

**CMS-1030** Version2

## **Installation & Operation Guide**

Before trying to operate this program, please read this manual completely.

## The minimum hardware requirements:

	Core i3	Core i5	Core i7
<b>Operation System</b>	Windows 7 Home Premium (32bit)	Windows 7 Ultimate (32bit)	Windows Home Premium (32bit)
<b>CPU</b>	Core i3 2120 @ 3.3Ghz	Core i5 750 @ 2.67GHz	Core i7 2600 @ 3.4GHz
<b>Display adapters</b>	Intel HD Graphics 2000	NVIDIA GeForce 9400 GT	NVIDIA GeForce GT 530
<b>Network adapters</b>	1Gbps	1Gbps	1Gbps
<b>H.D.D</b>	3.5 inch, SATA 3	3.5 inch, SATA 2	3.5 inch, SATA 2
	7200rpm	7200rpm	7200rpm
<b>Max. number of recording</b>	32(1920*1080,6Mbps)	32(1920*1080,6Mbps)	32(1920*1080,6Mbps)
<b>Avg. CPU usage</b>	17	15	9

### Note:

---

The video format: H.264, resolution: 1920\*1080, quality: Constant bitrate @ 6Mbps, fps @ 30, decoding mode set as without decoding (without considering the network loading of the video decoding numbers per second.)

### Note:

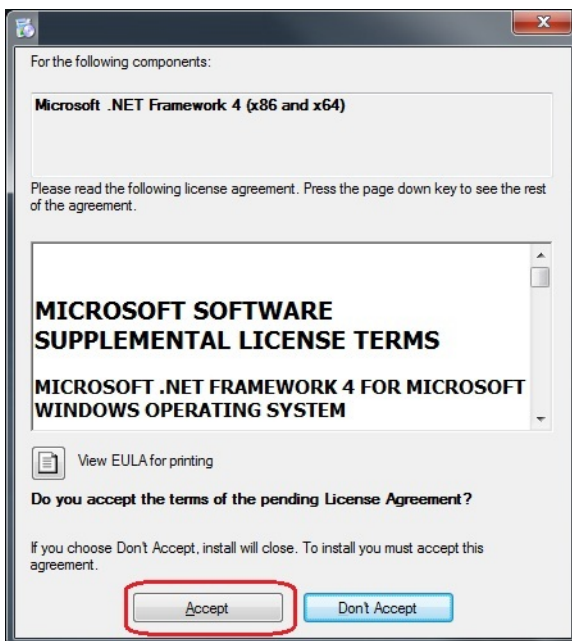
---

The data will change with different video sources or different settings of the computer.

# Set up and remove the CMS

1. Exit all applications currently running in the selected PC.
2. Insert the supported CD in the CD-ROM drive. Double click the **Setup.exe** program. The program will execute the installation automatically. Follow the on-screen instructions to proceed with the rest of the installation procedure as the windows appear.
3. After the installation is complete, pop up the **START** menu in your computer, and point to **Programs / Surveillance Studio / Surveillance Studio** to open up the program selection page as shown below. Click the **Surveillance Studio** tag to start the **CMS** program.

To install the CMS-1030, follow the steps given below:

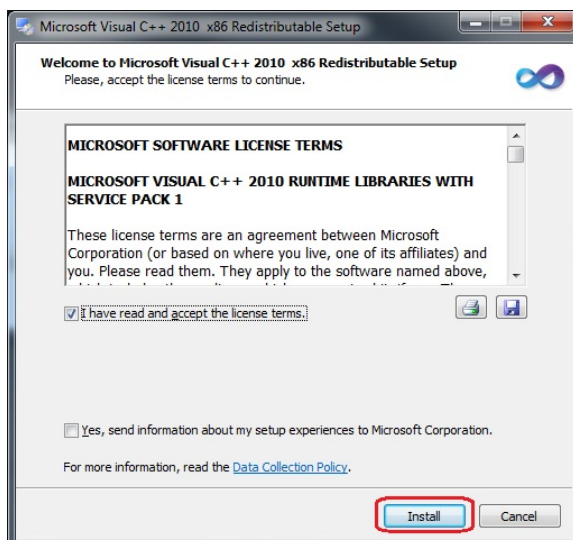
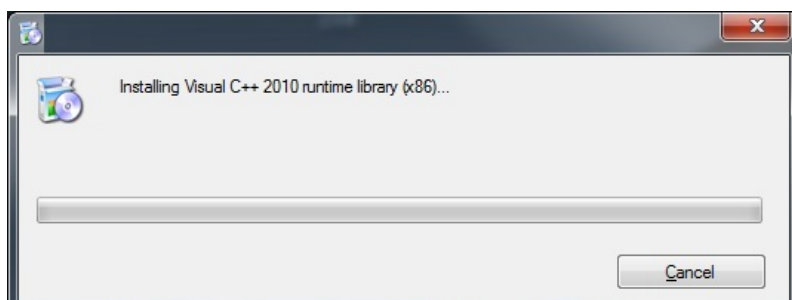
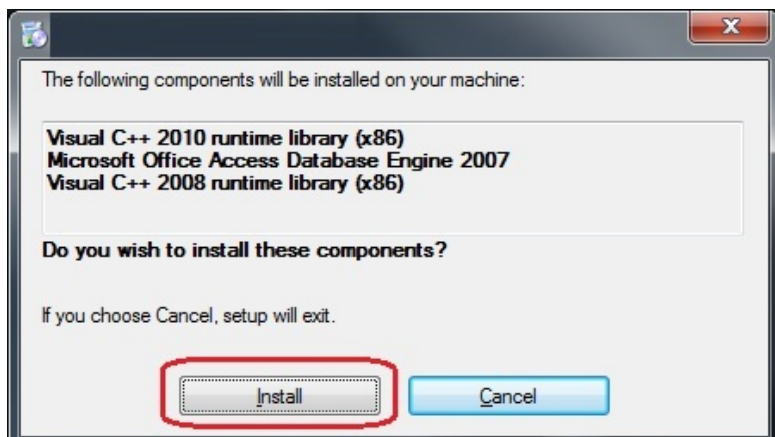


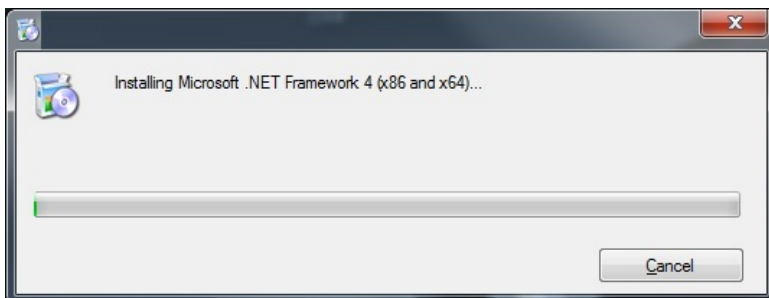
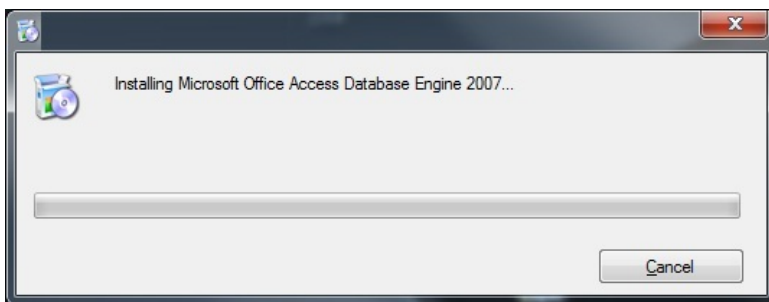
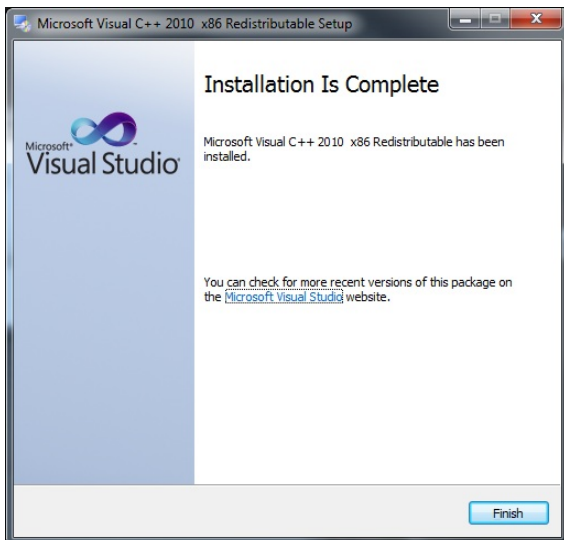
---

## Note:

Please wait while the setup program automatically installs .NET Framework 2.0 if the application has not been detected in the operation system.

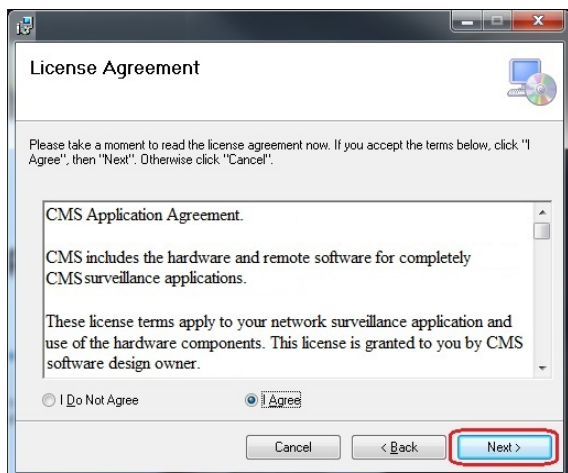
When the process is complete, the program pops up a message and requires the user to reboot the system.



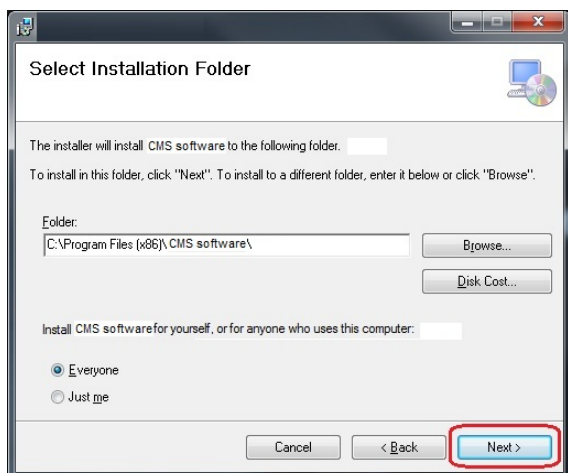


A license agreement dialog appears. Check 'I agree' and click 'Next'.

Or click “Cancel” to stop the installation.



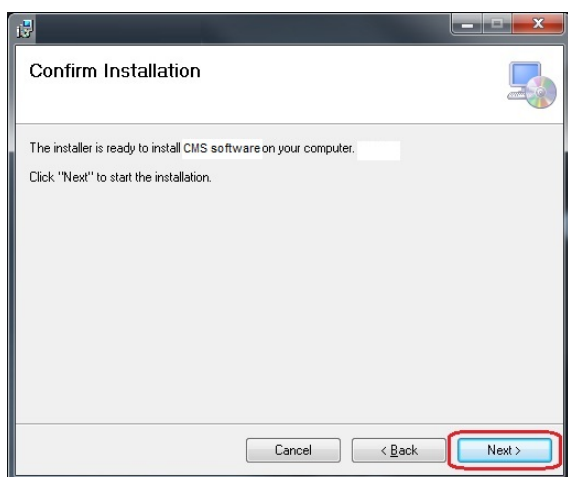
Decide the installation path and click ‘Next’. The setup program automatically creates an installation directory in the selected driver.

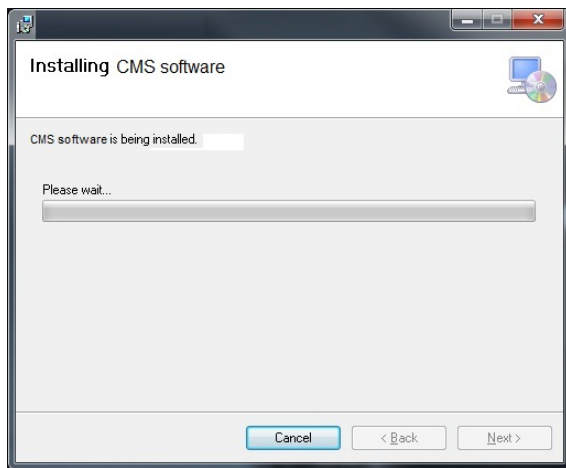


**Note:**

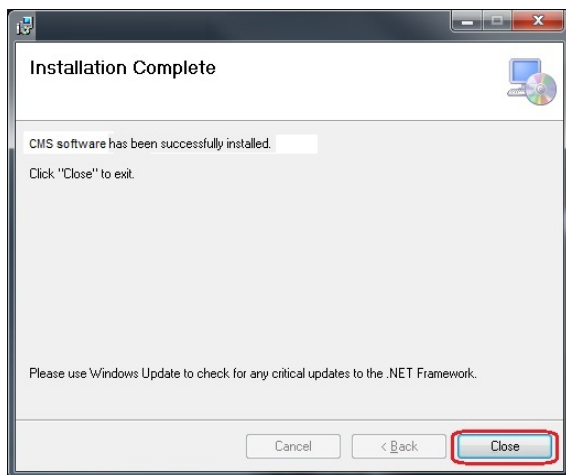
---

**Please select the same folder if you want to overwrite/ reinstall the program.**





Click 'Close' to complete.



## Contents

1	Surveillance .....	11
1.1	Log in the system .....	11
1.2	Instant Keys.....	11
1.2.1	Full Screen .....	11
1.2.2	The Frame of the Viewers.....	11
1.2.3	The OSD of the Viewer .....	11
1.2.4	Lock.....	12
1.3	Camera List.....	12
1.3.1	View the Camera list.....	12
1.3.2	Add Camera .....	12
1.3.3	Remove a Camera.....	14
1.3.4	Modify the Camera.....	14
1.3.5	Start/ Stop to connect the camera .....	14
1.3.6	Manual Recording .....	14
1.3.7	Video decode mode Switching.....	14
1.3.8	Exchange the camera display mode.....	15
1.3.9	Show the advanced information of the camera.....	15
1.3.10	Single Selection/ Multiple Selection Camera.....	16
1.4	Monitor Layout .....	16
1.4.1	Add/ Remove a Pattern of the Monitor Layout .....	16
1.4.2	Customize a Pattern of the Monitor Layout.....	17
1.4.3	Add a Sequence Display Pattern.....	18
	Add a Sequence Display pattern .....	19
	The Rotating Interval option .....	19
	Arrange the sequence .....	19
1.4.4	Multi-screen function.....	19
1.5	EMap navigation.....	20
1.5.1	Zoom in/out the EMap navigation.....	20
1.5.2	Move the EMap navigation .....	20
1.6	ePTZ (digital zoom and movement) .....	21
1.6.1	ePTZ- zoom in/ out .....	21
1.6.2	ePTZ- movement.....	21
1.7	Set the viewer .....	21
1.7.1	Play an image .....	21
1.7.2	Switch the images .....	22
1.7.3	Disconnect the Image.....	22
1.7.4	Take picture (Snapshot) .....	23
2	EMap .....	24
2.1	Add/ Remove an EMap .....	24



2.1.1	Add an EMap .....	24
2.1.2	Remove the EMap .....	24
2.2	EMap operation .....	24
2.2.1	EMap Scale .....	24
2.2.2	Move the EMap .....	24
2.2.3	Preview the camera image .....	24
2.2.4	Make the camera image transparent .....	25
2.2.5	Remove the camera icon .....	25
2.2.6	Camera Name .....	25
2.3	EMap Navigator .....	25
2.4	Interact the camera list and the EMap Navigator .....	26
3	Playback .....	27
3.1	Find a recorded file .....	27
3.2	Set the Image TimeLine .....	27
3.3	Video Player .....	29
3.3.1	The playback timeline .....	29
3.3.2	i-frame mode .....	29
3.3.3	Change the play back speed .....	29
3.3.4	Jump the image .....	30
3.4	Export the image .....	30
3.4.1	Arrange the length of the export video file .....	30
3.4.2	The image size of the export file .....	30
3.4.3	The image quality of the export file .....	31
3.4.4	The FPS of the export file .....	31
3.4.5	Watermark .....	31
3.4.6	Export Sound .....	32
3.4.7	Export Path .....	32
3.5	Backup (Image) .....	32
4	Recording .....	34
4.1	Schedule Settings .....	34
4.1.1	Selection Mode .....	35
4.1.2	Clear Mode .....	36
4.1.3	Apply the template .....	36
4.2	Motion Detection Recording .....	37
4.2.1	The Main Features .....	37
4.2.2	Start Recording Before Alarm (the pre-alarm function) .....	38
4.2.3	Stop Recording After Alarm (the post-alarm function) .....	38
4.2.4	Schedule setting .....	38
4.2.5	Motion Detection Setting .....	38
	Add a detection area .....	39

	Resize and move the detection area .....	39
	Set the detection-related functions:.....	39
	Remove a detection area .....	40
5	Log .....	41
5.1	View log .....	41
5.1.1	Log Interval.....	41
5.1.2	Record Category .....	41
5.2	Delete log .....	41
6	Settings.....	42
6.1	General .....	42
6.1.1	Take picture .....	42
6.1.2	Computer- Screen Saver .....	42
6.1.3	Computer- Screen Shutdown .....	42
6.1.4	Computer- Sleep Mode .....	42
6.1.5	Language.....	42
6.1.6	Energy Saving .....	43
6.1.7	Change Password .....	43
6.1.8	Manage the User Account .....	43
6.1.9	SMTP Server (SMTP).....	44
6.1.10	Camera Group .....	45
6.1.11	NVR Service.....	48
6.2	Recording .....	50
6.2.1	The Path Saving the Recording File .....	51
6.2.2	Disk Free Space .....	51
6.2.3	Reserved Recording Data.....	51
6.2.4	Not enough disk space .....	51
6.3	Screen.....	52
6.3.1	Change the OSD setting .....	52
6.4	Event and Action .....	52
6.4.1	Event List.....	53
6.4.2	Smart Detection.....	55
6.4.3	Action List .....	56

# 1 Surveillance

## 1.1 Log in the system

You can double click the desktop shortcut on your PC's desktop.

Or, in the windows platform, click "Start" → "Programs" → "Surveillance Studio".

After the program is started, a pop-up window will appear to verify user account. Enter the default username and password.

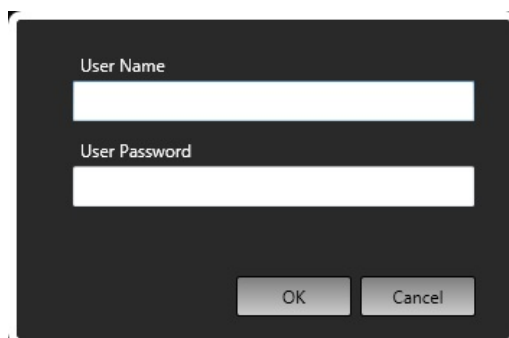


Figure: The log in dialog

Tip:

---

We suggest that you change the password after the first time login. Please refer to [Chapter 6, Settings](#).

## 1.2 Instant Keys

The instant keys provide instant execution.

### 1.2.1 Full Screen



If necessary, the user may click the 'Full Screen' button to show the viewer in the full screen mode. Press the "Esc" key to toggle the original size.

### 1.2.2 The Frame of the Viewers



Display the frame of the viewers. To change the frame color, please refer to [Chapter 6](#).

### 1.2.3 The OSD of the Viewer



The OSD (on-screen display) setting can turn the display messages on / off. Every Viewer will display its connecting condition. Please refer to [Chapter 6](#).

## 1.2.4 Lock



This function locks and hides the CMS system to prevent general users from destroying the system by accident. To unlock the system, please input the user account and password.

**Tip:**

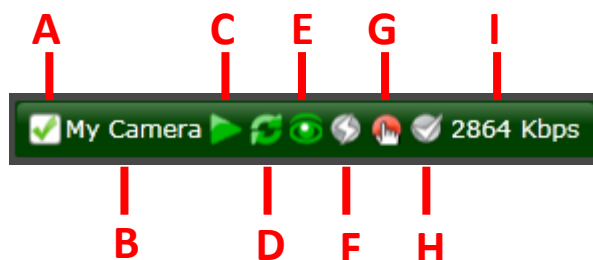
---

You can also use the icon to change the login account and its authority instantly.

## 1.3 Camera List

### 1.3.1 View the Camera list

Every list provides the details of the corresponding camera.



- (A) Indicates the camera is selected.
- (B) Camera Name.
- (C) Green=activated; gray=deactivated.
- (D) Green=connected; gray= disconnected. By observing the icon, the user may easily distinguish between the statuses of the connecting situations.
- (E) The green eye indicates full decoding, grey indicates no decoding; the green leaf indicates energy-saving mode.
- (F) Red=event recording; gray=deactivated.
- (G) Red=manual recording; gray=deactivated.
- (H) Red=schedule recording; gray=deactivated.
- (I) The connection speed of receiving the camera stream every second (unit: kbps).

### 1.3.2 Add Camera

Click the  button, and an 'Add Camera Device' dialog appears.



The screenshot shows a 'Add a camera' dialog box with the following fields and values:

- Camera Name: My Camera
- HTTP Address: 192.168.1.100
- HTTP Port: 80
- User Name: (empty)
- User Password: (empty)
- Protocol: TCP
- Camera Vender: (empty)
- Camera Model: (empty)
- Live View Channel: (empty)
- Recording Channel: (empty)
- Groups: New Group

Buttons at the bottom: Search..., OK, Cancel.

**Figure: Add a camera**

**Camera Name:** Fixes a desired title for each camera.

**HTTP Address:** Display the IP address of the camera.

**HTTP Port:** The HTTP PORT allows users to set the HTTP port number from 0000 to 9999. The default is 80.

**User Name:** The username to login the IP Camera.

**User Password:** The password to login the IP Camera.

**Communications Protocol:** TCP as default.

**Camera Vender/ Model:** Click “Auto detect” to search a device automatically. Or you can manually add a camera by selecting the camera vender and model.

**Live View Channel/ Recording Channel:** You can set “Live View Channel” and “Recording Channel”, respectively, if the IP camera supports the Multi-Profile function. For example, to reduce your CPU usage, you can set “Live View Channel” to a lower resolution stream of MJPEG/ MPEG4, and set “Recording Channel” to a higher resolution, the MPEG4/ H264 stream.

**Tip:**

If “View Channel” and “Recording Channel” are set respectively for corresponding streaming, the camera will always be in the state of “View Channel”.

**Camera Group:** Add a camera to a group to manage the camera systematically. Refer to chapter [Settings](#) for advanced settings for a camera group.

**Search:** The system automatically searches all vendors connecting IP cameras in the network. The search result will be listed only in the identified models.

### 1.3.3 Remove a Camera



Disconnect the camera before removing it. When the camera has been removed, the corresponding recording data will also be deleted.

### 1.3.4 Modify the Camera



Follow the same function with the Add camera. But you can't modify the camera vender and the model here.

### 1.3.5 Start/ Stop to connect the camera



The “**Start to connect the camera**” icon in green color means the connection of the camera is ready and the camera can be operated normally. The “**Start to connect the camera**” icon in gray color means the connection of the camera has failed, and the connecting information needs to be modified.

#### Tip:

---

You can use the web browser to double confirm that the camera connection is successful.

### 1.3.6 Manual Recording



If the selected viewer is not active, set it to active. Press the icon to instantly run the manual recording function. Press again to stop recording.

#### Tip:

---

Manual Recording supports the pre-alarm function. Please refer to Chapter 6, [Settings](#).

### 1.3.7 Video decode mode Switching



Decode modes are of the following three kinds:

**Decode all frames:** This is default setting. Upon receiving image signals from a camera, the program will decode to obtain the images. Usually, a CPU load comes from decoding.

**Do not decode:** If the camera is set without decoding, it will reduce the CPU load.

**Decode I-Frame only:** In this mode, the CMS runs with a minimal load. Generally, in the

“Decode I-Frame only” mode, CPU uses only 1/3~1/8 resources. When computer processing speed is not fast enough, use the “Decode I-Frame only” mode to maximize the number of IP camera connection.

**Note:**

If the decoding mode is set as “Do not decode”, all image dependent functions, such as motion detection, will be disabled.

**Tip:**

If the camera “Live Streaming” is set in a low resolution MJPEG mode and “Recording Streaming” is set at a high resolution H.264, the CPU load will be reduced and a smart detection function will be maintained.

**Advance:**

In the Decode I-Frame only mode, only I Frame images are decoded for video streaming in H.264 and MPEG4. If video streaming is in MJPEG, one image is decoded every 800 milliseconds.

### 1.3.8 Exchange the camera display mode



There are two kinds of camera display mode: by list or by thumbnail.



Figure: Display by list

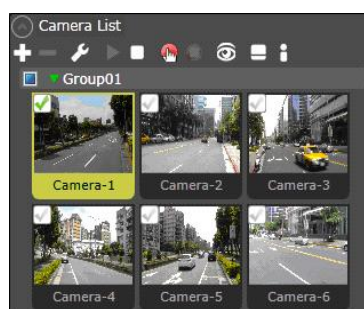


Figure: Display by thumbnail

### 1.3.9 Show the advanced information of the camera



Click to display the advanced information of the camera: the IP address, FPS, Rate, and the audio/ video format.

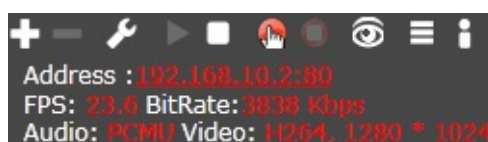
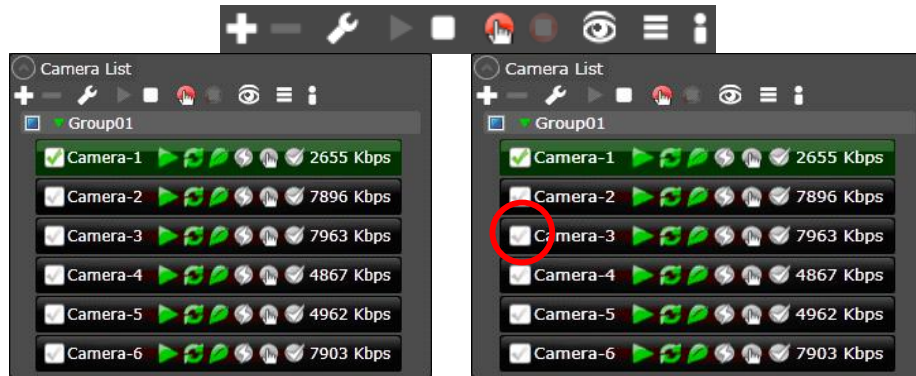


Figure: The advanced information

**Tip:**

Click “Address” to connect the main page of the IP Camera with the web browser.

### 1.3.10 Single Selection/ Multiple Selection Camera



**Figure: Single Selection Camera**

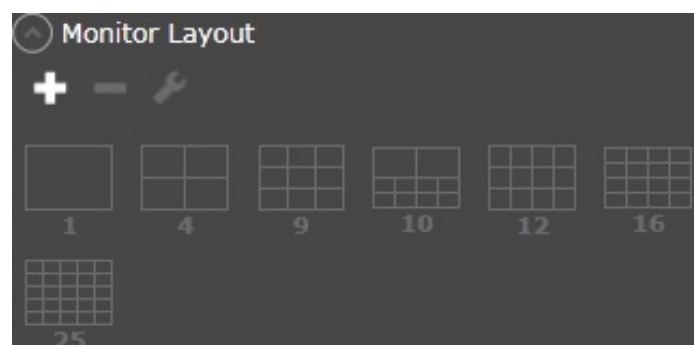
**Figure: Multiple Selection Camera**

Single Selection Camera: Click any place in the list (excluding the checkbox) to make a single selection.

Multiple Selection Camera: Click the checkbox to make a multiple selection.

## 1.4 Monitor Layout

The Monitor Layout provides the different pattern layouts, such as 1x1 pattern (1 viewer), 2x2 pattern (4 viewers) or 3x3 pattern (9 viewers). Drag the specific cameras from the device list and drop in the viewers. You can add a new pattern and customize it by yourself, too.



**Figure: The pattern panel**

**Tip:**

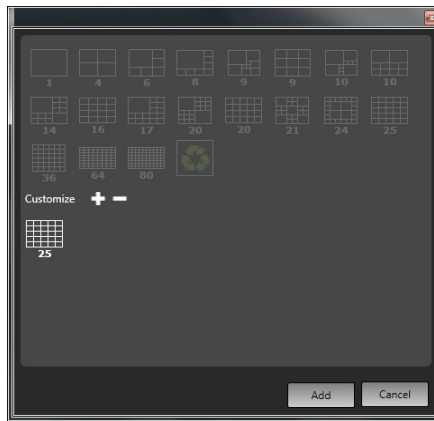
Any of the windows in the pattern layout can be selected as one of the sequence of displays.

### 1.4.1 Add/ Remove a Pattern of the Monitor Layout



You can add a new pattern and customize it by yourself to fit your requirement.






**Figure: Add a new pattern**

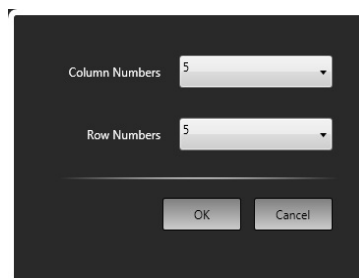
**Tip:**

The pattern can be customized if default patterns cannot meet the needs.

### 1.4.2 Customize a Pattern of the Monitor Layout

You can customize a new pattern to make the monitor layout fit your 16:9/16:10 monitor or other requirements.

Select the “” button next to the word “**Customize**”, and the screen will show the following dialog.



**Figure: Set the Column/ Row Number**

Select the numbers of column and row on the dialog, then click “**OK**” to bring out the setting panel. You can draw up your own custom surveillance pattern on the panel.

You can use the “**Merge Cells**” or “**Cancel a Merge**” function buttons to make the advanced configuration.




**Figure: Customize the surveillance pattern**

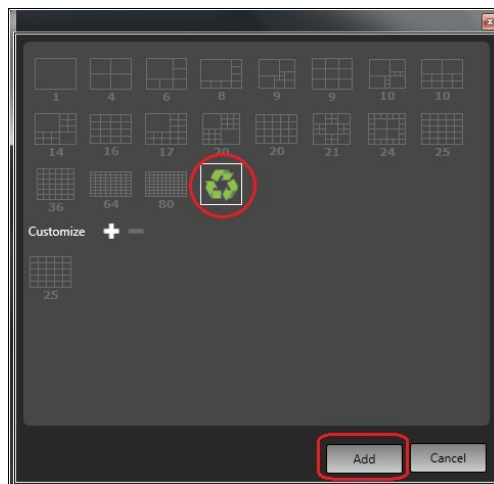
**Merge Cells:** Select the cells, then click “Merge Cells”.

**Cancel a Merge:** Select a cell, then click “Cancel a Merge”.

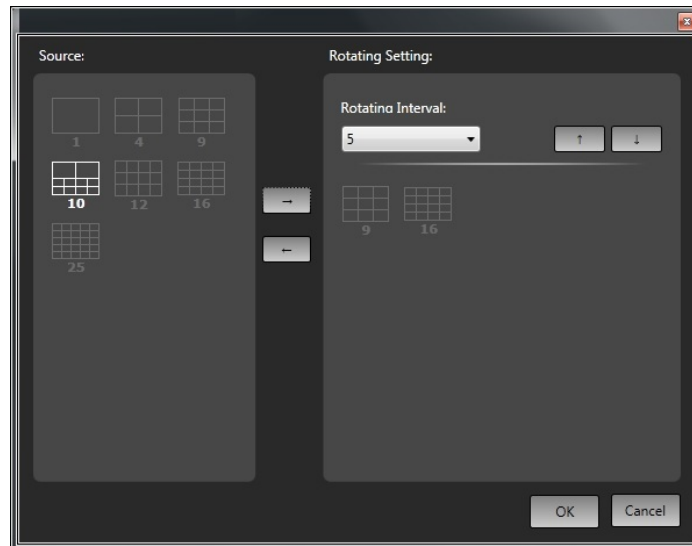
### 1.4.3 Add a Sequence Display Pattern

This function enables you to use different modes to set the sequence of displays.

Select “”, then click “**Add**”, and the screen shows the following setting panel.



**Figure: Add a Sequence Display pattern**



**Figure: The Setting Panel of Sequence Display**

### Add a Sequence Display pattern

You can select from the patterns you added in the “**Source**” column on the left side of the setting panel. Double click the selected pattern to add it into the “**Rotating Setting**” column on the right side

#### Tip:

---

You can add the same pattern into the Rotating Setting column several times.

### The Rotating Interval option

Set the desired time period. The rotating interval (dwell time) option for displays in each pattern can be set at your own preference.

### Arrange the sequence

Arrange the sequence display patterns in turn at your own preference.

#### Note:

---

You have to set the cameras of the sequence display patterns from the monitor layout instead of dragging the camera source to the viewer.

#### 1.4.4 Multi-screen function

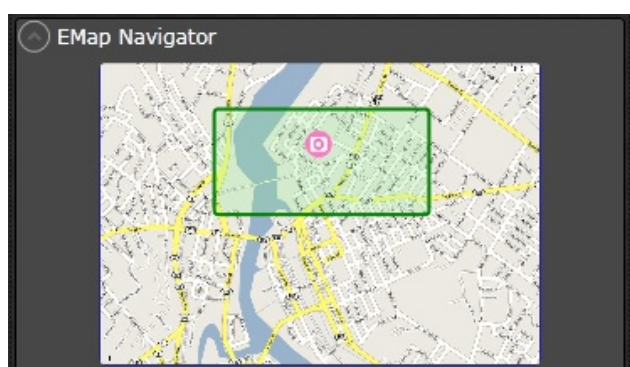
The CMS supports the multi-screen function, and the numbers of the screens (windows) are not limited. Double click the pattern you want to open a single window. To stop the function, please click the close window button.



**Figure: Supporting multi-screen function**

## 1.5 EMap navigation

Please take a panoramic view of the map. The base map is a complete picture, and the green rectangular frame is the area that the electronic map displays.



**Figure: EMap navigation**

### 1.5.1 Zoom in/out the EMap navigation

Select a map from the EMap thumbnail, and display it in the EMap navigation area.

The green rectangular frame is the area that the electronic map displays. Move your mouse on the map and use the scroll wheel to zoom in or zoom out the map.

### 1.5.2 Move the EMap navigation

Select a map from the EMap thumbnail and display it in the EMap navigation area.

The green rectangular frame is the area that the electronic map displays. Drag your mouse on the map and move it.

## 1.6 ePTZ (digital zoom and movement)

The ePTZ (electronic pan/tilt/zoom) capabilities enable users to move to a target region instantly for close-up shots by simply clicking on the video feeds on the screen rather than moving the camera physically.

The rectangular frame of the ePTZ panel is the abbreviation for a “region of interest”, and is often used in an image which comes from the megapixel camera. The mode helps the user to filter the image details more efficiently.



**Figure: ePTZ operation**

### 1.6.1 ePTZ- zoom in/ out

Select a camera, and the image thumbnail will display on the ePTZ panel. The green rectangular frame is the area that the image displays. Move your mouse on the image and use the scroll wheel to zoom in or zoom out. The zoom levels are not limited.

### 1.6.2 ePTZ- movement

Select a camera, and the image thumbnail will display on the ePTZ panel. The green rectangular frame is the area that the image displays. Drag your mouse on the image and move it.

## 1.7 Set the viewer

A viewer is composed of the channel image the on-screen display (OSD), and the indicators. When the user activates the channel or the ePTZ function, a corresponding area in a colored rectangle will be shown in the viewer.

### 1.7.1 Play an image

**Method 1:** Select the preferred camera name from the camera list. Drag the preferred

name and drop it in a viewer.

**Method 2:** Select the preferred camera icon from the EMap Navigator panel. Drag the preferred icon and drop it in a viewer.

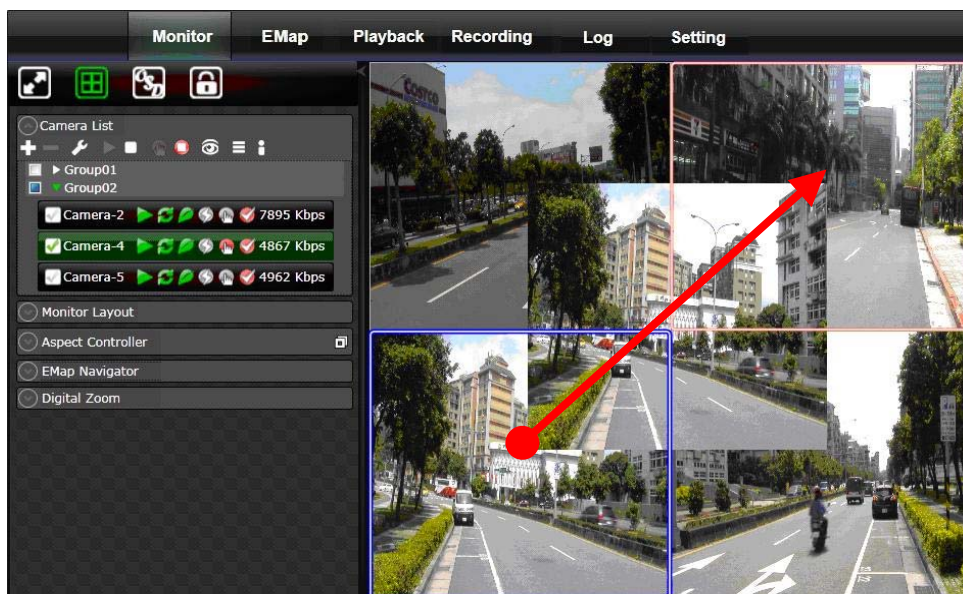


**Tip:**



You can drag a preferred camera and drop it in different viewers using the ePTZ function to gain the effect of “multi-point monitoring” with just one camera.

### 1.7.2 Switch the images

You can use the mouse to switch from one image to another.



### 1.7.3 Disconnect the Image

Click the selected viewer and set it to active. Right click the mouse, and a pop-up menu appears. Click the “” (Remove a single viewer) or “” (Remove all viewers) item in the pop-up menu. The image(s) have been disconnected.

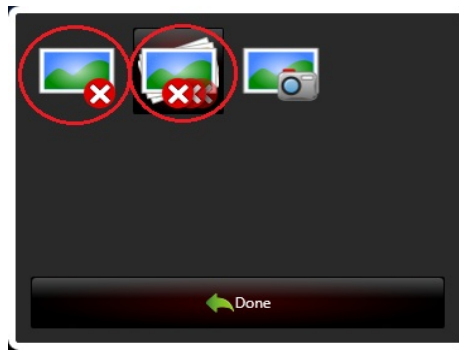



Figure: The pop-up menu

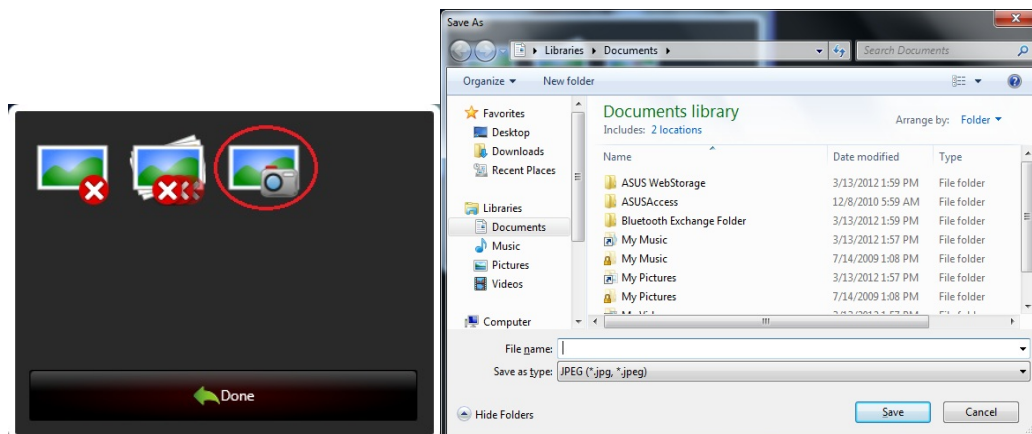
#### 1.7.4 Take picture (Snapshot)

The function allows the user to capture the desired screen when the video clip or streaming is playing. The captured image can also be saved or printed out for the user's needs.

Click the selected viewer and set it to active. Right click the mouse, and a pop-up

menu appears. Click the “” item in the pop-up menu. The image has now been saved.

If you select the “Auto save” of the “Take Picture” option, the snapshot will save into the path which was set. Please refer to [Chapter 6](#).





## 2 EMap

The EMap provides the camera position on the map.

### 2.1 Add/ Remove an EMap

#### 2.1.1 Add an EMap

Click the “Add” button, select the map file from the PC, and enter the map name.

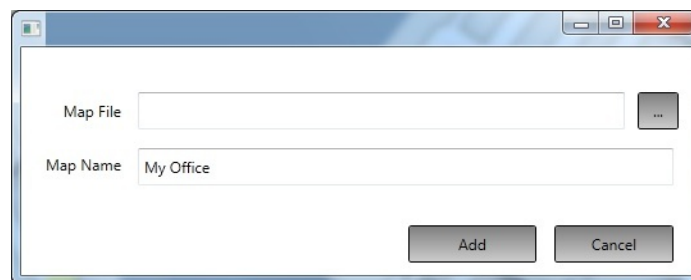
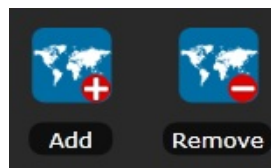


Figure: Add an EMap

#### 2.1.2 Remove the EMap

Click the selected map. Click the “Delete” button.

### 2.2 EMap operation

#### 2.2.1 EMap Scale

Scrolling with the mouse over the map shows the changing scale. Or you can use the

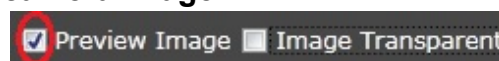
EMap Scale option or the EMap navigator to change the scale.



#### 2.2.2 Move the EMap

To drag the map to a new location, press and hold the mouse button anywhere on the map to "grab" it.

#### 2.2.3 Preview the camera image





Check the **“Preview Image”** function.

Click the camera icon on the map to preview the camera image. Double click the camera icon to bring out the independent viewer (window) of the camera

#### 2.2.4 Make the camera image transparent



Check the **“Preview Image”** and the **“Image Transparent”** function.

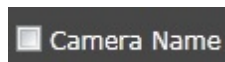
Move the mouse over the camera icon and preview the camera image. Move the mouse outside the camera image, and the image will become transparent.

#### 2.2.5 Remove the camera icon



You can select one or all of the camera icons.

#### 2.2.6 Camera Name



Check to show the camera name on the EMap.

### 2.3 EMap Navigator

The EMap Navigator provides the panoramic view of the map. The base map is a complete picture, and the green rectangular frame is the area that the electronic map displays. Move your mouse on the map to zoom or move it.

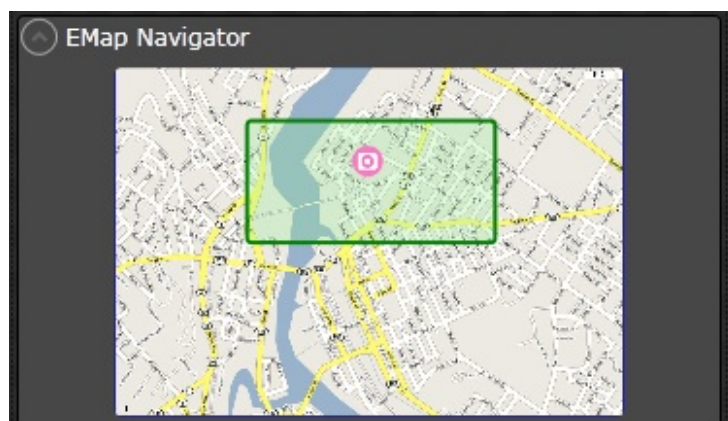


Figure: EMap Navigator

## 2.4 Interact the camera list and the EMap Navigator

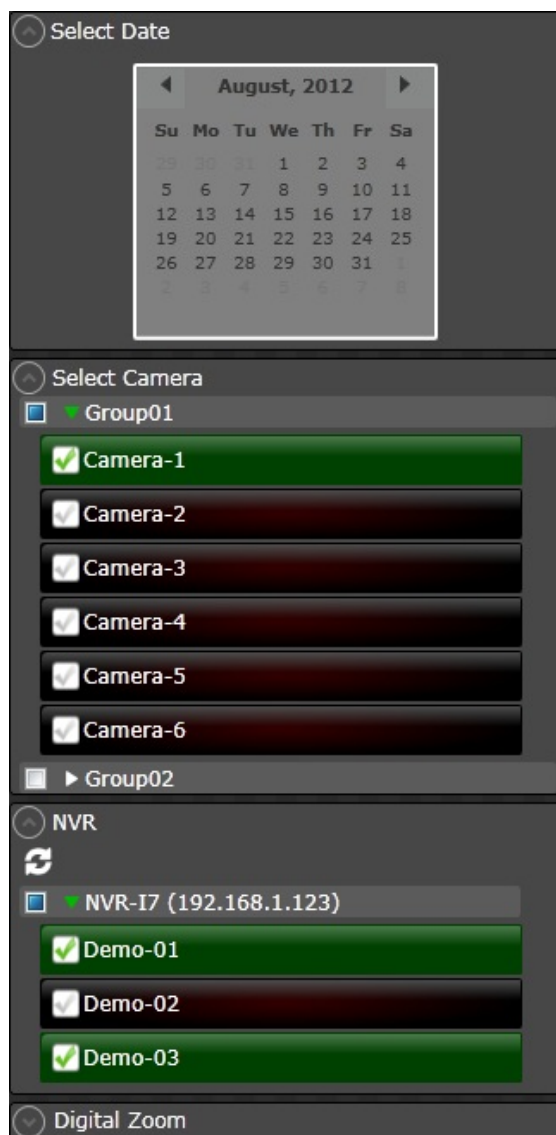
You can select a camera and preview its images on the camera list, EMap, or the EMap Navigator.



## 3 Playback

### 3.1 Find a recorded file

You have to set the date and the camera information first to get the data of the recorded files on the timeline in the right column.



**Tip:**

---

Set the correct date to help you search the recorded files quickly.

### 3.2 Set the Image TimeLine

The timeline is a time axis for video playing.

The video playback uses the concept of the timeline. You have to set the date and the camera information first in order to get the data of the recorded files on the timeline in

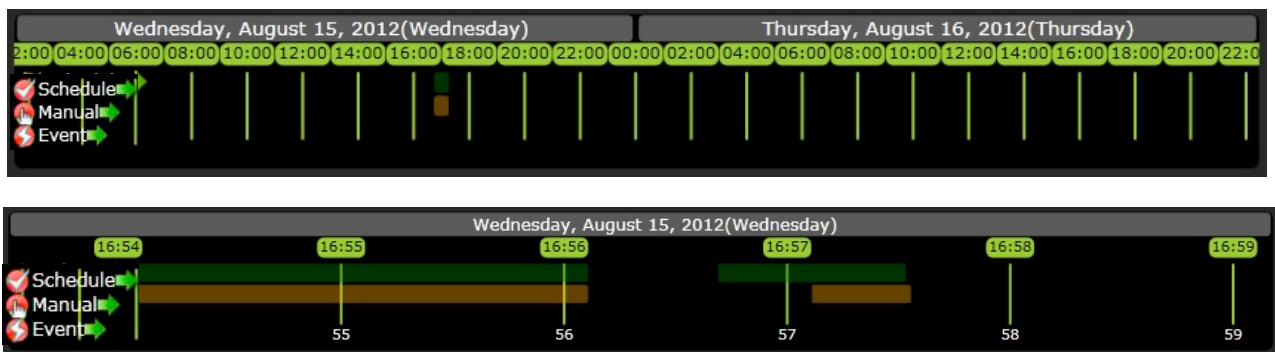
the right hand column. The horizontal axis of the timeline is time, and the image records will be marked on the timeline. The timeline provides the time graduation and the information of the category, respectively: Schedule Recording, Manual Recording, and Event Recording.

**Note:**

**As a multichannel camera plays back, video segments will show on the time axis simultaneously.**

**Tip:**

**As a remote NVR plays back, press the “Update” button. The operation is the same as playback.**

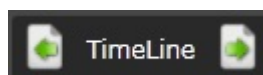


**Figure: TimeLine**

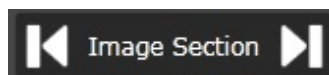
**Narrow/ enlarge the timeline:** You can use the mouse wheel to narrow or enlarge the timeline; or you can use the “**TimeLine Scale**” bar to do it.



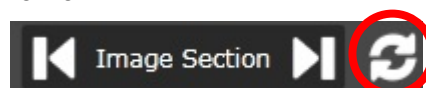
**Move the timeline:** You can use the mouse to move the timeline; or you can use the “**TimeLine**” bar to do it.



**Move up/ down the video segment:** You can use the “**Image Section**” bar to move the selected video segment backward or forward.



**Update the image data:** You can use the “Refresh” button to update the latest recording data on the timeline.



**Tip:**

**The function of “Update the image data” can be executed even if the CMS software is recording.**

**Tip:**

**Arrange the suitable size of the timeline- this will make your time selection more accurate.**

### 3.3 Video Player

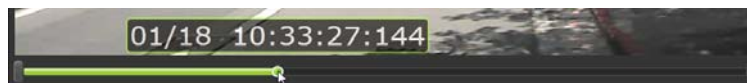
Select the recording data on the timeline, and the Video Player below the timeline will start to play back the image.



Figure: Video Player

#### 3.3.1 The playback timeline

You can scroll the playback timeline to preview the playing image faster. While dragging, a green frame will be displayed showing the time point.



#### 3.3.2 i-frame mode

Every media player will support our i-frame mode to reduce the CPU loading.



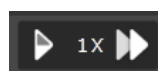
**Tip:**

When you playback several recording files, remember to make use of the i-frame function in your computer more effectively.

#### 3.3.3 Change the play back speed

The highest speed is 128x. In the 64x playing back mode, it only takes you one minute to preview the 1-hour video file.

The lowest speed is 1/64x.



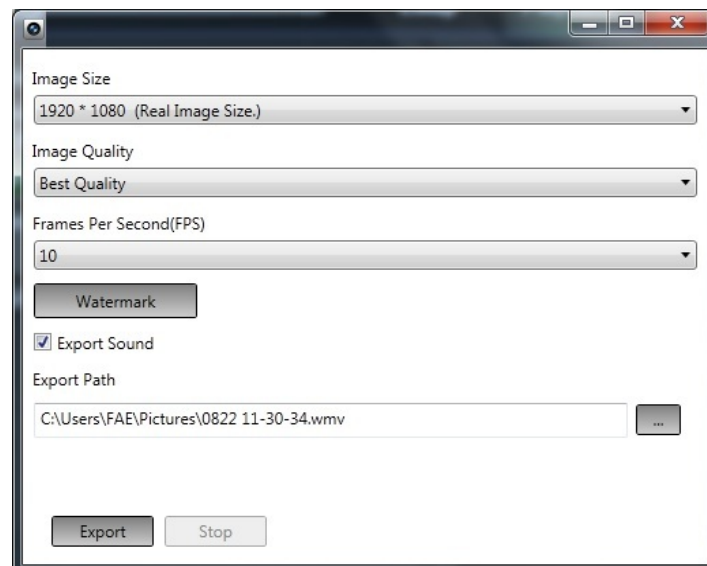
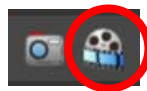
### 3.3.4 Jump the image

The player provides the jumping function to move forward to the next section every 5/30 seconds. This option helps you fix the position of the video quicker, or play back the video in an easier way.



## 3.4 Export the image

The export will be in the WMV format, which is compatible with most Windows® platforms.



### 3.4.1 Arrange the length of the export video file

Adjust the timeline marks (starting/ end point) on the video player, and export the video file. You can click or pull the indicator on the scroll bar to the point you want to export.

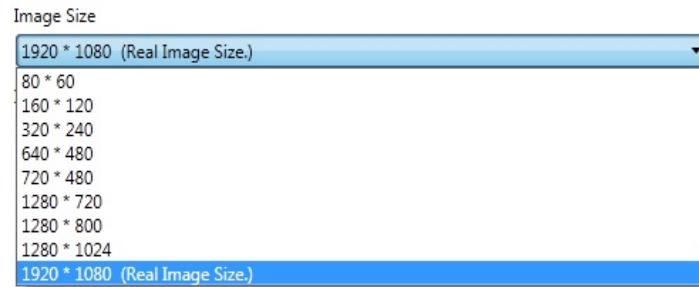


### 3.4.2 The image size of the export file

The minimum image size is 80\*60, and the maximum is 1920\*1080. The default image size is recommended because that is the true resolution size of the recording data.

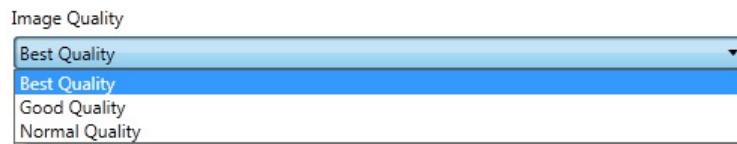
If the export image size is larger than the true image resolution, the system will use software simulation to enlarge and then compress the image, and the method will

consume the CPU resources.



### 3.4.3 The image quality of the export file

The image quality provides 3 levels: Best (a much larger file size), Good and Normal (a much smaller file size).



**Note:**

---

The higher the image quality you select , the more CPU resources will be consumed.

### 3.4.4 The FPS of the export file

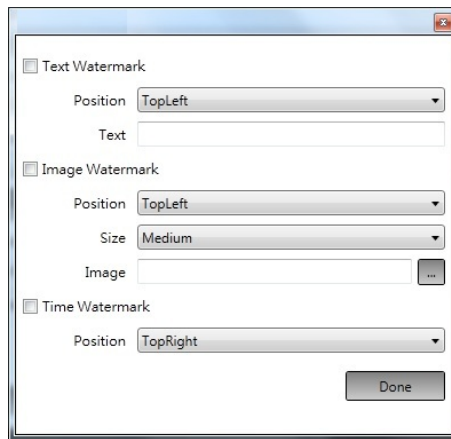
You can set the FPS (frames per second) of the export file. If the exported FPS is larger than the FPS of the recorded file, the system will compress the file in the original (recorded) FPS. The default value is recommended.



### 3.4.5 Watermark

Watermarks in text, image and time are available. Multiple selection is allowed. The output image file will show the selected watermark.





**Figure: Watermark Window**

### 3.4.6 Export Sound

Check the option to enable you to activate the exported video's audio content.

### 3.4.7 Export Path

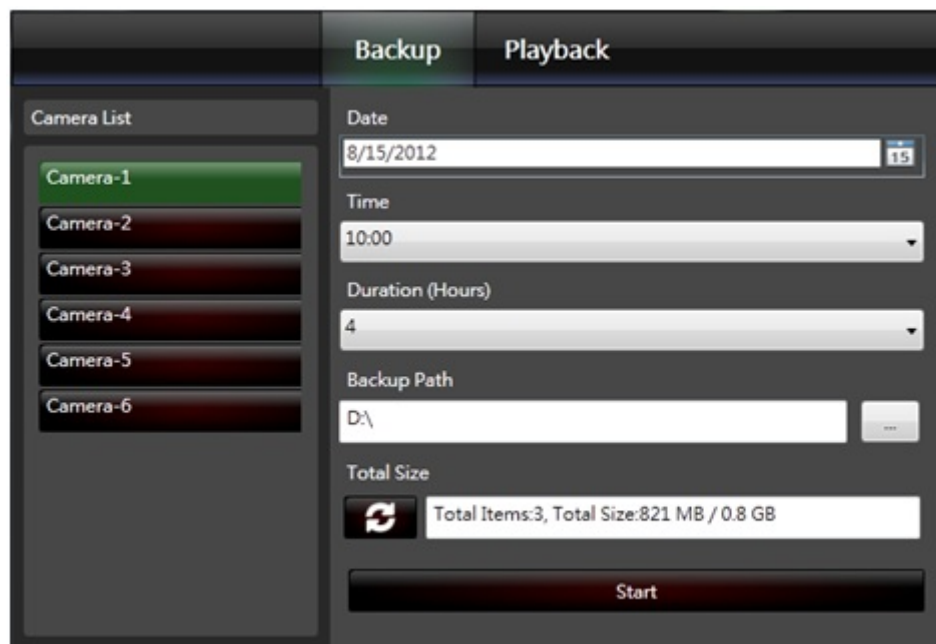
You can set the backup file path and the file name.

## 3.5 Backup (Image)



Click the "Image Backup" button to pop up the window as shown in the figure below.

The Image Backup Window has backup and playback functions.



**Figure: Backup Window**



On backup page the left side of the camera list and on the right side is the backup condition workspace. Select a camera from the list on the left side and then select the desired backup condition from the workspace on the right side. Press the “Start” button to run the backup process.

**Tip:**

---

Press the “Update” button to show the quantity and size of backup data under the selected condition.

On the playback page first select backup data path for the playback images. Press the “Update” button to show the same user interface as in the following figure in the playback function page in the main program.



**Figure: Backup Data Playback**

**Tip:**

---

Refer to chapter [Playback](#) for related operation instructions.

## 4 Recording

### 4.1 Schedule Settings

The schedule settings will help the user to setup the schedules of recording by the selected camera. You can easily use your mouse to drag and drop in order to set the schedule. The main features of the schedule settings are:

- Friendly GUI-based recording time list.
- Apply the template-simplify the editing steps.
- Each IP Camera has its independent time schedule.
- Use the week unit for the periodic automatic recording.

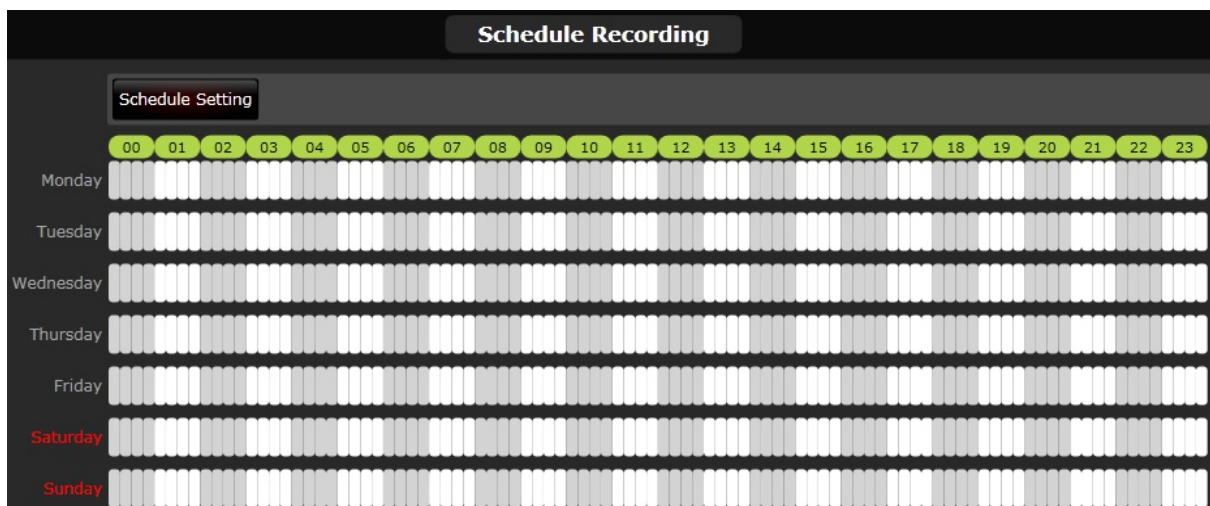


Figure: Schedule Recording

The user can manually set the schedule. In the checked area of the settings page you can set or delete the schedules. The CMS will start and stop recording according to the programmed schedule.

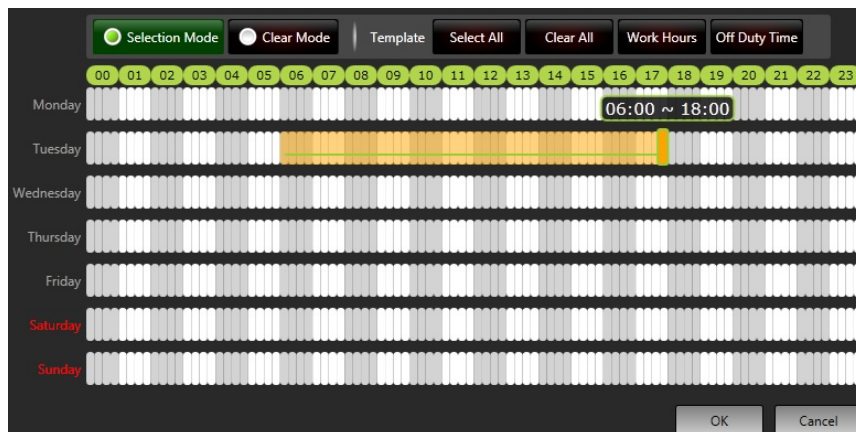
Select **“Recording”** to enter the recording setting page. Select a camera from the list, then click **“Schedule Recording”** to show the Schedule Recording setting window:



**Figure: The Schedule Recording setting window**

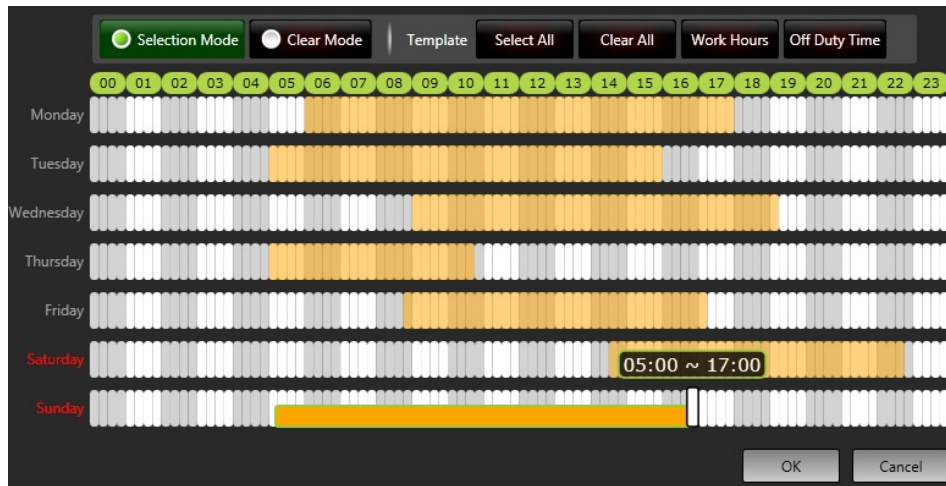
### Set the schedule:

You can set a weekly recording schedule from Monday to Sunday. There are 96 checks everyday, and each check covers 15 minutes. Use the mouse to drag and select the time period, and the cursor will display the selected time simultaneously:



#### 4.1.1 Selection Mode

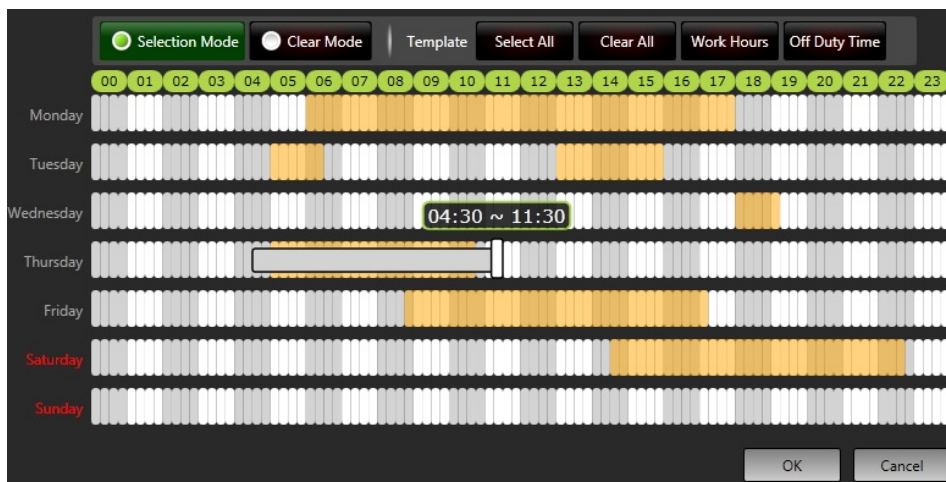
In the Selection Mode, the functioning schedule check is colored orange, and the non-functioning schedule bar(s) is (are) colored white/ gray:



#### 4.1.2 Clear Mode

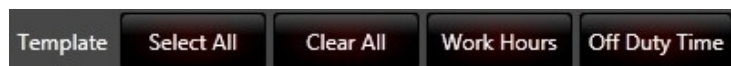
Check/uncheck any/all of the checks set in the “**Clear Mode**” page to disable the programmed recording function.

The non-functioning schedule check(s) will be replaced by a white/ gray color:



#### 4.1.3 Apply the template

The CMS provides 4 quick set buttons for simplifying the schedule setting steps.



**Select All:** Provides a weekly schedule recording.

**Clear All:** Makes all the effective checks clear.

**Work Hours:** Provides the schedule recording from 8:00 to 17:00 every weekday.

**Off Duty time:** Provides the schedule recording during the off duty time.

**Tip:**

Select multiple cameras and simultaneously set up a recording schedule as well as a motion detection schedule.

## 4.2 Motion Detection Recording

Motion detection is an intelligent surveillance function which is used to detect the movement of objects on the screen. When a motion detection event is triggered, the CMS will issue an alert or start recording

### 4.2.1 The Main Features

- The motion detection areas can be resized, and there are no quotas.
- The graphic value of the movement of objects is provided.
- Each motion area has independent motion setting conditions.
- The pre-alarm function is supported.
- The schedule setting is supported.

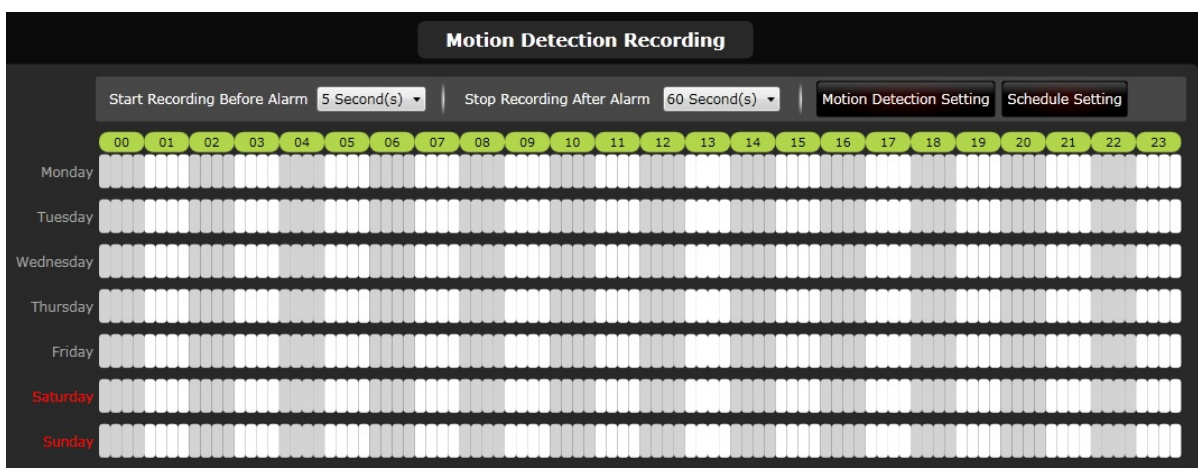
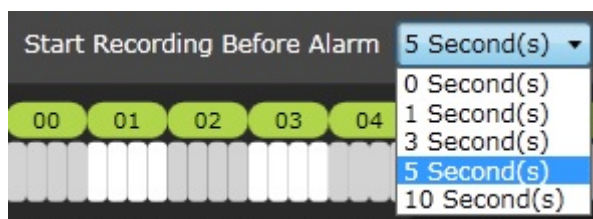


Figure: Motion Detection Recording

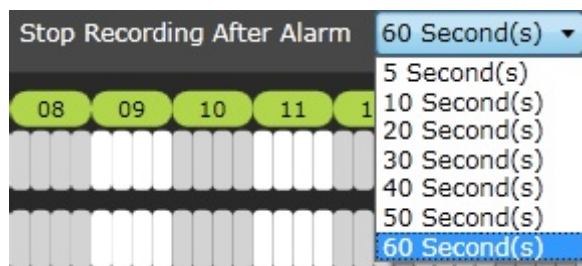
#### 4.2.2 Start Recording Before Alarm (the pre-alarm function)

This function enables you to change the duration and pre-alarm period of the alarm settings. Set the desired time period of 0, 1, 3, 5 and 10 seconds.



#### 4.2.3 Stop Recording After Alarm (the post-alarm function)

This function enables you to change the duration and post-alarm period of the alarm settings. Set the desired time period of 5, 10, 15, 20, 30, 40, 50 or 60 seconds. This function can significantly reduce the storage capacity of recording images.

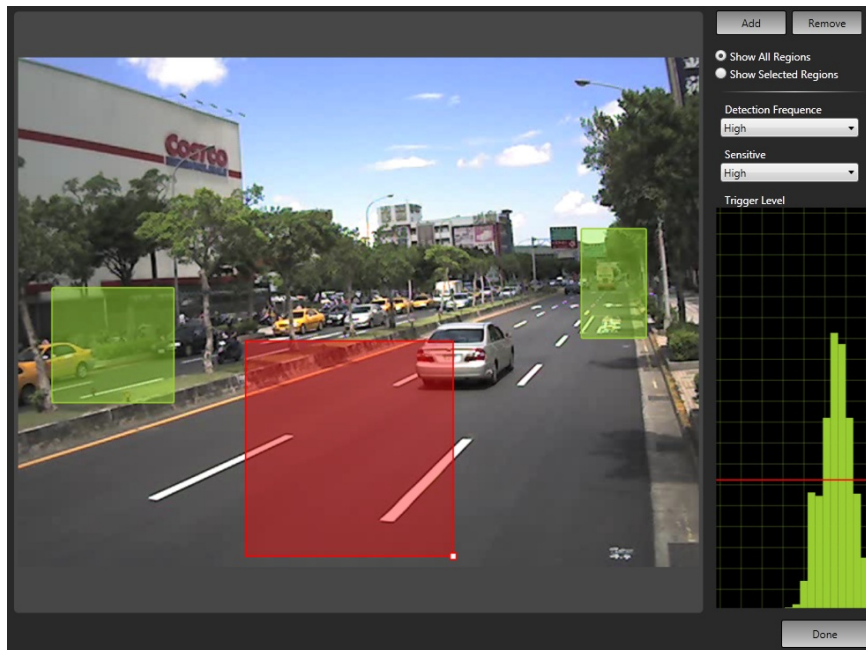


#### 4.2.4 Schedule setting

Please refer to section 4.1, [Schedule Settings](#).

#### 4.2.5 Motion Detection Setting

The user can manually set the target area.



**Figure: Motion Detection Setting**

### Add a detection area

Click “Add” to add a detection area; the number of the areas is not limited.

#### Note:

---

**If you change the resolution of an IP Camera, all the existing detection areas will be erased.**

### Resize and move the detection area

When the cursor displays a double-headed arrow on the lower right corner of the frame of the setting area, you can use the mouse to drag the area and resize it. You can move the red area with the mouse as well.

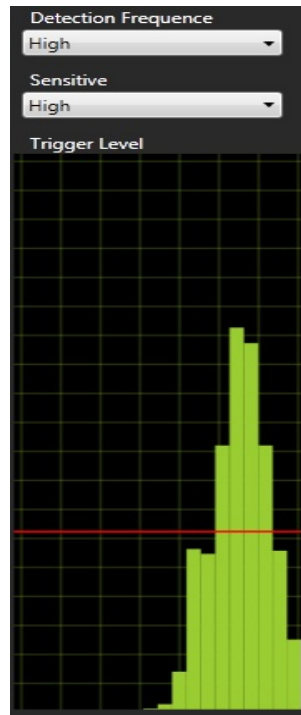
### Set the detection-related functions:

**Detection frequency:** Set the frequency of High, Normal or Low to trigger the motion detection function.

**Sensitivity:** Set the sensitivity level to trigger motion detection at High, Normal or Low.

**Trigger Level:** Use the mouse to click and set the trigger threshold (red line) on the bar graph. The system will trigger an alarm when the green bar moves beyond the trigger threshold.





### Remove a detection area

Select a desired detection area and the area will be highlighted in red color. Now click

**“Remove”** to erase it.

#### Tip:

---

When finishing the settings of the detection-related functions, please click **“Done”** to turn the settings on.



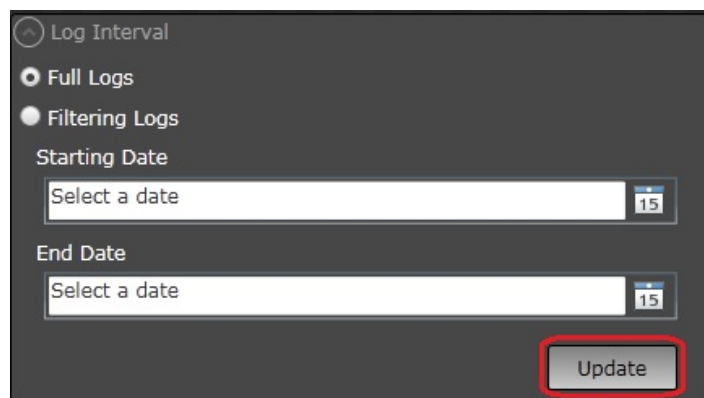
## 5 Log

### 5.1 View log

The function allows viewing of a system log.

#### 5.1.1 Log Interval

Select the “Full Logs” mode or “Filtering Logs” mode. Press the “Update” button to update the contents on the right hand side.



The screenshot shows a configuration window titled "Log Interval". It has two radio buttons: "Full Logs" (selected) and "Filtering Logs". Below these are two date pickers labeled "Starting Date" and "End Date", both showing "15". At the bottom right, there is an "Update" button highlighted with a red rectangle.

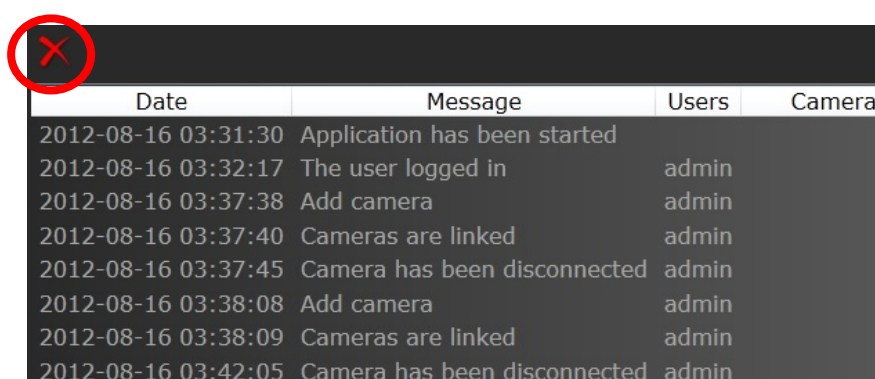
#### 5.1.2 Record Category

Besides displaying full logs, four categories are provided to distinguish log contents, as shown in the following figure.



### 5.2 Delete log

Select the log to be deleted from the list. Press the “Delete” button.



The screenshot shows a table with log entries. A red circle with a white 'X' is over the top-left corner of the table, indicating a delete action. The table has four columns: Date, Message, Users, and Camera.

Date	Message	Users	Camera
2012-08-16 03:31:30	Application has been started		
2012-08-16 03:32:17	The user logged in	admin	
2012-08-16 03:37:38	Add camera	admin	
2012-08-16 03:37:40	Cameras are linked	admin	
2012-08-16 03:37:45	Camera has been disconnected	admin	
2012-08-16 03:38:08	Add camera	admin	
2012-08-16 03:38:09	Cameras are linked	admin	
2012-08-16 03:42:05	Camera has been disconnected	admin	

**Tip:**

If multiple logs are to be selected and deleted, press and hold the “Shift” button first and then proceed as instructed above.

## 6 Settings

### 6.1 General

Click “Setting” to enter the setting page, then select “General” to proceed with the settings.

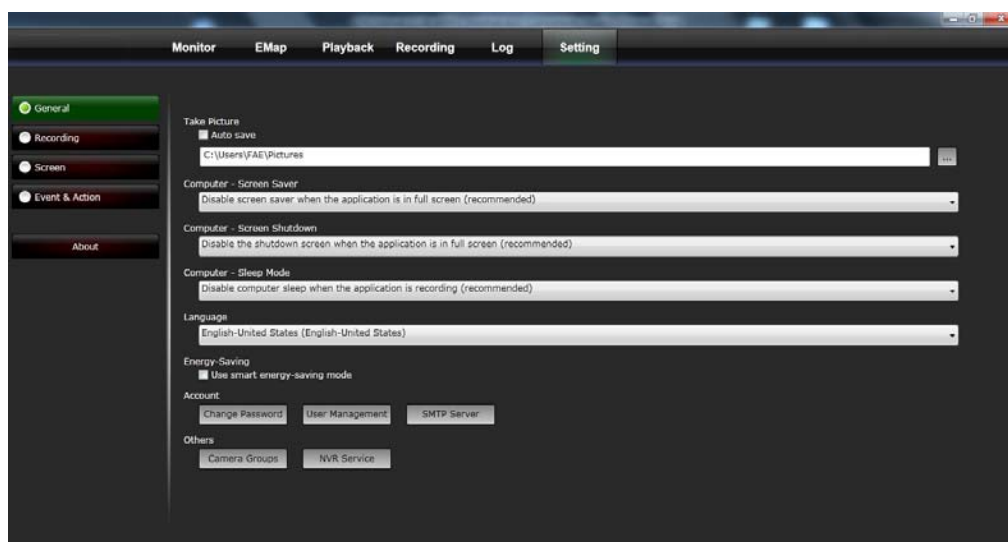


Figure: General Setting

#### 6.1.1 Take picture

Select “**Auto save**” in the “**Take Picture**” option, and the snapshot will be saved into the path which was set and the system will retrieve the date and time to the file set name.

Uncheck the “Auto save” option and you will have to set the saving path and the filename every time you take a snapshot.

#### 6.1.2 Computer- Screen Saver

The “**Disable the shutdown screen when the application is in full screen**” option is recommended. Configure the screen saver option according to your needs.

#### 6.1.3 Computer- Screen Shutdown

The “**Disable computer sleep when the application is in full screen**” option is recommended. Configure the screen shutdown option according to your needs.

#### 6.1.4 Computer- Sleep Mode

The “**Disable computer sleep when the application is recording**” option is recommended. Configure the sleep mode option according to your requirements.

#### 6.1.5 Language

Non-English users need to change the regional options and the language settings for the local requirements there.

### 6.1.6 Energy Saving

Set the CMS software to enable or disable the smart energy-saving mode.

### 6.1.7 Change Password

This is to change the user password for the use of logging in the CMS software. Click “Change Password” and enter the current password and new password. Then verify the new password again. Press “OK” to change; or press “Cancel” to discard the change.

### 6.1.8 Manage the User Account

The system offers three user accounts – Administrator, Power User and viewer. In terms of privilege, the operator is prohibited from accessing the configuration mode, but the manager can access all the modes.

**Administrator:** The administrator is allowed to operate all the functions

**Power User:** The power user is allowed to operate all the functions but not prohibited from accessing the configuration of the user account.

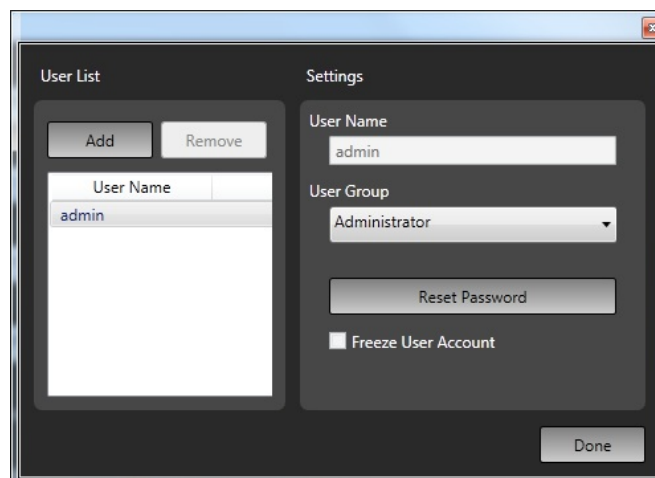
**Viewer:** A user who accesses with just the viewer name and password has only a limited power to view.

**Tip:**

---

You can also use the “Lock” icon to change the login account and its authority instantly.

The user management window:



**Figure: Manage the user account**

**User List:** Provides the user list.

**Add a user:** Click the “Add” button to bring out the setting panel.

User Name: User01

User Group: PowerUser

New Password: .....

Confirm New Password: .....

OK Cancel

**Figure: Add a user**

**Remove a user:** Click the “Remove” button and press OK to remove the selected user.

**User Group:** Change the group a user belongs to.

**Reset Password:** Reset the password of a selected user.

**Freeze a User Account:** Check to freeze a selected user account, so the user cannot log into the system.

**Note:**

---

For the system default account, you can only change the corresponding password but cannot remove or modify the group or freeze the account.

### 6.1.9 SMTP Server (SMTP)

Mail Server

SMTP Server: Google GMail smtp.gmail.com

SMTP Port: 587

Enable SSL: ☒

Login

User Name: admin

Password: .....

Sender

Display Name: Administrator

Sender Address: admin@gmail.com

Test Done

**Figure: SMTP Settings**

When monitoring an event which need arises and emailing is required, it is necessary

to set up the SMTP Server for the event notification function.

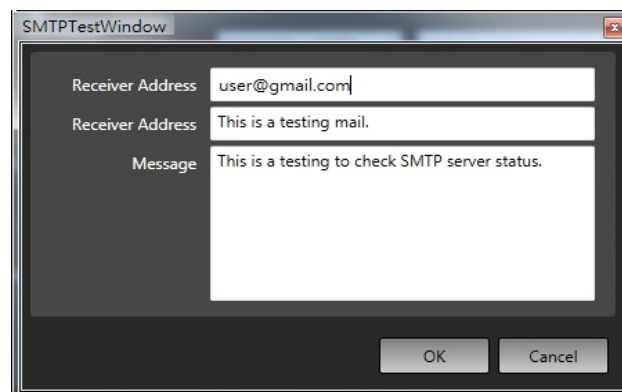
**Mail Server:** This is the parameter settings for the SMTP server. In default, the settings for three common email servers are provided: Hotmail/MSN/Live, Yahoo! and

**Gmail:** manual setup is also an option.

**Login:** Enter the related username and password. Most likely, the username is your email address.

**Sender:** Enter related name and email address for displaying.

Press the “Test” button to pop up a window for sending a test mail as shown in the following figure. It is to test whether the server settings are correct or not. Enter the receiver’s email address and press OK for testing.



**Figure: Send a Test Mail**

**Note:**

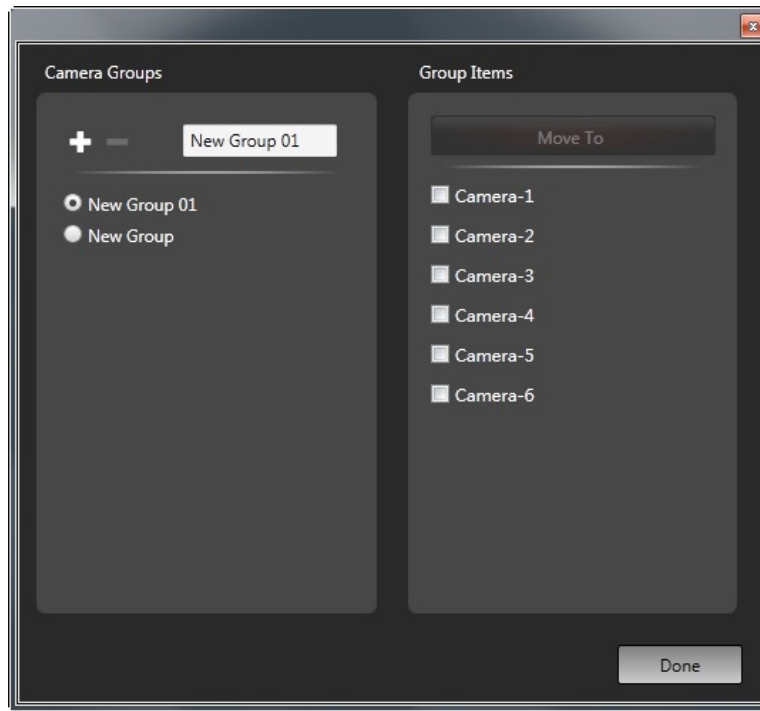
---

**Please keep an Internet connection to be connected all the time during testing.**

#### **6.1.10 Camera Group**

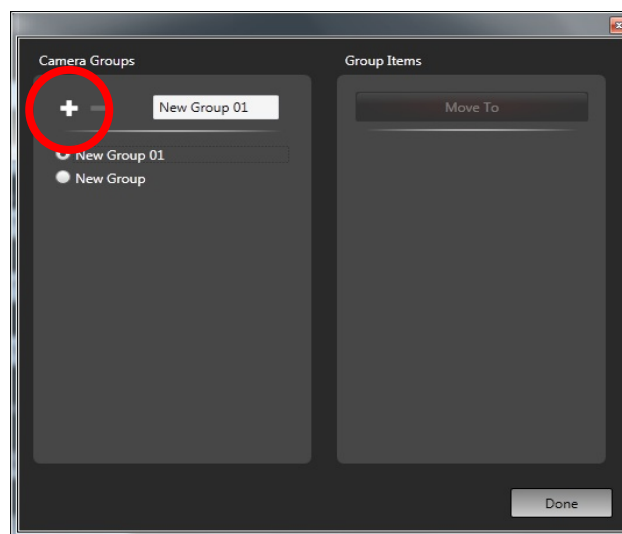
When there are many cameras to be connected with the CMS software, cameras can be categorized in groups for control and management.

In camera group setting, the left hand panel shows the camera groups and the right hand panel shows the cameras in the groups, as shown in the following figure.



**Figure: Camera Group Setting**

**Add camera group:** Press [Add] to pop up the default name for the new group, as shown in the following figure.



**Figure: Add Camera Group**

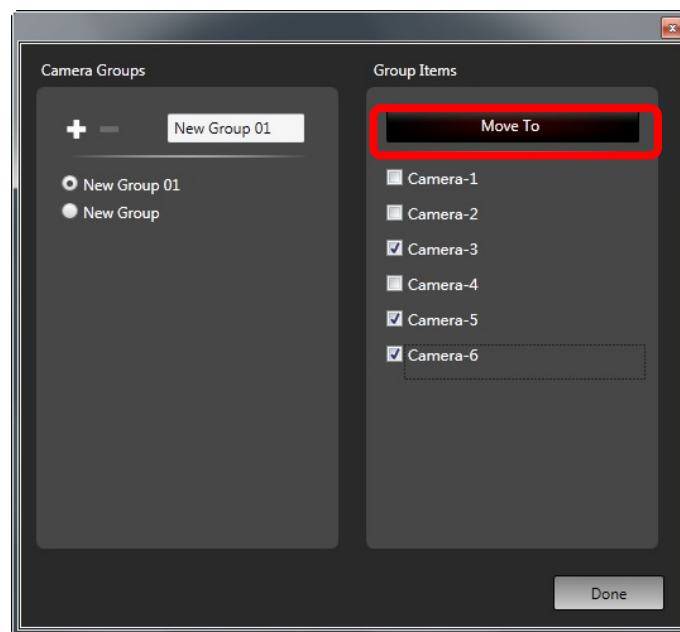
**Delete camera group:** Select the camera group to be deleted, and press [Delete].

**Note:**

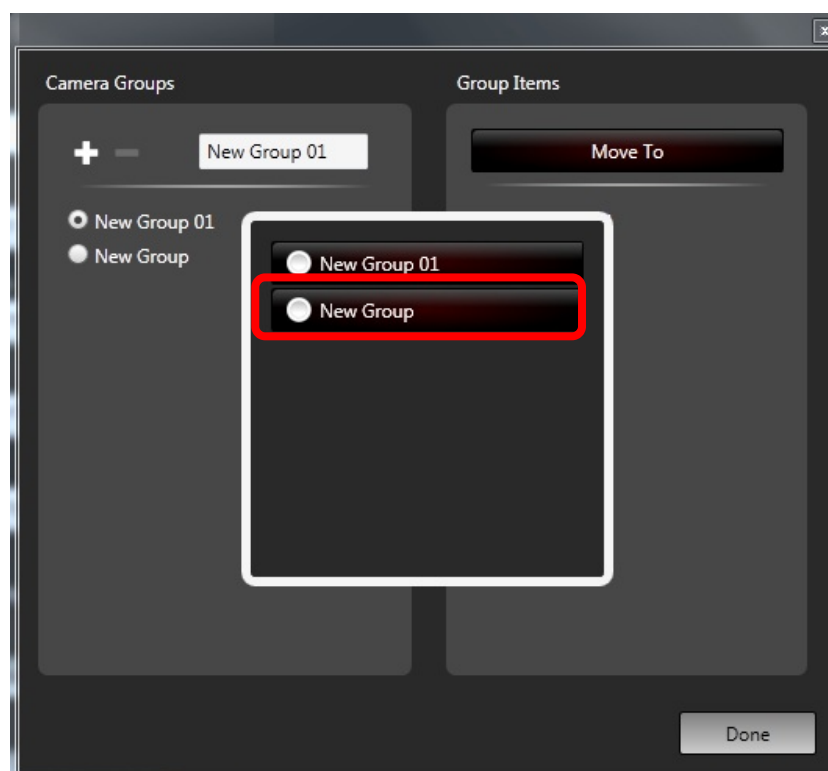
If the camera group contains more than one camera item, it cannot be deleted.

Move items to another group: Select the item to be moved and click the [Move To]

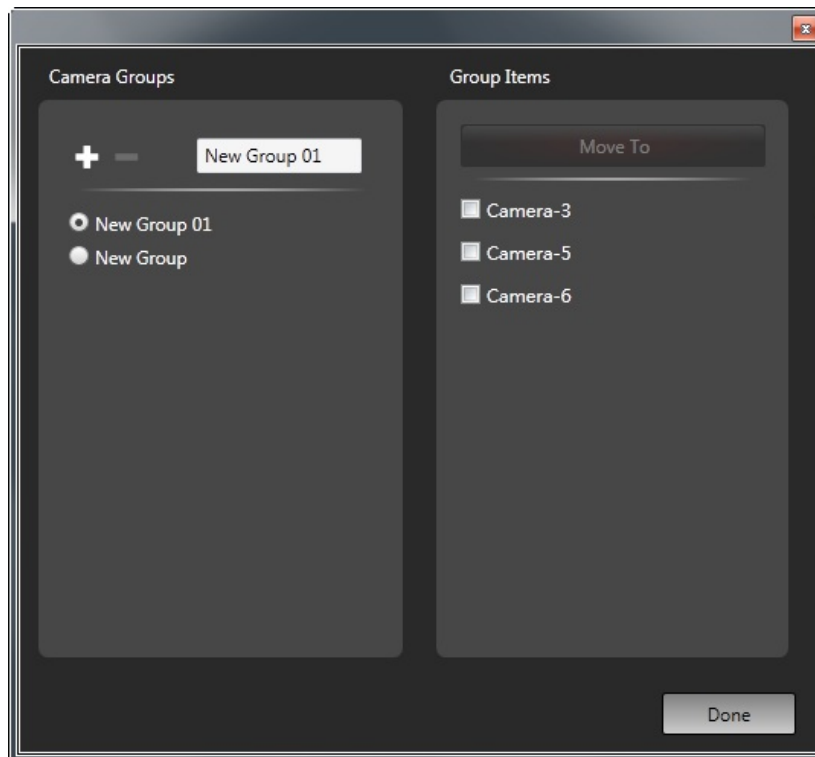
button. In the pop-up window, select the new group for the item to move to.



**Figure: Select Camera Item**



**Figure: Select Camera Group**



**Figure: Move Camera to New Group**

#### 6.1.11 NVR Service

Enable a remote computer to access images through the NVR, such as connecting it to a remote computer to acquire live streaming or recorded streaming.

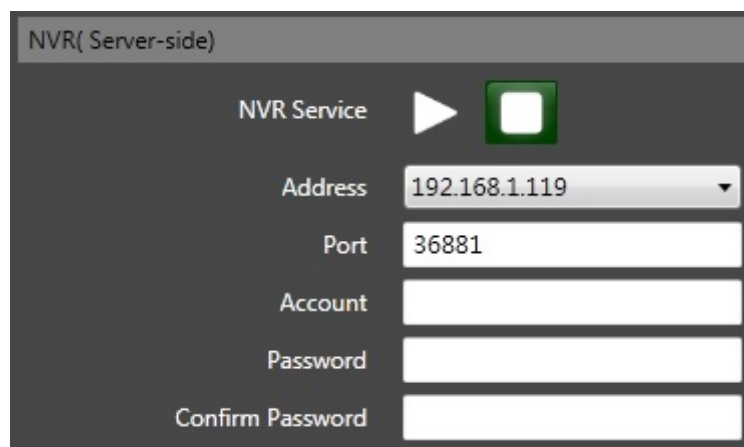
**Note:**

---

Refer to chapter [Playback](#) for related functions.

#### NVR (Server side)

The function distributes live streaming or recorded streaming so that a remote computer can access.



**Figure: NVR Server Settings**



**NVR Service:** Switch between Start/Stop, with “Stop” as default.

**Address:** In the drop-down menu, the local IP address is the default setting.

**Port:** It is the port number to communicate with a remote NVR. The default is “36881”.

**Account/password:** If necessary, enter an account and password for security authentication.

**Confirm password:** Conform the password again.

After completing the above settings, press “Start” to start the NVR server-side service.

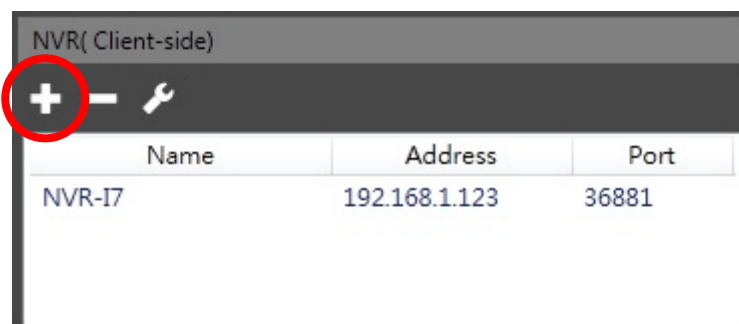
**Tip:**

---

Press “Stop” to stop the NVR server-side service.

## NVR (Client side)

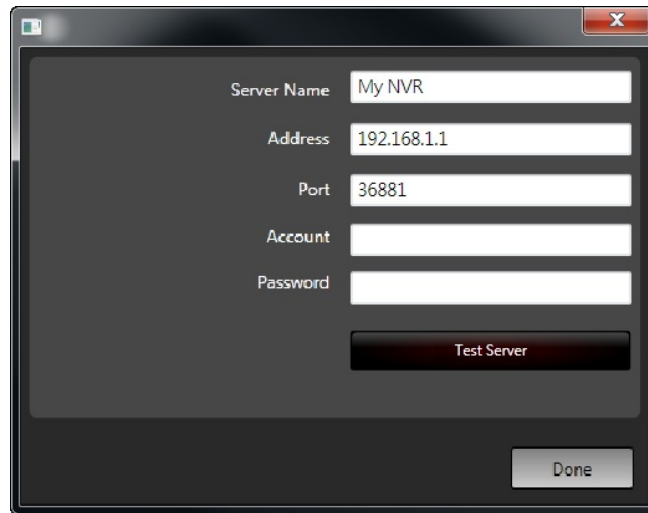
The function allows connection to a remote computer (NVR Server) and access the live streaming or recorded streaming in the remote computer (NVR Server).



**Figure: NVR Client Settings**

### Add NVR

Press the “Add” button to pop up a setup window to add the NVR as shown in the following figure:



Server Name My NVR

Address 192.168.1.1

Port 36881

Account

Password

Test Server

Done

**Figure: Add Client NVR**

**Tip:**

---

Refer to section “Add NVR” in [NVR Service](#) for the setup method.

**Note:**

---

Do not re-add the NVR with a repeated address.

**Delete NVR**

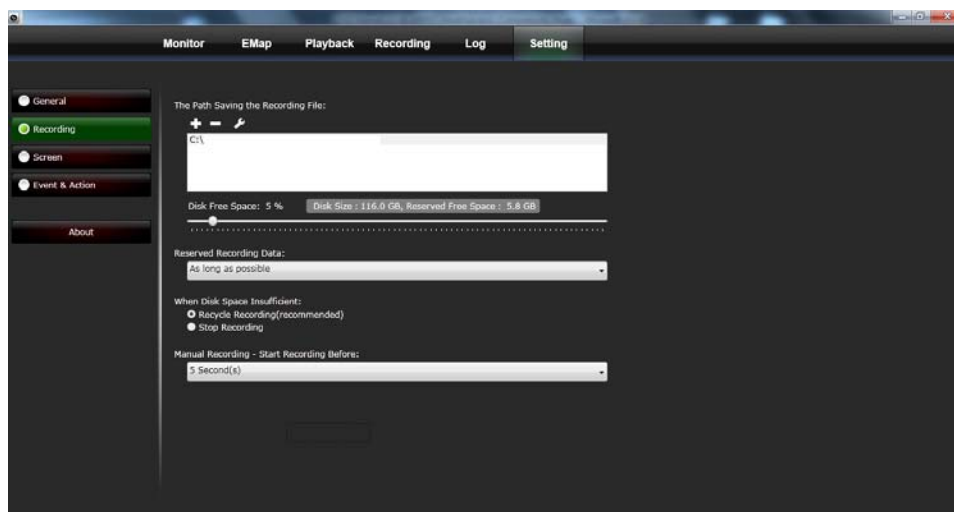
Select a server in the list. Press “Delete”.

**Modify the NVR**

Press “Tools” button to pop up the same window as in the “Add” function. Modify the content.

## 6.2 Recording

Click “Setting” to enter the setting page, then select “Recording” to proceed with the settings.



**Figure: Recording**

### 6.2.1 The Path Saving the Recording File

Set the directory for saving the recording data. This function supports the setting up of multiple drives and folders to house recording data.

When one hard disk is full, the system allows you to record the data into the next hard disk which you have already set.

### 6.2.2 Disk Free Space

You can configure the free disk space which is reserved for other Windows applications.

The more the reserve space, the less the storage for recording you will have. Please scroll the button to set the space.

#### Tip:

---

**If your recording data is in the system disk, we recommend that you have to keep at least 2GB of free space.**

### 6.2.3 Reserved Recording Data

The option sets the days for which data is kept in the HDD. When the option is activated, the recorded video matching the requirement will be deleted automatically. You can set the recycled days from the drop-down list.

### 6.2.4 Not enough disk space

The “Recycle Recording” option is recommended. When the recording data limit is reached, the new images will overwrite the oldest ones (the First In First Out way). When the recording data limit is reached, and the option is “Stop Recording”, the CMS will stop the recording function.

#### Tip:

---

**If there is no special need of any particular recorded data, please select “Recycle Recording (recommended)”.**

### Manual Recording- Start recording Before:

This function enables you to change the duration of the pre-recording settings when you start to record the data manually. Set the desired time period of 0, 3, 5, or 10 seconds.

## 6.3 Screen

Click “Setting” to enter the setting page, then select “Screen” to proceed with the settings.

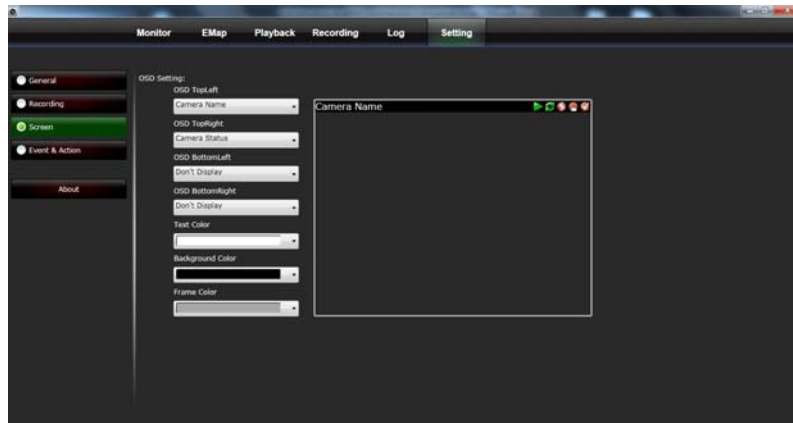


Figure: Screen

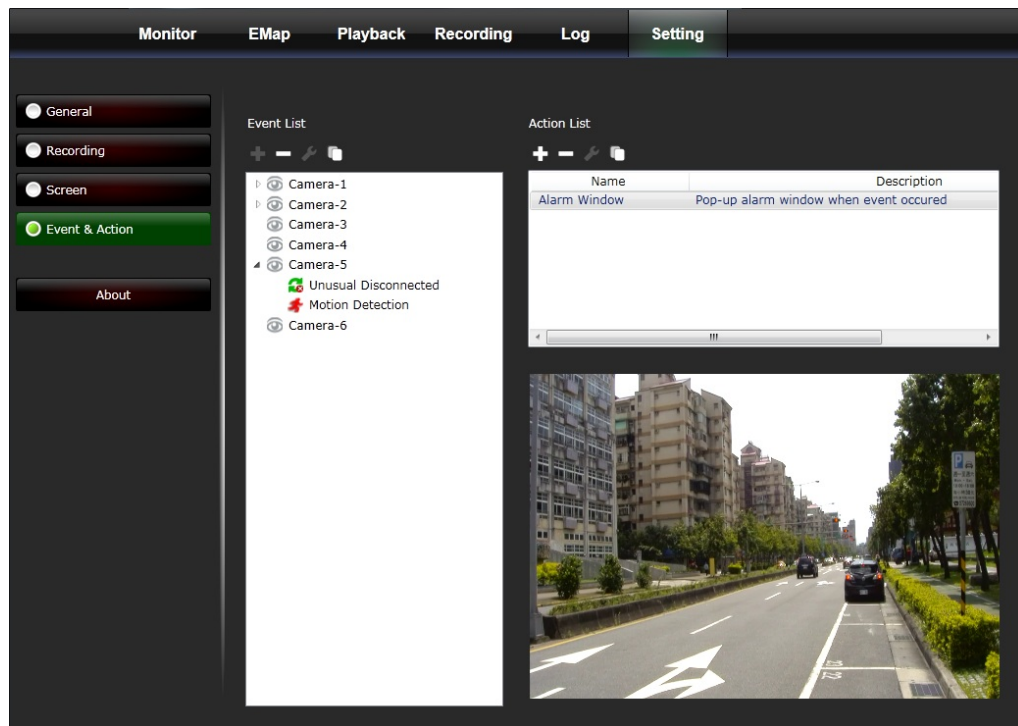
### 6.3.1 Change the OSD setting

Select the preferred items in the window. The panel on the right hand part of the window shows the preview. You can locate/ change labels in the positions of 4 areas. You can also change the text color, background color and the frame color here.

## 6.4 Event and Action

When the camera has a motion detection event or an unusual disconnected event, you may want to take some actions, such as sending out emails containing the images.

In the extreme right side of the main function menu, select “Setting” to enter the setting page. In the toolbox on the left side, select “Event and Action”, as shown in the following figure.



**Figure: Event and Action**



To set up new “event and action” for a camera, take the following steps.

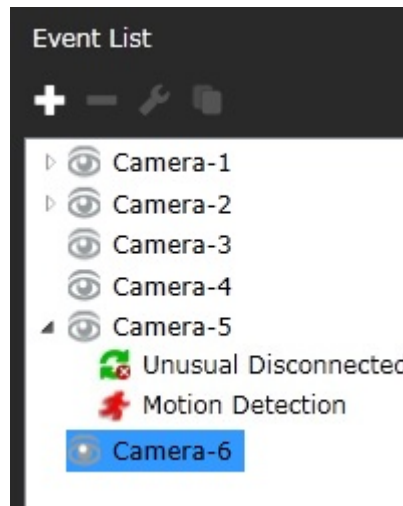
- A. In the event list, select camera and add new event, such as motion detection.
- B. Select the event to respond to, and add, any new action to the action list, alarm-triggering by email or other means.

**Tip:**

The setup procedure is “Select Camera”→”Add New Event”→”Select Event”→”Add New Action”.

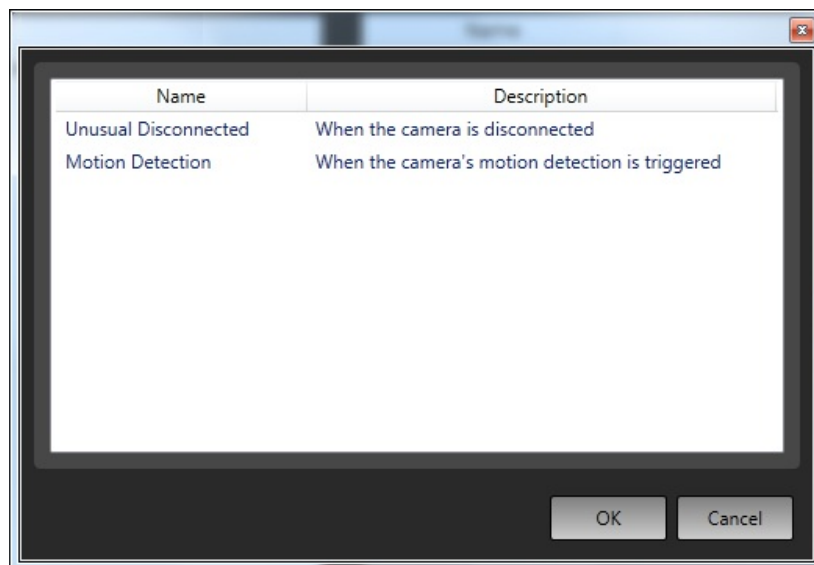
### 6.4.1 Event List

Each  symbol represents a camera, whose name is shown behind. If the camera is already set with events, a triangle symbol will appear in front of . Select to Open/Close the event list.



**Figure: Event List**

**Add Event:** Select a camera and press [Add]. Select the desired event in the pop-up window.



**Figure: Event List Window**

**Note:**

---

The event list window will show the available events to add. Added events will not be shown.

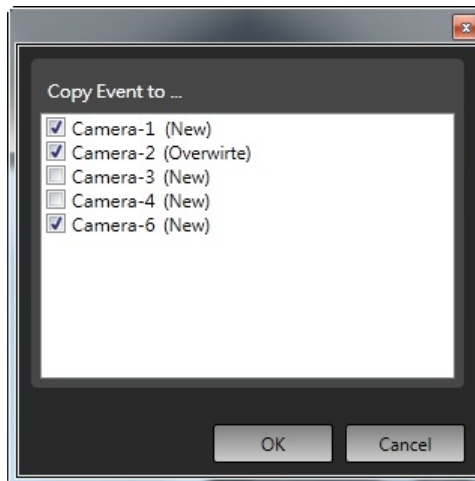
**Tip:**

---

Refer to the section [Smart Detection](#) for the function of [Event List](#).

**Delete event:** Select the event to be deleted from the event list. Press “Delete”.

**Copy event:** Select the event to be copied from the event list. Press “Copy” to pop up a “copy event to...” window as shown in the following figure. You may select multiple cameras. Press “OK” to copy the selected event to the selected cameras.



**Figure: Copy Event Window**

**Tip:**

---

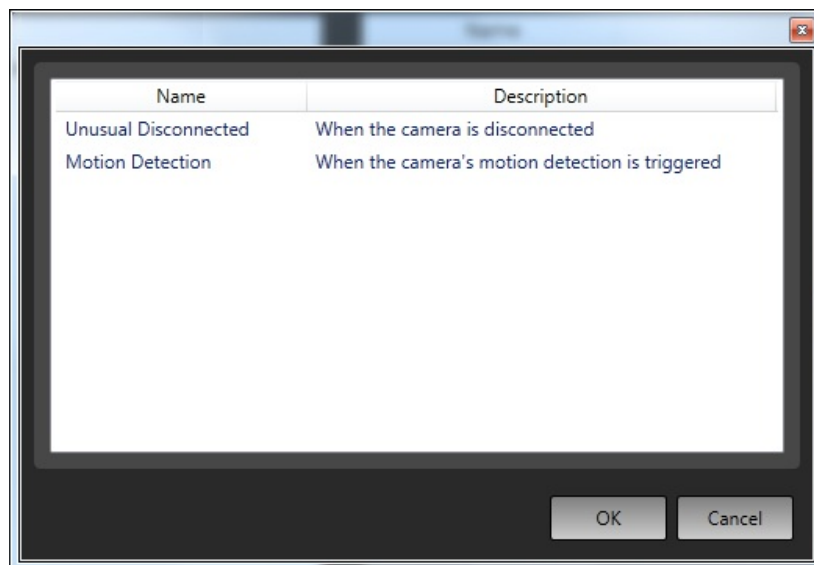
Behind camera name with status entry, “New” means the event is going to be added to the camera; “overwrite” means the event is already in the camera and will overwrite the original event.

**Tip:**

---

When there are multiple cameras, use the Copy Event function to save the time for setup.

## 6.4.2 Smart Detection



**Figure: Smart Detection Function List**

**Tip:**

---

Refer to the section [Event List](#) for the use of the smart detection function.

### Unusual Disconnected

The event will be triggered as a camera has been disconnected

### Motion Detection

The event will be triggered when motion is triggered.

#### Note:

---

The event is complimentary to the “Motion Detection Recording” function. Refer to the section Motion Detection Recording for related settings.

### 6.4.3 Action List

When a camera event is set, the follow-up action can proceed. This is the action the administrator would like to take after an event is triggered.



Figure: Action List

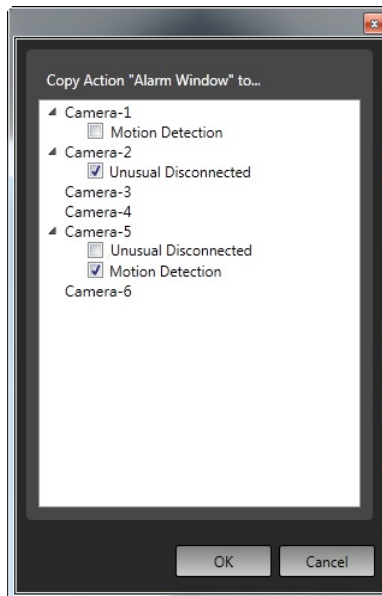
**Add action:** Select a camera event. Press “Add”. Select the action to add from the pop-up window.

**Remove action:** Select an action from the action list. Press “Delete”.

**Add Event:** Select an action from the action list. Press “Add Event” to set up. If the “Add Event” icon is changed color, no setup is needed for the action.

**Copy Action to...:** Select an action from the action list. Press “Copy Action to...” to pop up a “copy Action “XXX” to...” window as shown in the following figure. You may select a camera event. Press “OK” to copy the selected action to the selected camera event.



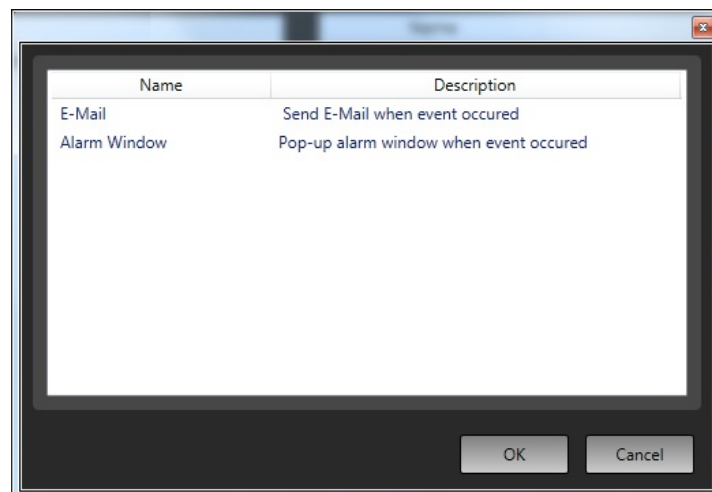


**Figure: “Copy Action to...” Window**

**Tip:**

---

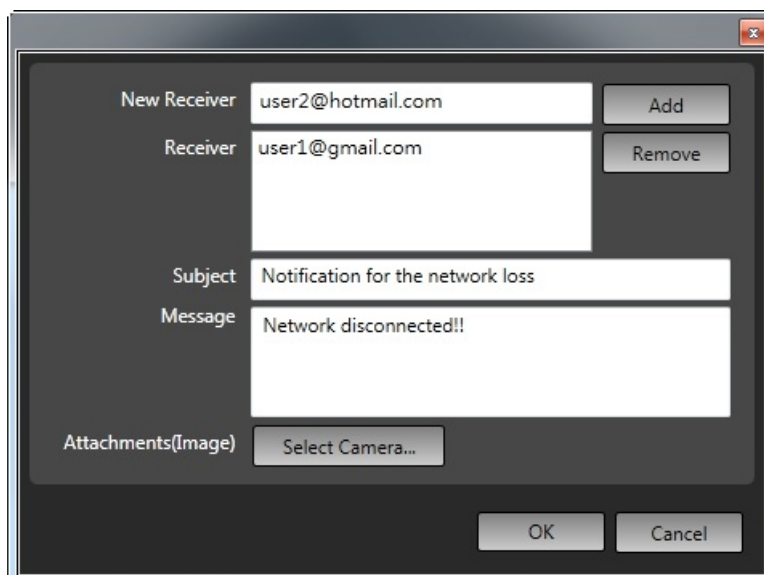
**When there are multiple cameras, use the Copy Action function to save the time for setup.**



**Figure: Action List Window**

**E-Mail**

If the “E-Mail” action is selected, press “OK” to pop up the email setup window, the as shown in the following figure. You may add or delete the receiver email address and set subject and message content. Press “Select Camera...” to attach images from the selected camera.



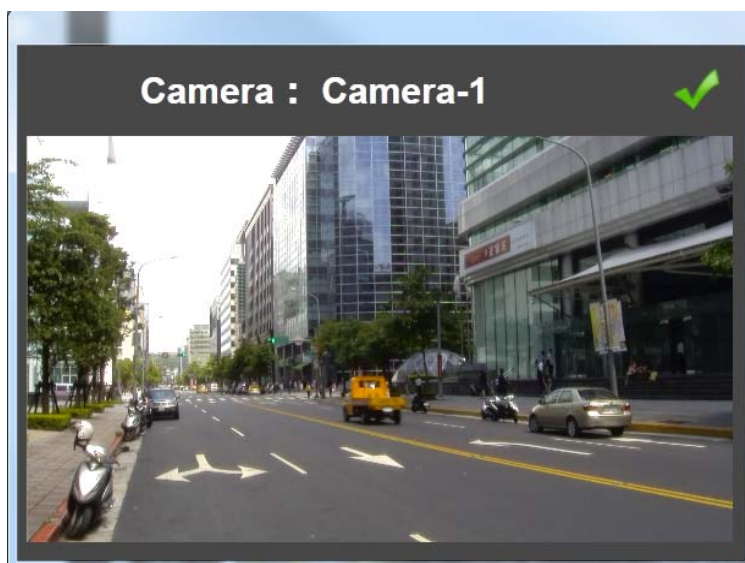
**Figure: “E-Mail” action Setup Window**

**Note:**

This action is related to the settings for the SMTP server. To assure an email is going to be sent out successfully, the SMTP server must be set up properly. Refer to section [SMTP Server](#) for related settings.

**Message Window**

A message window will pop up as an action takes place. The camera streaming and camera name will be displayed in the window. An alarm will also be sent off.



**Figure: Message Window**