

1. Overview

CMS(Central Monitoring Station) is a centralized DVR management system. CMS has many useful features to help center users.

Support and expand the function of RMS

- **Support Monitoring, viewing, setup, save, etc from existing RMS.**
- **Able to monitor a hundreds cameras at one system.**
- **Able to add 2nd or 3rd monitor if necessary.**

E-Map support

- **Provide global area E-Map and DVR server E-Map.**
- **When alarm is happened, the alarmed camera or DVR will be showing as different color on the E-Map.**

Multi Monitor Support

- **One CMS Server can be connected multiple monitors.**
- **Separate display for viewer, E-Map, Alarm monitoring into different Monitor.**

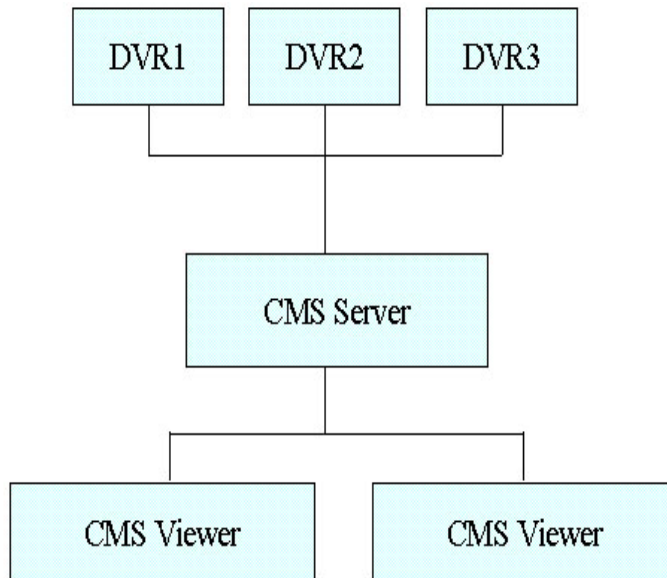
Easy operation support by Windows based GUI

- **Developed by Windows MDI.**
- **Simultaneous display of multiple windows.**
- **Support Drag & Drop operation, if possible.**

Multi User Support

- **CMS supports multi users.**
- **Each user has a different level and authority.**

2. System Configuration



DVR Server

- DVR Server has options about CMS connection.
- See Connection Setup of DVR Server.

CMS Server

- CMS Server will be run as a windows service program.
- CMS Server will keep the connection with DVR and is responsible of communications with DVR.
- CMS Server will keep the connection with CMS Viewer and is responsible of communications with CMS Viewer.
- When DVR starts up, DVR establish the connection with CMS, and send alarm notification.
- There is no limitation for DVR connections, but system performance

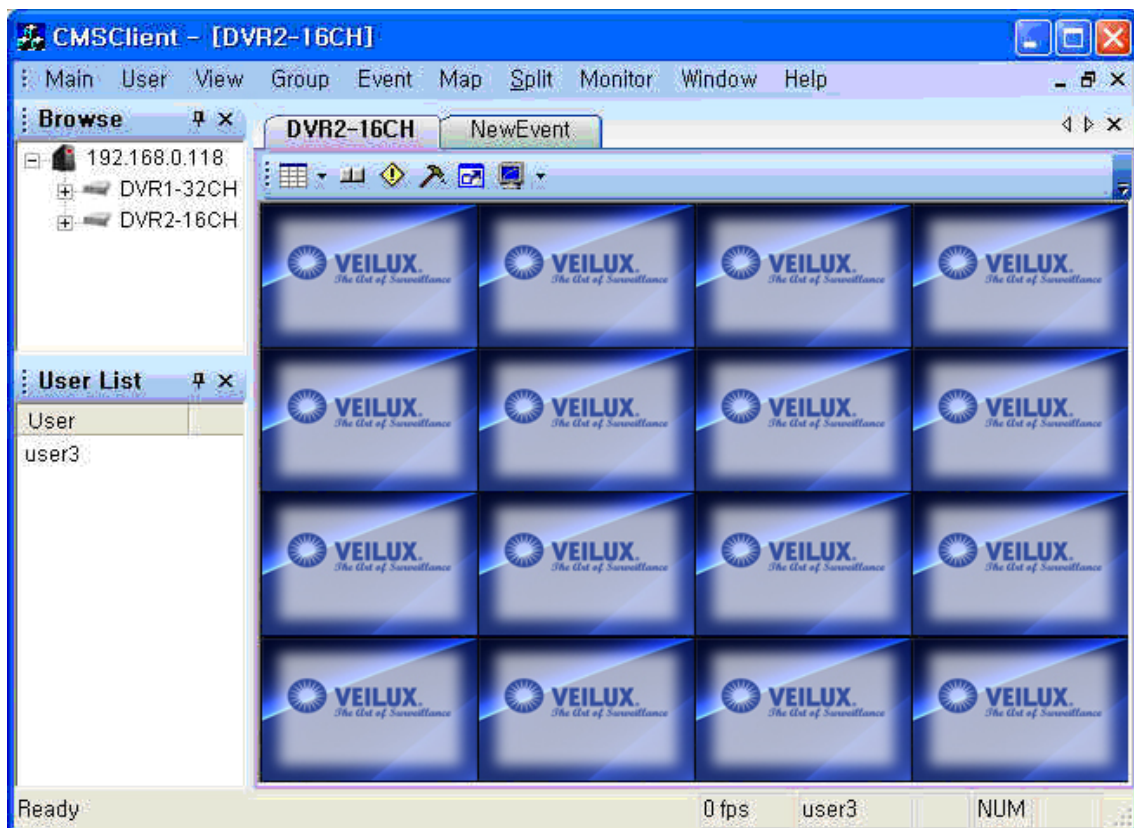
should be considered.

CMS Viewer

- CMS Viewer is a tool for user of central monitoring & controls.
- An authorized user logs on the system.
- Using CMS Viewer, you can control & monitoring the DVR server.
- There is no limitation for CMS Viewer connection, but system performance should be considered.

CMS Viewer Screen

This is a screen of CMS Viewer when you logged on.



3. System Requirement

CMS Server

- CPU P4 2.0 GHz over.
- Memory 512 MB over.

- CMS Server works on Windows XP, Windows2000, Windows2003.
- CMS Server will be run as service program.
- CMS Server dose not have GUI operation, so there is no need of VGA card but if CMS Server is on the same system with CMS Viewer, It need VGA card.

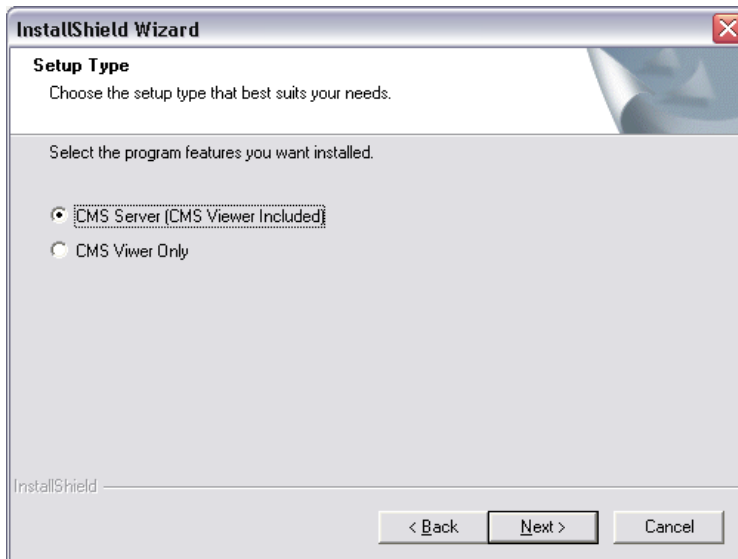
CMS Viewer

- CMS Server and CMS Viewer can be run on the same system.
- CPU P4 2.0 GHz over.
- Memory 512 over.
- VGA ATI 32MB over.

- CMS Viewer works on Windows XP, Windows2000, Windows2003.
- CMS Viewer supports up to 4 Monitors.
- To use 4 Monitors, 2 VGA card is needed.

4. Installation of CMS

When you try to install the CMS, It will ask what type of software you want to install.



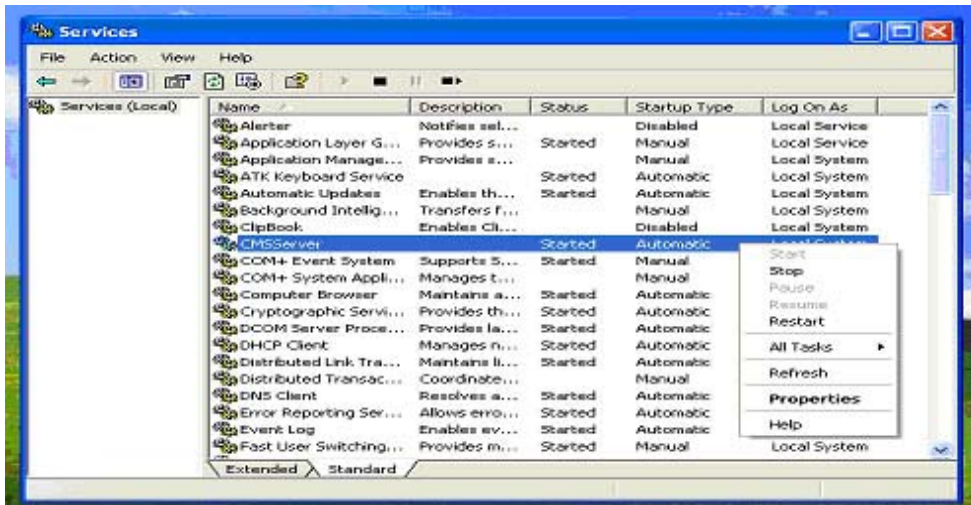
4.1 When you select the CMS Server Installation

CMS Server and CMS Viewer are installed on you system.

CMS Server is a service program.

You can see the CMSServer in the control panel->Administrative Tools->Services.

If you want to Stop or Start the CMSServer service click the right mouse on the Service list.



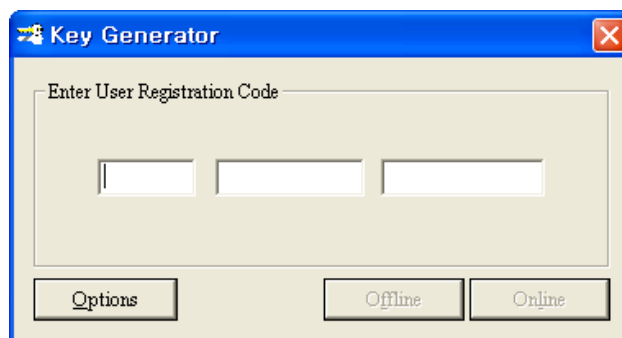
4.1.1 Activate CMS Server (Only CMS Server Installation)

After installation of CMS Server, you have to activate the CMS Server with the license key. If you don't activate, CMS server will run as demo version. (only 21 days available and 10 DVR server connection is allowed).

To activate CMS Server choose the Windows->Programs->CMS->Activate CMS Server.

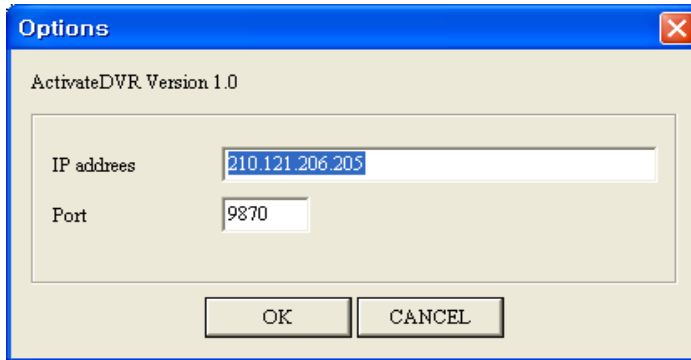
Enter the Registration code into the following Dialog Box.

Registration code can be received by Veilux when you buy CMS Server.



Options Button

If you click this button, you can see the following dialog box.



IP address & Port

It is the information used when you activate CMS Server via Online. It's a Veilux License Server IP address & Port, and usually you don't need to change it.

Online Button

If your CMS server is connected to internet, click online button.
All activation processing is going automatically.

Offline Button

If your CMS server is not connected to internet, click offline button.
And save the information in the files, and send the files to us.
We will check the files and then send the license.aut file to you.
You should copy the license.aut file into the
c:\program files\cms\remote directory.

4.1.2 Backup License.aut file

When you remove the system O/S or the CMS Software, you have to backup the license.aut file(c:\program files\cms\remote directory).

And after re-setup the system, copy the backup file into the original directory(c:\program files\cms\remote directory). And then you can use CMS Server again with license. But if you didn't backup the license.aut file you have to reactivate CMS server (See above 4.1.1)

License.aut file have a information about system network card.

So, If you change your network card, you have to reactivate CMS server(See above 4.1.1)

4.2 When you select the CMS Viewer Only

CMS Viewer is installed on your system.

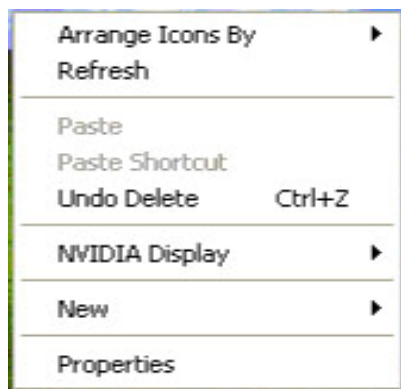
Using CMS Viewer, you can connect with the CMS Server and Monitoring the DVR Server.

5. Multi Monitor Setting

CMS Viewer support multi monitor (max 4 monitor).

Connect the multi monitor into the system, and change the display properties.

On desktop, click mouse right menu, and select the properties.

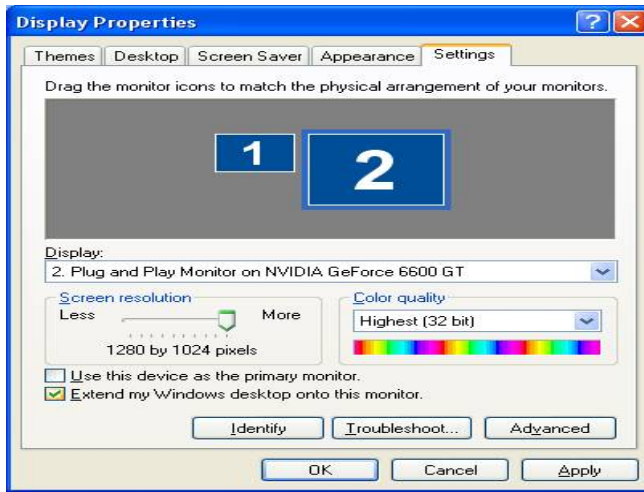


Select the Settings tab of the Display Properties dialog box.

Select second monitor (number 2 on the screen), and check "Extend my Windows desktop onto this monitor"

Click OK button, you can use the 2 monitor now.

3rd, 4th monitor settings are same.



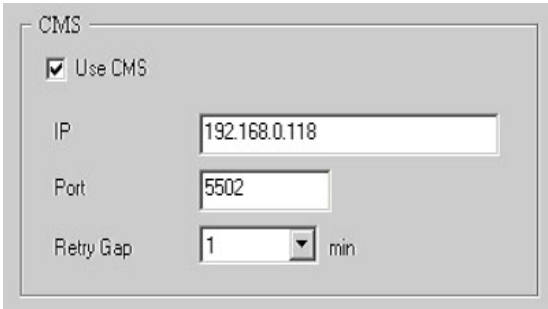
6. DVR Server Setup to Using CMS

6.1 Connection Setup

DVR Server supplies a feature to setup CMS server information.

Open the DVR Setup Dialog, and the select the Network tab.

Network tab has setup box like followings.



The screenshot shows a dialog box titled "CMS" with the following fields:

- Use CMS
- IP: 192.168.0.118
- Port: 5502
- Retry Gap: 1 min

Setting Values.

Use CMS

If this check box is checked, DVR Server try to connect with the CMS server when it is started. After connection is established, will send the alarm notification to the CMS server and interact with CMS server.

IP

Enter the CMS Server IP Address.

Port

Enter the CMS Server port number to communicate with DVR. Default is 5502.

Retry Gap

Select the minute to retry when connection is destroyed.

If 0 minute selected, DVR server will not retry when connection fails with CMS Server.

6.2 User Setup

DVR Server supplies a feature to setup user authority to handle CMS server request.

Open the DVR Setup Dialog, and then select the Users tab.

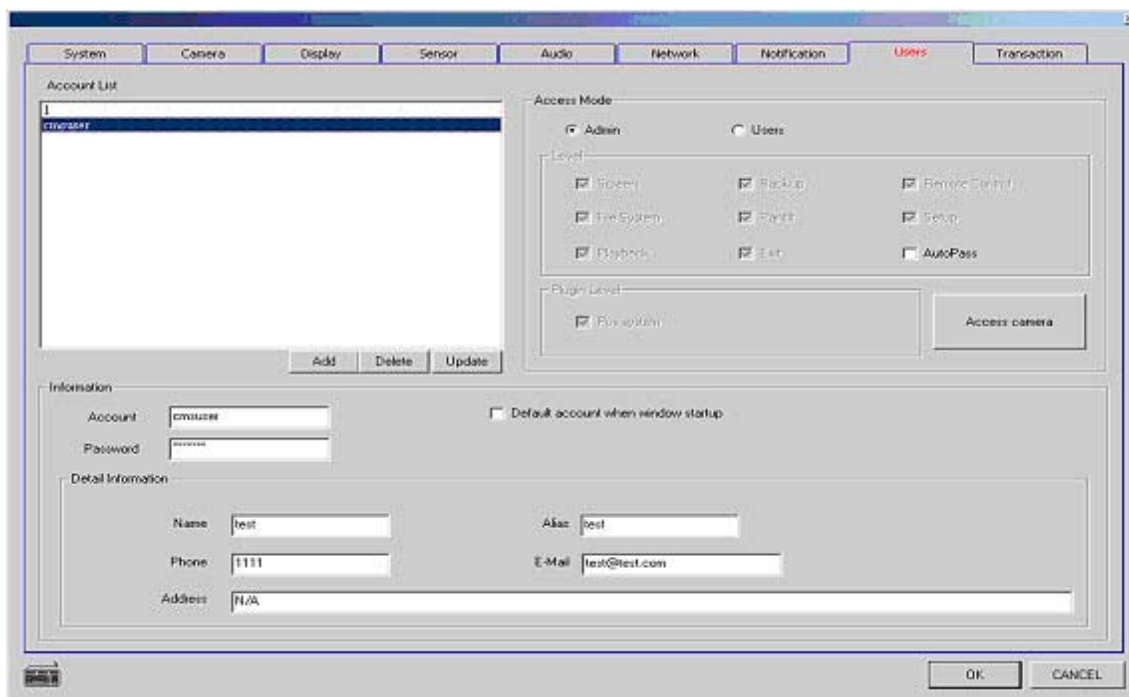
The system has predefined account which is 'cmsuser' and the password is 'cmsuser'.

To communicate with CMS, 'cmsuser' should exist in the DVR user list. By default, 'cmsuser' has admin authority.

It is possible to change the authority of cmsuser.

The way is same as DVR user setup.

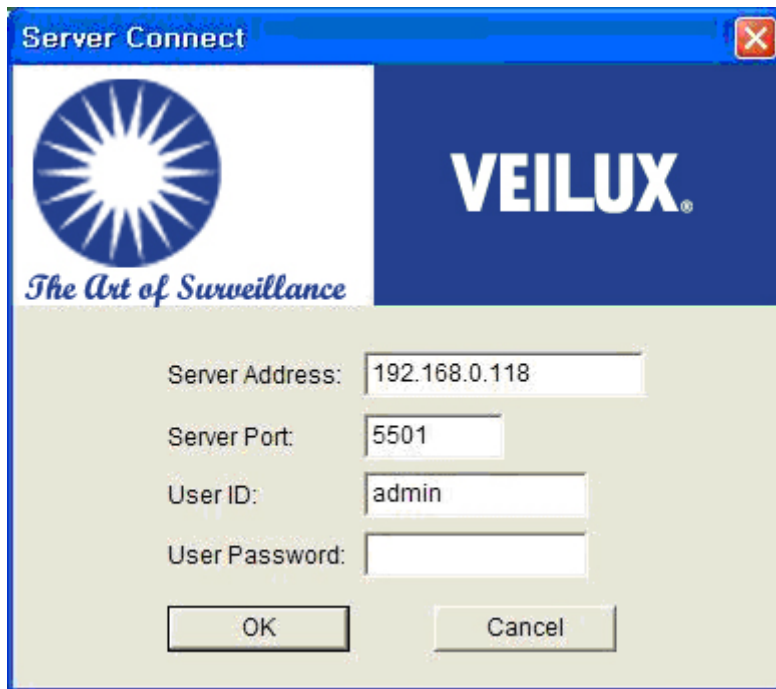
Important : Do not change the password of cmsuser.



7. Using CMS Viewer

7.1 Login

Login window

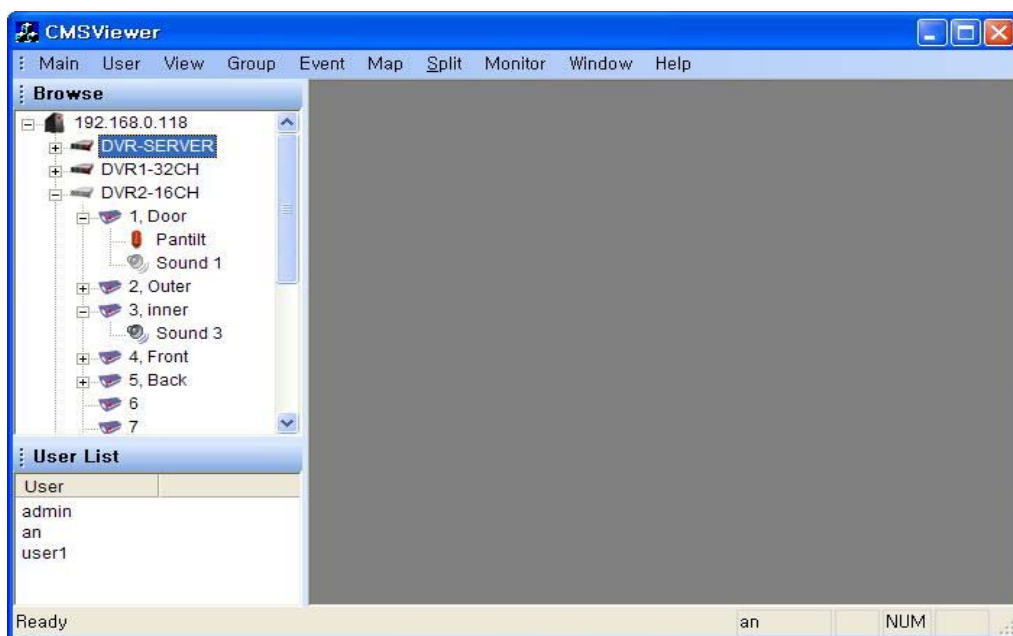


The screenshot shows a Windows-style dialog box titled "Server Connect". The top-left corner features a circular logo with a sunburst pattern and the text "The Art of Surveillance". The top-right corner has a dark blue background with the "VEILUX" logo in white. Below the logo, there are four input fields: "Server Address" with the value "192.168.0.118", "Server Port" with "5501", "User ID" with "admin", and "User Password" which is empty. At the bottom, there are two buttons: "OK" and "Cancel".

- CMS Viewer is started, Logon dialog box will be displayed.
- Server Address : CMS server address
- Server Port : CMS server port (default is 5501)
- User ID : Authorized user id.
- User Password : user password.

* The system has Default Account which is "admin" and the password is nothing. " ".

Initial Screen



- **After logon, the first window screen is as above.**
- **Screen is consists of Top Menu, left Browse window & user list, and status bar.**
- **Status bar shows the current logon user. (example : in the above screen shot, an is logged on).**

7.2 Top Menu

Main menu



- **Exit : Exit the CMS Viewer.**

User menu



- **Manage User Accounts : Only main_manager(defined User Type) can use this menu.**



User Type

- **Main Manager : Add/Edit/Remote user. When Event is Arrived, Main Manager can send the Server Viewer window to the Sub**

manager's monitor. You can check this value in the Event Manage dialog. (Send to Other Clients checkbox)

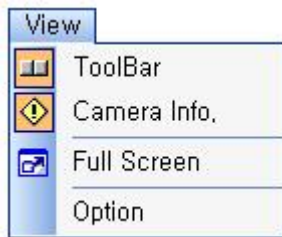
- **Sub Manager : Sub Manager receives the Server Viewer window when Event is arrived.**

Authority

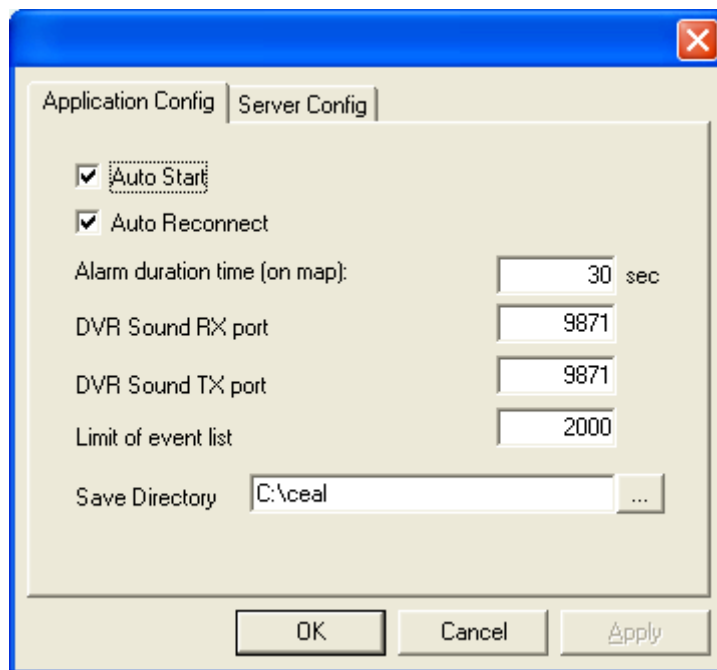
You can give the authority each user.

- **Change Password : Change the password of current log on user.**

View menu



- **ToolBar : Show or Hide of camera viewer's toolbar.**
- **Camera Info. : Show or Hide of camera viewer title.**
- **Full Screen : Extend the screen as full, based on the current child window**
- **Option : set the current user's option.**



Auto Start : If you set this, CMSViewer Automatically start when Windows OS start.

Auto Reconnect : If you set this, CMSViewer Automatically try to reconnect with CMS Server

Alarm duration time(on map) : Event Blinking time on Map View or Event Monitoring Window.

DVR Sound RX port : Two way audio Input Port.

DVR Sound TX port : Two way audio Output Port.

Limit of event list : On Event Monitoring Window, the limits of the event list of the Bottom List Control. Default is 2000.

Save Directory : When you click the save button in Monitoring mode, or Search Mode,

The saved avi file is located in this directory.

The Saved File name Format like this.

R_16ch_1_20060116093419_20060116093620.avi

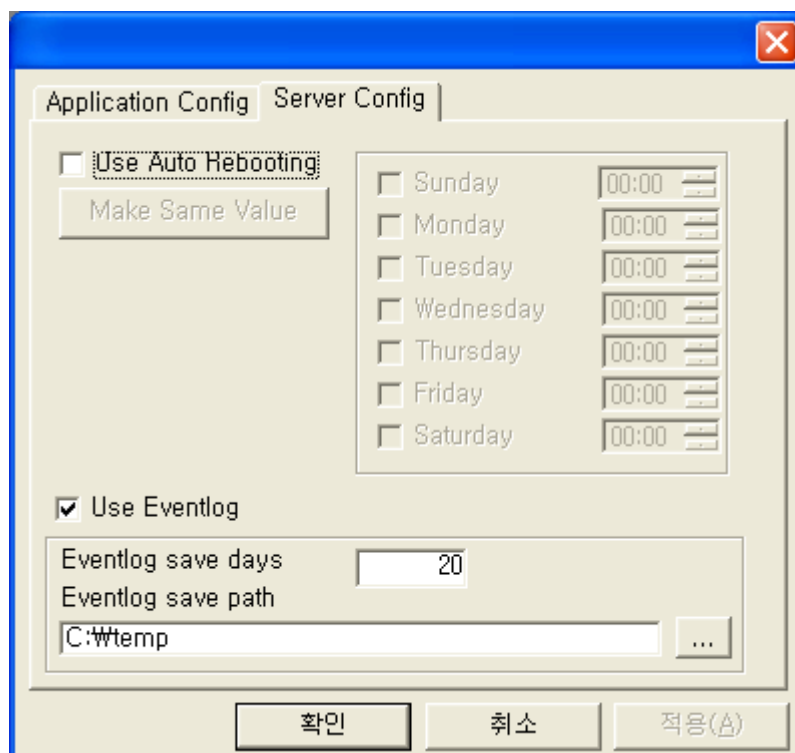
S_16ch_1_20060116093419_20060116093620.avi

R or S : R means real mode video, S mean search mode video.

16ch : DVR Server name.

1 : Camera number.

20060116093419_20060116093620 : Video Start & end time.



Use Auto Rebooting

Set this, if you want to use reboot feature on CMSSServer.

Make Same Value

Set the time with same value on all day.

Use Eventlog

Set check, if you want to save and query the EventLog

Eventlog save days

CMS Server keep the Event log database during defined days

Eventlog save path

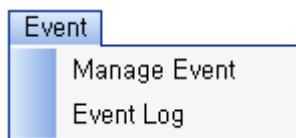
Set the Eventlog database save path. Confirm enough harddisk space and the directory exists on the cmsserver system.

Group menu



- **Manage** : Add/Remove/Edit the Group.
- **Group List** : Group list is displayed. when selected the Group window is opened.

Event menu



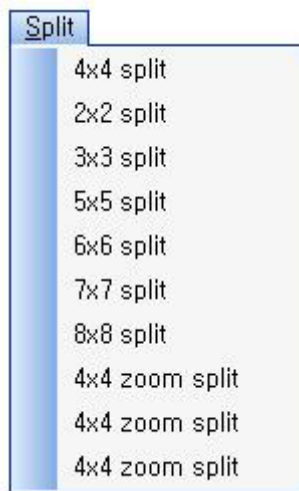
- **Manage** : Add/Remove/Edit the Event Monitoring window.
- **Event List** : Event Monitoring window list is displayed.

Map menu



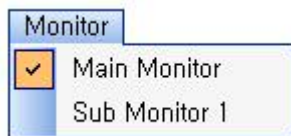
- **Manage** : Add/Remote/Edit the Map.
- **New Window** : Open the Map Viewer.

Split menu



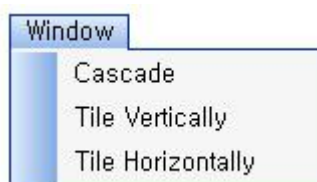
- **Split List** : Select the screen split.

Monitor menu



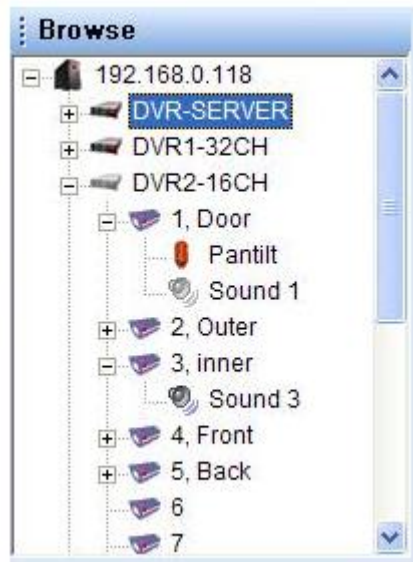
- **Monitor List** : Display the connected multi monitor, when clicked the current window is moved the selected monitor.

Window menu



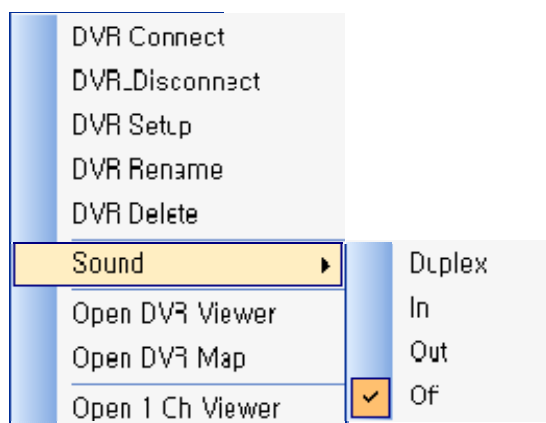
- **Cascade** : Arrange opened windows as cascade.
- **Tile Vertically** : Arrange opened windows vertically.
- **Tile Horizontally** : Arrange opened windows horizontally.

7.3 Browser window



- Browser window displays DVR Server lists.
- Disconnected DVR server is displayed by dimmed icon. (Example : DVR2-16ch is disconnected)
- DVR Tree has camera sub tree, and camera tree has sound, sensor, pan tilt sub tree if it is.
- Click the right mouse button on the DVR tree, you can see the popup menu like following.

Popup menu



DVR Connect

When you want to connect specific DVR which is not connected, use this menu.

DVR Disconnect

Disconnect the connected DVR.

DVR Setup

Open the DVR Setup dialog.

DVR Rename

Change the DVR name. CMS Server has it's own storage to save DVR name. The default DVR name is same as defined in the DVR Server's Site name. On CMS side, you can rename the DVR Server as you want.

DVR Delete

Delete the selected DVR of the CMS DB. When DVR connect again, the DVR is added automatically.

Sound

Open the two way audio channel with DVR.

You can send or receive the sound and enjoy two way audio communication between DVR and CMS.

- Duplex : Two way audio between DVR and CMS using micro-phone and speaker.**
- Out : Send a sound data to server by microphone.**
- In : Receive a sound from DVR by speaker.**
- Off : Close the audio communication channel.**

Open DVR Viewer

Open the selected DVR Server Viewer.

DVR Server Viewer is the monitoring window that has the all cameras of the selected DVR.

Open DVR Map

Open the selected DVR Map if exists. If selected DVR Map is not registered, this menu is dimmed.

Open 1 Ch Viewer

Open selected camera monitoring window.

Drag-and-Drop Feature

- Browser window support Drag-and-Drop feature.**
- If you Drag-and-Drop DVR Server onto the Group Monitoring window, all cameras is added into the group window.**
- If you Drag-and-Drop DVR Server onto the User List Windows, you can send the Server Viewer to the users' monitor.**

- If you Drag-and-Drop camera onto the Group Monitoring window, the camera is added into the group.

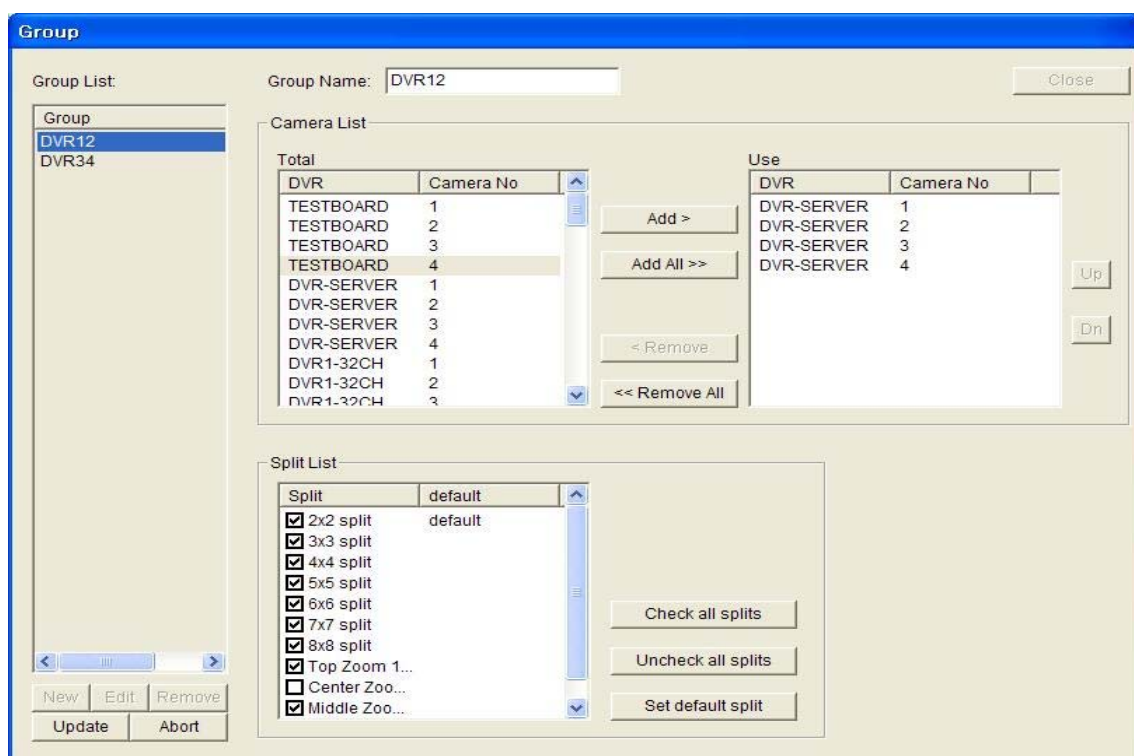
7.4 Group Viewer

Manage Group Viewer window

Select Group->Manage of the top menu.

This dialog provide group management function.

You can add/edit/remove the Group Viewer window.



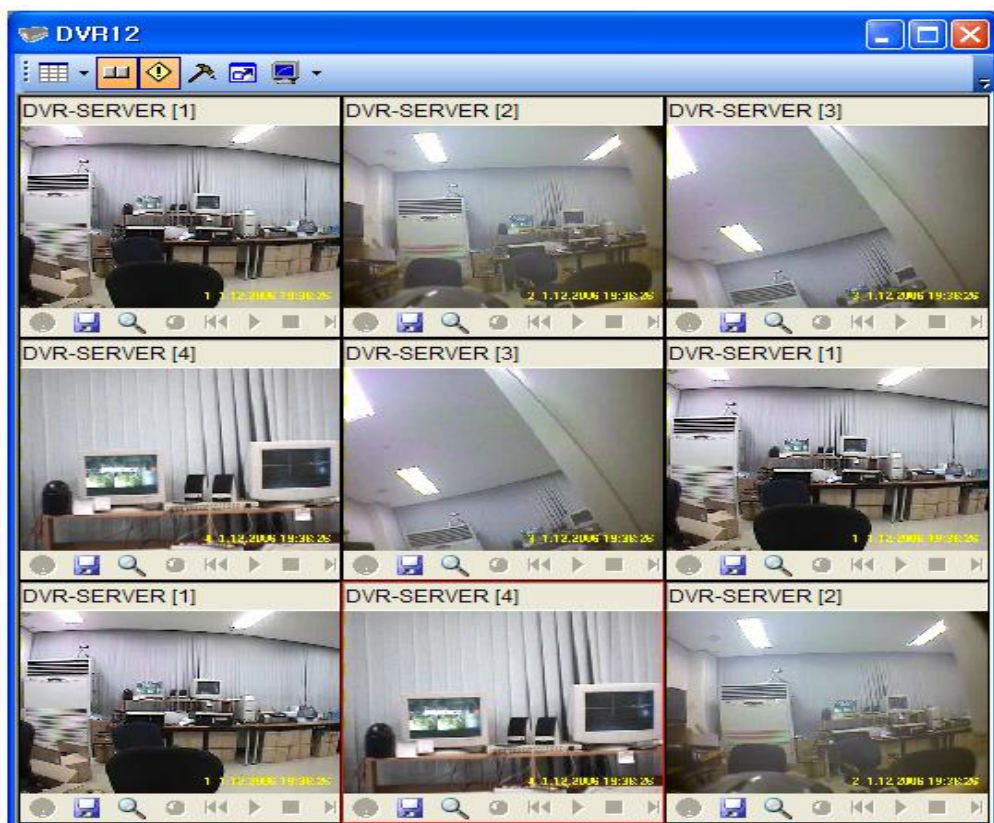
- **Group List :** Show registered group list.
- **New :** Add new Group Viewer window
- **Edit :** Edit new Group Viewer window.
- **Remove :** Remove selected Group Viewer window.
- **Update :** After editing the Group Viewer window, click the Update button.







- **Abort** : Stop the editing operation.
- **Group Name** : User defined Group name.
- **Camera List** : Select the cameras you want see in the group. You can add cameras using drag-and-drop of the DVR Browser tree.
- **Split List** : Select the split you want to use with this Group Viewer windows.
- **default split** : Group Monitoring window is opened using default split. You can change it using Set default Split button.

Group Viewer window

Select Group of the top menu. It displays the group list already add.

Click the Group name you want to see. Like following window will open.



-  split : Change the group split.
-  toolbar : Show/Hide the camera view's toolbar.
-  info : Show/Hide the camera view's title bar.
-  manage : Open the Group Manage Dialog.
-  full screen : Open the current Group window as full screen.
-  monitor : Move the current window into another Monitor. When multi monitoring environment is set.

Drag-and-Drop

- You can change camera position using drag-and-drop. using CTRL+ drag-and-drop, you can copy the camera window.
- At another window (like Event Monitoring Window, Browser Window, Server Viewer Window), You can drag-and-drop camera into current Group window.

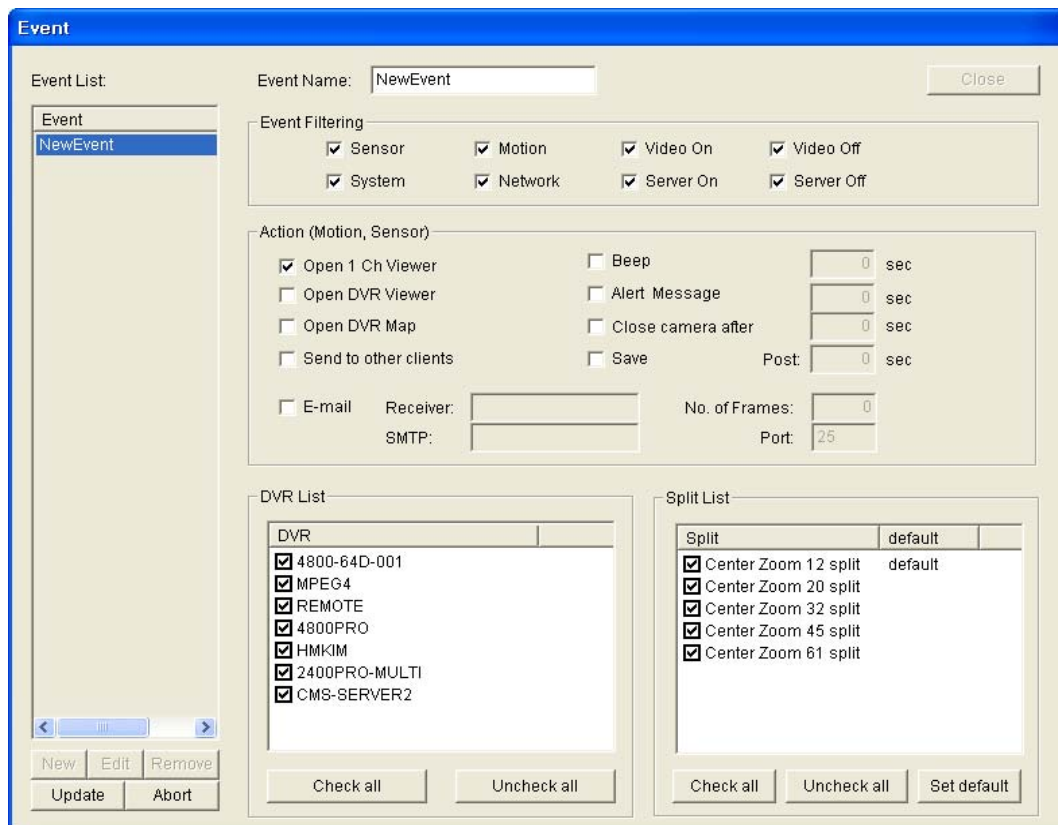
7.5 Event Monitoring

Manage Event Monitoring window

Select Event->Manage of the top menu.

This dialog provide the Event management function.

You can add/edit/remove the Event Monitoring window.



- **Event List :** Show the current registered Event Monitoring window List.
- **New :** Create a new Event Monitoring window.
- **Edit :** Edit selected Event Monitoring window.
- **Remove :** Delete selected Event Monitoring window.

- **Update** : After editing, you should click the Update button to save changes.
- **Abort** : If you want to cancel,. click the Abort button.

- **Event Name** : Enter the name of Event Monitoring window.

- **Event Filtering** : Check the event type you want to receive in this window.

- **Action** : Define action when event received.

Open 1Ch Viewer

If this is checked, when Event received, One channel Viewer window is opened automatically.

Open DVR Viewer

If this is checked, when Event received, DVR Viewer window is opened automatically.

Open DVR Map

If this is checked, when Event received, DVR Server Map window is opened automatically.

Send to other clients

If this is checked, when Event received Server Viewer window is opened on another user's system who is logged on at that time and who is set as sub manager of the user type.

Email

You can send the Email when Event received.

Beep

Beep during defined seconds.

Alert Message

Displays Alert Message during defined seconds.

Close Camera

Close the camera defined seconds is expired.

Save

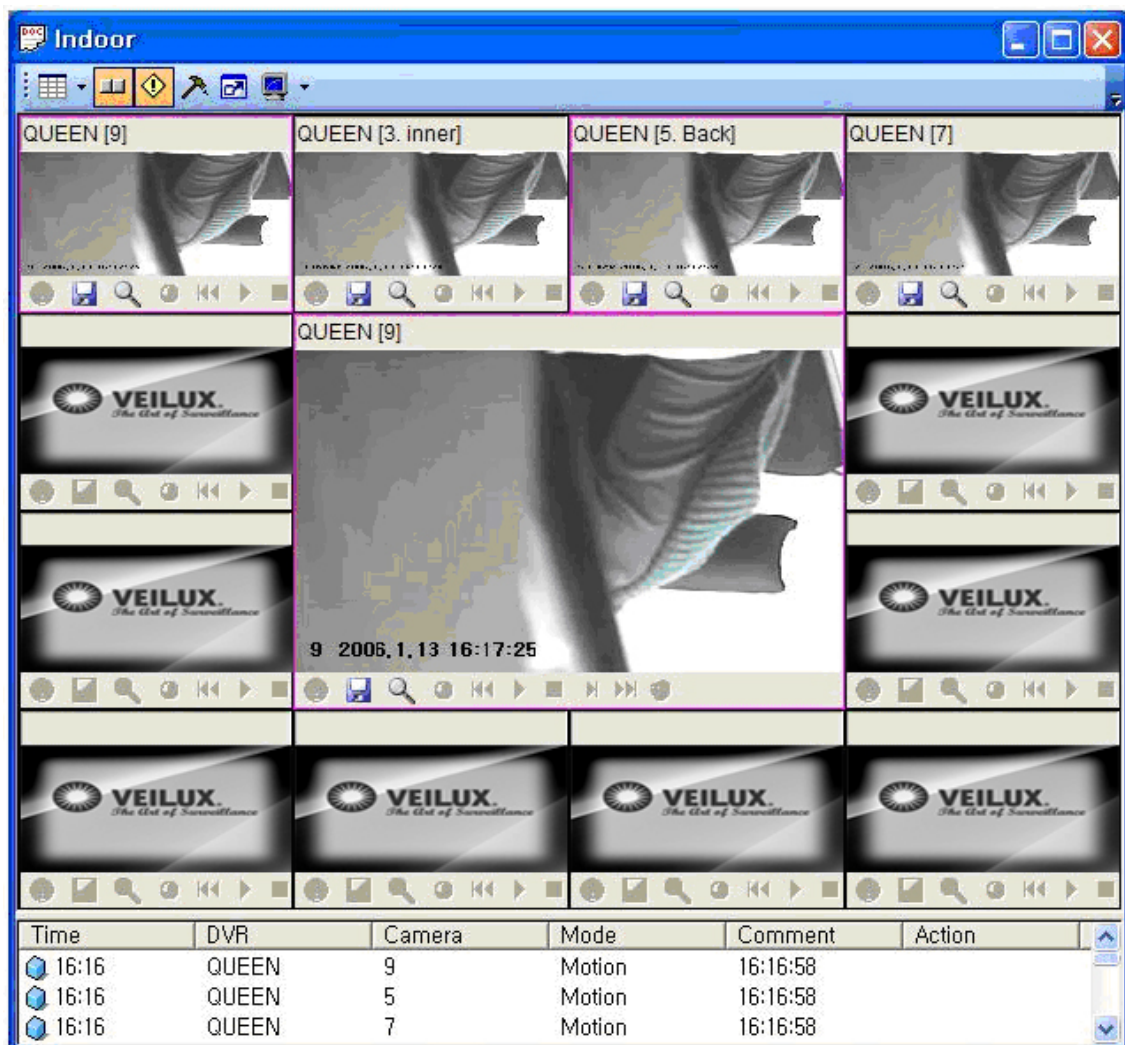
If this is checked, when Event received video data is saved in the avi file. Save directory is defined in View->option of top menu.




- **DVR List : Choose DVR list from which event receive.**
- **Split List : Choose split list.**




Event Monitoring window

Select Event of top menu. It displays the Event Monitoring window list already add.

Click the Event name you want to monitor. Like following window will open.



-  split : Change the Event Monitoring window split.
-  toolbar : Show/Hide the camera view's toolbar.
-  info : Show/Hide the camera view's title bar.

-  **manage** : Open the Event Manage Dialog.
 -  **full screen** : Open the current Event window as full screen. Vice Versa.
 -  **monitor** : Move the current window into another Monitor. (When multi monitoring environment is set).
-
- On the split window, Center zoom area always display the most recent event, and the video is filled on the normal camera area.
 - The list located in the bottom, display the event list and information.

Drag-and-Drop

Drag-and-drop is possible from Event Viewer to Group Monitoring window. But opposite is impossible.

EventLog window

It's possible to query past event history Using EventLog window

Choose the condition (date, time, DVR, Event Filter) and click the Query button. You can define Record count on one page.(default is 25 records)

EventLog2

Time	DVR	Camera	Mode	Comment	Ar
00:12:18:200	CMS-SERVER2	13	Video	00:12:08 OFF	
00:12:55:887	CMS-SERVER2	13	Video	00:12:46 ON	
00:13:06:684	CMS-SERVER2	13	Video	00:12:56 OFF	
00:13:20:669	CMS-SERVER2	13	Video	00:13:10 ON	
00:13:41:450	CMS-SERVER2	13	Video	00:13:31 OFF	
00:13:48:653	CMS-SERVER2	13	Video	00:13:38 ON	
00:13:52:169	4800PRO	15	Video	00:13:21 OFF	
00:13:52:465	CMS-SERVER2	13	Video	00:13:42 OFF	
00:13:53:122	4800PRO	15	Video	00:13:22 ON	
00:13:53:637	4800PRO	7	Video	00:13:23 OFF	
00:13:54:137	4800PRO	15	Video	00:13:23 OFF	
07:02:50:606	4800PRO	15	Video	07:02:18 ON	
07:02:51:075	4800PRO	7	Video	07:02:19 ON	
07:02:52:090	CMS-SERVER2	13	Video	07:02:42 ON	
07:02:55:075	4800PRO	7	Video	07:02:23 OFF	
07:02:55:575	4800PRO	15	Video	07:02:23 OFF	
07:02:55:872	CMS-SERVER2	13	Video	07:02:45 OFF	
09:06:15:997	4800HPRO16D	5	Video	09:06:22 OFF	
09:06:16:278	4800-64D-2ND	2	Video	09:05:49 OFF	
09:06:16:544	4800-64D-2ND	32	Video	09:05:49 OFF	
09:06:16:872	4800-64D-2ND	18	Video	09:05:49 OFF	
09:06:16:872	4800-64D-2ND	32	Video	09:05:49 ON	
09:06:18:262	4800-64D-2ND	2	Video	09:05:51 ON	
09:06:18:512	4800-64D-2ND	18	Video	09:05:51 ON	
09:06:18:512	4800-64D-2ND	32	Video	09:05:51 OFF	
09:06:18:840	4800-64D-2ND	32	Video	09:05:51 ON	

2007년 6월

일 월 화 수 목 금 토

27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7

Start Time: 오전 12:00:00

End Time: 오후 11:59:59

Select DVR: *

Event Filtering

Motion Sensor

Video Network

System Server

Record Count: 25

1/84 pages

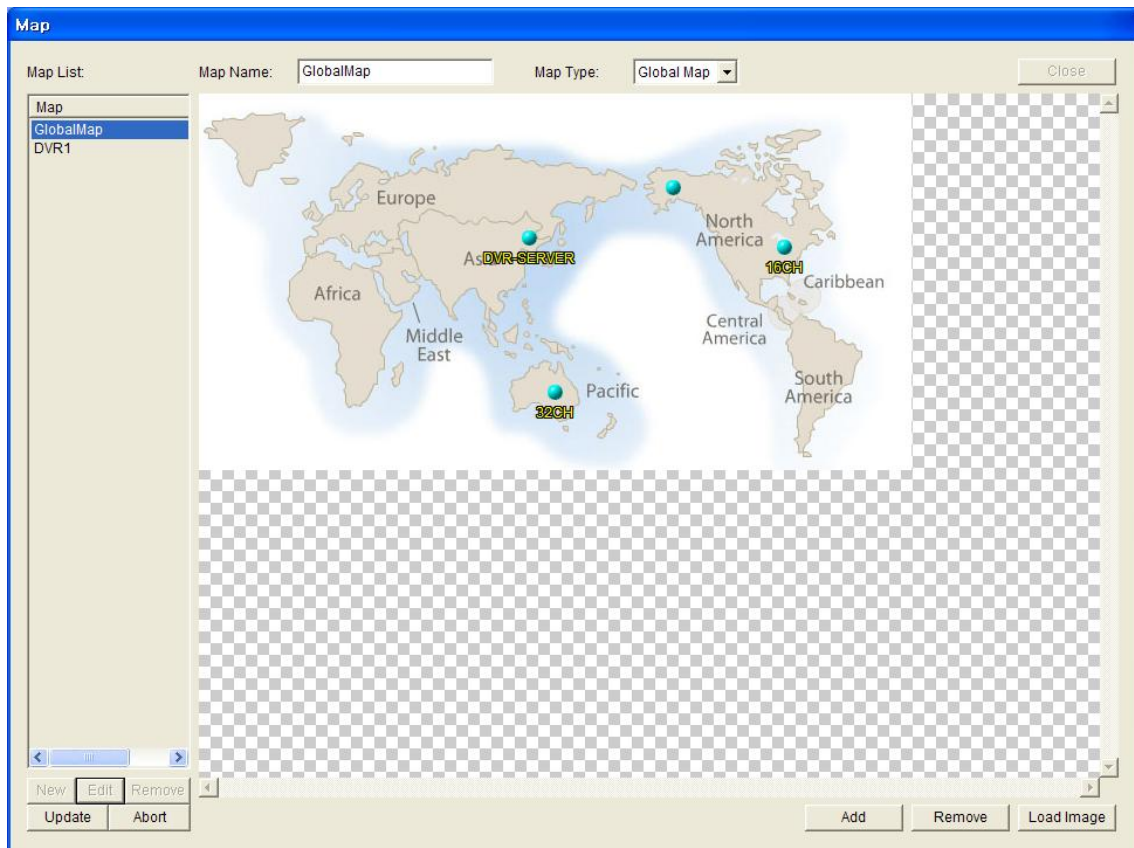
7.6 Map

Manage Map window

Select Map->Manage of the top menu.

This dialog provides the Map management function.

You can add/edit/remove the Map window.



- Map List : Show the map list currently registered.
- New : Create New Map.
- Edit : Edit Selected Map.
- Remove : Remove Selected Map.
- Update : After Editing, Click Update button to save changes.
- Abort : During Editing, Click Abort to cancel operations.

- **Map Name** : Enter the map name.

- **Map Type** : Select Global Map or DVR Map.

Global Map

Include DVR icons. When Event is arrived the DVR icon is blinked.

DVR MAP

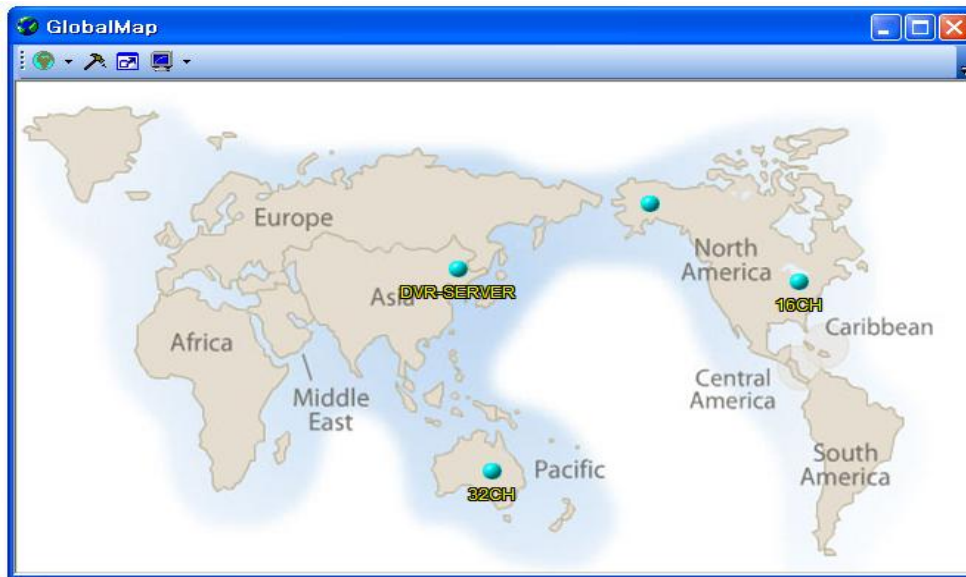
Include Camera icons. When Event is arrived, the Camera icon is blinked.

- **Add** : Add new icon. on Global Map icon means DVR, on DVR Map icon means camera.
- **Remove** : Remove the selected icon.
- **Load Image** : Load Map image. JPG, GIF, BMP file is available.

Map Monitoring window

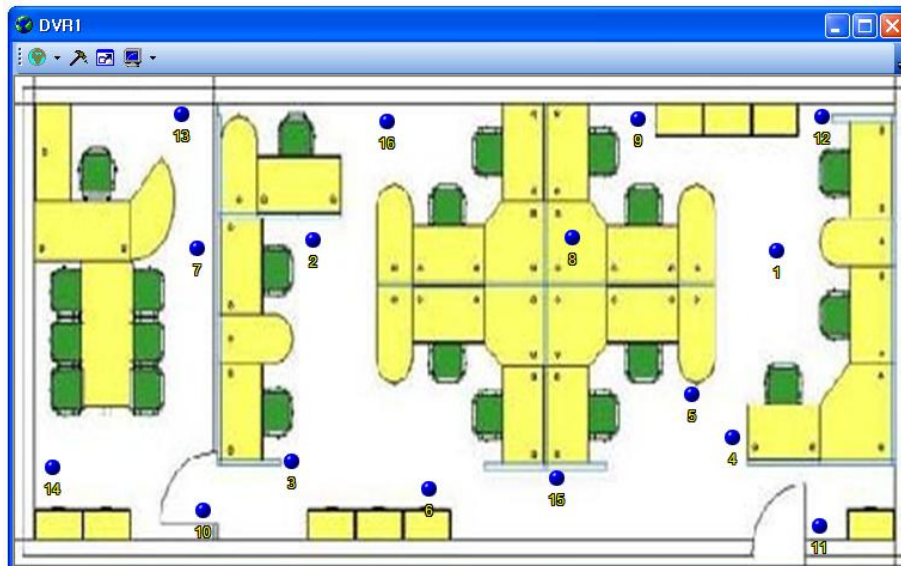
Global Map Sample Screen



On the Map DVR Server is positioned, and when Event is arrived, the DVR will blink. Event icon is different by event type. (Sensor, Motion, Network, System). And Different Event is arrived at the same time, The Event icon is arranged side by side.





DVR Map Sample Screen

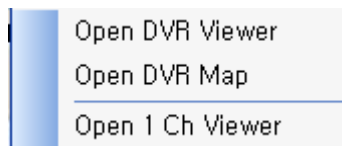
On the Map Camera is positioned, and when Event is arrived, the DVR will blink.



-  map : Select the map.
-  manage : Open Map management Dialog.

-  **full screen** : Selected Map window is extended as Full Monitor.
-  **monitor** : Selected Map window is moved to another monitor if multi monitor is set.

Popup menu



- **Click mouse Right Button on the DVR or Camera icon, above Popup Menu is displayed.**
- **Open DVR Viewer** : Open the DVR Server Viewer window.
- **Open DVR Map** : Open the DVR Map. It is only available on the Global Map.
- **Open 1 Ch Viewer** : Open selected camera's monitoring window on DVR Map.

7.7 Server View window

Server View window

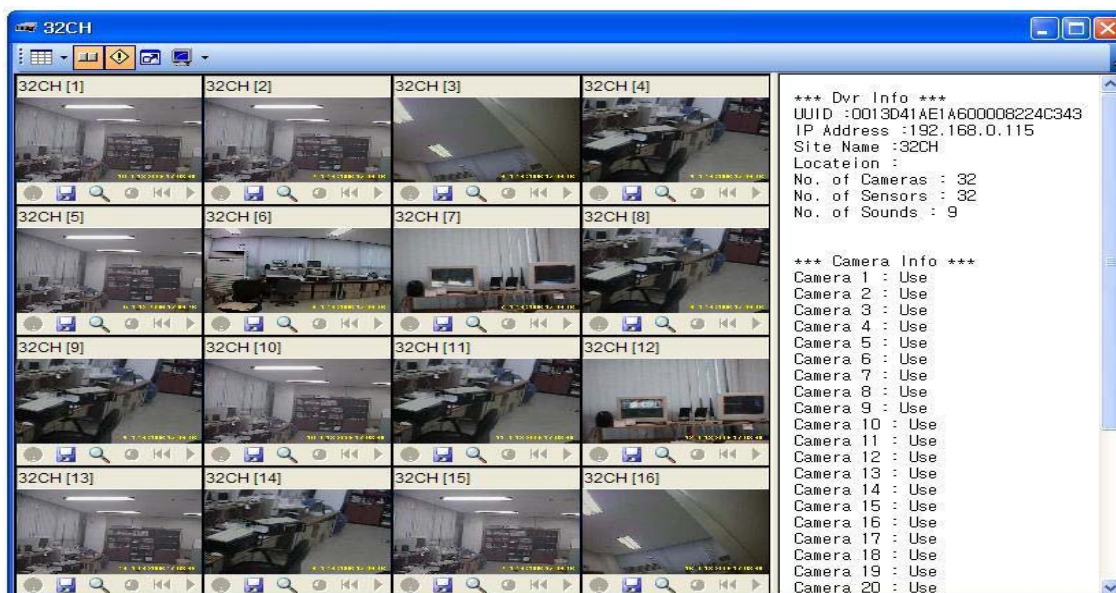
Server View provides the specific DVR server monitoring.

It can be opened several places.

It can be opened from Browser window by clicking the right mouse popup menu of the DVR tree.

It can be opened from Map View window by clicking the right mouse popup menu on the DVR icon.

It can be open by Event Arrival, if action is set by Event Monitoring Setup Dialog.



- Right side display Detail information of the DVR Server.

Drag-and-Drop

- **It is possible change camera position by drag-and-drop.**






7.8 Camera Viewer

Camera Viewer window

It is common window of Group Viewer, Event Monitoring Window, Server Viewer window.

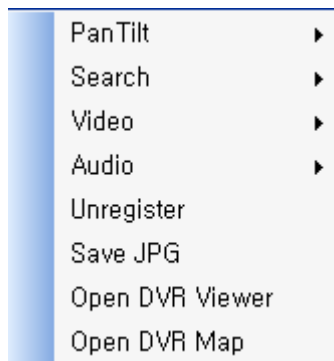
Each camera window is like following.



- On title, DVR Server, camera number, camera name is displayed.
-  pan-tilt : When pan-tilt is available, click this button, you can control the pan-tilt by mouse.
- Mouse image is changed by direction, and by mouse wheel you can control the zoom in/zoom out. It is a toggle button. So if you want to finish the pan-tilt control click this button again.
-  save : Click this button when you want to save the video from now. Click this button again when you want to finish saving.
-  search : Click this button, when you want search video data.
-  time : Select the date &time to search. it is available in the search mode.
-  first : Move to the first video data.

- ▶ **play** : Play the search data.
- ■ **stop** : Stop search.
- ▶ **next** : Move to the Next video data.
- ▶▶ **last** : Move to the last video data.
- 🗣️ **sound** : If this is checked, during the search mode, audio data is played.
- **Double click the video area, the windows is popup as full window.**
- **When Event is arrived, the border is set as pink.**
- **When selected current camera, the border is set as red.**

Popup menu



- **When you click the mouse right button on the Camera Viewer window, popup menu is displayed.**
- **PanTilt** : Display the pan-tilt controller.
- **Search** : Set the playback speed.
- **Video** : Change the video data in the search mode.
- **Audio** : Set the audio volume in the search mode.
- **Unregister** : When you want to remove this camera from Group or Event Viewer window click this and then camera will stop monitoring.
- **Save JPG** : JPG snapshot image saved on the path defined
View menu ->option -> Save Directory.

- **Open DVR Viewer : Open Server Viewer window of the camera.**
- **Open DVR Map : Open Map of the camera.**