

EMS 2.0

Light Version 1.1V

Supported Device: EVL, EV2, Hydra NVR

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I. SYSTEM REQUIREMENT

The EMS 2.0 utilizes much resource from the computer as it draws data from multiple DVRs and Hydra NVR. The PC must sufficiently and efficiently manage the incoming data stream and real-time alerts from each DVR/NVR connected. Therefore, the PC must be equipped with a higher minimum requirement for its components and operating system.

The following chart displays the minimum and the recommended system specification to operate the EMS 2.0 properly.

	Minimum	Recommended
OS	Window XP SP1	Window 7 SP1
CPU	Dual core 2.0G (Free Resources 90% Over)	Quad core i5 (Free Resources 95% Over)
RAM	1G (Free Physical Memory 300M)	4G (Free Physical Memory 700M)
Video Card	AGP 64M Memory	PCI-E 256M Memory
Resolution	1024*768	1600*1200(1920*1080) 2 Monitor
DirectX	DX 7.0 Support	DX 9.0 Support
Network	100M Ethernet LAN	Giabit Ethernet LAN
HDD	Remain Size 10G	Remain Size 40G

EMS 2.0 may not run if DirectX7.0 or earlier version is installed.

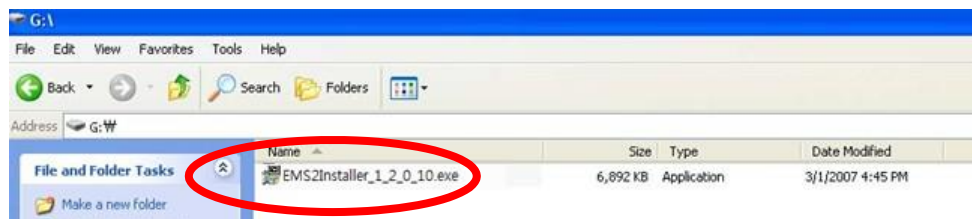
Please download the latest **Direct X** form Microsoft.

II. INSTALLING

Please download the EMS2 from www.nuvico.com on your computer and double-click on the file, which opens the setup dialog.

[Download Link]

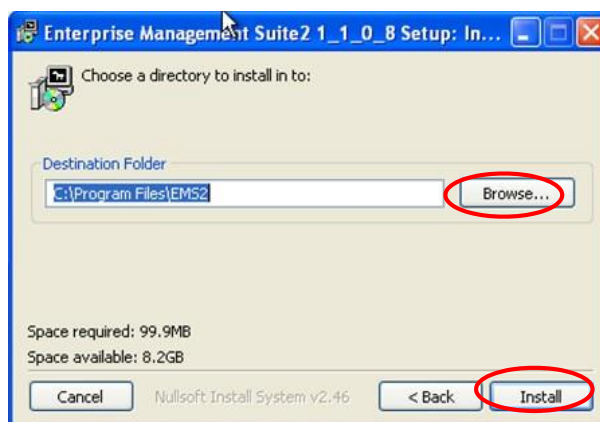
http://www.nuvico.com/download.php?f=EMS2Installer_1_3_12_3.exe.800135c078d084d9b5fbd2e5c34a4472&fc=EMS2Installer_1_3_12_3.exe



The setup dialog displays the installation options: the EMS, XP Firewall Setup, XP Sound Sample, Start Menu Shortcuts, and Desktop Shortcut.

The Start Menu Shortcuts and Desktop Shortcuts may be unchecked if desired.

Click on **Next** to continue.

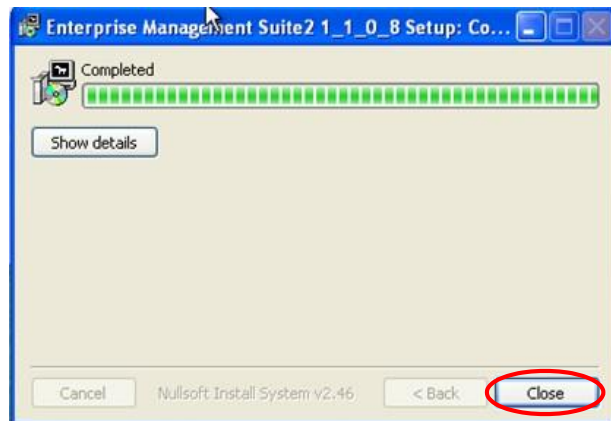


Select the folder in which the program will be installed. By default, it is installed in "C:\Program Files\EMS 2.0."

Click on **Install** and the installation will begin.

Click on Next to install program.

This program is needed for IP CAM function like Live / Scan.



Click on **Close** to finish the installation.

III.EXECUTING EMS 2.0



1. Double click  icon and you will see the login window as below.



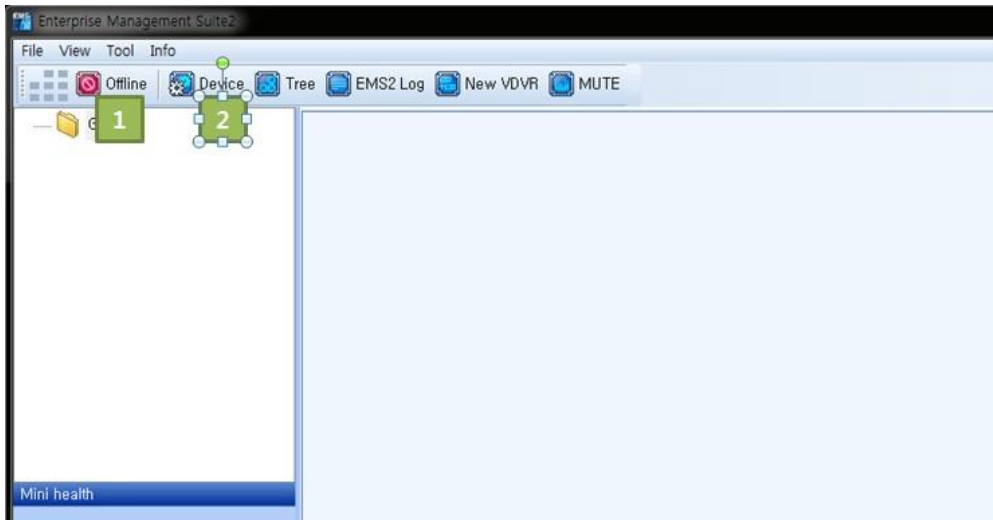
The default user ID and password is “**admin**” and “**Q**”

Refer to EMS 2.0 Setup to change the password. To exit without logging in, select **cancel**.

Refer to EMS 2.0 account set up to add a user account.

IV. FEATURES

1. EMS 2.0 Overview



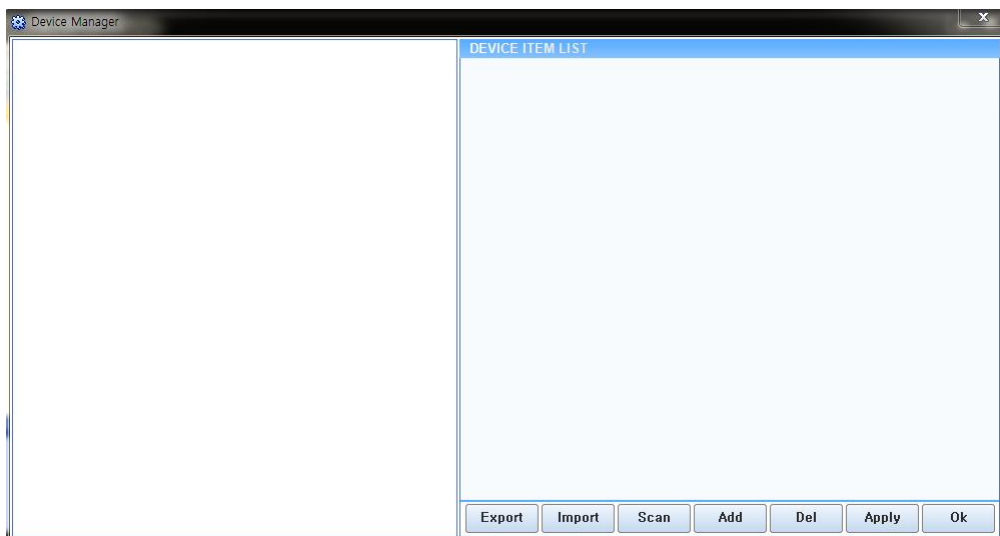
1. Online/Offline button

Connect/Disconnect all events for each device.

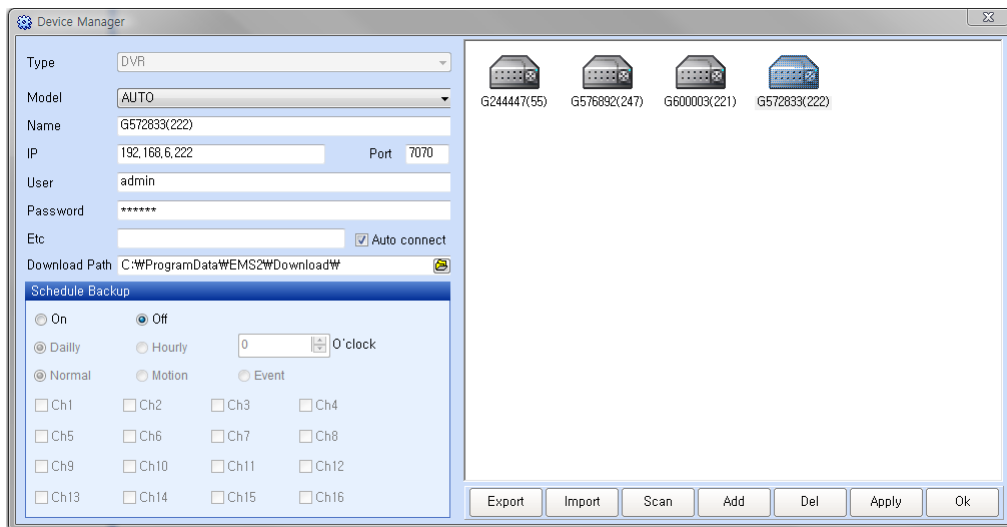
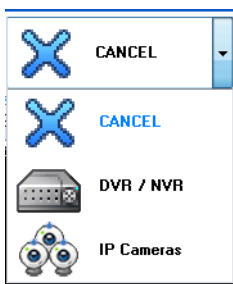
The Device Manager can only be accessed in offline mode.

2. Device Manager

Device Manager will be executed only in offline status and after logging in as 'Admin'. It is used to register all devices which will be used in EMS 2.0 program.



-
- ① **Export:** Abstract the information of registered devices.
 - A. Password window will pop up.
 - B. Enter the EMS 2.0 Executing Password.
 - C. Designate a directory for save the file.
 - D. Enter the file name, “*.exp” and the file will be abstracted.
 - ② **Import:** import the “*.exp” file and register it.
 - ③ **Scan:** Automatically detects DVRs connected to the local network but ignores devices already on the list. The last octet of the IP address is entered automatically to the title and the default password of 000000 is used for authentication.
 - ④ **Add:** Add device.



After selecting add, the user will be able to choose from DVR/NVR, IP cameras, or cancel. Choose DVR/NVR to add the Hydra HD recorder or EV2 series DVR.

- A. User can select product <DVR / NVR IP Cameras>
- B. Add a device

1.Add DVR / NVR

The screenshot shows the 'Device Manager' application window. The 'DVR / NVR INFORMATION' section on the left contains the following fields and options:

- Model:
- Name:
- IP:
- Port:
- User:
- Password:
- Etc:
- Auto connect: ☒
- Download Path:

The 'SCHEDULE BACKUP' section includes:

- On: ☐ Off: ☒
- Daily: ☒ Hourly: ☐ 0 O'clock
- Normal: ☒ Motion: ☐ Event: ☐

Below the schedule section is a grid of checkboxes for channels:

☐ 1 Ch	☐ 2 Ch	☐ 3 Ch	☐ 4 Ch
☐ 5 Ch	☐ 6 Ch	☐ 7 Ch	☐ 8 Ch
☐ 9 Ch	☐ 10 Ch	☐ 11 Ch	☐ 12 Ch
☐ 13 Ch	☐ 14 Ch	☐ 15 Ch	☐ 16 Ch

The 'DEVICE ITEM LIST' panel on the right is empty. At the bottom of the window are buttons: Export, Import, Scan, Add, Del, Apply, and Ok.

1. Select DVR type then “IP, Port, Etc and Password” will be activated.
2. Enter the below details to add DVR.
 - a. Name: Unique reference title to display on the site list, Health window and DVR window.
 - b. IP: Enter the IP address<ex: 192.168.0.52> or DNS name. <ex: demo.dvrhost.com>
 - c. Port: 7000<Default>
 - d. User: Enter the user name of the DVR (admin by default).
 - e. Password: Enter the DVR password (000000 by default).
 - f. Etc: Edit if you have a need for a special description.
 - g. Auto connect – set by default as <ON>.

Note. If you do not check auto connect, the device will be disconnected when online unless connected manually.

A. Setup for **Schedule backup**, backup time, and backup channels if you necessary.

C.F. Schedule backup function is supported with only DVR.

1) ON/OFF: Select "On" to activate schedule backup function

2) Time Setup for Backup

* Daily: If you setup with 50'clock, EMS 2.0 starts back-up at 50'clock every day.

One day (24hours) of recording data in DVR will be back up to PC.

Ex) 05:00 (One day before) ~ 04:59:59 (Today)

* Hourly: If you setup with 10minute, EMS 2.0 starts backup at 10minutes every hour.

One hour of recording data in DVR will be back up to PC.

Ex) 00:10 (One hour before) ~ 01:09:59

3) Normal / Motion / Event: User can select recorded data type.

4) Channels: Select the channels you want to back up.

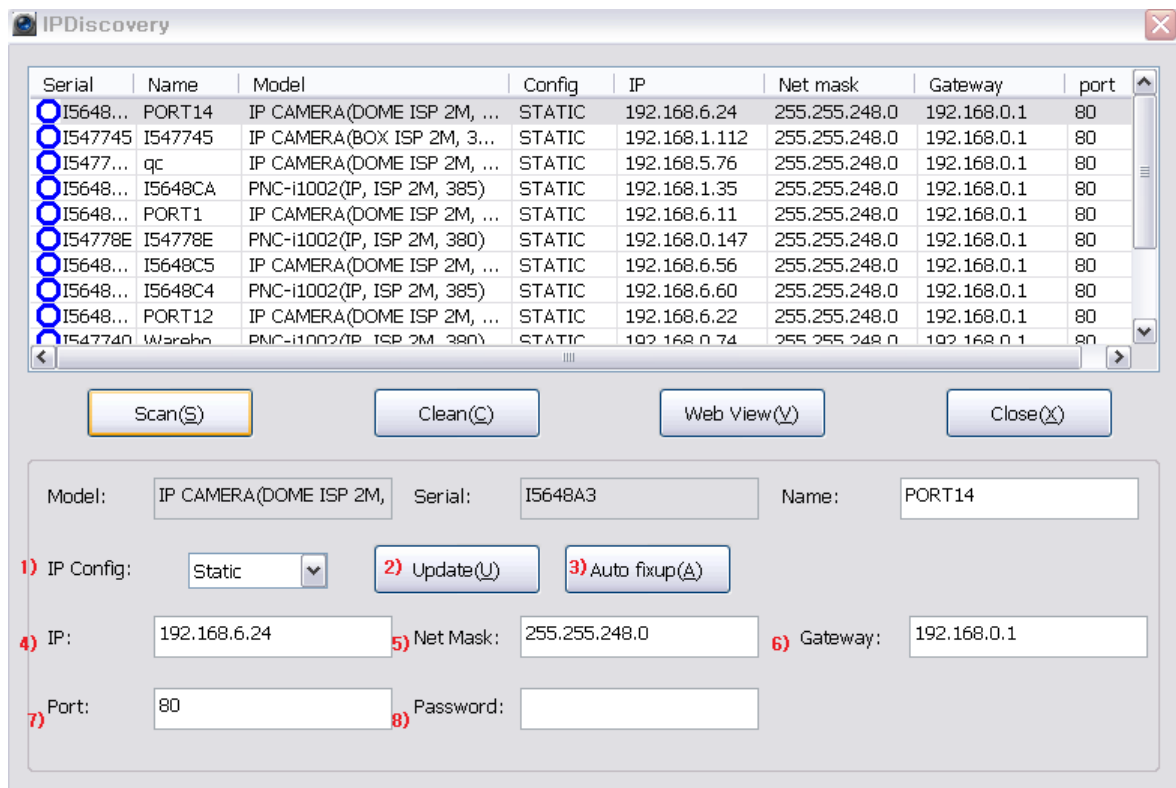
⑤ **Apply:** Apply the changes.

⑥ **Del:** Delete the selected device. (Device on the tree and E-map will be deleted.)

⑦ **Ok:** Close the Device Manager window.

<Note> Please be aware that Schedule Backup is independently working while EMS 2.0 is closed. <C:\Program Files\EMS 2.0\Download> is set by default for downloading for XP O/S. Please change the download Folder when you set the Schedule Backup. Otherwise, your PC will be full with the image of DVR Backup. Backup function will not be activated when the remained HDD space is less than 3GB. This function is not supported for USER account on VISTA OS.

3. IP Discovery



All of devices on a local network are automatically discovered by using IP Discovery of EMS.

1. Click **Scan** button to detect an IP Camera connected on the network and lists them.
2. Click **Clean** button to remove all the information of IP camera on the list.
3. Click **Web View** to open the live view window of the selected camera via Internet Explorer.
 - The Internet Explorer, Safari and Chrome support live view windows.
 - The Other Web Brower such as Fire Fox supports setup menu only.
4. Click **Close** button to close the window of IP Discovery.
5. **Model**: Check the Camera information such as the Model no. and the Megapixels, etc.
Serial: Check the Serial on the menu with the Mac Address indicated on the side of the packing box.

Name: Set a new name of IP Camera.

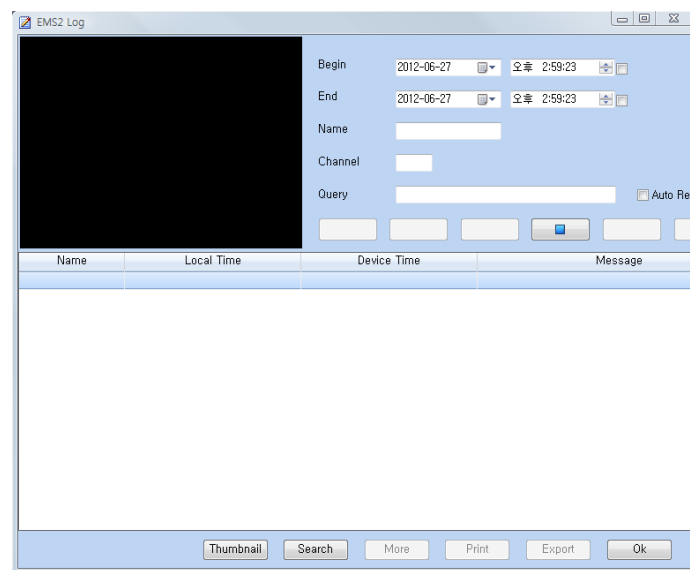
- 1) **IP Config.:** Support of both Dynamic and Static IP address assignment.
- 2) **Update:** Please press Update button to save the changed settings after modification.
- 3) **Auto fixup :** Select more than one camera on the list to allocate IP address of the selected cameras in consecutive order.
- 4) **IP:** The IP address of the device on the network.
The camera obtains an IP address by static or dynamic. There're 2 options. DHCP, assigned by the user, or Static assigned by Network.
- 5) **Net Mask:** Select more than one camera on the list to allocate IP address of the selected cameras in consecutive order. In addition, Net Mask is also allocated as your PC's Net Mask automatically.
- 6) **Gateway:** The default gateway address that connects the device to the network.
Enter the IP address of the host to use as a gateway between networks. The gateway allows communication between devices that are on different networks. Without a correct gateway setting, the camera cannot receive or transmit data from or to devices that are not in the same network address range.
- 7) **Port:** The default HTTP port number is 80.
- 8) Click a camera name on the list to set **Password** for Admin after changing a setup and saving it.

4. Tree

- Shows or Hide the Tree window.

5. EMS 2.0 Log

Displays logs of all events while EMS 2.0 is running.



- ① Begin: Set the beginning time of Search.
 - ② End: Set the ending time of Search.
 - ③ Name: Search only log by registered device's name in the tree window.
 - ④ Channel: Search only log by selected channel.
 - ⑤ Query: Search the specific words which are in the Message item.
 - ⑥ Trick Play
 - I. If you click a log which is related with Video, Trick Bar will be activated.
 - II. If Trick Bar is activated, Still image of selected log will be showed if there are record images.
 - III. It will be playback in -16x, -8x, -4x, -2x, -1x, 1x, 2x, 4x, 8x , 16x speed.
 - ⑦ Thumbnail or Report: Toggles between Thumbnail and Report type.

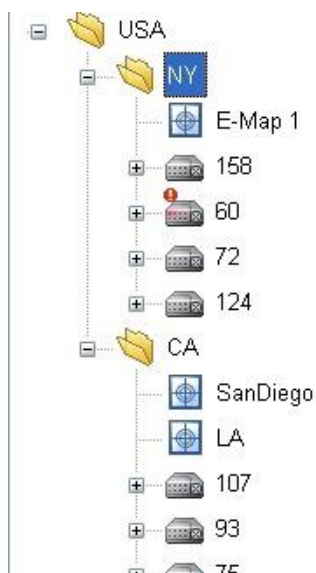
Thumbnail log will be providing when you setup for snapshot at Post Event Action.
 - ⑧ Search button: Search for log from the beginning. If it's Report type, it searches by 1000 log. And if it's thumbnail type, it will search by 100 logs.
-

-
- ⑨ More button: Add log which is searched previously. If it's Report type, it searches by 1000 log. And if it's thumbnail type, it will search by 100 logs. The maximum search log is 20,000 for Report and 1,000 for Thumbnail type.
 - ⑩ Print button: Print the searched log.
 - ⑪ Export: Log list can be downloaded to any folder of PC in text file format.
 - ⑫ Ok button: Close the log window.

5. New VDVR

- Add the Virtual DVR.

6. Tree Window



.Any DVR/NVR that has been added into the EMS 2.0 will be listed under the Tree window with its own DVR/NVR icon and name. Moreover, individual DVR/NVR icons also act as a supplementary icon to display individual DVR/NVR's status

Create Group and subgroup by right click on the mouse and renaming it as you wish. And all icons can be opened at a time by clicking "Open ALL".



	Connecting		Network had been disconnected
			Network disconnected

"ADMIN" can Drag & Drop to change the position of ICONS such as DVR/NVR, E-map in Tree.

7. Main Window

- Main Window is distinguished by TAP and it's possible for docking/undocking.



1. Live or playback video is displayed up to 64 cameras in the main window. When the actual video is displayed, it will display the channel number and title as well as the field rate.
2. E-Map will be displayed.
3. Health Report will be displayed.

8. E-map

- Start the E-map window. It will be discussed on Chapter 7.E-Map.

9. Live

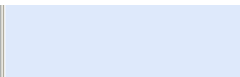
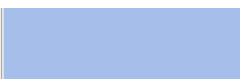
- Start the previous Live View.

10. Health

Displays the name of DVR/NVRs with an event or a problem. The color will be changed appropriately according to the event or problems reported from the DVR/NVRs.

10.1 Warning Colors

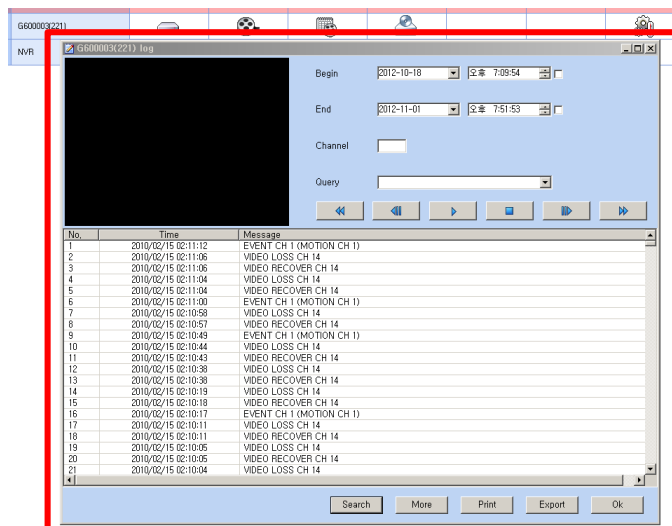
- Background color will be different based on the connection status of Device.

Definition	Block Color		
Connect	Blue		
Disconnected before	Dark Blue		
Disconnect	Pink		

10.2 Health Report

Health Report												
(1) NO.	(2) Name	(3) HDD	(4) Rec	(5) Schedule	(6) Backup	(7) Fan	(8) Temperature		(9) Event			
						System	CPU	System	CPU	Alarm	Motion	Video loss
1	158											
2	45											
3	86											
4	85											
5	102											
6	47											
7	155											

- Any DVR name, or any of the lit or unlit blocks may be double-clicked to access the DVR log list.



- Any NVR name, or any of the lit or unlit blocks may be double-clicked to show each cameras' detail health report.

NVR[N000047]												
NO	Name	Connect	HDD	Rec	Schedule	Temperature	Alarm	Motion				
01	I1K VIEW(192.168.6.207)											
02	I1K VIEW(192.168.6.207)											
03	I1K VIEW(192.168.1.161)											
04	I1K VIEW(192.168.6.201)											
05	I1K VIEW(192.168.6.204)											
06	I1K VIEW(192.168.5.79)											

① Number

- The order the DVR/NVR was entered.

② Name

- DVR/NVR name, either the host name or something created by the user.

③ HDD

- Notifies Hard Drive Disk failure during the operation.

	Normal
	Error occurred but it is okay now.
	Error occurs

④ Rec.

- Displays the status of the recording LED from the DVR.

	Recording
	Recording had been stopped but now it's recording properly.
	Recording has been stopped.

⑤ Schedule

- Displays the status of the schedule LED from the DVR.

	Schedule recording.
	Schedule recording had been stopped but now it is recording.
	Stop Schedule Recording.

⑥ Backup

- Displays the status of the Backup LED from the DVR.

	Backup now
	Backup had been stopped but now backup properly.
	Stop backup.

⑦ FAN

- System Fan Lock: Notifies System Fan abnormality.
- CPU Fan Lock : MPEG4 Pro Model Only.

		Normal
		Error had occurred but now it's Normal.
		Currently error has occurred.

⑧ Temperature

- System: Notifies DVR over Temperature.
- CPU: Notifies CPU on DVR over Temperature.(it is supported by model)

		Normal
		Error had occurred but now it's Normal.
		Currently error has occurred.

⑨ Event

- ALARM TRIGGER - Notifies the alarm trigger.
- MOTION TRIGGER- Notifies motion detection.
- VIDEO LOSS- Notifies loss of video signals.

Alarm		No alarm signal.
		Alarm signal occurred.
		Alarming now
Motion		No motion
		Motion has been detected but now motion now.
		Motion detected.
Video Loss		Live
		Recovered video signal

2. EMS 2.0 Setup

- Located in Log in Page or located the **File--Setup**

The screenshot shows the EMS 2.0 Setup window. The left pane is titled 'OSD Setup' and contains several sections. Section 1 (red box) includes checkboxes for 'Time', 'Camera No.', 'Frame Rate', 'Date', 'Set Name', 'Camera Title', 'Status', and 'Date'. Section 2 (red box) is the 'Password' section with fields for 'ID' (admin), 'Old Password', 'New Password', and 'Confirm Password'. Section 3 (red box) is the 'ETC' section with checkboxes for 'Check watermark', 'Keep opened window', 'E-Map link event', 'DeInterlace', 'DVR log display limit 1,000 items', 'Alert Messages', 'Video pop-up window', and 'Sound alarm alert', along with 'Sequence Time' (3 Sec) and 'Alert window time' (10 Sec). The right pane contains 'Video Standard' (NTSC/PAL), 'Video Render' (VMR7/VMR9), 'Video Channel' (Max 16/Max 64), 'Download' (path: C:\ProgramData\EMS2\Download\, Overwrite checkbox), and 'Version' (App Version: 1.2.0.12, Service Version: 1.2.0.12, Codec Version: 2.1.0.7, Download dll Version: 2.1.2.1). Red numbers 1 through 8 are placed next to various elements in the window.

1. OSD Setup

Select On-Screen-Display information such as the Time, Set **Name**, **Camera No.**, **Camera Title**, **Frame Rates**, **Status** and **Date** for each camera.

2. Password

– The setting to change the password for initial log-in of the software.

- Old Password: Enter your current password. By the factory default, it is “0”
- New Password: Enter the NEW password.
- Confirm Password: Enter the New password to confirm.

<Note> This password is for protection screen when you launched EMS 2.0. This is different from your DVR password.

3. Etc

- 1) Check Watermark - Setting to check for watermark.
 - 2) Keep opened window – When users rerun EMS 2.0 program, EMS 2.0 automatically reopen all windows which were opened right before closing it.
 - 3) E-Map link event – Linked E-Map icon in other E-Map will be blinked. 
 - 4) DeInterlace – Convert progressive output
 - 5) 1000 DVR/NVR logs per page– It allows displaying 1000 log messages per each page.
 - 6) Alert Messages – It allows to pop up Alert Message.
 - 7) Video pop-up window – It allows to display Video pop-up window.
 - 8) Sound alarm alert – It allows to make sound.
- C.F. 6),7),8) function – User has to set up post event action in advance.
- 9) Sequence Time - Setup interval for sequential display of all windows.
 - 10) Alert window time – Setup interval for Alert message

4. Video Standard

- Select NTSC or PAL. NTSC is set by default.

5. Video Render

- Overlay is used by default. The video overlay utilizes Microsoft DirectX and video card hardware acceleration for the optimal video transmission speed.
- Select VMR 7 for Direct X 7.0 or VMR9 for Direct X 9.0

6. Video Channel

- Designate maximum channel number on Live display

<Note> Limitation

- 1) Max 8 for Virtual DVR, Live, PB display windows
- 2) Max 12 for Virtual DVR, Live, PB, e-map, e-map live video windows.
- 3) Max 16 for Virtual DVR, Live, PB, Popup image, e-map, e-map live video windows

7. Download Option.

1) Download Folder

- Designate a directory for Schedule Backup, remote recording and to store downloaded files.

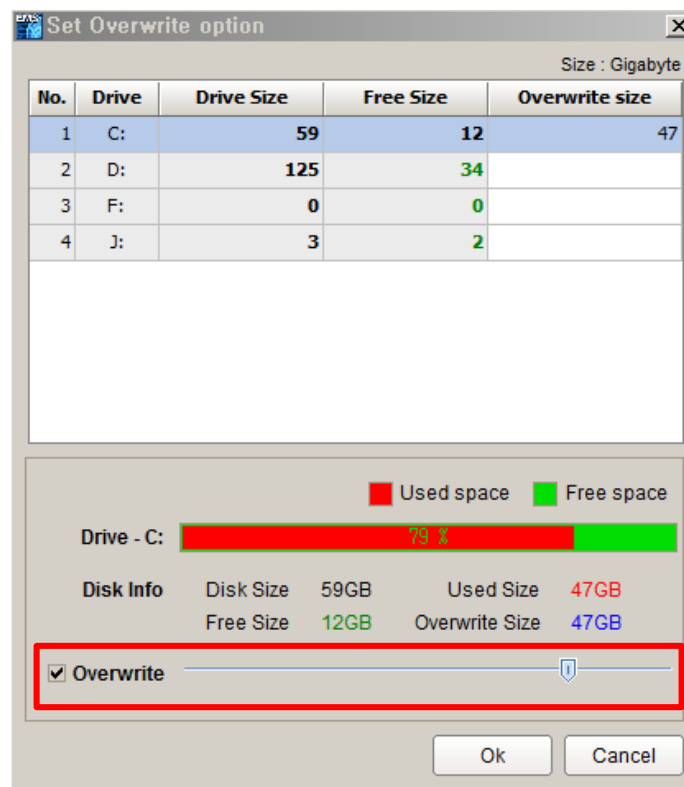
2) Overwrite

- Check overwrite box and click  to set up.
Set Overwrite option window will be popped up.
- After click overwrite box, user can adjust disk size.

<Note> Caution

Existed data will be deleted after overwriting data.

We may suggest to not using the drive which O/S is installed.



9. Version.

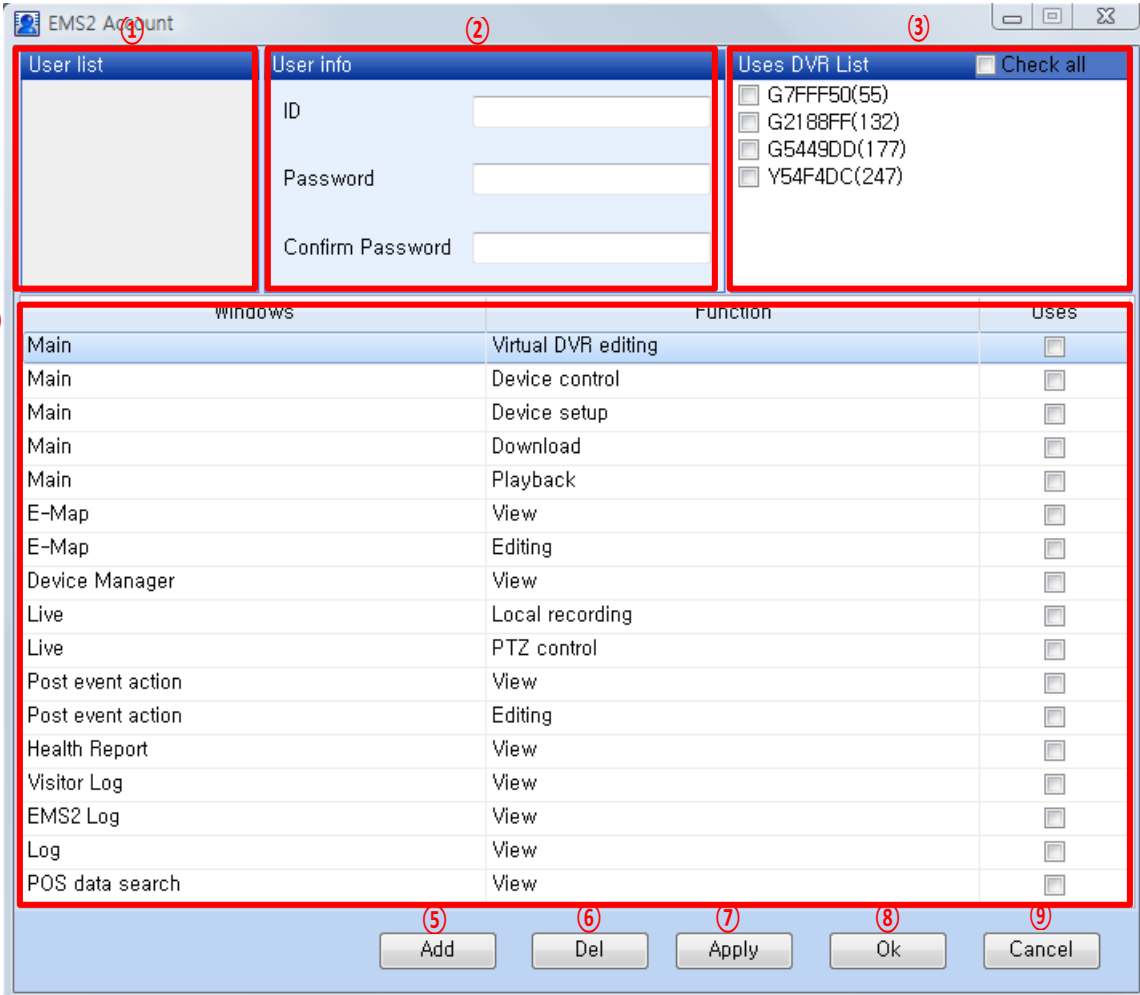
- Displays the version of the EMS 2.0 Software.

3. EMS 2.0 account

- File → EMS2 Account Menu

From this screen you have the ability to customize user accounts and privileges.

Note. NVR units do not support EMS 2.0 account privileges. Users can go to IP camera set up menu and use account function.



EMS2 Account

User list

User info

ID

Password

Confirm Password

Uses DVR List ☐ Check all

- ☐ G7FFF50(55)
- ☐ G2188FF(132)
- ☐ G5449DD(177)
- ☐ Y54F4DC(247)

Windows	Function	Uses
Main	Virtual DVR editing	☐
Main	Device control	☐
Main	Device setup	☐
Main	Download	☐
Main	Playback	☐
E-Map	View	☐
E-Map	Editing	☐
Device Manager	View	☐
Live	Local recording	☐
Live	PTZ control	☐
Post event action	View	☐
Post event action	Editing	☐
Health Report	View	☐
Visitor Log	View	☐
EMS2 Log	View	☐
Log	View	☐
POS data search	View	☐

Add **Del** **Apply** **Ok** **Cancel**

1. User list

- Displays registered User list. Detailed user information will be displayed by Clicking USER.

<Note> 'Admin' accounts allow the user to change the limited function.

2. User info

- Modify ID and Password for each User.

3. Uses DVR List

- Allow DVRs for each user. Each user will have only selected DVRs on Tree window.

4. Detail Windows

- Allow functions for each window.

5. Add

- You can register maximum 20 users.

6. Del

- Delete the selected User.

7. Apply

- Apply to save setting.

8. OK

- Save and close this window.

9. Cancel

- Do not store User's authorities and close window.

V. DVR & NVR/IP Camera CONTROL

1. Live Monitoring

- In Live Mode, individual DVR/NVRs and Virtual DVRs can be displayed and sorted in any order.

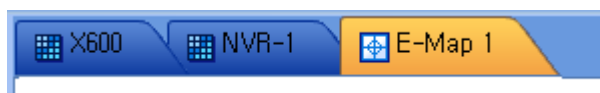
1. Individual DVR/NVR

- Double-click on a DVR/NVR icon  , IP-Camera icon  , or “Live” button to begin live monitoring.



1) Sequence

- This button activates sequential display of all open windows. Windows are created by double-clicking on a DVR, or Virtual DVR (VDVR), or E-Map.



2) Tab unlock

-EMS 2.0 provides multiple independent windows to simultaneously monitor several Live Screens, E-map, Health Report, etc at the same time.



To access this functionality, your 'Tab' status should read "Tab Unlock"

3) Close

- Close: This will close your currently open window in the main EMS2 Viewer but not any of the unlocked tabs.
- Close all: This will close all open windows in the main EMS2 Viewer but not any of the unlocked tabs. This button is accessible from the drop-down arrow next to 'Close'.

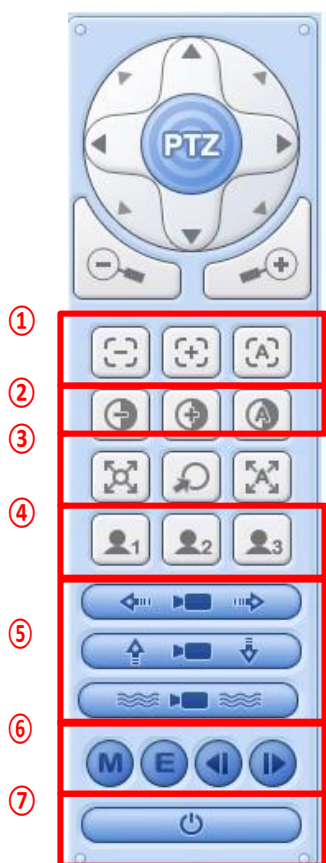
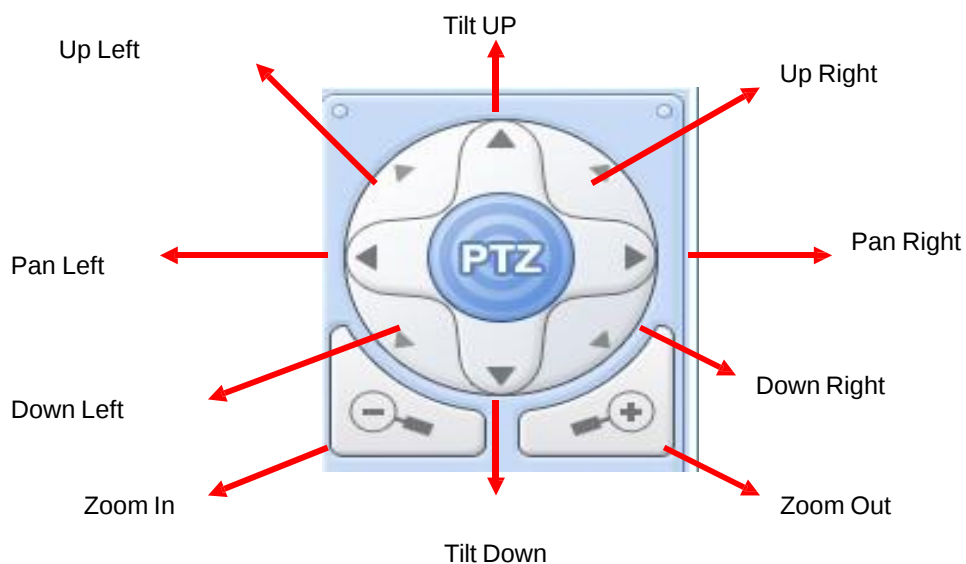
4) Display option/Multi-screen Displays

From the left: single, 4 channel, 6 channel, 7 channel, 8 channel, 9 channel, 10 channel, 16 channel, 25 channel, 36 channel, 49 channel and 64 channel view modes. All display modes are accessible no matter how many DVR/NVRs are connected or how many cameras are being displayed.

- | | | | |
|--|------------------------|--|-------------------------|
| a.  | Full Screen Display. | g.  | 10- Way Screen Display. |
| b.  | Quad Screen Display. | h.  | 16- Way Screen Display. |
| c.  | 6- Way Screen Display. | i.  | 25- Way Screen Display. |
| d.  | 7- Way Screen Display. | j.  | 36- Way Screen Display. |
| e.  | 8- Way Screen Display. | k.  | 49- Way Screen Display. |
| f.  | 9- Way Screen Display. | l.  | 64- Way Screen Display. |

5) PAN / TILT / ZOOM CONTROL

-If one or more Pan / Tilt / Zoom cameras are installed on the DVR/NVR, they can be individually selected and controlled using the PTZ control box. To control a channel-specific PTZ camera, simply click on the channel where the PTZ camera is connected and then click on the PTZ Icon on the toolbar.



① Focus

Indicator	Resulting Action
	Focus near
	Focus far.
	Focus automatically.

② Iris

Indicator	Resulting Action
	Iris close
	Iris open
	Iris auto.

③ Tour

Indicator	Resulting Action
	Set tour by clicking. Total address depends on connected Pan/Tilt camera.
	Move into designated area automatically.
	Run tour

④ Special function key



Various functions supported. These functions are based on the model of the PTZ camera being used and thus will serve different purposes depending on model.

⑤ Auto PTZ

Indicator	Resulting Action
	Run auto pan function.
	Run auto tilt function
	Run Pattern

⑥ Menu, ESC, SPEED Control - Refer to DVR Manual for more information.

⑦ Pan/Tilt Power.



Standby Pan/Tilt or Turn on/off the lights of P/T/Z camera.

6) Capture

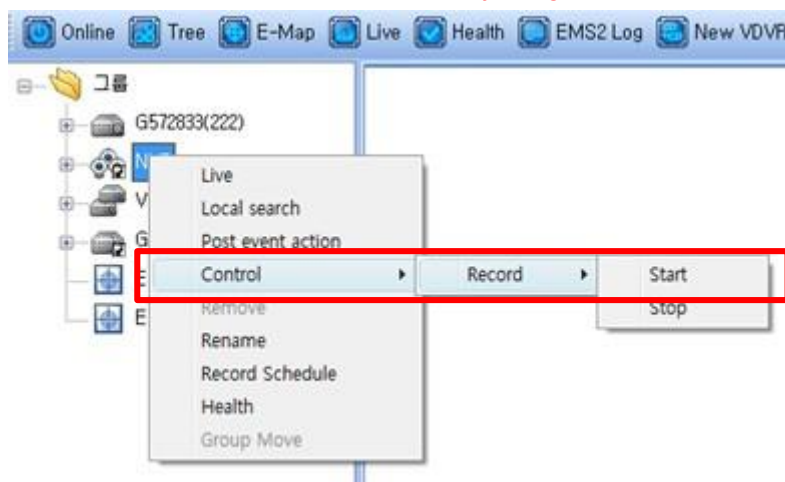
- Save a snap image or print current monitoring images.

7) REC

- Save the current live images only. When the remote recording is in progress, the record button will change its color to Blue cyan.

(Default Location: C:\Program Files\EMS 2.0\Download)

Note. When the user wishes to record all data from connected cameras, please use the Record menu which is accessible when you right click on a DVR/NVR unit.



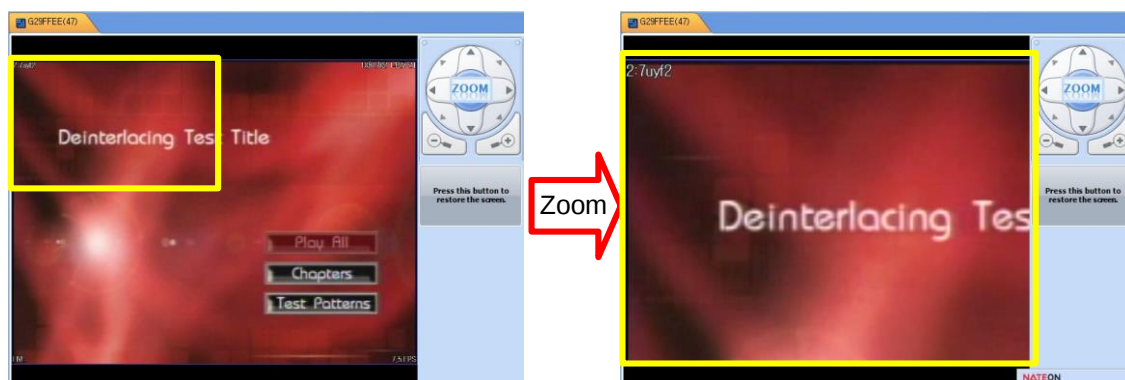
8) Channel Sequence

- Activate sequential display of one device (DVR or NVR). A user can set up “Dwell time” and “Split Mode” as well from this menu. The dwell specifies how long a set of screens will stay on display before cycling to the next group.



9) Zoom

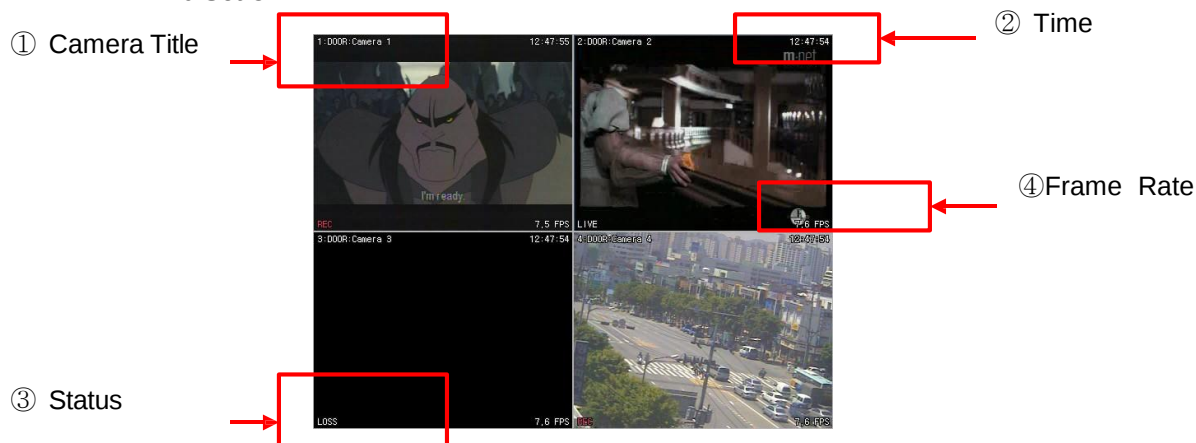
- Activates zoom function. From this menu you can zoom in and out as well as adjust where on the screen you are zooming into.



10) Main Display

(1) On-Screen Indicators

There are four types of on screen indicators. OSD Display can be chosen in the EMS 2.0 Set UP.



- ① Camera Title: Displays the following orders: Camera Number- DVR Name or Host Name -Camera title

* Tip : Camera title can be updated as described in DVR by clicking "Update camera title"



- ② Time: Displays the **Local** time of the DVR's location.
- ③ Status: Displays REC, Network connection, Video Loss, Event, and Current Status.

Indicator	Condition
REC	Normal Recording
Wait	At the initial connecting
Loss	Video Loss
Close	Disconnected from DVR/NVR
Alarm	Alarm Recording
Motion	Motion Recording
PB	Playback for selected channel.
Live	Live viewing

- ④ Frame per Second: Network transmission speed. The transmitted field rate is Different from the actual recording field rate of the DVR/NVR.

(2) Change the camera position.

Click on each camera to directly switch the desired camera.

2. Virtual DVR

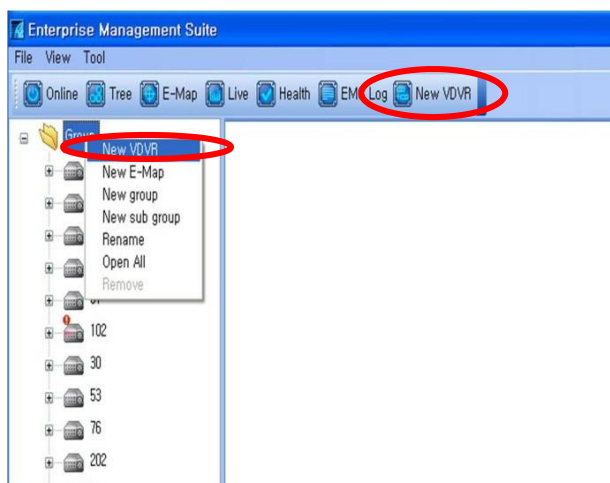
1) What is Virtual DVR?

A Virtual DVR (VDVR) is not an physical DVR, but a combination, or group of several DVRs and NVRs. Under one Virtual DVR set, up to 64 channels can be added, pulling one camera from each camera to be displayed. The Virtual DVR behaves in the same way a DVR would, except for the warning notifications.

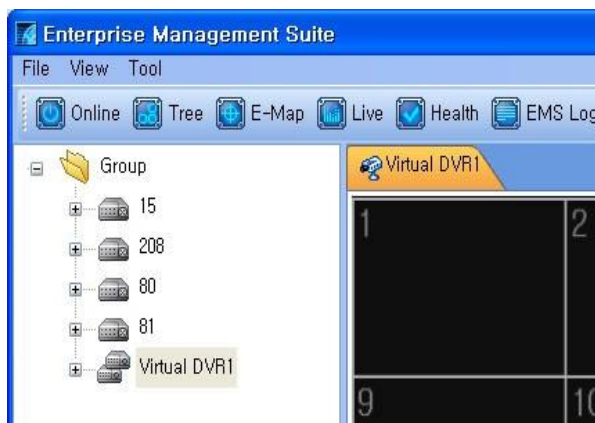
2) Virtual DVR Monitoring

A VDVR behaves exactly the same as a physical DVR/NVR when observing the live feed. The only difference is that a Virtual DVR consists of multiple cameras selected from multiple individual DVR/NVR .

3) Editing

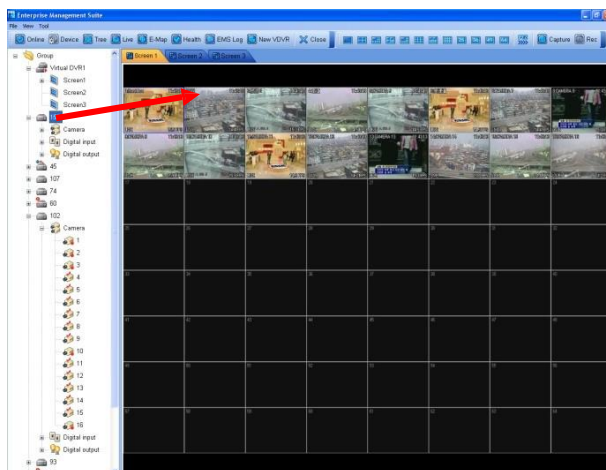


① Right-Click on next Group, and context menu will appear on the screen. Or Click NewVDVR on the Tool bar



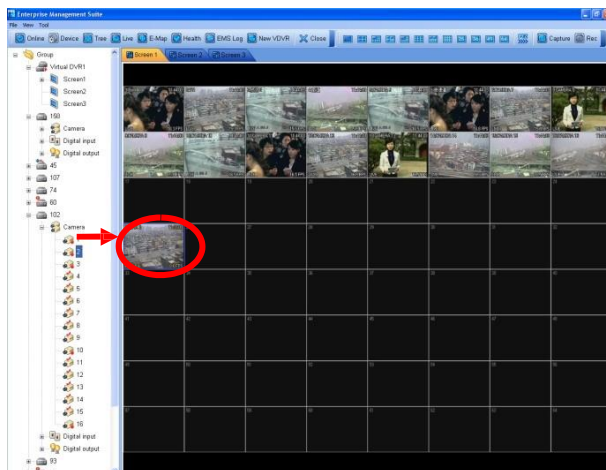
② Select any Screen to Display. The selected Screen of Virtual DVR will be activated and it is indicated with “▷”

The number of screen depends on the number of monitors which are registered in Setup Screen. (MAX 16)



③ Click-and-drag the DVR to any channel number to display all available cameras under Virtual DVR. The camera will be added in numeric order from selected channel to end, depends on connotted number of cameras on DVR.

Please note that the number of channels to be displayed may be changed at any time if necessary.



④ Individual cameras can be added onto the Virtual DVR by click-and-dragging individual cameras.

4) Delete Camera

- Select any camera for delete during live monitoring. Context menu will appear on screen by Right Clicking. Select **<REMOVE>**

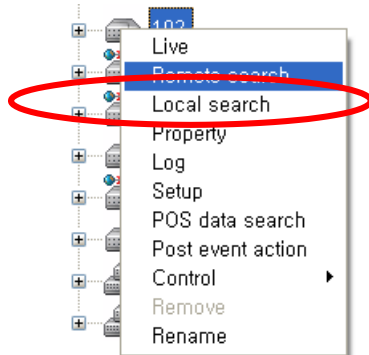
2. Playback Mode

DVRs that have been added onto EMS 2.0 can be accessed in Playback Mode for Remote Playback or to download the files onto the remote PC. Unlike live mode, only one DVR can be accessed at a time.

1. Remote Search

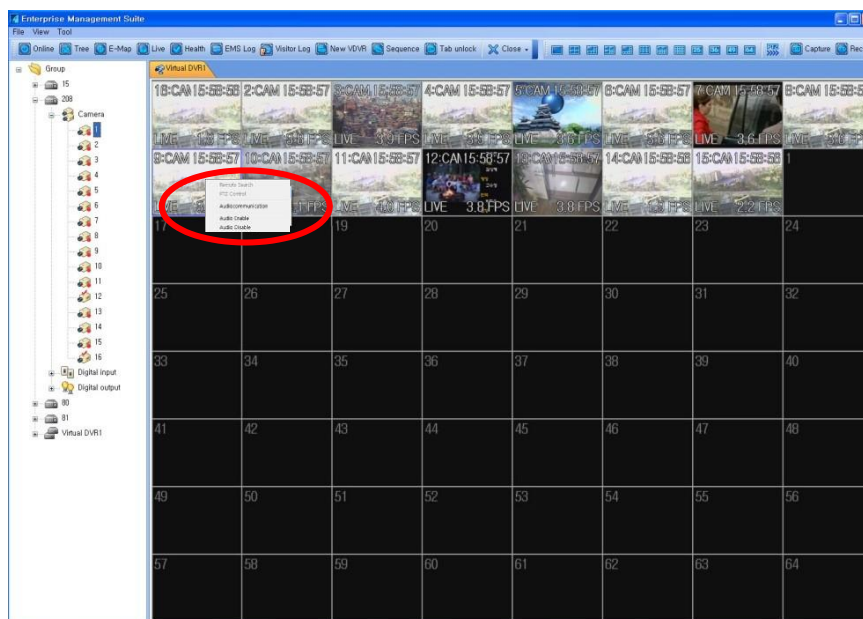
Remote Playback is provided so that users can playback the stored video on an internal HDD of a DVR unit.

1) Remote Search

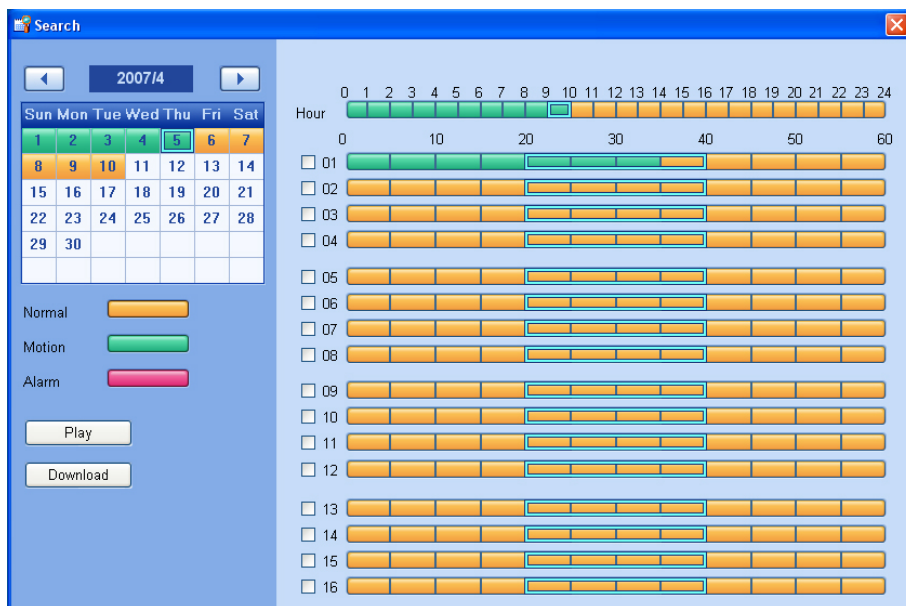


Right-Click on DVR and context menu will appear on the screen.

Otherwise, Right Click on Live Window and a context menu will appear on the screen

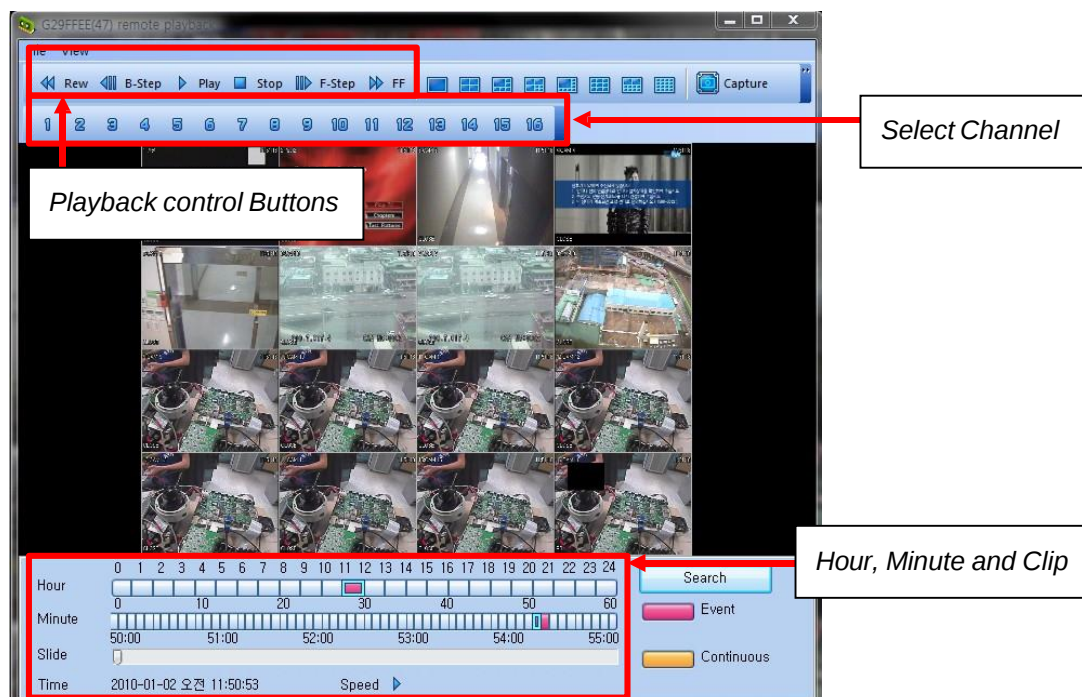


Remote **Search** shows a graphical representation of the recorded video stored on the DVR. The data are color-coded by category: Alarm (RED)>Motion (GREEN)> Normal (YELLOW)



Select desired Date and Time. By clicking and dragging, it is possible to select longer

minutes. Click  button to start Playback.



The Hour, Minute and the Clip can be clicked at any time to move backward or forward in time.

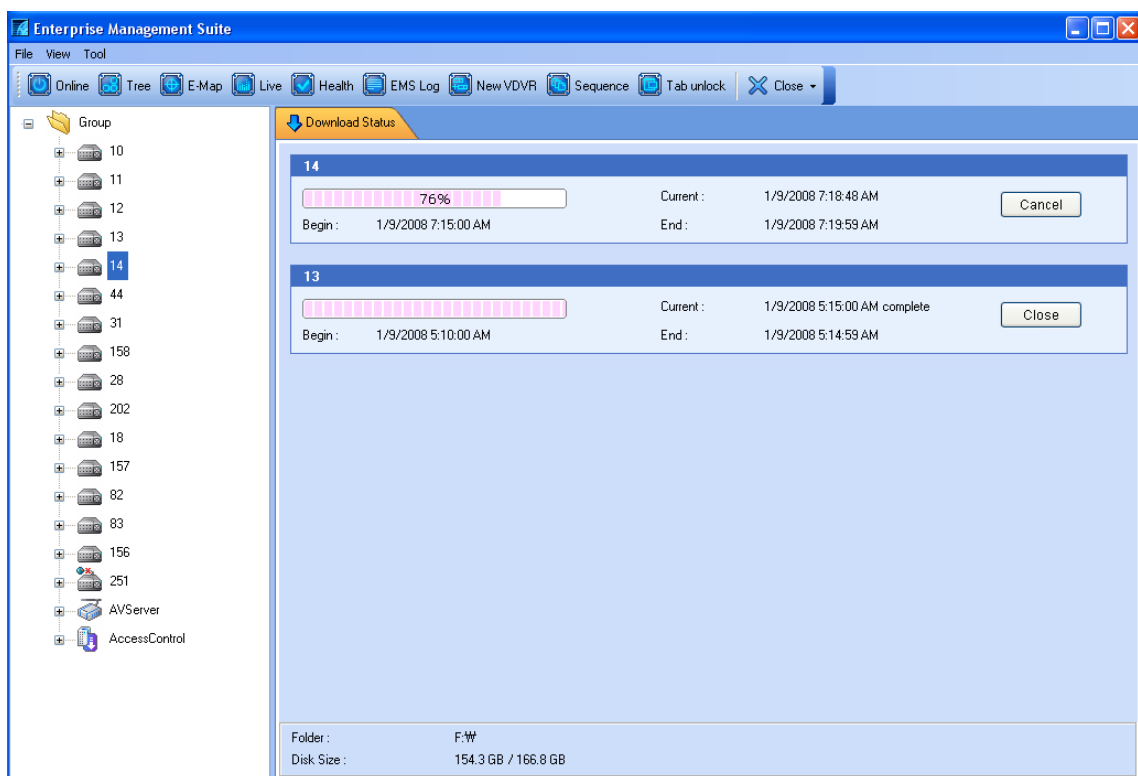
2) Remote Download

Remote Download is providing so that users save on remotely connected computer through EMS 2.0. By default, the files are saved in “C:\program Files\EMS 2.0\Download”

Note. NVR is not supported with Remote download because each IP camera is recorded into PC directly.

- The file selection process is just same as remote playback. Additionally, the user can check any channel that they wish to download. To download the file, click **[Download]** instead of **[Play]**

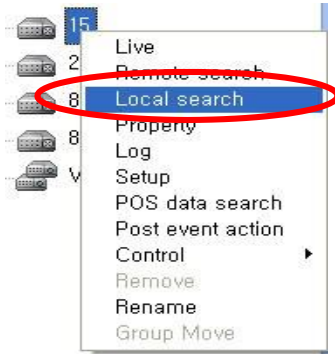
The download Tap will appear displaying the Start time, End time and current downloading section.



Download statuses displayed max 500 statuses. Once the download is completed “Download Complete” will be displayed. Click on <Close> to delete the status.

2. Local Search

Local Search is mainly used to review the data downloaded from a DVR/NVR or backup CD through EMS 2.0.



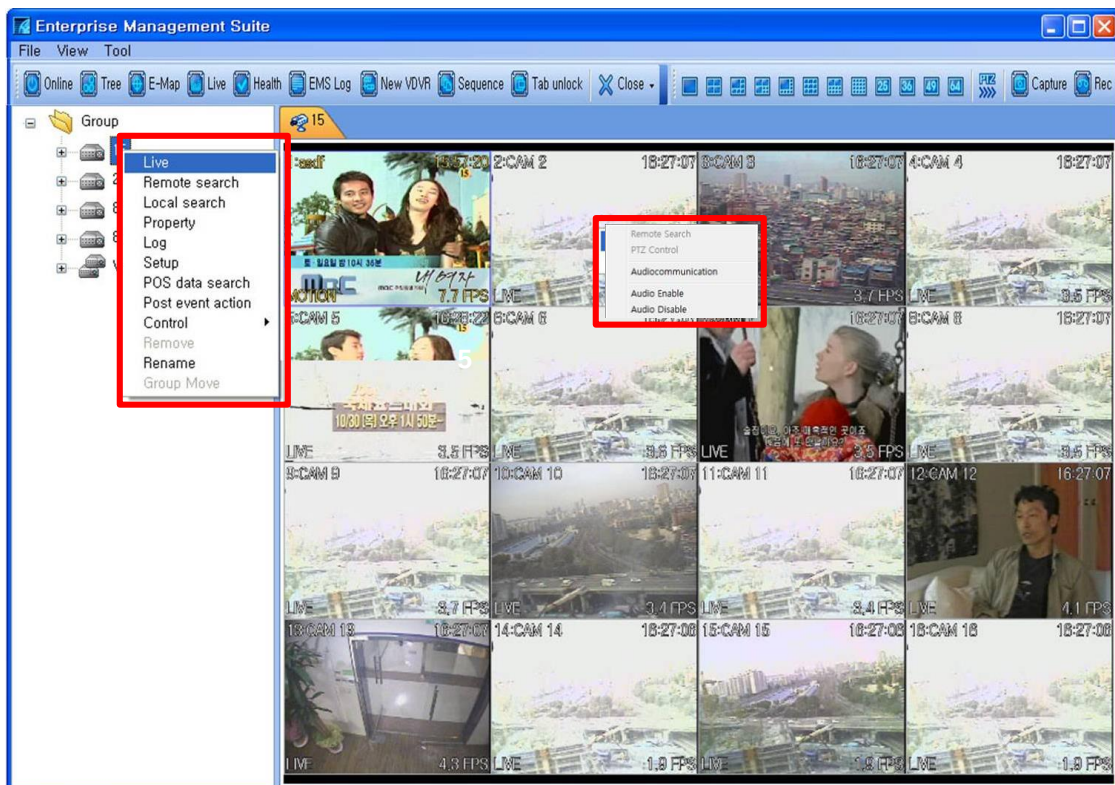
Located on Tools  File Playback , and then select the DVR/NVR file which the file was downloaded from. Or Right-Click on DVR/NVR and context menu will appear on the screen.

3. DVR Menu Setup

- The DVR Setup allows modification of all system setting through EMS 2.0 as it would be done accessing the DVR menu screen.

-DVR set up can be accessed through the context menu from any DVRs

4. Context Menu



-
- The context menu allows access to the submenus for the channel, DVR/NVR and the Virtual DVR. The submenus allow access to various features for each individual submenu type.

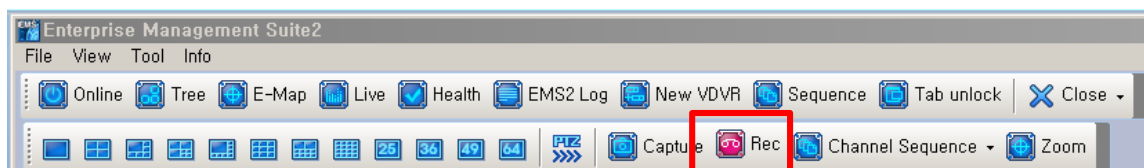
1. Virtual DVR Context menu

- 1) Live
 - Starts live monitoring for pre-configured Virtual DVR.
- 2) Rename
 - Enter Virtual DVR title to display on EMS 2.0 Tree.
- 3) Remove
 - Removes the Virtual DVR from the EMS 2.0 Tree.
- 4) Group Move
 - Move the Virtual DVR to the other Groups.

2. NVR Context menu

- 1) Live
 - Starts live monitoring for the selected NVR.
- 2) Local Search
 - Enters Local Search window.
- 3) Post Event Action
 - Enters the Post Event Action dialog.
- 4) Control
 - **Record Start/ Stop**

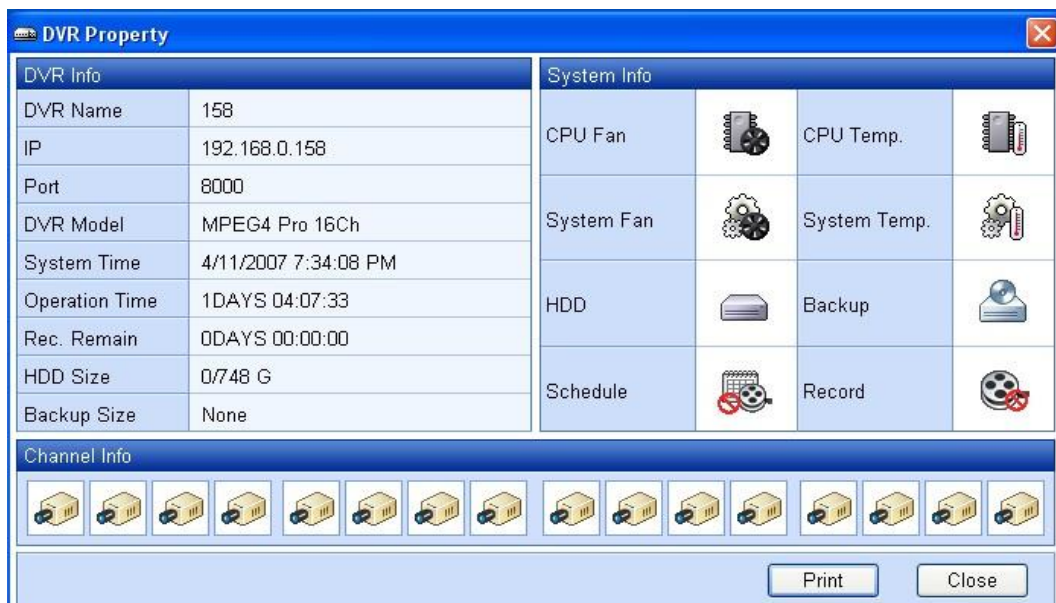
Note. If user use REC button in menu bar, only displayed camera channels are recorded in PC.



- 5) Rename
 - Enter individual NVR title to display on EMS 2.0 Tree. E-Map is not affected.
- 6) Record Schedule
 - Set up date and time for Schedule recording
- 7) Health

3. DVR Context menu

- 1) Live
 - Start live monitoring for the selected DVR.
- 2) Remote Search
 - Enters Remote Search window.
- 3) Go to Search
 - Enters Go to Search window.
- 4) Local Search
 - Enters Local Search window.
- 5) Property
 - Displays general information of the DVR.



- 5) Log
 - Displays logs of all events from the DVR from the first power on. User can click on DATE/TIME or MESSAGE to sort the list accordingly.
 - 6) Setup
 - Enters the setup dialog for the DVR.
 - 7) P.O.S data Search
 - Enters P.O.S Data Search window.
 - 8) Post Event Action
 - Enters the Post Event Action dialog.
 - 9) Control
 - ① Record – Start/ Stop, Schedule Record Start/Stop, Buzzer, DVR set up
-

②Schedule Record – Start/Stop (available model only)

③Buzzer – output high / low (available model only)

④DVR Setup – Export / Import / Update

10) Remove

- Remove the DVR from the DVR Window.

11) Rename

- Enter individual DVR title to display on EMS 2.0 Tree. E-Map is not affected.

12) Group Move

4. Camera Context menu

1) Live

- Start live monitoring for the selected camera.

2) Post Event Action

- Enters the Post Event Action dialog.

3) Control - Control of Go To, Tour, Auto Pan/Tilt of PTZ menu

4) Set up – It is only for IP CAM. The set up menu for IP CAM will be displayed.

5) Rename

5. Digital Input/output Context menu

- Digital input is sensor in and digital output is alarm out.

1) Digital Input

① Post Event Action

② Rename

2) Digital Out put

① Control - Digital Output high/low

② Rename

6. Channel Context menu

1) Remote Search

- Enters Local Search window for single camera.

2) PTZ control

3) Remove (Virtual DVR only)

- Remove the single channel from the virtual DVR.

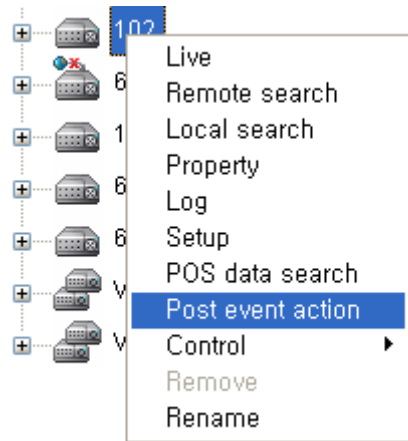
4) Audio communication

- Two way audio support

VI. POST-EVENT ACTION

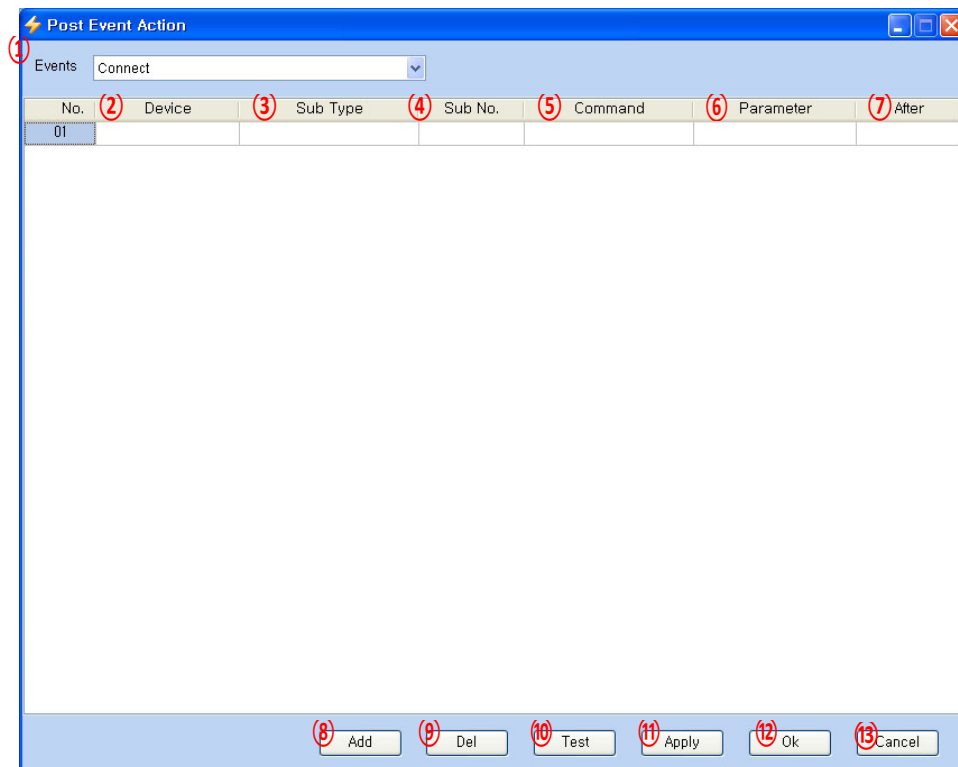
EMS 2.0 allows customization of Alert notification. It includes audio alert, image pop up after events related with DVR/NVR, Cameras and Sensor.

1. DVR/NVR Post-Event Action



Right-Click on DVR/NVR and context menu will appear on the screen

Post-Event windows pops up as below



1) Event

- The EMS 2.0 will send notifications related to the system abnormalities such as

DVR: [Connect, Disconnect, HDD fail, Fan Fail, Temperature Fail]

NVR: [Connect, Disconnect, Temperature Fail]

2) Device

- Select from registered devices or system. **System** means PC which EMS 2.0 is installed.

3) Sub Type

- Select the Device which is connected with above no 2. For example, DVR/NVR with [Camera, Alarm] or system with [Window or Sound]

4) Sub No

- Select the camera / alarm number to control

5) Command

① Device>Camera

- Select the camera PTZ options, snapshot, and live video window. Thumbnail log will be provided when you select snapshot.

② Device > Digital output

- Select Digital output high/ low

③ Device > Buzzer

- Select Buzzer output high/ low

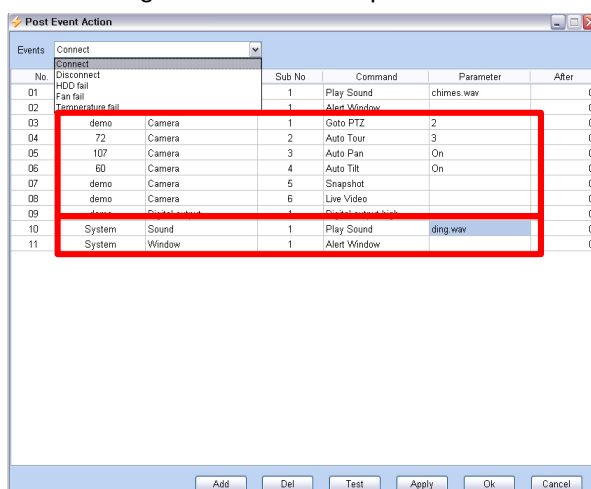
④ System> Sound

- Select Play sound. EMS 2.0 will emit a sound when a DVR Connect, disconnect, HDD Fail, Fan Fail, Over Temperature (Depends on which you select the event on above No 1)

Some wav file samples are provided and located in [C:\Program Files\EMS 2.0\Sound], you can use your own sound file.

⑤ System>Window

- Select <Alert Window>. Message windows come up for 10 seconds and down.



6) Parameter

① Device > Camera > Parameter

- Type the desired number for the camera PTZ options such as preset no.

② System > Sound

- Select wav file for alert.

7) After

- Set the delay time after the event. (Unit 1ms: 1000 = 1second)

8) Add

- One Action will be added on event. (You can enter 25 at maximum.)

9) Del

- Delete the selected action.

10) Test

- Test action for events.

11) Apply

- Apply changed value.

12) OK

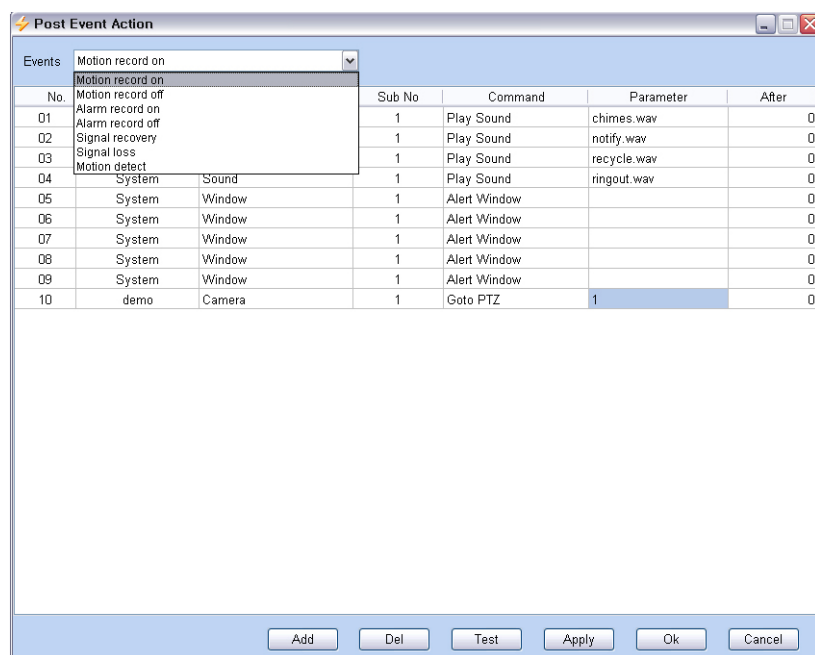
- Save the applied value and exit the window.

13) Cancel

- Does not save the valued and exit the window.

2. Camera Post-Event Action

- Right-Click on Camera and context menu will appear on the screen



1) Event

- The EMS 2.0 will send notifications related to the camera such as

[Motion record on/off, Alarm record on/off, Signal recovery, Signal Loss, Motion detect].

2) Device

- Select from registered Device or system. **System** means PC which EMS 2.0 is installed.

3) Sub Type

- Select the Device which is connected with above no 2. For example, Device with [Camera, Alarm] or system with [Window or Sound]

4) Sub No

- Select the camera / alarm number to control

5) Command

① Device > Camera

- Select the camera PTZ options, snapshot, and live video window. . Thumbnail log will be provided when you select snapshot.

② Device > Digital output

- Select Digital output high/ low

③ Device > Buzzer

- Select Buzzer output high/ low

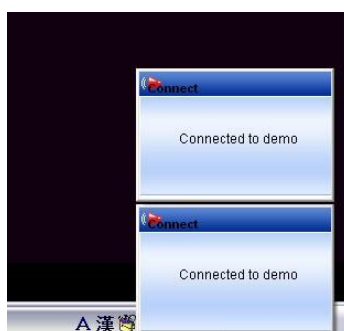
④ System > Sound

- Select Play sound. EMS 2.0 will emit a sound when **[Motion, Alarm, Video Loss, Motion detect]** happens (Depends on which you select the event on above No 1)

Some wav files are provided and located in **[C:\Program Files\EMS 2.0\Sound]**.

⑤ System > Window

- Select <Alert Window>. Message windows come up for 10 sec and down. It is linked to Live image.

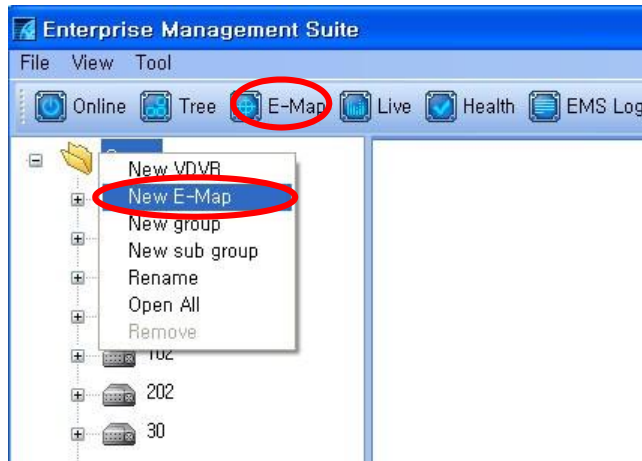


3. Digital In/Out Post-Event Action

- Right-Click on Digital Input and context menu will appear on the screen
 - The EMS 2.0 will send notifications related to Sensor [input high, low]
-

VII. E-MAP

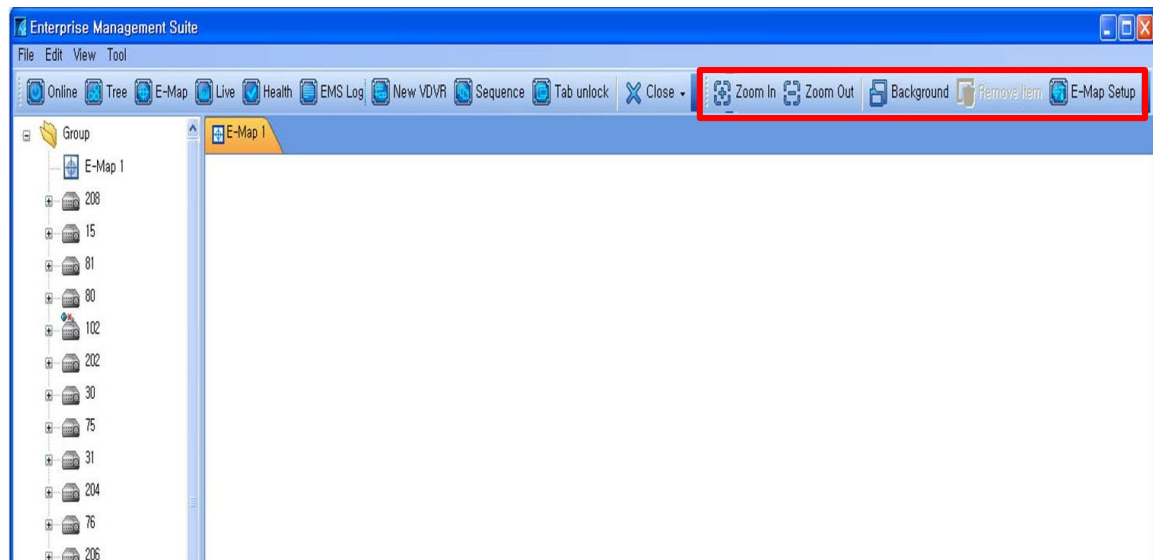
1. Edit



1. Right-Click on next Group and context menu will appear on the

screen. Or Click  E-Map on the Tool bar

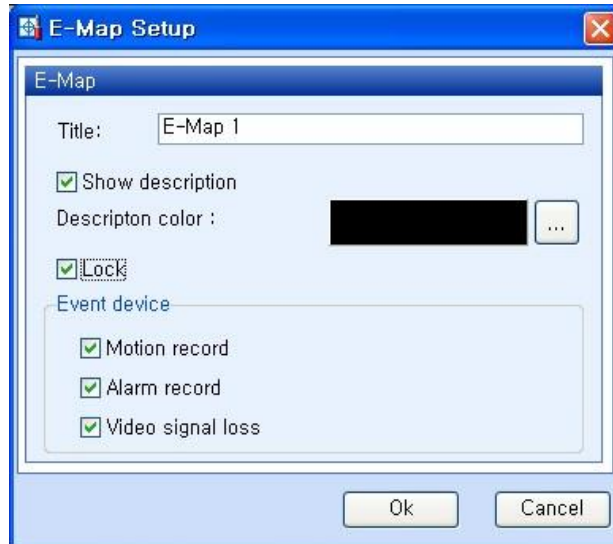
2. E-map control Buttons will be displayed.



- ① Z o o m In: Enlarge the image twice which is registered on the EMAP and also change the coordinates of items. The maximum magnification rate is 400%.
- ② Z o o m Out: Shrink the image twice down which is registered on the EMAP and change the coordinates of items. The maximum reduction rate is 25%.
- ③ Background: Select image file for the Map
You can store the image file at [C:\Program Files\EMS 2.0\EMAP\BACKGROUND].
- ④ E-Map Setup: User can change title of E-Map and set up of E-Map.

1) DVRs

- DVR
- Event DVR
- Lock: Select this to keep the position of all icons as arranged in map.
- * Event DVR displays the Event status of DVR by blinking Red Color. Setup the motion, Alarm, Video Loss at E-map setup.

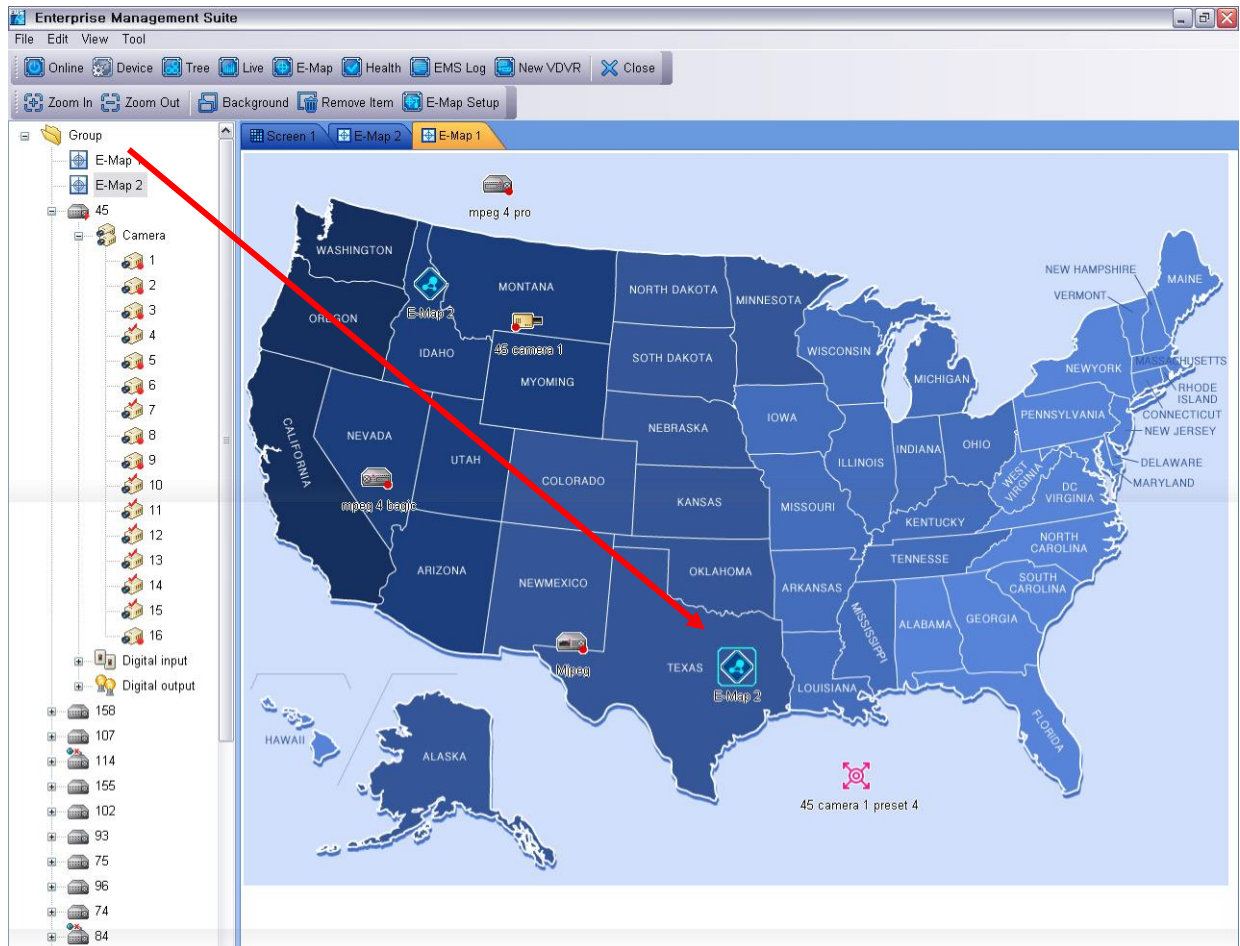


2) Camera

- Select the camera image distinguished as CCD Camera, Dome, IP Cam, PTZ camera.
- Select <Motion> to display of the status of motion record.
- Select <Preset> to move directly the settled position.
- Select < Live Video> to live monitoring.

2. E-Map Link

All items and e-maps are linked together. If you wish to make a link between e-maps, drag and drop.



- When you click the e-map it will automatically move to linked e-map.
- When you select items on e-map such as the DVR, Camera and etc, the items will be indicated as grey color on the Tree.

<Memo>

Revised at. 2015.
