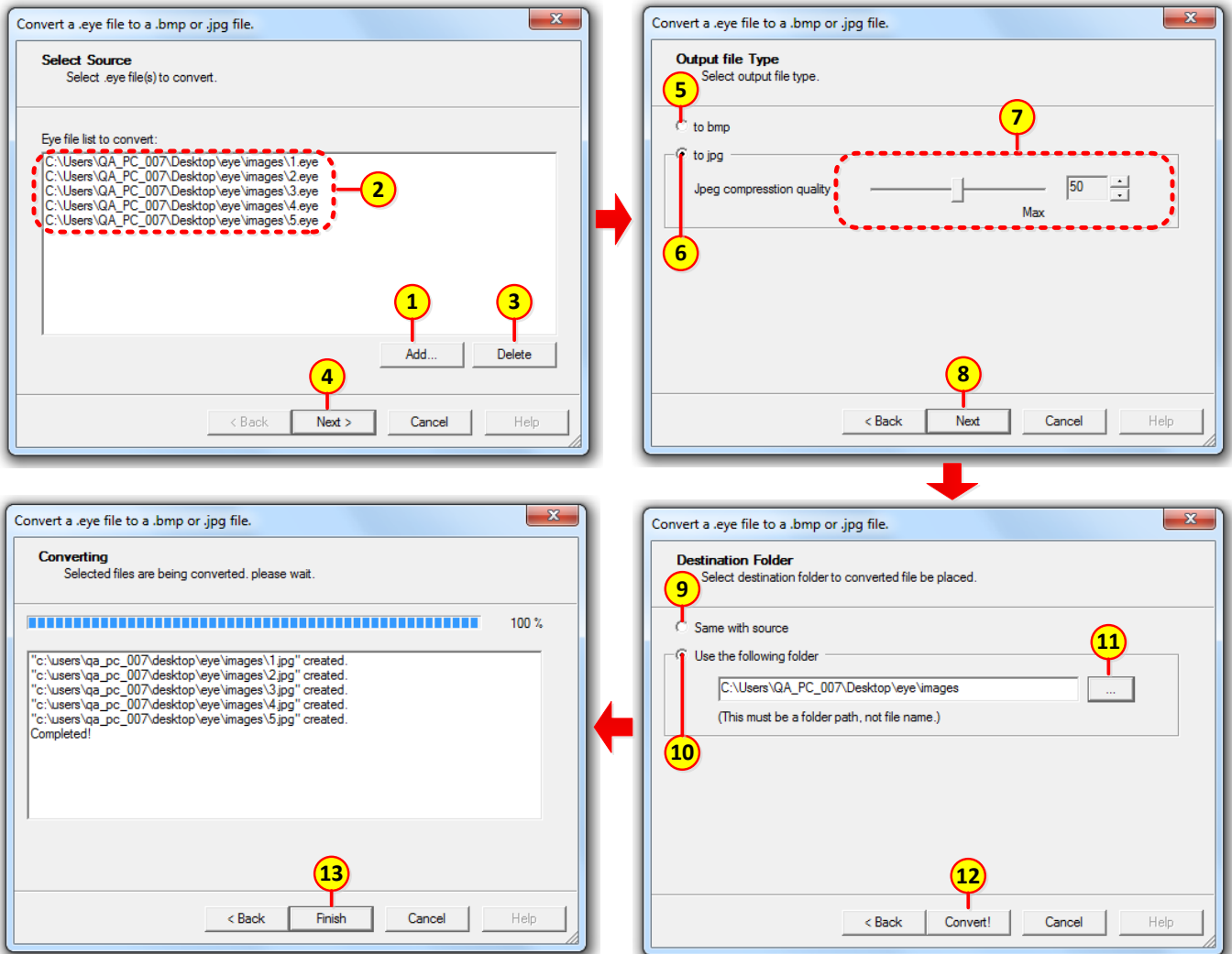
eye format still image file and rec3, rec4 format video clip files can be converted to bmp, jpg, avi files by this converting program. Besides, multiple eye files can also be converted to video clip file.



Item		Description
1	Convert eye file(s) to jpg or bmp file(s).	It converts eye file to jpg or bmp file.
2	Convert sequential eye files to a rec file	It converts eye file to re4 file.
3	Convert sequential eye files to a avi file	It converts eye file to avi file.
4	Convert a rec file to a avi file	It converts rec3, rec4 file to avi file.
5	OK	It terminates the program.

Converts eye file to jpg or bmp file

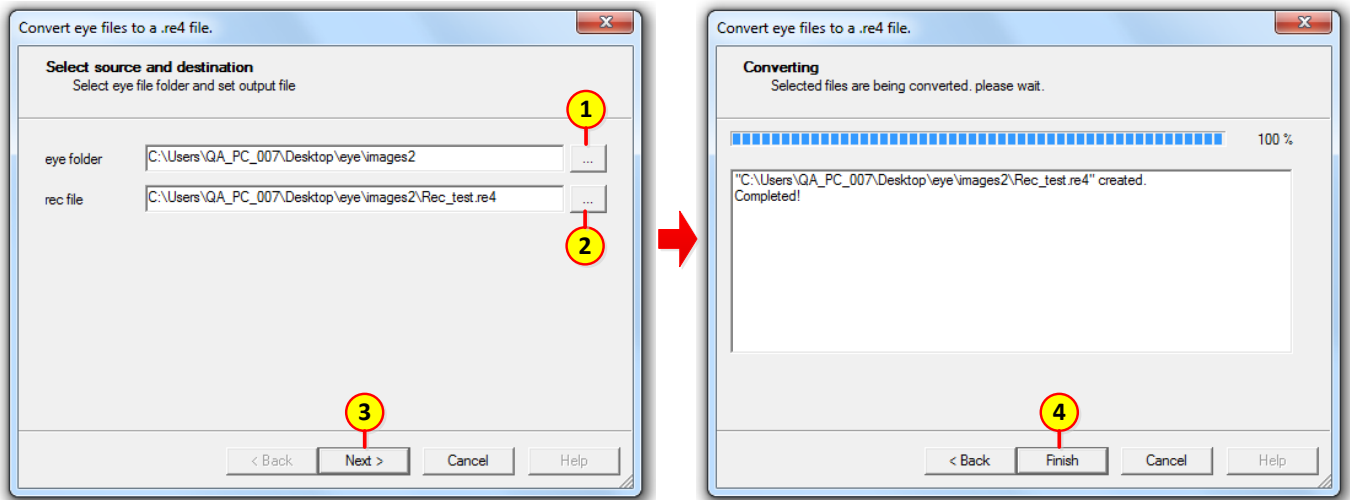
Click **[Start]** button of "Convert eye file(s) to jpg or bmp file(s)."



- 1) Click ① **[Add]** button to select eye files to convert. ② selected files are listed and the files can be deleted by ③ **[Delete]** button. Click ④ **[Next]** button to move the next step.
- 2) You can choose the output type between ⑤ bmp or ⑥ jpg. When you choose jpg file, you can adjust its ⑦ quality. Click ⑧ **[Next]** button to move to the next step.
- 3) Decide the location where the output file to be saved. ⑨ Same place with the source file, or ⑩ you can choose your own location. To decide your own location click ⑪ **[...]** button to open the file explorer. Lastly, Click ⑫ **[Convert!]** button to move to the next step.
- 4) After file converting progress, click ⑬ **[Finish]** button to terminate the program.

Converts eye file to re4 file

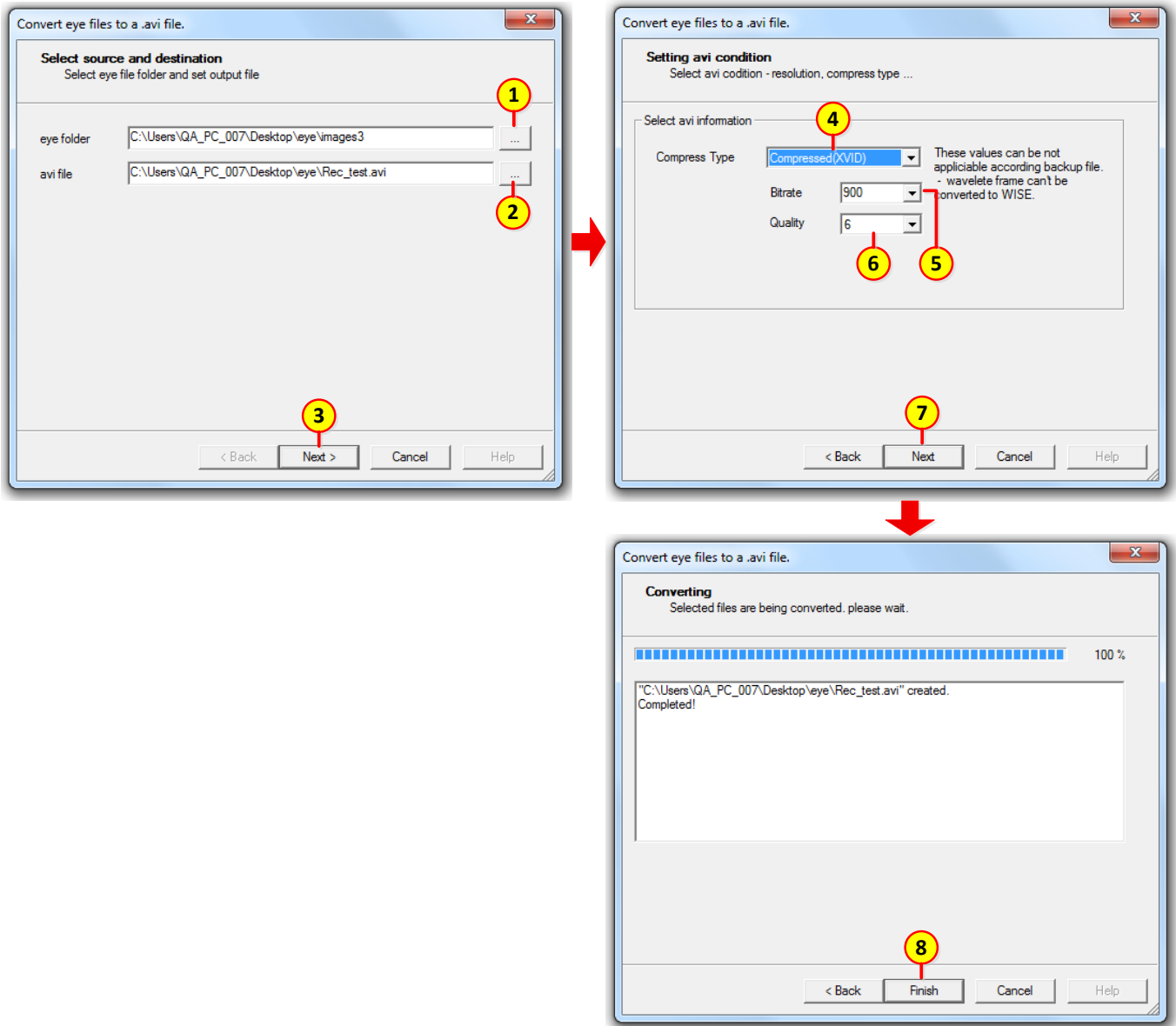
Click **[Start]** button of "Convert sequential eye files to a rec file".



- 1) After open the file explorer by Clicking ① **[...]** button, select the folder where the source eye files are located. By clicking ② **[...]** button, decide the folder where the output file to be saved, and input file name. Click ③ **[Next]** button to start file converting.
- 2) After file converting progress, click ④ **[Finish]** button to terminate the program.

Converts eye file to avi file

Click **[Start]** button of "Convert sequential eye files to a avi file".



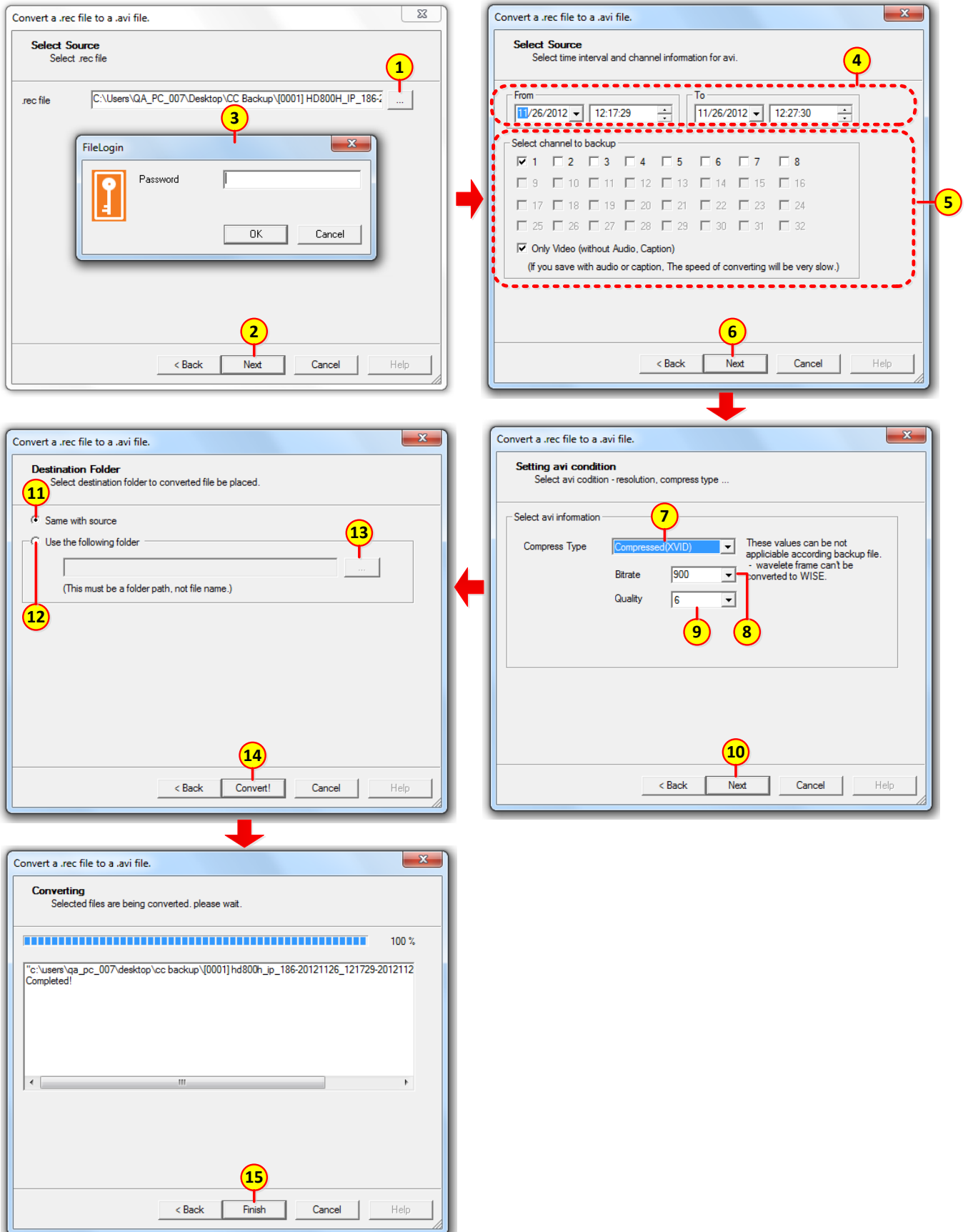
- 1) After open the file explorer by Clicking ① [...], select the folder where the source eye files are located. By clicking ② [...], decide the folder where the output file to be saved, and input file name. Click ③ **[Next]** button to move to the next step.
- 2) You can decide the avi compression method and quality at "Setting avi condition" step. ④ Select the compression method, ⑤ Bitrate and ⑥ Quality. Note that you can select the compression bitrate and quality only when XVID compression method is selected. Click ⑦ button to start file converting.
- 3) After file converting progress, click ⑧ **[Finish]** button to terminate the program.

<Note>

1. To play a avi file which was created by Uncompressed, Compressed(XVID) method, "XVID" CODEC should be installed on your PC.
2. To play a avi file which was created by Compressed(WISE) method, 'DWISFilterInstall.exe' should be installed on your PC.

Conversion from re4 file to avi file

Execute the FileConverter program and, Click **[Start]** button of "Convert a rec file to a avi file".



- 1) At Select Source window, if you click the ① [...], File explorer appears and you can select a re4 file to convert. Move to the next step by clicking ② **[Next]** button. If the selected re4 file has password

-
- protection, ③ password window appears and after the password authentication, you can move to the next step. You can decide the converting interval and whether to include audio. Decide the interval ④ and decide the channel and audio ⑤. After the selection, move to the next step by clicking ⑥ **[Next]**.
- 2) You can select avi compression method and quality at Setting avi condition window. Select the compression Type ⑦, Bitrate ⑧, Quality ⑨. Note that compression bitrate and quality can be changed only when compression type was selected as XVID. Click **[Next]** button and move to the next step.
 - 3) At Destination Folder window, decide the place where the converted file to be saved. Same folder with original file ⑪ or you may select a folder. To select a folder, click ⑬ **[...]** button to open the file explorer. After decision the folder, click ⑭ **[Convert!]** button to start file conversion.
 - 4) After confirmed the 100% of converting, click ⑮ **[Finish]** button to close the window.

Appendix

Introduction of WESP SDK

WESP SDK(WEBGATE Embedded System Protocol Software Development Kit) supports software programmer to easily develop a software application that interfaces with WEBGATE products.

Because WESP SDK includes all functions which Control Center provides, you can easily make your own application. Through this SDK, you can manage all configuration of products, can get live monitoring and playback video image.

Besides, WESP SDK is based on Microsoft COM technology, it supports diverse development languages like Visual Basic, Visual C++, Visual Basic Script, Java Script, .Net. WEBGATE's all products were designed under WESP protocol, so your designed application software can be used for all WEBGATE products.

Main features

- ✓ Provides same instructions for all WEBGATE equipment
- ✓ Easy development environment and method
- ✓ Supports all functions of products

SDK Composition

SDK consists of Monitor, Discovery, Event, Config, PTZ, and Playback components.

SDK Examples

Example of live monitoring

When you want to get video from network camera or DVR, you can easily implement it by using Monitor component.

Following example shows that if you click the "Live monitoring!" button, application connect a product by entering IP address, port, ID, password. And after the connection, it displays channel 1 video with normal quality, 30frame/second speed.

```
< visual basic 6.0>
' If button clicked, try the connection
Private Sub Command_connect_Click()
    Call MonitorCtrl.Connect("192.168.63.1", 80, "guest", "guest_password")
End Sub
' After connection, request the video
Private Sub MonitorCtrl_AckReceived(ByVal ackCode As Long, ByVal param As Long)
    If AckCode = ACK_CONNECT Then
        Call MonitorCtrl.PlayVideo(1, RESOLUTION_NORMAL, 30)
    End If
End Sub
```

< Execution of sample code >



Example of Recording

If you want to record current video during the live monitoring, following codes provide it.

< visual basic 6.0>

```
Private Sub start_recording_Click()  
    Call MonitorCtrl.StartRecording("c:\quickRec\", "testRecording.re3")  
End Sub  
  
Private Sub stop_recording_Click()    MonitorCtrl.StopRecording  
End Sub
```

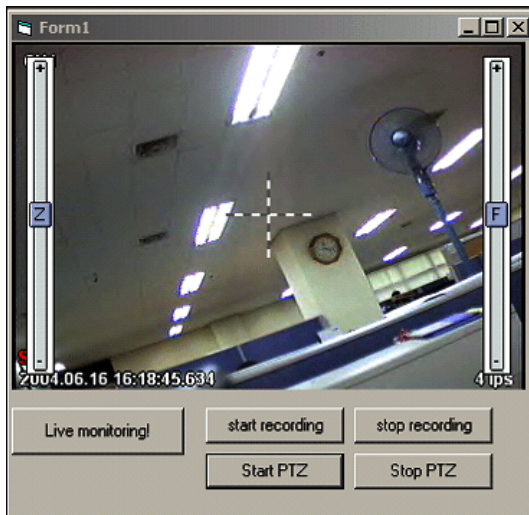
Example of PTZ control

If PTZ is connected, you can turn on/off the PTZ control function during live monitoring by following codes.

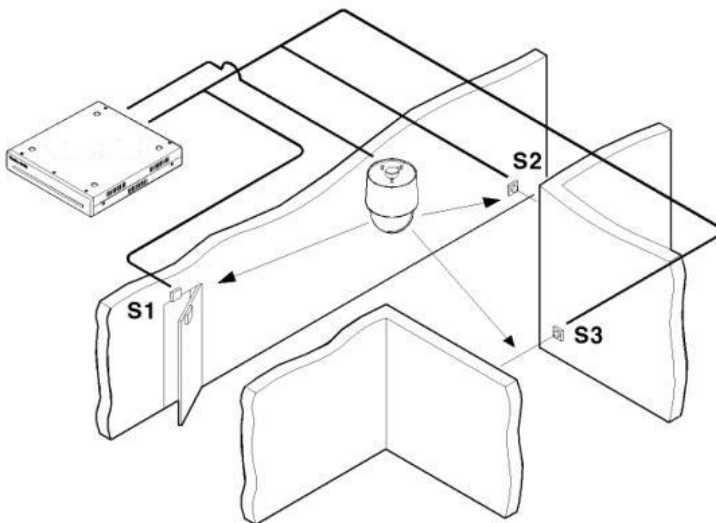
< visual basic 6.0>

```
Private Sub start_ptz_Click()  
    ' Input the PTZ channel number to parameter  
    Call MonitorCtrl.StartPTZ(1)  
End Sub  
  
Private Sub stop_ptz_Click()  
    MonitorCtrl.StopPTZ  
End Sub
```

<Execution of sample code>



Example of Component interface



Following example is using Monitor, PTZ and Event component, and if a sensor alarm is occurred, PTZ moves to an pre-assigned preset position.

- 1) Above picture shows dome camera and sensor position.
- 2) Configures the preset position of dome camera. (Preset setting can be executed by Config component)
- 3) Following codes support that PTZ moves to the corresponding Preset position according to the alarm sensor input.

```

< visual basic 6.0>
' If start button is clicked, Event, Monitor, and PTZ ActiveX component connect to
the equipment.
Private Sub Command_start_Click()
    Call Event1.Connect("192.168.63.1", 80, "guest", "guest_password", 0)
    Call Monitor1.Connect("192.168.63.1", 80, "guest", "guest_password")
    Call PTZ1.Connect("192.168.63.1", 80, "guest", "guest_password")
End Sub
' If stop button is clicked, close the connection.
Private Sub Command_stop_Click()
    Monitor1.Disconnect
    PTZ1.Disconnect
    Event1.Disconnect
End Sub

' When a event is occurred at server, below function will be executed.
' If Event category is 1 and Event ID is 16 then,
' Sever executes preset command 16 which is correspond to sensor input
Private Sub Event1_EventReceived(ByVal pIEvent As WESPEVENTLibCtl.IEvent)
    If pIEvent.EventCategory = 1 And pIEvent.EventID = 16 Then
        Call PTZ1.GotoPreset(pIEvent.NumberField)
    End If

    If pIEvent.EventCategory = 1 And pIEvent.EventID = 17 Then
        ' If Sensor input is off, it will not work.
    End If
End Sub
' After Monitor component succeeded to the connection, it displays video.
Private Sub Monitor1_AckReceived(ByVal AckCode As Long, ByVal Param As Long)
    If AckCode = ACK_CONNECT Then
        Monitor1.PlayVideo 1, 3, 15
    End If

```

Specifications

	Standard	Professional	Enterprise
GENERAL			
Max. Unit	1024		
Max. Monitor(View)	2	6	4+50 External Monitor
Max. Supported Division	1 / 4 / 9 / 13 / 25 / 36 / 49 / 64		
H/W Support	HD Series DVR, LH/EH/MH Series DVR, MD Series DVR, MPEG-4 WebEye Series, NVS04S, WinDvrS, WinRDS		
Video Format	H.264 / MPEG4 / JPG		
Audio Format	ADPCM / True speech / G.723		
User Management	YES	YES Manage Units, Monitor by user separately	YES Manage Units, Monitor by user separately
Account Level	YES		
Max account	100		
WNS (DDNS)	YES		
WRS (Dynamic IP Registration Server)	YES		
MONITOR			
Performance	8 HD 1080p30	12 HD 1080p30	12 HD 1080p30 / PC
Real-Time Audio	YES		
Remote PTZ Control	YES		
Remote I/O Control	YES		
Save snapshot image	YES		
Quick Recording	YES		
Alarm Log Viewer, Save/Search Event List	YES		
Auto Action	YES Alarm Popup, Buzzer	YES Alarm Popup, Buzzer, Latch Window, Relay, e-Mail, Preset, Recording, Save image	
Rule based auto action	NO	YES	
Error Management (Latch Function)	NO	YES Item of errors to be managed are selectable freely	
Action Log	NO	YES User action, auto action	
Log Save	YES		
Status Viewer	YES		
Auto Connection (Lost & Recovery)	YES		
Watermark	YES		
Keyboard Shortcuts	NO	YES	
Joystick (WKC-100)	NO	YES	
View Set (group)	YES		
Map	YES	YES Section, Sub Map, Map Link	
Remote Login	NO		YES
PLAYBACK			
Playback	YES		
Backup (re4, avi)	YES		
Log Viewer	YES		
Timeline display(log) Timeline index search	YES		
Go to a certain time Calendar search	YES		
Playback event image	YES		

	Standard	Professional	Enterprise
Speed playback(0.5~64x)	YES		
Smart Search	YES		
Thumbnail Search	YES		
Text Search	YES		
Snapshot / Print	YES		
Zoom in/out image	YES		
Brightness/Contrast			
Audio play	YES		
Fix Layout	NO	YES	
UTILITY			
Web Viewer	NO		YES
Schedule Backup	YES		
DVR HDD Manager	YES		
File Converter (eye to bmp, rec to avi...)	YES		
System Requirement			
Recommended	Intel Core i7 2.8GHz, 4GB of RAM, 500GB HDD, Radeon 1024MB PCI-E Graphic Cards, Support AGP Acceleration, Support PCI-E 2.0 16x of higher, 100/1000 Ethernet NIC, Sound Card		
Minimum	Intel Core2Duo 2.93GHz, 2GB of RAM, 100GB HDD, 128MB Graphic Card, Support AGP Acceleration, 10/100/1000 Ethernet NIC, Sound Card	Intel Core2Quad 2.4GHz, 4GB of RAM, 500GB HDD, 256MB PCI-E Graphic Card, Support AGP Acceleration, 10/100/1000 Ethernet NIC, Sound Card	
OS	Windows XP 32bit, Windows 7 32bit		

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BSD License : Configuration.dll, AuthCodeGenerator.lib, UserManager.dll, libcdkey.lib, XCrashReport.exe

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