

Central Manager System

User's Manual

3.42

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1. Preface

Central Manager System(CMS) is a powerful remote manager system. It can allow administrator to manage video recorders through network located in different sites from one point of control.

Each **CMS** system can manage up to 64 sets of video recorders with maximum 4096 channels. You can monitor, playback, backup the video files from the video recorders through network at any time. You can also proceed to set up the remote system configurations.

With user friendly GUI, administrator can monitor the video recorders very easily.

2. Installation

CMS can serve up to 64 sets of video recorders (4096 channels) including DVR, Hybrid DVRs or NVRs at the same time. Before the installation, make sure your computer meets the following minimum requirement for connecting video recorders.

CMS supports DVR, Hybrid DVR and NVR firmware versions,

Product	Product Firmware Version
DVR	V3.60, V3.81, V4.00, V4.20, V4.23, V5.00, V5.01, V5.02, V5.06, V5.20, V6.00, V6.20, V6.30, V6.40, V6.61, V7.40 and V7.43
Hybrid DVR	FV5.06, FV5.20, FV6.00, FV6.20, FV6.30, FV6.40, FV6.61 and FV7.40
NVR	NV5.06, NV5.20, NV6.00, NV6.20, NV6.30, NV6.40, NV7.40 and NV7.43

CMS	Requirement
OS	Windows 7 Ultimate 32bit WinXP Professional 32 bit SP1/SP2/SP3
CPU	Core 2 Duo 2.5G and above
Display Card	*Intel On-board VGA *Nvidia – 7xxx series, 8xxx series VGA card *1024*768 screen resolution
RAM	2GB and above
Hard Disk	250 GB and above (System files and Backup files should be in the same HDD section)
Network Card	10/100/1000Mbps
Mouse	PS/2 or USB compatible
DVD-ROM	General
USB Interface	1.1 / 2.0
DirectX	V7.0 & above

For connecting to DVR V5.10 and above versions, two hardware components should be upgraded as below,

CMS200	Requirement
CPU	Intel Core 2 Duo E6300 1.86G and above
RAM	1G and above

2-1. Install CMS

Before you install CMS 3.42, please make sure if your PC system is already installed "Microsoft .Net framework 3.5". If not, please go to the following website "<http://download.microsoft.com/download/5/6/7/567758a3-759e-473e-bf8f-52154438565a/dotnetfx.exe>" and download "dotnetfx.exe" to your PC system. Execute this program and now you can start to install CMS200 V3.42.

- Step 1 Insert the installation CD.
- Step 2 Then, go to the directory to run the Setup.exe and follow the steps.

When finishing the setups, it will show up the message.

Then, you can find the “**Central Manager**” folder and its sub menu from the Windows Start menu.



1. Tools

- **Backup Information Tool**

By using this tool, you can get the information of backup file. Please refer to the **Chapter 4-11 Central Backup** for the backup configuration.

- **Setup**

You can change CMS operation language in this menu.



CMS runs in Microsoft Windows platform. When CMS is activated, it will detect the Windows Language version and automatically switch CMS operation language with other language options according to the rule described in following table.

Microsoft Window Language version	Default CMS Operation Language	Language Options
English	English	English
Traditional Chinese	Traditional Chinese	English, Traditional Chinese
Simplified Chinese	Simplified Chinese	English, Simplified Chinese
Japanese	Japanese	English, Japanese
French, German, Polish, Portuguese, Spanish, Dutch, Russian	English	French, German, Polish, Portuguese, Spanish, Dutch, Russian

● **Multi-Screen**

CMS supports max 16 multiple screen display. The “Multi-screen” option should be ticked before you proceed with multi-screen configuration. Please refer to “Chapter 4-3-3 Multiple Screen Setup”.3

2. Backup

CMS Backup function provides users with backing up video files from remote video recorders. Please refer to the **Chapter 4-11 Central Backup** for the backup configuration.

3. Central Manager

Click this icon to start CMS.

4. EMap Editor

CMS provides EMap function so that user can see the camera locations in the MAP. Before enabling this function, user needs to edit his own EMaps in the EMap Editor. Please refer to the **Chapter 4-8 EMap Editor**.


5. Player

This is a local DVR player. After user downloads the video files from video recorder, he can play the files in this player in the Window platform. Please see the **Chapter 4-12 User Local Playback**.

6. User Manual:

You can access the user manual in this folder.

3. Profile Manager

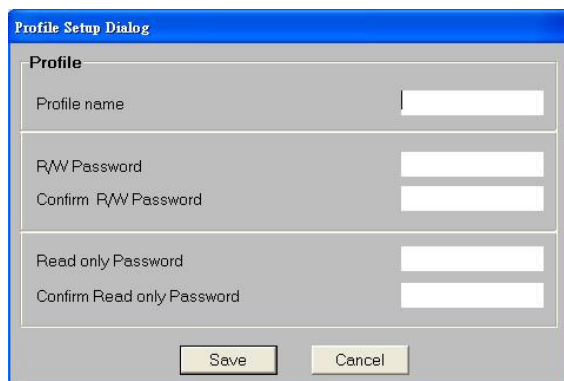
After the installation, start the CMS application by clicking the icon  in the CMS folder from the Windows Start menu. The “**Profile Manager**” will pop up to let the user to **Create, Delete, Edit, Import, Export, Open** “User Profile” or query “Log”.



First time to use CMS, user has to create a new “User Profile” to save the configuration of video recorder. You can create different **Profiles** for different configurations at the same time. Next time when you start the CMS, you don’t need to create a new User Profile any more and you just open one of Profile you prefer.

3-1. Create a New User Profile

Click “New” on the **Profile Manager**, it will show the Profile Setup Dialog as following



Enter the “Profile Name”, “Supervisor Password”(R/W Password), and “User Password” (Read only Password) in the Profile Setup Dialog.

After the new profile has been created successfully, the new profile icon will be shown on the Profile Manager screen as below.



Note

- “Profile” name can’t exceed 50 characters.
- “Profile name” only supports Chinese, Russian & English words and does not support special marks.
- Password can’t to exceed 30 characters.
- Password only supports numbers, Russian & English character.

3-2. Delete Profile

If you want to delete the User Profile, click “Delete” button. Then, the system will request you to enter the **Supervisor password**. Only supervisor has the authority to delete the **Profile**.



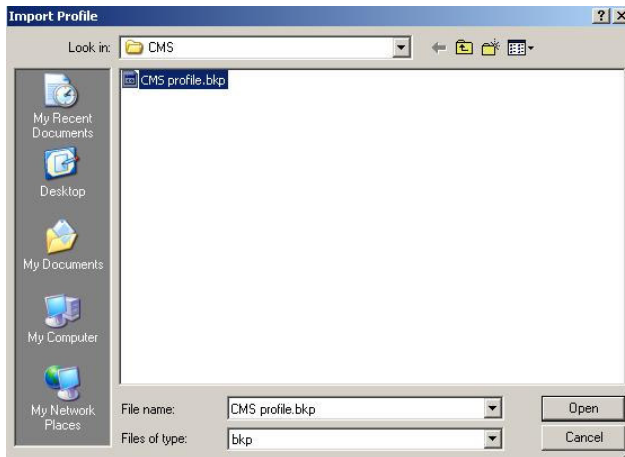
3-3. Edit Profile

If you want to edit the **Profile**, just select it and click the “**Edit**”. The system will request you to enter the **Supervisor password**. Only supervision has the authority to edit the **Profile**. Therefore, enter the **Supervisor password**.

3-4. Import profile

You can import the backup profile to system. It's easy for copying the settings between computers.

Click “Import” button, and select the *.bkp file which you want to import. (**file exported before**)



After importing file, the imported file will be added in the Profile Manager screen as following,



3-5. Export Profile

If you want to back up the profile or execute CMS on another computer but use the same profile, you can export the “Profile”.

Please choose the profile you want to export and click “**Export**” button.



CMS will request you to enter “**Supervisor**” password. Enter the password and the address of the saved profile will show up. You can select the path to save the .bkp file which has just been exported, and it will appear on the appointed address.

3-6. Login

The user can select the created **Profile**, enter the password and then start to login. There are two kinds of password identification-**Supervisor** and **User** password. Each one has different authority in CMS. The following is comparison tables of the authority.

	Profile Manager						Sequencer	Monitor Options
	New	Delete	Edit	Import	Export	Login		
Supervisor		○	○		○	○	○	○
User		×	×		×	○	○	×

	Quick Select Tag			Full Screen	Snapshot	Setup	System Status	Playback
	Save	Delete	Rename					
Supervisor	○	○	○	○	○	○	○	○
User	×	×	×	○	○	×	○	○

3-7. CMS Log Query

By clicking “Log” tab in the Profile Manager window, you can query any operation event on CMS server.



Report of CMS operation event log.

The screenshot shows the 'Query Log' window. It contains a table with the following data:

Date Time	Event Type	Message
2011/7/12 上午 10:15:57	Lobby	CMS Program Start
2011/7/12 上午 10:16:14	Lobby	CMS Program Start
2011/7/12 上午 10:16:23	Lobby	Login in profile: [CV] password error
2011/7/12 上午 10:16:38	Lobby	Login in profile: [CV] successful (R/W)
2011/7/12 上午 10:16:38	Lobby	Enter main screen : [CV]
2011/7/12 上午 10:17:35	Lobby	CMS Program Close
2011/7/12 上午 10:17:39	Lobby	CMS Program Start
2011/7/12 上午 10:24:57	Lobby	New Profile:Test
2011/7/12 上午 10:32:07	Lobby	Export Profile: [Test to D:\User Manual\CMS\3.42\test.bkp]
2011/7/12 上午 10:32:56	Lobby	New Profile:ABC
2011/7/12 上午 10:33:04	Lobby	Import Profile: [test]
2011/7/12 上午 10:33:04	Lobby	Export Profile: [test from D:\User Manual\CMS\3.42\test.bkp]
2011/7/12 上午 10:33:26	Lobby	Delete Profile: [test]

At the bottom of the window, there is a status bar with the text 'TOTAL COUNT: (1/13)'. To the right of the status bar, there are several buttons: 'Refresh', a left arrow, a right arrow, a double right arrow, and 'OK'.

4. Main Screen

When you login the profile successfully, the following monitoring window will appear.

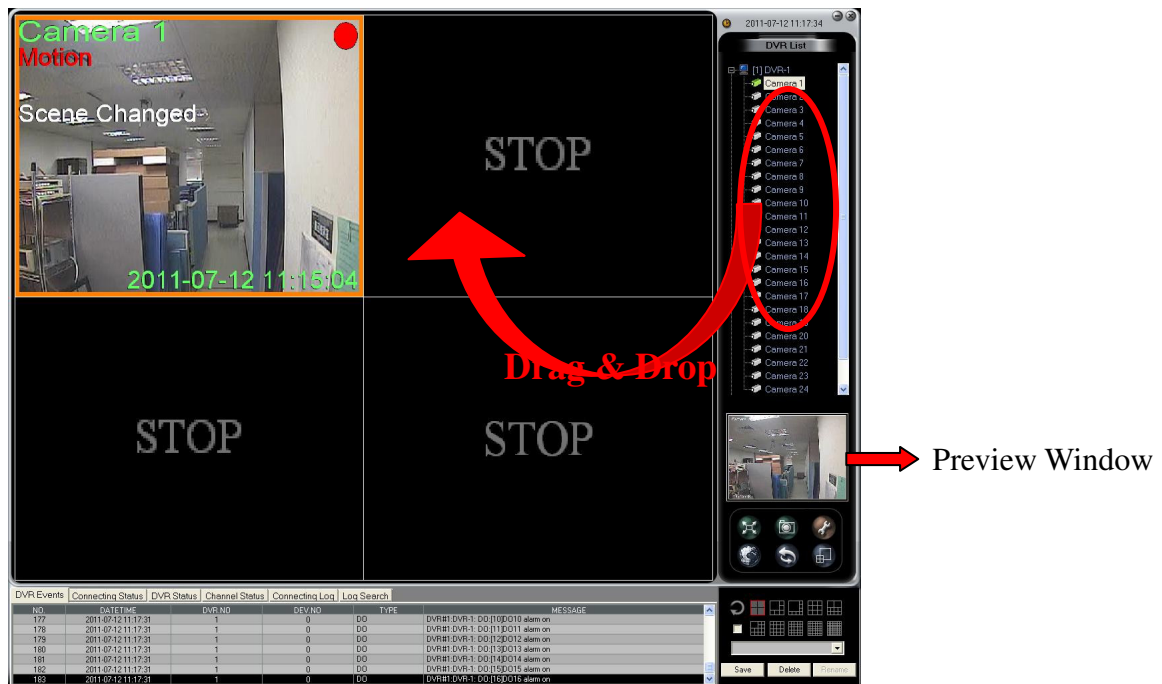
The main screen displays a monitoring interface with the following components:

- Grid:** A large grid of 8x8 cells, each containing the word "STOP".
- DVR List:** A sidebar on the right showing a list of DVRs (DVR-1, DVR-2).
- Preview Window:** A control panel on the right with buttons for Snapshot, Setup, Motion to Zoom, Playback, E-MAP, and Display Mode.
- DVR Events Table:** A table at the bottom showing event logs.
- System Status:** A label pointing to the bottom of the grid area.
- Sequencer:** A label pointing to the bottom of the DVR Events table.

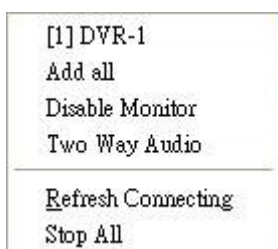
DVR Events	Connecting Status	DVR Status	Channel Status	Connecting Log	Log Search
NO.	DATE/TIME	DVR NO	DEV NO	TYPE	MESSAGE
146	2011-07-12 10:51:31	2	2	Camera	DVR#2.DVR-2: Camera [2]Camera 2 Enable
147	2011-07-12 10:51:31	2	3	Camera	DVR#2.DVR-2: Camera [3]Camera 3 Enable
148	2011-07-12 10:51:31	2	4	Camera	DVR#2.DVR-2: Camera [4]Camera 4 Enable
149	2011-07-12 10:51:31	2	5	Camera	DVR#2.DVR-2: Camera [5]Camera 5 Enable
150	2011-07-12 10:51:31	2	6	Camera	DVR#2.DVR-2: Camera [6]Camera 6 Enable
151	2011-07-12 10:51:31	2	7	Camera	DVR#2.DVR-2: Camera [7]Camera 7 Enable
152	2011-07-12 10:51:31	2	8	Camera	DVR#2.DVR-2: Camera [8]Camera 8 Enable

4-1 Main Screen

After finishing the DVR configuration (refer to 4-3 “DVR setup”), go back to Main Screen and it will show the following screen.



Click button in front of the DVR in **DVR List window** and it will list all of the cameras connected to the DVR. Click any listed camera and the image of this camera will be displayed in the “**Preview Window**”. You can decide if you want to display this camera in the Spilt Window. If yes, just click this camera, **Drag and Drop** it to any spilt window you want to display. You can also display all of the cameras in any DVR to monitor at one time. Just click the right button of mouse on any DVR in the **DVR List** and it will show the following menu. Select “**Add all**” and all of the cameras connected to this DVR will display to the monitor simultaneously.

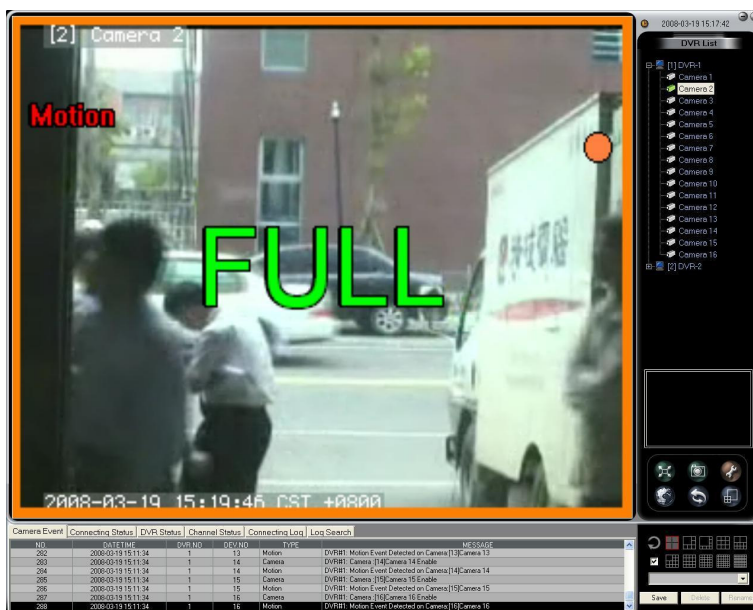


Below table shows the description of each function.

Function	Description
Add all	One time show all of live images from the designed video recorder in the CMS monitor.
Disable Monitor	Stop displaying all of the live images in CMS monitor from the designated video recorder.
Two Way Audio	Enable two way audio between video recorder and CMS server. Please refer to “Chapter 4-1-5 Two Way Audio”.
Refresh Connecting	Refresh connecting to video recorder
Stop All	Stop displaying all of the live images in CMS monitor

4-1-1 Zoom in/ Zoom Out Adjustment

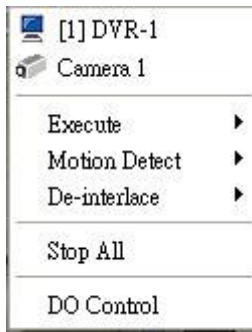
You can **Zoom in** or **Zoom out** any Spilt window. Double click on any split window and it will be enlarged to **Single Channel view**. You can double click again on this enlarged window and it will go back to the original spilt mode. In **Single Channel view**, you can scroll the mouse to Zoom in or Zoom out the image. There are ten display modes “Full, 250%, 225%, 200%, 175%, 150%, 125%, 100%, 75% and 50%”.



Single Channel Mode

4-1-2 Camera Options

Click right button of mouse on any channel split window, the screen will pop up a menu as below for camera options.

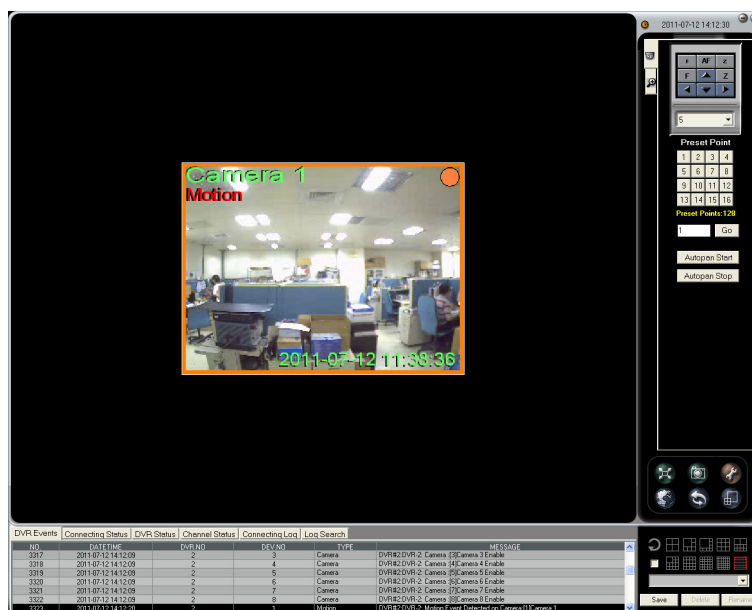


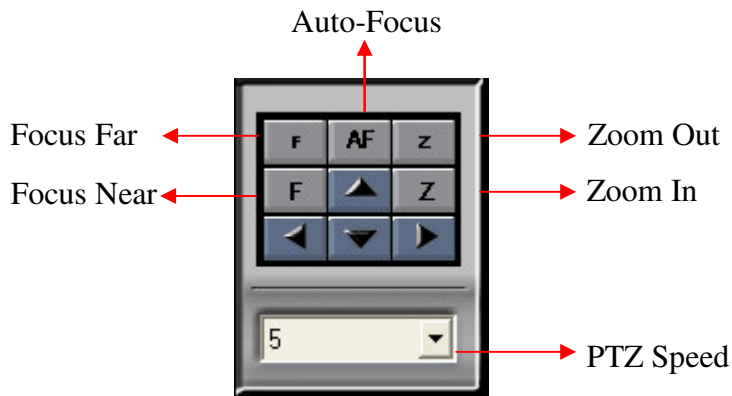
The following table is the description for each function.

Function	Description
Execute	-Enable: Enable displaying the camera in the Spilt Window -Disable: Disable displaying the camera in the Spilt Window
Motion Detect	Enable/Disable Motion Detection function.
De-interlace	Turn on or off the De-interlace function to adjust live image quality.
Stop All	Stop all of the channel display in the CMS monitor
DO Control	Remote trigger DO alarm (Please refer to “Chapter 4-1-6 Remote Trigger DO Alarm”)

4-1-3 PTZ Camera

If video recorders are installed with PTZ cameras, the PTZ control panel will pop up in CMS main monitor while CMS is in **Single Channel View** for controlling PTZ camera remotely. PTZ control functions include “Zoom In”, “Zoom Out”, “Focus Near”, “Focus Far”, “Auto-Focus”, “PTZ Speed”, “Go to Preset Point” or “Start/Stop PTZ Auto Pan”.





- **Go to Preset Point**

According to the PTZ Preset Points set in video recorder, you can directly enter Preset point and click “Go” tab so that the PTZ camera will directly turn to the Preset Point direction and CMS will immediately show the image of Preset Point.



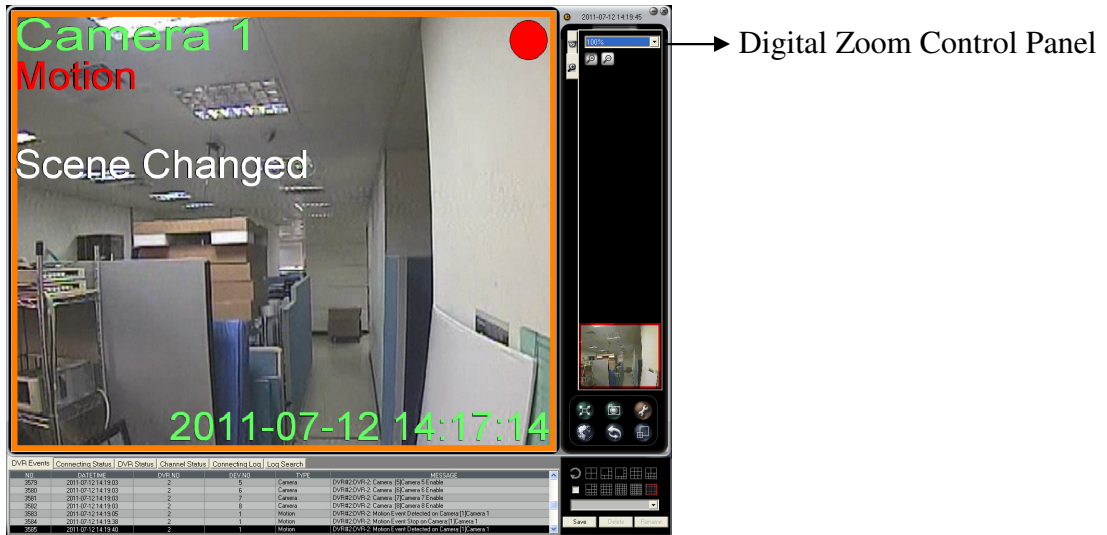
- **Start Autopan & Stop Autopan**



Click “Autopan Start” to activate PTZ auto-pan function while clicking “Autopan Stop” to stop PTZ auto-pan.

When user adjusts the PTZ control, it will not only change camera image but also effects the recording result. CMS can support 128 preset points.

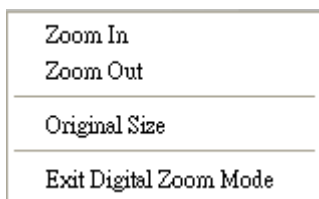
4-1-4 Digital Zoom

Like PTZ control function, Digital Zoom function only works on single channel view. Double click any split channel in CMS monitor and the digital Zoom control panel will show up in the right side of CMS main monitor as below.





There are two ways to Zoom in and Zoom out image. One is directly select any Zoom value from 100% to 1600% in the control panel. The other one is clicking “Zoom in”  tab in control panel and click any place of image in the live window step by step to zoom in camera image from 100% to 1600%. You can see the zoom-in area in preview window marked in red frame. By moving the cursor, you can change the zoom in area. On the contrary, you can zoom out the image by clicking “Zoom out”  tab and click any place of image in the live window step by step.

By right clicking the mouse in the live window, it will pop up a control menu as below.



Below is the description for each function.

Function	Description
Zoom in	Like clicking “Zoom in”  tab in control panel to start to zoom in image.
Zoom out	Like clicking “Zoom out”  tab in control panel to start to zoom out image.
Original Size	Back to the original size
Exit Digital Zoom Mode	Back to the multiple split mode

4-1-5 Two Way Audio

People in CMS server site can directly talk with the people in video recorder site by the function of Two Way Audio. Before enabling this function, you should make sure the both CMS server and video recorder are installed with microphone and speaker.

- At Video Recorder Site

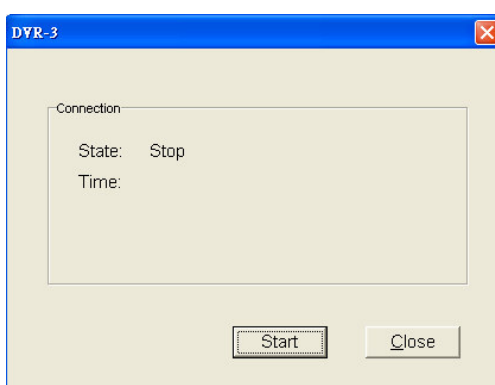
Turn on the “Live” audio in main monitor. Please refer to the Video Recorder user manual.

- At CMS Site

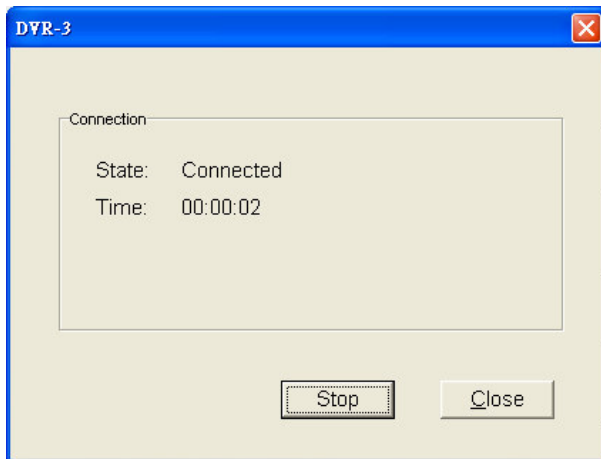
Step 1 Right click mouse on any DVR in DVR list control window and it will pop up a menu as below. Click “Two Way Audio”.



Step 2 Click “Start” tab to build up the two way audio connection between CMS and video recorder.



While the connection is built up, it will show the “Connected” in the “State” option in the connection window and you can start to talk to the people at video recorder site.



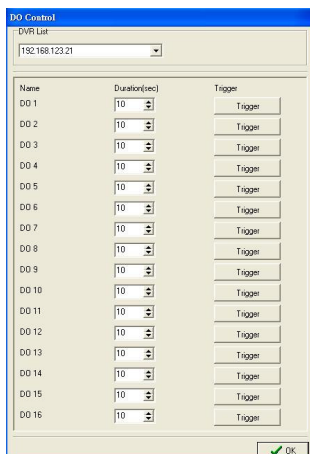
Click “Stop” tab, to close the Two Way Audio function.

4-1-6 Remote Trigger DO Alarm



While people in CMS server site see the emergency event in video recorder site from the monitor, he can remotely trigger alarm output in video recorder. Right click mouse on the video channel and it will pop up a control menu as below.



Click “DO Control” option and it will pop up a menu as below. Select any DO device to trigger alarm output by selecting alarm output duration and click “Trigger” tab. Then, video recorder at remote site will start to trigger alarm output.

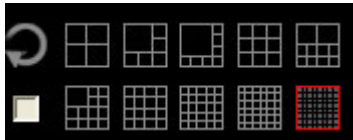


4-1-7 Minimize & Maximize CMS Window


By clicking the upper right button  of the CMS window, you can minimize the CMS window as the CMS icon  Central Manager showed in the bottom of Window desktop. You can click the icon to back to the CMS window.

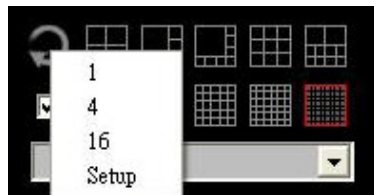
4-2 Display mode

There are 10 kinds of Split modes and 3 kinds of Sequencer modes in display mode. The Split modes include 4 splits, 6 splits, 8 splits, 9 splits, 10 splits, 13 splits, 16 splits, 25 splits, 36 splits, and 64 splits. The default option is 64 splits



4-2-1 Sequencer Mode

CMS provides three kinds of Sequencer Modes, Single channel, 4- channel and 16-channel Sequencer. When you click Sequencer icon , it will show the menu for your selection.

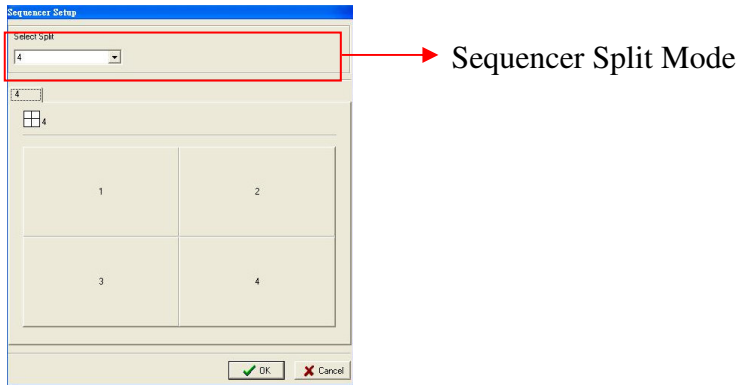


- **Sequencer Setup**

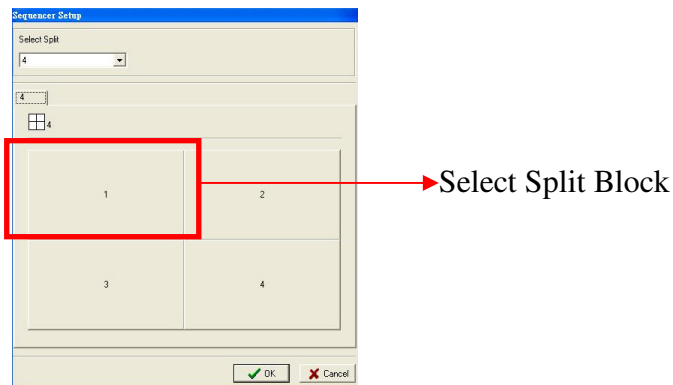
Before enabling the Sequencer mode, you should have the Sequencer setup in advance.

- 1) **Step 1 Enter the “Setup” option to go to “Sequencer Setup” menu**
- 2) **Select Sequencer Split mode-1, 4 or 16 splits**

For example, select 4 split.

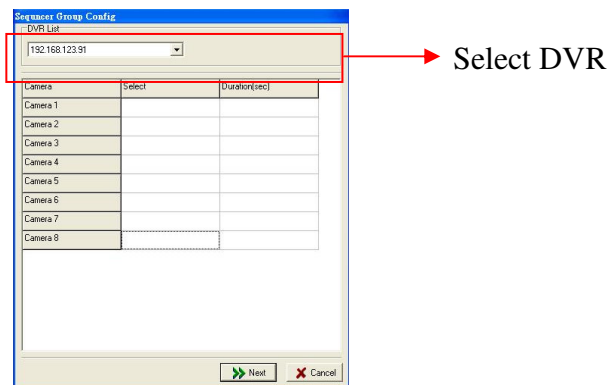


- 3) Click any split block and click “OK” to proceed the setting
 For example, select 1st split Block.

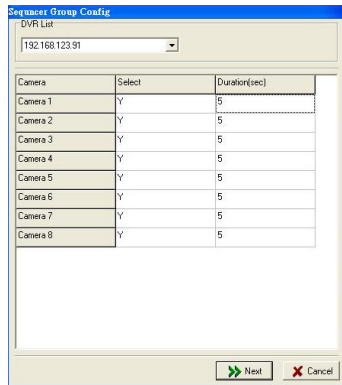


- 4) Assign DVR channels to have the sequencer in this split

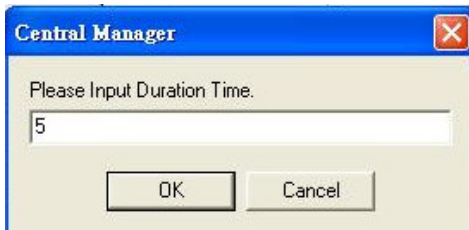
Select the DVR in DVR list and it will show the camera list of the selected DVR in the window.



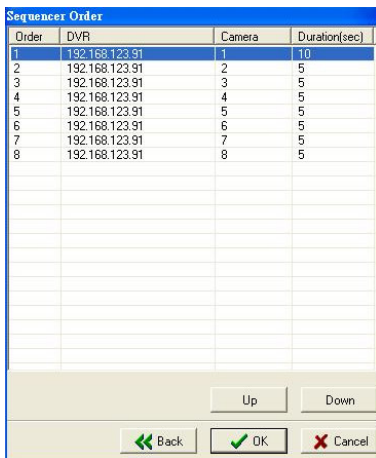
Clicking the empty field of the camera in “Select” column to select the camera to have the sequencer display in this Split block. Then, the field of selected camera in “Select” column will turn to “Y”.



Enter the display duration of the selected camera and click “OK”.



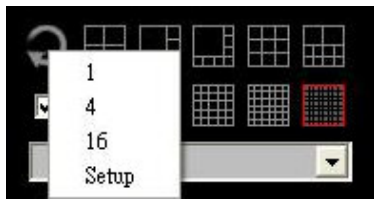
- 5) Adjust the Sequencer display order by clicking “UP” or “Down” tab and click “Ok”



Then, the Split block you set can be displayed in sequencer according to your setting. You can repeat above steps to set other Split block for Sequencer.

!	<p>Note</p> <ul style="list-style-type: none"> You can assign different DVR channels to display sequencer in the same Split block.
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- **Sequencer Mode**




After finishing the Sequencer Setup, you can start to select the sequencer mode of 1-Ch, 4-Ch or 16-Ch Sequencer.

You can Drag & Drop any channel to the Split Block. If the Split Block has been assigned the Sequencer channel, it will display the dragged channel in that Split block for a while according to the duration you set for that Split block and return to display the assigned sequencer channels again. However, if the Split block has not been set any channel for sequencer, it will keep displaying the dragged channel in that Split block.



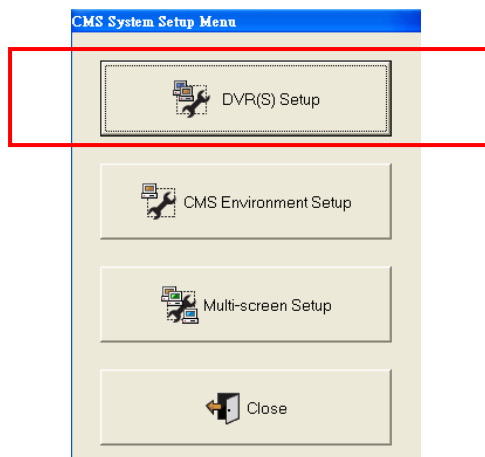
If any camera is disconnected, the sequencer will skip over it to the next connected camera channel.

If you want to exit the sequencer mode, you can press “ESC” or click  to end the sequencer mode.

4-3 Setup



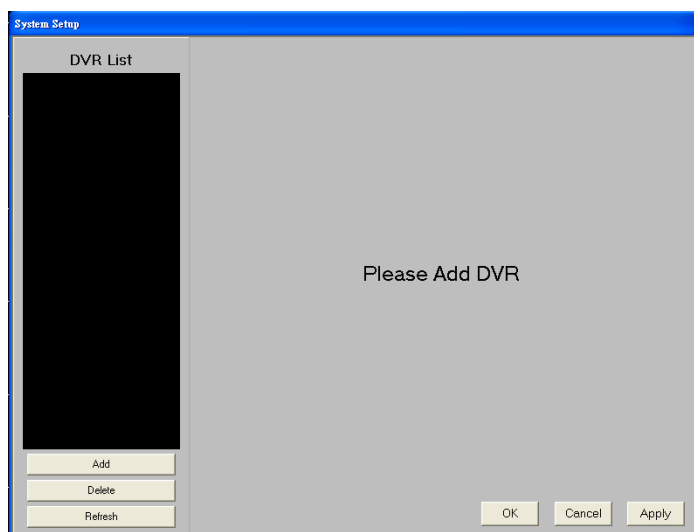
When you click the setup icon , you can see the following Setup menu.




4-3-1 DVR Setup

4-3-1-1 DVR Configuration

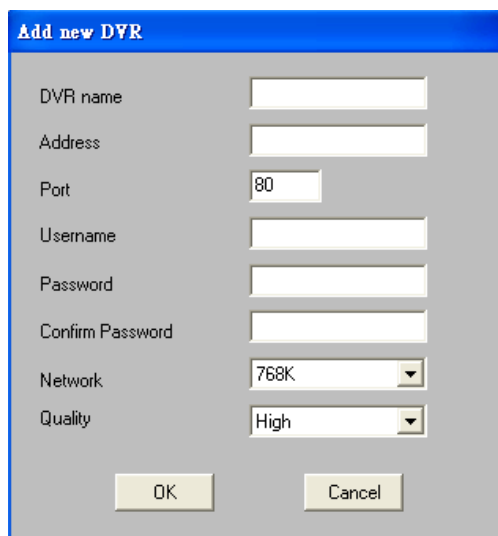
Click **DVR Setup** button to set up the DVRs that you want to control from remote CMS. Then, it will show the following screen.



- **Add remote DVR**

Click  button to add new DVR which you want to control from CMS. The system will appear a dialog box to prompt you to enter “**DVR Name**“, “**IP Address**“, “**Port**“, “**Username**“, “**Password**“, “**Network bandwidth**” and “**Image Quality**”.

The DVR’s Name shown in the CMS doesn’t need to be the same with the remote DVR’s name. That means CMS Supervisor can create a new name for DVR in the CMS site. In addition, Supervision also can name the new names for all cameras connected to the remote DVRs in the CMS site. All of these new names are just for CMS site and it won’t change the names in DVR site.



After finishing adding new DVRs, it will show the selected DVR information including connected cameras and DVR configuration when you point one of the DVR in the **DVR list**.

A) Network Bandwidth

You can adjust network transmission bandwidth based on real speed status, just select “768K”, “1M”, “1.5M”, ”2M”, “4M”, “8M”, “10M” or “unlimited” for adjustment on the ComboBox. If you use company’s or school’s LAN, we suggest you can choose “10M” for quick display. For ADSL , Cable Modem , and Dial-up service , please adjust the setup based on real ISP speed.

B) Monitor Quality

CMS support three monitor quality settings, “Low”, “Medium” and “High”. We suggest you choose “High” for higher image quality. However higher quality will

occupy more system resources, network bandwidth, and it will result in low display speed.

The setting of each Image quality:

*Low: 3 Kbytes/FPS

*Medium: 6 Kbytes/FPS

*High: 12 Kbytes/FPS

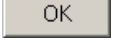
C) Network Saving Mode

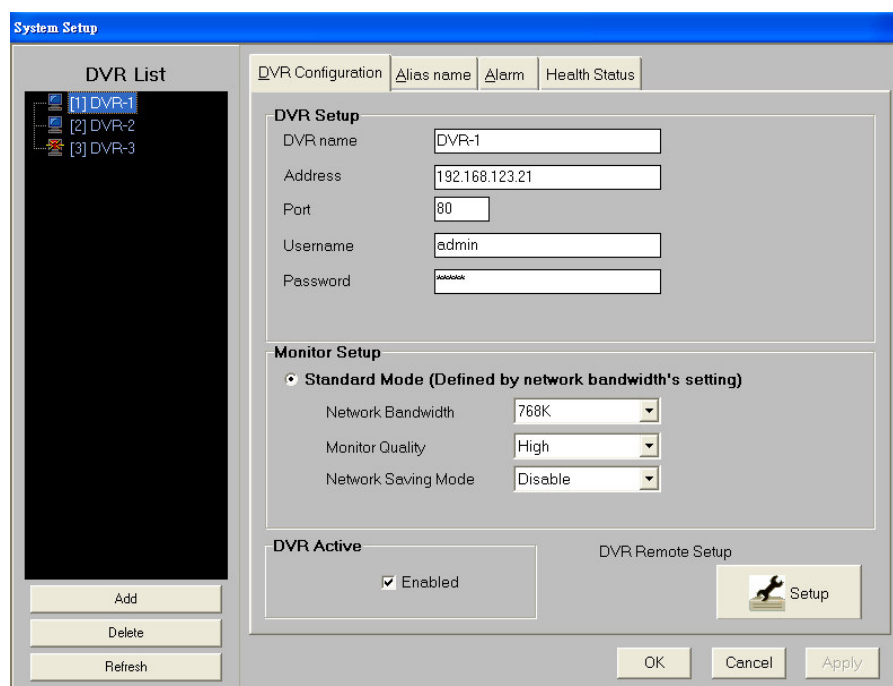
If “Network Saving Mode” is enabled, DVR will only send the video streaming of the channels displayed in the CMS split window to CMS server to save network bandwidth. We suggest to “Enable” Network Saving Mode to save network bandwidth.

D) DVR Active

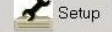
Each DVR has remote monitor function. If you want to execute remote monitor,

please tick “Enable” in the . If you don't need it, please just get rid of the “Enable” button.

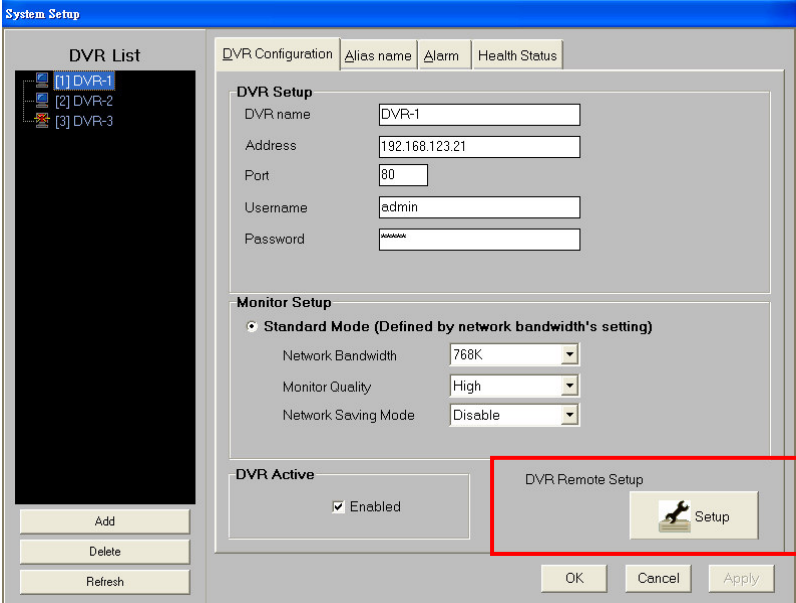
After finishing the setup or modifications, click  button to save the DVR changes.




E)DVR Remote Setup


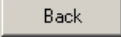
You can click Setup icon  to have the remote DVR configuration in detail.

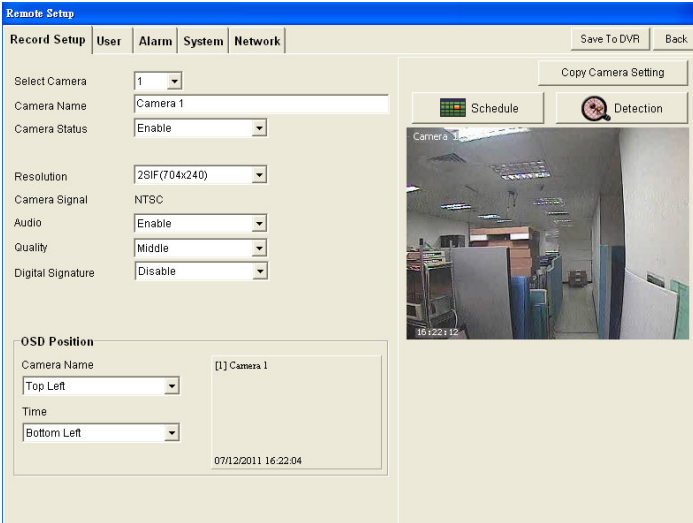
However, you should verify if “Remote Setup” function in DVR site has been enabled. (Please refer to DVR user manual to “Enable” the “Remote Setup” function) All of the remote setup functions are similar to the DVR system configurations.



The screenshot shows the 'System Setup' window. On the left is a 'DVR List' with three entries: [1] DVR-1, [2] DVR-2, and [3] DVR-3. Below the list are 'Add', 'Delete', and 'Refresh' buttons. The main area is titled 'DVR Configuration' and has tabs for 'Alias name', 'Alarm', and 'Health Status'. The 'DVR Setup' section includes fields for 'DVR name' (DVR-1), 'Address' (192.168.123.21), 'Port' (80), 'Username' (admin), and 'Password'. The 'Monitor Setup' section has a radio button for 'Standard Mode (Defined by network bandwidth's setting)' and dropdowns for 'Network Bandwidth' (768K), 'Monitor Quality' (High), and 'Network Saving Mode' (Disable). The 'DVR Active' section has a checked 'Enabled' checkbox. A red box highlights the 'DVR Remote Setup' section, which contains a 'Setup' icon. An arrow points from this icon to the text 'DVR advance setting'.


When you click setup icon , it will show the following screen.

You can have the “**Record Setup**”, Create or Edit “**User**” account, “**Alarm**” setup, “**System**” and “**Network**” setting. Please refer to **DVR User Manual** to have detail setup for each items. After you finish the remote setup, click  button and press  button to exit the remote setup mode.

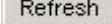



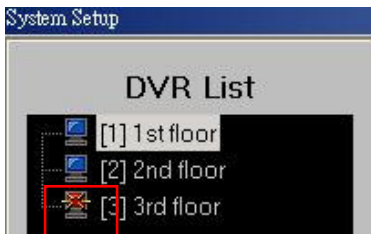
The screenshot shows the 'Remote Setup' window with tabs for 'Record Setup', 'User', 'Alarm', 'System', and 'Network'. The 'Record Setup' tab is selected. It features a 'Copy Camera Setting' button and 'Schedule' and 'Detection' icons. The 'Record Setup' section includes: 'Select Camera' (1), 'Camera Name' (Camera 1), 'Camera Status' (Enable), 'Resolution' (2896(704x240)), 'Camera Signal' (NTSC), 'Audio' (Enable), 'Quality' (Middle), and 'Digital Signature' (Disable). The 'OSD Position' section includes 'Camera Name' ([1] Camera 1), 'Top Left' and 'Bottom Left' dropdowns, and 'Time' (Bottom Left). A live camera feed is shown on the right with the timestamp '07/12/2011 16:22:04'.

- **Delete Remote DVR**

You can also delete any remote DVR controlled in CMS. Just select the DVR in “DVR List” and then click  button.

- **Refresh remote DVR**

After modifying DVR configurations, you can click **Refresh**  button to update the configurations. CMS will keep the latest setup status automatically. If there is any remote DVR disconnected, the system will show it as disconnected status  in DVR List.



4-3-1-2 Alias Name

You can click the button of “Alias name” to set up Alias name for camera, DI and DO. After you enter alias name for each camera, DI and DO, click “Apply” to save the names that you have set up.

Set up Alias Name

Setup Alias name for Camera/DI/DO

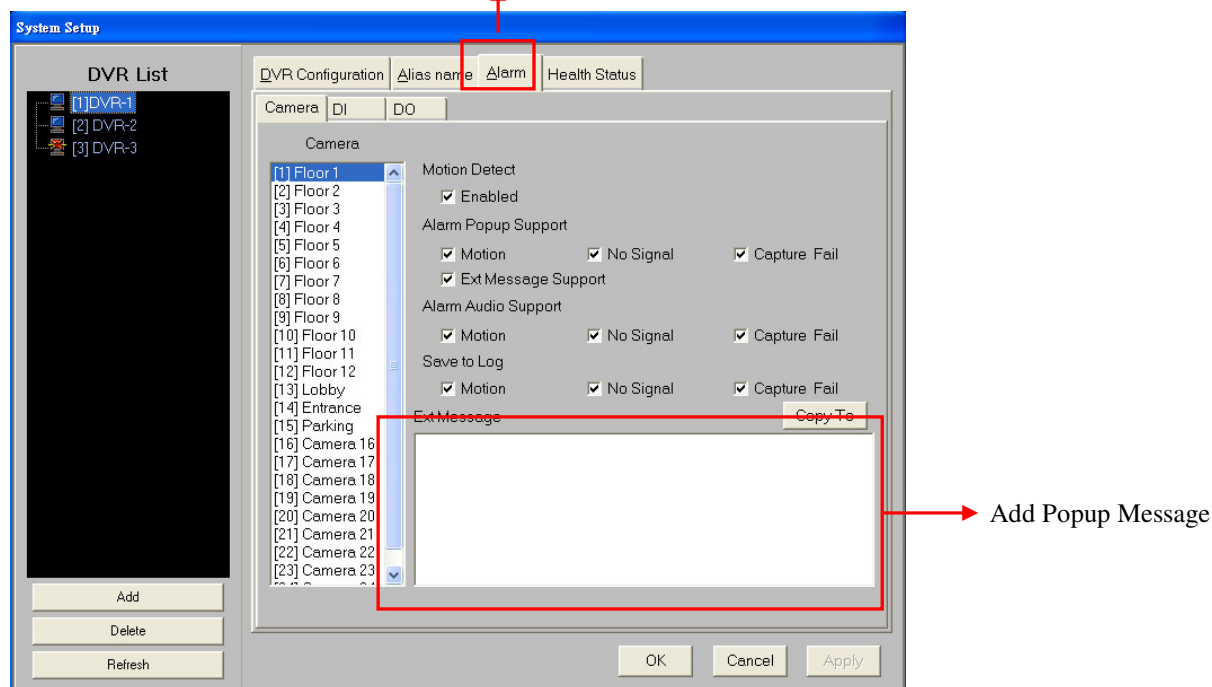
Enter Alias Name for each camera

CAM NO.	Name	Alias Name
1	Camera 1	Floor 1
2	Camera 2	Floor 2
3	Camera 3	Floor 3
4	Camera 4	Floor 4
5	Camera 5	Floor 5
6	Camera 6	Floor 6
7	Camera 7	Floor 7
8	Camera 8	Floor 8
9	Camera 9	Floor 9
10	Camera 10	Floor 10
11	Camera 11	Floor 11
12	Camera 12	Floor 12
13	Camera 13	Lobby
14	Camera 14	Entrance
15	Camera 15	Parking

4-3-1-3 Event Activation

CMS provides two kinds of alarm notifications, “Alarm Popup” and “Alarm Audio” when the events are activated from Camera, DI and DO.

Event Activation



■ Camera Event configuration:

- Motion Detect:
 - ✓ Enabled
- Alarm Popup Support
 - ✓ Motion
 - ✓ No Signal
 - ✓ Capture Fail
 - ✓ Ext Message Support

Once video recorder detects motion, no signal or capture fail, CMS server will pop up message to remind “Administrator” for quick response.

You can define “Popup message” in “Ext Message column”, for example, contact information, address, etc.

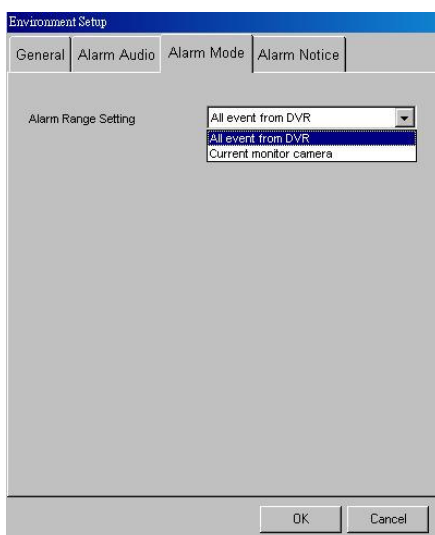
- Alarm Audio Support
 - ✓ Motion
 - ✓ No Signal
 - ✓ Capture Fail

Once video recorder detects motion, no signal or capture fail, CMS server will trigger alarm audio to remind “Administrator” for quick response.

You can define the alarm audio when the event occurs. Go to the “Environment Setup”(Please refer to the 4-3-2 CMS Environment Setup) and click “Alarm Audio” to set up the alarm audio.



You can also set up the Alarm Mode. The alarm configuration are applied for “All event from DVR” or “Current monitor camera”



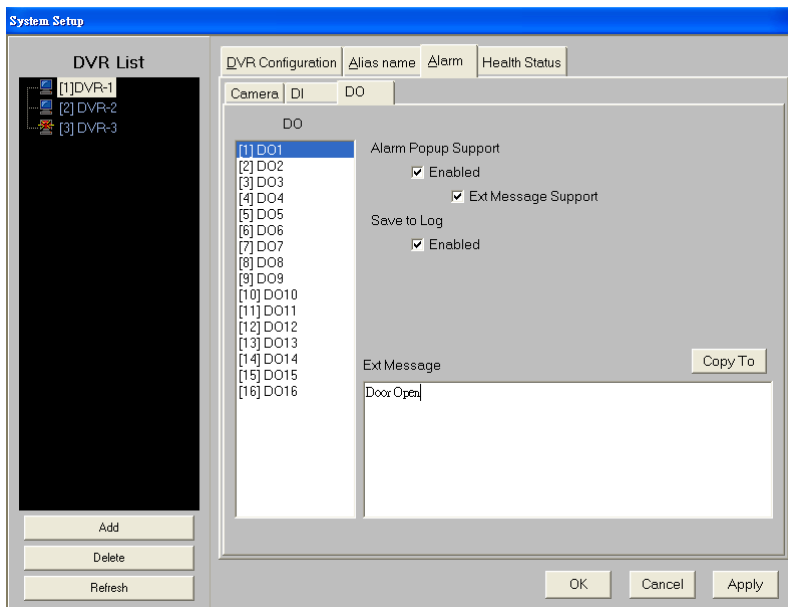
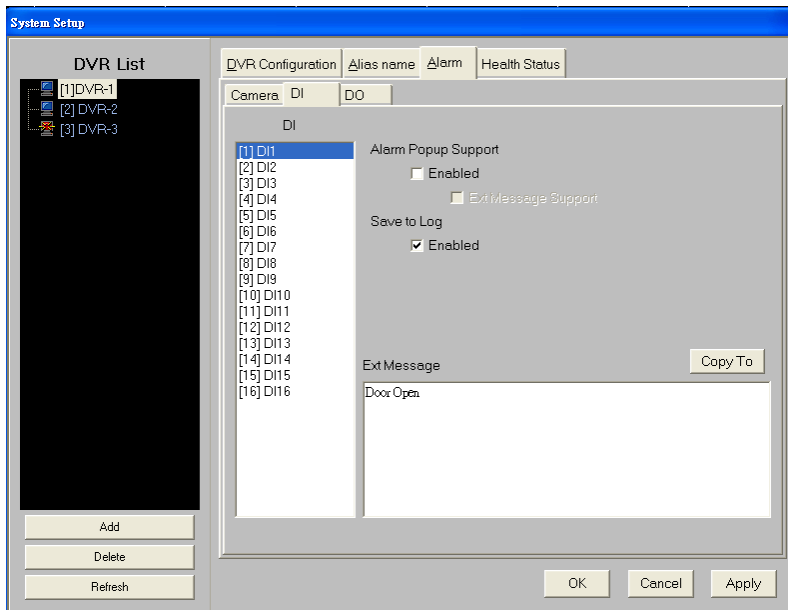
- Save to Log
 - ✓ Motion
 - ✓ No Signal
 - ✓ Capture Fail

Save the events to Log so that Administrator can look up any time.

■ **DI/DO Event configuration:**

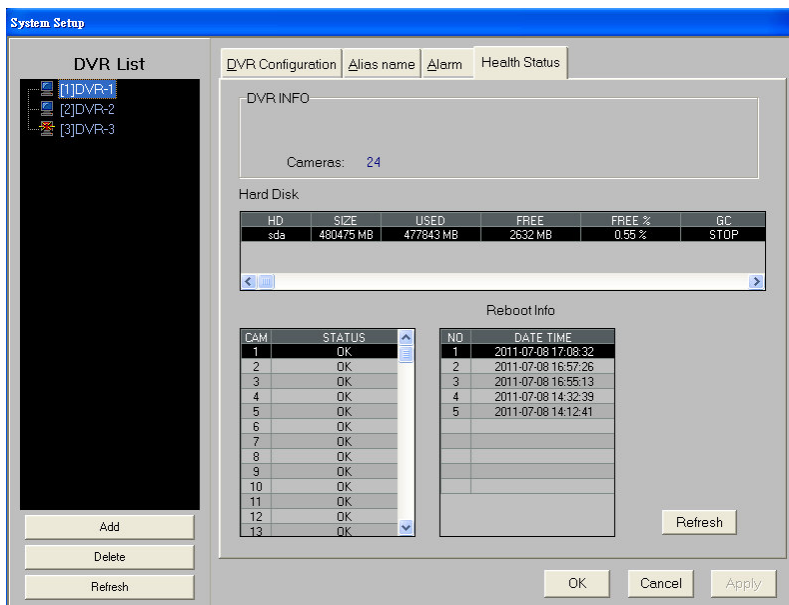
- Alarm Popup Support:
 - ✓ Enabled
 - ◆ Ext Message Support
- Save to Log
 - ✓ Enabled

CMS can show “Alarm pop message” and save the event to the log when DI or DO is triggered.



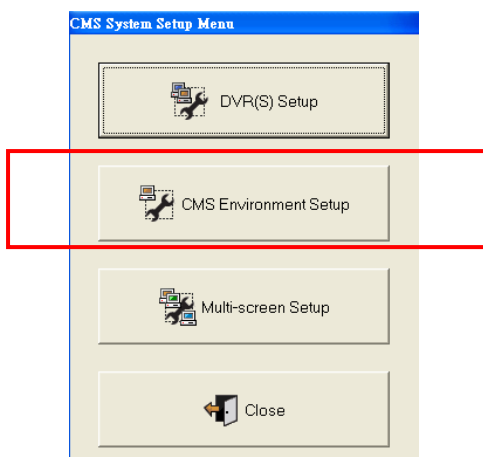
4-3-1-4 Health Status

CMS Server can remotely check health status of video recorders including HDD status, camera status and system status.

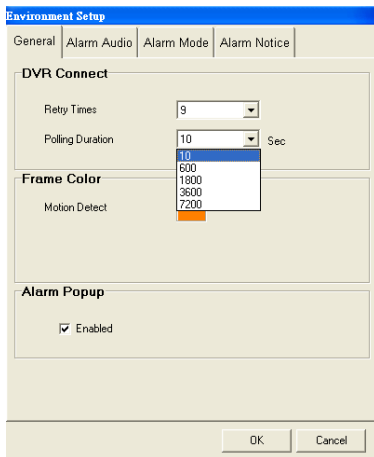


4-3-2 CMS Environment Setup

When you click the setup icon , you can see the following Setup menu.



Click “CMS Environment Setup” to do CMS Environment Setup.



4-3-2-1 General Setting

- **DVR Connect**

- A) Retry Times**

When DVR is disconnected, CMS will reconnect to DVR with the retry times set here.

- B) Polling Duration**

Set the duration for each reconnection from 10 sec to 7200 sec.

- **Frame Color**

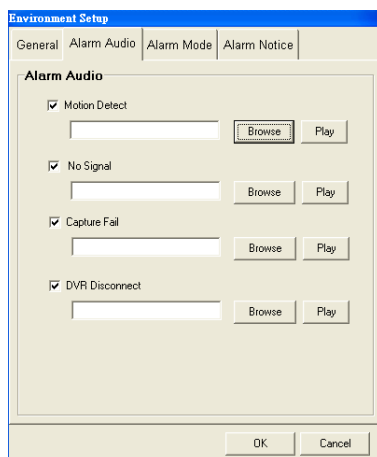
When DVR detects motion, the frame of the motion channel in CMS will be marked with the color set up here.

- **Alarm Popup**

Enable or disable “alarm popup” function.

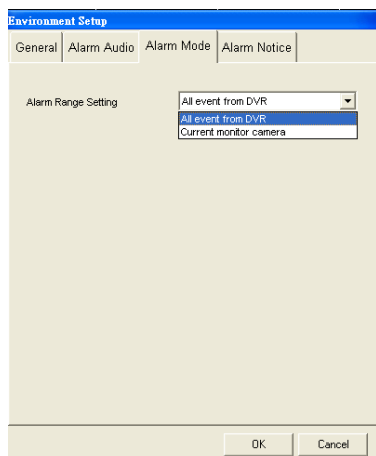
4-3-2-2 Alarm Audio

You can set up playing different alarm audio when CMS receiving events from DVR including Motion detect, No Signal, Capture Fail and DVR Disconnect. The file format of alarm audio should be “.wav”.



4-3-2-3 Alarm Mode

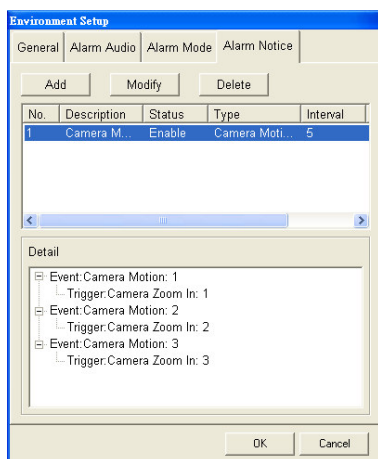
You can set up CMS alarm popup and alarm audio triggered by “All events from DVR” or just by “Current Monitor Camera”.



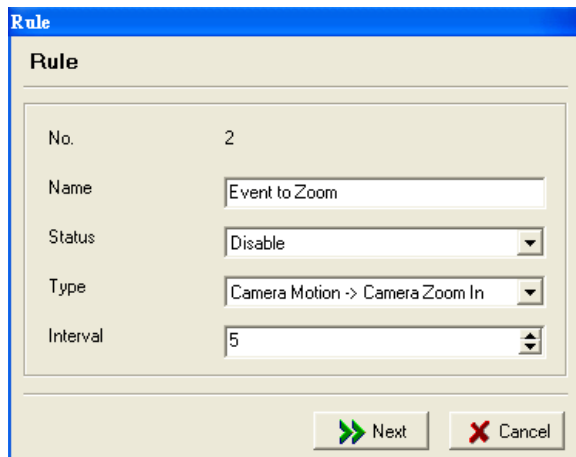
4-3-2-4 Alarm Notice

Before you activate “Event to Zoom” function, you should have the “Alarm Notice” configuration in CMS Environment setup menu. Please refer to Chapter 4-6 Event to Zoom.

- A) Click “Alarm Notice” tab to set up “Event to Zoom” function.



- B) Click “Add” button to add “Event to Zoom” rule and it will show the setting menu as below.

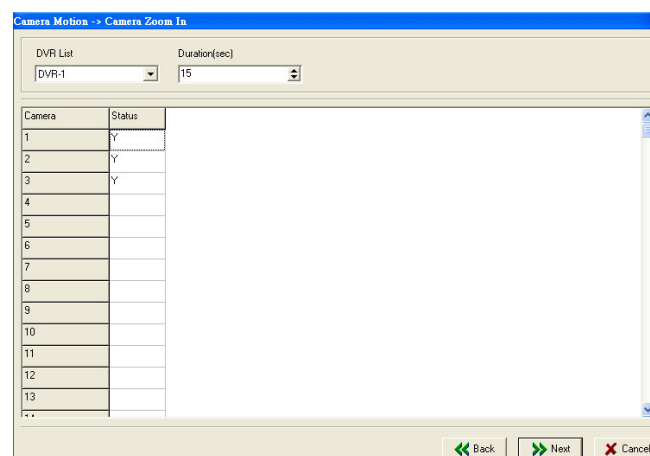


- Rule No: Automatically assigned by CMS
- Name: Define rule name
- Status: Enable Event rule
- Type: Event includes Camera Motion and DI(Alarm) Triggered. When CMS receives the notices of Motion or DI triggered from DVR, it will zoom in the alarm picture to the selected monitor according to the Event Rule.
- Interval: The interval that Rule is activated again by the same Event.

C) After finishing the previous step and click “Next” step, it will show the detail Event Setting menu as below.

- Camera Motion->Camera Zoom in

If you set the Event type as “Camera Motion->Camera Zoom in” in previous step, it will pop up the menu as below.



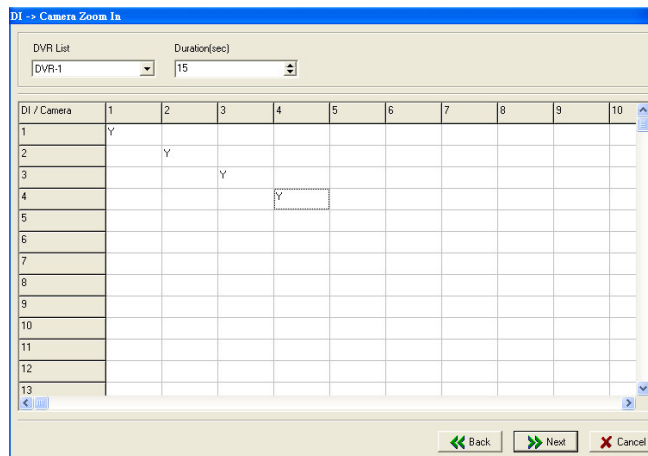
Camera	Status
1	Y
2	Y
3	Y
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
...	

- DVR List: In the field of “DVR List”, select any DVR that CMS receive the Camera Motion notice from and will trigger “Event to Zoom” function.

- Duration Time: Set the duration of zooming-in motion picture to the screen.
- Camera Status column: Click any cell in the camera status column to enable DVR “Camera motion” to trigger zooming in selected camera motion picture to CMS selected monitor.

In the same Event rule, you can set motion cameras from different DVRs to trigger Zooming function. What you need to do is once you finish one DVR settings, you can select another DVR in the field of “DVR list” and repeat the step of enabling the selected camera status.

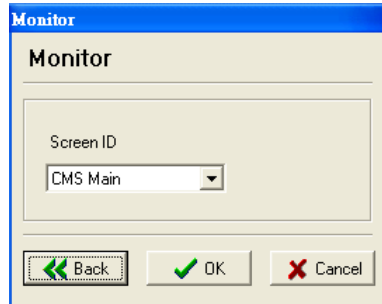
- DI>Camera Zoom in
If you set the Event type as “DI->Camera Zoom in” in previous step, it will pop up the menu as below.



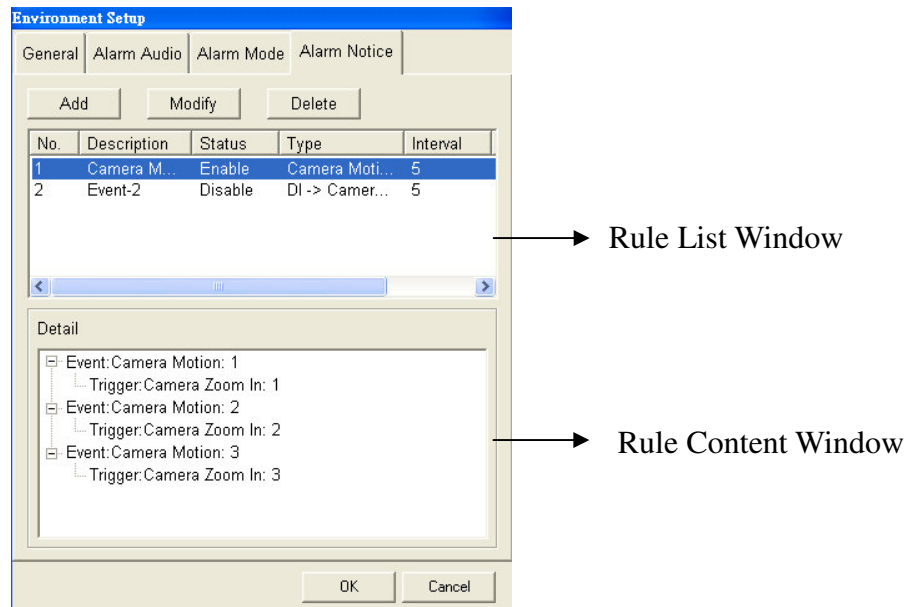
- DVR List: In the field of “DVR List”, select any DVR that CMS receive the alarm notice from and will trigger “Event to Zoom” function.
- Duration Time: Set the duration of zooming-in alarm picture to the screen.
- DI/Camera Status table: Click any cell in the DI/camera Status table to enable DVR “ alarm (DI)” to trigger zooming in selected camera picture to CMS selected monitor.

In the same Event rule, you can set selected “alarm (DI)” to trigger zooming in selected camera picture from different DVRs. What you need to do is once you finish one DVR setting, you can select another DVR in the field of “DVR list” and repeat the step of enabling the selected DI/Camera status.

- D) Assign the display monitor: Then, you can set the display monitor for the triggered Event. Please refer to Chapter 4-3-3 “CMS Multiple Screen Setup”. When you click the field of “Screen ID”, it will show the CMS monitor list. Select any monitor for the Event rule and click “Ok” tab.

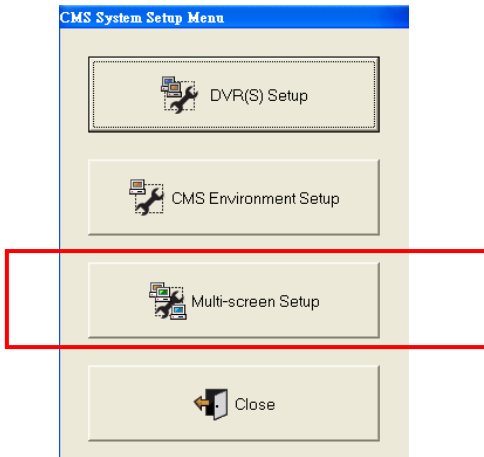


Then, you can see the Event Rule in the Rule List Window. Click any Rule in Rule List Window and the detail rule content will list in the Rule Content Window as below.

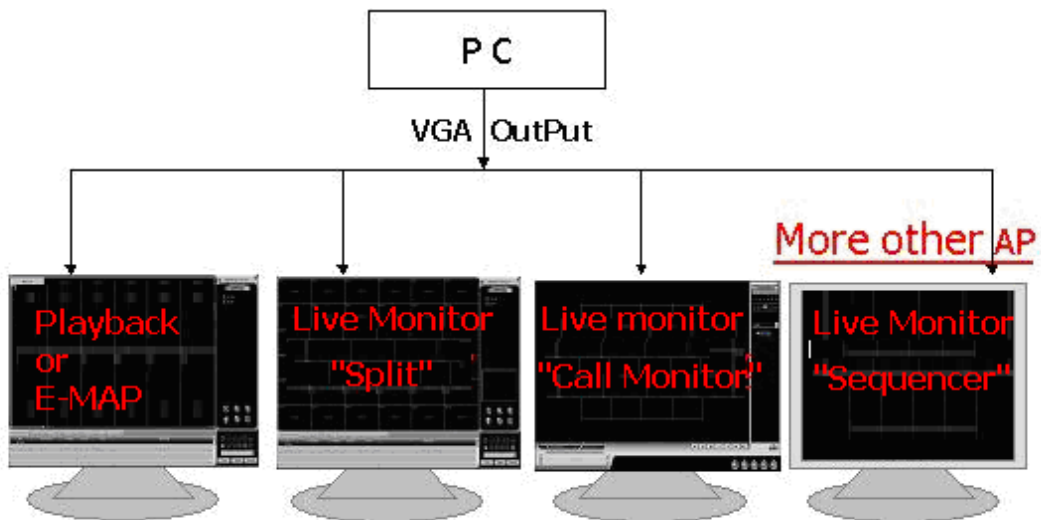


4-3-3 CMS Multiple Screen Setup

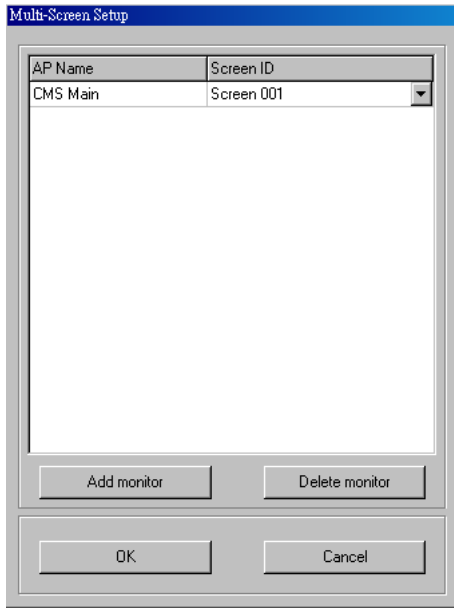
When you click the setup icon , you can see the following Setup menu.



CMS Server supports the function of multiple monitor displays and the max number of display screens is 16. From the picture below, you can see that you just need to use one PC system running one CMS software but can display different CMS screens in different monitors. To make this function works, you need to install VGA card with multiple outputs. The number of outputs of the VGA card that you install depends on the number of monitors that you want to have.



Click **“Multi-screen Setup”** tab to start to set up Multiple Display function and it will show the window as below.

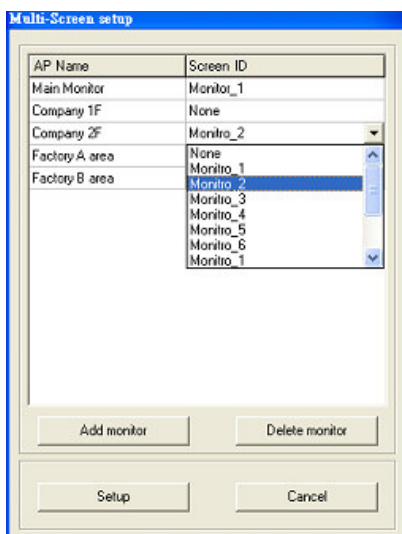


Click “Add monitor” and it will pop up a dialog box to let you set up the name of CMS applications which you want to display on the monitor.



Then, all of CMS application you add will be listed in the left column of the menu as below.

By clicking any cell in the left column of the menu, you can assign the CMS application to the Monitor. The number of monitors listed in the menu will depend on the VGA card installed in CMS server.




After finishing the multiple screen setup, you can see CMS applications displayed in multiple screens. Because each CMS application is independent, you can separately operate it to different mode according to your requirement.

Note:

- **We only support VGA card with Nvidia chipsets.**
- **E-MAP & Playback monitor is either one and can be only activated in main monitor.**

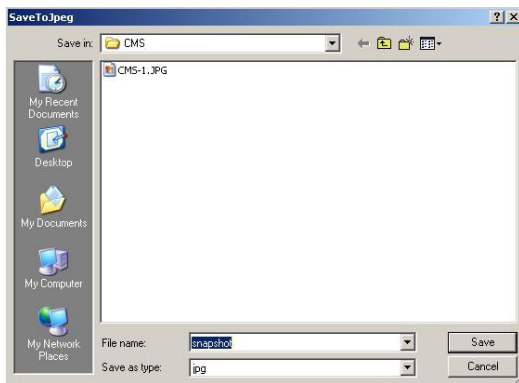
4-4 Snapshot



When clicking the left button of the mouse on the snapshot icon , you can capture the image of whole screen.




Click “Save” and it will show the following dialog box. Select the folder you want to save the Snapshot picture and click “save”. The file is JPEG format.



4-5 Full Screen



Click the “Full Screen icon” , you can enlarge any monitor to full screen. If you want to go back to main monitor screen, please press the “Space” to get back.

4-6 Event to Zoom



When Event to Zoom function is activated, the camera live image will be popped up to the CMS screen when CMS server detected the events from DVRs There are two modes for Event to Zoom. One is Event

By clicking the icon of “Event to Zoom”, it will show two types of Event to Zoom for selecting. One is Event to Zoom (Auto) and the other one is Event to Zoom (By Rule).

- Event to Zoom(Auto)

When CMS server detects any DVR channel with event (motion or DI trigger), it will pop up the live image to the split window. The latest

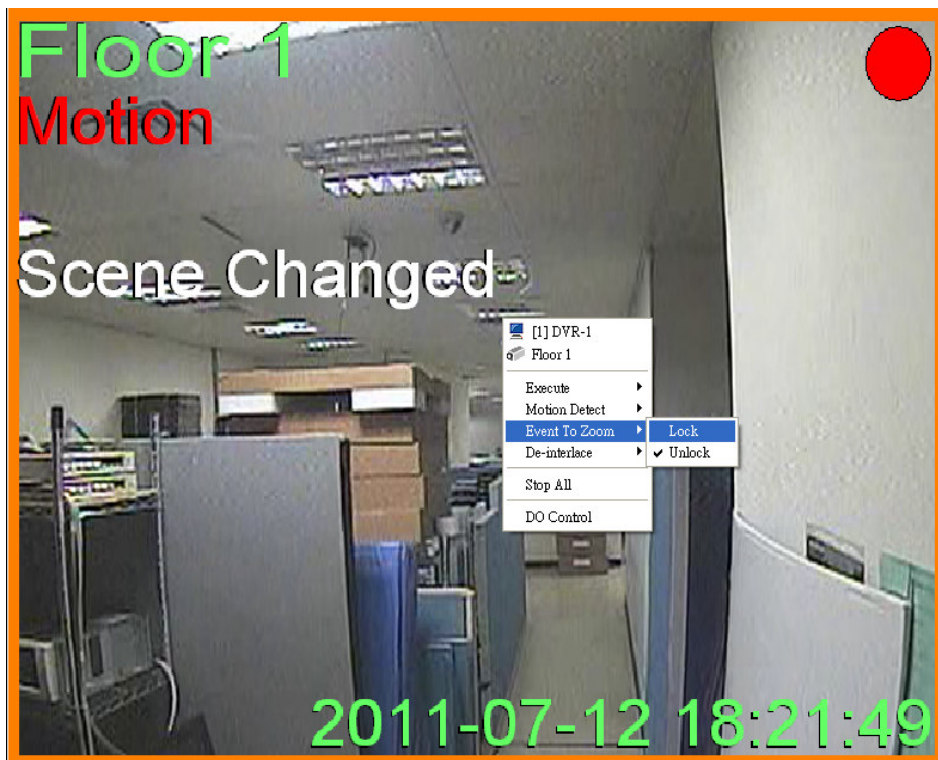
- Event to Zoom(By Rule)

When you select “Event to Zoom(By Rule), CMS server will pop up live image to the monitor according to rule set in “CMS Environment Setup”. Please refer to Chapter 4-3-2-5 Alarm Notice. There are 1 single channel, 4- split and 8- split modes for selection.

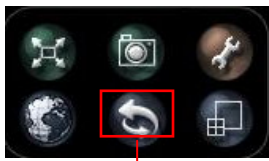
When you click “8-split mode”, it means CMS can simultaneously show eight

Events in the monitor. You can also click “Full Screen” icon to enlarge the Event Zooming picture to full screen.


By clicking right button of the mouse on any channel, it will show a display setting menu as below. Click “Event to Zoom” and click “Lock”. The selected channel will keep to be displayed in the screen until you click “unlock” function.

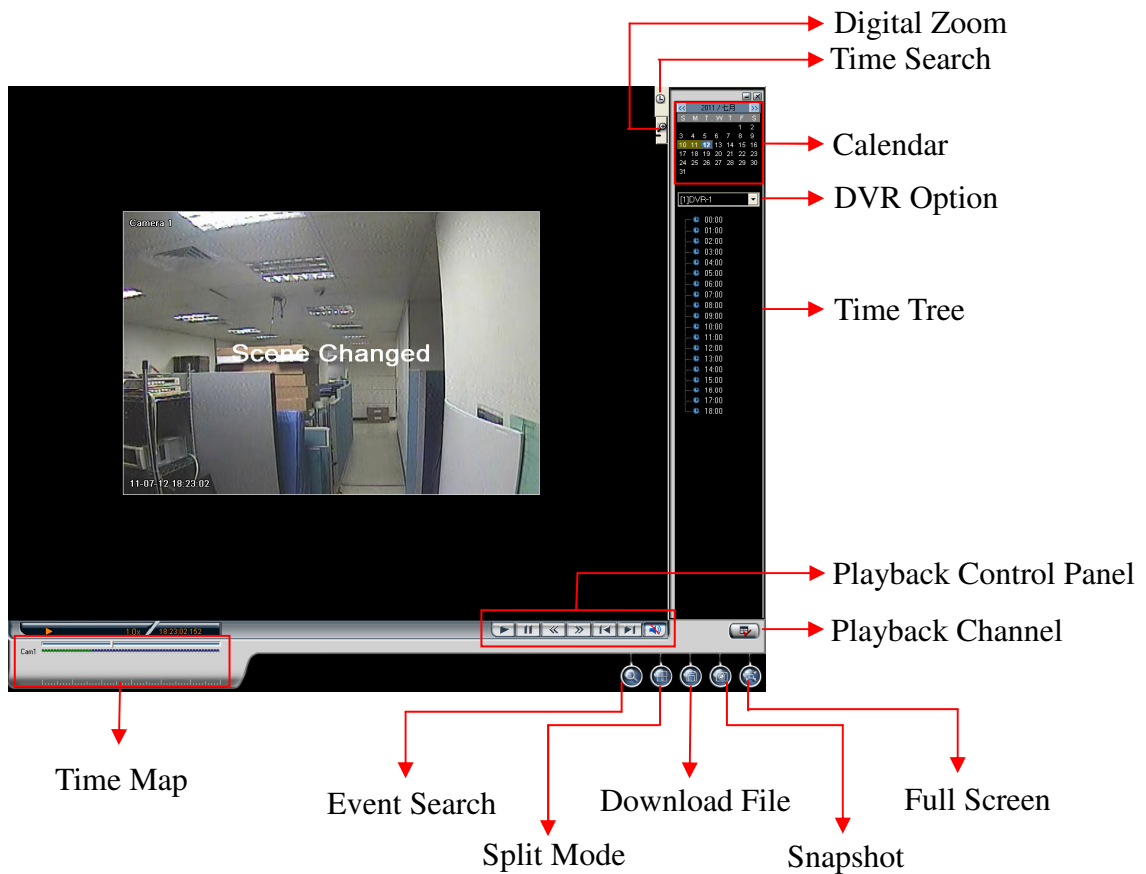


4-7 Playback





Playback

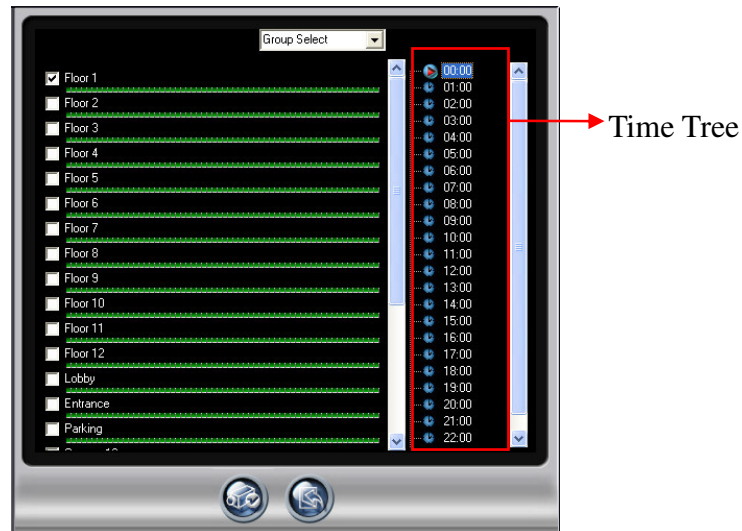
If you want to see the recording video, click the playback button  to see the following screen.




[Start to Playback]


- (1) Select a date on the calendar.
- (2) Click  button to select playback split mode. There are 1, 4 and 16 channel split modes.

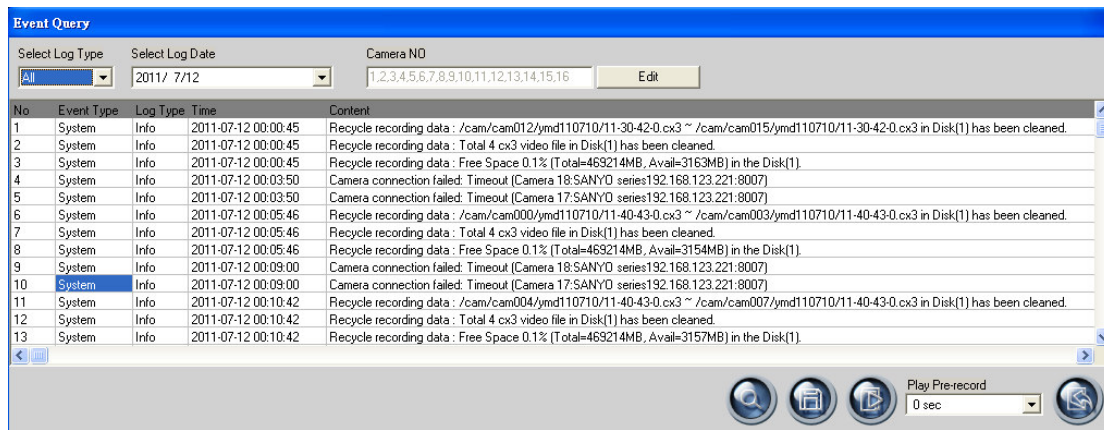
- (3) Click  button to select the playback channels and it will show the following Window for selecting the playback channels. You can individually tick the cameras for playback. After selecting the playback channels, select the time slot of the video data in the “Time Tree window”. In the “Time Tree Window”, it will list all of the time slots with recorded video files.



- (4) Click  to save the configuration and start to playback according to the new configuration.
- (5) CMS V1.62 and above version supports playing the recording data recorded in the Daylight saving time. If the recording data recorded in the daylight saving time, it will be marked a star ★ symbol in the right side.

[Event Search]


Besides searching the video data via time criteria, you can also search the video data according to DVR event criteria by clicking “Event Search”  button. The event search types include “System”, “Device” and “POS” events and you can refer to the definition of each event type in DVR User Manual.




(1) **Step 1: Select Event Type:** Include “All” event, “System” event, “Device” event or “POS” event.

(2) **Step 2: Select Event Date:** Select the Event date for searching the video data.

(3) **Step 3:** Set the pre-recording duration of the video data for playing.


(4) **Step 4:** Click “Search”  icon to start the Search and all of the events fit the search criteria will be listed in the search window.



(5) **Step 5:** Click any event log in the search result window and the “Camera No” option will be visible for selection. You can click “Edit” tab to change the playback channel.

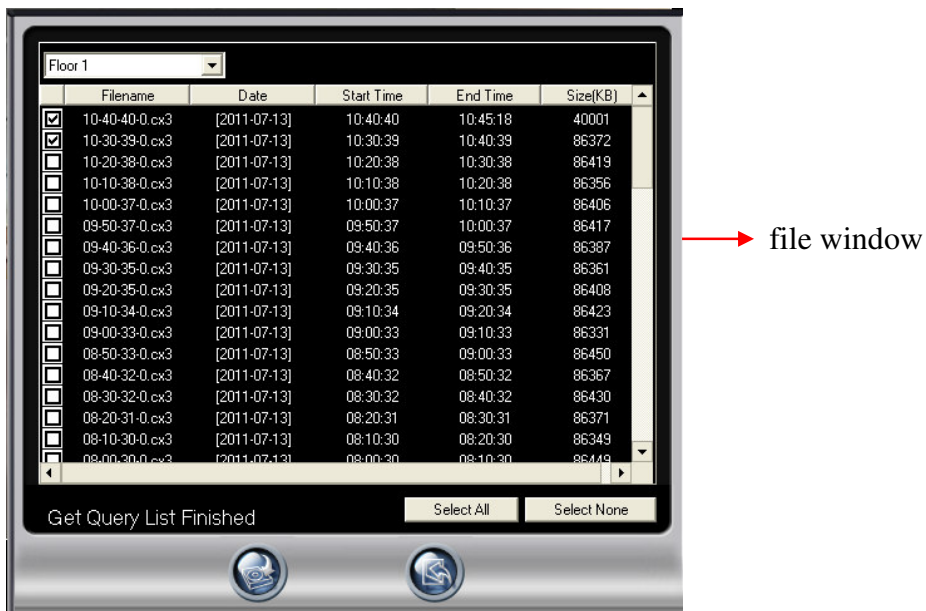
(6) **Step 6:** Click “Save”  icon to save the event logs to a file as txt file format.

Or you can select any event log and click “Playback”  icon to start to play the video data of the selected event.




[Download Files]

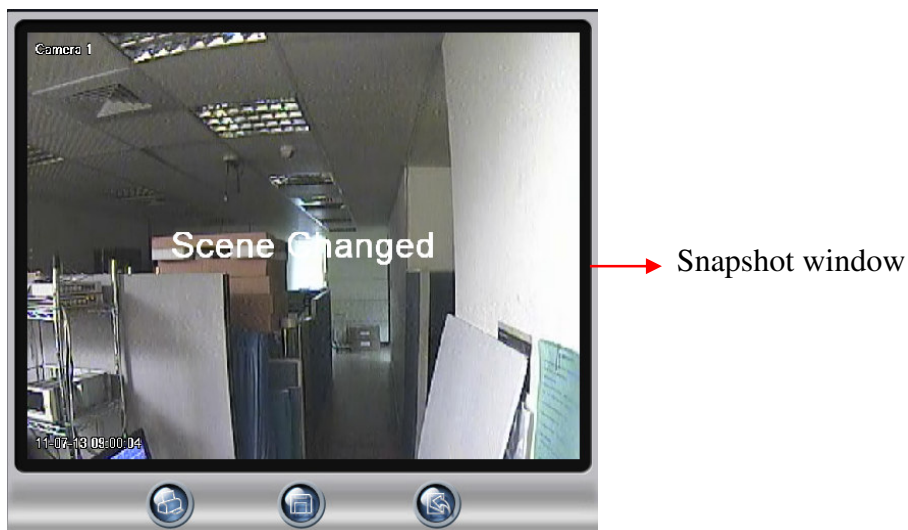
Click  button to download files and the following “File Window” will appear. It will list all of the video files in selected day. Tick any file for download or click “Select All” to quickly select the download files. After finishing the selection,

click  button to start to download files or click  to exit to playback main window.



[Snapshot]



Click  button to show the **Snapshot Window**. If you don't want to print or save certain picture, you just click on that channel to "Hide" the screen. You can click the channel again to "Show" the screen. Click  button to print the snapshot pictures per channel per sheet by 320*240 resolution or click  button to save the snapshot pictures as JPEG files.

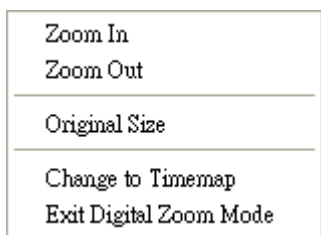


[Digital Zoom]



Playback Digital Zoom function only works on single channel mode. Double click any split channel in CMS playback window and the digital Zoom control panel will show up in the right side of CMS playback monitor as below.




There are two ways to Zoom in and Zoom out image. One is directly select any Zoom value from 100% to 1600% in the control panel. The other one is clicking “Zoom in”  tab in control panel and click any place of image in the playback window step by step to zoom in camera image from 100% to 1600%. You can see the zoom-in area in preview window marked in red frame. By moving the cursor, you can change the zoom in area. On the contrary, you can zoom out the image by clicking “Zoom out”  tab and click any place of image in the playback window step by step. By right clicking the mouse in the playback window, it will pop up a control menu as below.




Below is the description for each function.


Function	Description
Zoom in	Like clicking “Zoom in”  tab in control panel to start to zoom in image.
Zoom out	Like clicking “Zoom out”  tab in control panel to start to zoom out image.
Original Size	Back to the original size
Change to Timemap	Show the time tree at right side of playback window for selecting
Exit Digital Zoom Mode	Back to the multiple split mode


[Definition of the Icons]

 Start to play the video


 Pause


 Rewind Speed (–): To reduce the playback speed (0.5X, 0.2X and 0.1X).


 Forward Speed (+): To increase the playback speed (1.5X, 2.0X, 4X and 8X).

 Previous 1 min: To rewind 1 minute.

 Next 1 min: To forward 1 minute.


 Playback with audio. This icon is only enabled in single channel playback or digital zoom.


 Playback event search

 Select playback split mode (1, 4 and 16 channel split)

 Save video clips (Download files)

 Save JPEG files (Snapshot)

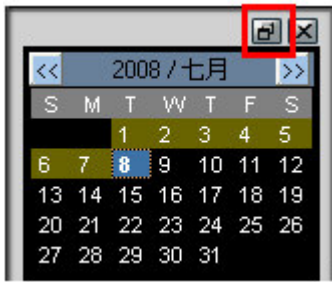
 Enlarge to full screen


 Select playback channels.

 Digital Zoom

 Time Search

[Minimize Playback Window]



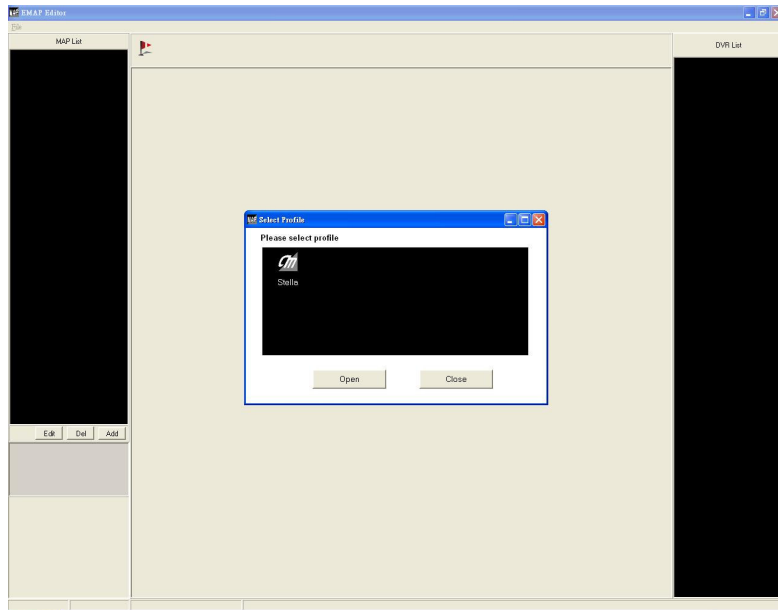
By clicking the upper right button  of the Playback window, you can minimize the Playback window as the Playback icon showed in the bottom of Window desktop. You can click the icon to back to the Playback widow.

4-8 E-MAP



EMAP

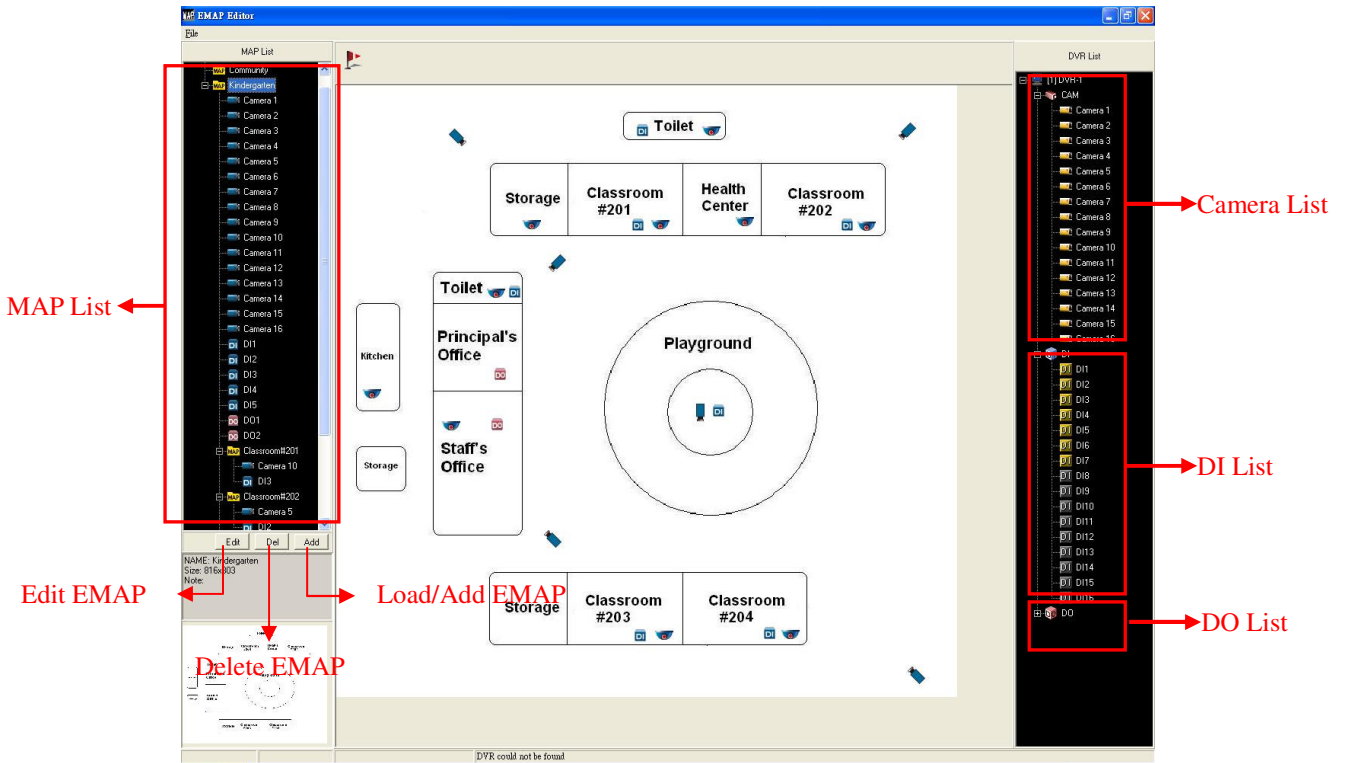
Before you start to enable the EMAP function in CMS, you need to create EMaps in EMAP Editor. Click “Start” on your Windows taskbar, select “Programs” and then find the folder of “Central Manager”. In this folder, please click the “E-MAP Editor” to open the EMap editor and it will show the following dialog box.



Please select the CMS User Profile with EMAP function and enter the password to open the EMAP Editor (Only the administrator is authorized to create the E-MAP). Once you set up the EMAP profile in the EMAP Editor, you can start to use EMAP function in CMS manager. You just click EMAP icon in the CMS main menu.

4-8-1 EMAP Editor


When you successfully open the EMAP Editor, you can start to build up EMAP. EMAP Editor provides the functions that enable user to set up the locations of Cameras in the E-Map to help the administrator to have the connection between camera and Map. The MAP supports hierarchy structure and can let administrator easy to manage the remote cameras and DVRs.

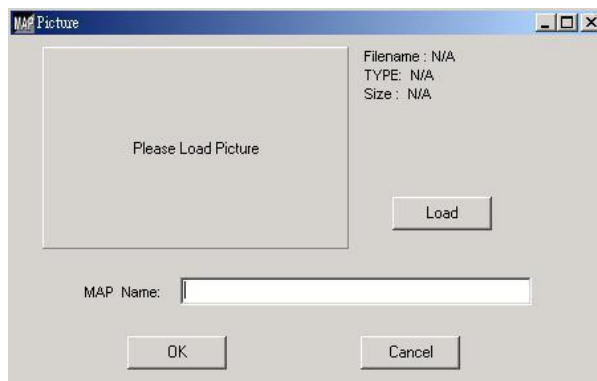



- **EMAP Format**
 - ✓ Map should support JPEG or BMP format.
 - ✓ The size of map should not exceed 1024*768.

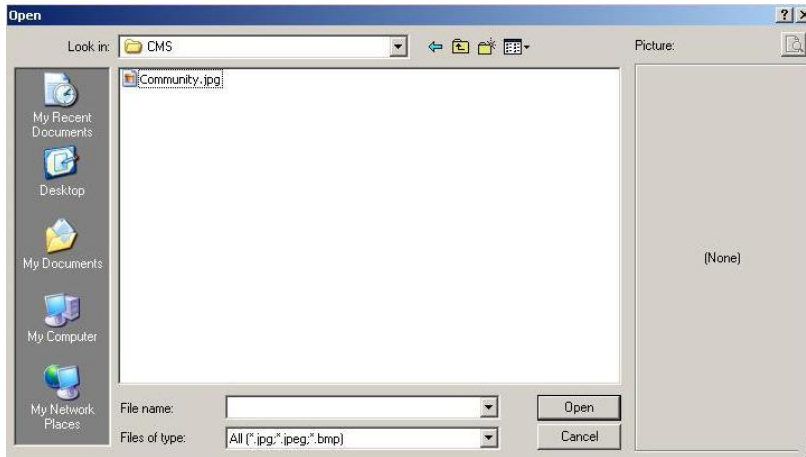
- **Create EMAP**

Step 1 Load/Add EMAP:

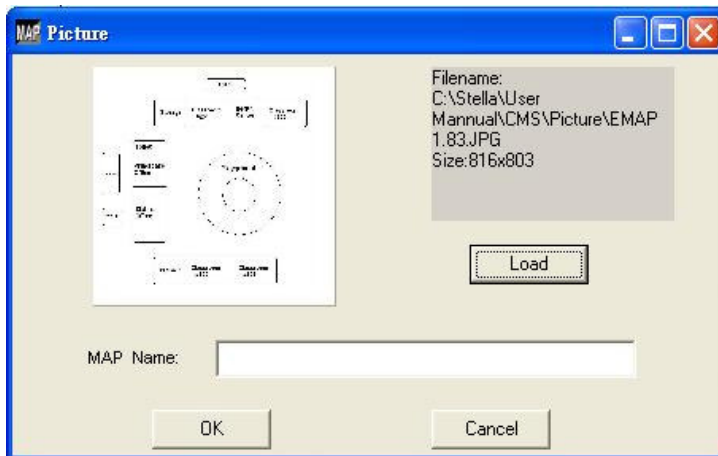
Click “Add” icon  to load MAP into the E-MAP Editor and it will show the following dialog box.



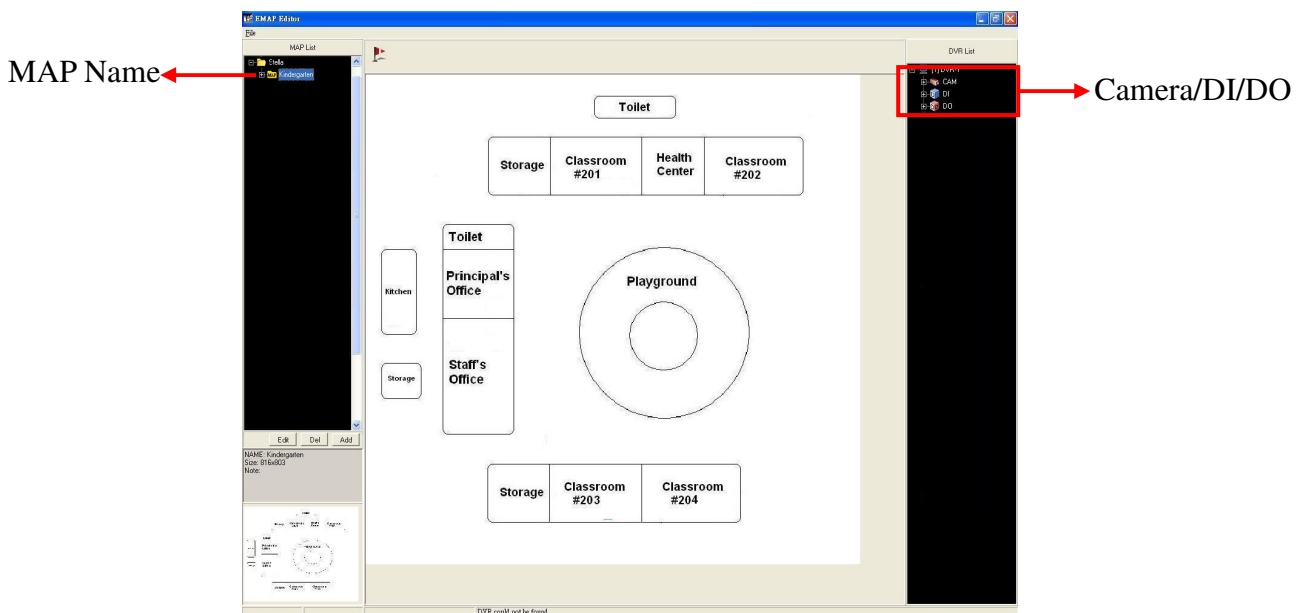
Click “Load” icon  and it will show the following dialog box. Select the MAP you want to **Load** and click open.



You can see the MAP in the Preview Window. Enter the MAP Name and click OK.



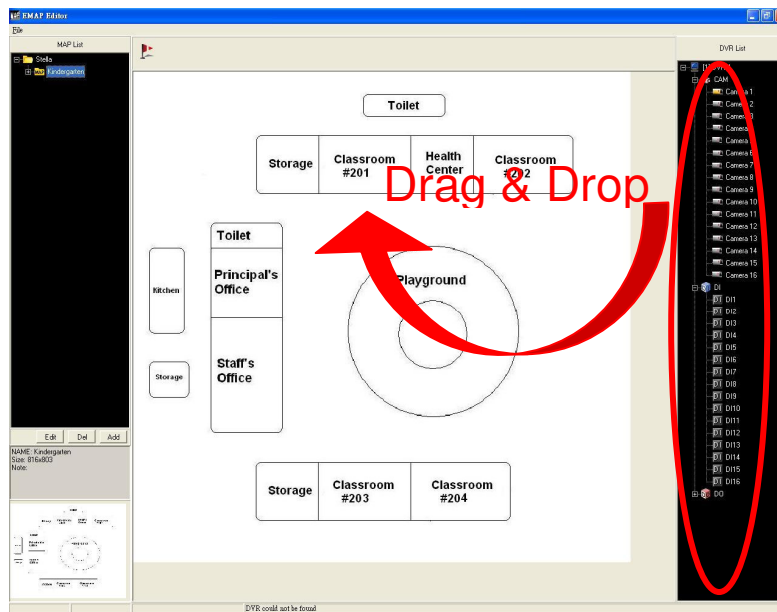
Then, you can see the MAP loaded into the EMAP Editor, the MAP name in the MAP List and Camera, DI and DO devices in DVR List Window. .




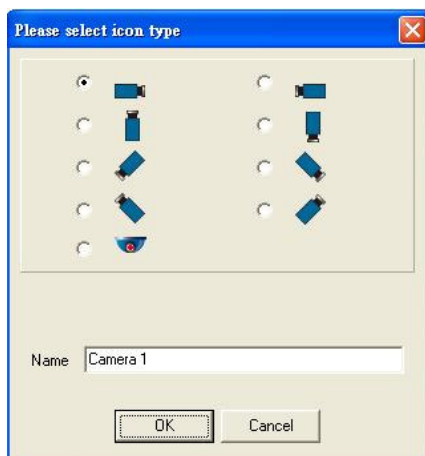
Step 2 Add Cameras/DI/DO in the MAP

Click icons of “+” in front of the camera, DI and DO devices in DVR List Window and all of the devices connected to this DVR will be listed.

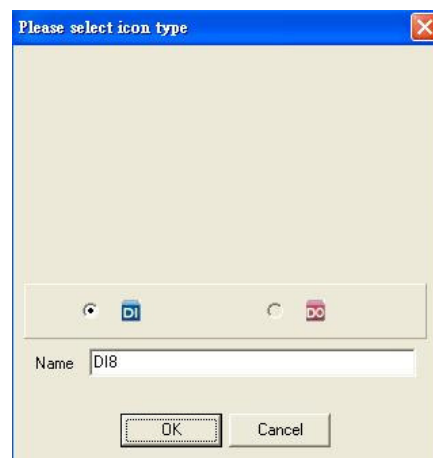
By “Dragging and Dropping” any camera, DI or DO icon from the DVR List window to the MAP and it will prompt the dialog box below to ask you to select the camera or DI/DO icon that will show on the MAP.



There are 8 camera direction types and you can select any type according to the direction you want to show in the MAP. If it is PTZ camera, you can select  icon.

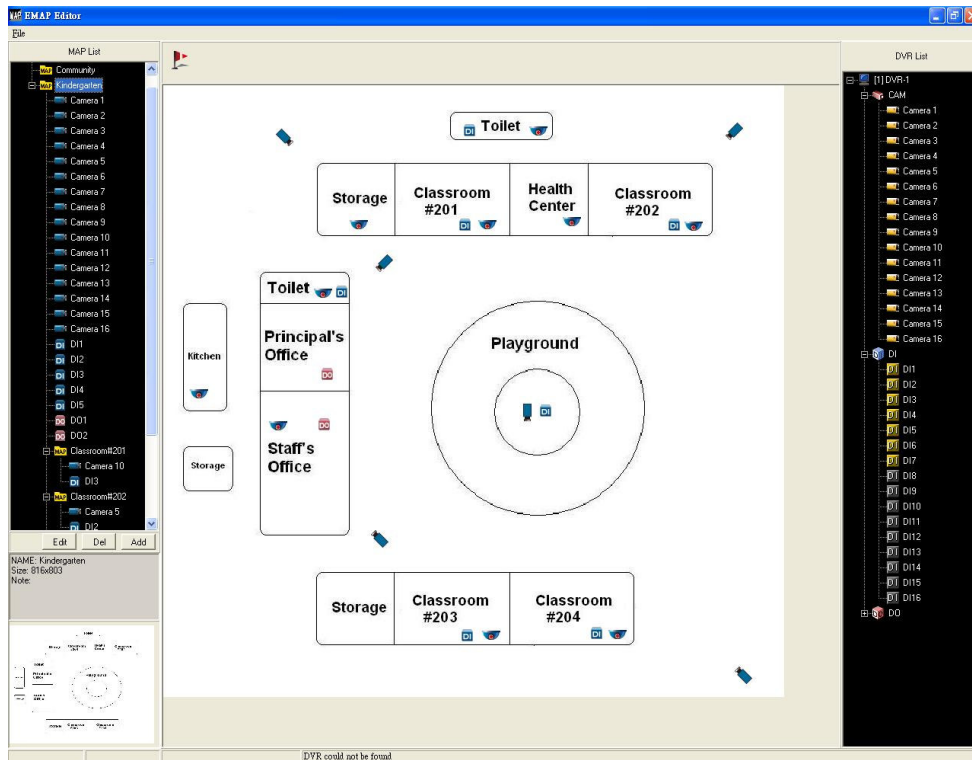


Camera



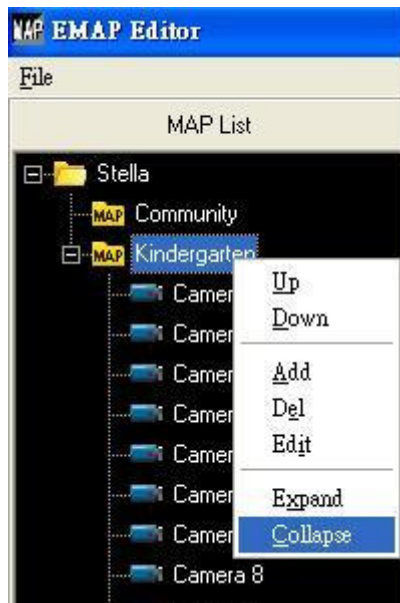
DI/DO

You can also adjust camera location in the MAP by just dragging the camera icon in the place you want to put.



The camera, DI and DO devices put on the MAP will be listed in the MAP List Window. MAP List is managed in Tree View. You can click “Edit”, “Del” or “Add” button on the bottom of MAP list window to edit, delete or add MAP.

You can also click the left button of mouse on any MAP in MAP List window, it will pop up a menu as below,



Function	Description
Up	Move up the MAP
Down	Move down the MAP
Add	Add a new MAP under this MAP
Del	Delete MAP
Edit	Edit MAP. You can edit MAP name or reload a new MAP.
Expand	List all of camera, DI or DO devices in this MAP
Collapse	Hide the list of the camera, DI or DO devices in this MAP

!	<p>Note</p> <ul style="list-style-type: none"> • Camera, DI and DO icons shown in gray color mean that camera, DI and DO devices are not put in MAP yet. • If you change the installation of DVR channels or alarm IO channels in DVR side during editing the E-MAP, you should be back to CMS main menu and do “ Refresh connecting” by clicking right button of mouse to get update devices (Camera or Alarm device) shown on the E-Map Editor.
---	--

Step 3 Save the EMAP

Once you finish the EMAP configuration, please make sure to save the settings by


clicking the “Save” in the “File” menu and click “Exit” to close the EMAP Editor.

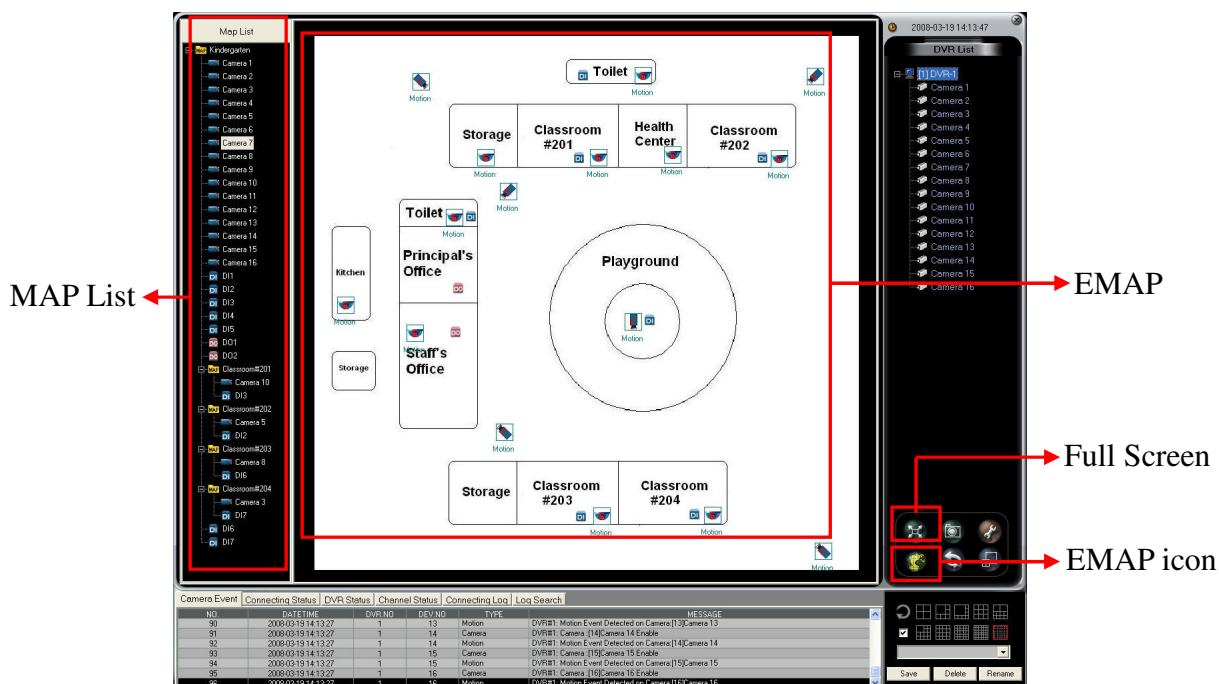


4-8-2 EMAP Operation


After finishing EMAP configuration, please open and login to Central Manger system.

- Activate EMAP


Click the EMAP icon  in the CMS to activate the EMAP function and you can see the following screen.




There are three statuses of cameras shown on the camera icons as below,

 (Event) : DVR detects camera events of Motion, Mask or No signal.

 (Disconnect) : Camera is disconnected.

 (Connecting) : Camera is connecting.

You can directly click any camera icon shown on the MAP and CMS will immediately pop up a window to show that camera screen as below.



Click  icon to snapshot the video screen. You can select “ Print” to print the snapshot screen or select “ Save” to save it as a file.

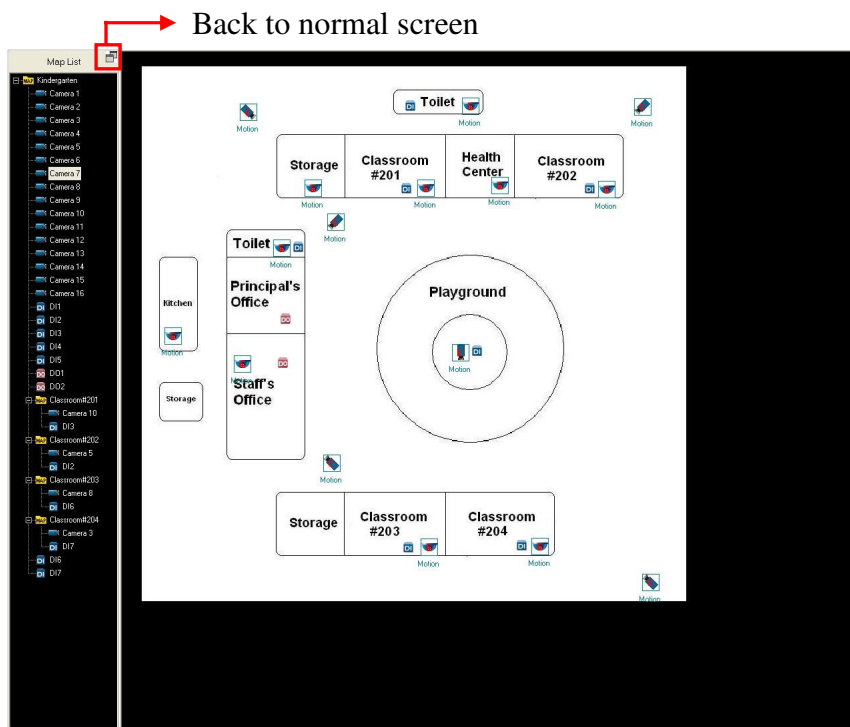


Snapshot ←

→ Close

- EMAP in Full Screen

If you want to enlarge EMAP to full screen, just click full screen icon  and the EMAP will be enlarged to Full screen as picture below. If you want to back to normal screen, just click the  icon on the up-right side of MAP List window.

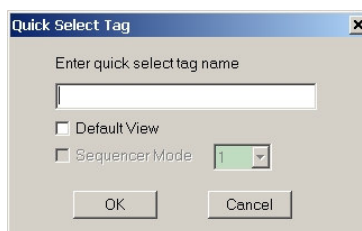


4-9 Quick Select Tag

User can define the configuration of Quick Select Tag from the ten options. It means that the selected split windows for each DVR and camera at any split mode can be saved for next time use. With this Quick Select Tag, you can switch to split window fastest and more convenient.


4-9-1 Save Quick Select Tag

You can save your own Quick Select Tag by clicking **Save**. Then, enter the name of the Quick Select Tag in the following dialog box. and press “OK” to finish saving.




You also can select “Default View” in advance, and you can use the selected option whenever you initialize the CMS and Auto-Login.

4-9-2 Delete Quick Select Tag

If you want to remove the unnecessary selected options, please select the Quick Tag you want to delete on the combobox, and press  to delete the Tag.



4-9-3 Rename Quick Select Tag

You can click Rename icon  to rename the name of Quick Select Tag.

4-10 Log System Status Window

You can see the DVR status from the Log System Status Window.

NO.	DATETIME	DVR.NO	DEV.NO	TYPE	MESSAGE
192	2005-12-16 18:35:17	2	16	Motion	DVR#2: Motion Event Detected on Camera:[16]cam 16
193	2005-12-16 18:35:24	2	11	Motion	DVR#2: Motion Event Stop on Camera:[11]cam 11
194	2005-12-16 18:35:26	2	11	Motion	DVR#2: Motion Event Detected on Camera:[11]cam 11
195	2005-12-16 18:35:35	2	16	Motion	DVR#2: Motion Event Stop on Camera:[16]cam 16
196	2005-12-16 18:35:35	2	16	Motion	DVR#2: Motion Event Detected on Camera:[16]cam 16
197	2005-12-16 18:35:39	2	14	Motion	DVR#2: Motion Event Stop on Camera:[14]cam 14
198	2005-12-16 18:35:39	2	14	Motion	DVR#2: Motion Event Detected on Camera:[14]cam 14

- **Camera Event:** show the cameras with motion events.
- **Connecting Status:** show all DVR connecting status.
- **DVR Status:** show DVR status.
- **Channel Status:** show each channel status.
- **Connecting Log:** show each connecting log.
- **Log Search:** Search the event log

You can query the events according to time, event type, time, camera and DVR.

Camera Event	Connecting Status	DVR Status	Channel Status	Connecting Log	Log Search
From	2005/12/16	下午 12:00:00	Server	[1]DVR-1	
To	2005/12/16	下午 11:59:59	Camera	[1]cam 1	
Type	Camera Motion Event Log		<input type="checkbox"/> Only monitored	GO	

Set up Event type, Time, Camera and DVR and click “Go” to list all of the event logs which are within the conditions you set up.

Select one of the event log and click “**Playback**” to playback the video of this log

which you query directly.

The screenshot shows a 'Query Log' window with a table of event logs. The table has three columns: 'Date Time', 'Event Type', and 'Message'. The data rows show motion events detected and stopped on 'Camera:[1]cam 1' at various times on 2005/12/16. A 'Playback' button is highlighted with a red box, and a red arrow points to it from the right. Below the table, there is a 'TOTAL COUNT: (1/19)' label and a set of navigation buttons including 'Refresh', 'Previous', 'Next', and 'OK'.

Date Time	Event Type	Message
2005/12/16 下午 06:40:06	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:40:06	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:39:47	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:39:46	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:38:25	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:38:26	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:38:15	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:38:16	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:38:06	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:38:05	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:34:36	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:34:36	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:34:12	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:34:11	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:33:56	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:33:57	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:30:35	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1
2005/12/16 下午 06:30:34	DVR	DVR#2: Motion Event Stop on Camera:[1]cam 1
2005/12/16 下午 06:29:41	DVR	DVR#2: Motion Event Detected on Camera:[1]cam 1

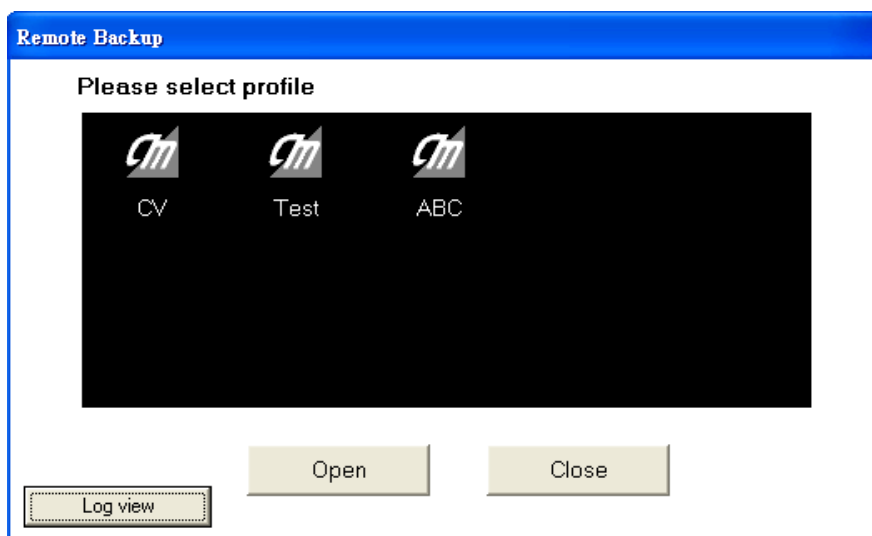
Select the log and
click playback

4-11 Central Backup

CMS **Central Backup** function enables administrator to back up local DVR files from remote side. Administrator just needs to select the camera, time and storage device and then can execute backup.

4-11-1 Execute Central Backup program

Click “Start” on your Windows taskbar, select “Programs” and then find the folder of “Central Manager”. In this folder, please click the “**Central Backup**” to execute backup program and it will show the following dialog box.

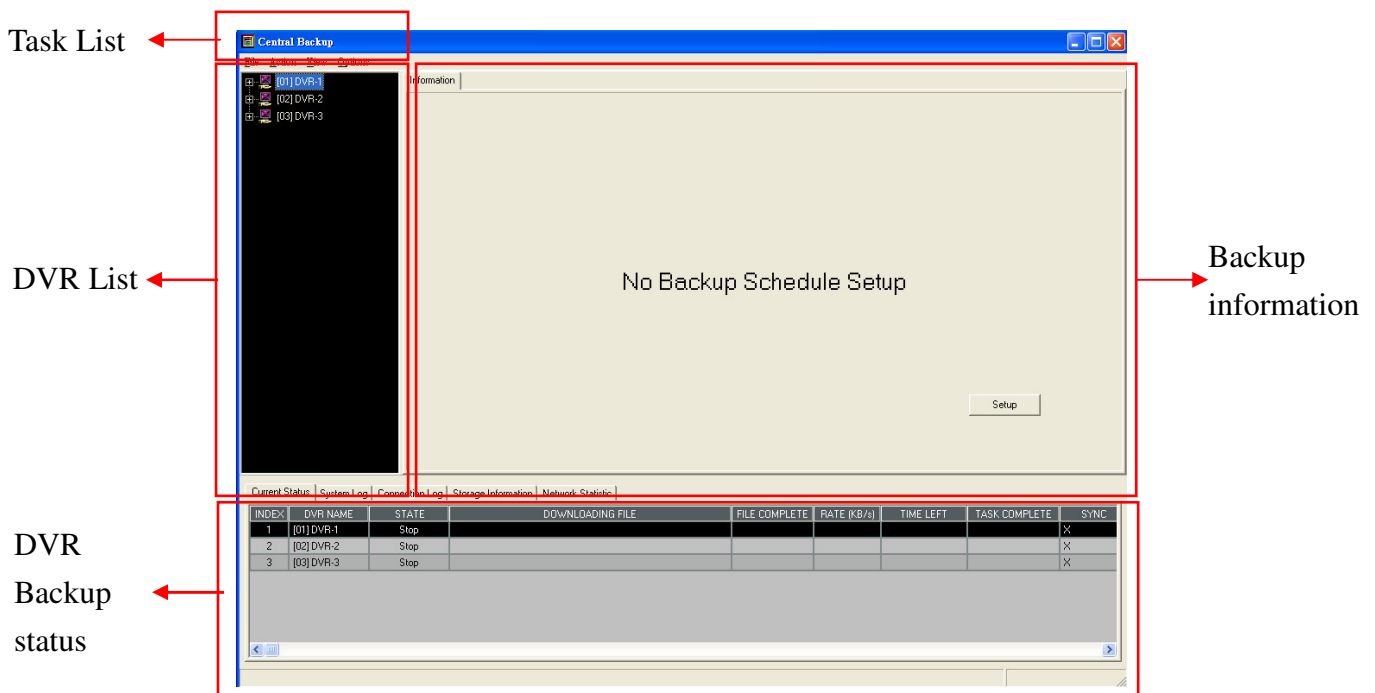


- Log in

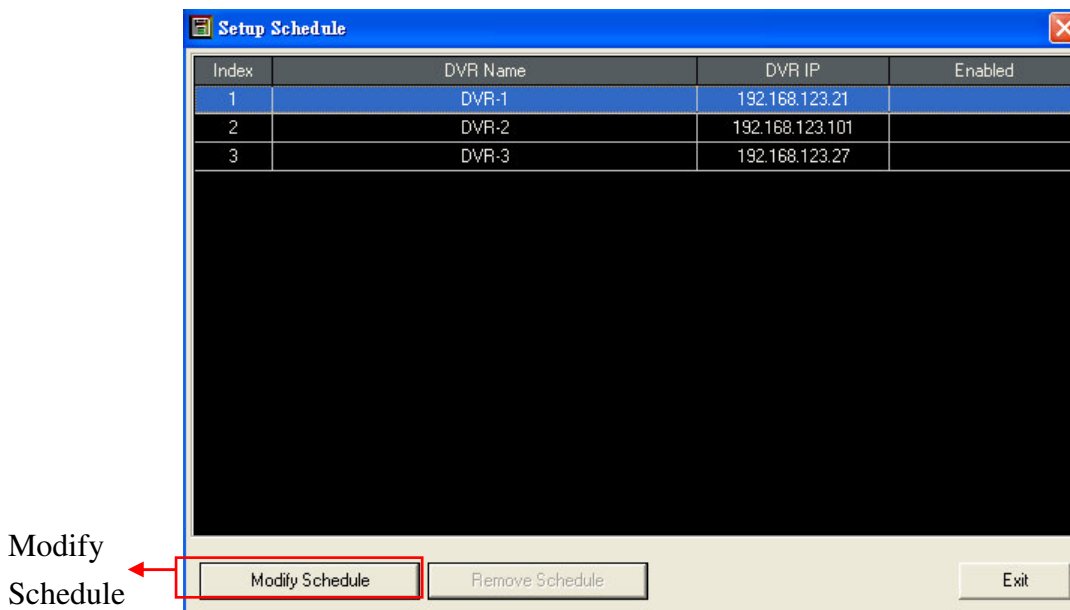
Please select the CMS User Profile which you want to execute the backup. Because only administrator has the authority to back up DVR files, please open the User Profile by entering administrator’s password to login to the **Central Backup**.

4-11-2 Set up Backup Schedule

If DVR in the DVR list isn’t scheduled for backup, it will show “**No Backup Schedule Setup**” in the left window of “**Backup DVR Information**”.



Click “File>Backup Schedule Setup” in task list to start to arrange the DVR backup schedule. It will show the following dialog box. Select DVR to create the backup schedule and click “Modify schedule” in the left bottom of window.



Then, it will show the following window.

- **DVR File List**

Click each camera and it will spread all of the video files naming by date.

- **Backup Camera**

Select the cameras for backup.

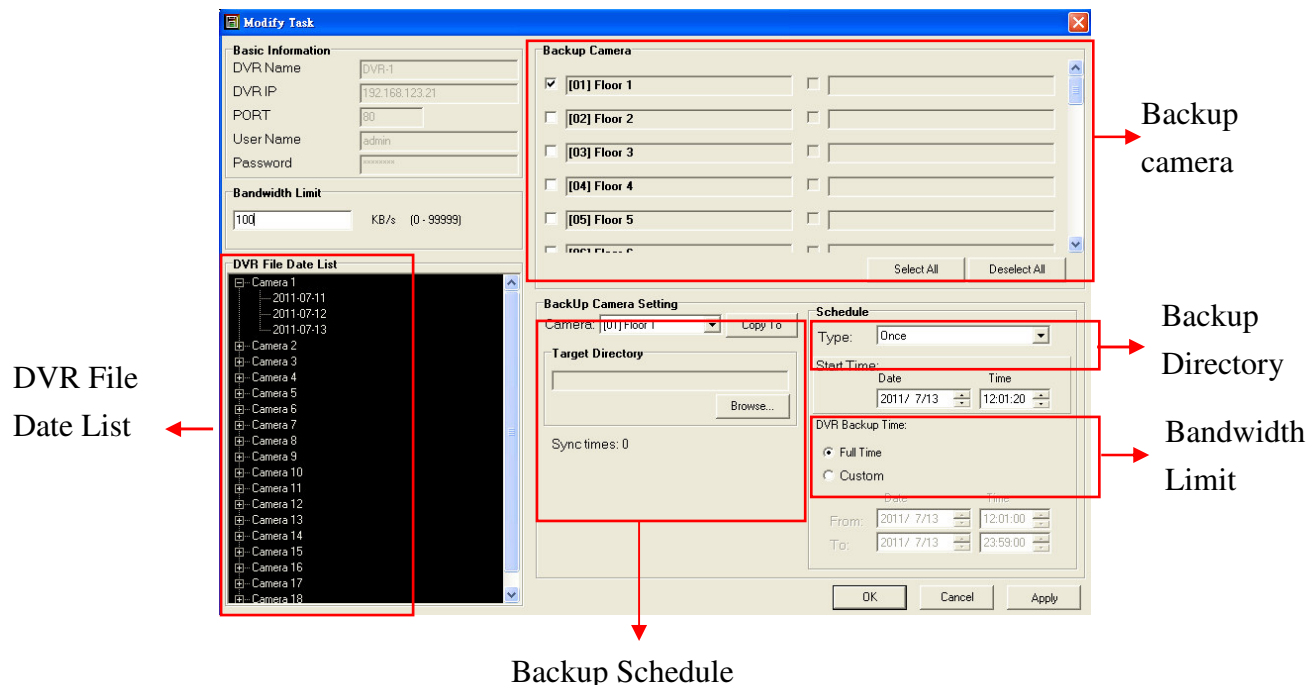
- **Schedule**

There are two types of backup schedule. One is backup by “**Once**” and the other one

is by “Periodical”.

- **Target Directory**

Select the directory to save the files. You can choose the directory of local HDD or the Network Drive(NAS).



- **Bandwidth Limit**

Set up the maximum bandwidth for backup. “0” means no limitation.

4-11-3 Functions in Task list

- **Action>Suspend:** Stop the backup task.
- **Action>Resume:** Restart the backup task.
- **Options>Bandwidth Limit:** Set up the limit of the total bandwidth and the maximum number of downloaded files at the same time.
- **Options>Alarm:** Set up alarm for HDD remaining size. When the remaining HDD space is smaller than the file size set here, the system will send an alarm audio to warn the administrator.
- **Options>Recycling:** Set up the HDD recycling size. When the remaining HDD space is smaller than the size set here, the system will start to do the recycling.
- **Options>Login:** When power fails and you restart the system, it will login by using these setup values.
- **File>Files check:** This function provides you to check backup status.
 - (1) **“Lost”:** Check whether the files that you download are lost. If the files are lost, they will be recorded as **“Lost”**.

- (2) **“Not Found”**: The file has been scheduled to be backed up and backup is not finished. However, you can’t find this file in DVR any more. Then, this file will be recorded as **“Not Found”**.
- (3) **“CRC Error”**: The size of backup file is not the same as the one in DVR. Then, this file will be recorded as **“CRC Error”**.
- (4) **“Recycle”**: Files are successfully backed up but these files are overwritten (Recycle) because the remaining HDD space is not enough. Then, this file will be recorded as **“Recycle”**.

No	DVR Name	Total	Healthy	Lost	Not Found	CRC Err	Recycle
1	DVR-1	751	49	0	0	0	0
Total		751	49	0	0	0	0

Buttons: Check All, Modify, Close

Status: Successful

After finishing the **“Files check”** and finding the incomplete files (Lost, Not Found, CRC Error), the system will show the following dialog box. User can decide to download these incomplete files again or ignore these files. If user decides to ignore these files, the system will not mark them as incomplete file any more when he executes **“Files check”** next time.

Execute

Retry download

Lost File Not Found CRC Error

Delete Status

Lost File Not Found CRC Error

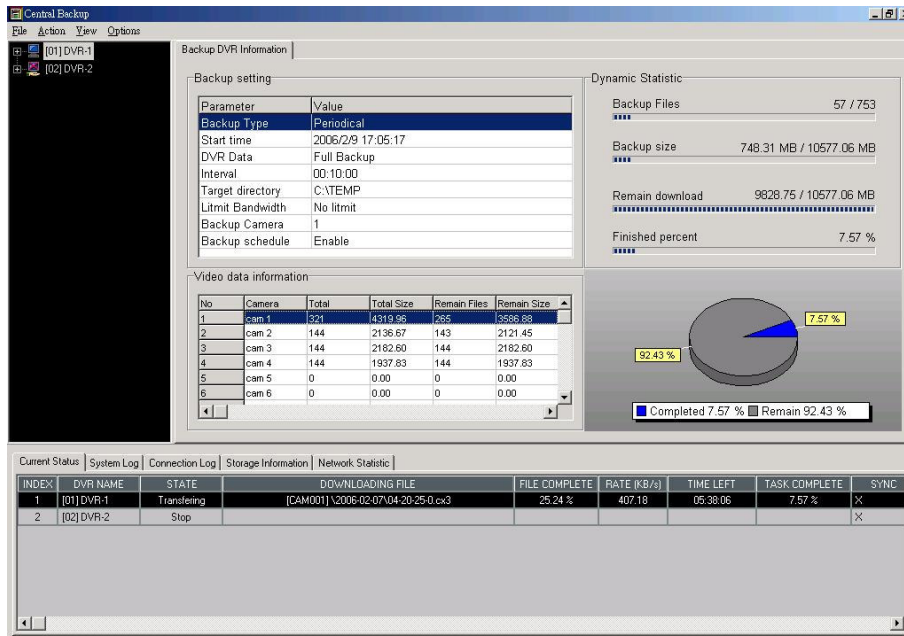
Recycled

OK Cancel

4-11-4 Backup Information

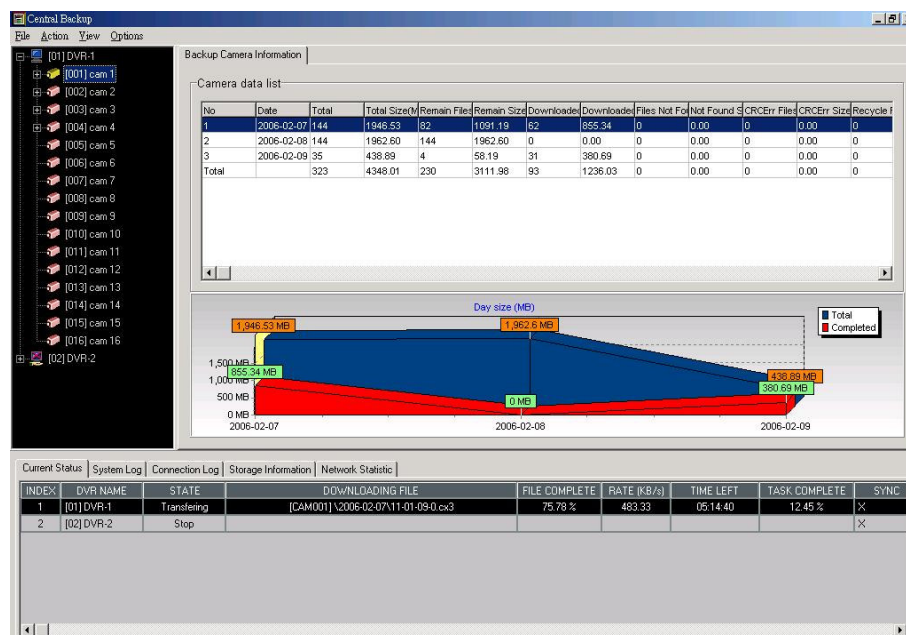
- DVR Backup status

Click any DVR in DVR list to see the total DVR backup status including backup settings, total backup files, backup size and remain sizes as the following picture.



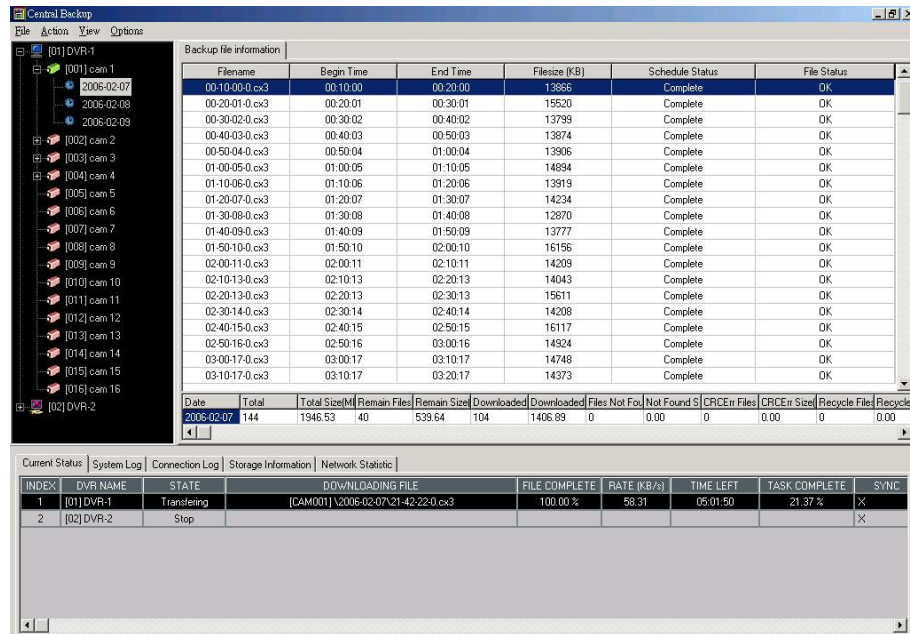
- Camera Backup status

Double click the DVR in the DVR list and it will list all of the cameras connected to this DVR. Click the camera to see the backup statistics of this camera as the following picture.



- File Backup status

Double click the camera in the DVR list and it will list all of the dates with recorded files. Click any date and it will list all of the backup files in this date and the status of backup file.



Double click any file in this backup file list to activate DVR player to play the file. Click the right button of mouse on the file and it will show the directory of the file.

In the column of **Schedule Status**, you can see six types of file backup status.

- (1) Complete: Complete the downloading file.
- (2) Incomplete: File download is not completed.
- (3) Not Found: File can't be found in DVR.
- (4) Deleted: Complete the file downloaded but file has been deleted by user.
- (5) GC: File is downloaded but overwritten due to HDD recycling.
- (6) Wait: File is not downloaded.

- The state of DVR Backup task

In the bottom of window, it provides the various information including Backup Task “**Current Status**”, “**System Log**”, “**Connection Log**”, “**Storage Information**” and “**Network Statistic**”.

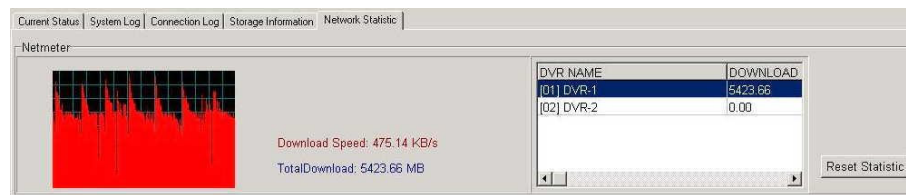
In the “**Current Status**” mode, there are 9 kinds of state in the column of “**STATE**” shown as following picture.

Task state

INDEX	DVR NAME	STATE	DOWNLOADING FILE	FILE COMPLETE	RATE (KB/s)	TIME LEFT	TASK COMPLETE
1	[01] DVR-1	Wait					49.11 %
2	[02] DVR-2	Stop					

- (1) Sleep: It's not the time to start the backup task.
- (2) Wait: It's time to start the backup task but the number of total backup tasks is over the one you setting.
- (3) Download: Files are being downloaded.
- (4) Finish: Backup task has been finished but it doesn't mean that all files are backed up. It is possible that some files are not backed up because they are overwritten due to DVR recycling.
- (5) Suspend: Stop the backup task.
- (6) Error: There is an error during the downloading files. Please check logs. After fixing the error, please restart this task.
- (7) Disk Full: Disk is full and can't execute backup.
- (8) Disk Error: There is an unknown error happening in the disk. Please check the disk.
- (9) Empty: There is no file to be downloaded in the arranging schedule.

In the “**Network Statistic**” mode, it will show the current network flow as following picture. “**Download Speed**” is current average download speed. “**Total Download**” is calculating the total download file size. When you click “Reset Statistic” icon, the number of “Download Speed” and “Total Download” will be reset to “0”.




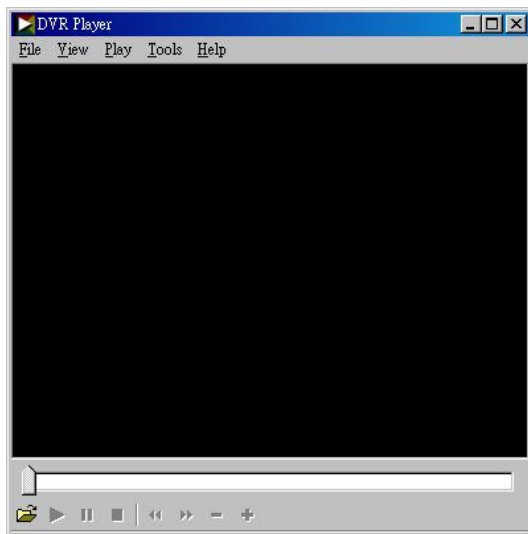
!	<p>Note</p> <p>Bandwidth Limitation</p> <ul style="list-style-type: none">● Individual task bandwidth can't exceed total bandwidths.● If all of the task bandwidths are set as “ No Limit”, the tasks will averagely share the bandwidths.● If the total task bandwidths are larger than total bandwidth, all of the tasks will share the total bandwidth according to the proportion.● If not all of the task bandwidths are set as “ No Limit”, the bandwidths will be assigned to the tasks that are already set in advance according to the proportion and then the rest of bandwidths are assigned to the tasks set as “No Limit”. <p>Others</p> <ul style="list-style-type: none">● Backup log files are saved in the directory of CMS and named as “ RBLog.mlb”.
---	--


4-12 Use Local Playback

In the playback mode, you can download the video files (Chapter 4-7-2) by clicking



the  and save the files in the directory. The files you download are CX3 format. If you want to play the video file, you must execute “DVR Player” from Windows taskbar->Start-> Program-> CMS folder.



- Click the  on the left down of the screen to open the video file and it will show the playing options as following,



Playback

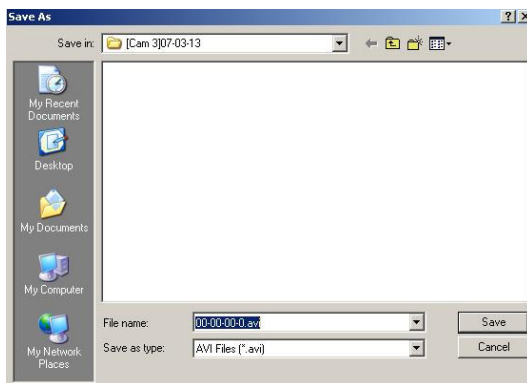
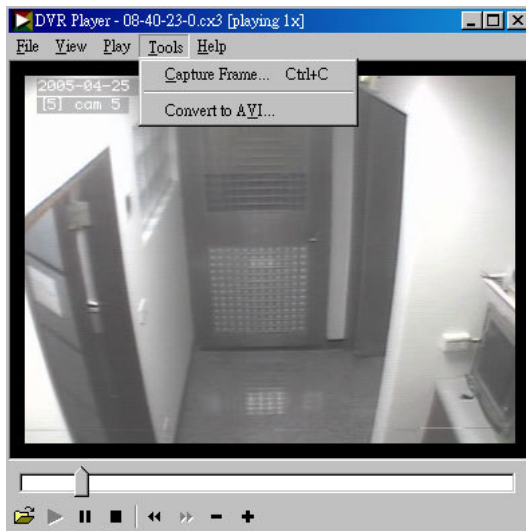


Pause

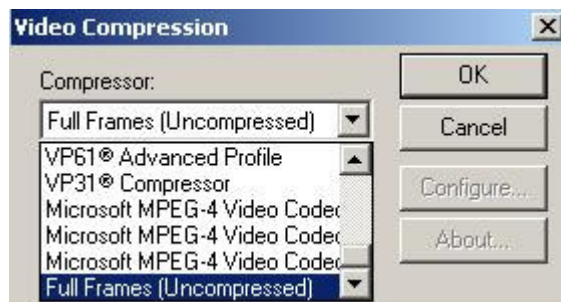


Stop and go back the beginning of the film.

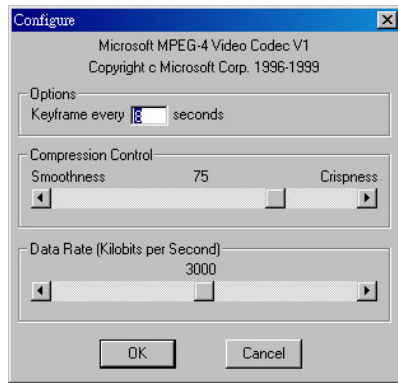
- **AVI Format Export:**
This function provides you to transform the download files from CX3 format to AVI format.
 - ✓ Open a download file.
 - ✓ In the “Tools’ bar, select “ **Convert to AVI**” and then select the path you want to save the AVI file and key in the AVI file name.



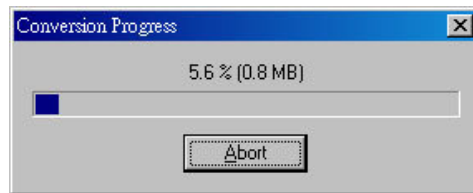
- ✓ Select the transforming format. Here we choose Microsoft MPEG 4 Video Codec.



- ✓ Select transforming parameters and it will influence the file's quality and size.



- ✓ Enter “OK” and then it will show the transforming status.



5. Appendix

5-1. Maintenance

- ✓ Avoid placing the system at high temperature, high humidity , and also keep away from working in the frequent vibration environment.
- ✓ Operate the system under the conditions of stable and high voltage, If possible, the system should be equipped with UPS (Uninterruptible Power Supply).

5-2. FAE Support

Any questions, please contact your supplier for your service.