



QNAP Surveillance Client for Windows

User Manual (Version: 4.0.0)

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Chapter 1. Remote Monitoring

Use Google Chrome, Mozilla Firefox, or Microsoft Internet Explorer and QNAP Surveillance Client to monitor the IP cameras of the NVR.

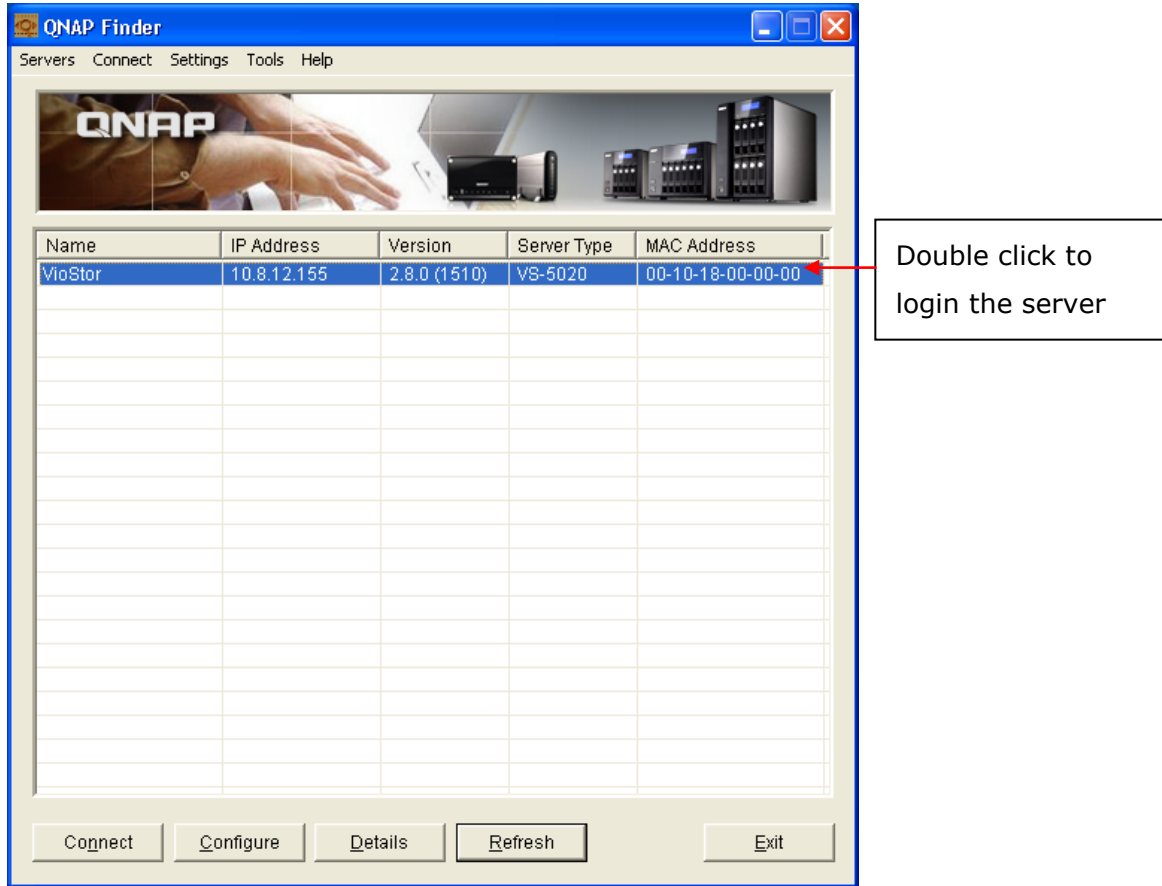
Important Notice:

1. Before using the NVR, install the hard disks in the server correctly and finish the disk formatting and configuration. Otherwise, the server will not function properly.
2. If your Windows OS is Windows Vista, Windows 7 or above, it is suggested to turn off UAC (User Account Control) for full surveillance functions. Please refer to http://www.qnapsecurity.com/faq_detail.asp?faq_id=503.

1.1 Connect to the NVR

Follow the steps below to connect to the monitoring page of the NVR.

1. Run the Finder. Double click the name of the NVR, or enter the IP address of the server in the IE browser to connect to the monitoring page.



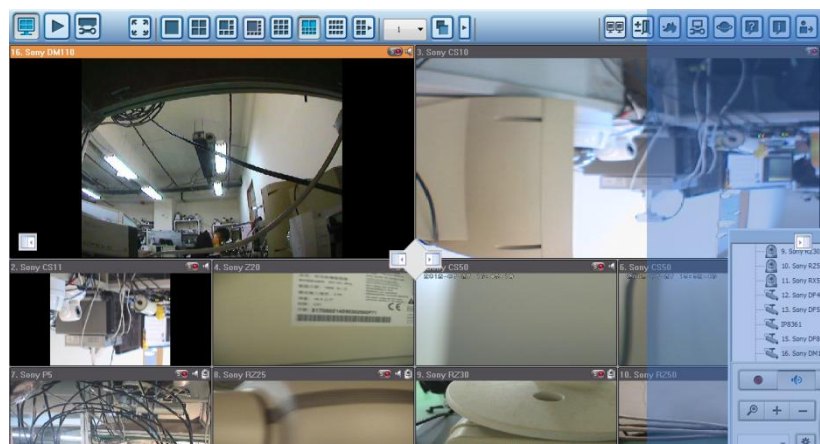
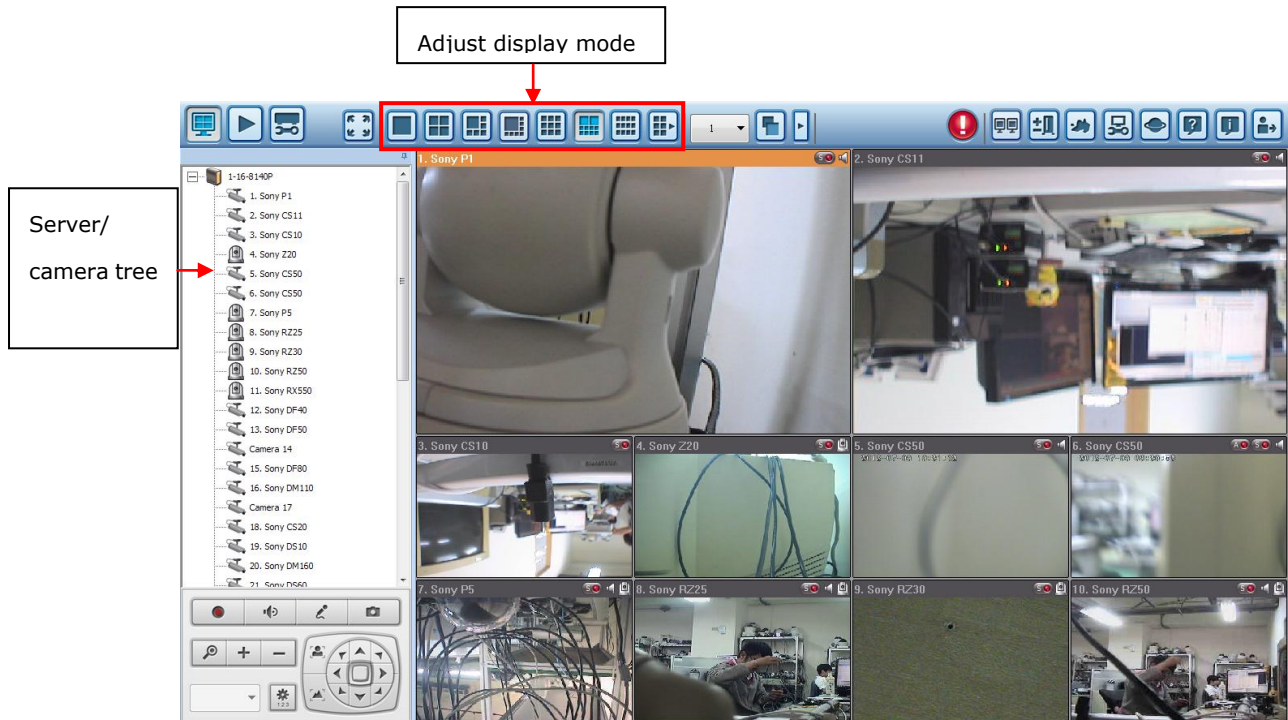
2. Enter the user name and password to login the NVR.













Default user name: **admin**
Default password: **admin**

3. To view the live video by Internet Explorer, please add the NVR IP address to the list of trusted sites. While accessing NVR via IE, it will be prompted to install the ActiveX add-on.
4. To view the live video by Google Chrome and Mozilla Firefox, please visit <http://www.qnapsecurity.com/download.asp> to download and install QNAP Surveillance Client for Windows first.

1.2 Monitoring Page

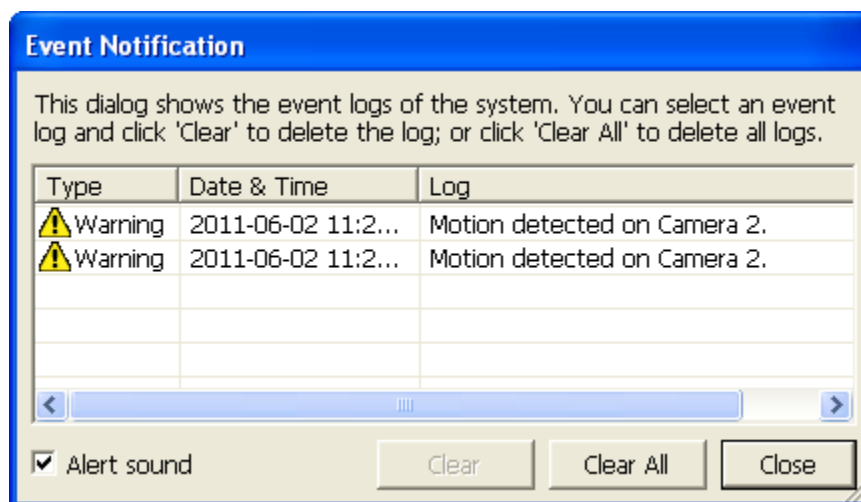
Upon successful login, the monitoring page will be shown. Select the display language. Start to configure the system settings and use the monitoring and recording functions of the server.







Icon	Description
	Monitor: Enter the monitoring page.
	Playback: Enter the video playback page. The administrator can grant access rights to the users to play back the videos.
	System configuration: Log into the system administration page (administrator access right required).
	Event notification: When the alarm recording is enabled and an event is detected, this icon will be shown. Click this icon to view the alert details.
	Multi display mode: The NVR supports multi-display mode. (This function can only be used when the computer or the host is connected to multiple monitors.)
	Multi-server monitoring: Up to 128 channels from multiple QNAP NVR servers can be monitored.
	E-map: Upload E-map(s) and indicate the locations of the IP cameras. The administrators are allowed to edit and view the E-map(s). Other users can only view the E-map(s).
	Monitoring settings: Configure the advanced settings of the monitoring page. Specify the source of the video/audio stream, event notification, and snapshot folder.
	Select language: Select the display language.
	Help: View the system online help.
	About: View the information of QNAP Surveillance Client.
	Logout: Logout the NVR.

Note:

- Click the event notification icon to view the event details, enable or disable the alert sound or clear the event logs.



	<p>Manual recording: Enable or disable manual recording on the selected channel. The administrator can enable or disable this option on the system configuration page.</p>
	<p>Audio (optional): Turn on/off the audio support for the monitoring page. For more information about the compatibility of this feature, please visit http://www.qnap.com/NVR/CompatibilityX01.html.</p>
	<p>Two-way audio (optional): Turn on/off the two-way audio support for the monitoring page. For more information about the compatibility of this feature, please visit http://www.qnap.com/NVR/CompatibilityX01.html.</p>
	<p>Snapshot: Take a snapshot on the selected channel. When the picture is shown, right click the picture to save it to the computer.</p>

Note:

1. Enabling or disabling the manual recording feature will not affect the scheduled or alarm recording.
2. By default, the snapshots are saved in 'My Documents' or 'Documents' > 'Snapshots' on Windows.
3. If the snapshot time is inconsistent with the actual time that the snapshot is taken, it is caused by the network environment but not a system error.
4. When the digital zoom function is enabled on multiple IP cameras, the zooming function will be affected if the computer performance is not high enough.

Right click the monitoring channel on the live view page. The following functions are available depending on the IP camera model.

- a. Connect to camera homepage.
- b. Camera setting: Enter the configuration page of the IP camera.
- c. PTZ: Pan/Tilt/Zoom camera control.
- d. Preset: Select the preset positions of the PTZ camera.
- e. Enable live tracking: Available on Panasonic NS202(A) camera.
- f. Disable live tracking: Available on Panasonic NS202(A) camera.
- g. Auto cruising: This feature is used to configure the PTZ cameras to cruise according to the preset positions and the staying time set for each preset position.
- h. Digital zoom: Enable/disable digital zoom.
- i. Keep aspect ratio.
- j. Dewarp fisheye images: for Vivotek FE8171V

Right click the mouse on the channel and enable the function. After that, you can select Mount type, including wall, ceiling, and floor and then select Dewarping mode, including Panorama (Full View), Panorama (Dual View), and Rectangle.

Note 1: The camera firmware version should be v0100h or above. About the latest camera firmware, please visit <http://www.vivotek.com/index.php>.

Note 2: If the Mount type is Wall, only Panorama (Full View), and Rectangle are supported in Dewarping mode.

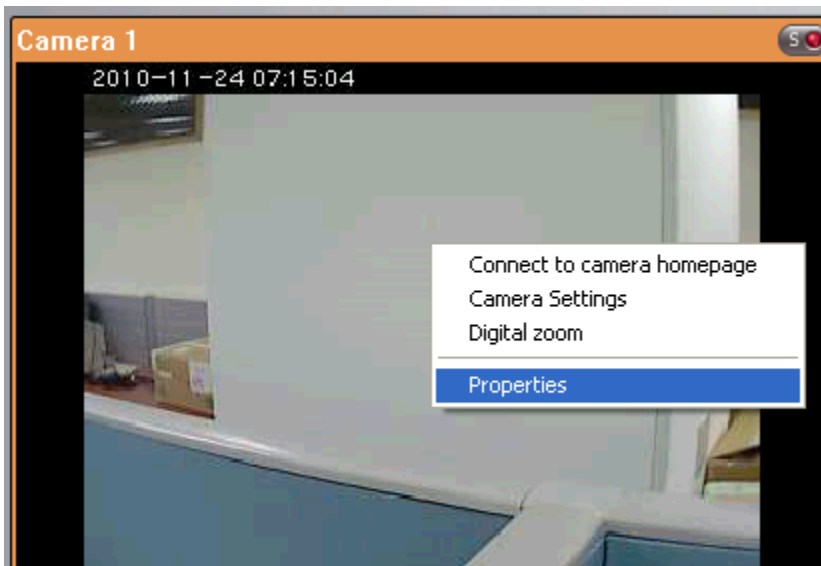
Note 3: If Dewarping mode is Rectangle, you can use PTZ control panel to operate PTZ functions, excluding digital zoom.



- k. Dewarp panomorph images: for the specific camera models with panomorph lens
- Before using this feature, you need to select the "Enable panomorph support" option in the recording settings page. Right click the mouse on the channel and enable the function. After that, you can select Mount type, including wall, ceiling, and floor and then select Dewarping mode, including Perimeter mode, Quad mode, and PTZ mode.
- Note 1: To know the camera models which can be installed with panomorph lens, please visit <http://www.qnapsecurity.com/faq.asp>.
- Note 2: The function is only available when the resolution of the video stream is higher than 640x480 on the monitoring page.
- Note 3: If Dewarping mode is PTZ mode, for the channel, you can use PTZ control panel or mouse (by clicking and holding down the mouse left button, and then moving the mouse or turning the mouse wheel) to change viewing angles or zooming in/out the screen. If Dewarping mode is Quad mode, the above methods can also be applied to operate PTZ functions in each divided screen.

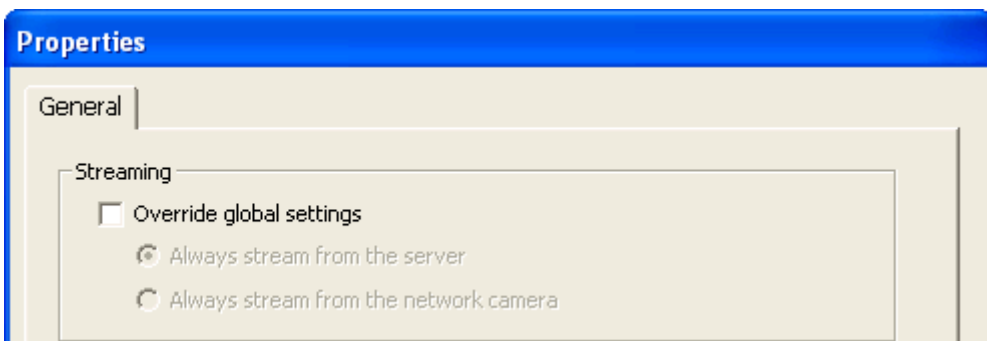


To configure other monitoring options, right click a channel and select 'Properties'.

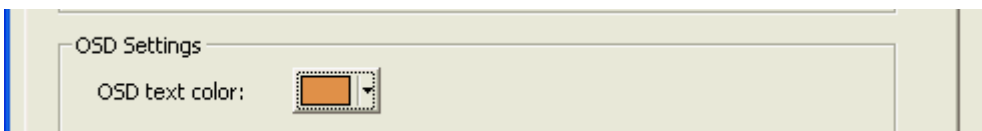


Streaming:

- Always stream from the server: Select this option to stream the audio and video data from the NVR. If the computer cannot connect to the IP cameras, select this option to allow the NVR to stream the data; no extra port forwarding is required. However, the performance of the NVR may be affected.
- Always stream from the network camera: If the NVR and the IP cameras are connected to the same local network, select this option to stream the video data from the IP cameras. If the NVR, the IP cameras, and the PC are located behind a router, virtual server, or firewall, configure port forwarding on the IP cameras to use certain ports.

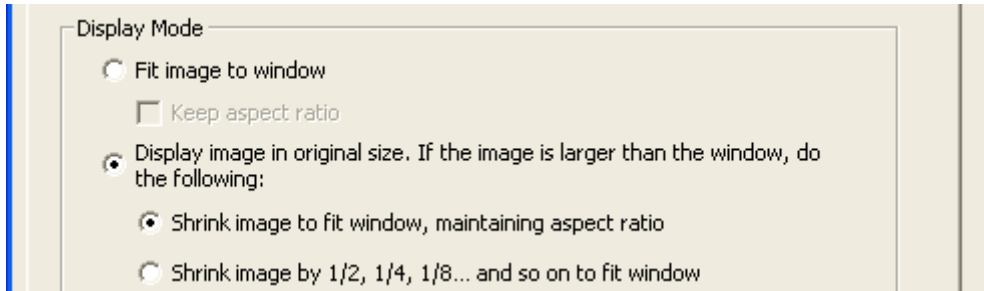


OSD Settings: Specify the font color of the texts on the channels.

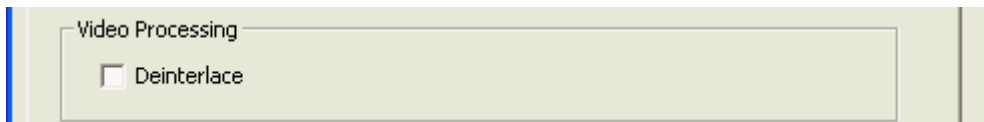


Display Mode:

- Fit image to window: Select this option to fit an image to the browser window. Specify to keep the aspect ratio or not when resizing an image.
- Display image in original size: Select this option to display an image in its original size if it is smaller than the browser window. Specify also how an image will be resized if it is larger than the browser window.
 - ✓ Shrink image to fit window, maintaining aspect ratio
 - ✓ Shrink image by 1/2, 1/4, 1/8... and so on to fit window



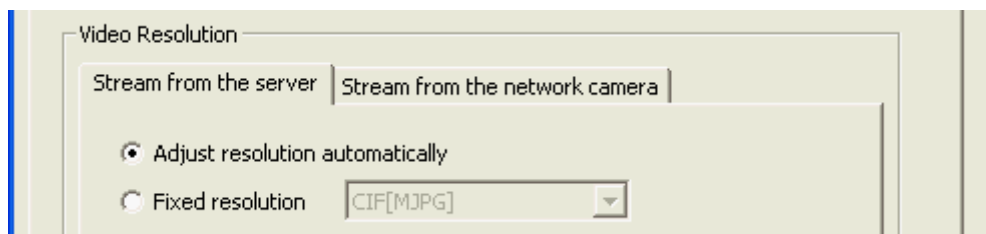
Video Processing: Turn on 'Deinterlace' when there are interlaced lines on the video.



Video Resolution: Specify to adjust the resolution automatically or use a fixed resolution. To adjust the resolution automatically, the NVR will select the resolution setting* which best fits the size of the IE browser window. Note that 'Stream from network camera' will not be available if the IP camera does not support streaming from camera or video resolution configuration. Both options will not be available if the IP camera does not support multiple streams.

*If an IP camera supports different resolution settings, the NVR will select the smallest resolution larger than (or equal to) the size of the browser window.

If all the supported resolution settings of an IP camera are smaller than the browser window, the largest resolution will be selected.



Let me choose other cameras to apply the same settings: Select this option to apply the changes to other IP cameras. Note that some settings may not be applied if the IP camera does not support the features, such as streaming from camera or video resolution configuration.

Properties

General

Streaming

- Use custom settings
 - Always stream from the server
 - Always stream from the network camera

OSD Settings

OSD text color:

Display Mode

- Fit image to window
 - Keep aspect ratio
- Display image in original size. If the image is larger than the window, do the following:
 - Shrink image to fit window, maintaining aspect ratio
 - Shrink image by 1/2, 1/4, 1/8... and so on to fit window

Video Processing

Deinterlace

Video Resolution

Stream from the server | Stream from the network camera

- Adjust resolution automatically
- Fixed resolution

Let me choose other cameras to apply the same settings

OK

Cancel

1.2.1 Live Video Window

The live videos of the IP cameras configured on the NVR are shown on the monitoring page. Click the channel window to use the features supported by the IP camera, e.g. digital zoom or pan/tilt/zoom.



Camera Status

The camera status is indicated by the icons shown below:

Icon	Camera Status
	Scheduled or continuous recording is in process
	This IP camera supports audio function
	This IP camera supports PT function
	Manual recording is enabled
	The recording triggered by advanced event management ('Camera Settings' > 'Alarm Settings' > 'Advanced Mode') is in process
	The alarm input 1 of the IP camera has been triggered
	The alarm input 2 of the IP camera has been triggered
	The alarm input 3 of the IP camera has been triggered
	A moving object has been detected
	Digital zoom is enabled

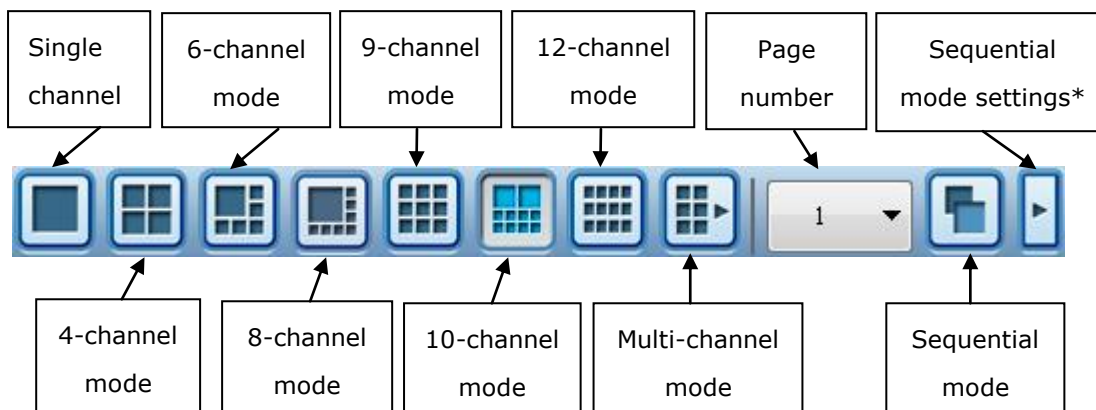
Connection Message

When the NVR fails to display the video of an IP camera, a message will be shown in the channel window to indicate the status.

Message	Description
Connecting	If the IP camera is located on a remote network or the Internet, it may take some time to establish the connection to the camera.
Disconnected	The NVR cannot connect to the IP camera. Please check the network connection of the computer and the availability of the IP camera. If the IP camera is located on the Internet, open the port on the router or gateway.
No Permission	No access right to view the monitoring channel. Please login as an authorized user or contact the system administrator.
Server Error	Please check the camera settings or update the firmware of the IP camera (if any). Contact the technical support if the error persists.

1.2.2 Display Mode

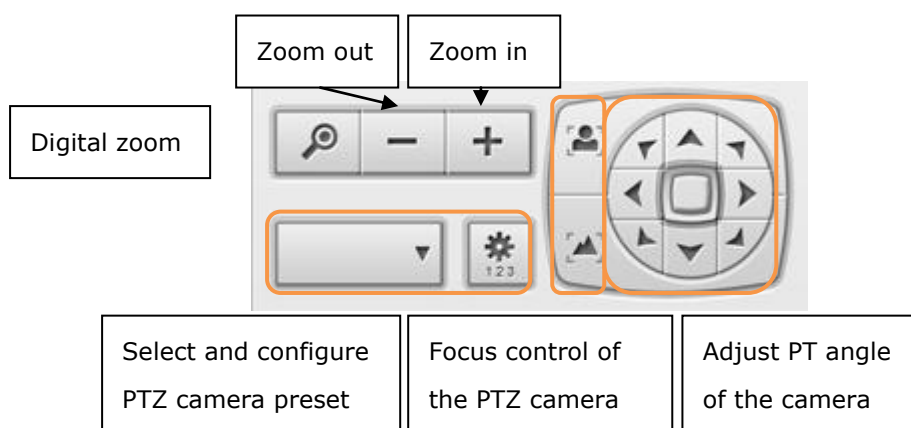
The NVR supports different display modes for viewing the monitoring channels.











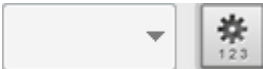
*You can configure the sequential interval in the sequential mode settings.

1.2.3 PTZ Camera Control Panel

The term 'PTZ' stands for 'Pan/Tilt/Zoom'. If an IP camera supports the PTZ feature, use the control panel on the NVR to adjust the viewing angle of the IP camera. These functions are available depending on the camera models. Please refer to the user manual of the IP cameras for more information. Note that the digital zoom function will be disabled when the PTZ function is in use.



	<p>Digital zoom: Select a channel and click this button to enable the digital zoom function. This function can also be enabled by right clicking the mouse on the display window of the PTZ camera.</p>
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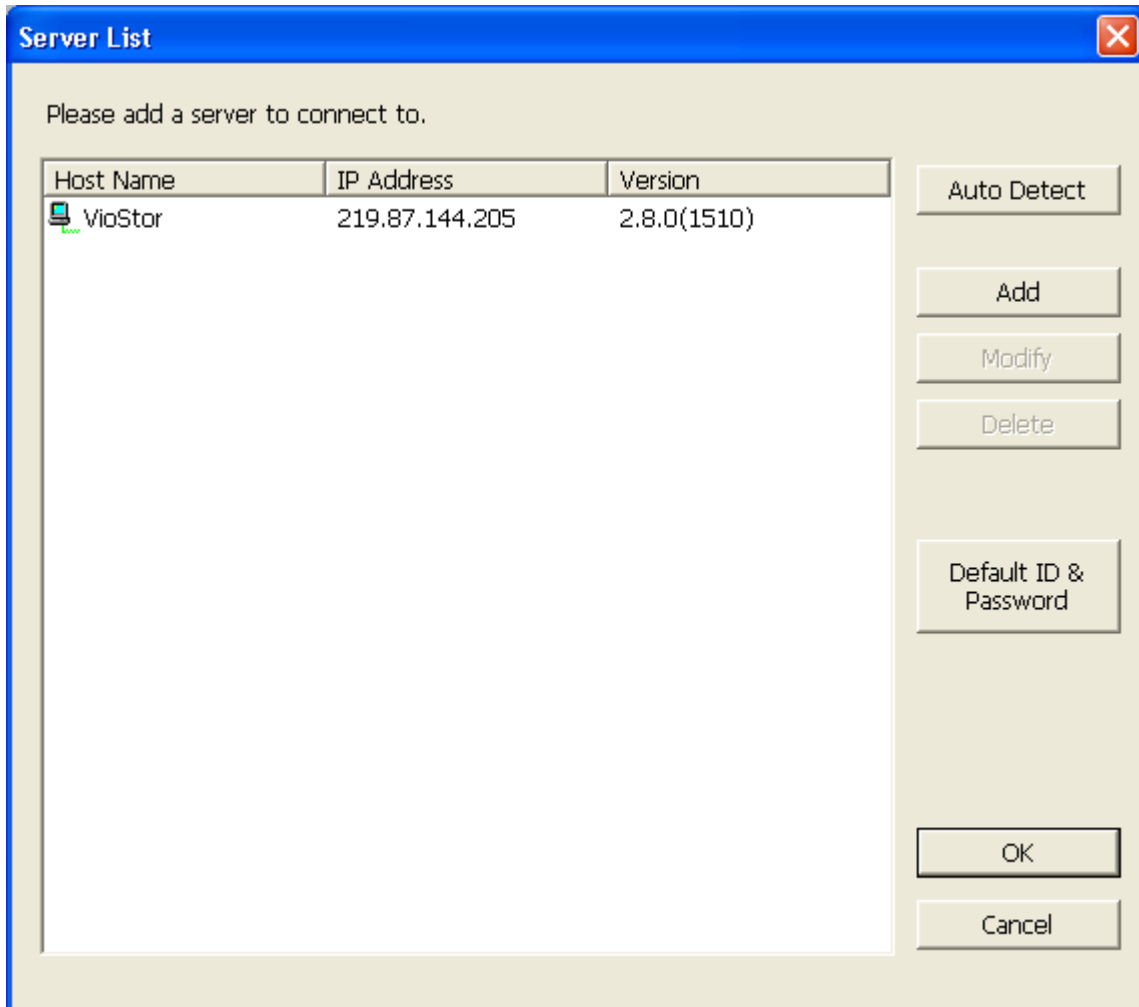
	<p>Press  button to zoom in or  button to zoom out. You can also use the mouse wheel to operate the digital zoom function.</p>
	<p>Zoom out/zoom in :</p> <p>If the PTZ camera supports optical zoom, you can press  to optically zoom out or  button to optically zoom in. When digital zoom function is enabled, you can press  to digitally zoom out or  button to digitally zoom in.</p>
	<p>Select and configure PTZ camera preset positions:</p> <p>Select and view the preset positions of the IP camera from the list. For some camera models, you can configure PTZ camera preset positions on the monitoring page. For more information about the compatibility of PTZ cameras for preset positions configuration, please visit http://www.qnapsecurity.com/faq.asp. For other PTZ camera models, please refer to the user manual of the IP camera.</p>

1.2.4 Multi-server Monitoring

Follow the steps below to use the multi-server monitoring feature of the NVR.




1. Click 'Server List' on the monitoring page.

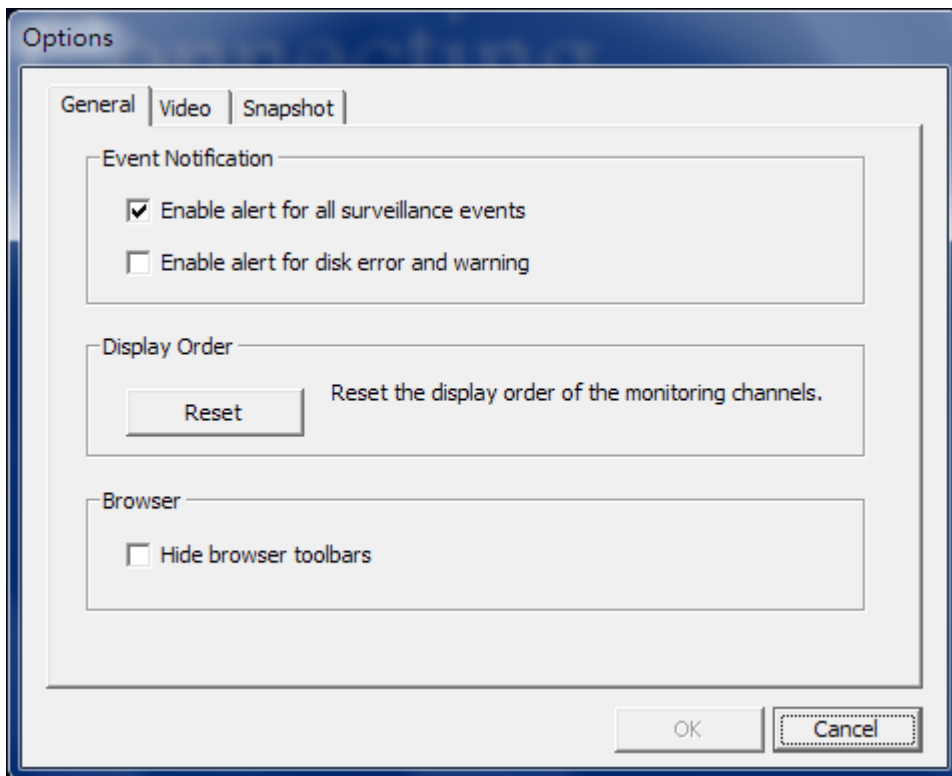


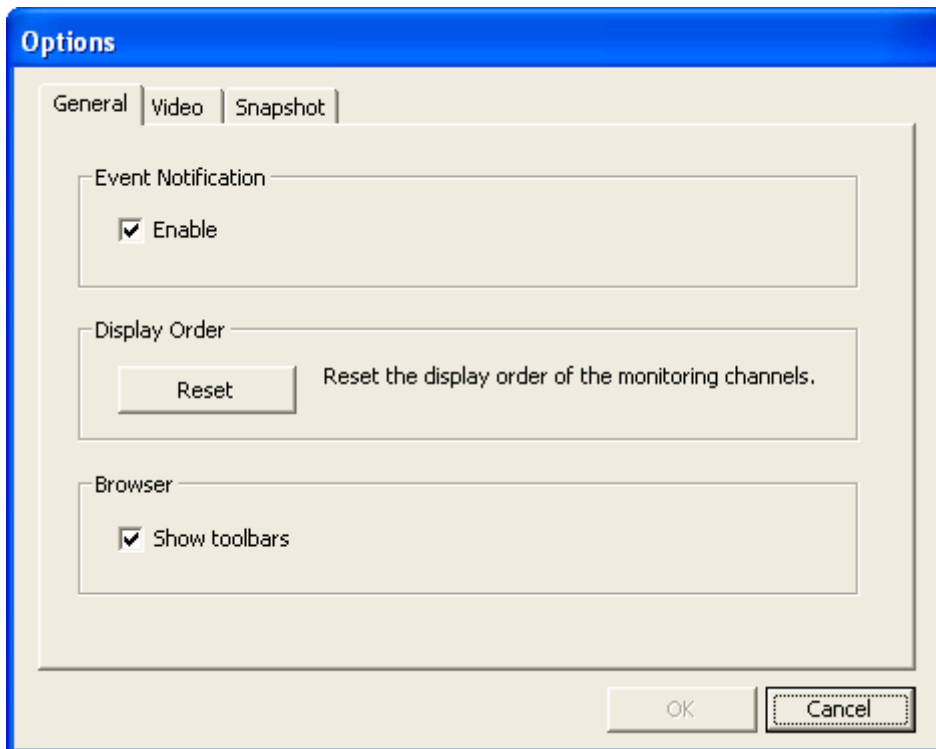
- a. Click 'Auto Detect' to search for the NVR on the LAN and add the server to the server list.
 - b. Click 'Add' to add the NVR to the server list.
2. Up to 128 channels from multiple NVR servers can be added for monitoring.

1.2.5 Monitor Settings




To configure advanced monitor settings, click .





The following options are provided under the 'General' tab.

- Event Notification:
 - ✓ When [Enable alert for all surveillance events] option is enabled and a surveillance event is triggered, the alert icon  will be shown on the monitoring channel instantly. Click the icon to view the alert details.
 - ✓ After enabling [Issue notification when the disk reaches maximum operation time set below] in System Tools -> Hard Disk SMART (refer to chapter 6.7.8), you can then [Enable alert for disk error and warning] to receive alarm notifications when hard drive events occur.
- Display Order: Click 'Reset' to reprioritize the monitoring channels to the default order.
- Browser: Select to show or hide the toolbars of the IE browser. The feature is only available in Internet Explorer.

The following options are provided under the 'Video' tab.

Video Streaming

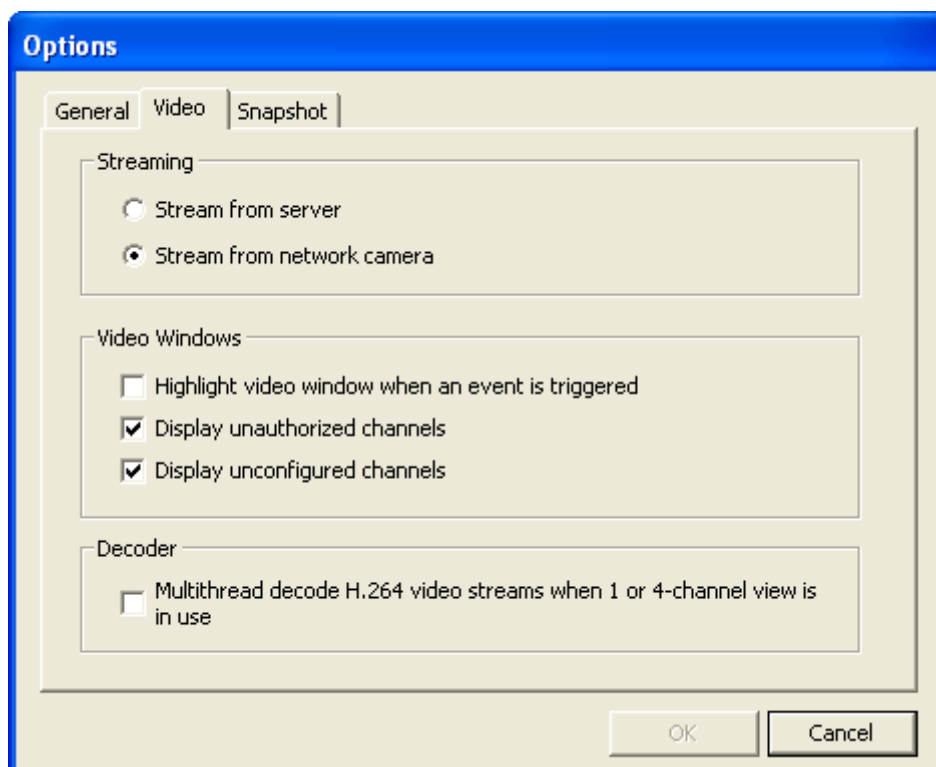
- Stream from the server: If the IP camera cannot be connected from the computer, select this option and the video will be streamed from the NVR. This option does not require extra port mapping configuration; but may influence the performance of the NVR.
- Stream from IP camera: If the NVR and the IP cameras are located on the same LAN, select this option to stream the video from the IP camera. Note that the port forwarding settings on the IP cameras must be configured if the NVR, IP cameras, and the computer are located behind a router, a virtual server, or a firewall.

Video Windows

- Highlight the video window when an event is triggered: The video window will flash if an event is triggered.
- Display unauthorized channels: Select this option to show the channels that the user does not have the access right to monitor.
- Display unconfigured channels: Select this option to show the channels that have not been configured.

Decoder

Select this option to multithread decode H.264 video streams when 1 or 4-channel view is



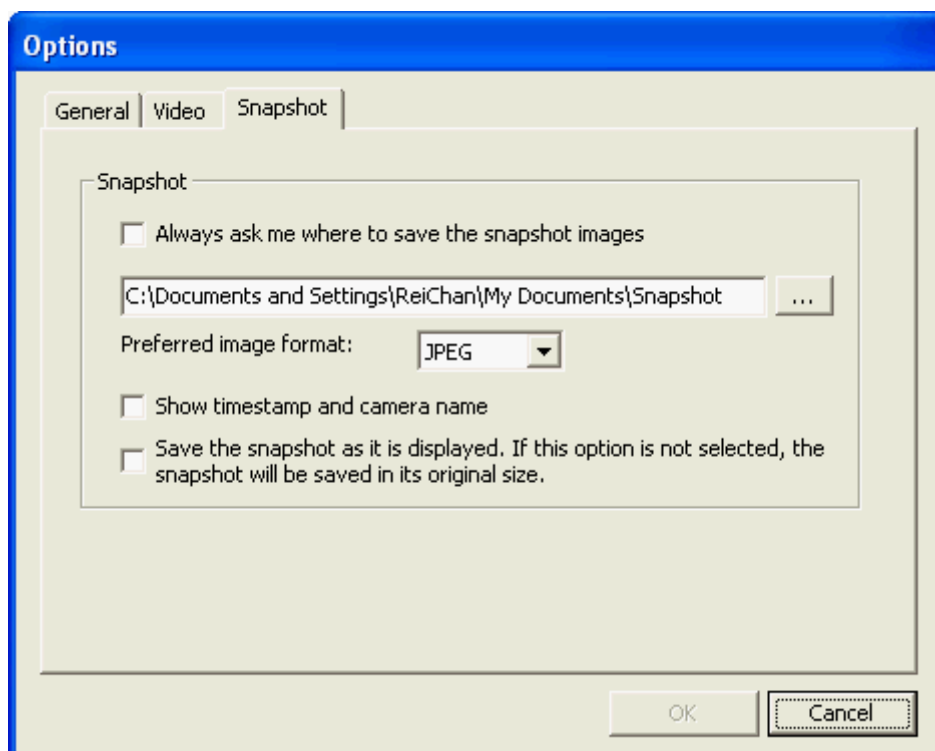
in use.

The following options are provided under the 'Snapshot' tab.

Snapshot: Specify the location where the snapshots are saved and the image format (JPEG or BMP).

Show timestamp and camera name: Show the timestamp and the camera name on the snapshot.

Save the snapshot as it is displayed: Select this option to save the snapshot as it is displayed on the window. Otherwise, the snapshot will be saved in its original size.

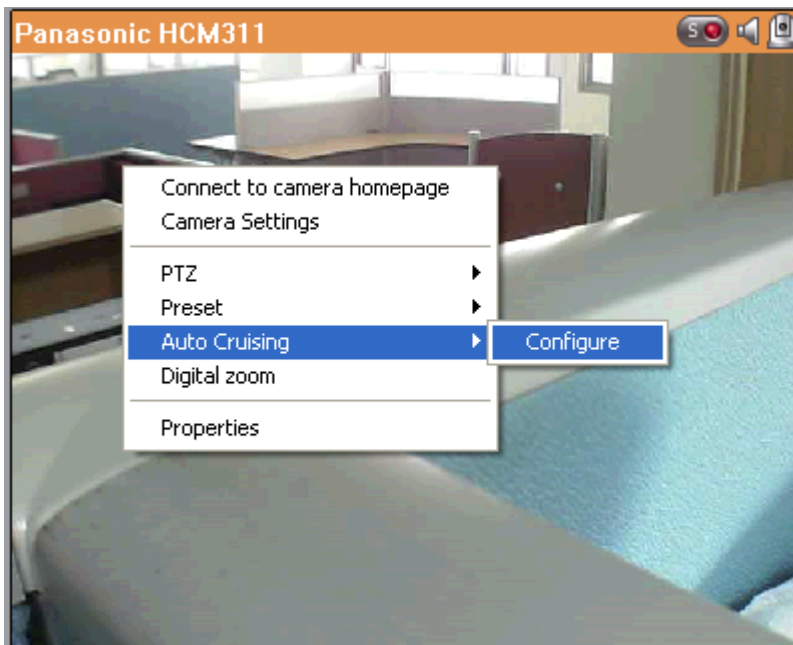


1.2.6 Auto Cruising

The auto cruising feature of the NVR is used to configure the PTZ cameras to cruise according to the preset positions and the staying time set for each preset position.

To use the auto cruising feature, follow the steps below.


1. On the monitoring page of the NVR, right click the display window of the PTZ camera. Select 'Connect to camera homepage' to go to the configuration page of the PTZ camera.
2. Set the preset positions on the PTZ camera.
3. Return to the monitoring page of the NVR. Right click the display window of the PTZ camera. Select 'Auto Cruising' > 'Configure'.



- Click the number buttons to view the preset positions of the PTZ camera. When this button is clicked, the name of the corresponding preset position is shown on the 'Preset Name' drop-down menu.

Auto Cruising

Server Name: NVR
Camera Name: Camera 6 233D



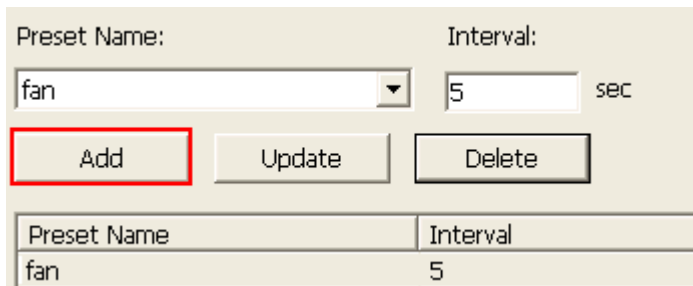
1	6
2	7
3	8
4	9
5	10

Preset Name: fan Interval: 300 sec

Preset Name	Interval

Enable auto cruising

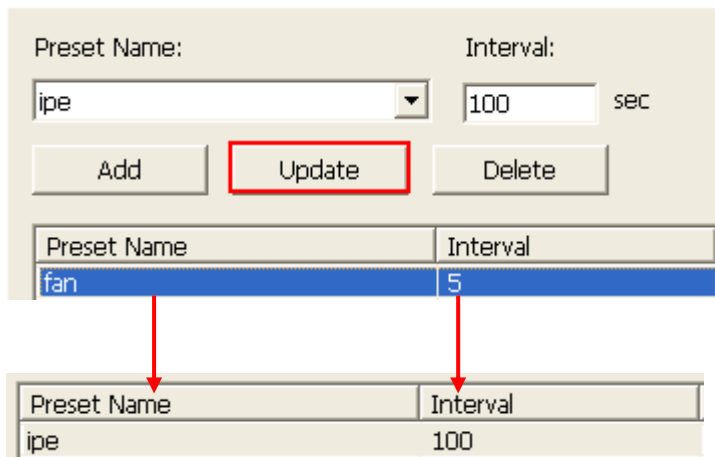
5. Add: To add a setting for auto cruising, select the 'Preset Name' from the drop-down menu and enter the staying time (interval, in seconds). Click 'Add'.



The screenshot shows a form with two input fields: 'Preset Name' with a dropdown menu showing 'fan' and 'Interval' with a text box containing '5' and 'sec' to its right. Below these fields are three buttons: 'Add', 'Update', and 'Delete'. The 'Add' button is highlighted with a red border. Below the buttons is a table with two columns: 'Preset Name' and 'Interval'. The table contains one row with 'fan' in the first column and '5' in the second column.

Preset Name	Interval
fan	5

6. Update: To change a setting on the list, highlight the selection. Select another preset position from the drop-down menu and/or change the staying time (interval). Click 'Update'.

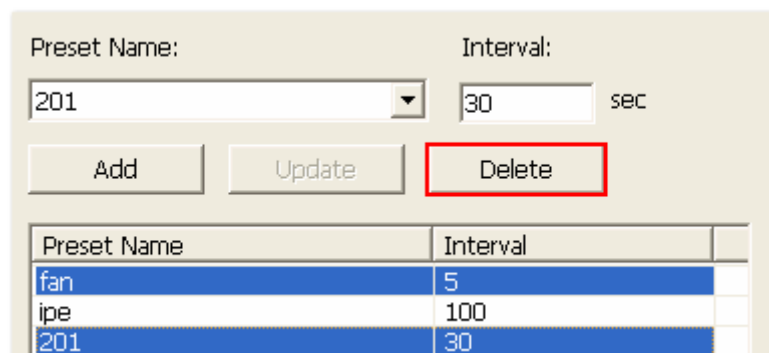


The screenshot shows the same form as in step 5, but with the 'Update' button highlighted in red. The 'Preset Name' dropdown now shows 'ipe' and the 'Interval' text box contains '100'. Below the buttons is a table with two columns: 'Preset Name' and 'Interval'. The first row, containing 'fan' and '5', is highlighted in blue. Two red arrows point from this row to a second table below. The second table has the same two columns and contains one row with 'ipe' in the first column and '100' in the second column.

Preset Name	Interval
fan	5

Preset Name	Interval
ipe	100

7. Delete: To delete a setting, highlight a selection on the list and click 'Delete'. To delete more than one setting, press and hold the Ctrl key and select the settings. Then click 'Delete'.



The screenshot shows the same form as in step 5, but with the 'Delete' button highlighted in red. The 'Preset Name' dropdown now shows '201' and the 'Interval' text box contains '30'. Below the buttons is a table with two columns: 'Preset Name' and 'Interval'. The table contains three rows: 'fan' with '5', 'ipe' with '100', and '201' with '30'. All three rows are highlighted in blue.

Preset Name	Interval
fan	5
ipe	100
201	30

8. After configuring the auto cruising settings, select the option 'Enable auto cruising' and click 'OK'. The NVR will start auto cruising according to the settings.

Preset Name	Interval	
1	180	
2	180	
ipe	180	
fan	300	
201	300	

Enable auto cruising

OK Cancel

Note:

- The default staying time (interval) of the preset position is 5 seconds. Enter 5–999 seconds for this setting.
- The system supports up to 10 preset positions (the first 10) configured on the PTZ cameras. Up to 20 settings for auto cruising can be configured. In other words, the NVR supports maximum 10 selections on the drop-down menu and 20 settings on the auto cruising list.

1.3 E-map

The E-map feature of the NVR is provided to for users to upload electronic maps to the system to indicate the locations of the IP cameras. Users can drag and drop the camera icons* to the E-map and enable event alert to receive instant notification when an event occurs to the IP camera.

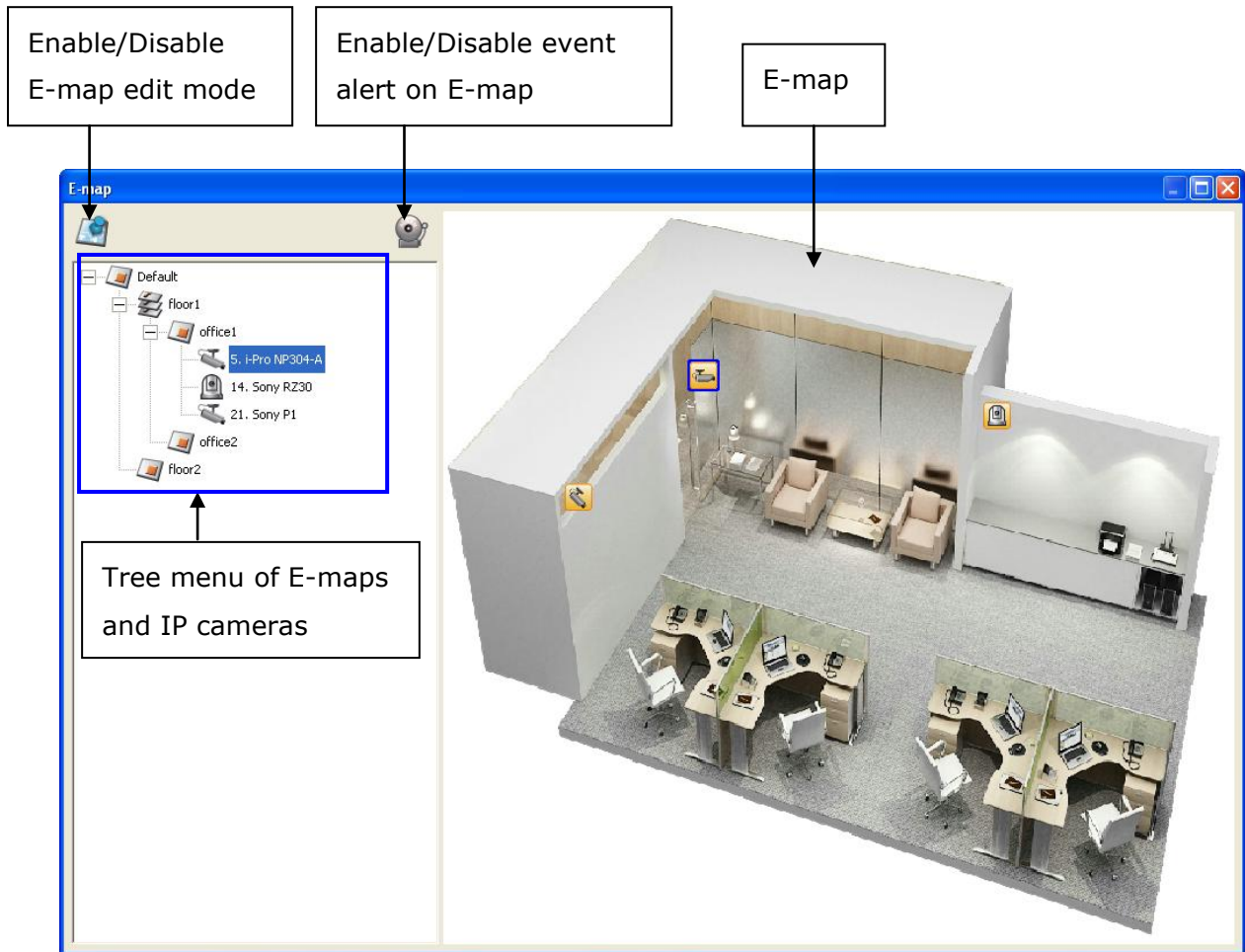
*The camera icons are available only when the IP cameras have been configured on the NVR.

To use the E-map feature, login the monitoring page of the NVR as an administrator and













click  .

An E-map example is shown below. The NVR provides a default E-map. Add or remove the E-maps whenever necessary.


Note: Login as an administrator to edit and view the E-map.

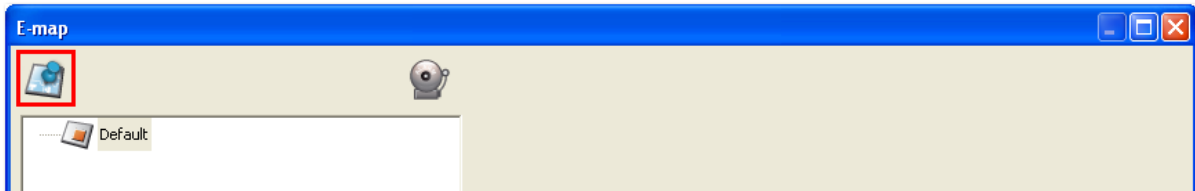


1.2.1 Icons and Description


Icon	Description
	Enable E-map edit mode.
	E-map edit mode in use. Click this icon to disable the edit mode.
	Add a map.
	Edit the name of a map.
	Remove a map or a camera icon.
	Event alert not in use. Click this icon to enable event alert on the E-map.
	<p>Event alert in use. When an event occurs to an IP camera, such as a moving object is detected, the camera icon will change and flash to alert the administrator. To disable event alert on the E-map, click this icon.</p> <p>Note: When event alert is enabled, the E-map cannot be edited.</p> <p>The icon  will become invisible.</p>
	Icon for a set of E-maps.
	Icon for a single E-map.
	Icon for a PTZ IP camera.
	Icon for a fixed body or fixed dome IP camera. After dragging the icon to a map, right click the camera icon to change the icon direction or delete the icon from the E-map.

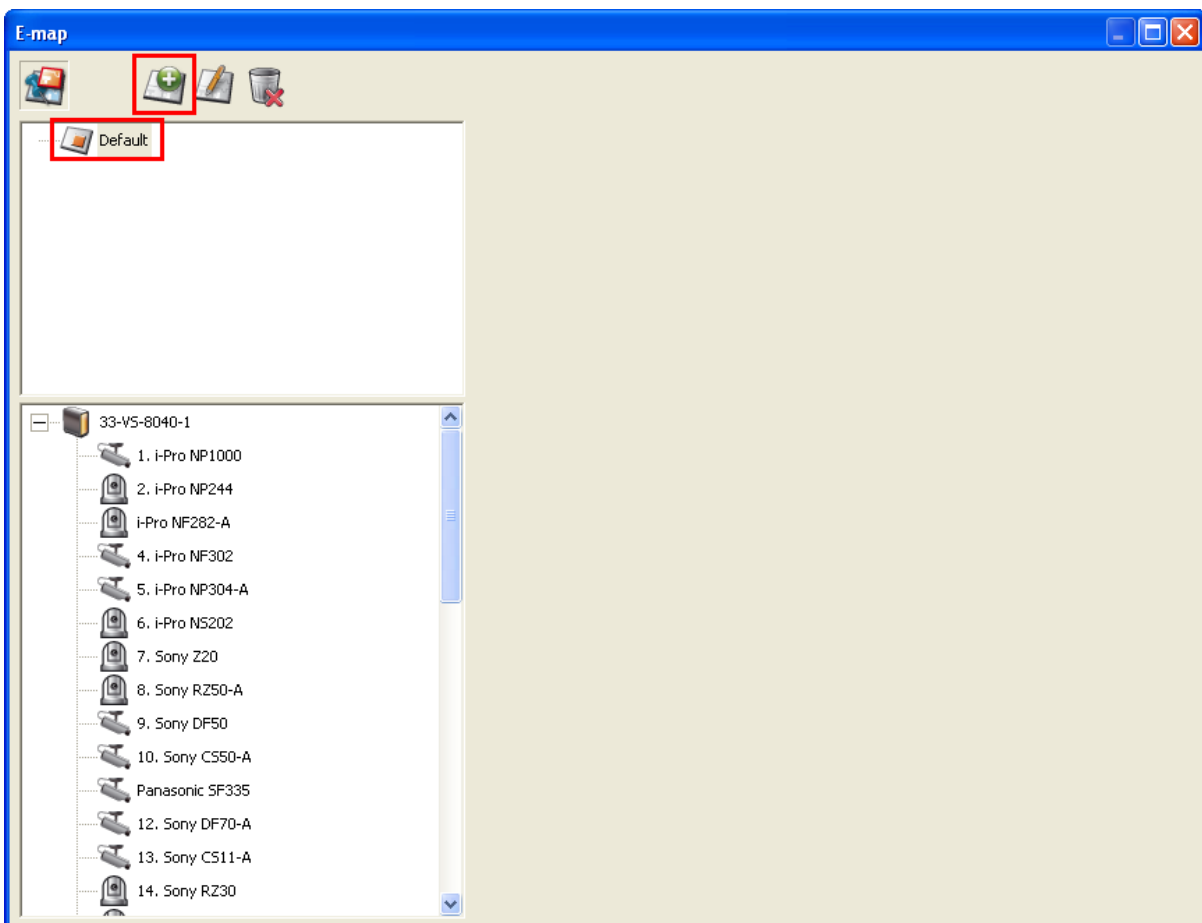
1.2.2 Add a Map Set or an E-map

To add a map set or an E-map to indicate the locations of the IP cameras, click  to enable Edit mode.

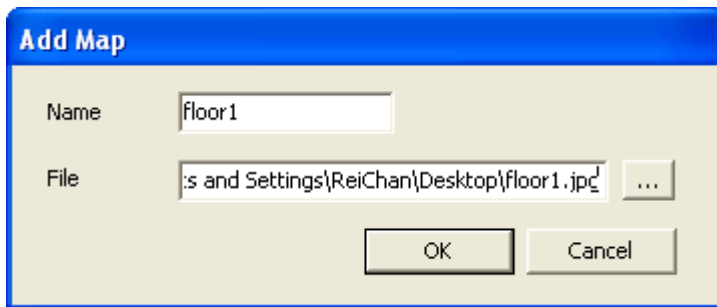


A list of IP cameras configured on the NVR will be shown on the left. Click 'Default' and

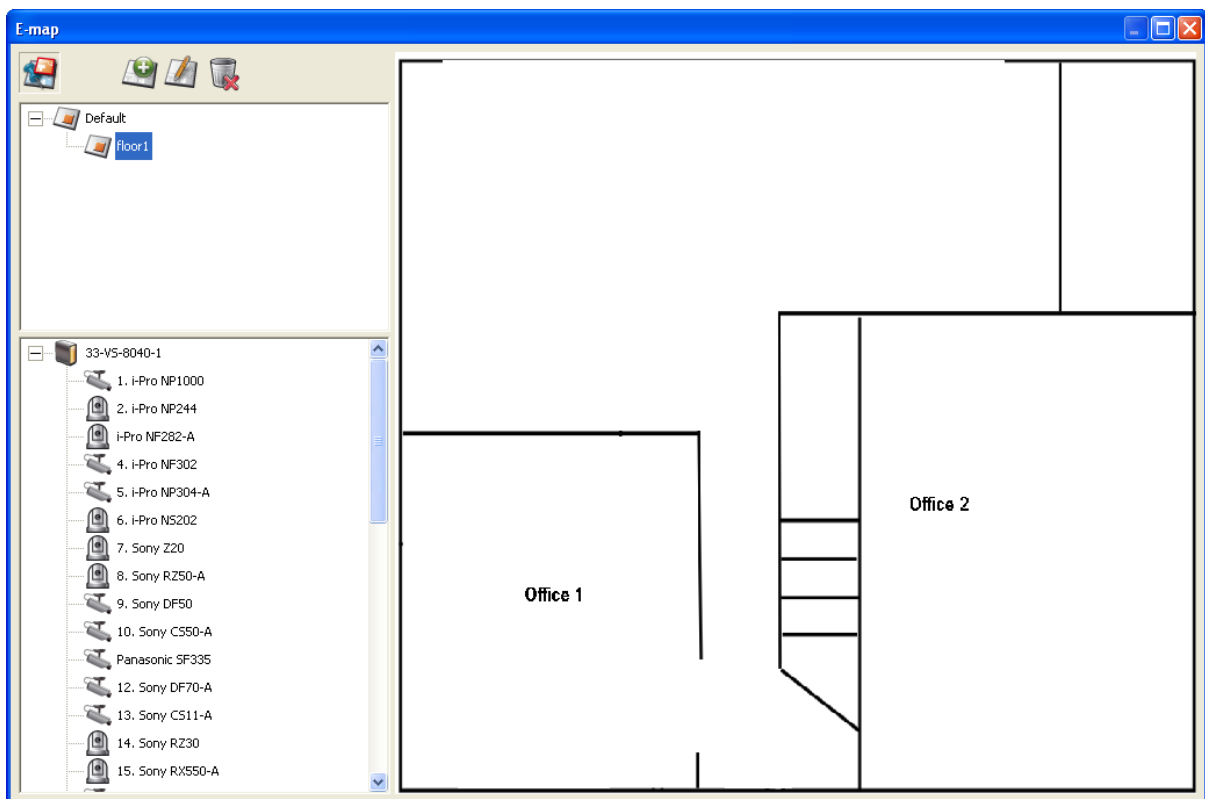
then  to add an E-map.





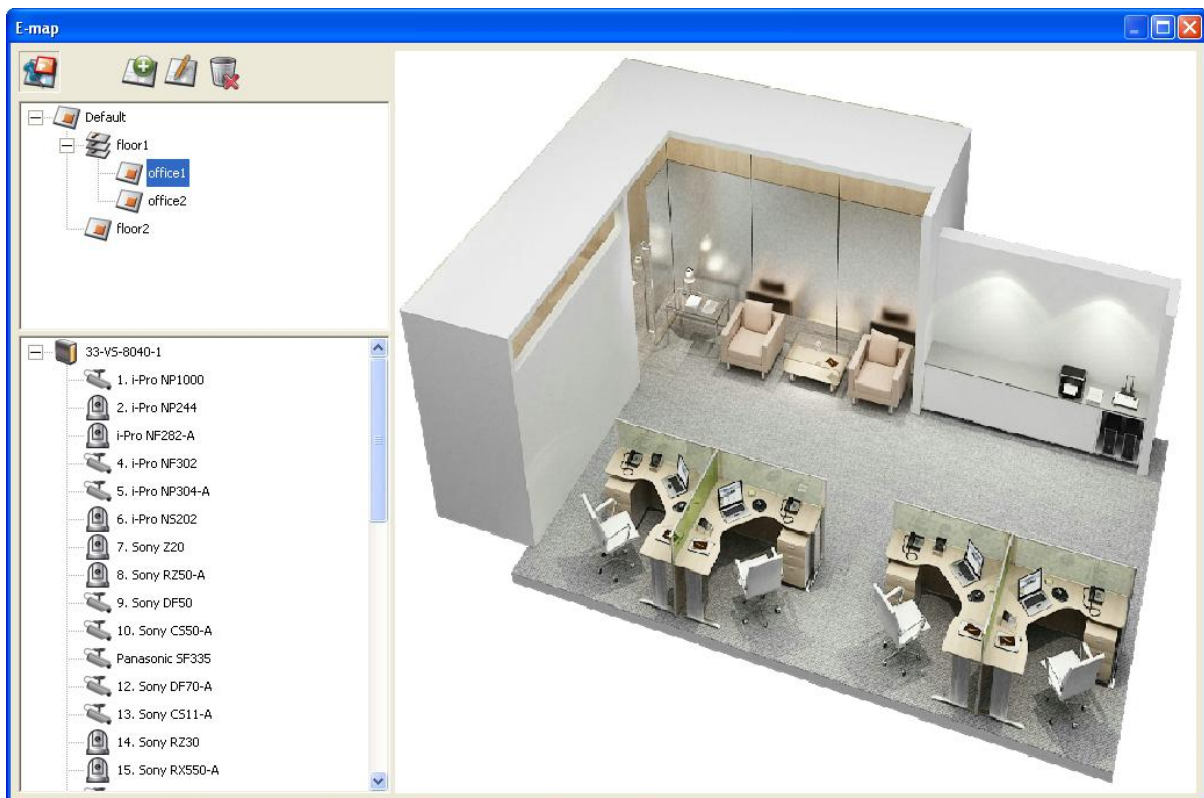
Enter the map name and select the file. **The E-map must be in JPEG format.** Click 'OK'.




The E-map will be shown.







To add one or multiple E-maps, e.g. office1 and office2, under an E-map, e.g. floor1, click the E-map icon of floor1 and then click  to add the E-maps one by one. The icon of floor1 will be changed to  when more than one E-map is added. To add another E-map of the same level of floor1, select 'Default' and add the E-map, e.g. floor2.





1.2.3 Edit a Map Name

To edit the name of an E-map, select the E-map and click . Enter the new name and click 'OK'. To change the picture of the E-map, delete the E-map and add the new file.

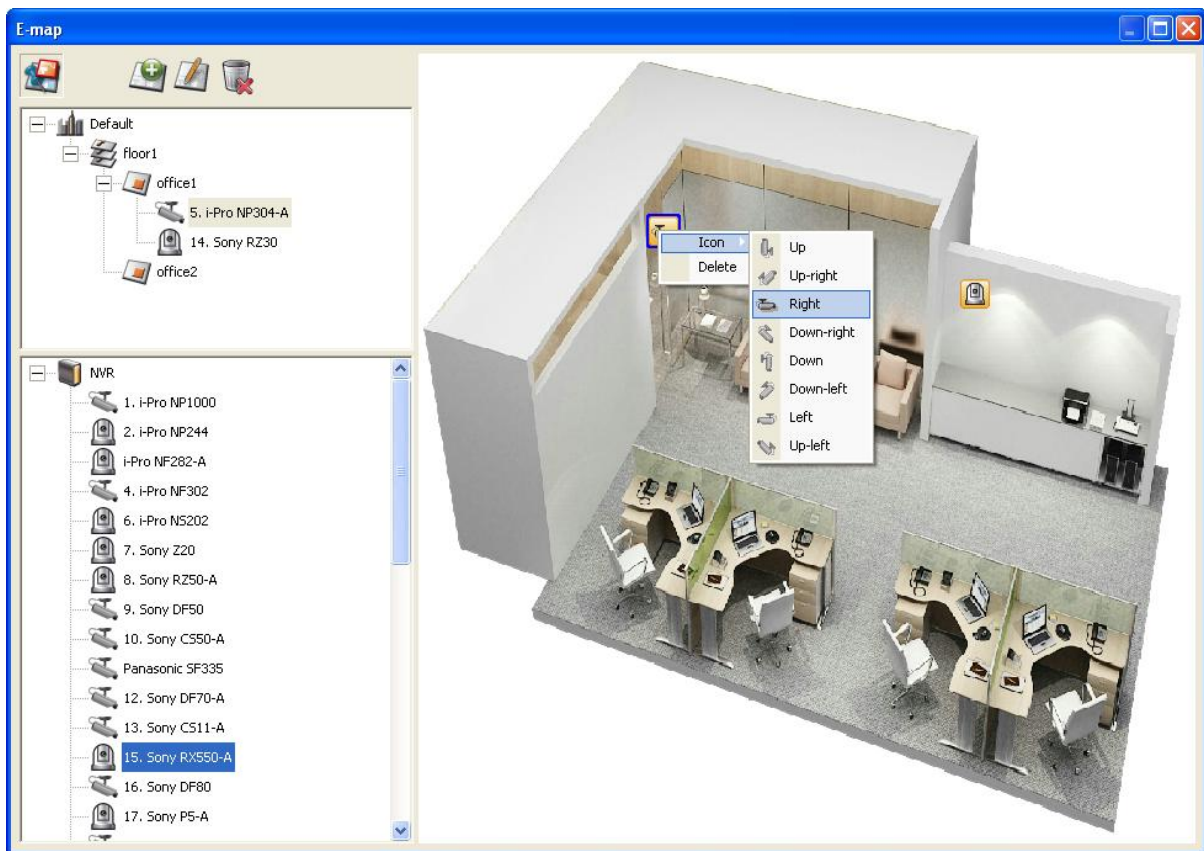
1.2.4 Delete a Map Set or an E-map


To delete an E-map, select the map  and click . To delete a set of maps under the same level, select the map set  and click .


1.2.5 Indicate IP Cameras on an E-map

After uploading the E-maps, drag and drop the IP camera icons to the E-map(s) to indicate the camera location. The camera name will appear under the E-map on the top left column. When an icon of a fixed body or fixed dome IP camera  is dropped to the E-map, right click the camera icon and adjust the icon direction. The icon of a PTZ IP camera  cannot be adjusted.

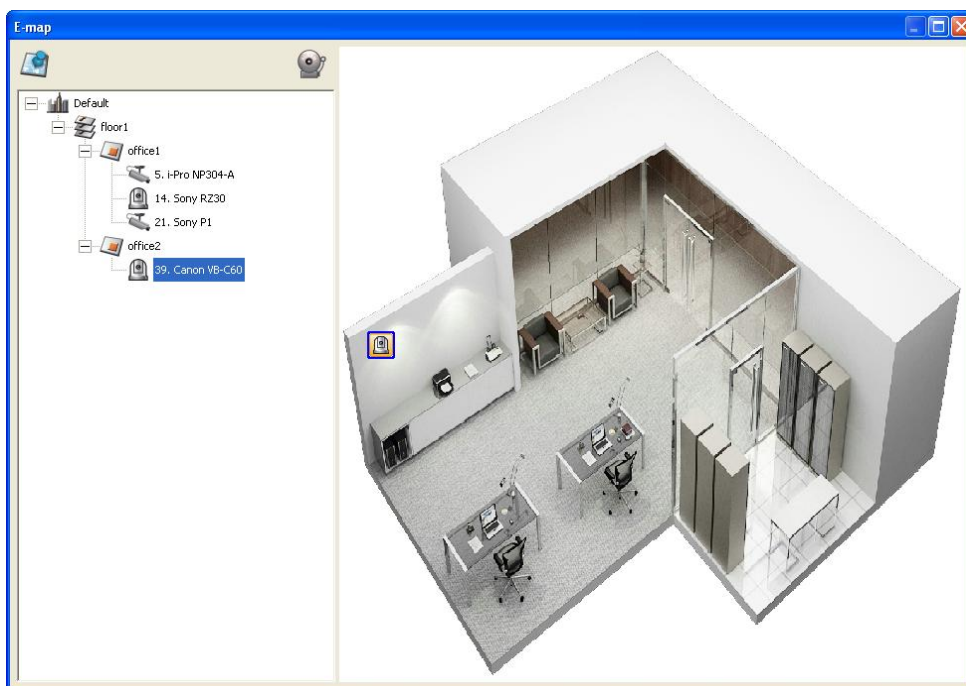
To delete a camera icon from the E-map, right click the icon and select 'Delete'.



To save the changes made to the E-maps, click  to exit the Edit mode.

When clicking an E-map or an IP camera on the left, the E-map or the E-map with the camera icon will be shown on the right immediately. The selected camera icon will be highlighted with a blue bracket .

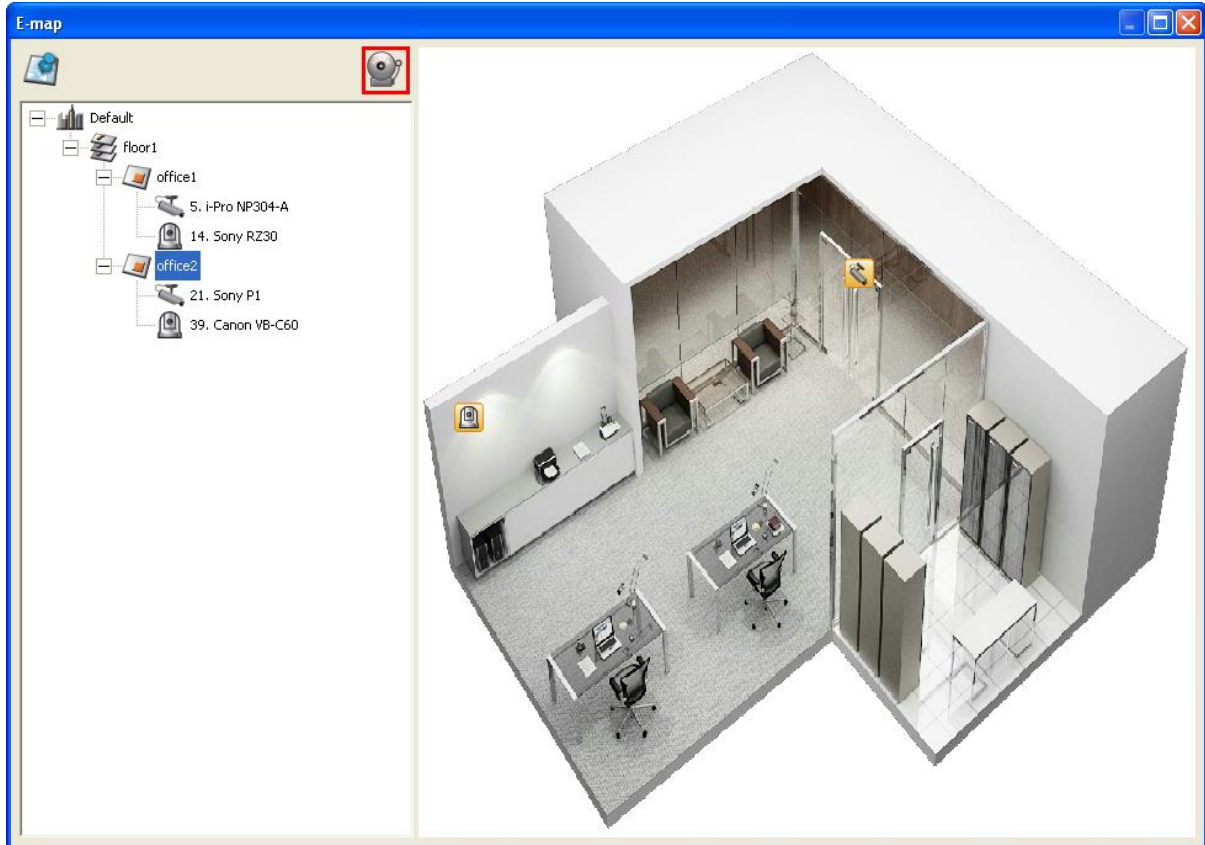
When double clicking a camera icon on an E-map, whether or not Edit mode is enabled, the IP camera will be shown in single-channel mode on the monitoring screen.



1.2.6 Enable/Disable Event Alert

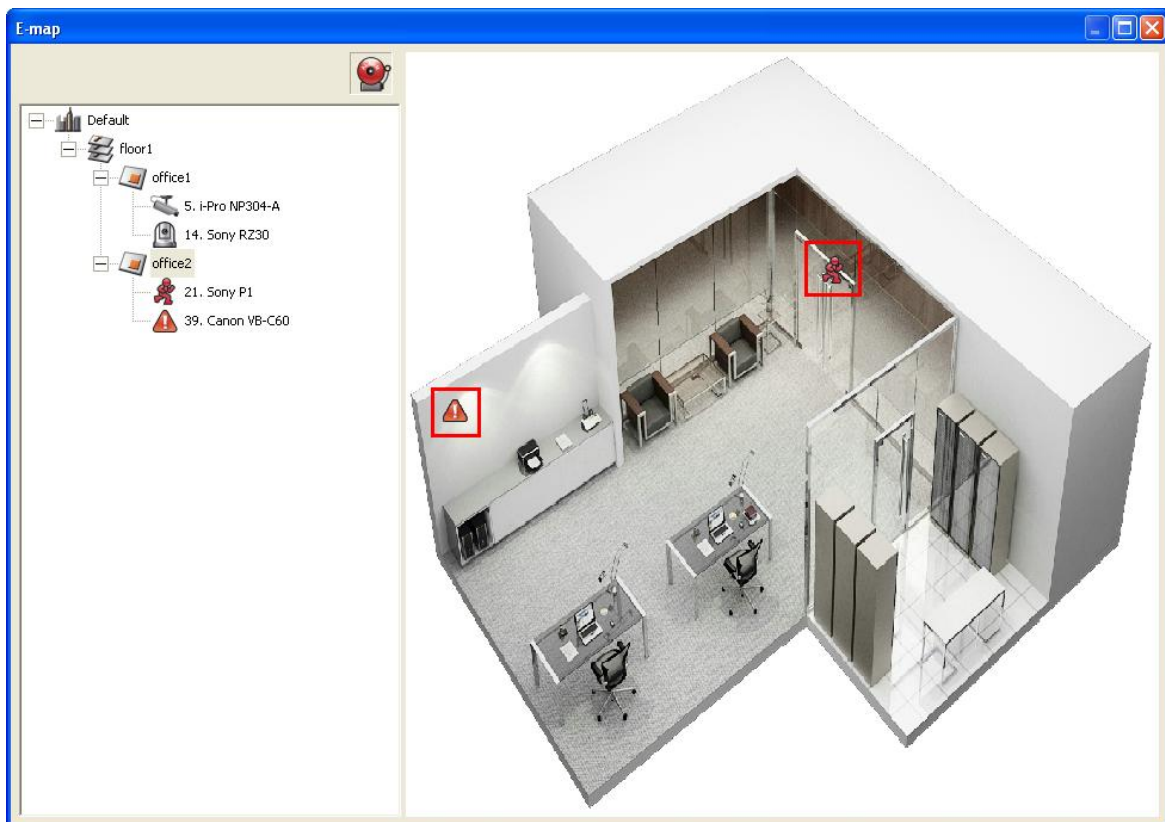


To enable event alert on an E-map, click








When an event occurs to an IP camera on the E-map, the camera icon will flash and indicate the event type. The E-map with the IP camera on which an event is triggered will be shown immediately*. Double click the camera/alert icon and the monitor screen will switch to display the alert camera channel in single-channel view on the monitor screen automatically.

*The E-map with event alert will not be switched to display automatically if the time difference between the event time and the last time the user uses the E-map (clicks the E-map window) is less than 20 seconds. In this case, refer to the tree menu on the left to locate the IP cameras with alerts/flashing icons.

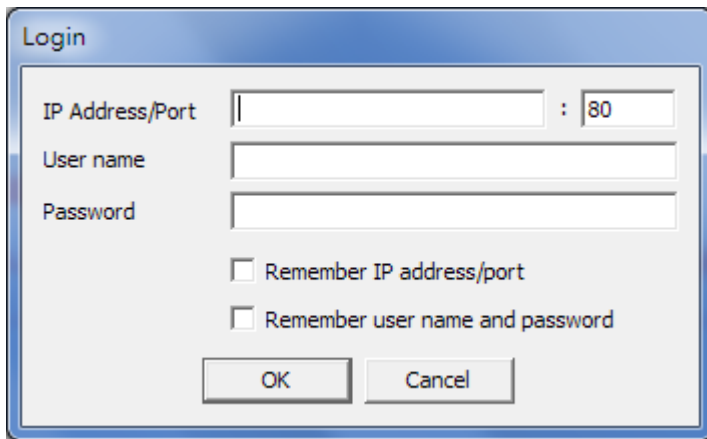


The event type occurred to an IP camera can be identified by the camera icon on an E-map.

Icon	Description
	A moving object has been detected
	The alarm input 1 of the IP camera has been triggered
	The alarm input 2 of the IP camera has been triggered
	The alarm input 3 of the IP camera has been triggered
	An unidentified event has been triggered

1.4 Remote Monitoring from QNAP Surveillance Client for Windows

1. After installing QNAP Surveillance Client for Windows, click Start → All Programs → QNAP → Surveillance → Surveillance Client to open QNAP Surveillance Client for Windows.
2. The following window will be shown.



The image shows a Windows-style dialog box titled "Login". It contains the following fields and options:

- IP Address/Port:** A text input field followed by a colon and a small input field containing the number "80".
- User name:** A text input field.
- Password:** A text input field.
- Remember IP address/port
- Remember user name and password
- OK** and **Cancel** buttons at the bottom.

3. Enter the IP address/port, user name and password to login the NVR.
4. All the monitoring functions of QNAP Surveillance Client for Windows are similar to those of the browser-based interface. Please refer to other sections of this chapter.

Chapter 2. Play Video Files

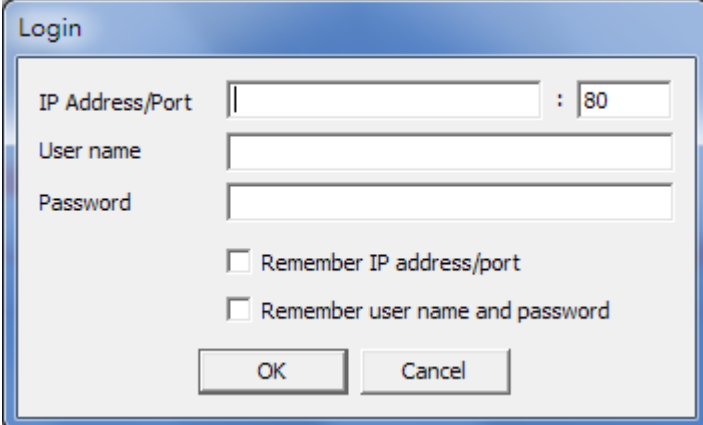
The recording files on the NVR can be played by the web-based VioStor Player or QNAP VioStor Player utility over LAN or WAN. The first time you connect to the playback interface of the NVR by an IE browser, install the ActiveX plugin.

The VioStor Player utility can be installed from the product CD-ROM. Upon successful installation, it is available on the Windows start menu > Programs > QNAP > VioStor Player.



2.1 Play Video Files in QNAP Surveillance Client for Windows

1. Click Start → All Programs → QNAP → Surveillance → Surveillance Client to open QNAP Surveillance Client for Windows.
2. The following window will be shown.




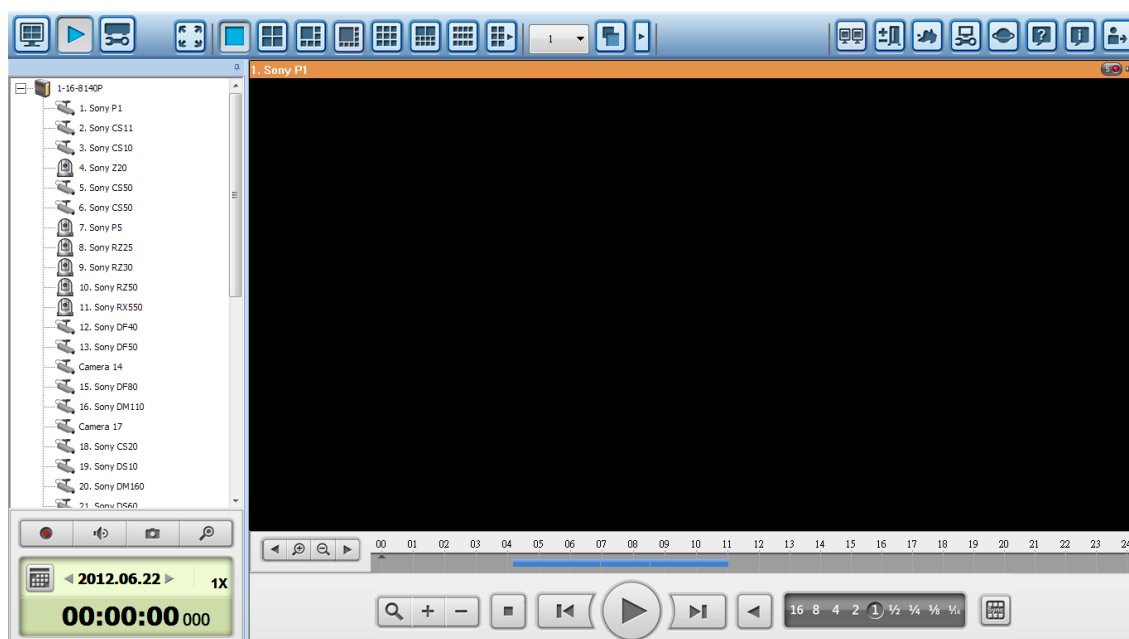
The image shows a Windows-style dialog box titled "Login". It contains the following fields and options:

- IP Address/Port:** A text input field followed by a colon and a small input field containing the number "80".
- User name:** A text input field.
- Password:** A text input field.
- Remember IP address/port
- Remember user name and password
- OK** and **Cancel** buttons at the bottom.

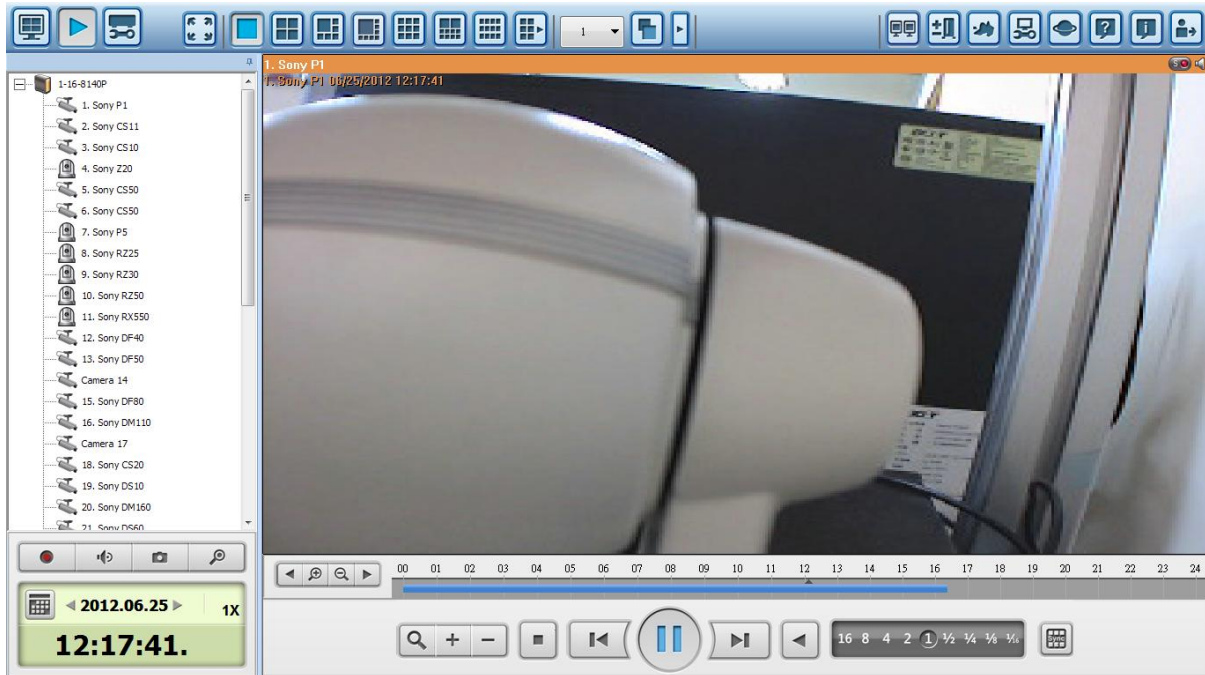
3. Enter IP address/port, user name and password to log into the NVR.
4. All the playback functions of QNAP Surveillance Client for Windows are similar to those of the browser-based interface. Please refer to other sections of this chapter.

2.2 Playback Page










1. Click the playback button on the monitoring page of the administration interface.
2. The playback page will be shown. You can search and play the video files on the NVR servers. To return to the monitoring page, click . To enter the system administration page, click .















Note: The playback access right to the IP cameras is required to view and play the video files. Please refer to Chapter [錯誤! 找不到參照來源。](#) for the access right configuration.



The icons and descriptions of the playback page are described below.

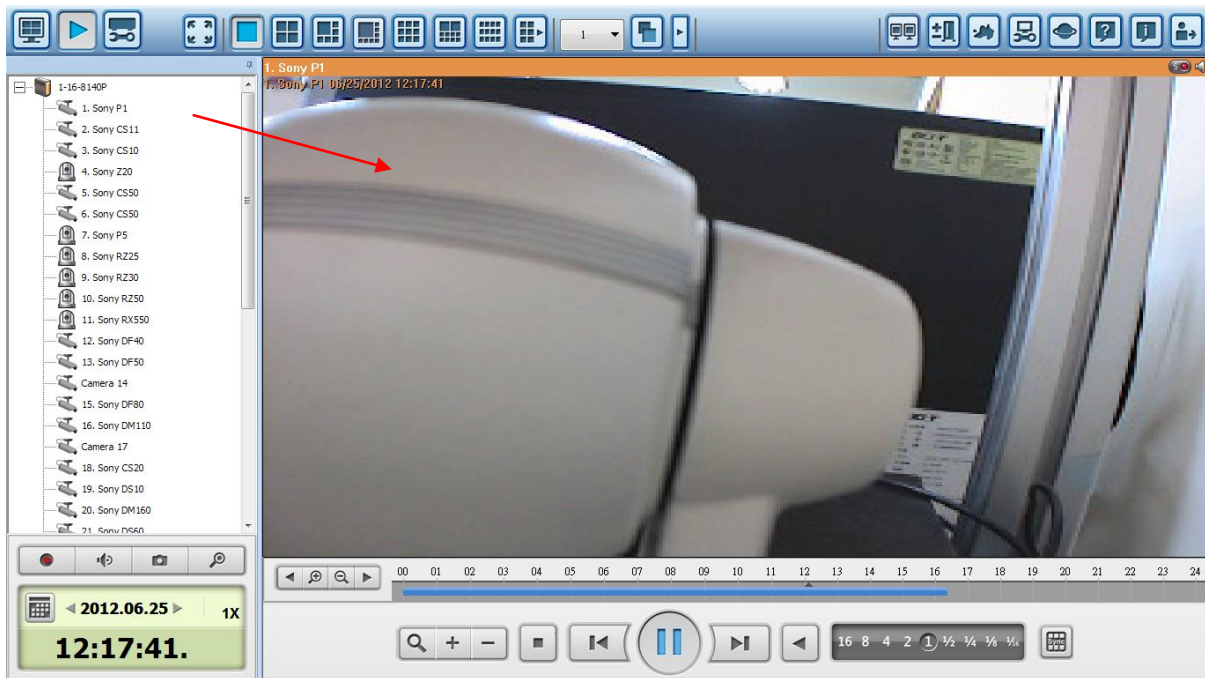
Icons	Description
	Configure the options such as playing mode, snapshot settings, and digital watermark
	Multi-view mode (up to 16-view mode)
	Convert the video files on the NVR to AVI files
	Audio (optional): Turn on/off the audio support
	Take a snapshot of the video
	Search recording files by IVA
	Last time interval
	Increase the interval of scales on the timeline
	Decrease the interval of scales on the timeline


	Next time interval
	Digital zoom: Enable/Disable digital zoom. When digital zoom is enabled () , you can click   to use digital zoom function.
	Stop
	Play/pause a video file
	Last frame
	Next frame
	Reverse play
	Play the video at 1/16x, 1/8x, 1/4x, 1/2x, 1x, 2x, 4x, 8x, 16x speed
	Control all views: Control the playback settings of all the playback windows

2.1.1 Play Video Files from NVR

Follow the steps below to play the video files on the remote NVR servers.


1. Drag and drop camera(s) from the server/camera tree to the respective playback window(s) to select the channel(s) for playback.



2. Select playback date from  < 2012.06.25 >. You can examine each channel to know the time range when the files are recorded for each IP camera. The blue cells indicate regular recording files and the red cells indicate alarm recording files. If it is blank in the time period, it means no files are recorded at that moment.

3. Click  to start the playback.

4. Specify the time to play back the recording files at that moment.

5. Click  to control all the playback windows to play back the recording files. When this function is enabled, the playback options (play, pause, stop, previous/next frame, previous/next file, speed adjustment) will be applied to all the playback windows.

Right click the channel on the playback page. The following functions are available depending on the IP camera model.

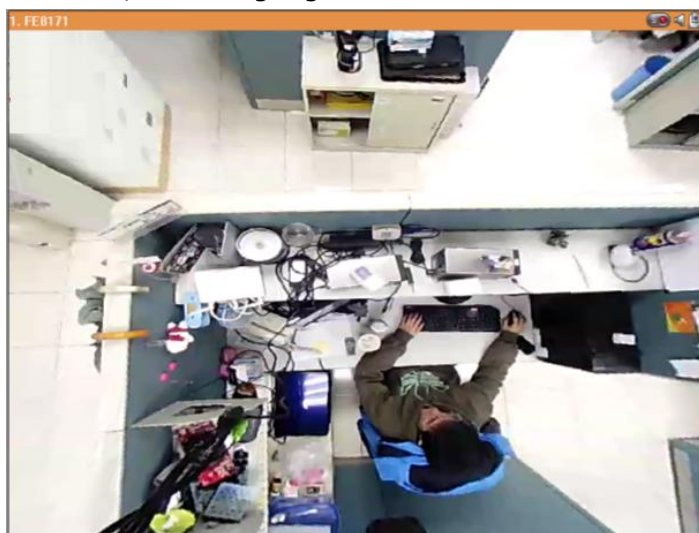
1. Dewarp fisheye images: for Vivotek FE8171V

Right click the mouse on the channel and enable the function. After that, you can select Mount type, including wall, ceiling, and floor and then select Dewarping mode, including Panorama (Full View), Panorama (Dual View), and Rectangle.

Note 1: The camera firmware version should be v0100h or above. About the latest camera firmware, please visit <http://www.vivotek.com/index.php>.

Note 2: If the Mount type is Wall, only Panorama (Full View), and Rectangle are supported in Dewarping mode.

Note 3: If Dewarping mode is Rectangle, you can use PTZ control panel to operate PTZ functions, excluding digital zoom.



2. Dewarp panomorph images: for the specific camera models with panomorph lens
Before using this feature, you need to select the "Enable panomorph support" option in the recording settings page. Right click the mouse on the channel and enable the function. After that, you can select Mount type, including wall, ceiling, and floor and then select Dewarping mode, including Perimeter mode, Quad mode, and PTZ mode.

Note 1: To know the camera models which can be installed with panomorph lens, please visit <http://www.qnapsecurity.com/faq.asp>.

Note 2: The function is only available when the resolution of the video stream is higher than 640x480 on the monitoring page.

Note 3: If Dewarping mode is PTZ mode, for the channel, you can use PTZ control panel or mouse (by clicking and holding down the mouse left button, and then moving the mouse or turning the mouse wheel) to change viewing angles or zooming in/out the screen. If Dewarping mode is Quad mode, the above methods can also be applied to operate PTZ functions in each divided screen.




2.1.2 Intelligent Video Analytics (IVA)

The NVR supports intelligent video analytics for video data search.

The following features are supported:

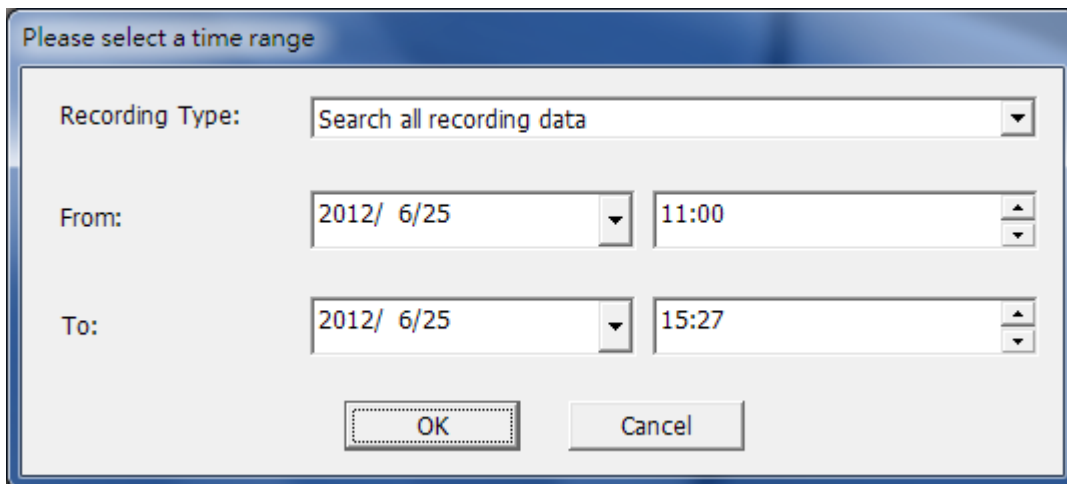
- Motion detection: Detects the movements of the objects in the video.
- Foreign object: Detects new objects in the video.
- Missing object: Detects missing objects in the video.
- Out of focus: Detects if the camera is out of focus.
- Camera occlusion: Detects if the IP camera is obstructed.

To use this function, follow the steps below:

1. Enter the playback page. Select one channel and click .

Note: The intelligent video analytics support video search on one IP camera channel only.

2. Select recording type, start time and end time for video search.



Please select a time range

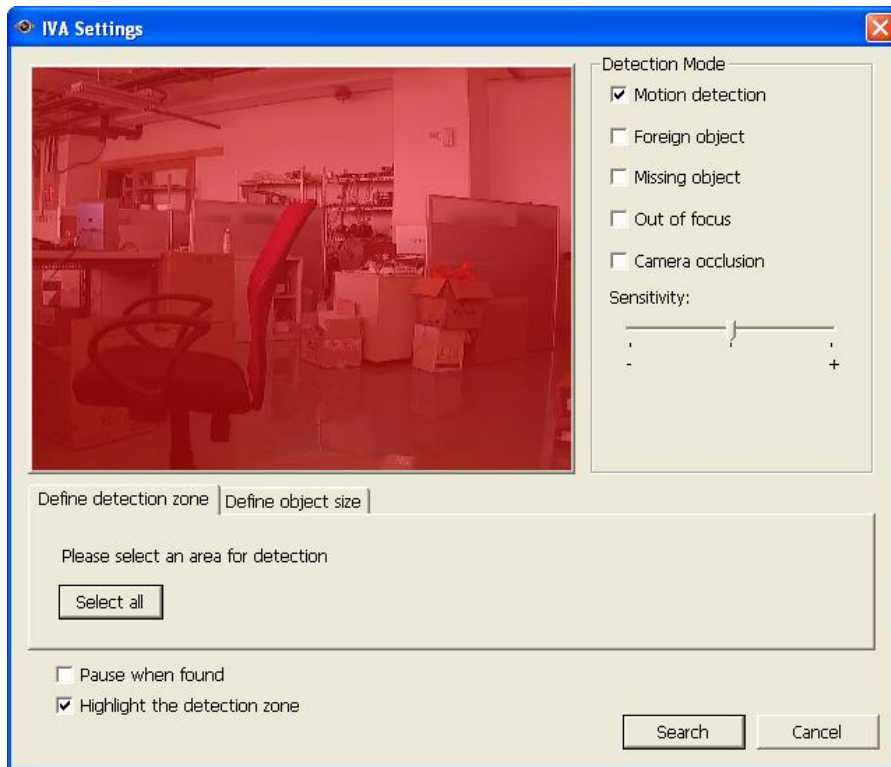
Recording Type: Search all recording data

From: 2012/ 6/25 11:00

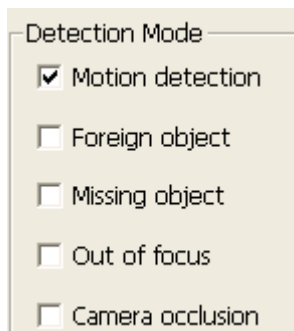
To: 2012/ 6/25 15:27

OK Cancel

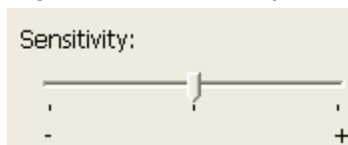
3. Configure the IVA settings for video search.



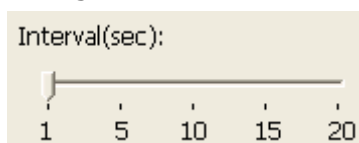
- a. Select the detection mode: Motion detection, Foreign object, Missing object, Out of focus, or Camera occlusion. Multiple options can be selected.



- b. Adjust the sensitivity for object detection.

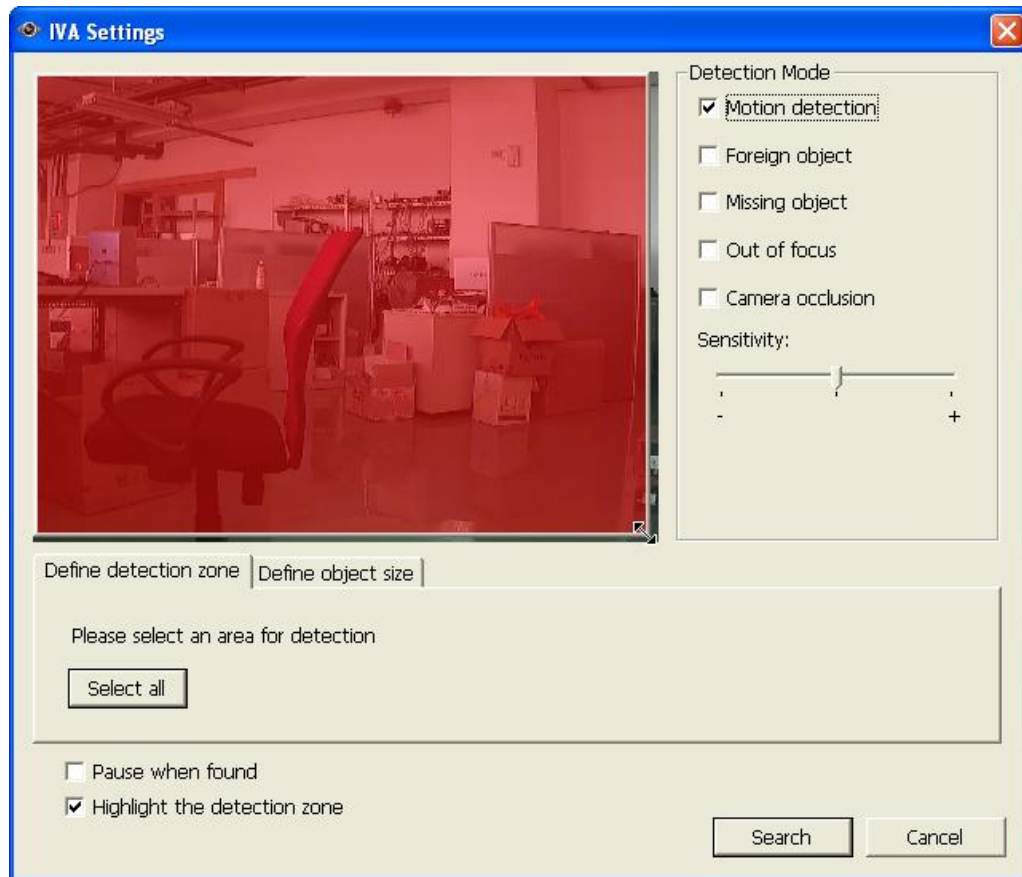


- c. Adjust the time interval for detecting the foreign objects and missing objects. If a foreign object appears or a missing object disappears for a period of time which is longer than the time interval, the NVR will record the event.

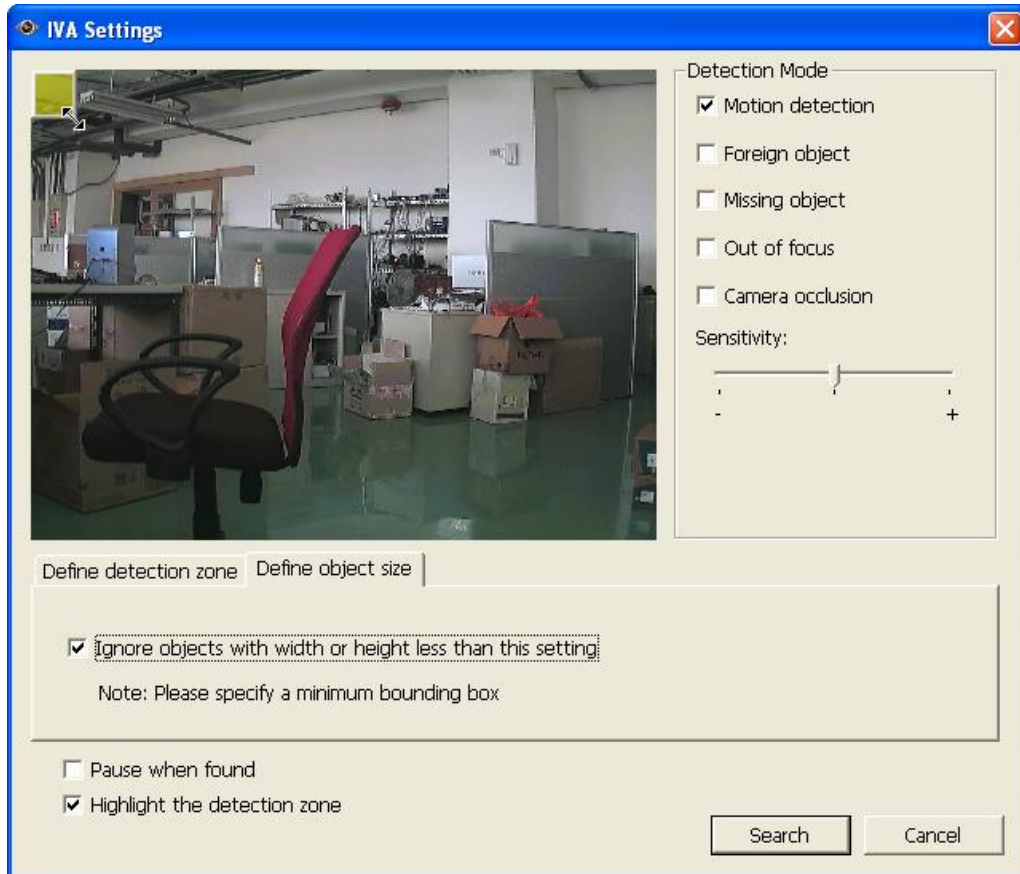


Note: The Interval slide bar appears only when 'Foreign object' or 'Missing object' is selected.

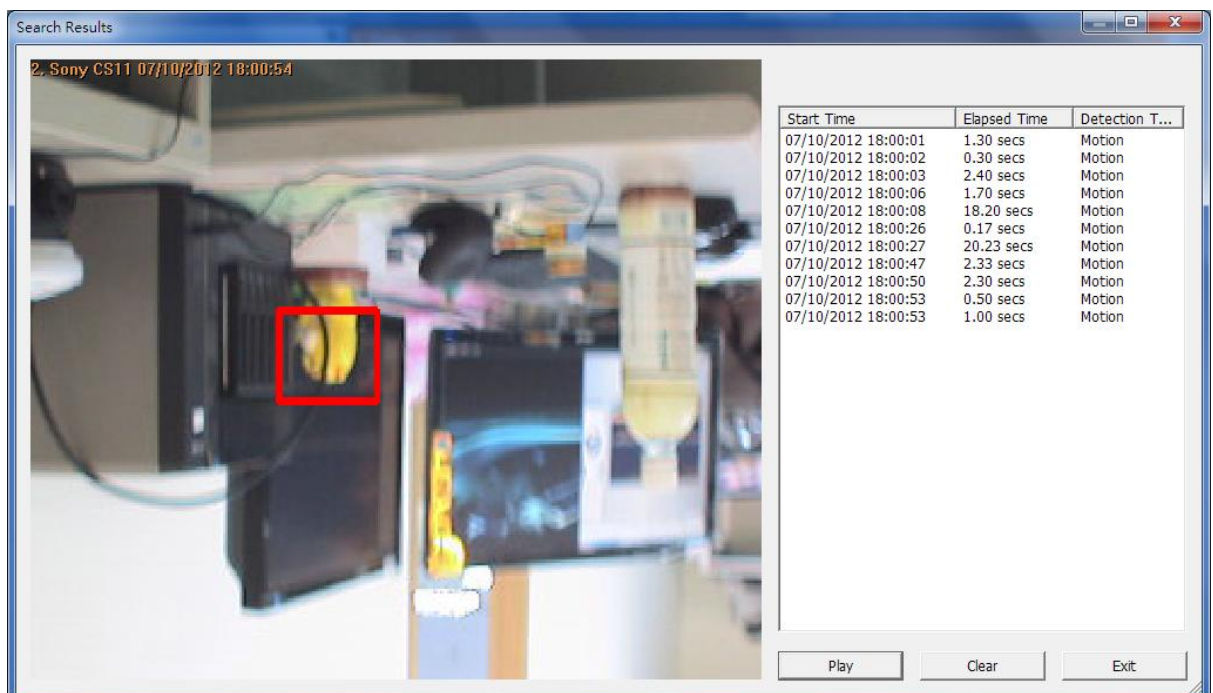
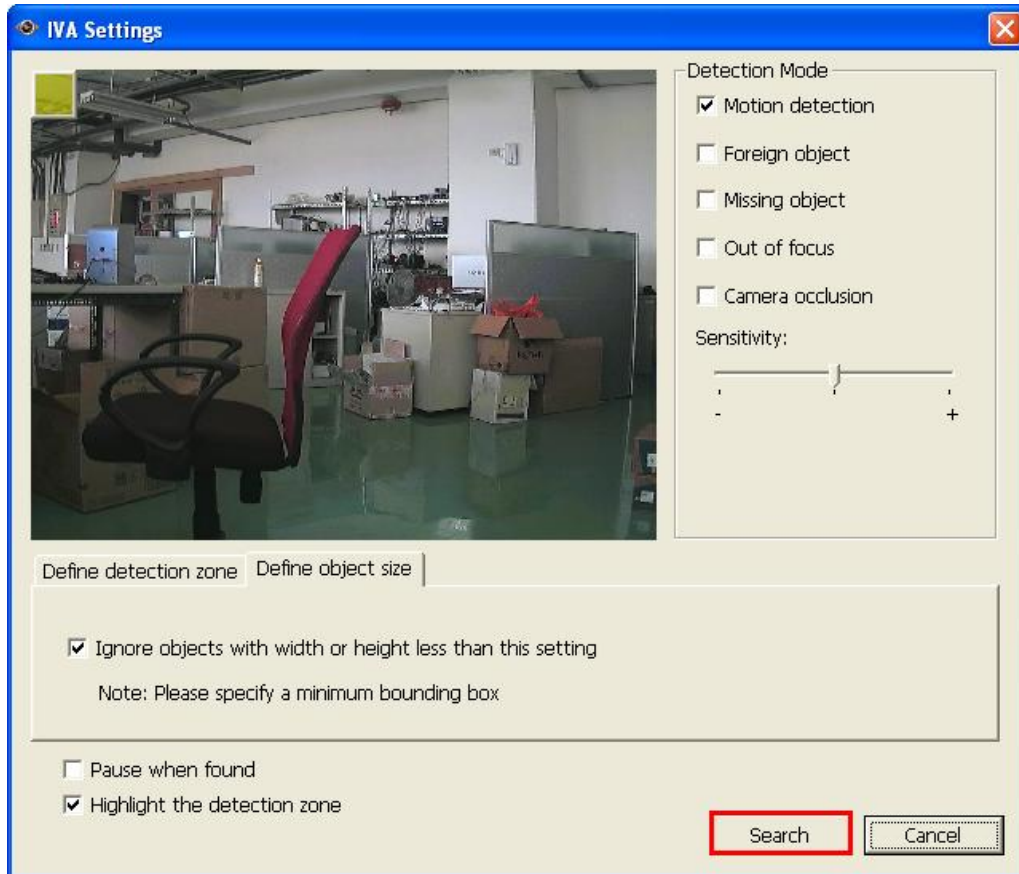
- d. Define the detection zone. Mouse over the edge of the red zone and use the mouse to define the detection zone. Click 'Select all' to highlight the entire area.



- e. Define the object size for detection. Use the mouse to drag the green zone to define the minimum object size for detection.

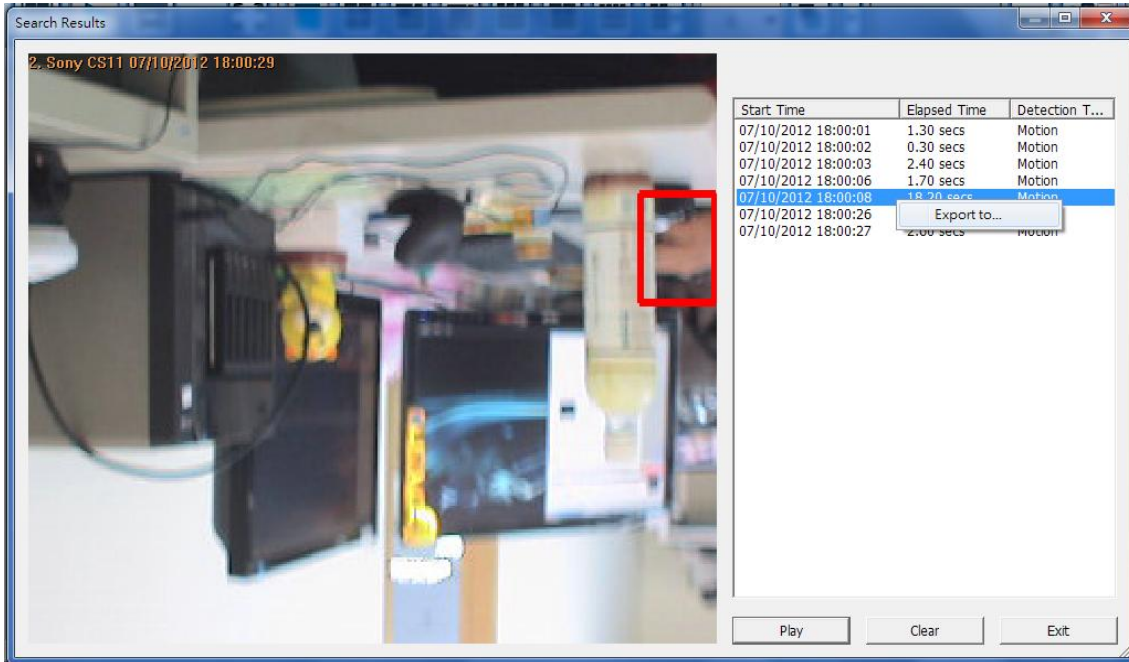


- Ignore objects with width or height less than this setting: Enable this option to ignore all the objects smaller than the green zone.
- f. Enable/Disable other options for video search.
- Pause when found: Enable this option and the video search will stop when a video file matching the search criteria is found.
 - Highlight the detection zone: The moving objects detected in the video will be highlighted in red boxes; the foreign or missing objects will be highlighted in yellow boxes; the video which is out of focus or obstructed will be displayed in transparent red.
4. Click 'Search' to start searching the video by IVA. The results will be shown.



Other options:

- Double click an entry on the search result dialog to play the video. The player will play the video starting from 15 seconds before the event to 15 seconds after the event.
- Right click an entry on the search result dialog to export the video (AVI format) and save it to the computer. The exported video starts from 15 seconds before the event to 15 seconds after the event.




2.1.3 Convert NVR Videos to an AVI File

To convert the video files on the NVR to an AVI file and export the file to the local PC in the playback page, please follow the steps below.

Note: The playback access rights of the IP cameras are required to use this feature.

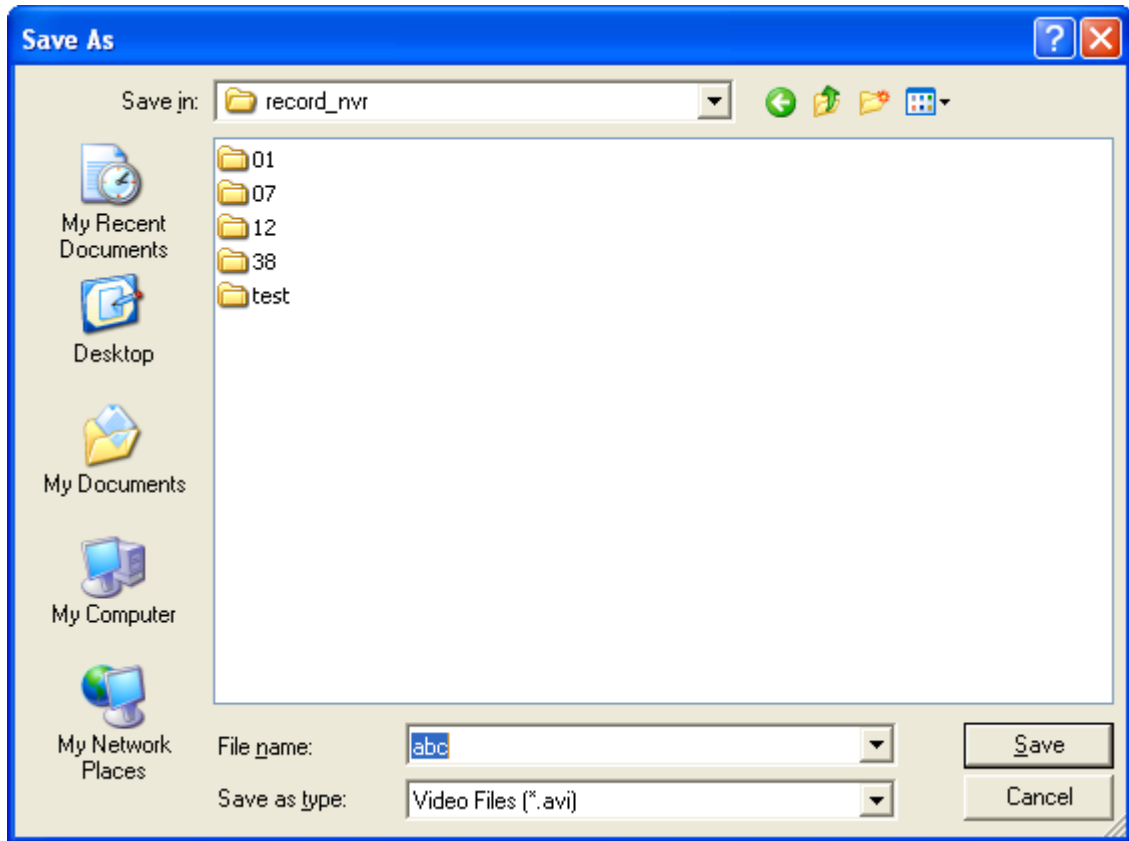


1. Select an IP camera and click  to 'Convert to AVI file'.
2. Select recording type, start time and end time for video exporting.

- a. Choose the recording type.

- b. Specify the time range. Specify a smaller time range, or the video file will be too large and take a long time to convert.

3. Click 'OK'. Enter the file name and specify the location where the file will be saved.




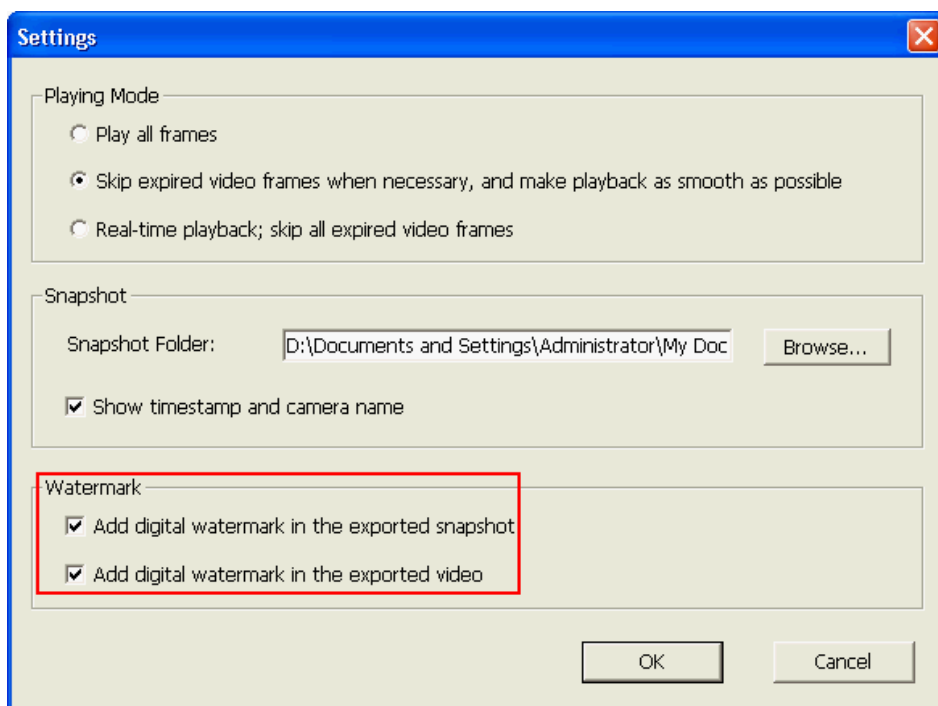
4. All the video files that met the search criteria will be converted to an AVI file.


2.1.4 Export Video Files with Digital Watermark

The NVR supports digital watermarking to protect the videos and snapshots from unauthorized modifications. Digital watermarks can be added to the exported videos and snapshots in the playback page. The watermark cannot be removed and is only visible by the Watermark Proof software.

To use digital watermarking in the playback page, follow the steps below.

1. Click  to enter the playback page.
2. Select to add digital watermarks in the exported snapshots or videos.

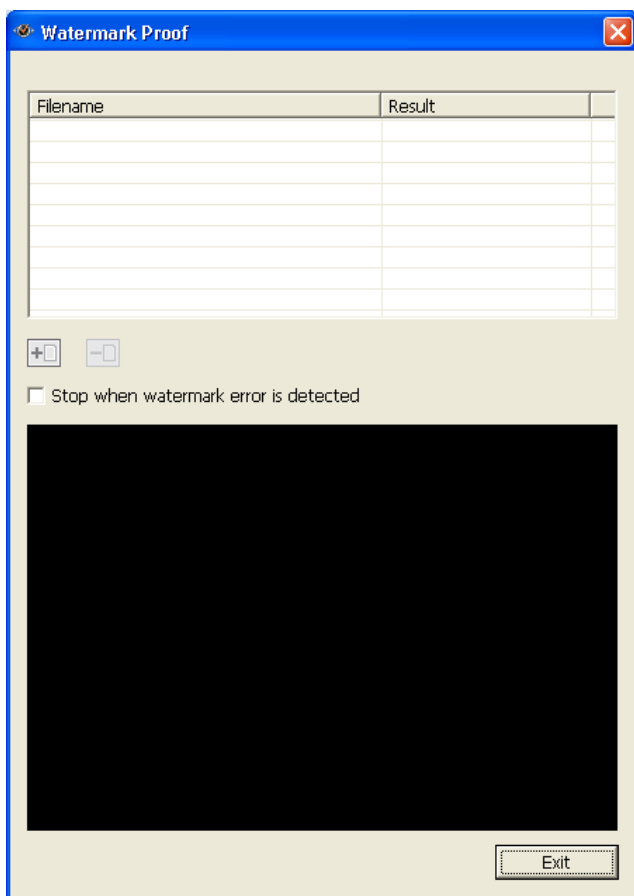



3. Click  'Convert to AVI file' (refer to Chapter [5.1.3](#)). Digital watermarks will be added to the exported video files and snapshots.


2.3 Watermark Proof

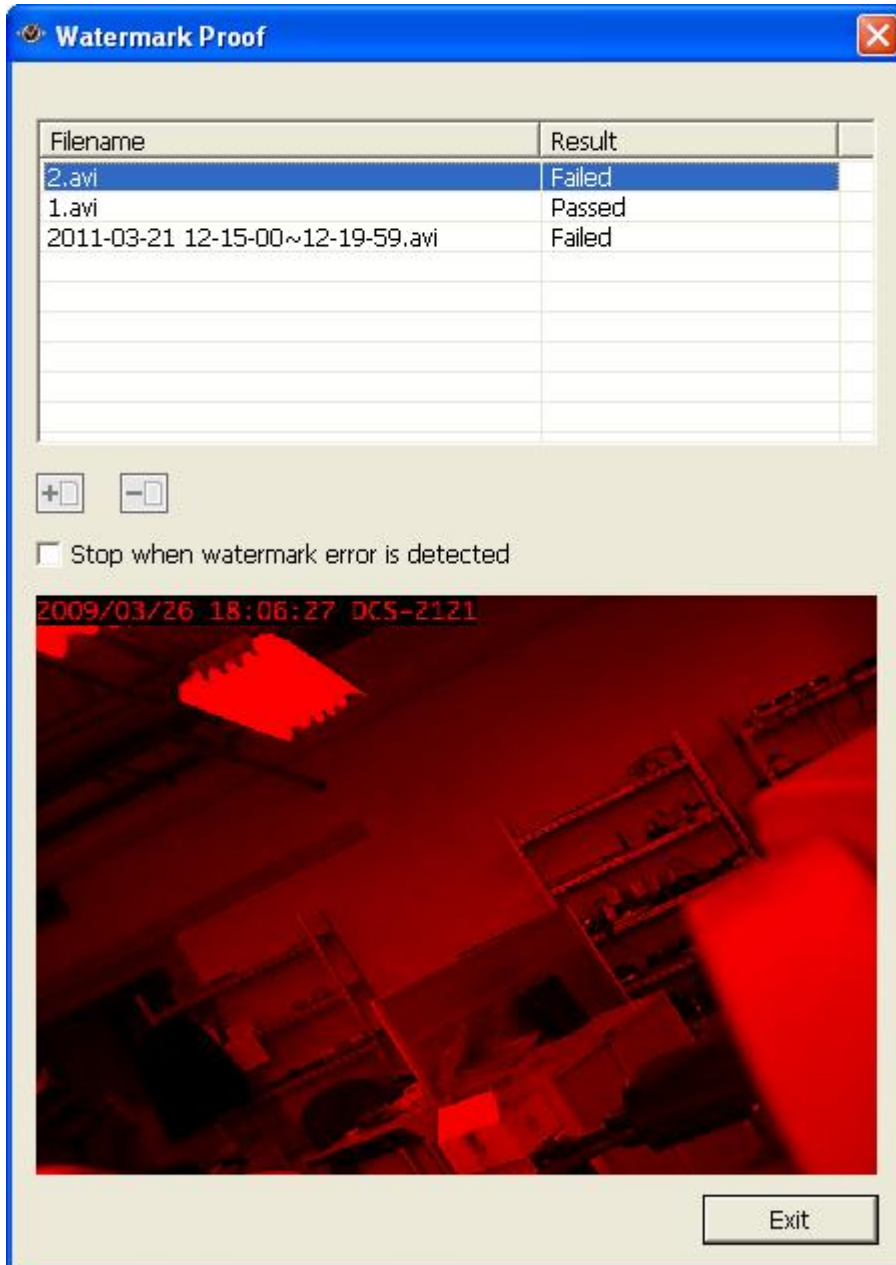
The Watermark Proof utility is installed automatically along with the QNAP Surveillance Client for Windows. From the Windows Start menu, select 'All Programs' > 'QNAP' > 'Surveillance' to locate 'Watermark Proof'.

Run Watermark Proof. The following window will be shown.



Click  to browse and locate the files. Multiple files can be selected at one time.

Click  to check the files and view the proof result. When 'Stop when watermark error is detected' is selected, the checking process will stop if a failed file is detected. Otherwise the program will check all the files selected. If a video file has been modified, or is not exported with digital watermark, or not an NVR video file, the proof result will be shown as 'Failed'.



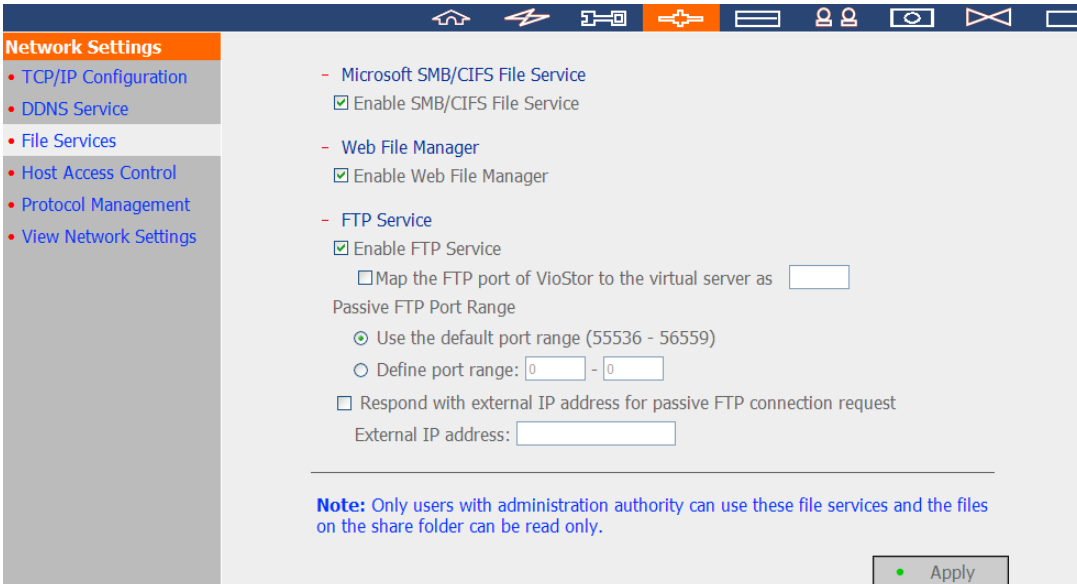
2.4 Access the Recording Data

The recording data on the NVR can be accessed by the following services:

- Microsoft Networking (SMB/CIFS)
- Web File Manager (HTTP)
- FTP Server (FTP)

Note:

- To access the video files by these protocols, enter the user name and password with the administrator access right.
- To use these services, enable the files services in 'Network Settings' > 'File Services' in the system administration page.



The screenshot shows a web interface for 'Network Settings'. The left sidebar contains a menu with the following items: Network Settings (highlighted), TCP/IP Configuration, DDNS Service, File Services (selected), Host Access Control, Protocol Management, and View Network Settings. The main content area is titled 'File Services' and contains the following configuration options:

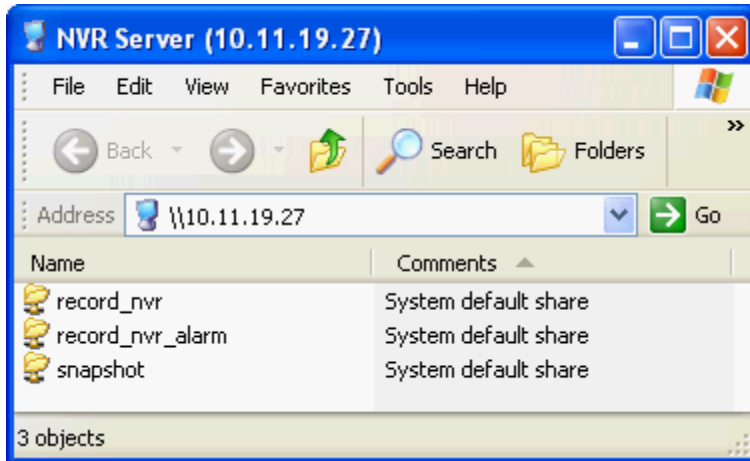
- Microsoft SMB/CIFS File Service
 - Enable SMB/CIFS File Service
- Web File Manager
 - Enable Web File Manager
- FTP Service
 - Enable FTP Service
 - Map the FTP port of VioStor to the virtual server as
 - Passive FTP Port Range
 - Use the default port range (55536 - 56559)
 - Define port range: -
 - Respond with external IP address for passive FTP connection request
 - External IP address:

At the bottom of the page, there is a note: **Note:** Only users with administration authority can use these file services and the files on the share folder can be read only. An 'Apply' button is located at the bottom right.

2.4.1 Microsoft Networking (SMB/CIFS)

Access the video files by the SMB/CIFS protocol on Windows OS.

- Run \\NVR_IP from the Windows Start menu. For example, if the NVR IP is 10.11.19.27, enter \\10.11.19.27.



2.4.2 Web File Manager (HTTP)

To access the recording data in the NVR by a web browser, go to <http://NVR IP Address/cgi-bin/filemanager/filemanager.cgi?folder=/home/httpd/cgi-bin/filemanager/share&ComboBox=ON&lang=eng> and login as an administrator.

Share Folder	Comment
record_nvr	System default share
record_nvr_alarm	System default share
snapshot	System default share

2.4.3 FTP Server (FTP)

Access the recording data by FTP:

- In Windows Internet Explorer, enter ftp://username:password@NVRIP. For example, enter ftp://admin:admin@172.17.26.154 if the NVR IP is 172.17.26.154.

