

Central Management System

For E5016

User's Manual



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Manual Conventions

The following conventions are used throughout this manual.

	The caution symbol is intended to alert the user of the importance of the particular installation and operating instructions. Failure to comply may damage the system.
	The information symbol is intended to provide additional information for the purpose of clarification.

TABLE OF CONTENTS

CHAPTER 1	INTRODUCTION	1
1.1	Upgrading to CMS GOLD Version.....	2
1.2	Dual Monitors setting	3
1.2.1	Graphic card with ATi chipset.....	3
1.2.2	Graphic card with NVIDIA chipset.....	6
CHAPTER 2	SOFTWARE INSTALLATION.....	7
2.1	Minimum System Requirements	7
2.2	Installing the CM3000 Software in Windows XP/Vista/7	8
CHAPTER 3	USING THE CMS.....	9
3.1	Running the CMS Software.....	9
3.1.1	Using the Virtual Keyboard	9
3.2	Using the CMS Application.....	10
3.3	Using the Monitor	12
3.3.1	Using the Monitor Controller	13
CHAPTER 4	CUSTOMIZING THE CMS SYSTEM.....	15
4.1	System Setting	16
4.2	DVR Setup	19
4.2.1	To Add and Remove DVR Server	19
4.3	Camera Setup	20
4.4	Schedule Setup.....	25
4.4.1	To set schedule at a specific portion of time in that hour:	26
4.5	Backup Setup.....	27
4.6	E-MAP Setup	29
4.6.1	To Set Up the E-Map	29
4.6.1.1	Add a New Map	30
4.6.1.2	Add a DVR Server	31
4.6.2	To Use the E-Map	32
4.7	User Setting	34
CHAPTER 5	USING THE PLAYBACK FUNCTION	35
5.1	To Playback the video	35
5.2	Using the Local Playback Application.....	36
5.3	To Cut and Save the Wanted Portion of the Recorded Video.....	39
5.4	To Bookmark a Section of the Video	39

5.5 To Search Using the Visual Search..... 40

5.6 To Search Using the Event Search 41

5.7 To Search Using the Intelligent Search 42



Chapter 1 Introduction

The Aver™ CM3000 is a central monitoring system that enables user to monitor up to 1000 DVR servers (see also Chapter 1.1 for updating to Gold version) through an internet connection. Like the DVR program, the CMS system also automatically records and displays video when an event has occurred on the remote side of the DVR server. You can also playback video files locally or download from a remote DVR server.



The CMS system Supports Single, Dual, Triple and Four monitor displays. User can operate the CMS system application on different monitors.



1.1 Upgrading to CMS GOLD Version

The CMS can be upgraded by installing a USB software License (USB Dongle). After installed the USB dongle, CMS can monitor up to 1000 remote DVR servers. The USB dongle provides three type of license for customer choice:

1 ~ 64 Clients(DVR)	65 ~ 150 Clients(DVR)	151 ~ 1000 Clients(DVR)
i Without install a USB dongle, CMS only can monitor 16 DVR and some functions are not available.		

Please follow the below steps to upgrade the CMS.

1. Run the CMS application.
2. Plug in USB Dongle to your CMS server.
3. The CMS system will detect it automatically and the driver installation dialog will pop up. Click **OK** to install the driver.
4. If user chooses to install driver later, then un-plug the USB dongle and plug in again later for installing.
5. After installation completed, the CMS system will restart automatically.
6. **DO NOT** un-plug the USB Dongle while the DVR application is operating, it may cause the application crash abnormally.

1.2 Dual Monitors setting

Video configuration is different for each different VGA chipsets. Please follow the steps below to setup the dual monitors display.

The CMS application supports resolution in 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 and 1920 x 1200.

1.2.1 Graphic card with ATi chipset

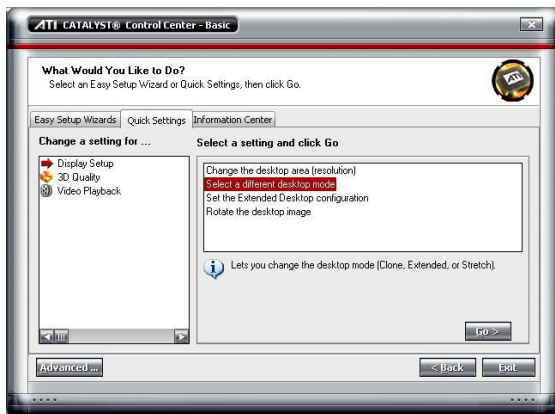
1. Enter the ATI Catalyst Control Center, user can click the short-cut or right click on the screen.



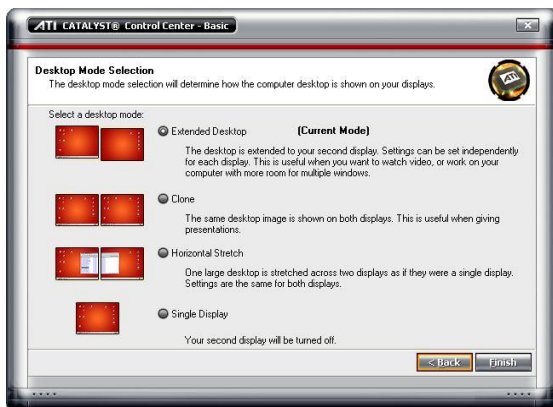
2. There are two modes to select — Basic and Advanced.



3. If user selected Basic mode, press the **Quick Settings** tab. Then select the **Select a different desktop mode** and click **Go**.



4. Select the **Extended Desktop** and then click **Finish**.



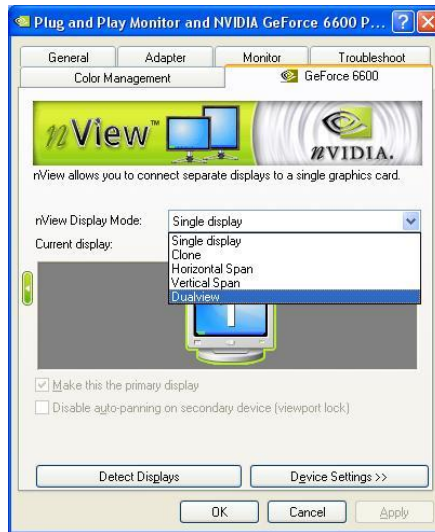
5. If user selected the Advanced mode, click the **View** button.
6. In **Display Manager**, right click on the second Display on the right side and select **Extend Main onto monitor**.



7. Adjust each monitor resolution to 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 or 1920 x 1200.

1.2.2 Graphic card with NVIDIA chipset

1. Click the NVIDIA nView, and select the **Dualview** mode.
2. Adjust each monitor resolution to 1280 x 800 、 1024 x 768 、 1280 x 1024 、 1440 x 900 、 1680 x 1050 、 1920 x 1080 or 1920 x 1200.



3. To review if the display mode is correct, you can check the task bar. The task bar will show on the first monitor only.



Monitor 1

Monitor 2

Chapter 2 Software Installation

This chapter describes how to install the CM3000 software.



- Before installing the software, make sure the Windows OS patches are up to date and the video graphic card driver is up to date.
- For Windows Vista/7/8, please disable the **User Account Control (UAC)** function before install the CMS program. To disable UAC, please go to **Control Panel >> User Account Control**. **After disable UAC function, please restart system, and then, install CMS program.**



To ensure you have the latest copy of the CM3000 software, download the updated version from the following site:

Worldwide :

<http://surveillance.aver.com/download-center> >> **Software Application >> CM3000 >> Software**; Click **Search** button

2.1 Minimum System Requirements

First, must verify if the computer meets the minimum system requirements.

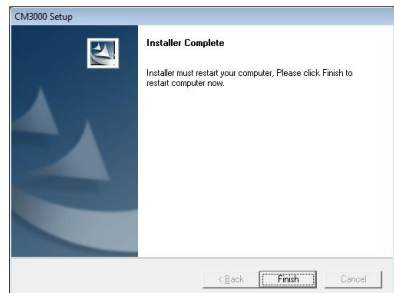
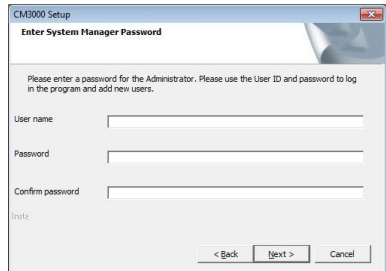
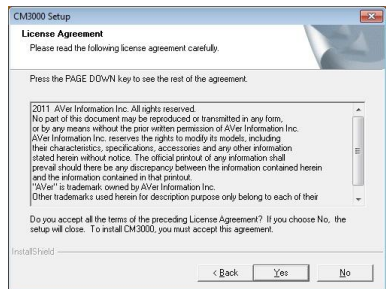
CPU	Pentium® 4 3.0GHz or above recommended
OS	Windows XP Professional 32 bit/ 7 32bit & 64bit
RAM	512MB for dual display,1GB for Quad display
Hard disk	120GB or higher
Media	CD-ROM drive
VGA	32-bit high color SVGA graphics card with 256MB video memory and DirectDraw® / YUV Rendering Capability
Audio	Sound card and speakers
Internet capacity	10/100 Base-T Ethernet card or Gigabit Ethernet

2.2 Installing the CM3000 Software in Windows XP/Vista/7



DO NOT install CMS application, DVR application, and MXR Client Software at the same computer system.

1. Place the installation CD into the CD-ROM drive then click **Install CM3000**. And follow the on-screen instructions.
2. Please carefully read the license agreement. Click **Yes** to accept the agreement.
3. Enter the administrator ID and password. Then, follow the on-screen direction to complete the installation.
4. Click **Finish**.



5. User may now run the CMS program. To run the application, click  on your PC desktop or click **Start> >CMS > CMS >CM3000**.

Chapter 3 Using the CMS

3.1 Running the CMS Software

To run the application, double-click  on your PC desktop or click **Start > CMS > CMS > CM3000**.

For security purposes, some of the features would require you to enter a User ID and Password before they can be accessed. When the Authorization dialog box appears, key in your User ID and Password. (If this is the first time, enter the one you have registered when installing the software.)



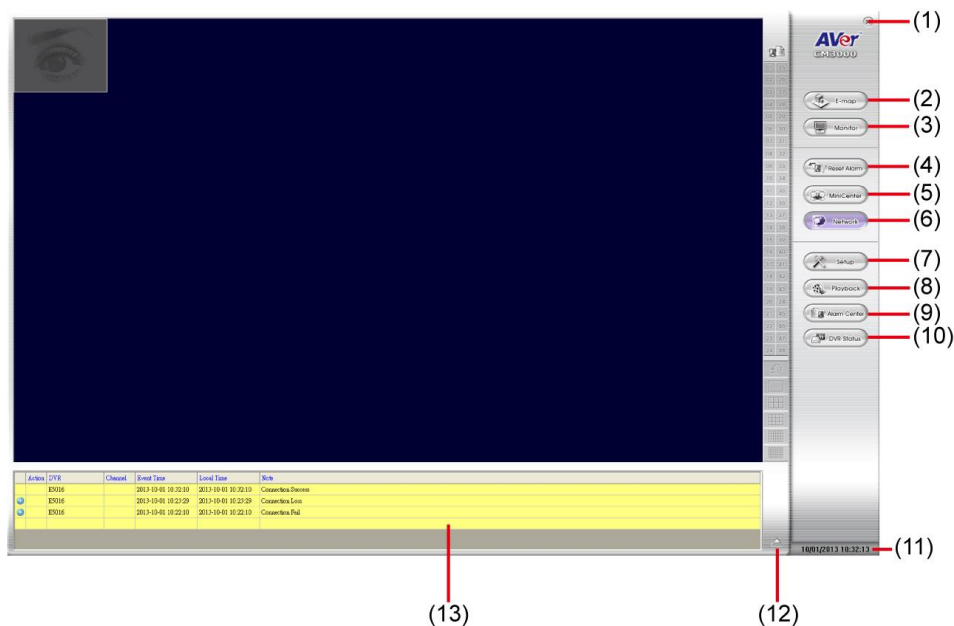
3.1.1 Using the Virtual Keyboard

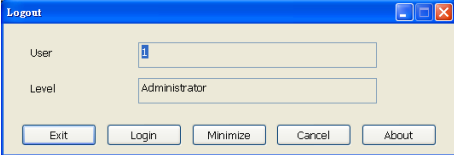
If the keyboard is not available, you may use the Virtual Keyboard. Just click  to show the virtual keyboard. For uppercase and lowercase, click **shift** button.



3.2 Using the CMS Application

The CMS system allows user to monitor the remote DVR and playback the recorded video from remote DVR and local site of CMS system.



Name	Function
(1) Exit	Call up the Logout dialog box. In the logout dialog box, you may do the following:  - Click Exit to close the CMS program. Only the administrator is authorized to access this command. - Click Login to sign-in as a different user. - Click Minimize to reduce the CMS to taskbar button. The authorization is required, please enter the password. - Click Cancel to close the Logout dialog box. - Click About to find out more about the software and update CMS firmware. Click Update in Product Information window to upgrade the newest CMS application. In Live Update window, select the Server Site and Address and click Update.

Name	Function
(2) E-map (F3)	Switch to display the map and show the location of the DVR server on the map. If you are using a single monitor, press ESC to revert back to the CMS main application(see also Chapter 4.6.2)
(3) Monitor (F4)	Switch to display live video from the selected DVR servers group. If user is using a single monitor, press ESC to revert back to the CMS main application (see also Chapter 3.3).
(4) Reset Alarm	The function doesn't support for E5016.
(5) MiniCenter Viewer	The function doesn't support for E5016.
(6) Network	Enable/disable the remote alarm data received. This is activated automatically when the CMS software starts up.
(7) Setup	Configure the CMS system settings. Only the administrator is authorized to access this command. (see also Chapter 4)
(8) Playback	Select to playback video from the local hard disk or remote DVR server (see also Chapter 5).
(9) Alarm Center	The function doesn't support for E5016.
(10) DVR Status	To view all monitor DVRs' status – IP, CPU usage, Bandwidth usage, HDD free space, Connection status, Video Loss status....and so on.

Name	IP	CPU Loading	Used Bandwidth	Free Space	Present Disk Time	Recording Status	Video Loss	Estimated Storage	Connection Status
D3 L00 R5 A3	100%	100%	100%	100%	100%	100%	100%	100%	Waiting

(11) Status	Display the current date, and time
(12) Log extender	Expand and reduce the log viewer
(13) Log viewer	List the entire info in event mode or text mode from all DVR servers.



There are a few Hot keys for quick switching between the different applications or display mode on a single monitor system.

- **F1**: displays current DVR server information on the CMS Monitor screen.
- **F3**: Switches to E-Map mode
- **F4**: Switches to Monitor mode
- **Esc**: Switches back to the CMS application main screen

3.3 Using the Monitor

When user has setup the monitor set in Camera Setup (see also [Chapter 4.3](#)), then click **Monitor** to view all selected cameras live video and playback. The monitor will switch to monitor mode, if user using more than one monitor, then all enabled monitors will switch to monitor mode.



Right-click on the channel screen could select to start recording.

The following will describe the buttons function on Monitor interface.



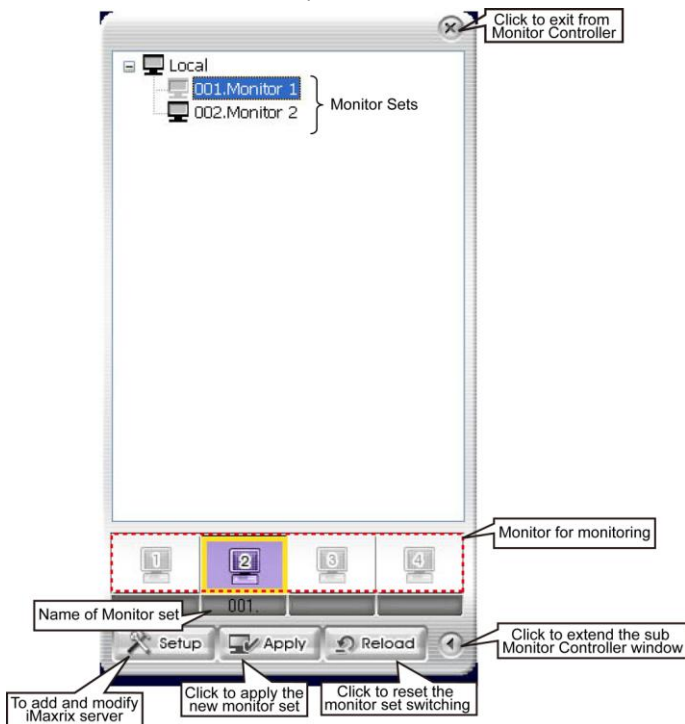
Name	Function
(1) Center	Back to CM3000 main UI(center UI)
(2) Monitor Controller	To call out monitor controller dialog box. User can manage the monitor set in monitor controller dialog(see also Chapter 3.3.1)
(3) Audio	The function doesn't support for E5016.
(4) Monitor Name	Display name of current monitor set.

3.3.1 Using the Monitor Controller

User can use Monitor Controller to switch different monitor set for monitoring and add/delete the channel in monitor set.

i User needs to create monitor set in order to using Monitor Controller. To create monitor set, please go to **Setup > Camera** (see also [Chapter 4.3 Camera setup](#))

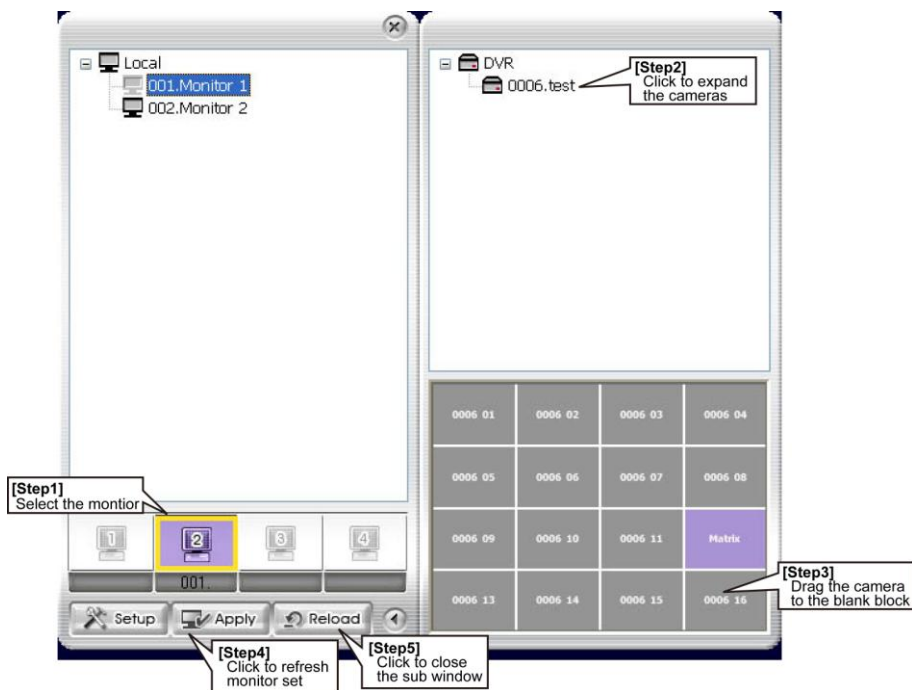
1. Click 
2. The Monitor Controller window will show up as below shown:



- i**
- The monitor set is gray that indicates the monitor set is selected and been monitored.
 - The monitor 1 ~ 4 are purple that indicate the monitor is monitoring.
 - Right-click on monitor and select the **Recover** to reset the monitor.

3. Drag the monitor set from monitor list to the monitor (1 ~ 4) and click **Apply** to activate it. To reset the monitoring group, click **Reload**.
4. To configure monitor set, click arrow button to expand the sub Monitor Controller window.
5. Select the monitor. The DVR servers are included in the monitor set will list on sub Monitor Controller window. The lower part of window display all monitored channels in the monitor set.
6. To add new channels, click the DVR server to un-fold the available cameras. Drag the camera to the blank channel block that has no channel number and name display
7. To change the monitored channels' position, please delete the monitored channels and drag the channels to the new position. To delete channels from monitor set, right-click on channel and select **Recover**.

8. Click **Apply** to refresh the monitor set.
9. Click arrow button to close the sub window.



Chapter 4 Customizing the CMS System

In the CMS application, click the  button to customize the CMS system. In the Authorization dialog box, enter the administrator User ID and Password.

Authorization

Please enter your user ID and password.

User ID

1

Password

OK

Cancel



When the CMS configuration setup selection appears, select and click the buttons you want to change the setting.

System

DVR

Camera

Schedule

Backup

E-Map

Alarm

User

OK

4.1 System Setting

In the System Setting dialog box, click **OK** to accept and start to reload the new setting, and **Cancel** to exit without saving.

The screenshot shows the 'System Setting' dialog box with the following sections and callouts:

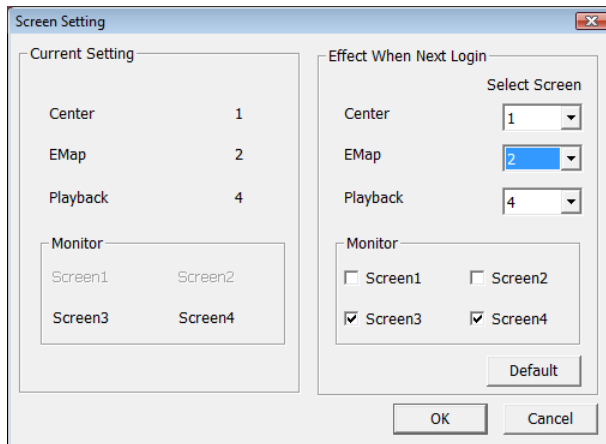
- (1) Miscellaneous:** This section includes fields for 'Alarm network port' (81), 'Command port' (5560), 'Database' (Local selected, MySQL unselected), 'Port' (3306), 'Password', 'Alarm Record path' (C:\CMS\alarm), and 'Free Space 7.03G (40.00G)'. It also has a 'Date Format' dropdown (mm/dd/yy), 'Display position' (Detail), 'System controller' (Setting), 'Google API key' (Setting), and checkboxes for 'Block windows OS hotkey', 'Auto Login when OS start', and 'Auto Backup'. The 'Default User' is set to 1.
- (2) Attention Please:** This section includes a checkbox for 'Attention Enable' and a button for 'Analysis'. The 'Times per day' is set to 5.
- (3) Configuration:** This section includes buttons for 'Import' and 'Export'.
- (4) Language:** This section includes a dropdown for 'Language' (English).
- (5) Monitor Text Setting:** This section includes a checkbox for 'Show Information Text First' (A/B), and radio buttons for 'Left-Top', 'Right-Top', 'Left-Bottom', and 'Right-Bottom'.

(1) Miscellaneous

➤ **Date Format :** Select from different date formats

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System**.
4. In the Date Format drop down list, click and select the style.
5. In the System Setting dialog box, click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.

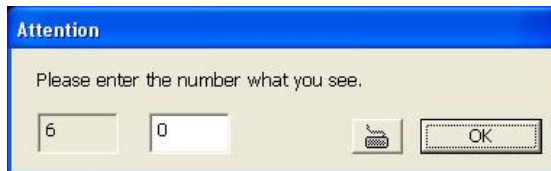
- **Display position:** CMS system supports up to 4 monitors, users are allowed to customize the display position that to decide the Center, Emap, Monitor, or Playback to be displayed on which monitor screen. Click **Detail** to select the display screen setting. The new screen display setting will be effect at next time login.



- **Block Windows OS hotkey:** Deactivate the **[Ctrl-Alt-Del]** and **[Windows]** keyboard key functions.
- **Auto Login when OS start:** Execute the CMS when the operating system is started.

(2) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box. To check the graph on how fast the person response, click **Analysis**. When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.



(3) Configuration

Import / Export the CMS system configuration.

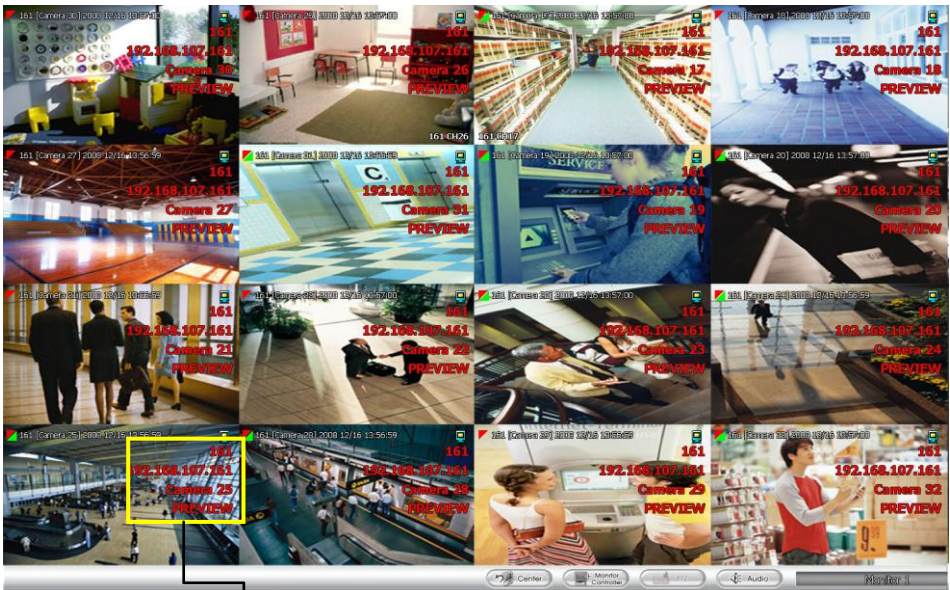
(4) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the set language is in English.

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System**.
4. In the Language drop down list, click and select the language.

(5) Monitor Text Setting

Enable/disable the camera information display and display position on the monitor screen. To configure font, click **A/B**.



- The camera information will be displayed as user has configured.
- User can press **F1** to disable/enable camera information display.

4.3 Camera Setup

Select the camera from different DVR servers in order to monitor on same screen. The selected cameras will be played on **Monitor** screen (see also [Chapter 3.3](#)).

Monitor Setup

DVR Select

No.	Name	IP/Domain Name
0001	161	192.168.107.161

Camera Select

Grid of camera thumbnails (12 total). Buttons: Add, Add All, <, >.

Monitor Select

No.	Name	Record
001	Monitor 1	

Buttons: Add, Delete, Edit.

Screen type

☒ 4 : 3
☐ 16 : 10

Monitor Layout

☐ 2 x 2
☒ 3 x 3
☐ 4 x 4
☐ 5 x 5
☐ 6 x 6
☐ 7 x 7
☐ 8 x 8

Type

☒ Preview
☐ Hotspot
☐ Sequence
☐ Image (Setup)
☐ Matrix (Setup)
☐ None
Clear All

Camera Setting

Detail

OK Cancel

1. Click **Setup** from CMS main interface.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **Camera**.
4. Click **Add** to create a monitor set. Enter a name in **Name** column (12 characters only).



The maximum number of Monitor is 128.

5. To record the cameras video, mark the **Record** box. Otherwise, the cameras video will not be saved on the CMS system hard disk.
6. Mark **Show Server Time** to display the time on Monitor screen.
7. If user wants to playback the recorded video of monitor set, mark **Enable Playback** and enter the time (sec.) in **Start Playback Before** that is when start playback will start from the present time backward the time user has setup. User can set the camera transmitting **Frame Rate**, but the real transmitting frame rate depends on camera setting.
8. Click **OK** to save the setting.



CMS only supports two monitor set for recording.

9. After the Monitor set has been created, select the DVR server. And then the cameras of the DVR server will display on the **Camera Select** window. User can combines different cameras from different DVR servers as a monitor set. And all cameras can be selected by different Monitor set repeat.
10. User can depend on the monitor size to select the screen type – **4:3** (regular screen monitor) or **16:10** (wide screen monitor). The 4:3 and 16:10 screen type support different monitor layout.
11. Select the camera that user wants to add, and then click **Add** button. The selected camera will be added to **Monitor Layout** window. User can add up to 64 cameras in 4:3 screen type and 80 cameras in 16:10 screen type. To remove the camera from the **Monitor Layout** window, select the camera and click **Delete** button. To delete all cameras, click **Clear All** button. User can enter a description for a channel.



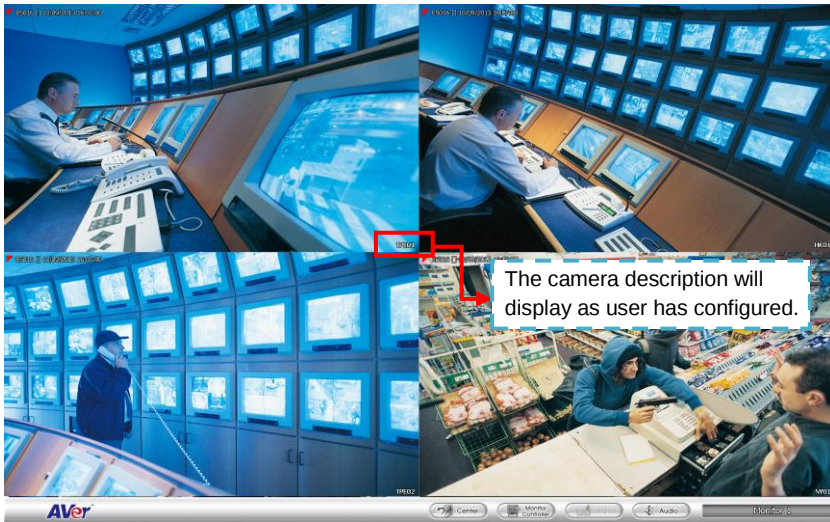
User can drag the camera channel to Monitor Layout window without using **Add** button.

12. In monitor set, each camera can be configured the name, transmitting type, and frame rate.

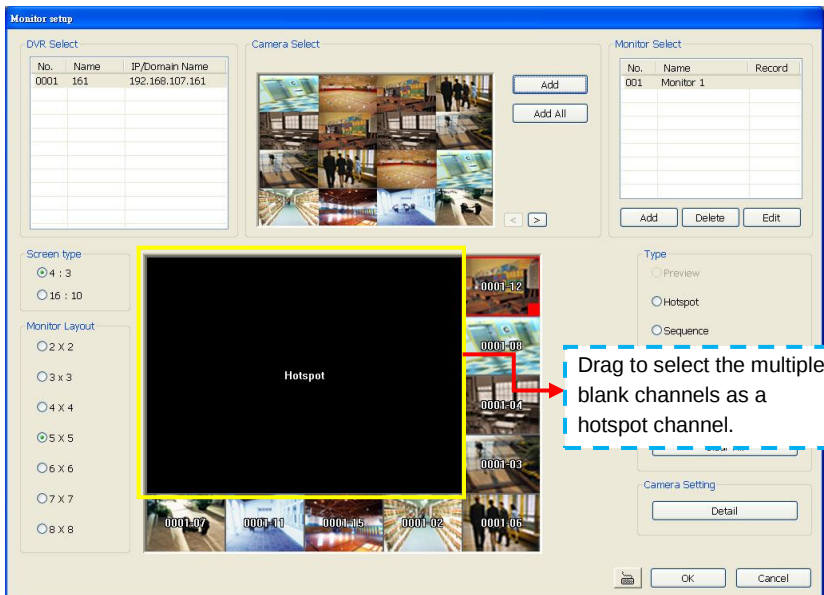
Select the camera in monitor layout window and click **Detail** button of **Camera Setting**. And then, enter the name for the camera and select display position (**Left-bottom** or **Right-bottom**) of the camera name on monitor screen; click **AB** to change the font.

13. Select the transmitting type by click the radio button – **By Fps**, **Only Key Frame**, or **Motion**. And then, set the frame rate of the camera in **Default Frame Rate** column. The value of frame rate will both apply to live video and recording.

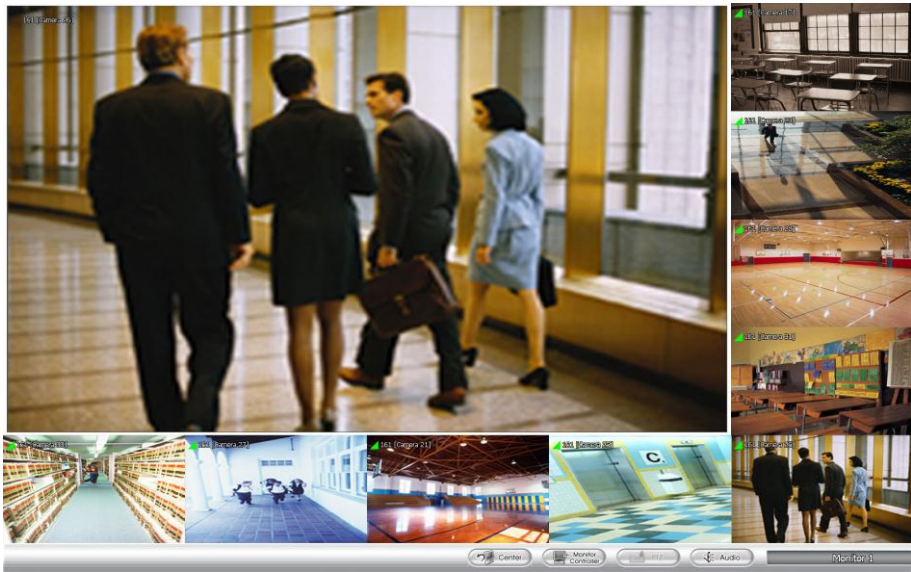
14. Also, user can select the **Video Quality – High, Medium, Low, or Auto**. Mark the **Enable live displayer for most optimization** can improve the live video frame rate of the IP camera (jpeg megapixel) when viewing the multiple channels.



15. In Monitor Layout window, user also can set the channel for specific type functions instead of added cameras from DVR servers. In Monitor Layout window, select one of blank channel (NONE) and click the radio button of type (Hotspot, Sequence, Matrix, Image, or None).
- **Hotspot:** To set the channel for displaying selected camera channel video. Click-and-drag to select multiple channels as a hotspot channel area.



In the Monitor screen, user can right-click and drag the camera to the hotspot channel for enlarge viewing.



- **Sequence:** Set the selected channel to automatically switch to display all camera channels in cycle.
- **Matrix:** set the selected channel to receive and display the alarm event from selected DVR servers. Click **Setup** to select the DVR servers. Enable the **Retrieve time** to set a period time (0 ~ 255 sec) for alarm event to display. If the retrieve time doesn't enable, the alarm event will display on screen until next alarm event come in.



On the DVR site, user need to enable and configure the matrix to send to CMS (please refer to **Alarm Setting** of NV/SA user's manual).

Matrix setup

DVR	
No.	Name
0001	161

-->
<--

Selected	
No.	Name

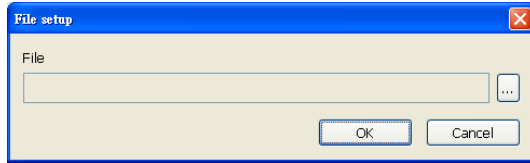
Disabled DVR

No.	Name

No.	Name

☐ Retrieve time 0 Sec.

- **Image:** To insert an image on selected channel. The image supports *.bmp and *.jpg format. Click **Setup** and browse where the image located is.

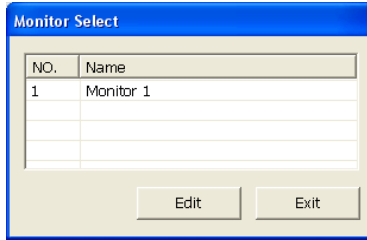


16. Click **OK** to save the setup. To exit without saving, click **Cancel**.
17. To delete the monitor set, select the monitor set in **Monitor Select** window and click **Delete** button.
18. To modify the monitor set, select the monitor set in **Monitor Select** window and click **Edit** button.
19. To monitor the monitor set, please see [Chapter 3.3](#).

4.4 Schedule Setup

Schedule to record or backup of all the cameras either weekly or one time.

1. Select the Monitor set for scheduling.



The Monitor set can be scheduled only when the recoding is enabling.

2. Select the date in the calendar. Use and buttons to shift the calendar to the left or right.

3. Select the condition you want to schedule in the drop down list.

- **Record**

Activate all the cameras to start video recording at the set time based on the Recording setting

- **Backup**

Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive. To assign backup path, click .

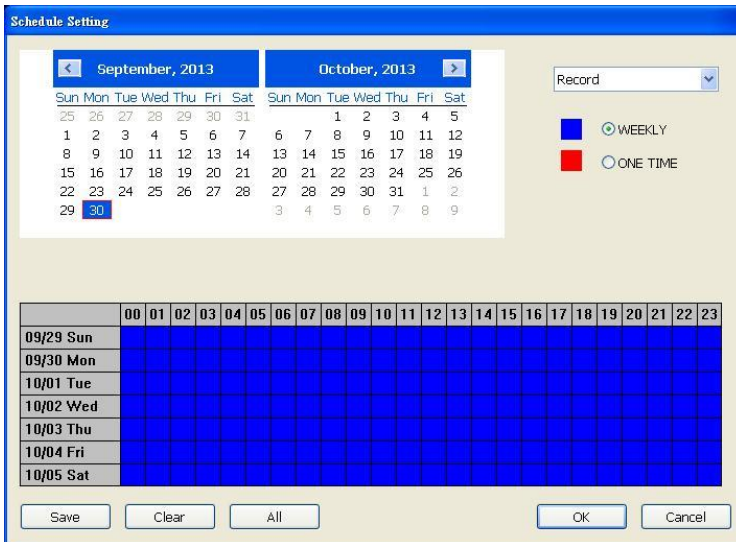


Make sure the backup folder and storage folder are not on the same drive.

4. Specify to either schedule it weekly or one time. Click to make a selection.

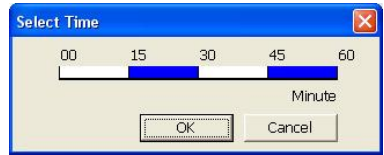
5. Click on the blocks to set the schedule (see also [Chapter 4.4.1](#)). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.

6. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



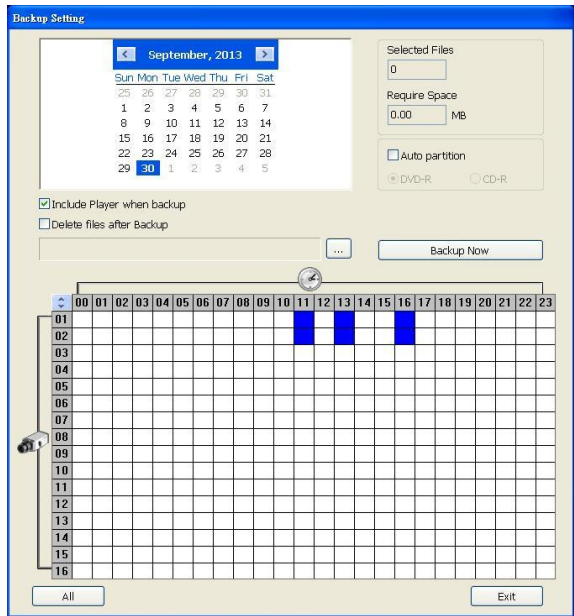
4.4.1 To set schedule at a specific portion of time in that hour:

1. **Right click** the colored blocks.
2. In the Select time dialog box, click to enable or disable the portion you want to set.
3. Click **OK** to accept the setting and **Cancel** to exit without saving the setting.

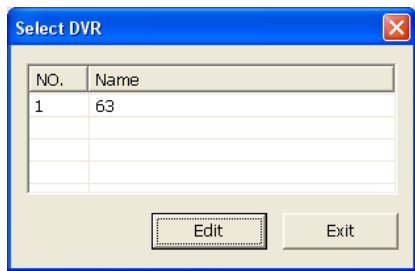


4.5 Backup Setup

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number.



1. Select the DVR that wants to backup



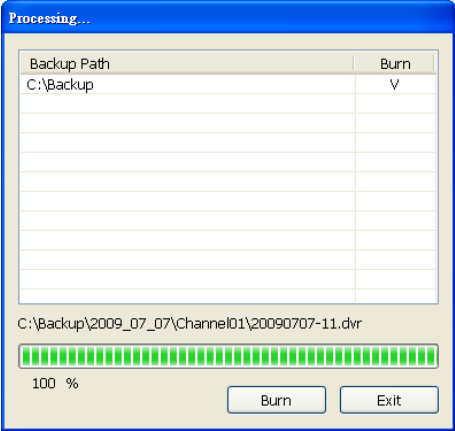
2. Select the date of the recorded file in the calendar you want to backup. Use  and  buttons to shift the calendar to the left or right.
3. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.
4. Check the information beside the calendar.

Selected Files : Show the number of files selected.

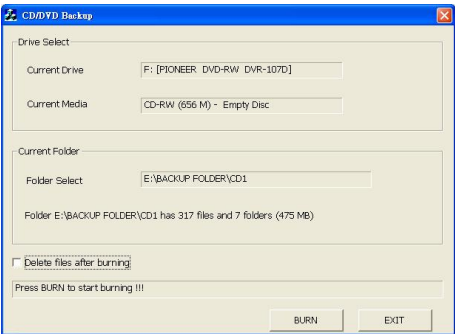
Require Space : Show the total size of the selected file.

5. Enable **Auto partition** and select to divide the file size into DVD-R or CD-R. DVR automatically backup and divide the file sizes to facilitate burning into DVD or CD disc.

6. Enable **Include player when backup** that will included a **Qplayer** program for playback backup file in backup folder when backup. Only administrator user has the authority to enable or disable this function.
7. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
8. Click **...** to set the path on where to store the backup file.
9. Click **Backup Now** to start archiving the selected file.
10. In the Processing... dialog box, to stop archiving press **Abort**. When done, in the Backup Path list, shows the archived item. To burn the file in CD, you need to have NERO 6 or above installed in your PC then select the item in the list and click **Burn**. Click **Exit** to end this procedure and burn it later.



11. In CD/DVD Backup, enable/disable Delete file after burning check box to remove the archived file after burning. Click **Burn** to start and **Exit** to cancel this process.

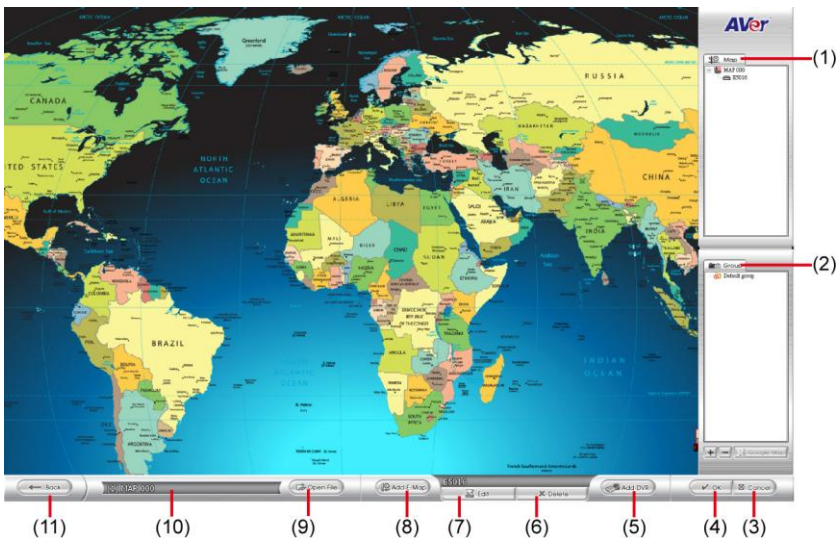


4.6 E-MAP Setup

Holds up to 64 maps in *.bmp/*.jpg format. The map is hierarchy in structure and users can add a map on another map. User also may add the DVR icons on the map.

4.6.1 To Set Up the E-Map

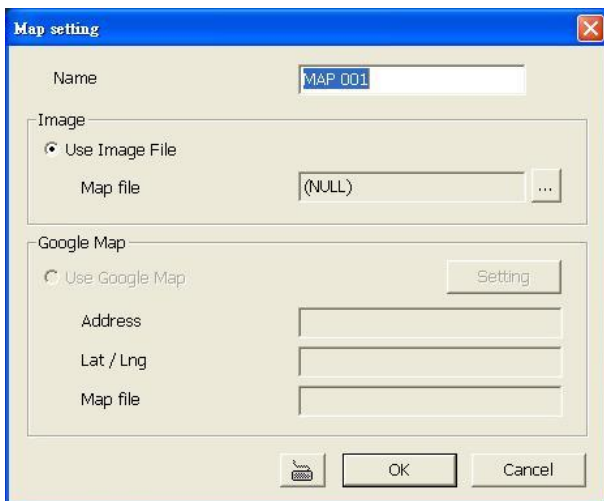
1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **E-Map**.
4. The E-Map interface will show up in assigned monitor if user is using multiple monitors for the CMS system. If user is using single monitor for the CMS application, the E-Map interface will show up in front of the CMS application interface. Press **Esc** or click **Center** button to switch back to CMS application interface or press **F3** to switch to E-Map interface again.
5. On the E-Map interface:
 - (1) **Map List**: list all E-Map and all DVR servers that have been added on the E-Map.
 - (2) **Group List**: User can create the group to group DVR servers for easy management. Click **+** to add new group. Drag the DVR server from **Map List** window into the group. To delete the group, click **-**. Double-click on the DVR server will call out the **DVR Watch** window(see also [Chapter 4.6.1.3](#))
 - (3) **Cancel**: Without saving the setting and exit the E-Map interface.
 - (4) **OK**: To save the setting and exit the E-Map interface.
 - (5) **Add DVR**: Add a DVR server icon on the map. (see also [Chapter 4.6.1.2](#))
 - (6) **Delete**: To remove the DVR server
 - (7) **Edit**: To modify the selected DVR server
 - (8) **Add E-Map**: Add a new map. The new map is added on the current map as a next level. (see also [Chapter 4.6.1.1](#))
 - (9) Load a map to replace the current map
 - (10) Show the current name and layer of map
 - (11) go back to previous layer of map



Right-click on Emap could call out a short-cut menu.

4.6.1.1 Add a New Map

1. Click  button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. In E-Map interface, click **Setup >> Add Map** button and the **Map setting** window will show up.



The image shows a 'Map setting' dialog box with a blue title bar and a red close button. It contains the following fields and controls:

- Name:** A text field containing 'MAP 001'.
- Image:** A section with a radio button labeled 'Use Image File' which is selected. Below it is a text field for 'Map file' containing '(NULL)' and a browse button with three dots.
- Google Map:** A section with a radio button labeled 'Use Google Map' which is not selected. To its right is a 'Setting' button. Below this are three text fields for 'Address', 'Lat / Lng', and 'Map file'.
- Buttons:** At the bottom are three buttons: a 'Help' button with an icon, an 'OK' button, and a 'Cancel' button.

5. Give a name for the new map.
6. Click  to locate the map file. In the open dialog box, locate and select the map and click **Open**
7. User may now drag and move the Map icon to its place on the map.
8. User can double click the Map icon to view the map.
9. To edit and delete the map, click the map icon and **Edit** and **Delete** button will appear on the Map interface. Click **Edit** to modify the map. To delete the map, click the map icon and click **Delete** button.
10. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.



- User can add up to a total of 64 maps
- Right-click on the map to call out a short-cut menu.

4.6.1.2 Add a DVR Server

1. Click  button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. Click **Add DVR** button and the Add DVR window will show up.
5. Select the DVR server from the Add DVR window and click OK.



6. User may now drag and move the DVR icon to its place on the map.
7. To edit and delete the DVR server on the map, click the DVR server icon and the **Edit** and **Delete** buttons will appear on the Map interface. Click **Edit** to modify the DVR server (see [4.2.1 # 5~10](#)). To delete the DVR server from the map, click the DVR server icon and click **Delete**.
8. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.



The functions of short-cut menu is listing below:

- **Add DVR:** To add a DVR server on the E-Map.
- **Edit DVR:** To modify the DVR server.
- **Delete DVR:** To delete the selected DVR server from the E-Map.
- **Change Bitmap:** Replace the E-Map with new map. The map file only support *.jpg and *.bmp.
- **Add New map:** Add up a New map on current E-Map level.
- **Remote EMap:** To view the selected remote DVR server's E-map.
- **Setup OK:** To save the current configuration.

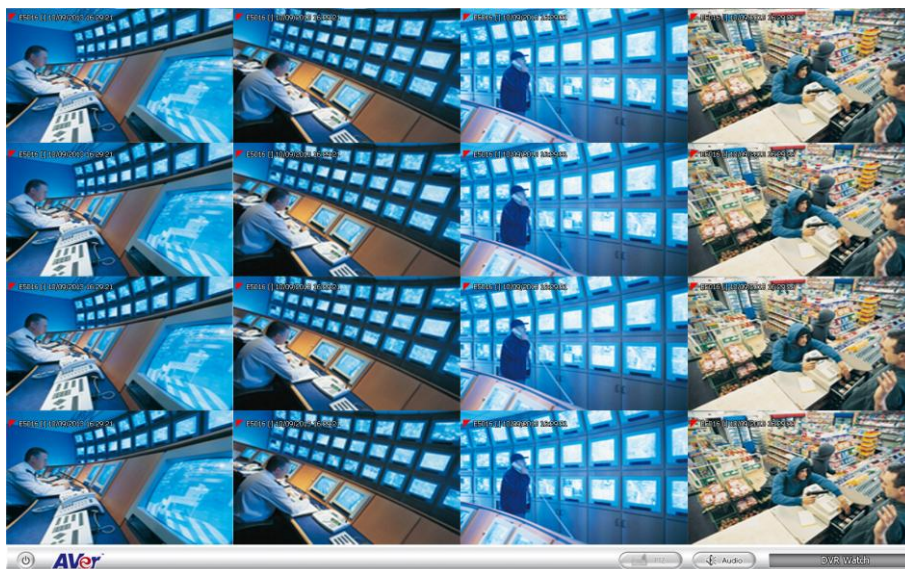
4.6.2 To Use the E-Map

When the alarm has been activated, the DVR icon blinks and turns red.

1. On the CMS main application, click **E-map** or press **F3**.
2. Click the DVR server icon and a **DVR watch** window will show up and connect the DVR server to play the live video.



3. To switch back to the main application, press **ESC**.



4. To setup the E-Map, click  button or right click the mouse button and select **EMap setup** and the E-Map interface will switch to the E-Map setup mode. (see also [Chapter 4.6.1](#))
-
- i**
- If user uses dual monitor, the E-map setup mode is active in E-Map window and the E-map setup mode will not activate in CMS main screen.
 - Click **OK** or **Cancel** to exit the setup mode in E-Map interface.
-



5. User can click the Map icon on the map to view the map. And the map can be added level by level up to 64 maps. (see also [Chapter 4.6.1.1](#)).

4.7 User Setting

CMS supports 256 user account that includes operator and administrator account.

1. Select the Authorization Level – **Operator** or **Administrator**. User can define each operator/administrator account's authority of DVR server and Monitor set. **Only the administrator is authorized to close and customize the CMS system.**
2. Enter the **Name**, **Description**, **Password**, and **Confirm password** of the account.
3. Select the DVR servers that allow this account user to preview and playback. The DVR server with check mark means is selected.
4. Select the Monitor set that allow this account user to view. The Monitor set with check mark means is selected.
5. User can assign a valid date for Operator user. Select **Begin Date** and **End Date** to assign a valid date for operator account. **The account only will be available during the assigned date.**
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

User Setting

Authorization Level
☒ Operator ☐ Administrator

Name Password
Description Confirm Password

Allowed DVR View For This User

NO.	DVR Name	Watch This DVR
0001	E5016	☒

Allowed Monitor View For This User

NO.	Monitor Name	Watch This Monitor
001	Monitor 1	☒

☒ Enable Valid Date Configuration

Begin Date End Date

Click to select or un-select.

Click to select or un-select.

Chapter 5 Using the Playback Function

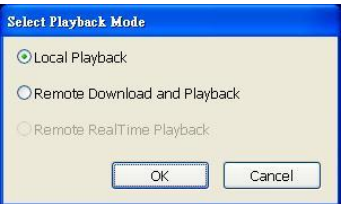
User can choose to playback video stored on the local hard disk or download the video from the remote side of the DVR server.

5.1 To Playback the video

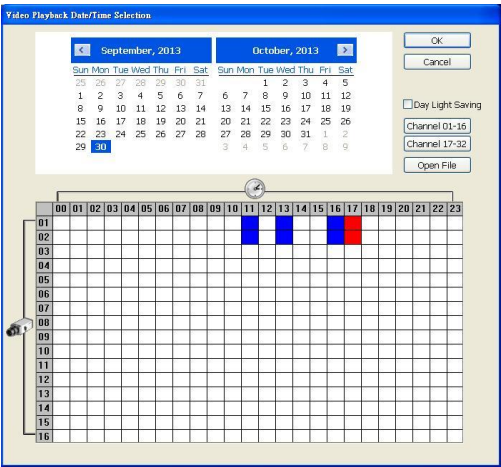
1. Click 
2. In the **DVR Playback select** window, select DVR server to play video from the remote DVR server.



3. You can select Local Playback to playback. Click **OK** to proceed and **Cancel** to void this operation.



4. User can select to preview 16 channels at a time. Only the cameras previously selected in **Monitor** and with the **Record** enabled can be playback. In the Video Playback Date/Time Selection, the numbers from 00 to 23 represent the time in 24-hour. The numbers from 01 to 16 represent the camera number. The blue block indicates that there is a recorded video file in that period of time. While the red bar indicates the selected recorded video for viewing (see also [Chapter 5.2](#)).

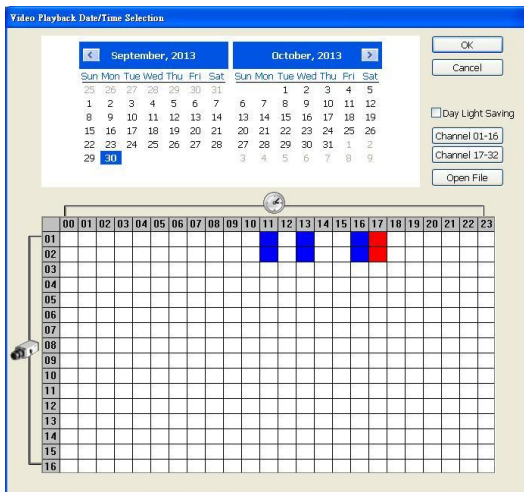


5.2 Using the Local Playback Application



Name		Function
(1) Split Screen Mode		Select from six (6) different split screen types to playback the recorded video file of all the cameras, or one camera over the other or alongside on a single screen.
- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. - To zoom into an area on the screen, Right click and Drag a square on the area you want to enlarge. - To view 32 channels, click 16 split screen mode button to view 16 channels each time. Check the camera ID icon to know which channels are displaying now.		
(2) Exit		Close the Player.
(3) Progress bar		Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons		Select and click to playback the recorded video file on the specific time frame.
(5) Playback Control Buttons		Begin: Move to the beginning of the recorded video file. Previous: Go back to the previous frame. Slower: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. Rewind: Wind back the recorded video file. Pause: Briefly stop playing the recorded video file. Play: Play the recorded video file. Faster: Play the recorded video file at the speed of 2x, 4x, or 8x, 16x, 32x. Next: Go to the next frame. End: Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – Also, user can open the recorded file from certain location by click OPEN FILE button – Click Channel 01~ 16 and Channel 17 ~ 32 button to switch to different channel group of playback calendar. – Mark Day Light Saving, the playback calendar will show the available playback records during day light saving period.



	The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.
(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.3).
(10) Segment	Keep a portion of the recorded video you want (see also Chapter 5.3).
(11) Full screen	View in Playback-compact mode. To return, Right click the mouse or press ESC on the keyboard. When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(12) Bookmark	Mark a reference point when previewing the recorded video file to which you may return for later reference. You may also set it to protect the file. (See also Chapter 5.4)

Name	Function
(13) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second (See also Chapter 5.5).
(14) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search only.
(15) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS) (See also Chapter 5.6).
(16) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.7).
(17) Audio	Enable/disable audio and adjust volume
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

5.3 To Cut and Save the Wanted Portion of the Recorded Video

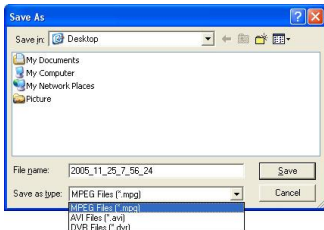
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

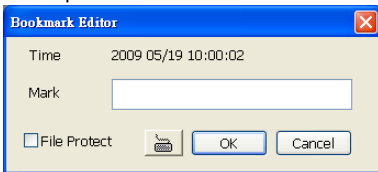


3. Click **Output** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.



5.4 To Bookmark a Section of the Video

1. Click **Bookmark**. The video playback stops when the bookmark button is executed.
2. In the Bookmark dialog box, you may do the following:
 - **Add** to include the new reference mark in the bookmark list. You may select to enable/disable **File Protect** to protect the bookmark file for overwritten.



- When the bookmark is protected, the file won't be overwritten.
- The protected bookmark file will be deleted when the **Delete the recorded data** is enable in the **Backup setting**.(also refer to [Chapter 4.5](#))

- **Edit** to change the mark description or enable/disable file protection.
- **Delete** to remove the selected reference mark in the list.
- **Delete All** to remove all the reference marks in the list.
- **Exit** to close Bookmark dialog box.
- Select and click one in the bookmark list to preview the file.

5.5 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.

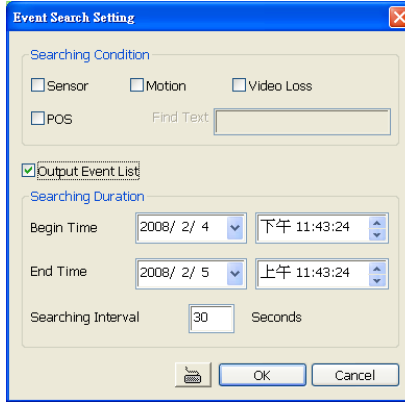


3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minute of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .



5.6 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The **Event Search** text (red) would appear at the lower left corner of the screen.

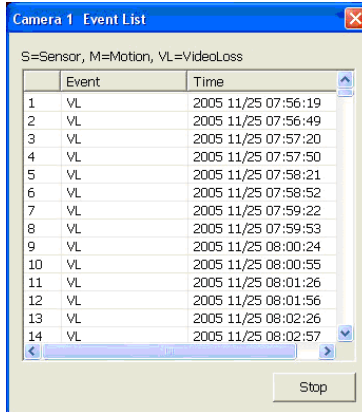


The **Event Search Setting** dialog box contains the following sections:

- Searching Condition:** Includes checkboxes for ☐ Sensor, ☐ Motion, ☐ Video Loss, and ☐ POS. A **Find Text** input field is located to the right of the checkboxes.
- Output Event List:** A checkbox that is currently checked.
- Searching Duration:** Includes fields for **Begin Time** (2008/ 2/ 4, 下午 11:43:24) and **End Time** (2008/ 2/ 5, 上午 11:43:24). A **Searching Interval** of 30 **Seconds** is also specified.

Buttons at the bottom include a help icon, **OK**, and **Cancel**.

3. In the **Event Search Setting** dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click .
4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
5. When the Event list appears, click and select the item you want to view.



Camera 1 Event List

S=Sensor, M=Motion, VL=VideoLoss

	Event	Time
1	VL	2005 11/25 07:56:19
2	VL	2005 11/25 07:56:49
3	VL	2005 11/25 07:57:20
4	VL	2005 11/25 07:57:50
5	VL	2005 11/25 07:58:21
6	VL	2005 11/25 07:58:52
7	VL	2005 11/25 07:59:22
8	VL	2005 11/25 07:59:53
9	VL	2005 11/25 08:00:24
10	VL	2005 11/25 08:00:55
11	VL	2005 11/25 08:01:26
12	VL	2005 11/25 08:01:56
13	VL	2005 11/25 08:02:26
14	VL	2005 11/25 08:02:57

Buttons at the bottom include a **Stop** button.

5.7 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The **Intelligent Search** text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click .
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.



Intelligent Search in Local Playback Mode